

# **WE-EF LIGHTING USA LLC DMX LIGHTING USER MANUAL**

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DMX LIGHTING USER MANUAL V1.0

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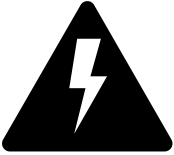


# SAFETY INFORMATION

## WARNINGS



SAFETY HAZARD. RISK OF SEVERE INJURY OR DEATH. READ MANUAL PRIOR TO INSTALLATION OR SERVICING FIXTURES. THIS PRODUCT SHOULD BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND HAZARDS INVOLVED.



HAZARDOUS VOLTAGE. DO NOT OPEN LUMINAIRE WHILE IN OPERATION OR WHILE MAINS SUPPLY IS SWITCHED ON.



RISK OF EYE INJURY. WEAR PROTECTIVE EYEWEAR.



SURFACE MAY BE HOT.



RISK OF FIRE.

## TECHNICAL SUPPORT

FOR QUESTIONS PERTAINING TO INSTALLATION OR OPERATION, PLEASE CONTACT WE-EF USA TECHNICAL SUPPORT AT:

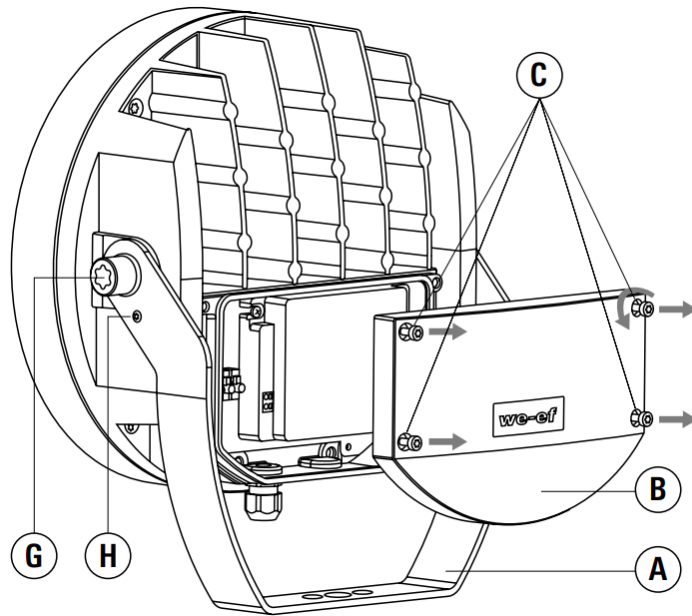
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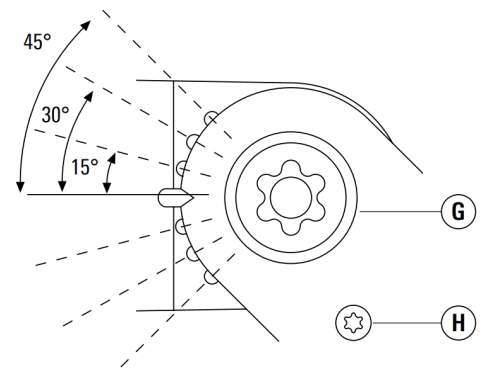
# SETUP

## INSTALLATION

### FLC200

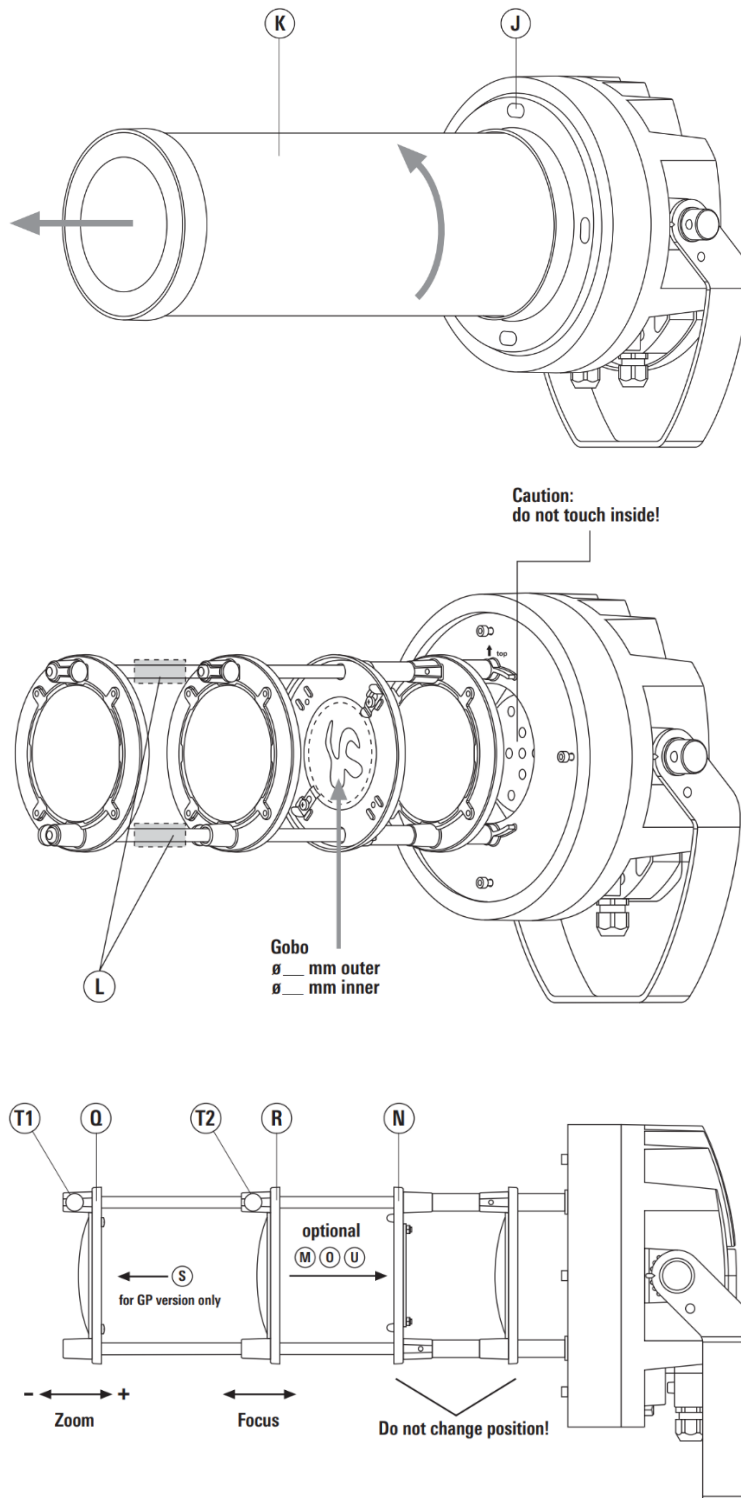


SCREW	TORQUE
M4	MAX. 17.7 IN-LB (2NM)
M5	MAX. 35.4 IN-LB (4NM)
M6	MAX. 53.1 IN-LB (6NM)
M8	MAX. 133 IN-LB (15NM)
M16	MAX. 885 IN-LB (100NM)



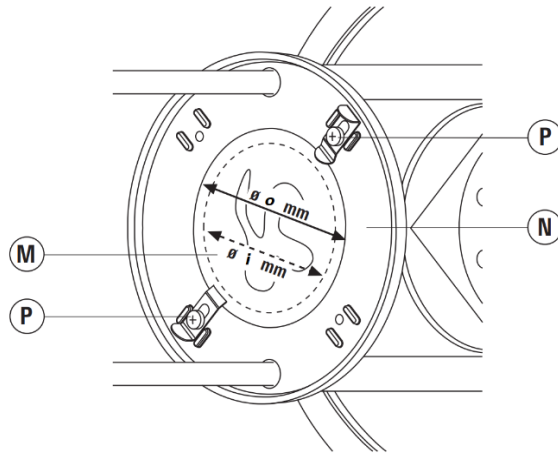
1. SWITCH OFF MAINS ELECTRICAL SUPPLY.
2. PRIOR TO ELECTRICAL CONNECTION, PROCEED WITH MECHANICAL INSTALLATION BY FIRMLY FIXING YOKE **A** TO OPTIONAL MOUNTING ACCESSORY OR DIRECTLY TO A MOUNTING SURFACE. THERE ARE 3 MOUNTING HOLES PROVIDED ON THE YOKE FOR THIS PURPOSE, SEE DIMENSIONS IN SPECIFICATION SECTION.
3. ADJUST THE FIXTURE POSITION BY LOOSENING THE PROTRACTOR CLAMP LOCKING SCREW **H** AND THEN THE 2 MOUNTING KNOBS **G** ON EITHER SIDE OF THE FIXTURE.
4. TILT THE FIXTURE TO ITS APPROXIMATE AMING POSITION.
5. TIGHTEN THE MOUNTING KNOBS **G** AND LOCKING CLAMP SCREW **H** (SEE TORQUE CHART).
6. CHECK THAT THE ELECTRICAL SUPPLY CONFORMS WITH THE RATINGS SHOWN ON THE FIXTURE LABEL AND LEADS EXTENDING FROM THE FIXTURE. MAKE THE ELECTRICAL CONNECTION INTO THE JUNCTION BOX.

**ADJUSTING THE PROFILE PROJECTOR**



1. SLIGHTLY LOOSEN THE FASTENERS J, DO NOT REMOVE THEM TURN THE PROFILE K TO THE LEFT AND CAREFULLY REMOVE IT BY PULLING IT TOWARDS THE FRONT.
2. REMOVE THE TRANSPORT LOCK L FROM THE INSIDE OF THE PROFILE K.
3. THE RETAINER N WITH THE DESIRED INSERT ALWAYS REMAINS IN THE POSITION SET AT THE FACTORY. **DO NOT ADJUST ITS POSITION.**





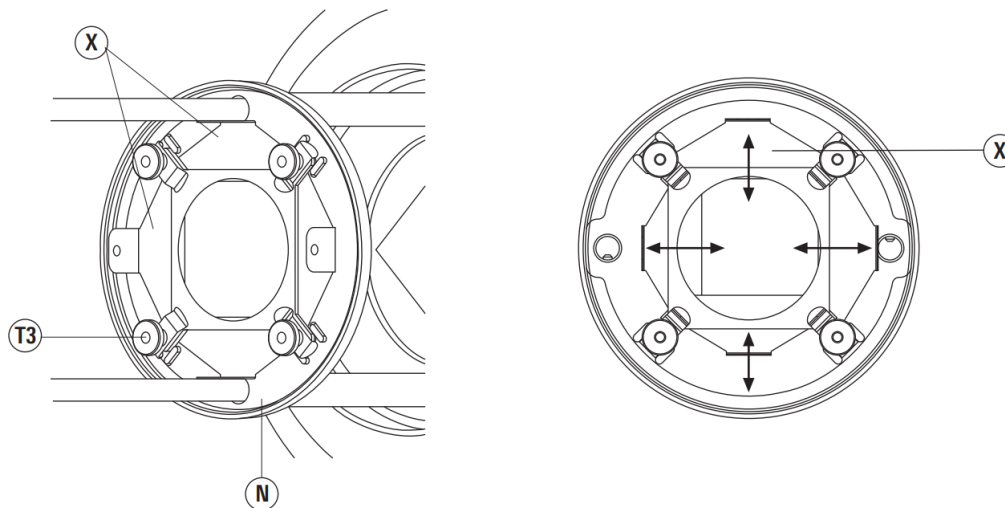
FIXTURE	INNER DIAMETER <i>i</i>	OUTER DIAMETER <i>o</i>
FLC210-PP	-	38MM
FLC220-PP	48MM	66MM
FLC230-PP	60MM	86MM

**3.1. GOBO PROJECTOR [GP]**

INSERT THE GOBO **M** INTO THE RETAINER **N**. TO DO SO, SLIDE THE RETENTION SPRINGS **P** OUTWARDS, INSERT THE GOBO **M**, ALIGN AND SLIDE THE RETENTION SPRINGS **P** BACK INTO PLACE TO SECURE IT.

**3.2. ZOOM SPOT PROJECTOR [ZP]**

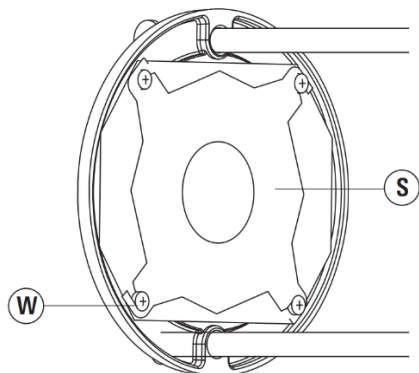
ONLY IF YOU HAVE ORDERED AN ADDITIONAL PERFRORATED GLARE SHIELD **U**, IS THIS SHIELD INSERTED, ALIGNED, AND SECURED LIKE A GOBO **M** IN THE RETAINER **N**.



### 3.3. FRAMING PROJECTOR [FP]

THE CONTOUR OF THE EMITTED LIGHT MAY BE SET WITH THE FOUR SHUTTERS **X** BY USING THE CONTOUR SLIDE IN THE RETAINER **N**. TO DO SO, UNSCREW THE FOUR KNURLED FASTENERS **T3**, SET THE DESIRED CONTOUR BY MOVING THE SHUTTERS **X** AND TIGHTEN THE KNURLED FASTENERS **T3**.

4. TO SET THE IMAGE SIZE, LOOSEN THE KNURLED FASTNERS **T1** ON THE ZOOM LENS **Q** AND MOVE UNTIL THE DESIRED SIZE HAS BEEN ACHIEVED.
5. TO FOCUS, LOOSEN THE FOCUS LENS **R** WITH THE KNURLED FASTENERS **T2** AND MOVE UNTIL THE IMAGE IS SHARPLY DELINEATED. TIGHTEN ALL KNURLED FASTENERS **T** AGAIN.



### 6. GOBO PROJECTOR [GP]

A SHUTTER **S** IS LOCATED DIRECTLY BEHIND THE ZOOM LENS **Q**. THIS IS DESIGNED TO IMPROVE THE QUALITY OF THE IMAGE (SHARPNESS) BUT REDUCES THE INTENSITY OF THE LIGHT.

THE SHUTTER **S** MAY BE SIMPLY REMOVED BY UNSCREWING THE FOUR FASTENERS **W** IF A HIGHER INTENSITY OF LIGHT IS REQUIRED. PLEASE KEEP IN MIND THAT THIS MEASURE WILL REDUCE THE QUALITY OF THE IMAGE (SHARPNESS), PARTICULARLY IN OUTER AREAS.

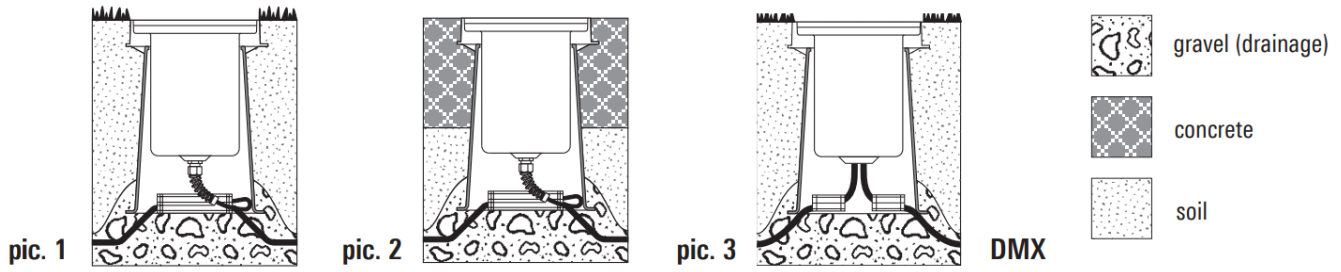
7. CLEAN THE LENSES WITH THE PROVIDED MICROFIBRE CLOTH.
8. MAKE SURE THAT THE LUMINAIRE IS COMPLETELY DRY INSIDE AND ALL GASKET AREAS ARE FREE OF DIRT.
9. CAREFULLY SLIDE THE PROFILE **K** OVER THE LENS, TURN IT TO THE RIGHT AND SECURE IT WITH THE FOUR FASTENERS **J** ONCE ALL THE DESIRED SETTINGS HAVE BEEN MADE.

**ETC100-GB**

**Installation Methods with BET**

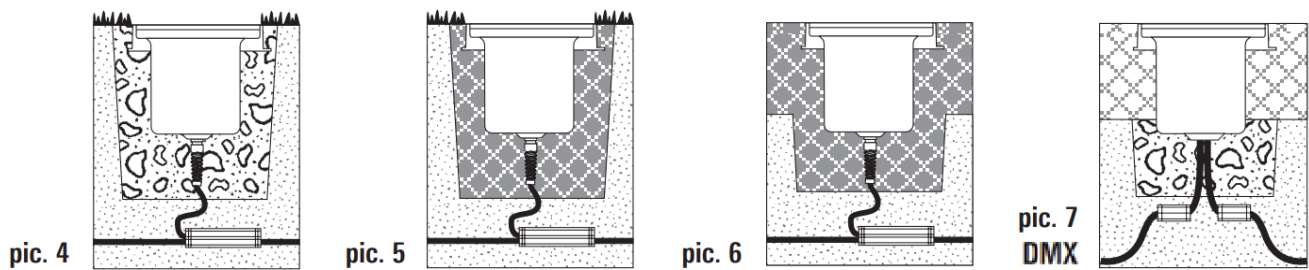
Ensure that proper drainage is provided for the shown installation methods.

- 1) In landscaped areas (soil with gravel base), **pic. 1**
- 2) In paved areas (concrete with gravel base), **pic. 2**



**Installation Methods without BET**

- 3) In landscaped areas (soil with concrete), **pic. 4**
- 4) In landscaped areas (soil with concrete and gravel base), **pic. 5**
- 5) In paved areas (concrete), **pic. 6**
- 6) In paved areas (concrete with gravel base) see **pic. 7**

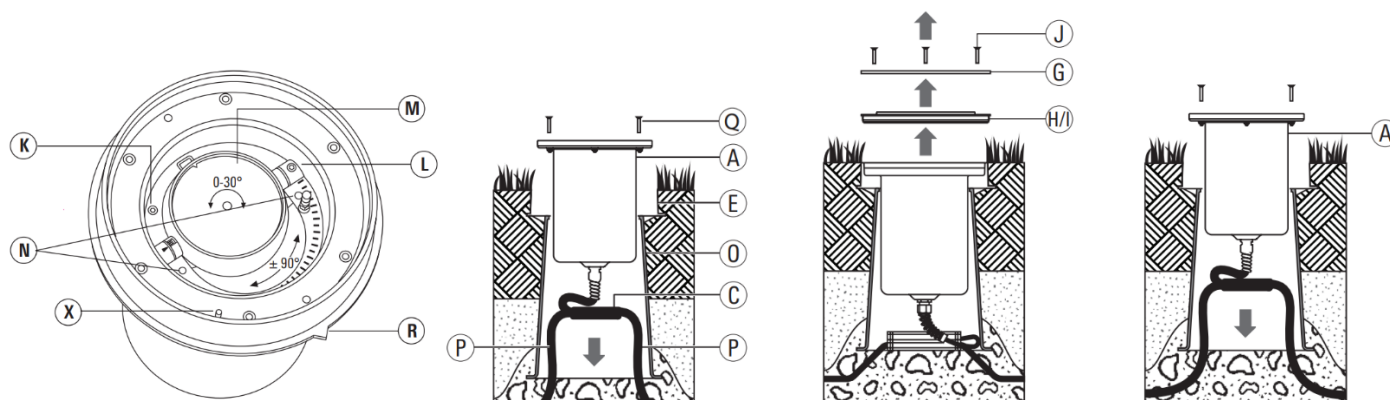


**BLOCKOUT INSTALLATION:**

**ATTENTION:** PROVIDE PROPER DRAINAGE FOR APPLICATION, A **SOIL PERCOLATION TEST** SHOULD BE PERFORMED TO DETERMINE IF PROPER DRAINAGE IS PRESENT.

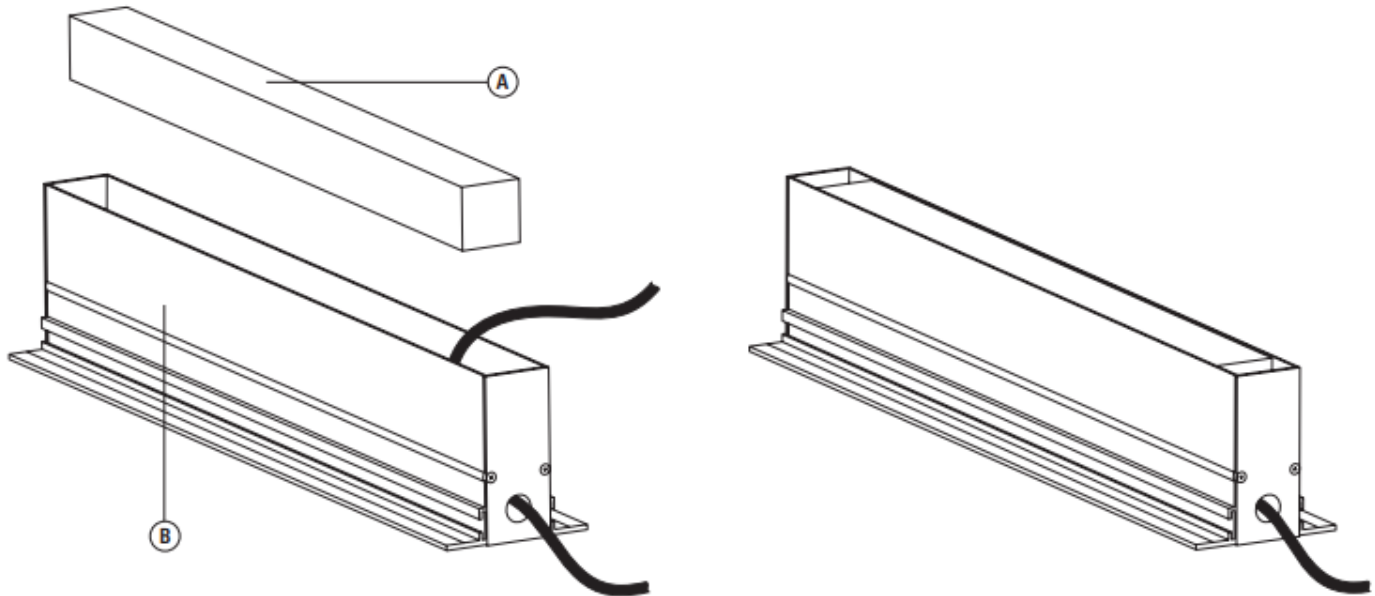
1. PRIOR TO CONCRETE INSTALLATION, SET THE BLOCKOUT **E/O** IN AN ADEQUATE RECESS IN THE GROUND, ALONG WITH THE POWER SUPPLY WIRING. THE MOUNTING RING **E** SHOULD BE SET FLUSH WITH THE FINISHED PAVEMENT, BUT REMAIN AT A HIGHER ELEVATION THAN THE SURROUNDING AREA TO PREVENT WATER FROM POOLING ON THE FIXTURE AFTER INSTALLATION IS COMPLETE. ARROW **R** SHOULD BE POINTED TOWARDS THE OBJECT TO BE ILLUMINATED.

**LUMINAIRE INSTALLATION:**



1. SWITCH OFF MAINS ELECTRICAL SUPPLY.
2. CHECK THAT ELECTRICAL SUPPLY CONFORMS WITH THE RATINGS SHOWN ON THE FIXTURE.
3. MAKE THE SUPPLY CONNECTIONS WITH THE LUMINAIRE CABLE A.
4. REMOVE TWO SS MOUNTING SCREWS Q FROM THE MOUNTING RING E AND SET THE LUMINAIRE INTO THE BLOCKOUT E/O.
5. REMOVE THE LENS FRAME G AND LENS/GASKET ASSEMBLY H/I BY REMOVING THE SIX FLATHEAD SCREWS J.
6. ATTACH LUMINAIRE TO THE MOUNTING RING E WITH THE TWO SCREWS REMOVED IN STEP 4 THROUGH THE LUMINAIRE FLANGE INTO THE THREADED BOSSES IN MOUNTING RING E.
7. TO ADJUST THE LIGHT DISTRIBUTION, LOOSEN SCREWS K AND L. NOW THE ANGLE OF ROTATION AND INCLINATION TO THE OBJECT TO BE ILLUMINATED MAY BE ADJUSTED. FIX POSITION BY TIGHTENING SCREWS K AND L.
8. ENSURE THE SEALING SURFACES OF THE LENS GASKET I AND LUMINAIRE ARE CLEAN AND FREE OF DEBRIS. PLACE THE LENS/GASKET ASSEMBLY INTO THE LUMINAIRE WHILE ALIGNING THE STUD ON THE TOP FLANGE OF THE HOUSING WITH THE CORRESPONDING HOLE IN THE GASKET. NOTE THAT THERE ARE RECESSES IN THE BOTTOM OF THE GASKET TO ACCOMMODATE THE SCREW HEADS USED IN STEP 6.
9. PLACE THE LENS FRAME G ON TOP OF THE GASKET/LENS ASSEMBLY AND FASTEN THE SIX FLAT HEAD SCREWS J IN A CRISS-CROSS PATTERN UNTIL ALL SIX ARE PROPERLY SEATED. REPEAT UNTIL A FINAL TORQUE OF 60 IN-LB (6.78NM) IS ACHIEVED.
10. IN LOCATIONS OF HIGH HUMIDITY, LEAVE THE SCREWS J UNTIGHTENED AND LIGHT THE FIXTURE FOR 30 MINUTES OR MORE TO ALLOW MOISTURE TO EVAPORATE. THEN TIGHTEN THE SCREWS AS DESCRIBED IN STEP 9.

## ETV100



## BLOCKOUT INSTALLATION:

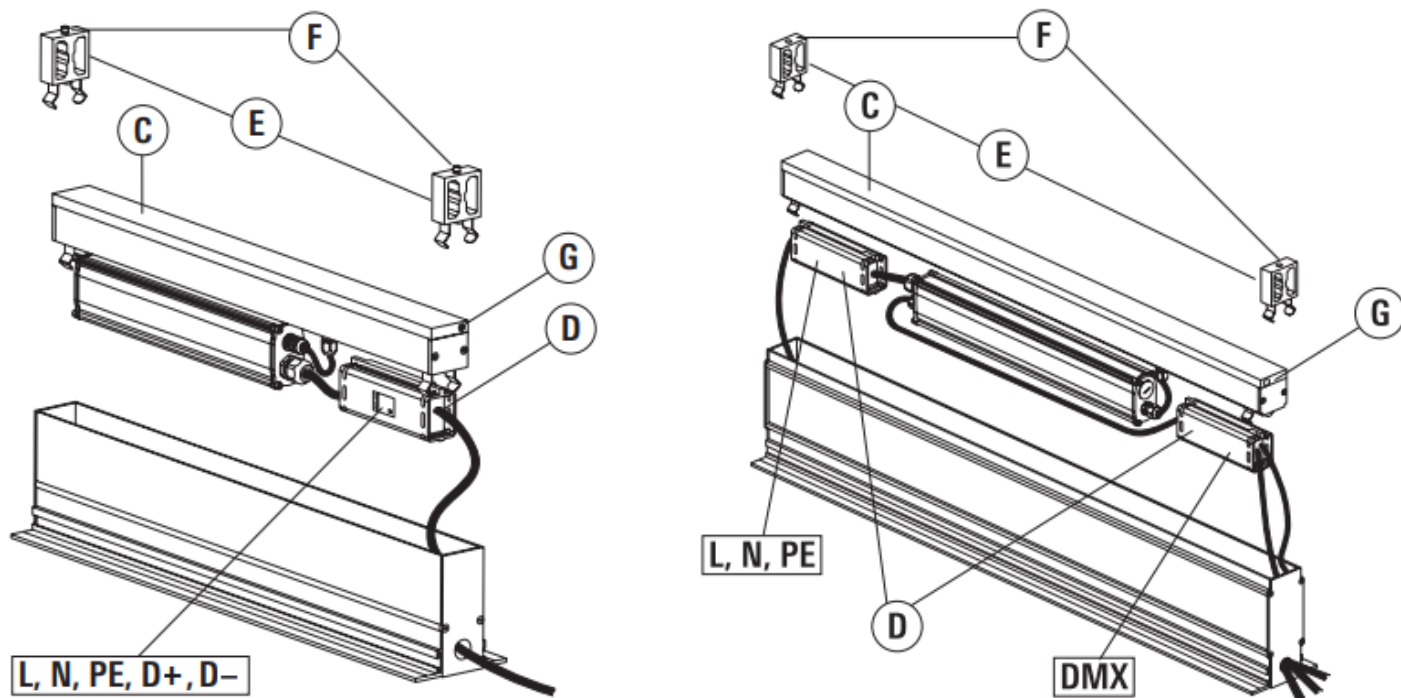
ATTENTION: PROVIDE PROPER DRAINAGE FOR APPLICATION, A **SOIL PERCOLATION TEST** SHOULD BE PERFORMED TO DETERMINE IF PROPER DRAINAGE IS PRESENT.

1. TAKE THE INSTALLATION COVER **A** OUT OF INSTALLATION BLOCKOUT **B**. LEAD THE CONNECTING CABLE THROUGH THE DRILLED HOLE IN SIDE OF BLOCKOUT.
2. PLACE THE CABLE AT THE BOTTOM AREA OF THE BLOCKOUT, THEN REPLACE THE COVER **A** ONTO THE BLOCKOUT **B**. THE BLOCKOUT NEEDS TO BE PLACED ON AN EVEN, STABLE AREA. THE TOP EDGE OF THE BLOCKOUT SHOULD BE FLUSH WITH THE SURFACE.

ATTENTION: IF THE FLOOR WILL BE TILED OR PAVED AFTERWARDS, LEAVE AN APPROPRIATE GAP.

3. IN CASE THE LUMINAIRE IS INSTALLED AT A LATER TIME, THE BLOCKOUT MUST BE COVERED BY INSTALLATION COVER **A**, TO MAKE SURE NO CONCRETE OR DIRT MAY ENTER THE LUMINAIRE.

THE INSTALLATION COVER ENSURES THAT THE BLOCKOUT IS NOT DAMAGED DURING MASONRY WORK AND NEEDS TO REMAIN INSIDE THE BLOCKOUT UNTIL INSTALLATION OF THE LUMINAIRE.

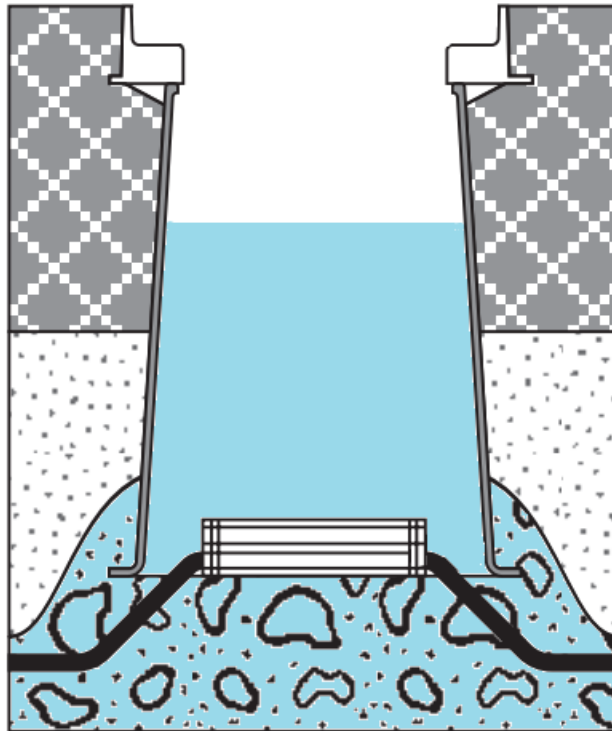


#### LUMINAIRE INSTALLATION:

1. SWITCH OFF MAINS ELECTRICAL SUPPLY.
2. THE LUMINAIRE IS FACTORY SEALED, OPENING THE LUMINAIRE IS NOT NECESSARY.
3. TAKE THE INSTALLATION COVER **A** OUT OF THE BLOCKOUT **B**.
4. CONNECT THE POWER SUPPLY CABLE **D** WITH CONNECTORS SUITABLE FOR WET LOCATIONS (UL486-D).
5. PLACE THE POWER CONNECTION CABLE **D** AND THE LUMINAIRE **C** INSIDE THE BLOCKOUT. MAKE SURE NO CABLE IS CLAMPED.
6. INSTALL THE END CAPS **E**.  
IN CASE THE SPACE FOR THE LUMINAIRE(S) IS NOT SUFFICIENT, YOU CAN REMOVE THE SILICONE BUFFERS **G**.

#### TO REMOVE THE LUMINAIRE:

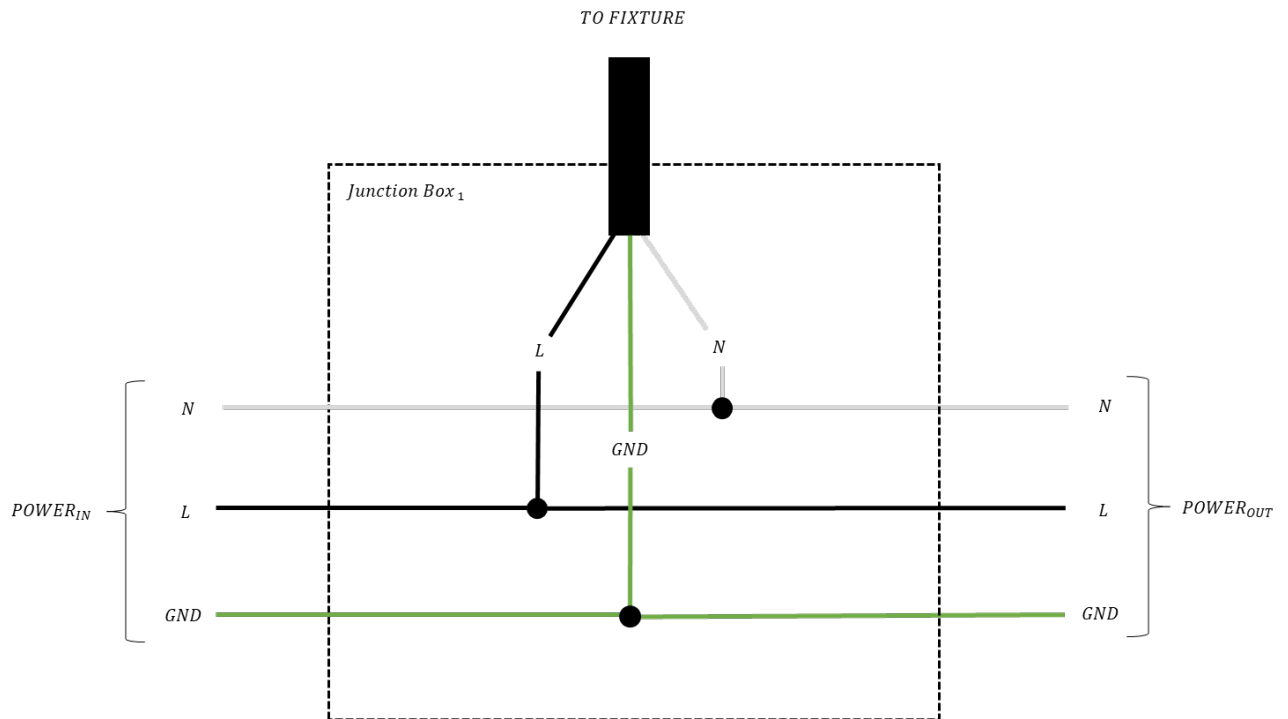
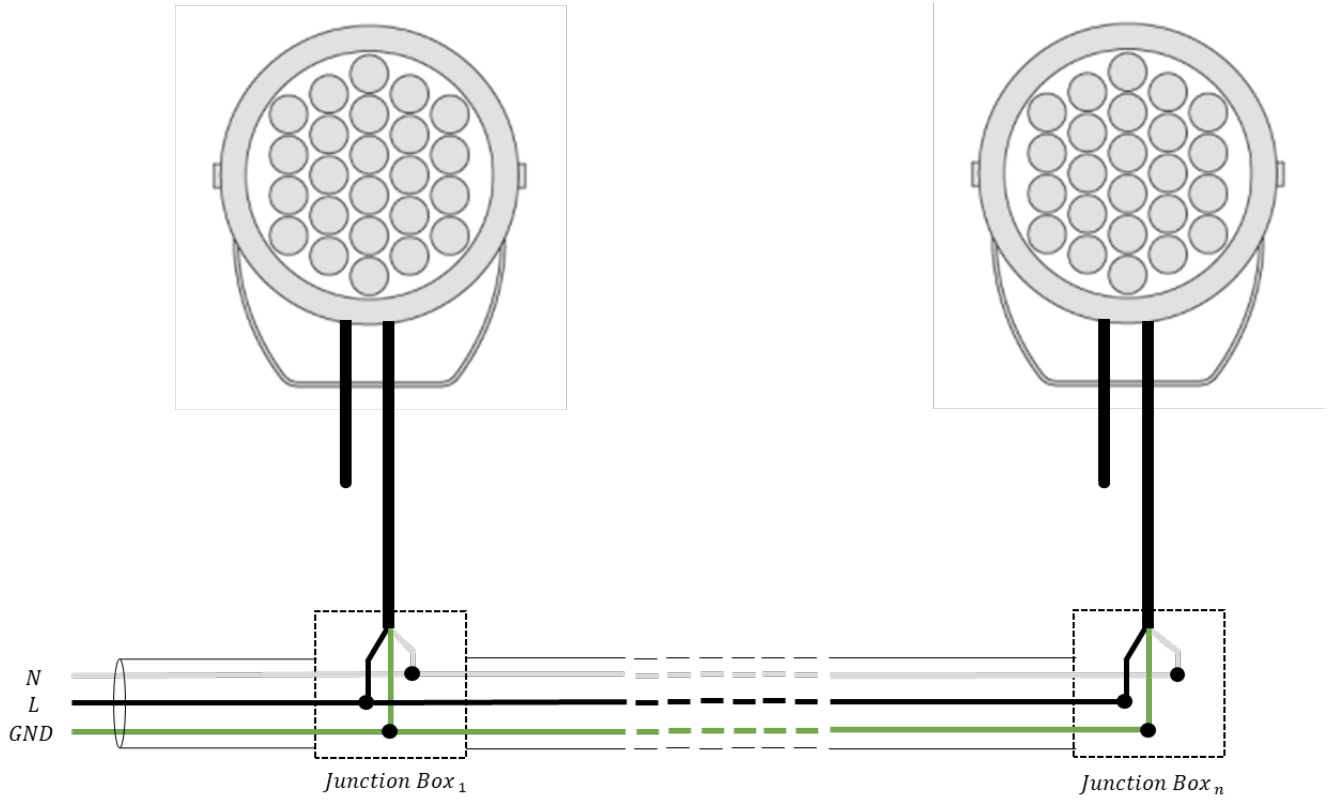
UNFASTEN THE SCREWS **F** OUT OF THE SPACER **E** UNTIL YOU CAN GRASP THEM TO PULL THE SPACERS OUT OF THE BLOCKOUT. THEN GRAB THE LUMINAIRE **C** BY OTHER END AND PULL OUT OF THE BLOCKOUT.

**SOIL PERCOLATION TEST**

1. TO DETERMINE YOUR SOIL DRAINAGE, FILL THE HOLE WITH WATER TO CONDITION THE SOIL.
2. ALLOW IT TO DRAIN, THEN REFILL IT 12 HOURS LATER AND TIME HOW LONG IT TAKES FOR THE WATER TO DRAIN.
3. IF THERE IS PROPER DRAINAGE, ALL THE WATER SHOULD DISSIPATE WITHIN 2-3 HOURS.

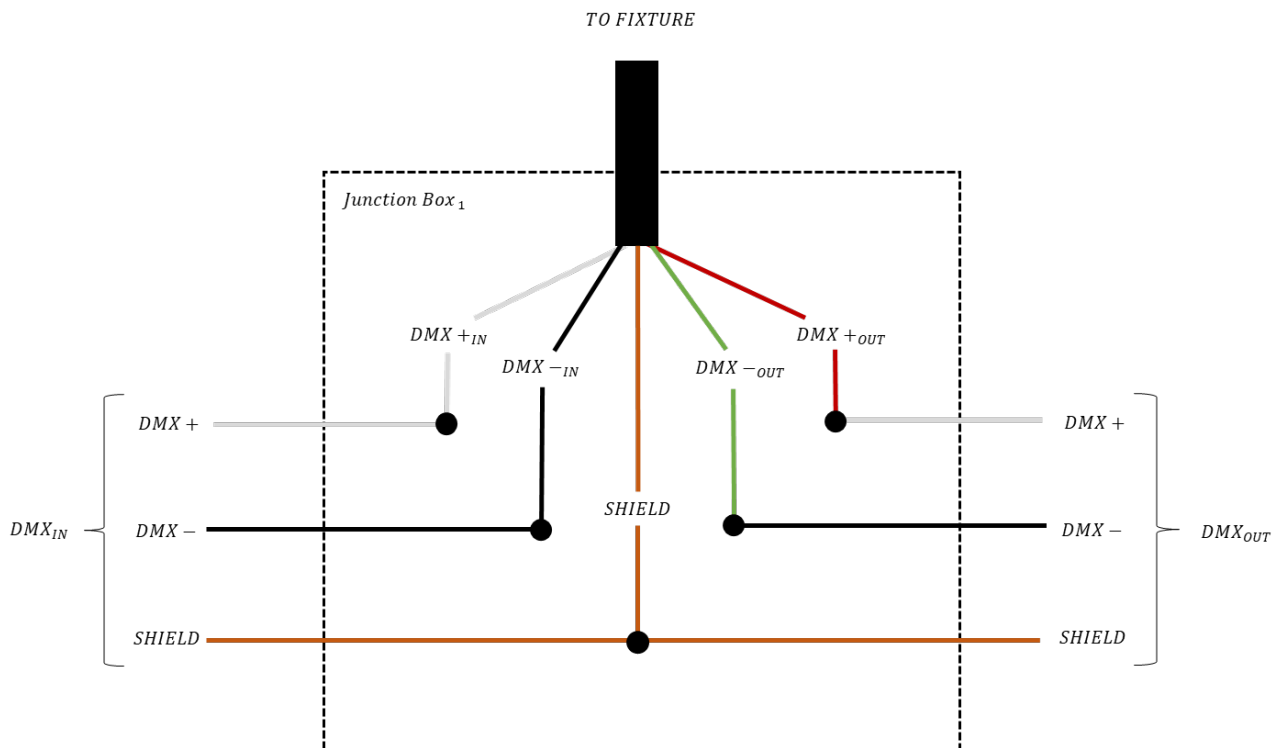
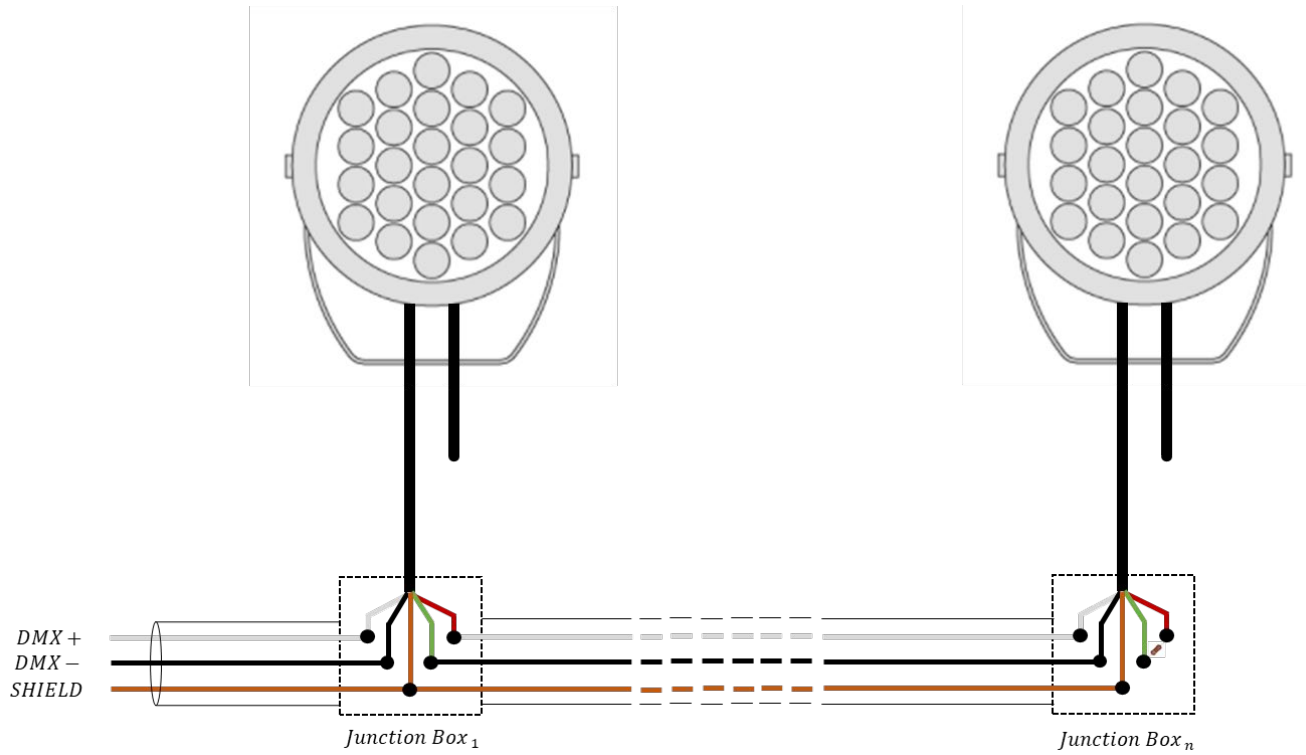
**FIXTURE WIRING**

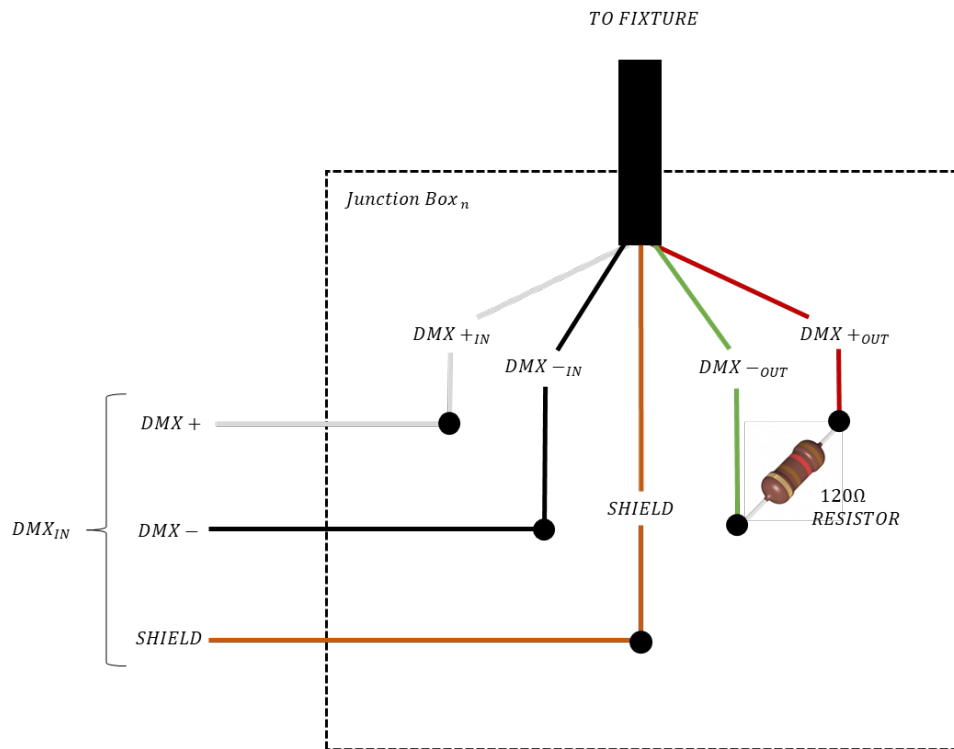
**POWER WIRING**





# DMX WIRING





**DMX COLOR CODE**

- DMX +IN → White
- DMX -IN → Black
- Shield → Clear
- DMX +OUT → Red
- DMX -OUT → Green



## RDM ADDRESSING

IT IS POSSIBLE TO RE-ADDRESS THE LUMINAIRES AFTER SHIPMENT FROM THE FACTORY VIA AN RDM CONTROLLER OR RDM ADDRESSING TOOL. ALL DEVICES ON THE DMX LINE MUST BE RDM CAPABLE TO ALLOW FOR ADDRESSING EN MASSE.

RDM ADDRESSING THROUGH PHAROS DMX CONTROLLER (PHAROS DESIGNER):

1. ENSURE THAT THE PROJECT IN DESIGNER HAS BEEN UPLOADED TO THE CONTROLLER.
2. OPEN THE PATCH MODE AND SELECT THE CONTROLLER THAT THE FIXTURES ARE CONNECTED TO.
3. SELECT THE DMX PORT THAT THE FIXTURES ARE CONNECTED TO.
4. PRESS THE DISCOVER ON PORT [X] BUTTON.
5. THIS WILL OPEN THE DISCOVERY DIALOG FROM WHERE YOU CAN INITIATE A DISCOVER. ONCE THE FIXTURES HAVE BEEN DISCOVERED, SEE THEIR MODE AND ADDRESS/IDENTIFY THEM.

RDM ADDRESSING THROUGH NICOLAUDIE DMX CONTROLLER (NICOLAUDIE RDM MANAGER):

1. OPEN RDM MANAGER WITH USB CONNECTION TO DMX CONTROLLER.
2. RDM MANAGER WILL AUTOMATICALLY DISCOVER YOUR INTERFACE, SELECT IT ON SCREEN.
3. YOU WILL SEE A LIST OF CONNECTED FIXTURES, YOU CAN PRESS THE BULB ICON TO BEACON THE FIXTURES. SELECT THE FIXTURE YOU WANT TO READDRESS.
4. CHANGE DMX ADDRESS AND PRESS SAVE.

RDM ADDRESSING THROUGH WE-EF WIRELESS TRANSCEIVER (LUMENRADIO SUPERNOVA):

1. OPEN SUPERNOVA WITH DIRECT ETHERNET CONNECTION TO TRANSMITTER.
2. PRESS DISCOVERY, ALL CONNECTED FIXTURES WILL POPULATE ON THE SOFTWARE.
3. DOUBLE CLICK ON ANY OF THE DRIVERS TO OPEN UP THE DETAILS FOR THAT FIXTURE. YOU CAN PRESS THE IDENTIFY BUTTON TO BEACON THE SELECTED FIXTURE.
4. TYPE IN THE DESIRED START ADDRESS UNDER THE DMX TAB AND CLOSE WINDOW.

RDM ADDRESSING THROUGH RDM CONTROLLER (CITY THEATRICAL DMXcat®):

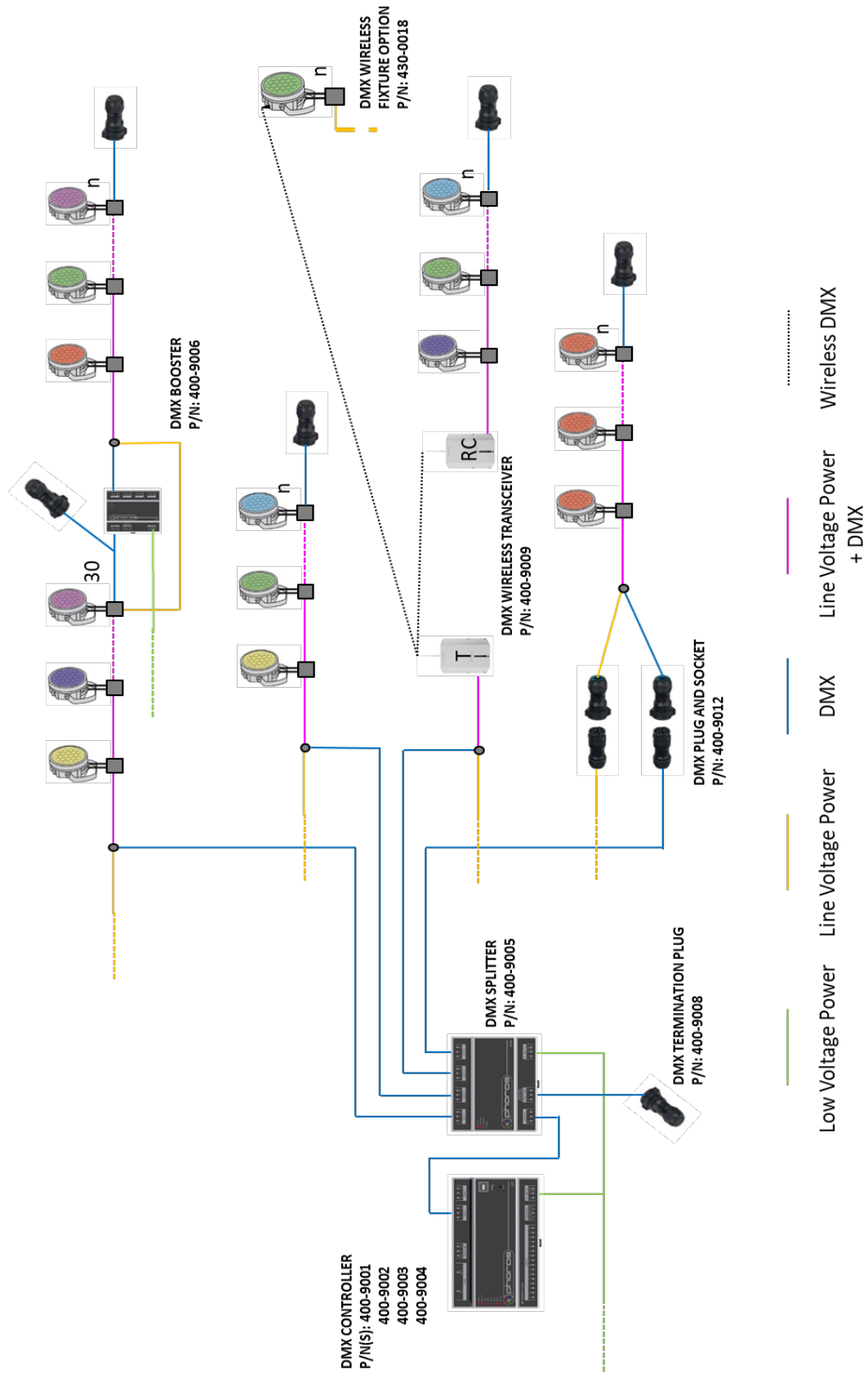
1. CONNECT DMXcat® TO DMX+/- IN LEADS USING A 5-PIN XLR ADAPTER. OPEN DMXcat® APP.
2. THE APP WILL AUTOMATICALLY SEARCH FOR ANY CONNECTED RDM COMPATIBLE FIXTURES
3. YOU CAN PRESS THE IDENTIFY BUTTON TO BEACON THE SELECTED FIXTURE.
4. SELECT THE RDM BUTTON ON THE DESIRED FIXTURE.
5. TYPE IN THE DESIRED DMX ADDRESS.

## SYSTEM WIRING

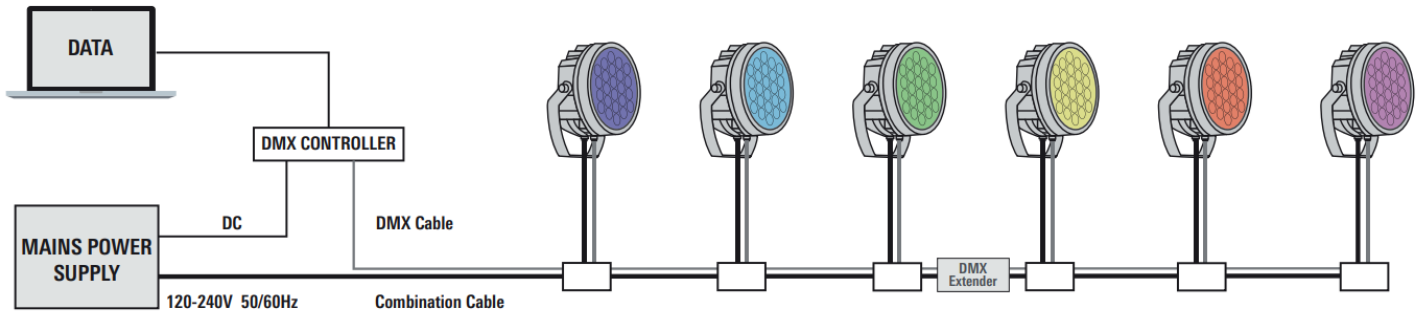
### DMX BEST PRACTICES

- A DMX UNIVERSE CONTAINS 512 CHANNELS ( ENOUGH FOR 128 INDIVIDUALLY ADDRESSED RGBW, 256 TUNABLE WHITE, OR 512 SINGLE-CHANNEL FIXTURES), PLAN ADDRESSES AND DMX LINES ACCORDINGLY.
- THE MAXIMUM DMX RUN LENGTH ALLOWABLE IS 1000FT ( 300M ).
- THE MAXIMUM AMOUNT OF FIXTURES ALLOWABLE ON A SINGLE DMX LINE IS 30. IF MORE FIXTURES ARE REQUIRED, A DMX BOOSTER SHOULD BE USED AFTER 31 FIXTURES.
- THE LAST FIXTURE IN A RUN, AS WELL AS ALL DMX SPLITTERS/BOOSTERS REQUIRE A 120Ω RESISTOR TO PREVENT DMX SIGNAL REFLECTIONS. THE RESISTOR IS PLACED BETWEEN THE DMX+/- OUT LEADS.
- USE PROPER DMX CABLE FOR WIRING IN-BETWEEN JUNCTION POINTS.
- ALL DEVICES ON A DMX LINE MUST BE RDM ( REMOTE DEVICE MANAGEMENT ) CAPABLE TO ALLOW FOR BI-DIRECTIONAL COMMUNICATION BETWEEN THE CONTROLLER AND LUMINAIRES.
- 'Y' LEADS OR DAISY-CHAIN CONNECTIONS ARE NOT ALLOWED BY THE USITT/PLASA STANDARD, ALL DMX CONNECTIONS SHOULD BE IN SERIAL AS SHOWN IN THE DMX WIRING DIAGRAM.

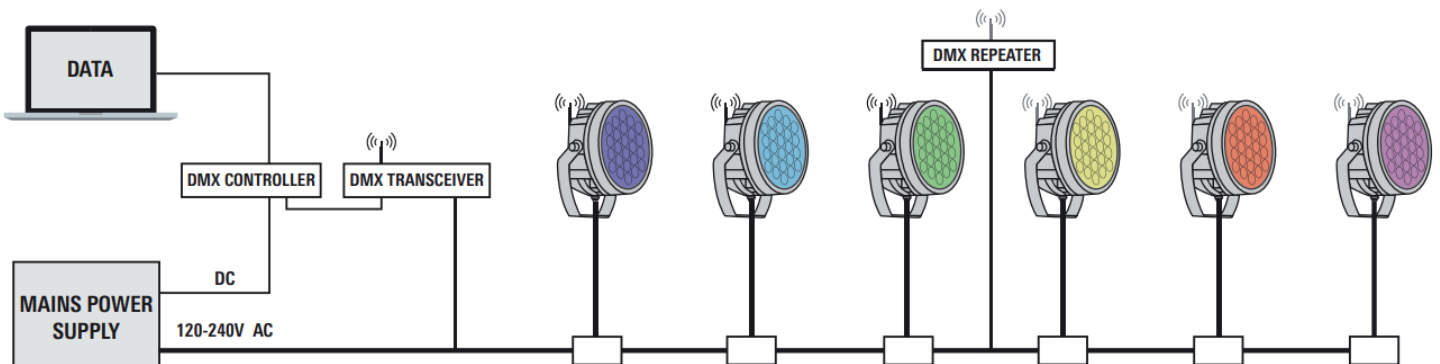
**SYSTEM WIRING EXAMPLE**



Max. distance 1000' / 32 luminaires.  
WE-EF recommends a DMX  
booster box from 330' / 25 luminaires.



Max. distance 1000'



## MAINTENANCE

APART FROM CLEANING THE PRODUCT'S EXTERIOR SURFACES, NO SPECIAL MAINTENANCE WORK IS REQUIRED.

ETC100-GB AND ETV100 FIXTURES ARE IP69K RATED TO WITHSTAND HIGH-PRESSURE CLEANERS.

DO NOT USE HIGH-PRESSURE CLEANERS ON FLC200 FLOODLIGHT FIXTURES.

PROTECT OUR ENVIRONMENT: DISCARD USED LEDs IN COMPLIANCE WITH THE MOST RECENT ENVIRONMENTAL LEGISLATION.

# DMX FUNCTIONALITY

## FIXTURE FUNCTIONALITY

FIXTURE TYPE	CHANNEL	STEPS	FUNCTION
RGBW	1	0 - 255	RED 0% – 100%
	2	0 - 255	GREEN 0% – 100%
	3	0 - 255	BLUE 0% – 100%
	4	0 - 255	WHITE 0% – 100%
RGBA	1	0 - 255	RED 0% – 100%
	2	0 - 255	GREEN 0% – 100%
	3	0 - 255	BLUE 0% – 100%
	4	0 - 255	AMBER 0% – 100%
TUNABLE WHITE	1	0 - 255	WARM WHITE 0% – 100%
	2	0 - 255	COOL WHITE 0% – 100%
1-CHANNEL COLOR	1	0 - 255	0% – 100%
1-CHANNEL WHITE	1	0 - 255	0% – 100%

## STANDARD PROGRAMMING

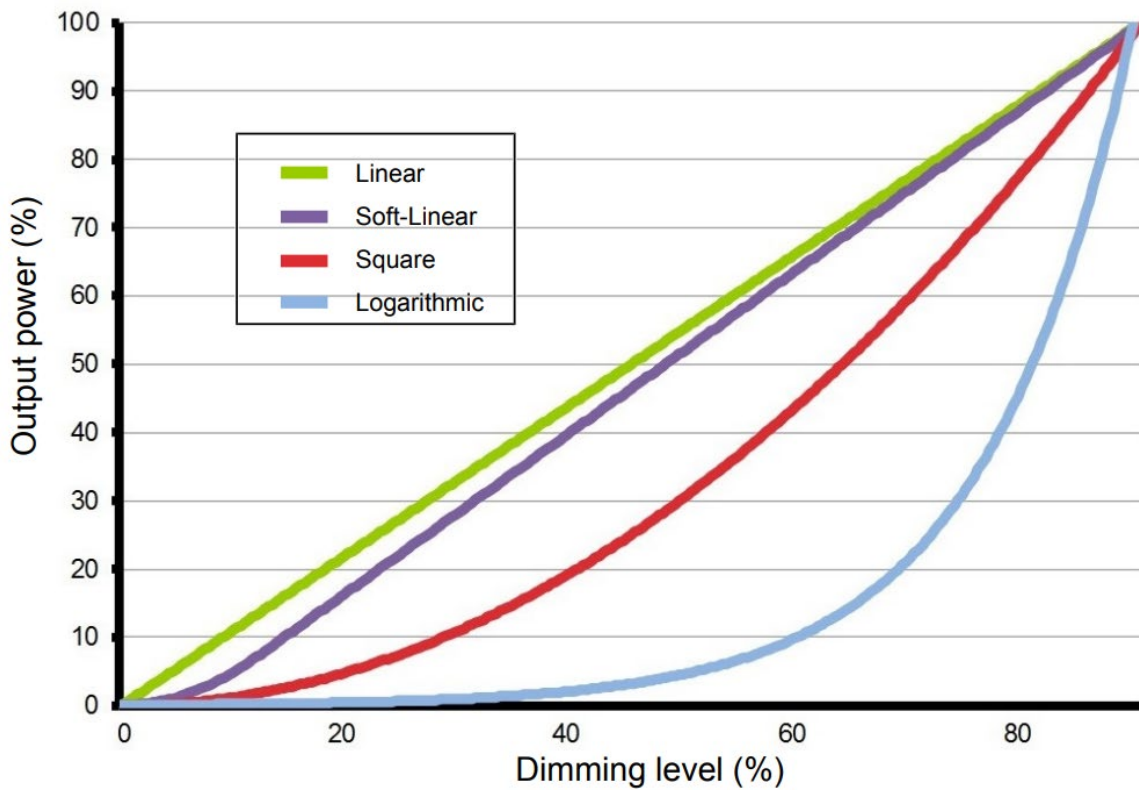
SETTING	RGBW/RGBA	TUNABLE WHITE	1-CHANNEL COLOR/WHITE
FAILURE MODE	RETAIN LAST VALUE	RETAIN LAST VALUE	RETAIN LAST VALUE
SCENE 1 OUTPUT 1	255	255	255
SCENE 1 OUTPUT 2	255	255	255
SCENE 1 OUTPUT 3	255	255	255
SCENE 1 OUTPUT 4	255	255	255
SCENE 2 OUTPUT 1	51	51	51
SCENE 2 OUTPUT 2	51	51	51
SCENE 2 OUTPUT 3	51	51	51
SCENE 2 OUTPUT 4	51	51	51
STARTUP MODE	GO TO SCENE 1	GO TO SCENE 1	GO TO SCENE 1
DIMMING CURVE	LINEAR	LINEAR	LINEAR
INTERPOLATION	COLOUR	COLOUR	COLOUR
GROUP 1 CHANNEL MAPPING	1	1	1
GROUP 2 CHANNEL MAPPING	2	2	1
GROUP 3 CHANNEL MAPPING	3	1	1
GROUP 4 CHANNEL MAPPING	4	2	1
NETWORK CHANNEL COUNT	4	2	1
NETWORK RESOLUTION	8-BIT	8-BIT	8-BIT
NETWORK START ADDRESS	1	1	1



### SETTINGS DEFINITIONS

UPON REQUEST, ANY OF THE SETTING MENTIONED CAN BE FACTORY MODIFIED PER THE CUSTOMER'S REQUEST:

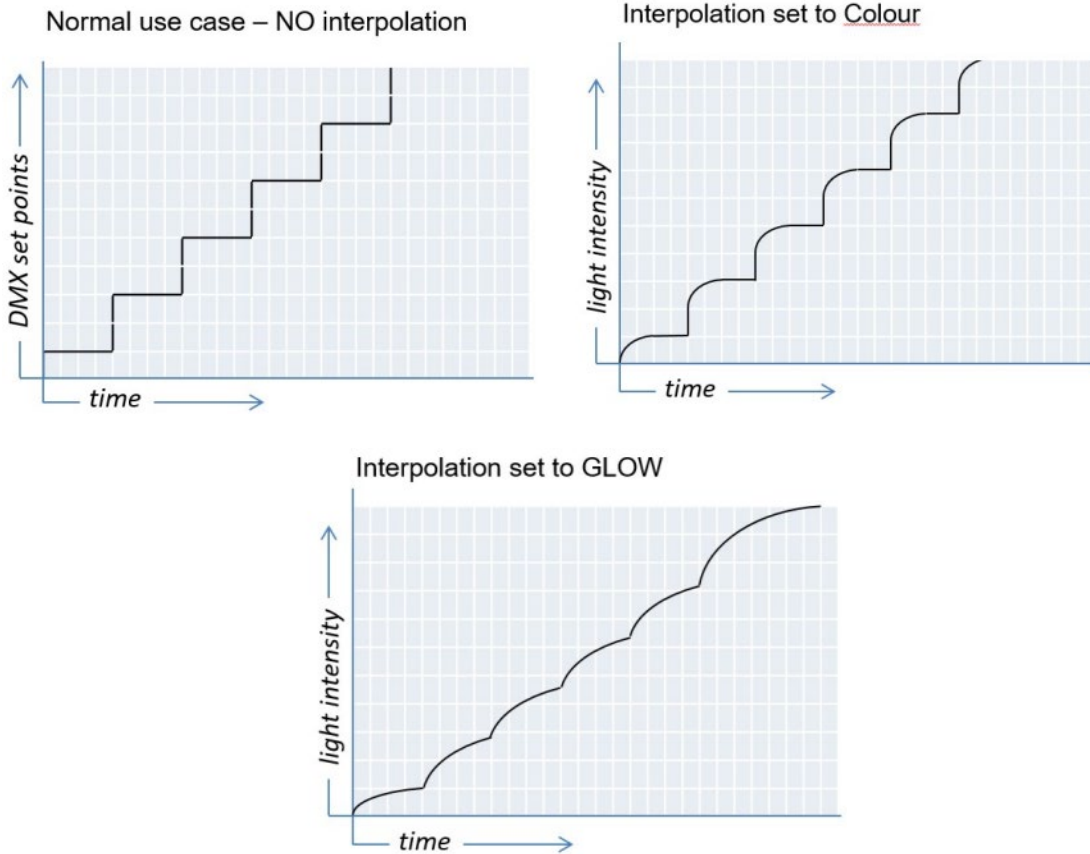
FAILURE MODE	BEHAVIOR OF THE FIXTURE IN ABSENSE OF ANY DMX SIGNAL OPTIONS: GO TO SCENE 1 , GO TO SCENE 2 , RETAIN LAST VALUE
SCENE 1 OUTPUT 1-4	DEFINES THE SCALING FOR SCENE 1 PROGRAMMABLE FROM 0-255
SCENE 2 OUTPUT 1-4	DEFINES THE SCALING FOR SCENE 2 PROGRAMMABLE FROM 0-255
STARTUP MODE	BEHAVIOR OF THE FIXTURE UPON FIRST STARTUP OPTIONS: GO TO SCENE 1 , GO TO SCENE 2 , RETAIN LAST VALUE
DIMMING CURVE	DEFINES THE DIMMING BEHAVIOR OPTIONS: LINEAR , LOGARITHMIC , SOFT-LINEAR , SQUARE



DEFINES THE INTERPOLATION BETWEEN SETPOINT CHANGES  
 OPTIONS:

INTERPOLATION

- OFF: NO INTERPOLATION USED
- VIDEO: LOWEST LEVEL OF INTERPOLATION
- COLOUR: DEFAULT INTERPOLATION, MEDIUM
- WHITE: HIGH INTERPOLATION
- GLOW: HIGHEST LEVEL OF INTERPOLATION



GROUP 1-4 CHANNEL MAPPING	SPECIFIES TO WHICH DMX ADDRESS OR "CHANNEL" EACH LED OUTPUT IS TIED TO OPTIONS: 1 , 2 , 3 , 4
NETWORK CHANNEL COUNT	SPECIFIES HOW MANY DMX CHANNELS ARE BEING USED, AIDING IN RDM DISCOVERY OF DMX ADDRESSES OPTIONS: 1 , 2 , 3 , 4
NETWORK RESOLUTION	DEFINES THE DIMMING RESOLUTION USED OPTIONS: 8-BIT ( 255 STEPS ) , 16-BIT ( 65536 STEPS )
NETWORK START ADDRESS	DEFINES THE FIRST DMX ADDRESS OF THE DRIVER PROGRAMMABLE FROM 1-512

# ACCESSORIES

## CONTROLS

### WIRED CONTROLS

400-9001/400-9003/400-9004 DMX CONTROLLERS



IP20. DIN RAIL SYSTEM. DESIGNED FOR EITHER LIVE OR STAND-ALONE CONTROL. IT FEATURES EITHER SINGLE DMX UNIVERSE (400-9001/400-9004) OR UP TO FOUR DMX UNIVERSE (400-9003) CONTROL. INCLUDES 128K FLASH MEMORY FOR STORING STAND-ALONE PROGRAMS. ETHERNET INPUT FOR EASY NETWORK INTEGRATION AND REMOTE CONTROL.

400-9004 4.3" PROGRAMMABLE TOUCHSCREEN DMX CONTROLLER COMES WITH EXT DEVICE TO ALLOW FOR LINE VOLTAGE WIRING AND INCLUDES SENSOR INPUTS AND DEFINED DMX/DALI OUTPUTS FOR EASIER WIRING. THE SCREEN IS COMPLETELY CUSTOMIZABLE TO MEET CUSTOMER CONTROL REQUIREMENTS.

LINKS:

DATA SHEETS:

400-9001/400-9003:

[https://dl.pharoscontrols.com/documentation/datasheets\\_specifications/Pharos\\_LPC\\_Datasheet\\_v3.pdf](https://dl.pharoscontrols.com/documentation/datasheets_specifications/Pharos_LPC_Datasheet_v3.pdf)

400-9004:

[https://dl.pharoscontrols.com/documentation/datasheets\\_specifications/Pharos\\_TPC\\_Datasheet\\_v3.pdf](https://dl.pharoscontrols.com/documentation/datasheets_specifications/Pharos_TPC_Datasheet_v3.pdf)

[https://dl.pharoscontrols.com/documentation/datasheets\\_specifications/Pharos\\_EXT\\_Datasheet\\_v3.pdf](https://dl.pharoscontrols.com/documentation/datasheets_specifications/Pharos_EXT_Datasheet_v3.pdf)

PROGRAMMING SOFTWARE: [HTTPS://WWW.PHAROSCONTROLS.COM/DOWNLOADS/SOFTWARE/DESIGNER-2/](https://www.pharoscontrols.com/downloads/software/designer-2/)

PHAROS CONTROLLER USER MANUAL: [HTTPS://WWW.PHAROSCONTROLS.COM/DOWNLOADS/DOCUMENTATION/MANUALS/](https://www.pharoscontrols.com/downloads/documentation/manuals/)

SYSTEM WIRING DIAGRAMS: [HTTPS://WWW.PHAROSCONTROLS.COM/DOWNLOADS/DOCUMENTATION/WIRING-DIAGRAMS/](https://www.pharoscontrols.com/downloads/documentation/wiring-diagrams/)

400-9002 DMX CONTROLLER



IP20. INTUITIVE AND EASY-TO-USE KEYPAD WITH SINGLE DMX UNIVERSE CONTROL. CAN STORE UP TO 36 SCENES; ALTERNATIVELY, VIA COLOR WHEEL SELECTION, ONE OF MORE THAN 16 MILLION COLORS CAN BE SELECTED. DIMMING AND SATURATION FUNCTIONS ARE ALSO INCLUDED. EQUIPED WITH MICRO SD CARD SLOT. WIFI ENABLED AND ETHERNET INPUT FOR EASY NETWORK INTEGRATION AND REMOTE CONTROL. INCLUDES POWER SUPPLY. RECOMMENDED FOR UP TO 50 LUMINAIRES.

LINKS:

DATA SHEET: [https://storage.googleapis.com/nicolaudie-us-litterature/Release/stick\\_cw4\\_datasheet\\_en.pdf](https://storage.googleapis.com/nicolaudie-us-litterature/Release/stick_cw4_datasheet_en.pdf)

PROGRAMMING SOFTWARE: [HTTPS://WWW.NICOLAUDIE.COM/EN/ESA2](https://www.nicolaudie.com/en/esa2)

REMOTE CONTROL APPLICATION: [HTTP://WWW.NICOLAUDIE.COM/EN/ARCOLIS-REMOTE](http://www.nicolaudie.com/en/arcolis-remote)

400-9005/400-9006 DMX SPLITTER/BOOSTER

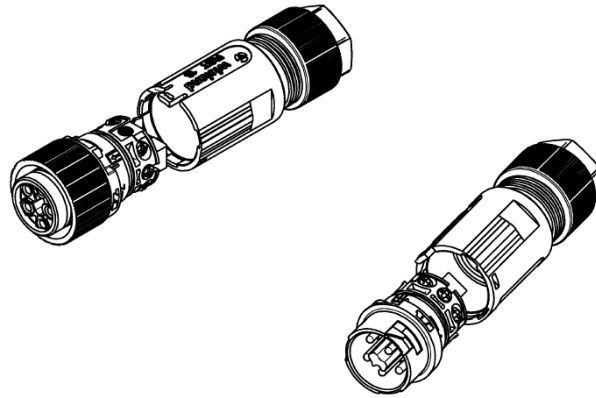


IP20. DIN RAIL SYSTEM. TAKES THE DMX SIGNAL AND SPLITS INTO MAXIMUM OF 4 DMX LINES BY COPYING DATA STREAM. THE SPLITTER ISOLATES THE SIGNAL, RELIABLY BLOCKING FAULTS. THE SPLITTER ALOS AMPLIFIES THE SIGNAL TO FULL STRENGTH, ACTING AS A DMX BOOSTER AS WELL. RDM READY. INCLUDES POWER SUPPLY.

400-9008 DMX TERMINATION PLUG

IP68. SUITABLE FOR SHIELDED COMBINATION CABLE, 5-CONDUCTORS, 24-14AWG. 120Ω RESISTOR PRE-WIRED BETWEEN L/N INPUTS. TO TERMINATE, CONNECT DMX+/- OUT LEADS FROM LAST FIXTURE IN DMX LINE TO L/N CONNECTORS ON OPEN END OF DMX TERMINATION PLUG, THEN TIGHTEN CORD GRIP TO PREVENT WATER INFILTRATION.

400-9012 DMX PLUG AND SOCKET



IP68. SUITABLE FOR SHIELDED COMBINATION CABLE, 5-CONDUCTORS, 24-14AWG. FOR INSTALLATION IN SOIL, WATER, AND CONCRETE; SUITABLE PROTECTION MUST BE PROVIDED.

400-9013 DMX COMBINATION CABLE



FLEXIBLE CABLE FOR DMX AND POWER SUPPLY. 3 X 14AWG + 2 X 1AWG WITH SHIELD WIRE. OUTER SHEATH PVC. SUITABLE FOR EXTERIOR USE. FOR INSTALLATION IN SOIL, WATER, AND CONCRETE; SUITABLE PROTECTION MUST BE PROVIDED. Ø0.795" OVERALL ASSEMBLY DIAMETER.

## **WIRELESS CONTROLS**

400-9009/400-9010 DMX WIRELESS TRANSCEIVER/REPEATER



IP67. WIRELESS TRANSMISSION OF DMX SIGNAL UP TO 1000FT. 2.4GHz SIGNAL WITH MAXIMUM OUTPUT OF 100mW.

CAN BE CONFIGURED AS A TRANSMITTER, REPEATER, OR RECEIVER AS REQUIRED.

CONNECTION TERMINALS MAX 13AWG 85-264VAC/47-70HZ/3W.

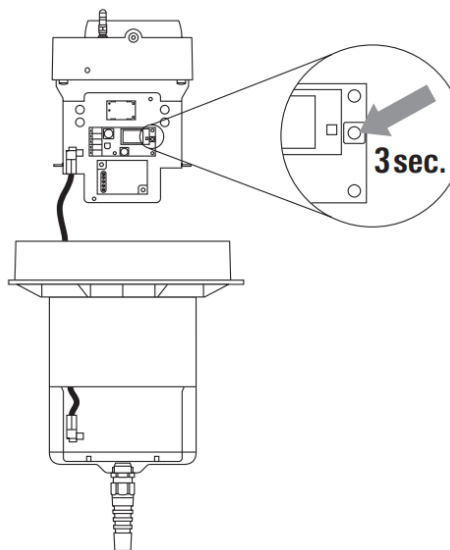
LINKS:

DATA SHEET: [https://lumenradio.com/wp-content/uploads/2021/08/CRMX\\_outdoor\\_specifications.pdf](https://lumenradio.com/wp-content/uploads/2021/08/CRMX_outdoor_specifications.pdf)

QUICK-START GUIDE: [https://lumenradio.com/wp-content/uploads/2021/08/CRMX\\_Outdoor\\_Quick\\_Start\\_Guide.pdf](https://lumenradio.com/wp-content/uploads/2021/08/CRMX_Outdoor_Quick_Start_Guide.pdf)

PROGRAMMING SOFTWARE: [https://lumenradio.com/support/?protocol=wireless-dmx&post\\_id=1893](https://lumenradio.com/support/?protocol=wireless-dmx&post_id=1893)

430-0018 DMX WIRELESS OPTION



MODIFICATION FOR LUMINAIRE FOR WIRELESS DMX DATA TRANSMISSION. CONSISTS OF AN INEGRAL UL LISTED WIRELESS RECEIVER CARD WITH 1.8dBi ANTENNA. WORKS WITH DMX WIRELESS TRANSCEIVER/REPEATER.

MANUAL UNSYNCING FROM WIRELESS TRANSCEIVER CAN BE PERFORMED BY PRESSING AND HOLDING BUTTON ON RADIO CARD SHOWN ABOVE FOR THREE SECONDS AND WAITING FOR RADIO CARD INDICATOR LEDs TO BECOME UNILLUMINATED.

**CONTROL PROGRAMMING AND COMMISSIONING SUPPORT**

WE-EF OFFERS CONTROL PROGRAMMING SERVICE AS WELL AS COMMISSIONING SUPPORT.

FOR QUOTATION, CONTACT YOUR WE-EF SALES REPRESENTATIVE.

**INGROUNDS**

**SJB130 SEALABLE JUNCTION BOX**

THE SJB130 SEALABLE JUNCTION BOX IS A REUSEABLE GEL-FILLED TERMINATION COMPARTMENT THAT CAN OFFER ADDITIONAL PROTECTION AGAINST WATER INFILTRATION.

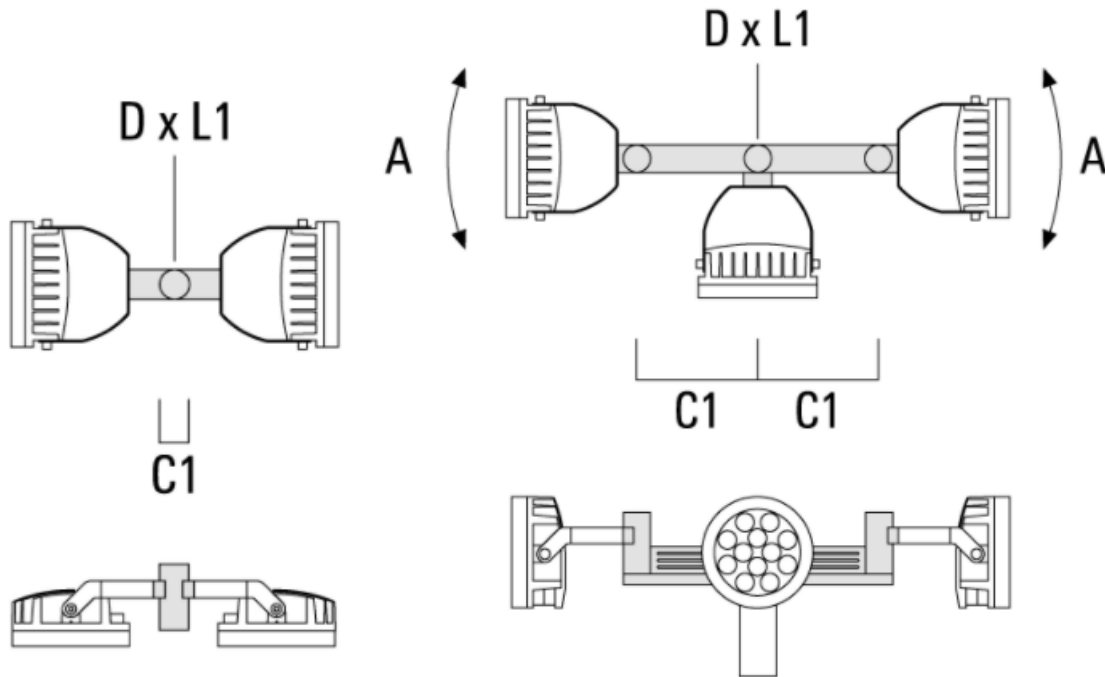


1. STRIP CONNECTION CABLES SO THAT LEADS ARE APPROXIMATELY 3" IN LENGTH.
2. STRIP THE INDIVIDUAL LEADS SO THAT THERE IS APPROXIMATELY 1/2" OF COPPER WIRING EXPOSED.
3. TWIST THE CORRESPONDING WIRES TOGETHER AND WIRE NUT THEM USING UL486-D WIRE NUTS PROVIDED.
4. PLACE THE TERMINATION NEATLY INSIDE THE SEALABLE JUNCTION BOX

5. FIRMLY PRESS THE BOX CLOSED UNTIL THE PLASTIV TABS CLICK INTO PLACE.
6. ZIP-TIE THE CORNERS OF THE BOX TO PREVENT THE ACCIDENTAL OPENING OF THE JUNCTION BOX

**FLC200**

TA FLOODLIGHT MOUNTING BRACKET



1. MOUNT FIXTURES TO BRACKET USING PROVIDED HARDWARE. FEED CABLE THROUGH CORD GRIP AND RETIGHTEN.
2. INSERT CABLE INTO POLE. SLIP BRACKET OVER MATING POLE TOP TENON **D x L1**.
3. TIGHTEN SET SCREWS AROUND SLIP FITTER TO FASTEN TO POLE TOP TENON.
4. FIXTURES CAN BE ROTATED AS SHOWN **A** ON SOME TA BRACKETS BY LOOSENING THE SET SCREWS NEAR MOUNTING POSITION, ROTATING THE FIXTURE MOUNT SLIP FITTER AND RETIGHTENING AFTER SETTING POSITION.



PLANTED ROOT/EM SHORT POST



1. FASTEN FIXTURE TO SHORT POST USING PROVIDED MOUNTING BOLT AND WASHERS.
2. FEED POWER CABLE THROUGH CORD GRIP ON SHORT POST AND TIGHTEN.
3. **IF USING PLANTED ROOT**

INSERT PLANTED ROOT INTO SOFTSCAPE, FEEDING INPUT POWER CABLE THROUGH THE HANDHOLE IN POST.

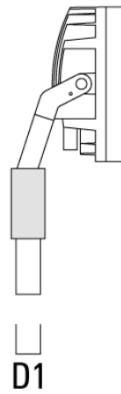
4. MAKE POWER CONNECTIONS.
5. FASTEN SHORT POST TO GROUND OR DIRECTLY TO SHORT POST.

TS POLE CLAMP



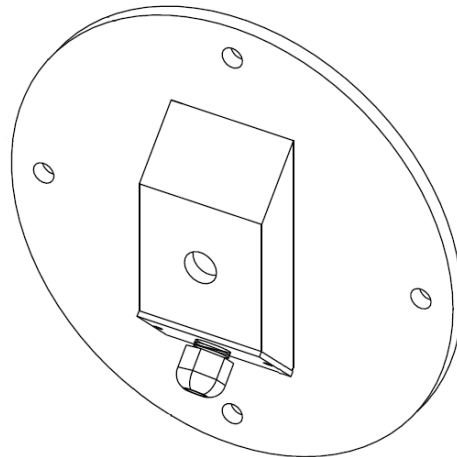
1. MOUNT FIXTURE(S) TO CLAMP USING PROVIDED HARDWARE.
2. LOOSEN CLAMP BOLTS AND PLACE CLAMP AROUND POLE AT DESIRED HEIGHT. REFASTEN CLAMP BOLTS.
3. FEED POWER CABLE THROUGH POLE.

KF POLE TOP CAP



1. MOUNT FIXTURE TO SLIP FITTER USING PROVIDED HARDWARE. FEED CABLE THROUGH CORD GRIP AND RETIGHTEN.
2. INSERT CABLE INTO POLE. SLIP BRACKET OVER MATING TENON **D1**.
3. TIGHTEN SET SCREWS AROUND SLIP FITTER TO FASTEN TO TENON.

SMC SURFACE MOUNT CANOPY

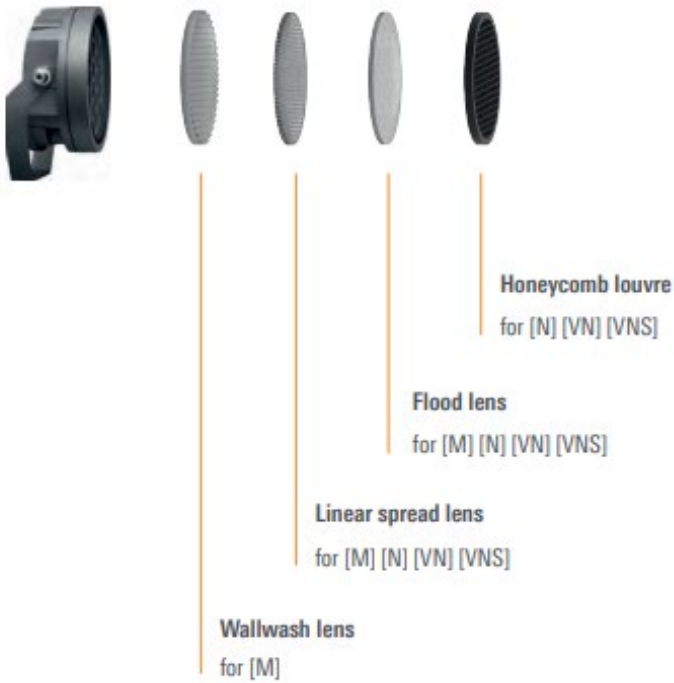


1. MOUNT FIXTURE TO SLIP FITTER USING PROVIDED HARDWARE. FEED CABLE THROUGH CORD GRIP AND RETIGHTEN.
2. MOUNT FIXTURE YOKE TO SURFACE MOUNT CANOPY USING PROVIDED HARDWARE.
3. MAKE POWER TERMINATION.
4. INSTALL SURFACE MOUNT CANOPY OVER RECESSED JUNCTION BOX.

OPTICAL ACCESSORIES

**Internal optical accessories**

Max. 1 internal accessory



**External optical accessories**

Max. 1 external accessory



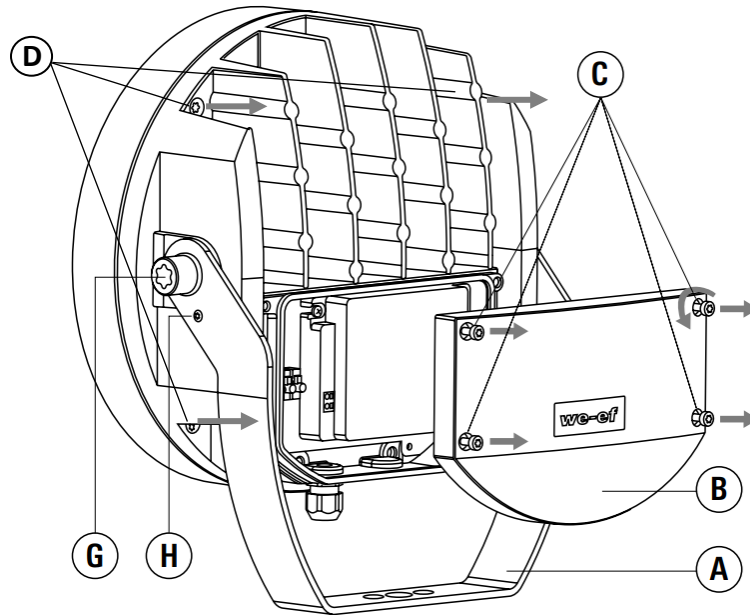
**FLC200**

Fitted with optional glare shield; provides cut-off glare control in one plane only; alignable in 90° steps



**FLC200**

Fitted with optional snoot; provides cut-off glare control in all planes; recommended for downward aiming only



**INTERNAL OPTICAL ACCESSORY MOUNTING**

1. REMOVE DRIVER COMPARTMENT COVER **B** BY UNFASTENING MOUNTING SCREWS **C**.
2. REMOVE FRAME BY UNFASTENING MOUNTING SCREWS **D**.
3. INSERT OPTICAL ACCESSORY INTO LENS HOLDER.
4. REPLACE FRAME AND DRIVER COMPARTMENT COVER.

**EXTERNAL OPTICAL ACCESSORY MOUNTING**

( STEPS 1-3 REQUIRED ONLY IF ACCESSORY MOUNTING FRAME NOT INSTALLED BY FACTORY )

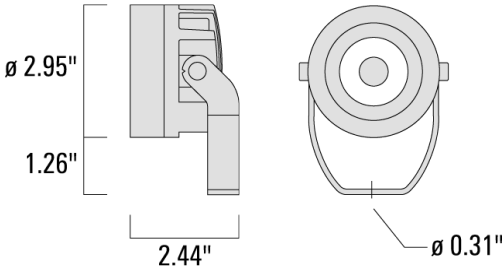
1. REMOVE DRIVER COMPARTMENT COVER **B** BY UNFASTENING MOUNTING SCREWS **C**.
2. REMOVE FRAME BY UNFASTENING MOUNTING SCREWS **D**.
3. REPLACE FRAME WITH PROVIDED EXTERNAL ACCESSORY FRAME (WITH 4 THREADED HOLES FOR EXTERNAL MOUNTING) AND DRIVER COMPARTMENT COVER.
4. MOUNT EXTERNAL ACCESSORY TO FRAME USING 4 PROVIDED MOUNTING SCREWS.

# TROUBLESHOOTING

PROBLEM	CAUSE(S)	SOLUTION
FIXTURE IS NOT LIT	NO POWER TO FIXTURE	CHECK POWER SOURCE AND CONNECTIONS
	CONTROLLER IS PUTTING OUT A LIGHT LEVEL OF 0	CHECK THAT THE CONTROLLER IS OUTPUTTING THE DESIRED LIGHT OUTPUT
		CHECK THAT THE DMX ADDRESSING IS CORRECT
FIXTURE IS NOT RESPONDING TO DMX SIGNAL	NO DMX SIGNAL	CONTACT WE-EF TECHNICAL SUPPORT FOR ASSISTANCE
	DAMAGED OR INCORRECT DMX WIRING	CHECK DMX CONTROLLER IS OUTPUTTING DMX SIGNAL
	INCORRECT DMX ADDRESS	CHECK DMX CONNECTIONS
	DEFECTIVE FIXTURE	CHECK THAT DMX ADDRESSING IS CORRECT
FIXTURE IS RESPONDING INCORRECTLY TO DMX SIGNAL	INCORRECT DMX ADDRESS	CONTACT WE-EF TECHNICAL SUPPORT FOR ASSISTANCE
		CHECK THAT DMX ADDRESSING IS CORRECT
FIXTURE IS FLASHING	MISSING DMX TERMINATOR AT END OF LINE	ADD 120Ω RESISTOR AS SUGGESTED IN BEST PRACTICES
	DAMAGED OR INCORRECT DMX WIRING	CHECK DMX CONNECTIONS
	DEFECTIVE FIXTURE	CONTACT WE-EF TECHNICAL SUPPORT FOR ASSISTANCE

# SPECIFICATIONS

**FLC201-TW**

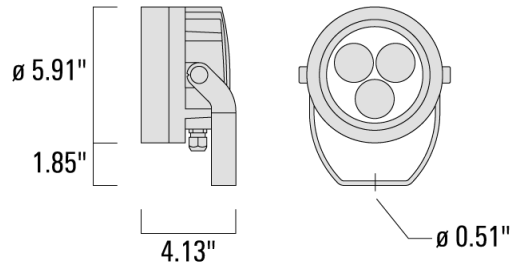


BEAM ANGLES:

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
139-2450	WIDE [W]	54.8°	348.1LM	1LED 4W 2700-6000K
139-2451	MEDIUM [M]	30.2°	351.7LM	1LED 4W 2700-6000K
139-2452	NARROW [N]	16.0°	358LM	1LED 4W 2700-6000K

- CRI: 80
- BODY: MARINE-GRADE, DIE-CAST ALUMINIUM ALLOY
- EPA: 0.065 $FT^2$
- WEIGHT: 1.10LB
- FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE
- COLORS: RAL9004 BLACK , RAL9007 GREY METALLIC , RAL9016 WHITE , RAL8019 DARK BRONZE  
CUSTOM RALs UPON REQUEST
- GASKET: CCG® SILICONE RUBBER GASKET
- IMPACT PROTECTION: IK07
- INGRESS PROTECTION: IP66
- LENS: SAFETY GLASS LENS
- CORROSION PROTECTION: 5CE
- LISTINGS: PENDING ETL, UL1598 CERTIFICATION
- POWER FACTOR: >0.9
- POWER SUPPLY: REMOTE POWER SUPPLY , DETAILS IN ACCESSORIES
- SURGE PROTECTION: 2.5kV
- LIFETIME: 25°/40° L90 B10>90000H

**FLC210-CC/TW**



BEAM ANGLES:

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
139-2408	WIDE [W]	54.8°	771.9LM	3LED 12W RGBW
139-2410	WIDE [W]	54.8°	624.3LM	3LED 12W RGBA
139-2411	MEDIUM [M]	30.2°	771.9LM	3LED 12W RGBW
139-2413	MEDIUM [M]	30.2°	624.3LM	3LED 12W RGBA
139-2417	WIDE [W]	54.8°	624.3LM	3LED 11W 2700-6000K
139-2418	MEDIUM [M]	30.2°	630.8LM	3LED 11W 2700-6000K
139-2419	NARROW [N]	16.0°	642.1LM	3LED 11W 2700-6000K

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: MARINE-GRADE, DIE-CAST ALUMINIUM ALLOY

EPA: 0.194 $FT^2$

WEIGHT: 8.80LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

COLORS: RAL9004 BLACK , RAL9007 GREY METALLIC , RAL9016 WHITE , RAL8019 DARK BRONZE

CUSTOM RALs UPON REQUEST

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK07

INGRESS PROTECTION: IP66

LENS: SAFETY GLASS LENS

CORROSION PROTECTION: 5CE

LISTINGS: PENDING ETL, UL1598 CERTIFICATION

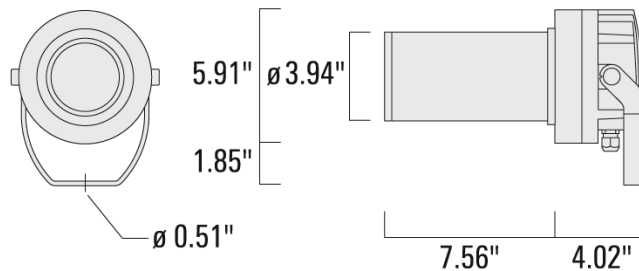
POWER FACTOR: >0.9

POWER SUPPLY: REMOTE POWER SUPPLY , DETAILS IN ACCESSORIES

SURGE PROTECTION: 2.5kV

LIFETIME: 25°/40° L90 B10>90000H

**FLC210-PP-CC/TW**



BEAM ANGLES:

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
139-2490	[FP] FRAMING	21.8°-31.2°	275.5LM	LED-FT 15W RGBW
139-2491	[FP] FRAMING	21.8°-31.2°	236.1LM	LED-FT 15W RGBA
139-2494	[FP] FRAMING	20.6°-31.2°	572.1LM	LED-FT 10W 2700-6000K
139-2487	[GP] GOBO	20.6°-31.2°	500.6LM	LED-FT 15W RGBW
139-2488	[GP] GOBO	20.6°-31.2°	429.1LM	LED-FT 15W RGBA
139-2493	[GP] GOBO	21.8°-31.2°	572.1LM	LED-FT 10W 2700-6000K
139-2484	[ZP] ZOOM SPOT	20.6°-31.2°	500.6LM	LED-FT 15W RGBW
139-2485	[ZP] ZOOM SPOT	20.6°-31.2°	429.1LM	LED-FT 15W RGBA
139-2492	[ZP] ZOOM SPOT	20.6°-31.2°	572.1LM	LED-FT 10W 2700-6000K

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: MARINE-GRADE, DIE-CAST ALUMINIUM ALLOY

EPA: 0.320 $FT^2$

WEIGHT: 8.80LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

COLORS: RAL9004 BLACK , RAL9007 GREY METALLIC , RAL9016 WHITE , RAL8019 DARK BRONZE

CUSTOM RALs UPON REQUEST

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK07

INGRESS PROTECTION: IP66

LENS: SAFETY GLASS LENS

CORROSION PROTECTION: 5CE

LISTINGS: PENDING ETL, UL1598 CERTIFICATION

POWER FACTOR: >0.9

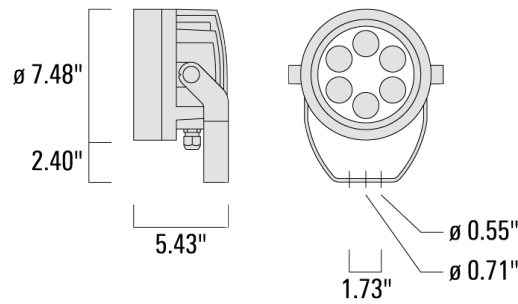
POWER SUPPLY: REMOTE POWER SUPPLY , DETAILS IN ACCESSORIES

SURGE PROTECTION: 2.5kV

LIFETIME: 25°/40° L90 B10>90000H



**FLC220-CC/TW**



BEAM ANGLES:

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
139-2038	[W] WIDE	51.6°	1506.1LM	6LED 24W RGBW
139-2146	[W] WIDE	51.6°	1218.2LM	6LED 24W RGBA
139-2039	[M] MEDIUM	18.0°	1571.8LM	6LED 24W RGBW
139-2147	[M] MEDIUM	18.0°	1271.3LM	6LED 24W RGBA
139-2040	[N] NARROW	13.2°	1645.3LM	6LED 24W RGBW
139-2148	[N] NARROW	13.2°	1330.8LM	6LED 24W RGBA
139-2039+ 139-2035	[M] MEDIUM+ [WW] WALLWASH	28.9° X 65°	1326.4LM	6LED 24W RGBW
139-2147+ 139-2035	[M] MEDIUM+ [WW] WALLWASH	28.9° X 65°	1072.8LM	6LED 24W RGBA
139-2040+ 139-2035	[N] NARROW+ [WW] WALLWASH	13.4° X 58.4°	1456.5LM	6LED 24W RGBW
139-2148+ 139-2035	[N] NARROW+ [WW] WALLWASH	13.4° X 58.4°	1178.1LM	6LED 24W RGBA
139-2041	[W] WIDE	41.8°	2238.2LM	6LED 22W 2700-6000K
139-2042	[M] MEDIUM	26.0°	2220.5LM	6LED 22W 2700-6000K
139-2043	[N] NARROW	12.8°	2278.4LM	6LED 22W 2700-6000K
139-2043+ 139-2036	[N] NARROW+ [WW] WALLWASH	13.4° X 58.4°	2074.3LM	6LED 22W 2700-6000K

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: MARINE-GRADE, DIE-CAST ALUMINIUM ALLOY

EPA: **0.372FT<sup>2</sup>**

WEIGHT: 9.45LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

COLORS: RAL9004 BLACK , RAL9007 GREY METALLIC , RAL9016 WHITE , RAL8019 DARK BRONZE

CUSTOM RALs UPON REQUEST

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK07

INGRESS PROTECTION: IP66

LENS: SAFETY GLASS LENS

CORROSION PROTECTION: 5CE

LISTINGS: ETL, UL1598, CSA-C22.2#250.0, SUITABLE FOR WET LOCATIONS

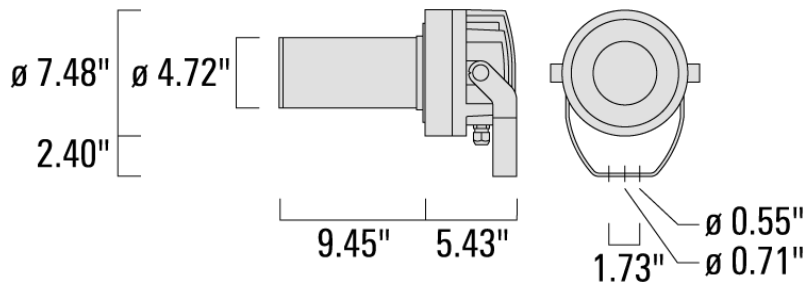
POWER FACTOR: >0.9

POWER SUPPLY: INTEGRAL 120-277VAC DRIVER, DMX DIMMABLE

SURGE PROTECTION:

LIFETIME: 25°/40° L90 B10>90000H

**FLC220-PP-CC/TW**



BEAM ANGLES:

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
139-2297	[FP] FRAMING	14.6°-25.8°	667.8LM	LED-FT 24W RGBW
139-2329	[FP] FRAMING	14.6°-25.8°	572.4LM	LED-FT 24W RGBA
139-2332	[FP] FRAMING	15.8°-25.8°	748.5LM	LED-FT 18W 2700-6000K
139-2296	[GP] GOBO	17.2°-25.8°	667.8LM	LED-FT 24W RGBW
139-2328	[GP] GOBO	17.2°-25.8°	572.4LM	LED-FT 24W RGBA
139-2331	[GP] GOBO	17.2°-26.0°	748.5LM	LED-FT 18W 2700-6000K
139-2295	[ZP] ZOOM SPOT	15.8°-25.8°	667.8LM	LED-FT 24W RGBW
139-2327	[ZP] ZOOM SPOT	15.8°-25.8°	572.4LM	LED-FT 24W RGBA
139-2330	[ZP] ZOOM SPOT	15.8°-25.8°	748.5LM	LED-FT 18W 2700-6000K

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: MARINE-GRADE, DIE-CAST ALUMINIUM ALLOY

EPA: **0.503FT<sup>2</sup>**

WEIGHT: 18.10LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

COLORS: RAL9004 BLACK , RAL9007 GREY METALLIC , RAL9016 WHITE , RAL8019 DARK BRONZE

CUSTOM RALs UPON REQUEST

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK07

INGRESS PROTECTION: IP66

LENS: SAFETY GLASS LENS

CORROSION PROTECTION: 5CE

LISTINGS: ETL, UL1598, CSA-C22.2#250.0, SUITABLE FOR WET LOCATIONS

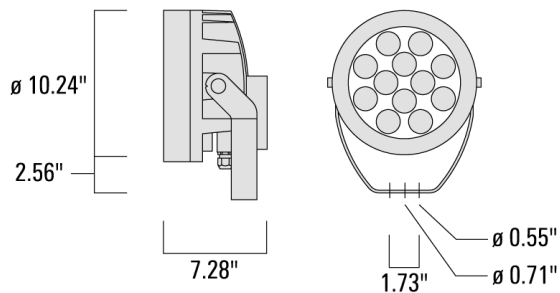
POWER FACTOR: >0.9

POWER SUPPLY: INTEGRAL 120-277VAC DRIVER, DMX DIMMABLE

SURGE PROTECTION: 10kV

LIFETIME: 25°/40° L90 B10>90000H

**FLC230-CC/TW**



BEAM ANGLES:

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
139-1929	[W] WIDE	55.2°	2983LM	12LED 48W RGBW
139-2137	[W] WIDE	55.2°	2412.8LM	12LED 48W RGBA
139-1913	[M] MEDIUM	32.6°	3204.9LM	12LED 48W RGBW
139-2139	[M] MEDIUM	32.6°	2592.2LM	12LED 48W RGBA
139-1914	[N] NARROW	16.6°	3143.7LM	12LED 48W RGBW
139-2138	[N] NARROW	16.6°	2542.7LM	12LED 48W RGBA
139-2420	[VNS] VERY NARROW SHARP	5.0°	2469.3LM	12LED 48W RGBW
139-2422	[VNS] VERY NARROW SHARP	5.0°	2209.4LM	12LED 48W RGBA
139-1914+	[M] MEDIUM+	15.0° X 60°	2891LM	6LED 24W RGBW
139-1849	[WW] WALLWASH			
139-2138+	[M] MEDIUM+	15.0° X 60°	2338.2LM	6LED 24W RGBA
139-1849	[WW] WALLWASH			
139-1913+	[N] NARROW+	32.6° X 65.4°	2599.1LM	6LED 24W RGBW
139-1849	[WW] WALLWASH			
139-2139+	[N] NARROW+	32.6° X 65.4°	2102.2LM	6LED 24W RGBA
139-1849	[WW] WALLWASH			
139-2044	[W] WIDE	51.2°	4179.2LM	6LED 22W 2700-6000K
139-2045	[M] MEDIUM	29.4°	4444.5LM	6LED 22W 2700-6000K
139-2135	[N] NARROW	14.2°	4522.2LM	6LED 22W 2700-6000K
139-2423	[VNS] VERY NARROW SHARP	4.8°	2129LM	6LED 22W 2700-6000K
139-2135+	[N] NARROW+	15.0° X 60.0°	4201LM	6LED 22W 2700-6000K
139-1849	LINEAR SPREAD			
139-2045+	[N] NARROW+	30.4° X 61.0°	3661.5LM	6LED 22W 2700-6000K
139-1848	[WW] WALLWASH			

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: MARINE-GRADE, DIE-CAST ALUMINIUM ALLOY

EPA: **0.684FT<sup>2</sup>**

WEIGHT: 16.76LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

COLORS: RAL9004 BLACK , RAL9007 GREY METALLIC , RAL9016 WHITE , RAL8019 DARK BRONZE

CUSTOM RALs UPON REQUEST

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK07

INGRESS PROTECTION: IP66

LENS: SAFETY GLASS LENS

CORROSION PROTECTION: 5CE

LISTINGS: ETL, UL1598, CSA-C22.2#250.0, SUITABLE FOR WET LOCATIONS

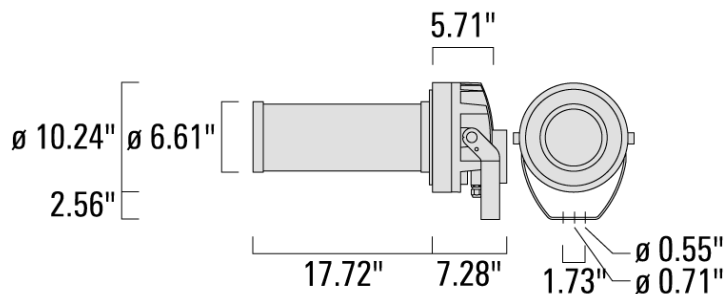
POWER FACTOR: >0.9

POWER SUPPLY: INTEGRAL 120-277VAC DRIVER, DMX DIMMABLE

SURGE PROTECTION: 10kV

LIFETIME: 25°/40° L90 B10>90000H

**FLC230-PP-CC/TW**



BEAM ANGLES:

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
139-1935	[FP] FRAMING	16.8°-28.6°	1602.8LM	12LED 48W RGBW
139-2156	[FP] FRAMING	16.8°-28.6°	1296.4LM	12LED 48W RGBA
139-2159	[FP] FRAMING	16.8°-28.6°	2168.5LM	12LED 44W 2700-6000K
139-1934	[GP] GOBO	18.0°-27.2°	1009.9LM	12LED 48W RGBW
139-2155	[GP] GOBO	18.0°-27.2°	816.8LM	12LED 48W RGBA
139-2158	[GP] GOBO	18.0°-27.2°	1366.3LM	12LED 44W 2700-6000K
139-1933	[ZP] ZOOM SPOT	16.8°-28.6°	1602.8LM	12LED 48W RGBW
139-2154	[ZP] ZOOM SPOT	16.8°-28.6°	1296.4LM	12LED 48W RGBA
139-2046	[ZP] ZOOM SPOT	16.8°-28.6°	2168.5LM	12LED 44W 2700-6000K

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: MARINE-GRADE, DIE-CAST ALUMINIUM ALLOY

EPA: 1.073FT<sup>2</sup>

WEIGHT: 24.47LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

COLORS: RAL9004 BLACK , RAL9007 GREY METALLIC , RAL9016 WHITE , RAL8019 DARK BRONZE

CUSTOM RALs UPON REQUEST

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK07

INGRESS PROTECTION: IP66

LENS: SAFETY GLASS LENS

CORROSION PROTECTION: 5CE

LISTINGS: ETL, UL1598, CSA-C22.2#250.0, SUITABLE FOR WET LOCATIONS

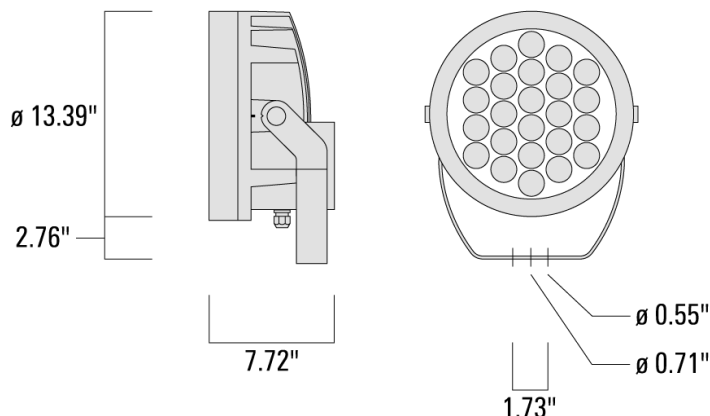
POWER FACTOR: >0.9

POWER SUPPLY: INTEGRAL 120-277VAC DRIVER, DMX DIMMABLE

SURGE PROTECTION: 10kV

LIFETIME: 25°/40° L90 B10>90000H

**FLC240-CC/TW**



**BEAM ANGLES:**

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
139-1931	[W] WIDE	55.2°	5966.1LM	24LED 96W RGBW
139-2140	[W] WIDE	55.2°	4825.5LM	24LED 96W RGBA
139-1877	[M] MEDIUM	32.6°	6409.9LM	24LED 96W RGBW
139-2142	[M] MEDIUM	32.6°	5184.5LM	24LED 96W RGBA
139-1879	[N] NARROW	16.6°	6287.4LM	24LED 96W RGBW
139-2141	[N] NARROW	16.6°	5085.4LM	24LED 96W RGBA
139-2424	[VNS] VERY NARROW SHARP	5.0°	4366.8LM	24LED 96W RGBW
139-2426	[VNS] VERY NARROW SHARP	5.0°	3898.9LM	24LED 96W RGBA
139-1879+ 139-1855	[N] NARROW+ LINEAR SPREAD	15.0° X 60.0°	5782LM	24LED 96W RGBW
139-2141+ 139-1855	[N] NARROW+ LINEAR SPREAD	15.0° X 60.0°	4676.6LM	24LED 96W RGBA
139-1877+ 139-1854	[M] MEDIUM+ [WW] WALLWASH	32.6° X 65.4°	5198.2LM	24LED 96W RGBW
139-2142+ 139-1854	[M] MEDIUM+ [WW] WALLWASH	32.6° X 65.4°	4204.4LM	24LED 96W RGBA
139-2047	[W] WIDE	51.2°	8358.3LM	24LED 88W 2700-6000K
139-2048	[M] MEDIUM	29.4°	8889LM	24LED 88W 2700-6000K
139-2049	[N] NARROW	14.2°	9044.3LM	24LED 88W 2700-6000K
139-2427	[VNS] VERY NARROW SHARP	4.8°	4257.9LM	24LED 88W 2700-6000K
139-2049+ 139-1855	[N] NARROW+ LINEAR SPREAD	15.0° X 60.0°	8402.1LM	24LED 88W 2700-6000K
139-2048+ 139-1854	[M] MEDIUM+ [WW] WALLWASH	30.4° X 61.0°	7323LM	24LED 88W 2700-6000K

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: MARINE-GRADE, DIE-CAST ALUMINIUM ALLOY

EPA: 1.176FT<sup>2</sup>

WEIGHT: 30.42LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

COLORS: RAL9004 BLACK , RAL9007 GREY METALLIC , RAL9016 WHITE , RAL8019 DARK BRONZE

CUSTOM RALs UPON REQUEST

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK07

INGRESS PROTECTION: IP66

LENS: SAFETY GLASS LENS

CORROSION PROTECTION: 5CE

LISTINGS: ETL, UL1598, CSA-C22.2#250.0, SUITABLE FOR WET LOCATIONS

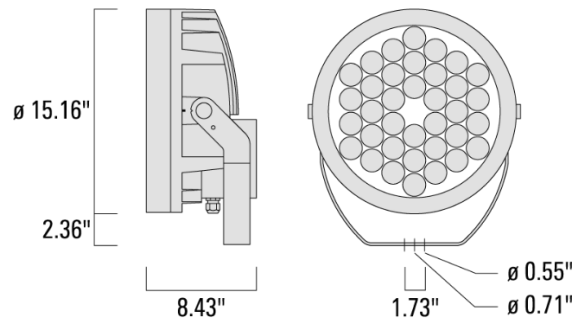
POWER FACTOR: >0.9

POWER SUPPLY: INTEGRAL 120-277VAC DRIVER, DMX DIMMABLE

SURGE PROTECTION: 10kV

LIFETIME: 25°/40° L90 B10>90000H

**FLC260-CC/TW**



**BEAM ANGLES:**

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
139-1965	[W] WIDE	55.2°	8949.1LM	36LED 144W RGBW
139-2143	[W] WIDE	55.2°	7238.3LM	36LED 144W RGBA
139-1889	[M] MEDIUM	32.6°	9614.8LM	36LED 144W RGBW
139-2145	[M] MEDIUM	32.6°	7776.7LM	36LED 144W RGBA
139-1891	[N] NARROW	16.3°	9431.1LM	36LED 144W RGBW
139-2144	[N] NARROW	16.3°	7628.1LM	36LED 144W RGBA
139-2428	[VNS] VERY NARROW SHARP	5.0°	6550.2LM	36LED 144W RGBW
139-2430	[VNS] VERY NARROW SHARP	5.0°	5848.4LM	36LED 144W RGBA
139-1891+	[N] NARROW+	15.0° X 60.0°	8673LM	36LED 144W RGBW
139-1861	LINEAR SPREAD			
139-2144+	[N] NARROW+	15.0° X 60.0°	7014.9LM	36LED 144W RGBA
139-1861	LINEAR SPREAD			
139-1889+	[M] MEDIUM+	32.6° X 65.4°	7797.3LM	36LED 144W RGBW
139-1860	[WW] WALLWASH			
139-2145+	[M] MEDIUM+	32.6° X 65.4°	6306.6LM	36LED 144W RGBA
139-1860	[WW] WALLWASH			
139-2050	[W] WIDE	51.2°	12537.5LM	36LED 132W 2700-6000K
139-2051	[M] MEDIUM	29.4°	13333.5LM	36LED 132W 2700-6000K
139-2052	[N] NARROW	14.2°	13566.5LM	36LED 132W 2700-6000K
139-2431	[VNS] VERY NARROW SHARP	4.8°	6386.9LM	36LED 132W 2700-6000K
139-2052+	[N] NARROW+	15.0° X 60.0°	12603.1LM	36LED 132W 2700-6000K
139-1861	LINEAR SPREAD			
139-2051+	[M] MEDIUM+	30.4° X 61.0°	10984.5LM	36LED 132W 2700-6000K
139-1860	[WW] WALLWASH			

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: MARINE-GRADE, DIE-CAST ALUMINIUM ALLOY

EPA: 1.50FT<sup>2</sup>

WEIGHT: 40.79LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

COLORS: RAL9004 BLACK , RAL9007 GREY METALLIC , RAL9016 WHITE , RAL8019 DARK BRONZE

CUSTOM RALs UPON REQUEST

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK07

INGRESS PROTECTION: IP66

LENS: SAFETY GLASS LENS

CORROSION PROTECTION: 5CE



LISTINGS: ETL, UL1598, CSA-C22.2#250.0, SUITABLE FOR WET LOCATIONS

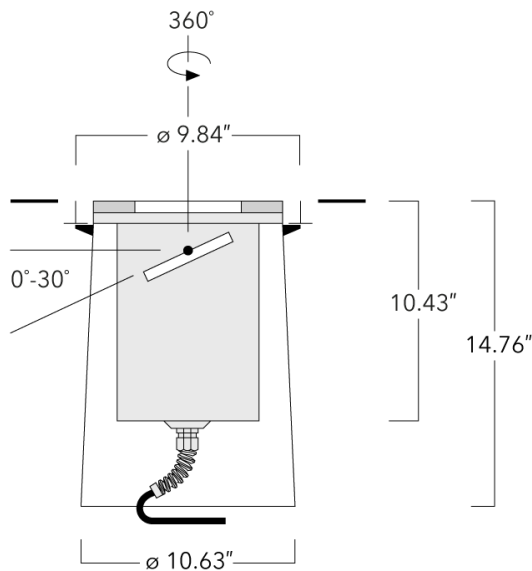
POWER FACTOR: >0.9

POWER SUPPLY: INTEGRAL 120-277VAC DRIVER, DMX DIMMABLE

SURGE PROTECTION: 10kV

LIFETIME: 25°/40° L90 B10>90000H

**ETC130-GB-CC/TW**



BEAM ANGLES:

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
185-3389	[W] WIDE	66.8°	1331.3LM	12LED 19W RGBW
185-3414	[W] WIDE	66.8°	1123.3LM	12LED 19W RGBA
185-3390	[M] MEDIUM	32.6°	1327.4LM	12LED 19W RGBW
185-3415	[M] MEDIUM	32.6°	1120LM	12LED 19W RGBA
185-3392	[WW] WALLWASH	35.0° X 71.4°	1225.6LM	12LED 19W RGBW
185-3417	[WW] WALLWASH	35.0° X 71.4°	1034.1LM	12LED 19W RGBA
185-3393	[W] WIDE	66.8°	1925.8LM	12LED 19W 2700-6000K
185-3394	[M] MEDIUM	31.6°	2012.5LM	12LED 19W 2700-6000K
185-3396	[WW] WALLWASH	32.3° X 64.8°	1838.3LM	12LED 19W 2700-6000K

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: DEEP DRAWN STAINLESS STEEL

WEIGHT: 18.20LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

COLORS: STAINLESS STEEL

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK10+

INGRESS PROTECTION: IP67/IP69K

LENS: 5/8" TEMPERED GLASS LENS , MAX LOAD 5000KG/11000LB

CORROSION PROTECTION: 5CE

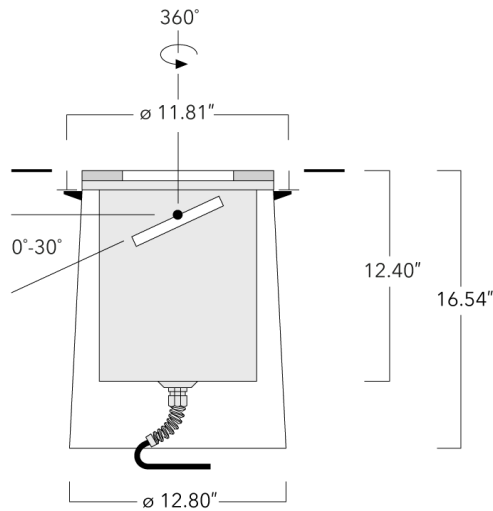
LISTINGS: ETL, UL1598, CSA-C22.2#250.0, SUITABLE FOR WET LOCATIONS

POWER FACTOR: >0.9

POWER SUPPLY: INTEGRAL 120-277VAC DRIVER, DMX DIMMABLE

LIFETIME: 25°/40° L90 B10>90000H

**ETC140-GB-CC/TW**



**BEAM ANGLES:**

<b>PART ID</b>	<b>DISTRIBUTION</b>	<b>ANGLE</b>	<b>DELIVERED OUTPUT</b>	<b>LIGHT SOURCE</b>
185-3401	[W] WIDE	69.4°	2122.2LM	24LED 30W RGBW
185-3418	[W] WIDE	69.4°	1833.6LM	24LED 30W RGBA
185-3402	[M] MEDIUM	32.4°	2199.9LM	24LED 30W RGBW
185-3419	[M] MEDIUM	32.4°	1900.7LM	24LED 30W RGBA
185-3404	[WW] WALLWASH	35.0° X 71.4°	1915LM	24LED 30W RGBW
185-3421	[WW] WALLWASH	35.0° X 71.4°	1654.6LM	24LED 30W RGBA
185-3397	[W] WIDE	66.8°	3014.2LM	24LED 30W 2700-6000K
185-3398	[M] MEDIUM	31.6°	3150LM	24LED 30W 2700-6000K
185-3400	[WW] WALLWASH	32.3° X 64.8°	2877.4LM	24LED 30W 2700-6000K

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: DEEP DRAWN STAINLESS STEEL

WEIGHT: 29.90LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

COLORS: STAINLESS STEEL

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK10+

INGRESS PROTECTION: IP67/IP69K

LENS: 5/8" TEMPERED GLASS LENS , MAX LOAD 5000KG/11000LB

CORROSION PROTECTION: 5CE

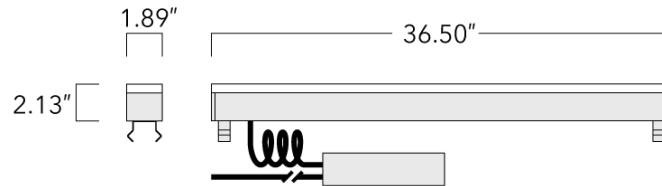
LISTINGS: ETL, UL1598, CSA-C22.2#250.0, SUITABLE FOR WET LOCATIONS

POWER FACTOR: >0.9

POWER SUPPLY: INTEGRAL 120-277VAC DRIVER, DMX DIMMABLE

LIFETIME: 25°/40° L90 B10>90000H

**ETV13\_-CC/TW**



**BEAM ANGLES:**

<b>PART ID</b>	<b>DISTRIBUTION</b>	<b>ANGLE</b>	<b>DELIVERED OUTPUT</b>	<b>LIGHT SOURCE</b>
186-0253	[LW] WIDE	61.2°	2801.8LM	96LED 48W RGBW
186-0256	[LM] MEDIUM	30.8°	3050LM	96LED 48W RGBW
186-0259	[LN] NARROW	17.4°	2994.3LM	96LED 48W RGBW
186-0262	[LVN] VERY NARROW	13.0°	3428.4LM	96LED 48W RGBW
186-0265	[LA10] WALLWASH	13.7° X 12.1°	2921LM	96LED 48W RGBW
186-0377	[A6] ASYMMETRIC WALLGRAZER	21.1° X 14.2°	2990.5LM	96LED 48W RGBW
186-0335	[LW] WIDE	61.2°	2873.6LM	96LED 30W 2700-6000K
186-0336	[LM] MEDIUM	30.8°	3210.6LM	96LED 30W 2700-6000K
186-0337	[LN] NARROW	17.4°	3151.9LM	96LED 30W 2700-6000K
186-0333	[LVN] VERY NARROW	13.0°	3608.9LM	96LED 30W 2700-6000K
186-0334	[LA10] WALLWASH	13.7° X 12.1°	3074.8LM	96LED 30W 2700-6000K
186-0380	[A6] ASYMMETRIC WALLGRAZER	21.1° X 14.2°	2990.5LM	96LED 30W 2700-6000K

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: MARINE-GRADE ANODIZED ALUMINIUM EXTRUSION

WEIGHT: 13.50LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK08

INGRESS PROTECTION: IP67/IP69K

LENS: SAFETY GLASS LENS , MAX STATIC LOAD 3 TONNES

CORROSION PROTECTION: 5CE

LISTINGS: ETL, UL1598, CSA-C22.2#250.0, SUITABLE FOR WET LOCATIONS

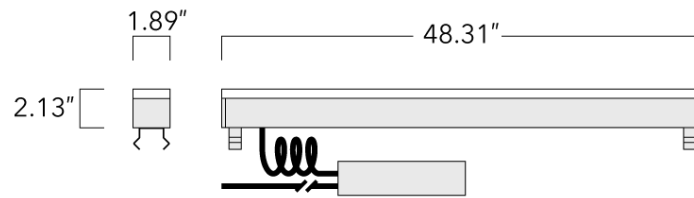
POWER FACTOR: >0.9

POWER SUPPLY: INTEGRAL 120-277VAC DRIVER, DMX DIMMABLE

SURGE PROTECTION: 10kV

LIFETIME: 25°/40° L90 B10>90000H

**ETV14\_-CC/TW**



BEAM ANGLES:

PART ID	DISTRIBUTION	ANGLE	DELIVERED OUTPUT	LIGHT SOURCE
186-0268	[LW] WIDE	61.2°	3735.8LM	128LED 64W RGBW
186-0271	[LM] MEDIUM	30.8°	4066.7LM	128LED 64W RGBW
186-0274	[LN] NARROW	17.4°	3992.4LM	128LED 64W RGBW
186-0277	[LVN] VERY NARROW	13.0°	4571.3LM	128LED 64W RGBW
186-0280	[LA10] WALLWASH	13.7° X 12.1°	3894.7LM	128LED 64W RGBW
186-0378	[A6] ASYMMETRIC WALLGRAZER	21.1° X 14.2°	3987.4LM	128LED 64W RGBW
186-0338	[LW] WIDE	61.2°	3831.5LM	128LED 40W 2700-6000K
186-0339	[LM] MEDIUM	30.8°	4280.8LM	128LED 40W 2700-6000K
186-0340	[LN] NARROW	17.4°	4202.5LM	128LED 40W 2700-6000K
186-0332	[LVN] VERY NARROW	13.0°	4811.9LM	128LED 40W 2700-6000K
186-0431	[LA10] WALLWASH	13.7° X 12.1°	4099.7LM	128LED 40W 2700-6000K
186-0381	[A6] ASYMMETRIC WALLGRAZER	21.1° X 14.2°	3987.4LM	128LED 40W 2700-6000K

CRI: 20 (RGBW/RGBA) , 80 (TW)

BODY: MARINE-GRADE ANODIZED ALUMINIUM EXTRUSION

WEIGHT: 16.53LB

FASTENERS: PCS POLYMER COATED STAINLESS STEEL HARDWARE

GASKET: CCG® SILICONE RUBBER GASKET

IMPACT PROTECTION: IK08

INGRESS PROTECTION: IP67/IP69K

LENS: SAFETY GLASS LENS , MAX STATIC LOAD 3 TONNES

CORROSION PROTECTION: 5CE

LISTINGS: ETL, UL1598, CSA-C22.2#250.0, SUITABLE FOR WET LOCATIONS

POWER FACTOR: >0.9

POWER SUPPLY: INTEGRAL 120-277VAC DRIVER, DMX DIMMABLE

SURGE PROTECTION: 10kV

LIFETIME: 25°/40° L90 B10>90000H

