

## MINI 1.5 DOUBLE | RECESSED DOWNLIGHT

**IC**  
RATED

**5 YEARS**  
LIMITED WARRANTY

**JAS**  
TITLE 24  
COMPLIANT

**ETL**  
Intertek



### MATERIAL

Aluminum Die-Casting, Electrostatic Powder Coating

### SOURCE INFORMATION

<b>SOURCE LUMENS</b>	Up to 2200lm
<b>DELIVERED LUMENS</b>	Up to 1700lm
<b>CONSUMPTION</b>	Up to 20W
<b>CURRENT</b>	500mA
<b>INPUT VOLTAGE</b>	120VAC-277VAC
<b>DIMMING</b>	TRIAC/ELV / 0-10V (1%) / 10V PWM
<b>CRI</b>	90+
<b>COLOR TEMP-CCT</b>	2700K/3000K/3500K/4000K/ DW (DIM TO WARM)
<b>OPERATING TEMP</b>	32°F to 77°F

**OPERATING TEMPERATURE** Luminaire should be installed and operated **ONLY** in dry environments where the ambient temperature ranges from 32°F to 77°F ( 0°C to 25°C). Luminaire operation in environments outside the listed temperature range voids the warranty **AND** may damage the product or adversely impact lamp life, lumen output and color consistency.

### TYPE OF LED

COB by Bridgelux

### WARRANTY

5 years



**FIXED**



**ADJUSTABLE**



**WALLWASH**

### FLANGED TRIM



### LENS BEAM ANGLE



15°  
Spot



24°  
Narrow Flood



36°  
Flood



60°  
Wide Flood

### TRIM FINISH



Black



White



Custom

Fixture type:

Job information:

### PRODUCT DEFINITION SHEET

Ex: CTL-M-1.5-RC-FX-TF-DB-30K-15-OP-WH-4L-V10-U-EM10-RM-NN

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

1	2	3	4
SERIES	LIGHT ENGINE TYPE	TRIM SHAPE	REFLECTOR TYPE
<input type="checkbox"/> <b>CTL-M</b> Constellation Mini	<input type="checkbox"/> <b>1.5</b> 1.5 High Efficiency Standard	<input type="checkbox"/> <b>RC</b> Rectangle	<input type="checkbox"/> <b>FX</b> Fixed <input type="checkbox"/> <b>AD</b> Adjustable <input type="checkbox"/> <b>WW</b> Wall Wash

5	6	7	8	9
MOUNTING PAN	LIGHT ENGINES	COLOR TEMP-CCT (90 CRI)	LENS BEAM ANGLE	REFLECTOR - INSERT
<input type="checkbox"/> <b>TF</b> Flanged Trim	<input type="checkbox"/> <b>DB</b> Double	<input type="checkbox"/> <b>27K</b> 2700K <input type="checkbox"/> <b>30K</b> 3000K <input type="checkbox"/> <b>35K</b> 3500K <input type="checkbox"/> <b>40K</b> 4000K <input type="checkbox"/> <b>DM</b> Dim to Warm	<input type="checkbox"/> <b>15</b> 15° Spot <input type="checkbox"/> <b>24</b> 24° Narrow <input type="checkbox"/> <b>36</b> 36° Flood <input type="checkbox"/> <b>60</b> 60° Wide Flood	<input type="checkbox"/> <b>OP</b> Open

10	11	12	13
TRIM FINISH	LUMEN OUTPUT	DRIVER	VOLTAGE
<input type="checkbox"/> <b>WH</b> White <input type="checkbox"/> <b>BK</b> Black <input type="checkbox"/> Custom RAL No. _____	<input type="checkbox"/> <b>4L</b> 400lm <input type="checkbox"/> <b>5L</b> 500lm <input type="checkbox"/> <b>6L</b> 600lm <input type="checkbox"/> <b>7L</b> 700lm <input type="checkbox"/> <b>8L</b> 800lm <input type="checkbox"/> <b>13L</b> 1300lm <input type="checkbox"/> <b>17L</b> 1700lm  See pages 3 for light engine output available	<input type="checkbox"/> <b>1</b> 0-10V 1% Dimming <input type="checkbox"/> <b>TLV</b> TRIAC/ELV 1% Dimming <input type="checkbox"/> <b>PWM</b> 10V PWM 1% Dimming  Remote Constant Current Driver  Max distance: 196-ft using 12 AWG wire 100-ft using 16 AWG wire 50-ft using 18 AWG wire	<input type="checkbox"/> <b>U</b> Uni 120-277V

14	15	16
STANDBY MODULES	INSTALLATION TYPE	OPTICS ACCESSORY
<input type="checkbox"/> <b>EM10</b> Emergency Battery Pack 10W <input type="checkbox"/> <b>EM12</b> Emergency Battery Pack 12W <input type="checkbox"/> <b>NO OPTION</b>  Remote Emergency Battery Pack, for field install  Max distance with EM = 50 ft	<input type="checkbox"/> <b>RM</b> Remote <input type="checkbox"/> <b>NCNIC</b> New Construction Non-IC Frame <input type="checkbox"/> <b>NCIC</b> New construction IC	<input type="checkbox"/> <b>NN</b> None <input type="checkbox"/> <b>HL</b> Honeycomb louver + PC sheet <input type="checkbox"/> <b>SG</b> Striped Glass Lens  Accessories are not suitable for wallwash fixtures



Honeycomb louver + PC sheet



Striped Glass

# CONSTELLATION

## MINI 1.5 DOUBLE - RECESSED DOWNLIGHT



**FIXED** RC-FX-TF-DB

CRI	90+
LENS BEAM ANGLE	15°/24°/36°/60°

3000K	NON-IC	IC
FIXTURE CONSUMPTION	20W	
CURRENT (mA)	500	400
DELIVERED LUMEN	1728 lm	1395 lm

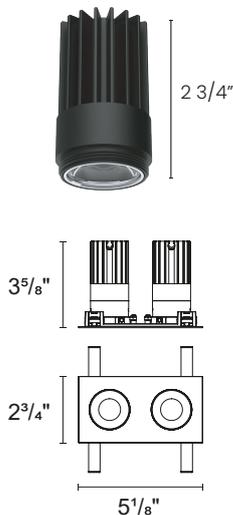
DIM TO WARM	NON-IC	IC
FIXTURE CONSUMPTION	22W	16W
CURRENT (mA)	500	400
DELIVERED LUMEN	876 lm	700 lm

Multiplier for Optics Accessories

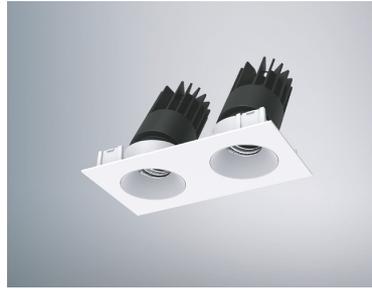
Clear (None)	100%
Honeycomb louver	67%
Striped Glass Lens	78%



**DIMENSIONS**



 Cut out: 2 13/32" x 4 24/32"



**ADJUSTABLE (30°)** RC-AD-TF-DB

CRI	90+
LENS BEAM ANGLE	15°/24°/36°/60°

3000K	NON-IC	IC
FIXTURE CONSUMPTION	20W	
CURRENT (mA)	500	400
DELIVERED LUMEN	1369 lm	1342 lm

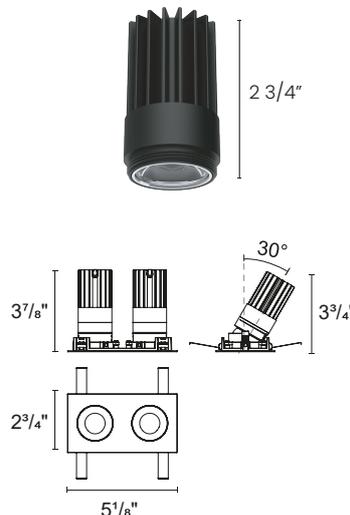
DIM TO WARM	NON-IC	IC
FIXTURE CONSUMPTION	22W	16W
CURRENT (mA)	500	400
DELIVERED LUMEN	812 lm	678 lm

Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Striped Glass Lens	78%



**DIMENSIONS**



 Cut out: 2 13/32" x 4 24/32"



**WALLWASH** RC-WW-TF-DB

CRI	90+
LENS BEAM ANGLE	15° only

3000K	NON-IC	IC
FIXTURE CONSUMPTION	20W	
CURRENT (mA)	500	400
DELIVERED LUMEN	824 lm	671 lm

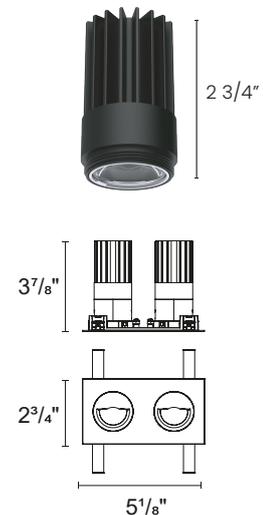
DIM TO WARM	NON-IC	IC
FIXTURE CONSUMPTION	22W	16W
CURRENT (mA)	500	400
DELIVERED LUMEN	546 lm	436 lm

Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Striped Glass Lens	78%

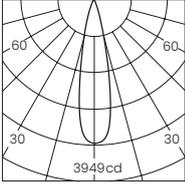
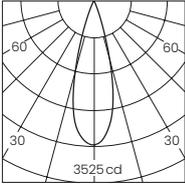
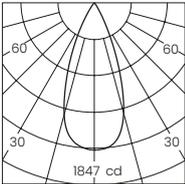
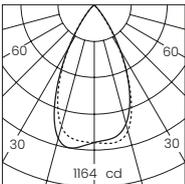
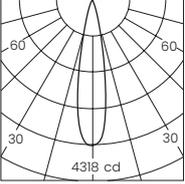
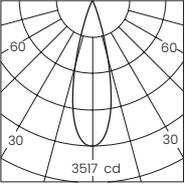
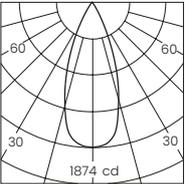
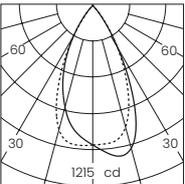
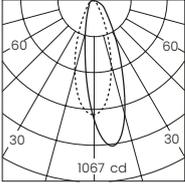


**DIMENSIONS**



 Cut out: 2 13/32" x 4 24/32"

### PHOTOMETRICS

FIXED		RC-FX-TF-OP		ADJUSTABLE		RC-AD-TF-OP		WALLWASH		RC-WW-TF-OP	
	H(m)		D(m)		E(lx)		Lens beam angle 15°				
	1.0	0.39	2794								
	2.0	0.79	698								
	3.0	1.18	310								
	4.0	1.58	174								
	5.0	1.97	111								
	H(m)		D(m)		E(lx)		Lens beam angle 24°				
	1.0	0.51	2466								
	2.0	1.02	616								
	3.0	1.54	274								
	4.0	2.05	154								
	5.0	2.56	98								
	H(m)		D(m)		E(lx)		Lens beam angle 36°				
	1.0	0.75	1275								
	2.0	1.49	318								
	3.0	2.24	141								
	4.0	2.99	79								
	5.0	3.74	50								
	H(m)		D(m)		E(lx)		Lens beam angle 60°				
	1.0	1.00	745								
	2.0	2.00	186								
	3.0	2.99	82								
	4.0	3.99	46								
	5.0	4.99	29								
	H(m)		D(m)		E(lx)		Lens beam angle 15°				
	1.0	0.36	3011								
	2.0	0.72	752								
	3.0	1.08	334								
	4.0	1.43	188								
	5.0	1.79	120								
	H(m)		D(m)		E(lx)		Lens beam angle 24°				
	1.0	0.49	2518								
	2.0	0.98	629								
	3.0	1.48	279								
	4.0	1.97	157								
	5.0	2.46	100								
	H(m)		D(m)		E(lx)		Lens beam angle 36°				
	1.0	0.72	1299								
	2.0	1.44	324								
	3.0	2.16	144								
	4.0	2.88	81								
	5.0	3.60	51								
	H(m)		D(m)		E(lx)		Lens beam angle 60°				
	1.0	0.92	784								
	2.0	1.83	196								
	3.0	2.75	87								
	4.0	3.66	49								
	5.0	4.58	31								
	H(m)		D(m)		E(lx)		Lens beam angle 15° (Wallwash)				
	1.0	0.50	630								
	2.0	1.01	157								
	3.0	1.51	70								
	4.0	2.02	39								
	5.0	2.52	25								

# CONSTELLATION

## MINI 1.5 DOUBLE - RECESSED DOWNLIGHT



### HOUSING



#### REMODEL/REMOTE ENCLOSED DRIVER

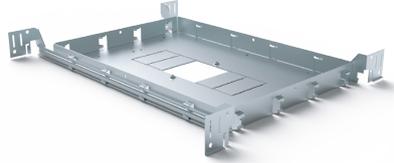
For Constellation Mini 1.5 Double flanged trim

Installs from below, service from below

Type: Remote driver box

2 light engine flanged trim

Cut out: 2 13/32" x 4 24/32"



#### NEW CONSTRUCTION NON-IC FRAME

For Constellation Mini 1.5 Double flanged trim

Installs from above, service from below

Type: New construction frame

2 light engine flanged trim

Cut out: 2 13/32" x 4 24/32"



#### NEW CONSTRUCTION IC BOX

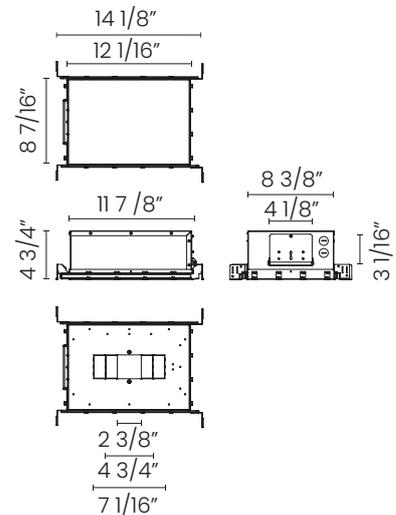
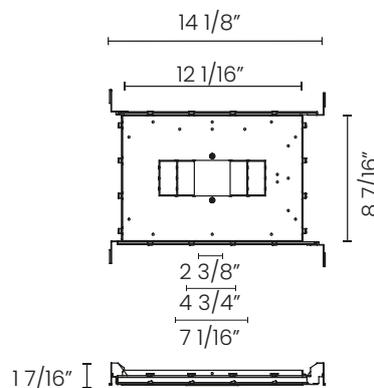
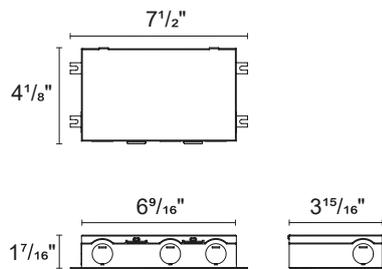
For Constellation Mini 1.5 Double flanged trim

Installs from above, service from below

Type: IC Box

2 light engine flanged trim

Cut out: 2 13/32" x 4 24/32"



### CUTOUT ACCESORIES



For Constellation Mini 1.5 Double

Cut out:

Round :  $\varnothing$  1 26/32"

Square :  $\square$  1 26/32"

# CONSTELLATION

## MINI 1.5 DOUBLE - RECESSED DOWNLIGHT



### DRIVER



SELV

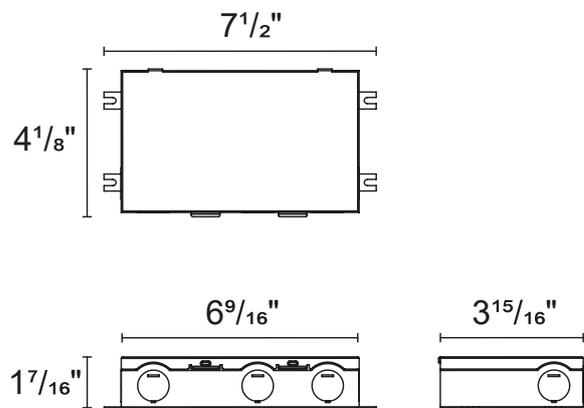
### KIG-DWJ Series 40W



### FEATURES

- Output: Constant Current
- Range: 100-277VAC
- PFC design: Built-in active PFC function
- Efficiency: Up to 82%
- Protections: Short circuit / Over temperature
- Heat dissipation: Cooling by free air convection
- Waterproof performance: Driver built-in Junction box, for dry and damp locations.
- Dimming function: Phase dimming: work with Forward phase, MLV and Reverse phase, ELV, TRIAC dimmers
- 0-10V dimming: 0-10V/1-10V/Potentiometer/10V PWM 4 in 1
- Dimming range: 1-100%
- Application: Suitable for the application of indoor LED lighting
- Warranty: 5 years warranty

### DIMENSIONS



### DRIVER

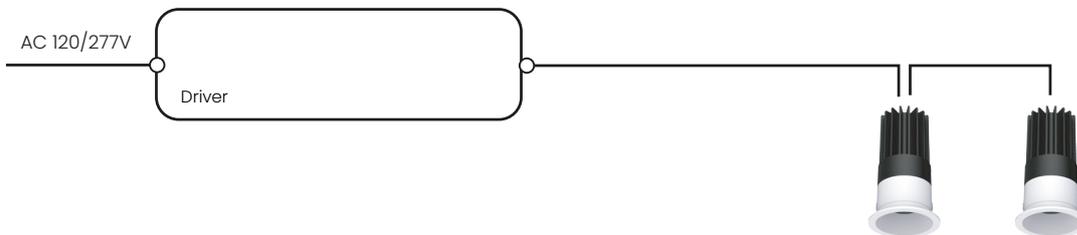
#### KIG-DWJ Series 40W

#### TECHNICAL PARAMETERS

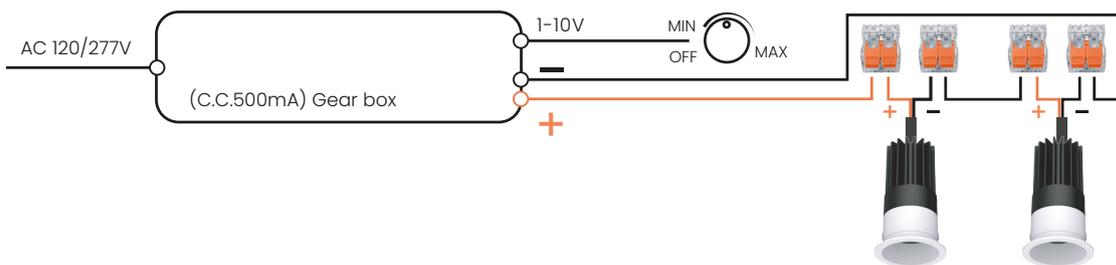
Certificate		UL / cUL / FCC / ICES-005 / Class P / SELV / ROHS / REACH																	
Output	Rated current (A) <b>T</b> ON <b>↓</b> OFF	0.3	0.35	0.4	0.45	0.5	0.55	0.6	0.65	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4		
	DIP Code																		
	DIP Code																		
	Current Tolerance	±5%																	
	No-Load Voltage	75V max.																	
	DC Voltage (V)	3-65								3-62	3-57	3-50	3-45	3-40	3-37	3-34	3-31	3-29	
	Rated power (W)	19.5	22.8	26	29.3	32.5	35.8	39	40										
Input	Rated Voltage	100-277VAC																	
	Rated Frequency	50 / 60HZ																	
	Power Factor	>0.9																	
	THD@full load	≤20%																	
	Efficiency (Typ.)	≥82% @120VAC 60Hz								≥82% @277VAC 60Hz									
	AC Current (Max.)	0.52A																	
	Inrush Current (Typ.)	3.12A, 36us@50% Ipeak 120VAC 9.2A, 34us@50% Ipeak 277VAC																	
	Leakage current	<0.50mA																	
Protection	Short Circuit	Constant current mode, recovers automatically after fault condition is removed																	
	Over temperature	Ambient temp. over 50°C±5°C, output current will be reduced to 50% ; Ambient temp. over 60°C±5°C, recovers automatically after the temp.drops.																	
Environment	Working TEMP.	-40-+60°C																	
	Working Humidity	20-95% RH, non-condensing																	
	Storage TEMP. Humidity	-40-+80°C,10-95% RH																	
	TEMP. coefficient	±0.03% /°C (0-50°C)																	
	Vibration	10-500Hz, 5G12min./1 cycle,period for 72min.each along X,Y,Z axes																	
Safety & EMC	Safety standards	UL 8750 CAN/CSA-C22.2 No. 250.13																	
	Withstand voltage	I/P-O/P:1.88KVAC I/P-F.G:1.88KVAC O/P-F.G:0.5KVAC																	
	Isolation resistance	I/P-O/P:100MΩ / 500VDC / 25°C / 70% RH																	
	EMC Immunity	FCC/ICES do not request this test.																	
Others	EMC Emission	FCC Part 15 Subpart B; ICES-005 Issue 5; ANSI C63.4a-2017																	
	Net Weight	0.57KG																	
	Dimension	190.2*103.9*36mm(L *W*H)																	
Notes	Packing	540*235*235mm 20pcs/CTN																	
	1. All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25°C of ambient temperature. 2. Tolerance: includes set us tolerance, line regulation and load regulation.																		

## MULTIPLE DOWNLIGHTS WIRING DIAGRAM

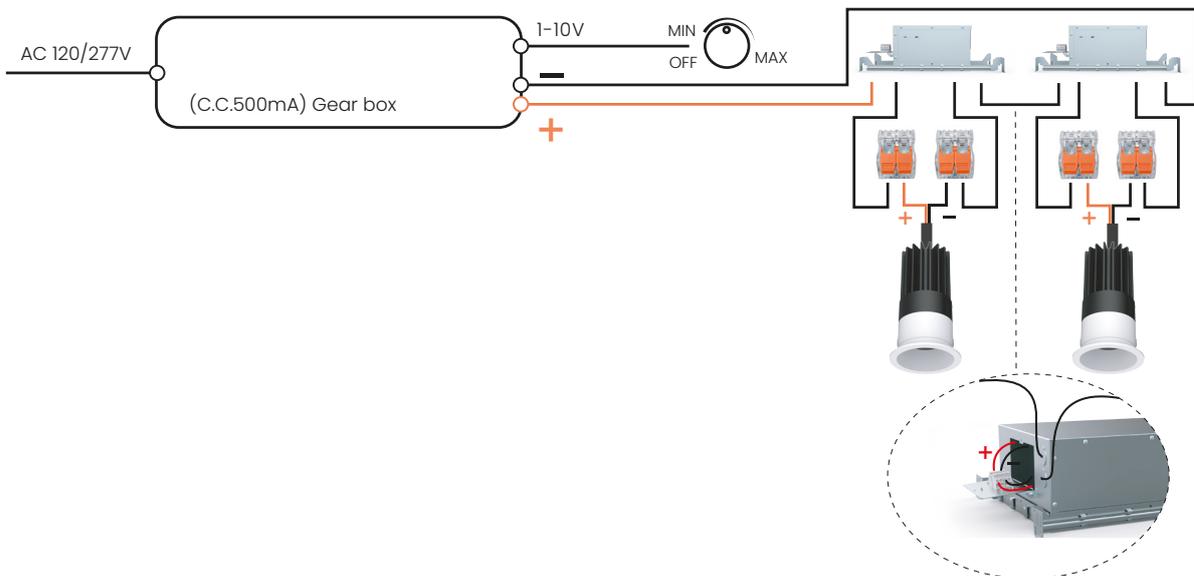
### REMOTE DRIVER



### NEW CONSTRUCTION NON-IC FRAME



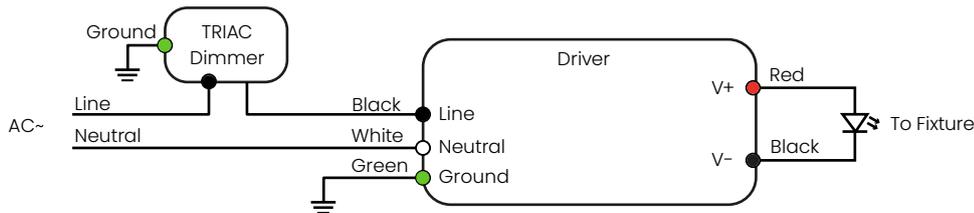
### NEW CONSTRUCTION IC



### DIMMING WIRING DIAGRAM

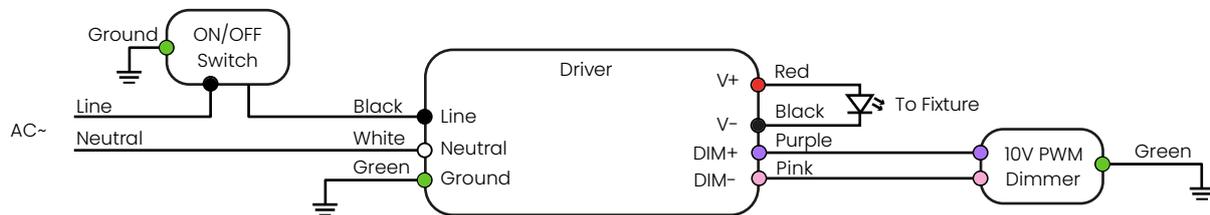
#### TRIAC / FORWARD PHASE / LEADING EDGE DIMMING (TRI)

1. The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer or lighting system.
2. Working with forward phase, MLV and Reverse phase, ELV, TRIAC dimmers or light system.
3. Min. loading is about 10%
4. Please try to use dimmers with power at least 2 times as the output power of the driver.



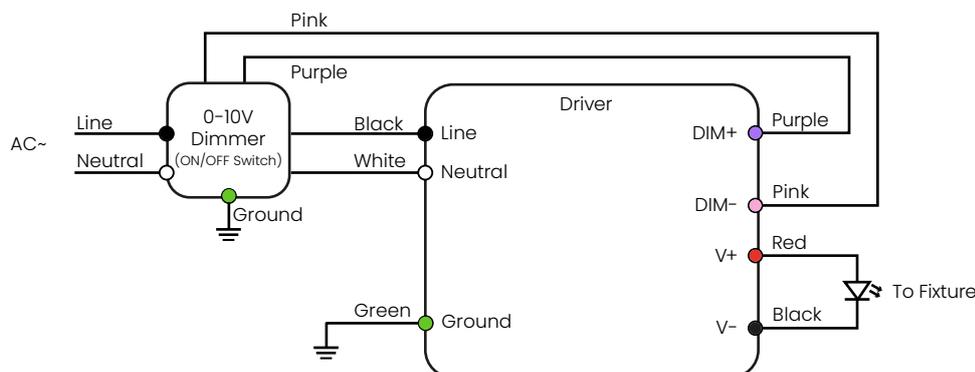
#### 10V PWM

1. This driver should be installed by qualified and professional person.
2. Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
3. Ensure that wiring is correct before test in order to avoid light and power supply damage.
4. If driver Cannot work normally, don't maintain privately.



#### 0-10V DIMMING (010)

1. This driver should be installed by qualified and professional person.
2. Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
3. Ensure that wiring is correct before test in order to avoid light and power supply damage.
4. If driver Cannot work normally, don't maintain privately.



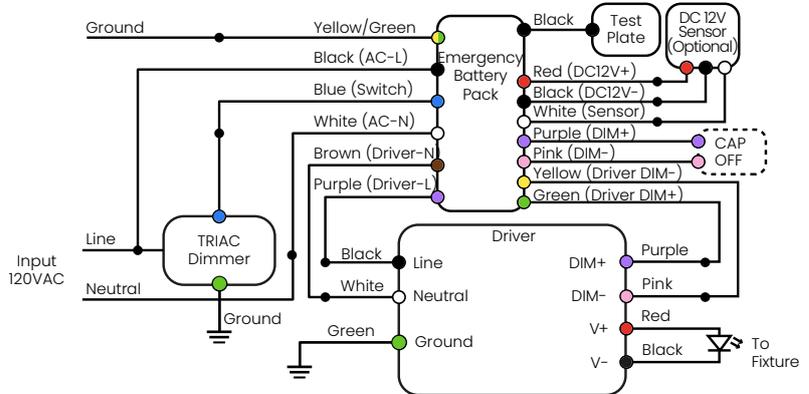
### EMERGENCY BATTERY PACK WIRING DIAGRAM

#### TRIAC / FORWARD PHASE / LEADING EDGE DIMMING (TRI)

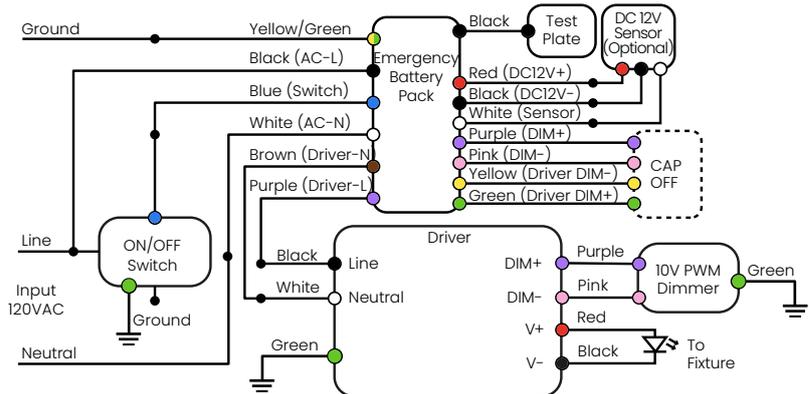
Input 120VAC 50/60Hz Range 3%-100%

NOTE: Cap off unused wires individually. DO NOT cap together.

EMERGENCY BATTERY ACCESS Above ceiling access is required for service. An access panel in the ceiling (or other form of access) adjacent to the installation location of the Emergency Battery is required.



#### 10V PWM



#### 0-10V DIMMING (010)

Input 120VAC-277VAC 50/60Hz Range 0.1%-100% dim to off

NOTE: Cap off unused wires individually. DO NOT cap together. Wall Switch and 0-10V dimmer may be one unit or two separate units.

EMERGENCY BATTERY ACCESS Above ceiling access is required for service. An access panel in the ceiling (or other form of access) adjacent to the installation location of the Emergency Battery is required.

