



## SPECIFICATION

### Application

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Architectural/Commercial-grade recessed lensed Surface-Mounted Device (SMD) LED downlight housing for new construction installations in commercial and architectural spaces with medium to high ceiling.

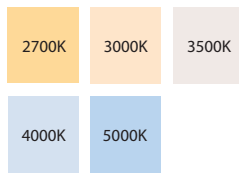
### Mounting

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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. Setscrews 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.

### Color Temperature

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Available in 2700K, 3000K, 3500K, 4000K and 5000K in 84 CRI.

### Insulation Contact

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(CH6Q08), (CH6Q10) and (CH6Q18) are inherently thermally protected for direct insulation contact without the need for an enclosure. (CH6Q28), (CH6Q30), (CH6Q39), (CH6Q48), (CH6Q49), (CH6Q50), (CH6Q55), (CH6Q60) are Non-IC rated housing and must be kept 3" from loose-fill insulation.

### Power Connection

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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

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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 (95°F) to achieve a minimum L70 life of 50,000 hours according to the LM80 standard.

### Reflector

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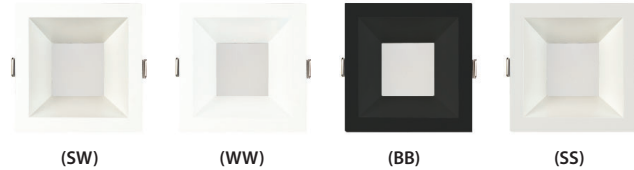
Field adjustable twist and lock reflector is easily removable for both Non-IC and IC rated housings to provide quick access to LED lamp array. Frosted polycarbonate lens pre-installed on reflector unifies diode sources and protects diodes from dust and particles from front of aperture. Optional reflector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

## SPECIFICATION (Continued)

### Reflector Finish

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1-piece, self-flanged, dual reflector LED design enables a clean trim finish without 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, and All Satin Haze.



### Junction Box

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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

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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

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cETLus listed to UL1598 and UL8750. 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

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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)

### Control Options

#### ELV and TRIAC Driver 120V (-DIN):

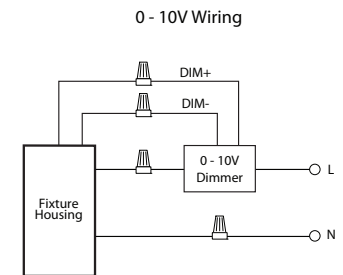
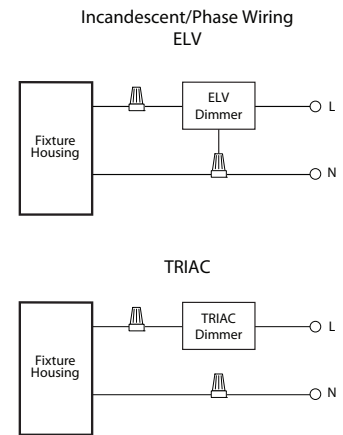
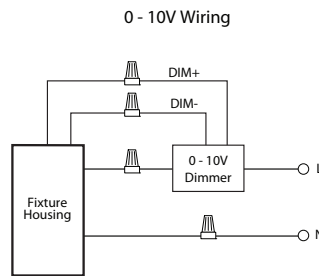
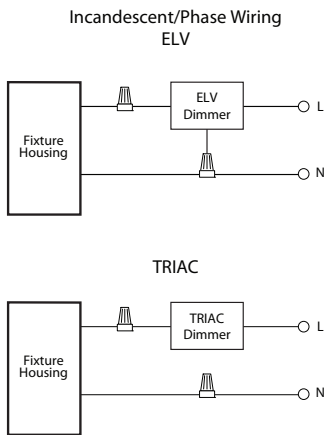
Compatible with electronic low voltage, and 2-Wire incandescent dimmers. Also known as leading edge, Reverse Phase, Forward Phase dimming. Allows smooth dimming down to 5% depending upon the dimmer's limitations.

#### 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.

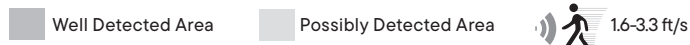
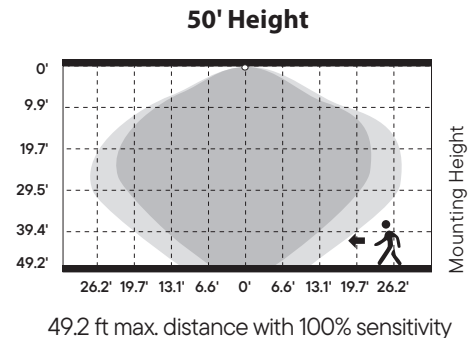
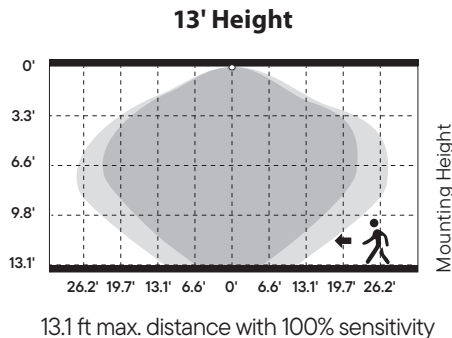
#### UniDim™ Driver 120V/277V (UE-DUN):

All in one ELV and TRIAC phase dimming (120V only), and 0-10V dimming (120V/277V). Works with most 3-Wire ELV, 2-Wire incandescent and 120V/277V 5-Wire 0-10V fluorescent dimmers.



## Unisense™ PROGRAMMABLE MOTION + DAYLIGHT (-SUN-RMT, -SUN-RMT-1227)

- Microwave and PIR (Passive Infrared) sensors depending on option
- Daylight harvesting
- Dusk/dawn sensing capabilities
- Motion Sensor



## SPECIFICATION (Continued)

**Warranty**

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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**

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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)

### EMERGENCY BATTERY (-EM): 10W

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

**Not rated for outdoor mounting. Damp location rated.**

#### -EM Lumen Data (Battery)

Fixture/Trim	CH6Q08/CR6QL22
Fixture Wattage:	10W
Fixture Lumens:	900
Multiplier:	1
EM Lumens:	900

Fixture/Trim	CH6Q10/CR6QL22
Fixture Wattage:	18W
Fixture Lumens:	1500
Multiplier:	0.56
EM Lumens:	840

Fixture/Trim	CH6Q18/CR6QL22
Fixture Wattage:	22W
Fixture Lumens:	1800
Multiplier:	0.45
EM Lumens:	810

Fixture/Trim	CH6Q28/CR6QL22
Fixture Wattage:	28W
Fixture Lumens:	2200
Multiplier:	0.36
EM Lumens:	790

Fixture/Trim	CH6Q30/CR6QL36
Fixture Wattage:	29W
Fixture Lumens:	2400
Multiplier:	0.34
EM Lumens:	820

Fixture/Trim	CH6Q39/CR6QL36
Fixture Wattage:	39W
Fixture Lumens:	3000
Multiplier:	0.26
EM Lumens:	780

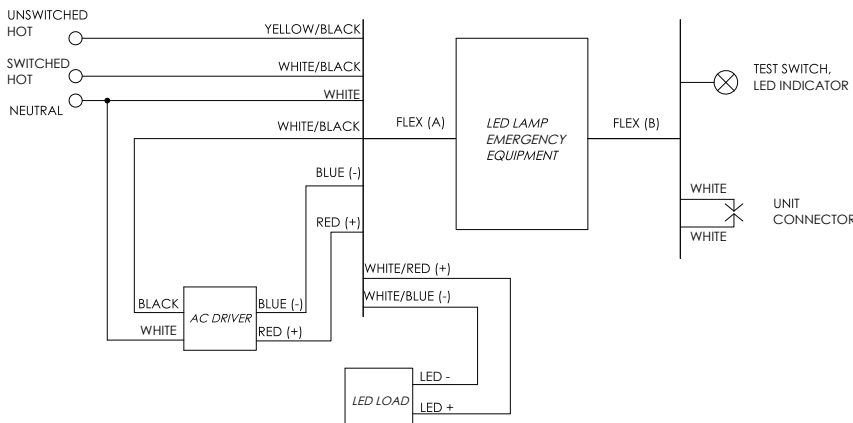
Fixture/Trim	CH6Q48/CR6QL36
Fixture Wattage:	45W
Fixture Lumens:	3500
Multiplier:	0.22
EM Lumens:	770

Fixture/Trim	CH6Q49/CR6QL40
Fixture Wattage:	35W
Fixture Lumens:	3000
Multiplier:	0.29
EM Lumens:	870

Fixture/Trim	CH6Q50/CR6QL40
Fixture Wattage:	55W
Fixture Lumens:	3800
Multiplier:	0.18
EM Lumens:	680

Fixture/Trim	CH6Q55/CR6QL53
Fixture Wattage:	45W
Fixture Lumens:	4200
Multiplier:	0.22
EM Lumens:	920

Fixture/Trim	CH6Q60/CR6QL60
Fixture Wattage:	50W
Fixture Lumens:	4700
Multiplier:	0.2
EM Lumens:	940



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
Self-Diagnostic:	No

## SPECIFICATION (Continued)

### FULL POWER EMERGENCY INVERTER (-EMAC or -EMAC347): 10W - 55W

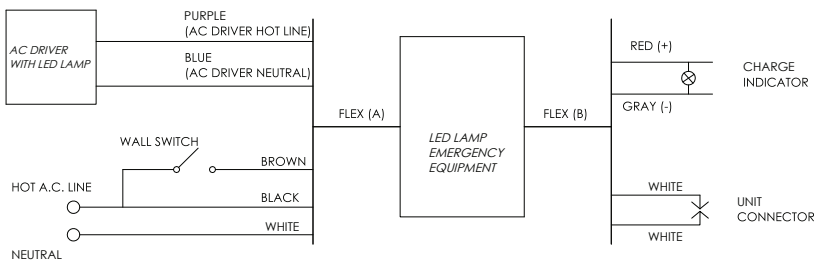
- Must be installed in Dry Locations
- Wattage package will determine if 25W or 40W battery gets sent; corresponding wiring diagrams below
- 170 VDC output to AC DRIVER during EM mode

**Not rated for outdoor mounting. Damp location rated.**

#### -EMAC Lumen Data (Battery)

Fixture/Trim	CH6Q08/CR6QL22	Fixture/Trim	CH6Q10/CR6QL22	Fixture/Trim	CH6Q18/CR6QL22
Fixture Wattage:	10W	Fixture Wattage:	18W	Fixture Wattage:	22W
Fixture Lumens:	900	Fixture Lumens:	1500	Fixture Lumens:	1800
EM Lumens:	900	EM Lumens:	1500	EM Lumens:	1800
Fixture/Trim	CH6Q28/CR6QL22	Fixture/Trim	CH6Q30/CR6QL36	Fixture/Trim	CH6Q39/CR6QL36
Fixture Wattage:	28W	Fixture Wattage:	29W	Fixture Wattage:	39W
Fixture Lumens:	2200	Fixture Lumens:	2400	Fixture Lumens:	3000
EM Lumens:	2200	EM Lumens:	2400	EM Lumens:	3000
Fixture/Trim	CH6Q48/CR6QL36	Fixture/Trim	CH6Q49/CR6QL40	Fixture/Trim	CH6Q50/CR6QL40
Fixture Wattage:	45W	Fixture Wattage:	35W	Fixture Wattage:	55W
Fixture Lumens:	3500	Fixture Lumens:	3000	Fixture Lumens:	3800
EM Lumens:	3500	EM Lumens:	3000	EM Lumens:	3800
Fixture/Trim	CH6Q55/CR6QL53	Fixture/Trim	CH6Q60/CR6QL60		
Fixture Wattage:	45W	Fixture Wattage:	50W		
Fixture Lumens:	4200	Fixture Lumens:	4700		
EM Lumens:	4200	EM Lumens:	4700		

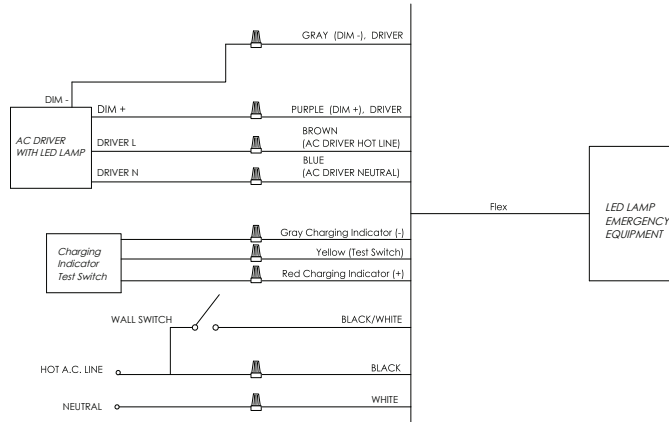
#### <25W LOAD



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
Self-Diagnostic:	No

## SPECIFICATION (Continued)

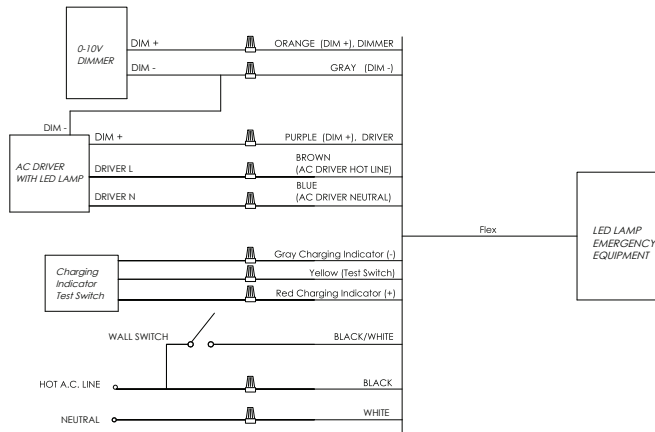
### <40W LOAD



Input Voltage:	120-277VAC or 347VAC/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
Self-Diagnostic:	Yes

### >40W LOAD

0-10V dimmable driver required



Input Voltage:	120-277VAC or 347VAC/60Hz
Output Voltage:	170VDC (120VAC Equivalent)
Wattage:	49W
Switching Time:	<1s
Charging Time:	24h
Operating Time:	90 minutes
Minimum Temperature:	0°C
Maximum Temperature:	50°C
Self-Diagnostic:	Yes

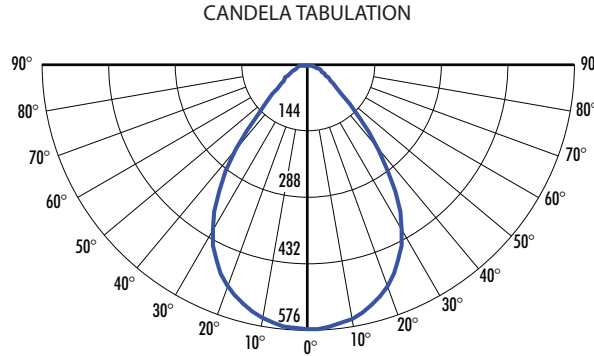
## PHOTOMETRY

### CH6Q08UE-D10\_CR6QL22WW-T40 (900lm, 10W, 4000K)

System Power: 10W  
 Test Date: 07/2024  
 Beam Angle 50%: 75.2°  
 Field Angle 10%: 118.9°  
 Color Temperature: 3806K  
 CRI: 82.4  
 Lumens Delivered: 897  
 CBCP: 576.4  
 Power Factor: 0.99

**MULTIPLIERS**  
**REFLECTOR FINISH**  
**WW : 1.00**  
 SS : 0.89  
 SW : 0.89  
 BB : 0.52

**CCT**  
 2700K : 1.04  
 3000K : 1.01  
 3500K : 1.12  
**4000K : 1.00**



#### FOOTCANDLE DISTRIBUTION

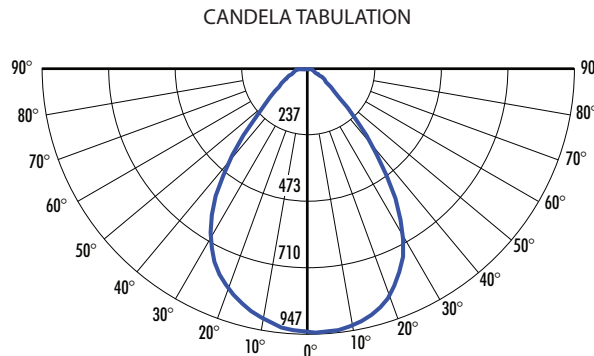
Height	Beam Diameter	FC
8.0'	12.32'	9.01
10.0'	15.40'	5.76
12.0'	18.48'	4.00
14.0'	21.56'	2.94
16.0'	24.64'	2.25

### CH6Q10UE-D10\_CR6QL22WW-T40 (1500lm, 18W, 4000K)

System Power: 18W  
 Test Date: 07/2024  
 Beam Angle 50%: 75.7°  
 Field Angle 10%: 118.6°  
 Color Temperature: 3823K  
 CRI: 81.9  
 Lumens Delivered: 1489  
 CBCP: 946.8  
 Power Factor: 0.99

**MULTIPLIERS**  
**REFLECTOR FINISH**  
**WW : 1.00**  
 SS : 0.89  
 SW : 0.89  
 BB : 0.52

**CCT**  
 2700K : 1.04  
 3000K : 1.01  
 3500K : 1.12  
**4000K : 1.00**



#### FOOTCANDLE DISTRIBUTION

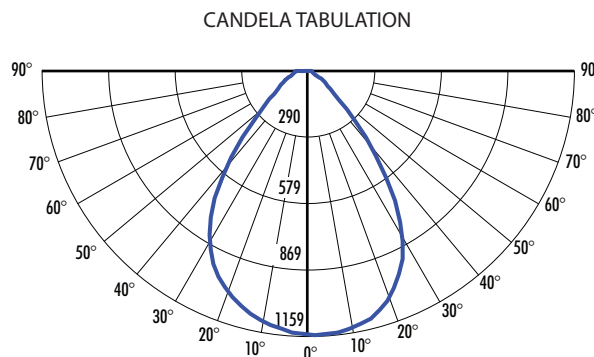
Height	Beam Diameter	FC
8.0'	12.43'	14.74
10.0'	15.54'	9.43
12.0'	18.65'	6.55
14.0'	21.76'	4.81
16.0'	24.87'	3.69

### CH6Q18UE-D10\_CR6QL22WW-T40 (1800lm, 22W, 4000K)

System Power: 23W  
 Test Date: 07/2024  
 Beam Angle 50%: 75.6°  
 Field Angle 10%: 118.6°  
 Color Temperature: 3825K  
 CRI: 81.7  
 Lumens Delivered: 1822  
 CBCP: 1158.8  
 Power Factor: 0.99

**MULTIPLIERS**  
**REFLECTOR FINISH**  
**WW : 1.00**  
 SS : 0.89  
 SW : 0.89  
 BB : 0.52

**CCT**  
 2700K : 1.04  
 3000K : 1.01  
 3500K : 1.12  
**4000K : 1.00**



#### FOOTCANDLE DISTRIBUTION

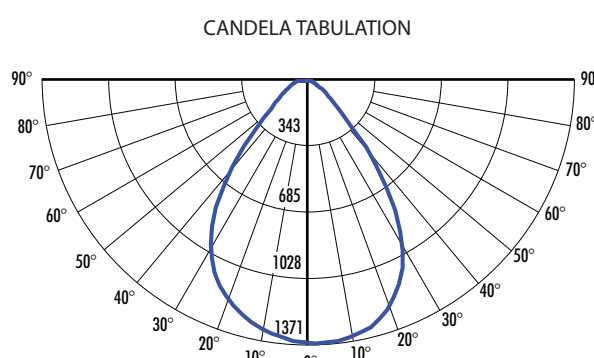
Height	Beam Diameter	FC
8.0'	12.41'	18.04
10.0'	15.51'	11.55
12.0'	18.62'	8.02
14.0'	21.72'	5.89
16.0'	24.82'	4.51

### CH6Q28UE-D10\_CR6QL22WW-T40 (2100lm, 28W, 4000K)

System Power: 28W  
 Test Date: 07/2024  
 Beam Angle 50%: 75.7°  
 Field Angle 10%: 118.4°  
 Color Temperature: 3825K  
 CRI: 81.5  
 Lumens Delivered: 2154  
 CBCP: 1370.7  
 Power Factor: 0.99

**MULTIPLIERS**  
**REFLECTOR FINISH**  
**WW : 1.00**  
 SS : 0.89  
 SW : 0.89  
 BB : 0.52

**CCT**  
 2700K : 1.04  
 3000K : 1.01  
 3500K : 1.12  
**4000K : 1.00**



#### FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.43'	21.34
10.0'	15.54'	13.66
12.0'	18.65'	9.48
14.0'	21.76'	6.97
16.0'	24.87'	5.33

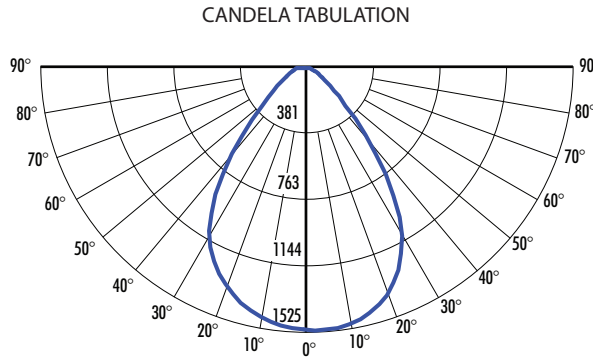
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## PHOTOMETRY (Continued)

### CH6Q30UE-D10\_CR6QL36WW-T40 (2400lm, 29W, 4000K)

System Power: 29W  
 Test Date: 07/2024  
 Beam Angle 50%: 75.6°  
 Field Angle 10%: 118.4°  
 Color Temperature: 3820K  
 CRI: 81.8  
 Lumens Delivered: 2398  
 CBCP: 1525  
 Power Factor: 0.98

MULTIPLIERS  
 REFLECTOR FINISH  
**WW**: 1.00  
 SS: 0.89  
 SW: 0.89  
 BB: 0.52  
 CCT  
 2700K: 1.04  
 3000K: 1.01  
 3500K: 1.12  
**4000K**: 1.00



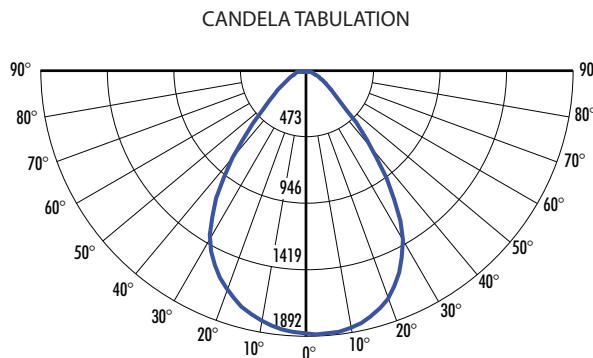
#### FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.41'	23.77
10.0'	15.51'	15.21
12.0'	18.62'	10.56
14.0'	21.72'	7.76
16.0'	24.82'	5.94

### CH6Q39UE-D10\_CR6QL36WW-T40 (3000lm, 39W, 4000K)

System Power: 39W  
 Test Date: 07/2024  
 Beam Angle 50%: 75.6°  
 Field Angle 10%: 118.4°  
 Color Temperature: 3832K  
 CRI: 81.5  
 Lumens Delivered: 2975  
 CBCP: 1892.3  
 Power Factor: 0.99

MULTIPLIERS  
 REFLECTOR FINISH  
**WW**: 1.00  
 SS: 0.89  
 SW: 0.89  
 BB: 0.52  
 CCT  
 2700K: 1.04  
 3000K: 1.01  
 3500K: 1.12  
**4000K**: 1.00



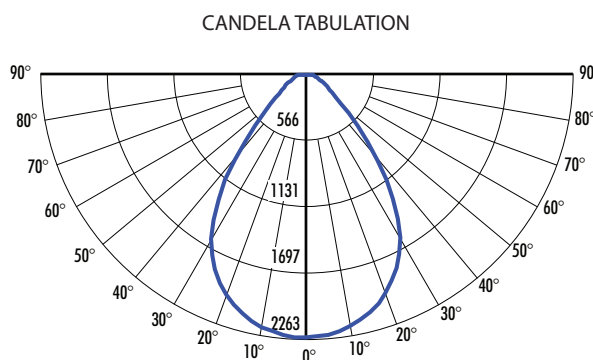
#### FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.41'	29.50
10.0'	15.51'	18.88
12.0'	18.62'	13.11
14.0'	21.72'	9.63
16.0'	24.82'	7.37

### CH6Q48UE-D10\_CR6QL36WW-T40 (3500lm, 45W, 4000K)

System Power: 45W  
 Test Date: 07/2024  
 Beam Angle 50%: 75.3°  
 Field Angle 10%: 119.7°  
 Color Temperature: 3855K  
 CRI: 81.5  
 Lumens Delivered: 3546  
 CBCP: 2263  
 Power Factor: 0.99

MULTIPLIERS  
 REFLECTOR FINISH  
**WW**: 1.00  
 SS: 0.89  
 SW: 0.89  
 BB: 0.52  
 CCT  
 2700K: 1.04  
 3000K: 1.01  
 3500K: 1.12  
**4000K**: 1.00



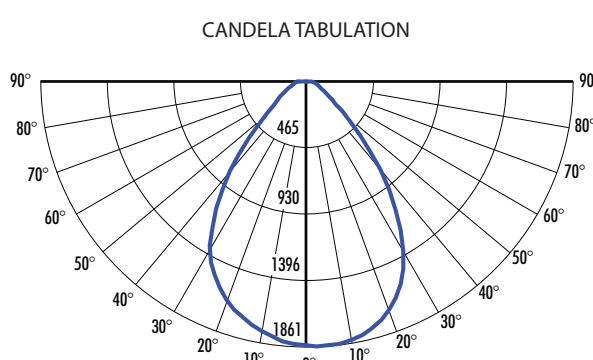
#### FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.34'	35.36
10.0'	15.43'	22.63
12.0'	18.52'	15.72
14.0'	21.60'	11.55
16.0'	24.69'	8.84

### CH6Q49UE-D10\_CR6QL40WW-T40 (3000lm, 35W, 4000K)

System Power: 35W  
 Test Date: 07/2024  
 Beam Angle 50%: 76.1°  
 Field Angle 10%: 119.7°  
 Color Temperature: 3811K  
 CRI: 83.0  
 Lumens Delivered: 2966  
 CBCP: 1861  
 Power Factor: 0.99

MULTIPLIERS  
 REFLECTOR FINISH  
**WW**: 1.00  
 SS: 0.89  
 SW: 0.89  
 BB: 0.52  
 CCT  
 2700K: 1.04  
 3000K: 1.01  
 3500K: 1.12  
**4000K**: 1.00



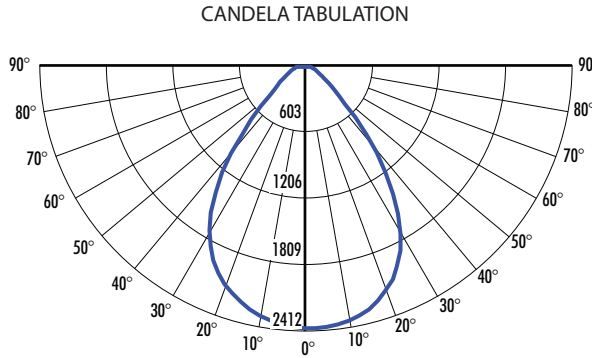
#### FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.52'	29.99
10.0'	15.65'	18.55
12.0'	18.78'	12.88
14.0'	21.92'	9.47
16.0'	25.05'	7.25

## PHOTOMETRY (Continued)

### CH6Q50UE-D10\_CR6QL40WW-T40 (3800lm, 53W, 4000K)

System Power:	53W	MULTIPLIERS
Test Date:	07/2024	REFLECTOR FINISH
Beam Angle 50%:	75.7°	<b>WW :</b> 1.00
Field Angle 10%:	118.6°	SS : 0.89
Color Temperature:	3825K	SW : 0.89
CRI:	82.7	BB : 0.52
Lumens Delivered:	3806	CCT
CBCP:	2411.7	2700K : 1.04
Power Factor:	0.99	3000K : 1.01
		3500K : 1.12
		<b>4000K : 1.00</b>

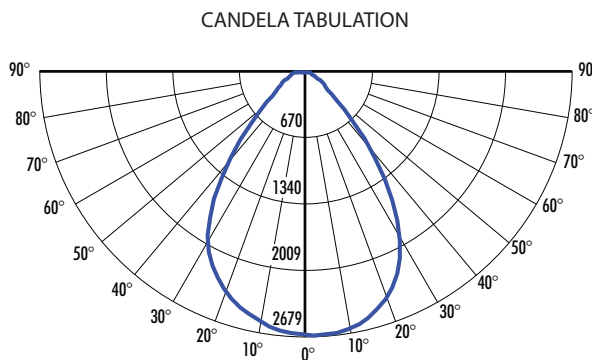


#### FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.43'	37.65
10.0'	15.54'	24.09
12.0'	18.65'	16.73
14.0'	21.76'	12.29
16.0'	24.87'	9.41

### CH6Q55UE-D10\_CR6QL53WW-T40 (4200lm, 42W, 4000K)

System Power:	42W	MULTIPLIERS
Test Date:	07/2024	REFLECTOR FINISH
Beam Angle 50%:	75.5°	<b>WW :</b> 1.00
Field Angle 10%:	118.6°	SS : 0.89
Color Temperature:	3802K	SW : 0.89
CRI:	82.6	BB : 0.52
Lumens Delivered:	4219	CCT
CBCP:	2679.3	2700K : 1.04
Power Factor:	0.99	3000K : 1.01
		3500K : 1.12
		<b>4000K : 1.00</b>

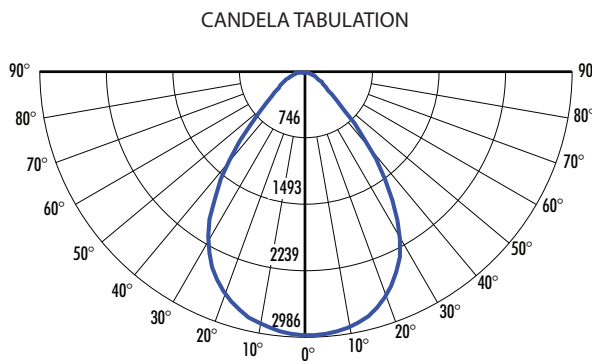


#### FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.39'	41.74
10.0'	15.49'	26.71
12.0'	18.58'	18.55
14.0'	21.68'	13.63
16.0'	24.78'	10.43

### CH6Q60UE-D10\_CR6QL60WW-T40 (4700lm, 50W, 4000K)

System Power:	49W	MULTIPLIERS
Test Date:	07/2024	REFLECTOR FINISH
Beam Angle 50%:	75.8°	<b>WW :</b> 1.00
Field Angle 10%:	118.8°	SS : 0.89
Color Temperature:	3813K	SW : 0.89
CRI:	82.6	BB : 0.52
Lumens Delivered:	4713	CCT
CBCP:	2984.5	2700K : 1.04
Power Factor:	0.99	3000K : 1.01
		3500K : 1.12
		<b>4000K : 1.00</b>



#### FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8.0'	12.46'	46.60
10.0'	15.57'	29.83
12.0'	18.68'	20.71
14.0'	21.80'	15.22
16.0'	24.91'	11.65