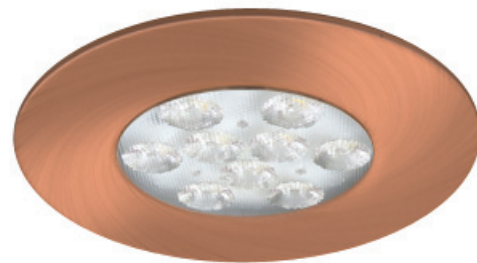
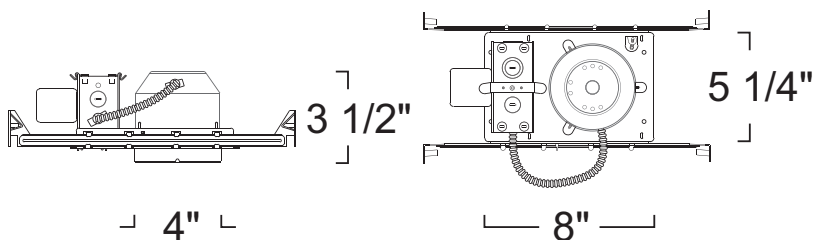


## 4" Shallow LED Housing (14W) w/ 4" Low Profile LED Trim 4" 14W (9 LED SERIES)



### SPECIFICATION

Ceiling cut-out: 4 1/2"

**Application:** This energy efficient general purpose recessed LED housing is perfect for low to medium height ceilings in residential and light commercial applications where shallow plenums or fixture height restrictions exist. Adjustable trim styles, a variety of finishes, and beam spreads are available to achieve a desired look and lumen output.

**Housing:** Pre-wired housing adjusts up to 1 1/4" ceiling thickness. This housing has torsion remodeling clips for secure installation. Integral thermal protector to guard against improper lamping and installation. Housing provides an adjustable socket plate which allows for use of different lamp types. Trim is secured with torsion wing springs/standard coil springs. Designed to be installed in existing sheet rock ceilings via ceiling cut out (above ceiling access is not required).

**Mounting:** Housing suitable for existing or new construction installations, supplied with high tension remodeling clips, designed to secure the housing to an existing sheetrock ceiling for fast and easy installation.

**Power Connection:** LED heat sinked lamp module is replaceable via onboard quick exclusionary disconnect terminal. No tools required. Meets CA Title 24 Requirements and other standards restricting the use of Medium Base or Bi-Pin Sockets.

**Driver:** Electronic Direct Current LED driver integrally mounted in electric junction box.

**Emergency Option:** 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, plate cover and junction box 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 Junction Box, 32 cubic-inch for a maximum of (8) #12 AWG wires. Furnished with (6) 3/4" and (4) Romex knock-outs. Strain clamps to install or remove covers for easy access and ground wire. Equipped with safety standard fitting for flex-conduit.

**Insulation Contact:** Non-IC rated housing must be kept 3" from insulation.

**Safety Labels:** ETL/CETL listed. Suitable for damp 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.

**Ceiling Type:** Suitable for flat and sloped ceilings.

**Label:** cETL Listed

### FEATURE:



**Application:** This energy efficient, low profile LED trim is perfect for low to medium height ceilings in residential and light commercial applications. A variety of finishes and beam spreads are available to achieve a desired look.

**Gasket:** Supplied with gasket to prevent light leakage and unsightly heat streaks on ceiling surface.

**Power Connection:** LED heat sinked lamp module is replaceable via onboard quick exclusionary disconnect terminal. No tools required. Meets CA Title 24 Requirements and other standards restricting the use of Medium Base or Bi-Pin Sockets.

**Lumen Maintenance:** Minimum 35,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

**Thermal Management:** Effective thermal dissipation facilitated by integral cast-aluminum, finned heat sink design for maximum heat rejection to provide long LED life.

**Color Temperature:** Comes standard with 3,000K Warm White LED's binned according to ANSI C78 377A for color temperature and chromaticity ranges. Available with other color temperatures with ANSI binning of 4,000K. To order use "-T" Suffix followed by color temperature. Example 4000K= T40. Consult factory as extended lead times and minimum order quantities apply.

**Warranty:** Covered by a 3 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.

**Certification:** This LED product is certified as compliant with California's Title 24 Energy Code by the California Energy Commission.

**Label:** cETL Listed

**Assembled in USA**

### 4" SHALLOW LED HOUSING (14W) LSHLDH4 14W max LED

| WATTAGE           | DRIVER TYPE                          | OPTIONS                       |
|-------------------|--------------------------------------|-------------------------------|
| LSHLDH414C35 :14W | Blank :120V                          | Blank :None                   |
|                   | -347-D10 :0-10V 10% Dimming          | -EM :Emergency Back-Up (8W)   |
|                   | -DIN :120V Incandescent/ ELV Dimming | -EM2 :Emergency Back-Up (14W) |
|                   | UE :120V/277V                        |                               |
|                   | UE-D10 :120V/277V (0-10V Dimming)    |                               |
|                   | UE-DHL :Hilume Dimming (120V/277V)   |                               |

### 4" LOW PROFILE LED TRIM LRLDH400 9x1.6W LED

| RING FINISH        | BEAM SPREAD        | RATING            |
|--------------------|--------------------|-------------------|
| LRLDH400B :Black   | -B25:Narrow Flood* | Blank :Damp       |
| LRLDH400CO :Copper | -B45:Flood         | -WL :Wet Location |
| LRLDH400N :Natural | -B61:Wide Flood    |                   |
| LRLDH400W :White   |                    |                   |

\* Not recommended for illuminating distances less than 6' away.

Ordering example: LSHLDH414C35-DIN-EM/LRLDH400N-B61

### LRLDH-14W-B25E: 4" Low Profile LED Trim

Lamp: (1) LED

Total Rated Fixture Lumen :533 Lm

Total Luminaire Efficacy :42 Lm/W

Luminous Diameter :3.48"

Color Rendering Index (CRI) :80 +

Color Temperature :3000K

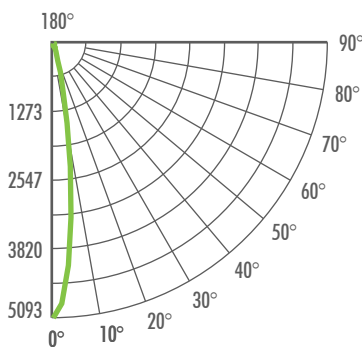
Estimated Life :35,000 hrs. L70

### Fixture Data

|         | LED Module Lumen | Fixture Lumen | Input Wattage |
|---------|------------------|---------------|---------------|
| @ 3000K | 650              | 533           | 14W           |
| @ 4000K | 650              | 549           | 14W           |

### ZONAL LUMENS SUMMARY

| Zone    | Lumens | % Fixt |
|---------|--------|--------|
| 0 - 20  | 423.13 | 79.40  |
| 0 - 30  | 462.04 | 86.70  |
| 0 - 40  | 486.33 | 91.30  |
| 0 - 60  | 520.65 | 97.70  |
| 0 - 80  | 531.91 | 99.80  |
| 0 - 90  | 532.79 | 100.00 |
| 10 - 90 | 252.76 | 47.40  |
| 20 - 40 | 63.20  | 11.90  |
| 20 - 50 | 82.99  | 15.60  |
| 40 - 70 | 42.26  | 7.90   |
| 60 - 80 | 11.26  | 2.10   |
| 70 - 80 | 3.33   | 0.60   |
| 80 - 90 | 0.88   | 0.20   |



### CANDELA TABULATION

#### CD./SQ.M

| Angle | 0        |
|-------|----------|
| 0.0   | 5093.405 |
| 2.0   | 4828.860 |
| 6.0   | 3238.718 |
| 12.0  | 923.644  |
| 18.0  | 220.460  |
| 24.0  | 88.830   |
| 30.0  | 50.547   |
| 36.0  | 36.292   |
| 42.0  | 28.510   |
| 52.0  | 18.945   |
| 62.0  | 10.804   |
| 72.0  | 3.972    |
| 80.0  | 1.841    |

### ZONAL LUMEN SUMMARY

| LED | Height (ft.) | FC   | Beam Diameter (ft.) |
|-----|--------------|------|---------------------|
| B25 | 10           | 20   | 3                   |
|     | 12           | 10   | 4                   |
|     | 14           | 6    | 4.5                 |
|     | 20           | 3    | 7                   |
| B45 | 8            | 16.8 | 3.6                 |
|     | 10           | 11.8 | 4                   |
|     | 12           | 8.1  | 4.5                 |
|     | 14           | 6    | 6                   |
| B60 | 16           | 4.7  | 7                   |
|     | 8            | 6    | 6                   |
|     | 10           | 4    | 7                   |
| B60 | 12           | 2.7  | 9                   |

### LUMINANCE DATA

#### CD./SQ.M

| Angle | Avg. 0-Deg | Avg. 45-Deg | Avg. 90-Deg |
|-------|------------|-------------|-------------|
| 45    | 5907       | 5907        | 5907        |
| 55    | 4552       | 4552        | 4552        |
| 65    | 2969       | 2969        | 2969        |
| 75    | 1963       | 1963        | 1963        |
| 85    | 1417       | 1417        | 1417        |

### ZONAL LUMINANCE SUMMARY

#### CD./SQ.M

| Zone   | Lumens |
|--------|--------|
| 0-10   | 280.03 |
| 10-20  | 143.10 |
| 20-30  | 38.91  |
| 30-40  | 24.29  |
| 40-50  | 19.79  |
| 50-60  | 14.54  |
| 60-70  | 7.93   |
| 70-80  | 3.33   |
| 80-90  | 0.88   |
| 90-100 | 0.00   |

### LRLDH-14W-B45E: 4" Low Profile LED Trim

Lamp: (1) LED

Total Rated Fixture Lumen :650 Lm

Total Luminaire Efficacy :51 Lm/W

Luminous Diameter :3.48"

Color Rendering Index (CRI) :80 +

Color Temperature :3000K

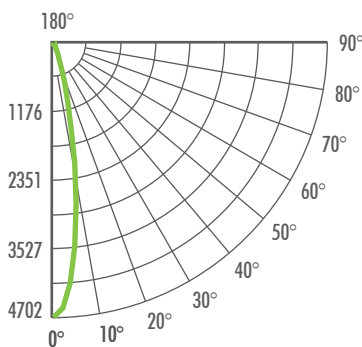
Estimated Life :35,000 hrs. L70

### Fixture Data

|         | LED Module Lumen | Fixture Lumen | Input Wattage |
|---------|------------------|---------------|---------------|
| @ 3000K | 650              | 650           | 14W           |
| @ 4000K | 650              | 670           | 14W           |

### ZONAL LUMENS SUMMARY

| Zone    | Lumens | % Fixt |
|---------|--------|--------|
| 0 - 20  | 550.31 | 84.70  |
| 0 - 30  | 605.61 | 93.20  |
| 0 - 40  | 625.19 | 96.20  |
| 0 - 60  | 645.14 | 99.30  |
| 0 - 80  | 649.51 | 99.90  |
| 0 - 90  | 649.95 | 100.00 |
| 10 - 90 | 341.31 | 52.50  |
| 20 - 40 | 74.88  | 11.50  |
| 20 - 50 | 87.94  | 13.50  |
| 40 - 70 | 22.89  | 3.50   |
| 60 - 80 | 4.37   | 0.70   |
| 70 - 80 | 1.43   | 0.20   |
| 80 - 90 | 0.44   | 0.10   |



### CANDELA TABULATION

#### CD./SQ.M

| Angle | 0        |
|-------|----------|
| 0.0   | 4702.280 |
| 2.0   | 4546.040 |
| 6.0   | 3519.138 |
| 12.0  | 1452.227 |
| 18.0  | 425.929  |
| 24.0  | 126.173  |
| 30.0  | 48.859   |
| 36.0  | 27.585   |
| 42.0  | 20.184   |
| 52.0  | 9.837    |
| 62.0  | 3.874    |
| 72.0  | 1.636    |
| 80.0  | 0.882    |

### ZONAL LUMEN SUMMARY

| LED | Height (ft.) | FC   | Beam Diameter (ft.) |
|-----|--------------|------|---------------------|
| B25 | 10           | 20   | 3                   |
|     | 12           | 10   | 4                   |
|     | 14           | 6    | 4.5                 |
|     | 20           | 3    | 7                   |
| B45 | 8            | 16.8 | 3.6                 |
|     | 10           | 11.8 | 4                   |
|     | 12           | 8.1  | 4.5                 |
|     | 14           | 6    | 6                   |
| B60 | 16           | 4.7  | 7                   |
|     | 8            | 6    | 6                   |
|     | 10           | 4    | 7                   |
| B60 | 12           | 2.7  | 9                   |

### LUMINANCE DATA

#### CD./SQ.M

| Angle | Avg. 0-Deg | Avg. 45-Deg | Avg. 90-Deg |
|-------|------------|-------------|-------------|
| 45    | 3940       | 3940        | 3940        |
| 55    | 2148       | 2148        | 2148        |
| 65    | 1095       | 1095        | 1095        |
| 75    | 850        | 850         | 850         |
| 85    | 737        | 737         | 737         |

### ZONAL LUMINANCE SUMMARY

#### CD./SQ.M

| Zone   | Lumens |
|--------|--------|
| 0-10   | 308.65 |
| 10-20  | 241.66 |
| 20-30  | 55.30  |
| 30-40  | 19.58  |
| 40-50  | 13.06  |
| 50-60  | 6.89   |
| 60-70  | 2.94   |
| 70-80  | 1.43   |
| 80-90  | 0.44   |
| 90-100 | 0.00   |

### LRLDH-14W-B61E: 4" Low Profile LED Trim

Lamp: (1) LED

Total Rated Fixture Lumen :591 Lm

Total Luminaire Efficacy :48 Lm/W

Luminous Diameter :3.48"

Color Rendering Index (CRI) :80 +

Color Temperature :3000K

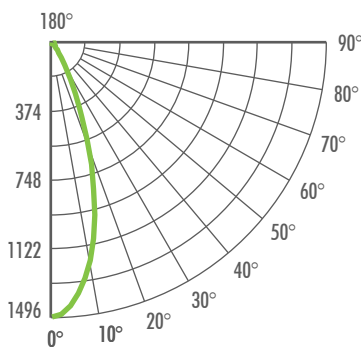
Estimated Life :35,000 hrs. L70

### Fixture Data

|         | LED Module Lumen | Fixture Lumen | Input Wattage |
|---------|------------------|---------------|---------------|
| @ 3000K | 650              | 591           | 14W           |
| @ 4000K | 650              | 609           | 14W           |

### ZONAL LUMENS SUMMARY

| Zone    | Lumens | % Fixt |
|---------|--------|--------|
| 0 - 20  | 371.86 | 62.90  |
| 0 - 30  | 510.72 | 86.40  |
| 0 - 40  | 551.20 | 93.20  |
| 0 - 60  | 581.12 | 98.30  |
| 0 - 80  | 590.37 | 99.80  |
| 0 - 90  | 591.27 | 100.00 |
| 10 - 90 | 463.28 | 78.40  |
| 20 - 40 | 179.34 | 30.30  |
| 20 - 50 | 196.78 | 33.30  |
| 40 - 70 | 36.15  | 6.10   |
| 60 - 80 | 9.25   | 1.60   |
| 70 - 80 | 3.01   | 0.50   |
| 80 - 90 | 0.90   | 0.20   |



### CANDELA TABULATION

#### CD./SQ.M

| Angle | 0        |
|-------|----------|
| 0.0   | 1496.095 |
| 2.0   | 1482.616 |
| 6.0   | 1372.692 |
| 12.0  | 1092.940 |
| 18.0  | 697.056  |
| 24.0  | 339.945  |
| 30.0  | 132.801  |
| 36.0  | 49.142   |
| 42.0  | 26.542   |
| 52.0  | 16.207   |
| 62.0  | 8.277    |
| 72.0  | 3.480    |
| 80.0  | 1.815    |

### ZONAL LUMEN SUMMARY

| LED | Height (ft.) | FC   | Beam Diameter (ft.) |
|-----|--------------|------|---------------------|
| B25 | 10           | 20   | 3                   |
|     | 12           | 10   | 4                   |
|     | 14           | 6    | 4.5                 |
|     | 20           | 3    | 7                   |
| B45 | 8            | 16.8 | 3.6                 |
|     | 10           | 11.8 | 4                   |
|     | 12           | 8.1  | 4.5                 |
|     | 14           | 6    | 6                   |
|     | 16           | 4.7  | 7                   |
| B60 | 8            | 6    | 6                   |
|     | 10           | 4    | 7                   |
|     | 12           | 2.7  | 9                   |

### LUMINANCE DATA

#### CD./SQ.M

| Angle | Avg. 0-Deg | Avg. 45-Deg | Avg. 90-Deg |
|-------|------------|-------------|-------------|
| 45    | 5073       | 5073        | 5073        |
| 55    | 4020       | 4020        | 4020        |
| 65    | 2284       | 2284        | 2284        |
| 75    | 1796       | 1796        | 1796        |
| 85    | 1479       | 1479        | 1479        |

### ZONAL LUMINANCE SUMMARY

#### CD./SQ.M

| Zone   | Lumens |
|--------|--------|
| 0-10   | 127.99 |
| 10-20  | 243.87 |
| 20-30  | 138.85 |
| 30-40  | 40.49  |
| 40-50  | 17.44  |
| 50-60  | 12.47  |
| 60-70  | 6.24   |
| 70-80  | 3.01   |
| 80-90  | 0.90   |
| 90-100 | 0.00   |