

# Deep Regressed Downlight

## Recessed-LED Commercial Downlight



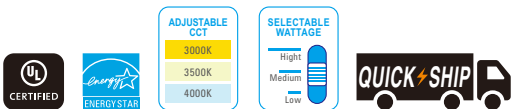
OKT LED commercial downlights have been upgraded 4th generation since 2013. Each engine works seamlessly with the all trims, making it truly modular. It is the ideal way to upgrade virtually any existing incandescent, CFL and HID commercial open frame rough-in section to high-performance LED illumination in a matter of minutes. Light engine is mounted directly to aluminum trim providing superior thermal management to ensure long life. Spun aluminum reflector integrated with haze finish and white trim ring with shadow free.

It is available in 6", 8" and 10" with up to 80w which is designed and engineered for recessed applications, which is suitable for commercial and public places, such as shopping mall, hospital, airport, hotel lobby, etc.



### Feature

- UL, Energy Star and Damp Rated
- A smart design that one LED engine fits all trims
- 6", 8" and 10" size, 85lm/w, up to 80W
- CCT and wattage adjustable
- Twist-Lock Modular design
- New construction housing frame available



### PERFORMANCE

| Model NO.   | Lumen Output |             |             | CCT Adjustable      | Type   |
|-------------|--------------|-------------|-------------|---------------------|--------|
|             | High         | Medium      | Low         |                     |        |
| CES-40W-TWS | 40W, 3500LM  | 27W, 2300LM | 18W, 1500LM | 3000K, 3500K, 4000K | IC     |
| CES-80W-XXE | 80W, 6800LM  | 65W, 5500LM | 50W, 4200LM | N/A                 | NON-IC |

Above are subject to 3500K. All efficacy is ±5% base on different CCT and Trims. Check the IES file to gain the accurate data .

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### STRUCTURE

#### ► Optics

Spun aluminum reflector integrated with haze finish and white trim ring with shadow free, deeply regressed diffusing lens conceals the LEDs from direct view.

#### ► Electrical

|               |  |
|---------------|--|
| LED Driver    | Powered by Class 2 high efficiency LED driver, with a standard 1-10V dimming which continuous dims to 10% that works with many types of controls. Tested Dimmers: Lutron® Diva-Dvtv, Leviton® IP-710-DL. |
| THD           | <20%   |
| Power Factor  | >0.9   |
| Input Voltage | Standard electronic drivers are cULus recognized and available for 110-277V AC.  |

#### ► LED System

|                    |  |
|--------------------|--|
| CRI                | Minimum 80 color rendering index   |
| CCT                | The choice of 3000K, 3500K, 4000K and 5000K color temperature with a great color consistency, or CCT adjustable from 3000K, 3500K and 4000K. |
| LED                | Life Minimum 50,000h with 87.8% of lumen maintenance in 25°C ambient temperature, in compliance with IES LM-80 testing measurements.         |
| Thermal Management | Aluminum housing acting as the heat sink to maximize life.   |
| Environment        | Damp rated in operating ambient temperatures of -20°C~40°C .   |

#### ► Mounting

It is provided with spring steel friction clips allowing for installation in a variety of commercial recessed open frame rough-in sections.

#### ► Approvals

- cULus listed for damp locations
- Energy Star Listed
- Tested to IESNA LM-79 and LM-80
- 5 years limited warranty

#### ► Optional Function

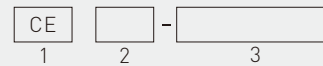
**Emergency Option** Optional low voltage emergency LED driver EM-L series can be provided. When AC power fails, it immediately switches to the emergency mode, operating for lighting up to 120 minutes. When AC power is restored, it automatically returns to the charging mode which meets critical life-safety lighting requirements. For more info or spec sheet, please visit our website or contact sales.



### PRODUCT ORDERING GUIDE

#### Sample

CE 8 - 40W - TWS  
1 2 3



#### 1. Base Model

CE

#### 2. Size

- 6 6"  
 8 8"  
 10 10"

#### 3. CCT

- 40W-TWS Wattage Selectable 40W, 27W, 18W & CCT Adjustable 3000K, 3500K, 4000K  
 80W-30E Wattage Selectable 80W, 65W, 50W & 3000K\*  
 80W-30E Wattage Selectable 80W, 65W, 50W & 3500K  
 80W-30E Wattage Selectable 80W, 65W, 50W & 4000K

### OPTIONAL ORDERING GUIDE

#### Optional Mounting Accessory

- 6" Spring Clips  
 8" Spring Clips  
 10" Spring Clips

#### Optional New Construction Frame Kit

- 6" Housing Frame Kit  
 8" Housing Frame Kit  
 10" Housing Frame Kit

#### Optional Functions

- LED Emergency Driver (Order Separated)

\*Additional cost and/or lead time on customized fixtures may apply. Some fixtures require an MOQ. Please contact your sales rep for more information.

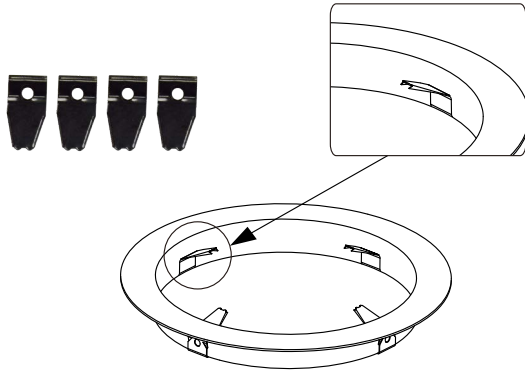
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## MOUNTING ACCESSORY

### Standard - Clips



### Optional - Spring Clips

Designed for CES downlight fixation, this spring clip can be used to secure the light to the housing frame kit if the existing clips could not match the mounting diameters. Made of premium material for long time and durable use.

6inch



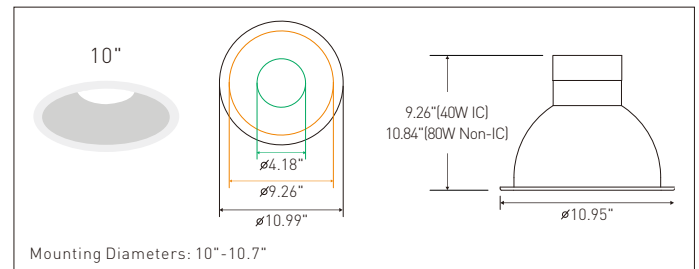
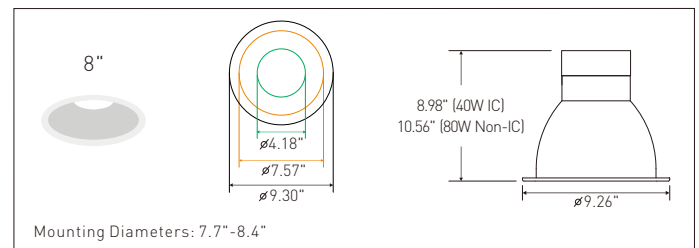
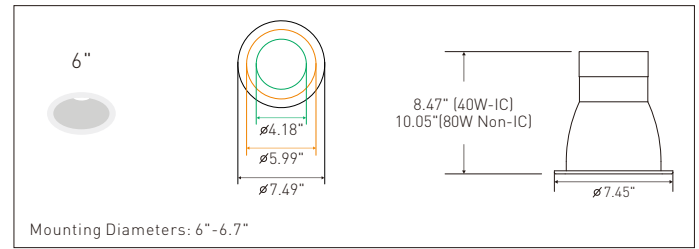
8inch



10inch



## DIMENSIONS



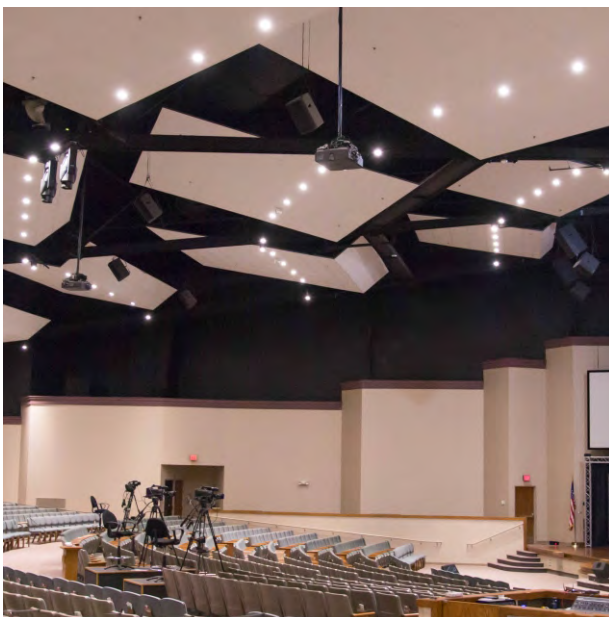
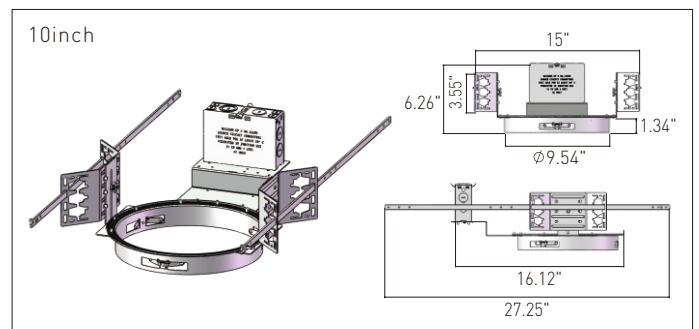
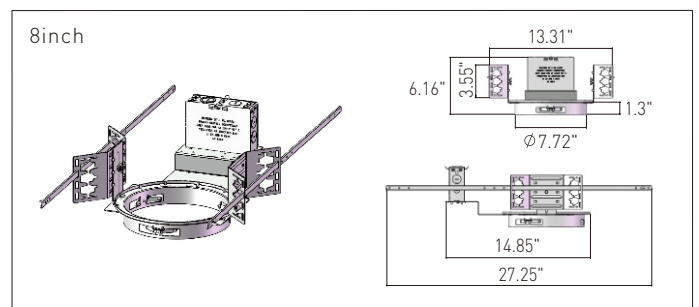
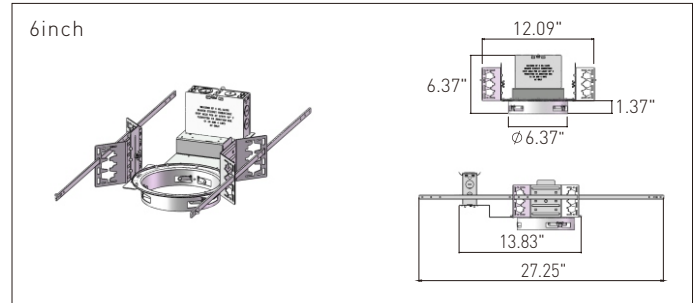
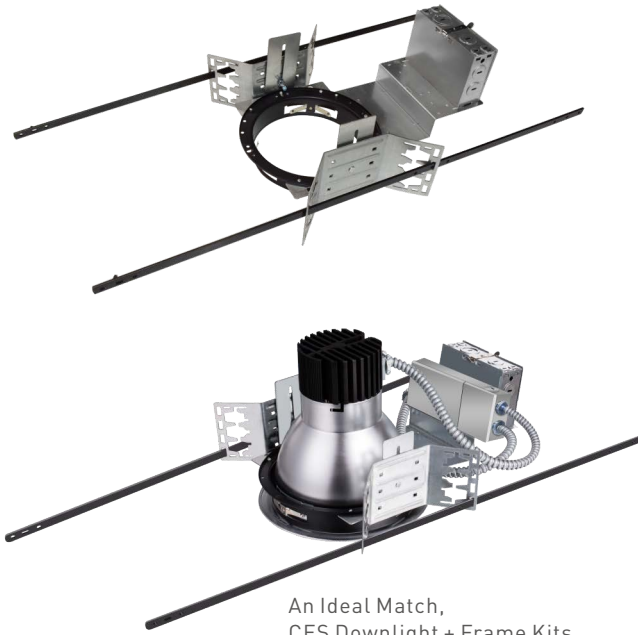
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## OPTIONAL NEW CONSTRUCTION FRAME KIT

The frame kit was specifically designed for the CES series, it delivers the perfect aperture for a tight, seamless fit. This minimizes the space and materials required for installation. Steel housing frames are suitable for new construction. They are available in 6inch, 8inch and 10inch.



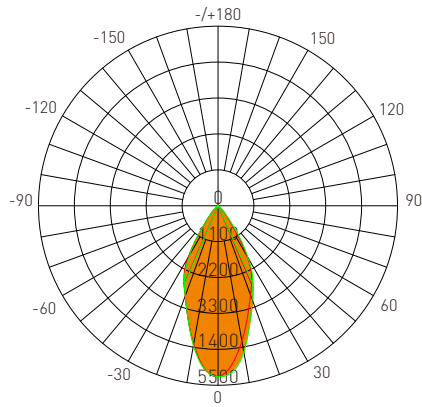
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## DISTRIBUTION DIAGRAM

### 8" -40W



AVERAGE BEAM ANGLE(50%): 46.9°

Lumens: 3454.8 Lm  
Watts: 40 W  
LPW: 86.37 Lm/W  
CCT: 3000K

UNIT: cd  
— C0/180,23.6,23.1  
— C90/270,23.2,24.0

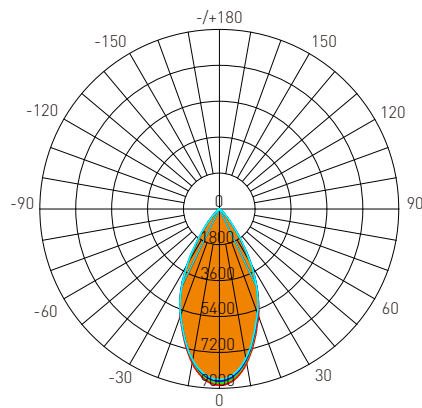
Zonal Flux Diagram

| τ   | C0                    | C45    | C90    | C135   | C180   |
|-----|-----------------------|--------|--------|--------|--------|
| 10  | 4207                  | 4415   | 4558   | 4486   | 4303   |
| 20  | 2908                  | 2989   | 3048   | 3017   | 2951   |
| 30  | 1783                  | 1845   | 1841   | 1886   | 1860   |
| 40  | 404.4                 | 449.3  | 484.6  | 473.0  | 456.1  |
| 50  | 86.32                 | 93.34  | 102.6  | 97.79  | 98.80  |
| 60  | 28.65                 | 31.97  | 35.80  | 31.96  | 31.76  |
| 70  | 11.68                 | 13.27  | 14.63  | 12.86  | 12.69  |
| 80  | 4.325                 | 4.949  | 5.424  | 4.908  | 4.774  |
| 90  | 0.0042                | 0.0048 | 0.0057 | 0.0085 | 0.0064 |
| 100 | 0.0030                | 0.0028 | 0.0022 | 0.0028 | 0.0042 |
| 110 | 0.0069                | 0.0047 | 0.0056 | 0.0044 | 0.0083 |
| 120 | 0.0130                | 0.0125 | 0.0130 | 0.0125 | 0.0155 |
| 130 | 0.0296                | 0.0321 | 0.0255 | 0.0322 | 0.0305 |
| 140 | 0.0873                | 0.0858 | 0.0741 | 0.0856 | 0.0737 |
| 150 | 0.1587                | 0.1440 | 0.1159 | 0.1539 | 0.1406 |
| 160 | 0.1934                | 0.2072 | 0.1962 | 0.2238 | 0.2125 |
| 170 | 0.1596                | 0.2089 | 0.2004 | 0.2279 | 0.2055 |
| 180 | 0.1087                | 0.1105 | 0.1023 | 0.0966 | 0.1065 |
| DEG | LUMINOUS INTENSITY:cd |        |        |        |        |

Zonal Lumens

| τ       | φ total  |
|---------|----------|
| 0-10    | 456.9    |
| 10-20   | 1464     |
| 20-30   | 2576     |
| 30-40   | 3195     |
| 40-50   | 3372     |
| 50-60   | 3423     |
| 60-70   | 3443     |
| 70-80   | 3452     |
| 80-90   | 3454     |
| 90-100  | 3454     |
| 100-110 | 3454     |
| 110-120 | 3455     |
| 120-130 | 3455     |
| 130-140 | 3455     |
| 140-150 | 3455     |
| 150-160 | 3455     |
| 160-170 | 3455     |
| 170-180 | 3455     |
|         | UNIT: lm |

### 8" -80W



AVERAGE BEAM ANGLE(50%): 51.6°

Lumens: 6288.5 Lm  
Watts: 80 W  
LPW: 78.61Lm/W  
CCT: 3000K

UNIT: cd  
— C0/180,51.0°  
— C30/210,51.4°  
— C60/240,51.9°  
— C90/270,52.0°

Zonal Flux Diagram

| τ   | C0                    | C45    | C90    | C135   | C180   |
|-----|-----------------------|--------|--------|--------|--------|
| 10  | 7872                  | 7743   | 7625   | 7552   | 7858   |
| 20  | 5741                  | 5648   | 5579   | 5538   | 5777   |
| 30  | 3072                  | 3196   | 3154   | 3133   | 3168   |
| 40  | 863.6                 | 934.3  | 953.4  | 979.2  | 923.3  |
| 50  | 154.7                 | 156.7  | 165.2  | 184.7  | 180.9  |
| 60  | 31.91                 | 32.07  | 35.00  | 42.64  | 40.87  |
| 70  | 11.69                 | 11.21  | 11.99  | 13.96  | 13.43  |
| 80  | 4.327                 | 4.261  | 4.534  | 4.810  | 4.632  |
| 90  | 0.1629                | 0.1966 | 0.1448 | 0.1684 | 0.1504 |
| 100 | 0.1616                | 0.1471 | 0.1497 | 0.1443 | 0.1623 |
| 110 | 0.2522                | 0.2166 | 0.2029 | 0.2166 | 0.2211 |
| 120 | 0.5132                | 0.4694 | 0.4464 | 0.4604 | 0.4604 |
| 130 | 1.495                 | 1.490  | 1.513  | 1.454  | 1.427  |
| 140 | 4.095                 | 4.071  | 4.131  | 3.953  | 4.054  |
| 150 | 8.045                 | 7.940  | 7.982  | 7.733  | 7.987  |
| 160 | 12.49                 | 12.36  | 12.22  | 11.98  | 12.40  |
| 170 | 16.29                 | 16.02  | 15.74  | 15.54  | 16.30  |
| 180 | 17.76                 | 17.60  | 17.17  | 17.10  | 17.83  |
| DEG | LUMINOUS INTENSITY:cd |        |        |        |        |

Zonal Lumens

| τ       | φ total  |
|---------|----------|
| 0-10    | 775.2    |
| 10-20   | 2630     |
| 20-30   | 4656     |
| 30-40   | 5823     |
| 40-50   | 6169     |
| 50-60   | 6241     |
| 60-70   | 6261     |
| 70-80   | 6269     |
| 80-90   | 6271     |
| 90-100  | 6271     |
| 100-110 | 6272     |
| 110-120 | 6272     |
| 120-130 | 6273     |
| 130-140 | 6275     |
| 140-150 | 6278     |
| 150-160 | 6283     |
| 160-170 | 6287     |
| 170-180 | 6288     |
|         | UNIT: lm |

Luminance cd/(m2)

| G(DEG) | C0/180 | C90/270 |
|--------|--------|---------|
| 85     | 466    | 681     |
| 80     | 880    | 923     |
| 75     | 1033   | 1049    |
| 70     | 1207   | 1239    |
| 65     | 1530   | 1617    |
| 60     | 2255   | 2474    |
| 55     | 4114   | 4540    |
| 50     | 8505   | 9079    |
| 45     | 18529  | 21493   |