Dialight

SafeSite® LED RTO Area Light - UL844

for Indoor and Outdoor Industrial Applications

APRIL 2024

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, morphline, 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 sesitized 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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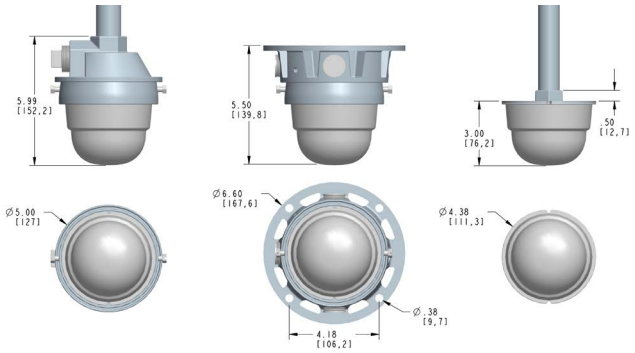
Standard Models



RTO-0Wxx-001 RTO-0Wxx-005 RTO-0Wxx-004

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%)

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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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