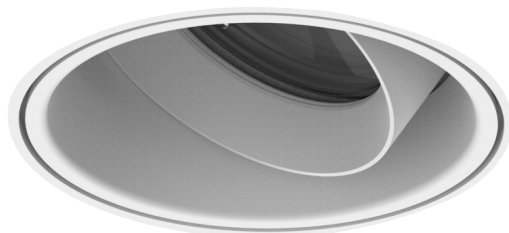


CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT



SOURCE INFORMATION

DELIVERED LUMENS	Up to 983lm per light engine
CONSUMPTION	Up to 10W per light engine
CURRENT	Up to 500mA
EFFICACY	Up to 113.4 lm/W per light engine
INPUT VOLTAGE	120VAC-277VAC
DIMMING	TRIAC/ELV / 0-10V (1%) / 10V PWM
CRI	90+ CRI, 3-Step SDCM
COLOR TEMP-CCT	2700K/3000K/3500K/4000K/ Dim to Warm: 1800K-3000K
LIFE EXPECTANCY	L80 50,000 hrs.
ADJUSTABLE TILT	30°, 360° Rotation
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. 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.

OPTICS ACCESSORY

Honeycomb louver & Linear Spread Lens

MATERIAL

Aluminum Die-Casting, Electrostatic Powder Coating

MINIMUM PLENUM SPACE

The minimum plenum space required is 4.5 inches.

CEILING THICKNESS

Up to 25/32"

COMPATIBLE CEILING TYPES

Drywall, T-Bar Grid, Acoustic Tile, Metal Ceiling.
And any material within the compatible thickness.



PERFORMANCE – WHITE STATIC – PER LIGHT ENGINE

CONFIGURATION	DW	APPROX. LM/W
Single snoot reflector	964 lm	113.4
Single snooty reflector	964 lm	113.4
Double snoot reflector	964 lm	113.4
Double snooty reflector	964 lm	113.4
Triple snooty reflector	964 lm	113.4
Triple snooty reflector	964 lm	113.4

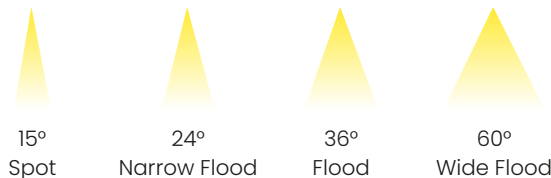
PERFORMANCE – DIM TO WARM – PER LIGHT ENGINE

CONFIGURATION	DW	APPROX. LM/W
Single snoot reflector	574 lm	57.4
Single snooty reflector	574 lm	57.4
Double snoot reflector	545 lm	54.5
Double snooty reflector	545 lm	54.5
Triple snooty reflector	545 lm	54.5
Triple snooty reflector	545 lm	54.5

UGR

CCT	2700K	3000K	3500K	4000K
UGR 20°	<16	<19	<16	<16
UGR 30°	<13	<16	<13	<13
UGR 40°	<19	<16	<19	<19
UGR 50°	<22	<19	<22	<22

LENS BEAM ANGLE



TRIM FINISH



Fixture type:

Job information:

CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

PRODUCT DEFINITION SHEET

Ex: CTL-MPS-1.5-RD-TF-SH-SG-30K-15-WH-30M-1-U-EM10-RM-NN

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

1	2	3	4
SERIES	LIGHT ENGINE TYPE	SINGLE TRIM SHAPE	MOUNTING PAN
☐ CTL-MPS Constellation Mini Multiples	☐ 1.5 1.5 High Efficiency Standard	☐ RD Round ☐ SQ Square	☐ TF Flanged Trim ☐ TL Flangeless Trim

5	6	7	8	9
REFLECTOR – INSERT	LIGHT ENGINES	COLOR TEMP-CCT (90 CRI)	LENS BEAM ANGLE	TRIM FINISH
☐ SH Open Snoot ☐ LG Open Snooty	☐ SG Single ☐ DB Double ☐ TP Triple	☐ 27K 2700K ☐ 30K 3000K ☐ 35K 3500K ☐ 40K 4000K ☐ DW Dim to Warm: 1800K–3000K (Only available in standard Light Engine)	☐ 15 15° Spot ☐ 24 24° Narrow ☐ 36 36° Flood ☐ 60 60° Wide Flood	☐ ☐ WH White ☐ ☐ BK Black ☐  CS Custom RAL No. _____

10	11	12	13
LUMEN PACKAGE	DRIVER	VOLTAGE	STANDBY MODULES
☐ 30M ☐ 35M ☐ 40M ☐ 45M ☐ 50M	☐ 1 0-10V 1% Dimming ☐ TLV TRIAC/ELV 1% Dimming ☐ PWM 10V PWM 1% Dimming Remote Constant Current Driver	☐ U Uni 120-277V	☐ EM10 Emergency Battery Pack 10W ☐ EM12 Emergency Battery Pack 12W ☐ NO No Option Remote Emergency Battery Pack, for field install Max distance with EM = 50 ft

See pages 4 to 11 for Available Light Engine Lumen packages

Max distance:
196-ft using 12 AWG wire
100-ft using 16 AWG wire
50-ft using 18 AWG wire

Check mA to Lumen values in the charts

14	15
INSTALLATION TYPE	OPTICS ACCESSORY
☐ RM Remote ☐ NC New Construction Non-IC Frame ☐ IC New construction IC Box	☐ NN None ☐ HL Honeycomb louver ☐ LS Linear Spread Lens

Accessories are not suitable for wallwash fixtures



Honeycomb louver



Linear Spread Lens

CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

ACCESORIES LIST

OPTIC	
1.5-HL	Honeycomb Louver
1.5-LS	Linear Spread Lens
1.5-15	Standard light-engine lens; provides 15° beam angle
1.5-24	Standard light-engine lens; provides 24° beam angle
1.5-36	Standard light-engine lens; provides 36° beam angle
1.5-60	Standard light-engine lens; provides 60° beam angle
1.5-15DW	Dim-to-warm lens; provides 15° beam angle
1.5-24DW	Dim-to-warm lens; provides 24° beam angle
1.5-36DW	Dim-to-warm lens; provides 36° beam angle
1.5-60DW	Dim-to-warm lens; provides 60° beam angle

INSTALLATION	
1.5-NC	New Construction Plate for Multiples Light Engines
1.5-IC-SG-DB	IC BOX for 1 and 2 Light engines
1.5-IC-TP	IC Box for Triple Light Engines
1.5-RM	Remote driver box with driver

CUT OUT PLATE	
1.5-TF-TL-SG	Round Cutout Plate for Flanged or Flangeless Single-Light-Engine Multiples



ROUND

FLANGED TRIM



FLANGELESS TRIM



SQUARE

FLANGED TRIM



FLANGELESS TRIM



2 LAMP

FLANGED TRIM



FLANGELESS TRIM



3 LAMP

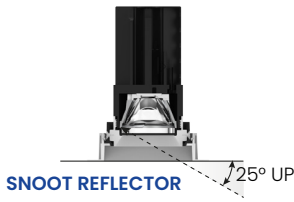
FLANGED TRIM



FLANGELESS TRIM



CUTOFF ANGLE



CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

SINGLE ROUND FLANGED TRIM



OPEN SNOOT REFLECTOR

CTL-MPS-1.5-RD-TF-SH-SG

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

3000K

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	578 lm	4.9W
IC/NON-IC	35M	350	675 lm	5.8W
IC	40M	400	771 lm	6.7W
NON-IC	45M	450	867 lm	7.6W
NON-IC	50M	500	964 lm	8.5W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	345 lm	4W
IC/NON-IC	35M	350	402 lm	6W
IC	40M	400	459 lm	8W
NON-IC	45M	450	517 lm	9W
NON-IC	50M	500	574 lm	10W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

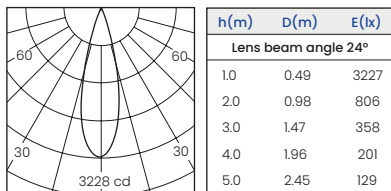
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

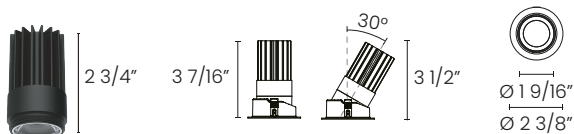
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

PHOTOMETRICS



DIMENSIONS



Ⓢ Cut out: Ø 2 4/32"



OPEN SNOOTY REFLECTOR

CTL-MPS-1.5-RD-TF-LG-SG

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

3000K

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	578 lm	4.9W
IC/NON-IC	35M	350	675 lm	5.8W
IC	40M	400	771 lm	6.7W
NON-IC	45M	450	867 lm	7.6W
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DIM TO WARM

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	345 lm	4W
IC/NON-IC	35M	350	402 lm	6W
IC	40M	400	459 lm	8W
NON-IC	45M	450	517 lm	9W
NON-IC	50M	500	574 lm	10W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

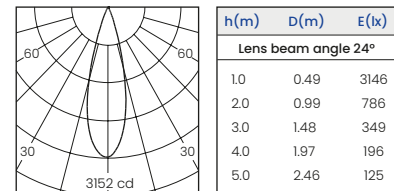
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

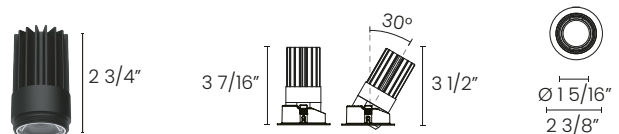
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

PHOTOMETRICS



DIMENSIONS



Ⓢ Cut out: Ø 2 4/32"

CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

SINGLE ROUND FLANGELESS TRIM



OPEN SNOOT REFLECTOR

CTL-MPS-1.5-RD-TL-SH-SG

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

3000K

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	578 lm	4.9W
IC/NON-IC	35M	350	675 lm	5.8W
IC	40M	400	771 lm	6.7W
NON-IC	45M	450	867 lm	7.6W
NON-IC	50M	500	964 lm	8.5W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	345 lm	4W
IC/NON-IC	35M	350	402 lm	6W
IC	40M	400	459 lm	8W
NON-IC	45M	450	517 lm	9W
NON-IC	50M	500	574 lm	10W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

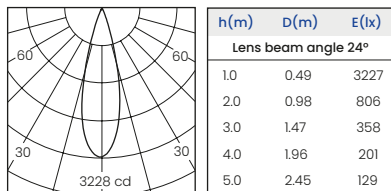
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

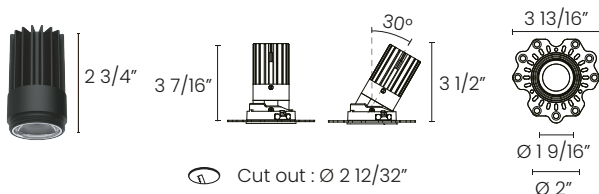
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

PHOTOMETRICS



DIMENSIONS



OPEN SNOOTY REFLECTOR

CTL-MPS-1.5-RD-TL-LG-SG

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

3000K

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	578 lm	4.9W
IC/NON-IC	35M	350	675 lm	5.8W
IC	40M	400	771 lm	6.7W
NON-IC	45M	450	867 lm	7.6W
NON-IC	50M	500	964 lm	8.5W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	345 lm	4W
IC/NON-IC	35M	350	402 lm	6W
IC	40M	400	459 lm	8W
NON-IC	45M	450	517 lm	9W
NON-IC	50M	500	574 lm	10W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

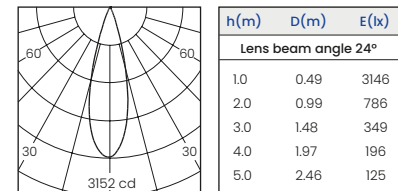
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

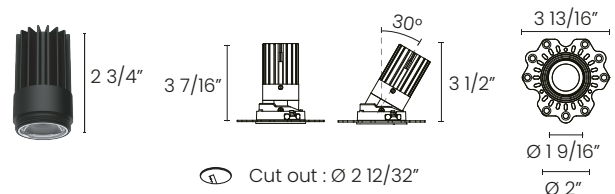
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

PHOTOMETRICS



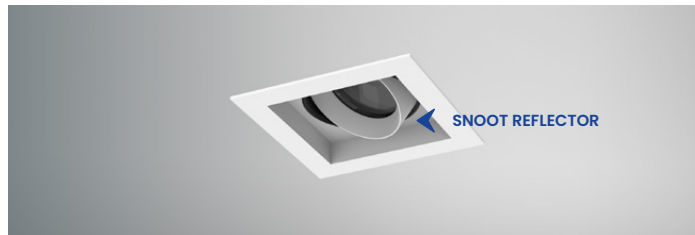
DIMENSIONS



CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

SINGLE SQUARE FLANGED TRIM



OPEN SNOOT REFLECTOR CTL-MPS-1.5-SQ-TF-SH-SG

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

3000K

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	578 lm	4.9W
IC/NON-IC	35M	350	675 lm	5.8W
IC	40M	400	771 lm	6.7W
NON-IC	45M	450	867 lm	7.6W
NON-IC	50M	500	964 lm	8.5W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	345 lm	4W
IC/NON-IC	35M	350	402 lm	6W
IC	40M	400	459 lm	8W
NON-IC	45M	450	517 lm	9W
NON-IC	50M	500	574 lm	10W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

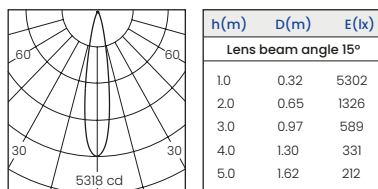
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

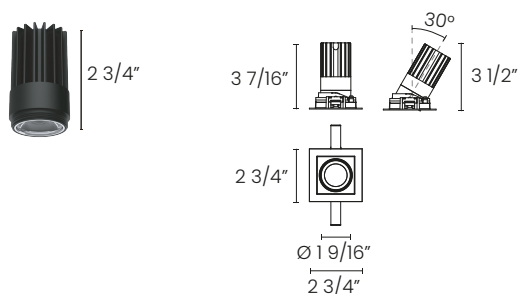
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

PHOTOMETRICS



DIMENSIONS



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



OPEN SNOOTY REFLECTOR CTL-MPS-1.5-SQ-TF-LG-SG

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

3000K

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	578 lm	4.9W
IC/NON-IC	35M	350	675 lm	5.8W
IC	40M	400	771 lm	6.7W
NON-IC	45M	450	867 lm	7.6W
NON-IC	50M	500	964 lm	8.5W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	345 lm	4W
IC/NON-IC	35M	350	402 lm	6W
IC	40M	400	459 lm	8W
NON-IC	45M	450	517 lm	9W
NON-IC	50M	500	574 lm	10W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

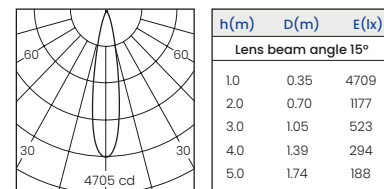
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

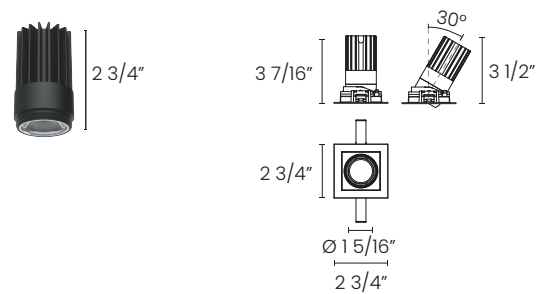
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

PHOTOMETRICS



DIMENSIONS



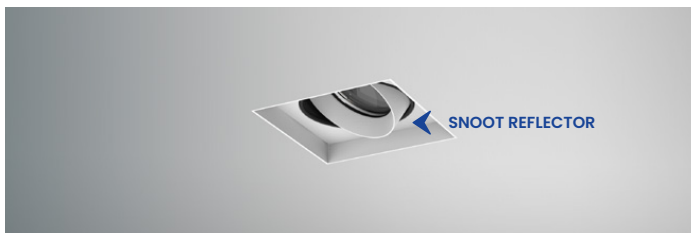
Cut out : 2 13/32" x 2 13/32"

CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

SINGLE SQUARE FLANGELESS TRIM

355°



OPEN SNOOT REFLECTOR CTL-MPS-1.5-SQ-TL-SH-SG

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

OPEN SNOOTY REFLECTOR CTL-MPS-1.5-SQ-TL-LG-SG

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

3000K

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	578 lm	4.9W
IC/NON-IC	35M	350	675 lm	5.8W
IC	40M	400	771 lm	6.7W
NON-IC	45M	450	867 lm	7.6W
NON-IC	50M	500	964 lm	8.5W

3000K

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	578 lm	4.9W
IC/NON-IC	35M	350	675 lm	5.8W
IC	40M	400	771 lm	6.7W
NON-IC	45M	450	867 lm	7.6W
NON-IC	50M	500	964 lm	8.5W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	345 lm	4W
IC/NON-IC	35M	350	402 lm	6W
IC	40M	400	459 lm	8W
NON-IC	45M	450	517 lm	9W
NON-IC	50M	500	574 lm	10W

DIM TO WARM

IC/NON-IC	LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)	FIXTURE CONSUMPTION (W)
IC/NON-IC	30M	300	345 lm	4W
IC/NON-IC	35M	350	402 lm	6W
IC	40M	400	459 lm	8W
NON-IC	45M	450	517 lm	9W
NON-IC	50M	500	574 lm	10W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

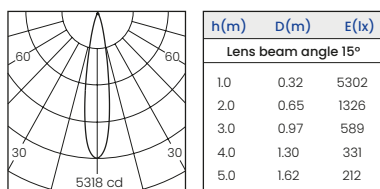
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

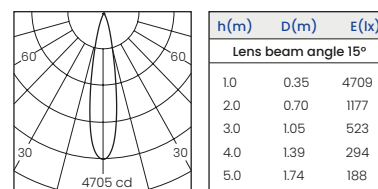
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

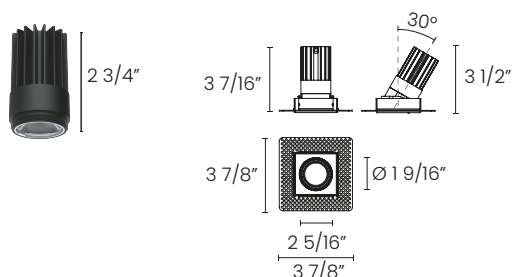
PHOTOMETRICS



PHOTOMETRICS

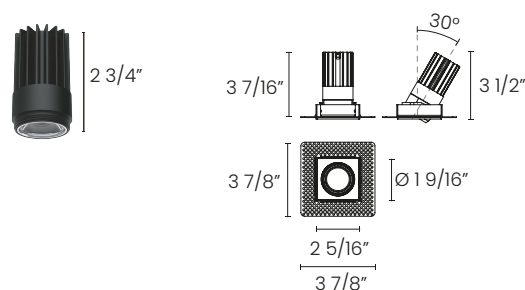


DIMENSIONS



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

DIMENSIONS



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

CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

DOUBLE FLANGED TRIM



OPEN SNOOT REFLECTOR CTL-MPS-1.5-SQ-TF-SH-DB

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

3000K

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x2=600	590x2=1180	578x2=1156	4.9x2=9.8W
35M	350x2=700	688x2=1376	675x2=1350	5.8x2=11.6W
40M	400x2=800	786x2=1572	771x2=1542	6.7x2=13.4W
45M	450x2=900	884x2=1768	867x2=1734	7.6x2=15.2W
50M	500x2=1000	983x2=1966	964x2=1928	8.5x2=17W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x2=600	345x2=690	327x2=654	4x2=8W
35M	350x2=700	402x2=804	381x2=762	6x2=12W
40M	400x2=800	459x2=918	436x2=872	8x2=16W
45M	450x2=900	517x2=1034	490x2=980	9x2=18W
50M	500x2=1000	574x2=1148	545x2=1090	10x2=20W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

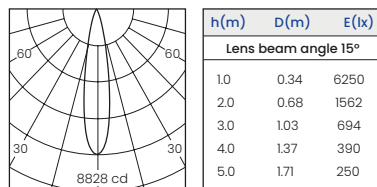
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

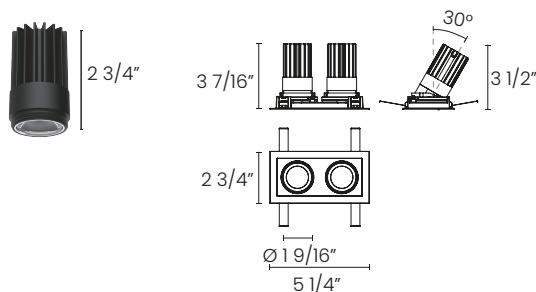
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

PHOTOMETRICS 500 (mA)



DIMENSIONS



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



OPEN SNOOTY REFLECTOR CTL-MPS-1.5-SQ-TF-LG-DB

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

3000K

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x2=600	590x2=1180	578x2=1156	4.9x2=9.8W
35M	350x2=700	688x2=1376	675x2=1350	5.8x2=11.6W
40M	400x2=800	786x2=1572	771x2=1542	6.7x2=13.4W
45M	450x2=900	884x2=1768	867x2=1734	7.6x2=15.2W
50M	500x2=1000	983x2=1966	964x2=1928	8.5x2=17W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x2=600	345x2=690	327x2=654	4x2=8W
35M	350x2=700	402x2=804	381x2=762	6x2=12W
40M	400x2=800	459x2=918	436x2=872	8x2=16W
45M	450x2=900	517x2=1034	490x2=980	9x2=18W
50M	500x2=1000	574x2=1148	545x2=1090	10x2=20W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

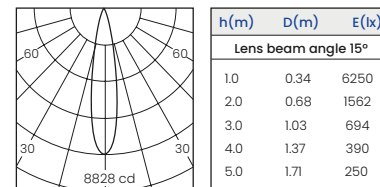
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

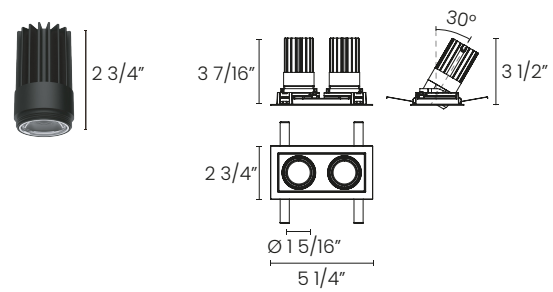
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

PHOTOMETRICS 500 (mA)



DIMENSIONS



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

CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

DOUBLE FLANGELESS TRIM



OPEN SNOOT REFLECTOR CTL-MPS-1.5-SQ-TL-SH-DB

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

3000K

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x2=600	590x2=1180	578x2=1156	4.9x2=9.8W
35M	350x2=700	688x2=1376	675x2=1350	5.8x2=11.6W
40M	400x2=800	786x2=1572	771x2=1542	6.7x2=13.4W
45M	450x2=900	884x2=1768	867x2=1734	7.6x2=15.2W
50M	500x2=1000	983x2=1966	964x2=1928	8.5x2=17W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x2=600	345x2=690	327x2=654	4x2=8W
35M	350x2=700	402x2=804	381x2=762	6x2=12W
40M	400x2=800	459x2=918	436x2=872	8x2=16W
45M	450x2=900	517x2=1034	490x2=980	9x2=18W
50M	500x2=1000	574x2=1148	545x2=1090	10x2=20W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

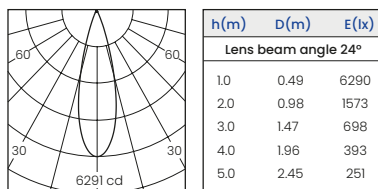
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

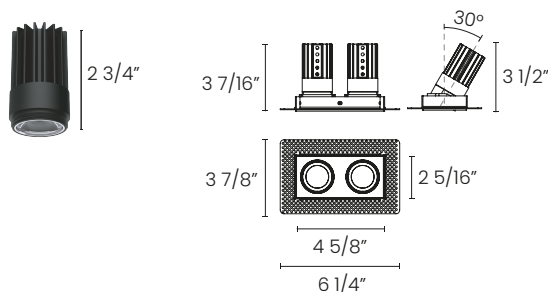
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

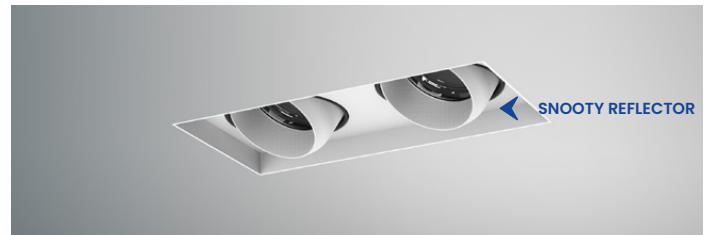
PHOTOMETRICS 500 (mA)



DIMENSIONS



⚠ Cut out : 2 13/32" x 4 24/32"



OPEN SNOOTY REFLECTOR CTL-MPS-1.5-SQ-TL-LG-DB

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

3000K

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x2=600	590x2=1180	578x2=1156	4.9x2=9.8W
35M	350x2=700	688x2=1376	675x2=1350	5.8x2=11.6W
40M	400x2=800	786x2=1572	771x2=1542	6.7x2=13.4W
45M	450x2=900	884x2=1768	867x2=1734	7.6x2=15.2W
50M	500x2=1000	983x2=1966	964x2=1928	8.5x2=17W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x2=600	345x2=690	327x2=654	4x2=8W
35M	350x2=700	402x2=804	381x2=762	6x2=12W
40M	400x2=800	459x2=918	436x2=872	8x2=16W
45M	450x2=900	517x2=1034	490x2=980	9x2=18W
50M	500x2=1000	574x2=1148	545x2=1090	10x2=20W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

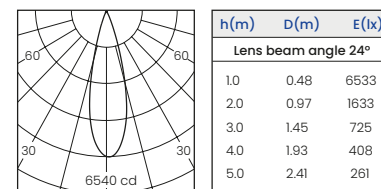
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

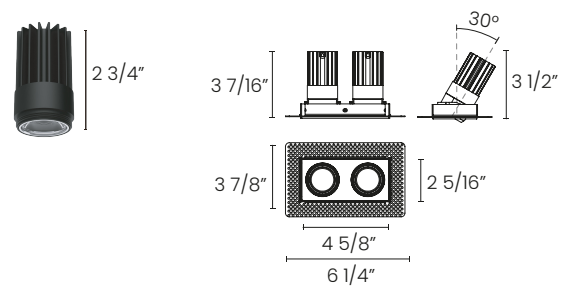
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

PHOTOMETRICS 500 (mA)



DIMENSIONS

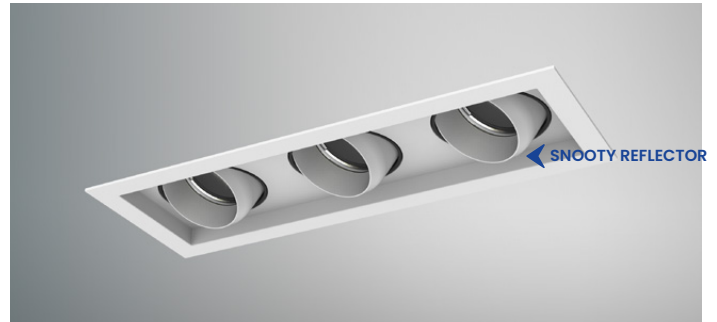


⚠ Cut out : 2 13/32" x 4 24/32"

CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

TRIPLE FLANGED TRIM



OPEN SNOOT REFLECTOR CTL-MPS-1.5-SQ-TF-SH-TP

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

OPEN SNOOTY REFLECTOR CTL-MPS-1.5-SQ-TF-LG-TP

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

3000K

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x3=900	590x3=1770	578x3=1734	4.9x3=14.7W
35M	350x3=1050	688x3=2064	675x3=2025	5.8x3=17.4W
40M	400x3=1200	786x3=2358	771x3=2313	6.7x3=20.1W
45M	450x3=1350	884x3=2652	867x3=2601	7.6x3=22.8W
50M	500x3=1500	983x3=2949	964x3=2892	8.5x3=25.5W

3000K

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x3=900	590x3=1770	578x3=1734	4.9x3=14.7W
35M	350x3=1050	688x3=2064	675x3=2025	5.8x3=17.4W
40M	400x3=1200	786x3=2358	771x3=2313	6.7x3=20.1W
45M	450x3=1350	884x3=2652	867x3=2601	7.6x3=22.8W
50M	500x3=1500	983x3=2949	964x3=2892	8.5x3=25.5W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

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DIM TO WARM

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x3=900	345x3=1035	327x3=981	4x3=12W
35M	350x3=1050	402x3=1206	381x3=1143	6x3=18W
40M	400x3=1200	459x3=1377	436x3=1308	8x3=24W
45M	450x3=1350	517x3=1551	490x3=1470	9x3=27W
50M	500x3=1500	574x3=1722	545x3=1635	10x3=30W

DIM TO WARM

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x3=900	345x3=1035	327x3=981	4x3=12W
35M	350x3=1050	402x3=1206	381x3=1143	6x3=18W
40M	400x3=1200	459x3=1377	436x3=1308	8x3=24W
45M	450x3=1350	517x3=1551	490x3=1470	9x3=27W
50M	500x3=1500	574x3=1722	545x3=1635	10x3=30W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

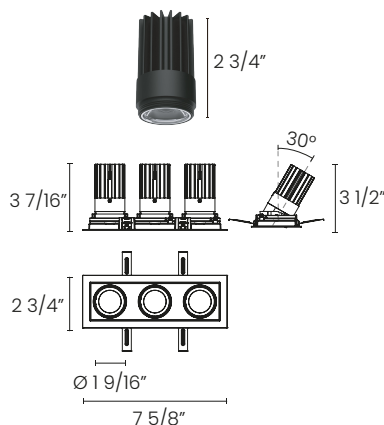
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

Multiplier for Optics Accessories

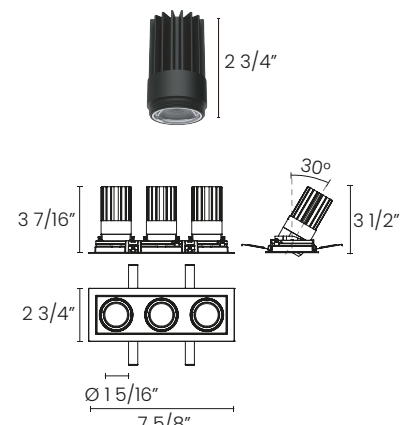
Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

DIMENSIONS



⚠ Cut out : 2 13/32" x 7 1/8"

DIMENSIONS

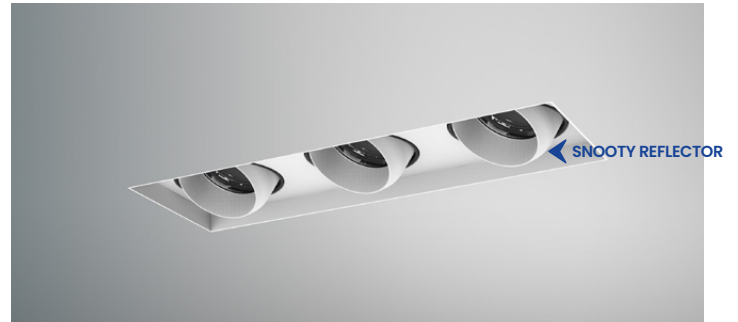


⚠ Cut out : 2 13/32" x 7 1/8"

CONSTELLATION

MINI 1.5 MULTIPLES - RECESSED DOWNLIGHT

TRIPLE FLANGELESS TRIM



OPEN SNOOT REFLECTOR	CTL-MPS-1.5-SQ-TL-SH-TP
CRI	90+
LENS BEAM ANGLE	15°/24°/36°/60°

OPEN SNOOTY REFLECTOR	CTL-MPS-1.5-SQ-TL-LG-TP
CRI	90+
LENS BEAM ANGLE	15°/24°/36°/60°

3000K

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x3=900	590x3=1770	578x3=1734	4.9x3=14.7W
35M	350x3=1050	688x3=2064	675x3=2025	5.8x3=17.4W
40M	400x3=1200	786x3=2358	771x3=2313	6.7x3=20.1W
45M	450x3=1350	884x3=2652	867x3=2601	7.6x3=22.8W
50M	500x3=1500	983x3=2949	964x3=2892	8.5x3=25.5W

3000K

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x3=900	590x3=1770	578x3=1734	4.9x3=14.7W
35M	350x3=1050	688x3=2064	675x3=2025	5.8x3=17.4W
40M	400x3=1200	786x3=2358	771x3=2313	6.7x3=20.1W
45M	450x3=1350	884x3=2652	867x3=2601	7.6x3=22.8W
50M	500x3=1500	983x3=2949	964x3=2892	8.5x3=25.5W

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Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

DIM TO WARM

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x3=900	345x3=1035	327x3=981	4x3=12W
35M	350x3=1050	402x3=1206	381x3=1143	6x3=18W
40M	400x3=1200	459x3=1377	436x3=1308	8x3=24W
45M	450x3=1350	517x3=1551	490x3=1470	9x3=27W
50M	500x3=1500	574x3=1722	545x3=1635	10x3=30W

DIM TO WARM

LUMEN OUTPUT CODE	CURRENT (mA)	DELIVERED LUMEN (lm)		TOTAL FIXTURE CONSUMPTION (W)
		NON IC	IC	
30M	300x3=900	345x3=1035	327x3=981	4x3=12W
35M	350x3=1050	402x3=1206	381x3=1143	6x3=18W
40M	400x3=1200	459x3=1377	436x3=1308	8x3=24W
45M	450x3=1350	517x3=1551	490x3=1470	9x3=27W
50M	500x3=1500	574x3=1722	545x3=1635	10x3=30W

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

Actual performance may differ by +/- 5% when operating between 120V-277V +/- 10%.

Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

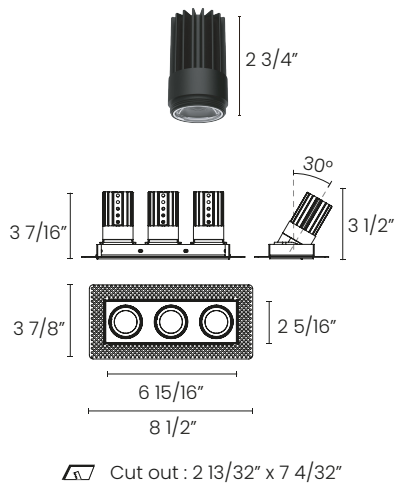
Multiplier for other Color Temp (K)

2700K	90%
3500K	110%
4000K	120%

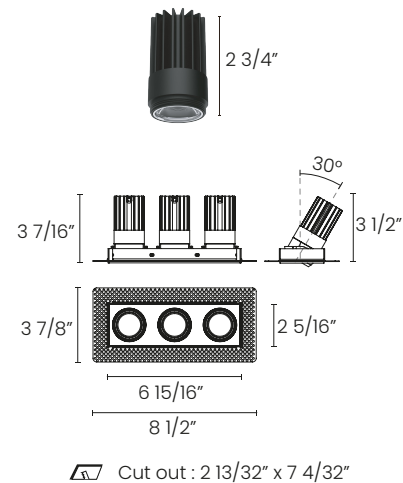
Multiplier for Optics Accessories

Clear (None)	100%
Honeycomb louver	67%
Linear Spread Lens	72%

DIMENSIONS



DIMENSIONS



CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT

HOUSING



REMODEL/REMOTE ENCLOSED DRIVER

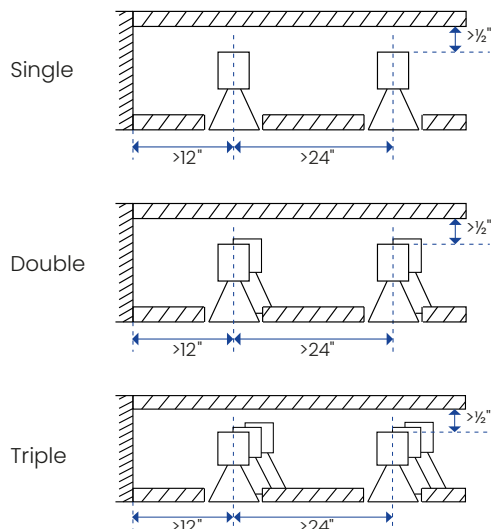
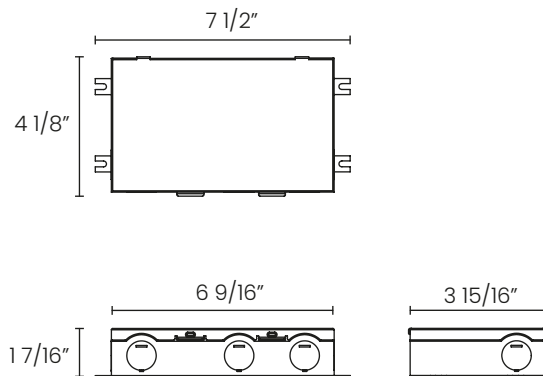
For Constellation Mini 1.5 Multiples both flanged and flangeless trim

Installs from below, service from below

Type: Remote driver box

1 light engine

Cut out: $2 \frac{13}{32}" \times 2 \frac{13}{32}"$



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

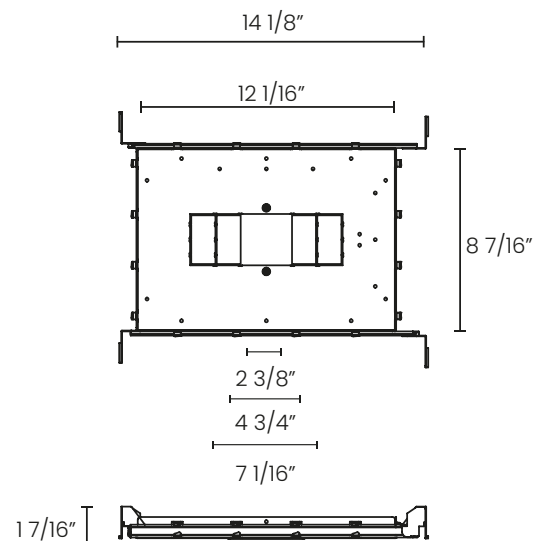
Cut out: $2 \frac{13}{32}" \times 2 \frac{13}{32}"$

2 light engine

Cut out: $2 \frac{13}{32}" \times 4 \frac{24}{32}"$

3 light engine

Cut out: $2 \frac{13}{32}" \times 7 \frac{4}{32}"$



CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT



HOUSING



NEW CONSTRUCTION IC BOX FOR SINGLE AND DOUBLE

For Constellation Mini 1.5 Multiples both flanged and flangeless trim Single and Double

Installs from above, service from below

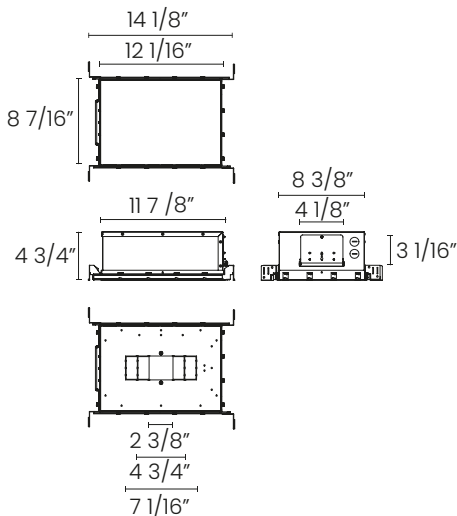
Type: IC Box

1 light engine

Cut out: $2 \frac{13}{32}$ " x $2 \frac{13}{32}$ "

2 light engine

Cut out: $2 \frac{13}{32}$ " x $4 \frac{24}{32}$ "



NEW CONSTRUCTION IC BOX FOR TRIPLE

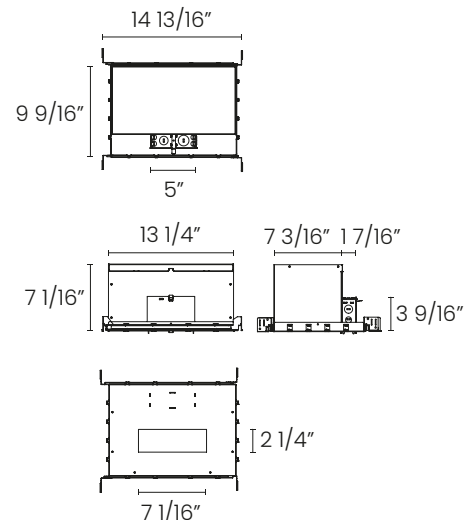
For Constellation Mini 1.5 Multiples both flanged and flangeless trim Triple

Installs from above, service from below

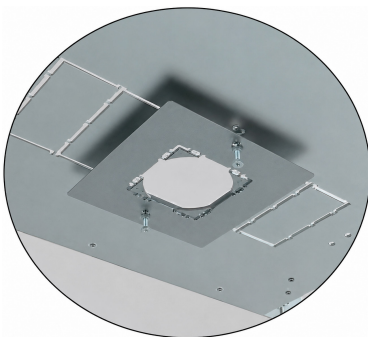
Type: IC Box

3 light engine

Cut out: $2 \frac{13}{32}$ " x $7 \frac{4}{32}$ "



CUTOUT ACCESORIES



For Constellation Mini 1.5
Multiples Single

Cut out:

Flanged Trim : $2 \frac{4}{32}$ "

Flangeless Trim : $2 \frac{12}{32}$ "

CONSTELLATION

MINI 1.5 MULTIPLES – RECESSED DOWNLIGHT



KIG-DWJ Series 40W



ICES-005

Class P

SELV

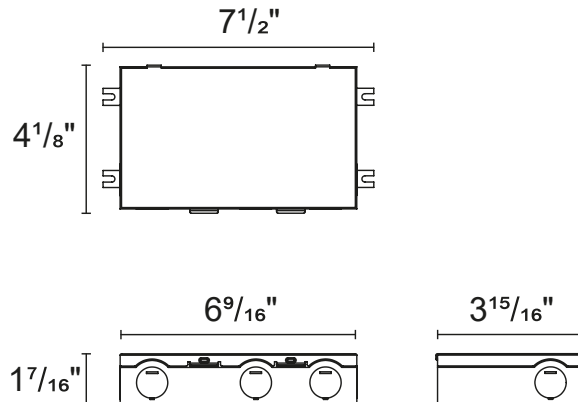
RoHS



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



STANDBY MODULE

An emergency battery pack is available as an option for field installation by others. AC Electronics emergency battery is California Title 20 Compliant and provides backup power for 90 minutes. EM fixtures are provided with an integral emergency battery that requires above ceiling access for service, and a remote test switch, which comes with a 24" lead length for location of the test switch. Remote EM test switch is dry/damp only.

DRIVER

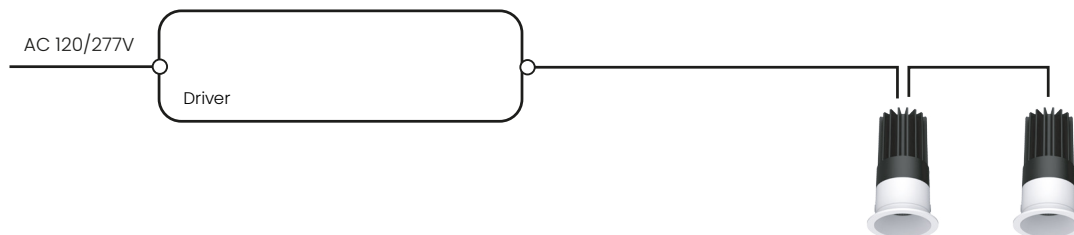
KIG-DWJ Series 40W

TECHNICAL PARAMETERS

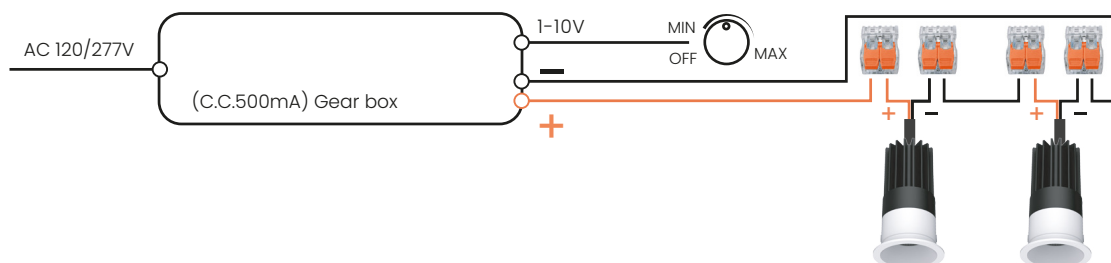
Certificate		UL / cUL / FCC / ICES-005 / Class P / SELV / ROHS / REACH																
Output	Rated current (A) T ON ↓ OFF	0.3	0.35	0.4	0.45	0.5	0.55	0.6	0.65	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	
	DIP Code	1111		1111		1111		1111		1111		1111		1111		1111		
	DIP Code		1111		1111		1111		1111		1111		1111		1111		1111	
	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.																
Enviroment	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:1.88K VAC I/P-F/G:1.88K VAC O/P-F/G:0.5K VAC																
	Isolation resistance	I/P-O/P:100MΩ / 500VDC / 25°C / 70% RH																
	EMC Immunity	FCC/ICES do not request this test.																
	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°C of ambient temperature. 2. Tolerance: includes set up tolerance, line regulation and load regulation.																	

MULTIPLE DOWNLIGHTS WIRING DIAGRAM

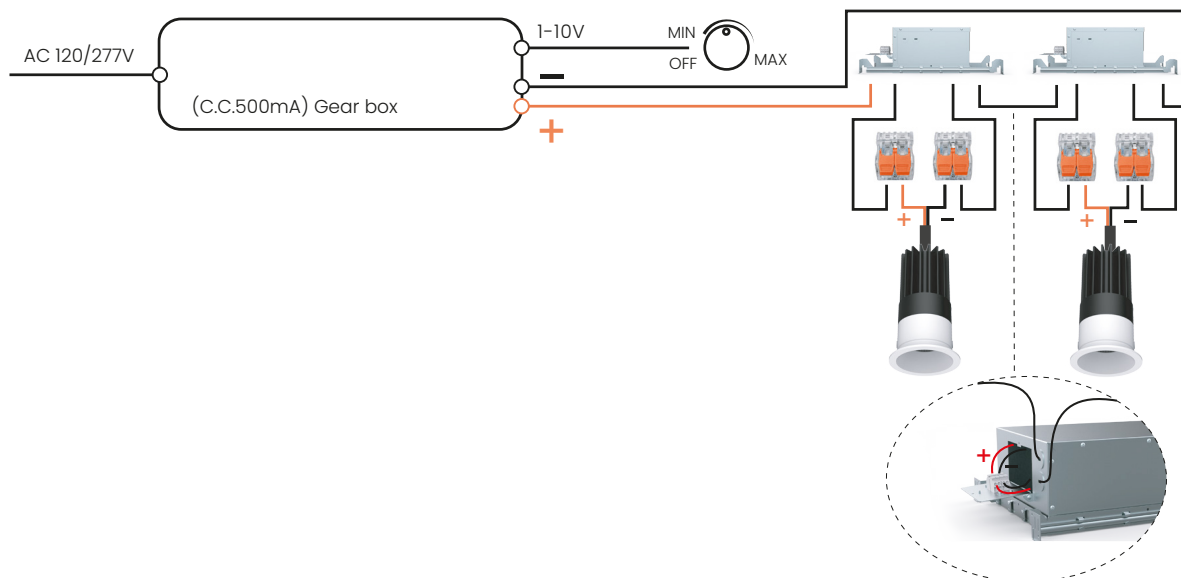
REMOTE DRIVER



NEW CONSTRUCTION NON-IC FRAME



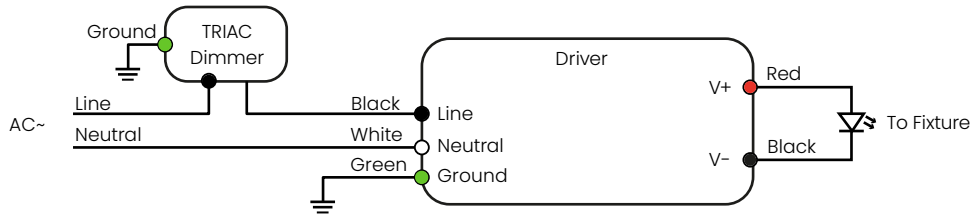
NEW CONSTRUCTION IC



DIMMING WIRING DIAGRAM

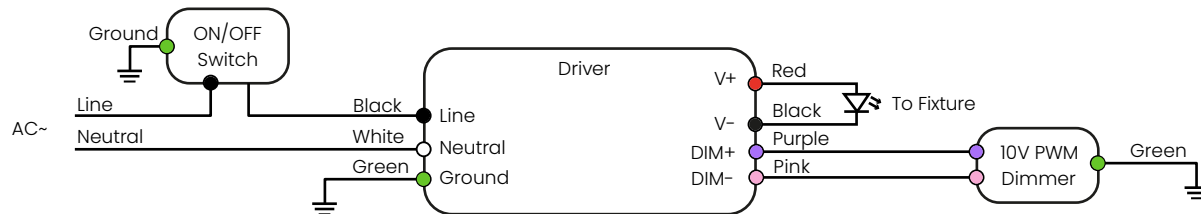
TRIAC / FORWARD PHASE / LEADING EDGE DIMMING (TRI)

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.



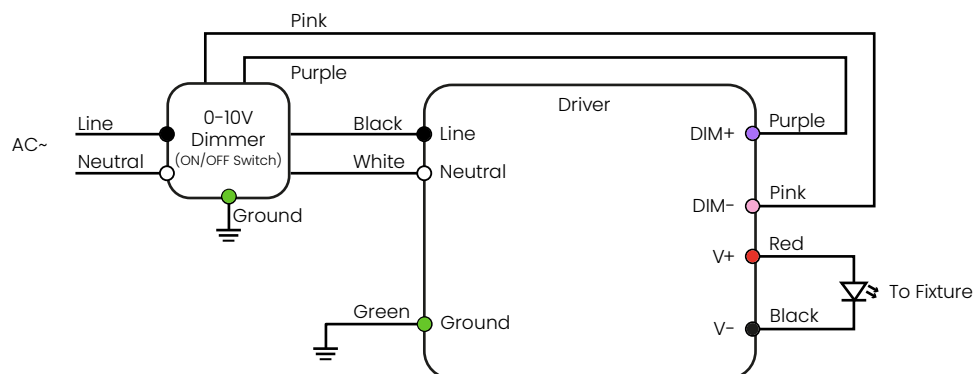
10V PWM

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.



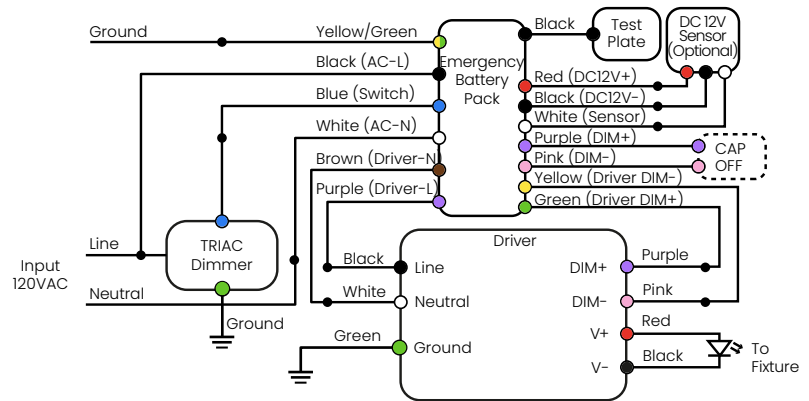
EMERGENCY BATTERY PACK WIRING DIAGRAM

TRIAC / FORWARD PHASE / LEADING EDGE DIMMING (TRI)

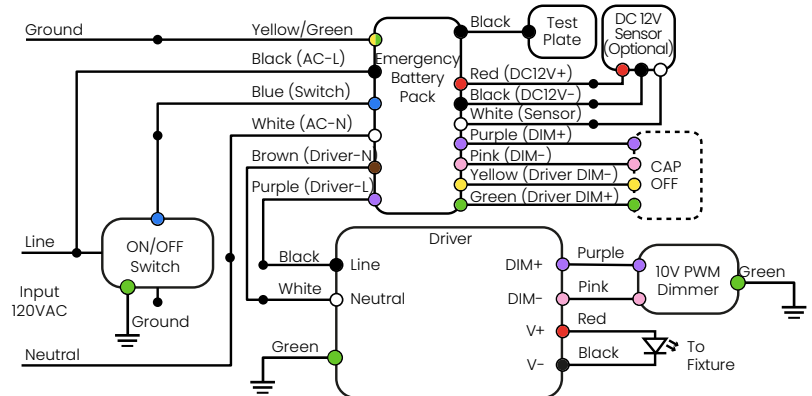
Input 120VAC 50/60Hz Range 3%-100%

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.

