

CDR8

8" Commercial LED Downlight Retrofit

Product Description

The CDR8 is an 8 inch Recessed LED Commercial Retrofit Kit, designed to replace less efficient, traditional lighting fixtures with energy efficient LEDs. This 8 inch retrofit kit can replace most manufacturers incandescent, CFL, or HID fixtures with apertures of 7.72" min. to 8.26" max diameter. Easy conversion and installation can be performed from below the ceiling without removing the existing frame. The CDR8 is a great lighting solution for all commercial, retail, and institutional applications where high efficiency, low energy lighting is desired.

Construction

- Spun aluminum reflector with integrated trim
- Aluminum heat sink routes heat away from electrical components

Optical System

- Highly reflective faceted optical cone and textured diffuser create a uniform distribution of light

Electrical

- Driver delivers full-range dimming from 0 - 10VDC
- External driver ensures steady performance and long lifespan
- Operating temperature rating of -4°F to 122°F (-20°C to 50°C)
- Universal input 120-277VAC
- LM-80 testing performed in accordance to IESNA standards

Finish

- Satin aluminum reflector with integrated white trim

Installation

- Easy installation into most 8" incandescent or fluorescent frames
- Integrated safety cable

Warranty

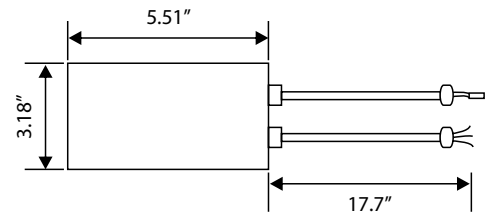
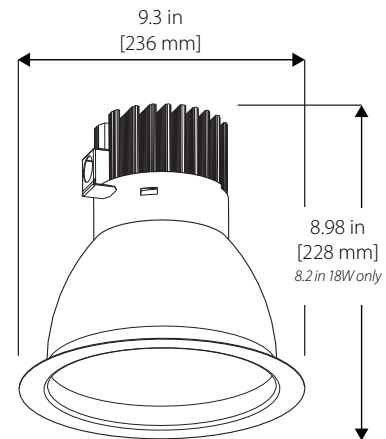
- 5-year limited system warranty standard
- Warranty does not cover product failure due to an overvoltage event (power surge.)
For installations where power surge may be possible, NICOR recommends installing additional surge protection at the fixture or electrical distribution panel

Project _____

Catalog _____

Type _____

Date _____



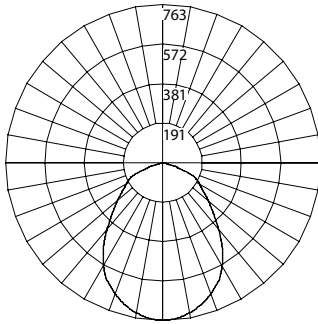
driver height 1.77"



Photometric Data

CDR8 3500K 18W

| | |
|-----------------------------|----------|
| Input Voltage (VAC) | 120-277V |
| System Level Power (W) | 18.0 |
| Delivered Lumens (Lm) | 1501 |
| System Efficacy (Lm/W) | 83.4 |
| Correlated Color Temp (K) | 3493 |
| Color Rendering Index (CRI) | 81 |
| Beam Angle | 41° |
| Spacing Criteria | 0.64 |



| Intensity Summary (Candle Power) | |
|-------------------------------------|---------|
| Angle | Mean CP |
| 0 | 2556 |
| 5 | 2444 |
| 15 | 1680 |
| 25 | 990 |
| 35 | 288 |
| 45 | 97 |
| 55 | 33 |
| 65 | 13 |
| 75 | 5 |
| 85 | 1 |
| 90 | 0 |

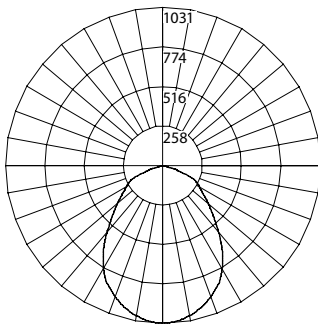
| CCT Data Multiplier | |
|---------------------|-------|
| CDR8-18W-UNV-40K | 1.015 |
| CDR8-18W-UNV-50K | 1.036 |

| Cone of Light Tabulation | | |
|--------------------------|----------------------------|--------------------|
| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
| 4 | 159.8 | 2.7 |
| 6 | 71.0 | 3.9 |
| 8 | 39.9 | 5.2 |
| 10 | 25.6 | 6.4 |
| 12 | 17.8 | 7.6 |
| 14 | 13.0 | 9.0 |
| 16 | 10.0 | 10.2 |

| Zonal Lumen Summary | | |
|---------------------|--------|----------------|
| Zone | Lumens | % of Luminaire |
| 0-30 | 1150 | 76.6% |
| 0-40 | 1373 | 91.4% |
| 0-60 | 1481 | 98.7% |
| 0-90 | 1501 | 100.0% |
| 90-180 | 0 | 0.0% |
| 0-180 | 1501 | 100.0% |

CDR8 3500K 27W

| | |
|-----------------------------|----------|
| Input Voltage (VAC) | 120-277V |
| System Level Power (W) | 27.0 |
| Delivered Lumens (Lm) | 2113 |
| System Efficacy (Lm/W) | 78.3 |
| Correlated Color Temp (K) | 3496 |
| Color Rendering Index (CRI) | 81 |
| Beam Angle | 39.4° |
| Spacing Criteria | 0.62 |



| Intensity Summary (Candle Power) | |
|-------------------------------------|---------|
| Angle | Mean CP |
| 0 | 3755 |
| 5 | 3516 |
| 15 | 2381 |
| 25 | 1386 |
| 35 | 401 |
| 45 | 128 |
| 55 | 46 |
| 65 | 19 |
| 75 | 8 |
| 85 | 2 |
| 90 | 0 |

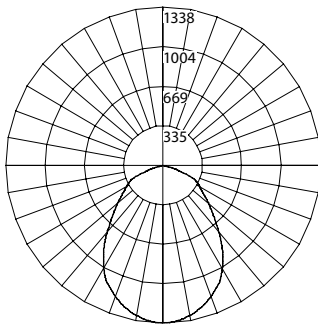
| CCT Data Multiplier | |
|---------------------|-------|
| CDR8-27W-UNV-40K | 1.016 |
| CDR8-27W-UNV-50K | 1.036 |

| Cone of Light Tabulation | | |
|--------------------------|----------------------------|--------------------|
| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
| 4 | 234.7 | 2.6 |
| 6 | 104.3 | 3.7 |
| 8 | 58.7 | 5.0 |
| 10 | 37.5 | 6.2 |
| 12 | 26.1 | 7.4 |
| 14 | 19.2 | 8.6 |
| 16 | 14.7 | 9.8 |

| Zonal Lumen Summary | | |
|---------------------|--------|----------------|
| Zone | Lumens | % of Luminaire |
| 0-30 | 1626 | 77.0% |
| 0-40 | 1936 | 91.6% |
| 0-60 | 2081 | 98.5% |
| 0-90 | 2113 | 100.0% |
| 90-180 | 0 | 0.0% |
| 0-180 | 2113 | 100.0% |

CDR8 3500K 40W

| | |
|-----------------------------|----------|
| Input Voltage (VAC) | 120-277V |
| System Level Power (W) | 40.0 |
| Delivered Lumens (Lm) | 2778 |
| System Efficacy (Lm/W) | 69.5 |
| Correlated Color Temp (K) | 3501 |
| Color Rendering Index (CRI) | 81 |
| Beam Angle | 37.7° |
| Spacing Criteria | 0.60 |



| Intensity Summary (Candle Power) | |
|-------------------------------------|---------|
| Angle | Mean CP |
| 0 | 5128 |
| 5 | 4678 |
| 15 | 3096 |
| 25 | 1809 |
| 35 | 481 |
| 45 | 185 |
| 55 | 77 |
| 65 | 33 |
| 75 | 12 |
| 85 | 2 |
| 90 | 0 |

| CCT Data Multiplier | |
|---------------------|-------|
| CDR8-40W-UNV-40K | 1.015 |
| CDR8-40W-UNV-50K | 1.036 |

| Cone of Light Tabulation | | |
|--------------------------|----------------------------|--------------------|
| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
| 4 | 320.5 | 2.4 |
| 6 | 142.4 | 3.6 |
| 8 | 80.1 | 4.8 |
| 10 | 51.3 | 5.9 |
| 12 | 35.6 | 7.1 |
| 14 | 26.2 | 8.2 |
| 16 | 20.0 | 9.5 |

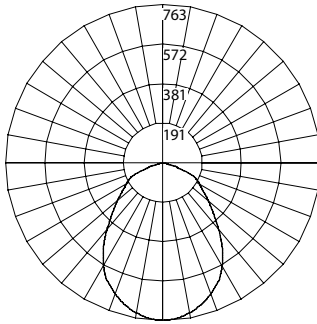
| Zonal Lumen Summary | | |
|---------------------|--------|----------------|
| Zone | Lumens | % of Luminaire |
| 0-30 | 2124 | 76.4% |
| 0-40 | 2510 | 90.3% |
| 0-60 | 2728 | 98.2% |
| 0-90 | 2778 | 100.0% |
| 90-180 | 0 | 0.0% |
| 0-180 | 2778 | 100.0% |

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

Photometric Data

CDR8 3500K 54W

| | |
|-----------------------------|----------|
| Input Voltage (VAC) | 120-277V |
| System Level Power (W) | 54 |
| Delivered Lumens (Lm) | 3540 |
| System Efficacy (Lm/W) | 65.6 |
| Correlated Color Temp (K) | 3501 |
| Color Rendering Index (CRI) | 81 |
| Beam Angle | 37.7° |
| Spacing Criteria | 0.60 |



Intensity Summary (Candle Power)

| Angle | Mean CP |
|-------|---------|
| 0 | 6535 |
| 5 | 5961 |
| 15 | 3945 |
| 25 | 2306 |
| 35 | 613 |
| 45 | 236 |
| 55 | 99 |
| 65 | 42 |
| 75 | 15 |
| 85 | 3 |
| 90 | 0 |

CCT Data Multiplier

| | |
|------------------|-------|
| CDR8-54W-UNV-40K | 1.015 |
| CDR8-54W-UNV-50K | 1.036 |

Cone of Light Tabulation

| Mounted height (Feet) | Footcandles Beam Center | Diameter (Feet) |
|-----------------------|-------------------------|-----------------|
| 4 | 408.4 | 2.4 |
| 6 | 181.5 | 3.6 |
| 8 | 102.1 | 4.8 |
| 10 | 65.4 | 5.9 |
| 12 | 45.4 | 7.1 |
| 14 | 33.4 | 8.2 |
| 16 | 25.5 | 9.5 |

Zonal Lumen Summary

| Zone | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-30 | 2707 | 76.4% |
| 0-40 | 3199 | 90.3% |
| 0-60 | 3476 | 98.2% |
| 0-90 | 3540 | 100.0% |
| 90-180 | 0 | 0.0% |
| 0-180 | 3540 | 100.0% |

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

Performance Data

| Model Number | Lumens | Watts | Lumens/Watt |
|------------------|--------|-------|-------------|
| CDR8-18W-UNV-35K | 1501 | 18.0 | 83.4 |
| CDR8-18W-UNV-40K | 1524 | 18.0 | 84.7 |
| CDR8-18W-UNV-50K | 1555 | 18.0 | 86.4 |
| CDR8-27W-UNV-35K | 2113 | 27.0 | 78.3 |
| CDR8-27W-UNV-40K | 2146 | 27.0 | 79.5 |
| CDR8-27W-UNV-50K | 2189 | 27.0 | 81.1 |
| CDR8-40W-UNV-35K | 2778 | 40.0 | 69.5 |
| CDR8-40W-UNV-40K | 2821 | 40.0 | 70.5 |
| CDR8-40W-UNV-50K | 2877 | 40.0 | 71.9 |
| CDR8-54W-UNV-35K | 3540 | 54.0 | 65.6 |
| CDR8-54W-UNV-40K | 3595 | 54.0 | 66.6 |
| CDR8-54W-UNV-50K | 3666 | 54.0 | 67.9 |

Recommended Dimmers*

- Lutron NTSTV
- Lutron DVSTV
- Cooper SF10P
- Legrand RH4FBL3PW

*Not a complete list. Check compatibility before installation.

Ordering Information

Example: CDR8-18W-35K-SN

| Series | Wattage | CCT | Reflector |
|--------|---------|---------------|------------|
| CDR8 | 18W | 35K (3500 K) | SN (Satin) |
| | 27W | 40K (4000 K) | |
| | 40W | 50K (5000 K)* | |
| | 54W | | |

Specifications and dimensions subject to change without notice.

* Only available as special order. Contact NICOR for more info.