

LDRMH1

Applications

The ISON™ LDRMH1 is a multi-purpose troffer retrofit designed to upgrade existing lighting troffer fixtures in Healthcare or other facilities. This technology creates an inhospitable environment for viruses, bacteria and other pathogens.

Vyv® kills* viruses, bacteria, fungi, yeasts, mold. The Antimicrobial LED spectrum comes in a White Light Mode in 4000K 80 CRI that functions as a normal LED fixture allowing for day-to-day tasks to be completed while reducing viruses and bacteria on surfaces. Use the 'Antimicrobial Mode' when personnel are in the room for continuous antimicrobial action. Or use 'Enhanced Antimicrobial Mode' when white light not required. Enhanced Antimicrobial mode emits a higher dosage of Vyv anti-microbial wavelengths to maximize microbe suppression. Both modes meet international standards for continuous and unrestricted use around people. To add another layer of prevention the LDRMH1 is painted with Britex™ a white highly reflective antimicrobial coating to suppress growth of bacteria on the surface of the fixture.



LDRMH1A1UNVFDXX84022MSTVV-SP

Features

- Antimicrobial LED Technology kills*5:
 - Virus
 - Bacteria
 - Fungi
 - Yeast
 - Mold
 - And Many More! For a complete list see page 2
- Available with Britex™, Orion's proprietary coating with antimicrobial properties
- Installs in minutes with minimal disruption
- Field upgradeable and interchangeable lighting modules
- Various control solutions for mode operation

Electrical

- Available in 120v-277v
- Full Dimming [0-10v] is standard
- Continuous disinfection white light option available in 4000k only. Powered by patented Vyv technology

Ambient Operating Range

See ambient operating table on page 3

Fixture Certification & Listings

- Patented LDR® design
- UL Classified
- Buy American Act Compliant

Rated Life

L70 > 50,000 hours based on 10 hour day operation with Antimicrobial + Light Mode balanced with Enhanced Antimicrobial Mode

Warranty

Orion ISON™ class LED fixtures are covered by a ten-year warranty excluding continuous disinfection white light option. Antimicrobial protection option is covered by a 5 year warranty. Accessories and individual components are covered by separate OEM supplier warranties.



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Performance Information, 120v, Antimicrobial+ Light Mode³

| Series | Nominal Lumen Code | Actual Lumens | Wattage | LPW | CCT | CRI | Input Current | Power Factor |
|----------------|--------------------|---------------|---------|-----|-------|-----|---------------|--------------|
| 2' x 2' | | | | | | | | |
| LDRMH1 | A1 | 2,004lm | 42w | 48 | 4000K | ≥80 | 0.35A | >.90 |
| LDRMH1 | B1 | 3,874lm | 81w | 48 | 4000K | ≥80 | 0.67A | >.90 |
| 2' x 4' | | | | | | | | |
| LDRMH1 | D1 | 3,294lm | 60w | 55 | 4000K | ≥80 | 0.50A | >.90 |
| LDRMH1 | E1 | 4,096lm | 81w | 51 | 4000K | ≥80 | 0.67A | >.90 |
| LDRMH1 | F1 | 6,100lm | 119w | 47 | 4000K | ≥80 | 0.94A | >.90 |
| LDRMH1 | G1 | 8,019lm | 161w | 50 | 4000K | ≥80 | 1.35A | >.90 |

Performance Information, 120v, Enhanced Antimicrobial Mode³

| Series | Nominal Lumen Code | Actual Lumens | Wattage | LPW | CCT | CRI | Input Current | Power Factor |
|----------------|--------------------|---------------|---------|-----|-----|-----|---------------|--------------|
| 2' x 2' | | | | | | | | |
| LDRMH1 | A1 | - | 29w | - | - | - | 0.25A | - |
| LDRMH1 | B1 | - | 57w | - | - | - | 0.48A | - |
| 2' x 4' | | | | | | | | |
| LDRMH1 | D1 | - | 42w | - | - | - | 0.35A | - |
| LDRMH1 | E1 | - | 57w | - | - | - | 0.48A | - |
| LDRMH1 | F1 | - | 80w | - | - | - | 0.67A | - |
| LDRMH1 | G1 | - | 115w | - | - | - | 0.96A | - |

Antimicrobial Light Protection Against the Following:⁵

| Gram Positive Bacteria | Gram Negative Bacteria | Bacterial Endospores | Yeast and Filamentous Fungi | Virus |
|---|--|--|---|--|
| <ul style="list-style-type: none"> Staphylococcus aureus (incl. MRSA) Staphylococcus epidermidis Staphylococcus hyicus Clostridium perfringens Clostridium difficile Enterococcus faecalis (inc. VRE) Streptococcus pyogenes Streptococcus thermophilus Lactobacillus plantarum Lactobacillus brevis Listeria monocytogenes Bacillus cereus Mycobacterium terrae | <ul style="list-style-type: none"> Acinetobacter baumannii (incl. MDRA) Pseudomonas aeruginosa Klebsiella pneumoniae Proteus vulgaris Enterobacter aerogenes Escherichia coli Salmonella enteritidis Salmonella typhimurium Shigella sonnei Serratia spp. (inc. S. marcescens) | <ul style="list-style-type: none"> Bacillus cereus Clostridium difficile | <ul style="list-style-type: none"> Aspergillus niger Candida albicans Saccharomyces cerevisiae | <ul style="list-style-type: none"> Enveloped Virus Non-Enveloped Virus |

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Ordering Information Example (NOTE: No dashes or spaces unless noted below)

| Series | Nominal Lumen Code | Voltage | Driver Type | CRI; Color Temp | Fixture Size | Lens Options | Bracket Type | Fixture Healthcare Options | Packaging Options |
|--------|--------------------|---------|-------------|-----------------|--------------|--------------|--------------|----------------------------|-------------------|
| LDRMH1 | A1 | UNV | FDXX | 840 | 22 | M | ST | VV | -SP |

Ordering Information

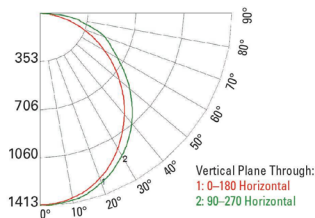
| Series | Nominal Lumen Code ¹ | Voltage | Driver Type ² | CRI; Color Temp | Fixture Size | Lens Options | Bracket Type | Fixture Healthcare Options | Packaging Options |
|--|--|--------------------------|---------------------------------------|-----------------------------|--|------------------------------|--|--|--|
| LDRMH1= ISON LED Retrofit Modular, Healthcare, Gen 1 | 2x2 A1= 2,000lm B1= 4,000lm 2x4 D1= 3,000lm E1= 4,000lm F1= 6,000lm G1= 8,000lm | UNV= 120v-277v | FDXX= Full Dimming 0-10v | 840= 80CRI; 4000K | 22= 2' x 2' 24= 2' x 4' | M= Opaque Matte | ST= Standard PL= Plenum LF= Lift | VV= Vyy Antimicrobial Protection and Britex™ Coating | [Blank]= Bulk Pack -SP= Single Pack |

Note: For a module retrofit upgrade contact your Orion Representative for part numbering and pricing

Photometrics

Visit orionlighting.com to obtain all .IES files

E1 840 Antimicrobial + White Mode



Ambient Operating Temperatures

| Nominal Lumen Code | Operating Temperature Range |
|--------------------|-----------------------------|
| All Lumen Packages | 0°C - 25°C [32°F - 77°F] |

Physical Information⁴

| Nominal Lumen Code | Length/Width | Depth | Weight |
|--------------------|--|-------|-----------|
| A1/B1 | The Orion LDR is designed to fit industry standard 2' x 2' and 2' x 4' T-Bar grid openings | 3.13" | 6.00lbs. |
| D1/E1/F1/G1 | | 3.13" | 11.00lbs. |

Accessories (Field Installed)

| Additional Fixture Accessories | |
|--------------------------------|-------------------------------|
| LDRM-SCBL-2FT-KIT | 2' x 2' Fixture Seismic Cable |
| LDRM-SCBL-4FT-KIT | 2' x 4' Fixture Seismic Cable |

Accessory (Field Installed)



**Seismic Cable Kit
(LDRM-SCBL-4FT-KIT)**

Fixture Option (Factory Installed)



**Battery Back Up
(-BB)**

Additional Specification Information

¹ For actual lumens, see performance table

² "XX" is a character placeholder for the manufacturing configuration

³ Actual performance may vary by up to ±10% of values listed; facility factors and fixture options can affect performance values

⁴ Weight and depth will vary based on option selection. Does not include mounting brackets

⁵ Testing on a non-enveloped virus (MS2 bacteriophage) showed a 99.985% reduction in controlled laboratory testing in 6 hours on hard surfaces. MRSA and E. coli showed 90%+ reduction in controlled laboratory testing in 24 hours on surfaces. Results may vary depending on the amount of light that is reaching the surfaces in the space where the product is installed and the length of time of exposure. Use of Vyy antimicrobial light is not intended to replace manual cleaning