

# LASER BLADE ORIGINAL

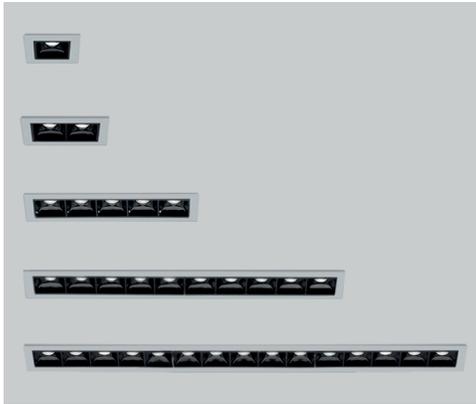
DOWNLIGHT - NEW CONSTRUCTION WITH HOUSING - REMOTE - TITLE 24 - JA8

Type:

Project :

SPECIFICATION SHEET

Page: 1 of 11



Laser blade original is a collection of recessed downlights for architectural applications. The luminaires are equipped with high performance Opti Beam optics system for low luminance downlights (UGR < 10). Laser blade original is available in 5 aperture sizes, trim or trimless, 5 distributions, generous outputs of up to 2583 lumens and excellent chromatic performance .

CCT (K)	CRI	MODEL	OPTIC	SYSTEM POWER (W)	LUMENS (lm)	EFFICACY (integral (lm / W))	MAX CANDELA (cd)
3000	92	1 cell	Flood 13°	3.0	204	65	697
		2 cells	Flood 13°	6.0	401	66	1 394
		5 cells	Spot 13°	13.0	1 016	77	8 581
			Flood 13°	13.0	1 015	77	3 464
			Wide Flood 13°	13.0	1 028	78	1 738
		10 cells	Spot 13°	25.0	2 032	81	17 161
			Flood 13°	25.0	2 032	73	6 927
		15 cells	Wide Flood 47°	25.0	1 836	93	3 105
			Spot 13°	36.5	3 039	83	25 662
			Flood 13°	36.5	3 039	83	10 359
Wide Flood 13°	36.5		3 076	84	5 200		

N.B.: More optics availables.

**Source:**

White LED module (LM-80)  
2700K: 92CRI (90CRI min),  
3000K: 92CRI (90CRI min),  
3500K: 92CRI (90CRI min),  
4000K: 92CRI (90CRI min).

**Lumen maintenance:**

90% of initial lumens at 50 000 hours (L90) (LM-80).

**Optics:**

Low luminance: Spot 13°, flood 32°, wide flood 47°,  
general light pro, medium oval transversal or  
longitudinal and wide flood oval transversal or  
longitudinal optics with Opti Beam technology.

**Material:**

Body and heat sink: Die-cast aluminum  
Reflector and baffle: Thermoplastic  
Housing: Galvanized steel

**Mounting:**

New construction with housing for insulated ceiling,  
Chicago plenum and airtight applications.

**Electrical:**

High efficiency LED driver.  
See remote LED driver options on page 3.

**Finish:**

Black, white (RAL9010) and gray (RAL9006) (page 2).

**Weight:**

ILB01: 0.11lbs (0.05kg)  
ILB02: 0.20lbs (0.09kg)  
ILB05: 0.66lbs (0.30kg)  
ILB10: 1.32lbs (0.60kg)  
ILB15: 1.90lbs (0.86kg)

**Warranty:**

5 year limited warranty.

**Ratings:**

IP20, IP23 (from under the ceiling)

**Certification:**



cULus listed for damp location. Interior use only.

Title 24-JA8-2019 high efficiency luminaire.  
Airtight luminaire less than 2 cfm leakage @1.57PSI  
per ASTM E283.

To confirm which versions are certified, please  
consult the "Appliance Advanced Search" option  
at the following address :  
<https://cacertappliances.energy.ca.go>

**Assembled in North America.**

## ORDERING INFO



PRODUCT CODE			INSTALLATION CODE			
MODEL	MOUNTING	INSTALLATION	LED	OPTIC	VOLTAGE	FINISH (trim finish / baffle finish*)
<b>ILB01</b> 01 cell	<b>TR</b> Trim	<b>AT</b> <sup>1</sup> Airtight housing	<b>027</b> <sup>2</sup> 2700K, 92CRI	<b>SP</b> <sup>3</sup> Spot 13°	<b>REM</b> Remote	<b>TRIM</b>
<b>ILB02</b> 02 cells	<b>TL</b> Trimless		<b>030</b> <sup>2</sup> 3000K, 92CRI	<b>FL</b> <sup>3</sup> Flood 32°		<b>01</b> White / black
<b>ILB05</b> 05 cells			<b>035</b> <sup>2</sup> 3500K, 92CRI	<b>WF</b> Wide flood 47°		<b>31</b> White / white
<b>ILB10</b> 10 cells			<b>040</b> <sup>2</sup> 4000K, 92CRI	<b>GP</b> <sup>3</sup> General light pro		<b>02</b> Black / black
<b>ILB15</b> 15 cells				<b>LM</b> <sup>4</sup> Medium oval longitudinal		<b>10</b> Gray / black
				<b>TM</b> <sup>4</sup> Medium oval transversal		<b>TRIMLESS</b>
				<b>LW</b> <sup>5</sup> Wide flood oval longitudinal		<b>31</b> White
				<b>TW</b> <sup>5</sup> Wide flood oval transversal		<b>02</b> Black
						Black baffle 
						White baffle 

1 Airtight luminaire less than 2 cfm leakage @1.57PSI per ASTM E283.  
 2 92CRI typical - 90CRI minimum.  
 3 Available with 05 cells (**05**), 10 cells (**10**) and 15 cells (**15**) models.  
 4 Available with 05 cells (**05**) model.  
 5 Available with 05 cells (**05**) and 10 cells (**10**) models.  
 \* Custom baffle finish available, contact customer service for details.

## REMOTE LED DRIVER OPTIONS (TO BE ORDERED SEPARATELY)

PRODUCT CODE (COMPLETE ON THE PREVIOUS PAGE)

### Indoor rated drivers

Driver box model	Min-max units				
	ILB01 2W*	ILB02 3.8W*	ILB05 9.8W*	ILB10 20W*	ILB15 29W*
4443-0700-025-UNV-D2	8-11	4-5	2	1	
4450-0700-030-UNV-SD10	1-12	1-6	1-2	1	
4443-0700-035-UNV-D2	12-15	6-7	3		1
4450-0700-038-UNV-SD10	1-16	1-8	1-3	1	1
4450-0700-038-UNV-ED10	1-16	1-8	1-3	1	1

\* Wattage requirement for one (1) fixture (remote fixture only).

### DRIVER CODE SELECTION

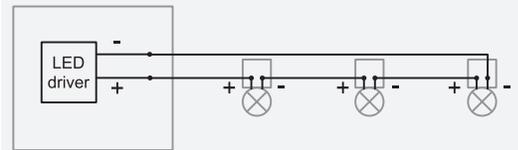
Complete the ordering info to activate the driver code selection menu.

MODEL	CONSTANT CURRENT	WATTAGE	VOLTAGE	DIMMING PROTOCOL
<b>4443</b> L 5" x W 4" x H 3" (L 127 x W 102 x H 76mm)	<b>0700</b> 700mA	<b>025 to 038</b> 25W to 038W	<b>UNV</b> 120-277V	<b>D2</b> Lutron Hi Lume® 1% EcoSystem™ (Soft-on, Fade to Black) Max distance: 9m (30ft)** (down to 1%)
<b>4450</b> L 8" x W 8" x H 4" (L 203 x W 203 x H 102mm)				<b>ED10</b> 0-10V ELDOLED ECOdrive Max distance: 36m (118ft)** (down to 1%)
				<b>SD10</b> 0-10V ELDOLED SOLOdrive Max distance: 36m (118ft)** (down to 0.1%)

\*\*Max distance cable calculated for 16AWG cable. Contact customer service for longer remote distance.

#### WIRING DIAGRAMS

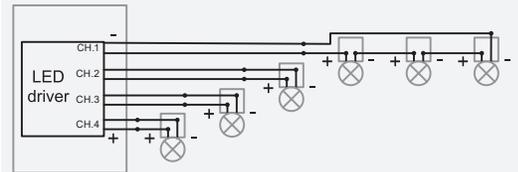
Multiple luminaires must be connected in series (home run or fixture chain)



Luminaires must be connected on separate channels (1-4).

Multiple luminaires can be connected in series on a channel (home run or fixture chain).

Do not exceed the wattage and voltage range on each channel.



## INSTALLATION

### New construction with airtight (AT) housing.

Housing with hanger bars system for new construction installations.  
Suitable for insulated ceiling, chicago plenum and airtight applications.  
Housing can be shipped separately.

#### Ceiling thickness:

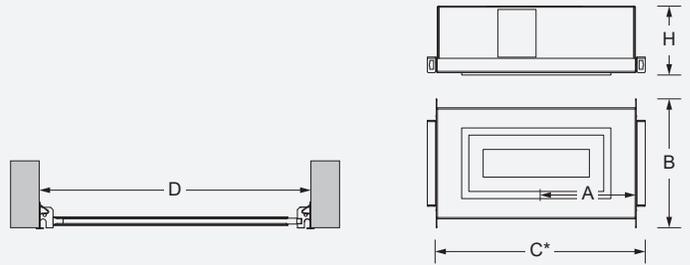
Trim: 1/8" to 1 1/8" (3mm - 29mm)

Trimless: 3/8" (16mm)

**Total weight:** 2.65lbs (1.20kg)

**Certification:** Airtight housing (AT) certified less than 2 cfm leakage  
@ 1.57PSI per ASTM E283.

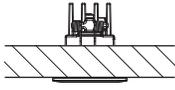
\*Provide a minimum of 1 1/8" (46mm) on each side for the hanger bar fixations



Model	Housing	Cut-out dimensions	Cut-out positions (A)	Overall dimensions (BxC)	Hanger bars range (D)	Clearance (H)
ILB01	BI-LB01TR-AT-REM	1 3/8" x 1 3/8" (35 x 35mm)	6 7/8" (174mm)	6 3/16" x 11 1/2" (167 x 292mm)	14 1/4" to 26" (362 to 660mm)	3 1/2" (89mm)
	BI-LB01TL-AT-REM					
ILB02	BI-LB02TR-AT-REM	1 3/8" x 2 1/2" (35 x 64mm)	6 5/8" (160mm)			
	BI-LB02TL-AT-REM					
ILB05	BI-LB05TR-AT-REM	1 1/2" x 5 5/8" (37 x 141mm)	5 1/4" (133mm)			
	BI-LB05TL-AT-REM	1 3/8" x 5 5/8" (35 x 141mm)				
ILB10	BI-LB10TR-AT-REM	1 1/2" x 10 13/16" (37 x 274mm)	8 3/8" (223mm)	6 1/2" x 21 3/16" (166 x 540mm)		
	BI-LB10TL-AT-REM	1 3/8" x 10 13/16" (35 x 271mm)				
ILB15	BI-LB15TR-AT-REM	1 1/2" x 16" (37 x 406mm)	13 3/8" (332mm)	9 1/4" x 28 3/16" (238 x 716mm)		
	BI-LB15TL-AT-REM	1 3/8" x 15 13/16" (37 x 404mm)				

## TRIM MODELS DIMENSIONS

ILB01

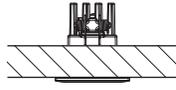


1 3/4"  
(44mm)

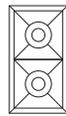


1 3/4"  
(44mm)

ILB02

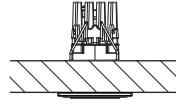


1 3/4"  
(44mm)

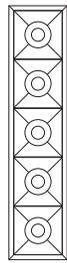


2 7/8"  
(73mm)

ILB05

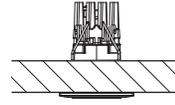


1 3/4"  
(44mm)

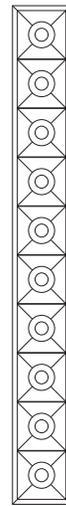


5 5/8"  
(148mm)

ILB10

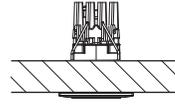


1 3/4"  
(44mm)

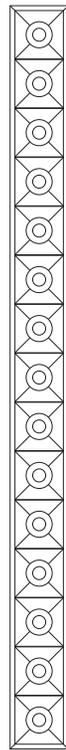


11"  
(280mm)

ILB15



1 3/4"  
(44mm)

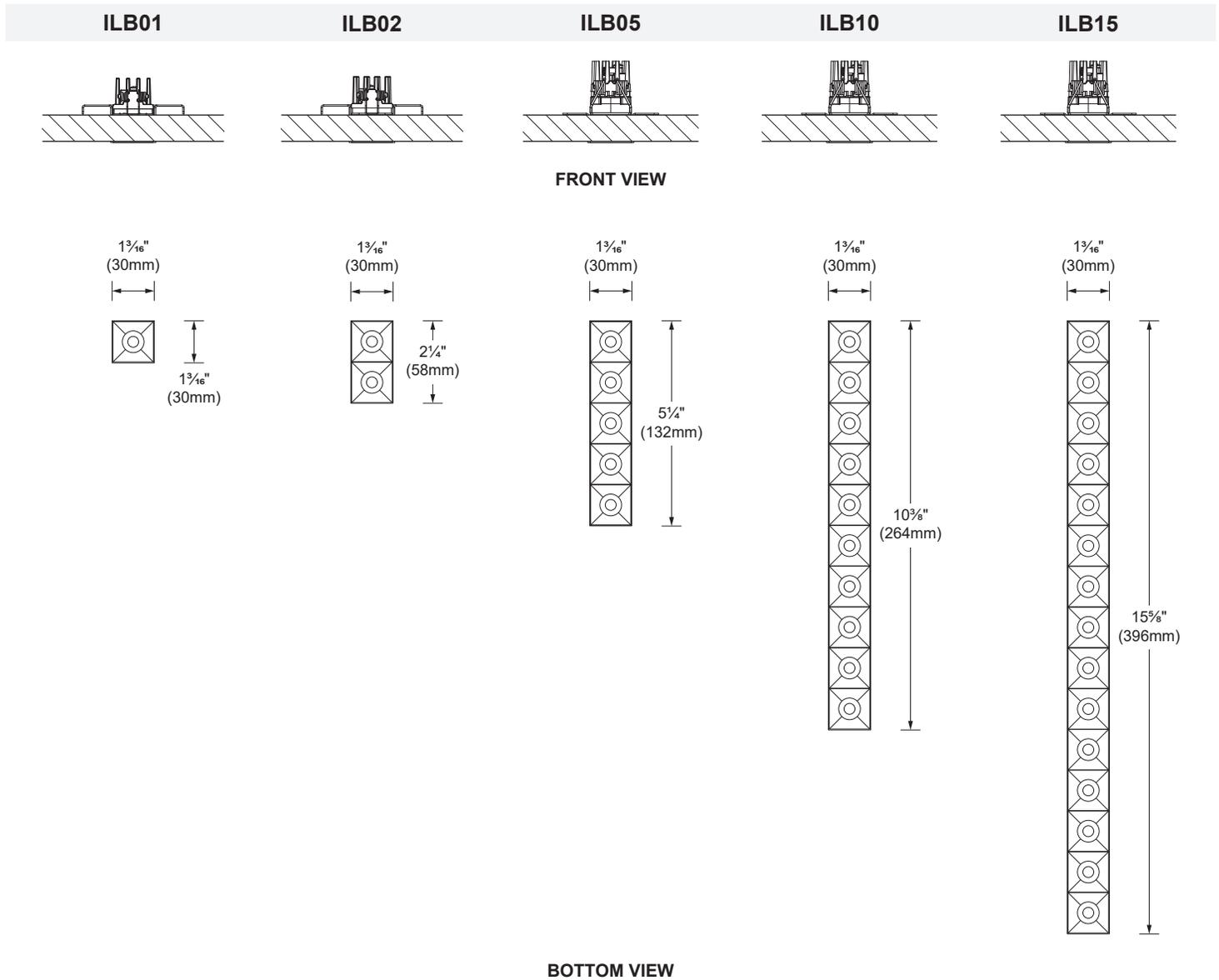


16 1/4"  
(413mm)

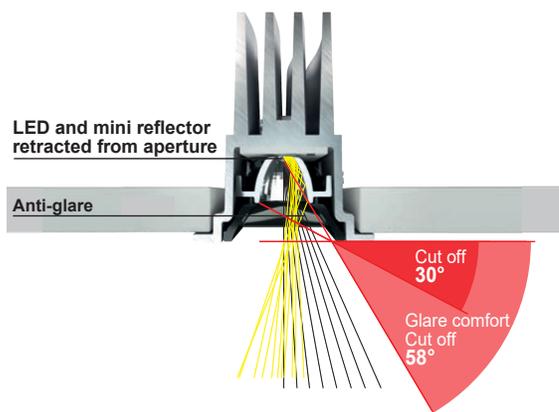
FRONT VIEW

BOTTOM VIEW

## TRIMLESS MODELS DIMENSIONS



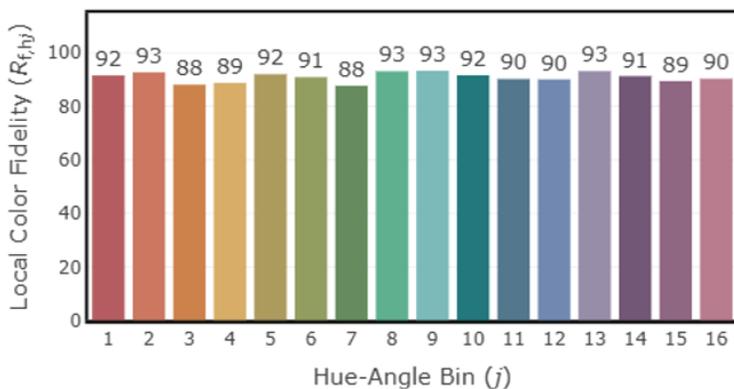
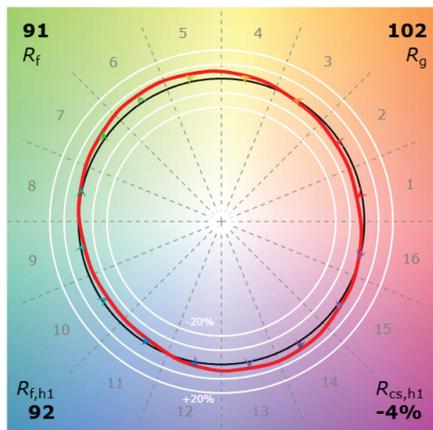
Visual comfort UGR < 10.



## LED COLOR FIDELITY DATA

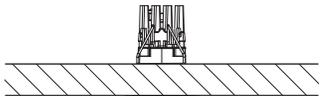
CRI	CCT	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	Rf	Rg	Melanopic ratio
92	2700K	92	96	98	91	91	95	91	79	55	89	92	86	93	98	88	91	100	0.488
	3000K	93	97	98	92	93	95	92	82	60	91	92	82	94	99	90	92	99	0.571
	3500K	92	95	96	92	91	93	93	83	59	87	92	79	93	97	89	92	99	0.635
	4000K	93	94	94	93	92	91	94	86	64	85	93	78	93	96	90	91	100	0.715

1 This data may be subjected to change.



## OVAL BEAM DISTRIBUTION

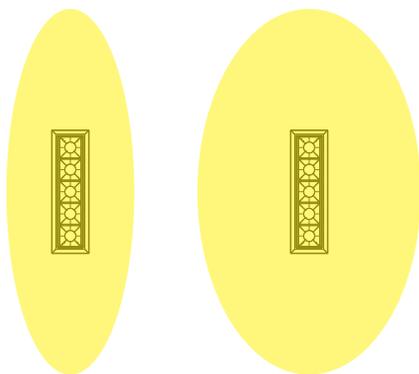
### Oval Longitudinal



### Oval Transversal

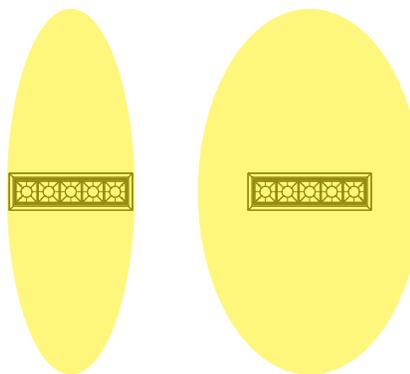


### FRONT VIEW



Medium

Wide flood



Medium

Wide flood

### TOP VIEW

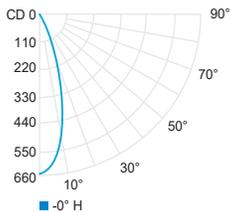
## PHOTOMETRIC DATA

### ILB01



(3000K, 92CRI) • Flood 32°

(ILB01-030-FL)



	Center beam fc	Beam width ft
2ft	165	1.2
4ft	41.2	2.3
6ft	18.3	3.5
8ft	10.3	4.6
10ft	6.59	5.8
12ft	4.57	6.9

**Power:** 3.0W  
**Lumens:** 204 lm  
**Efficacy:** 65 lm/W  
**Max candela:** 697 cd

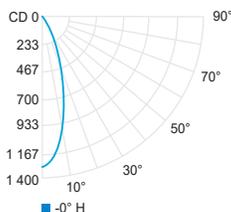
Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.91
<b>3000K</b>	1.00
3500K	1.04
4000K	1.04

### ILB02



(3000K, 92CRI) • Flood 32°

(ILB02-030-FL)



	Center beam fc	Beam width ft
2ft	329	1.2
4ft	82.3	2.3
6ft	36.6	3.5
8ft	20.6	4.6
10ft	13.2	5.8
12ft	9.15	6.9

**Power:** 6.0W  
**Lumens:** 409 lm  
**Efficacy:** 66 lm/W  
**Max candela:** 1,394 cd

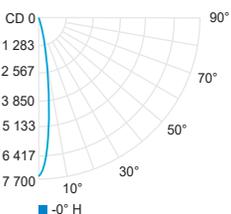
Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.91
<b>3000K</b>	1.00
3500K	1.02
4000K	1.02

### ILB05



(3000K, 92CRI) • Spot 13°

(ILB05-030-SP)



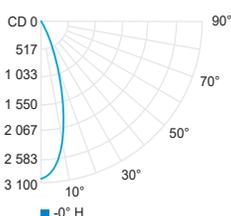
	Center beam fc	Beam width ft
2ft	1 915	0.5
4ft	479	0.9
6ft	213	1.4
8ft	120	1.9
10ft	76.6	2.3
12ft	53.2	2.8

**Power:** 13.0W  
**Lumens:** 1,016 lm  
**Efficacy:** 77 lm/W  
**Max candela:** 8,581 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.03

(3000K, 92CRI) • Flood 32°

(ILB05-030-FL)



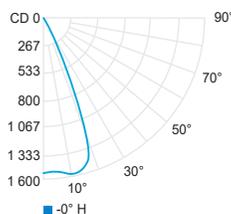
	Center beam fc	Beam width ft
2ft	773	1.2
4ft	193	2.3
6ft	85.9	3.5
8ft	48.3	4.6
10ft	30.9	5.8
12ft	21.5	6.9

**Power:** 13.0W  
**Lumens:** 1,015 lm  
**Efficacy:** 77 lm/W  
**Max candela:** 3,464 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.03

(3000K, 92CRI) • Wide Flood 47°

(ILB05-030-WF)



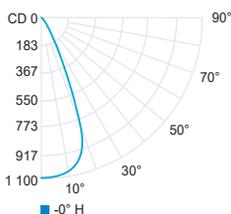
	Center beam fc	Beam width ft
2ft	376	1.7 1.8
4ft	94	3.4 3.7
6ft	41.8	5.2 5.5
8ft	23.5	6.9 7.4
10ft	15.0	8.6 9.2
12ft	10.4	10.3 11.1

**Power:** 13.0W  
**Lumens:** 1,028 lm  
**Efficacy:** 78 lm/W  
**Max candela:** 1,738 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.03

(3000K, 92CRI) • General Light Pro

(ILB05-030-GP)



	Center beam fc	Beam width ft
2ft	274	1.9
4ft	68.4	3.8
6ft	30.4	5.7
8ft	17.1	7.5
10ft	11	9.4
12ft	7.60	11.3

**Power:** 13.0W  
**Lumens:** 919 lm  
**Efficacy:** 70 lm/W  
**Max candela:** 1,226 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.03

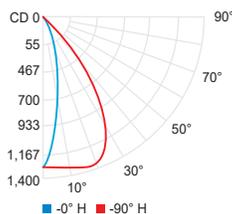
## PHOTOMETRIC DATA

ILB05



### (3000K, 92CRI) • Medium Oval Longitudinal

(ILB05-030-LM)



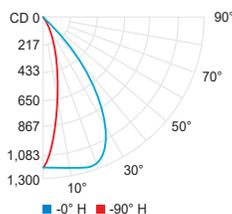
Center beam fc	Beam width ft
2ft 327	0.8 3.0
4ft 81.8	1.6 6
6ft 36.4	2.4 9.1
8ft 20.5	3.2 12.2
10ft 13.1	4.0 15.2
12ft 9.09	4.8 18.3

**Power:** 13.0W  
**Lumens:** 907 lm  
**Efficacy:** 69 lm/W  
**Max candela:** 1,512 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.03

### (3000K, 92CRI) • Medium Oval Transversal

(ILB05-030-TM)



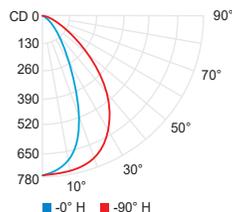
Center beam fc	Beam width ft
2ft 297	3.1 0.8
4ft 74.3	1.6 1.6
6ft 33.0	9.2 2.4
8ft 18.6	12.3 3.3
10ft 11.9	15.3 4.1
12ft 8.26	18.4 4.9

**Power:** 13.0W  
**Lumens:** 883 lm  
**Efficacy:** 67 lm/W  
**Max candela:** 1,406 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.03

### (3000K, 92CRI) • Wide Flood Oval Longitudinal

(ILB05-030-LW)



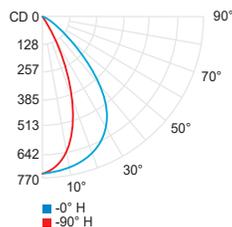
Center beam fc	Beam width ft
2ft 191	1.5 3.6
4ft 47.8	3.1 7.2
6ft 21.2	4.6 10.8
8ft 11.9	6.2 14.4
10ft 7.64	7.7 18.0
12ft 5.31	9.2 21.6

**Power:** 13.0W  
**Lumens:** 907 lm  
**Efficacy:** 69 lm/W  
**Max candela:** 864 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.98
<b>3000K</b>	1.00
3500K	1.03
4000K	1.03

### (3000K, 92CRI) • Wide Flood Oval Transversal

(ILB05-030-TW)



Center beam fc	Beam width ft
2ft 187	3.6 1.5
4ft 46.8	7.1 3.1
6ft 20.8	10.7 4.6
8ft 11.7	14.3 6.1
10ft 7.49	17.9 7.6
12ft 5.20	21.4 19.2

**Power:** 13.0W  
**Lumens:** 907 lm  
**Efficacy:** 69 lm/W  
**Max candela:** 856 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.03

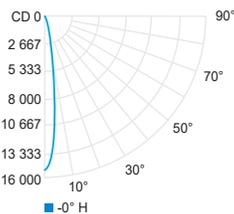
## PHOTOMETRIC DATA

### ILB10



#### (3000K, 92CRI) • Spot 13°

#### (ILB10-030-SP)



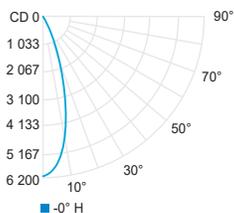
Center beam fc	Beam width ft
2ft 3 831	0.5
4ft 958	0.9
6ft 426	1.4
8ft 239	1.9
10ft 153	2.3
12ft 106	2.8

**Power:** 25.0W  
**Lumens:** 2,032 lm  
**Efficacy:** 81 lm/W  
**Max candela:** 17,161 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.04

#### (3000K, 92CRI) • Flood 32°

#### (ILB10-030-FL)



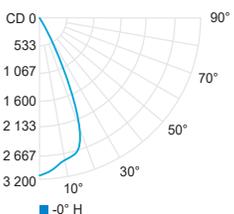
Center beam fc	Beam width ft
2ft 1 546	1.2
4ft 387	2.3
6ft 172	3.5
8ft 96.6	4.6
10ft 61.9	5.8
12ft 43.0	6.9

**Power:** 25.0W  
**Lumens:** 2,032 lm  
**Efficacy:** 73 lm/W  
**Max candela:** 6,927 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.04

#### (3000K, 92CRI) • Wide Flood 47°

#### (ILB10-030-WF)



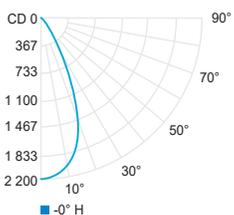
Center beam fc	Beam width ft
2ft 752	1.7 1.8
4ft 188	3.4 3.7
6ft 83.5	5.2 5.5
8ft 47.0	6.9 7.4
10ft 30.1	8.6 9.2
12ft 20.9	10.3 11.1

**Power:** 25.0W  
**Lumens:** 2,056 lm  
**Efficacy:** 93 lm/W  
**Max candela:** 3,478 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.09

#### (3000K, 92CRI) • General Light Pro

#### (ILB10-030-GP)



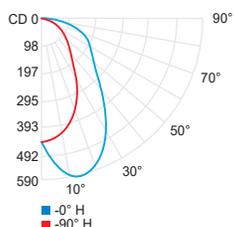
Center beam fc	Beam width ft
2ft 547	1.9
4ft 137	3.8
6ft 60.8	5.7
8ft 34.2	7.5
10ft 21.9	9.4
12ft 15.2	11.3

**Power:** 25.0W  
**Lumens:** 1,839 lm  
**Efficacy:** 73 lm/W  
**Max candela:** 2,452 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.04

#### (3000K, 92CRI) • Wide Flood Oval Longitudinal°

#### (ILB10-030-LW)



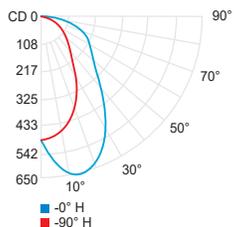
Center beam fc	Beam width ft
2ft 115	1.9 1.8
4ft 28.8	3.8 3.7
6ft 12.8	5.7 5.5
8ft 7.20	7.6 7.4
10ft 4.61	9.4 9.2
12ft 3.20	11.3 11.1

**Power:** 25.0W  
**Lumens:** 1,814 lm  
**Efficacy:** 72 lm/W  
**Max candela:** 1,727 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.04

#### (3000K, 92CRI) • Wide Flood Oval Transversal°

#### (ILB10-030-TW)



Center beam fc	Beam width ft
2ft 127	1.8 2.3
4ft 31.7	3.6 4.6
6ft 14.1	5.4 6.8
8ft 7.92	7.2 9.1
10ft 5.07	9.0 11.4
12ft 3.52	10.8 13.7

**Power:** 25.0W  
**Lumens:** 1,814 lm  
**Efficacy:** 72 lm/W  
**Max candela:** 1,711 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.04

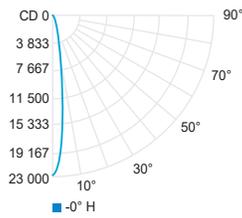
## PHOTOMETRIC DATA

LB15



(3000K, 92CRI) • Spot 13°

(ILB15-030-SP)



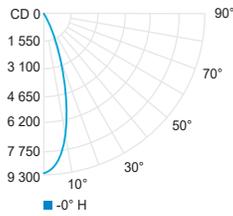
	Center beam fc	Beam width ft
2ft	5 728	0.5
4ft	1 432	0.9
6ft	636	1.4
8ft	358	1.9
10ft	229	2.3
12ft	159	2.8

**Power:** 36.5W  
**Lumens:** 3,039 lm  
**Efficacy:** 83 lm/W  
**Max candela:** 25,662 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.04

(3000K, 92CRI) • Flood 32°

(ILB15-030-FL)



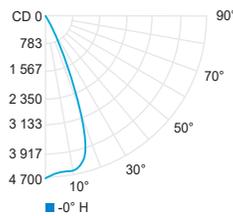
	Center beam fc	Beam width ft
2ft	2 312	1.2
4ft	578	2.3
6ft	257	3.5
8ft	145	4.6
10ft	92.5	5.8
12ft	64.2	6.9

**Power:** 36.5W  
**Lumens:** 3,039 lm  
**Efficacy:** 83 lm/W  
**Max candela:** 10,359 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.04

(3000K, 92CRI) • Wide Flood 47°

(ILB15-030-WF)



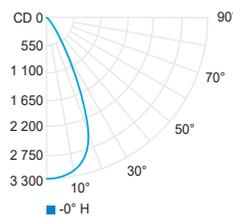
	Center beam fc	Beam width ft
2ft	1 124	1.7 1.8
4ft	281	3.4 3.7
6ft	125	5.2 5.5
8ft	70.3	6.9 7.4
10ft	45.0	8.6 9.2
12ft	31.2	10.3 11.1

**Power:** 36.5W  
**Lumens:** 3,076 lm  
**Efficacy:** 84 lm/W  
**Max candela:** 5,200 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.04

(3000K, 92CRI) • General Light Pro

(ILB15-030-GP)



	Center beam fc	Beam width ft
2ft	821	1.9
4ft	205	3.8
6ft	91.2	5.7
8ft	51.3	7.5
10ft	32.8	9.4
12ft	22.8	11.3

**Power:** 36.5W  
**Lumens:** 2 758 lm  
**Efficacy:** 76 lm/W  
**Max candela:** 3,678 cd

Photometric data multiplier	
Color temperature	Lumens (lm)
2700K	0.93
<b>3000K</b>	1.00
3500K	1.03
4000K	1.04