LIGHT INSIGHT design studio

Project name: SURFSIDE CROSSING DEVELOPMENT – NANTUCKET

SITE PLAN

- Overview SITE IMAGES / Brief bio- if needed

SITE Submittals *(79 Pages)*

E1 14' SINGLE Post Top *Our Drawing had 11' per the STREETWORKS size
E1-1 14' DOUBLE Post Top

E2 12' SINGLE Post Top *Our Drawing had 8' per the STREETWORKS size
E2-1 12' DOUBLE Post Top

E3 Bollard 3' + 3'6 (2 options)
E4 Bollard 2' + 3'6 (2 options)

E5 Security lights w OCC sensor
E6 Pool lighting/ White LED

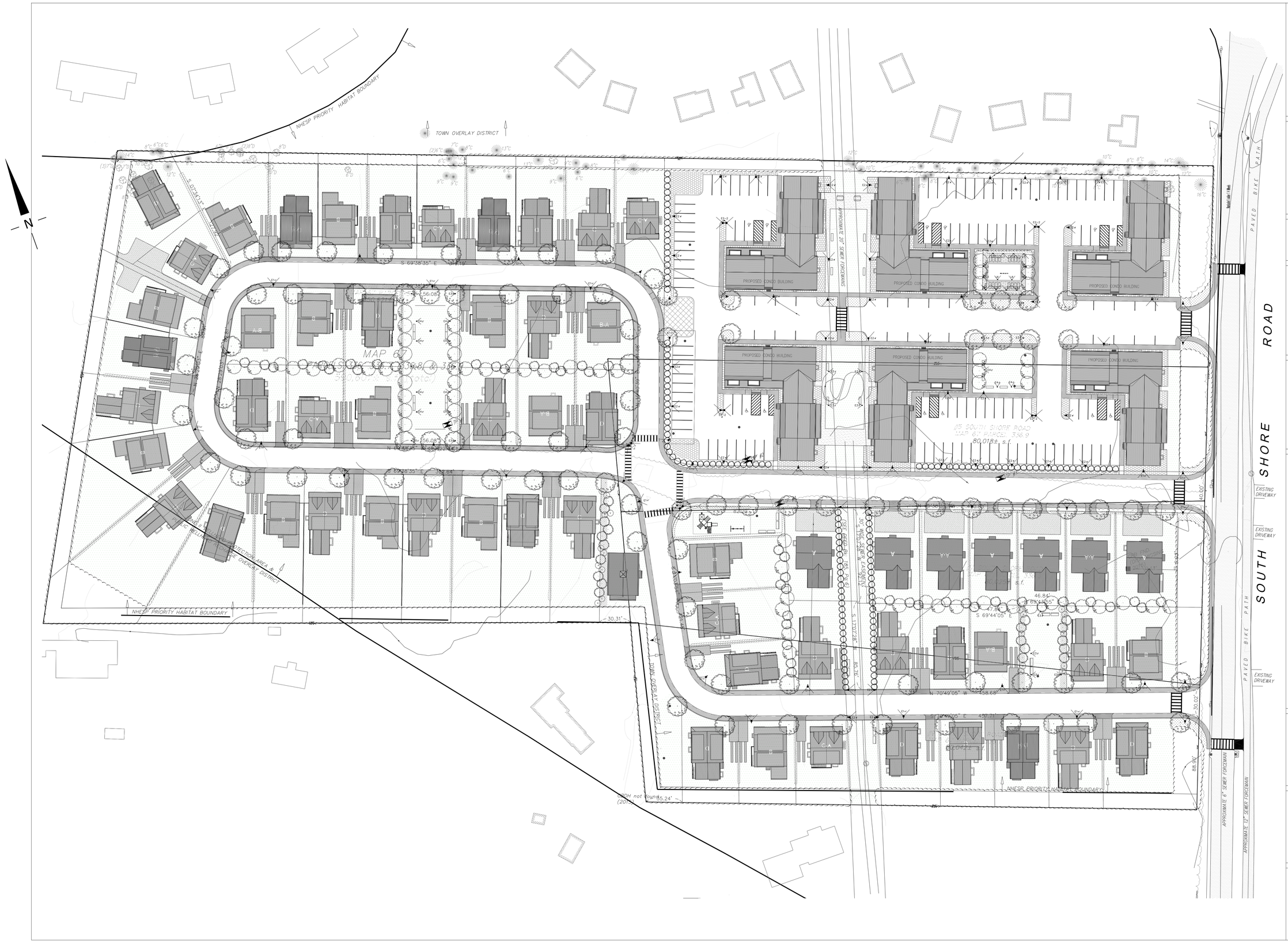
CONDO BUILDING

- Condo Floor Plan & 4 Elevations

BUILDING Submittals (26 Pages)

L1 /L2 Wall Bracket /Doors 2 distribution/options
L3 Steplight /Square

L4 opt Recessed downlight (Round or square)
L4 opt Surface downlight



1733

Surfside Crossing

Nantucket, MA 02554

8 Williams Lane Nantucket, MA 02554
P: 508.325.4995
F: 508.325.6986
www.emeritusdevelopment.com

SITE PLAN

Site Information

SURFSIDE CROSSING, LLC

#3, 5, 7 & 9 SOUTH SHORE RD
NANTUCKET MA 02554

MAP 67 PARCELS 336, 336.7, 336.8 & 336.9

LIGHT INSIGHT design studio

LIGHT INSIGHT Design Studio
177 Milk Street, Suite 014
Boston,MA 02109 USA
Tele: 617-268-1122
web: www.light-insightdesign.com
"Residential" "Construction" "Specialty" "Hospitality"

Submissions

Site Plan #1	7/17/18
Site Plan #1.1	7/19/18

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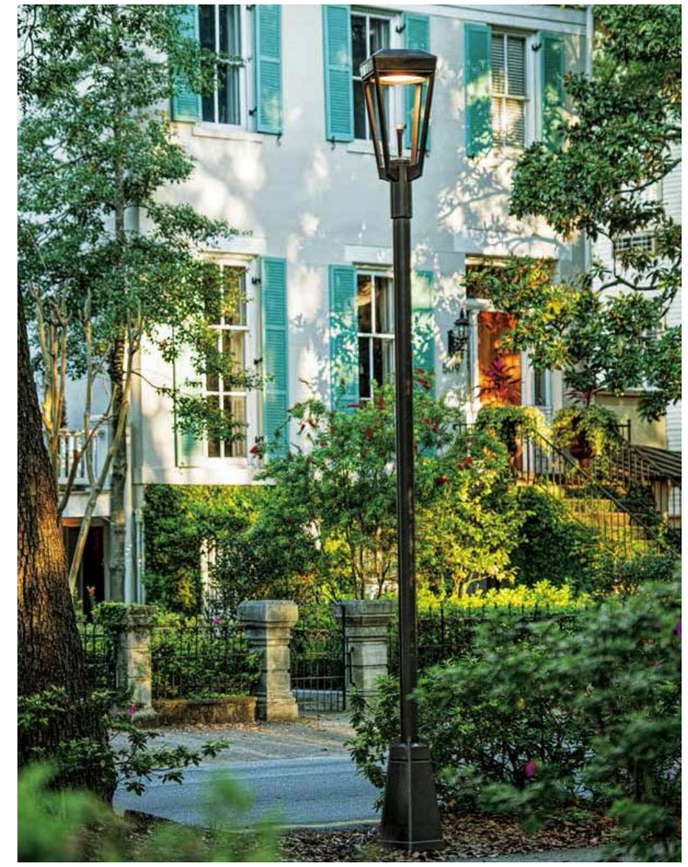
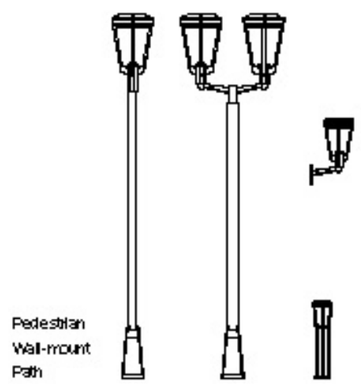
1733

SURFSIDE CROSSING; Nantucket
SITE LIGHTING IMAGES





Light Insight Design Studio 177 Milk Street Suite #014; Boston, MA 02109

Principal / Owner
Lana Nathe LC, IALD

Lana is the Owner and Design Principal of **LIGHT INSIGHT Design Studio** (**LINS**). As Principal, she establishes the Design direction and ensures the high quality design standards by overseeing all of **LINS**'s projects.

With Fine Art/Interior Architecture + Design degree, Lana has a passion for lighting architecture with focus on integration. Illuminating the structure from within, visually concealing where the light comes from w/ great attention to details. She combines aesthetics with technical expertise from her experience designing at Fisher Marantz Stone in NY + Buro Licht Design in Koln,Germany. In 2005, Lana founded LIGHT INSIGHT Design Studio. Since then, she has successfully completed over 1200+ Residential lighting and control system designs in a wide range of applications and environments throughout the United States.

30 yrs Architectural Lighting Design experience
- Koln, Germany (1.5 yrs) , New York City,NY (1.5 yrs), Milwaukee, WI (4 yrs), Chicago, IL (3 yrs), Boston, MA (7yrs/another firm) + Boston, MA (13 yrs/ Light Insight)

*- Board member+Past President : **DLF-NE** Designer's Lighting Forum of New England (*since 1999)*
*- Board of Director : LIGHT Boston; 501c3 organization (Illuminating our City's unique Culture, Heritage, and Future) (*3 yr Term= 2018- 2020)*

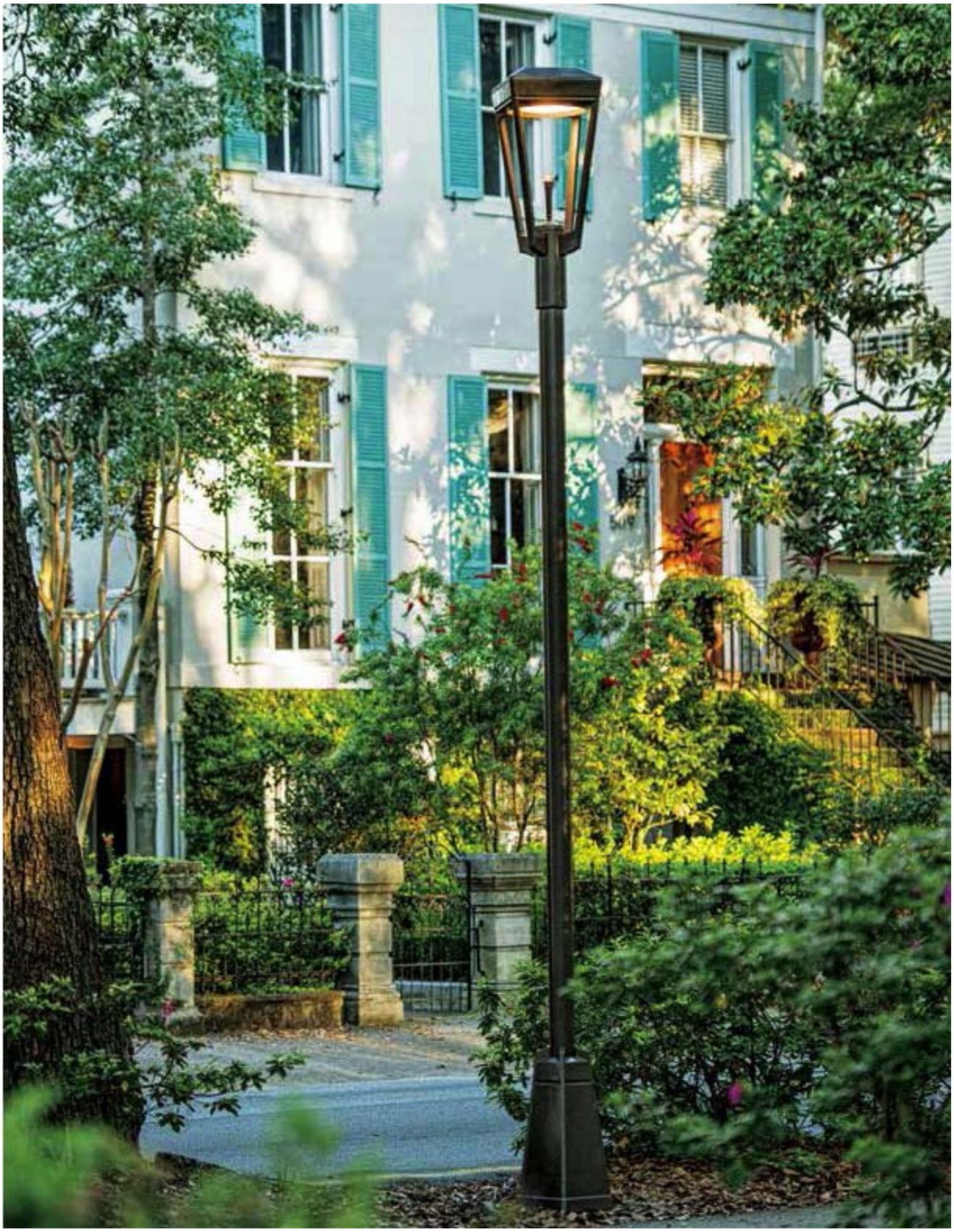
Project applications:

*Residential Single Family / Condo / Vacation / Multi-family /Yacht
(Includes: Landscape, Art/ Glass display, Wine Display/Storage, Indoor /Outdoor Pool/Spa/Sauna , Dog/Cat quarters, Bowling alley, Basketball Court, Home Theaters + more)
*Hospitality / Restaurants /Cafes
*Museum/Gallery
*Landscape / Exterior Façades/ Site Plans & specialty applications
*House of Worship: ex. Old North Church Interior Relighting
*Commercial: Office, Video Conf Rm, Lobby

Professional Affliations:
- **LC** = LC Certified by NCQLP **National Center for Qualifications Lighting Professionals**
- **IALD** = International Association of Lighting Designers

IALD designation means = We receive no compensation for Design specifications from any MFR to maintain objectivity and design integrity.

Light Insight Design Studio 177 Milk Street Suite #014; Boston, MA 02109



LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E1 SINGLE 14' height page 1

landscapeforms

ASHBERY AREA LIGHT

Product Data Sheet

Ashbery is a trio of lights that brings together advanced LED technology and optics with an homage to traditional-style lights that have a special place in the American lexicon. The area light is offered in 12', 14', and 16' heights and is ideal for campuses, parks and plazas, helping to create public spaces that are usable 24 hours a day. Options include single luminaires or a double-mount option for dual luminaires, one on either side of the pole. Patent-pending glare control requires less eye adaptation, enabling lower light levels and lower energy use with excellent visual acuity, while tenon-mounted luminaires can be retrofitted in the field. Cast aluminum parts in a full color palette are finished with Landscape Forms proprietary Pangard II® HAPS, VOC, lead-free polyester powdercoat.

General Description

- Available in single or double pole mounted configurations
- Offered in 3 standard pole heights (12', 14', and 16')
- Optional ANSI 136.41 7-pin twist lock receptacle
- Mounting template and anchor hardware included
- International Dark-Sky approved
- UL Listed, suitable for wet locations

Electrical

Surge protected 100V-277V 50/60 Hz, Class 2 LED dimmable driver. LED cartridge with weatherproof quick disconnect provides ease of installation and serviceability. Ashbery Pedestrian ships prewired.

Area Type 3

Type 3 Distribution
Lamp: 6 Cree XHP50 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 1000mA
Optic: Carclo Optics
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP PLED-50W
Dimmable: 0-10V
BUG Rating: B1 U1 G1
IP Rating: IP66 for LED Cartridge

Area Type 5

Type 5 Distribution
Lamp: 12 Cree XHP50 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 1000mA
Optic: Carclo Optics
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP PLED-96W
Dimmable: 0-10V
BUG Rating: B2 U1 G1
IP Rating: IP66 for LED Cartridge

Ashbery Area Type 3

Ashbery Area Type 5

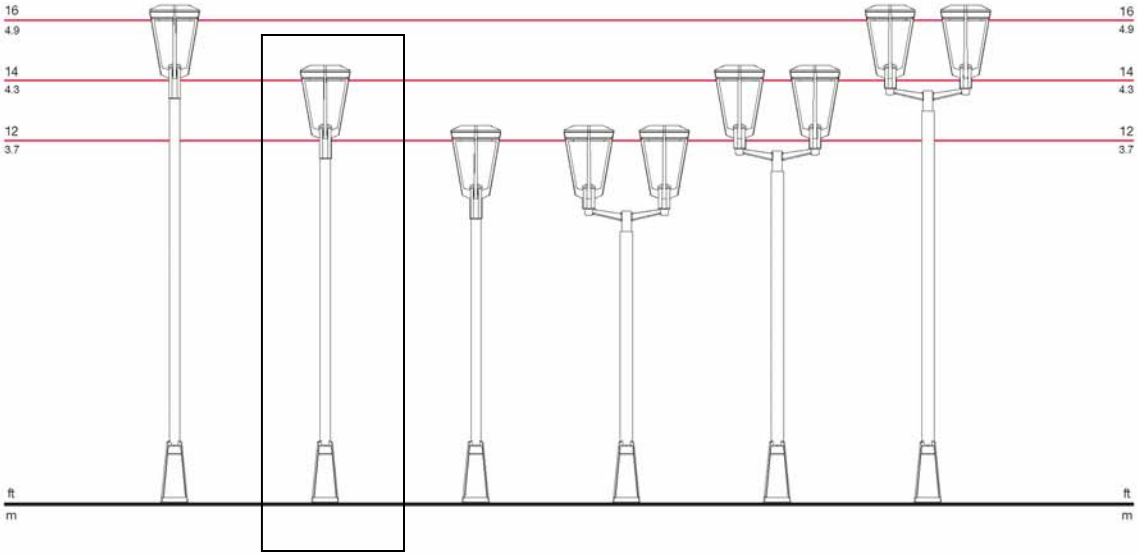
Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

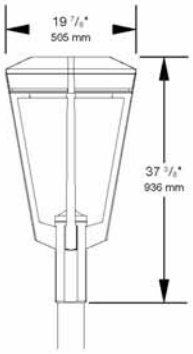
LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E1 SINGLE 14' height page 2

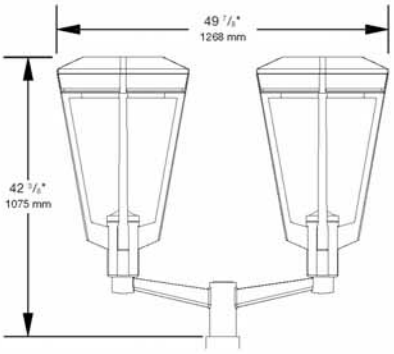
landscapeforms

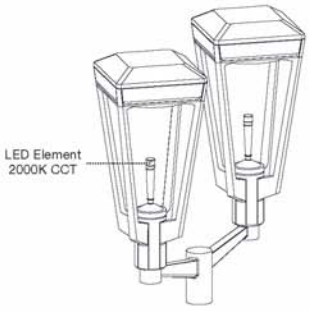
ASHBERY AREA LIGHT

Product Data Sheet









Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E1 SINGLE 14' height page 3

landscapeforms

ASHBERY AREA LIGHT

Product Data Sheet

#AP - **will advise/per area** - 100F - 30K - Volt - 20K - **X** - **X**

Product	Lamp	Drive Current	Color Temp.	Input Voltage	Center Element	Connection	Twist Lock*
AP ASHBERY	206L3 (6 LED Type 3) 212L5 (12 LED Type 5)	100F (1000 mA)	40K (4000K) 35K (3500K) 30K (3000K)	UV1 (100-277VAC)	20K (2000K)	P2 (Single Tenon) CC1 (Arm Mount)	NTW (No Twist Lock) TW1 (Twist Lock)

EXAMPLE: AP – 206L3 – 100F – 35K / UV1 – 20K – P2 – TW1 – Powdercoat Color

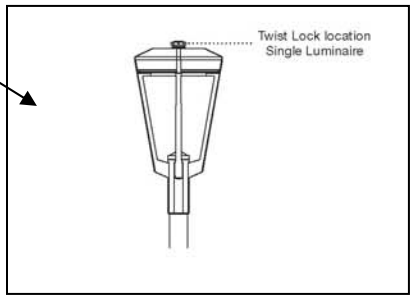
*If luminaire is specified with CC1 (Arm Mount), specify optional Twist Lock Receptacle with pole.

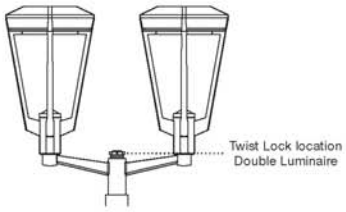
#AP - **14'** - P2 - 4 - X - 20K - will advise -

	Product	Height	Connection	Pole Diameter	Base	Twist Lock
Single Luminaire	AP ASHBERY	12 (144 in) 14 (168 in) 16 (192 in)	P2 (Single Tenon)	4 (4 inches)	NUT (Nut Covers) CVR (Cover Plate)	To be specified with luminaire.

	Product	Height	Connection	Pole Diameter	Base	Twist Lock
Double Luminaire	AP ASHBERY	12 (144 in) 14 (168 in) 16 (192 in)	2CC1 (Dual Arm)	5 (5 inches)	NUT (Nut Covers) CVR (Cover Plate)	NTW (No Twist Lock) TW1 (Twist Lock)

EXAMPLE: AP – 14 – P2 – 4 – CVR – Powdercoat Color





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LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E1 SINGLE 14' height page 4

Landscape Forms Inc
Catalog Number
Ashbery Area Light Type 3

Electrical Test Conditions						
Temp	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.1 VAC	0.4002 A	46.86 W	0.975	60 Hz	14.6 %

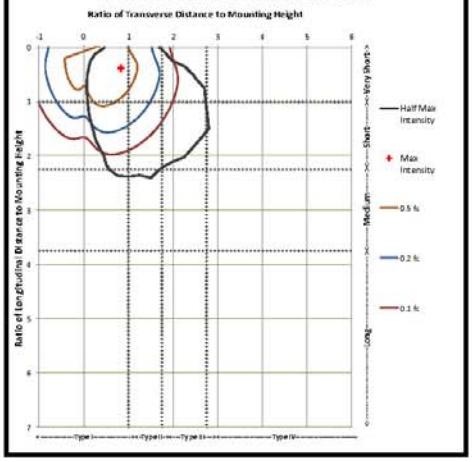
Summary of Results	
Total Lumen Output	2174 Lumens
Luminaire Efficacy	46.3 lm/w
Maximum Candela	0 Candela
IES Roadway Classification	Type III, Very Short
Cutoff Classification	Cutoff
BUG Rating	B1 U1 G1
CCT	2963 K
CRI	84.2
Duv	0.0007
TM-30 Rf	83.6
TM-30 Rg	98.6

Luminaire Classification System (LCS)			
LCS	Zone	Lumens	%
FL	(0-30)	219	11%
FM	(30-60)	817	39%
FH	(60-80)	397	19%
FVH	(80-90)	43	2%
BL	(0-30)	119	6%
BM	(30-60)	300	15%
BH	(60-80)	140	7%
BVH	(80-90)	19	1%
UL	(90-100)	4	0%
UH	(100-180)	9	0%

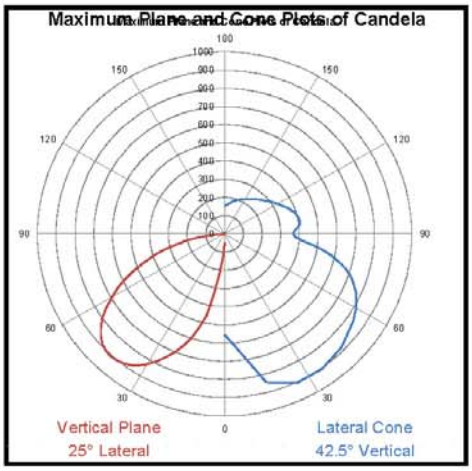
Color Rendering Index Details	
Ra (CRI)	84.2
R1	83
R2	89.6
R3	95.3
R4	84.1
R5	82.4
R6	86.9
R7	86.4
R8	65.6
R9	19.7
R10	75.5
R11	83.5
R12	70.5
R13	84.3
R14	96.9

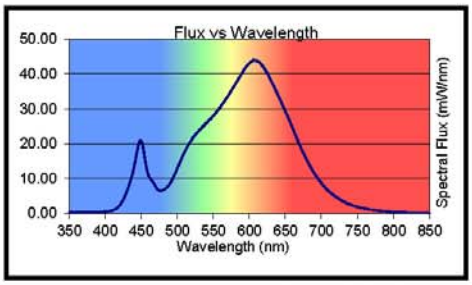
Chromaticity Coordinates	
Chromaticity (x)	0.4407
Chromaticity (y)	0.4076
Chromaticity (u)	0.2515
Chromaticity (v)	0.3489
Chromaticity (u')	0.2515
Chromaticity (v')	0.5233

ISO FootCandle Plot at 20 Feet

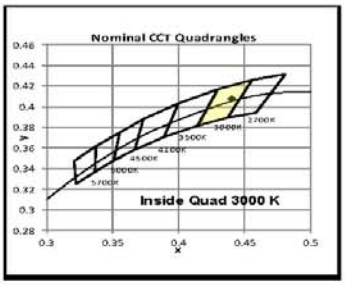


Maximum Plane and Cone Plots of Candela





Intensity Through Maximum Plane (Candlepower)		
Angle	Candlepower	Lumens
0	51	
5	135	17
10	332	
15	536	105
20	653	
25	743	216
30	821	
35	876	322
40	904	
45	903	394
50	867	
55	799	401
60	705	
65	593	332
70	469	
75	334	205
80	206	
85	88	62
90	4	
95	4	4
100	4	
105	4	4
110	4	
115	3	3
120	2	
125	3	2
130	1	
135	1	1
140	1	
145	0	0
150	0	
155	0	0
160	0	
165	0	0
170	0	
175	0	0
180	0	



Testing was performed in accordance with LM-79-08
The results contained in this summary pertain only to report #1249071

UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

ACCREDITED

NVLAP LAB CODE 201042-0

Photometric Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002, UL 1598-2008
UL1598-2008

Prepared For

Landscape Forms Inc
Jake Scott
7800 E Michigan Ave
Kalamazoo, MI 49048
United States

Catalog Number

Ashbery Area Light Type 3

Order Number
11239918
Test Number
1249071

Test Date

2016-05-19 - 2016-05-24

Prepared By

Derek Smarr, Technician

Approved By

Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Table of Contents

Summary of Results	Page 3
Integrating Sphere Results	Page 4
Distribution Results	
Test Conditions / Summary of Results / ISOPlot	Page 5
Maximum Plane and Cone Plot / Zonal Lumen Summary	Page 6
IES BUG Rating	Page 7
In-Situ Results	Page 8

Laboratory results may not be representative of field performance
Ballast factors have not been applied

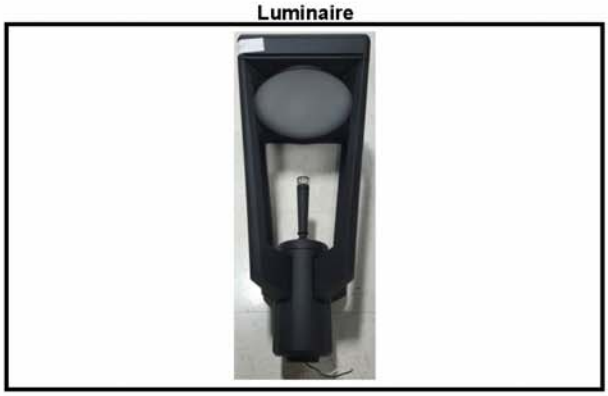
Testing was performed in a 3-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Luminaire Description:	Black formed aluminium housing, upper frosted plastic lens, lower clear plastic lens, no enclosure
Lamp:	6 white LEDs
Mounting:	Post top
Ballast/Driver:	One Thomas Research Products LED50W-24-C2100-D and One GE Light Tech GLED6DMV350SL

Luminaire



Luminaire Characteristics
Luminous Diameter: 12.00 in.
Luminous Height: 11.00 in.

Summary of Results

Integrating Sphere

Luminous Flux:	2174	Lumens
Efficacy:	46.3	lm/w
CCT:	2963	K
CRI (Ra):	84.2	

Distribution

Roadway Classification:	Type III, Very Short
Cutoff Classification:	Cutoff
BUG Rating:	B1 U1 G1

Electrical Data at 276 VAC

Test Temperature:	24.4	°C
Voltage:	276.9	VAC
Current:	0.1978	A
Power:	47.38	W
Power Factor:	0.863	
Frequency:	60	Hz
Current THD:	22.7	%

In-Situ

LED Temperature:	53.9	°C
Driver Temperature:	56.3	°C
Measured LED Current:	1.065	A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.

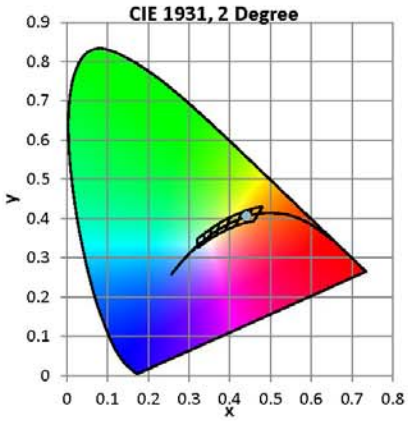
Color Quality - Integrating Sphere

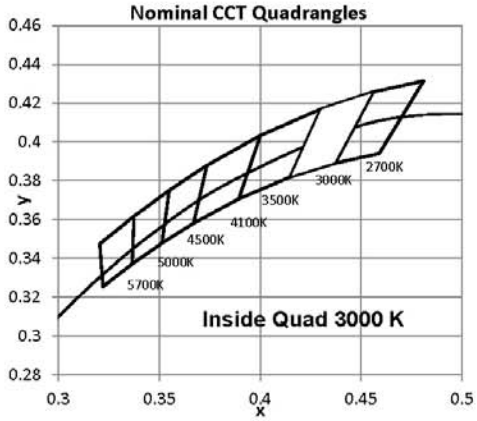
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.0 VAC	0.4011 A	46.92 W	0.975	60 Hz	14.6 %

Summary of Results

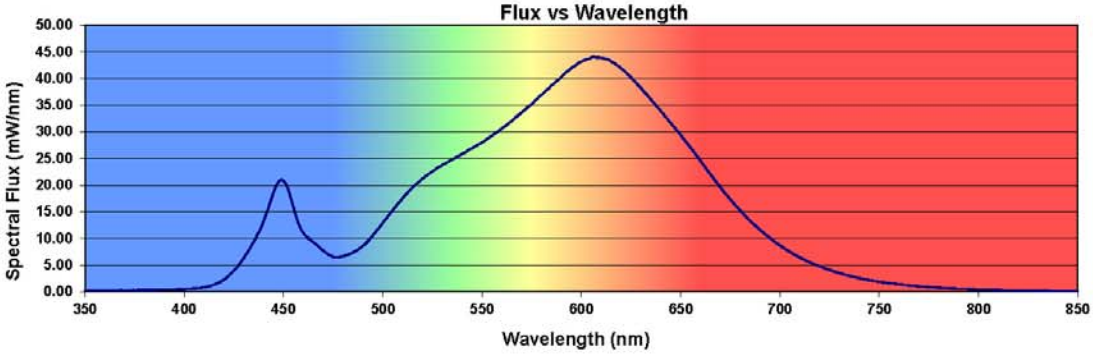
Total Output:	2174 Lumens	**Chromaticity (x):**	0.4407
Efficacy:	46.3 lm/w	**Chromaticity (y):**	0.4076
CCT:	2963 K	**Chromaticity (u'):**	0.2515
CRI (Ra):	84.2	**Chromaticity (v'):**	0.5233
CRI (R9):	19.7	**TM-30 R_f:**	83.6
Peak Wavelength:	606.5 nm	**TM-30 R_g:**	98.6
Dominant Wavelength:	582.7 nm	**Duv:**	0.0007
S/P Ratio:	1.299		





Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
84.2	83.0	89.6	95.3	84.1	82.4	86.9	86.4	65.6	19.7	75.5	83.5	70.5	84.3	96.9



Distribution - Goniophotometer

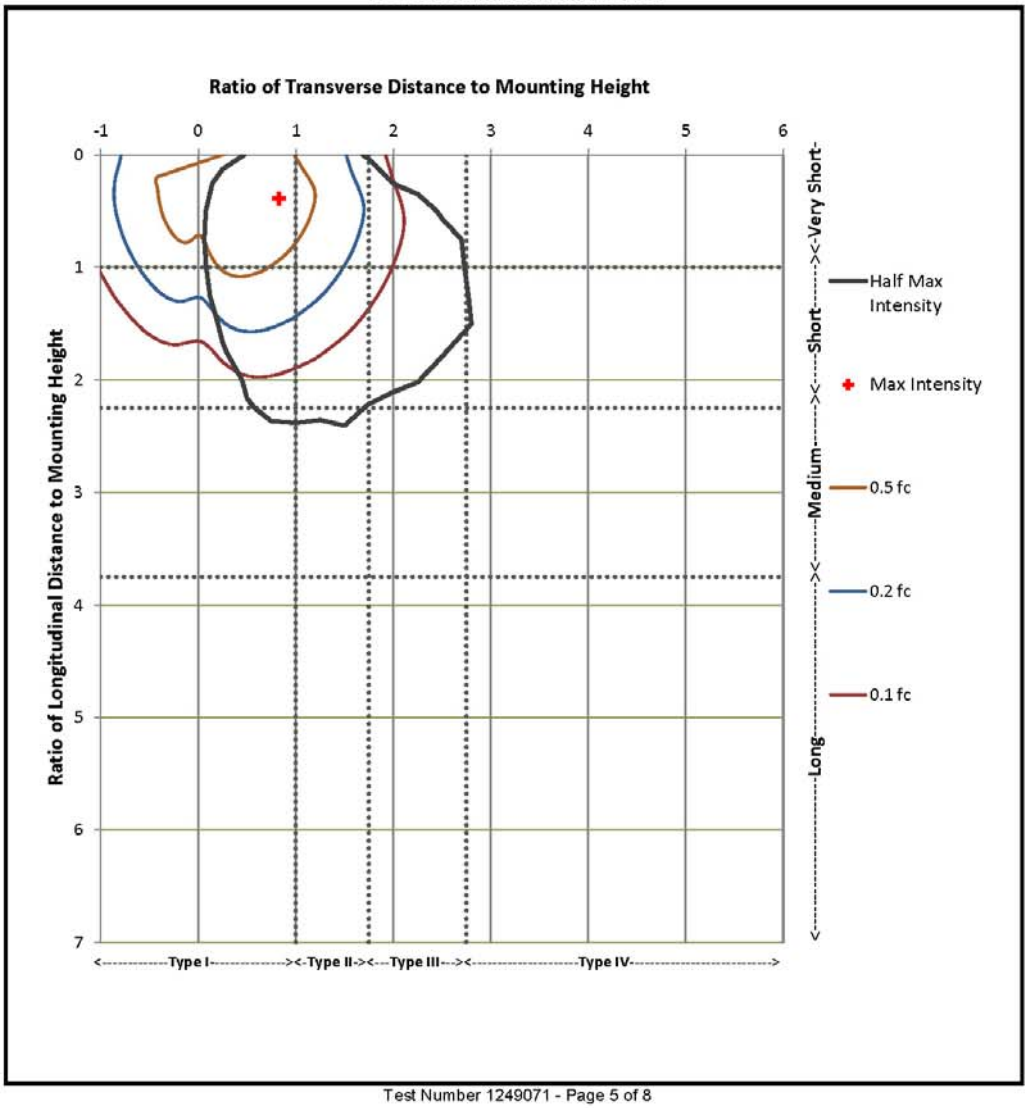
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.1 VAC	0.4002 A	46.86 W	0.975	60 Hz	14.6 %

Summary of Results

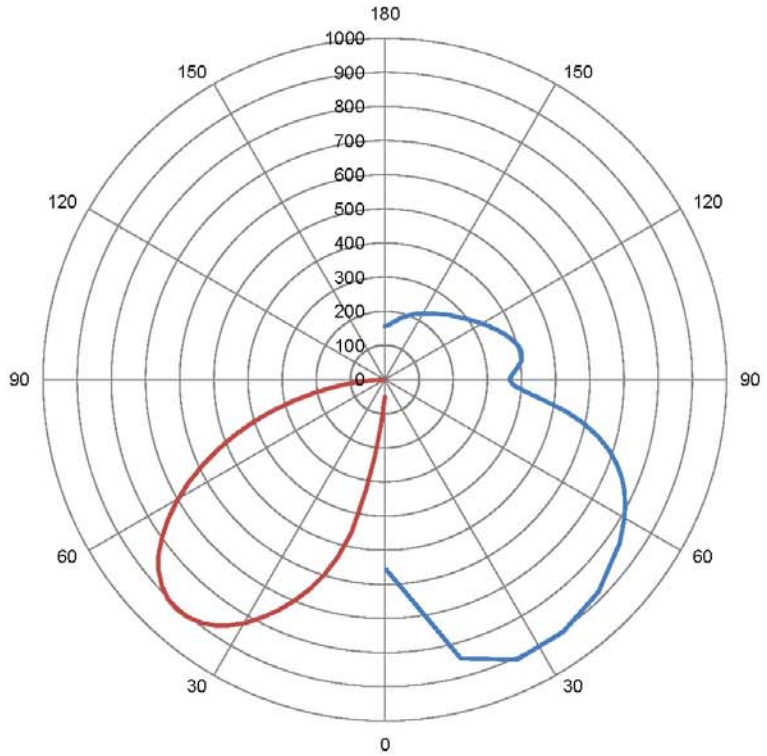
IES Roadway Classification:	Type III, Very Short	**Total Lumen Output:**	2068 Lumens
Cutoff Classification	Cutoff	**Luminaire Efficacy:**	44.1 lm/w
BUG Rating:	B1 U1 G1	**Maximum Candela:**	907 Candela

ISO FootCandle Plot at 20 Feet



Test Number 1249071 - Page 5 of 8

Maximum Plane and Cone Plots of Candela



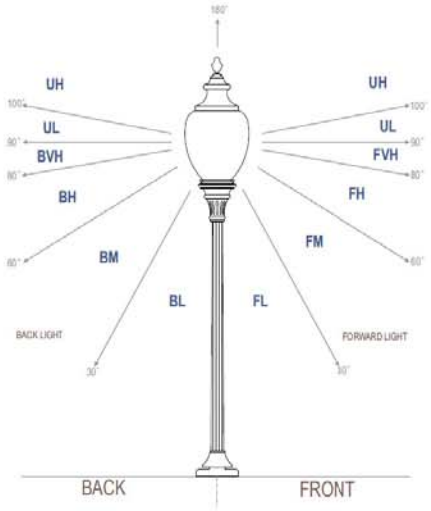
Vertical Plane Through 25 ° Lateral **Lateral Cone Through** 42.5 ° Vertical

Maximum Intensity (Candlepower): 907.2 Candela

Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	2.3	0.1%	60-65	179.0	8.7%	120-125	1.1	0.1%
5-10	14.3	0.7%	65-70	153.4	7.4%	125-130	0.8	0.0%
10-15	38.7	1.9%	70-75	120.9	5.8%	130-135	0.4	0.0%
15-20	66.7	3.2%	75-80	84.4	4.1%	135-140	0.3	0.0%
20-25	94.1	4.6%	80-85	47.9	2.3%	140-145	0.1	0.0%
25-30	121.9	5.9%	85-90	14.6	0.7%	145-150	0.0	0.0%
30-35	148.9	7.2%	90-95	2.0	0.1%	150-155	0.0	0.0%
35-40	172.7	8.4%	95-100	1.8	0.1%	155-160	0.0	0.0%
40-45	191.5	9.3%	100-105	1.9	0.1%	160-165	0.0	0.0%
45-50	202.9	9.8%	105-110	2.0	0.1%	165-170	0.0	0.0%
50-55	204.6	9.9%	110-115	1.6	0.1%	170-175	0.0	0.0%
55-60	196.4	9.5%	115-120	1.2	0.1%	175-180	0.0	0.0%

IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	219.1	10.6%
FM	(30-60)	816.7	39.5%
FH	(60-80)	397.5	19.2%
FVH	(80-90)	43.4	2.1%
BL	(0-30)	119.0	5.8%
BM	(30-60)	300.4	14.5%
BH	(60-80)	140.2	6.8%
BVH	(80-90)	19.1	0.9%
UL	(90-100)	3.7	0.2%
UH	(100-180)	9.4	0.5%
Total		2068.5	100.0%
BUG Rating	**B1 U1 G1**		

Test Number 1249071 - Page 7 of 8

In-Situ Test

In-Situ Test Conditions

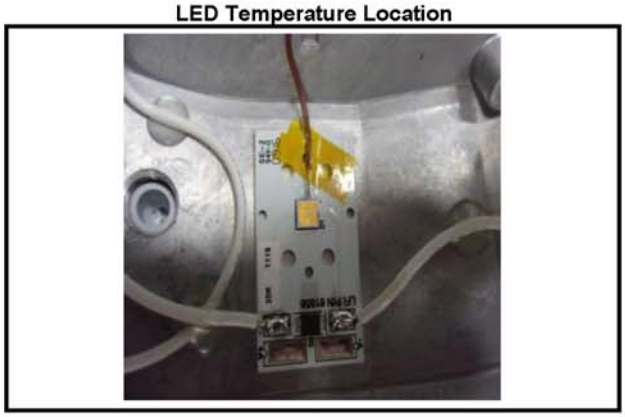
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
23.9 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

LED Temperature:	53.9 °C
Driver Temperature:	56.3 °C
Measured LED Current:	1.065 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

LED Temperature Location



Driver Temperature Location

Test Number 1249071 - Page 8 of 8

landscapeforms

ASHBERY AREA LIGHT

Product Data Sheet

Ashbery is a trio of lights that brings together advanced LED technology and optics with an homage to traditional-style lights that have a special place in the American lexicon. The area light is offered in 12', 14', and 16' heights and is ideal for campuses, parks and plazas, helping to create public spaces that are usable 24 hours a day. Options include single luminaires or a double-mount option for dual luminaires, one on either side of the pole. Patent-pending glare control requires less eye adaptation, enabling lower light levels and lower energy use with excellent visual acuity, while tenon-mounted luminaires can be retrofitted in the field. Cast aluminum parts in a full color palette are finished with Landscape Forms proprietary Pangard II® HAPS, VOC, lead-free polyester powdercoat.

General Description

- Available in single or double pole mounted configurations
- Offered in 3 standard pole heights (12', 14', and 16')
- Optional ANSI 136.41 7-pin twist lock receptacle
- Mounting template and anchor hardware included
- International Dark-Sky approved
- UL Listed, suitable for wet locations

Electrical

Surge protected 100V-277V 50/60 Hz, Class 2 LED dimmable driver. LED cartridge with weatherproof quick disconnect provides ease of installation and serviceability. Ashbery Pedestrian ships prewired.

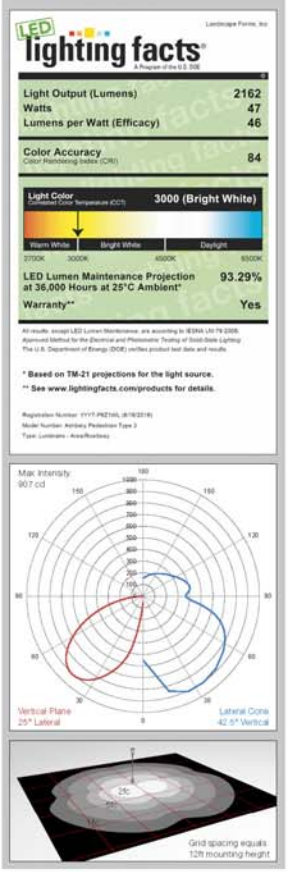
Area Type 3

Type 3 Distribution
Lamp: 6 Cree XHP50 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 1000mA
Optic: Carclo Optics
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP PLED-50W
Dimmable: 0-10V
BUG Rating: B1 U1 G1
IP Rating: IP66 for LED Cartridge

Area Type 5

Type 5 Distribution
Lamp: 12 Cree XHP50 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 1000mA
Optic: Carclo Optics
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP PLED-96W
Dimmable: 0-10V
BUG Rating: B2 U1 G1
IP Rating: IP66 for LED Cartridge

Ashbery Area Type 3

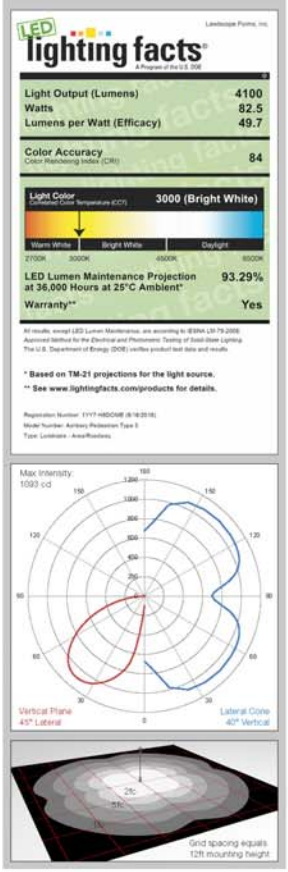


LED lighting facts

Light Output (Lumens)	2162
Watts	47
Lumens per Watt (Efficacy)	46
Color Accuracy (Color Rendering Index (CRI))	84
Light Color (Correlated Color Temperature (CCT))	3000 (Bright White)
LED Lumen Maintenance Projection at 36,000 Hours at 25°C Ambient*	93.29%
Warranty**	Yes

* Based on TM-21 projections for the light source.
** See www.lightingfacts.com/products for details.

Ashbery Area Type 5



LED lighting facts

Light Output (Lumens)	4100
Watts	82.5
Lumens per Watt (Efficacy)	49.7
Color Accuracy (Color Rendering Index (CRI))	84
Light Color (Correlated Color Temperature (CCT))	3000 (Bright White)
LED Lumen Maintenance Projection at 36,000 Hours at 25°C Ambient*	93.29%
Warranty**	Yes

* Based on TM-21 projections for the light source.
** See www.lightingfacts.com/products for details.

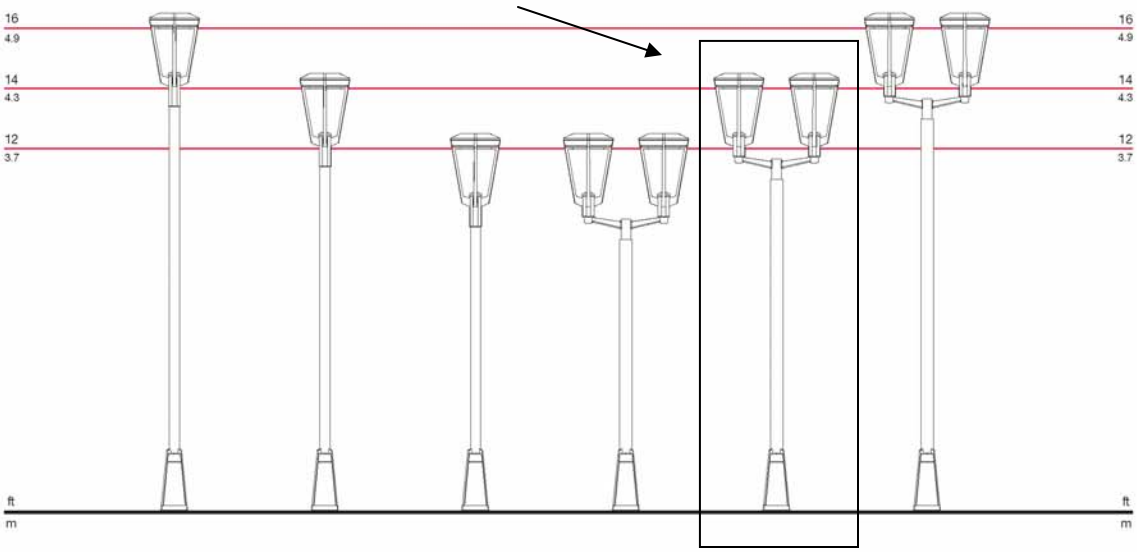
Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

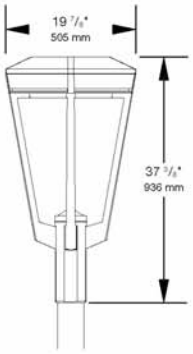
LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E1-1 DOUBLE 14' height page 1

landscapeforms

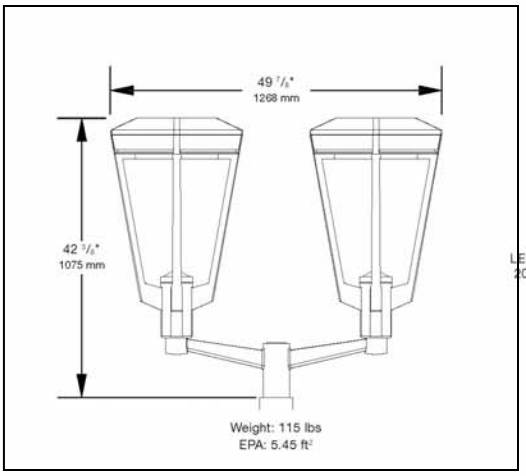
ASHBERY AREA LIGHT

Product Data Sheet

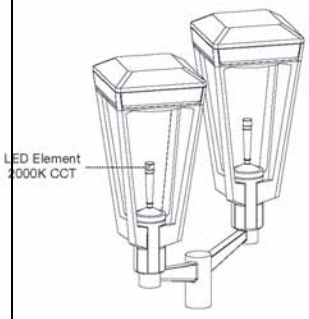




Weight: 55 lbs
EPA: 2.57 ft²



Weight: 115 lbs
EPA: 5.45 ft²



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LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E1-1 DOUBLE 14' height page 2

landscapeforms

ASHBERY AREA LIGHT

Product Data Sheet

#AP - **will advise/per area** - 100F - 30K - Volt - 20K - **X** - **X**

Product	Lamp	Drive Current	Color Temp.	Input Voltage	Center Element	Connection	Twist Lock*
AP ASHBERY	206L3 (6 LED Type 3) 212L5 (12 LED Type 5)	100F (1000 mA)	40K (4000K) 35K (3500K) 30K (3000K)	UV1 (100-277VAC)	20K (2000K)	P2 (Single Tenon) CC1 (Arm Mount)	NTW (No Twist Lock) TW1 (Twist Lock)

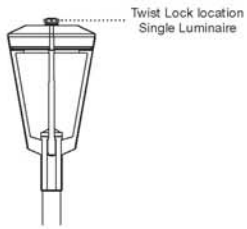
EXAMPLE: AP – 206L3 – 100F – 35K / UV1 – 20K – P2 – TW1 – Powdercoat Color

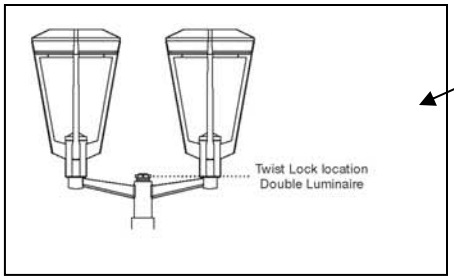
*If luminaire is specified with CC1 (Arm Mount), specify optional Twist Lock Receptacle with pole.

#AP - **14'** - 2CC1 - 5 - X - 20K - will advise -

	Product	Height	Connection	Pole Diameter	Base	Twist Lock
Single Luminaire	AP ASHBERY	12 (144 in) 14 (168 in) 16 (192 in)	P2 (Single Tenon)	4 (4 inches)	NUT (Nut Covers) CVR (Cover Plate)	To be specified with luminaire.
Double Luminaire	AP ASHBERY	12 (144 in) 14 (168 in) 16 (192 in)	2CC1 (Dual Arm)	5 (5 inches)	NUT (Nut Covers) CVR (Cover Plate)	NTW (No Twist Lock) TW1 (Twist Lock)

EXAMPLE: AP – 14 – P2 – 4 – CVR – Powdercoat Color





Landscape Forms, Inc. I 800.521.2546 I F 269.381.3455 I 7800 E. Michigan Ave., Kalamazoo, MI 49048

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E1-1 DOUBLE 14' height page 3

Landscape Forms Inc
Catalog Number
Ashbery Area Light Type 3

Electrical Test Conditions						
Temp	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.1 VAC	0.4002 A	46.86 W	0.975	60 Hz	14.6 %

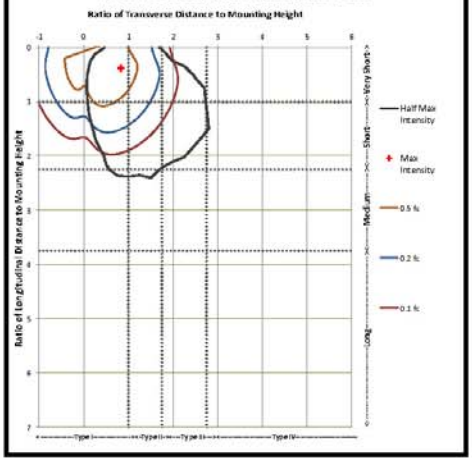
Summary of Results	
Total Lumen Output	2174 Lumens
Luminaire Efficacy	46.3 lm/w
Maximum Candela	0 Candela
IES Roadway Classification	Type III, Very Short
Cutoff Classification	Cutoff
BUG Rating	B1 U1 G1
CCT	2963 K
CRI	84.2
Duv	0.0007
TM-30 Rf	83.6
TM-30 Rg	98.6

Luminaire Classification System (LCS)			
LCS	Zone	Lumens	%
FL	(0-30)	219	11%
FM	(30-60)	817	39%
FH	(60-80)	397	19%
FVH	(80-90)	43	2%
BL	(0-30)	119	6%
BM	(30-60)	300	15%
BH	(60-80)	140	7%
BVH	(80-90)	19	1%
UL	(90-100)	4	0%
UH	(100-180)	9	0%

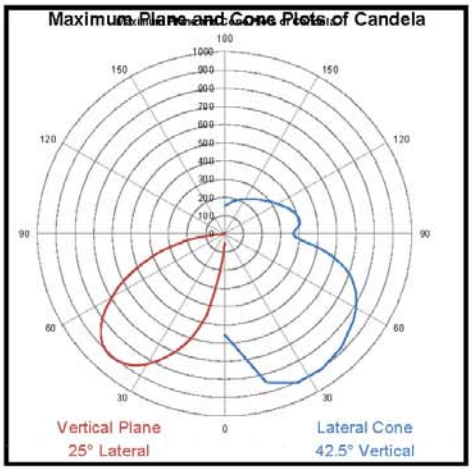
Color Rendering Index Details	
Ra (CRI)	84.2
R1	83
R2	89.6
R3	95.3
R4	84.1
R5	82.4
R6	86.9
R7	86.4
R8	65.6
R9	19.7
R10	75.5
R11	83.5
R12	70.5
R13	84.3
R14	96.9

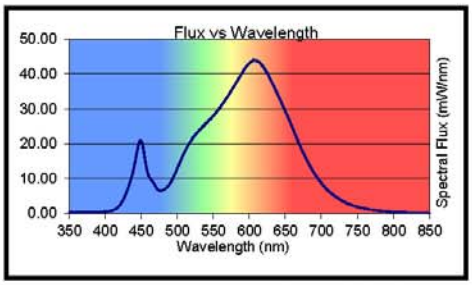
Chromaticity Coordinates	
Chromaticity (x)	0.4407
Chromaticity (y)	0.4076
Chromaticity (u)	0.2515
Chromaticity (v)	0.3489
Chromaticity (u')	0.2515
Chromaticity (v')	0.5233

ISO FootCandle Plot at 20 Feet

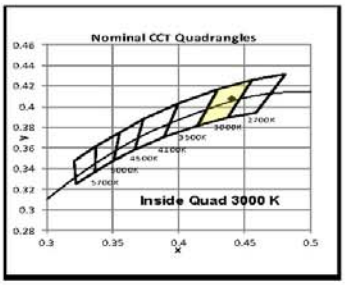


Maximum Plane and Cone Plots of Candela





Intensity Through Maximum Plane (Candlepower)		
Angle	Candlepower	Lumens
0	51	
5	135	17
10	332	
15	536	105
20	653	
25	743	216
30	821	
35	876	322
40	904	
45	903	394
50	867	
55	799	401
60	705	
65	593	332
70	469	
75	334	205
80	206	
85	88	62
90	4	
95	4	4
100	4	
105	4	4
110	4	
115	3	3
120	2	
125	3	2
130	1	
135	1	1
140	1	
145	0	0
150	0	
155	0	0
160	0	
165	0	0
170	0	
175	0	0
180	0	



Testing was performed in accordance with LM-79-08
The results contained in this summary pertain only to report #1249071

UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

ACCREDITED

NVLAP LAB CODE 201042-0

Photometric Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002, UL 1598-2008
UL1598-2008

Prepared For

Landscape Forms Inc
Jake Scott
7800 E Michigan Ave
Kalamazoo, MI 49048
United States

Catalog Number

Ashbery Area Light Type 3

Order Number
11239918
Test Number
1249071

Test Date

2016-05-19 - 2016-05-24

Prepared By

Derek Smarr, Technician

Approved By

Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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Table of Contents

Summary of Results	Page 3
Integrating Sphere Results	Page 4
Distribution Results	
Test Conditions / Summary of Results / ISOPlot	Page 5
Maximum Plane and Cone Plot / Zonal Lumen Summary	Page 6
IES BUG Rating	Page 7
In-Situ Results	Page 8

Laboratory results may not be representative of field performance
Ballast factors have not been applied

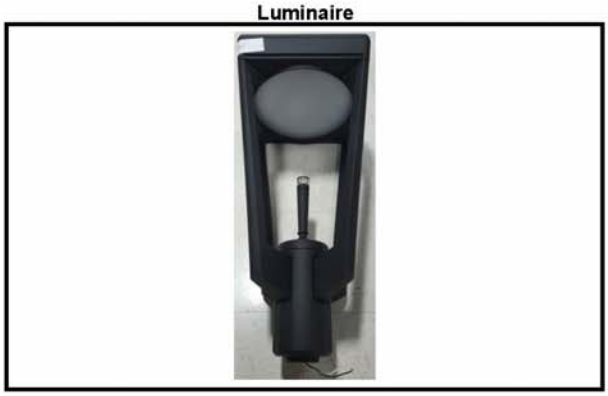
Testing was performed in a 3-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Luminaire Description:	Black formed aluminium housing, upper frosted plastic lens, lower clear plastic lens, no enclosure
Lamp:	6 white LEDs
Mounting:	Post top
Ballast/Driver:	One Thomas Research Products LED50W-24-C2100-D and One GE Light Tech GLED6DMV350SL

Luminaire



Luminaire Characteristics
Luminous Diameter: 12.00 in.
Luminous Height: 11.00 in.

Summary of Results

Integrating Sphere

Luminous Flux:	2174	Lumens
Efficacy:	46.3	lm/w
CCT:	2963	K
CRI (Ra):	84.2	

Distribution

Roadway Classification:	Type III, Very Short
Cutoff Classification:	Cutoff
BUG Rating:	B1 U1 G1

Electrical Data at 276 VAC

Test Temperature:	24.4	°C
Voltage:	276.9	VAC
Current:	0.1978	A
Power:	47.38	W
Power Factor:	0.863	
Frequency:	60	Hz
Current THD:	22.7	%

In-Situ

LED Temperature:	53.9	°C
Driver Temperature:	56.3	°C
Measured LED Current:	1.065	A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.

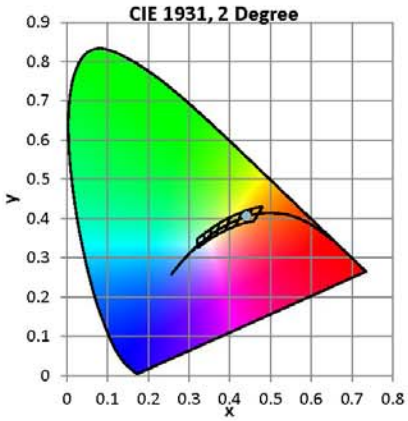
Color Quality - Integrating Sphere

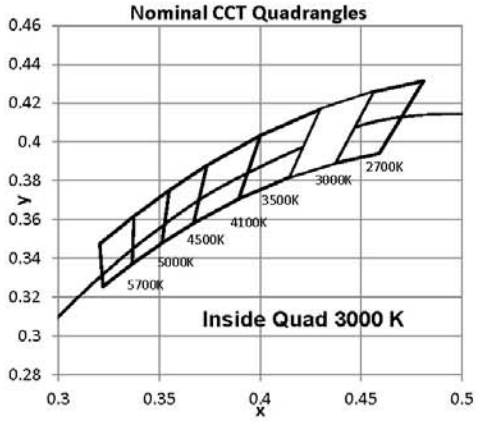
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.0 VAC	0.4011 A	46.92 W	0.975	60 Hz	14.6 %

Summary of Results

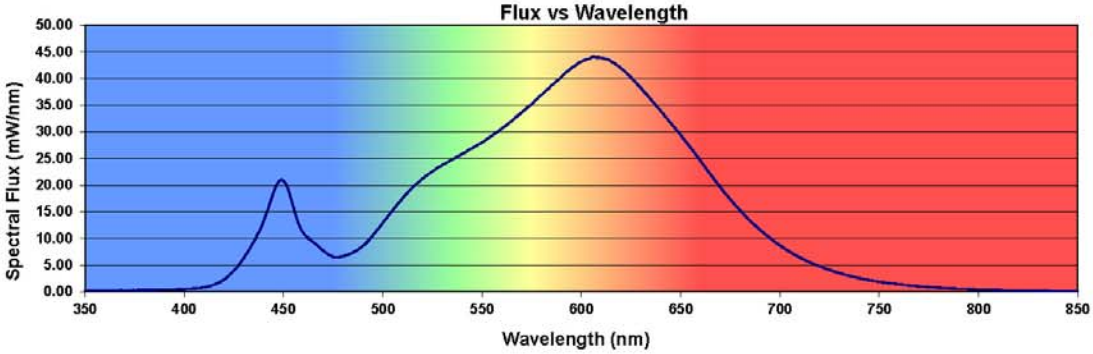
Total Output:	2174 Lumens	**Chromaticity (x):**	0.4407
Efficacy:	46.3 lm/w	**Chromaticity (y):**	0.4076
CCT:	2963 K	**Chromaticity (u'):**	0.2515
CRI (Ra):	84.2	**Chromaticity (v'):**	0.5233
CRI (R9):	19.7	**TM-30 R_f:**	83.6
Peak Wavelength:	606.5 nm	**TM-30 R_g:**	98.6
Dominant Wavelength:	582.7 nm	**Duv:**	0.0007
S/P Ratio:	1.299		





Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
84.2	83.0	89.6	95.3	84.1	82.4	86.9	86.4	65.6	19.7	75.5	83.5	70.5	84.3	96.9



Test Number 1249071 - Page 4 of 8

Distribution - Goniophotometer

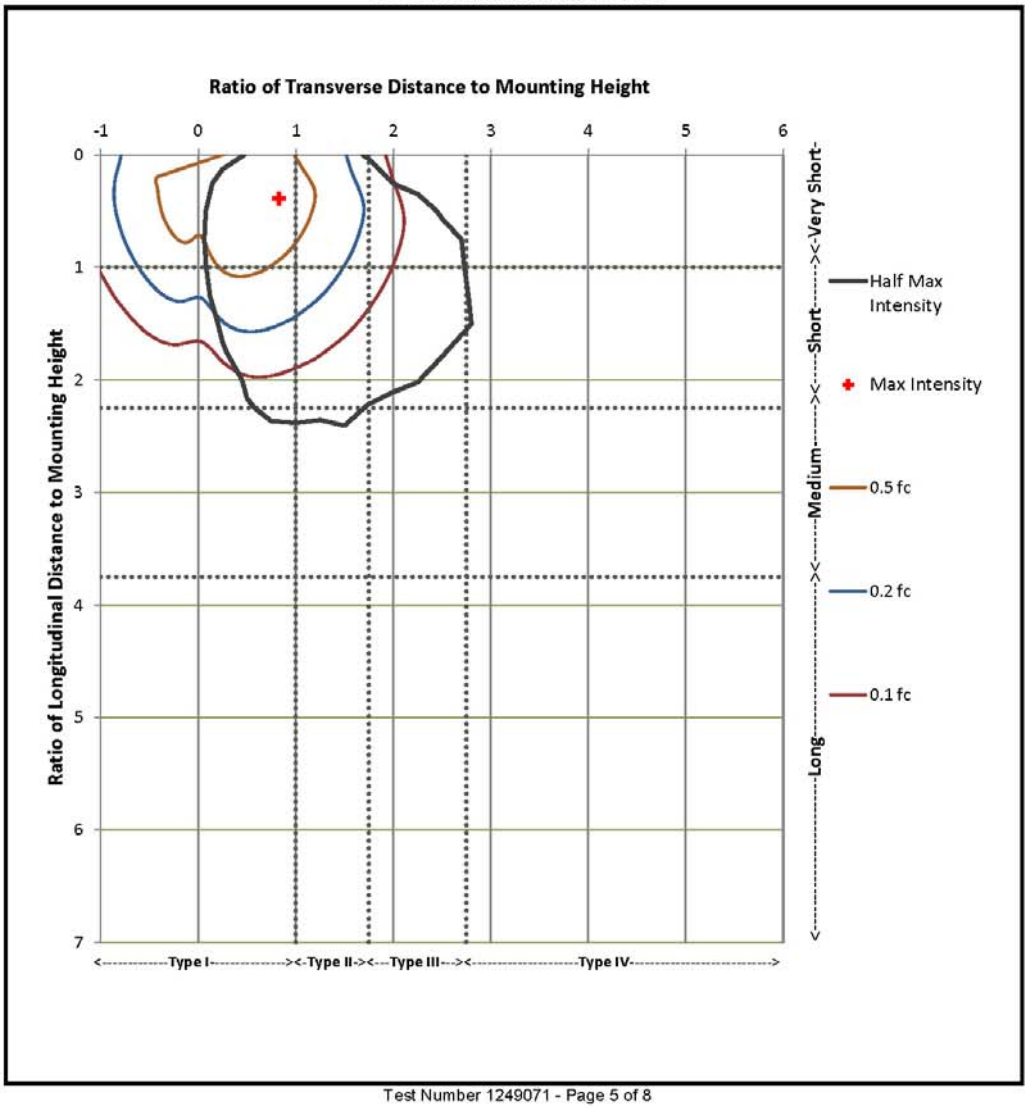
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.1 VAC	0.4002 A	46.86 W	0.975	60 Hz	14.6 %

Summary of Results

IES Roadway Classification:	Type III, Very Short	**Total Lumen Output:**	2068 Lumens
Cutoff Classification	Cutoff	**Luminaire Efficacy:**	44.1 lm/w
BUG Rating:	B1 U1 G1	**Maximum Candela:**	907 Candela

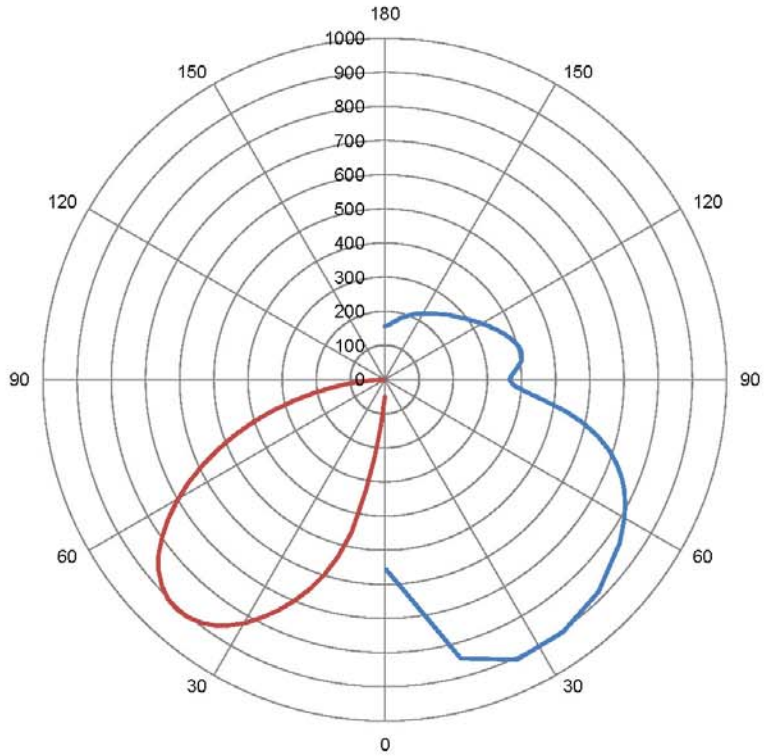
ISO FootCandle Plot at 20 Feet



Test Number 1249071 - Page 5 of 8

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E1-1 DOUBLE 14' height page 9

Maximum Plane and Cone Plots of Candela



Vertical Plane Through 25 ° Lateral **Lateral Cone Through** 42.5 ° Vertical

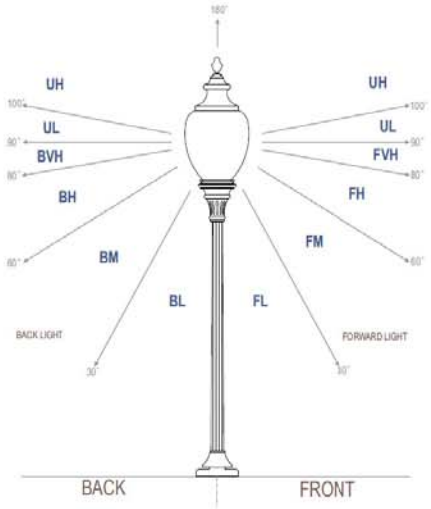
Maximum Intensity (Candlepower): 907.2 Candela

Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	2.3	0.1%	60-65	179.0	8.7%	120-125	1.1	0.1%
5-10	14.3	0.7%	65-70	153.4	7.4%	125-130	0.8	0.0%
10-15	38.7	1.9%	70-75	120.9	5.8%	130-135	0.4	0.0%
15-20	66.7	3.2%	75-80	84.4	4.1%	135-140	0.3	0.0%
20-25	94.1	4.6%	80-85	47.9	2.3%	140-145	0.1	0.0%
25-30	121.9	5.9%	85-90	14.6	0.7%	145-150	0.0	0.0%
30-35	148.9	7.2%	90-95	2.0	0.1%	150-155	0.0	0.0%
35-40	172.7	8.4%	95-100	1.8	0.1%	155-160	0.0	0.0%
40-45	191.5	9.3%	100-105	1.9	0.1%	160-165	0.0	0.0%
45-50	202.9	9.8%	105-110	2.0	0.1%	165-170	0.0	0.0%
50-55	204.6	9.9%	110-115	1.6	0.1%	170-175	0.0	0.0%
55-60	196.4	9.5%	115-120	1.2	0.1%	175-180	0.0	0.0%

Test Number 1249071 - Page 6 of 8

IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	219.1	10.6%
FM	(30-60)	816.7	39.5%
FH	(60-80)	397.5	19.2%
FVH	(80-90)	43.4	2.1%
BL	(0-30)	119.0	5.8%
BM	(30-60)	300.4	14.5%
BH	(60-80)	140.2	6.8%
BVH	(80-90)	19.1	0.9%
UL	(90-100)	3.7	0.2%
UH	(100-180)	9.4	0.5%
Total		2068.5	100.0%
BUG Rating	**B1 U1 G1**		

In-Situ Test

In-Situ Test Conditions

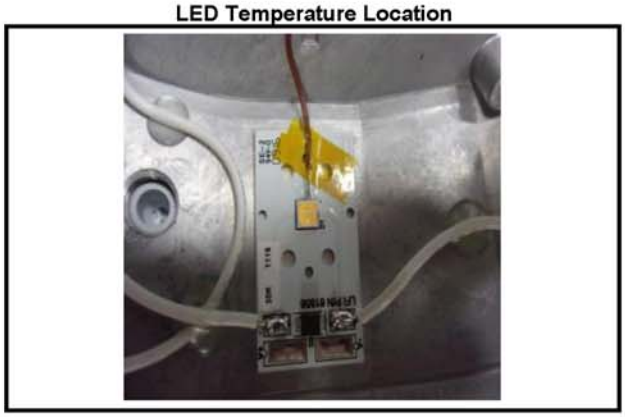
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
23.9 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

LED Temperature:	53.9 °C
Driver Temperature:	56.3 °C
Measured LED Current:	1.065 A

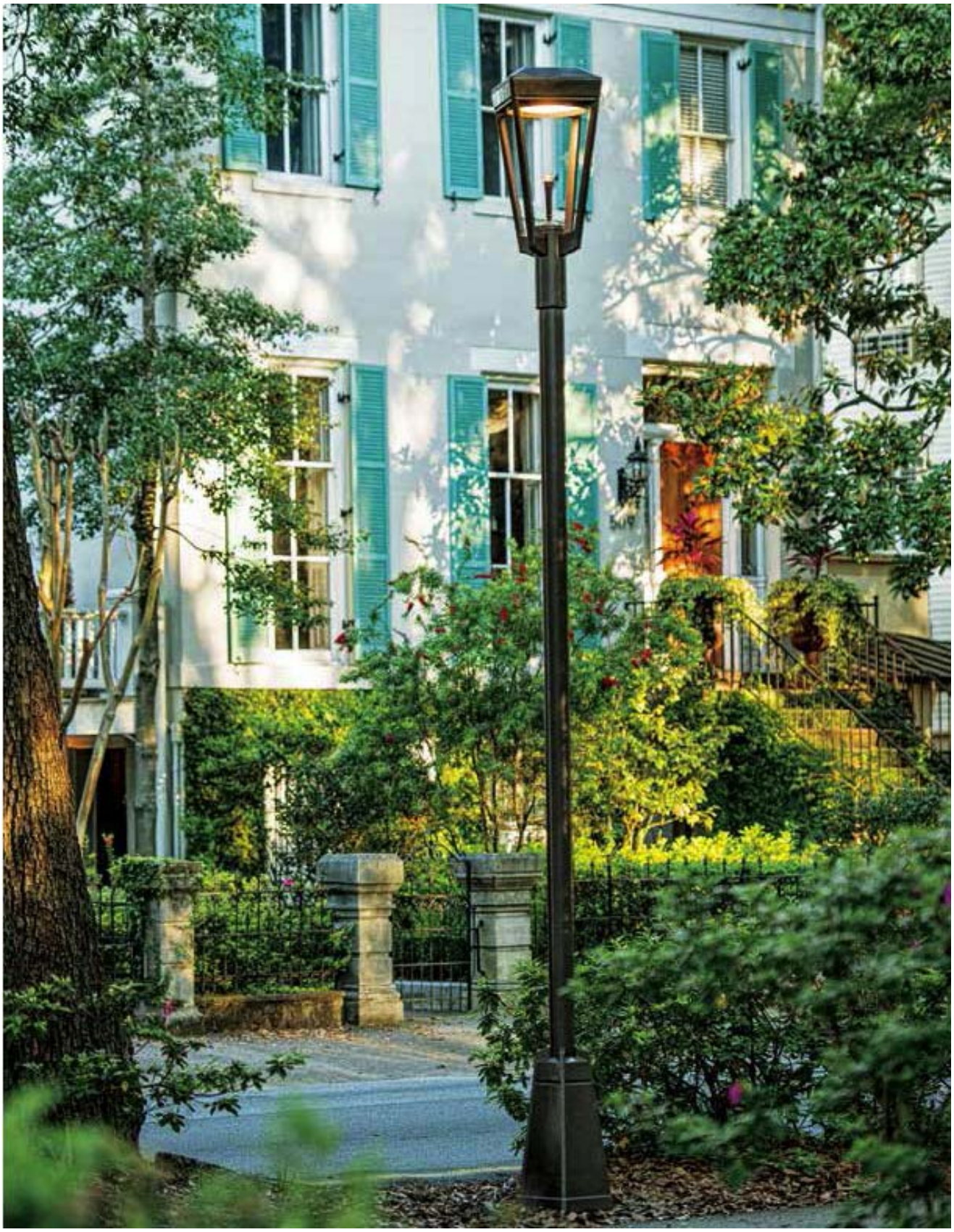
Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

LED Temperature Location



Driver Temperature Location

Test Number 1249071 - Page 8 of 8



LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E2 SINGLE 12' height page 1

landscapeforms

ASHBERY AREA LIGHT

Product Data Sheet

Ashbery is a trio of lights that brings together advanced LED technology and optics with an homage to traditional-style lights that have a special place in the American lexicon. The area light is offered in 12', 14', and 16' heights and is ideal for campuses, parks and plazas, helping to create public spaces that are usable 24 hours a day. Options include single luminaires or a double-mount option for dual luminaires, one on either side of the pole. Patent-pending glare control requires less eye adaptation, enabling lower light levels and lower energy use with excellent visual acuity, while tenon-mounted luminaires can be retrofitted in the field. Cast aluminum parts in a full color palette are finished with Landscape Forms proprietary Pangard II® HAPS, VOC, lead-free polyester powdercoat.

General Description

- Available in single or double pole mounted configurations
- Offered in 3 standard pole heights (12', 14', and 16')
- Optional ANSI 136.41 7-pin twist lock receptacle
- Mounting template and anchor hardware included
- International Dark-Sky approved
- UL Listed, suitable for wet locations

Electrical

Surge protected 100V-277V 50/60 Hz, Class 2 LED dimmable driver. LED cartridge with weatherproof quick disconnect provides ease of installation and serviceability. Ashbery Pedestrian ships prewired.

Area Type 3

Type 3 Distribution
Lamp: 6 Cree XHP50 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 1000mA
Optic: Carclo Optics
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP PLED-50W
Dimmable: 0-10V
BUG Rating: B1 U1 G1
IP Rating: IP66 for LED Cartridge

Area Type 5

Type 5 Distribution
Lamp: 12 Cree XHP50 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 1000mA
Optic: Carclo Optics
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP PLED-96W
Dimmable: 0-10V
BUG Rating: B2 U1 G1
IP Rating: IP66 for LED Cartridge

Ashbery Area Type 3

Ashbery Area Type 5

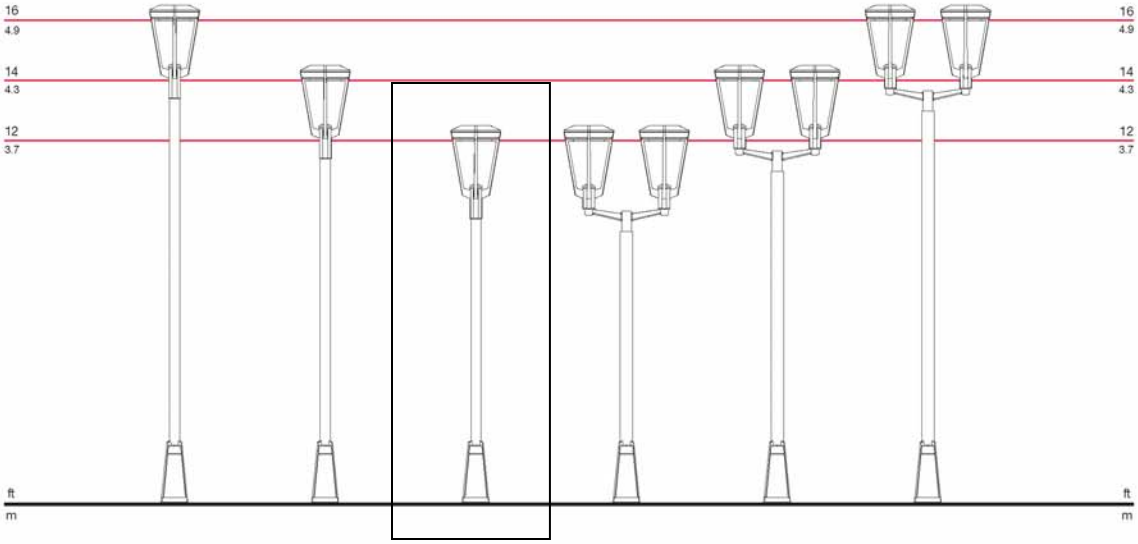
Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

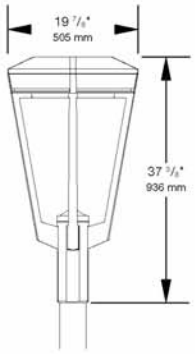
LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E2 SINGLE 12' height page 2

landscapeforms

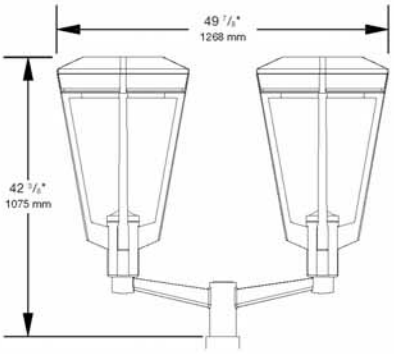
ASHBERY AREA LIGHT

Product Data Sheet

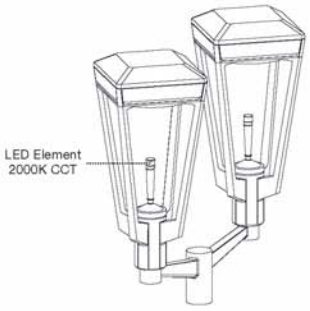




Weight: 55 lbs
EPA: 2.57 ft²



Weight: 115 lbs
EPA: 5.45 ft²



Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E2 SINGLE 12' height page 3

landscapeforms

ASHBERY AREA LIGHT

Product Data Sheet

#AP - **will advise/per area** - 100F - 30K - Volt - 20K - **X** - **X**

Product	Lamp	Drive Current	Color Temp.	Input Voltage	Center Element	Connection	Twist Lock*
AP ASHBERY	206L3 (6 LED Type 3) 212L5 (12 LED Type 5)	100F (1000 mA)	40K (4000K) 35K (3500K) 30K (3000K)	UV1 (100-277VAC)	20K (2000K)	P2 (Single Tenon) CC1 (Arm Mount)	NTW (No Twist Lock) TW1 (Twist Lock)

EXAMPLE: AP – 206L3 – 100F – 35K / UV1 – 20K – P2 – TW1 – Powdercoat Color

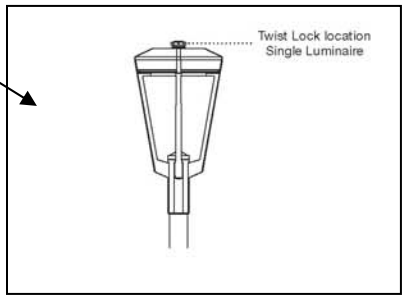
*If luminaire is specified with CC1 (Arm Mount), specify optional Twist Lock Receptacle with pole.

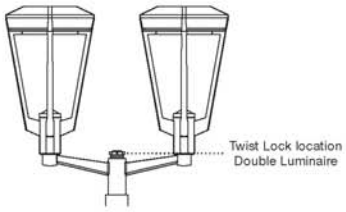
#AP - **12'** - P2 - 4 - X - 20K - will advise -

	Product	Height	Connection	Pole Diameter	Base	Twist Lock
Single Luminaire	AP ASHBERY	12 (144 in) 14 (168 in) 16 (192 in)	P2 (Single Tenon)	4 (4 inches)	NUT (Nut Covers) CVR (Cover Plate)	To be specified with luminaire.

	Product	Height	Connection	Pole Diameter	Base	Twist Lock
Double Luminaire	AP ASHBERY	12 (144 in) 14 (168 in) 16 (192 in)	2CC1 (Dual Arm)	5 (5 inches)	NUT (Nut Covers) CVR (Cover Plate)	NTW (No Twist Lock) TW1 (Twist Lock)

EXAMPLE: AP – 14 – P2 – 4 – CVR – Powdercoat Color





Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E2 SINGLE 12' height page 4

Landscape Forms Inc
Catalog Number
Ashbery Area Light Type 3

Electrical Test Conditions						
Temp	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.1 VAC	0.4002 A	46.86 W	0.975	60 Hz	14.6 %

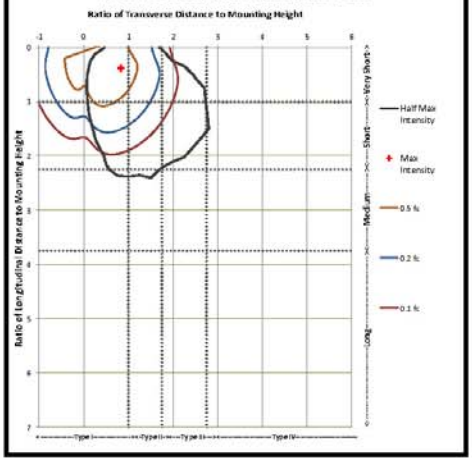
Summary of Results	
Total Lumen Output	2174 Lumens
Luminaire Efficacy	46.3 lm/w
Maximum Candela	0 Candela
IES Roadway Classification	Type III, Very Short
Cutoff Classification	Cutoff
BUG Rating	B1 U1 G1
CCT	2963 K
CRI	84.2
Duv	0.0007
TM-30 Rf	83.6
TM-30 Rg	98.6

Luminaire Classification System (LCS)			
LCS	Zone	Lumens	%
FL	(0-30)	219	11%
FM	(30-60)	817	39%
FH	(60-80)	397	19%
FVH	(80-90)	43	2%
BL	(0-30)	119	6%
BM	(30-60)	300	15%
BH	(60-80)	140	7%
BVH	(80-90)	19	1%
UL	(90-100)	4	0%
UH	(100-180)	9	0%

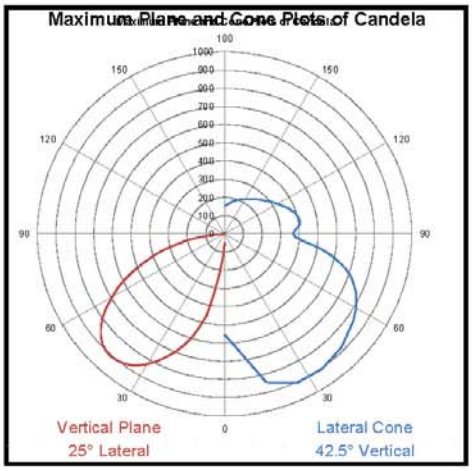
Color Rendering Index Details	
Ra (CRI)	84.2
R1	83
R2	89.6
R3	95.3
R4	84.1
R5	82.4
R6	86.9
R7	86.4
R8	65.6
R9	19.7
R10	75.5
R11	83.5
R12	70.5
R13	84.3
R14	96.9

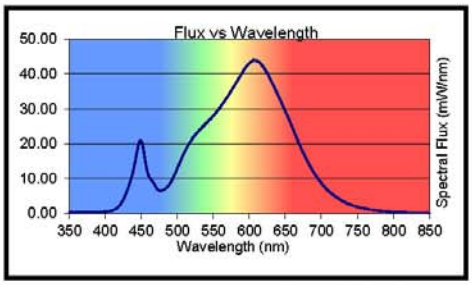
Chromaticity Coordinates	
Chromaticity (x)	0.4407
Chromaticity (y)	0.4076
Chromaticity (u)	0.2515
Chromaticity (v)	0.3489
Chromaticity (u')	0.2515
Chromaticity (v')	0.5233

ISO FootCandle Plot at 20 Feet

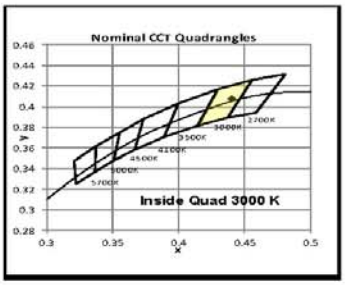


Maximum Plane and Cone Plots of Candela





Intensity Through Maximum Plane (Candlepower)		
Angle	Candlepower	Lumens
0	51	
5	135	17
10	332	
15	536	105
20	653	
25	743	216
30	821	
35	876	322
40	904	
45	903	394
50	867	
55	799	401
60	705	
65	593	332
70	469	
75	334	205
80	206	
85	88	62
90	4	
95	4	4
100	4	
105	4	4
110	4	
115	3	3
120	2	
125	3	2
130	1	
135	1	1
140	1	
145	0	0
150	0	
155	0	0
160	0	
165	0	0
170	0	
175	0	0
180	0	



Testing was performed in accordance with LM-79-08
The results contained in this summary pertain only to report #1249071

UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

ACCREDITED

NVLAP LAB CODE 201042-0

Photometric Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002, UL 1598-2008
UL1598-2008

Prepared For

Landscape Forms Inc
Jake Scott
7800 E Michigan Ave
Kalamazoo, MI 49048
United States

Catalog Number

Ashbery Area Light Type 3

Order Number
11239918
Test Number
1249071

Test Date

2016-05-19 - 2016-05-24

Prepared By

Derek Smarr, Technician

Approved By

Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Table of Contents

Summary of Results	Page 3
Integrating Sphere Results	Page 4
Distribution Results	
Test Conditions / Summary of Results / ISOPlot	Page 5
Maximum Plane and Cone Plot / Zonal Lumen Summary	Page 6
IES BUG Rating	Page 7
In-Situ Results	Page 8

Laboratory results may not be representative of field performance
Ballast factors have not been applied

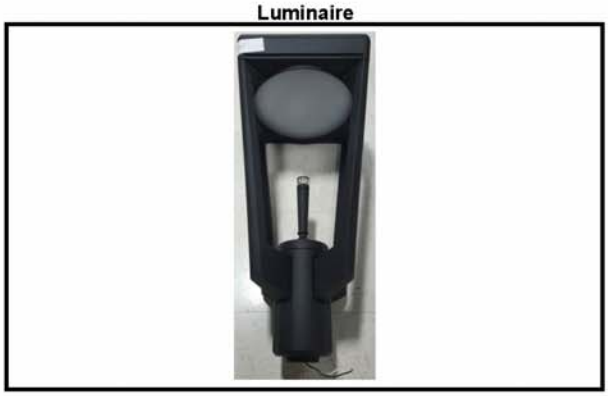
Testing was performed in a 3-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Luminaire Description:	Black formed aluminium housing, upper frosted plastic lens, lower clear plastic lens, no enclosure
Lamp:	6 white LEDs
Mounting:	Post top
Ballast/Driver:	One Thomas Research Products LED50W-24-C2100-D and One GE Light Tech GLED6DMV350SL

Luminaire



Luminaire Characteristics
Luminous Diameter: 12.00 in.
Luminous Height: 11.00 in.

Summary of Results

Integrating Sphere

Luminous Flux:	2174	Lumens
Efficacy:	46.3	lm/w
CCT:	2963	K
CRI (Ra):	84.2	

Distribution

Roadway Classification:	Type III, Very Short
Cutoff Classification:	Cutoff
BUG Rating:	B1 U1 G1

Electrical Data at 276 VAC

Test Temperature:	24.4	°C
Voltage:	276.9	VAC
Current:	0.1978	A
Power:	47.38	W
Power Factor:	0.863	
Frequency:	60	Hz
Current THD:	22.7	%

In-Situ

LED Temperature:	53.9	°C
Driver Temperature:	56.3	°C
Measured LED Current:	1.065	A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.

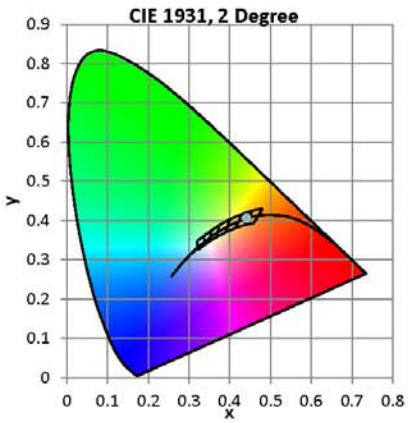
Color Quality - Integrating Sphere

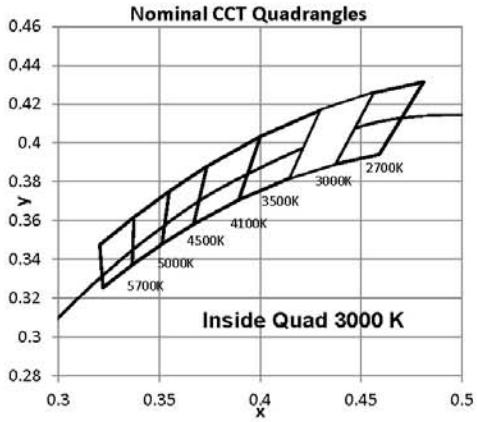
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.0 VAC	0.4011 A	46.92 W	0.975	60 Hz	14.6 %

Summary of Results

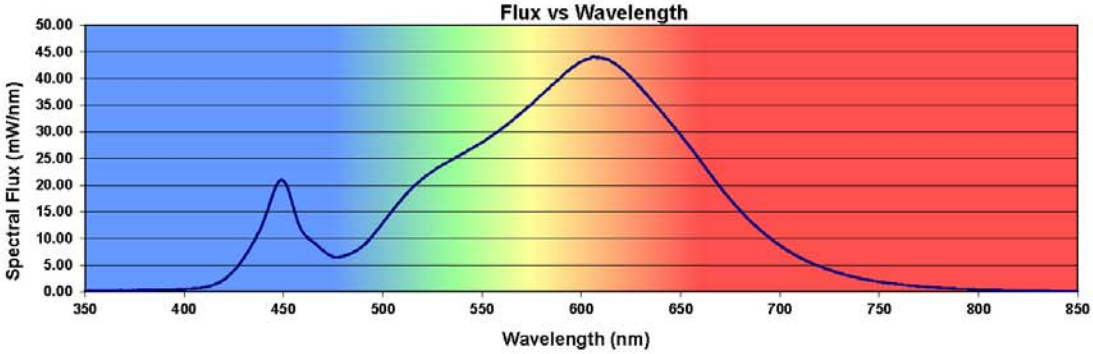
Total Output:	2174 Lumens	**Chromaticity (x):**	0.4407
Efficacy:	46.3 lm/w	**Chromaticity (y):**	0.4076
CCT:	2963 K	**Chromaticity (u'):**	0.2515
CRI (Ra):	84.2	**Chromaticity (v'):**	0.5233
CRI (R9):	19.7	**TM-30 R_f:**	83.6
Peak Wavelength:	606.5 nm	**TM-30 R_g:**	98.6
Dominant Wavelength:	582.7 nm	**Duv:**	0.0007
S/P Ratio:	1.299		





Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
84.2	83.0	89.6	95.3	84.1	82.4	86.9	86.4	65.6	19.7	75.5	83.5	70.5	84.3	96.9



Test Number 1249071 - Page 4 of 8

Distribution - Goniophotometer

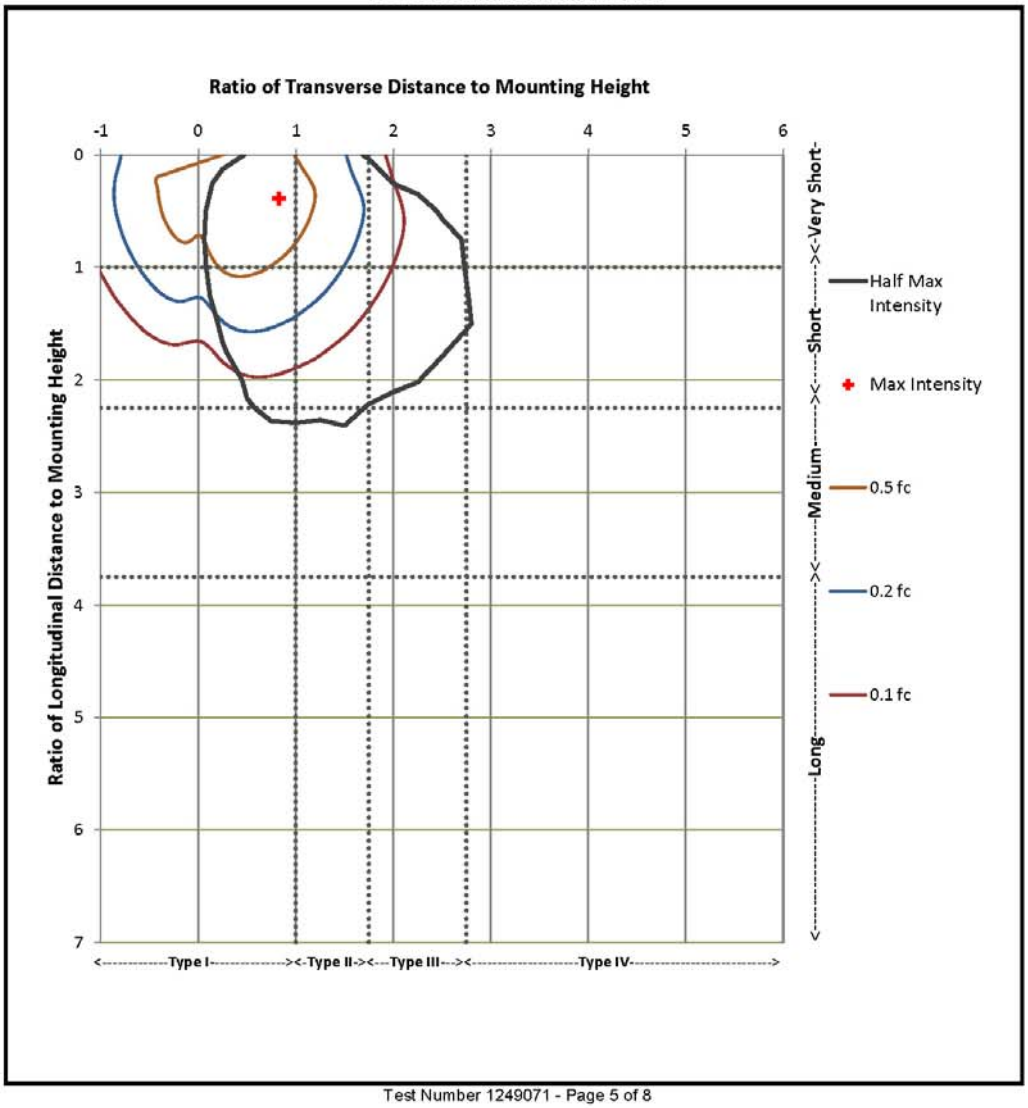
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.1 VAC	0.4002 A	46.86 W	0.975	60 Hz	14.6 %

Summary of Results

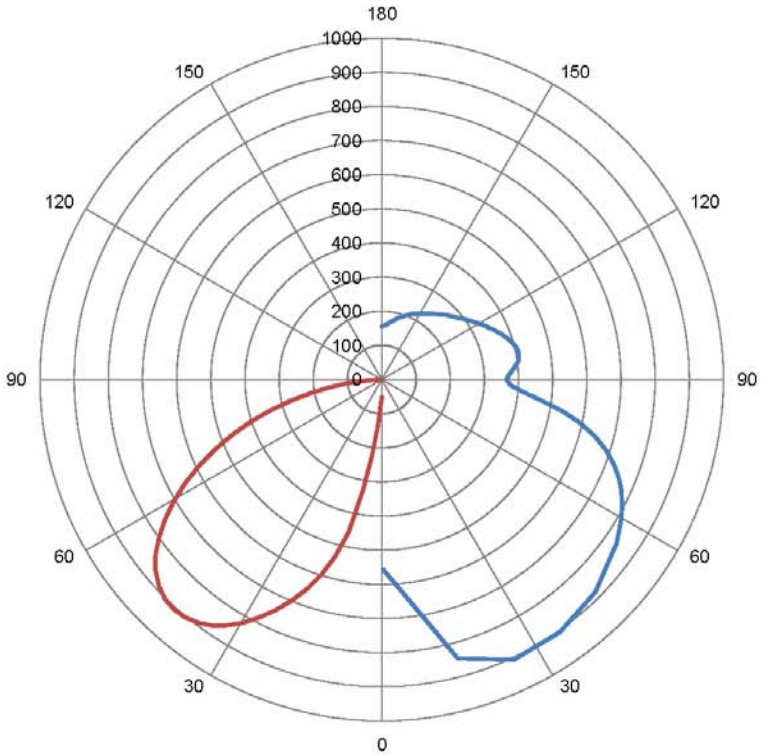
IES Roadway Classification:	Type III, Very Short	**Total Lumen Output:**	2068 Lumens
Cutoff Classification	Cutoff	**Luminaire Efficacy:**	44.1 lm/w
BUG Rating:	B1 U1 G1	**Maximum Candela:**	907 Candela

ISO FootCandle Plot at 20 Feet



Test Number 1249071 - Page 5 of 8

Maximum Plane and Cone Plots of Candela



Vertical Plane Through 25 ° Lateral **Lateral Cone Through** 42.5 ° Vertical

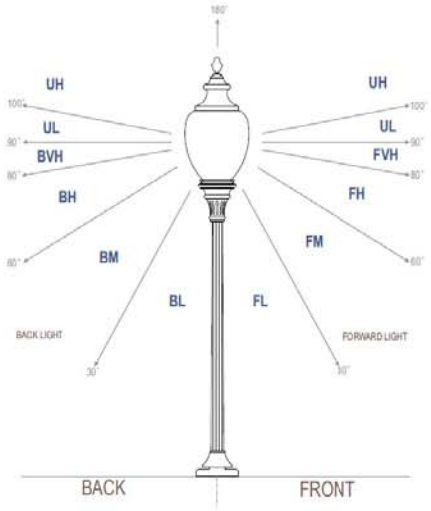
Maximum Intensity (Candlepower): 907.2 Candela

Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	2.3	0.1%	60-65	179.0	8.7%	120-125	1.1	0.1%
5-10	14.3	0.7%	65-70	153.4	7.4%	125-130	0.8	0.0%
10-15	38.7	1.9%	70-75	120.9	5.8%	130-135	0.4	0.0%
15-20	66.7	3.2%	75-80	84.4	4.1%	135-140	0.3	0.0%
20-25	94.1	4.6%	80-85	47.9	2.3%	140-145	0.1	0.0%
25-30	121.9	5.9%	85-90	14.6	0.7%	145-150	0.0	0.0%
30-35	148.9	7.2%	90-95	2.0	0.1%	150-155	0.0	0.0%
35-40	172.7	8.4%	95-100	1.8	0.1%	155-160	0.0	0.0%
40-45	191.5	9.3%	100-105	1.9	0.1%	160-165	0.0	0.0%
45-50	202.9	9.8%	105-110	2.0	0.1%	165-170	0.0	0.0%
50-55	204.6	9.9%	110-115	1.6	0.1%	170-175	0.0	0.0%
55-60	196.4	9.5%	115-120	1.2	0.1%	175-180	0.0	0.0%

Test Number 1249071 - Page 6 of 8

IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	219.1	10.6%
FM	(30-60)	816.7	39.5%
FH	(60-80)	397.5	19.2%
FVH	(80-90)	43.4	2.1%
BL	(0-30)	119.0	5.8%
BM	(30-60)	300.4	14.5%
BH	(60-80)	140.2	6.8%
BVH	(80-90)	19.1	0.9%
UL	(90-100)	3.7	0.2%
UH	(100-180)	9.4	0.5%
Total		2068.5	100.0%
BUG Rating	**B1 U1 G1**		

Test Number 1249071 - Page 7 of 8

In-Situ Test

In-Situ Test Conditions

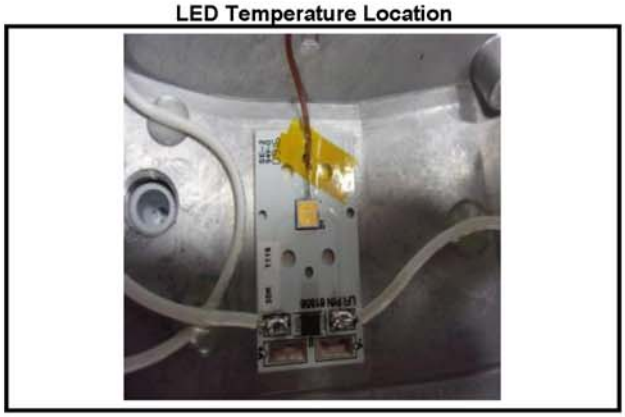
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
23.9 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

LED Temperature:	53.9 °C
Driver Temperature:	56.3 °C
Measured LED Current:	1.065 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

LED Temperature Location



Driver Temperature Location

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ASHBERY AREA LIGHT

Product Data Sheet

Ashbery is a trio of lights that brings together advanced LED technology and optics with an homage to traditional-style lights that have a special place in the American lexicon. The area light is offered in 12', 14', and 16' heights and is ideal for campuses, parks and plazas, helping to create public spaces that are usable 24 hours a day. Options include single luminaires or a double-mount option for dual luminaires, one on either side of the pole. Patent-pending glare control requires less eye adaptation, enabling lower light levels and lower energy use with excellent visual acuity, while tenon-mounted luminaires can be retrofitted in the field. Cast aluminum parts in a full color palette are finished with Landscape Forms proprietary Pangard II® HAPS, VOC, lead-free polyester powdercoat.

General Description

- Available in single or double pole mounted configurations
- Offered in 3 standard pole heights (12', 14', and 16')
- Optional ANSI 136.41 7-pin twist lock receptacle
- Mounting template and anchor hardware included
- International Dark-Sky approved
- UL Listed, suitable for wet locations

Electrical

Surge protected 100V-277V 50/60 Hz, Class 2 LED dimmable driver. LED cartridge with weatherproof quick disconnect provides ease of installation and serviceability. Ashbery Pedestrian ships prewired.

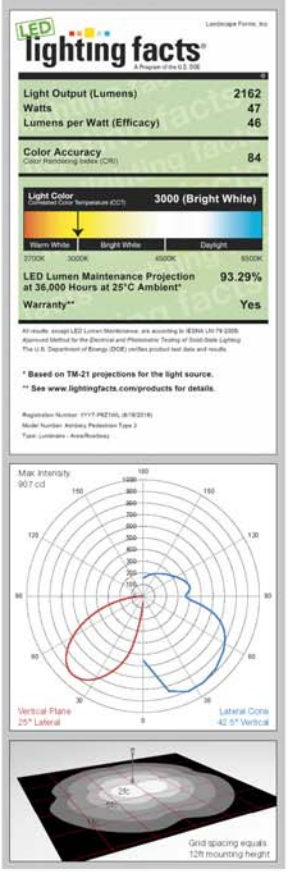
Area Type 3

Type 3 Distribution
Lamp: 6 Cree XHP50 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 1000mA
Optic: Carclo Optics
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP PLED-50W
Dimmable: 0-10V
BUG Rating: B1 U1 G1
IP Rating: IP66 for LED Cartridge

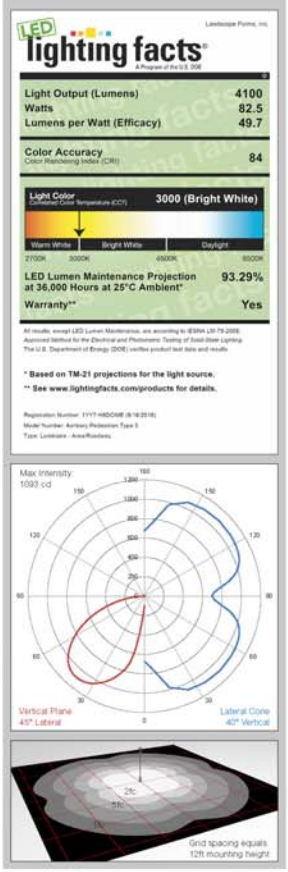
Area Type 5

Type 5 Distribution
Lamp: 12 Cree XHP50 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 1000mA
Optic: Carclo Optics
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP PLED-96W
Dimmable: 0-10V
BUG Rating: B2 U1 G1
IP Rating: IP66 for LED Cartridge

Ashbery Area Type 3



Ashbery Area Type 5



Landscape Forms, Inc. I 800.521.2546 I F 269.381.3455 I 7800 E. Michigan Ave., Kalamazoo, MI 49048

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E2-1 DOUBLE 12' height page 1

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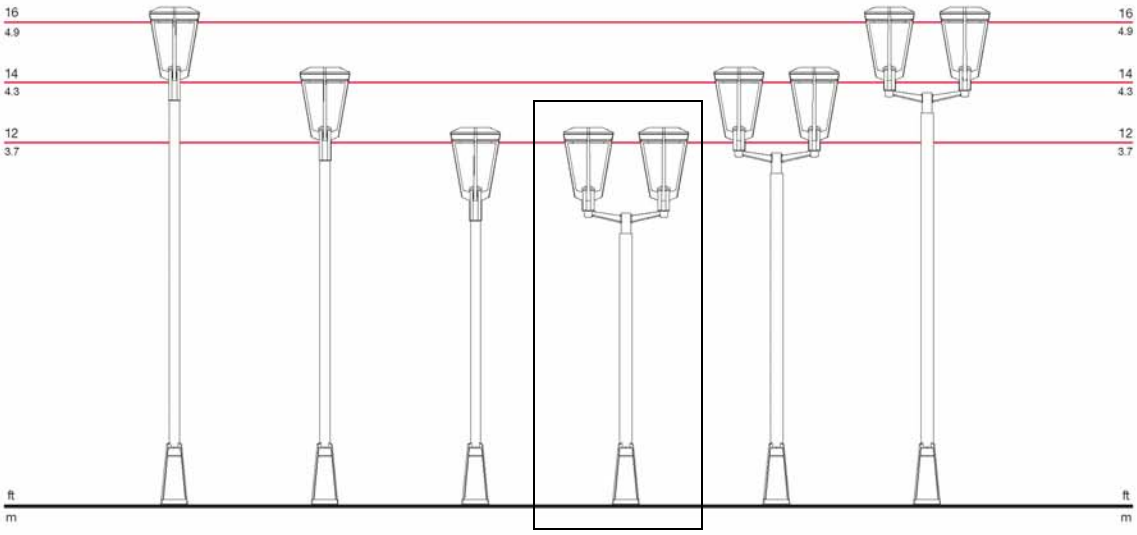
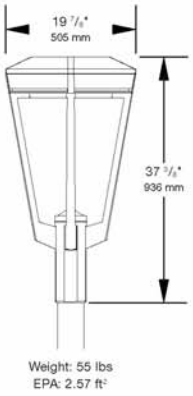
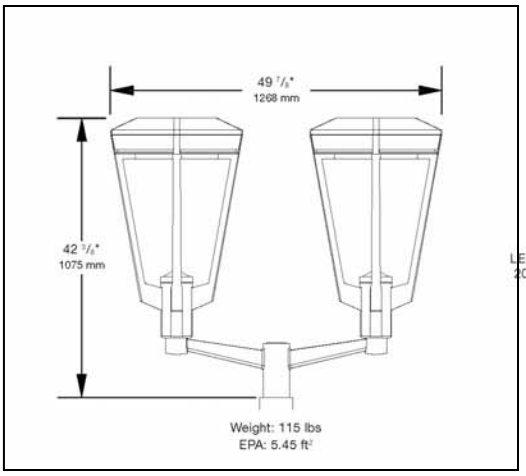
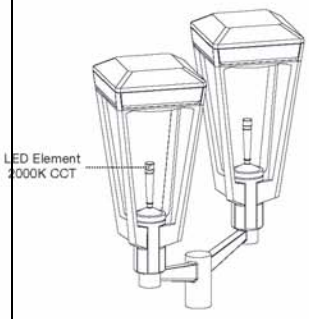
ASHBERY AREA LIGHT

Product Data Sheet









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LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E2-1 DOUBLE 12' height page 2

landscapeforms

ASHBERY AREA LIGHT

Product Data Sheet

#AP - **will advise/per area** - 100F - 30K - Volt - 20K - **X** - **X**

Product	Lamp	Drive Current	Color Temp.	Input Voltage	Center Element	Connection	Twist Lock*
AP ASHBERY	206L3 (6 LED Type 3) 212L5 (12 LED Type 5)	100F (1000 mA)	40K (4000K) 35K (3500K) 30K (3000K)	UV1 (100-277VAC)	20K (2000K)	P2 (Single Tenon) CC1 (Arm Mount)	NTW (No Twist Lock) TW1 (Twist Lock)

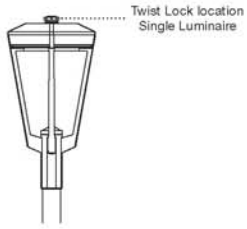
EXAMPLE: AP – 206L3 – 100F – 35K / UV1 – 20K – P2 – TW1 – Powdercoat Color

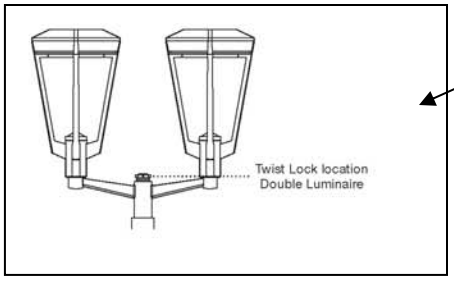
*If luminaire is specified with CC1 (Arm Mount), specify optional Twist Lock Receptacle with pole.

#AP - **12'** - 2CC1 - 5 - X - 20K - will advise -

	Product	Height	Connection	Pole Diameter	Base	Twist Lock
Single Luminaire	AP ASHBERY	12 (144 in) 14 (168 in) 16 (192 in)	P2 (Single Tenon)	4 (4 inches)	NUT (Nut Covers) CVR (Cover Plate)	To be specified with luminaire.
Double Luminaire	AP ASHBERY	12 (144 in) 14 (168 in) 16 (192 in)	2CC1 (Dual Arm)	5 (5 inches)	NUT (Nut Covers) CVR (Cover Plate)	NTW (No Twist Lock) TW1 (Twist Lock)

EXAMPLE: AP – 14 – P2 – 4 – CVR – Powdercoat Color





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LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E2-1 DOUBLE 12' height page 3

Landscape Forms Inc
Catalog Number
Ashbery Area Light Type 3

Electrical Test Conditions						
Temp	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.1 VAC	0.4002 A	46.86 W	0.975	60 Hz	14.6 %

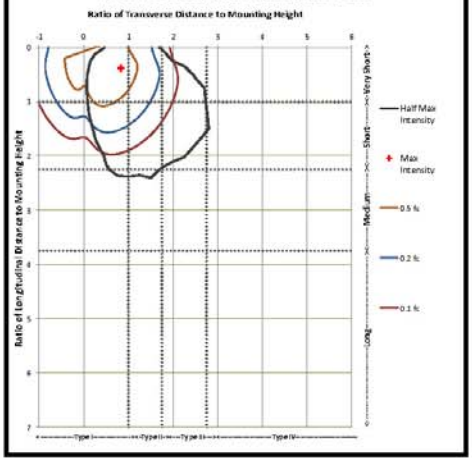
Summary of Results	
Total Lumen Output	2174 Lumens
Luminaire Efficacy	46.3 lm/w
Maximum Candela	0 Candela
IES Roadway Classification	Type III, Very Short
Cutoff Classification	Cutoff
BUG Rating	B1 U1 G1
CCT	2963 K
CRI	84.2
Duv	0.0007
TM-30 Rf	83.6
TM-30 Rg	98.6

Luminaire Classification System (LCS)			
LCS	Zone	Lumens	%
FL	(0-30)	219	11%
FM	(30-60)	817	39%
FH	(60-80)	397	19%
FVH	(80-90)	43	2%
BL	(0-30)	119	6%
BM	(30-60)	300	15%
BH	(60-80)	140	7%
BVH	(80-90)	19	1%
UL	(90-100)	4	0%
UH	(100-180)	9	0%

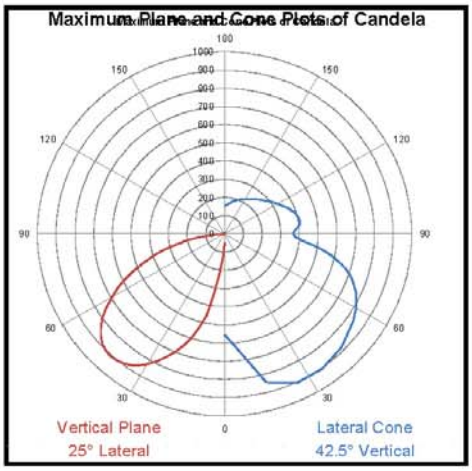
Color Rendering Index Details	
Ra (CRI)	84.2
R1	83
R2	89.6
R3	95.3
R4	84.1
R5	82.4
R6	86.9
R7	86.4
R8	65.6
R9	19.7
R10	75.5
R11	83.5
R12	70.5
R13	84.3
R14	96.9

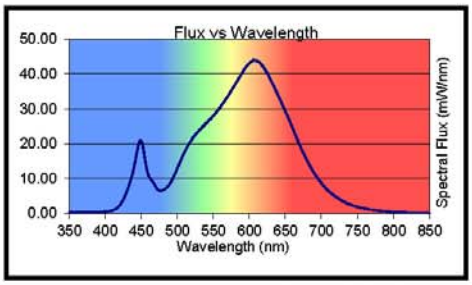
Chromaticity Coordinates	
Chromaticity (x)	0.4407
Chromaticity (y)	0.4076
Chromaticity (u)	0.2515
Chromaticity (v)	0.3489
Chromaticity (u')	0.2515
Chromaticity (v')	0.5233

ISO FootCandle Plot at 20 Feet

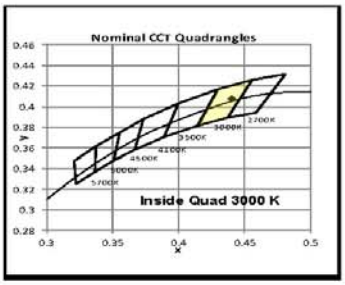


Maximum Plane and Cone Plots of Candela





Intensity Through Maximum Plane (Candlepower)		
Angle	Candlepower	Lumens
0	51	
5	135	17
10	332	
15	536	105
20	653	
25	743	216
30	821	
35	876	322
40	904	
45	903	394
50	867	
55	799	401
60	705	
65	593	332
70	469	
75	334	205
80	206	
85	88	62
90	4	
95	4	4
100	4	
105	4	4
110	4	
115	3	3
120	2	
125	3	2
130	1	
135	1	1
140	1	
145	0	0
150	0	
155	0	0
160	0	
165	0	0
170	0	
175	0	0
180	0	



Testing was performed in accordance with LM-79-08
The results contained in this summary pertain only to report #1249071

UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

ACCREDITED

NVLAP LAB CODE 201042-0

Photometric Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002, UL 1598-2008
UL1598-2008

Prepared For

Landscape Forms Inc
Jake Scott
7800 E Michigan Ave
Kalamazoo, MI 49048
United States

Catalog Number

Ashbery Area Light Type 3

Order Number
11239918
Test Number
1249071

Test Date

2016-05-19 - 2016-05-24

Prepared By

Derek Smarr, Technician

Approved By

Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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Table of Contents

Summary of Results	Page 3
Integrating Sphere Results	Page 4
Distribution Results	
Test Conditions / Summary of Results / ISOPlot	Page 5
Maximum Plane and Cone Plot / Zonal Lumen Summary	Page 6
IES BUG Rating	Page 7
In-Situ Results	Page 8

Laboratory results may not be representative of field performance
Ballast factors have not been applied

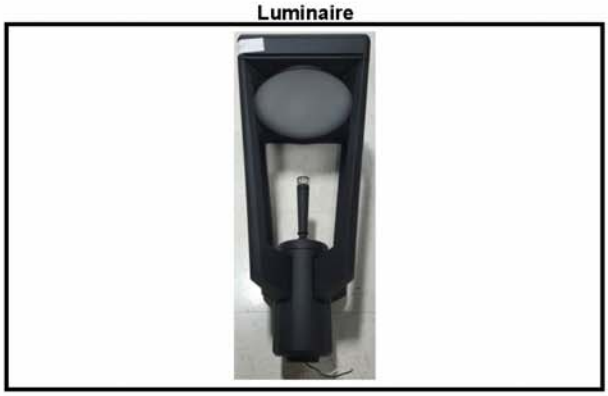
Testing was performed in a 3-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Luminaire Description:	Black formed aluminium housing, upper frosted plastic lens, lower clear plastic lens, no enclosure
Lamp:	6 white LEDs
Mounting:	Post top
Ballast/Driver:	One Thomas Research Products LED50W-24-C2100-D and One GE Light Tech GLED6DMV350SL

Luminaire



Luminaire Characteristics
Luminous Diameter: 12.00 in.
Luminous Height: 11.00 in.

Summary of Results

Integrating Sphere

Luminous Flux:	2174	Lumens
Efficacy:	46.3	lm/w
CCT:	2963	K
CRI (Ra):	84.2	

Distribution

Roadway Classification:	Type III, Very Short
Cutoff Classification:	Cutoff
BUG Rating:	B1 U1 G1

Electrical Data at 276 VAC

Test Temperature:	24.4	°C
Voltage:	276.9	VAC
Current:	0.1978	A
Power:	47.38	W
Power Factor:	0.863	
Frequency:	60	Hz
Current THD:	22.7	%

In-Situ

LED Temperature:	53.9	°C
Driver Temperature:	56.3	°C
Measured LED Current:	1.065	A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.

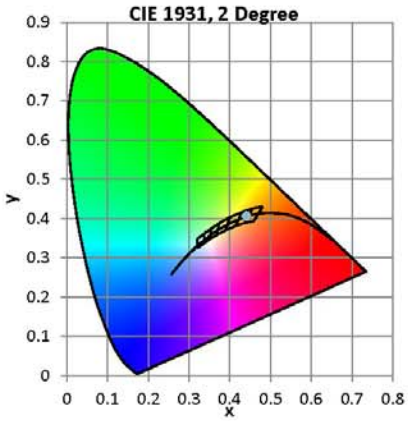
Color Quality - Integrating Sphere

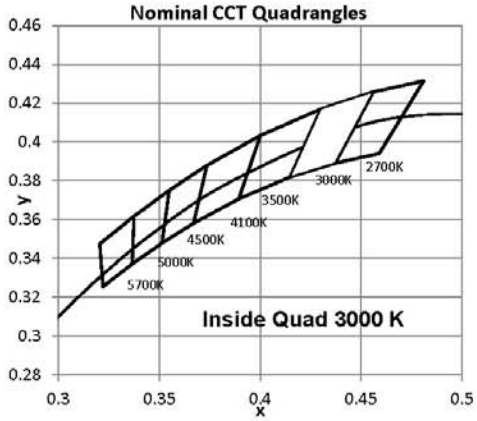
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.0 VAC	0.4011 A	46.92 W	0.975	60 Hz	14.6 %

Summary of Results

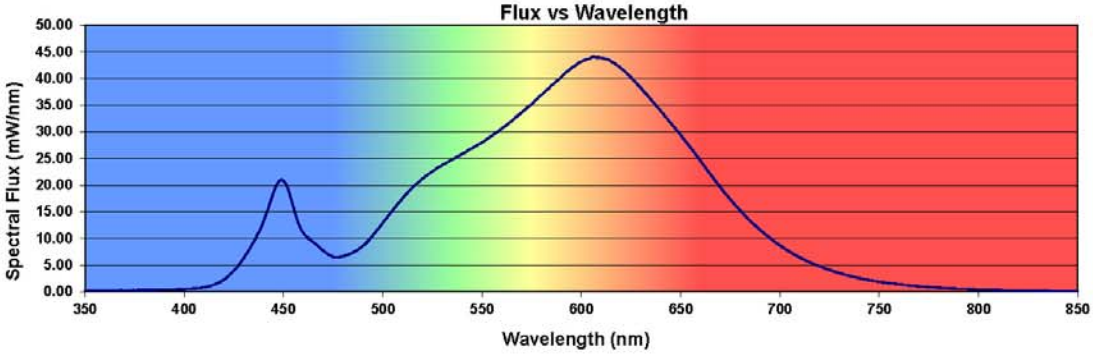
Total Output:	2174 Lumens	**Chromaticity (x):**	0.4407
Efficacy:	46.3 lm/w	**Chromaticity (y):**	0.4076
CCT:	2963 K	**Chromaticity (u'):**	0.2515
CRI (Ra):	84.2	**Chromaticity (v'):**	0.5233
CRI (R9):	19.7	**TM-30 R_f:**	83.6
Peak Wavelength:	606.5 nm	**TM-30 R_g:**	98.6
Dominant Wavelength:	582.7 nm	**Duv:**	0.0007
S/P Ratio:	1.299		





Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
84.2	83.0	89.6	95.3	84.1	82.4	86.9	86.4	65.6	19.7	75.5	83.5	70.5	84.3	96.9



Test Number 1249071 - Page 4 of 8

Distribution - Goniophotometer

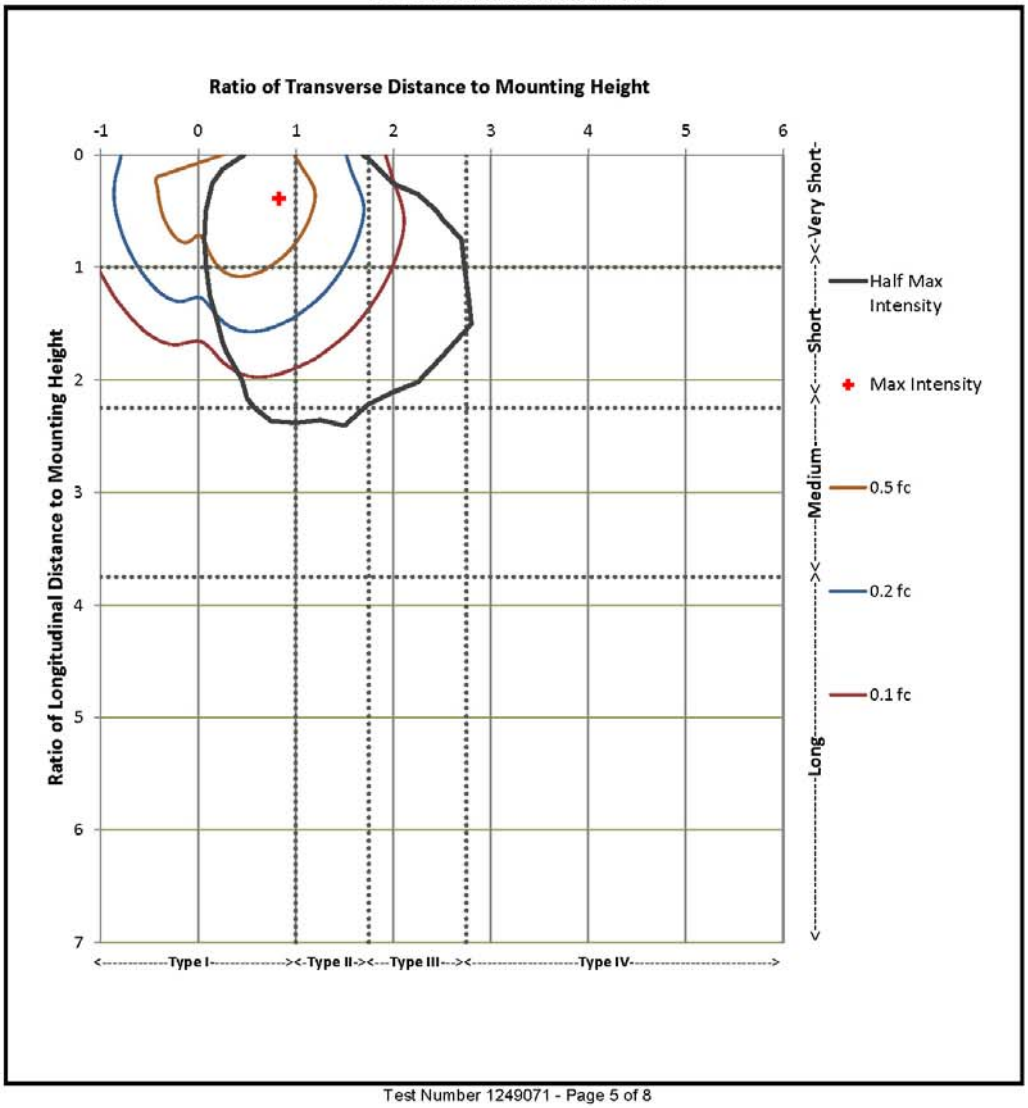
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.1 VAC	0.4002 A	46.86 W	0.975	60 Hz	14.6 %

Summary of Results

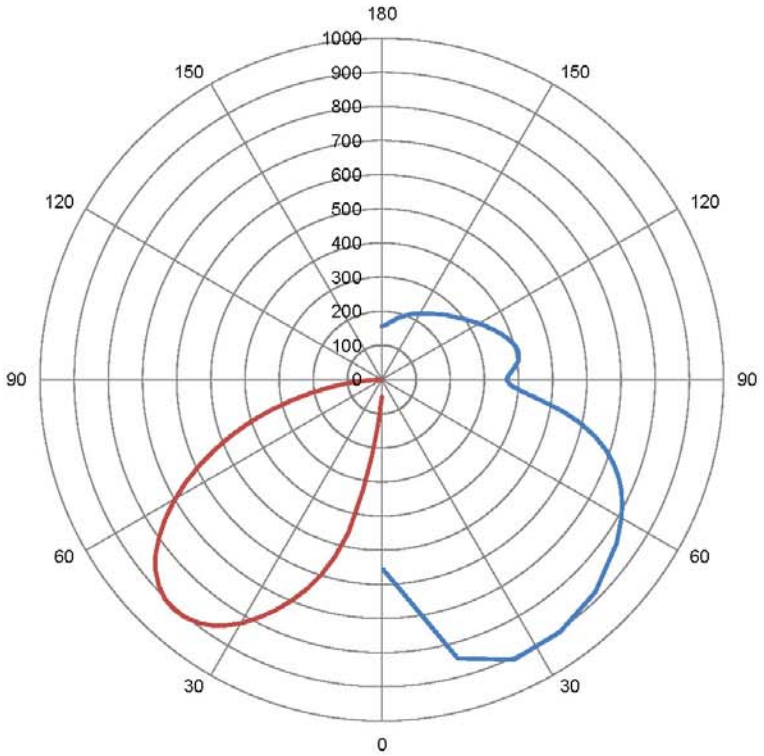
IES Roadway Classification:	Type III, Very Short	**Total Lumen Output:**	2068 Lumens
Cutoff Classification	Cutoff	**Luminaire Efficacy:**	44.1 lm/w
BUG Rating:	B1 U1 G1	**Maximum Candela:**	907 Candela

ISO FootCandle Plot at 20 Feet



Test Number 1249071 - Page 5 of 8

Maximum Plane and Cone Plots of Candela



Vertical Plane Through 25 ° Lateral **Lateral Cone Through** 42.5 ° Vertical

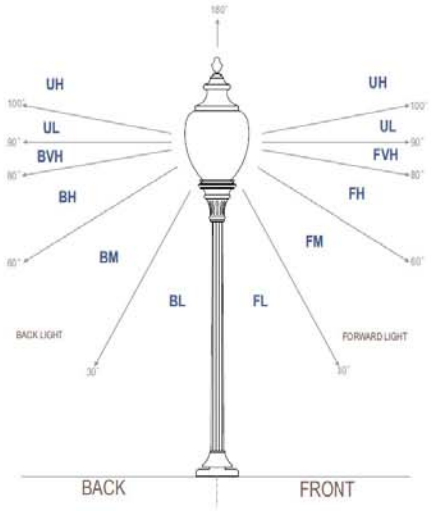
Maximum Intensity (Candlepower): 907.2 Candela

Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	2.3	0.1%	60-65	179.0	8.7%	120-125	1.1	0.1%
5-10	14.3	0.7%	65-70	153.4	7.4%	125-130	0.8	0.0%
10-15	38.7	1.9%	70-75	120.9	5.8%	130-135	0.4	0.0%
15-20	66.7	3.2%	75-80	84.4	4.1%	135-140	0.3	0.0%
20-25	94.1	4.6%	80-85	47.9	2.3%	140-145	0.1	0.0%
25-30	121.9	5.9%	85-90	14.6	0.7%	145-150	0.0	0.0%
30-35	148.9	7.2%	90-95	2.0	0.1%	150-155	0.0	0.0%
35-40	172.7	8.4%	95-100	1.8	0.1%	155-160	0.0	0.0%
40-45	191.5	9.3%	100-105	1.9	0.1%	160-165	0.0	0.0%
45-50	202.9	9.8%	105-110	2.0	0.1%	165-170	0.0	0.0%
50-55	204.6	9.9%	110-115	1.6	0.1%	170-175	0.0	0.0%
55-60	196.4	9.5%	115-120	1.2	0.1%	175-180	0.0	0.0%

Test Number 1249071 - Page 6 of 8

IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	219.1	10.6%
FM	(30-60)	816.7	39.5%
FH	(60-80)	397.5	19.2%
FVH	(80-90)	43.4	2.1%
BL	(0-30)	119.0	5.8%
BM	(30-60)	300.4	14.5%
BH	(60-80)	140.2	6.8%
BVH	(80-90)	19.1	0.9%
UL	(90-100)	3.7	0.2%
UH	(100-180)	9.4	0.5%
Total		2068.5	100.0%
BUG Rating	**B1 U1 G1**		

In-Situ Test

In-Situ Test Conditions

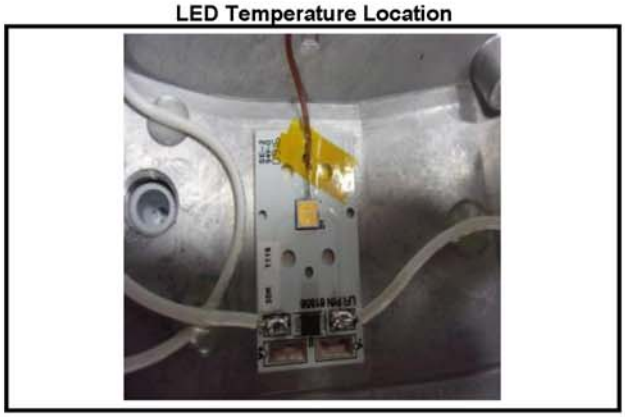
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
23.9 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

LED Temperature:	53.9 °C
Driver Temperature:	56.3 °C
Measured LED Current:	1.065 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

LED Temperature Location



Driver Temperature Location

Test Number 1249071 - Page 8 of 8

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E3 3' bollard OPT page 1

landscapeforms

ASHBERY PATH LIGHT

Product Data Sheet

Ashbery is a trio of lights that brings together advanced LED technology and optics with an homage to traditional-style lights that have a special place in the American lexicon. The pathway light is 3' tall, and is ideal for illuminating footpaths for safety and extended use. Cast aluminum parts in a full color palette are finished with Landscape Forms proprietary Pangard II® HAPS, VOC, lead-free polyester powdercoat.

General Description

- Cast aluminum LED cartridge and structure
- Surface mounted; base plate mounting template included
- Asymmetrical and symmetrical distribution types available
- Zero up-light, International Dark-Sky approved
- UL Listed, suitable for wet locations

Electrical

Surge protected 100V-277V 50/60 Hz, Class 2 driver. LED cartridge with weatherproof quick disconnect provides ease of installation and serviceability. Ashbery ships prewired.

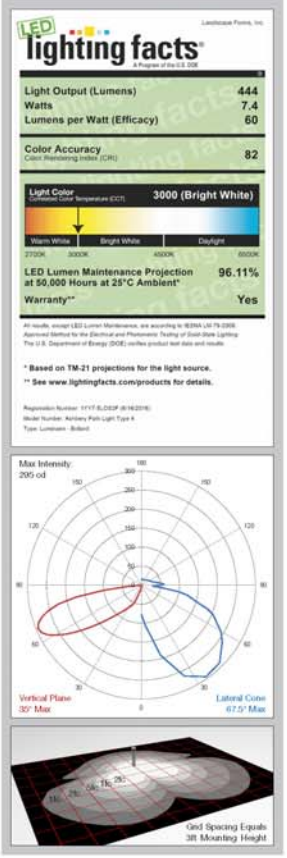
Path Light Type 4

Type 4 Distribution
Lamp: 6 Cree XP-G2 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 350mA
Optic: Khatod Collimators
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP LED-12W
BUG Rating: B0 U0 G1
IP Rating: IP66 for LED Cartridge
Weight: 30 lbs

Path Light Type 5

Type 5 Distribution
Lamp: 12 Cree XP-G2 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 350mA
Optic: Khatod Collimators
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP LED-20W
BUG Rating: B1 U0 G1
IP Rating: IP66 for LED Cartridge
Weight: 30 lbs

Ashbery Path Light Type 4



Ashbery Path Light Type 5

Landscape Forms, Inc. I 800.521.2546 I F 269.381.3455 I 7800 E. Michigan Ave., Kalamazoo, MI 49048

LIGHT INSIGHT design studio
Tel: 617-268-1122

Project:

Surfside Crossing
3, 5, 7, 9 South Shore Road
Nantucket, MA 02554

Type

E3

3' bollard OPT

landscapeforms

ASHBERY PATH LIGHT

Product Data Sheet

Finish

Pangard II®, offered exclusively by Landscape Forms, is a 19 step program of cleaning, priming, and powdercoating that resists rusting, chipping, peeling and fading to produce the finest metal finish available for site furniture and outdoor lighting. In addition, Pangard II® contains no heavy metals and is free of Hazardous Air Pollutants.

To Order

Specify: Product, Lamp, Drive Current, Color Temperature, Input Voltage, Mounting Option, and Powdercoat Color.

Product	Lamp	Drive Current	Color Temp.	Input Voltage	Mounting
AP ASHBERY	006L4 (6 LED, Type 4) ——— 012L5 (12 LED, Type 5)	035F (350 mA)	40K (4000K) 35K (3500K) 30K (3000K)	UV1 (100-277VAC)	SM (Surface Mount)

EXAMPLE: AP – 006L4 – 035F – 35K – UV1 – SM – Powdercoat Color

Product Modifications

Don't see what you are looking for? Our goal is to partner with you as the designer to manufacture solutions needed for the space you are creating. We offer the option to modify our standard product to meet certain design specifications or needs. Contact your local Landscape Forms representative to learn more about these offerings.

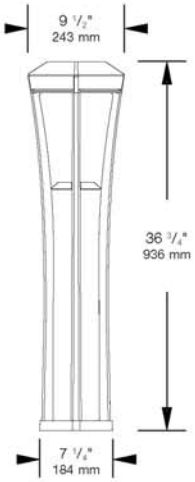
Warranty

LED lighting products are warranted for six years.

Other

UL Listed, RoHS Compliant, Dark-Sky Approved
US Patent Pending

Ashbery is designed by Robert A.M. Stern Architects



Visit landscapeforms.com for more information. Specifications are subject to change without notice.
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LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E3 3' bollard OPT page 3

Landscape Forms Inc
Catalog Number
Ashbery Path Light Asymmetrical

Electrical Test Conditions						
Temp	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	119.9 VAC	0.06350 A	7.350 W	0.967	60 Hz	7.09 %

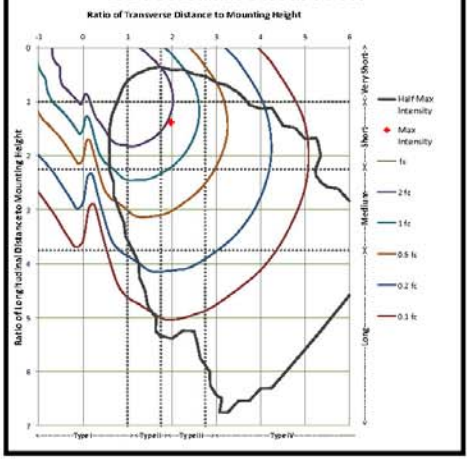
Summary of Results	
Total Lumen Output	445.6 Lumens
Luminaire Efficacy	60.4 lm/w
Maximum Candela	0 Candela
IES Roadway Classification	Type IV, Short
Cutoff Classification	Noncutoff
BUG Rating	B0 U0 G1
CCT	2936 K
CRI	82.0
Duv	0.0023
TM-30 Rf	82.9
TM-30 Rg	95.8

Luminaire Classification System (LCS)			
LCS	Zone	Lumens	%
FL	(0-30)	15	4%
FM	(30-60)	123	29%
FH	(60-80)	185	44%
FVH	(80-90)	23	5%
BL	(0-30)	15	3%
BM	(30-60)	40	9%
BH	(60-80)	22	5%
BVH	(80-90)	3	1%
UL	(90-100)	0	0%
UH	(100-180)	0	0%

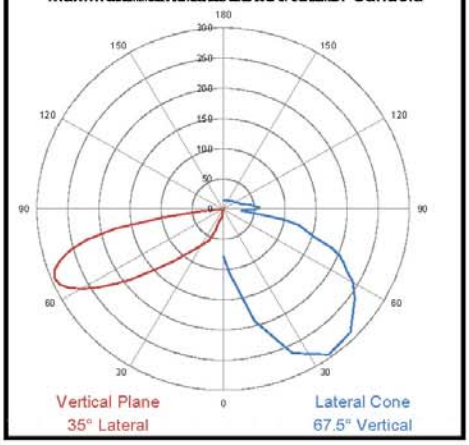
Color Rendering Index Details	
Ra (CRI)	82.0
R1	80.1
R2	88.5
R3	95.9
R4	80.6
R5	79.3
R6	85.2
R7	85.2
R8	61.2
R9	9.6
R10	72.9
R11	78.7
R12	64.5
R13	81.8
R14	97.3

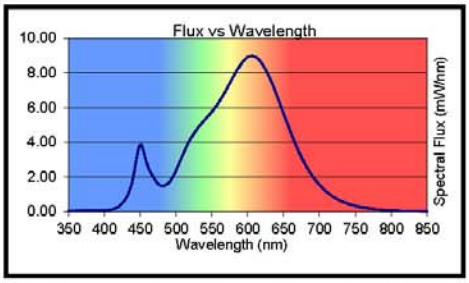
Chromaticity Coordinates	
Chromaticity (x)	0.4454
Chromaticity (y)	0.4135
Chromaticity (u)	0.2519
Chromaticity (v)	0.3509
Chromaticity (u')	0.2519
Chromaticity (v')	0.5263

ISO FootCandle Plot at 3 Feet

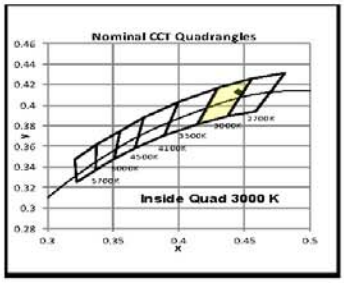


Maximum Plane and Cone Plots of Candela





Intensity Through Maximum Plane (Candlepower)		
Angle	Candlepower	Lumens
0	0	
5	5	1
10	12	
15	19	8
20	37	
25	58	20
30	68	
35	81	32
40	100	
45	128	50
50	167	
55	214	80
60	261	
65	291	108
70	290	
75	254	98
80	176	
85	38	25
90	0	
95	0	0
100	0	
105	0	0
110	0	
115	0	0
120	0	
125	0	0
130	0	
135	0	0
140	0	
145	0	0
150	0	
155	0	0
160	0	
165	0	0
170	0	
175	0	0
180	0	



Testing was performed in accordance with LM-79-08
The results contained in this summary pertain only to report #1249075

UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

ACCREDITED

NVLAP LAB CODE 201042-0

Photometric Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002, UL 1598-2008
UL1598-2008

Prepared For

Landscape Forms Inc
Jake Scott
7800 E Michigan Ave
Kalamazoo, MI 49048
United States

Catalog Number

Ashbery Path Light Asymmetrical

Order Number
11239918
Test Number
1249075

Test Date

2016-05-23 - 2016-05-25

Prepared By

Derek Smarr, Technician

Approved By

Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Table of Contents

Summary of Results	Page 3
Integrating Sphere Results	Page 4
Distribution Results	
Test Conditions / Summary of Results / ISOPlot	Page 5
Maximum Plane and Cone Plot / Zonal Lumen Summary	Page 6
IES BUG Rating	Page 7
In-Situ Results	Page 8

Laboratory results may not be representative of field performance
Ballast factors have not been applied

Testing was performed in a 3-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Luminaire Description:	Black formed aluminium housing, upper frosted plastic lens, no enclosure
Lamp:	6 white LEDs
Mounting:	Post top
Ballast/Driver:	One Thomas Research Products LED12W-36-C0350

Luminaire

Luminaire Characteristics

Luminous Diameter: 6.00 in.
Luminous Height: 9.000 in.

Summary of Results

Integrating Sphere

Luminous Flux:	446 Lumens
Efficacy:	60.4 lm/w
CCT:	2936 K
CRI (Ra):	82.0

Distribution

Roadway Classification:	Type IV, Short
Cutoff Classification:	Noncutoff
BUG Rating:	B0 U0 G1

Electrical Data at 277 VAC

Test Temperature:	24.5 °C
Voltage:	277.0 VAC
Current:	0.04100 A
Power:	8.530 W
Power Factor:	0.751
Frequency:	60 Hz
Current THD:	18.4 %

In-Situ

LED Temperature:	43.6 °C
Driver Temperature:	37.4 °C
Measured LED Current:	0.3506 A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.

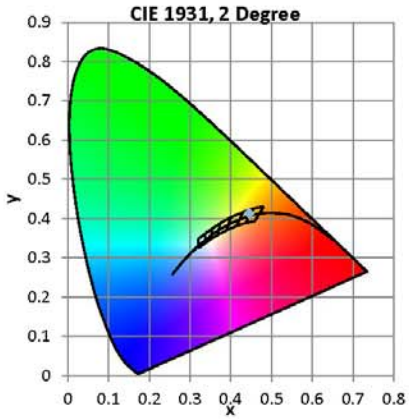
Color Quality - Integrating Sphere

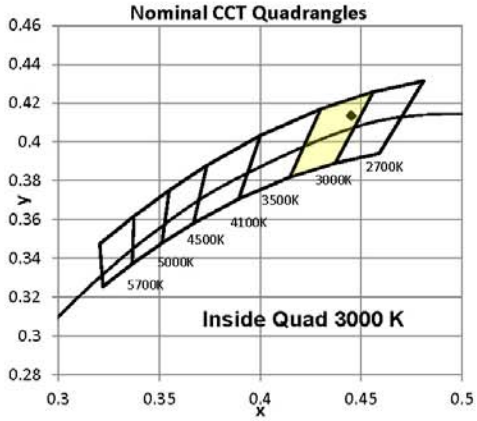
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.3 °C	120.0 VAC	0.06250 A	7.375 W	0.982	60 Hz	6.45 %

Summary of Results

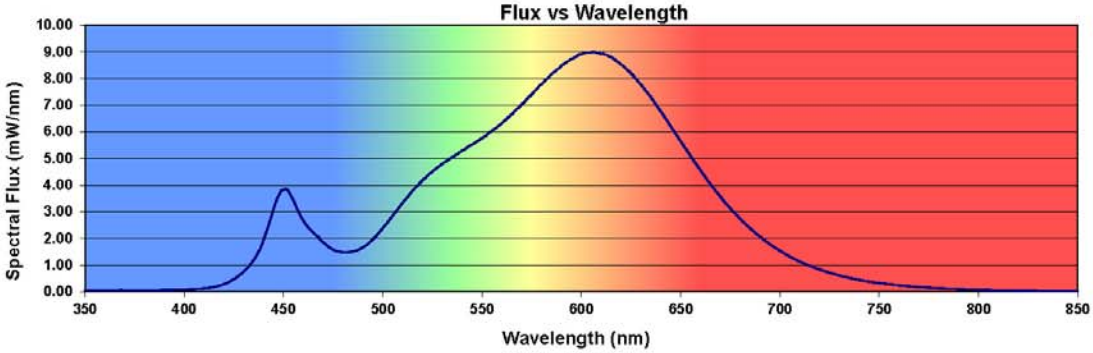
Total Output:	446 Lumens	**Chromaticity (x):**	0.4454
Efficacy:	60.4 lm/w	**Chromaticity (y):**	0.4135
CCT:	2936 K	**Chromaticity (u'):**	0.2519
CRI (Ra):	82.0	**Chromaticity (v'):**	0.5263
CRI (R9):	9.6	**TM-30 R_f:**	82.9
Peak Wavelength:	605.9 nm	**TM-30 R_g:**	95.8
Dominant Wavelength:	582.2 nm	**Duv:**	0.0023
S/P Ratio:	1.268		





Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
82.0	80.1	88.5	95.9	80.6	79.3	85.2	85.2	61.2	9.6	72.9	78.7	64.5	81.8	97.3



Test Number 1249075 - Page 4 of 8

Distribution - Goniophotometer

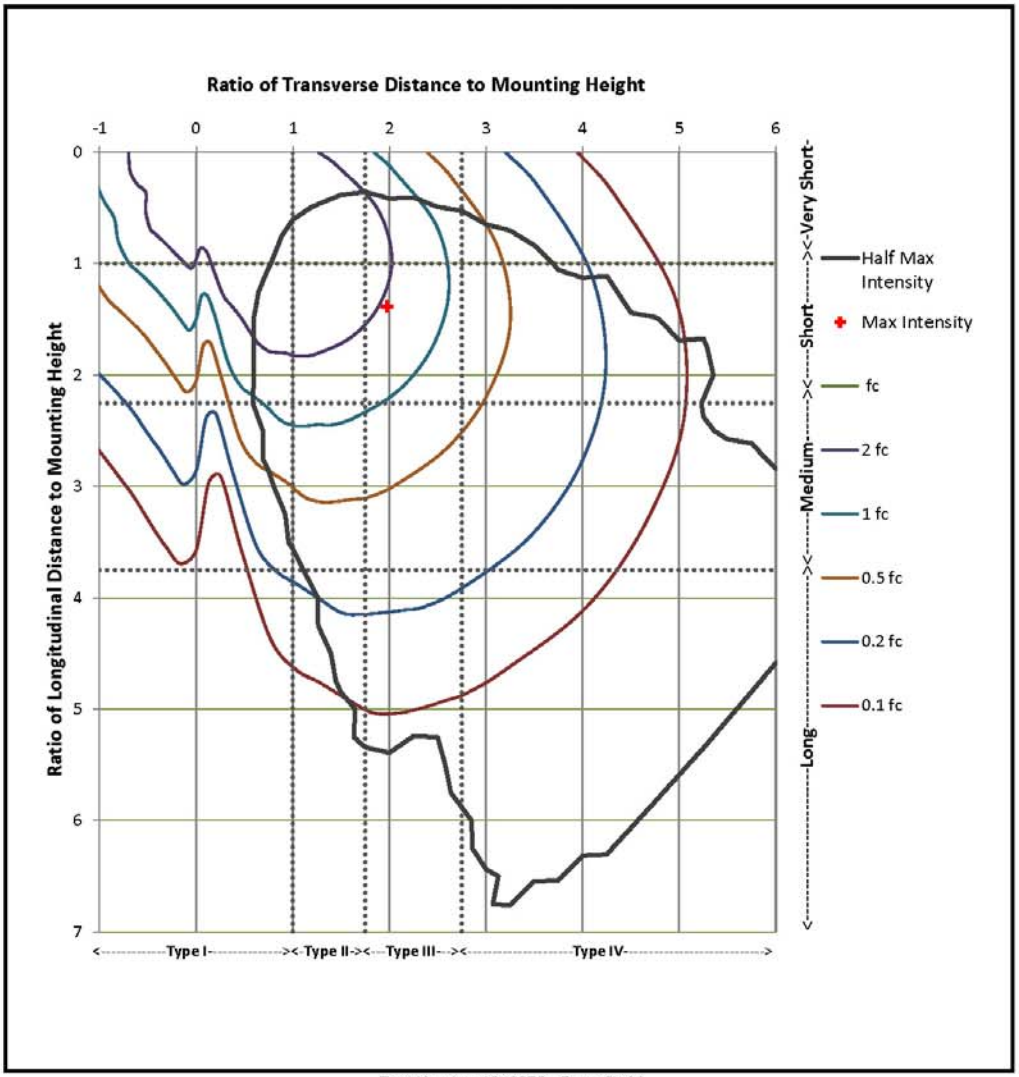
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	119.9 VAC	0.06350 A	7.350 W	0.967	60 Hz	7.09 %

Summary of Results

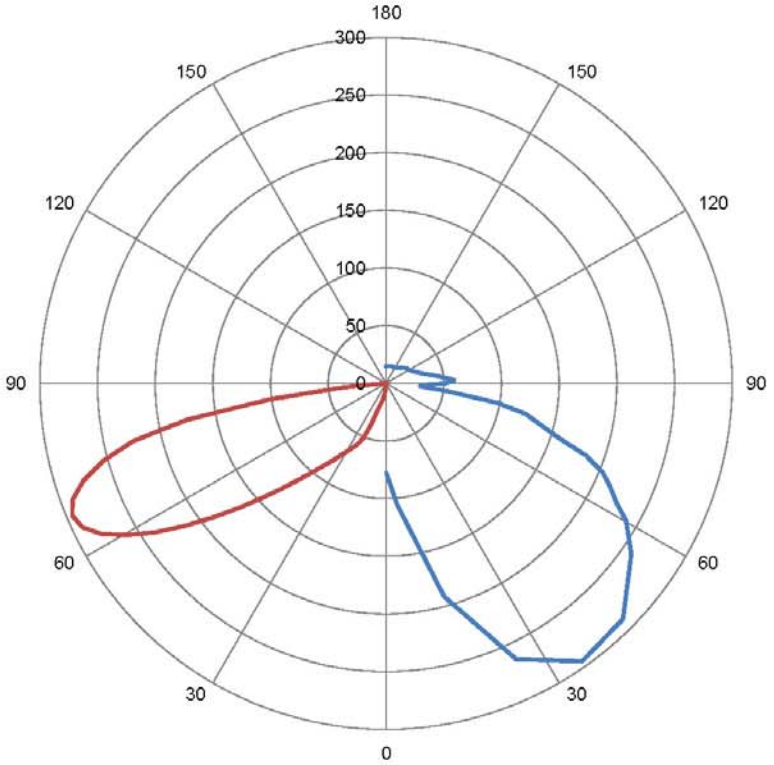
IES Roadway Classification:	Type IV, Short	**Total Lumen Output:**	425 Lumens
Cutoff Classification	Noncutoff	**Luminaire Efficacy:**	57.8 lm/w
BUG Rating:	B0 U0 G1	**Maximum Candela:**	295 Candela

ISO FootCandle Plot at 3 Feet



Test Number 1249075 - Page 5 of 8

Maximum Plane and Cone Plots of Candela



Vertical Plane Through 35 ° Lateral **Lateral Cone Through** 67.5 ° Vertical

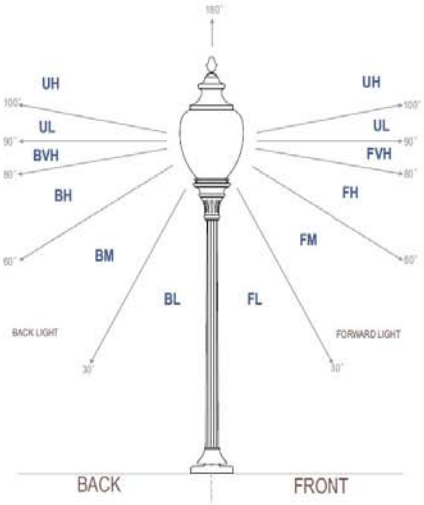
Maximum Intensity (Candlepower): 295.0 Candela

Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.1	0.0%	60-65	52.2	12.3%	120-125	0.0	0.0%
5-10	1.4	0.3%	65-70	56.1	13.2%	125-130	0.0	0.0%
10-15	3.1	0.7%	70-75	53.9	12.7%	130-135	0.0	0.0%
15-20	5.3	1.3%	75-80	44.6	10.5%	135-140	0.0	0.0%
20-25	8.6	2.0%	80-85	22.3	5.2%	140-145	0.0	0.0%
25-30	11.7	2.7%	85-90	3.1	0.7%	145-150	0.0	0.0%
30-35	14.5	3.4%	90-95	0.0	0.0%	150-155	0.0	0.0%
35-40	17.8	4.2%	95-100	0.0	0.0%	155-160	0.0	0.0%
40-45	22.2	5.2%	100-105	0.0	0.0%	160-165	0.0	0.0%
45-50	28.0	6.6%	105-110	0.0	0.0%	165-170	0.0	0.0%
50-55	35.6	8.4%	110-115	0.0	0.0%	170-175	0.0	0.0%
55-60	44.3	10.4%	115-120	0.0	0.0%	175-180	0.0	0.0%

Test Number 1249075 - Page 6 of 8

IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	15.4	3.6%
FM	(30-60)	122.7	28.9%
FH	(60-80)	185.2	43.6%
FVH	(80-90)	22.8	5.4%
BL	(0-30)	14.8	3.5%
BM	(30-60)	39.7	9.3%
BH	(60-80)	21.6	5.1%
BVH	(80-90)	2.6	0.6%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		424.9	100.0%
BUG Rating		**B0 U0 G1**	

Test Number 1249075 - Page 7 of 8

In-Situ Test

In-Situ Test Conditions

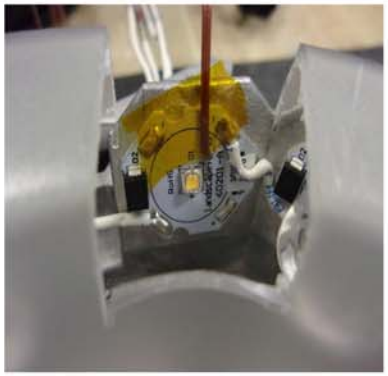
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.2 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

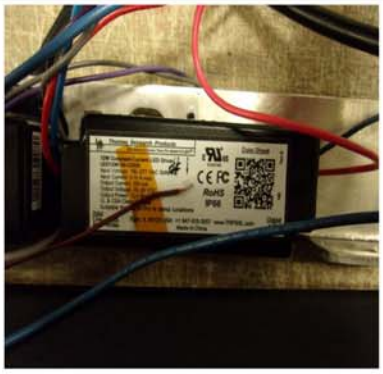
LED Temperature:	43.6 °C
Driver Temperature:	37.4 °C
Measured LED Current:	0.3506 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

LED Temperature Location



Driver Temperature Location



Lumière

Catalog #		Type
Project		
Comments		Date
Prepared by		

DESCRIPTION

Eon 303-B1-LEDB1 is a compact, low profile, dimmable, LED bollard that provides downlight only via a fixed head. 303-B1-LEDB1 has a single head on one side of the luminaire. The bollard comes standard with universal input LED driver (120-277V, 50/60 Hz). Dimming is achieved with a standard ELV, reverse phase dimming driver or an optional 0-10V dimming driver. Eon fixtures may be used indoors or outdoors and carry an IP66 rating. The patented LumaLevelTM leveling systemprovides quick installation, easy adjustment, secure mounting and protection from vibration.

SPECIFICATION FEATURES

Construction
The head of the 303-B1-LEDB1 is precision machined from corrosion-resistant 6061-T6 aluminum. Body is extruded aluminum and adjustable mounting base is cast from corrosion resistant aluminum alloy. Stainless steel hardware is included. Four (4) 3/8" x 12" galvanized anchor bolts and a galvanized steel anchor bolt template are standard. Specify option -LAB and order the anchor bolt/template kit seperately (Catalog: 7581-01PK).

Optical
LightBAR™ and optical assembly are sealed by a clear, impact resistant tempered glass lens. The optical assembly is available in three distributions: T2 (lateral throw), T4 (forward throw) and T5X (Flood). Available in several color temperatures: 2700K, 3000K, 3500K, 4000K and TSAM (Amber). Both color temperature and distribution must be specified when ordering – see catalog logic for details. An edge-lit option is available.

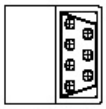
Electrical
The bollard is standard with an ELV trailing edge phase dimmable driver that accepts a universal input (120-277, 50/60Hz). An optional 0-10V universal dimming driver is also available. Both driver options incorporate surge protection. The receptacle option incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. The photocell option comes in either a 120V or 277V. Please see Option section for more detail.

Finish
Luminaire and mounting base are double protected by a RoHS compliant chemical film undercoating and polyester powdercoat paint finish. The mounting base is painted black. The luminaire housing and head are available in a variety of standard colors. RAL and custom color matches are available upon request. As an option, the Eon bollards are also available in colors to match other outdoor Eaton product lines, such as Invue. See the Finish section in the ordering detail for more detail.

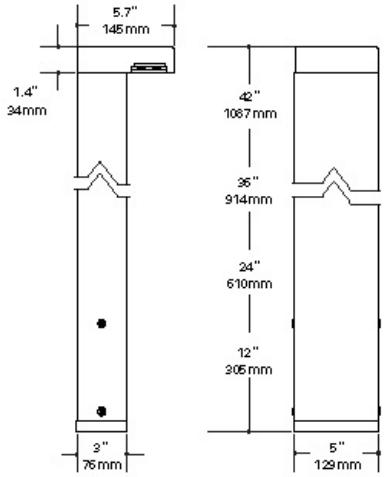
Warranty
Lumiere warrants the EON series of fixtures against defects in material and workmanship for five (5) years. Auxiliary equipment such as LED drivers carries the original manufacturer's warranty.

303-B1-LEDB1
EON LED

APPLICATIONS:
BOLLARD



Under side profile view



CERTIFICATION DATA
UL and cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
IP66 Ingressed Protection Rated

TECHNICAL DATA
50°C Maximum Temperature Rating
External Supply Wiring 90°C Minimum

ORDERING INFORMATION
Sample Number: 303-B1-LEDB1-2700-120-T2-DIM10-BK-42-EDGE-PC1-RFL-LAB

Series [9]	Color Temperature	Input Voltage	Optics	Dimming	Finish [2]	Height [4]	Options [6]
303-B1-LEDB1 Head contains one (1) Mini LightBAR™	2700=2700K 3000=3000K 3500=3500K 4000=4000K TSAM=Turtle Safe Amber (585-595nm)	UNV=120-277V [1] 120=120V 277=277V [3]	T2=Type II, Lateral Throw T4=Type IV, Forward Throw T5X=Type V, Extra Wide Flood	DIMELV=Trailing Edge Phase Dimming Driver DIM10=0-10V Dimming Driver	Painted BK=Black BZ=Bronze CS=City Silver WT=White Premium Paint AP=Grey DP=Dark Platinum GM=Graphite Metallic	12=12" [5] 24=24" 36=36" 42=42"	EDGE=Edge lit glass lens PC1=Photocontrol 120V [7] PC2=Photocontrol 208-277V [7] RIU=Receptacle - In Use (120V Only) [7] RFL=Receptacle - Flip-Lid (120V Only) [7] LAB=Less Anchor Bolts & Template [8]

NOTES: 1 Universal Voltage (UNV) is standard unless specifying Photocontrol or Receptacle (RIU or RFL - 120V) options. 2 Specify for PC2 option only. 3 Custom and RAL color matching available upon request. Consult factory for further information. 4 Bollard heights are nominal (shown in inches). 5 12" length not available with RIU or RFL options. 6 Add suffix in the order shown. 7 Must specify voltage when ordering. 8 When specifying LAB option the anchor bolts and template need to be ordered separately 7581-01PK. 9 DesignLights Consortium™ Qualified and classified for DLC Standard. Refer to www.designlights.org for details on exact qualified EON 303-B1-LEDB1 products as not all configurations are DLC classified.

EATON
Powering Business Worldwide

TD601001EN
March 14, 2016

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E3 3'6" Bollard OPT page 1

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	TM-21 Reported L70(10k) (Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 60,000	365,000
40°C			
50°C			

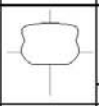
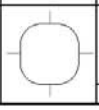
CURRENT DRAW

Model	Line Voltage	Current Draw
303-B1-LEDB1	120-277V, 50/60Hz	0.068A

MAX LOAD RATING

Options	Line Voltage	Max Load Rating
PC1	120V, 50/60Hz	1000VA, 8.3A
PC2	208-277V, 50/60Hz	
RIU or RFL	120V, 50/60Hz	1800VA, 15A

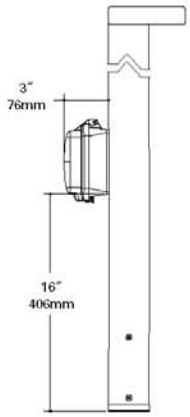
LUMENS - CRI/CCT TABLE

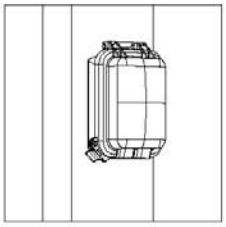
Optic Type	Distribution	Watts	Delivered Lumens	LPW	CCT (K) / Color	CRI nom./ Wavelength	B-U-G Rating
T2 (Lateral Throw)		8.5	361	44	2700	95	B0-U0-G0
			600	74	3000	75	
			419	51	3500	85	
			661	81	4000	75	
		6.5	184	28	TSAM (Amber)	585-595nm	
T4 (Forward Throw)		8.5	353	43	2700	95	B0-U0-G0
			587	72	3000	75	
			410	50	3500	85	
			647	79	4000	75	
		6.5	180	28	TSAM (Amber)	585-595nm	
T5X (Extra Wide Flood)		8.5	316	39	2700	95	B0-U0-G0
			525	65	3000	75	
			367	45	3500	85	
			579	71	4000	75	
		6.5	161	25	TSAM (Amber)	585-595nm	

OPTIONS

Receptacle Options (120V Only)

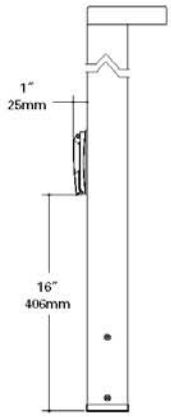
RIU - Receptacle In-Use

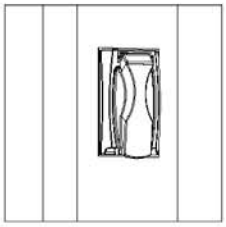




Rugged UV-resistant polycarbonate clear cover and gray body protects GFCI without cracking or breaking and is non- corrosive. Note: Cover is weatherproof with the cord plugged in and the receptacle is not required to be attended while in use. The receptacle incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. Available on 24", 36" and 42" hieghts.

RFL - Receptacle Flip Lid

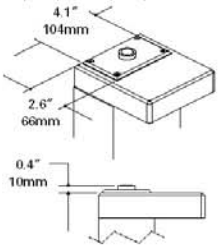




Cover is contructed of a durable, die-cast zinc-alloy and is painted to match fixture. Cover is only weatherproof without the cord plugged in and the cover closed. The receptacle will need to be attended while in use. The receptacle incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. Available on 24", 36" and 42" hieghts.

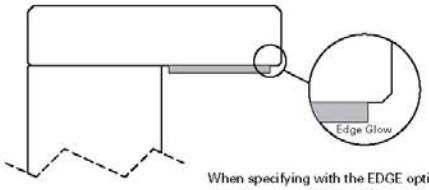
Photocontrol

PC1 (120V) or PC2 (277V)



Photocontrol cover is precision machined from corrosion-resistant 6061-T6 aluminum and is secured to bollard head with tamper resistant stainless steel hardware. The photocontrol option is available in dedicated 120V or 208-277V. When specifying a photocontrol option make sure to designate the appropriate voltage within the catalog logic.

Edge



When specifying with the EDGE option, the diffused glass becomes thicker adding a visible line of light around the edge accentuating the luminaries' aesthetics and styling.

TECHNICAL NOTES:

1. Adjustable mounting base - Cast aluminum mounting base is equipped with the patented LumaLevel" leveling system that includes mounting base, 70 shore neoprene base, stainless steel hardware and a slot to accommodate two inbound and outbound 3/4" conduits. It provides quick installation, easy adjustment, secure mounting and protection from vibration.

EATON
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Eaton
18001 East Colfax Avenue
Aurora, CO 80011
P: 303-393-1522
www.eaton.com/lighting

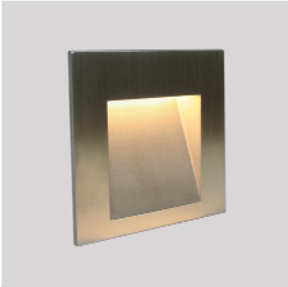
Specifications and dimensions subject to change without notice.

TD501001EN
March 14, 2016

BOLLARD
B1

BOLLARD
STEP & PATHLIGHT

Precision milled aluminum 3" sq. x 21" (h) freestanding mount accommodating flush pairing with Stealth or Impact fixtures. Integral or remote power supply. Ideal for delineating paths, walkways and driveways. Dry / Damp and Wet location.



Designates Quick Ship Product. Add "-QS" at end of model number for quantities up to 100 to ship within 5 days.

PERFORMANCE

SSL-ALED (STEALTH STEPLIGHT, ALED)			
LUMINAIRE PERFORMANCE			
LED Configuration	Delivered Lumens lm	Power Consumption W	Luminous Efficacy lm/W
80L-02B	33	3.4	9.7

ISL-ALED (IMPACT STEPLIGHT, ALED)			
LUMINAIRE PERFORMANCE			
LED Configuration	Delivered Lumens lm	Power Consumption W	Luminous Efficacy lm/W
80L-02B	43	3.4	12.6

ORDERING INFORMATION - BOLLARD

#B1 - X - VERIFY - X - - (Verify) - Standard/ 21"

- BOLLARD
- POWDER COAT FINISH: WH White; BK Black; AG Satin Silver; AB Architectural Bronze; CF Custom Finish[1]
- POWER TYPE: INT Integral; REM Remote
- VOLTAGE: 1 120 Volt; 3 277 Volt
- POWER SUPPLY: AT2 LTF 0-10V Analog and Leading / Trailing edge (supports 1 - 12 fixtures); Leave Blank (See Remote Power Supply)
- MOUNT: BD Bolt-Down (fasteners not included); CP Concrete Pour (includes J-Bolts); SD Stake-Down
- CUSTOM HEIGHT: When specifying custom height, include dimension at end of model number in inches. Example: B1-REM-BD-21-18
- FIXTURE HEIGHT: When specifying fixture height, include dimension at end of model number in inches. Example: B1-REM-BD-21-18

[1] Powder coat only; Custom finishes assigned unique suffix upon receipt of order

ORDERING INFORMATION - FIXTURE

#ISL1 -2- X - 80L - 02B - 2

- SSL1 Stealth Steplight; ISL1 Impact Steplight
- RATING: 2 Wet (Locking)
- FINISH: WH White; BK Black; AG Satin Silver; AB Architectural Bronze; CF Custom Finish[1]
- CRI / LED: 80L 80+ CRI
- SOURCE LUMENS: 02B 200lm
- CCT: 1 2200K; 2 3000K; 3 3500K; 4 4000K; C Custom Color (gel)[2]

[1] Powder coat only; Custom finishes assigned unique suffix upon receipt of order

[2] Custom gels assigned unique suffix upon receipt of order

REFERENCE:
TR-x

LUCIFER LIGHTING COMPANY
[DATE OF REV: 051917]

luciferlighting.com

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LIGHT INSIGHT design studio
Tel: 617-268-1122

Project:
Surfside Crossing
3, 5, 7, 9 South Shore Road
Nantucket, MA 02554

Type
E4
2' BOLLARD
page 1

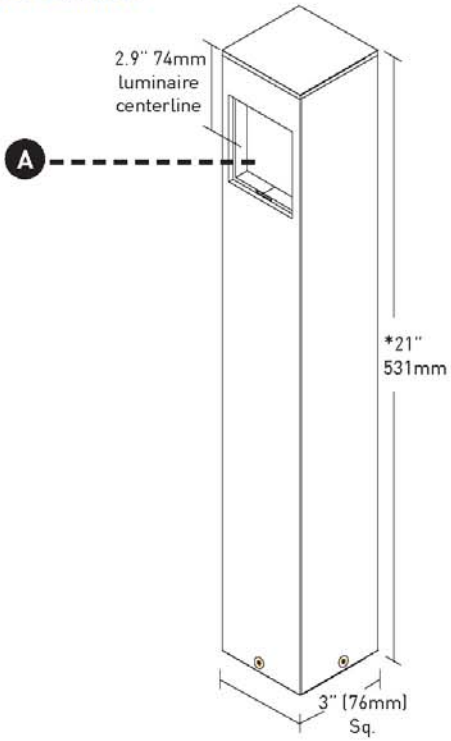
BOLLARD B1

BOLLARD

A MOUNT
Freestanding mount for use with Stealth or Impact luminaire. Receives luminaire for flush installation (ordered separately).

*Standard Bollard height is 21" (531mm); minimum height for remote powered Bollard is 9" (229mm); minimum height for integral powered Bollard is 14" (356mm); maximum height 48" (1.2m).

DIMENSIONS / DRAWINGS

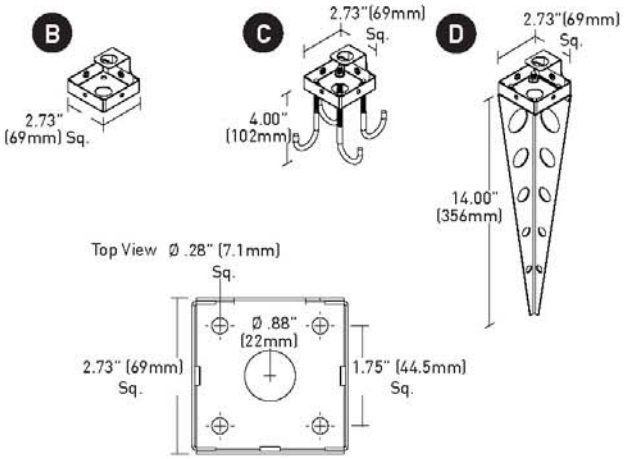


MOUNTING OPTIONS

B BOLT-DOWN (BD)
Base is bolted directly onto mounting surface with customer-furnished hardware. Bollard then attaches to base with supplied screws.

C CONCRETE POUR (CP)
Base features integral zinc-plated J-bolts for secure concrete pour mounting. Bollard then attaches to base with supplied screws.

D STAKE-DOWN (SD)
Base is outfitted with stake and comes attached to Bollard for inserting into ground. For use with remote (REM) powered Bollard only.



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LIGHT INSIGHT design studio
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Project:
Surfside Crossing
3, 5, 7, 9 South Shore Road
Nantucket, MA 02554

E4
2' BOLLARD
page 2

BOLLARD B1

FIXTURE

E LUMINAIRE
energy-efficient path and step lighting; suitable for dry / damp (interior) or wet (exterior) applications. 3.4W DC LED (dimming by power supply).

E1 Regressed LED with slot aperture for glare-free.
E2 Regressed LED with wide low glare aperture.

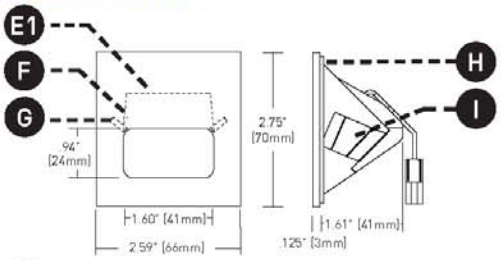
F EFFECTS DEVICES
Provided with sealed polycarbonate linear diffusion lens; consult factory for availability of color gels which may achieve custom color temperatures.

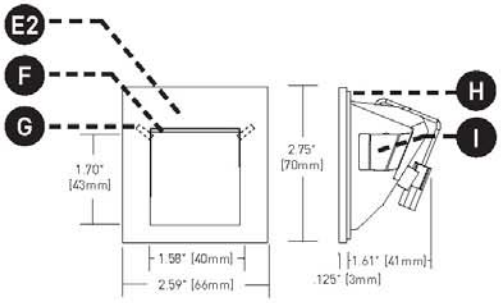
G LOCKING
Discreetly hidden tamper-resistant set screws. Included with IP65 Wet location luminaire.

H GASKET
Foam gasket provided. Required for IP65 Wet location applications only.

I RETENTION
Torsion spring clips secure fixture into back box, mounting plate, or appropriately sized cut-out.

DIMENSIONS / DRAWINGS





REMOTE POWER SUPPLY OPTIONS

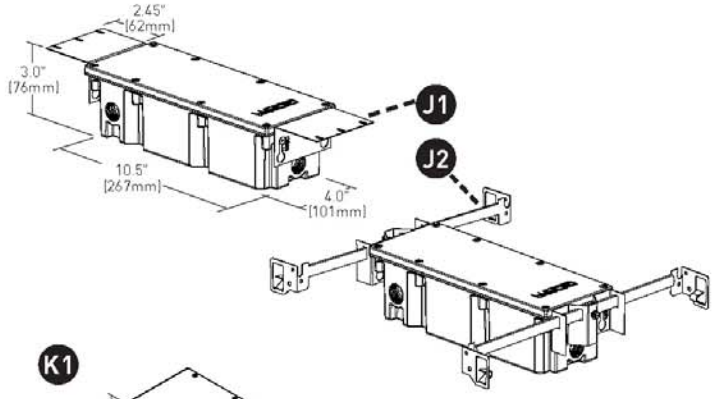
J UBB-JCT-24V-60-XXXX-XXX
Universal Junction Box, wet location and concrete pour rated. Can be specified with integral or remote power supply and features secondary output capacity, simplifying wiring practices and reducing budgets. See Page 2 for power supply options. Supplied with "-HGR" or "-BKT" mounting hardware, shown with Bracket (-BKT).

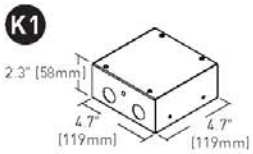
J1 Brackets, universal stainless steel mounting flange.
J2 Hanger bars, adjust from 14" to 24" for standard joist spacing.

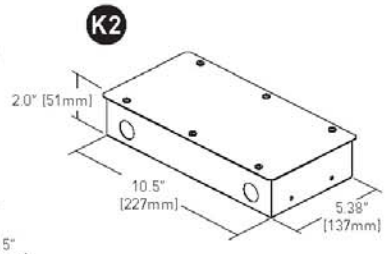
K PSA-24V-XX-XXXX
Hardwire Class 2 power supply, consists of a steel compartment and lid painted black with integral conventional electronic power supply. Wired in either a homerun or parallel method. See page 2 for power supply options.

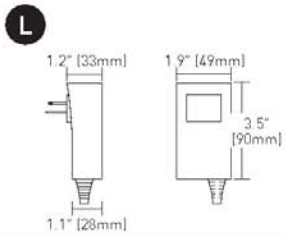
K1 Used for 60W electronic transformer (AT2).
K2 Used for 40W, 66W and 96W electronic transformers (EX2, ED3, LP1, L22 & L32).

L PSA-24V-40-1EL2
Plug-in Class 2 power supply, wires may be spliced to accomendate multiple luminaires in a parallel or home run method.









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LIGHT INSIGHT design studio
Tel: 617-268-1122

Project:
Surfside Crossing
3, 5, 7, 9 South Shore Road
Nantucket, MA 02554

E4
2' BOLLARD

STRUT BOLLARD

TECH LIGHTING

The Strut LED bollard exemplifies the epitome of a modern, minimalist aesthetic. The clean lines and modern design can effortlessly disappear into the setting or be positioned to make a bold statement. A singular line of LED down light with controlled Type II distribution is ideal for outdoor path and campus illumination.

High quality LM80-tested LEDs
for consistent long-life performance and color

Outstanding protection against the elements:
- Marine-grade powder coat finishes
- Stainless Steel mounting hardware
- Impact-resistant, UV stabilized frosted acrylic lensing

Type II asymmetric light distribution

SPECIFICATIONS

DELIVERED LUMENS	1312
WATTS	19.3
VOLTAGE	Universal 120-277V, with integral transient 2.5kV surge protection (driver)
SECONDARY SURGE PROTECTOR	10kA
DIMMING	0-10, ELV
LIGHT DISTRIBUTION	Type II
MOUNTING OPTIONS**	Bolt
PERFORMANCE OPTIONS	Photocontrol / In-Line Fuse
CCT	2700K, 3000K or 4000K
CRI	80+
COLOR BINNING	3 Step
BUG RATING	B1-U1-G1
DARK SKY	Compliant
WET LISTED	IP65
GENERAL LISTING	ETL
CALIFORNIA TITLE 24	Can be used to comply with CEC 2016 Title 24 Part 6 for outdoor use. Registration with CEC Appliance Database not required.
START TEMP	-30°C
FIELD SERVICEABLE LED	Yes
CONSTRUCTION	Aluminum
HARDWARE	Stainless Steel
FINISH	Marine Grade Powder Coat
LED LIFETIME	L70; 70,000 Hours
WARRANTY*	5 Years

* Visit techlighting.com for specific warranty limitations and details.
**Bollard base not suitable for branch circuit through wiring.

STRUT BOLLARD
shown in bronze

STRUT BOLLARD
shown in charcoal

12V AC TRANSFORMERS*
(OUTDOOR RATED, ORDERED SEPARATELY)

ITEM	DESCRIPTION	HOUSING	DIMMING
700OT150T	MAGNETIC, 150W, 120V	STAINLESS STEEL	MAGNETIC
700OT150T277	MAGNETIC, 150W, 277V	STAINLESS STEEL	MAGNETIC
700OT300T	MAGNETIC, 300W, 120V	STAINLESS STEEL	MAGNETIC
700OT300T277	MAGNETIC, 300W, 277V	STAINLESS STEEL	MAGNETIC

ORDERING INFORMATION

700OBSTR	CRI/CCT	LENGTH	LENS	FINISH	VOLTAGE	DISTRIBUTION	OPTIONS
	827 80 CRI, 2700K	**42** 42"	**C** FLAT CLEAR	**B** BLACK	**UNV** 120V–277V	**2** TYPE 2 DISTRIBUTION	NONE
	830 80 CRI, 3000K			**Z** BRONZE			**PC** BUTTON PHOTOCONTROL*
	840 80 CRI, 4000K			**H** CHARCOAL			**LF** IN-LINE FUSE*
							PCLF BUTTON PHOTOCONTROL & IN-LINE FUSE*

*FOR USE ONLY IN 120V-277V VERSION

techlighting.com

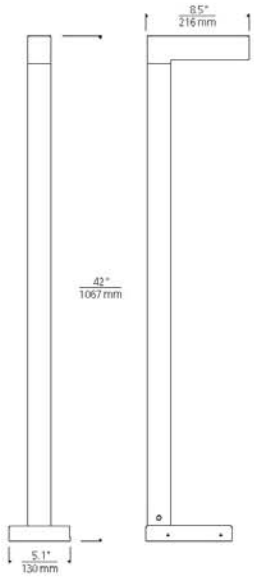
LIGHT INSIGHT design studio
Tel: 617-268-1122

Project:
Surfside Crossing
3, 5, 7, 9 South Shore Road
Nantucket, MA 02554

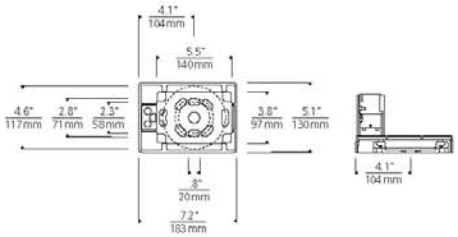
Type
E4
3'6 BOLLARD- OPT

STRUT BOLLARD

TECH LIGHTING



Strut Bollard



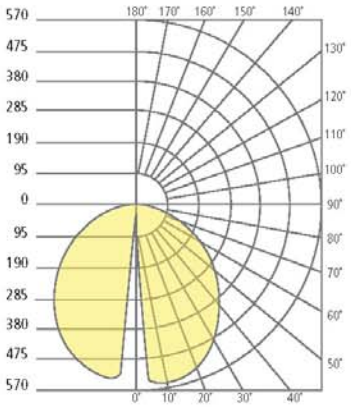
Anchor Plate Bolt Pattern

PHOTOMETRICS*

*For latest photometrics, please visit www. techlighting.com/OUTDOOR

STRUT BOLLARD

Total Lumen Output:	1312
Total Power:	19.3
Luminaire Efficacy:	67.7
Color Temp:	4000K
CRI:	80+
BUG Rating:	B1-U1-G1



PROJECT INFO

FIXTURE TYPE & QUANTITY

JOB NAME & INFO

NOTES

TECH LIGHTING

GENERATION BRANDS
7400 Linder Avenue, Skokie, Illinois 60077
T 847.410.4400 F 847.410.4500

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techlighting.com

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E4 3'6 BOLLARD- OPT page 2

DESCRIPTION

Lanterra 1003-A1 (one head) and 1003-A2 (2 head) is a medium size 3.25" O.D., line voltage Accent Flood light with dimmable LED. It is available with adjustable rear center swivel with lock rotation providing 180 degree tilt and 340 degree rotation. The luminaire comes with various mounting, field replaceable optics and premium color tuning option. It also comes with various lens, louvers and colors or dichroic filters, which can combine up to two at once to create multiple lighting effects. The fixture may be used indoors or outdoors and carries IP66 rating.

Lumiere

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Material
Housing, hood and mounting stem are precision-machined from corrosion resistant billet stock 6061-T6 aluminum.

Finish
Fixtures constructed from 6061-T6 aluminum are double protected by an ROHS complaint chemical film undercoating and polyester powder coat paint finish, surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

Hood
Hood is removable and accepts up to two internal accessories at once (lenses, louvers and filters) to achieve multiple lighting effects. Weep holes prevents water and mineral stains from collecting on the lens, even in the straight up position. The flush lens design reduces fixture length, minimizes debris collection and prevents water and mineral stains from collecting on the lens.

Gasket
Housing and hood are sealed with a high temperature silicone O-ring gasket to prevent water intrusion.

Lens
Tempered glass lens, factory sealed with high temperature silicone O-ring to prevent water intrusion and breakage due to thermal stock.

Hardware
Stainless steel hardware is standard to provide maximum corrosion resistance.

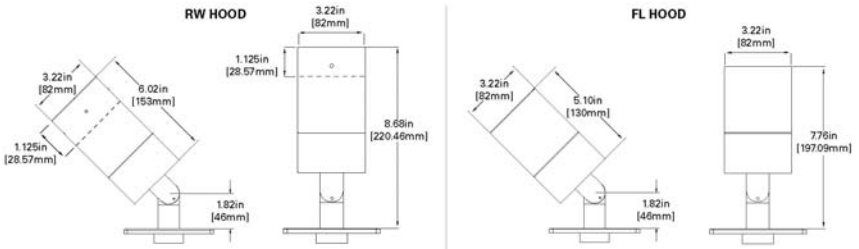
Electrical
Long life LED system coupled with electronic driver (120-277V/50-60Hz) is compatible with TRIAC (Leading Edge Dimming), ELV (Trailing Edge Dimming) and 0-10V dimming to deliver optical performance. Light can be dimmed from 100-1% while maintaining constant CCT. It will operate in -30°C to 50°C unless noted otherwise. The driver incorporates surge protection. LED's are available in 2700K, 3000K, 3500K at 90CRI and 97CRI, 4000K at 80CRI and 97CRI, 5000K at 80CRI and are industry leading high output with 87% lumen maintenance at 60,000hrs.

Compliance
Components are UL recognized and luminaires are cULus listed for 50°C ambient environments unless noted otherwise, wet location listed, and ROHS compliant. IP66 Rated.

LED Color Tuning Module
Color tuning modules mix five colors of LED's to deliver tunable and dimmable white light at 90+ CRI and color consistency across a tuning range of 1650-4000K. Light can be dimmed from 100-1% while maintaining constant CCT. Compatible with 0-10V wired control. Offered in Bluetooth, remote controlled and warm dim color module.

Warranty
Lumiere warrants the Lanterra series of fixtures against defects in material and workmanship for five (5) years. Auxiliary equipment such as LED drivers carries the original manufacturer's warranty.

DIMENSIONS



Lanterra 1003

LED
INTERIOR / EXTERIOR
ACCENT FLOOD LIGHT
CERTIFICATION DATA
cULus - 1598
Wet Location Listed - IP66
LM79/LM80 Compliant
ROHS Compliant
10W LED, L70/102,000@ 25° Celcius
20W LED, L70/102,000@ 25° Celcius

ORDERING INFORMATION

SERIES	NUMBER OF HEADS	KNUCKLE STYLE	HOOD	LED CCT & CRI	FIELD REPLACEABLE OPTIC	FINISH	LIGHT LEVEL	VOLTAGE	MOUNTING	OPTIONS
1003	A1 1 Head A2[5] 2 Head	RCS Rear Center Swivel with Lock Rotation	RW Standard-Recessed Lens with weep holes - Outdoor RI Recessed Lens with no weep holes - Indoor FL Flush lens hood	**Standard CRI** LED2790 - 2700K, 90 CRI LED 3090 - 3000K, 90 CRI LED 3590 - 3500K, 90 CRI LED 4080 - 4000K, 80 CRI LED 5080 - 5000K, 80 CRI **Premium CRI** LED 2797 - 2700K, 97 CRI LED 3097 - 3000K, 97 CRI LED 3597 - 3500K, 97 CRI LED 4097 - 4000K, 97 CRI **Premium Color Tuning **** LEDCB - Bluetooth Color Module LEDCR[1] - Remote Color Module LEDCW- Warm Dim Color Module	S Spot M Medium F Flood W Wide	**Standard Paint Finish** BK Black BZ Bronze CS City Silver WT White	L1 Light Level 1 (10W) L2 Light Level 2 (20W) LC1 Light Level Color 1 (12W) LC2 Light Level Color 2 (20W)	UNV 120-277V	Surface Mount - Wall, Ceiling, Ground RSM - Round Surface Mount - mounts directly to junction box Thermal Limitations (unless otherwise noted 50C) 1003-A2-xxx-LC2-xxx-RSM (40C) 1003-A2xxx-L2-xxx-RSM (40C) Recessed - Ground Mount MB - Ground Mount Recessed Box - Rectangular Housing 10x6x6 (MB Box) Thermal Limitations (unless otherwise noted 50C) 1003-A2-xxx-LC2-xxx-MB (45C) Remote Driver Housing WRR[2,7] - Remote Driver Housing-Round Wall WRS[2,7] - Remote Driver Housing - Square Wall Plate TSR2[2,7] - Tree Strap Mount (1-4) Integral Driver Mount WIS[2,3] - Wall Integral Driver Plate Thermal Limitations (unless otherwise noted 45C)	SVPD2[4] Standalone integral sensor

Notes: 1. Order LC remote separately
2. Only available for single head option (A1)
3. LC2 option not available
4. Only available for single head option (A1) with RSM only
5. A2 doubles input wattage listed
6. Only available for LEDCR
7. Remote Driver up to 60'
** Available Q1, 2018

EATON
Powering Business Worldwide

Specifications and dimensions subject to change without notice.

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E5 Security Light OCC Sensor

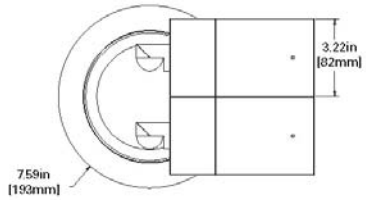
ACCESSORIES - ORDER SEPARATELY

ACCESSORIES						OPTICS	
LCTL1RZRT452L-PK®	Light Comissioning Tool (LCT)	**Filters**		**Lens**		**Louver**		LLR-S-3-4	15° Spot
ISHH01LUM	Programming Remote for sensor	F71-3	Peach Dichroic	LSL-3	Linear Spread Lens	LVR-3	45° Hex Cell Louver	LLR-M-3-4	25° Medium
ISHH01LUM	Personal Control Remote for sensor	F72-3	Amber Dichroic	DIF-3	Diffused Lens			LLR-F-3-4	36° Flood
		F73-3	Green Dichroic	OSL-3	Overall Spread Lens			LLR-W-3-4	60° Wide Flood
		F74-3	Medium Blue					LLR-K-3-4	Spot, Medium, Flood, Wide Flood Optic Kit
		F75-3	Yellow Dichroic						
		F76-3	Red Dichroic					LLR-S-LC-3-4	20° Spot - Color tuning optic
		F77-3	Dark Blue Dichroic					LLR-M-LC-3-4	32° Medium - Color tuning optic
		F78-3	Light Blue Dichroic					LLR-F-LC-3-4	42° Flood - Color tuning optic
		F79-3	Neutral Density Dichroic					LLR-W-LC-3-4	56° Wide Flood - color tuning optic
		F80-3	Magenta Dichroic					LR-K-LC-3-4	Spot, Medium, Flood, Wide Flood Color tuning optic Kit
		F22-3	Red Color						
		F33-3	Blue Color						
		F44-3	Green Color						
		F55-3	Yellow Color						
		F66-3	Mercury Color						

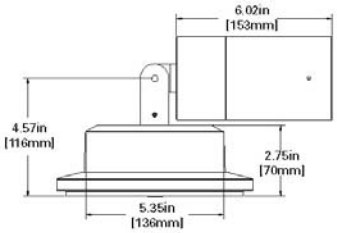
MOUNTINGS

ROUND SURFACE MOUNT (RSM)

A2 (2 head shown)
A1 (1 head also available)



TOP VIEW

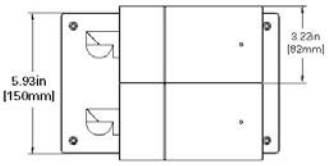


FRONT VIEW

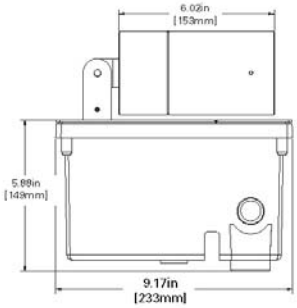
ISO VIEW

GROUND MOUNT RECESSED BOX (MB)

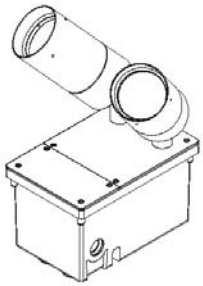
A2 (2 head shown)
A1 (1 head also available)



TOP VIEW

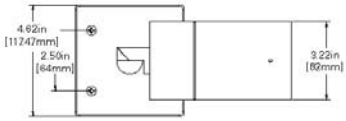


FRONT VIEW

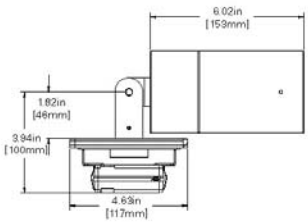


ISO VIEW

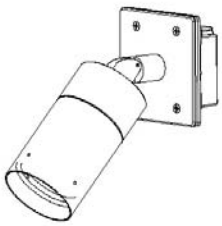
WALL INTEGRAL DRIVER PLATE (WIS)



TOP VIEW



FRONT VIEW



ISO VIEW

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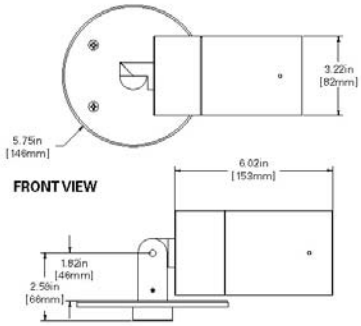
TD506021EN
4-2018

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E5 Security Light OCC Sensor page 2

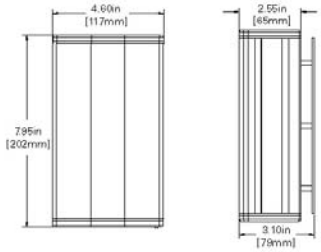
REMOTE DRIVER HOUSING ROUND WALL (WRR)

Also available as WRS (wall remote square)



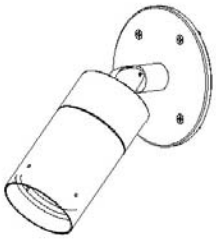
FRONT VIEW

TOP VIEW



Remote Driver distance up to 60'

REMOTE BOX

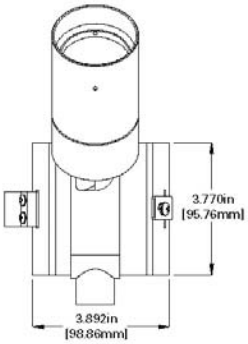


ISO VIEW

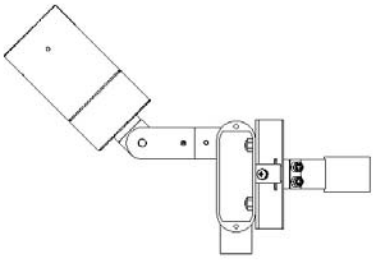
TREE STRAP MOUNT (TSR2-X)

2 head shown (available up to 4 heads)

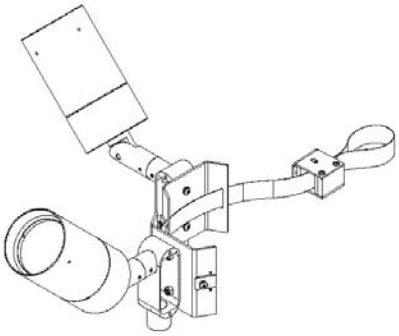
TREE STRAP WITH FIXTURE MOUNTED



FRONT VIEW

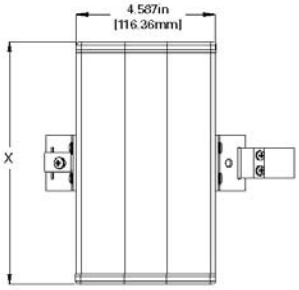


SIDE VIEW

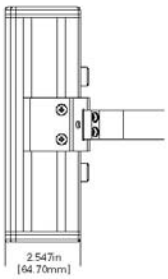


ISO VIEW (TSR2-2 shown)

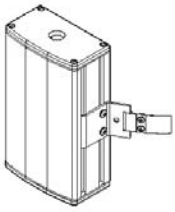
REMOTE DRIVER HOUSING STRAP



FRONT VIEW



SIDE VIEW



ISO VIEW

X = 7.95in [201.93mm], for up to 2 head configurations

X = 12.050in [306.07], for 3-4 head configurations

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4-2018

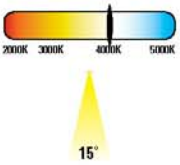
LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E5 Security Light OCC Sensor page 3

PHOTOMETRICS

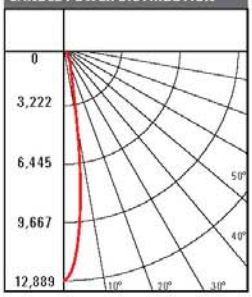
Test Number	P29476
Lumcat	1003-[A1, S1, SU1, W1]-X-FL-LED4080-S-BK-L2-UNV
Lumens	1700 Lm
Watts	20.1 W
LPW	84.6 Lm/W
CCT	4000K
SC (0/90/45)	0.27 / 0.27 / 0.27
Beam Angle	16°

COLOR METRIC SUMMARY

TM-30-15	Rf = 82.5 Rg = 94.3
CRI/CIE	Ra = 83.1 R9 = 11.4



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor

MH	FC	L	W
2'	3222.2	0.4	0.4
4'	805.6	1	1
6'	358	1.6	1.6
8'	201.4	2	2
10'	128.9	2.6	2.6
15'	57.3	4	4
20'	32.2	5.4	5.4
30'	14.3	8.2	8.2
40'	8.1	10.8	10.8

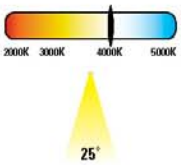
CANDELA TABLE

Angle	0-deg
0	12889
5	9969
10	4210
15	1746
20	1126
30	298
40	22
50	6
60	5
70	3
80	1
90	0

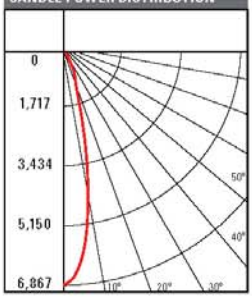
Test Number	29477
Lumcat	1003-[A1, S1, SU1, W1]-X-FL-LED4080-M-BK-L2-UNV
Lumens	1623 Lm
Watts	20.1 W
LPW	80.8 Lm/W
CCT	4000K
SC (0/90/45)	0.41 / 0.41 / 0.41
Beam Angle	24.1°

COLOR METRIC SUMMARY

TM-30-15	Rf = 82.5 Rg = 94.3
CRI/CIE	Ra = 83.1 R9 = 11.4



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor

MH	FC	L	W
2'	1716.8	0.8	0.8
4'	429.2	1.6	1.6
6'	190.8	2.4	2.4
8'	107.3	3.2	3.2
10'	68.7	4	4
15'	30.5	6	6
20'	17.2	8	8
30'	7.6	12.2	12.2
40'	4.3	16.2	16.2

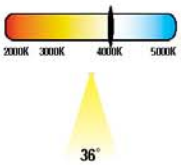
CANDELA TABLE

Angle	0-deg
0	6867
5	6216
10	4343
15	2302
20	1191
30	326
40	29
50	9
60	5
70	3
80	1
90	0

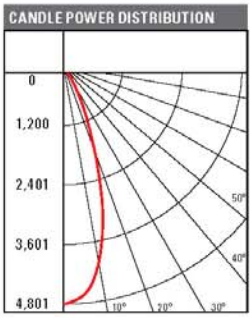
Test Number	P29478
Lumcat	1003-[A1, S1, SU1, W1]-X-FL-LED4080-F-BK-L2-UNV
Lumens	1787 Lm
Watts	20.1W
LPW	88.9 Lm/W
CCT	4000K
SC (0/90/45)	0.59 / 0.59 / 0.56
Beam Angle	35.4°

COLOR METRIC SUMMARY

TM-30-15	Rf = 82.5 Rg = 94.3
CRI/CIE	Ra = 83.1 R9 = 11.4



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor

MH	FC	L	W
2'	1200.2	1	1
4'	300.1	2.2	2.2
6'	133.4	3.4	3.4
8'	75	4.6	4.6
10'	48	5.8	5.8
15'	21.3	8.8	8.8
20'	12	11.6	11.6
30'	5.3	17.6	17.6
40'	3	23.4	23.4

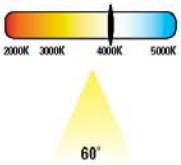
CANDELA TABLE

Angle	0-deg
0	4801
5	4641
10	4056
15	3055
20	1850
30	365
40	27
50	6
60	3
70	2
80	1
90	0

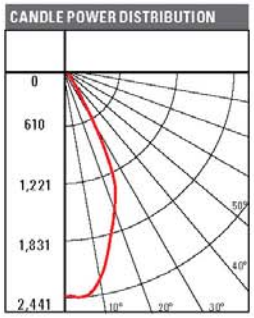
Test Number	P29479
Lumcat	1003-[A1, S1, SU1, W1]-X-FL-LED4080-W-BK-L2-UNV
Lumens	1630 Lm
Watts	20.1 W
LPW	81.1 Lm/W
CCT	4000K
SC (0/90/45)	0.79 / 0.79 / 0.76
Beam Angle	51.1°

COLOR METRIC SUMMARY

TM-30-15	Rf = 82.5 Rg = 94.3
CRI/CIE	Ra = 83.1 R9 = 11.4



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor

MH	FC	L	W
2'	607.5	1.4	1.4
4'	151.9	3	3
6'	67.5	4.6	4.6
8'	38	6.2	6.2
10'	24.3	7.8	7.8
15'	10.8	11.8	11.8
20'	6.1	15.8	15.8
30'	2.7	23.6	23.6
40'	1.5	31.6	31.6

CANDELA TABLE

Angle	0-deg
0	2430
5	2439
10	2278
15	1922
20	1605
30	653
40	168
50	65
60	6
70	4
80	1
90	0

CCT/CRI	LED2790	LED3090	LED3590	LED4080	LED5080	LED2797	LED3097	LED3597	LED4097
FC Multiplier	0.754	0.798	0.808	1.000	1.039	0.699	0.706	0.801	0.793

Light Level	L1	L2
FC Multiplier	0.542	1.000

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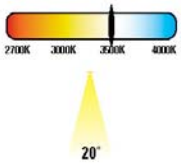
PHOTOMETRICS (PREMIUM COLOR TUNING)

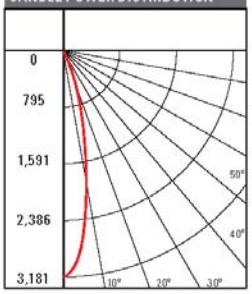
Test Number	P29558
Lumcat	1003-[A1, S1, SU1, W1]-X-FL-[LEDCB, LEDCR]-S-BK-LC-UNV
Lumens	650 Lm
Watts	24.3 W
LPW	26.7 Lm/W
CCT	3500K
SC (0/90/45)	0.39 / 0.39 / 0.42
Beam Angle	23.2°

COLOR METRIC SUMMARY

TM-30-15	Rf = 90.6 Rg = 100.4
CRI/CIE	Ra = 92.7 R9 = 67.5



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor

MH	FC	L	W
2'	795.2	0.6	0.6
4'	198.8	1.4	1.4
6'	88.4	2.2	2.2
8'	49.7	3	3
10'	31.8	3.8	3.8
15'	14.1	5.8	5.8
20'	8	7.8	7.8
30'	3.5	11.6	11.6
40'	2	15.6	15.6

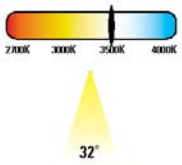
CANDELA TABLE

Angle	0-deg
0	3181
5	2813
10	1881
15	1080
20	540
30	35
40	7
50	2
60	1
70	1
80	1
90	0

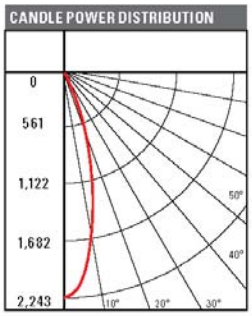
Test Number	P29559
Lumcat	1003-[A1, S1, SU1, W1]-X-FL-[LEDCB, LEDCR]-M-BK-LC-UNV
Lumens	643 Lm
Watts	24.2 W
LPW	26.6 Lm/W
CCT	3500K
SC (0/90/45)	0.5 / 0.5 / 0.51
Beam Angle	29.9°

COLOR METRIC SUMMARY

TM-30-15	Rf = 90.6 Rg = 100.4
CRI/CIE	Ra = 92.7 R9 = 67.5



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor

MH	FC	L	W
2'	560.8	0.8	0.8
4'	140.2	1.8	1.8
6'	62.3	2.8	2.8
8'	35	3.8	3.8
10'	22.4	4.8	4.8
15'	10	7.4	7.4
20'	5.6	9.8	9.8
30'	2.5	14.8	14.8
40'	1.4	19.8	19.8

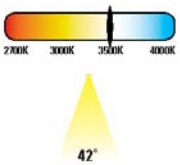
CANDELA TABLE

Angle	0-deg
0	2243
5	2095
10	1634
15	1116
20	662
30	55
40	5
50	2
60	2
70	1
80	1
90	0

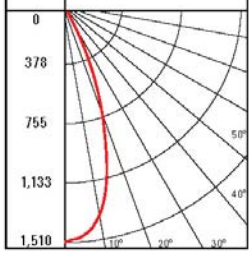
Test Number	P29560
Lumcat	1003-[A1, S1, SU1, W1]-X-FL-[LEDCB, LEDCR]-F-BK-LC-UNV
Lumens	651 Lm
Watts	24.3 W
LPW	26.8 Lm/W
CCT	3500K
SC (0/90/45)	0.64 / 0.64 / 0.62
Beam Angle	39.3°

COLOR METRIC SUMMARY

TM-30-15	Rf = 90.6 Rg = 100.4
CRI/CIE	Ra = 92.7 R9 = 67.5



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor

MH	FC	L	W
2'	377.5	1.2	1.2
4'	94.4	2.4	2.4
6'	41.9	3.8	3.8
8'	23.6	5	5
10'	15.1	6.4	6.4
15'	6.7	9.6	9.6
20'	3.8	12.8	12.8
30'	1.7	19.2	19.2
40'	0.9	25.6	25.6

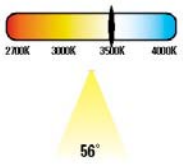
CANDELA TABLE

Angle	0-deg
0	1510
5	1473
10	1352
15	1083
20	734
30	145
40	7
50	5
60	2
70	1
80	1
90	0

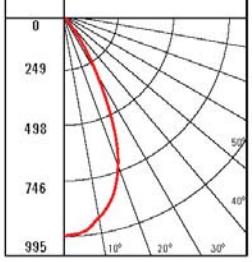
Test Number	P29561
Lumcat	1003-[A1, S1, SU1, W1]-X-FL-[LEDCB, LEDCR]-W-BK-LC-UNV
Lumens	664 Lm
Watts	24.3 W
LPW	27.3 Lm/W
CCT	3500K
SC (0/90/45)	0.83 / 0.83 / 0.77
Beam Angle	51.1°

COLOR METRIC SUMMARY

TM-30-15	Rf = 90.6 Rg = 100.4
CRI/CIE	Ra = 92.7 R9 = 67.5



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor

MH	FC	L	W
2'	248.8	1.6	1.6
4'	62.2	3.2	3.2
6'	27.6	4.8	4.8
8'	15.5	6.6	6.6
10'	10	8.2	8.2
15'	4.4	12.4	12.4
20'	2.5	16.6	16.6
30'	1.1	24.8	24.8
40'	0.6	33.2	33.2

CANDELA TABLE

Angle	0-deg
0	995
5	981
10	927
15	853
20	725
30	303
40	26
50	5
60	4
70	3
80	0
90	0

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Specifications and dimensions subject to change without notice.

TD506021EN
4-2018

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E5 Security Light OCC Sensor page 5

LUMEN TABLE

		1003-[A1, S1/SU1, W1] Regressed Hood - Black					
		L1 - 10W			L2 - 20W		
		CBCP	Lumens	LPW	CBCP	Lumens	LPW
S Spot 15°	LED2790	5324	621	63.4	9818	1145	57.0
	LED3090	5632	657	67.0	10386	1212	60.3
	LED3590	5705	666	67.9	10520	1227	61.1
	LED4080	7057	823	84.0	13014	1518	75.5
	LED5080	7331	855	87.3	13519	1577	78.5
	LED2797	4935	576	58.7	9100	1062	52.8
	LED3097	4981	581	59.3	9186	1072	53.3
	LED3597	5650	659	67.3	10419	1216	60.5
	LED4097	5596	653	66.6	10319	1204	59.9
M Medium Flood 25°	LED2790	2829	590	60.2	5218	1088	54.1
	LED3090	2993	624	63.7	5519	1151	57.3
	LED3590	3032	632	64.5	5590	1166	58.0
	LED4080	3750	782	79.8	6916	1442	71.8
	LED5080	3896	813	82.9	7185	1498	74.6
	LED2797	2622	547	55.8	4836	1009	50.2
	LED3097	2647	552	56.3	4882	1018	50.7
	LED3597	3003	626	63.9	5537	1155	57.5
	LED4097	2974	620	63.3	5484	1144	56.9
F Flood 36°	LED2790	1943	666	68.0	3584	1229	61.1
	LED3090	2056	705	71.9	3791	1300	64.7
	LED3590	2082	714	72.9	3840	1317	65.5
	LED4080	2576	883	90.1	4750	1629	81.0
	LED5080	2676	918	93.6	4934	1692	84.2
	LED2797	999	560	57.1	1842	1032	51.4
	LED3097	1818	623	63.6	3353	1150	57.2
	LED3597	2062	707	72.2	3803	1304	64.9
	LED4097	2042	700	71.5	3766	1292	64.3
W Wide Flood 60°	LED2790	999	560	57.1	1842	1032	51.4
	LED3090	1057	592	60.4	1949	1092	54.3
	LED3590	1070	600	61.2	1974	1106	55.0
	LED4080	1324	742	75.7	2442	1368	68.1
	LED5080	1376	771	78.7	2537	1421	70.7
	LED2797	926	519	52.9	1708	957	47.6
	LED3097	935	524	53.4	1724	966	48.0
	LED3597	1060	594	60.6	1955	1095	54.5
	LED4097	1050	588	60.0	1936	1085	54.0

TM30 DATA

	CCT/CRI	Rf	Rg	Ra	R9
1003	2790	90.9	98.9	91.7	58.3
	3090	90.8	99.1	92.5	62.6
	3590	90.6	100.4	92.7	67.5
	4080	82.5	94.3	83.1	11.4
	5080	81.6	94.1	82	6
	2797	94.9	100	98.1	86.9
	3097	94	100.3	97.8	88.9
	3597	92.9	99.3	97.2	89.1
	4097	91.5	98.7	95.4	84

LUMEN MAINTENANCE

Ambient Tempurature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C, 40°C, 50°C	> 87%	> 102,000

POWER TABLE

Number of Heads	Light Level	Input Current (A) at 120VAC	Input Current (A) at 277VAC	Input Power (W)
A1	L1	0.08	0.03	10
	L2	0.177	0.088	20.93
	LC1	0.1	0.085	11.4
	LC2	0.183	0.088	21.44
A2	L1	0.16	0.06	20
	L2	0.354	0.176	41.86
	LC1	0.2	0.17	22.8
	LC2	0.366	0.176	42.88

EATON Powering Business Worldwide

Specifications and dimensions subject to change without notice.

TD506021EN
4-2018

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E5 Security Light OCC Sensor page 6

INTEGRATED SENSOR - SVPD2

The Lanterra Accent 1003 with Integrated Sensor technology provides automatic energy savings without sacrificing performance. Traditionally, these types of energy savings required coordination between the luminaire and a lighting control system. The Lanterra Accent 1003 delivers superior lighting with integrated PIR occupancy sensing and daylighting controls.

Capture the benefits of traditional lighting controls, without complicated circuit planning or special wiring. The Lanterra Accent 1003 delivers automatic ON to an energy saving light level, while ensuring lighting is turned OFF when the space is unoccupied.

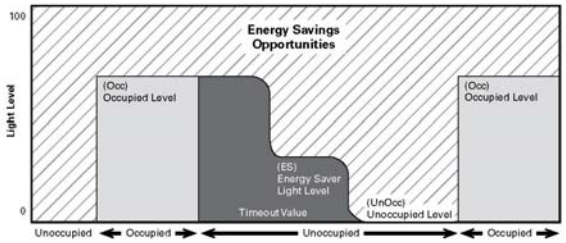
The SVPD2 sensor is configured for outdoor use, so the integral daylight sensor will enable the luminaire to automatically adjust to daylight conditions by turning off when sufficient sunlight is present. Consult factory for indoor configuration.

Occupied light levels and unoccupied light levels can be adjusted using the integrated sensor programming remote (Catalog Number: ISHH01LUM). While the default unoccupied level is OFF, a lower light level can be saved instead using the programming remote. The integrated sensor personal remote (Catalog Number: ISHH02LUM) provides code compliant manual raise, lower, ON, OFF control.

The Lanterra Accent 1003 with Integrated Sensor is easy to install with no special wiring and ensures energy savings out-of-the-box with default control settings.

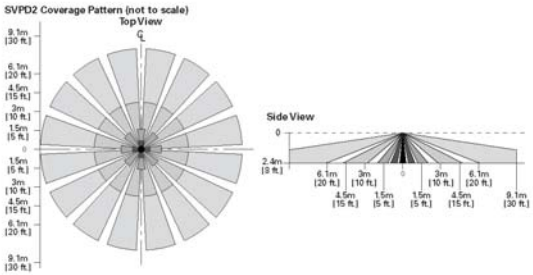
HOW IT WORKS:

- As the user enters the space controlled by the integral sensor, the lighting turns ON to the occupied light level.
- Lighting will remain at the occupied level until the space is unoccupied. This will start the occupancy timeout period (default 20 minutes).
- If the space remains unoccupied for half of the timeout period, the lighting will automatically reduce to the Energy Saver light level (default matches occupied level). This adjustable light level is often set to half of the occupied daylight level using the programming remote.
- At the end of the timeout period the lighting will go to the unoccupied light level. This adjustable light level uses the OFF default setting.
- If sufficient sunlight is present, the luminaire will remain OFF, regardless of occupancy.

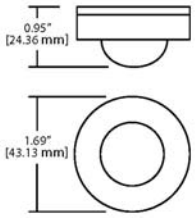


Coverage

SVPD2 Coverage Pattern (not to scale)



Sensor Dimensions



Optional RemoteControls

ISHH01LUM Programming Remote

ISHH02LUM Personal Control Remote

EATON
Powering Business Worldwide

Specifications and dimensions subject to change without notice.

TD506021EN
4-2018

Why IntelliBrite® Lights are the "Greenest" Choice

An Eco Select™ Choice

LED (Light Emitting Diode) pool and spa lights are the most energy efficient pool and spa lighting option available. Plus, they can last 30,000 hours or more, minimizing replacement cost and disposal. That's why IntelliBrite® lights are an Eco Select Choice.

The Eco Select™ brand identifies our "greenest" and most efficient equipment choices. These products save energy, conserve water, eliminate noise, or otherwise contribute to a more environmentally responsible equipment system.

As the global leader in pool and spa equipment manufacturing, we strive to provide greener choices for our customers. We hope you'll join us in embracing more eco friendly poolscapes by choosing Eco Select products for your swimming pool.

LED lights use the least amount of energy of all lighting options

- IntelliBrite pool lights need only 37 watts to create the same light output as traditional incandescent and halogen pool lights do at 161 watts—more than 75% less! And IntelliBrite spa lights use only 23 watts for the same light output compared to 77 watts for traditional lights.

LED lights are more durable and can last 6 years or more

- The life of an IntelliBrite LED is approximately 30,000 hours compared to only 5,000 hours for traditional incandescent light bulbs.
- Cool running, LED lights are durable, solid state technology with no internal filament to wear out.
- Unlike many LED pool lights, the IntelliBrite lights continue to work even when a single LED fails.

Available from:

Pentair Water Pool and Spa®

Pentair Pool Products® 800.831.7133 www.pentairpool.com

Sta-Rite® 800.831.7133 www.staritepool.com

pumps / filters / heaters / heat pumps / automation / lighting / cleaners / sanitizers / maintenance products

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LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type E6 Pool LED Lights

INTELLIBRITE® 5G WHITE LED

UNDERWATER LED LIGHTS FOR SWIMMING POOLS AND SPAS

PENTAIR

Featured Highlights

- The brightest most energy efficient white LED pool light on the market
- Energy efficient utilizing up to 86% less energy than comparable incandescent lights
- Superior lens geometry and innovative reflector design combine to create a wider beam and more uniform light distribution
- Pool lens can be rotated to 180 degrees to provide wide beam pattern (standard) or narrow beam pattern
- Compatible with Pentair Stainless steel and plastic niches
- Available in 120V and 12V versions
- Available in 300W, 400W, and 500W incandescent equivalencies

Eco Select Efficiency • Conservation PENTAIR

IntelliBrite 5g White LED Pool Light

IntelliBrite® 5g White LED light offers a brighter, more energy efficient alternative to incandescent white lighting. Utilizing its array of LEDs, it is also ideal for commercial applications.

Ordering Information for Pool Lights

Product	Voltage	Cord Length (Ft.)	Incandescent Equivalency	Carton Qty.	Carton Wt. (Lbs.)
INTELLIBRITE 5g WHITE POOL LIGHTS – 300 WATT EQUIVALENT, 120 VOLT					
601100	120V	30 ft.	300W Equivalency	1	
601101	120V	50 ft.	300W Equivalency	1	
601102	120V	100 ft.	300W Equivalency	1	
601103	120V	150 ft.	300W Equivalency	1	
601104	120V	250 ft.	300W Equivalency	1	
INTELLIBRITE 5g WHITE POOL LIGHTS – 300 WATT EQUIVALENT, 12 VOLT					
601105	12V	30 ft.	300W Equivalency	1	
601106	12V	50 ft.	300W Equivalency	1	
601107	12V	100 ft.	300W Equivalency	1	
601108	12V	150 ft.	300W Equivalency	1	
INTELLIBRITE 5g WHITE POOL LIGHTS – 400 WATT EQUIVALENT, 120 VOLT					
601200	120V	30 ft.	400W Equivalency	1	
601201	120V	50 ft.	400W Equivalency	1	
601202	120V	100 ft.	400W Equivalency	1	
601203	120V	150 ft.	400W Equivalency	1	
601204	120V	250 ft.	400W Equivalency	1	
INTELLIBRITE 5g WHITE POOL LIGHTS – 400 WATT EQUIVALENT, 12 VOLT					
601205	12V	30 ft.	400W Equivalency	1	
601206	12V	50 ft.	400W Equivalency	1	
601207	12V	100 ft.	400W Equivalency	1	
601208	12V	150 ft.	400W Equivalency	1	
INTELLIBRITE 5g WHITE POOL LIGHTS – 500 WATT EQUIVALENT, 120 VOLT					
601300	120V	30 ft.	500W Equivalency	1	
601301	120V	50 ft.	500W Equivalency	1	
601302	120V	100 ft.	500W Equivalency	1	
601303	120V	150 ft.	500W Equivalency	1	
601304	120V	250 ft.	500W Equivalency	1	
INTELLIBRITE 5g WHITE POOL LIGHTS – 500 WATT EQUIVALENT, 12 VOLT					
601305	12V	30 ft.	500W Equivalency	1	
601306	12V	50 ft.	500W Equivalency	1	
601307	12V	100 ft.	500W Equivalency	1	
601308	12V	150 ft.	500W Equivalency	1	

Please refer to page 117 for CSA listed IntelliBrite Pool Lights.

UL LISTED

INTELLIBRITE® 5G WHITE LED (CONT'D)

UNDERWATER LED LIGHTS FOR SWIMMING POOLS AND SPAS

Ordering Information for Spa Lights

Product	Voltage	Cord Length (Ft.)	Incandescent Equivalency	Carton Qty.	Carton Wt. (Lbs.)
INTELLIBRITE 5g WHITE SPA LIGHTS - 120 VOLT					
640140	120V	30 ft.	100W Equivalency	1	6.5
640141	120V	50 ft.	100W Equivalency	1	8
640142	120V	100 ft.	100W Equivalency	1	12
640143	120V	150 ft.	100W Equivalency	1	16
640144	120V	250 ft.	100W Equivalency	1	25
INTELLIBRITE 5g WHITE SPA LIGHTS - 12 VOLT					
640150	12V	30 ft.	100W Equivalency	1	5.5
640151	12V	50 ft.	100W Equivalency	1	7
640152	12V	100 ft.	100W Equivalency	1	11
640153	12V	150 ft.	100W Equivalency	1	18

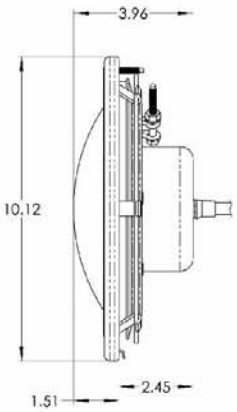
Dimensions and Certifications

LISTED

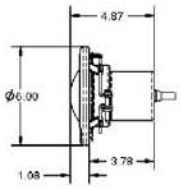
Please refer to page 117 for CSA listed IntelliBrite Pool Lights.

Note: All 120 volt pool and spa lights must be connected to a branch circuit protected by a ground fault circuit interrupter (GFCI).

Notice: Underwriters Laboratories has listed Pentair Water Pool and Spa, Inc. lights for use with Pentair Water Pool and Spa, Pentair Pool Products, American Products, Purex, or PacFab niches ONLY. To ensure proper grounding/bonding connections install only Pentair Water Pool and Spa lights in Pentair, Water Pool and Spa, Pentair Pool Products, American Products, Purex or PacFab niches only.



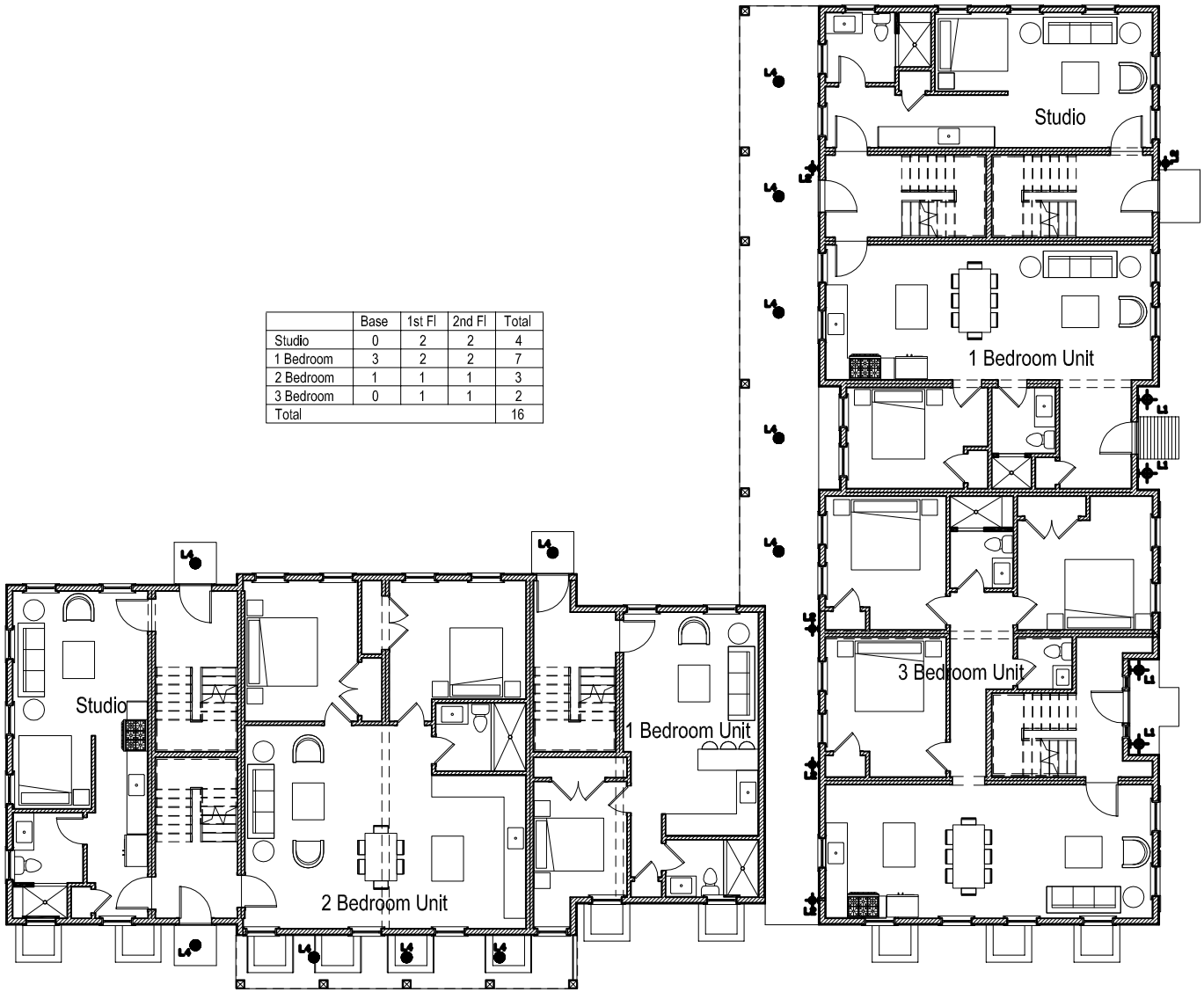
IntelliBrite White Pool Light Dimensions



IntelliBrite White Spa Light Dimensions

See pages 458 and 459 for replacement parts.

	Base	1st Fl	2nd Fl	Total
Studio	0	2	2	4
1 Bedroom	3	2	2	7
2 Bedroom	1	1	1	3
3 Bedroom	0	1	1	2
Total				16



Condo Building
Surfside Crossing
Nantucket, MA 02554

First Floor Plan
1/16" = 1'-0"

LIGHT INSIGHT design studio

LIGHT INSIGHT Design Studio
177 Milk Street, Suite 014
Boston,MA 02109 USA
Tele: 617-268-1122
web: www.light-insightdesign.com
*Residential *Condo/Vacation *Specialty * Hospitality

emeritus

8 Williams Lane Nantucket, MA 025
P. 508.325.4995
F. 508.325.6980
www.emeritusdevelopment.com

Front Elevation

3/32" = 1'-0"

Condo Building

Surfside Crossing
Nantucket, MA 02554

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F. 508.325.6980
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Side (1) Elevation

3/32" = 1'-0"

Condo Building

Surfside Crossing

Nantucket, MA 02554

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Rear Elevation

3/32" = 1'-0"

Condo Building

Surfside Crossing

Nantucket, MA 02554

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Side Elevation

3/32" = 1'-0"

Condo Building

Surfside Crossing

Nantucket, MA 02554

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LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type L1 /L2 Wall Brackets page 1

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type L1 /L2 Wall Brackets page 2

landscapeforms

ASHBERY WALL MOUNT

Product Data Sheet

Ashbery is a trio of lights that brings together advanced LED technology and optics with an homage to traditional-style lights that have a special place in the American lexicon. The wall mounted light is designed to provide soft lighting adjacent to buildings to extend the safe use of outdoor areas. Cast aluminum parts in a full color palette are finished with Landscape Forms proprietary Pangard II® HAPS, VOC, lead-free polyester powdercoat.

General Description

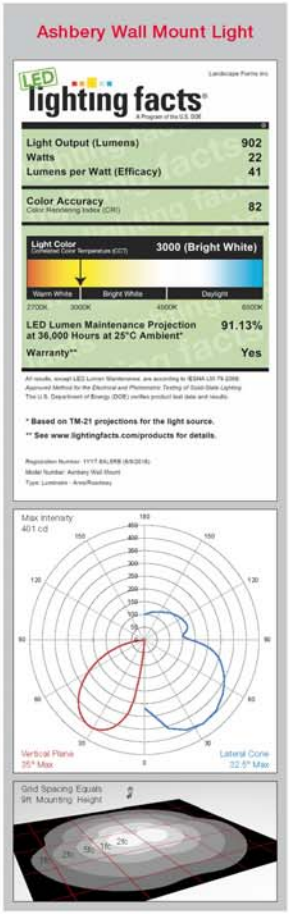
- Smaller scale fixture designed for wall mounted or pole applications
- Aluminum wall mounting bracket and arm included
- Optional ANSI136.41 7-pin twist lock receptacle
- International Dark-Sky approved
- UL Listed, suitable for wet locations

Electrical

Surge protected 100V-277V 50/60 Hz, Class 2 integrated dimmable driver. LED cartridge with weatherproof quick disconnect provides ease of installation and serviceability. Ashbery ships prewired.

Ashbery Wall Mount Light

Type 3 Distribution
Lamp: 8 Cree XP-G2 LEDs
CCT: 3000K, 3500K, 4000K
Drive Current: 700mA
Optic: Khatod Collimators
Lens: Diffused Acrylite®
Power Supply: 100V-277V
LED Driver: TRP LED-20W
Dimmable: 0-10V
BUG Rating: B0 U1 G1
IP Rating: IP66 for LED Cartridge
Weight: 28 lbs



Ashbery Wall Mount Light

LED lighting facts

Light Output (Lumens)	902
Watts	22
Lumens per Watt (Efficacy)	41
Color Accuracy (Color Rendering Index (CRI))	82
Light Color (Correlated Color Temperature (CCT))	3000 (Bright White)
LED Lumen Maintenance Projection at 36,000 Hours at 25°C Ambient*	91.13%
Warranty**	Yes

* Based on TM-21 projections for the light source.
** See www.lightingfacts.com/products for details.

Landscape Forms, Inc. | 800.521.2546 | F 269.381.3455 | 7800 E. Michigan Ave., Kalamazoo, MI 49048

landscapeforms

ASHBERY WALL MOUNT

Product Data Sheet

Finish

Pangard II®, offered exclusively by Landscape Forms, is a 19 step program of cleaning, priming, and powdercoating that resists rusting, chipping, peeling and fading to produce the finest metal finish available for site furniture and outdoor lighting. In addition, Pangard II® contains no heavy metals and is free of Hazardous Air Pollutants.

To Order

Specify: Product, Lamp, Drive Current, Color Temperature, Input Voltage, Center Element, optional 7-pin (ANSI136.41) Twist Lock Receptacle, and Powdercoat Color.

Product	Lamp	Drive Current	Color Temp.	Input Voltage	Center Element	Mounting	Twist Lock
AP ASHBERY	108L3 (8 LED, Type 3)	070F (700 mA)	40K (4000K) 35K (3500K) 30K (3000K)	UV1 (100-277VAC)	20K (2000K)	MW1 (Wall Mount)	NTW (No Twist Lock) TW1 (Twist Lock)

EXAMPLE: AP – 108L3 – 070F – 35K – UV1 – 20K – MW1 – NTW – Powdercoat Color

Product Modifications

Don't see what you are looking for? Our goal is to partner with you as the designer to manufacture solutions needed for the space you are creating. We offer the option to modify our standard product to meet certain design specifications or needs. Contact your local Landscape Forms representative to learn more about these offerings.

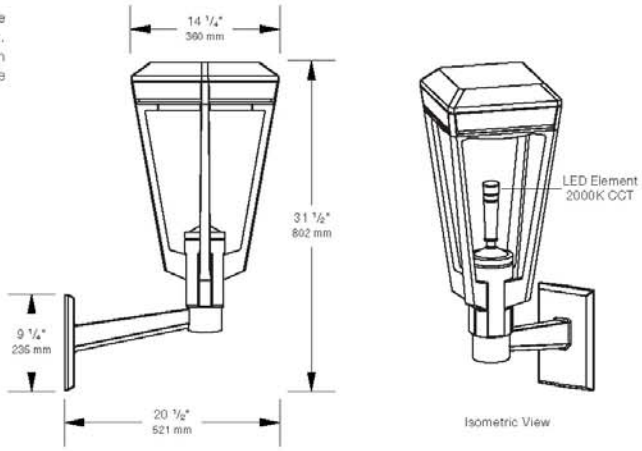
Warranty

LED lighting products are warranted for six years.

Other

UL Listed, RoHS Compliant, Dark-Sky Approved
US Patent Pending

Ashbery is designed by Robert A.M. Stern Architects



Visit landscapeforms.com for more information. Specifications are subject to change without notice.
Landscape Forms supports the Landscape Architecture Foundation at the Second Century level.
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Landscape Forms, Inc. I 800.521.2546 I F 269.381.3455 I 7800 E. Michigan Ave., Kalamazoo, MI 49048

Landscape Forms Inc
Catalog Number
Ashbery Wall Mount

Electrical Test Conditions						
Temp	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.0 VAC	0.1851 A	21.71 W	0.977	60 Hz	15.6 %

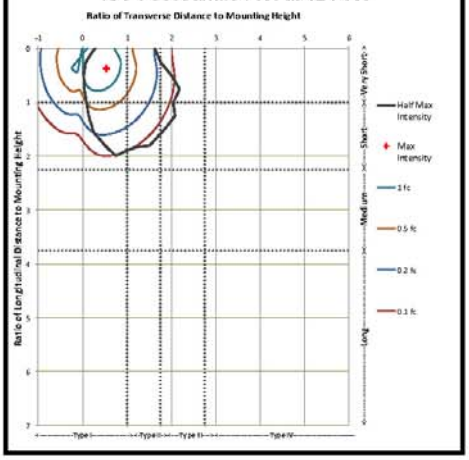
Summary of Results	
Total Lumen Output	902.3 Lumens
Luminaire Efficacy	41.5 lm/w
Maximum Candela	0 Candela
IES Roadway Classification	Type III, Very Short
Cutoff Classification	Cutoff
BUG Rating	B0 U1 G1
CCT	2965 K
CRI	82.1
Duv	0.0025
TM-30 Rf	83.0
TM-30 Rg	94.2

Luminaire Classification System (LCS)			
LCS	Zone	Lumens	%
FL	(0-30)	122	14%
FM	(30-60)	342	40%
FH	(60-80)	140	16%
FVH	(80-90)	11	1%
BL	(0-30)	63	7%
BM	(30-60)	121	14%
BH	(60-80)	46	5%
BVH	(80-90)	5	1%
UL	(90-100)	3	0%
UH	(100-180)	7	1%

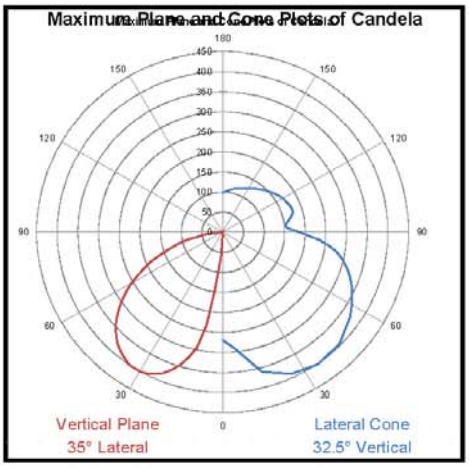
Color Rendering Index Details	
Ra (CRI)	82.1
R1	80
R2	89.5
R3	97.2
R4	79.6
R5	79.3
R6	86.5
R7	84.5
R8	60.3
R9	8.4
R10	75.1
R11	77.3
R12	66.0
R13	82.1
R14	98.3

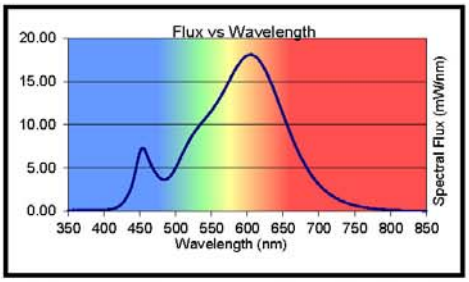
Chromaticity Coordinates	
Chromaticity (x)	0.4433
Chromaticity (y)	0.4131
Chromaticity (u)	0.2508
Chromaticity (v)	0.3505
Chromaticity (u')	0.2508
Chromaticity (v')	0.5258

ISO FootCandle Plot at 12 Feet

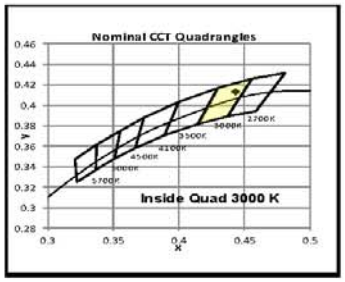


Maximum Plane and Cone Plots of Candela





Intensity Through Maximum Plane (Candlepower)		
Angle	Candlepower	Lumens
0	6	
5	63	9
10	236	
15	321	62
20	365	
25	389	114
30	400	
35	399	149
40	386	
45	366	163
50	338	
55	300	152
60	257	
65	210	119
70	161	
75	111	68
80	60	
85	16	16
90	4	
95	3	3
100	3	
105	3	3
110	3	
115	2	2
120	1	
125	1	1
130	1	
135	0	0
140	0	
145	0	0
150	0	
155	0	0
160	0	
165	0	0
170	0	
175	0	0
180	0	



Testing was performed in accordance with LM-79-08
The results contained in this summary pertain only to report #1249073

UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

ACCREDITED

NVLAP LAB CODE 201042-0

Photometric Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002, UL 1598-2008
UL1598-2008

Prepared For

Landscape Forms Inc
Jake Scott
7800 E Michigan Ave
Kalamazoo, MI 49048
United States

Catalog Number

Ashbery Wall Mount

Order Number
11239918
Test Number
1249073

Test Date

2016-05-20 - 2016-05-24

Prepared By

Derek Smarr, Technician

Approved By

Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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Table of Contents

Summary of Results	Page 3
Integrating Sphere Results	Page 4
Distribution Results	
Test Conditions / Summary of Results / ISOPlot	Page 5
Maximum Plane and Cone Plot / Zonal Lumen Summary	Page 6
IES BUG Rating	Page 7
In-Situ Results	Page 8

Laboratory results may not be representative of field performance
Ballast factors have not been applied

Testing was performed in a 3-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Luminaire Description:	Black formed aluminium housing, upper frosted plastic lens, lower clear plastic lens, no enclosure
Lamp:	8 white LEDs
Mounting:	Post top
Ballast/Driver:	One Thomas Research Products LED20W-028-C0700-D and One GE Light Tech GLED6DMV350SL

Luminaire

Luminaire Characteristics

Luminous Diameter: 8.50 in.
Luminous Height: 6.500 in.

Summary of Results

Integrating Sphere

Luminous Flux:	902	Lumens
Efficacy:	41.5	lm/w
CCT:	2965	K
CRI (Ra):	82.1	

Distribution

Roadway Classification:	Type III, Very Short
Cutoff Classification:	Cutoff
BUG Rating:	B0 U1 G1

Electrical Data at 277 VAC

Test Temperature:	24.7	°C
Voltage:	277.0	VAC
Current:	0.09570	A
Power:	22.82	W
Power Factor:	0.861	
Frequency:	60	Hz
Current THD:	27.2	%

In-Situ

LED Temperature:	58.8	°C
Driver Temperature:	48.1	°C
Measured LED Current:	0.7019	A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.

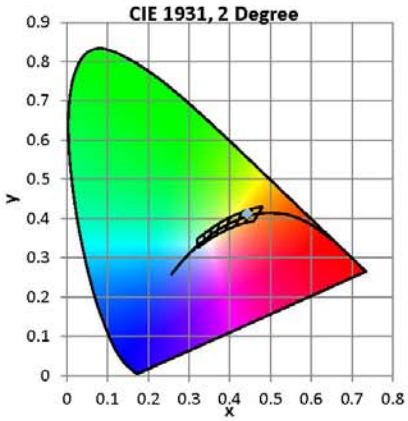
Color Quality - Integrating Sphere

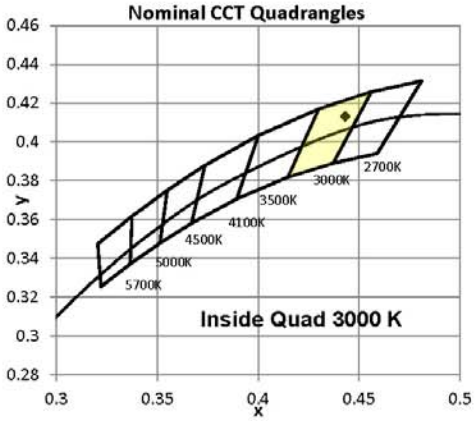
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	120.0 VAC	0.1855 A	21.76 W	0.977	60 Hz	16.7 %

Summary of Results

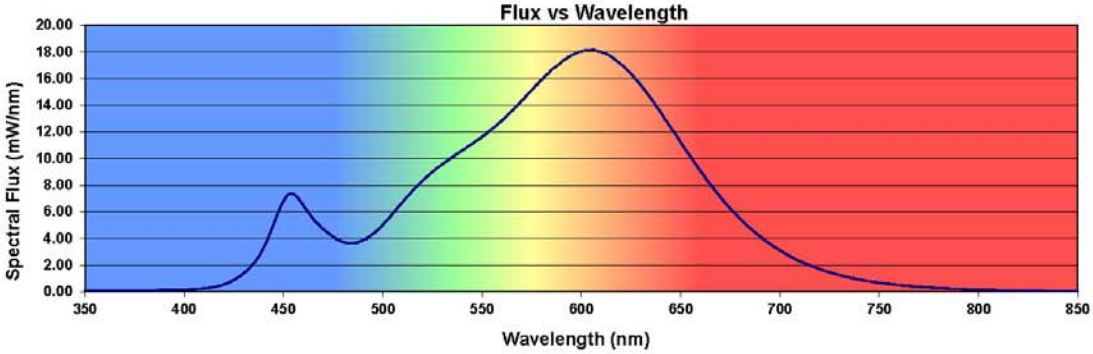
Total Output:	902 Lumens	**Chromaticity (x):**	0.4433
Efficacy:	41.5 lm/w	**Chromaticity (y):**	0.4131
CCT:	2965 K	**Chromaticity (u'):**	0.2508
CRI (Ra):	82.1	**Chromaticity (v'):**	0.5258
CRI (R9):	8.4	**TM-30 R_f:**	83.0
Peak Wavelength:	605.3 nm	**TM-30 R_g:**	94.2
Dominant Wavelength:	582.1 nm	**Duv:**	0.0025
S/P Ratio:	1.297		





Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
82.1	80.0	89.5	97.2	79.6	79.3	86.5	84.5	60.3	8.4	75.1	77.3	66.0	82.1	98.3



Test Number 1249073 - Page 4 of 8

Distribution - Goniophotometer

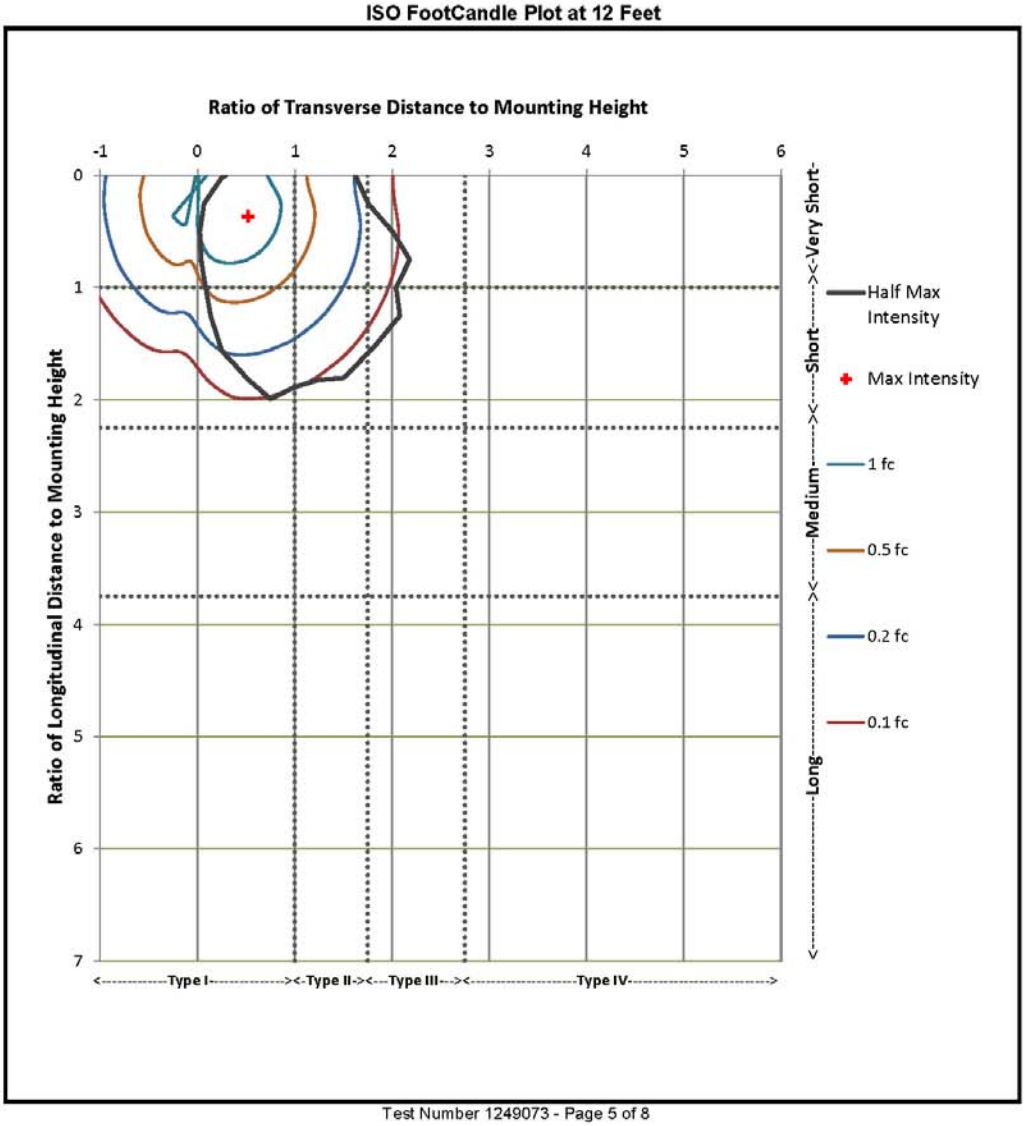
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.0 VAC	0.1851 A	21.71 W	0.977	60 Hz	15.6 %

Summary of Results

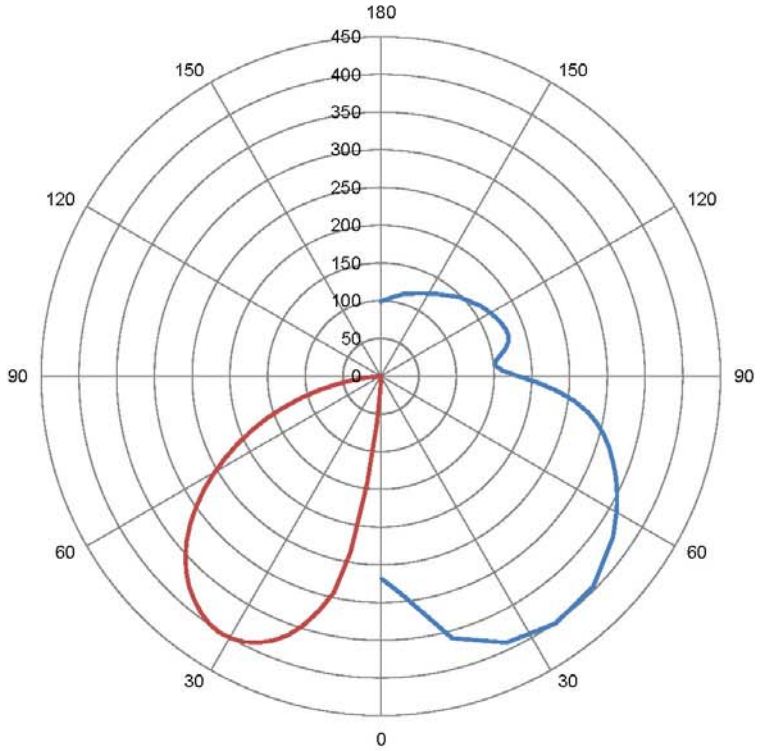
IES Roadway Classification:	Type III, Very Short	**Total Lumen Output:**	860 Lumens
Cutoff Classification	Cutoff	**Luminaire Efficacy:**	39.6 lm/w
BUG Rating:	B0 U1 G1	**Maximum Candela:**	401 Candela

ISO FootCandle Plot at 12 Feet



Test Number 1249073 - Page 5 of 8

Maximum Plane and Cone Plots of Candela



Vertical Plane Through 35 ° Lateral **Lateral Cone Through** 32.5 ° Vertical

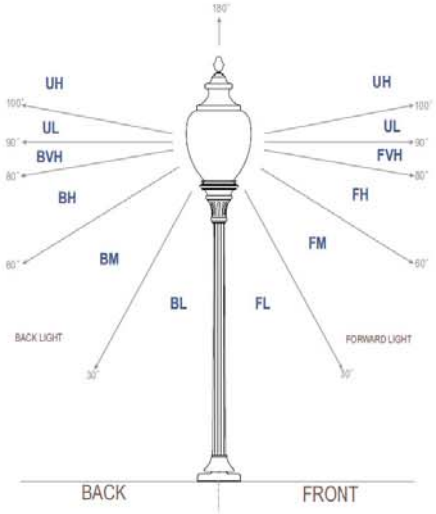
Maximum Intensity (Candlepower): 401.3 Candela

Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.9	0.1%	60-65	64.7	7.5%	120-125	0.7	0.1%
5-10	8.1	0.9%	65-70	54.0	6.3%	125-130	0.5	0.1%
10-15	23.6	2.7%	70-75	41.1	4.8%	130-135	0.2	0.0%
15-20	38.6	4.5%	75-80	26.7	3.1%	135-140	0.1	0.0%
20-25	51.3	6.0%	80-85	12.6	1.5%	140-145	0.0	0.0%
25-30	62.3	7.2%	85-90	3.3	0.4%	145-150	0.0	0.0%
30-35	71.3	8.3%	90-95	1.5	0.2%	150-155	0.0	0.0%
35-40	77.6	9.0%	95-100	1.4	0.2%	155-160	0.0	0.0%
40-45	81.0	9.4%	100-105	1.5	0.2%	160-165	0.0	0.0%
45-50	81.6	9.5%	105-110	1.6	0.2%	165-170	0.0	0.0%
50-55	78.9	9.2%	110-115	1.2	0.1%	170-175	0.0	0.0%
55-60	73.0	8.5%	115-120	0.8	0.1%	175-180	0.0	0.0%

Test Number 1249073 - Page 6 of 8

IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	122.3	14.2%
FM	(30-60)	342.0	39.8%
FH	(60-80)	140.2	16.3%
FVH	(80-90)	10.6	1.2%
BL	(0-30)	62.5	7.3%
BM	(30-60)	121.4	14.1%
BH	(60-80)	46.3	5.4%
BVH	(80-90)	5.3	0.6%
UL	(90-100)	2.9	0.3%
UH	(100-180)	6.7	0.8%
Total		860.3	100.0%
BUG Rating	**B0 U1 G1**		

Test Number 1249073 - Page 7 of 8

In-Situ Test

In-Situ Test Conditions

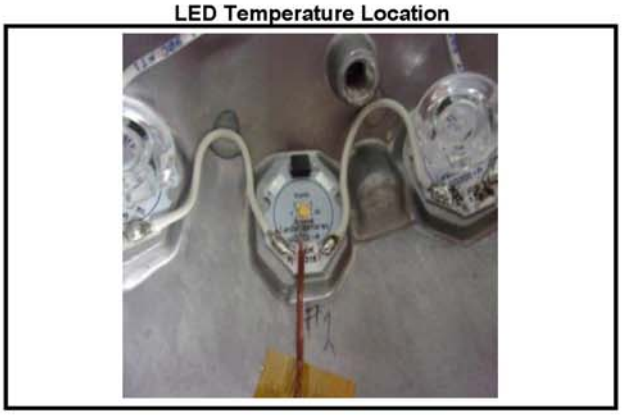
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
23.9 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

LED Temperature:	58.8 °C
Driver Temperature:	48.1 °C
Measured LED Current:	0.7019 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

LED Temperature Location



Driver Temperature Location

STEPLIGHT @ COTTAGE STAIRS

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: **Surfside Crossing** 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type L3 opt 1 **Cottage Steplights** page 1

IMPACT®
ISL-ALED
RECESSED LUMINAIRE

DESCRIPTION

A General
Regressed LED with rectangular aperture for glare-free, energy efficient, path and step lighting; suitable for dry or wet, interior or exterior applications.

B Special Features
Dimmable 3W AC LED (dimming by power supply); LED/heat sink module is field replaceable.

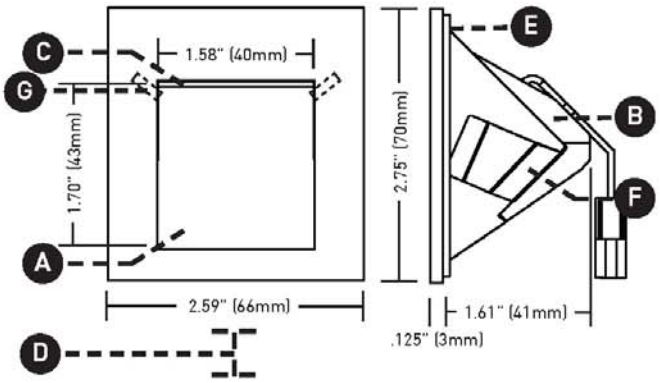
C Effects Devices
Provided with sealed polycarbonate linear diffusion lens; consult factory for availability of color gels which may achieve custom color temperatures.

D Installation Guidelines
Optimum 18" (457mm) above walking surface; 36" (914mm) on-center.

E Gasket
Foam gasket provided. Required for IP65 wet location applications only.

F Retention
Torsion spring clips secure fitting into back box, mounting plate or appropriately sized cut-out.

G Locking
Specify "-L" to include tamper resistant discreetly hidden set screw. Required for IP65 wet location applications.



TECHNICAL

CONSTRUCTION
Cast 316 stainless steel or bronze depending on finish.

ELECTRICAL
Luminaire requires factory supplied 12-volt AC power supply. May be integral to back box or remote. Secondary run lengths vary depending on power supply specified. See page 3 for available options and wiring requirements.

MOUNTING
See pages 2 & 3 for various mounting accessories.

LED
Proprietary 3 watt nominal AC LED, 80+ CRI, 2 SDCM, in color temperatures of 2700K, 3000K, 3500K & 4000K, plus Blue and Amber, 42.8 delivered lumens (13.4 lm/watt). Average rated life of 50,000+ hours.

LISTING
TUV listed for dry/damp (IP54 rated) and wet locations (IP65 rated); CE marked; Dark-Sky approved; Patent No. US D610,734 S.

WARRANTY
Five year warranty on LED lamp module and driver. One year warranty on all other Lucifer Lighting provided system components. Consult website for full warranty terms and conditions.

ORDERING INFORMATION (Luminaire)

Example: ISL-ALED-3K-NBR-NL

ISL-ALED – [ ] – [ ] – [ ]

SERIES	COLOR TEMP	FINISH	LOCKING
ISL-ALED	**2.7K** 2700K **3K** 3000K **3.5K** 3500K **4K** 4000K **BL** Blue **AM** Amber **CK** Custom Color (Gel)	**W** White Powdercoat **B** Black Powdercoat **C** Chrome **IG** Industrial Gray **NBR** Natural Bronze **SS** Brushed Stainless Steel **BR** Brushed Bronze **ABR** Architectural Bronze Powdercoat **BRP** Polished Oil-Rubbed Bronze Plate **BRM** Matte Oil-Rubbed Bronze Plate **MG** Metallic Gray Powdercoat	**NL** Non-Locking (IP54) **L** Locking* (IP65) * NOTE: Locking version required for IP65 wet location applications.

	80+ CRI
Lumen Package	216 lm
Power Consumption	3.2 watts
LED Source lm/w	67.5 lm/w
Fixture Delivered Output	42.8 lm
Fixture lm/w	13.4 lm/w

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IMPACT®
ISL-ALED
RECESSED LUMINAIRE

DESCRIPTION

Following mounting options require remote power supply

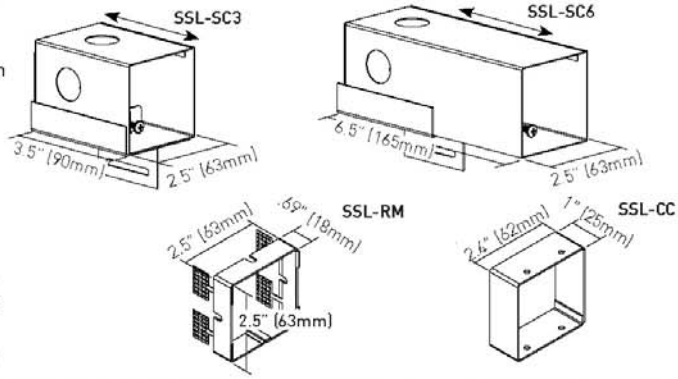
☐ **SSL-SC3**
Stainless steel stud mount collar for dry locations only. Adjusts with integral jackscrew from 1/2" to 3" for walls with varying substrate depths (rock, brick and stone). Features 1/2" knockouts for wiring.

☐ **SSL-SC6**
Stainless steel stud mount collar for dry locations only. Adjusts with integral jackscrew from 3" to 6" for walls with varying substrate depths (rock, brick and stone). Features 1/2" knockouts for wiring.

☐ **SSL-RM (Remodel Collar)**
Stainless steel collar for mounting fitting into drywall/plasterboard. Dry locations only. Requires Class 2 power supply.

☐ **SSL-CC (Cavity Collar)**
Stainless steel collar for mounting fitting into cavity or bore. Dry locations only. Requires Class 2 power supply.

SUITABLE FOR USE IN DRY LOCATIONS ONLY



Following mounting options require remote power supply

☐ **SSL-UMP**
Stainless steel mounting plate. Typically used with two gang switch box or 4 square junction box for dry locations. May be used with customer furnished single or two gang weatherproof box for wet and concrete pour locations.

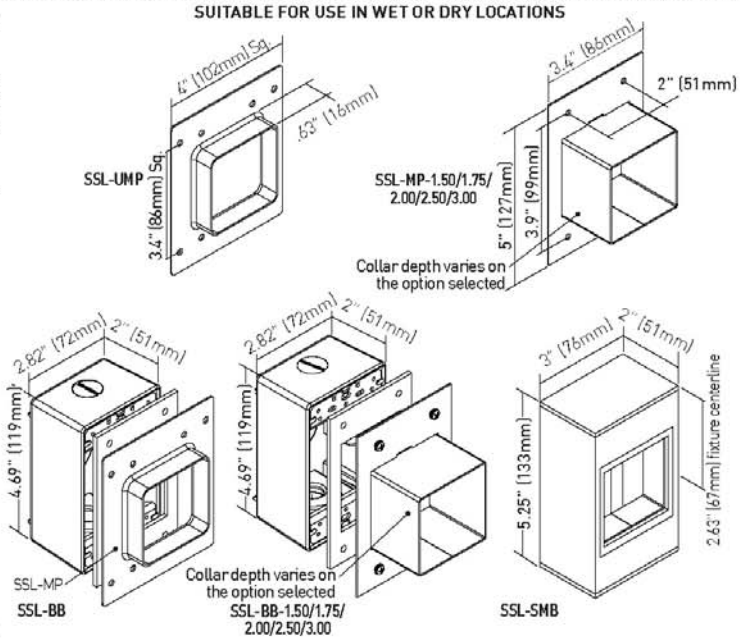
☐ **SSL-MP-1.50/1.75/2.00/2.50/3.00**
Stainless steel mounting plate featuring an extended collar for single-gang weatherproof box, specify preferred depth. Typically for wet and concrete pour locations.

☐ **SSL-BB** [QS]
Aluminum single-gang weatherproof box equipped with SSL-UMP mounting plate. Typically used in wet and concrete pour applications. Features 1/2" knockouts.

☐ **SSL-BB-1.50/1.75/2.00/2.50/3.00**
Aluminum single-gang weatherproof box equipped with SSL-MP extended collar mounting plate, specify preferred depth. Typically used in wet and concrete pour locations. Features 1/2" knockouts.

☐ **SSL-SMB**
Aluminum surface mount box for interior or exterior applications. Receives secondary wiring through back of box.

SUITABLE FOR USE IN WET OR DRY LOCATIONS



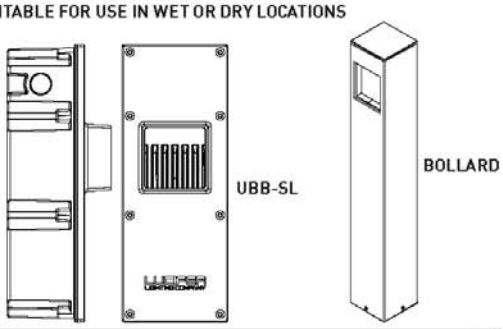
[QS] Quick Ship eligible option
(Must add "-QS" to end of model number if requesting Quick Ship option)

Following mounting options feature integral power supply options:

SUITABLE FOR USE IN WET OR DRY LOCATIONS

UBB-SL
Universal back box, wet location and concrete pour rated. Features integral or remote power supply and secondary output capacity. See page 3 or separate spec sheet for complete details and ordering information.

BOLLARD
Freestanding mount. Also available with integral power supply. See separate spec sheet for complete details and ordering infromation.



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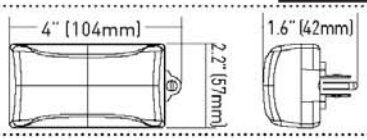
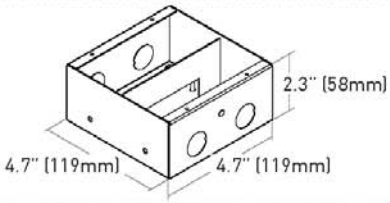
POWER SUPPLY OPTIONS

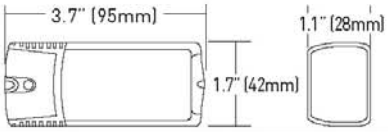
☐ **PSA-60-12P-1**
Plug-in Class II power supply, 120V primary, 12V secondary, 60W electronic transformer (non-dimmable). Accommodates up to 8 luminaires wired in either a homerun or parallel method. Max 40' secondary run length.



☐ **PSA-60-12H-JB-1**
Dimmable power supply for hardwire applications. Consists of a steel compartment painted black with integral conventional Class II 120V primary, 12V secondary, 60W electronic transformer and lid. Accommodates up to 8 luminaires wired in either a homerun or parallel method. Max 40' secondary run length.



☐ **PS-50-12AC-230E**
230V ±10% 50Hz primary, 12V secondary, 50W electronic transformer (dimmable). IP44 rated. Includes leads for wiring. Accommodates up to 4 luminaires wired in either a homerun or parallel method. Max 2-meter secondary run length. Install in accordance with manufacturers suggested guidelines (Varilight model #YT50LZ).



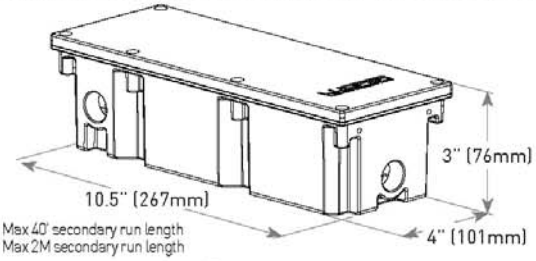
UNIVERSAL BACK BOX ORDERING INFORMATION

UBB-JCT
Universal junction box with integral power supply, suitable for dry, wet and concrete pour applications.*

Example: UBB-JCT-40-120T

UBB-JCT	-	
SERIES		POWER SUPPLY/VOLTAGE

40-120T	Integral toroidal, 120V, 60Hz, 40W, Maximum of 8 fixtures
60-120E	Integral electronic, 120V, 50/60Hz, 60W, Maximum of 8 fixtures. Max 40' secondary run length
50-230E	Integral electronic, 230V ±10% 50Hz, 60W, Maximum 4 fixtures. Max 2M secondary run length
40-277T	Integral toroidal, 277V, 60Hz, 40W Max, Maximum of 8 fixtures



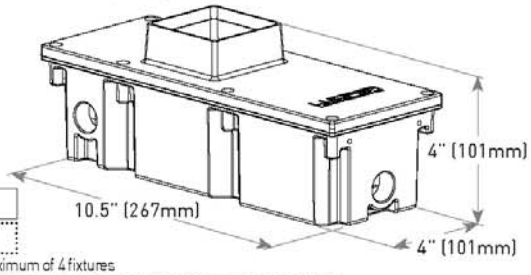
UBB-SL
Universal back box receives one fixture and includes an integral power supply. Suitable for dry, wet and concrete pour applications. Features separate line and low voltage wiring compartment, allowing additional fixtures to be serviced via secondary wiring.*

Example: UBB-SL-FL-20-120T

UBB-SL	-	FL	-	
SERIES		FLANGE/APPLICATION		POWER SUPPLY/VOLTAGE

20-120T	Integral toroidal, 120V, 60Hz, 20W, Maximum of 4 fixtures
60-120E	Integral electronic, 120V, 50/60Hz, 60W, Maximum of 8 fixtures. Max 40' secondary run length
20-277T	Integral toroidal, 277V, 60Hz, 20W Max, Maximum of 4 fixtures
LVF	Low Voltage Feed (requires remote power supply) [05]

[05] Quick Ship eligible option (Must add "-QS" to end of model number)

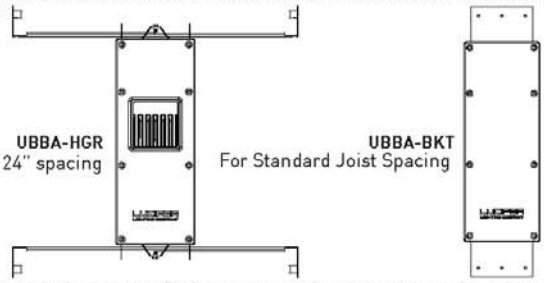


MOUNTING BRACKET OPTIONS

***Mounting hardware ordered separately. Select from the following:**

☐ **UBBA-HGR** Adjustable hanger bars

☐ **UBBA-BKT** Universal Mounting Brackets



NOTE: Dimming is best achieved using a corresponding forward phase control for power supplies designated "-120T" outfitted with toroid magnetic transformer and a reverse phase control for power supplies designated "PSA-60-", "-120E" & "-240E" outfitted with electronic transformers. Performance may vary between controls and applied loads. Consult factory for most recent dimming compatibility report.

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BKSSL

the power of dimming with adjust-e-lume® TECHNOLOGY

CORE DRILL SQUARE STEP STAR™

CATALOG NUMBER LOGIC

BK # B - CD- X - LED - e64 – A9 X

Material
- **Blank** - Aluminum
- **B** - Brass

Series
- **CD-SQ** - Core Drill Square Step Star™

Source
- **LED** - 'e' Technology with Integral Dimming Driver (See Specifications for Dimming)
  Designed for use with remote 12VAC BKSSL® transformers. Requires magnetic Low Voltage dimmer.

LED Type
- **e64** - 7WLED/2.7K
- **e65** - 7WLED/3K
- **e66** - 7WLED/4K
- **e74** - 7WLED/Amber

Adjust-e-Lume® Output Intensity *(Choose factory setting)*
- **A9** (Standard), **A8, A7, A6, A5, A4, A3, A2, A1**

Finish

Aluminum Finish

Powder Coat Color	Satin	Wrinkle
Bronze	BZP	BZW
Black	BLP	BLW
White (Gloss)	WHP	WHW
Aluminum	SAP	—
Verde	—	VER

Brass Finish

Machined	MAC
Polished	POL
Mittique™	MIT

Premium Finish

ABP	Antique Brass Powder	CMG	Cascade Mountain Granite	RMG	Rocky Mountain Granite
AMG	Aleutian Mountain Granite	CRI	Cracked Ice	SDS	Sonoran Desert Sandstone
AQW	Antique White	CRM	Cream	SMG	Sierra Mountain Granite
BCM	Black Chrome	HUG	Hunter Green	TXF	Textured Forest
BGE	Beige	MDS	Mojave Desert Sandstone	WCP	Weathered Copper
BPP	Brown Patina Powder	NBP	Natural Brass Powder	WIR	Weathered Iron
CAP	Clear Anodized Powder	OCP	Old Copper	*Also available in RAL Finishes See submittal SUB-1439-00*	

DRIVER DATA

Input Volts	InRush Current	Operating Current	Dimmable	Operation Ambient Temperature
12VAC/DC 50/60Hz	250mA (non-dimmed)	700mA	Magnetic Low Voltage Dimmer	-10°F-130°F

LM79 DATA / L70 DATA

BK No.	CCT (Typ.)	Input Watts (Typ.)	CRI (Typ.)	Minimum Rated Life (hrs.) 70% of initial lumens(L70)
e64	2700K	7.0	80	50,000
e65	3000K	7.0	80	50,000
e66	4000K	7.0	80	50,000
e74	Amber (590nm)	7.0	~	50,000

B-K LIGHTING

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www.bklighting.com • info@bklighting.com

RELEASED 06-03-16 | DRAWING NUMBER SUB001021

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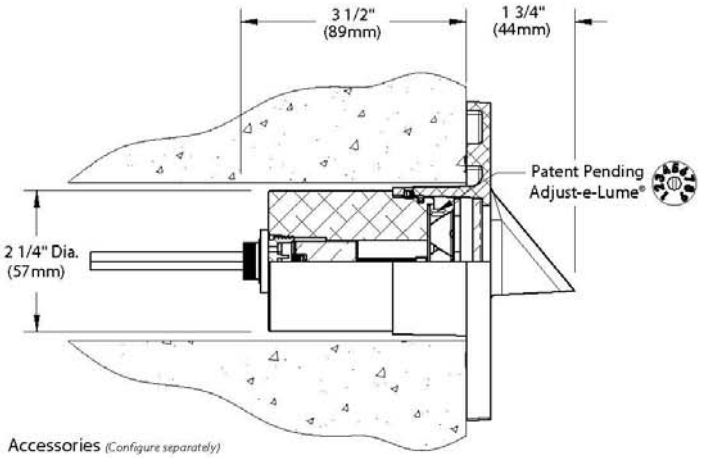
BKSSL SOLID STATE LIGHTING

the power of dimming with adjust-e-lume® TECHNOLOGY

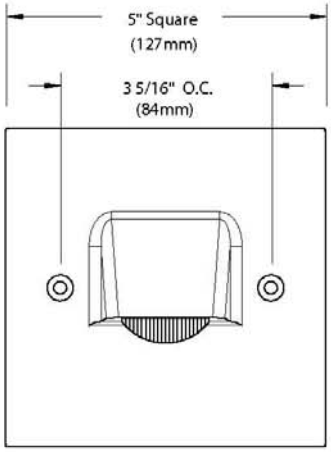
CORE DRILL
SQUARE STEP STAR™

PROJECT:	
TYPE:	

SIDE VIEW



FACEPLATE DETAIL



Accessories *(Configure separately)*

Remote options:

TR Series

UPMRM™

All dimensions indicated on this submittal are nominal.
Contact Technical Sales if you require more stringent specifications.

SPECIFICATIONS

GreenSource Initiative™
Metal and packaging components are made from recycled materials. Manufactured using renewable solar energy, produced on site. Returnable to manufacturer at end of life to ensure cradle-to-cradle handling. Packaging contains no chlorofluorocarbons (CFC's). Use of this product may qualify for GreenSource efficacy and recycling rebate(s). Consult www.bklighting.com/greensource for program requirements.

Materials
Furnished in Copper-Free Aluminum (Type 360) or Brass (Type 360).

Core Drill
Allows for mounting into existing structures that will not easily accept a standard box. 2-1/2" dia. hole required for slip fit.

Body
Fully machined from solid billet. Unibody design provides enclosed, water-proof wireway and integral heat sink for maximum component life. High temperature, silicone 'O' Ring provides water-tight seal. Provided with hard-coat (Type III) black anodize finish for maximum corrosion resistance. Weather-tight cable connector with 5'0," 18Ga., 2 wire low voltage cable.

Faceplate
Cast construction with machined finish. Countersunk holes provide for flush hardware mounting (by others).

Lens
Shock resistant, tempered, glass lens is factory adhered to faceplate and provides hermetically sealed optical compartment.

BKSSL®
Integrated solid state system with 'e' technology is scalable for field upgrade. Modular design with electrical quick disconnects permit field maintenance. High power, forward throw source complies with ANSI C78.377 binning requirements. Exceeds ENERGY STAR® lumen maintenance requirements. LM-80 certified components.

Integral, constant current driver. 12VAC/VDC input. 50/60Hz. Proprietary input control scheme achieves power factor correction and eliminates inrush current. Output, over-voltage, open-circuit, and short circuit protected. Inrush current limited to <1A (non-dimming). Conforms to Safety Std. C22.2 No. 250.13-12.

Dimming
Line voltage dimmable via magnetic low voltage dimmer. For use with low voltage dimmer with dedicated neutral conductor. For purposes of dimming: Remote magnetic transformer with BKSSL® Power of 'e' technology loads should be loaded to 25% of the transformer VA (watts) rated value.

Optics and Cutoff
Rectilinear design provides wide lateral distribution and long forward throw. 90° optical cutoff for mounting heights well below typical visual glare angles.

Adjust-e-Lume® (Pat. Pending)
Integral electronics allows dynamic lumen response at the individual fixture. Indexed (100% to 25% nom.) lumen output. Maintains output at desired level or may be changed as conditions require. Specify factory preset output intensity.

Remote Transformer
For use with 12VAC BKSSL remote transformer or magnetic transformers only. B-K Lighting cannot guarantee performance with third party manufacturers' transformers.

Wiring
Teflon® coated, 18AWG, 600V, 250° C rated and certified to UL 1659 standard. Anti-Siphon Valve (ASV™) prevents "wicking" through conductor insulation. Anti-Siphon Valve (ASV™) prevents "wicking" through conductor insulation.

Hardware
Tamper-resistant, stainless steel hardware. Mounting hardware by others.

Finish
StarGuard®, our exclusive RoHs compliant, 15 stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating. Brass components are available in powder coat or handcrafted metal finish.

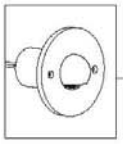
Warranty
5 year limited warranty.

Certification and Listing
ITL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHs compliant. Suitable for indoor or outdoor use. Suitable for installation in combustible materials (Type Non-IC). Suitable for use in wet locations. Suitable for installation within 4' of the ground. IP65 Rated. Made in USA.

RoHS

*Teflon is a registered trademark of DuPont Corporation.
*Energy Star is a registered trademark of the United States Enviromental Protection Agency.

B-K LIGHTING	40429 Brickyard Drive • Madera, CA 93636 • USA 559.438.5800 • FAX 559.438.5900 www.bklighting.com • info@bklighting.com	RELEASED 06-03-16	DRAWING NUMBER SUB001021



the power of adjust-e-lume® TECHNOLOGY

CORE DRILL
Solid State LED

Installation Instructions

TOOLS & MATERIALS NEEDED:

- 5/64" Allen Wrench
- Drill with 2-1/2" Core Drill Bit
- Waterproof Wire Connectors
- Mounting Hardware

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, OR INJURY TO PERSONS IMPORTANT SAFETY INSTRUCTIONS

Lighted lamp is HOT!
WARNING - To reduce the risk of FIRE OR INJURY TO PERSONS: Turn off/unplug and allow to cool before replacing lamp. Lamp gets HOT quickly! Contact only switch/plug when turning on.
Do not touch hot lens, guard, or endosure (see diagram/picture).
Keep lamp away from materials that may burn.
Do no touch the lamp at any time. Use a soft cloth. Oil from skin may damage lamp.
Do not operate the luminaire fitting with a missing or damaged shield.

SAVE THESE INSTRUCTIONS

IMPORTANT SAFETY INFORMATION - READ, FOLLOW, AND SAVE ALL SAFETY AND INSTALLATION INSTRUCTIONS

- Product must be installed by a qualified person in a manner consistent with its intended use and in compliance with the National Electrical Code, Canadian Electrical Code, and all Local and Provincial Codes.
- Follow product label information and instructions.
- Qualified Personnel must perform all servicing or relamping of this product.
- Before wiring to power supply and during servicing or relamping, turn off power at fuse or circuit breaker before service.
- The use of accessory equipment not recommended by the manufacturer or installed contrary to instructions may cause an unsafe condition. The use of damaged components may cause an unsafe condition and void product warranty.
- Do not block light emanating from product in whole or part, as this may cause an unsafe condition.
- Never operate the fixture with missing or damaged lens. Lens must be cleaned on regular basis.
- Entire fixture may become extremely hot. Do not touch hot lens or fixture body. Do not touch the lamp at any time. Use a clean, dry, soft cloth to handle the lamp. Oil from skin may damage the lamp and cause it to rupture.
- Replace lamp only with correct wattage and type of lamp marked on fixture label.
- All gaskets, o-rings and sealing surfaces must be kept clean during installation and service; failure to do this may cause an unsafe condition and void product warranty.

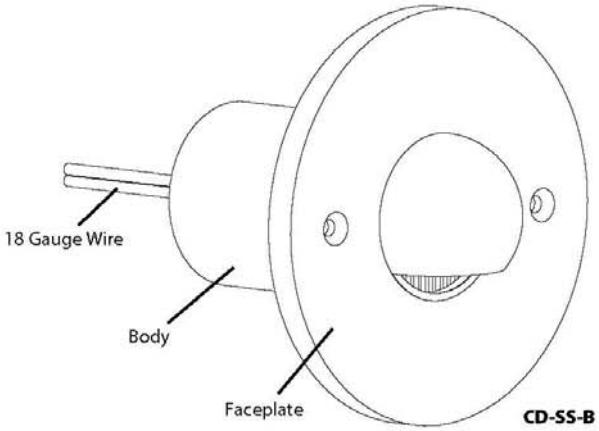
IMPORTANT LISTINGS AND CERTIFICATIONS

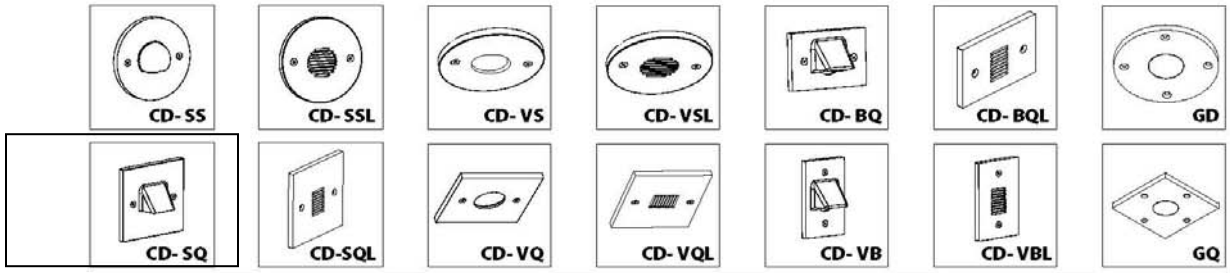
- **Suitable for wet location** - **Additionally suitable for mounting within 4 ft. of the ground** - **Type Non-IC**

Please refer to the low voltage design guide at www.bklighting.com/lvguide before installation for proper wire selection.

This set of instructions works for:

CD-SS	- Core Drill Step Star™ A or B
CD-SSL	- Core Drill Louvered Step Star™
CD-VS	- Core Drill Versa Star™
CD-VSL	- Core Drill Louvered Versa Star™
CD-BQ	- Core Drill Brick Star™
CD-BQL	- Core Drill Louvered Brick Star™
CD-SQ	- Core Drill Square Step Star™
CD-SQL	- Core Drill Louvered Square Step Star™
CD-VQ	- Core Drill Square Versa Star™
CD-VQL	- Core Drill Louvered Square Versa Star™
CD-VB	- Core Drill Vertical Brick Star™
CD-VBL	- Core Drill Louvered Vertical Brick Star™
GD	- Gold Star™
GQ	- Square Gold Star™





IMPORTANT SAFETY INFORMATION - READ, FOLLOW, AND SAVE THESE INSTALLATION INSTRUCTIONS

B-K LIGHTING

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.bklighting.com • info@bklighting.com

RELEASE DATE	REFERENCE NUMBER
8-18-16	INS000936

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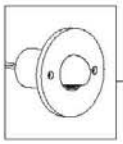
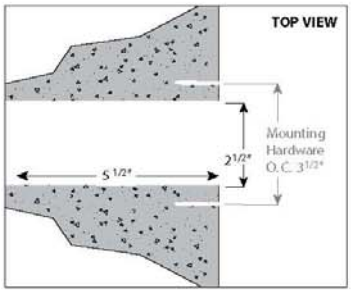


CORE DRILL
Solid State LED

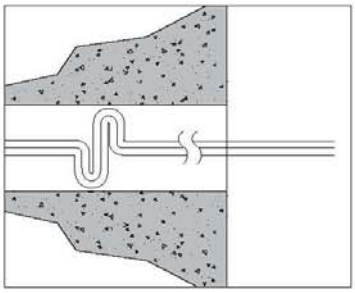
Installation Instructions

PROJECT:	
TYPE:	

Fixture Installation

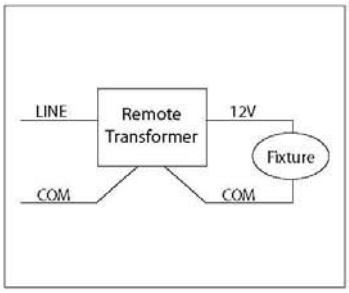


1. Core drill a 2 1/2" hole 5 1/2" deep into mounting structure. Leave sufficient material between core drill hole and anchor mount.



2. Pull low voltage cable (By Others).

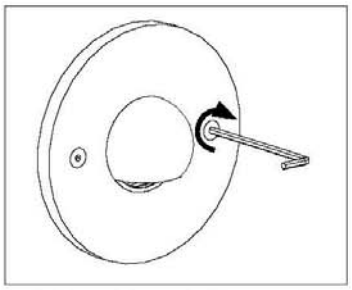
⚠ **Leave sufficient cable length for fixture service.**



WIRING DIAGRAM

⚠ **LED - For use with 12VAC remote transformer or magnetic transformers only. B-K Lighting cannot guarantee performance with third party manufacturers' transformers.**

3. Make watertight connections from remote transformer to fixture leads using waterproof wire connectors. (By Others) **See wiring diagram.**



4. Install fixture into core drilled hole and mount with two (2) #10 fasteners as required (mounting screws supplied by others.) Length and type of mounting screws will vary with construction material. Do not over tighten.

IMPORTANT SAFETY INFORMATION LISTED ON REVERSE
READ, FOLLOW, AND SAVE ALL SAFETY AND INSTALLATION INSTRUCTIONS

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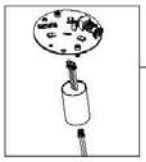


the power of adjust-e-lume TECHNOLOGY

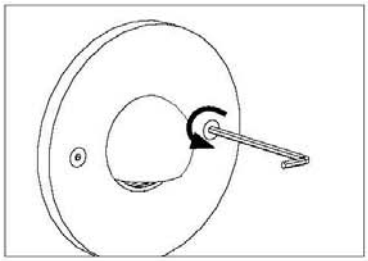
LED BOARD / DRIVER / OPTICS
Architectural Recessed - Core Drill

Standard Installation/Replacement

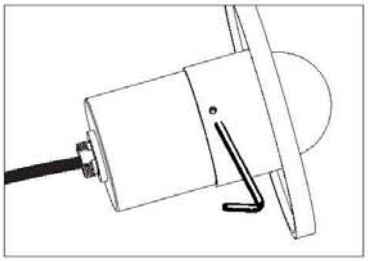
Warning | Low Voltage | Hot Surface

TOOLS NEEDED:	
	5/64" & 1/8" Allen Wrench
	Small Flat Head Screw Driver
By Others	Phillips Screwdriver

Re-placing LED Board/Driver and Optics

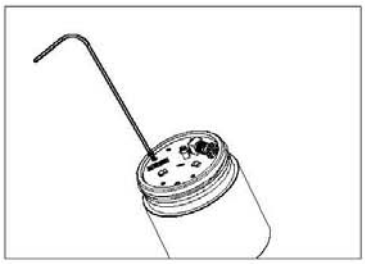


1. Remove fixture by loosening two (2) #10-24 fasteners with 1/8" Allen wrench. Gently pull away faceplate away enough to expose fixture body.

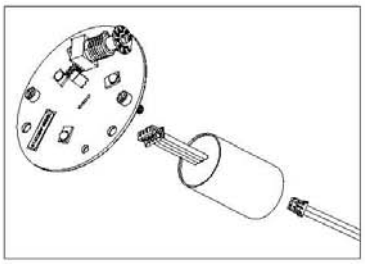


2. Loosen two (2) #8-32 set screws with 5/64" Allen wrench to expose optic and LED board.

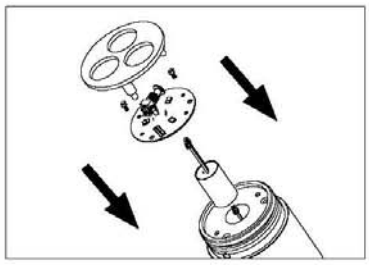
3. Space three fingers evenly around the optic and gently rock optic to remove.



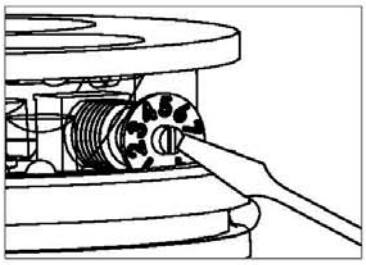
4. Use 5/64" Allen wrench to remove two (2) #2-56 socket head cap screws on LED board, grasp LED board and gently pull up to expose quick disconnect.



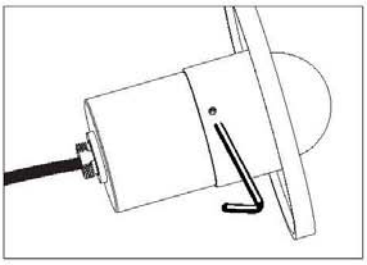
5. Disengage LED board and driver assembly via quick disconnects. Replace with new board and driver assembly.



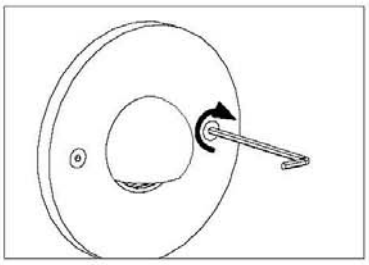
6. Reverse install new LED board and driver by carefully re-engaging quick disconnects. Secure LED board in place with stainless steel screws. Snap optics in place.



7. With flat head screw driver rotate dial to desired lumen output.



8. Replace cap by tightening two (2) #8-32 set screws with 5/64" Allen wrench. **Do not overtighten set screws.**



9. Mount faceplate using two (2) #10-24 screws with 1/8" Allen wrench. Tighten evenly to compress gasket. Do not over tighten.

IMPORTANT SAFETY INFORMATION - READ, FOLLOW, AND SAVE THESE INSTALLATION INSTRUCTIONS

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Location: CONDO First floor –
Exterior ENTRY locations

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type L4 recessed page 1

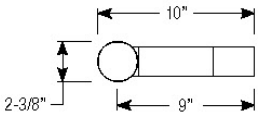
Catalog #: Type:
Project: Date:
Notes:

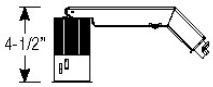
1" Eco-Downlight
Non-IC Remodel Housing
Round or Square

Wattage	CCT	Delivered Lumens	Efficacy
8.5W	2700K	750lm	88lpw
8.5W	3000K	800lm	94lpw
13W	2700K	950lm	73lpw
13W	3000K	1050lm	81lpw
13W	3500K	1150lm	88lpw

Lumens will vary depending on optic, finish & trim type

Dimensions





Ceiling Cut-out: 2-1/4" Ø

LED Light Engine
- 8.5W LED with 2700K or 3000K @ 90 CRI
- 13W LED with 2700K, 3000K or 3500K @ 90 CRI
- 2 SDCM binning
- 50,000 hours at 70% lumen maintenance (L70)

Field Replaceable Dimming Driver
- 8.5W Low power density (LPD) housings include an universal ELV / Triac driver with 120-277V input
- 13W housings are available with remote Lutron Hi-Lume® or universal 0-10V / ELV / Triac driver

Optics
50° flood optic included (10°, 30° and 80° optic are available, must specify)

Gasket for IC Air-Tight Installations
8.5W Low power density (LPD) housings can be converted to an IC Air-Tight housing with gasket, must specify EDLM-AT-GSKT.

Housing
- Non-IC rated, must be kept 3" from insulation
- Cold rolled steel junction box with black anodized finish, (2) 1/2" trade size knockouts
- Black oxide-coated, heat treated spring steel mounting clips (included)

Mounting
- Adjust vertically to accommodates ceiling thickness from 1/2" to 3/4"
- Requires a minimum ceiling depth of 6-1/2"

Trim
- Available in round or square aluminum trim, consult factory for custom finishes
- Available in open reflector, baffle or shower trim
- Flush mount adapter available

Emergency
Remote inverter operates for 90 minutes with remote test switch available, requires above ceiling access.

Listing/Warranty
- Five (5) year limited warranty
- UL listed to US and Canadian standards for damp locations (wet location when used with shower trim)
- CEC (Title 24) Listed when used with reflector or baffle

Housing: EDLM-27-4- X- EDLM- 50-OPTIC- 3

Installation Type	CCT / CRI	Rev	Wattage / Driver
EDLM-RM (Non-IC)	■ -27 (2700K / 90 CRI) ☐ -30 (3000K / 90 CRI) ☐ -35[1] (3500K / 90 CRI)	-4	☐ (blank)[3] (13W / ERP, Universal Dim, Triac/ELV/0-10V 10% 120-277V) ☐ -LR1 (13W / Remote Lutron Hi-lume® 2-Wire 1% 120V) ☐ -LPD[2] (8.5W / ERP, Universal Dim, Triac/ELV 10% 120-277V

1. Not available with 8.5W LPD driver
2. Available in 2700K and 3000K only
3. Forward and reverse phase dimming at 120V only

Optics
- ☐ EDLM-10-OPTIC-3 (10° Spot)
- ☐ EDLM-30-OPTIC-3 (30° Narrow Flood)
- ■ EDLM-50-OPTIC-3 (50° Flood)
- ☐ EDLM-80-OPTIC-3 (80° Wide Flood)

Emergency
- ☐ EM-1000 (25W LED Remote Inverter)
- ☐ EM-1002 (10W LED Remote Emergency Driver)
- ☐ EM-1003 (35W LED Remote Inverter)
- ☐ EM-1004 (50W LED Remote Inverter)

Gasket for IC Air-Tight ceilings
- ☐ EDLM-AT-GSKT (Air-Tight IC Gasket for LPD housing only)

Location: CONDO First floor – Exterior ENTRY locations

Revised 05/14/18

14508 Nelson Ave. City of Industry, CA 91744 • tel: 626.336.4511 • fax: 626.330.4266 • www.csllighting.com
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1" Eco-Downlight Shower Trim

Non-IC Remodel Housing

Round or Square

Catalog #: Type:

Project: Date:

Notes:

Shower Trim Order Matrix (Example: EDLM-1200-3)

Series	Aperture / Finish	Rev
EDLM	■ -1200 (Round Shower Trim / White Flange) ☐ -2200 (Square Shower Trim/ White Flange)	-3

Flush Mount Adapter

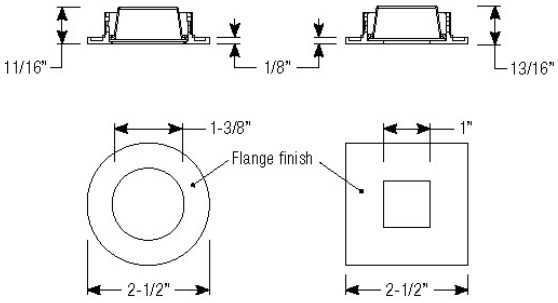
- ☐ EDLM-RD-FMA (Round Flush Mount Adapter)
- ☐ EDLM-SQ-FMA (Square Flush Mount Adapter)

Trim Finishes

EDLM-1200-3
White Flange

EDLM-2200-3
White Flange

Dimensions



Note: Shower trim does not allow adjustable mechanism to tilt

Round Wet /TRIM # EDLM- 1200 -3

Revised 05/14/18

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LIGHT INSIGHT design studio
Tel: 617-268-1122

Project:

Surfside Crossing
3, 5, 7, 9 South Shore Road
Nantucket, MA 02554

Type
L4
recessed

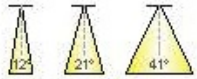
Ordering

FIXTURE	
230P	Ceiling mounted downlight
SOURCE	
20MR16*	12V MR16 20W max GU5.3 (not included)
35MR16	12V MR16 35W max GU5.3 (not included)
50MR16	12V MR16 50W max GU5.3 (not included)
6LED*	6W LED GU5.3 Base
10LED*	10W LED GU5.3 Base
LED COLOR TEMP	
27	2700K
30	3000K
40	4000K
57	5700K
LED BEAM SPREAD	
12	12° Spot
21	21° Narrow
41	41° Wide
VOLTAGE	
12	12V remote transformer required
FINISH	
BK	Painted black
BZ	Painted bronze
CS	Painted city silver
VE	Painted verde
WT	Painted white
NBR	Solid brass
NBZ	Solid bronze
NCP	Solid copper
NSS	Solid stainless steel

Ordering Example

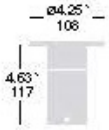
920-50MR16-12-CS

ACCESSORIES	
Optical	Page 114
Light Control	Page 115
Mounting	Page 116-118
Power	Page 120-123



IP65

*TITLE 24



230P — CAMBRIA CEILING

12V LED

12V MR16

Remote Power Supply

CAMBRIA 230-P is a small dimmable LED or MR16 line voltage luminaire with for use with a remote 12-volt step-down transformer. The 230-P is a simple downlight fixture with Lumiere's 203-style Cambria cylinder head mounted to a round backplate. The fixture mounts directly over any standard 4-inch ceiling-mounted J-box. Various lenses, louvers, and color or dichroic filters can be combined - up to three at once - to create multiple lighting effects.

- **Up to three optical accessories (lenses, louvers, filters)**
- **Stainless steel hardware**
- **3 year warranty**
- **CA Title 24 Compliant (*when ordered w/ 20W max source)**

LUMIERE:
#230P – 10 LED – 27 - 41° - 12 – X
#**DIF** Diffusion lens

LIGHT INSIGHT design studio Tel: 617-268-1122	Project: Surfside Crossing 3, 5, 7, 9 South Shore Road Nantucket, MA 02554	Type L4 surface page 1