HazLoc Environment LED Luminaire

General Safety Information

- To reduce the risk of death, personal injury or property damage from fire, electric shock, falling parts, cuts/abrasions and other hazards, please read all warnings and instructions included with and on the fixture box and all fixture labels.
- Before installing, servicing, or performing routine maintenance upon this equipment, please follow these general precautions.
- Commercial installation, service and maintenance of luminaires should be performed by a qualified licensed electrician.
- DO NOT INSTALL DAMAGED PRODUCT!
- Make sure that the supply voltage is the same as the luminaire voltage.
- Do not install where the marked operating temperatures exceed the ignition temperatures of the hazardous atmosphere.
- Do not operate in ambient temperatures above those indicated on the luminaire nameplate.
- All gasket seals must be clean and undamaged.

WARNING:

RISK OF ELECTRICAL SHOCK

Luminaire shall have provision for connection to threaded rigid metal conduit or other wiring methods in accordance with Article 502 in the National Electrical Code, NFPA 70.

Turn off electrical power at fuse or circuit breaker box before wiring luminaire to the power supply.

Turn off the power when you perform any maintenance.

Verify that supply voltage is correct by comparing it with the luminaire label information.

Make sure all electrical and grounded connections in accordance with the National Electrical

Code and any applicable local code requirements and Hazloc requirements and suitable for wiring system.

All wiring connections should be capped with UL approved wire connectors.

Luminaire must be supplied by a wiring system with an equipment grounding conductor.

RED SKY LIGHTING LLC
9370 Pittsburgh Ave Rancho Cucamonga, CA 91730, USA
+1 (262) 456-5002 / contact@redskylighting.com / www.redskylighting.com

HazLoc Environment LED Luminaire

CAUTION:

RISK OF INJURY

Tightly close when energized for safety.

Do not open the luminaire after installation.

Wear gloves and safety glasses at all times when removing luminaire from carton, installing, servicing or performing maintenance.

Avoid direct eye exposure to the light source while it is on.

Properly handle small parts and destroy packing material, as these may be hazardous to children.

RISK OF FIRE

Keep combustible and other materials that can burn away from luminaire and lamp/lens.

MIN 90°C SUPPLY CONDUCTORS.

Model Series is suitable for use in the following hazardous (classified) areas as defined by the National Electrical Code (NEC) and Canadian Electrical Code (CEC):

UL 924 / CSA C22.2 No. 141

UL 844 / CSA C22.2 No. 137

UL 1598 / UL 1598A

CSA C22.2 No. 250.0

NEMA 4X / FCC

3G ANSI C136.31

Hazardous Locations	Environmental Ratings
Class I, Division 2, Groups A, B, C, D	Suitable for wet location
Class II, Division 1, Groups E, F, G	IP66/IP67
Class II, Division 2, Groups F, G	IK08 (Clear Glass) / IK10 (PC)
Class III	

Refer to the luminaire nameplate for specific classification information, maximum ambient temperature suitability and corresponding operating temperature (T-Code).

HazLoc Environment LED Luminaire

Models:

RDX-2-3-4-5-6-7-8-9-10-11-12 13

2 = Lumen Level (5L=5000 Lm; 7L=7000 Lm; 9L=9000 Lm; 12L=12000 Lm; 18L=18000 Lm; 22L=22000 Lm; 28L=28000 Lm).

3 = Voltage (100-277=100-277Vac; 120=120Vac; 208-277=208-277Vac) .

4 = LED Color temperature (3K = 3000K; 4K = 4000K; 5K = 5000K;) .

5 = Marketing Code (Blank-Standard; HAR=Custom; YYY - each "Y" stands any letter from A to Z) .

6 = Optic Beam Angle(*T5 = Type V Optic Standard; **T3 = Type III； **T1 = Type I; **30 = 30°; **60 = 60°) .

7 = Rating (H2=C1D2 / C2D1 / C3 (Hazloc); ***H3=C1D2; HS=UL1598/A, UL924(Harsh)).

8 = Lens (CG = Clear Glass; DG = Diffuse Glass; DLG = Drop Lens Glass; CP = Clear PC; DP = Diffuse PC) .

9 = Color of enclosure (GRY = “Gray”; BLK= “Black”; WHT= “White”; BRZ = “Bronze”).

10 = Mounting (****PDCG = Pendant & Ceiling; *****YKE = Yoke;

JB01 = 1.5” (1.9” OD) and 2” (2 3/8” OD) NPT-threaded Slip-Fit Junction box;

JB02-P =1.5” (1.9” OD) and 2” (2 3/8” OD) NPT-threaded Slip-Fit Junction box + Sensor (120V);

JB03-P =1.5” (1.9” OD) and 2” (2 3/8” OD) NPT-threaded Slip-Fit Junction box + Sensor (208-277V);

JB04 =1.5” (1.9” OD) and 2” (2 3/8” OD) Non-threaded Slip-Fit Junction box;

JB05-P =1.5” (1.9” OD) and 2” (2 3/8” OD) Non-threaded Slip-Fit Junction box + Sensor (120V);

JB06-P = 1.5” (1.9” OD) and 2” (2 3/8” OD) Non-threaded Slip-Fit Junction box + Sensor (208-277V)).

11 = EM (EM01 = 3000Lm@90mins; EM02 = 1500Lm@180mins) .

12 = BAA (Blank = Standard； BAA = Buy American Act) .

13 = CRI (BLANK - 80 CRI Standard).

* T5 (Non Optic) for Clear Glass & Diffuse Glass & Diffuse Drop Lens Glass & Clear PC & Diffuse PC.

** Type I & Type III & 30° & 60°, only for Clear Glass & Clear PC.

*** H3-C1D2 — Junction Box.

**** No accessory required for Pendant & Ceiling Mount

***** RDX - YOKE - EM Pre-installed as standard.

HazLoc Environment LED Luminaire

All models marked “Max. mounting height: ___ ft (____ m)” or the equivalent. Refer to below table:

Model	Mounting Orientation	Guard(optional)	Designates Beam of LED	Designates Lens for LED	Max Mounting Height(ft)	Max Mounting Height(m)
RDX-18L; RDX-22L; RDX-28L;	Lens Facing Down 0° From Vertical	No Guard	30	CG	66.73	20.34
				CP	63.66	19.40
			60	CG	54.57	16.63
				CP	52.34	15.95
			T1	CG	23.6	7.19
				CP	23.55	7.18
			T3	CG	22.36	6.82
				CP	22.14	6.75
			T5	CG	28.57	8.71
				CP	27.9	8.50
				DG	27.55	8.40
				DP	27.12	8.27
				DLG	28.4	8.66
RDX-18L; RDX-22L; RDX-28L;	Lens Facing Down 0°~45° From Vertical	No Guard	30	CG	50.84	15.50
				CP	47.6	14.51
			60	CG	46.15	14.07
				CP	43.44	13.24
			T1	CG	19.76	6.02
				CP	19.7	6.00
			T3	CG	17.52	5.34
				CP	17.66	5.38
			T5	CG	26.14	7.97
				CP	24.97	7.61
				DG	24.15	7.36
				DP	23.85	7.27
				DLG	25.68	7.83

HazLoc Environment LED Luminaire

Model	Mounting Orientation	Guard(optional)	Designates Beam of LED	Designates Lens for LED	Max Mounting Height(ft)	Max Mounting Height(m)
RDX-18L; RDX-22L; RDX-28L;	Lens Facing Down 0° From Vertical	Guard	30	CG	60.09	18.32
				CP	57.25	17.45
			60	CG	48.91	14.91
				CP	47.17	14.38
			T1	CG	22.36	6.82
				CP	22.09	6.73
			T3	CG	20.52	6.25
				CP	20.17	6.15
			T5	CG	27.03	8.24
				CP	26.27	8.01
				DG	25.49	7.77
				DP	24.92	7.60
				DLG	25.81	7.87
RDX-18L; RDX-22L; RDX-28L;	Lens Facing Down 0°~45° From Vertical	Guard	30	CG	44.5	13.56
				CP	40.7	12.41
			60	CG	39.93	12.17
				CP	39.42	12.02
			T1	CG	17.86	5.44
				CP	18.25	5.56
			T3	CG	16.54	5.04
				CP	16.54	5.04
			T5	CG	23.95	7.30
				CP	22.99	7.01
				DG	22.46	6.85
				DP	21.38	6.52
				DLG	23.55	7.18

HazLoc Environment LED Luminaire

Model	Mounting Orientation	Guard(optional)	Designates Beam of LED	Designates Lens for LED	Max Mounting Height(ft)	Max Mounting Height(m)
RDX-5L; RDX-7L; RDX-9L; RDX-12L	Lens Facing Down 0° From Vertical	No Guard	30	CG	66.7	20.33
				CP	64.8	19.75
			60	CG	58.81	17.93
				CP	56.2	17.13
			T1	CG	23.75	7.24
				CP	23.95	7.30
			T3	CG	22.25	6.78
				CP	22.09	6.73
			T5	CG	28.56	8.71
				CP	27.77	8.46
				DG	27.16	8.28
				DP	27.29	8.32
				DLG	28.85	8.79
RDX-5L; RDX-7L; RDX-9L; RDX-12L	Lens Facing Down 0°~45° From Vertical	No Guard	30	CG	53.42	16.28
				CP	50.44	15.37
			60	CG	48.47	14.77
				CP	49.03	14.94
			T1	CG	20.29	6.18
				CP	20.06	6.11
			T3	CG	17.72	5.40
				CP	18.51	5.64
			T5	CG	24.29	7.40
				CP	24.73	7.54
				DG	24.44	7.45
				DP	24.3	7.41
				DLG	23.84	7.27

HazLoc Environment LED Luminaire

Model	Mounting Orientation	Guard(optional)	Designates Beam of LED	Designates Lens for LED	Max Mounting Height(ft)	Max Mounting Height(m)
RDX-5L; RDX-7L; RDX-9L; RDX-12L	Lens Facing Down 0° From Vertical	Guard	30	CG	59.37	18.10
				CP	56.7	17.28
			60	CG	52.11	15.88
				CP	49.73	15.16
			T1	CG	22.3	6.80
				CP	22.2	6.77
			T3	CG	20.58	6.27
				CP	20.64	6.29
			T5	CG	26.56	8.10
				CP	25.95	7.91
				DG	25.35	7.73
				DP	24.83	7.57
				DLG	26.03	7.93
RDX-5L; RDX-7L; RDX-9L; RDX-12L	Lens Facing Down 0°~45° From Vertical	Guard	30	CG	42.05	12.82
				CP	45.22	13.78
			60	CG	45.74	13.94
				CP	42.92	13.08
			T1	CG	18.83	5.74
				CP	18.77	5.72
			T3	CG	17.25	5.26
				CP	17.04	5.19
			T5	CG	20.98	6.39
				CP	22.25	6.78
				DG	21.15	6.45
				DP	22.93	6.99
				DLG	20.47	6.24

HazLoc Environment LED Luminaire

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

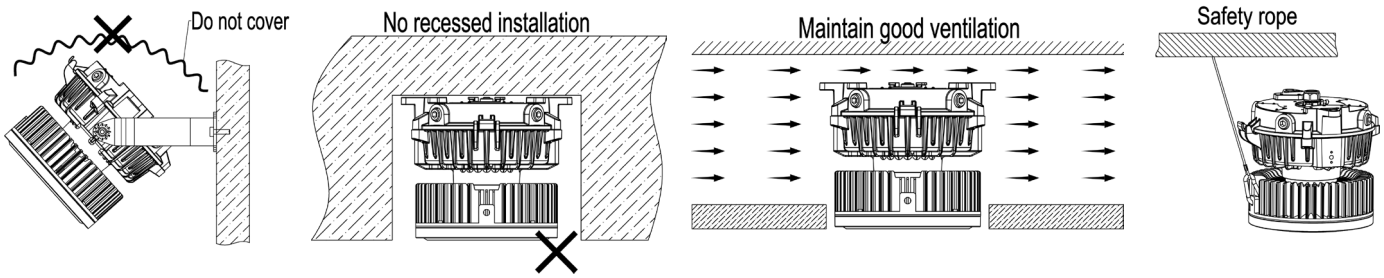
·Do not let power cords touch hot surface.

·Do not mount near gas or electric heaters.

·Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.

·The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.

·Do not use this equipment for other than its intended use.



All models have similar mechanical and electrical constructions, only differences in LED quantity, input rating, LED driver and Ta.

Operating characteristic:

Rated voltage	Power	Lumen Level	Ambient Temp	T-Code Rating		Emergency
				CID2	CIID1、CIII	
100-277Vac	40 W	5L (5,000Lm)	0 ~ +60 ℃	T5	T5	EM01-3000Lm / EM02-1500Lm
	50 W	7L(7,000Lm)				
	65 W	9L(9,000Lm)				
	85 W	12L(12,000Lm)		T4A		
	130 W	18L(18,000Lm)		T4	T4	
	160 W	22L(22,000Lm)				
	200 W	28L(28,000Lm)	0 ~ +55 ℃	T3C		

HazLoc Environment LED Luminaire

General Wiring Diagram

CAUTION: Turn off electrical power at fuse or circuit breaker box before wiring luminaire to the power supply.

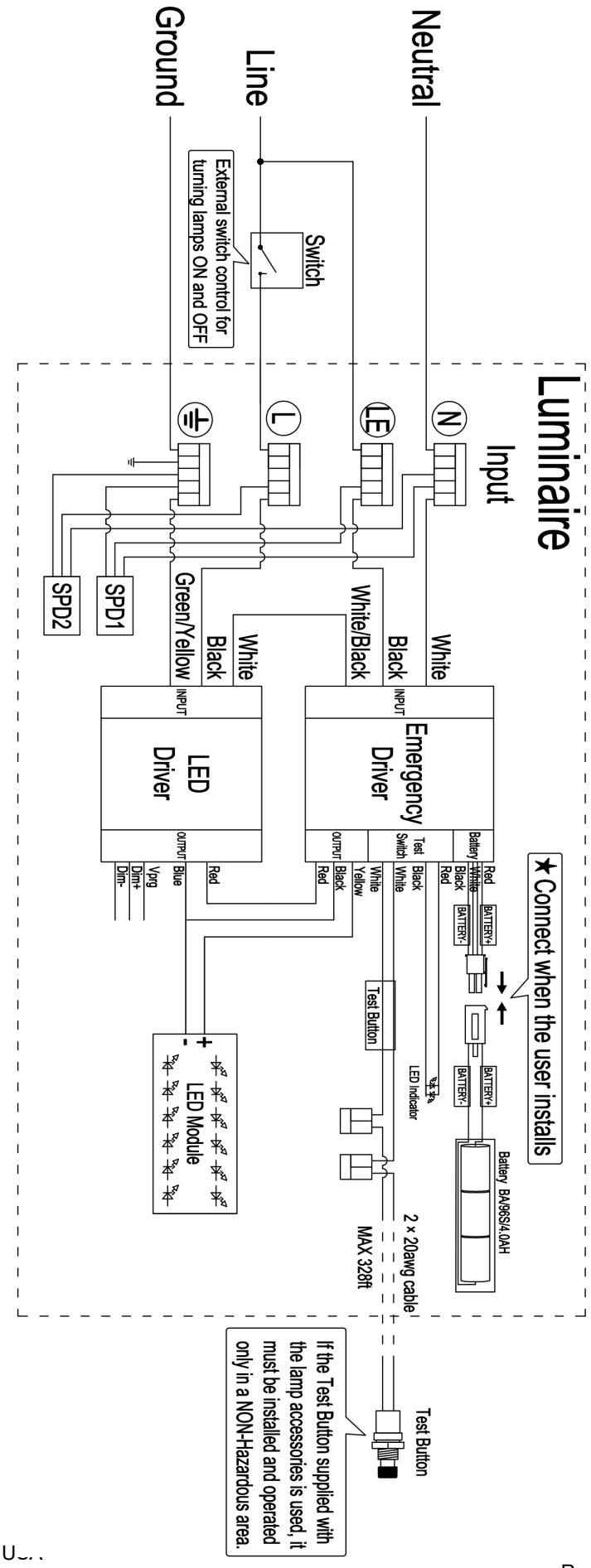
CAUTION: Before wiring the luminaire to the power supply, Refer to the wiring diagram and connect the battery connector first.

White = Neutral

Black = LE (Connect to the line)

Black = L (Connect to the line Switch)

Green/Yellow = Ground

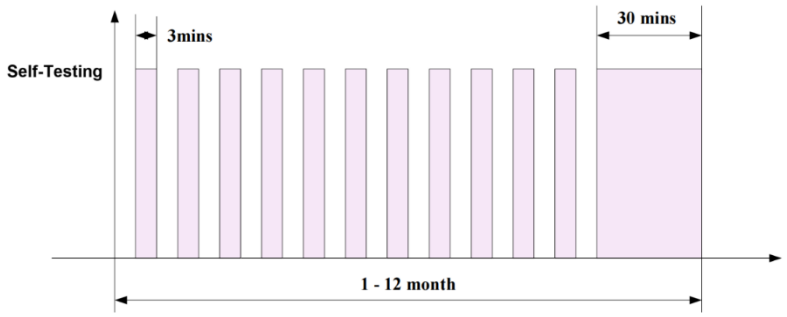


HazLoc Environment LED Luminaire

Emergency test function

1. Self-Testing function

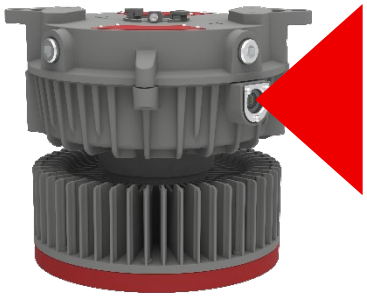
The luminaires incorporates a Self-Testing feature that performs a 3-minute monthly self-test every 30 days and a 30-minute annual self-test every 12 months.



During the self-test, pressing the luminaire switches the luminaire to emergency mode and reduces its light output to the emergency level. The test assesses whether the emergency function is operating reliably; if a fault is detected, it is signaled by distinct indicator states, allowing maintenance personnel to identify the fault promptly.

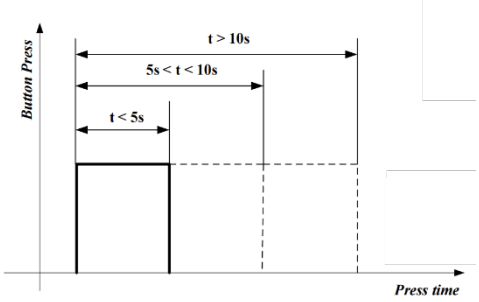
The indicator states are as follows:

INDICATOR	STATUS
Green on	Battery full
Green slow flashing (3s ON / 3s OFF)	Battery charging
Red on	Discharging
Red slow flashing (3s ON / 3s OFF)	Self-testing process
Red / Green fast flashing (1s Red / 1s Green)	Fault
Red fast flashing (1s ON / 1s OFF)	Load fault (Vlamp out of range)
Red flashing (1s ON / 5s OFF)	Charger fault
Red flashing (5s ON / 1s OFF)	Battery fault



2. Test button function

Maintenance engineers can also use the Test Button to manually enter Test, Monthly Test, or Annual Test mode. Which mode is activated depends on the duration the Test Button is held; the operating instructions for the Test Button are as follows.



HazLoc Environment LED Luminaire

a) Test Button press time t < 5 s: enters Test mode; Test mode is exited as soon as the button is released.

b) Test Button press time 5 s < t < 10 s: enters Monthly Test mode. Once the manual monthly test has started, the complete monthly-test sequence will run to the end and the monthly-test counter will increment by 1. If the button is pressed again while the sequence is running, the monthly test aborts and the counter is not incremented.

c) Test Button press time t > 10 s: enters Annual Test mode. Once the annual test has started, the entire annual-test sequence will finish and the unit will then return to the state of the first monthly test. If the button is pressed while the annual test is running, the annual test aborts and the system waits for the next scheduled annual test.

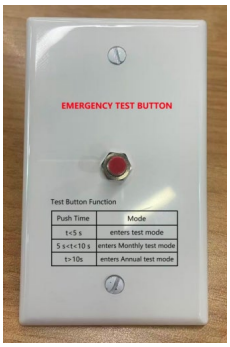
During the test, if a fault is detected, it will be indicated by the same distinct indicator states described in the Self-Testing section.

The RDX-EM series shipped by RSL to customers is supplied as standard with a test-button (push-button) & Panel. This button & Panel are packed loose in the accessory bag and is not pre-installed inside the luminaire. The installation instructions clearly state that the test button may be used only in non-hazardous areas; its appearance is shown in the photo.

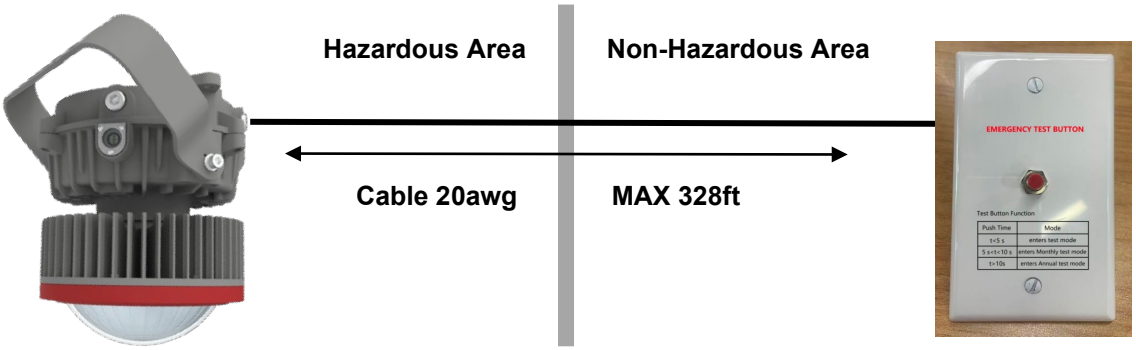
Test-Button function:

Press to energize the circuit.

Release to reset and break the



Test-Button Panel



Note: If the installer uses the Test Button supplied with the luminaire accessories, the button must be routed to a Non-Hazardous Area. Use 2*20 AWG or thicker cable; the maximum lead length is 328 ft (100 m). The cable needs to be provided by the customer additionally.

The panel is ETL- or UL-listed; dimensions are as shown in the figure above and comply with current mainstream panel standards.

HazLoc Environment LED Luminaire

Installation & Operation

Electrical Connection

1. Loosen the three pcs of M6 hexagon bolts of Tank Cover at torque value 7 N-m.
2. The thread of entry hole of Tank is 3/4" NPT. Connect the Tank to suitable conduit.
3. Insert the wire from outside through the conduit and the entry hole of Tank Cover, and then connect to terminal block.
4. Wire the branch circuit as follows:

   White-wire connects to neutral

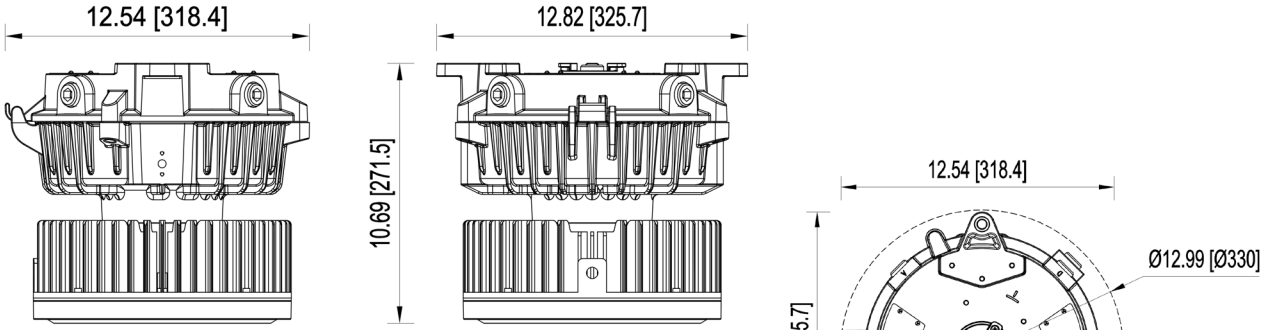
   Black-wire connects to line

   Black-wire connects to line button

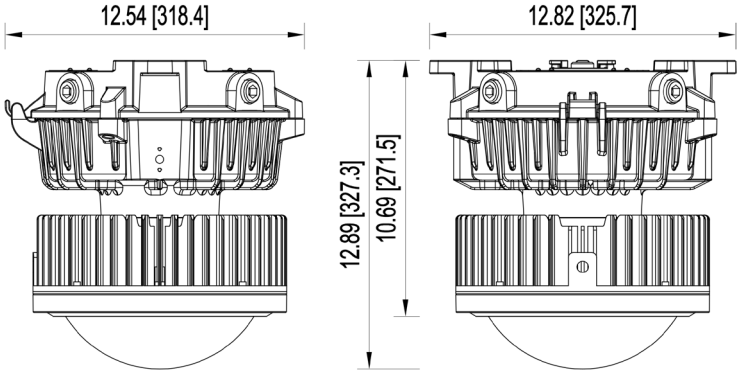
   Green/Yellow-wire connects to ground
5. Re-attach the Driver Cover and tighten it by three pcs of M6 hexagon bolts of Driver Cover at torque value 7 N-m.
6. Check the tightness of conduit and Driver Cover.

Product Size:

Flat Panel luminaire



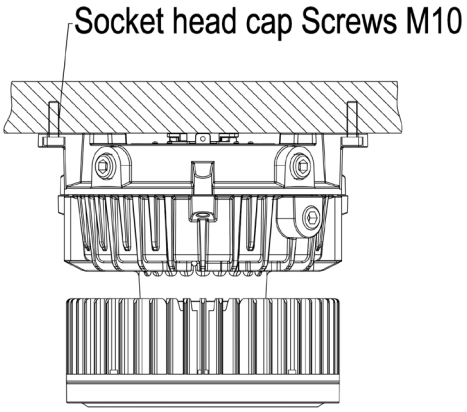
Curved Panel luminaire

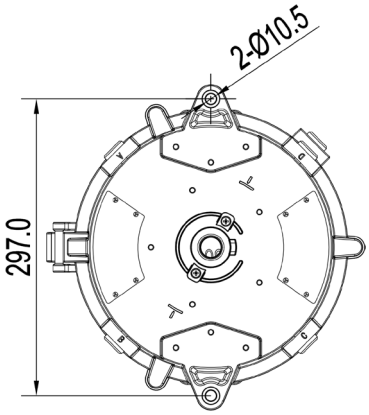


HazLoc Environment LED Luminaire

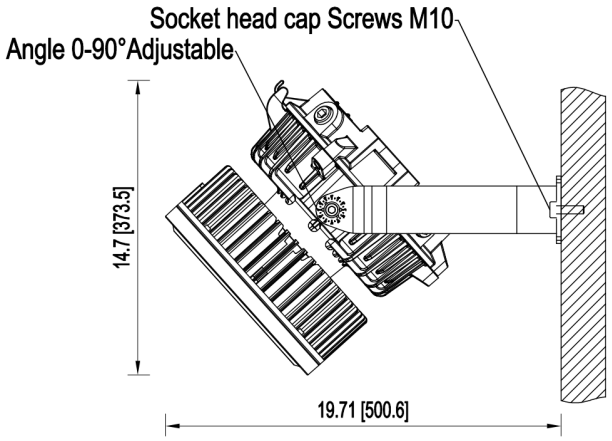
Installation:

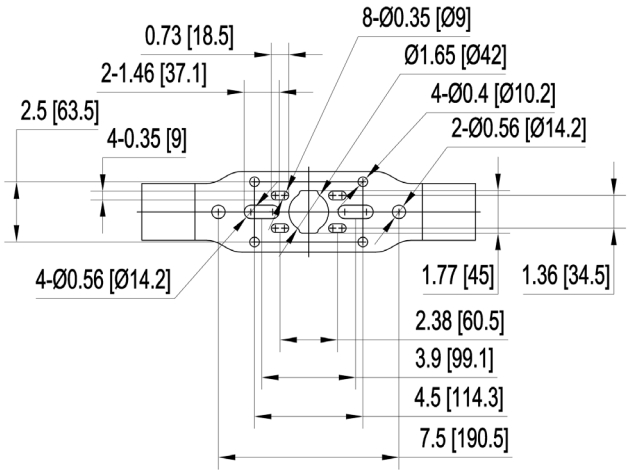
1. Ceiling



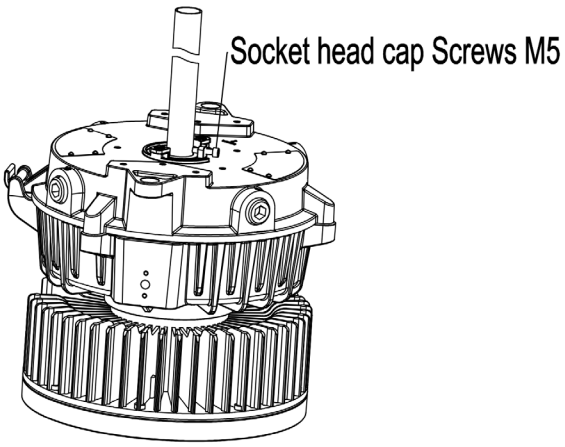


2. Yoke





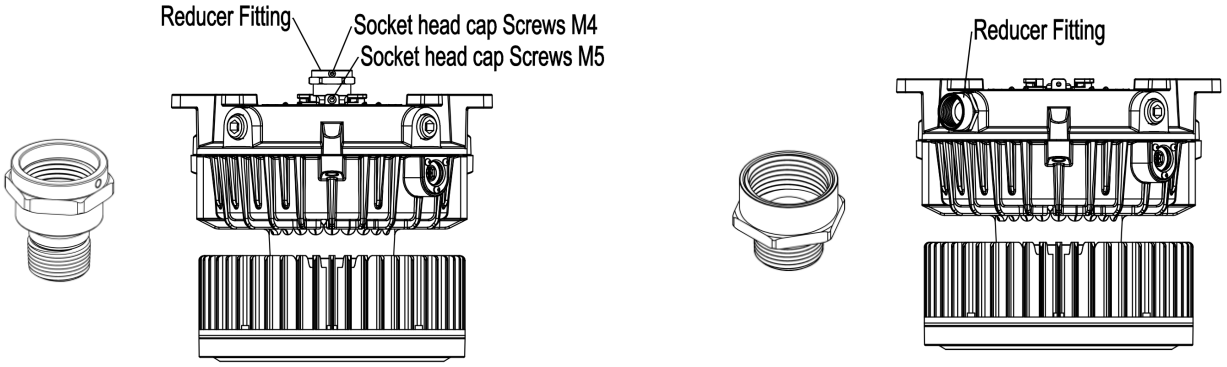
3. Pendant



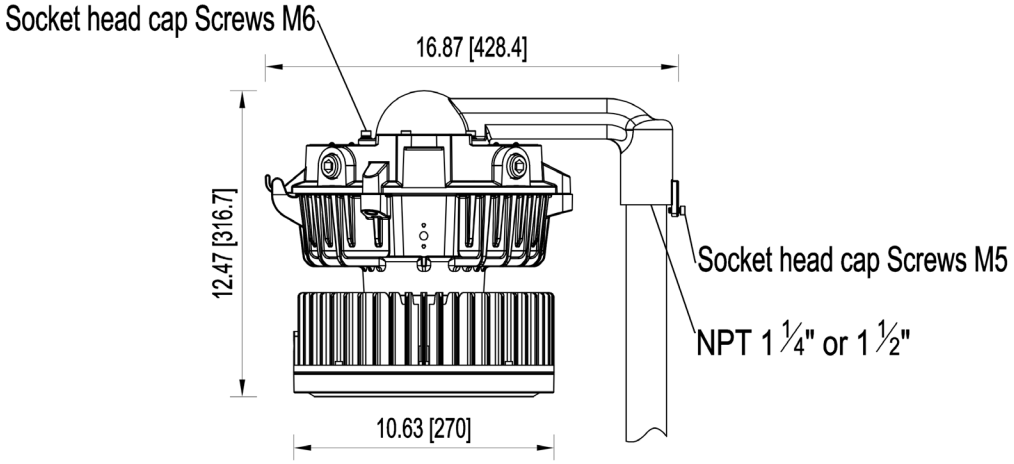
HazLoc Environment LED Luminaire

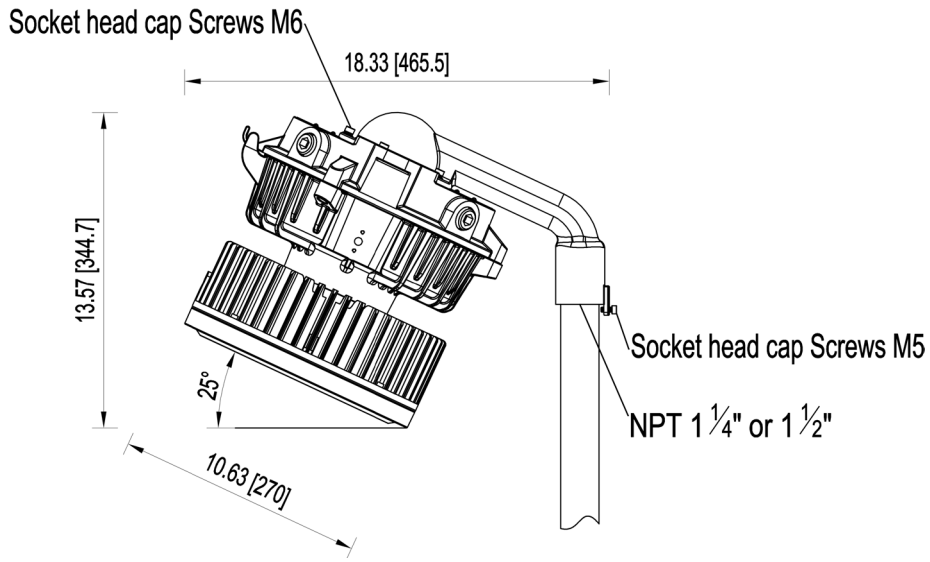
4. Reducer Fitting

Convert 3/4" NPT female threaded openings to 1" NPT female threaded openings.

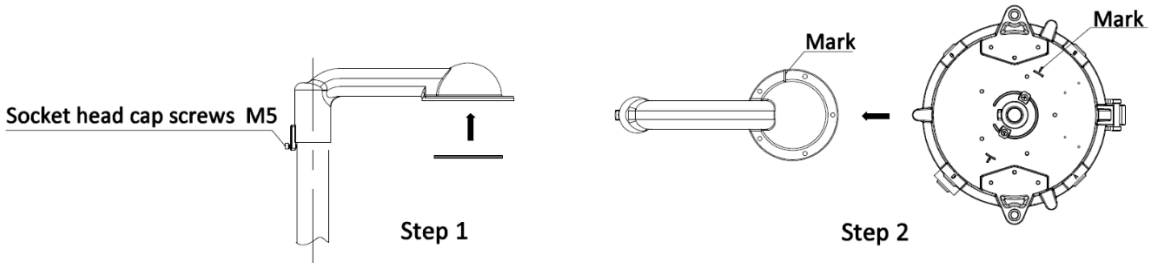


5. Stanchion-90° / Stanchion-25°





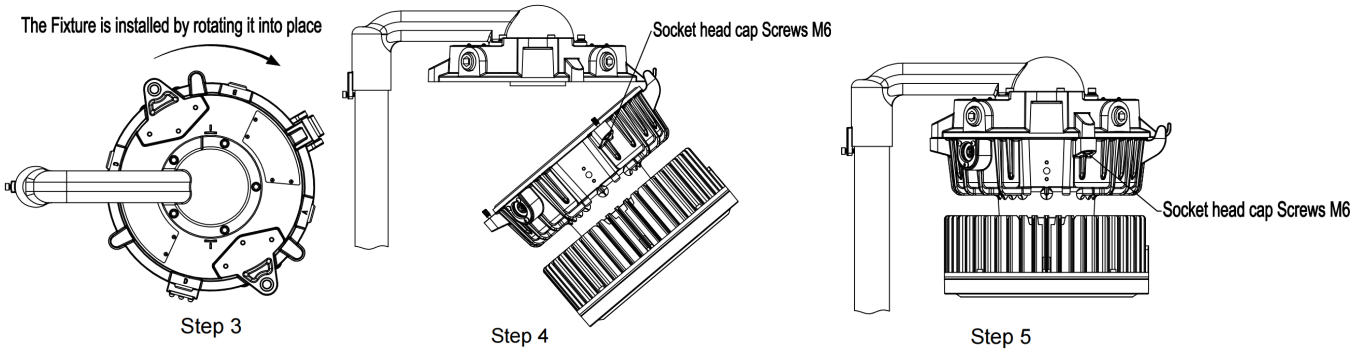
HazLoc Environment LED Luminaire



Step 1: Securely thread the adapter onto the appropriate NPT size conduit. Determine the appropriate orientation and tighten the M5 set-screw. Make sure the gasket of the adapter is properly inserted into the slot .

Step 2: Hang the whole fixture onto the adapter, align as marked.

Step 3: Rotate the fixture clockwise and secure the adapter with M6 screws (provided) to (7 N-m) or M5 screws (provided) to (5 N-m). *



Step 4: Unscrew the hood and Connect supply wires to luminaire wire leads (or Wago connectors).

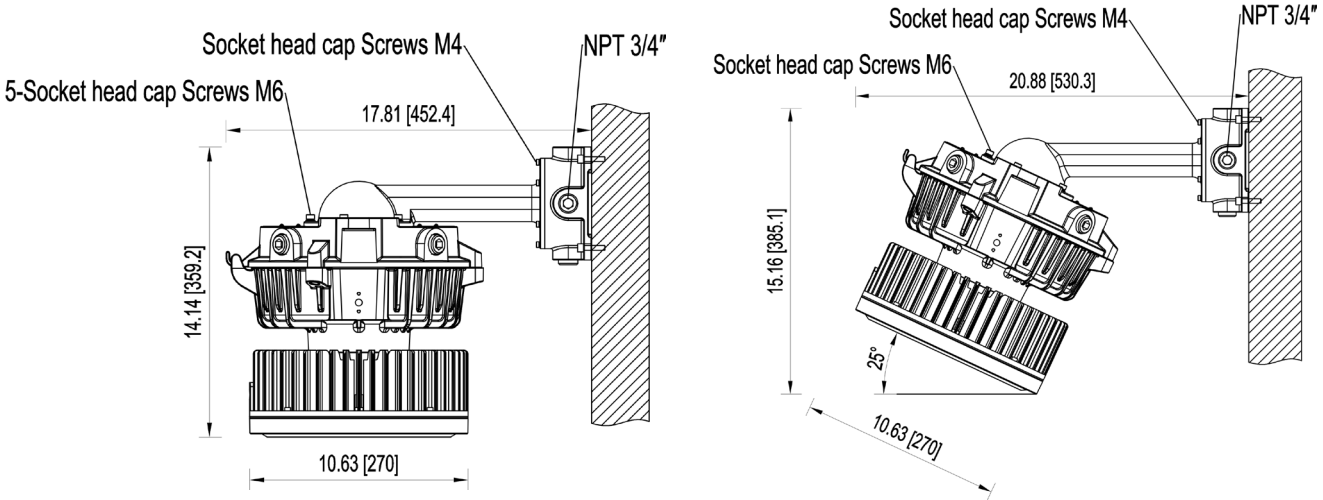
Step 5: Close driver housing, making sure that all wires are safely inside driver. Tighten three captive closing screw (M6) to (7 N-m).

*Please use the small M5 screws (RED label on the housing) / large M6 screws (GREEN label on the housing).

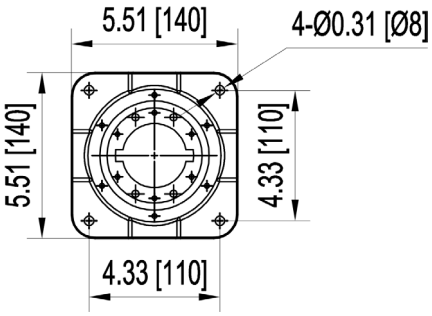
Note: All installation must refer to " NPT Assembly Instructions" to prevent water leakage

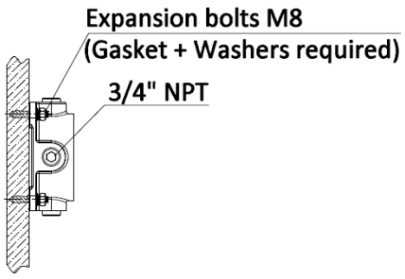
HazLoc Environment LED Luminaire

6. Wall-90°/ Wall-25°

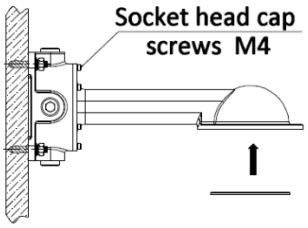


Installation Dimensions





Step 1



Step 2

Step 1: Mark and drill desired location on mounting surface, Secure the junction box (provided) with 4 (M8) expansion bolts (not provided) directly to a structural member; thread onto a NPT 3/4 inch conduit.

Step 2: Pull field wiring into the wall mount adapter. Secure the adapter with 6 (M4) screws (provided) directly to the

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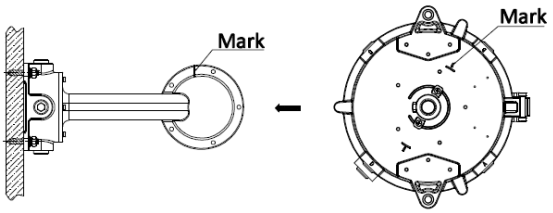
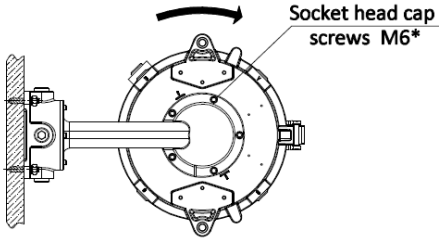
junction box; Make sure the gasket of the adapter is properly inserted into the slot.



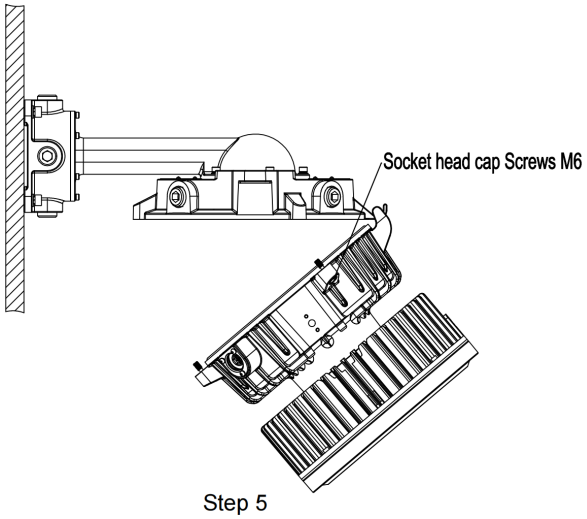
Step 3



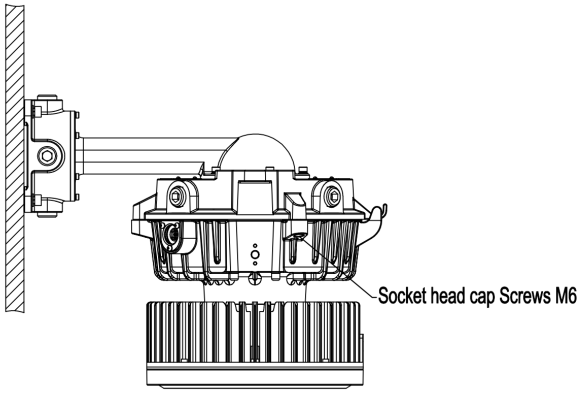
Step 4

Step 3: Hang the whole fixture onto the adapter, align as marked.

Step 4: Rotate the fixture clockwise and secure the adapter with M6 screws (provided) to (7 N-m) or M5 screws (provided) to (5 N-m). *



Step 5



Step 6

Step 5: Unscrew the hood and Connect supply wires to luminaire wire leads (or Wago connectors).

Step 6: Close driver housing, making sure that all wires are safely inside driver. Tighten three captive closing screw (M6) to (7 N-m).

*Please use the small M5 screws (RED label on the housing) / large M6 screws (GREEN label on the housing).

Note: All installation must refer to " NPT Assembly Instructions" to prevent water leakage

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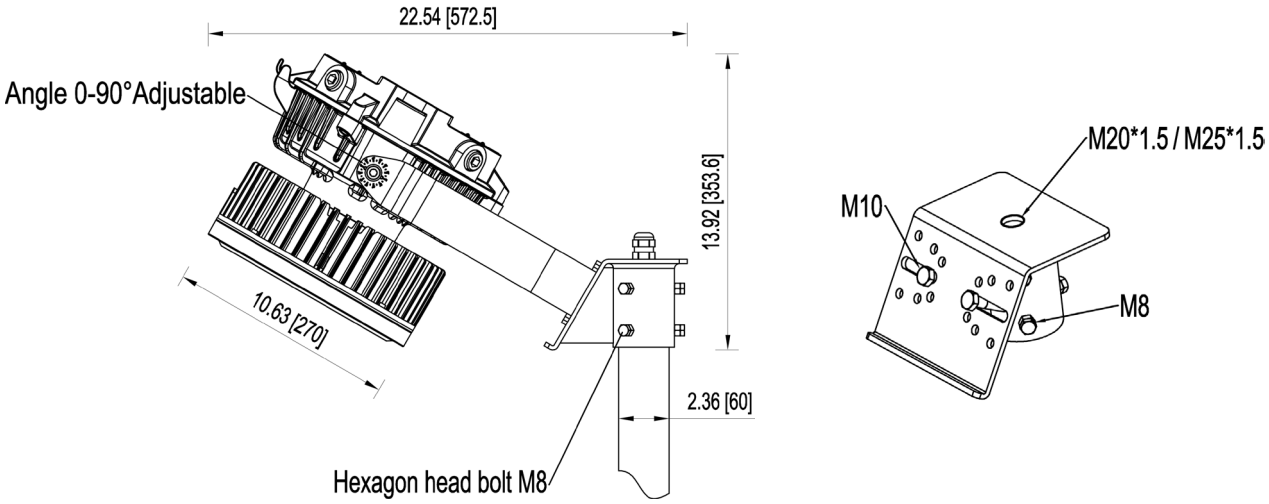
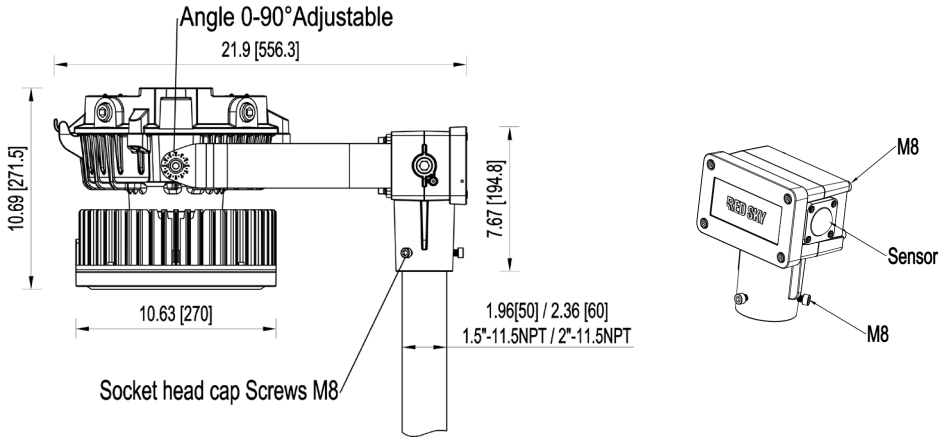
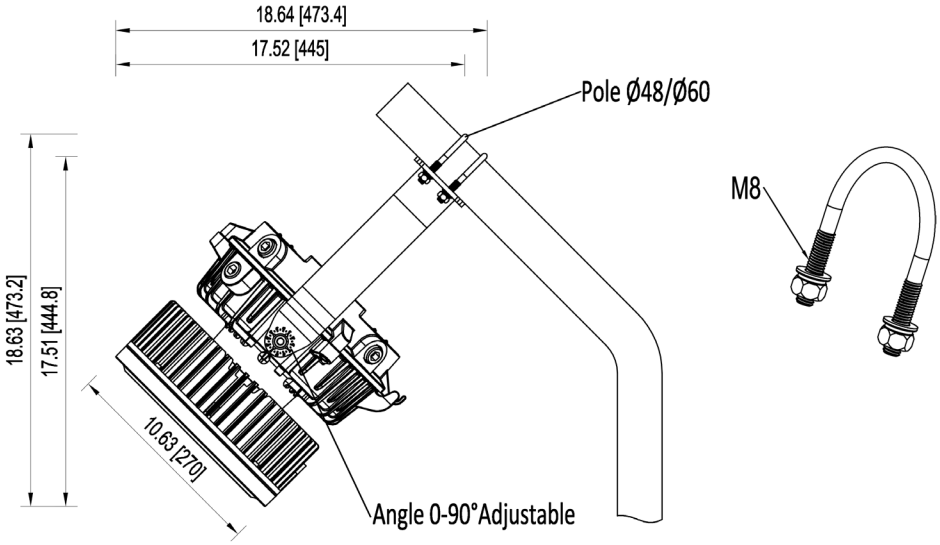
7. Stanchion slip fitter（Pole Type Stanchion）



8. Junction Box



9. Pole Clamp



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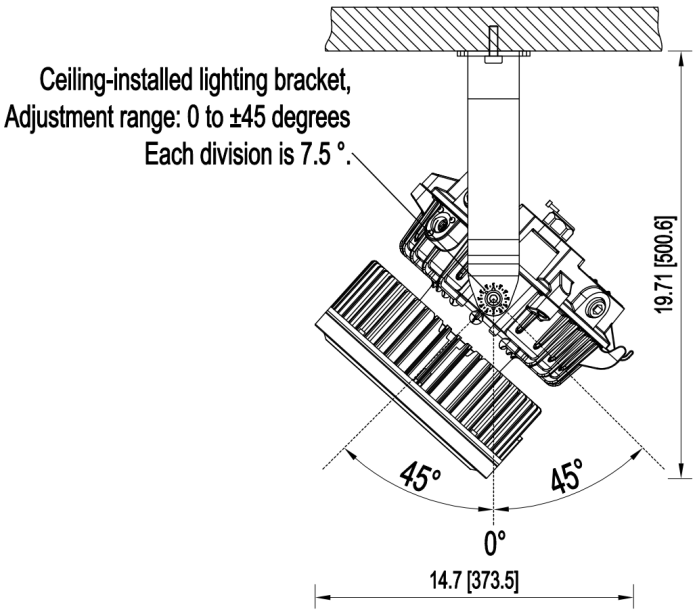
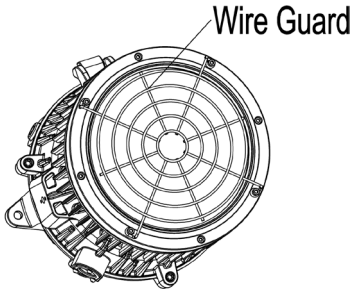
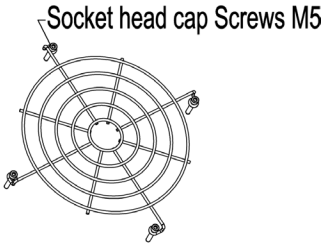
10. Yoke-Ceiling

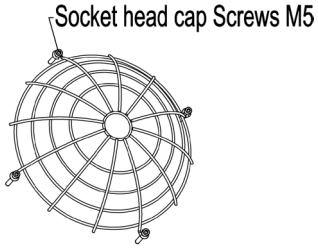


11. Optional





Wire Guard for
Flat Glass/PC Lens



Wire Guard for
Drop Glass Lens

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Safety Instructions

Battery Installation Instructions

Modifications to the device or changes of its design are not permitted.

This equipment must be operated according to the intended purpose

in a perfect and undamaged condition.

The Battery Replacement

1. First, disconnect power to the luminaire，Loosen the three pcs of M6 Socket Head Cap Screws of tank cover at torque value 7 N-m.

2.Disconnect the wires connecting the wago terminals with the luminaire.

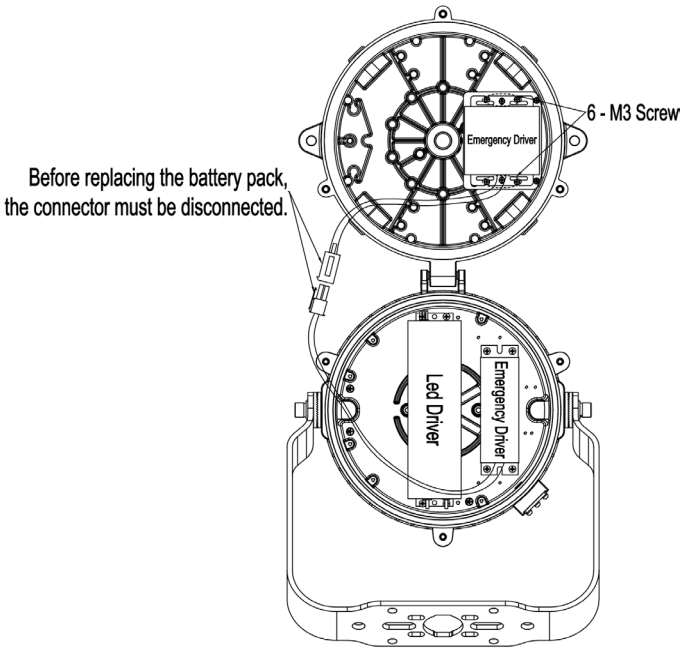
3.Disconnect the wiring between the battery pack and the emergency driver; Loosen the 6-M3 Phillips Pan Head Screws on the battery pack.

4.Replace with a new battery pack (with thermal pad) and tighten the 6-M3 Phillips Pan Head Screws at torque value 1.2 N-m; Connect the wiring between the battery pack and the emergency driver.

5.Connect the wires connecting the wago terminals with the luminaire.

6.Power the luminaire and perform the annual function test via the test button; verify that the luminaire operates correctly and no fault indicator lights up.

7.Re-attach the tank cover and tighten it by three pcs of M6 Socket Head Cap Screws at torque value 7 N-m.



NOTE: Battery replacement needs to be done in a non-hazardous location!

NOTE: Do not reverse charge batteries!

NOTE: Pay attention to the battery orientation during installation to prevent wires from being pinched when closing the tank cover.

NOTE: If the EM series luminaire has been stored for 3 months without installation or use, activate the emergency lighting function once until it shuts off automatically, then recharge it to 50 % capacity (12 h) to cycle the battery and safeguard its service life.

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Servicing

To avoid personal injury, disconnect power to the light and allow the unit to cool down before performing maintenance.

Perform visual, electrical, and mechanical inspections on a regular basis. The environment and frequency of use should determine this. However, it is recommended that checks should be made at least once a year.

The external lens should be cleaned periodically to ensure continued luminaire performance. Clean the lens with a clean, damp, non-abrasive, lint-free cloth. If this is not sufficient, use a mild soap or a liquid cleaner.

Do not use an abrasive, strong alkaline or acid cleaner as damage may occur.

Inspect the cooling fins on the luminaire to ensure that they are free of any contamination (i.e. excessive dust build-up). Clean with a non-abrasive cloth if needed.

Mechanically check to make sure all parts are properly assembled.

Electrically check to make sure that all connections are clean and tight.

Warranty

We warrant that each of our LED lighting luminaire (the "Product(s)") that are purchased while this Warranty is in effect will be free from defects in materials and workmanship for the period of time specified in the table below (the "Warranty Period"). The Warranty Period runs from the date of original purchase from its authorized distributor/dealer.

We will repair, or at our option, replace the defective product (exterior finish, housing and heat sinks, lens, LED engine, power supply) during the standard warranty period. This warranty applies only to the repair or replacement of the product and only when the product is properly handled, installed and maintained according to our instructions.

This warranty excludes defects resulting from improper installation, acts of God, fire, vandalism or civil disturbances, power surges or improper power supply, and corrosive environment installations.

This warranty does not cover equipment, systems or components from other manufacturers that the purchaser uses in conjunction with the Product. Any repair, alteration or modification of the Product, including replacement of Product components with components of other manufacturers will void the warranty in its entirety.

Product	Models Covered by Warranty	Warranty Period
Round Max Emergency Series Hazloc LED Luminaire	RDX EM series	Lighting fixtures - 5 Years Battery - 3 Years

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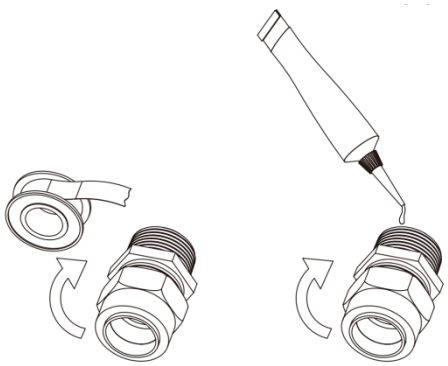
NPT Assembly Instructions*:

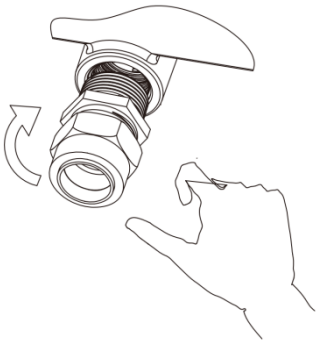
Step 1: Inspect port and fitting to ensure that both are free of contaminants and excessive burrs and nicks.



Step 2: Apply a strip of an anaerobic liquid pipe sealant around the male threads leaving the first two threads uncovered. If no liquid sealant is available, wrap Teflon tape (width of 12.7mm and thickness of 0.1mm) 2.5- 3 turns in a clockwise direction, viewed from the pipe end, leaving the rest two threads uncovered.

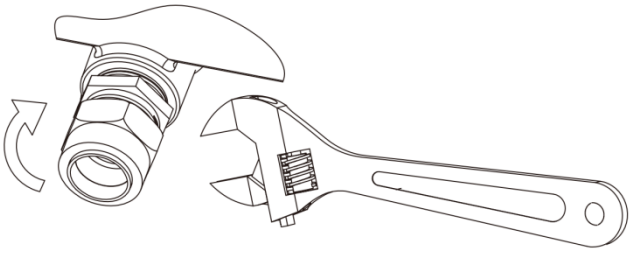
CAUTION: Teflon tape and some pipe sealants are destructive to hydraulic components. Always use extreme caution and follow manufacturer's recommendations for proper application of any sealant in order to prevent contamination.

Step 3: Screw finger tight into the port.



Step 4: Wrench tighten the fitting to the correct Turns Past Finger Tight position. A properly assembled

fittings total thread engagement should be ≥5 turns.



CAUTION: Never back off an installed pipe fitting to achieve proper alignment. Loosening installed pipe fittings will corrupt the seal and contribute to leakage and failure.

(*Applicable standard: ASME B1.20.1-2013)