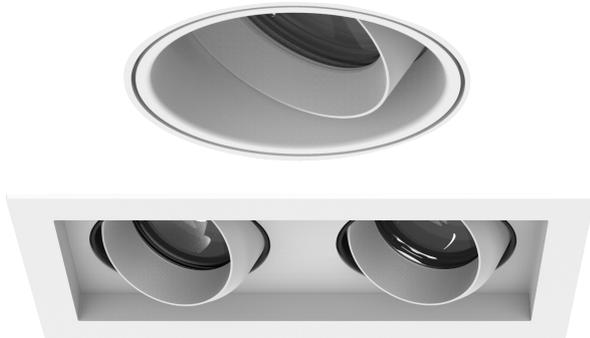


MINI 1.5 MULTIPLES | RECESSED DOWNLIGHT



MATERIAL

Aluminum Die-Casting, Electrostatic Powder Coating

TYPE OF LED

COB by Bridgelux

SOURCE INFORMATION

SOURCE LUMENS	Up to 1154lm per light engine
DELIVERED LUMENS	Up to 1009lm per light engine
CONSUMPTION	Up to 10W per light engine
CURRENT	400mA/500mA
INPUT VOLTAGE	120VAC-277VAC
DIMMING	TRIAC/ELV / 0-10V (1%) / 10V PWM
CRI	90+
COLOR TEMP-CCT	2700K/3000K/3500K/4000K/ Dim to Warm
OPERATING TEMP	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.

WARRANTY

5 years

TRIM FINISH



OPEN SHORT



OPEN LONG

ROUND

FLANGED TRIM



FLANGELESS TRIM



SQUARE

FLANGED TRIM



FLANGELESS TRIM



2 LAMP

FLANGED TRIM



FLANGELESS TRIM



3 LAMP

FLANGED TRIM



FLANGELESS TRIM



LENS BEAM ANGLE



15°
Spot



24°
Narrow Flood



36°
Flood



60°
Wide Flood

Fixture type:

Job information:

--	--

CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT



PRODUCT DEFINITION SHEET

Ex: CTL-M-1.5-RD-AD-TF-SG-30K-15-OPS-WH-9L-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"/> CTL-MM Constellation Mini Multiples	<input type="checkbox"/> 1.5 1.5 High Efficiency Standard	<input type="checkbox"/> RD Round* <input type="checkbox"/> SQ Square* <input type="checkbox"/> RC Rectangle	<input type="checkbox"/> AD Adjustable

*Only available for Single Light Engines

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

10	11	12	13	
TRIM FINISH	LUMEN OUTPUT	DRIVER	VOLTAGE	
<input type="checkbox"/> WH White <input type="checkbox"/> BK Black <input type="checkbox"/> Custom RAL No. _____	<input type="checkbox"/> 9L 900lm <input type="checkbox"/> 10L 1000lm <input type="checkbox"/> 15L 1500lm <input type="checkbox"/> 19L 1900lm <input type="checkbox"/> 23L 2300lm <input type="checkbox"/> 28L 2800lm <input type="checkbox"/> 29L 2900lm See pages 3 to 8 for light engine output available	DIM TO WARM <input type="checkbox"/> 5L 500lm <input type="checkbox"/> 6L 600lm <input type="checkbox"/> 9L 900lm <input type="checkbox"/> 10L 1000lm <input type="checkbox"/> 11L 1100lm <input type="checkbox"/> 12L 1200lm <input type="checkbox"/> 14L 1400lm <input type="checkbox"/> 15L 1500lm <input type="checkbox"/> 17L 1700lm <input type="checkbox"/> 18L 1800lm	<input type="checkbox"/> 1 0-10V 1% Dimming <input type="checkbox"/> TLV TRIAC/ELV 1% Dimming <input type="checkbox"/> PWM 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"/> U Uni 120-277V

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



Multiplier for Optics Accessories	
Clear (None)	100%
Honeycomb louver	67%
Striped Glass Lens	78%

CONSTELLATION

MINI 1.5 MULTIPLES - RECESSED DOWNLIGHT

ROUND FLANGED TRIM

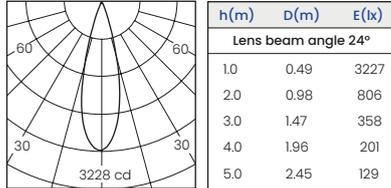
OPEN SHORT REFLECTOR



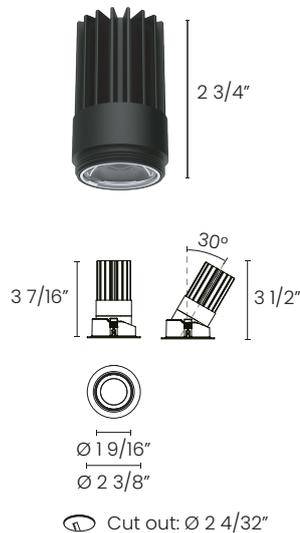
RD-AD-TF-SG-OPS

FIXTURE CONSUMPTION	10W			
CURRENT	500mA			
LENS BEAM ANGLE	15°/24°/36°/60°			
CRI	90+			
CCT	2700K	3000K	4000K	Dim to Warm
DELIVERED LUMEN	919lm	964lm	990lm	574lm

PHOTOMETRICS



DIMENSIONS



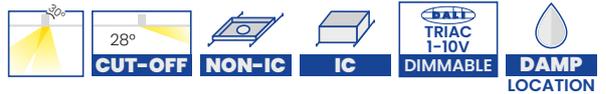
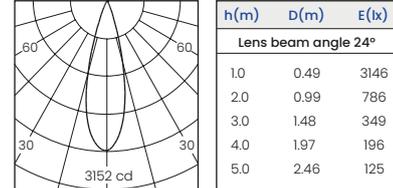
OPEN LONG REFLECTOR



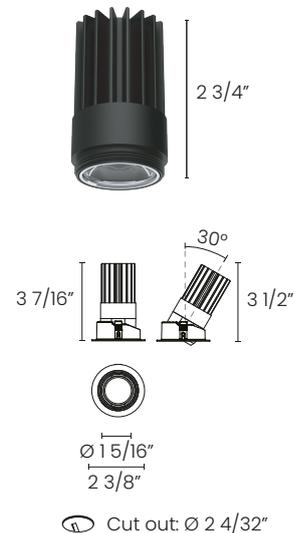
RD-AD-TF-SG-OPL

FIXTURE CONSUMPTION	10W			
CURRENT	500mA			
LENS BEAM ANGLE	15°/24°/36°/60°			
CRI	90+			
CCT	2700K	3000K	4000K	Dim to Warm
DELIVERED LUMEN	936lm	982lm	1009lm	552lm

PHOTOMETRICS



DIMENSIONS



CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

ROUND FLANGELESS TRIM

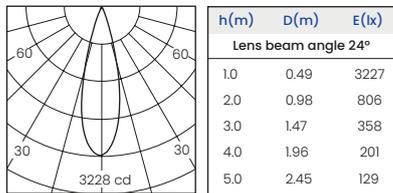
OPEN SHORT REFLECTOR



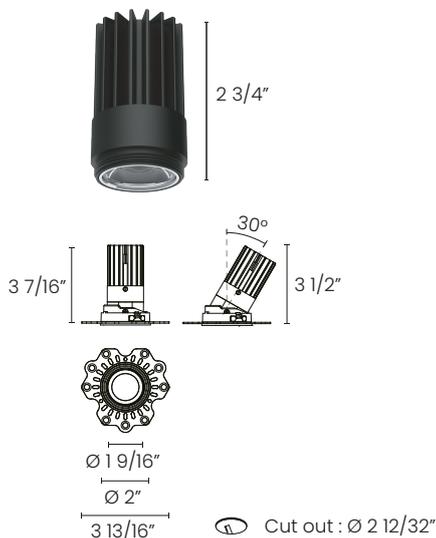
RD-AD-TL-SG-OPS

FIXTURE CONSUMPTION	10W			
CURRENT	500mA			
LENS BEAM ANGLE	15°/24°/36°/60°			
CRI	90+			
CCT	2700K	3000K	4000K	Dim to Warm
DELIVERED LUMEN	919lm	964lm	990lm	574lm

PHOTOMETRICS



DIMENSIONS



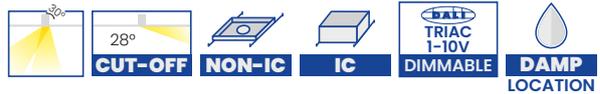
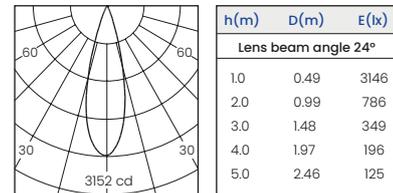
OPEN LONG REFLECTOR



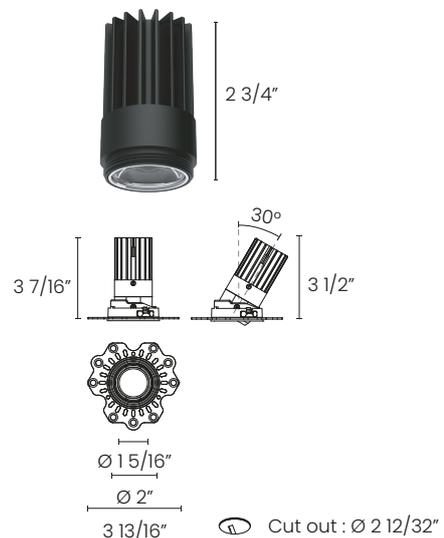
RD-AD-TL-SG-OPL

FIXTURE CONSUMPTION	10W			
CURRENT	500mA			
LENS BEAM ANGLE	15°/24°/36°/60°			
CRI	90+			
CCT	2700K	3000K	4000K	Dim to Warm
DELIVERED LUMEN	936lm	982lm	1009lm	552lm

PHOTOMETRICS



DIMENSIONS



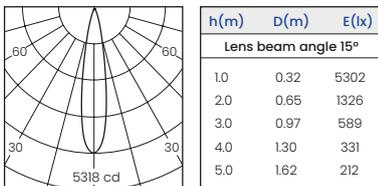
SQUARE/RECTANGLE FLANGED TRIM - OPEN SHORT REFLECTOR



SQ-AD-TF-SG-OPS

FIXTURE CONSUMPTION	10W
CURRENT	500mA
DELIVERED LUMEN (30K)	962lm
DELIVERED LUMEN (DM)	580lm
LENS BEAM ANGLE	15°/24°/36°/60°
CCT	3000K
CRI	90+

PHOTOMETRICS



DIMENSIONS



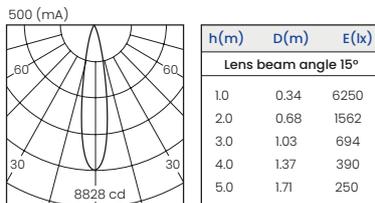
☒ Cut out : 2 13/32" x 2 13/32"



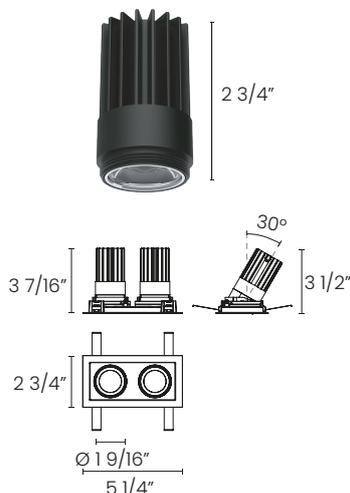
RC-AD-TF-DB-OPS

	NON-IC	IC BOX
FIXTURE CONSUMPTION	20W	16W
CURRENT	500mA	400mA
DELIVERED LUMEN (30K)	1924lm	1552lm
DELIVERED LUMEN (DM)	1160lm	982lm
LENS BEAM ANGLE	15°/24°/36°/60°	
CCT	3000K	
CRI	90+	

PHOTOMETRICS



DIMENSIONS



☒ Cut out : 2 13/32" x 4 3/4"



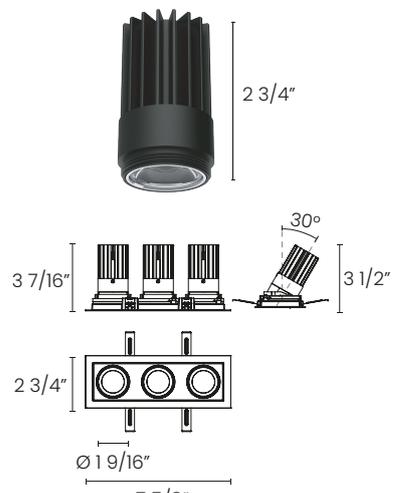
RC-AD-TF-TP-OPS

	NON-IC	IC BOX
FIXTURE CONSUMPTION	30W	24W
CURRENT	500mA	400mA
DELIVERED LUMEN (30K)	2886lm	2328lm
DELIVERED LUMEN (DM)	1740lm	1473lm
LENS BEAM ANGLE	15°/24°/36°/60°	
CCT	3000K	
CRI	90+	

PHOTOMETRICS



DIMENSIONS



☒ Cut out : 2 13/32" x 7 1/8"

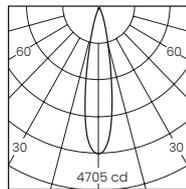
SQUARE/RECTANGLE FLANGED TRIM - OPEN LONG REFLECTOR



SQ-AD-TF-SG-OPL

FIXTURE CONSUMPTION	10W
CURRENT	500mA
DELIVERED LUMEN (30K)	990lm
DELIVERED LUMEN (DM)	610lm
LENS BEAM ANGLE	15°/24°/36°/60°
CCT	3000K
CRI	90+

PHOTOMETRICS



h(m)	D(m)	E(lx)
Lens beam angle 15°		
1.0	0.35	4709
2.0	0.70	1177
3.0	1.05	523
4.0	1.39	294
5.0	1.74	188



DIMENSIONS



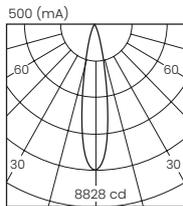
Cut out : 2 13/32" x 2 13/32"



RC-AD-TF-DB-OPL

	NON-IC	IC BOX
FIXTURE CONSUMPTION	20W	16W
CURRENT	500mA	400mA
DELIVERED LUMEN (30K)	1980lm	1598lm
DELIVERED LUMEN (DM)	1220lm	1014lm
LENS BEAM ANGLE	15°/24°/36°/60°	
CCT	3000K	
CRI	90+	

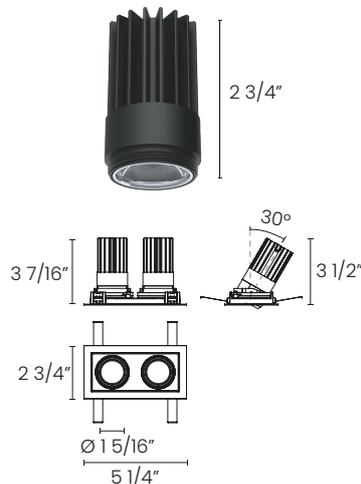
PHOTOMETRICS



h(m)	D(m)	E(lx)
500 (mA)		
Lens beam angle 15°		
1.0	0.34	6250
2.0	0.68	1562
3.0	1.03	694
4.0	1.37	390
5.0	1.71	250



DIMENSIONS



Cut out : 2 13/32" x 4 3/4"



RC-AD-TF-TP-OPL

	NON-IC	IC BOX
FIXTURE CONSUMPTION	30W	24W
CURRENT	500mA	400mA
DELIVERED LUMEN (30K)	2970lm	2397lm
DELIVERED LUMEN (DM)	1830lm	1521lm
LENS BEAM ANGLE	15°/24°/36°/60°	
CCT	3000K	
CRI	90+	

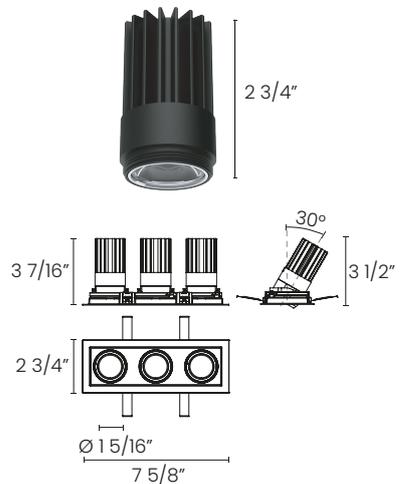
PHOTOMETRICS



h(m)	D(m)	E(lx)
500 (mA)		
Lens beam angle 15°		
1.0	0.34	6250
2.0	0.68	1562
3.0	1.03	694
4.0	1.37	390
5.0	1.71	250



DIMENSIONS



Cut out : 2 13/32" x 7 1/8"

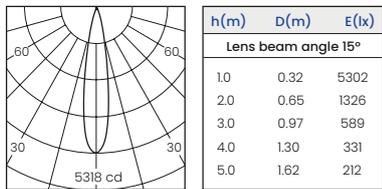
SQUARE/RECTANGLE FLANGELESS TRIM – OPEN SHORT REFLECTOR



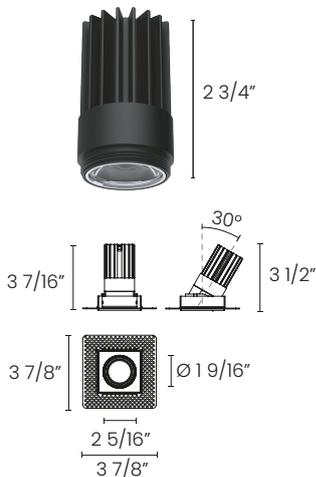
SQ-AD-TL-SG-OPS

FIXTURE CONSUMPTION	10W
CURRENT	500mA
DELIVERED LUMEN (30K)	962lm
DELIVERED LUMEN (DM)	580lm
LENS BEAM ANGLE	15°/24°/36°/60°
CCT	3000K
CRI	90+

PHOTOMETRICS



DIMENSIONS



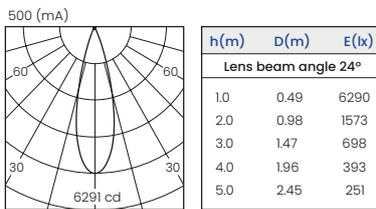
Cut out : 2 13/32" x 2 13/32"



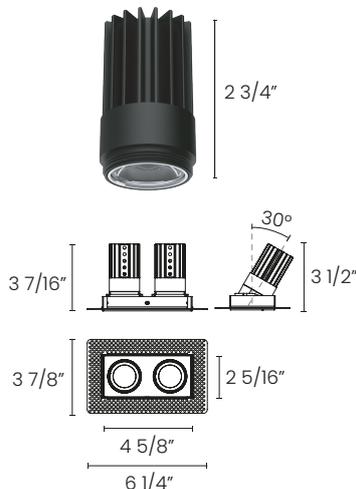
RC-AD-TL-DB-OPS

	NON-IC	IC BOX
FIXTURE CONSUMPTION	20W	16W
CURRENT	500mA	400mA
DELIVERED LUMEN (30K)	1924lm	1552lm
DELIVERED LUMEN (DM)	1160lm	982lm
LENS BEAM ANGLE	15°/24°/36°/60°	
CCT	3000K	
CRI	90+	

PHOTOMETRICS



DIMENSIONS



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



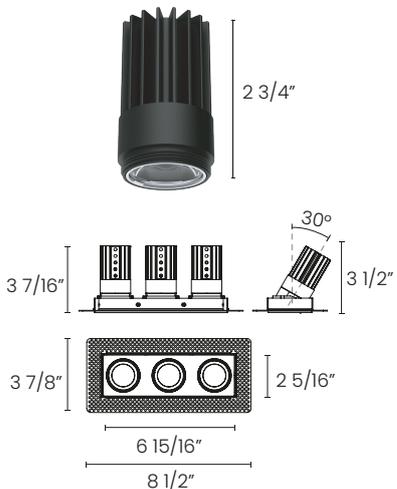
RC-AD-TL-TP-OPS

	NON-IC	IC BOX
FIXTURE CONSUMPTION	30W	24W
CURRENT	500mA	400mA
DELIVERED LUMEN (30K)	2886lm	2328lm
DELIVERED LUMEN (DM)	1740lm	1473lm
LENS BEAM ANGLE	15°/24°/36°/60°	
CCT	3000K	
CRI	90+	

PHOTOMETRICS



DIMENSIONS



Cut out : 2 13/32" x 7 4/32"

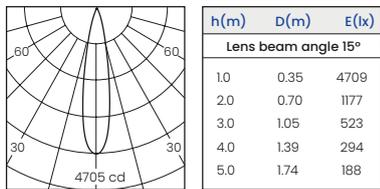
SQUARE/RECTANGLE FLANGELESS TRIM - OPEN LONG REFLECTOR



SQ-AD-TL-SG-OPL

FIXTURE CONSUMPTION	10W
CURRENT	500mA
DELIVERED LUMEN (30K)	990lm
DELIVERED LUMEN (DM)	610lm
LENS BEAM ANGLE	15°/24°/36°/60°
CCT	3000K
CRI	90+

PHOTOMETRICS



DIMENSIONS



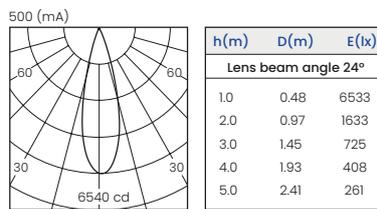
☒ Cut out : 2 13/32" x 2 13/32"



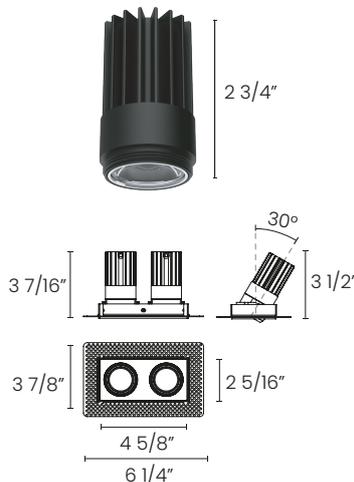
RC-AD-TL-DB-OPL

	NON-IC	IC BOX
FIXTURE CONSUMPTION	20W	16W
CURRENT	500mA	400mA
DELIVERED LUMEN (30K)	1980lm	1598lm
DELIVERED LUMEN (DM)	1220lm	1014lm
LENS BEAM ANGLE	15°/24°/36°/60°	
CCT	3000K	
CRI	90+	

PHOTOMETRICS



DIMENSIONS



☒ Cut out : 2 13/32" x 4 24/32"



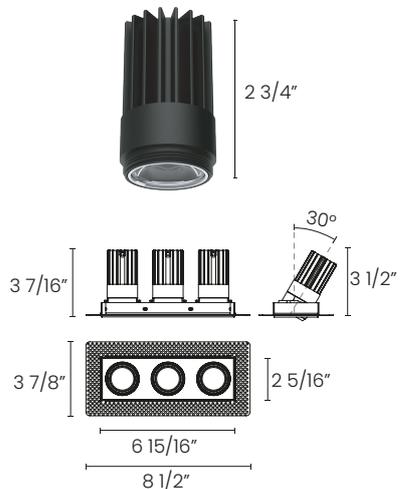
RC-AD-TL-TP-OPL

	NON-IC	IC BOX
FIXTURE CONSUMPTION	30W	24W
CURRENT	500mA	400mA
DELIVERED LUMEN (30K)	2970lm	2397lm
DELIVERED LUMEN (DM)	1830lm	1521lm
LENS BEAM ANGLE	15°/24°/36°/60°	
CCT	3000K	
CRI	90+	

PHOTOMETRICS



DIMENSIONS



☒ Cut out : 2 13/32" x 7 4/32"

CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT



HOUSING



REMODEL/REMOTE ENCLOSED DRIVER

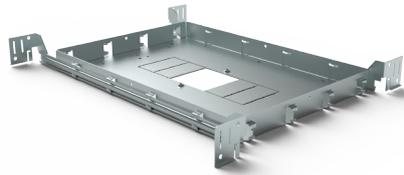
For Constellation Mini 1.5 Multiples both flanged and flangeless trim

Installs from below, service from below

Type: Remote driver box

1 light engine flanged and flangeless trim

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



NEW CONSTRUCTION NON-IC FRAME

For Constellation Mini 1.5 Multiples both flanged and flangeless trim

Installs from above, service from below

Type: New construction frame

1 light engine
Cut out: 2 13/32" x 2 13/32"
2 light engine
Cut out: 2 13/32" x 4 24/32"
3 light engine
Cut out: 2 13/32" x 7 4/32"



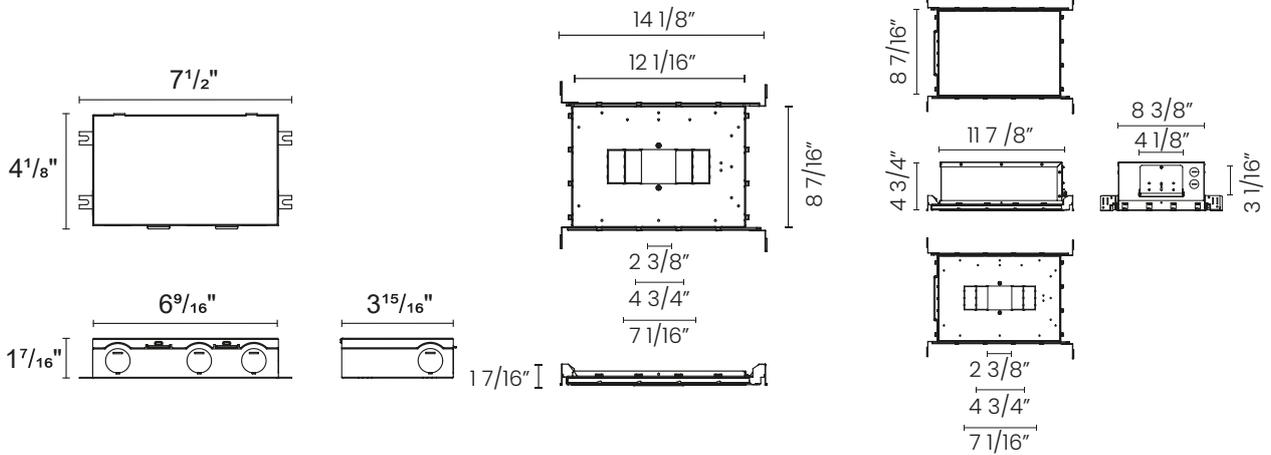
NEW CONSTRUCTION IC BOX

For Constellation Mini 1.5 Multiples both flanged and flangeless trim

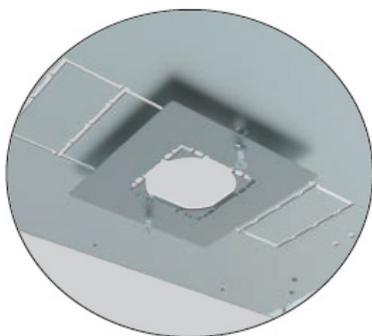
Installs from above, service from below

Type: IC Box

1 light engine
Cut out: 2 13/32" x 2 13/32"
2 light engine
Cut out: 2 13/32" x 4 24/32"
3 light engine
Cut out: 2 13/32" x 7 4/32"



CUTOUT ACCESSORIES



For Constellation Mini 1.5 Multiples

Cut out:
Flanged Trim : 2 4/32"
Flangeless Trim : 2 12/32"

CONSTELLATION

MINI 1.5 MULTIPLES - RECESSED DOWNLIGHT



DRIVER



SELV

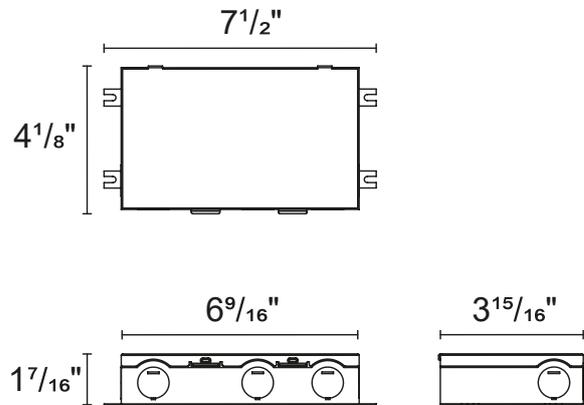
KIG-DWJ Series 40W



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

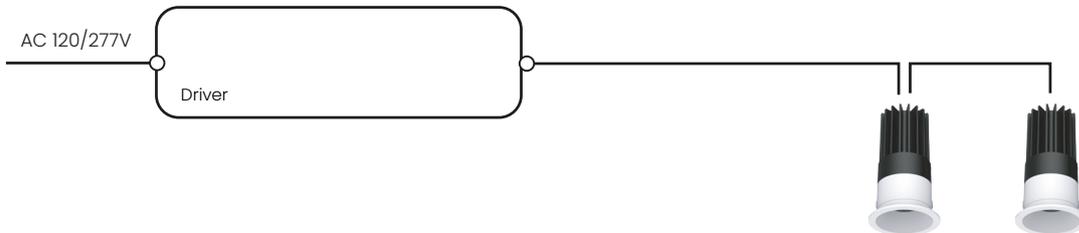
KIG-DWJ Series 40W

TECHNICAL PARAMETERS

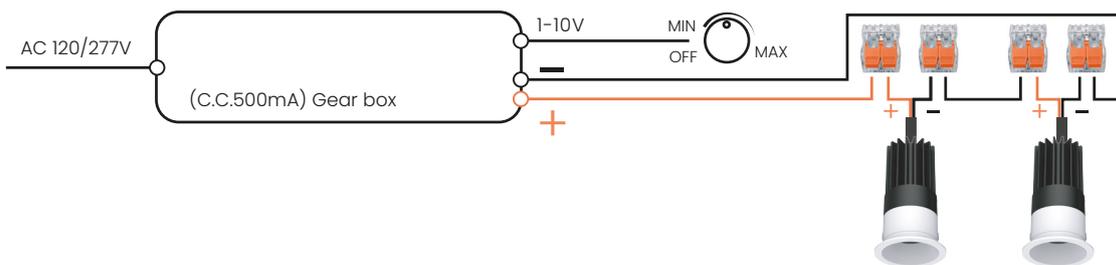
Certificate		UL / cUL / FCC / ICES-005 / Class P / SELV / ROHS / REACH																	
Output	Rated current (A) T ON ↓ OFF	0.3	0.35	0.4	0.45	0.5	0.55	0.6	0.65	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4		
	DIP Code																		
	DIP Code																		
	Current Tolerance	±5%																	
	No-Load Voltage	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 Emission	FCC Part 15 Subpart B; ICES-005 Issue 5; ANSI C63.4a-2017																	
Others	Net Weight	0.57KG																	
	Dimension	190.2*103.9*36mm(L *W*H)																	
	Packing	540*235*235mm 20pcs/CTN																	
Notes	1. All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25°Cof ambient temperature. 2. Tolerance: includes set us tolerance, line regulation and load regulation.																		

MULTIPLES DOWNLIGHTS WIRING DIAGRAM

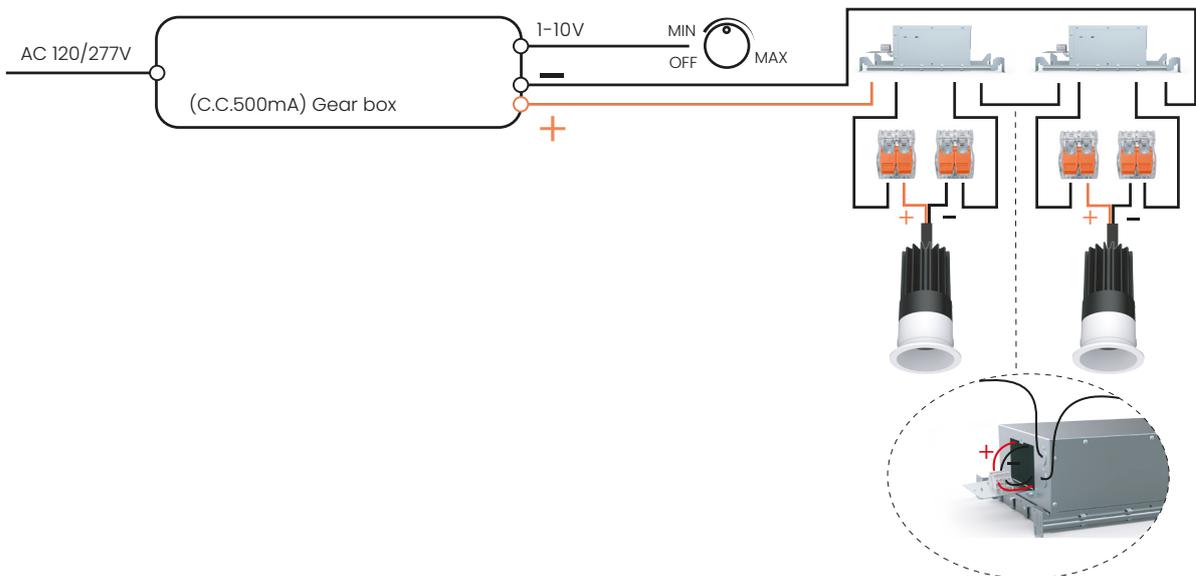
REMOTE DRIVER



NEW CONSTRUCTION NON-IC FRAME



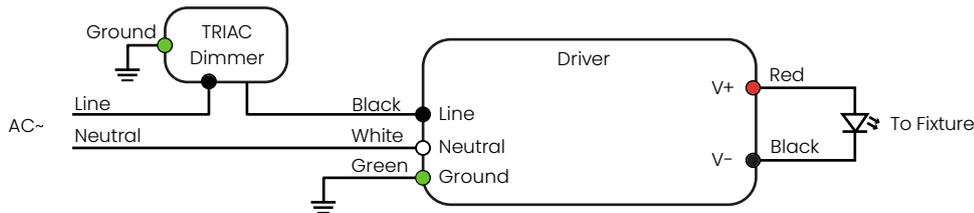
NEW CONSTRUCTION IC



DIMMING WIRING DIAGRAM

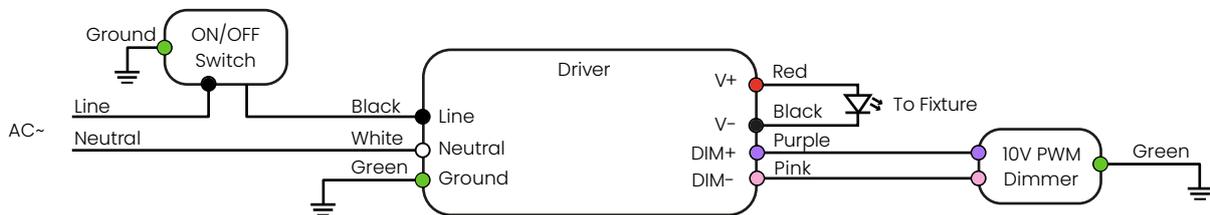
TRIAC / FORWARD PHASE / LEADING EDGE DIMMING (TRI)

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.



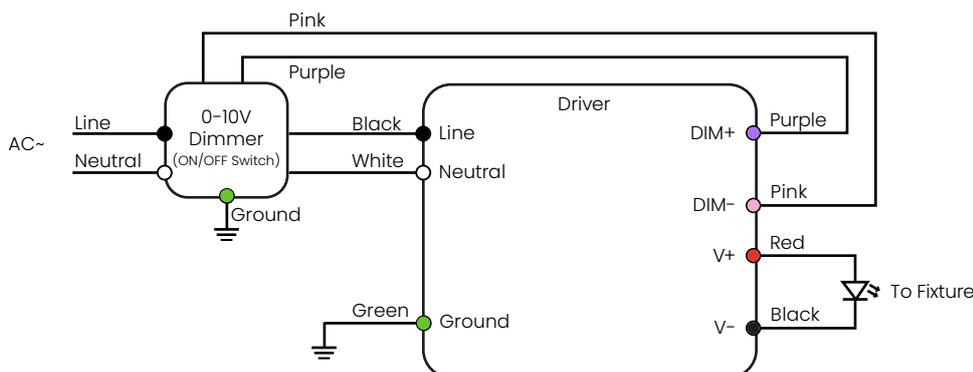
10V PWM

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.



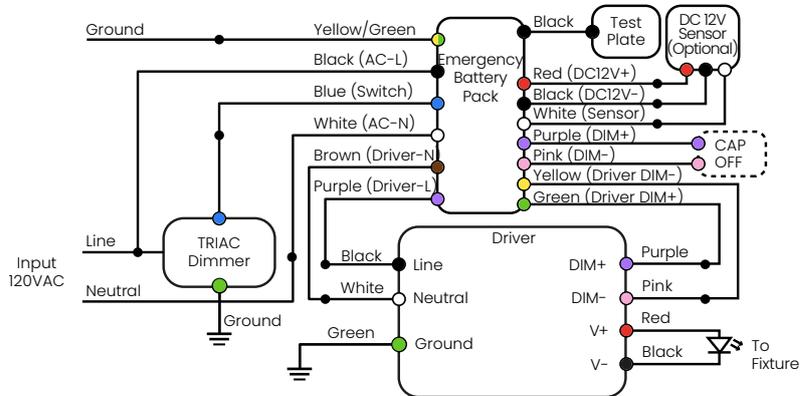
EMERGENCY BATTERY PACK WIRING DIAGRAM

TRIAC / FORWARD PHASE / LEADING EDGE DIMMING (TRI)

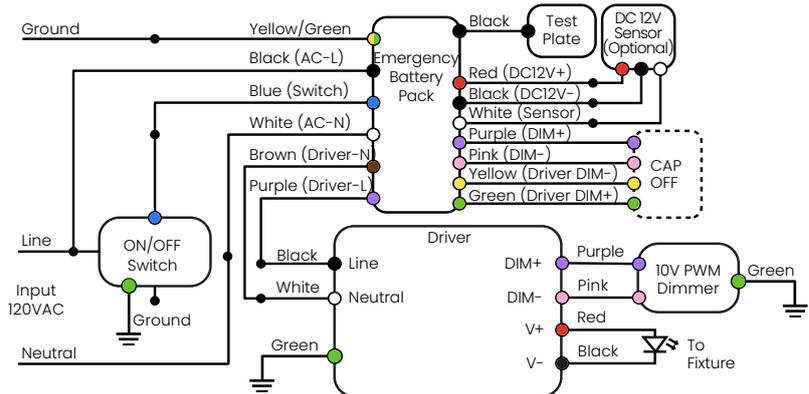
Input 120VAC 50/60Hz Range 3%-100%

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.

