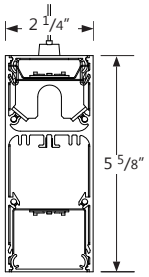
twin BEAM2 LED — PENDANT MOUNT - DIRECT/INDIRECT

Project _____

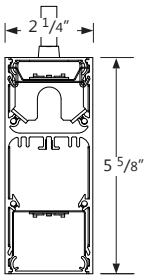
Type _____

Notes _____

CABLE



STEM



PERFORMANCE PER LINEAR FOOT AT 3500K

NOMINAL LUMEN OUTPUT		INPUT WATTS*	EFFICACY
UPLIGHT	DOWNLIGHT		
650 lm/ft	400 lm/ft	8.35 W/ft	125 lm/W

Please consult factory for custom lumen output and wattage.

CONTROL SENSORS

LED BOARD & DRIVER 5 YEAR LUMINAIRE WARRANTY

Ordering Guide

TBDILED		650		400						SO	
PRODUCT ID		NOM. LUM/FT UP		NOM. LUM/FT DOWN		CRI		COLOR TEMP.		SHIELDING	
TBDILED	Pendant Direct/Indirect LED	**650**	650 lm/ft uplight	**400**	400 lm/ft downlight	**80**	80 CRI	**27**	2700 K	**SO**	spotless lens
						90	90 CRI	**30**	3000 K		
								35	3500 K		
								40	4000 K		
		Please consult factory		Please consult factory							

LENGTH (FT)		MR (OPTIONAL)		FINISH		VOLTAGE		DRIVER		CIRCUITS	
2	2′	**M11LED(#)**	MR11 LED	**AP**	aluminum paint	**120**	120 V	**DP**	dimming (0-10V) 1%	**1**	1 circuit
3	3′			**W**	white	**277**	277 V	**D**	dimming (0-10V) 5% 347V standard [2]	**2**	2 circuits
4	4′			**BLK**	black	**347**	347 V [1]	**LT**	Lutron [3]	**+E(#)**	emergency circuit [5]
5	5′			**C**	custom	**UNV**	universal	**BI**	bi-level dimming	**+NL(#)**	night light circuit [5]
6	6′							**O**	other [4]	**+GTD(#)**	generator transfer device [5]
8	8′									**+M**	MR
12	12′										
S#	system run										
		Add 6" per lamp, Specify quantity Separate circuits included Requires 120V or 277V				(1) D dimming (0-10V) 5% standard		(2) For 347V only (3) Specify system (4) Please consult factory; see page 2		(5) Specify quantity	

MOUNTING/SUSPENSION		BATTERY (OPTIONAL)		OTHER (OPTIONAL)		IC CONTROLS (OPTIONAL)		CUSTOM (OPTIONAL)	
CA(#)	drywall+cable length (36" std.)	**B#**	battery pack (integral)	**F**	fuse [6]	**DS#**	daylight sensor	**C**	custom
CT9(#)	TB/TG 9/16+cable length (36" std.)			**D**	dust cover	**OS#**	occupancy sensor		
CT15(#)	TB/TG15/16+cable length (36" std.)					**DOS#**	daylight & occupancy sensor		
CTS(#)	ST+cable length (36" std.)					**EN#**	Enlighted integral [7]		
SA(#)	drywall+stem length >48" (18" std.)					**ENR#**	Enlighted remote [7]		
		Requires 120V or 277V Please consult factory		(6) Requires 120V or 277V		(7) Please consult factory Specify quantity. Requires 8" blank. See pages 4-5 for more details.		Please specify	

FILE NAME:TBDI.LED-B3.SPEC

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[T] 514.948.6272
axislighting.com

PENDANT MOUNT - DIRECT/INDIRECT

CONSTRUCTION

Housing	Extruded aluminum (0.075'' nominal) Up to 70% recycled content
End Cap	Sheet steel (18 gauge)
Interior Brackets	Die formed sheet steel (20 gauge)
Reflectors	White powder coated sheet steel (22 gauge)
Louvers	Die formed semi-specular aluminum (22 gauge)
Lenses	Extruded acrylic (0.070'' nominal) Satin: 68% trans. frosted: 85% trans.
Hanger	Die formed sheet steel (16 gauge)
Suspension	Aircraft cable or Ø 1/2" stem
Cable Grips	Quick connecting / release

ELECTRICAL

Lutron driver	L3D - Hi-Lume A-Series EcoSystem 3-Wire Control (1%) LDE1 - EcoSystem H-Series (1%) LDE5 - EcoSystem 5-Series (5%) LTE - Hi-Lume® A-series 2Wires Forward Phase (1%)
Other drivers	DALI - Digital Addressable Lighting Interface DMX - Digital Multiplex LV - line voltage - Advance Mark 10 Xitanium SR - For wireless sensor
Emergency	Integral emergency battery pack or emergency circuit optional.
Input Voltage	120V, 277V, 347V, UNV.

ⓘ Incorporating these components may have limitations or affect the length of the luminaire. Please contact factory for more details.

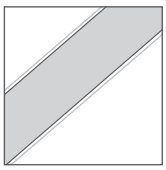
WARRANTY

Axis Lighting will warrant defective LEDs, boards, and drivers for 5 years from date of purchase. Warranty is valid if luminaire is installed and used according to specifications. If defective, Axis will send replacement boards or drivers at no cost along with detailed replacement instructions and instructions on how to return defective components to Axis.

WEIGHT

Direct/Indirect 4 ft	13.2 lbs / 6.0 kg
Direct/Indirect 8 ft	26.4 lbs / 12.0 kg
Direct/Indirect 12 ft	39.6 lbs / 18.0 kg

OPTICS



SO spotless lens

SPOTLESS LENS
Frosted acrylic snap-in lens with micro lens

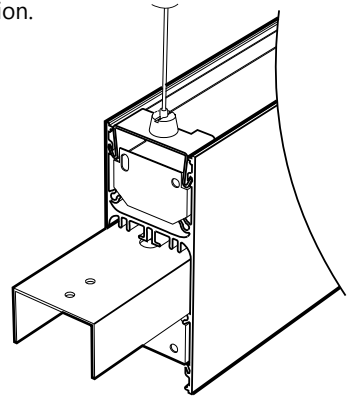
SYSTEM (S#)

TWIN BEAM2 LED linear systems, with the use of a strong profile, allow for a nearly hair thin connection system of continuous runs. Lengths of 4', 8', 12' as well as custom lengths are available. Runs of TWIN BEAM2 LED that are greater than 12' in length are designated as systems (S#). This means that the run is comprised of a combination of 4', 8' and/or 12' sections to be assembled on site using our joining system. For more information on systems and joining, please refer to the TWIN BEAM2 LED installation sheets available for download at www.axislighting.com.

JOINERS

In order to allow very long runs of TWIN BEAM2 LED luminaires, Axis has developed an effective joining system.
Special care has been taken to maximize the performance of the joiner for each BEAM option.

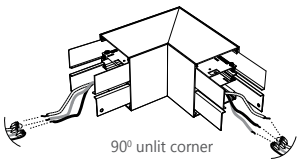
NOTE: Mount each system segment individually.
Do not assemble system prior to mounting.



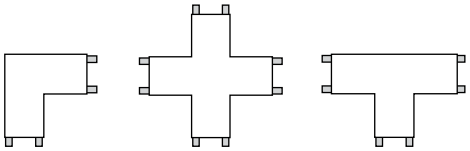
ⓘ Allow a minimum of 6" between end of long runs and vertical wall

CORNERS

Unlit Corners - TWIN BEAM2 LED features a multitude of layout patterns with the use of a number of corners, 90° corner, T or X junctions.

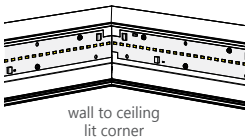


90º unlit corner



90° corner X junction T junction

Lit Corners - In addition Axis offers lit 90° corners including ceiling to ceiling, wall to ceiling and ceiling to wall.



wall to ceiling lit corner

ⓘ For custom corner angles, please consult factory. Specifications sheets for all corners are available at: www.axislighting.com

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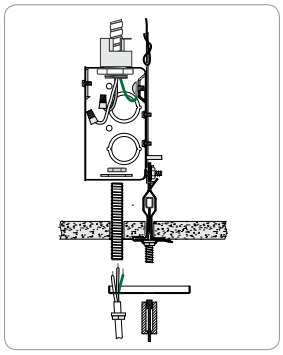
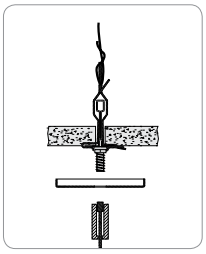
axis lighting.com

MOUNTING OPTIONS

CT TILE CEILING - ON GRID

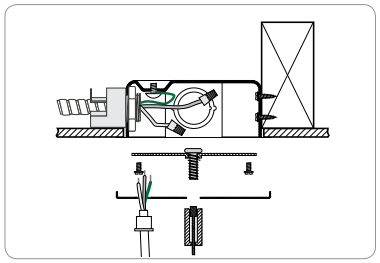


Power feed

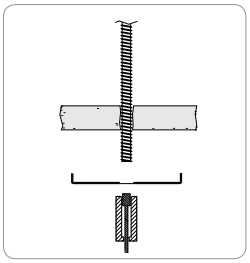


Non power feed

CA DRYWALL CEILING

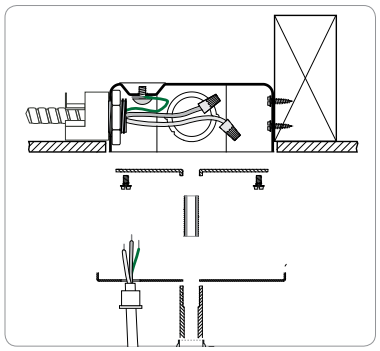


Power feed

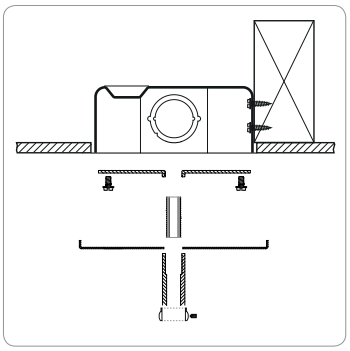


Non power feed

SA STEM MOUNT IN DRYWALL CEILING



Power feed



Non power feed

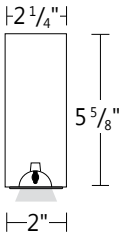
OTHER MOUNTING OPTIONS

TWIN BEAM2 LED is also available with wall and vertical wall mounted options.

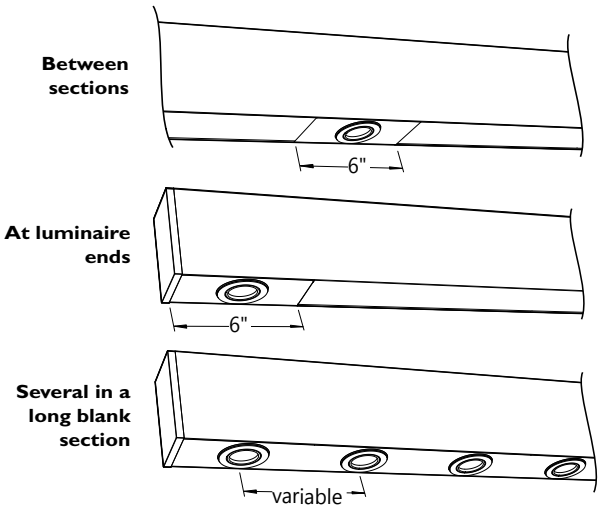
Specification sheets and installation sheets for all mountings for TWIN BEAM2 LED luminaires are available for download at www.axislighting.com

MR11 LED LAMPS

Blank MR11 LED	Extruded aluminum (0.075'' nominal) 1.4'' diameter
Quantity	For every 4' section, there may be up to a maximum of 4 x MR11 LED lamps.
Spacing	Each MR11 LED lamp is placed centered on a blank section 6'' in length.



For a series of MR11's within a given section length, they will be spaced evenly on a longer blank section.
The directed light of MR11 LED lamps are fixed downward.
Custom spacing may be available on special request.



Beam Angle	45 nominal degrees
Input Watts	3W
Nominal Lumens	50 lumens
Efficacy	17 lumens per watt
Color Rendering Index (CRI)	80
Life	25,000 hours at L_{70}
Correlated color temperature (CCT)	2700K

More options are available upon request. Please consult factory.

FINISH

Aluminium paint, powder coated and custom finishes are also available.

APPROVALS

Certified to UL and CUL standards
Meets NYC requirements
Meets ADA requirements.
Suitable for damp locations.

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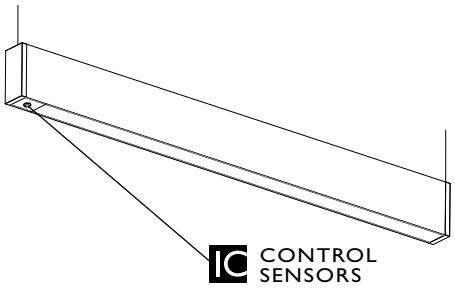
INTEGRATED CONTROLS

TWIN BEAM2 LED luminaires allow the use of integrated controls such as daylight sensors (DS), occupancy sensors (OS) and combination daylight/occupancy sensors (DOS). These options can be seamlessly integrated into our luminaires. The control system could be used to optimize the lighting of the space by reducing energy consumption through daylight harvesting and occupancy, thereby improving the overall interior environment and allowing for LEED credits.

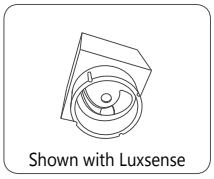
- Consult factory for other options.



The integrated control systems offered are:

DAYLIGHT HARVESTING (DS):

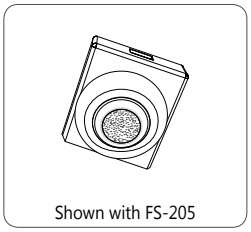
With Daylight sensors, maximum lamp output is reduced according to the available amount of natural light. By reducing maximum lamp output, energy consumption is reduced by up to 20 percent in a process known as "Daylight Harvesting".


Shown with Luxsense

EC-DIR-WH, FD-301
Luxsense, Micro Luxsense

OCCUPANCY (OS):

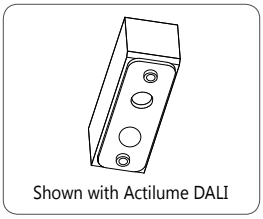
When a room is vacated, occupancy sensors ensure the light will be turned off after a programmed delay as well as ensuring that light remains on while the room is occupied.


Shown with FS-205

FS-205, FS-355,
FS-155 - Line Voltage
FS-505, FS-505C

DAYLIGHT HARVESTING AND OCCUPANCY (DOS):

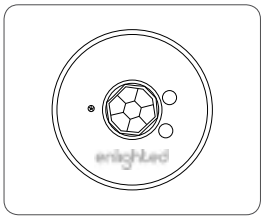
ACTILUME, a combination of Daylight & Occupancy sensor from Philips, along with a 0-10V or DALI driver can be used in one form factor.


Shown with Actilume DALI

Actilume 1-10V
Actilume DALI

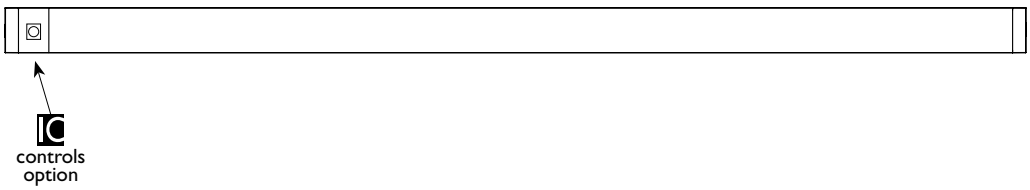
ENLIGHTED INTEGRAL (EN) / ENLIGHTED REMOTE (ENR):

A combination of Daylight, Occupancy & Temperature autonomously control illumination levels, monitor occupancy and environmental conditions. Data is transmitted wirelessly to the Enlighted networked management system.



INSTALLATION EXAMPLE

Sensor location option



* Incorporating IC controls may affect the length of the luminaire, please contact factory for more details.

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INTEGRATED CONTROL OPTIONS

SENSORS	BRAND	Model	TYPE
Daylight Sensor (DS)	Lutron	EC-DIR-WH	Daylight, IR
	Wattstopper	FD-301	Daylight
	Philips	Luxsense, LR1220/00	Daylight
	Philips	Micro Luxsense	Daylight
	Wattstopper	LS-102	Light Saver (Ambient light level)
Occupancy Sensor (OS)	Wattstopper	FS-205v2	PIR Occupancy & Ambient light level
	Wattstopper	FS-355 (need lenses)	PIR Occupancy & Ambient light level
	Wattstopper	FS-155	PIR Occupancy & Ambient light level
	Wattstopper	FS-505	Ultrasonic Occupancy (Staircase)
	Wattstopper	FS-505C	Ultrasonic Occupancy (Open Area)
	Wattstopper	FM-105	High Frequency Occupancy (Wet)
	Lutron TriPak Wireless	LRF2-OCR2B-P-WH	PIR Occupancy
	Lutron	LOS-CDT	Ultrasonic Occupancy + PIR
	Lutron	LOS-CIR	PIR Occupancy
Daylight & Occupancy Sensors (DOS)	Philips	Actilume, LR11655	Daylight & PIR Occupancy
	Wattstopper	FS-305 (need Lenses)	PIR Occupancy
	Wattstopper	FS-305 RC	PIR Occupancy & Ambient light level
	Creston	GLS Series	Daylight and/or PIR Occupancy
	Echoflex	MOS Series	Daylight and/or PIR Occupancy
Enlighted sensor (EN, ENR)	Enlighted integral / remote	SU-3E-00	Daylight, Occupancy & Temperature

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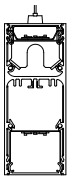
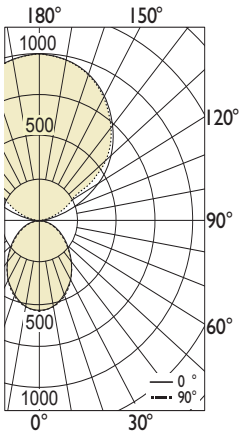
PHOTOMETRIC DATA

Uplight 60%
650 lm/ft
Downlight 40%
400 lm/ft



PHOTOMETRIC CURVE



Luminaire Lumens: 650 lm/ft up
400 lm/ft down
Input Watts: 7.7 W/ft
Efficacy: 123 lm/W
IES FILE: TBDILED-650-400-80-35-SO.IES

TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

	Horizontal Angles				
Vertical Angle	0	22.5	45	67.5	90
0	719	719	719	719	719
5	713	715	713	718	719
15	681	683	678	676	678
25	615	614	600	590	586
35	519	513	489	467	458
45	403	393	363	338	328
55	281	271	246	225	217
65	171	164	149	135	129
75	81	79	71	64	61
85	18	15	17	15	15
90	0	0	0	0	0
95	12	8	6	7	7
105	146	125	86	43	35
115	339	336	238	187	191
125	524	517	511	480	422
135	677	673	663	668	668
145	798	795	791	789	788
155	889	892	887	883	881
165	952	953	951	948	949
175	984	992	989	985	985
180	994	994	994	994	994

ZONAL LUMENS

	Lumens
Zone	
0	
0-10	68
10-20	191
20-30	276
30-40	305
40-50	281
50-60	222
60-70	149
70-80	76
80-90	19
90	
90-100	11
100-110	99
110-120	259
120-130	436
130-140	516
140-150	495
150-160	409
160-170	268
170-180	94
180	

LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	0	45	90
45	8909	8018	7250
55	7650	6703	5908
65	6322	5500	4780
75	4868	4280	3693
85	3240	2991	2742

All IES files for other lamping are available for download at: www.axislighting.com

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