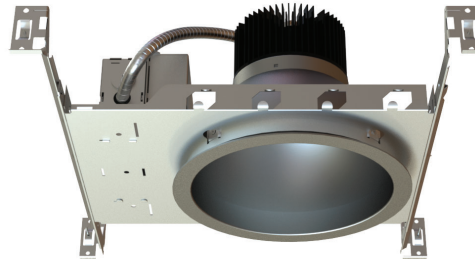
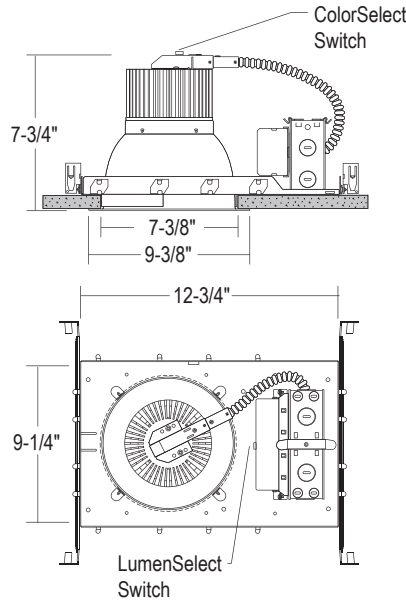


CH8LS : 8" C-SERIES

LUMEN/COLORSELECT NEW CONSTRUCTION 2000LM - 5300LM (17W-53W)



Ceiling Cut-out: 7-15/16"
Ceiling Thickness: 1" Max



- Twist and lock reflector for quick access to LED lamp array
- Heavy-duty self-flanged reflector
- Soft even lumen distribution
- No visible screws or hardware

ORDERING : CH8LS2029UE-D10-EM/CR8L22SW-EMA-TS354

CH8LSxxxx	Insulation Contact	Driver Options	Emergency Options	J-Box	Reflector	Reflector Finish	Reflector Options	ColorSelect
LumenSelect Housing ¹								
2000lm (17W) CH8LS2029 [Options]		Reflector ¹	Reflector Finish		Reflector Option		ColorSelect	-TS354
2400lm (22W)		/CR8L22	Satin Haze Reflector/ White Ring	SW	None	Blank	ColorSelect	
2900lm (28W)			White Reflector/ White Ring	WW	Integral EM Switch	-EMA²	3000K, 3500K, 4000K (84 CRI)	
3300lm (31W) CH8LS3348 [Options]		/CR8L36	All Black	BB				
4100lm (39W)			Clear Specular Reflector/White Ring	CW				
4800lm (48W)			All Satin Haze	SS				
3800lm (35W) CH8LS3853 [Options]		/CR8L40						
4600lm (45W)								
5300lm (53W)								

Options			
Insulation Contact	Driver Options	Emergency Options	J-Box
Non-IC Blank	0-10V Dimming UE-D10	None Blank	None Blank
IC Rated/ Airtight ICA³	Athena Wireless Node -AWN	Remote Location Emergency Battery -EM	Junction Box (Chicago Plenum) -CHP
	Athena Wireless Node Occupancy Sensor -AWN-OCC	Remote Location Emergency Inverter -EMAC	
		GTD Device -GTD	

¹ Housing must match corresponding Reflector in column to the right.

² Only available for EM Housings.

³ (ICA) is only available on 2000lm (17W), and 2400lm (22W).

SPECIFICATION

Application

Architectural/Commercial-grade recessed LED downlight housing with Lumen/Color Select switch offers added flexibility for optimal light output and ambience in commercial and architectural spaces with medium to high ceilings.

Mounting

Housing suitable for new construction installations only, supplied with (2) 24" adjustable hanger bars with 90° repositioning ability. Suitable for wood & metal joist support systems, and also drywall & T-bar ceilings. Hanger bars equipped with nail-less install 3/4" serrated barbed studs and captive nails, for faster and easier secure mounting in wood joists. Set-screws lock into position and prevent shifting after installation. Earthquake structural cable compatible for drop panel ceiling or any other mounting that requires direct support from structural ceilings. Optional galvanized aluminum Architectural C-Channel Batwing also available. (C260) & (C260J) hanger bars are **NOT included** with (-BWNG) option, and must be ordered separately.

Color Temperature (CCT)

Available in 3000K, 3500K and 4000K in 84 CRI.



Insulation Contact

CH8LS2029 set to 17W (2000lm) or 22W (2400lm) are inherently thermally protected for direct insulation contact without the need for an enclosure. NON-IC rated housings must be kept 3" from loose-fill insulation.

Power Connection

LED lamp array is replaceable via on board quick disconnect terminal. Meets CA Title 24 Requirements and other standards restricting the use of Medium Base or Bi-Pin Sockets.

Thermal Management

Heat dissipation facilitated by a large exposed integral aluminum heat sink to maximize heat dissipation in an open-air environment. IC Option thermally engineered to ensure stated L70 LED life without the need for external box. The recommended ambient temperature should be below 35°C to achieve a minimum L70 life of 50,000 hours according to the LM80 standard.

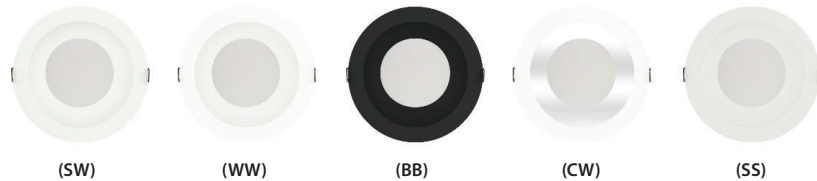
SPECIFICATION (Continued)

Reflector

Field adjustable twist and lock reflector is easily removable for both Non-IC and IC rated housings to provide quick access to LED lamp array. Frosted polycarbonate lens pre-installed on reflector unifies diode sources and protects diodes from dust and particles from front of aperture. Optional reflector (-EMA) features integral EM switch for 12W emergency backup (UE-D10-EM).

Reflector Finish

The 1-piece, self-flanged, LED design enables a clean trim finish without a secondary trim ring. Heavy gauge aluminum reflector prevents ugly dents during shipping & installation. Deeply mounted singular LED provides 50° visual cutoff. Available in Satin Haze Reflector/White Finish, White Reflector/White Finish, All Black, Clear Specular Reflector/White Finish, and All Satin Haze.



Junction Box

16-gauge pre-wired galvanized steel Junction Box, 26 cubic-inch for a maximum of (8) #12 AWG wires. Furnished with (7) 1/2" knockouts. Strain clamps to install or remove covers for easy access and ground wire. (-CHP) option is Chicago Plenum, air-tight Junction Box.

Airflow

IC-Rated/Airtight (ICA) reflector design is designed to restrict air flow from room into plenums in compliance to the WSEC - Washington State Energy Code, (Less than 2.0 CFM -Cubic Feet per Minute).

Certifications and Listings



cETLus listed. Suitable for dry, damp, and wet locations. NYC approved. Calendar #41937. Conforms to City of Chicago Environmental Air CCEA-200 with Section 18-27-300.22 and special requirements Section 14-20-210C-4. Assembled in USA.

Caution

LITON recommends use of surge protectors on the power entering LED Housings. Surge damage is not covered by warranty. (+1KV). Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

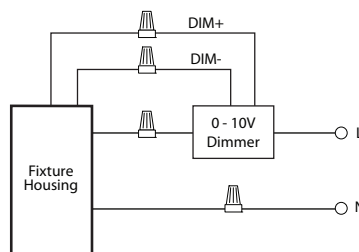
SPECIFICATION (Continued)

Dimming Options

0-10V Driver 120V/277V (UE-D10):

Compatible with most existing 0-10V systems. Also known as fluorescent or 5-Wire dimming. Allows smooth dimming down to 5% depending upon the dimmer's limitations. Compatible with daylight harvesting controls.

0 - 10V Wiring



ATHENA WIRELESS NODE (-AWN, -AWN-OCC)



Radio frequency (RF) device for digital control of light fixtures in an Athena control system. Athena wireless processor or Clear Connect gateway-Type X is required to operate wireless node.

- Pre-Wired wireless node
- Installed on Junction Box outer wall
- 2.4 GHz
- cULus Listed (UL 916)
- UL 2043 Plenum Rated
- FCC compliant with the limits for a Class B digital device
- ANSI C1371.1 0-10V Electronic Off
- D4i certified
- IC (Industry Canada)
- Supports DALI-2 Type 8 tuneable-white color temperature Tc applications - IEC62386-209 ed.1

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship. Recommended for applications where ambient temperatures do not exceed 35°C, installations exceeding this temperature will result in reduced LED lamp life and a voided warranty.

Emergency Options

Emergency LED Battery Back-up available, remotely mounted adjacently by the installer. When AC power fails, the device immediately switches to the emergency mode, operating the LEDs for a minimum of 90 minutes. Remote test switch and plate cover included. Optional Generator Transfer Device switches the driver to auxiliary generator power during the loss of normal AC power, (recommended for applications requiring individual circuit switching).

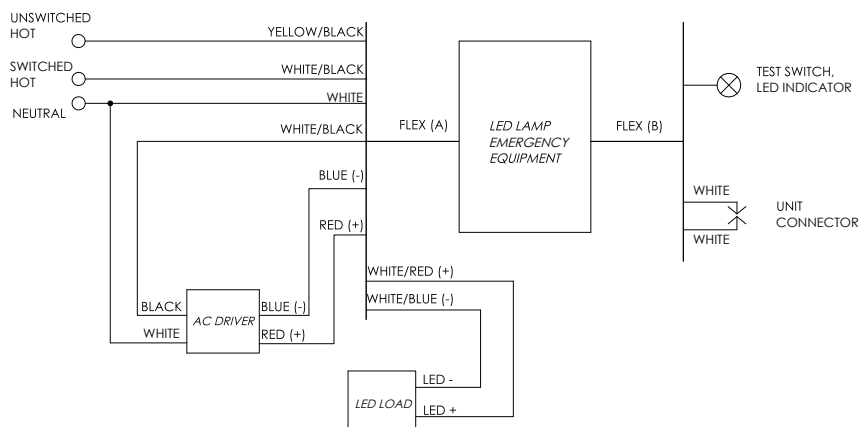
SPECIFICATION (Continued)

REMOTE EMERGENCY BATTERY (-EM): 10W

For installation away from the surface of the building in remote hidden location.

- Hidden Emergency Equipment
- Must be installed in Dry Locations
- 10W constant output to LED lamp

Not rated for outdoor mounting. Damp location rated.



Input Voltage:	120-277VAC/60Hz
Output Voltage:	10W
Wattage:	10W
Switching Time:	<1s
Charging Time:	24h
Operating Time:	90 minutes
Minimum Temperature:	0°C
Maximum Temperature:	50°C
Maximum Lumens:	800lm
Self-Diagnostic:	No

SPECIFICATION (Continued)

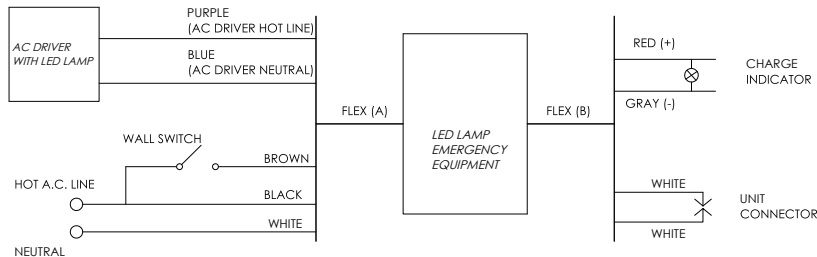
REMOTE LOCATION EMERGENCY INVERTER (-EMAC): 25W and 40W

For installation away from the surface of the building in remote hidden location.

- Hidden Emergency Equipment
- Must be installed in Dry Locations
- Wattage package will determine if 25W or 40W battery gets sent; corresponding wiring diagrams below
- 170 VDC output to AC DRIVER during EM mode

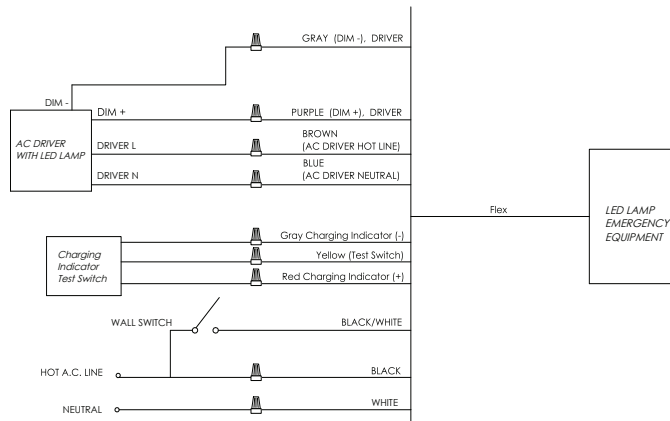
Not rated for outdoor mounting. Damp location rated.

<25W LOAD



Input Voltage:	120-277VAC/60Hz
Output Voltage:	170VDC (120VAC Equivalent)
Wattage:	25W
Switching Time:	<1s
Charging Time:	24h
Operating Time:	90 minutes
Minimum Temperature:	0°C
Maximum Temperature:	50°C
Maximum Lumens:	2200lm
Self-Diagnostic:	No

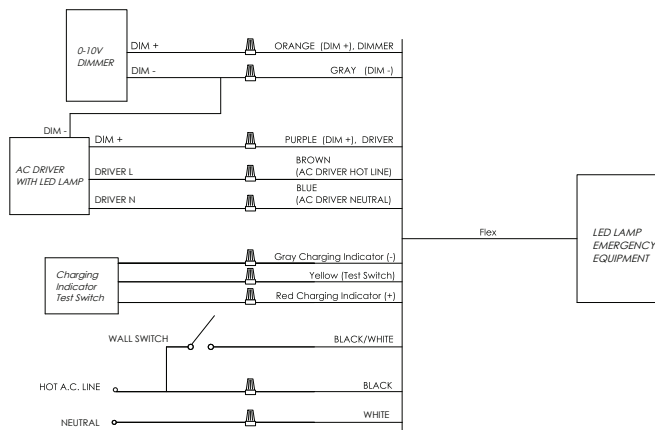
<40W LOAD



Input Voltage:	120-277VAC/60Hz
Output Voltage:	170VDC (120VAC Equivalent)
Wattage:	40W
Switching Time:	<1s
Charging Time:	24h
Operating Time:	90 minutes
Minimum Temperature:	0°C
Maximum Temperature:	50°C
Maximum Lumens:	3500lm
Self-Diagnostic:	Yes

>40W LOAD

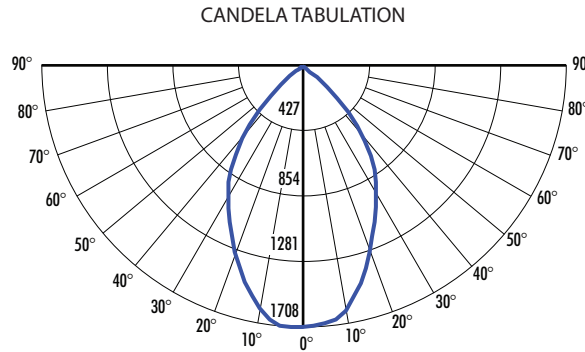
- 0-10V dimmable driver required



PHOTOMETRY

CH8LS2029UE-D10_CR8L22CW-TS40_LOW (2000lm, 17W, 4000K)

System Power:	17W	MULTIPLIERS
Test Date:	10/2023	Reflector Finish
Beam Angle 50%:	67.8°	CW: 1.00
Field Angle 10%:	102.8°	SS: 0.90
Color Temperature:	3889K	SW: 0.88
CRI:	82.5	WW: 0.81
Lumens Delivered:	1998	CCT
CBCP:	1707	2700K: 1.04
Power Factor:	0.99	3000K: 1.01
		3500K: 1.12
		4000K: 1.00

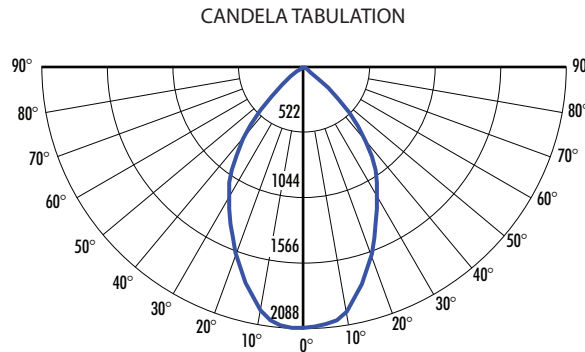


FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	10.75'	26.64
10.0'	13.44'	17.05
12.0'	16.13'	11.84
14.0'	18.82'	8.70
16.0'	21.50'	6.66

CH8LS2029UE-D10_CR8L22CW-TS40_MID (2400lm, 22W, 4000K)

System Power:	22W	MULTIPLIERS
Test Date:	10/2023	Reflector Finish
Beam Angle 50%:	67.8°	CW: 1.00
Field Angle 10%:	102.9°	SS: 0.90
Color Temperature:	3902K	SW: 0.88
CRI:	82.4	WW: 0.81
Lumens Delivered:	2445	CCT
CBCP:	2086	2700K: 1.04
Power Factor:	0.99	3000K: 1.01
		3500K: 1.12
		4000K: 1.00

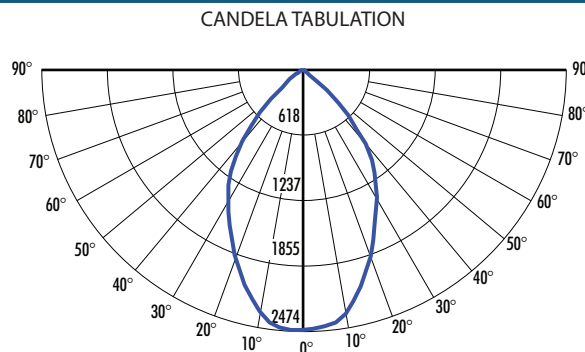


FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	10.75'	32.56
10.0'	13.44'	20.84
12.0'	16.13'	14.47
14.0'	18.82'	10.63
16.0'	21.50'	8.14

CH8LS2029UE-D10_CR8L22CW-TS40_HIGH (2900lm, 28W, 4000K)

System Power:	28W	MULTIPLIERS
Test Date:	10/2023	Reflector Finish
Beam Angle 50%:	67.8°	CW: 1.00
Field Angle 10%:	102.9°	SS: 0.90
Color Temperature:	3917K	SW: 0.88
CRI:	82.2	WW: 0.81
Lumens Delivered:	2897	CCT
CBCP:	2471	2700K: 1.04
Power Factor:	0.99	3000K: 1.01
		3500K: 1.12
		4000K: 1.00



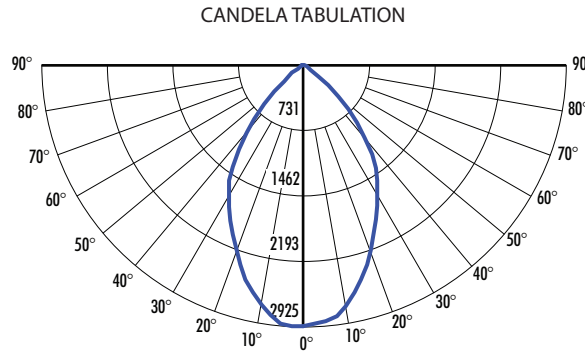
FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	10.75'	38.59
10.0'	13.44'	24.70
12.0'	16.13'	17.15
14.0'	18.82'	12.60
16.0'	21.50'	9.65

PHOTOMETRY (Continued)

CH8LS3348UE-D10_CR8L36CW-TS40_LOW (3300lm, 31W, 4000K)

System Power:	31W	MULTIPLIERS
Test Date:	10/2023	Reflector Finish
Beam Angle 50%:	67.5°	CW: 1.00
Field Angle 10%:	102.4°	SS: 0.90
Color Temperature:	3911K	SW: 0.88
CRI:	82.4	WW: 0.81
Lumens Delivered:	3361	CCT
CBCP:	2922	2700K: 1.04
Power Factor:	0.99	3000K: 1.01
		3500K: 1.12
		4000K: 1.00

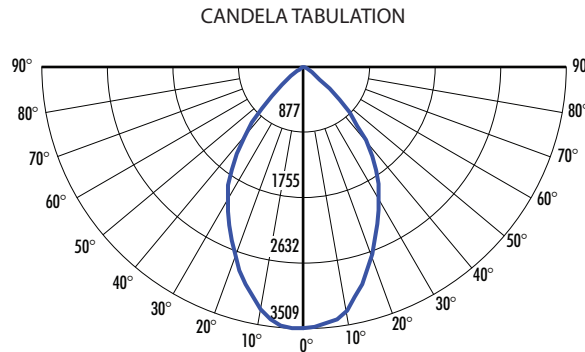


FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	10.69'	45.63
10.0'	13.36'	29.20
12.0'	16.04'	20.28
14.0'	18.71'	14.90
16.0'	21.38'	11.41

CH8LS3348UE-D10_CR8L36CW-TS40_MID (4100lm, 39W, 4000K)

System Power:	39W	MULTIPLIERS
Test Date:	10/2023	Reflector Finish
Beam Angle 50%:	68.2°	CW: 1.00
Field Angle 10%:	103.1°	SS: 0.90
Color Temperature:	3920K	SW: 0.88
CRI:	82.3	WW: 0.81
Lumens Delivered:	4137	CCT
CBCP:	3506	2700K: 1.04
Power Factor:	0.99	3000K: 1.01
		3500K: 1.12
		4000K: 1.00

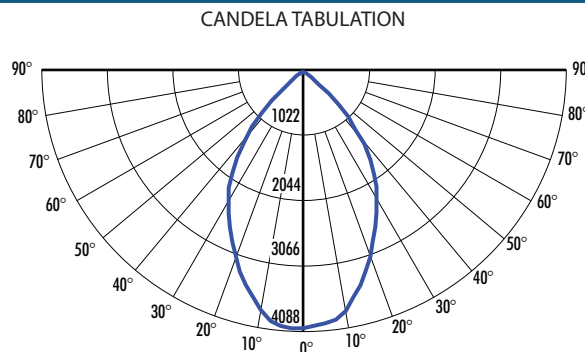


FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	10.83'	54.76
10.0'	13.54'	35.04
12.0'	16.25'	24.34
14.0'	18.96'	17.88
16.0'	21.67'	13.69

CH8LS3348UE-D10_CR8L36CW-TS40_HIGH (4800lm, 48W, 4000K)

System Power:	48W	MULTIPLIERS
Test Date:	10/2023	Reflector Finish
Beam Angle 50%:	68.2°	CW: 1.00
Field Angle 10%:	103.0°	SS: 0.90
Color Temperature:	3938K	SW: 0.88
CRI:	82.2	WW: 0.81
Lumens Delivered:	4818	CCT
CBCP:	4084	2700K: 1.04
Power Factor:	0.99	3000K: 1.01
		3500K: 1.12
		4000K: 1.00



FOOTCANDLE DISTRIBUTION

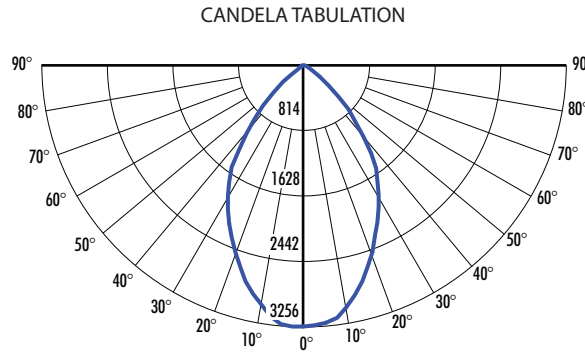
Height	Beam Diameter	FC
8.0'	10.83'	63.76
10.0'	13.54'	40.80
12.0'	16.25'	28.34
14.0'	18.96'	20.82
16.0'	21.67'	15.94

2023.10.17

PHOTOMETRY (Continued)

CH8LS3853UE-D10_CR8L40CW-TS40_LOW (3800lm, 35W, 4000K)

System Power:	35W	MULTIPLIERS
Test Date:	10/2023	Reflector Finish
Beam Angle 50%:	67.7°	CW: 1.00
Field Angle 10%:	102.7°	SS: 0.90
Color Temperature:	3922K	SW: 0.88
CRI:	83.9	WW: 0.81
Lumens Delivered:	3788	CCT
CBCP:	3256	2700K: 1.04
Power Factor:	0.99	3000K: 1.01
		3500K: 1.12
		4000K: 1.00

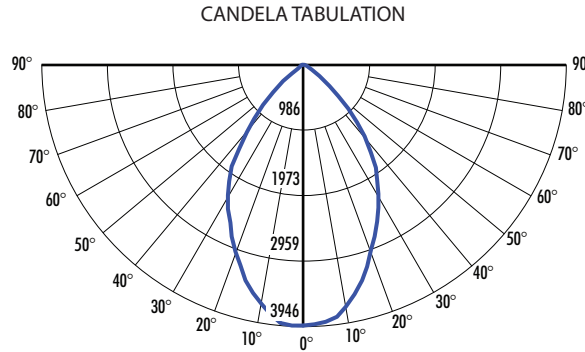


FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	10.73'	50.87
10.0'	13.41'	32.56
12.0'	16.10'	22.61
14.0'	18.78'	16.61
16.0'	21.46'	12.72

CH8LS3853UE-D10_CR8L40CW-TS40_MID (4600lm, 45W, 4000K)

System Power:	45W	MULTIPLIERS
Test Date:	10/2023	Reflector Finish
Beam Angle 50%:	67.8°	CW: 1.00
Field Angle 10%:	102.6°	SS: 0.90
Color Temperature:	3930K	SW: 0.88
CRI:	83.7	WW: 0.81
Lumens Delivered:	4593	CCT
CBCP:	3946	2700K: 1.04
Power Factor:	0.99	3000K: 1.01
		3500K: 1.12
		4000K: 1.00

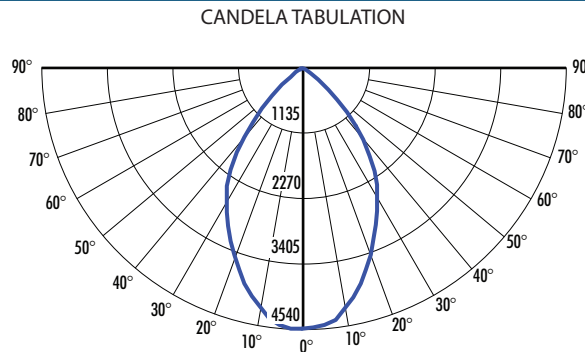


FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	10.75'	61.65
10.0'	13.44'	39.45
12.0'	16.13'	27.40
14.0'	18.82'	20.13
16.0'	21.50'	15.41

CH8LS3853UE-D10_CR8L40CW-TS40_HIGH (5300lm, 53W, 4000K)

System Power:	53W	MULTIPLIERS
Test Date:	10/2023	Reflector Finish
Beam Angle 50%:	67.9°	CW: 1.00
Field Angle 10%:	102.7°	SS: 0.90
Color Temperature:	3929K	SW: 0.88
CRI:	83.5	WW: 0.81
Lumens Delivered:	5300	CCT
CBCP:	4540	2700K: 1.04
Power Factor:	0.99	3000K: 1.01
		3500K: 1.12
		4000K: 1.00



FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	10.77'	70.94
10.0'	13.46'	45.40
12.0'	16.16'	31.53
14.0'	18.85'	23.17
16.0'	21.54'	17.74