

# **HRSM-LED**

|                      |                               | Healthcare Su            | rgical <b>LED</b> Symi               | metrical Grid / Flange 15/16 to 1.5 in. T Grid                 |
|----------------------|-------------------------------|--------------------------|--------------------------------------|--|
|                      |                               |                          |                                      | PRODUCT SPECIFICATION  |
| peration             |                               |                          |                                      |  |
| tion                 |                               |                          | Job Name                             |  |
|                      |                               |                          |                                      |  |
| .5″ T-Gri            | id or                         |                          | Fixture Type                         |  |
| .5 I-Gri<br>e) type  | id or                         |                          |                                      |  |
| ind clam             | ηp                            |                          | Catalog No.                          |  |
| et also              |                               |                          |                                      |  |
|                      |                               |                          | Approval                             | Date   |
| be                   |                               |                          |                                      |  |
| ilked                |                               |                          | per p                                | 1  |
| ailable.             |                               |                          |                                      |  |
|                      |                               |                          |                                      |  |
| ed                   |                               |                          |                                      |  |
| TM                   |                               | -                        |                                      | -  |
| ner<br>able.         |                               |                          |                                      |  |
|                      |                               |                          |                                      |  |
|                      |                               |                          |                                      | Ceiling Grid / Flange Design                                   |
| liode im<br>nission. | -                             |                          |                                      | 23 5/8"  |
|                      |                               | -                        | 47 5/8"                              |  |
|                      |                               |                          | 46 7/16"                             | (2x4) 11 13/16"<br>(2x2) 6 7/8<br>(2x2) 4 11/16"               |
| er<br>n              |                               | 9 5/8"-                  | 25" 11"                              |  |
|                      |                               |                          |                                      | 7/8" DIA K.O. (2)<br>REMOVABLE COVER (2x4) 25"<br>(2x2) 10 7/8 |
|                      |                               | 11 5/8"                  | 7/8" DIA K.O. (2)<br>REMOVABLE COVER | 14 5/8"  |
|                      |                               |                          |                                      | (2x4) 25" (2x4) 25" (2x2) 10 7/8                               |
|                      |                               |                          | 25"                                  | (2x4) 47 5/8"<br>(2x2) 23 5/8"                                 |
|                      |                               |                          | Swing arm brackets                   |  |
|                      |                               | tt ffn                   | `                                    | (2x4) 9 5/8"<br>(2x2) 4 11/16"<br>(2x2) 6 7/8                  |
|                      |                               | 5" 4 1/2"                |                                      |  |
|                      |                               |                          | <u> </u>                             | <u>22 9/16"</u>  |
| ole for<br>ified to  |                               | $\gamma$                 |                                      | 26 5/8"  |
| 6,                   |                               | (                        | T-Grid                               |  |
| 3,                   |                               | l                        |                                      |  |
|                      |                               |                          |                                      |  |
|                      | FIVE                          |                          |                                      | AF 👧 🝙 🚟 🕋   |
|                      | (WARRANTY)                    |                          |                                      | is 1 👾 CVUS 📷 🐨  |
|                      |                               |                          |                                      |  |
| four                 | five six                      | seven eig                | ght nine                             | ten eleven   |
|                      | -                             | - N                      | IIL <sup>-</sup> 122 /               | -  |
|                      |                               |                          |                                      |  |
| five                 | Door Material                 |                          | nine                                 |  |
| A<br>C               | Aluminum<br>Cold rolled steel | standard                 | 122                                  | Optic Plus diffusing acrylic, <u>standard</u>                  |
| S                    | 304 Stainless ste             |                          | 130                                  | .125 in. LED diffusing Lexan                                   |
|                      |                               |                          | ten                                  | External Lens  |
| six                  | Door Finish                   |                          | 00                                   | No external lens   |
| R                    | Brushed (Stainle              | ss steel only)           | 33                                   | .125 in. clear polycarbonate                                   |
| W                    | White                         |                          | eleve                                | n Options  |
| seven                | Voltage                       |                          | CU                                   | Canadian UL Listing  |
| 120                  | 120 V, 60 Hz                  |                          | CP                                   | CCEA Chicago   |
| 277                  | 277 V, 60 Hz                  |                          | EM                                   | 12W LED EM standard  |
| eight                | Driver                        |                          | FH                                   | <i>Contact factory for lower outputs.</i><br>Fuse and holder   |
| MIL                  | MIL461 Tested a               |                          |                                      |  |
|                      | Refer to HRS Series           | s for dimming applicatio |                                      | Housing Material   |
|                      |                               |                          | AH<br>SH                             | Aluminum<br>Stainless steel                                    |
|                      |                               |                          | 9H                                   | 3101111235 31221   |

The HRSM series is designed for dust-free ope in surgical suites where symmetrical distribution illumination is required.

#### Mounting

Suitable for installation in recessed 15/16"-1.5 hard ceiling applications. Hard ceiling (flange) mounts via swing arm brackets that extend an with a single screw action. Swing arm bracket serves as connection for earthquake cables.

#### Housing

18 gauge cold rolled steel die-formed to shape with seams welded, ground smooth, and caull airtight. Aluminum and 304 stainless steel ava

#### Door

One-piece 18 gauge cold rolled steel, gasketed and sealed overlapping door. Freedom Hinge™ design permits removal and hinging from eithe side. Aluminum and 304 stainless steel availab

#### l ens

Optic Plus lens (standard) completely hides did while providing greater than 90% light transmi

#### Finish

Antimicrobial white powder-coat applied after phosphate pretreatment for superior adhesion and corrosion resistance. Brushed stainless steel door available.

#### Hardware

Stainless steel fasteners.

#### Driver

HRSM

one

14

22

24

two

three

35 40

50

four 80

90

Tested and Certified MIL461 driver

one

Luminaire Size

LED Source

1 x 4

2 x 2

2 x 4

3500K

4000K

5000K

Min 80 CRI

Min 90 CRI

CRI

#### Certifications

UL Listed wet location and IP65 rated. Suitable use in ISO-3 cleanrooms (209E Class 1). Certif MIL-STD-461F: CE101, CE102, CS101, CS106, CS114, CS116, RE101, RE102, RS101, RS103, MIL-STD-1399-300B: 5.3.1 through 5.3.9.

two

Refer to the LED Source Table on Page 2 for available options. Color Temperature

three

1

S

Modifications are available to meet custom requirements. Specifications and dimensions are subject to change without notice.

## LED Life 0

| >100,00 | ( |
|---------|---|
|---------|---|

| LED               | 4000K 80 CRI        |     | 4000K 90 CRI        |     | 5000K 80 CRI        |     | 5000K 90 CRI        |     | Input |  |  |  |  |
|-------------------|---------------------|-----|---------------------|-----|---------------------|-----|---------------------|-----|-------|--|--|--|--|
| Source<br>(Box 2) | Delivered<br>Lumens | L/W | Delivered<br>Lumens | L/W | Delivered<br>Lumens | L/W | Delivered<br>Lumens | L/W | Watts |  |  |  |  |
| 1' x 4' Fixture   |                     |     |                     |     |                     |     |                     |     |       |  |  |  |  |
| 2W42              | 4125                | 134 | 3418                | 111 | 4243                | 138 | 3536                | 115 | 31    |  |  |  |  |
| 2W82              | 8066                | 127 | 6683                | 105 | 8296                | 131 | 6913                | 109 | 64    |  |  |  |  |
| 2' x 2' Fixture   |                     |     |                     |     |                     |     |                     |     |       |  |  |  |  |
| 4W45              | 4428                | 144 | 3669                | 119 | 4554                | 148 | 3795                | 123 | 31    |  |  |  |  |
| 4W89              | 8657                | 136 | 7173                | 113 | 8905                | 140 | 7420                | 117 | 64    |  |  |  |  |
| 6W133             | 12986               | 137 | 10760               | 113 | 13357               | 141 | 11131               | 117 | 95    |  |  |  |  |
| 2' x 4' Fixture   |                     |     |                     |     |                     |     |                     |     |       |  |  |  |  |
| 2W44              | 4299                | 139 | 3562                | 115 | 4421                | 143 | 3684                | 119 | 31    |  |  |  |  |
| 2W86              | 8404                | 131 | 6963                | 109 | 8644                | 135 | 7204                | 113 | 64    |  |  |  |  |
| 3W129             | 12606               | 133 | 10445               | 110 | 12966               | 136 | 10805               | 114 | 95    |  |  |  |  |
| 4W172             | 16808               | 132 | 13927               | 110 | 17289               | 136 | 14407               | 113 | 127   |  |  |  |  |
| 6W259             | 25213               | 132 | 20890               | 109 | 25933               | 136 | 21611               | 113 | 191   |  |  |  |  |

### Photometric Data with 122 lens

33 lens multiplier

• RE101

• RE102

• RS101

.86

# MIL461 LED Driver

#### The L.C. Doane MIL461 driver is tested and certified to MIL461-F, but is compliant to 461G and all RE, RS, CE, and CS test protocol

- The tests encompass Radiated Emissions, Radiated Susceptibility, Conducted Emissions and Conducted Susceptibility
- L.C. Doane's MIL461F compliant drivers are tested by a recognized, independent 3rd party lab.

### MIL461 driver:

- · Use multiple driver/circuits to achieve light levels
- This solution assures the end user that ALL MIL461 requirements are met
- No RF Grid lens or RF Filtering required as the MIL461 is accomplished at the driver level

### **MIL-461 Certifications**

• CE101 • CE102 • CS101 • CS106

• CS114

• CS116

- - RS103
    - MIL-STD-1399-300B: 5.3.1-5.3.9