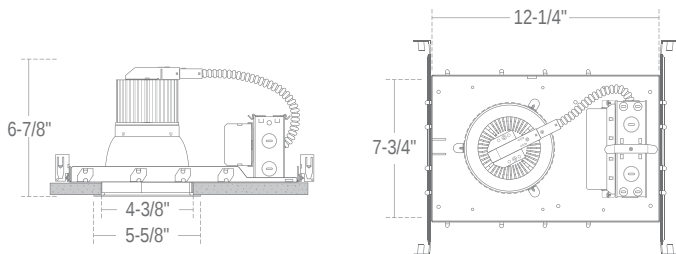
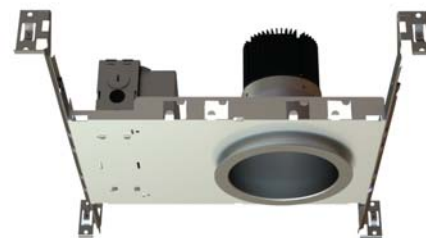


## CH410 - 4" C-SERIES

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



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



### SPECIFICATION

120/277V 10W 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 : CH410UE-D10-GTD/CR4L17BBF-TAM

| CH410               | IC OPTION      | HOUSING OPTION                     | REFLECTOR FINISH      | REFLECTOR OPTION          | COLOR TEMPERATURE |
|---------------------|----------------|------------------------------------|-----------------------|---------------------------|-------------------|
| CH410 :1000lm (10W) | 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



Tel: 323.904.0200

Product specifications subject to change without notice.

www.liton.com



**LUMENS PACKAGE :**  
**SYSTEM POWER :**

1000lm  
10W

1500lm  
18W

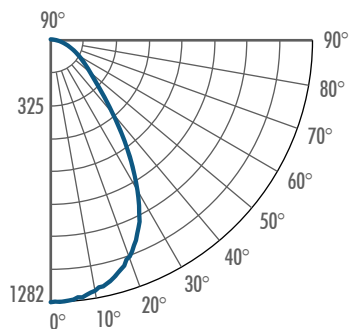
2000lm  
28W

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

| RC | 70  | 50  | 30  | 10  |
|----|-----|-----|-----|-----|
| 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  |