

LASER BLADE ORIGINAL

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

Type:

SPECIFICATION SHEET

Project :

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 .

Luminaire characteristic:

Power input: 2W to 29W (source wattage)

Lumens: 170lm to 2542lm (for 3000K, 92CRI)

Luminaire efficacy: up to 87lm/W

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-79).

Optics:

Low luminance: Spot, flood, wide flood, 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, rated at 50 000 hours. See remote LED driver options on page 3.

Finish:

Black, white (RAL9010) and grey (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:



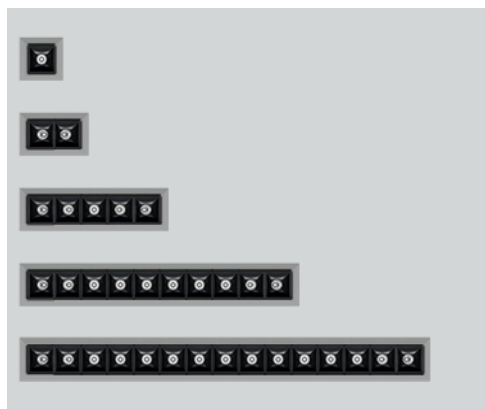
cULus listed for damp location. Interior use only.

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://cacetappliances.energy.ca.gov>

Assembled in North America.



ORDERING INFO



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

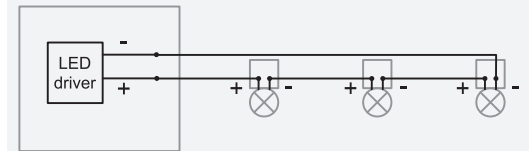
DRIVER CODE SELECTION

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

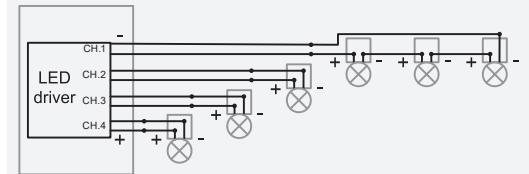
**Max distance cable calculated for 16AWG cable. Contact customer service for longer remote distance.

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

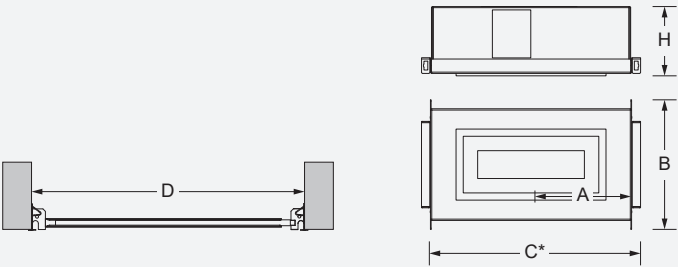
New construction with airtight (AT) housing.

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)

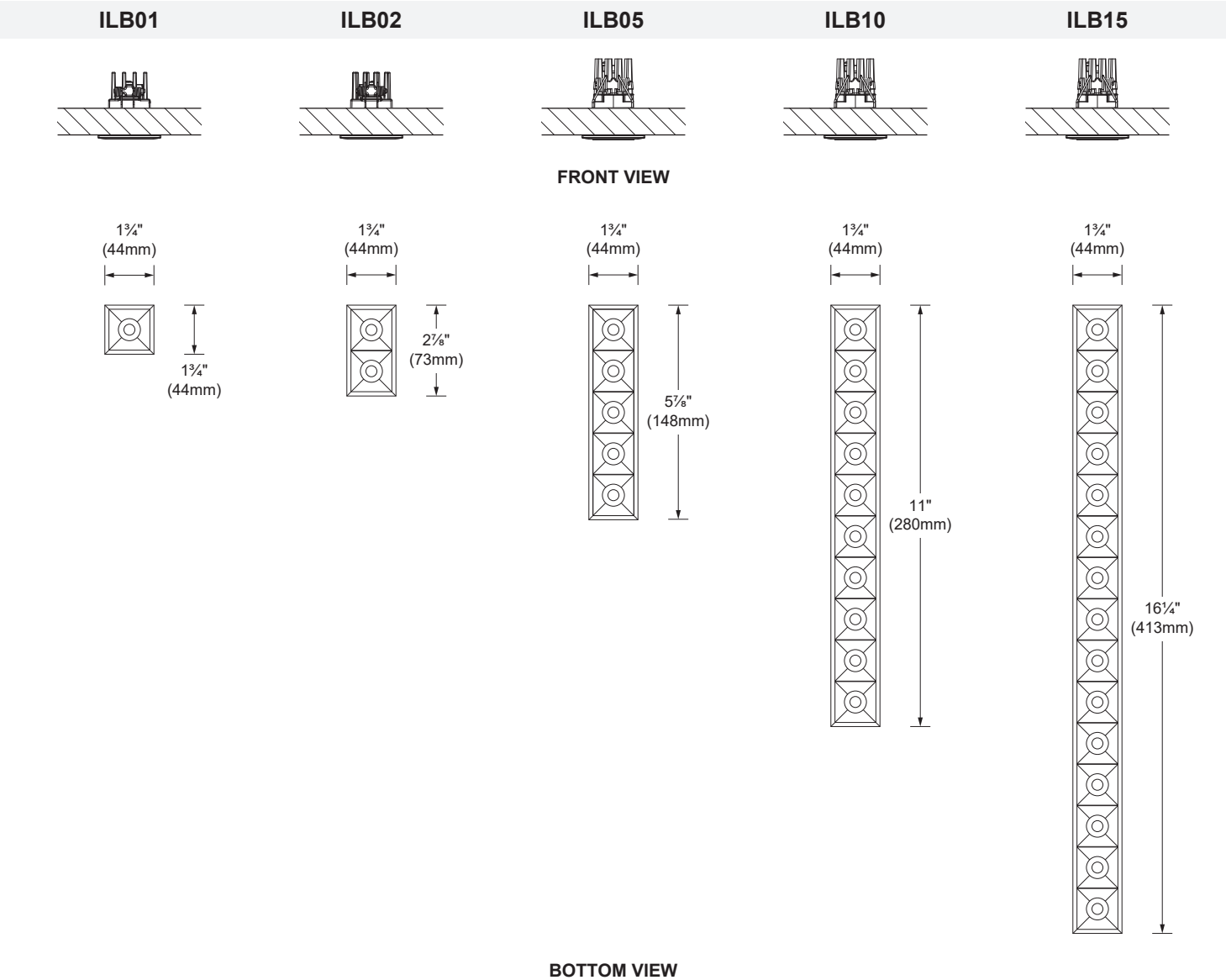


Certification: Airtight housing (AT) certified less than 2 cfm leakage
@ 1.57PSI per ASTM E283.

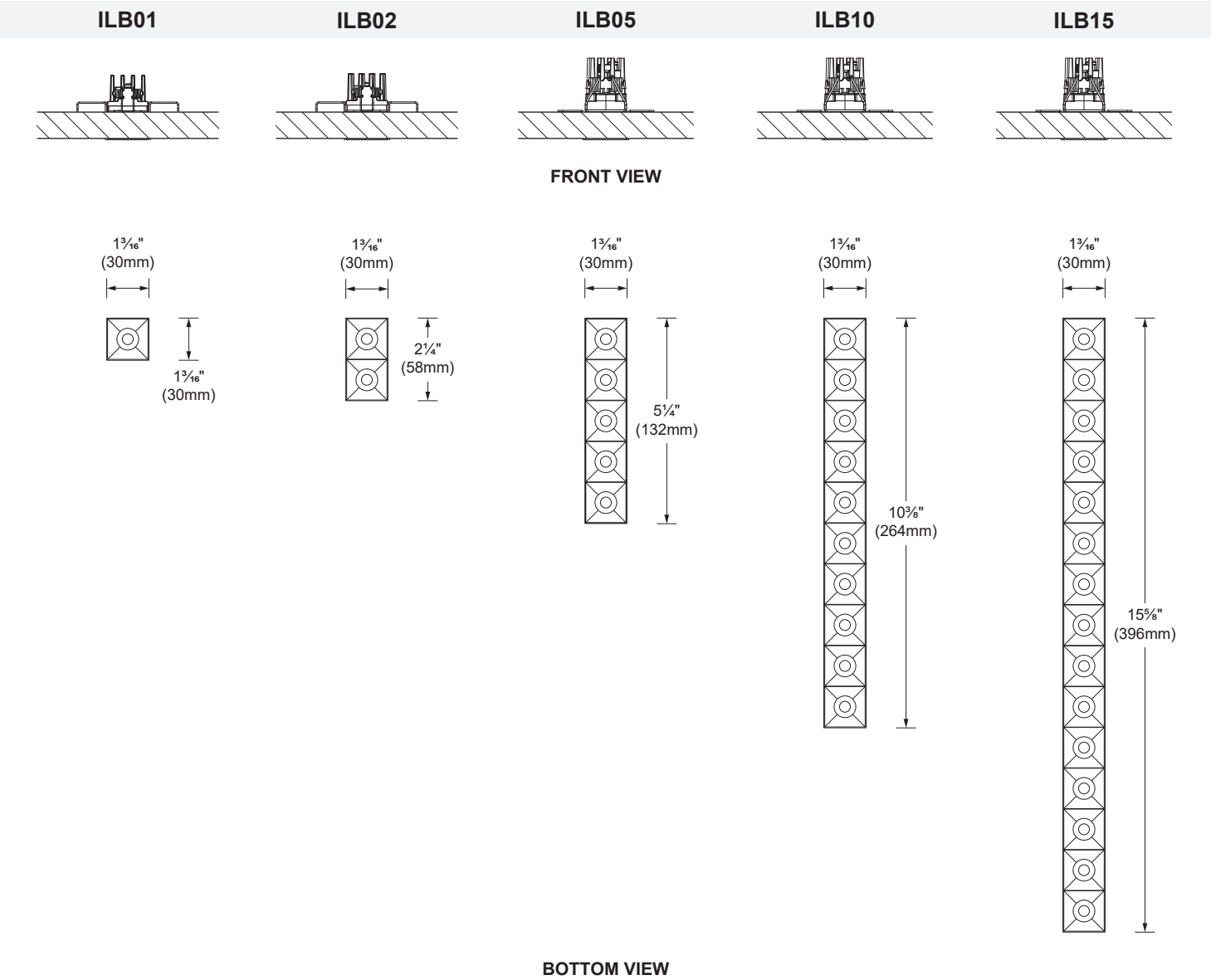
*Provide a minimum of 1 1/8" (46mm) on each side for the hanger bar fixations

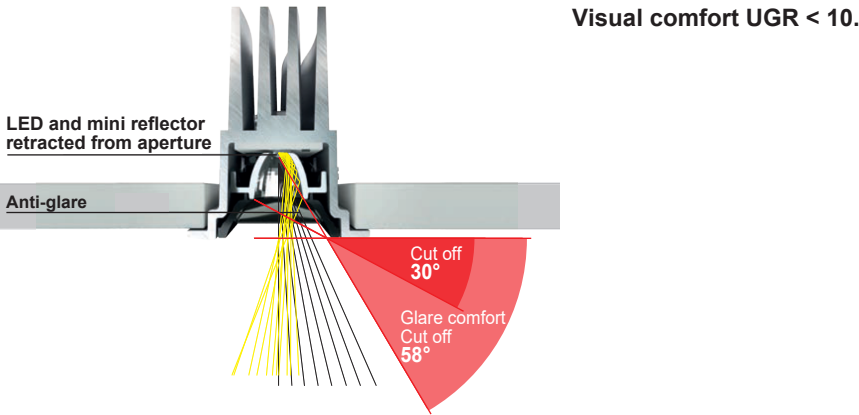
Model	Housing	Cut-out dimensions	Cut-out positions (A)	Overall dimensions (BxC)	Hanger bars range (D)	Clearance (H)
ILB01	BI-LB01TR-AT-REM	1⅜" x 1⅜" (35 x 35mm)	6⅞" (174mm)	6⅝" x 11½" (167 x 292mm)	14¼" to 26" (362 to 660mm)	3½" (89mm)
	BI-LB01TL-AT-REM					
ILB02	BI-LB02TR-AT-REM	1⅜" x 2½" (35 x 64mm)	6⅝" (160mm)			
	BI-LB02TL-AT-REM					
ILB05	BI-LB05TR-AT-REM	1½" x 5⅝" (37 x 141mm)	5¼" (133mm)			
	BI-LB05TL-AT-REM	1⅜" x 5⅝" (35 x 141mm)				
ILB10	BI-LB10TR-AT-REM	1½" x 10⅓⅝" (37 x 274mm)	8⅞" (223mm)	6½" x 21⅝" (166 x 540mm)		
	BI-LB10TL-AT-REM	1⅜" x 10⅓⅝" (35 x 271mm)				
ILB15	BI-LB15TR-AT-REM	½" x 16" (37 x 406mm)	13⅝" (332mm)	9¼" x 28⅝" (238 x 716mm)		
	BI-LB15TL-AT-REM	1⅜" x 15⅝⅝" (37 x 404mm)				

TRIM MODELS DIMENSIONS



TRIMLESS MODELS DIMENSIONS

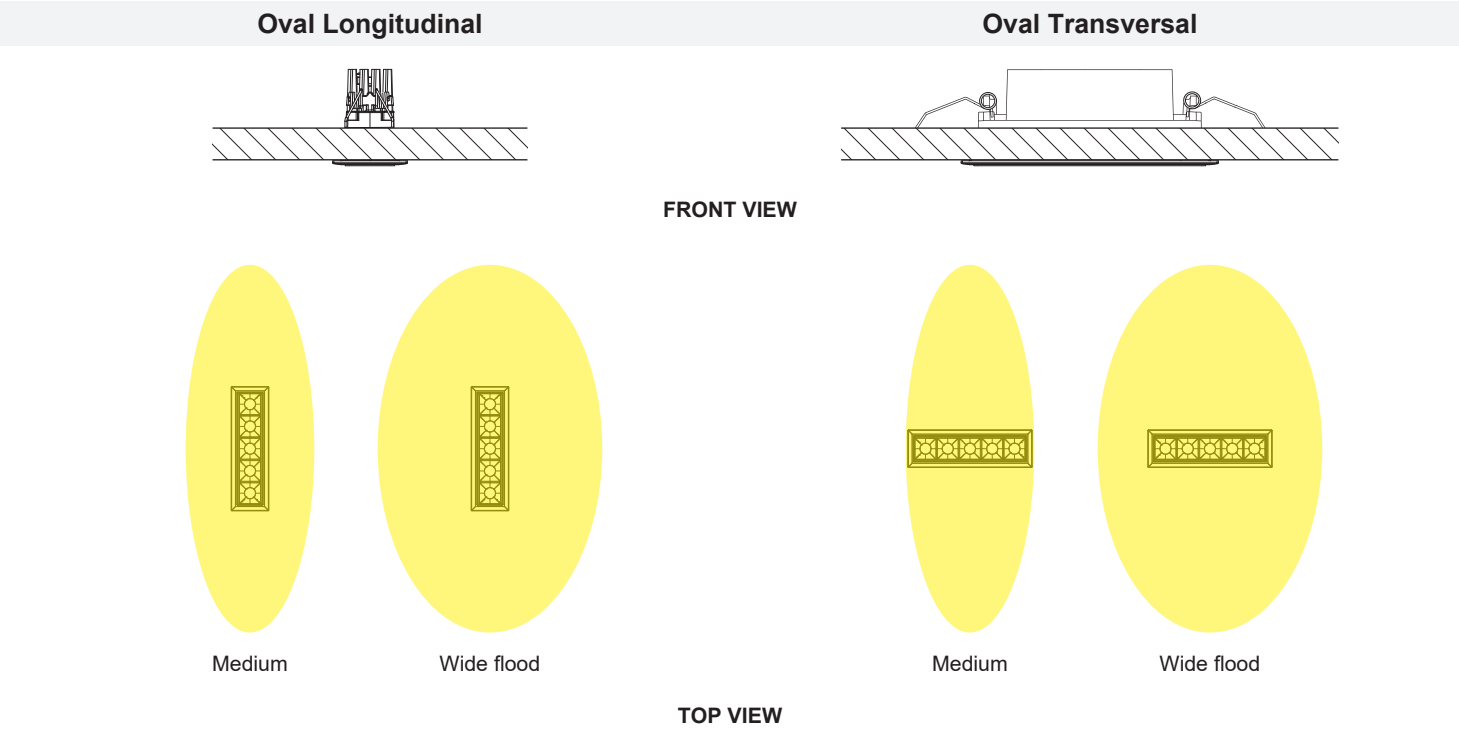




LED COLOR FIDELITY DATA

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

OVAL BEAM DISTRIBUTION



PHOTOMETRIC DATA

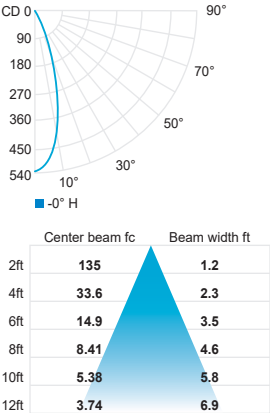
ILB01



CCT (K)	CRI	LOAD (W)*	OPTIC	LUMENS (lm)	EFFICACY (lm / W)*	MAX CANDELA (cd)	MODELS
3000K	92	2W	Flood 32°	170	85	538	ILB01-030-FL

*For products that uses a remote led driver, total system wattage will varies according to the efficacy of the remote led driver selected. For this reason, the load and efficacy values given in the table above refers to the led source only and does not include the led driver consumption.

Flood 32° (3000K, 92CRI)



CCT options	2700K	3000K	3500K	4000K
CRI options	92CRI	92CRI	92CRI	92CRI
Multiplier	1	1	1.10	1.15

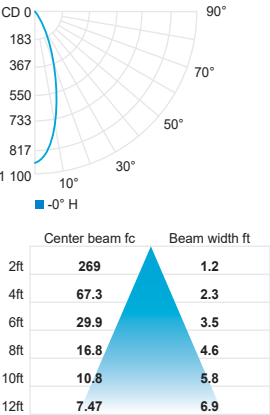
ILB02



CCT (K)	CRI	LOAD (W)*	OPTIC	LUMENS (lm)	EFFICACY (lm / W)*	MAX CANDELA (cd)	MODELS
3000K	92	3.9W	Flood 32°	340	87	1 076	ILB02-030-FL

*For products that uses a remote led driver, total system wattage will varies according to the efficacy of the remote led driver selected. For this reason, the load and efficacy values given in the table above refers to the led source only and does not include the led driver consumption.

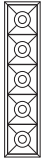
Flood 32° (3000K, 92CRI)



CCT options	2700K	3000K	3500K	4000K
CRI options	92CRI	92CRI	92CRI	92CRI
Multiplier	1	1	1.10	1.15

PHOTOMETRIC DATA

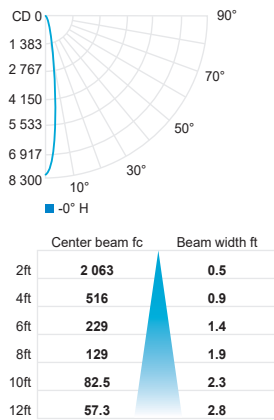
ILB05



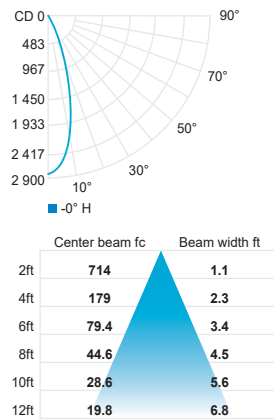
CCT (K)	CRI	LOAD (W)*	OPTIC	LUMENS (lm)	EFFICACY (lm / W)*	MAX CANDELA (cd)	MODELS
3000K	92	9.8W	Spot 13°	861	87	8 250	ILB05-030-SP
			Flood 32°	851	86	2 857	ILB05-030-FL
			Wide flood 47°	851	86	1 628	ILB05-030-WF
			General light pro	788	80	1 122	ILB05-030-GP
			Medium oval longitudinal	767	78	1 281	ILB05-030-LM
			Medium oval transversal	746	76	1 221	ILB05-030-TM
			Wide flood oval longitudinal	756	77	722	ILB05-030-LW
			Wide flood oval transversal	746	76	718	ILB05-030-TW

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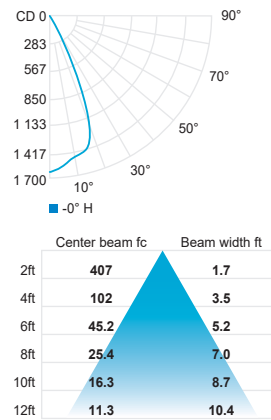
Spot 13° (3000K, 92CRI)



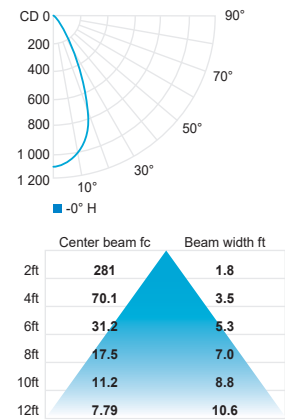
Flood 32° (3000K, 92CRI)



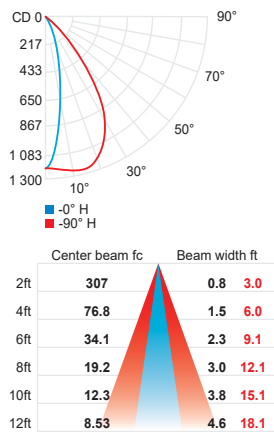
Wide flood 47° (3000K, 92CRI)



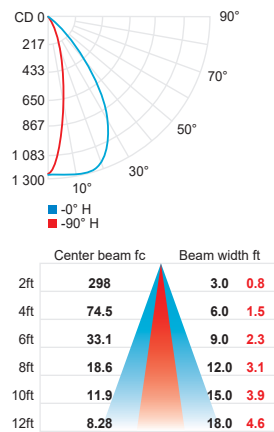
General light pro (3000K, 92CRI)



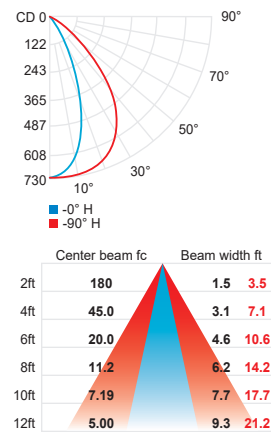
Medium oval long. (3000K, 92CRI)



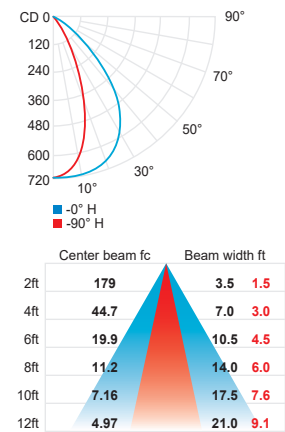
Medium oval tran. (3000K, 92CRI)



Wide flood oval long. (3000K, 92CRI)



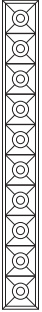
Wide flood oval tran. (3000K, 92CRI)



CCT options	2700K	3000K	3500K	4000K
CRI options	92CRI	92CRI	92CRI	92CRI
Multiplier	0.95	1	1.05	1.10

PHOTOMETRIC DATA

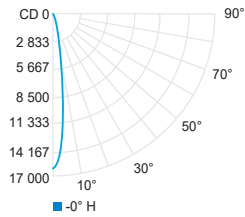
ILB10



CCT (K)	CRI	LOAD (W)*	OPTIC	LUMENS (lm)	EFFICACY (lm / W)*	MAX CANDELA (cd)	MODELS
3000K	92	20W	Spot 13°	1 681	84	16 108	ILB10-030-SP
			Flood 32°	1 661	83	5 578	ILB10-030-FL
			Wide flood 47°	1 661	83	3 179	ILB10-030-WF
			General light pro	1 538	76	2 191	ILB10-030-GP
			Wide flood oval longitudinal	1 476	73	1 410	ILB10-030-LW
			Wide flood oval transversal	1 456	72	1 402	ILB10-030-TW

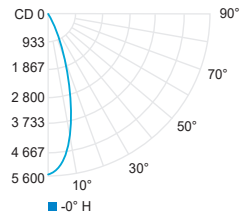
*For products that uses a remote led driver, total system wattage will varies according to the efficacy of the remote led driver selected. For this reason, the load and efficacy values given in the table above refers to the led source only and does not include the led driver consumption.

Spot 13° (3000K, 92CRI)



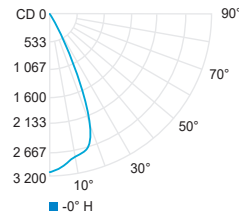
	Center beam fc	Beam width ft
2ft	4 027	0.5
4ft	1 007	0.9
6ft	447	1.4
8ft	252	1.9
10ft	161	2.3
12ft	112	2.8

Flood 32° (3000K, 92CRI)



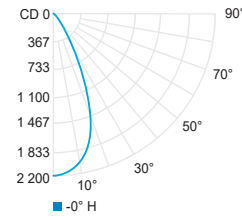
	Center beam fc	Beam width ft
2ft	1 395	1.1
4ft	349	2.3
6ft	155	3.4
8ft	87.2	4.5
10ft	55.8	5.6
12ft	38.7	6.8

Wide flood 47° (3000K, 92CRI)



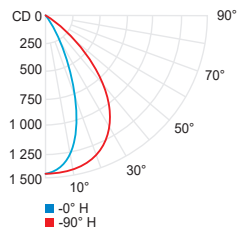
	Center beam fc	Beam width ft
2ft	714	1.8
4ft	179	3.5
6ft	73.9	5.3
8ft	44.6	7.0
10ft	28.6	8.8
12ft	19.8	10.6

General light pro (3000K, 92CRI)



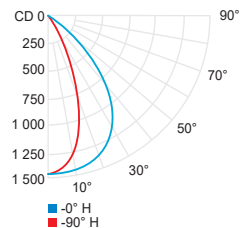
	Center beam fc	Beam width ft
2ft	548	1.8
4ft	137	3.5
6ft	60.9	5.3
8ft	34.2	7.0
10ft	21.9	8.8
12ft	15.2	10.6

Wide flood oval long. (3000K, 92CRI)



	Center beam fc	Beam width ft
2ft	351	1.6 3.5
4ft	87.8	3.1 7.1
6ft	39.0	4.7 10.6
8ft	21.9	6.2 14.2
10ft	14.0	7.8 17.7
12ft	9.75	9.3 21.2

Wide flood oval tran. (3000K, 92CRI)



	Center beam fc	Beam width ft
2ft	349	3.5 1.5
4ft	87.3	7.0 3.0
6ft	38.8	10.5 4.5
8ft	21.8	14.0 6.0
10ft	14.0	17.5 7.6
12ft	9.70	21.0 9.1

CCT options	2700K	3000K	3500K	4000K
CRI options	92CRI	92CRI	92CRI	92CRI
Multiplier	0.95	1	1.05	1.10

PHOTOMETRIC DATA

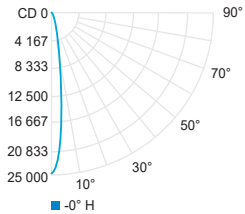
ILB15



CCT (K)	CRI	LOAD (W)*	OPTIC	LUMENS (lm)	EFFICACY (lm / W)*	MAX CANDELA (cd)	MODELS
3000K	92	29W	Spot 13°	2 542	87	24 358	ILB15-030-SP
			Flood 32°	2 511	86	8 435	ILB15-030-FL
			Wide flood 47°	2 511	86	4 807	ILB15-030-WF
			General light pro	2 325	80	3 314	ILB15-030-GP

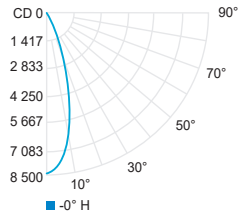
*For products that uses a remote led driver, total system wattage will varies according to the efficacy of the remote led driver selected. For this reason, the load and efficacy values given in the table above refers to the led source only and does not include the led driver consumption.

Spot 13° (3000K, 92CRI)



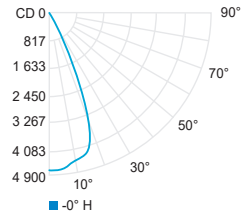
	Center beam fc	Beam width ft
2ft	6 090	0.5
4ft	1 522	0.9
6ft	677	1.4
8ft	381	1.9
10ft	244	2.3
12ft	169	2.8

Flood 32° (3000K, 92CRI)



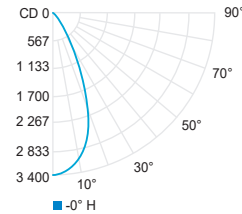
	Center beam fc	Beam width ft
2ft	2 109	1.1
4ft	527	2.3
6ft	234	3.4
8ft	132	4.5
10ft	84.4	5.6
12ft	58.6	6.8

Wide flood 47° (3000K, 92CRI)



	Center beam fc	Beam width ft
2ft	1 202	1.7
4ft	300	3.5
6ft	134	5.2
8ft	75.1	7.0
10ft	48.1	8.7
12ft	33.4	10.4

General light pro (3000K, 92CRI)



	Center beam fc	Beam width ft
2ft	829	1.8
4ft	207	3.5
6ft	92.1	5.3
8ft	51.8	7.0
10ft	33.1	8.8
12ft	23.0	10.6

CCT options	2700K	3000K	3500K	4000K
CRI options	92CRI	92CRI	92CRI	92CRI
Multiplier	0.95	1	1.03	1.08