

...Dialight



SafeSite® LED RTO Area Light - UL844

for Indoor and Outdoor Industrial Applications

DECEMBER 2021



Features & Benefits

- 5 year warranty
- L70 rated for >100,000 hours @ 25°C ambient
- Low T rating compared to traditional fixtures
- Resistant to shock and vibration
- Weather/corrosion resistant lamp assembly and housing
- Temperature compensation technology for longer life
- Factory sealed

Application

Dialight introduces the new state-of-the-art fixture SafeSite® LED Down light for hazardous location lighting. Whether your application is in a refinery, oil platform, chemical plant or any other hazardous area application, this fixture offers improved performance across the board. All of Dialight's long life LED luminaires are designed to meet the most demanding specification criteria while offering maximum energy savings and reduced maintenance.

Hazardous Locations Ratings

Fixed and portable fixtures for installation and use in hazardous (classified) locations Class I, Divisions 1 and 2, Groups A, B, C, and D; Class II, Division 1, Groups E, F, and G; Class II, Division 2, Groups F and G; and Class III, Divisions 1 and 2, in accordance with the National Electrical Code, NFPA 70

Classes

The classes define the general nature of hazardous material in the surrounding atmosphere.

| Class | Hazardous Material in Surrounding Atmosphere |
|-----------|---|
| Class I | Hazardous because flammable gases or vapors are present in the air in quantities sufficient to produce explosive or ignitable mixtures. |
| Class II | Hazardous because combustible or conductive dusts are present. |
| Class III | Hazardous because ignitable fibers or flying's are present, but not likely to be in suspension in sufficient quantities to produce ignitable mixtures. Typical wood chips, cotton, flax and nylon. Group classifications are not applied to this class. |

Divisions

The division defines the probability of hazardous material being present in an ignitable concentration in the surrounding atmosphere.

| Division | Presence of Hazardous Material |
|------------|---|
| Division 1 | The substance referred to by class is present during normal conditions. |
| Division 2 | The substance referred to by class is present only in abnormal conditions, such as a container failure or system breakdown. |

Groups

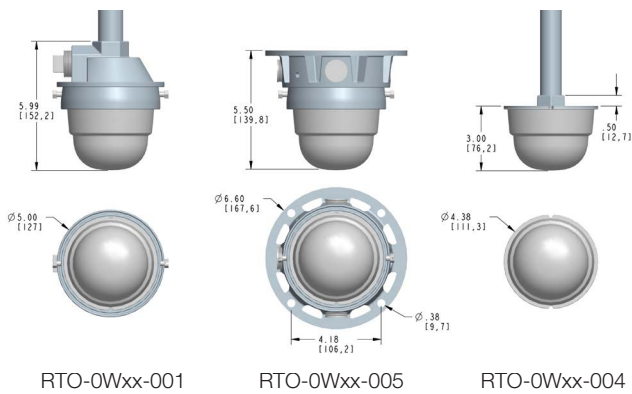
The group defines the hazardous material in the surrounding atmosphere.

| Group | Hazardous Material in Surrounding Atmosphere |
|---------|---|
| Group A | Acetylene |
| Group B | Hydrogen, fuel and combustible process gases containing more than 30% hydrogen by volume or gases of equivalent hazard such as butadiene, ethylene, oxide, propylene oxide and acrolein. |
| Group C | Carbon monoxide, ether, hydrogen sulfide, morphine, cyclopropane, ethyl and ethylene or gases of equivalent hazard. |
| Group D | Gasoline, acetone, ammonia, benzene, butane, cyclopropane, ethanol, hexane, methanol, methane, vinyl chloride, natural gas, naphtha, propane or gases of equivalent hazard. |
| Group E | Combustible metal dusts, including aluminum, magnesium and their commercial alloys or other combustible dusts whose particle size, abrasiveness and conductivity present similar hazards in connection with electrical equipment. |
| Group F | Carbonaceous dusts, carbon black, coal black, charcoal, coal or coke dusts that have more than 8% total entrapped volatiles or dusts that have been sensitized by other material so they present an explosion hazard. |
| Group G | Flour dust, grain dust, flour, starch, sugar, wood, plastic and chemicals. |

Reference:
http://www.engineeringtoolbox.com/hazardous-areas-classification-d_347.html

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Standard Models



Dimensions in inches [mm]

| Temperature Ratings |
|--|
| Ambient Temperature Range T3C Temperature Code |
| -40°F to +133°F (-40°C to +55°C) |

Certifications & Ratings

- Class I, Div 2 Groups A,B,C,D
- Class II, Div 1 Groups E,F,G
- Class II, Div 2 Groups E,F,G
- UL 844
- UL 1598
- UL 50/E
- IP66

Mechanical Information:

Fixture weight: RTO0Wxx001: 2.5 lbs (1.13 kg)
 RTO0Wxx005: 3.2 lbs (1.45 kg)
 RTO0Wxx004: 0.8 lbs (0.36 kg)

Shipping weight: RTO0Wxx001: 3.0 lbs (1.36 kg)
 RTO0Wxx005: 4.5 lbs (2.04 kg)
 RTO0Wxx004: 1.4 lbs (0.64 kg)

Mounting:
 Pendant Mount: 1" & 3/4" NPT reducer bi-directional
 Ceiling Mount: 3/4" NPT 5-way surfac
 Pendant Mount: 3/4" NPT threaded conduit

Electrical Specifications:

Operating Voltage: 100-277 VAC, 50/60 Hz
 12-48 VDC

Total system power consumption: See table

Operating Temp: -40°F to +133°F (-40°C to +55°C)

Harmonics: IEC 61000-3-2

Noise requirement /EMC: FCC Title 47, Subpart B, Section 15, class A device. RF Immunity; 10V/m, 80MHz-1GHz

Transient protection: 1 kV line to line
 2 kV line to ground

THD: <20%

Power Factor: > 0.9

Construction:

Housing: Copper free aluminum
Finish: Superior dual coat finish
 - Sealed polyester topcoat
 - Chemical-resistant epoxy primer
Lens: UV stabilized abrasion resistant polycarbonate

Photometric Information:

CRI: 75
CCT: 6000K (cool white)

All values typical unless otherwise stated (tolerance +/- 10%)

WARNING - INSTALLATION & SECONDARY RETENTION. Use of any Dialight products without proper installation (including secondary retention / netting) and periodic inspections could cause severe injury or death. Dialight recommends that all installations should use secondary retention / netting (appropriate to the installation environment) where applicable. It is the exclusive responsibility of the contractor, installer and/or end-user to: (a) determine the suitability of the product for its intended application; and, (b) ensure that the product is safely installed (with secondary retention / netting where appropriate) and in compliance with all applicable laws and regulations. To the extent permissible under applicable laws, Dialight disclaims all liability for personal injury and/or other damage resulting from any dislodgment or other dislocation of its products.

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Ordering Information & Mounting Accessories

Classifications: CID2 A,B,C,D • CIID1 E,F,G • CIID2 E,F,D

| Part Number | Type | CID2 | CIID1 | CIID2 | Voltage | Lens | CCT | Fixture Lumens | Watt | LPW | Beam Distribution |
|-------------------------------|---------------------------------|------|-------|-------|-------------|---------------|--------------------|----------------|------|-----|-------------------|
| Standard Models - 100-277 VAC | | | | | | | | | | | |
| RTODW17005 | Ceiling mount with junction box | | • | • | 100-277 VAC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTODW17004 | Pendant mount | | • | • | 100-277 VAC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTODW17001 | Pendant mount with junction box | | • | • | 100-277 VAC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTO2W17005 | Ceiling mount with junction box | • | | | 100-277 VAC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTO2W17004 | Pendant mount | • | | | 100-277 VAC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTO2W17001 | Pendant mount with junction box | • | | | 100-277 VAC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTODW07005 | Ceiling mount with junction box | | • | • | 100-277 VAC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| RTODW07004 | Pendant mount | | • | • | 100-277 VAC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| RTODW07001 | Pendant mount with junction box | | • | • | 100-277 VAC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| RTO2W07005 | Ceiling mount with junction box | • | | | 100-277 VAC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| RTO2W07004 | Pendant mount | • | | | 100-277 VAC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| RTO2W07001 | Pendant mount with junction box | • | | | 100-277 VAC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| Standard Models - 12-48 VDC | | | | | | | | | | | |
| RTODW18005 | Ceiling mount with junction box | | • | • | 12-48 VDC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTODW18004 | Pendant mount | | • | • | 12-48 VDC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTODW18001 | Pendant mount with junction box | | • | • | 12-48 VDC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTO2W18005 | Ceiling mount with junction box | • | | | 12-48 VDC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTO2W18004 | Pendant mount | • | | | 12-48 VDC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTO2W18001 | Pendant mount with junction box | • | | | 12-48 VDC | Polycarbonate | 6000K (cool white) | 800 | 8 | 100 | Circular |
| RTODW08005 | Ceiling mount with junction box | | • | • | 12-48 VDC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| RTODW08004 | Pendant mount | | • | • | 12-48 VDC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| RTODW08001 | Pendant mount with junction box | | • | • | 12-48 VDC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| RTO2W08005 | Ceiling mount with junction box | • | | | 12-48 VDC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| RTO2W08004 | Pendant mount | • | | | 12-48 VDC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |
| RTO2W08001 | Pendant mount with junction box | • | | | 12-48 VDC | Polycarbonate | 6000K (cool white) | 470 | 8 | 59 | Circular |

All values typical unless otherwise stated (tolerance +/- 10%).



Pendant Mount
 • 3/4" NPT threaded conduit



Pendant Mount with Junction Box
 • 1" & 3/4" NPT reducer bidirectional mounting



Ceiling Mount with Junction Box
 • 3/4" NPT 5-way surface mounting



RTO1000
 • Flush wall mount



RTO1001
 • Junction box wall mount

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