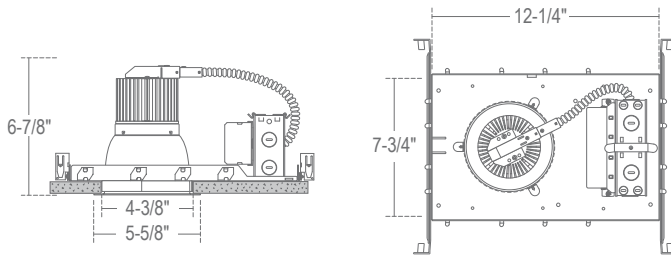


CH428 - 4" C-SERIES

LED DOWNLIGHT - 2000LM (28W) - AMBER (TURTLE SAFE)



Ceiling Cut-out: 4-7/8" - Ceiling Thickness: 1" Max

SPECIFICATION

120/277V 28W LED

Application: Turtle Safe commercial-grade recessed LED downlight housing for medium to ceilings in commercial and architectural spaces. Lensed fixture.

Mounting: Housing suitable for new construction installations only, supplied with (2) 24" adjustable hanger bars with 90 degrees 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 with 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.

Driver: 120V/277V AC 50/60Hz Electronic Direct Current Class 2 driver integrally mounted on large access Junction Box. Power Factor > 0.90. Operating Temperature: -20°C to +50°C / -4°F to +131°F. Accessible from above or below ceiling.

Dimming: Standard 0-10V dimming works with most 5-Wire 0-10V dimmers. Factory qualified for use with Leviton IP710-DLX and Lutron NTFTV-WH.

Emergency Options: Emergency LED Battery Back-up available, remotely mounted adjacent to housing by 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).

Junction Box: 16 gauge pre-wired galvanized steel double Junction Box, 64 cubic-inch for a maximum of (8) #12 AWG wires. Furnished with (10) 3/4", (2) 1" and (8) Romex knockouts. Strain clamps to install or remove covers for easy access and ground wire. Equipped with safety standard die-cast aluminum fitting for flex-conduit.

Insulation Contact: Non-IC rated housing must be kept 3" from insulation. IC rated option rated for direct insulation contact.

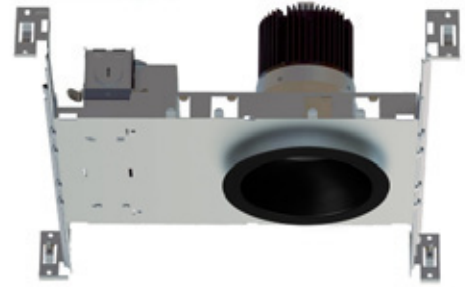
Caution: LITON recommends use of surge protectors on the power entering LED Housings. Surge damage is not covered by warranty. (+1KV)

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 the exposed integral aluminum heat sink to maximize heat rejection in an open-air environment. The recommended ambient temperature should be below 35°C to achieve a minimum L70 life of 50,000 hours according to the LM80 standard.

Airflow: Airtight 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).

Trim: Frosted Polycarbonate Lens pre-installed on reflector unifies diode sources and protects diodes from dust and particles from front of aperture.



COMPATIBILITY



P-CR471W

4" WALL WASH
CR4 ACCESSORY

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.

Safety Labels: ETL/cETL listed to UL1598 and UL8750. Suitable for dry, damp and wet locations. NYC approved: Calendar #41937.

Reflector Finish: Available in All Black.

Color Temperature: LED color temperature is verified as 585nm minimum and 595nm maximum.

Benefits:

- 590nm AMBER Turtle Safe
- Ready2Ship - Ships Same Day
- Heavy Duty Self-Flanged Reflector
- Standard with 0-10V Dimming
- Soft Even Lumen Distribution
- 90CRI Standard
- No Visible Screws or Hardware

Turtle Safe Requirements:

LOW: The product is designed for low to medium ceiling heights and delivered lumen output is sufficient to produce enough footcandles to satisfy building codes but not overpower the environment with excessive lumen output.

SHIELDED: The trim is deeply recessed and provides a minimum of 50° of glare cutoff. The trim reflector color is black to limit reflections. The beam spread is tightly controlled.

LONG: LED color is verified as 585nm minimum and 595nm maximum.

FEATURE:



ORDERING EXAMPLE : CH428UE-D10-GTD/CR4L17BBF-TAM

CH428	IC OPTION	HOUSING OPTION	REFLECTOR FINISH	REFLECTOR OPTION	COLOR TEMPERATURE
CH428 :2000lm (28W)	Blank :Non-IC	UE-D10 :0-10V Dimming	/CR4L17BBF :All Black	Blank :None	-TAM :590nm AMBER
	ICA :ICA Rated	UE-D10-GTD :GTD Device		-EMA :Integral EM-Switch*	
		UE-D10-EM :12W Emergency Back-Up			
		UE-D10-EMAC :25W Emergency Back-Up			

*Only available for EM Housings

LUMENS PACKAGE :
SYSTEM POWER :

1000lm
10W

1500lm
18W

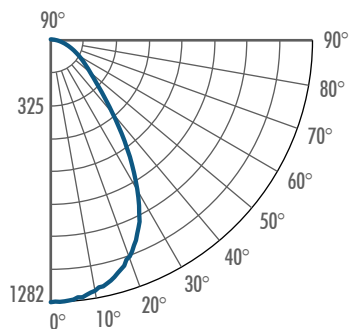
2000lm
28W

CH428UE-D10 - 2000lm - 4000K

System Power	:31W
Test Date	:12/2015
Beam Angle 50%	:69.8°
Field Angle 10%	:127.3°
Color Temperature	:4000K
CRI	:84
R9 Value	:68
Lumens Delivered	:1942lm
CBCP	:1282cd
Power Factor	:1.00

Multipliers	
3500K	0.99
3000K	0.97
Lumen Multipliers	
1000lm	0.51
1500lm	0.77

CANDELA TABULATION



FOOTCANDLE DISTRIBUTION

Height	Beam Diameter	FC
8'	11.2'	20.0
9'	12.6'	15.8
10'	14.0'	12.8
12'	16.8'	8.9
15'	21.0'	5.7

RECOMMENDED SPACING

Clg Ht	Spacing	Max/Min Ratio	Fixture	Dimming %
10 ft	7 ft o.c.	2.3:1	CH410-D10	0.42 %
12 ft	4.5 ft o.c.	1.8:1	CH418-D10	0.37 %
15 ft	3 ft o.c.	1.5:1	CH428-D10	15.38 %

CONTROLLED DIMMING (%)

EFFECTIVE FLOOR CAVITY REFLECTANCE @ 20%

RC		80		
RW	70	50	30	10
0	119	119	119	119
1	111	107	104	101
2	103	97	91	87
3	96	88	81	76
4	89	80	72	67
5	83	73	65	60
6	78	67	59	54
7	73	61	54	49
8	69	57	49	44
9	65	53	46	41
10	61	49	42	37

RC		50		
RW	70	30	10	
0	111	111	111	
1	101	99	96	
2	92	87	84	
3	83	78	74	
4	76	70	65	
5	70	63	59	
6	64	58	53	
7	59	53	48	
8	55	49	44	
9	51	45	40	
10	48	42	37	

RC		70		
RW	70	50	30	10
0	116	116	116	116
1	109	105	102	99
2	101	95	90	86
3	94	86	80	75
4	87	78	72	66
5	82	72	65	59
6	76	66	59	53
7	72	61	54	48
8	67	56	49	44
9	63	52	45	41
10	60	49	42	37