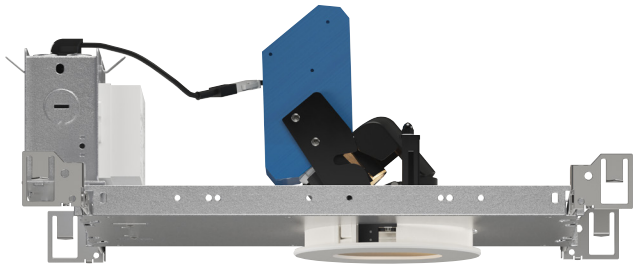
alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

NU2

2" Round Adjustable Pinhole Standard White

PR
plenum rated





Trim

20° - 50° BEAM (Note: Specifications are subject to change without notice)		
9mm COB PERFORMANCE DATA		
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	SYSTEM WATTAGE
10LM	800LM @30K/80CRI	9W
15LM	1150LM @30K/80CRI	13W
20LM	1490LM @30K/80CRI	17W
25LM	1800LM @30K/80CRI	22W
30LM	2150LM @30K/80CRI	27W
35LM	2560LM @30K/80CRI	34W
40LM	2800LM @30K/80CRI	40W
10LM	680LM @30K/90CRI	9W
15LM	980LM @30K/90CRI	13W
20LM	1200LM @30K/90CRI	17W
25LM	1460LM @30K/90CRI	22W
30LM	1730LM @30K/90CRI	27W
35LM	2050LM @30K/90CRI	34W
40LM	2310LM @30K/90CRI	40W
Notes	Delivered lumens based on 35D optic with no accessory, (see page 2)	

15° BEAM (Note: Specifications are subject to change without notice)		
6mm COB PERFORMANCE DATA		
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	SYSTEM WATTAGE
10LM	850LM @30K/80CRI	11W
15LM	1200LM @30K/80CRI	19W
20LM	1490LM @30K/80CRI	31W
10LM	720LM @30K/90CRI	11W
15LM	1020LM @30K/90CRI	19W
20LM	1270LM @30K/90CRI	31W
Notes	Delivered lumens based on 15D optic with no accessory, (see page 2)	

9° BEAM (Note: Specifications are subject to change without notice)		
4.5mm COB PERFORMANCE DATA		
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	SYSTEM WATTAGE
10LM	540LM @30K/80CRI	17.5W
10LM	460LM @30K/90CRI	17.5W
Notes	Delivered lumens based on 9D optic with SBL lens, (see page 2)	

FEATURES

- True 40° Tilt with <10% beam disruption (clipping)
- Zero ceiling line obstruction at Full Tilt
- Concentric Tilt Tracking ensures minimal light loss
- 9° - 50° optical beam control
- UGR <5
- Multiple mounting, glare control options and finishes available

DIMMING AND CONTROLS

- eldoLED flicker free 0-10V dimming to 0% and 1%
- eldoLED flicker free DALI dimming to 0% and 1%
- DMX dim to zero
- Lutron Hi-lumen 2-Wire (Triac and Eco System) dimming to 0.1% and 1%
- Leading & trailing edge (Triac/ELV) dimming to 1%
- Casambi dimming to 0.1%
- NLight control interface dimming to 0%

CONSTRUCTION

- Lexan Optimized for wireless signal controls
- Electrocoated 16-gauge cold-rolled steel construction
- Accommodates ceiling thickness from 0.4" to 2.0"
- Fixture is pre-set and shipped at 20deg tilt

LED

- 90 CRI: SDCM = 2-step MacAdam Ellipse, Lumen Maintenance: L_{70} > 66,000 hrs
- 80 CRI: SDCM = 2-step MacAdam Ellipse, Lumen Maintenance: L_{70} > 66,000 hrs

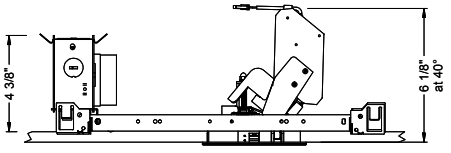
LISTING

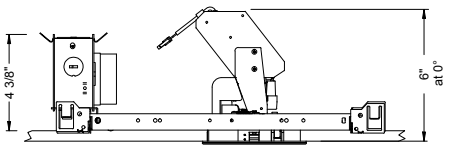
- ULus Listed to UL1598 & UL2108; cUL Listed to CSA C22.2 #250.0
- Suitable for damp locations
- Made in the USA - meets the requirements of the Buy American provision within the ARRA
- 5 Year Limited warranty

ELECTRICAL

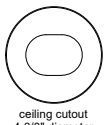
- 120V only Triac/ELV, 120V-277V
- Power factor ≥ 0.9
- 2kV driver input surge protection
- Remote emergency test switch
- 7W, 10W (T20 CEC) and 12W EM 90min battery
- Max. ambient installation temperature 95°F (35°C)

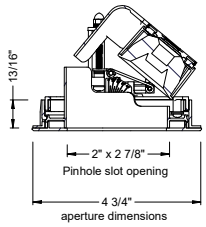
FIXTURE HEIGHT





TRIMMED





100863

In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.

alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

9°- 50° BEAM ORDERING CODE

SERIES	**NU2**	NU2
TYPE	**RAPH**	round adjustable, pinhole
LED	**SW**	standard white
DELIVERED LUMENS	**10LM**	800 lm
	15LM	1150 lm
	20LM	1490 lm
	25LM	1800 lm
	30LM	2150 lm
	35LM	2560 lm
	40LM	2800 lm
	Standard Configuration: 3000K 80CRI 35D NA **Calculated Delivered Lumens** = [Delivered Lumen Value] x [CCT Multiplier] x [Optic Multiplier] x [Lens Multiplier]	
CCT	**27K**	2700K
	30K	3000K
	35K	3500K
	40K	4000K

CCT	2700K		3000K		3500K		4000K	
CRI	80+	90+	80+	90+	80+	90+	80+	90+
CCT MULTIPLIER FOR LUMEN OUTPUT	0.96	0.81	1.00	0.85	1.03	0.88	1.06	0.91

CRI	**80**	80 CRI	
	90	90 CRI	
OPTIC & LM MULTIPLIER SEE PAGE 3	**9D**[1]	9 degrees	(0.68)
	15D[2]	15 degrees	(1.05)
	20D	20 degrees	(0.87)
	25D	25 degrees	(0.94)
	35D	35 degrees	(1.00)
	50D	50 degrees	(0.95)
TIR OPTIC ACCESSORY SEE PAGE 3	**NA**	no accessory	(1.00)
	HCL	honeycomb louver	(0.75)
	DL	diffused lens	(0.79)
	HET	high efficiency textured lens, similar to Solite™	(0.90)
	SBL	smoothing beam lens	(1.00)
	Attached to **TIR** optic, field replaceable (maximum, 1 media)		
TRIM COLOR SEE PAGE 3	**BK**	black, with black optical cavity	
	WH	white, with black optical cavity	

9°- 50° BEAM ORDERING CODE

MOUNTING OPTIONS SEE PAGE 6, 7	**NC**	new construction with ceiling fitting plate
	IC[3]	insulation contact housing
	ICAT[3]	insulation contact/airtight housing
	CP[3]	chicago plenum housing
	RET	retrofit, no ceiling fitting plate
VOLTAGE	**120**	120V
	UNV	120V-277V
DIMMING	**DIM10**	eldoLED flicker free 0-10V dimming to 1%
	DIM10Z	eldoLED flicker free 0-10V dimming to 0%
	DALI	eldoLED flicker free DALI-2 dimming to 1%
	DALIZ	eldoLED flicker free DALI-2 dimming to 0%
	DMXZ	DMX dim to zero
	LTE[4]	Lutron Hi-lume 2-Wire (Triac) dimming to 1%
	LUT	Lutron Hi-lume Ecosystem dimming to 1%, Soft-on & Fade-to-Black
	LUTP[5]	Lutron Hi-lume Premier Ecosystem dimming to 0.1%, Soft-on & Fade-to-Black
	ELV1[6]	leading & trailing edge (Triac/ELV) dimming to 1%
	NLT	nLight control interface: standard Cat-5/RJ45 connection (female), dim to off
	CAS	Casambi control with flicker free 1% dimming
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
SPECIAL SEE PAGE 6	**TC**	thick ceiling application

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:
NU2 - RAPH - SW - 20LM - 35K - 90 - 35D - HCL - WH - NC - UNV - DIM10 - EM7 - TC

NOTES*

1. 9D available in 10LM. Only available with SBL lens.
2. 15D available in 10LM/15LM/20LM.
3. IC/ICAT/CP not available with 9D/10LM, 15D/20LM or 30LM/35LM/40LM.
4. LTE (120V input) not available in 10LM with 20D/25D/30D/50D optics.
5. LUTP not available with 15D/20LM or 25LM/30LM/35LM/40LM.
6. ELV1 (120V input) not available in 10LM with 20D/25D/35D/55D optics.

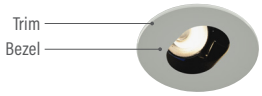
* EldoLED uses logarithmic dimming curve as standard. For linear dimming curve, add "LIN" after dimming code, i.e. DIM10LIN.

alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

TRIM OPTIONS

TRIM/BEZEL COLORS



WH

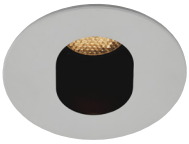


BK

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.

TIR OPTIC ACCESSORY
Honeycomb Louver



OPTIC	BEAM ANGLE	UGR
15D	13.3	≤5
20D	17.8	≤5
25D	22.1	≤5
35D	28.7	≤5
50D	43.9	9.8

TIR OPTIC ACCESSORY
DL



OPTIC	BEAM ANGLE	UGR
15D	33.1	9.9
20D	32.5	7.2
25D	36.4	11.7
35D	40.3	13
50D	50.8	16.1

TIR OPTIC ACCESSORY
HET



OPTIC	BEAM ANGLE	UGR
15D	18.8	≤5
20D	22.2	≤5
25D	26.8	5.1
35D	32.5	7.4
50D	48.6	13.8

NA



OPTIC	BEAM ANGLE	UGR
15D	13.6	≤5
20D	18.3	≤5
25D	25.1	≤5
35D	31.7	≤5
50D	49.7	14.3

TIR OPTIC ACCESSORY
SBL



OPTIC	BEAM ANGLE	UGR
9D	9.1	5.7

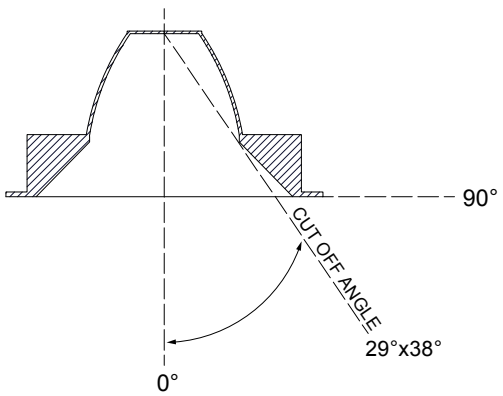
GLARE CONTROL

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 NA is 29°x38°;



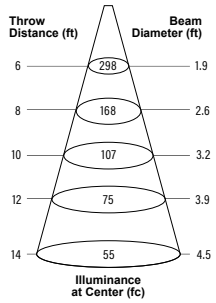
alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

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^2		

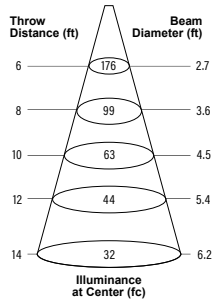
20D 18.3° NO ACCESSORY



WATTS: 16.5	LPW: 80.5
LUMENS: 1328	CCT: 3000K

INTENSITY	
DEGREE	CANDELA
0	10734
5	8796
15	1901
25	100
35	5.1
45	1.4

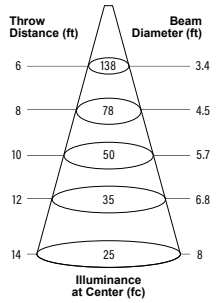
25D 25.1° NO ACCESSORY



WATTS: 16.5	LPW: 85.2
LUMENS: 1405	CCT: 3000K

INTENSITY	
DEGREE	CANDELA
0	6295
5	5643
15	2369
25	475
35	30
45	3.5

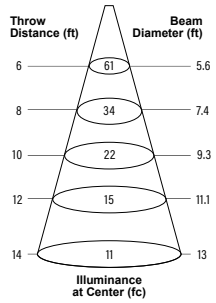
35D 31.7° NO ACCESSORY



WATTS: 16.5	LPW: 90.7
LUMENS: 1497	CCT: 3000K

INTENSITY	
DEGREE	CANDELA
0	4985
5	4714
15	2704
25	626
35	28
45	4.3

50D 49.7° NO ACCESSORY

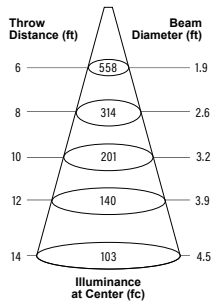


WATTS: 16.5	LPW: 85.8
LUMENS: 1415	CCT: 3000K

INTENSITY	
DEGREE	CANDELA
0	2200
5	2186
15	1914
25	1087
35	265
45	9

40LM 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^2		

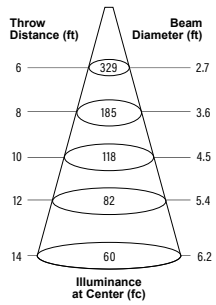
20D 18.3° NO ACCESSORY



WATTS: 38.5	LPW: 64.6
LUMENS: 2486	CCT: 3000K

INTENSITY	
DEGREE	CANDELA
0	20095
5	16466
15	3558
25	188
35	9.6
45	2.6

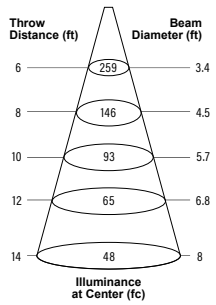
25D 25.1° NO ACCESSORY



WATTS: 38.5	LPW: 68.3
LUMENS: 2631	CCT: 3000K

INTENSITY	
DEGREE	CANDELA
0	11784
5	10565
15	4436
25	890
35	55
45	6.5

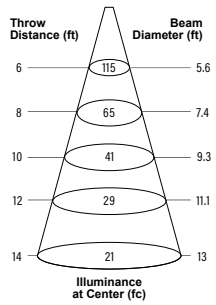
35D 31.7° NO ACCESSORY



WATTS: 38.5	LPW: 72.8
LUMENS: 2802	CCT: 3000K

INTENSITY	
DEGREE	CANDELA
0	9332
5	8825
15	5062
25	1173
35	53
45	8

50D 49.7° NO ACCESSORY



WATTS: 38.5	LPW: 68.8
LUMENS: 2649	CCT: 3000K

INTENSITY	
DEGREE	CANDELA
0	4120
5	4092
15	3583
25	2034
35	495
45	16.8

100863

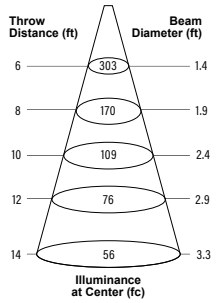
alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

PHOTOMETRIC DATA

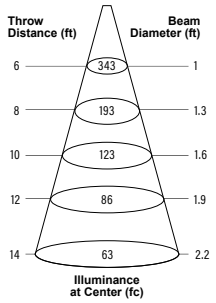
10LM CCT MULTIPLIERS		
	80CRI	90CRI
2700K	0.96	0.81
3000K	1	0.85
3500K	1.03	0.88
4000K	1.06	0.91
FC Formula = CBCP / Distance^2		

15D
13.6° NO LENS



WATTS: 11.5	LPW: 73.9
LUMENS: 850	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	10893
5	7433
15	917
25	20
35	1.6
45	0.6

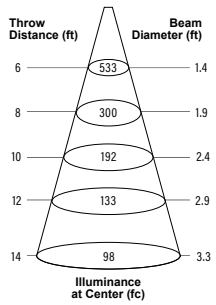
9D
9.1 ° SMOOTHING BEAM LENS



WATTS: 17	LPW: 31.7
LUMENS: 538	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	12336
5	5363
15	314
25	99
35	31
45	2.9

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^2		

15D
13.6° NO LENS



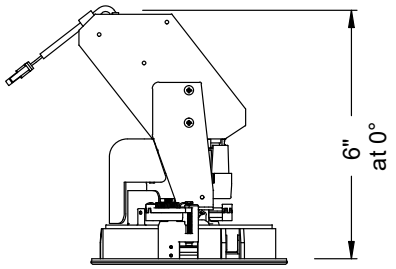
WATTS: 30.5	LPW: 49.1
LUMENS: 1496	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	19185
5	13090
15	1614
25	35
35	2.9
45	1

alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

MOUNTING OPTIONS

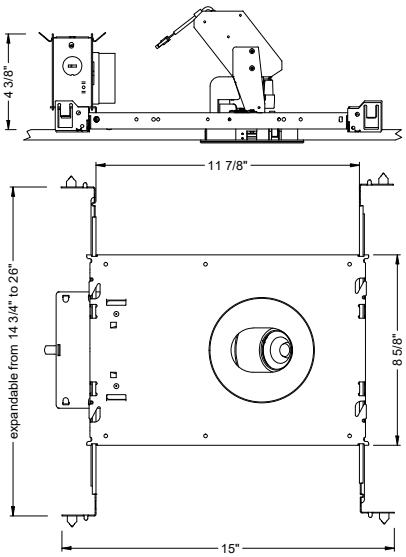
FIXTURE HEIGHT



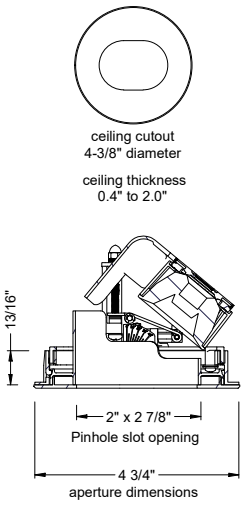
TRIMMED

NC - NEW CONSTRUCTION

TRIM

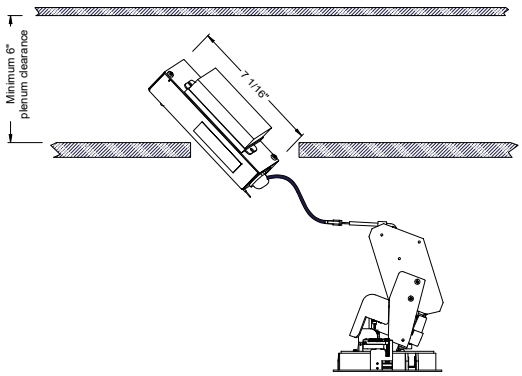


TRIM



RET - RETRO

TRIM/TRIMLESS



alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

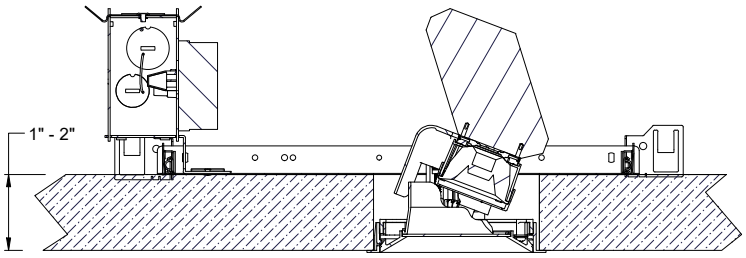
MOUNTING OPTIONS (CONTINUED)

RATINGS / CERTIFICATIONS	NC	RET	IC	ICAT	CP
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	
	NC, IC, ICAT, CP, RET	NC, IC, ICAT, CP, RET
	STANDARD CEILING THICKNESS	THICK CEILING THICKNESS
TRIM	0.4" to 1.1"	1.0" to 2.0"
TRIMLESS	0.4" to 1.1"	1.0" to 2.0"
MILLWORK (TRIMLESS)	0.5" to 1.1"	1.0" to 2.0"

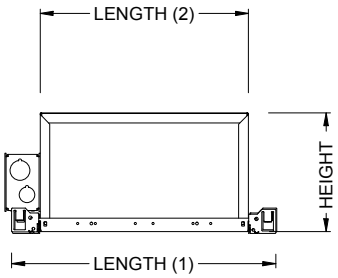
TC - THICK CEILING (1" TO 2") APPLICATION

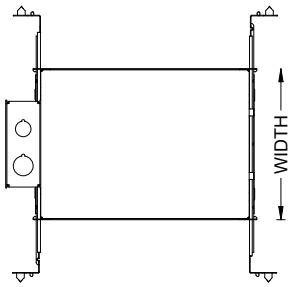
TRIM/TRIMLESS



THICK CEILING FIXTURE INFO		
TILT	ROTATION	CEILING THICKNESS
0° - 20°	360°	UP TO 2"
20° - 30°	160°	UP TO 2"
30° - 40°	160°	UP TO 1.625"

IC - INSULATION CONTACT HOUSING
ICAT - INSULATION CONTACT / AIR TIGHT
CP - CHICAGO PLENUM





BOX SIZE	L 1	L 2	W	H
A	15 - 7/16"	11 - 3/4"	8 - 1/2"	6 - 3/4"
B	18 - 1/4"	14 - 7/8"	12 - 1/8"	11 - 1/4"
C	18 - 1/4"	14 - 7/8"	12 - 1/8"	6 - 3/4"

BOX TYPE / LUMEN OUTPUT - NARROW BEAM (9°)					
LUMEN OUTPUT	BOX - A			BOX - B	BOX -C
	CP	IC	ICAT	IC	ICAT
10LM					

BOX TYPE / LUMEN OUTPUT - NARROW BEAM (15°)					
LUMEN OUTPUT	BOX - A			BOX - B	BOX -C
	CP	IC	ICAT	IC	ICAT
10LM	✔	✔	✔		
15LM	✔	✔	✔		
20LM					

BOX TYPE / LUMEN OUTPUT - STANDARD BEAMS (25° - 55°)					
LUMEN OUTPUT	BOX - A			BOX - B	BOX -C
	CP	IC	ICAT	IC	ICAT
10LM	✔	✔	✔		
15LM	✔	✔	✔		
20LM	✔	✔	✔		
25LM	✔	✔	✔		
30LM					
35LM					
40LM					

alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

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 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

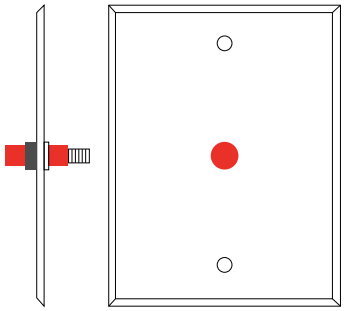
The remote test switch may be mounted adjacent to the LED Fixture by others.

EMERGENCY BATTERY ACCESS

Above ceiling access is recommended for ease of service, but LED fixture sizes of 4" and larger are capable of below ceiling access. IC/ICAT/CP box and ITS option require an access panel in the ceiling (or other form of access) adjacent to the installation location of the emergency battery.

REMOTE LOCATION

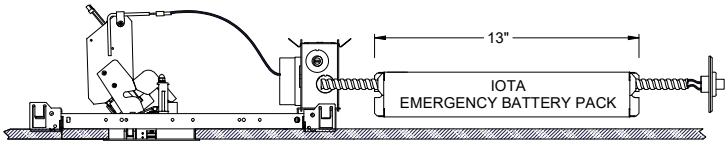
Maximum remote mounting distance of the emergency driver shall be 50 feet. Remote location wiring provided by others. Follow all local and national electric/ building codes.



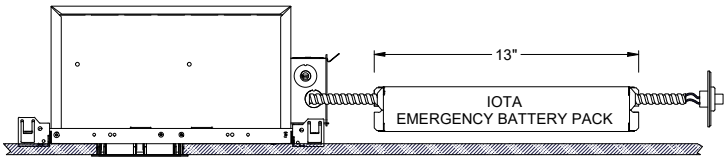
Remote Test Switch

EM MODE OUTPUT (DELIVERED LUMENS)			
LUMEN ORDERING CODE	EM7	EM10	EM12
ALL OPTIONS (10LM TO 40LM)	800LM	1050LM	1150LM
Notes: Based on 30K, 80CRI			

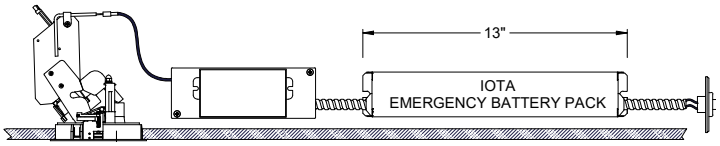
NC - NEW CONSTRUCTION
WITH EM BATTERY (REMOTE TEST SWITCH)



IC / ICAT / CP - INSULATION CONTACT HOUSING
WITH EM BATTERY (REMOTE TEST SWITCH)

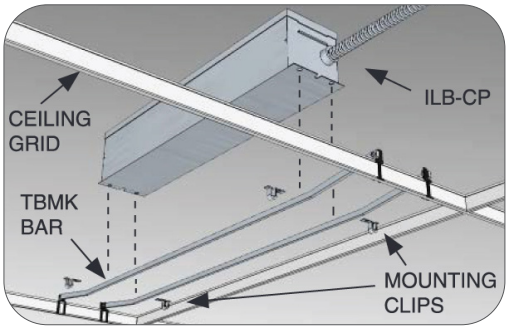


RET - RETROFIT
WITH EM BATTERY (REMOTE TEST SWITCH)



Accessory

76066 Optional T-Grid Mounting Kit[1]



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

In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.