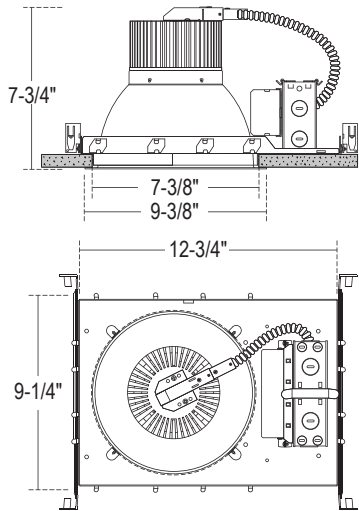


CH8C : 8" C-SERIES

(COB) CHIP ON BOARD BEAM CONTROL LED, NEW CONSTRUCTION
1000LM - 4000LM (10W-40W)



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



- Assorted dimming options.
- COB LED design allows for concentrated high CBCP beam
- Multiple Beam Spreads for flexible beam control
- Quick connector power adapter and twist-and-lock reflector for quick access and easy maintenance

ORDERING : CH8C10UE-D10-EM/CR8LC40SW-B30-T27

CH8C		Driver Options		Emergency Options		J-Box		Reflector Finish		Beam Spread		CCT	
Housing	Insulation Contact												
	Insulation Contact												
	Non-IC	Blank											
	IC Rated/Airtight	ICA ⁵											

¹ All drivers are 120V/277V unless otherwise noted.

² -347-D10 is not available for CH8C10.

³ Clear finish reflector not recommended for placing close to vertical surfaces. Uneven striations may be visible.

⁴ Check wiring diagrams.

⁵ ICA is only available for CH8C10, CH8C15, CH8C20, and CH8C30.

COMPATABILITY



VR800

Round Vandal Resistant Kit for 8"



P-CR872SW

Wall Wash for 8"

SPECIFICATION

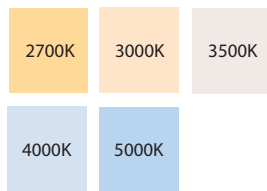
Application

Architectural/Commercial-grade recessed (COB) Chip on Board Beam Control LED allows for concentrated high center beam candlepower. Twist and lock beam control optic is designed for easy field replacement of 20°, 30°, 40°, 60° and 75° beam spread options.

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.

Color Temperature (CCT)



Available in 2700K, 3000K, 3500K, 4000K, 90 CRI; 5000K 80 CRI; 2700K and 3000K, 97 CRI.

COLOR TEMP:	2700K	3000K	3500K	4000K	5000K
CRI:	90, 97	90, 97	90	90	80

Insulation Contact

(CH8C10), (CH8C15), (CH8C20), and (CH8C30) 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

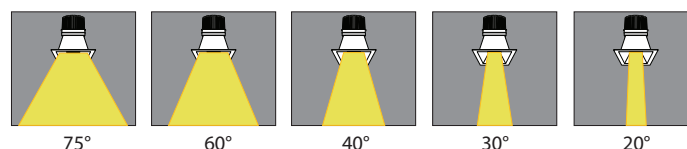
Our LED lamp array is replaceable via our on board quick disconnect terminal. Meets CA Title 24 Requirements and other standards restricting the use of Medium Base or Bi-Pin Sockets.

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.

Optics

Multifaceted aluminum reflectors produces low glare illumination with multiple light control options.



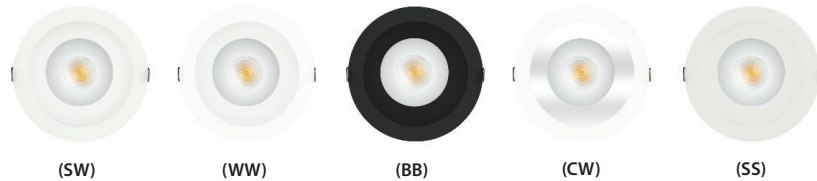
SPECIFICATION (Continued)

Reflector

Field adjustable twist and lock reflector is easily removable 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, 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 are included to install or remove covers for an easily accessed ground wire. (-CHP) option is Chicago Plenum, air-tight Junction Box.

Certifications and Listings



cETLus listed to UL1598 and UL8750. Suitable for dry locations.
NYC approved: Calendar #41937.

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

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.

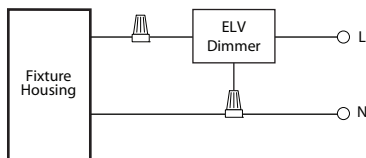
0-10V Driver 120V/277V (UE-D10):

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.

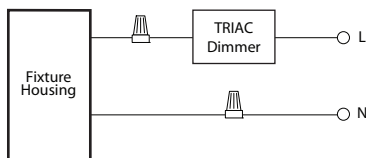
UniDim™ Driver 120V/277V (UE-DUN):

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.

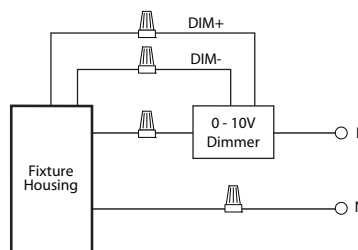
Incandescent/Phase Wiring
ELV



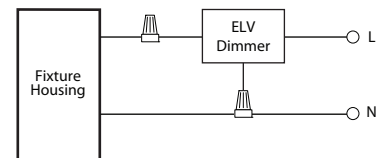
TRIAC



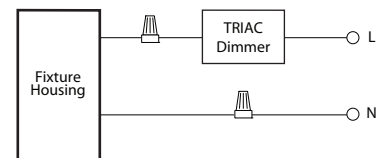
0 - 10V Wiring



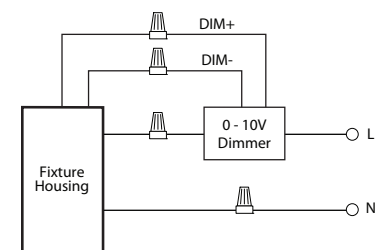
Incandescent/Phase Wiring
ELV



TRIAC



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

SPECIFICATION (Continued)

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

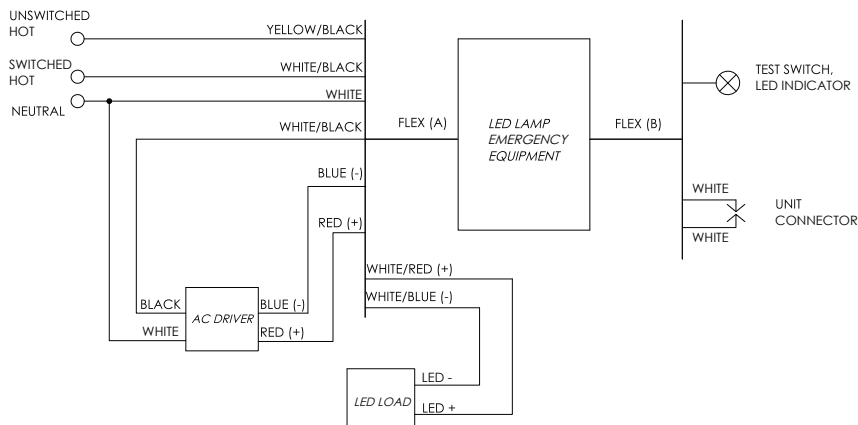
Emergency LED Battery Back-up available, remotely mounted adjacently by the installer.
When AC power fails, the device immediately switches to the emergency mode, operating the LEDs for a minimum of 90 minutes. Remote test switch and plate cover included. Optional Generator Transfer Device switches the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

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)

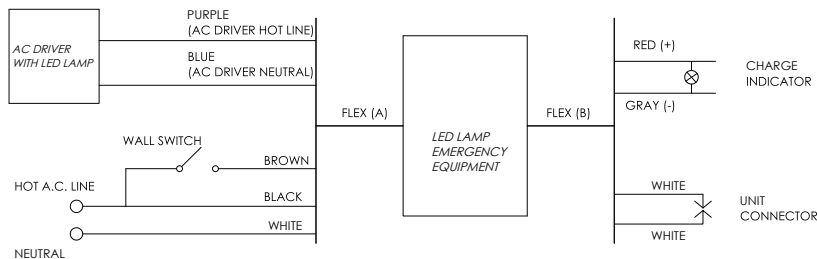
REMOTE LOCATION EMERGENCY INVERTER (-EMAC): 25W and 40W

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

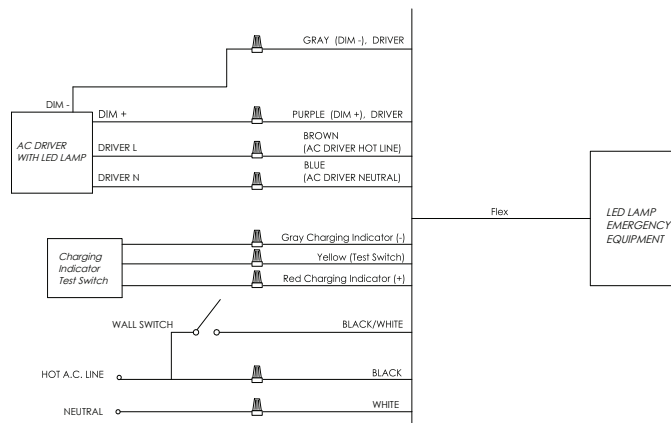
Not rated for outdoor mounting. Damp location rated.

<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

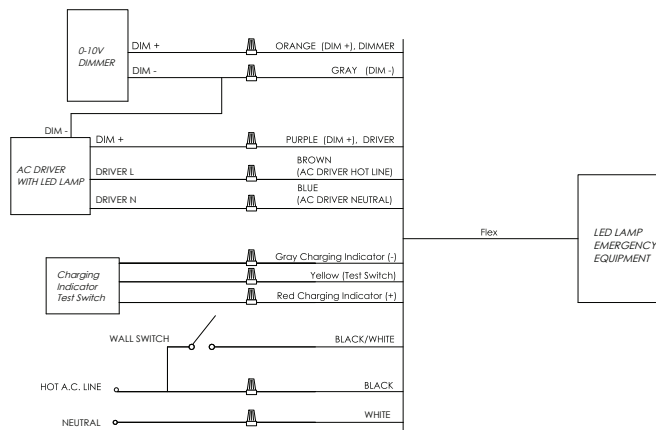
<40W LOAD



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

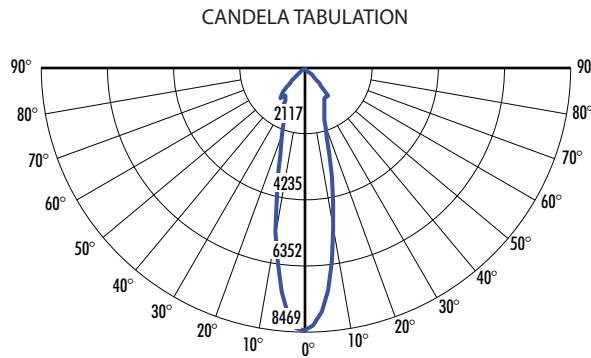
- 0-10V dimmable driver required



PHOTOMETRY

CH8C40UE-D10_CR8LC40CW-B20-T35 (4000lm, 40W, 20° Spot, 3500K)

System Power:	44W	MULTIPLIERS
Test Date:	10/2023	REFLECTOR FINISH
Beam Angle 50%:	24.9°	CW : 1.01
Field Angle 10%:	87.3°	SS : 0.99
Color Temperature:	3399K	SW : 1.00
CRI:	94.2	WW : 0.968
Lumens Delivered:	3700	CCT
CBCP:	8469.3	2700K : 0.91
Power Factor:	0.99	3000K : 0.97
		3500K : 1.00
		4000K : 1.04
		Lumens
		1000lm: 0.27
		1500lm: 0.37
		2000lm: 0.53
		2800lm: 0.71
		4000lm: 1.00

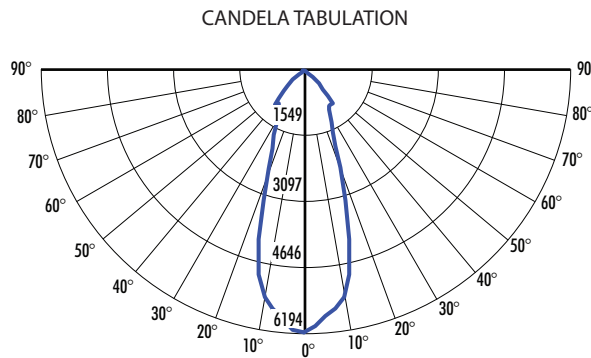


FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
12.0'	5.30'	58.81
14.0'	6.18'	43.21
16.0'	7.06'	33.08
18.0'	7.95'	26.14
20.0'	8.83'	21.17

CH8C40UE-D10_CR8LC40CW-B30-T35 (4000lm, 40W, 30° Narrow Flood, 3500K)

System Power:	43W	MULTIPLIERS
Test Date:	10/2023	REFLECTOR FINISH
Beam Angle 50%:	36.0°	CW : 1.01
Field Angle 10%:	91.7°	SS : 0.99
Color Temperature:	3378K	SW : 1.00
CRI:	94.3	WW : 0.968
Lumens Delivered:	3752	CCT
CBCP:	6194.1	2700K : 0.91
Power Factor:	0.99	3000K : 0.97
		3500K : 1.00
		4000K : 1.04
		Lumens
		1000lm: 0.27
		1500lm: 0.37
		2000lm: 0.53
		2800lm: 0.71
		4000lm: 1.00

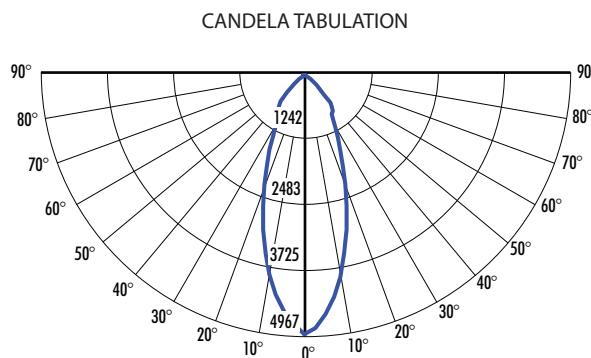


FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
12.0'	7.80'	43.01
14.0'	9.10'	31.60
16.0'	10.40'	24.20
18.0'	11.70'	19.12
20.0'	13.00'	15.49

CH8C40UE-D10_CR8LC40CW-B40-T35 (4000lm, 40W, 40° Flood, 3500K)

System Power:	43W	MULTIPLIERS
Test Date:	10/2023	REFLECTOR FINISH
Beam Angle 50%:	37.0°	CW : 1.01
Field Angle 10%:	90.1°	SS : 0.99
Color Temperature:	3261K	SW : 1.00
CRI:	93.8	WW : 0.968
Lumens Delivered:	3018	CCT
CBCP:	4967.0	2700K : 0.91
Power Factor:	0.99	3000K : 0.97
		3500K : 1.00
		4000K : 1.04
		Lumens
		1000lm: 0.27
		1500lm: 0.37
		2000lm: 0.53
		2800lm: 0.71
		4000lm: 1.00

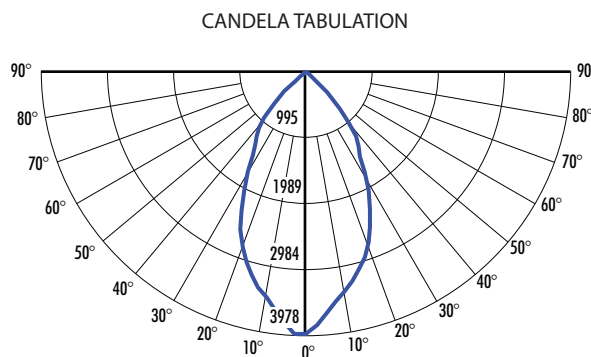


FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
12.0'	8.03'	34.49
14.0'	9.37'	25.34
16.0'	10.71'	19.40
18.0'	12.05'	15.33
20.0'	13.38'	12.42

CH8C40UE-D10_CR8LC40CW-B60-T35 (4000lm, 40W, 60° Wide Flood, 3500K)

System Power:	43W	MULTIPLIERS
Test Date:	10/2023	REFLECTOR FINISH
Beam Angle 50%:	55.9°	CW : 1.01
Field Angle 10%:	93.7°	SS : 0.99
Color Temperature:	3310K	SW : 1.00
CRI:	93.8	WW : 0.968
Lumens Delivered:	2104	CCT
CBCP:	3978.1	2700K : 0.91
Power Factor:	0.99	3000K : 0.97
		3500K : 1.00
		4000K : 1.04
		Lumens
		1000lm: 0.27
		1500lm: 0.37
		2000lm: 0.53
		2800lm: 0.71
		4000lm: 1.00



FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
12.0'	12.73'	27.63
14.0'	14.86'	20.30
16.0'	16.98'	15.54
18.0'	19.10'	12.28
20.0'	21.22'	9.95

LITON[®]

CH8C : 8" C·SERIES

(COB) CHIP ON BOARD BEAM CONTROL LED, NEW CONSTRUCTION

1000LM - 4000LM (10W-40W)

PHOTOMETRY (Continued)

CH8C40UE-D10_CR8LC40CW-B75-T35 (4000lm, 40W, 75° Very Wide Flood, 3500K)

System Power:	43W	MULTIPLIERS	CANDELA TABULATION	FOOTCANDLE DISTRIBUTION <table><thead><tr><th>Height</th><th>Beam Diameter</th><th>FC</th></tr></thead><tbody><tr><td>12.0'</td><td>18.15'</td><td>20.81</td></tr><tr><td>14.0'</td><td>21.18'</td><td>15.29</td></tr><tr><td>16.0'</td><td>24.20'</td><td>11.71</td></tr><tr><td>18.0'</td><td>27.23'</td><td>9.25</td></tr><tr><td>20.0'</td><td>30.25'</td><td>7.49</td></tr></tbody></table>	Height	Beam Diameter	FC	12.0'	18.15'	20.81	14.0'	21.18'	15.29	16.0'	24.20'	11.71	18.0'	27.23'	9.25	20.0'	30.25'	7.49
Height	Beam Diameter	FC																				
12.0'	18.15'	20.81																				
14.0'	21.18'	15.29																				
16.0'	24.20'	11.71																				
18.0'	27.23'	9.25																				
20.0'	30.25'	7.49																				
Test Date:	10/2023	REFLECTOR FINISH																				
Beam Angle 50%:	74.2°	CW : 1.01																				
Field Angle 10%:	96.2°	SS : 0.99																				
Color Temperature:	3351K	SW : 1.00																				
CRI:	94.0	WW : 0.968																				
Lumens Delivered:	3900	CCT																				
CBCP:	2997.3	2700K : 0.91																				
Power Factor:	0.99	3000K : 0.97																				
		3500K : 1.00																				
		4000K : 1.04																				
		Lumens																				
		1000lm: 0.27																				
		1500lm: 0.37																				
		2000lm: 0.53																				
		2800lm: 0.71																				
		4000lm: 1.00																				

2023.10.11