

5200 Buffington Rd.
Atlanta Georgia,
30349-2998

Bowman

NJ Certificate of Authorization License No. 16000055
6 Gateway Drive, Suite 102
Parlin, New Jersey 07654
Phone: 732-258-8400
www.bowman.com
© 2023 Bowman Consulting Group LLC

Seal

CHICK-FIL-A
LAWRENCEVILLE TOWNSHIP FSU
2950 US HIGHWAY 1
LAWRENCEVILLE, NEW JERSEY 08648

FSU# 04534

NO.	DATE	DESCRIPTION
1	09/29/2023	REV PER TOWNSHIP COMMENT

CURRENT DESIGN	2021-005
NOTE APPLIED	
PROJECT #	010014-01-189
PRINTED FOR	PERMIT
DATE	07.05.2023
DRAWN BY	CW

Information contained on this drawing and in all digital files produced for drive related projects may not be reproduced, any manner without express written or verbal consent from authorized project representatives.

SHEET
PHOTOMETRIC PLAN

SHEET NUMBER

E-102

GENERAL NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY CONDITION AND PROPER FUNCTIONALITY OF ALL SYSTEMS AND DEVICES WHICH ARE INVOLVED OR AFFECTED BY THE SCOPE OF THIS PROJECT PRIOR TO BEGINNING WORK. ALL DAMAGE OR IMPROPER FUNCTIONALITY SHALL BE REPORTED TO OWNER IN WRITING. UNDOCUMENTED DAMAGE OR IMPROPER FUNCTIONALITY DISCOVERED FOLLOWING THE START OF WORK SHALL BE CORRECTED AT CONTRACTORS EXPENSE TO APPROVAL OF OWNER.
- THIS PLAN IS PROVIDED FOR LIGHT POLE PLACEMENT AND PHOTOMETRIC DESIGN ONLY AND DOES NOT INCLUDE ANY NEW BUILDING MOUNTED OR ROADWAY LIGHT FIXTURES. THE PROJECT ELECTRICAL ENGINEER WILL SPECIFY ANY NEW CIRCUITING OF THE SITE AND BUILDING LIGHTING AS WELL AS PROVIDING NECESSARY POWER, SWITCHES, AND LIGHTING CONTROLS AT THE BUILDING'S ELECTRICAL PANEL.
- NEW AND RELOCATED POLE LIGHTS ARE TO BE PLACED 3'-0" BEHIND BACK OF CURBS.
- DEVICES TAGGED 'EX' OR PREFIXED WITH (E) ARE EXISTING TO REMAIN AND SHOWN FOR REFERENCE ONLY.
- PHOTOMETRIC VALUES AND PLACEMENT OF (E) FIXTURES ARE BASED ON EXISTING PLANS. EXISTING LIGHT DETAILS SHOULD BE CONFIRMED IN THE FIELD PRIOR TO WORK.
- CITY ADOPTED LIGHTING STANDARDS OF TRENTON, NJ ARE TO BE FOLLOWED FOR ALL NEW WORK. ENGINEER OF RECORD SHALL ADHERE TO ALL 2018 IECC LIGHTING SETBACK AND CONTROL REQUIREMENTS.

WORK NOTES:

- ELECTRICAL CONTRACTOR SHALL INTERCEPT EXISTING SITE LIGHTING BRANCH CIRCUIT AND RE-FEED NEW LIGHT FIXTURE. ELECTRICAL CONTRACTOR SHALL CONFIRM CONDUCTOR SIZES ARE ACCEPTABLE FOR NEW LIGHT FIXTURE. EXISTING LIGHT POLE AND BASE TO BE DEMOLISHED AND RELOCATED WITH NEW LIGHT FIXTURE. ELECTRICAL CONTRACTOR TO DETERMINE IF POLE CAN BE REUSED.
- CIVIL TO CONFIRM EXACT LOCATION OF NEW LIGHT FIXTURE AND COORDINATE WITH ELECTRICAL CONTRACTOR TO RELOCATE AS REQUIRED.
- ELECTRICAL CONTRACTOR SHALL PROVIDE (2-#10 THWN CU, #10 CU GND) 1" PVC FOR NEW LIGHTING CIRCUIT TO NORTH-EAST PARKING LOT LIGHTS. CIRCUIT SHALL BE FED FROM A NEW 208V, 2P-20A, BRANCH CIRCUIT BREAKER LOCATED WITHIN EXISTING PANEL "C" LOCATED IN CHICK-FIL-A BUILDING. NEW CIRCUIT BREAKER AIC RATING SHALL MATCH AIC RATING OF EXISTING BREAKERS WITHIN PANELBOARD.

SCOPE OF WORK:

- DEMO EXISTING LIGHT AND PROVIDE WITH NEW LIGHT FIXTURE IN NEW LOCATION DUE TO SITE RENOVATIONS IN EXISTING SOUTH-WEST PARKING LOT.
- LOCATION AND SPECIFICATION OF NEW LIGHT POLE FIXTURES FOR NEW NORTH-EAST PARKING LOT. ELECTRICAL CONTRACTOR SHALL PROVIDE A NEW BRANCH CIRCUIT FROM CHICK-FIL-A HOUSE PANEL.
- EXISTING SITE LIGHTING FIXTURES IN SOUTH WEST PARKING LOT, EXCLUDING SP3B TAGGED WITH WORK NOTE 1, ARE EXISTING TO REMAIN UNCHANGED AT THIS TIME.

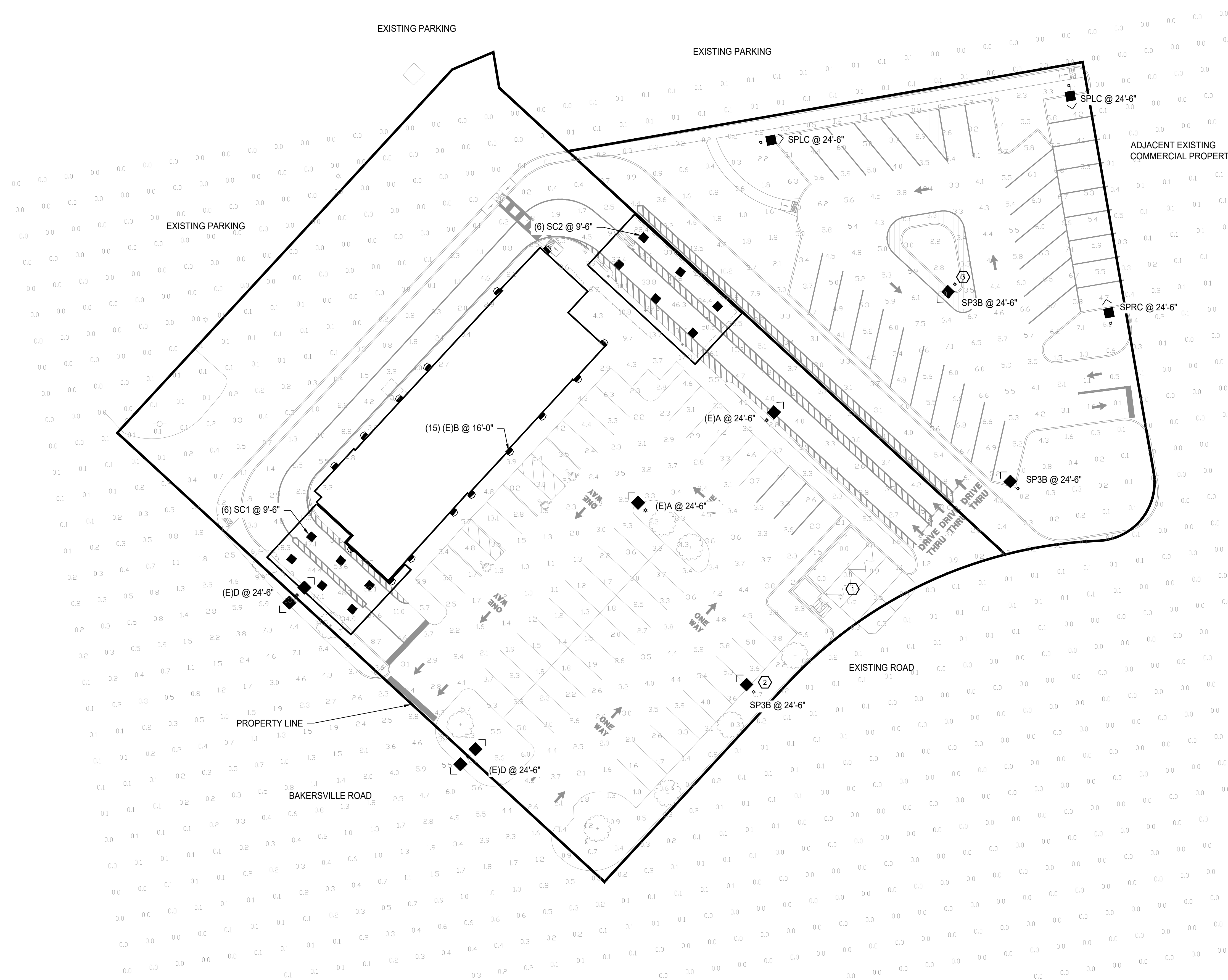
DESCRIPTION	AVG	MAX	MIN	MAX/MIN	AVG/MIN
LARGE CANOPY	37.4 Fc	50.5 Fc	26.1 Fc	1.91	1.41
SMALL CANOPY	40.8 Fc	53.6 Fc	29.5 Fc	1.81	1.31
SW PARKING LOT	3.0 Fc	13.1 Fc	0.6 Fc	21.81	5.01
NE PARKING LOT	5.1 Fc	7.5 Fc	2.6 Fc	2.91	2.01

*PHOTOMETRICS IN SW PARKING LOT BASED ON EXISTING PLANS AND LARGELY UNTOUCHED. CURRENT SCOPE OF WORK WILL HAVE LIMITED AFFECT ON THIS AREA.
NEW PHOTOMETRICS HAVE BEEN DESIGNED TO MIMIC ALL LIGHTING WITHIN PROPERTY LINES IN AN ATTEMPT TO ACCURATELY REPRESENT EXISTING PLANS.

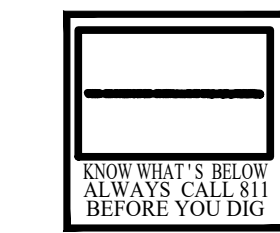
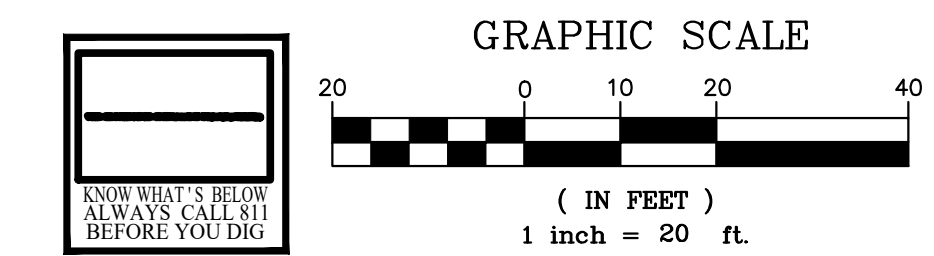
PHOTOMETRIC/LIGHTING REQUIREMENTS:

- CITY REQUIREMENTS:**
- LIGHT FIXTURE MOUNTING HEIGHT NOT TO EXCEED 25'
 - PARKING LOTS: 0.5 FOOT-CANDLES MINIMUM
 - PROPERTY LINES: 1.0 FOOT-CANDLES MAXIMUM

- CHICK-FIL-A REQUIREMENTS:**
- LIGHT FIXTURE MOUNTING HEIGHT NOT TO EXCEED 25'
 - COLOR TEMPERATURE: 3000K
 - AVERAGE FOOT-CANDLES: 4.0 FOOT-CANDLES
 - MAXIMUM FOOT-CANDLES: 9.0 FOOT-CANDLES
 - AVERAGE TO MINIMUM RATIO: 2:1
 - FINISH COLOR: DARK BRONZE



1 SITE PHOTOMETRICS
SCALE: 1" = 20'
NORTH



FOR PERMIT

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THE DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGN PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHOM IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THE DOCUMENT, WITHOUT AUTHORIZATION AND ADAPTATION BY ANIMAL CONSULTING SHALL BE WITHOUT LIABILITY TO ANIMAL CONSULTING.



Catalog #: _____ Project: _____
Prepared By: _____ Date: _____ Type: **(E)C**

Scottsdale® Legacy (CRUS SM)

LED Surface Mount Canopy Luminaire





OVERVIEW	
Lumen Package	5,000 - 22,000
Wattage Range	38 - 152
Efficacy Range (LPW)	114 -156
Weight (lbs/kg)	32 (14.5)

FEATURES & SPECIFICATIONS

Construction

- Features an ultra-slim 11/16" profile die-cast housing with flat clear tempered glass lens mounted to a die formed steel housing with one conduit knockout and four mounting holes. Unit is water-resistant, sealed and IP66 rated. Integral designed heat sink does not trap dirt and grime, ensuring cool running performance over the life of the fixture.
- Standard color is white and is finished with LSI's DuraGrip® polyester powder coat process. DuraGrip withstands extreme weather changes without cracking or peeling.
- Luminaire assembly incorporates a pressure stabilizing vent breather to prevent seal fatigue and failure.

Optical System

- Features an array of select, mid-power, high brightness, high efficiency LED, 3000K, 4000K, 5000K color temperature, 80 CRI (nominal).
- Choice of Symmetric or Asymmetric distribution. Asymmetric provides a wider distribution pattern.
- Six Lumen Packages: 5,000, 9,000, 10,000, 13,000, 18,000 and 22,000 Lumens.

Electrical

- High performance factory programmable driver features over-voltage, under voltage, short-circuit and over temperature protection with integral 6kV surge protection that meets IEEE C62.41.2 and ANSI C82.77-5 Location Category C Low standards. Additional field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2). Custom lumen and wattage packages available.
- Driver components are fully encased in potting for moisture resistance. Complies with IEC and FCC standards. 0-10 V dimming supplied standard with all drive currents.
- Universal voltage power supply, 120-277 VAC, 50/60 HZ and 347-480 VAC, 50/60 HZ input.
- 40°C to 55°C (-40°F to 131°F) ambient operating temperature. (Varies based on lumen package and mounting style) see performance data for specifics.)
- Minimum 60,000 to 100,000 hours depending upon the ambient temperature of the installation location (see performance data for specifics.)

Warranty

- LSI LED fixtures carry a 5-year warranty (contact your LSI representative for extended warranty options.)

Listings


- UL and ETL listed to UL 1598, UL 8750 and other U.S. and international safety standards. Suitable for wet locations.
- Meets Bay American Act requirements.
- IDA compliant with 3000K or lower color temperature.
- DesignLights Consortium™ (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

QUICK LINKS

Ordering Guide
Performance
Photometrics
Dimensions

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • www.lsi-industries.com
(513) 372-3200 • ©2020 LSI Industries Inc. All Rights Reserved. Specifications subject to change without notice.

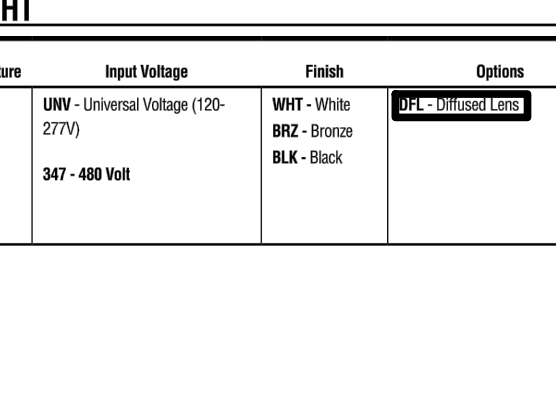
Page 4/4 Rev. 01/22/22
SPEC.1064.A.0620



Catalog #: _____ Project: _____
Prepared By: _____ Date: _____ Type: **(E)C**

Scottsdale® Legacy LED Surface Mount Canopy Luminaire

LED Surface Mount Canopy Luminaire



ORDERING GUIDE

[Back to Quick Links](#)

Profile	Distribution	Light Source	Drive Current	Color Temperature	Input Voltage	Finish	Options
CRUS SM Die-Cast Mount	SC - Symmetric AS - Asymmetric	LED	30W - Super Low Watt 35W - Low Watt 40W - Super Star 50W - Very High Output	30-3000K	120-277V 347-480 Volt	White - White Black - Black	DLC Qualified DLC

FOOTNOTES:
1. AC distribution utilizes a reflector which alters the look from a standard SC distribution.

Accessory Ordering Information

Description	Order Number
SSA Slope Surface Adaptor	ST132 CLR
10" Toggle Cable Hanger	TCH10

PERFORMANCE

[Back to Quick Links](#)

Lumen Package	Distribution	3000K CCT			4000K CCT			Wattage			
		Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating				
VHO	SC	2191	140	84-00-02	2185	144	84-00-02	2267	150	84-00-02	152
	AC	1735	114	83-00-03	1739	117	83-00-03	1850	122	83-00-03	
	HO	SC	1789	120	83-00-01	1846	146	83-00-02	1907	122	84-00-02
	AC	1482	116	83-00-02	1495	119	83-00-02	1546	124	83-00-02	
LW	SC	1313	141	83-00-01	1349	144	83-00-01	1385	120	83-00-01	50
	AC	1149	122	83-00-02	1171	126	83-00-02	1222	121	83-00-02	
	HO	SC	1067	144	83-00-01	1074	148	83-00-01	1116	124	82-00-01
	AC	914	126	82-00-02	9079	129	82-00-02	9749	134	82-00-02	
VLW	SC	8783	146	83-00-01	9008	149	83-00-01	9264	150	83-00-01	60
	AC	7681	127	82-00-02	7728	131	82-00-01	8168	126	82-00-01	
	SLW	SC	5585	146	82-00-01	5728	150	82-00-01	5964	150	82-00-01
	AC	4884	128	81-00-01	5009	131	81-00-01	5207	136	81-00-01	

*LEDs are frequently updated therefore values are nominal.

ELECTRICAL DATA (AMPS)

Lumen Package	Wattage	120V	208V	240V	277V	347V	480V
VHO	152	1.27	0.72	0.64	0.55	0.44	0.32
HO	125	1.09	0.64	0.53	0.45	0.36	0.26
LW	50	0.77	0.44	0.33	0.27	0.21	0.19
VLW	60	0.5	0.29	0.25	0.22	0.17	0.13
SLW	38	0.32	0.19	0.16	0.14	0.11	0.08

*Electrical data at 25°C (77°F). Actual wattage may differ by +/-10%.

Recommended Lumen Maintenance* CRUS SM VHO

Initial	25k hr	50k hr	75k hr	100k hr	
0°C	100%	97%	92%	86%	84%
10°C	100%	97%	92%	86%	84%
20°C	100%	97%	92%	86%	84%
35°C	100%	97%	92%	86%	84%
40°C	100%	96%	90%	85%	80%
50°C	100%	94%	89%	83%	78%

Recommended Lumen Maintenance* CRUS SM SS

Initial	25k hr	50k hr	75k hr	100k hr	
0°C	100%	97%	92%	86%	84%
10°C	100%	97%	92%	86%	84%
20°C	100%	97%	92%	86%	84%
30°C	100%	97%	92%	86%	84%
40°C	100%	97%	92%	86%	84%
50°C	100%	95%	91%	86%	82%


OPERATING TEMPERATURE

Lumen Package	Mounting	Max
VHO	Metall/Wood Canopy	40°C
HO	Metall/Wood Canopy	40°C
LW	Metall/Wood Canopy	40°C
VLW	Metall/Wood Canopy	40°C
SLW	Metall/Wood Canopy	40°C

FOOTNOTES:
1 - Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
2 - In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 test duration (in hours) for the device under testing (DUT) i.e. the packaged LED.
3 - In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 test duration (in hours) for the device under testing (DUT) i.e. the packaged LED.

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • www.lsi-industries.com
(513) 372-3200 • ©2020 LSI Industries Inc. All Rights Reserved. Specifications subject to change without notice.

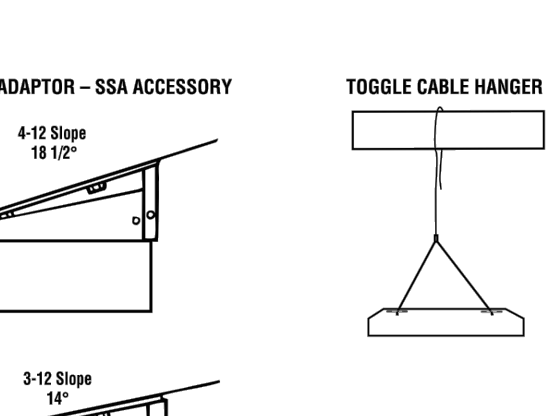
Page 2/4 Rev. 01/22/22
SPEC.1064.A.0620



Catalog #: _____ Project: _____
Prepared By: _____ Date: _____ Type: **(E)C**

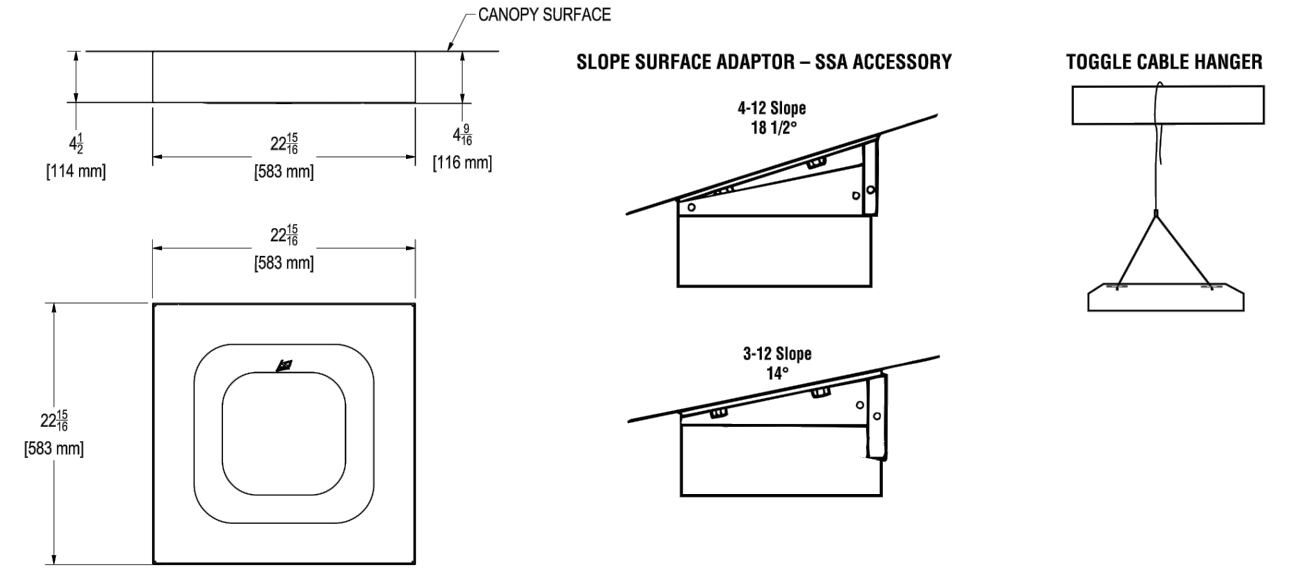
Scottsdale® Legacy LED Surface Mount Canopy Luminaire

LED Surface Mount Canopy Luminaire



PRODUCT DIMENSIONS


[Back to Quick Links](#)



FOOTNOTES:
1. AC distribution utilizes a reflector which alters the look from a standard SC distribution.

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • www.lsi-industries.com
(513) 372-3200 • ©2020 LSI Industries Inc. All Rights Reserved. Specifications subject to change without notice.

Page 4/4 Rev. 01/22/22
SPEC.1064.A.0620




Catalog #: _____ Project: _____
Prepared By: _____ Date: _____ Type: **(E)B**

Decorative Wall-Mounted Lighting

WSR

METAL HALIDE, HIGH PRESSURE SODIUM, 50W-150W



Specifications

Length: 18 (45.7)
Depth: 9 (22.8)
Overall Height: 7-1/4 (18.4)
Weight: 30 (13.6 kg)

All dimensions are inches (centimeters) unless otherwise indicated.
*Weight as configured in example below.

FEATURES & SPECIFICATIONS

INTENDED USE — For building and wall-mounted applications.

CONSTRUCTION — Rugged, die-cast, single-piece aluminum housing. Die-cast door frame has a 1/8" thick tempered glass lens. Door frame is fully painted with one-piece cold-chamber finish. Standard finish is textured dark bronze (DBR) corrosion-resistant polyester powder finish. Additional architectural colors are available. Striping is also available.

OPTICS — Superior reflectors for superior uniformity and control. Reflectors are interchangeable. Three full cutoff/distribution patterns available: FT (forward throw), MD (medium throw) and WT (wide throw). Striping light distributions available: FT (forward throw, 10% up, 90% down), MD (medium throw, 10% up, 90% down), WT (wide throw, 10% up and 90% down). Medium throw, 20% up 80% down, WT (spread beam) and WT (column beam).

ELECTRICAL — Ballast: 100W-150W utilizes a high reactance, high power factor ballast. Metal halide 100W is standard with pulse-start technology. Ceramic metal halide lamps are recommended for use in applications where superior color rendition, lumen maintenance and longer lamp life are desired. Quick disconnect plug easily disconnects reflector from ballast. Ballasts are 100% factory tested. Socket hardware, medium base sockets with copper alloy, nickel-plated screw shell and center contact. UL listed 600V, 00V-40V pole rated.

INSTALLATION — Universal mounting mechanism with integral mounting support allows fixture to hang down.

LISTINGS — UL listed (standard), CSA Certified (see Options). Suitable for wet locations (using location hose in lens up orientation). WUL option offers wet location listing in up orientation (see Options). IP65 rated, 25°C ambient. ETL E-S. Patent No. 7,737,460.
Note: Specifications subject to change without notice.

WARRANTY — 1-year limited warranty. Complete warranty terms located at: www.lithonia.com/ContentManagement/Forms_and_Conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

ORDERING INFORMATION

For shorter lead times, configure product using standard options (shown in bold).

Example: WSR 100M FT 120 LPI

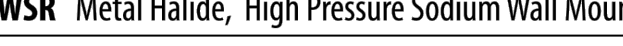
Series	Wattage	Distribution	Voltage	Ballast	Mounting
WSR	100W	Downlight FT - Forward throw MD - Medium throw WT - Wide throw	120	Magnetic ballast CWI Constant wattage ballast ¹	(blank) Surface mount Shipped separately ² 89P Surface mount back box UTS Optic 5 degrees
	150W	Downlight FT - Forward throw MD - Medium throw WT - Wide throw	208	Magnetic ballast CWI Constant wattage ballast ¹	(blank) Surface mount Shipped separately ² 89P Surface mount back box UTS Optic 5 degrees
	150W	Downlight FT - Forward throw MD - Medium throw WT - Wide throw	277	Magnetic ballast CWI Constant wattage ballast ¹	(blank) Surface mount Shipped separately ² 89P Surface mount back box UTS Optic 5 degrees

Options

Options	Finish ³	Lamp ⁴
Shipped installed in fixture	(blank) Dark bronze, textured system ¹	LPI Lamp included
SF Single face (120, 277, 347V)	WG Wire guard	LAP Less lamp
DF Double face (208, 240V)	UCS Uplight component shield ¹	
PE Photoelectric cell button type (10A TB) ¹	VG Vertical guard	
DFL Diffusing lens	WCU Wet location door for up orientation	
EC Emergency circuit ¹	CSA CSA certified	
UCS Uplight component shield ¹	NOM NOM certified ¹	
WG Wire guard		
VG Vertical guard		
WCU Wet location door for up orientation	(blank) Dark bronze, textured	
CSA CSA certified	DBR Dark bronze, textured	
NOM NOM certified ¹	DMR Natural aluminum, textured	
	DWRK White, textured	
	DBLK Black, textured	
	CRK Non-stick protective coating ¹	
	Super Durable Emulites (DDBD) Dark bronze	
	DBLD Black	
	DNAD Natural aluminum	
	DWSD White	
	DBRD Textured dark bronze	
	DBLD Textured black	
	DNAD Textured natural aluminum	
	DWSD Textured white	

OUTDOOR

WSR_M_5



Catalog #: _____ Project: _____
Prepared By: _____ Date: _____ Type: **(E)B**

Metal Halide, High Pressure Sodium Wall Mounted

PHOTOMETRY

See <http://www.lithonia.com/products/detail/479161/Lithonia-Lighting/WSR/Decorative-Trajectory-Photometry>

Emergency Option Lamp Compatibility

Lamp options	# of lamps/wattage	EC
505	1	■
1505	1	■
100M	1	■

Note:

- Must be ordered with fixture. Cannot be field installed.
- Available only for use in Canada.
- Must specify 100 or 150 wattage.
- Optional with High Voltage (120, 208, 240, 277V), (120, 277, 347V in Canada).
- Canada listing for wet location use.
- May be ordered as an accessory with uplight. Must specify finish.
- Maximum allowable wattage and ballast.
- Not available with DB-L or DL.
- Not available with medium throw (MD, MSL, MDR) distribution.
- Not available with EC or CS.
- Use with FT and WT distributions to avoid external electrical components.
- See www.lithonia.com/products for additional color options.
- Black finish only.
- Must be specified LPI/PW with MIC.

Lamp	Initial lumens	Mounting height
Metal halide		10' 12' 14' 16'
100W MH	8,500	0.95 0.66 0.48 0.37
High pressure sodium		
50W HPS	4,000	0.45 0.31 0.21 0.17
150W HPS	16,000	1.80 1.25 0.91 0.70

OUTDOOR: One Lithonia Way, Cary, GA 30012 Phone: 770.922.8000 www.lithonia.com

© 2003-2018 Analy Brands Lighting, Inc. All rights reserved. Rev. 06/21/18



5200 Buffington Rd.
Atlanta Georgia,
30349-2998

Bowman

NJ Certificate of Authorization License No. 1600005
6 Corporate Drive, Suite 102
Parlin, NJ 07654
Phone: 732-358-8400
www.bowman.com
© 2020 Bowman Consulting Group LLC

CHICK-FIL-A

LAWRENCEVILLE TOWNSHIP FSU

2950 US HIGHWAY 1
LAWRENCEVILLE, NEW JERSEY 08648

FSU# 04534

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	09/29/2023	REV PER TOWNSHIP COMMENT

FOR PERMIT

CURRENT DESIGN: 2021-005
NOTE APPLIED
PROJECT #: 010014-01-189
PRINTED FOR: PERMIT
DATE: 07.05.2023
DRAWN BY: CW

SHEET
PHOTOMETRIC DETAILS
& CUTSHEETS
SHEET NUMBER
E-104