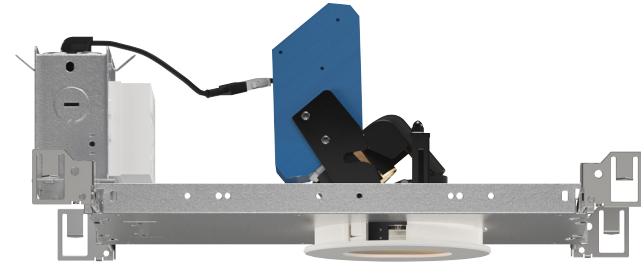


# alphabet

PROJECT INFORMATION		
JOB NAME		TYPE
ORDERING CODE		

## NU2

### Round Adjustable Pinhole XICATO



Trim

15° - 50° BEAM (Note: Specifications are subject to change without notice)		
XTM09 LED PERFORMANCE DATA		
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	SYSTEM WATTAGE
07LM	540LM @30K/83CRI	11W
10LM	730LM @30K/83CRI	14W
13LM	910LM @30K/83CRI	20W
20LM	1420LM @30K/83CRI	37W
07LM	580LM @30K/98CRI	14W
10LM	790LM @30K/98CRI	21W
13LM	980LM @30K/98CRI	31W
Notes	Delivered lumens based on 30D optic with no accessory, (see page 2)	

XICATO



eldoLED  
your standard | our drive

CASAMBI



#### FEATURES

- True 40° Tilt with <10% beam disruption (clipping)
- Zero ceiling line obstruction at Full Tilt
- Concentric Tilt Tracking ensures minimal light loss
- 15° - 50° optical beam control
- UGR <5
- Multiple mounting, glare control options, trims, 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 bluetooth 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

- SDCM = 1X2 MacAdam Ellipse, Duv +/- 0.001, Lumen Maintenance: L<sub>90</sub> > 55,000 hrs

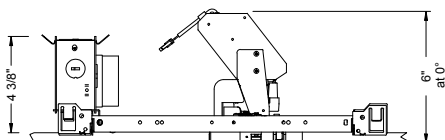
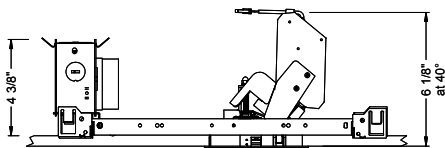
#### LISTING

- 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

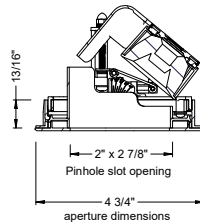
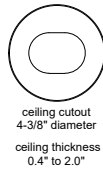
#### ELECTRICAL

- 120V only Triac/ELV, 120V-277V
- Power factory ≥ 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



# alphabet

PROJECT INFORMATION		
JOB NAME		TYPE
ORDERING CODE		

## 15°- 50° BEAM ORDERING CODE

<b>SERIES</b>	<b>NU2</b>	NU2
<b>TYPE</b>	<b>RAPH</b>	round adjustable, pinhole
<b>LED</b>	<b>XTM09</b>	XICATO XTM 9mm
<b>DELIVERED LUMENS</b>	<b>07LM</b>	540 lm
	<b>10LM</b>	730 lm
	<b>13LM</b>	910 lm
	<b>20LM</b>	1420 lm
	Standard Configuration: 3000K 83CRI 30D NA Calculated Delivered Lumens = [Delivered Lumen Value] x [Optic Multiplier] x [Lens Multiplier]	
<b>CCT</b>	<b>27K</b>	2700K
	<b>30K</b>	3000K
	<b>35K</b>	3500K
	<b>40K</b>	4000K
	<b>CRI</b>	<b>83</b>
	<b>98<sup>1</sup></b>	98 CRI
<b>OPTIC &amp; LM MULTIPLIER</b> SEE PAGE 3	<b>15D</b>	15 degrees (0.90)
	<b>20D</b>	20 degrees (0.94)
	<b>30D</b>	30 degrees (1.00)
	<b>50D</b>	50 degrees (0.97)
	<b>TIR OPTIC ACCESSORY</b> SEE PAGE 3	<b>NA</b>
<b>HCL</b>		honeycomb louver (0.75)
<b>DL</b>		diffused lens (0.84)
<b>HET</b>		high efficiency textured lens, similar to Solite™ (0.96)
<b>SBL</b>		smoothing beam lens (0.98)
Attached to TIR optic, field replaceable (maximum, 1 media)		
<b>TRIM COLOR</b> SEE PAGE 3	<b>WH</b>	white, with black optical cavity
	<b>BK</b>	black, with black optical cavity

## 15°- 50° BEAM ORDERING CODE

<b>MOUNTING OPTIONS</b> SEE PAGE 5, 6	<b>NC</b>	new construction with ceiling fitting plate
	<b>IC<sup>2</sup></b>	insulation contact housing
	<b>ICAT<sup>2</sup></b>	insulation contact/airtight housing
	<b>CP<sup>2</sup></b>	chicago plenum housing
	<b>RET</b>	retrofit, no ceiling fitting plate
<b>VOLTAGE</b>	<b>120</b>	120V
	<b>UNV</b>	120V-277V
<b>DIMMING</b>	<b>DIM10</b>	eldoLED flicker free 0-10V dimming to 1%
	<b>DIM10Z</b>	eldoLED flicker free 0-10V dimming to 0%
	<b>DALI</b>	eldoLED flicker free DALI dimming to 1%
	<b>DALIZ</b>	eldoLED flicker free DALI dimming to 0%
	<b>DMXZ</b>	DMX dim to zero
	<b>LTE<sup>3,5</sup></b>	Lutron Hi-lume 2-Wire (Triac) dimming to 1%
	<b>LUT</b>	Lutron Hi-lume Ecosystem dimming to 1%, Soft-on & Fade-to-Black
	<b>LUTP<sup>4</sup></b>	Lutron Hi-lume Premier Ecosystem dimming to 0.1%, Soft-on & Fade-to-Black
	<b>ELV1<sup>5</sup></b>	leading & trailing edge (Triac/ELV) dimming to 1%
	<b>NLT</b>	nLight control interface: standard Cat-5/RJ45 connection (female), dim to off
<b>CAS</b>	Casambi Bluetooth control with flicker free 0.1% dimming	
<b>ELECTRICAL OPTIONS</b>	<b>EM7</b>	emergency battery backup, 90 minutes at 7W to LED
	<b>EM12<sup>6</sup></b>	emergency battery backup, 90 minutes at 12W to LED
	<b>EM10CA20</b>	remote emergency battery backup, 90 minutes at 10W to LED, CA title 20
<b>SPECIAL</b> SEE PAGE 5	<b>TC</b>	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:
<b>NU2 - RAPH - XTM09 - 13LM - 35K - 83 - 30D - HCL - WH - NC - UNV - DIM10 - EM7 - TC</b>

## NOTES\*

- 98CRI not available in 20LM.
- IC/ICAT/CP not available in 83CRI/20LM or 98CRI/13LM.
- LTE not available in 07LM.
- LUTP not available in 13LM/20LM.
- ELV1/LTE available in 120V.
- EM12 not available in 83CRI/07LM.

\* 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

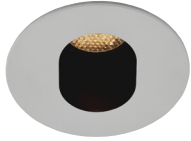


## OPTICAL OPTIONS

- 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	15.9	≤5
20D	21.2	≤5
30D	28	≤5
50D	44.3	8.8

### TIR OPTIC ACCESSORY

DL



OPTIC	BEAM ANGLE	UGR
15D	32.2	7
20D	36.1	11.1
30D	40	12.4
50D	51.4	15.8

### TIR OPTIC ACCESSORY

HET



OPTIC	BEAM ANGLE	UGR
15D	21	≤5
20D	25.8	≤5
30D	31.6	6.3
50D	48.5	12.9

NA



OPTIC	BEAM ANGLE	UGR
15D	16.6	≤5
20D	22.7	≤5
30D	28.2	≤5
50D	50.9	11.8

### TIR OPTIC ACCESSORY

SBL



OPTIC	BEAM ANGLE	UGR
15D	18.6	≤5
20D	24.6	5.3
30D	31	6.2
50D	52.6	13.7

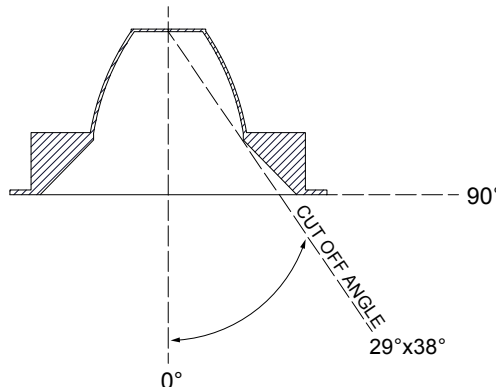
## GLARE CONTROL

### 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

**15D  
16.6° NO ACCESSORY**

Throw Distance (ft)	Beam Diameter (ft)
6	215
8	121
10	77
12	54
14	39

ILLUMINANCE at Center (fc)

WATTS: 19.5	LPW: 43
LUMENS: 838	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	7732
5	5978
15	1119
25	58
35	4.1
45	1.1

**20D  
22.7° NO ACCESSORY**

Throw Distance (ft)	Beam Diameter (ft)
6	130
8	73
10	47
12	32
14	24

ILLUMINANCE at Center (fc)

WATTS: 19.5	LPW: 45.4
LUMENS: 884	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	4680
5	4066
15	1443
25	239
35	16
45	2.3

**30D  
28.2° NO ACCESSORY**

Throw Distance (ft)	Beam Diameter (ft)
6	104
8	58
10	37
12	26
14	19

ILLUMINANCE at Center (fc)

WATTS: 19.5	LPW: 46.4
LUMENS: 904	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	3736
5	3465
15	1681
25	245
35	13
45	2.7

**50D  
50.9° NO ACCESSORY**

Throw Distance (ft)	Beam Diameter (ft)
6	39
8	22
10	14
12	10
14	7

ILLUMINANCE at Center (fc)

WATTS: 19.5	LPW: 46.3
LUMENS: 903	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	1367
5	1379
15	1269
25	714
35	132
45	5.2

**15D  
16.6° NO ACCESSORY**

Throw Distance (ft)	Beam Diameter (ft)
6	336
8	189
10	121
12	84
14	62

ILLUMINANCE at Center (fc)

WATTS: 36.5	LPW: 35.9
LUMENS: 1310	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	12082
5	9341
15	1748
25	90
35	6.4
45	1.7

**20D  
22.7° NO ACCESSORY**

Throw Distance (ft)	Beam Diameter (ft)
6	203
8	114
10	73
12	51
14	37

ILLUMINANCE at Center (fc)

WATTS: 36.5	LPW: 37.9
LUMENS: 1382	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	7312
5	6352
15	2255
25	373
35	25
45	3.6

**30D  
28.2° NO ACCESSORY**

Throw Distance (ft)	Beam Diameter (ft)
6	162
8	91
10	58
12	41
14	30

ILLUMINANCE at Center (fc)

WATTS: 36.5	LPW: 38.7
LUMENS: 1413	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	5837
5	5414
15	2626
25	383
35	20
45	4.1

**50D  
50.9° NO ACCESSORY**

Throw Distance (ft)	Beam Diameter (ft)
6	60
8	34
10	22
12	15
14	11

ILLUMINANCE at Center (fc)

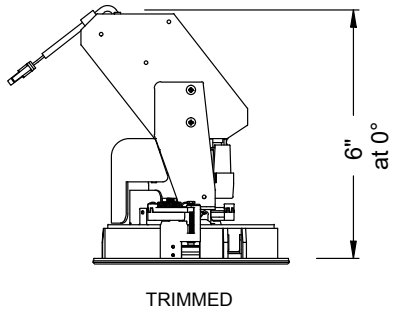
WATTS: 36.5	LPW: 38.7
LUMENS: 1411	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	2135
5	2155
15	1983
25	1115
35	207
45	8.1

# alphabet

PROJECT INFORMATION		
JOB NAME		TYPE
ORDERING CODE		

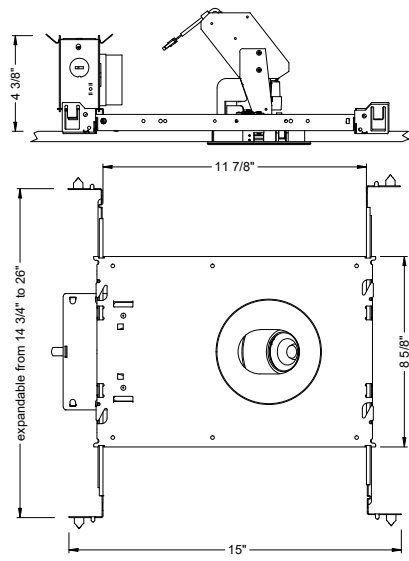
## MOUNTING OPTIONS

### FIXTURE HEIGHT

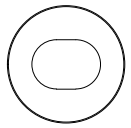


### NC - NEW CONSTRUCTION

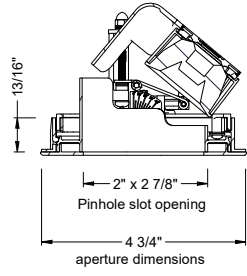
#### TRIM



#### TRIM

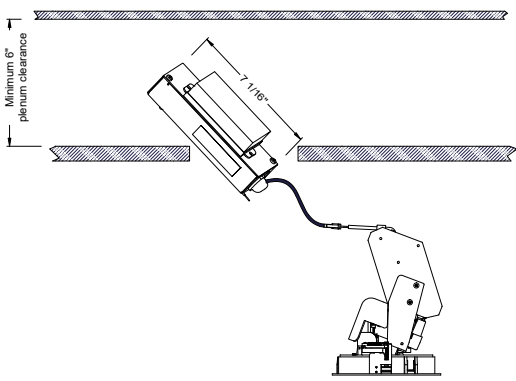


ceiling thickness  
0.4" to 2.0"



### RET - RETRO

#### TRIM/TRIMLESS



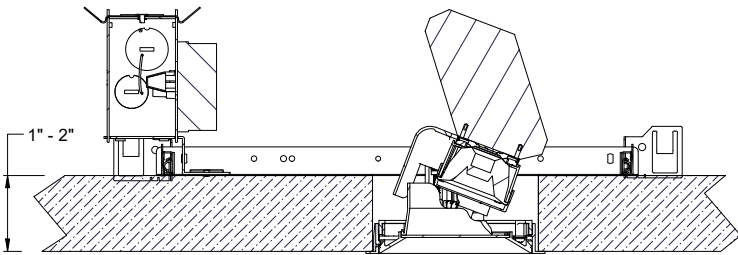
PROJECT INFORMATION		
JOB NAME		TYPE
ORDERING CODE		

## 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	✓	✓	✓	✓	✓

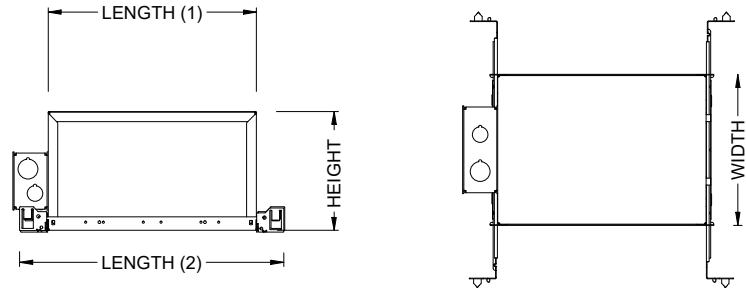
CEILING THICKNESS		
FIXTURE TYPE	MOUNTING TYPE	
	NC, IC, ICAT, CP, RET	NC, IC, ICAT, CP, RET
	STANDARD CEILING THICKNESS	THICK CEILING THICKNESS
TRIM	0.4" to 1.1"	1.0" to 2.0"
TRIMLESS	0.4" to 1.1"	1.0" to 2.0"
MILLWORK (TRIMLESS)	0.5" to 1.1"	1.0" to 2.0"

## 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 - STANDARD BEAMS (15° - 50°)					
LUMEN OUTPUT	BOX - A			BOX - B	BOX - C
	CP	IC	ICAT	IC	ICAT
07LM	✓	✓	✓		
10LM	✓	✓	✓		
13LM	✓	✓	✓		
20LM					

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 luminaires.

### REMOTE TEST SWITCH

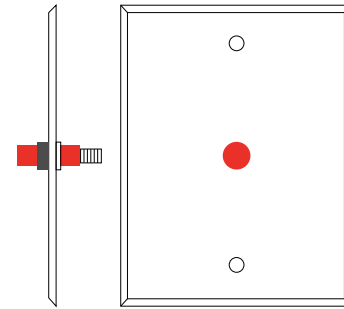
The remote test switch may be mounted adjacent to the LED Fixture by others.

### 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

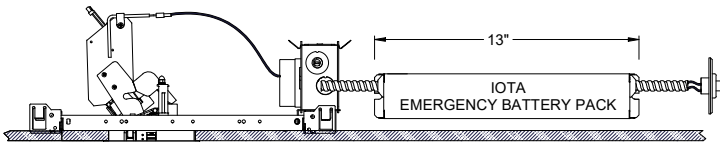
Maximum remote mounting distance of the emergency driver shall be 50 feet. Remote location wiring provided by others. Follow all local and national electric/building codes.



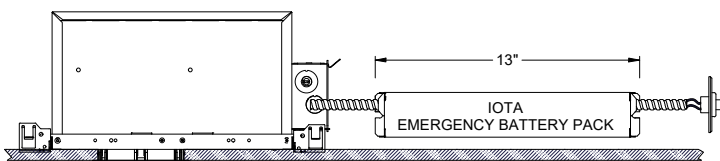
Remote Test Switch

EM MODE OUTPUT (DELIVERED LUMENS)			
LUMEN ORDERING CODE	EM7	EM10	EM12
ALL OPTIONS (07LM TO 20LM)	400	540	730
Notes: Based on 30K, 83CRI			

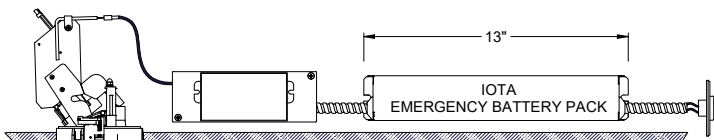
### NC - NEW CONSTRUCTION WITH EM BATTERY (REMOTE TEST SWITCH)



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

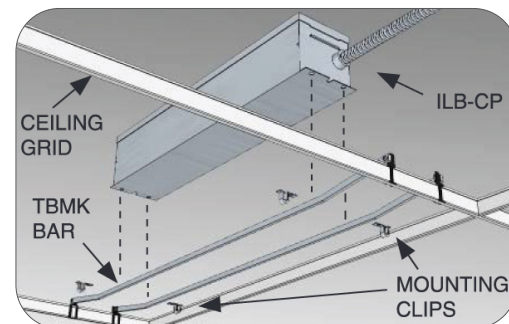


### RET - RETROFIT WITH EM BATTERY (REMOTE TEST SWITCH)



### Accessory

76066 Optional T-Grid Mounting Kit<sup>1</sup>



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