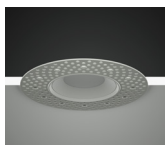


## NU1

### 1" Round Downlight Hospitality CCTs



Trim



Trimless



Trimless Millwork

#### FEATURES

- 3/8" bezel regress with 1/16" micro flange
- 17° - 60° optical beam control
- UGR < 26
- Up to 98 LPW
- 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

#### DIMMING AND CONTROLS

- eldoLED flicker free 0-10V dimming to 0% and 1%
- eldoLED flicker free DALI 2 dimming to 0% and 1%
- Lutron Hi-lumen 2-Wire (Eco System) dimming to 0.1% and 1%
- Leading & trailing edge (Triac/ELV) dimming to 1%
- All driver offerings are remote with above ceiling access, see page 3 for details.
- Refer to DX remote panels for additional options.

#### LISTING

- ULus Listed to UL1598 & UL2108; cUL Listed to CSA C22.2 #250.0
- IP44 with lens - Suitable for wet locations with lens - Suitable for damp locations without lens
- NSF/ANSI-2 with lens (Non-Food and Splash Zones)
- **Declare.** - LBC Red List Approved
- 5 Year Limited warranty

#### CONSTRUCTION

- High-grade die-cast and cold forged aluminum alloy assembly that has superior thermal and corrosion resistance properties.
- Shatter proof acrylic bezel lens
- Electrocoated 16-gauge cold-rolled steel construction
- Accommodates ceiling thickness from 1/8" to 1-1/2", On-field thick ceiling adjustment

#### ELECTRICAL

- Low voltage luminaire: 36Vdc nominal
- 05LM - 150mA
- 07LM - 200mA
- 10LM - 300mA

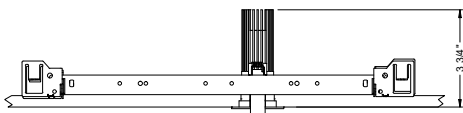
PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

22° - 60° BEAM			
(Note: Specifications are subject to change without notice)			
6mm COB PERFORMANCE DATA			
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	DRIVE CURRENT	LED WATTAGE
05LM	540LM @24K/90CRI	150mA	5.5W
07LM	720LM @24K/90CRI	200mA	7.5W
10LM	970LM @24K/90CRI	300mA	11W
Notes	Delivered lumens based on 30D optic with no lens, (see page 2)		

17° BEAM			
(Note: Specifications are subject to change without notice)			
4mm COB PERFORMANCE DATA			
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	DRIVE CURRENT	LED WATTAGE
05LM	470LM @24K/90CRI	150mA	5.5W
Notes	Delivered lumens based on 17D optic with SBL lens, (see page 2)		

#### FIXTURE HEIGHT

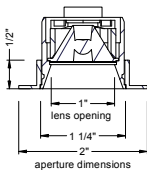
LED LIGHT ENGINE: 05LM - 10LM



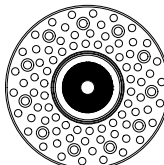
#### TRIMMED



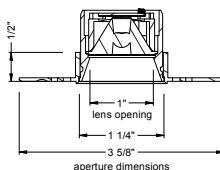
ceiling cutout  
1-3/4" diameter  
ceiling thickness  
1/8" to 1 1/2"



#### TRIMLESS



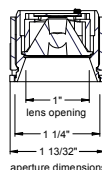
ceiling cutout  
1-3/4" diameter  
ceiling thickness  
1/8" to 1 1/2"



#### MILLWORK



ceiling cutout  
1-7/16" diameter  
ceiling thickness  
1/8" to 1 1/2"



# alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

ORDERING CODE						
SERIES	NU1	NU1				
TYPE	RD	round downlight				
	RDT	round downlight trimless				
	RDTMW	round downlight trimless millwork				
LED	SW	standard white				
DELIVERED LUMENS	05LM	540 lm				
	07LM	720 lm				
	10LM	970 lm				
	Standard Configuration: 2400K 90CRI 30D, NL Calculated Delivered Lumens = [Delivered Lumen Value] x [CCT Multiplier] x [Optic Multiplier] x [Lens Multiplier]					
CCT	22K	2200K	CCT	2200K	2400K	
	24K	2400K	CRI	90+	90+	
			CCT MULTIPLIER FOR LUMEN OUTPUT	0.92	1	
CRI	90	90 CRI				
OPTIC & LM MULTIPLIER SEE PAGE 6	17D <sup>1, 2, 3</sup>	17 degrees				(1.00)
	22D <sup>2, 3</sup>	22 degrees				(0.91)
	30D	30 degrees				(0.97)
	40D	40 degrees				(0.95)
	60D	60 degrees				(1.00)
BEZEL LENS SEE PAGE 5	NL <sup>4</sup>	no lens				(1.00)
	CL	clear lens				(0.95)
	DL	diffused lens				(0.86)
	E <sup>5</sup>	elliptical beam spread				(0.85)
	HCL	honeycomb louver				(0.65)
	HET	high efficiency textured lens, similar to Solite™				(0.92)
	SBL	smoothing beam lens				(0.92)
Maximum 2pcs of media per fixture.						
TRIM COLOR SEE PAGE 5	BK	black				
	WH	white				
	MC	matte chrome				
	BZ	bronze				
	WT	wheat				
	CC <sup>6</sup>	custom color, consult factory for details				
Not applicable to trimless option. Do not include in trimless ordering code.						
Antimicrobial finish, add <b>AM</b> to black, white or matte chrome i.e. BKAM.						
BEZEL COLOR SEE PAGE 5	BK	black				(0.98)
	WH	white				(1.00)
	MC	matte chrome				(0.99)
	BZ	bronze				(0.98)
	WT	wheat				(0.99)
	CC <sup>6</sup>	custom color, consult factory for details				
Antimicrobial finish, add <b>AM</b> to black, white or matte chrome i.e. BKAM.						

ORDERING CODE		
MOUNTING OPTIONS SEE PAGE 8, 9	NC	new construction with ceiling fitting plate
	IC <sup>8,9</sup>	insulation contact housing
	ICAT <sup>8,9</sup>	insulation contact/airtight housing
	CP <sup>8,9</sup>	chicago plenum housing
	NCINH <sup>7</sup>	new construction with ceiling fitting plate, IC rated, inherently protected
	RETINH <sup>7</sup>	retrofit, no ceiling fitting plate, IC rated, inherently protected
	RET	retrofit, no ceiling fitting plate
	remote driver only	
VOLTAGE	LVL	low voltage luminaire
DIMMING	ND	No driver included. See page 3 for remote driver options.

YOUR COMPLETED ORDERING CODE	
Follow the steps to specify your fixture, example:	
NU1 - RD - SW - 10LM - 22K - 90 - 30D - HET - WH - WH - NC - LVL - ND	

### NOTES

- 17D available in 05LM.
- 17D & 22D not available in NL and CL options.
- 17D & 22D includes SBL lens as standard. One additional media may be used.
- NL option does not meet requirements for AT/WET/NSF listings.
- Actual beam distributions [22D= 38° x 57° , 30D= 43° x 63° , 40D= 48° x 66° , 60D= 59° x 75°]
- Custom set up fee plus minimum quantity required per color.
- NCINH, RETINH available in 05LM.
- IC/ICAT/CP not available in 10LM.
- IC/ICAT/CP not available in RDTMW.

# alphabet

ORDERING CODE		
SERIES	DX-C	compact driver box
NUMBER OF DRIVERS	1-5	number of drivers, 1-5
CURRENT	150	150mA
	200	200mA
	300	300mA
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%
	DMX-RJ45 <sup>1</sup>	DMX control dimming to 0.1% with RJ45 connection
	DMX-WL <sup>1</sup>	DMX control dimming to 0.1% with wire lead connection
	DMX-XLR <sup>1</sup>	DMX control dimming to 0.1% with XLR 5pin connection
	LUT	Lutron Hi-lume Ecosystem dimming to 1%, Soft-on & Fade-to-Black
	LUTP	Lutron Hi-lume Premier Ecosystem dimming to 0.1%, Soft-on & Fade-to-Black
	ELV <sup>2</sup>	leading & trailing edge (Triac/ELV) dimming to 1%
ELECTRICAL OPTIONS	NLT	nLight control interface: standard Cat-5/RJ45 connection (female), dim to off
	CAS <sup>3</sup>	Casambi control with flicker free 1% dimming
	AWNR <sup>4</sup>	lutron athena wireless node
	EM7 <sup>5</sup>	remote emergency battery backup, 90 minutes at 7 watts to LED, Remote TS

YOUR COMPLETED ORDERING CODE

Follow the steps to specify your fixture, example:

DX-C - 1 - 300 - UNV - DIM10 - EM7

- NOTES
1. DMX available only in DX-C-1.

2. ELV available in 120V.

3. All drivers on single Casambi dimming circuit.

4. AWRN reference page 11 for product specification on Athena wireless node.

5. EM available only with DX-C-1. Box size same as DX-C-2, with one driver and one battery.
- \* EldoLED uses logarithmic dimming curve as standard. For linear dimming curve, add "LIN" after dimming code, i.e. DIM10LIN.

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

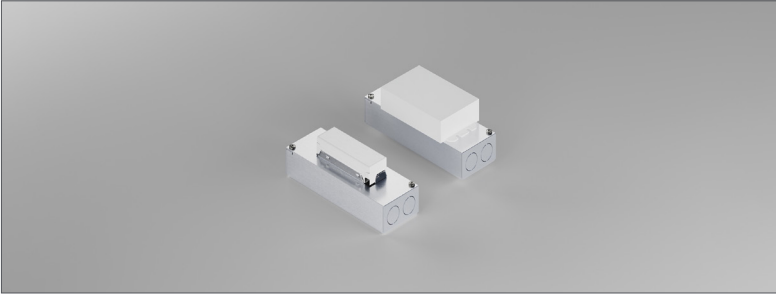
22° - 50° BEAM		
(Note: Specifications are subject to change without notice)		
6mm COB PERFORMANCE DATA		
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	SYSTEM WATTAGE
05LM	540LM @24K/90CRI	7W
07LM	720LM @24K/90CRI	9W
10LM	970LM @24K/90CRI	14W
Notes	Delivered lumens based on 30D optic with no lens, (see page 2)	

17° BEAM		
(Note: Specifications are subject to change without notice)		
4mm COB PERFORMANCE DATA		
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	SYSTEM WATTAGE
05LM	470LM @24K/90CRI	7W
Notes	Delivered lumens based on 17D optic with SBL lens, (see page 2)	

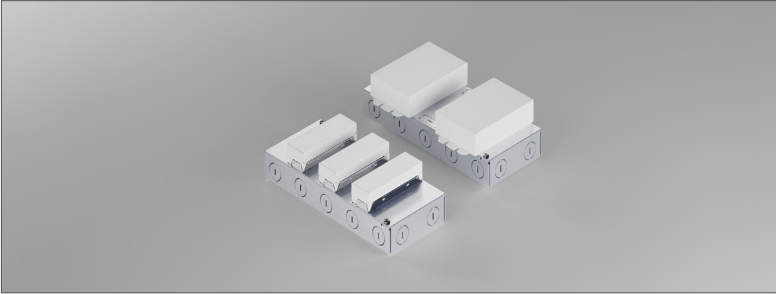
## ELECTRICAL/CONTROLS

- 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)
- Minimum wire gauge approved mounting distance 18 AWG, 330 feet
- Maximum Remote mounting distance of EM driver shall be 50 feet

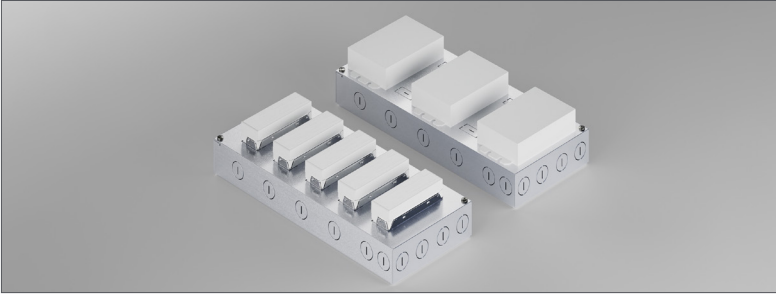
## REMOTE SINGLE DRIVER BOX



## REMOTE 2 TO 3 DRIVER BOX (2 Drivers for DIM10Z/DALI/DALIZ/LUT/LUTP (1 Driver + EM)



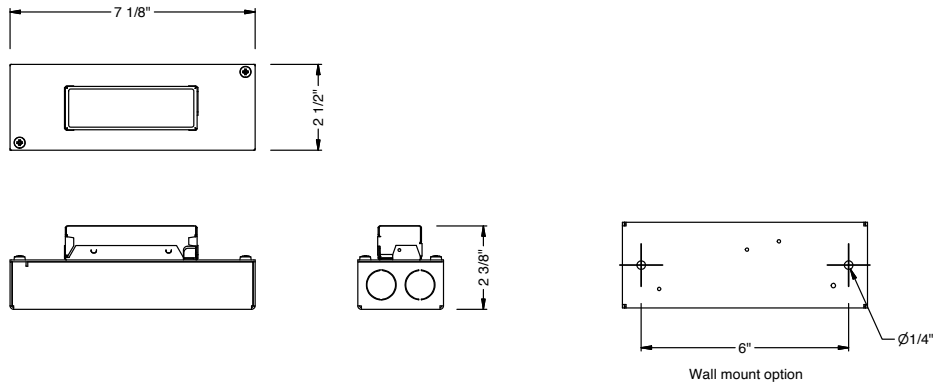
## REMOTE 4 TO 5 DRIVER BOX (3 Drivers for DIM10Z/DALI/DALIZ/LUT/LUTP



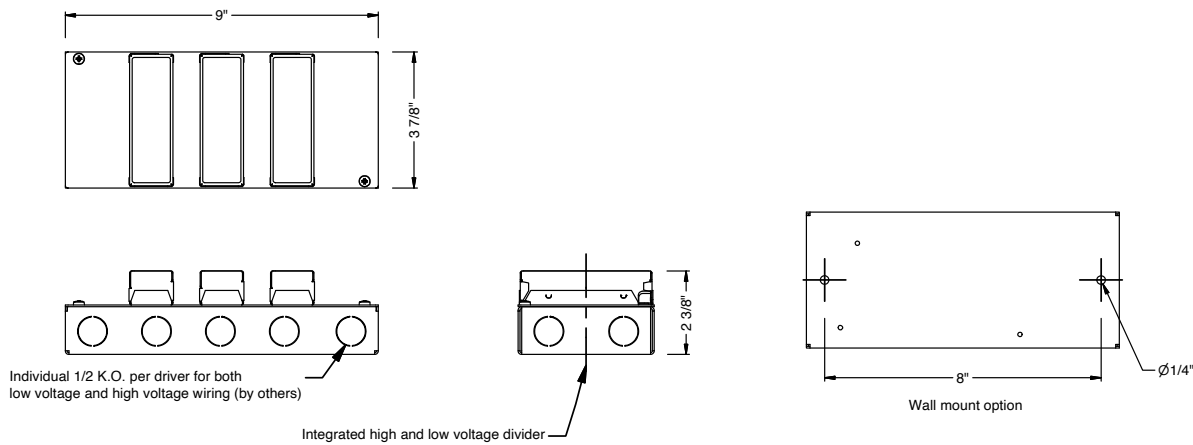
PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

## DRIVER BOXES

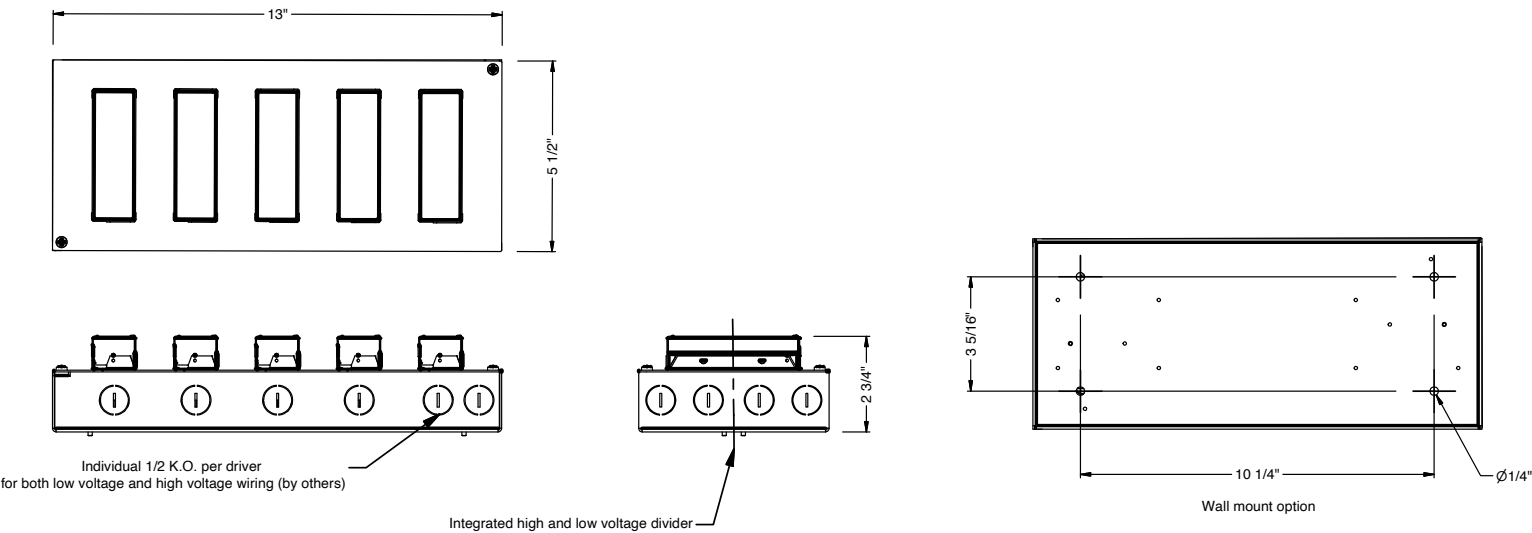
### REMOTE SINGLE DRIVER BOX



### REMOTE 2 TO 3 DRIVER BOX (2 Drivers for DIM10Z/DALI/DALIZ/LUT/LUTP)



### REMOTE 4 TO 5 DRIVER BOX (3 Drivers for DIM10Z/DALI/DALIZ/LUT/LUTP)



# alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

## TRIM OPTIONS

### TRIM/BEZEL COLORS

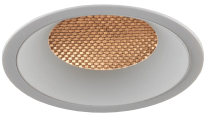


## OPTICAL OPTIONS

- UGR calculation based on CIE 117-1995; room size: 4H X 8H, reflectance: 70/50/20;
- UGR calculation based on 05LM BK fixtures, unless otherwise noted.

### HCL

Honeycomb Louver



OPTIC	BEAM ANGLE	UGR
17D	17	≤5
22D	20	9.2
30D	27	10.4
40D	35	12.9
60D	45	18.9

### NL

No Lens



OPTIC	BEAM ANGLE	UGR
30D	29	14.8
40D	39	17.4
60D	57	23.9

### CL

Clear Lens



OPTIC	BEAM ANGLE	UGR
30D	30	14.1
40D	40	17.1
60D	55	23.5

### DL

Diffused Lens



OPTIC	BEAM ANGLE	UGR
22D	40	19.3
30D	45	20.7
40D	50	22.3
60D	62	25.2

### HET

High Efficiency Textured Lens



OPTIC	BEAM ANGLE	UGR
17D	21	9.3
22D	23	14.7
30D	32	16.2
40D	41	18.5
60D	55	23.7

### SBL

Smoothing Beam Lens



OPTIC	BEAM ANGLE	UGR
17D	17.6	7.5
22D	22	10.7
30D	30	15.3
40D	40	17.8
60D	55	23.4

Note: 17D UGR based on 07LM

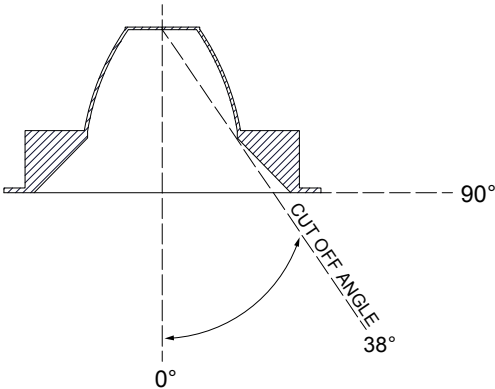
## GLARE CONTROL

### 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.

- Cut-off angle of NL and CL is 38°



# alphabet

PROJECT INFORMATION		
JOB NAME		TYPE
ORDERING CODE		

## PHOTOMETRIC DATA

05LM	
	90CRI
2200K	0.92
2400K	1
FC Formula = CBCP / Distance <sup>2</sup>	

22D 22° WITH SBL LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	61 2.3
8	34 3.1
10	22 3.8
12	15 4.6
14	11 5.4
Illuminance at Center (fc)	
WATTS: 5.5	LPW: 82
LUMENS: 451	CCT: 2400K
INTENSITY	
DEGREE	CANDELA
0	2181
5	1896
15	615
25	166
35	29
45	13

30D 30° WITH NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	43 3.2
8	24 4.2
10	15 5.3
12	11 6.3
14	8 7.4
Illuminance at Center (fc)	
WATTS: 5.5	LPW: 96.1
LUMENS: 528	CCT: 2400K
INTENSITY	
DEGREE	CANDELA
0	1542
5	1419
15	757
25	264
35	60
45	18

40D 40° WITH NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	28 4.4
8	16 5.8
10	10 7.3
12	7 8.7
14	5 10.2
Illuminance at Center (fc)	
WATTS: 5.5	LPW: 93.6
LUMENS: 515	CCT: 2400K
INTENSITY	
DEGREE	CANDELA
0	1005
5	972
15	707
25	307
35	74
45	25

60D 57° WITH NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	16 6.5
8	9 8.6
10	6 10.8
12	4 12.9
14	3 15.1
Illuminance at Center (fc)	
WATTS: 5.5	LPW: 98.7
LUMENS: 543	CCT: 2400K
INTENSITY	
DEGREE	CANDELA
0	569
5	559
15	480
25	338
35	185
45	67

10LM	
	90CRI
2200K	0.92
2400K	1
FC Formula = CBCP / Distance <sup>2</sup>	

30D 22° WITH SBL LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	76 3.2
8	43 4.2
10	27 5.3
12	19 6.3
14	14 7.4
Illuminance at Center (fc)	
WATTS: 11	LPW: 85.5
LUMENS: 940	CCT: 2400K
INTENSITY	
DEGREE	CANDELA
0	2743
5	2525
15	1347
25	470
35	106
45	32

30D 30° WITH NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	68 3.3
8	38 4.4
10	25 5.5
12	17 6.6
14	13 7.7
Illuminance at Center (fc)	
WATTS: 11	LPW: 80.1
LUMENS: 881	CCT: 2400K
INTENSITY	
DEGREE	CANDELA
0	2459
5	2275
15	1260
25	448
35	98
45	35

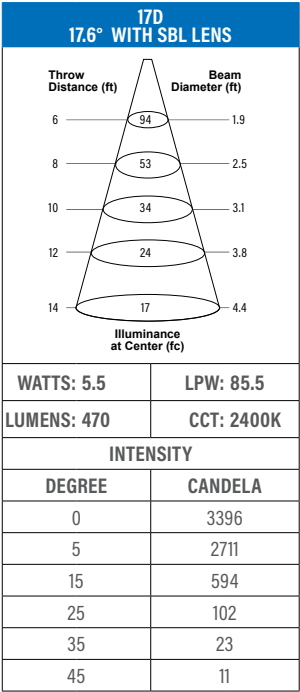
40D 40° WITH NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	50 4.4
8	28 5.8
10	18 7.3
12	12 8.7
14	9 10.2
Illuminance at Center (fc)	
WATTS: 11	LPW: 83.3
LUMENS: 916	CCT: 2400K
INTENSITY	
DEGREE	CANDELA
0	1788
5	1730
15	1258
25	545
35	132
45	45

60D 57° WITH NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	28 6.5
8	16 8.6
10	10 10.8
12	7 12.9
14	5 15.1
Illuminance at Center (fc)	
WATTS: 11	LPW: 87.8
LUMENS: 966	CCT: 2400K
INTENSITY	
DEGREE	CANDELA
0	1013
5	995
15	854
25	602
35	329
45	120

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

PHOTOMETRIC DATA

05LM	
	90CRI
2200K	0.92
2400K	1
FC Formula = CBCP / Distance <sup>2</sup>	

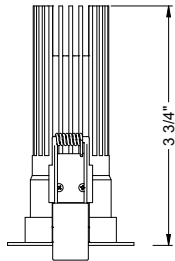


PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

MOUNTING OPTIONS

FIXTURE HEIGHT

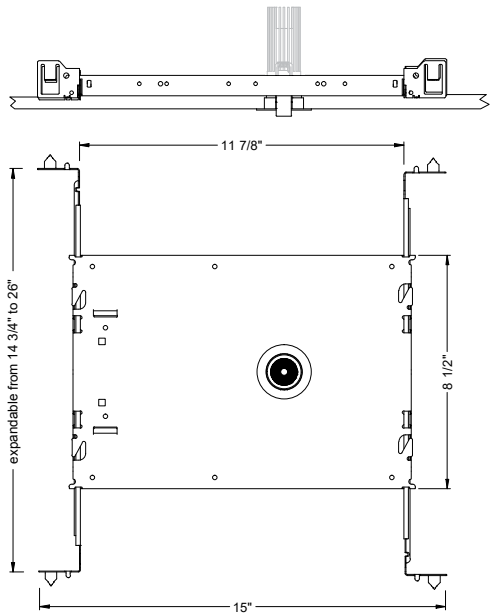
05LM - 10 LM LOW LUMENS



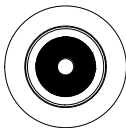
TRIMMED, TRIMLESS & MILLWORK

NC - NEW CONSTRUCTION

TRIM

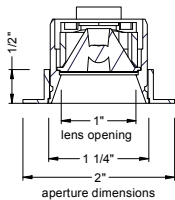


TRIM



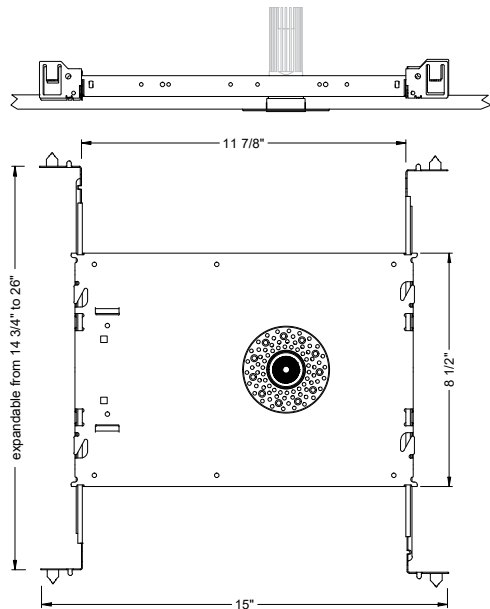
ceiling cutout  
1-3/4" diameter

ceiling thickness  
1/8" to 1 1/2"

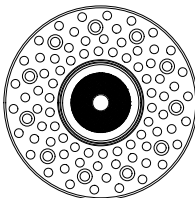


ADDITIONAL MOUNTING INFO	
New Construction Bar Hangers (included)	Mounting Length: 14-3/4" to 26"
Extension Kit p/n: K20266 (ordered separately, 1 per fixture)	<i>Extends a pair of Bar Hangers</i> Total Mounting Length: 29" to 48"

TRIMLESS

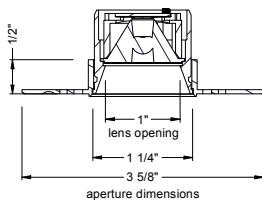


TRIMLESS



ceiling cutout  
1-3/4" diameter

ceiling thickness  
1/8" to 1 1/2"

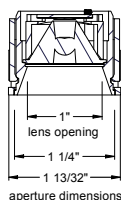


TRIMLESS/MILLWORK



ceiling cutout  
1-7/16" diameter

ceiling thickness  
1/8" to 1 1/2"

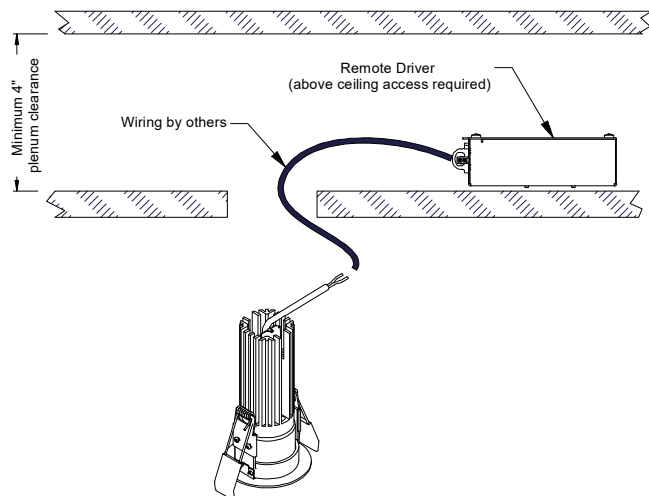




PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

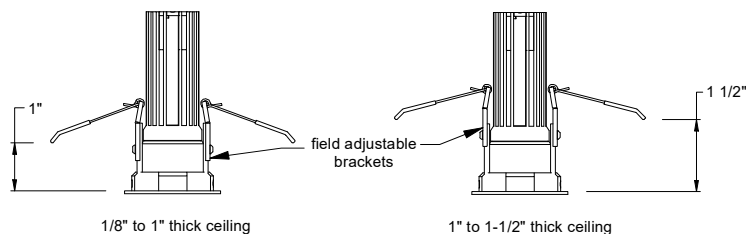
## MOUNTING OPTIONS

### RET - RETRO TRIM/TRIMLESS



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

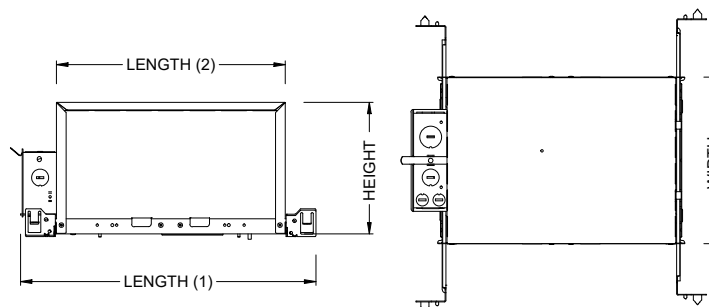
CEILING THICKNESS			
FIXTURE TYPE	MOUNTING TYPE		
	NC, IC, ICAT, CP, RET	NC, IC, ICAT, CP, RET	NC, IC, ICAT, CP, RET
	STANDARD CEILING THICKNESS	THICK CEILING THICKNESS	CEILING CUTOUT
TRIM	1/8" to 1.0"	1.0" to 1 1/2"	1-3/4" round
TRIMLESS	1/8" to 1.0"	1.0" to 1 1/2"	1-3/4" round
MILLWORK (TRIMLESS)	1/8" to 1.0"	1.0" to 1 1/2"	1-7/16" round



### IC - INSULATION CONTACT HOUSING

### ICAT - INSULATION CONTACT / AIR TIGHT

### CP - CHICAGO PLENUM



BOX SIZE	L1	L2	W	H
A	15 - 7/16"	11 - 3/4"	8 - 1/2"	6 - 3/4"

BOX TYPE / LUMEN OUTPUT - STANDARD BEAMS (17°-60°)			
LUMEN OUTPUT	BOX - A		
	CP	IC	ICAT
05LM	✓	✓	✓
07LM	✓	✓	✓
10LM			

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

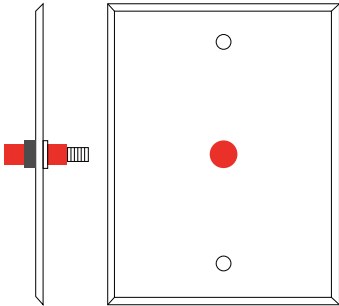
The Remote Test Switch may be mounted adjacent to the LED Fixture by others.

### 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

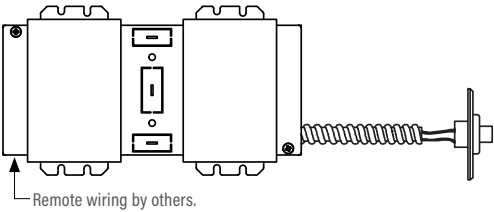
Maximum remote mounting distance of the emergency driver shall be 50 feet. Remote location wiring provided by others. Follow all Local and National Electric/Building Codes.



Remote Test Switch

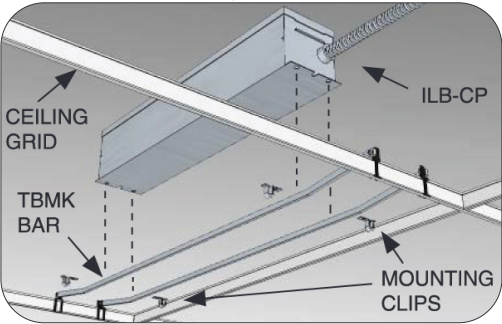
EM MODE OUTPUT (DELIVERED LUMENS)	
LUMEN ORDERING CODE	EM7
ALL OPTIONS ( 07LM TO 10LM)	670
Notes: Based on 24K, 90CRI	

## REMOTE 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.

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

## AWNRR OPTIONS

## Athena Wireless Node

The Athena wireless node is a radio frequency (RF) device that enables simple, digital control of individual light fixtures in an Athena control system.



Athena Wireless Node RF

### AWNRR

Plenum rated and can be installed above the ceiling for wireless control of a fixture without any impact on fixture aesthetics.

### FEATURES

- Enables individual, wireless control of each fixture in an Athena control system. Accommodates zone and control changes without rewiring.
- Installed at factory – no wiring required on-site. Fixture is ready to communicate wirelessly once power is connected.
- All drivers on the link are controlled as a single zone.

### REGULATORY APPROVALS

- cULus Listed (UL916)
- Complies with requirements for use in other spaces used for environmental air (plenums) per NEC® 2014 300.22(C)(3).
- FCC compliant with the limits for a Class B digital device.
- IC (Industry Canada)
- ANSI C137.1 0–10 V- Electronic Off

### POWER / LOAD

- IEC SELV/NEC® Class 2
- 1 Watt

### ENVIRONMENTAL

- Ambient operating temperature (immediate vicinity of Athena wireless node): **32 °F to 131 °F** (0 °C to 55 °C), 0% to 90% humidity.

### BATTERY OPTIONS

- For EM options please consult factory.

#### Note: Default behavior prior to programming

- Light level 100%
- Each Athena wireless node should be installed within 25 ft (7.62 m) of two or more Athena wireless nodes or other Clear Connect – Type X devices.
- Athena wireless node performs an unprogrammed startup sequence on every power up until the device is added to an Athena system.
- For Chicago plenum installations, the Athena wireless node may not be installed in the plenum space. It must be installed in the occupied space.

**For servicing the driver/j-box, access above ceiling is required. (NC Mounting)**

**IC/ICAT/CP not available in Awnr.**