

PROJECT INFORMATION		
JOB NAME		TYPE
ORDERING CODE		

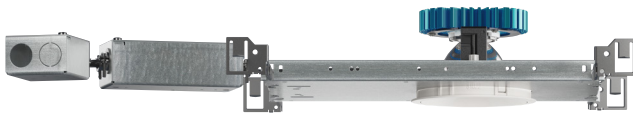
## NU4 LOPRO

### 4" Round Downlight Standard White

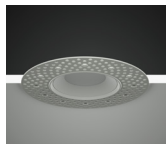


20° - 65° BEAM (Note: Specifications are subject to change without notice)		
14mm COB PERFORMANCE DATA		
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	SYSTEM WATTAGE
10LM	990LM @30K/80CRI	9W
15LM	1485LM @30K/80CRI	12W
20LM	2095LM @30K/80CRI	17W
25LM	2540LM @30K/80CRI	21W
30LM	3090LM @30K/80CRI	26W
10LM	840LM @30K/90/CRI	9W
15LM	1260LM @30K/90/CRI	12W
20LM	1780LM @30K/90/CRI	17W
25LM	2160LM @30K/90/CRI	21W
30LM	2620LM @30K/90/CRI	26W
Notes	Delivered lumens based on WH70 optic with no lens, (see page 2)	

8 - 12° BEAM (Note: Specifications are subject to change without notice)		
6mm COB PERFORMANCE DATA		
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	SYSTEM WATTAGE
10LM	990LM @30K/80CRI	10W
15LM	1460LM @30K/80CRI	15W
10LM	840LM @30K/90CRI	10W
15LM	1240LM @30K/90CRI	15W
Notes	Delivered lumens based on S10 optic with no lens, (see page 2)	



Trim



Trimless



Trimless Millwork

#### FEATURES

- 3/4" bezel regress with 1/16" micro flange
- 8° - 65° optical beam control
- UGR < 19
- 110 LPW average
- Glare control, specialty optics, trim options, and custom finishes available
- Microban® antimicrobial finish available on all exposed painted surfaces

#### LED

- 90 CRI: SDCM = 2-step MacAdam Ellipse, Lumen Maintenance: L<sub>70</sub> > 66,000 hrs
- 80 CRI: SDCM = 3-step MacAdam Ellipse, Lumen Maintenance: L<sub>70</sub> > 66,000 hrs

#### DIMMING AND CONTROLS

- 0-10V dimming to 1%
- Leading & trailing edge (Triac / ELV) dimming to 1%

#### LISTING

- ULus Listed to UL1598 & UL2108; cUL Listed to CSA C22.2 #250.0
- IP65 with lens - Suitable for wet locations with lens - Suitable for damp locations without lens
- Non-conductive, dead-front construction (shower approved)
- NSF/ANSI-2 with lens (Non-Food and Splash Zones)
- 5 Year Limited warranty

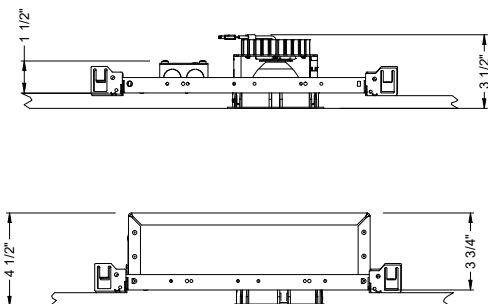
#### CONSTRUCTION

- Lexan™ (PC) highly resistant to impact and heat (240°F)
- Optimal material for wireless BLE signal connectivity
- Shatter proof acrylic bezel lens
- Electrocoated 16-gauge cold-rolled steel construction
- Accommodates ceiling thickness from 1/8" to 1-5/8"

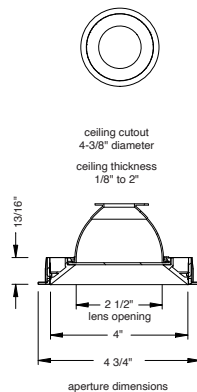
#### ELECTRICAL

- 120V-277V, 120 only Triac / ELV
- Power factor ≥ 0.9
- 2kV driver input surge protection
- Remote emergency test switch
- 7W, 10W (T20 CEC) and 12W EM 90min battery
- Max. ambient installation temperature 95°F (35°C)

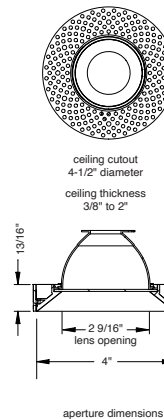
#### FIXTURE HEIGHT



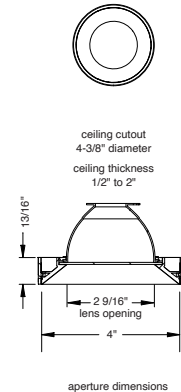
#### TRIMMED



#### TRIMLESS



#### MILLWORK



# alphabet

PROJECT INFORMATION		
JOB NAME		TYPE
ORDERING CODE		

## 8° - 65° BEAM ORDERING CODE

SERIES	NU4	NU4									
TYPE	RDLP	round downlight lopro									
	RDTLP	round downlight trimless lopro									
	RDTMWLP	round downlight trimless millwork lopro									
LED	SW	standard white									
DELIVERED LUMENS	10LM	990 lm									
	15LM	1485 lm									
	20LM	2095 lm									
	25LM	2540 lm									
	30LM	3090 lm									
	Standard Configuration: 3000K 80CRI WH70 Calculated Delivered Lumens = [Delivered Lumen Value] x [CCT Multiplier] x [Reflector Multiplier]										
CCT	27K	2700K	CCT	2700K	3000K	3500K	4000K				
	30K	3000K	CRI	80+	90+	80+	90+	80+	90+		
	35K	3500K	CCT MULTIPLIER FOR LUMEN OUTPUT	0.96	0.81	1.00	0.85	1.03	0.88	1.06	0.91
	40K	4000K									
CRI	80	80 CRI									
	90	90 CRI									
OPTIC & LM MULTIPLIER SEE PAGE 5, 6	8D <sup>1</sup>	8 degrees	(1.00)								
	12D <sup>1</sup>	12 degrees	(1.00)								
	20D	20 degrees	(0.99)								
	25D	25 degrees	(1.00)								
	35D	35 degrees	(0.99)								
	50D	50 degrees	(0.99)								
	65D	65 degrees	(0.99)								
BEZEL LENS SEE PAGE 3, 4	NL <sup>2</sup>	no lens	(1.00)								
	CL	clear lens	(0.98)								
	DL	diffused lens	(0.91)								
	E <sup>3</sup>	elliptical beam spread	(0.92)								
	HCL <sup>4</sup>	honeycomb louver	(0.85)								
	HET	high efficiency textured lens, similar to Solite™	(0.92)								
	SBL	smoothing beam lens	(0.92)								
Color lenses (amber, blue, green, red) see page 4.											
TRIM COLOR SEE PAGE 3, 4	BK	black									
	WH	white									
	MC	matte chrome									
	BZ	bronze									
	WT	wheat									
	CC <sup>5</sup>	custom color, consult factory for details									
Antimicrobial finish, add <b>AM</b> to black, white or matte chrome i.e. BKAM. Not applicable to trimless option. Do not include in trimless ordering code.											
BEZEL COLOR SEE PAGE 3, 4	BK	black	(0.98)								
	WH	white	(1.00)								
	MC	matte chrome	(0.99)								
	BZ	bronze	(0.98)								
	WT	wheat	(0.99)								
	CC <sup>5</sup>	custom color, consult factory for details									
Antimicrobial finish, add <b>AM</b> to black, white or matte chrome i.e. BKAM.											

## 8° - 65° BEAM ORDERING CODE

MOUNTING OPTIONS SEE PAGE 2, 8	NC	new construction with ceiling fitting plate
	IC <sup>6</sup>	insulation contact housing
	RET	retrofit, no ceiling fitting plate
VOLTAGE	120	120V
	UNV	120V-277V
DIMMING	ELV <sup>7</sup>	leading & trailing edge (Triac/ELV) dimming to 1%
	DIM10	0-10V dimming to 1%
ELECTRICAL OPTIONS	EM7	emergency battery backup, 90 minutes at 7W to LED
	EM12	emergency battery backup, 90 minutes at 12W to LED
	EM10CA20	remote emergency battery backup, 90 minutes at 10W to LED, CA title 20

## ADDITIONAL MOUNTING INFO

New Construction Bar Hangers (included)	Mounting Length: 14-3/4" to 26"
Extension Kit p/n: K20266 (ordered separately, 1 per fixture)	Extends a pair of Bar Hangers Total Mounting Length: 29" to 48"

## YOUR COMPLETED ORDERING CODE

Follow the steps to specify your fixture, example:
<b>NU4 - RDLP - SW - 20LM - 35K - 90 - 25D - NL - WH - WH - NC - UNV - DIM10 - EM7</b>

## NOTES

- 8D/12D available in 10LM/15LM.
- NL option does not meet requirements for AT/DF/WET/NSF listings. Lensing cannot be added in the field.
- Elliptical lens not available with 8D/12D optic options. Actual beam distributions [20D= 35° x 60°, 25D= 40° x 65°, 35D= 45° x 70°, 55D= 55° x 80°]
- HCL not available with lens.
- Custom set up fee plus minimum quantity required per color.
- IC not available in 30LM.
- ELV1 (120V) not available in 10LM.

# alphabet

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## TRIM OPTIONS

### TRIM/BEZEL COLORS



## OPTICAL OPTIONS

- UGR calculation based on CIE 117-1995; room size: 4H X 8H, reflectance: 70/50/20;
- UGR calculation based on 15LM fixtures, unless otherwise noted.

### REFLECTOR OPTIC ACCESSORY Honeycomb Louver



OPTIC	BEAM ANGLE	UGR
8D	7.8	10.9
12D	11.3	23.5
20D	17.4	12.5
25D	22.2	13.9
35D	32.4	16.5
50D	44.9	13.4
65D	52	15.5

### NL No Lens



OPTIC	BEAM ANGLE	UGR
8D	7.8	14.2
12D	11.9	13.8
20D	18	13.6
25D	22.8	13.1
35D	36.2	14.5
50D	49.2	18.3
65D	64.5	18.8

### CL Clear Lens



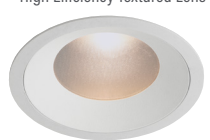
OPTIC	BEAM ANGLE	UGR
8D	7.9	13.7
12D	12.1	13.3
20D	18	13.3
25D	22.8	12.8
35D	36.2	14.2
50D	49.2	18.1
65D	64.6	18.5

### DL Diffused Lens



OPTIC	BEAM ANGLE	UGR
20D	39.4	19.5
25D	42.4	19.8
35D	50.6	20.8
50D	56.7	21.4
65D	66.7	23.3

### HET High Efficiency Textured Lens



OPTIC	BEAM ANGLE	UGR
20D	22.5	13.8
25D	27	14
35D	38.8	15.8
50D	49.8	16.5
65D	60.4	19.5

### SBL Smoothing Beam Lens



OPTIC	BEAM ANGLE	UGR
8D	10.2	12.8
12D	13.2	12.9
20D	19.3	13
25D	24.3	13.1
35D	37.2	14.8
50D	51.2	15.6
65D	62.2	18.8

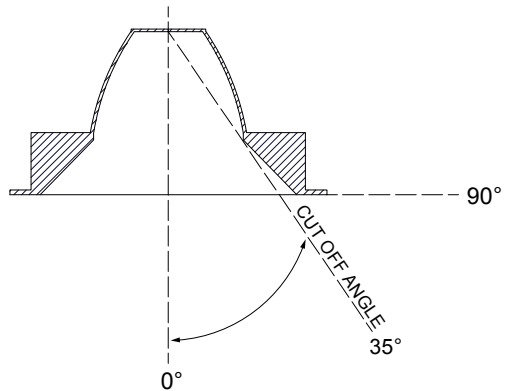
## GLARE CONTROL

### CUT-OFF ANGLE

Visual comfort is achieved with a lower cut-off angle due to improved glare control. The smaller the cut-off angle, the easier it is on the eye.

Alphabet downlights have been thoughtfully engineered to eliminate glare while still delivering functional illumination.

- Cutoff angle of CL is 35 degrees;



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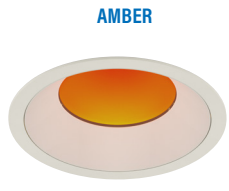
## TRIM OPTIONS

### TRIM/BEZEL COLORS



## OPTICAL OPTIONS

- UGR calculation based on CIE 117-1995; room size: 4H X 8H, reflectance: 70/50/20;
- UGR calculation based on 15LM fixtures, unless otherwise noted.



AMBER

OPTIC	MULTIPLIER	BEAM SPREAD
20D	0.485	18°
25D	0.484	22°
35D	0.485	35°
50D	0.48	50°
65D	0.473	60°

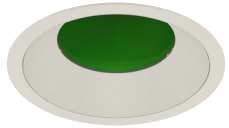
AVERAGE LUMENS: 2000LM 1880 CCT



RED

OPTIC	MULTIPLIER	BEAM SPREAD
20D	0.04	18°
25D	0.04	22°
35D	0.04	35°
50D	0.04	50°
65D	0.038	60°

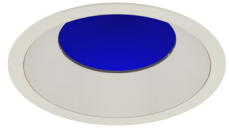
AVERAGE LUMENS: 168LM



GREEN

OPTIC	MULTIPLIER	BEAM SPREAD
20D	0.202	18°
25D	0.202	22°
35D	0.204	35°
50D	0.2	50°
65D	0.196	60°

AVERAGE LUMENS: 850LM



BLUE

OPTIC	MULTIPLIER	BEAM SPREAD
20D	0.051	18°
25D	0.051	22°
35D	0.053	35°
50D	0.05	50°
65D	0.049	60°

AVERAGE LUMENS: 210LM

Add AM / BL / GR / RD to bezel lens ordering code section.  
 Example: NU4 - RD - SW - 10LM - 30K - 80 - 35D - BL - WH - WH - NC - UNV - DIM

# alphabet

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## PHOTOMETRIC DATA

20LM CCT MULTIPLIERS		
	80CRI	90CRI
2700K	0.96	0.81
3000K	1	0.85
3500K	1.03	0.88
4000K	1.06	0.91
FC Formula = CBCP / Distance <sup>2</sup>		

20D 18° NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	1.9
8	2.5
10	3.2
12	3.8
14	4.4
Illuminance at Center (fc)	
323	
182	
116	
81	
59	
WATTS: 17.2	LPW: 121.4
LUMENS: 2088	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	11622
5	10517
15	2170
25	862
35	401
45	3

25D 23° NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	2.4
8	3.2
10	4
12	4.8
14	5.6
Illuminance at Center (fc)	
244	
137	
88	
61	
45	
WATTS: 17.2	LPW: 122.1
LUMENS: 2099	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	8779
5	7589
15	2759
25	940
35	372
45	2

35D 36° NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	3.9
8	5.2
10	6.5
12	7.8
14	9.1
Illuminance at Center (fc)	
128	
72	
46	
32	
23	
WATTS: 17.2	LPW: 120.6
LUMENS: 2074	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	4594
5	4283
15	2845
25	1317
35	435
45	10

20LM CCT MULTIPLIERS		
	80CRI	90CRI
2700K	0.96	0.81
3000K	1	0.85
3500K	1.03	0.88
4000K	1.06	0.91
FC Formula = CBCP / Distance <sup>2</sup>		

50D 49° NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	5.5
8	7.4
10	9.2
12	11
14	12.9
Illuminance at Center (fc)	
90	
51	
33	
23	
17	
WATTS: 17.2	LPW: 121.2
LUMENS: 2085	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	3253
5	3231
15	2606
25	1591
35	450
45	13

65D 65° NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	7.6
8	10.1
10	12.6
12	15.2
14	17.7
Illuminance at Center (fc)	
59	
33	
21	
15	
11	
WATTS: 17.2	LPW: 120.9
LUMENS: 2080	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	2103
5	2101
15	1990
25	1520
35	779
45	144

# alphabet

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## PHOTOMETRIC DATA

10LM CCT MULTIPLIERS		
	80CRI	90CRI
2700K	0.96	0.81
3000K	1	0.85
3500K	1.03	0.88
4000K	1.06	0.91
FC Formula = CBCP / Distance <sup>2</sup>		

8D 7.8° NO LENS																
<p>Throw Distance (ft)   Beam Diameter (ft)</p> <table border="1"> <tr><td>6</td><td>708</td><td>0.8</td></tr> <tr><td>8</td><td>398</td><td>1.1</td></tr> <tr><td>10</td><td>255</td><td>1.4</td></tr> <tr><td>12</td><td>177</td><td>1.6</td></tr> <tr><td>14</td><td>130</td><td>1.9</td></tr> </table> <p>Illuminance at Center (fc)</p>		6	708	0.8	8	398	1.1	10	255	1.4	12	177	1.6	14	130	1.9
6	708	0.8														
8	398	1.1														
10	255	1.4														
12	177	1.6														
14	130	1.9														
WATTS: 10.2	LPW: 97.9															
LUMENS: 998	CCT: 3000K															
INTENSITY																
DEGREE	CANDELA															
0	25483															
5	8161															
15	463															
25	362															
35	215															
45	0.5															

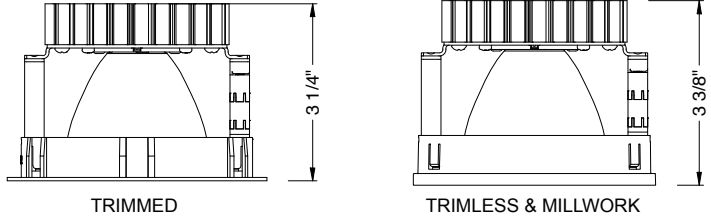
12D 12° NO LENS																
<p>Throw Distance (ft)   Beam Diameter (ft)</p> <table border="1"> <tr><td>6</td><td>330</td><td>1.3</td></tr> <tr><td>8</td><td>185</td><td>1.7</td></tr> <tr><td>10</td><td>119</td><td>2.1</td></tr> <tr><td>12</td><td>82</td><td>2.5</td></tr> <tr><td>14</td><td>61</td><td>2.9</td></tr> </table> <p>Illuminance at Center (fc)</p>		6	330	1.3	8	185	1.7	10	119	2.1	12	82	2.5	14	61	2.9
6	330	1.3														
8	185	1.7														
10	119	2.1														
12	82	2.5														
14	61	2.9														
WATTS: 8.7	LPW: 115															
LUMENS: 1001	CCT: 3000K															
INTENSITY																
DEGREE	CANDELA															
0	11863															
5	7515															
15	660															
25	371															
35	192															
45	0.3															

# alphabet

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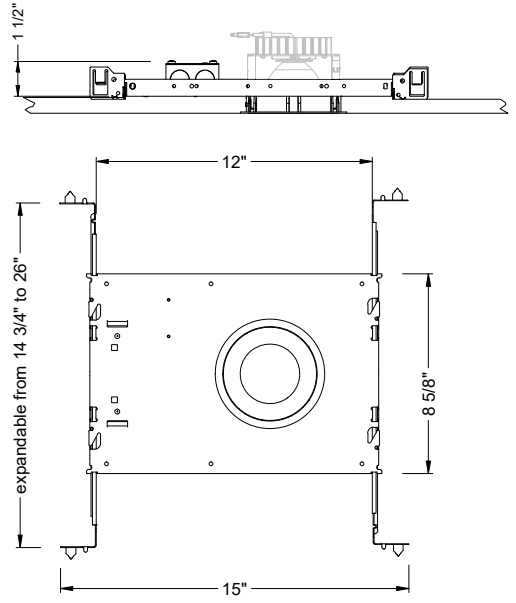
## MOUNTING OPTIONS

### FIXTURE HEIGHT 10M - 30LM CONFIGURATION

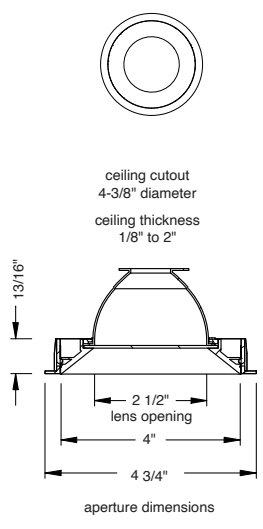


### NC - NEW CONSTRUCTION

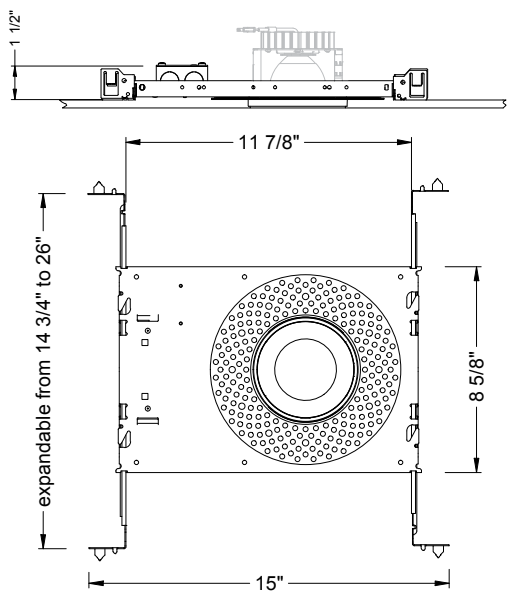
#### TRIM



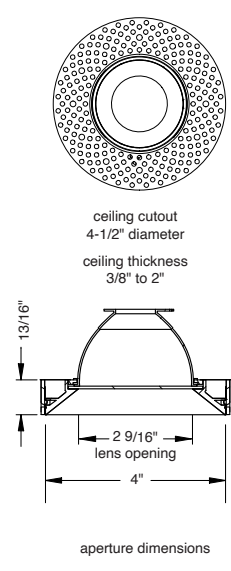
#### TRIM



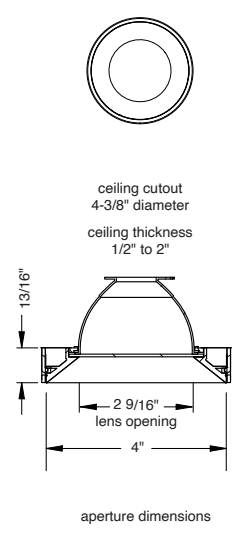
#### TRIMLESS



#### TRIMLESS



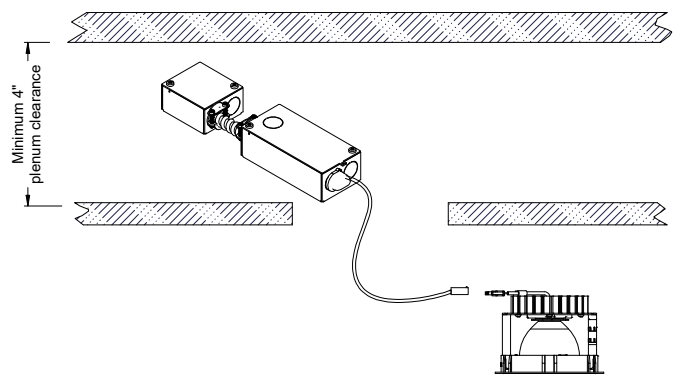
#### TRIMLESS/MILLWORK



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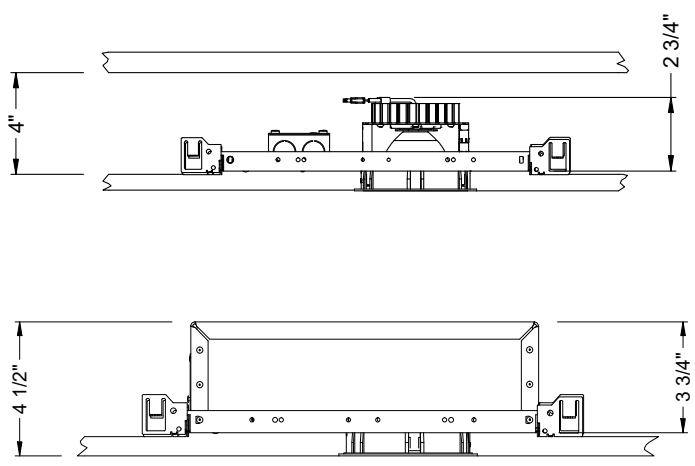
## MOUNTING OPTIONS (CONTINUED)

### RET - RETRO TRIM/TRIMLESS

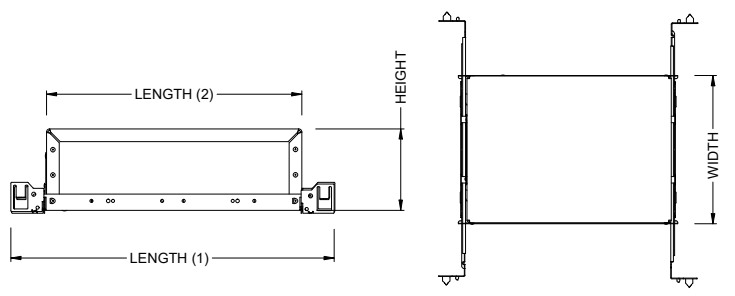


RATINGS / CERTIFICATIONS	NC	RET	IC
TYPE NON-IC	✓	✓	
TYPE IC			✓
CHICAGO PLENUM (CCEA)			✓
SUITABLE FOR AIR HANDLING PLENUMS	✓	✓	✓
REDUCED AIRFLOW (WITH LENS) ASTM E283	✓	✓	✓

CEILING THICKNESS	
FIXTURE TYPE	MOUNTING TYPE
	STANDARD CEILING THICKNESS
TRIM	1/8" to 2"
TRIMLESS	3/8" to 2"
MILLWORK (TRIMLESS)	1/2" to 2"



### IC - INSULATION CONTACT HOUSING



BOX SIZE	L1	L2	W	H
A	15 - 7/16"	11 - 3/4"	8 - 1/2"	3 - 3/4"

BOX TYPE / LUMEN OUTPUT - NARROW BEAM (8° - 12°)	
LUMEN OUTPUT	IC
10LM	✓
15LM	✓

BOX TYPE / LUMEN OUTPUT - STANDARD BEAMS (20° - 65°)	
LUMEN OUTPUT	IC
10LM	✓
15LM	✓
20LM	✓
25LM	✓
30LM	



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## BATTERY OPTIONS

### EMERGENCY BATTERY

IOTA's ILB Battery Backups are UL Listed LED emergency drivers that allow the same LED fixture to be used for both normal and emergency operation. In the event of a power failure, the ILB switches to the emergency mode and operates the existing fixture for 90 minutes. The unit contains a battery, charger, and converter circuit in a single can. The Constant Power design of the ILB maintains the output wattage to the LED array even as the system voltage diminishes. UL 924 Listed for U.S. and Canada. UL 1310 Certified, Output Class 2 Compliant. Includes single-piece TBTS test switch and charge indicator accessory kit. For use with switched and unswitched electric fixtures, and includes Two-wire universal AC input. Meets or exceeds all National Electric Code and Life Safety Code Emergency Lighting Requirements. Rated for use in Plenum, Damp Location, Recessed Type IC, and Enclosed and Gasketed Luminares.

### REMOTE TEST SWITCH

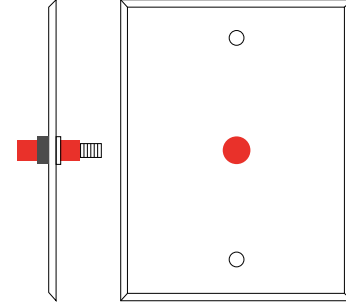
The Remote Test Switch may be mounted adjacent to the LED Fixture by others.

### 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.

### REMOTE LOCATION

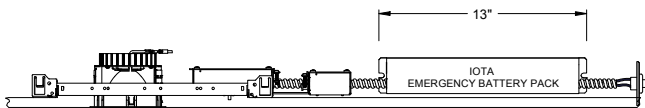
Maximum remote mounting distance of the emergency driver shall be 50 feet. Remote location wiring provided by others. Follow all Local and National Electric/Building Codes.



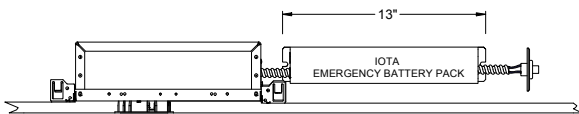
Remote Test Switch

EM MODE OUTPUT (DELIVERED LUMENS)			
LUMEN ORDERING CODE	EM7	EM10	EM12
ALL OPTIONS (10LM TO 30LM)	700LM	1000LM	1200LM
Notes: Based on 30K, 80CRI			

## NC - NEW CONSTRUCTION WITH EM BATTERY (REMOTE TEST SWITCH)

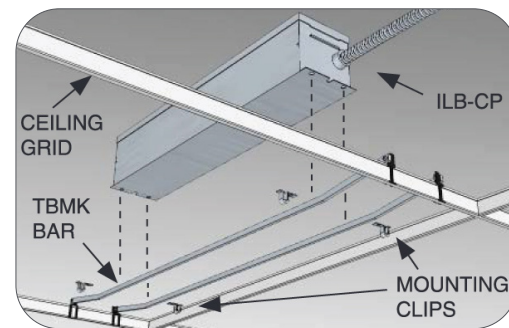


## IC - INSULATION CONTACT HOUSING WITH EM BATTERY (REMOTE TEST SWITCH)



### Accessory

76066 Optional T-Grid Mounting Kit<sup>2</sup>



2. Can be used with any of the Emergency Battery Backups. Must be ordered as a separate line item.