

## DESCRIPTION

The Celesteon™ LED high mast luminaire combines high output and efficiency with easy install and affordability. Designed for new and retrofit high-lumen applications, the Celesteon LED high mast is ideal for highways, interchanges, ports, rail yards, container yards, parking lots, correctional facilities, security lighting, treatment plants and other facilities in need of high lumen packages with accurate optical control.

|                    |  |             |
|--------------------|--|-------------|
| <b>Catalog #</b>   |  | <b>Type</b> |
| <b>Project</b>     |  |             |
| <b>Comments</b>    |  | <b>Date</b> |
| <b>Prepared by</b> |  |             |

## SPECIFICATION FEATURES

### Construction

Heavy-duty, die-cast aluminum housing and door. Optional tool-less entry, hinged removable door for additional easy maintenance. 3G vibration rated.

### Optics

Customers can choose from six high efficiency optics available in Type I, II, III, IV, V and Type V narrow. Each distribution is designed to maximize efficiency and application spacing. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K, 5000K CCT. For the ultimate level of spill light control, an optional factory installed house side shield accessory is available.

### Electrical

120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Standard 0-10V dimming with 10kV or 20kV surge protection available. Thermal management transfers heat away from the LED source for optimal efficiency, light output and lumen maintenance. Ambient operating temperature from -40°C to 40°C; 50°C HA, high ambient, capability available. Greater than 90% lumen maintenance expected at 60,000 hours.

### Mounting

Four-bolt/two bracket slipfitter with cast-in pipe stop and 2.5° leveling steps. Fixed-in-place bird guard seals around 2" (2-3/8" O.D.) mounting arms.

### Finish

Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Consult your lighting representative at Cooper Lighting Solutions for a complete selection of standard colors.

### Warranty

Five-year warranty. Optional ten-year warranty available.



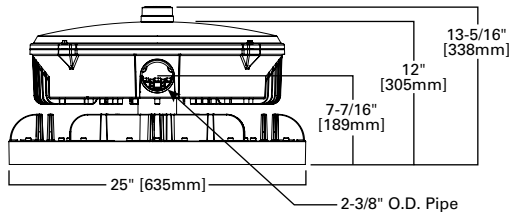
## CTN CELESTEON

Solid State LED

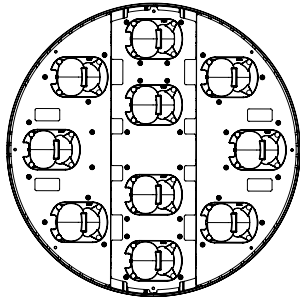
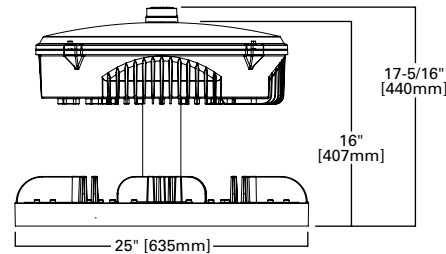
AREA/SITE LUMINAIRE

## DIMENSIONS

Short Extrusion: All lumen packages except 10-9



Long Extrusion: 10-9 lumen packages only



## EPA DATA

| Configuration   | Accessory    | EPA  |
|-----------------|--------------|------|
| Short Extrusion | None         | 1.13 |
| Short Extrusion | Nature Guard | 1.20 |
| Short Extrusion | HSS-HM-EX90  | 2.82 |
| Short Extrusion | HSS-HM-EX120 | 3.21 |
| Short Extrusion | HSS-HM-EX180 | 3.57 |
| Long Extrusion  | None         | 1.25 |
| Long Extrusion  | Nature Guard | 1.44 |
| Long Extrusion  | HSS-HM-EX90  | 2.87 |
| Long Extrusion  | HSS-HM-EX120 | 3.26 |
| Long Extrusion  | HSS-HM-EX180 | 3.62 |



## CERTIFICATION DATA

UL/cUL Wet Location Listed  
 IP66 Rated Optics (standard)  
 IP66 Rated Housing (optional)  
 3G Vibration Rated  
 ISO 9001  
 DesignLights Consortium® Qualified\*

## ENERGY DATA

**Electronic LED Driver**  
 >0.9 Power Factor  
 <20% Total Harmonic Distortion  
 120-277V/50 & 60Hz, 347V/60Hz,  
 480V/60Hz  
 -40°C Minimum Temperature  
 +40°C Ambient Temperature Rating

## SHIPPING DATA

Approximate Net Weight:  
 70 lbs. (31.8kgs.)

**POWER AND LUMENS**

| Light Engine                 |                   | 6-3      | 8-3      | 10-3     | 8-4      | 10-4     | 8-6      | 10-8     | 10-9     |
|------------------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Nominal Power (Watts)</b> |                   | 234      | 226      | 212      | 325      | 308      | 477      | 631      | 760      |
| <b>Current @ 120V (A)</b>    |                   | 1.95     | 1.89     | 1.77     | 2.73     | 2.59     | 3.98     | 5.28     | 6.36     |
| <b>Current @ 277V (A)</b>    |                   | 0.87     | 0.84     | 0.79     | 1.24     | 1.20     | 1.75     | 2.35     | 2.77     |
| <b>Current @ 347V (A)</b>    |                   | 0.70     | 0.69     | 0.62     | 0.94     | 0.90     | 1.36     | 1.82     | 2.18     |
| <b>Current @ 480V (A)</b>    |                   | 0.54     | 0.53     | 0.44     | 0.68     | 0.65     | 0.98     | 1.32     | 1.57     |
| <b>Optics</b>                |                   |          |          |          |          |          |          |          |          |
| T1                           | <b>5000K</b>      | 33,715   | 33,824   | 34,201   | 46,690   | 46,505   | 67,753   | 87,171   | 100,093  |
|                              | <b>BUG Rating</b> | B5-U0-G3 | B5-U0-G3 | B5-U0-G3 | B5-U0-G4 | B5-U0-G4 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>4000K</b>      | 33,376   | 33,483   | 33,856   | 46,220   | 46,037   | 67,077   | 86,301   | 99,094   |
|                              | <b>BUG Rating</b> | B5-U0-G3 | B5-U0-G3 | B5-U0-G3 | B5-U0-G4 | B5-U0-G4 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>3000K</b>      | 32,479   | 32,583   | 32,946   | 44,977   | 44,799   | 65,274   | 83,981   | 96,430   |
| <b>BUG Rating</b>            | B5-U0-G3          | B5-U0-G3 | B5-U0-G3 | B5-U0-G4 | B5-U0-G4 | B5-U0-G4 | B5-U0-G5 | B5-U0-G5 |          |
| T2                           | <b>5000K</b>      | 31,436   | 31,537   | 31,889   | 43,534   | 43,361   | 63,174   | 81,279   | 93,328   |
|                              | <b>BUG Rating</b> | B3-U0-G4 | B3-U0-G4 | B3-U0-G4 | B4-U0-G4 | B4-U0-G4 | B4-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>4000K</b>      | 31,120   | 31,220   | 31,568   | 43,096   | 42,925   | 62,543   | 80,468   | 92,396   |
|                              | <b>BUG Rating</b> | B3-U0-G4 | B3-U0-G4 | B3-U0-G4 | B4-U0-G4 | B4-U0-G4 | B4-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>3000K</b>      | 30,283   | 30,381   | 30,719   | 41,937   | 41,771   | 60,862   | 78,305   | 89,912   |
| <b>BUG Rating</b>            | B3-U0-G4          | B3-U0-G4 | B3-U0-G4 | B4-U0-G4 | B4-U0-G4 | B4-U0-G5 | B5-U0-G5 | B5-U0-G5 |          |
| T3                           | <b>5000K</b>      | 31,559   | 31,660   | 32,013   | 43,703   | 43,530   | 63,419   | 81,595   | 93,690   |
|                              | <b>BUG Rating</b> | B3-U0-G4 | B3-U0-G4 | B3-U0-G4 | B4-U0-G5 | B4-U0-G5 | B4-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>4000K</b>      | 31,241   | 31,341   | 31,691   | 43,264   | 43,092   | 62,786   | 80,781   | 92,755   |
|                              | <b>BUG Rating</b> | B3-U0-G4 | B3-U0-G4 | B3-U0-G4 | B4-U0-G5 | B4-U0-G5 | B4-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>3000K</b>      | 30,401   | 30,499   | 30,839   | 42,100   | 41,933   | 61,098   | 78,609   | 90,262   |
| <b>BUG Rating</b>            | B3-U0-G4          | B3-U0-G4 | B3-U0-G4 | B4-U0-G5 | B4-U0-G5 | B4-U0-G5 | B5-U0-G5 | B5-U0-G5 |          |
| T4                           | <b>5000K</b>      | 31,094   | 31,194   | 31,542   | 43,060   | 42,889   | 62,485   | 80,394   | 92,311   |
|                              | <b>BUG Rating</b> | B3-U0-G5 | B3-U0-G5 | B3-U0-G5 | B4-U0-G5 | B4-U0-G5 | B4-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>4000K</b>      | 30,781   | 30,880   | 31,224   | 42,627   | 42,457   | 61,862   | 79,591   | 91,390   |
|                              | <b>BUG Rating</b> | B3-U0-G5 | B3-U0-G5 | B3-U0-G5 | B4-U0-G5 | B4-U0-G5 | B4-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>3000K</b>      | 29,953   | 30,050   | 30,385   | 41,480   | 41,316   | 60,199   | 77,452   | 88,933   |
| <b>BUG Rating</b>            | B3-U0-G5          | B3-U0-G5 | B3-U0-G5 | B4-U0-G5 | B4-U0-G5 | B4-U0-G5 | B5-U0-G5 | B5-U0-G5 |          |
| T5                           | <b>5000K</b>      | 32,110   | 32,213   | 32,572   | 44,467   | 44,291   | 64,528   | 83,021   | 95,328   |
|                              | <b>BUG Rating</b> | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>4000K</b>      | 31,787   | 31,889   | 32,245   | 44,020   | 43,845   | 63,883   | 82,193   | 94,376   |
|                              | <b>BUG Rating</b> | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>3000K</b>      | 30,932   | 31,032   | 31,378   | 42,836   | 42,666   | 62,166   | 79,983   | 91,839   |
| <b>BUG Rating</b>            | B5-U0-G5          | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 |          |
| T5N                          | <b>5000K</b>      | 34,875   | 34,987   | 35,377   | 48,296   | 48,104   | 70,084   | 90,170   | 103,536  |
|                              | <b>BUG Rating</b> | B5-U0-G3 | B5-U0-G3 | B5-U0-G3 | B5-U0-G4 | B5-U0-G4 | B5-U0-G4 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>4000K</b>      | 34,524   | 34,635   | 35,021   | 47,810   | 47,620   | 69,384   | 89,270   | 102,503  |
|                              | <b>BUG Rating</b> | B5-U0-G3 | B5-U0-G3 | B5-U0-G3 | B5-U0-G4 | B5-U0-G4 | B5-U0-G4 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>3000K</b>      | 33,596   | 33,704   | 34,079   | 46,524   | 46,340   | 67,519   | 86,870   | 99,747   |
| <b>BUG Rating</b>            | B5-U0-G3          | B5-U0-G3 | B5-U0-G3 | B5-U0-G4 | B5-U0-G4 | B5-U0-G4 | B5-U0-G5 | B5-U0-G5 |          |
| T5R                          | <b>5000K</b>      | 33,931   | 34,040   | 34,420   | 46,989   | 46,803   | 68,187   | 87,730   | 100,735  |
|                              | <b>BUG Rating</b> | B5-U0-G4 | B5-U0-G4 | B5-U0-G4 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>4000K</b>      | 33,590   | 33,698   | 34,074   | 46,517   | 46,332   | 67,507   | 86,855   | 99,729   |
|                              | <b>BUG Rating</b> | B5-U0-G4 | B5-U0-G4 | B5-U0-G4 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 |
|                              | <b>3000K</b>      | 32,687   | 32,792   | 33,157   | 45,266   | 45,086   | 65,692   | 84,520   | 97,047   |
| <b>BUG Rating</b>            | B5-U0-G4          | B5-U0-G4 | B5-U0-G4 | B5-U0-G4 | B5-U0-G4 | B5-U0-G5 | B5-U0-G5 | B5-U0-G5 |          |

**LUMEN MAINTENANCE**

| Ambient Temperature | TM-21 Lumen Maintenance (100,000 Hours) | Projected L70 (Hours) |
|---------------------|---|-----------------------|
| Up to 40°C          | > 86%                                   | 242,000               |

**LUMEN MULTIPLIER**

| Ambient Temperature | Lumen Multiplier |
|---------------------|------------------|
| 10°C                | 1.02             |
| 15°C                | 1.01             |
| 25°C                | 1.00             |
| 40°C                | 0.99             |

**ORDERING INFORMATION**

Sample Number: CTN-8-6-D-E1-T4-AP

| Product Family  | Light Engine   | Driver  | Voltage  | Distribution   | Color   |
|---|--|---|--|--|---|
| CTN=Celesteon High Mast   | 6-3<br>8-3<br>8-4<br>8-6<br>10-3<br>10-4<br>10-8<br>10-9 | D=Dimming<br>5LTD=DALI <sup>1</sup><br>DURAQ=DuraQ High Performance Driver <sup>15, 16, 17</sup>    | E1=120-277V<br>120=120V<br>208=208V<br>240=240V<br>277=277V<br>480=480V <sup>14</sup><br>347=347V  | T1=Type I<br>T2=Type II<br>T3=Type III<br>T4=Type IV<br>T5=Type V<br>T5N=Type V Narrow<br>T5R=Type V Round | AP=Grey (Standard)<br>BZ=Bronze<br>BK=Black<br>DP=Dark Platinum<br>GM=Graphite Metallic<br>WH=White |
| <b>Options (Add as Suffix)</b>  |  | <b>Color</b>  | <b>Accessories (Order Separately)</b>  |  |   |
| 7030=70 CRI / 3000K<br>7050=70 CRI / 5000K<br>R=NEMA Twistlock Photocontrol Receptacle<br>PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle<br>10K=10kV UL 1449 Surge Protection Device<br>10MSP=10kV MOV Surge Protection Device<br>20K=20kV UL 1449 Surge Protection Device <sup>2</sup><br>HA=50°C High Ambient <sup>3,4</sup><br>K=Level Indicator<br>HSS=Factory Installed House Side Shield (One per LED) <sup>5</sup><br>NG-HM=Factory Installed Nature Guard<br>TH=Tool-less Door Hardware (Wingnut) <sup>6,7</sup><br>F=Single Fused (120, 277 or 347V. Must Specify Voltage)<br>FF=Double Fused (208, 240 or 480V. Must Specify Voltage)<br>SS=Stainless Steel External Hardware<br>DH=Door Hinge<br>IP66=IP66 Rated Housing<br>CC=Coastal Construction <sup>8</sup><br>TS=Tool-less Surge Protector Mounting Bracket (10K Only) <sup>9,10</sup><br>CE=CE Marking <sup>11</sup> |  | AP=Grey (Standard)<br>BZ=Bronze<br>BK=Black<br>DP=Dark Platinum<br>GM=Graphite Metallic<br>WH=White | OA/RA1013=Photocontrol Shorting Cap<br>OA/RA1016=NEMA Photocontrol - Multi-Tap 105-285V<br>OA/RA1201=NEMA Photocontrol - 347V<br>OA/RA1027=NEMA Photocontrol - 480V<br>OA1223=10kV Surge Module Replacement<br>FSP3-277-20kA=20kA Surge Module Replacement (120-277V Input Voltage)<br>FSP3-480-20kA=20kA Surge Module Replacement (480V Input Voltage)<br>HSS-HM=Field Installed House Side Shield - Black (One per LED) <sup>5</sup><br>HSS-HM-EX90=External Field Installed 90° Shield - Black<br>HSS-HM-EX120=External Field Installed 120° Shield - Black<br>HSS-HM-EX180=External Field Installed 180° Shield - Black<br>NG-HM-FLD-SHORT=Field Installed Nature Guard <sup>12</sup><br>NG-HM-FLD-LONG=Field Installed Nature Guard <sup>13</sup> |  |   |

**NOTES:**

1. 5LTD not available with 347V or 480V.
2. 20kV surge protection available with 347V as PDR with extended lead time.
3. HA not available with 10-8 lumen packages that has HSS or NG.
4. HA not available with 10-9 lumen package.
5. HSS not compatible with T1, T5 or T5N distributions
6. TH and SS are mutually exclusive options. Only one can be selected.
7. TH wingnuts and CC are mutually exclusive options. Only one can be selected.
8. CC includes casting pretreatment and stainless steel external hardware.
9. TS is a bracket only and surge module should be ordered if needed.
10. TS not available with 20kV or 10MSP surge protection device.
11. CE only available with 5LTD.
12. Compatible with all but 10-9 lumen packages.
13. Only compatible with 10-9 lumen packages.
14. Only for use with 480V Wye systems.
15. Additional surge protection devices (10K, 10MSP, and 20K) and/or fuse options (F and FF) are not required with DuraQ High Performance Driver.
16. A specific voltage option must be specified (120V, 208V, 240V, 277V, 347V, or 480V).
17. Available with "8-6" light engine only. Increases total weight of luminaire to 71lbs. (32.21kgs.)