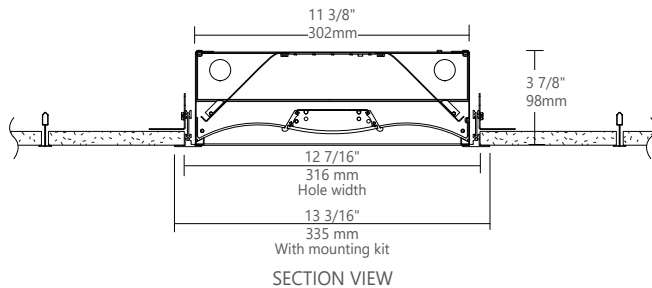


WAVE 1x1 LED | Recessed T-Bar & Drywall



Project _____

Type _____

Notes _____

PERFORMANCE AT 4000K

NOMINAL LUMEN OUTPUT	INPUT WATTS*	EFFICACY
900 lm	11.45 W	79 lm/W
1000 lm	12.88 W	78 lm/W
1200 lm	15.77 W	76 lm/W
1600 lm	21.73 W	74 lm/W

* Based on a 1'x1' luminaire using one driver
Please consult factory for custom lumen output and wattage.



Ordering Guide

WALED		SIZE		NOMINAL LUMENS		CRI		COLOR TEMP. (choose one)				SHIELDING		FINISH	
PRODUCT ID															
WALED	Wave LED	11	1'X1'	600	600 lm - Min	80	80 CRI	27	2700 K	TW2750	2700-5000 K - Tunable White	VL	VL optics	W	white
				1500	1500 lm - Max at 90 CRI	90	90 CRI*	30	3000 K	TW2765	2700-6500 K - Tunable White			C	custom
				1700	1700 lm - Max at 80 CRI			35	3500 K	BTW3527	3500-2700 K - Tunable BIOS				
								40	4000 K	BTW4027	4000-2700 K - Tunable BIOS				
								B30	3000 K - BIOS*						
								B35	3500 K - BIOS*						
								B40	4000 K - BIOS*						
				Outputs between listed min and max are available. Consult factory for outputs outside of the listed range. Consult factory for max output with BIOS			*Not available with BIOS.		Consult AxiTune technical sheet for more information of color technology. *Consult BIOS guide for more information on BIOS technology						

VOLTAGE		DRIVER		CIRCUITS		MOUNTING		BATTERY (OPTIONAL)	
120	120 V	DP	dimming (0-10V) 1%	1	1 circuit	DF	drywall flange	B(#)	Remote battery pack only
277	277 V	LT(#)	Lutron*	+E(#)	emergency circuit*				
347	347 V	BI	bi-level dimming	+NL(#)	night light circuit*				
UNV	universal	O(#)	other**	+GTD(#)	generator transfer device *				
DC	low voltage*	DPB(STC)	dimming (0-10V) 1% with BIOS*						
		DPB(DYN)	Bio-dimming™ 100%-81% with BIOS*						
		TW(#)	tunable white drivers*						
		POE(#)	POE drivers*						
* Only available with POE drivers.		* See page 2 to specify system ** Please consult factory; see page 2		* Specify quantity				Remote Battery Pack only Not available with 347V Please consult factory	

OTHER (OPTIONAL)		IC CONTROLS (OPTIONAL)		CUSTOM (OPTIONAL)	
F	fuse*	DS(#)	Daylight sensor	C	custom
FW(#)	flex whip (6' std)	OS(#)	occupancy sensor		
AR	air return	DOS(#)	daylight & occupancy sensor		
CP	Chicago plenum	EN(#)	Enlighted integral *		
		ENR(#)	Enlighted remote*		
		WC(#)	wireless control dimming		
* Requires 120V or 277V		* Please consult factory Specify quantity. Requires 1.5" blank. See integrated controls guide for more details. Consult factory for Tunable White. Not available with DPB (DYN) driver for BIOS with Dynamic Spectrum.		Please specify	

SPECIFY DRIVER NAME (if needed)

SPECIFY BATTERY NAME (if needed)

WAVE 1x1 LED | Recessed T-Bar & Drywall

ELECTRICAL

Lutron driver*	LDE1 - Hi-lume 1% EcoSystem with Soft-on, Fade-to-Black LTEA - Hi-lume 1% 2-wire (120V forward phase only) *Consult factory
Other drivers**	DALI - Digital Addressable Lighting Interface DMX - Digital Multiplex Xitanium SR - For wireless sensor
BIOS DPB drivers*	STC - BIOS control 0-10V with static spectrum and BIOS SkyBlue enabled from 100% to 1%. DYN - BIOS control 0-10V with dynamic spectrum and BIOS SkyBlue® with Bio-Dimming™, which changes spectral qualities by removing the SkyBlue component when dimming from 100% to 81%, while light output remains relatively constant; bio-dimming reduces CCT to 2700K. Dimming from 80% to 1% will then reduce light output.
Tunable White TW drivers*	DALIDT6 - DALI Type 6 (Two DALI Addresses) DALIDT8 - DALI Type 8 (One DALI Address) LTTW - Lutron T-Series Tunable White
Power over Ethernet POE drivers* UL2108 certified for integral or remote driver	MOLEX IGOR SMARTENGINE O - Other (Consult factory)
Emergency	Integral emergency battery pack or emergency circuit optional.
Input Voltage	120V, 277V, 347V, UNV, DC.
Flex Whip	Shipped in a separate box for contractors to install

*Choose driver from available options.

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

LED SYSTEM

CRI	Minimum 80 or 90 color rendering index.
CRI BIOS	Minimum 80 color rendering index with R9>75 for all CCTs.
CCT Single Color	Choice of 2700K, 3000K, 3500K and 4000K color temperature with a great color consistency (within 3-step MacAdam ellipse). Both within fixture and fixture to fixture.
CCT BIOS	BIOS Static (STC) Choice of 3000K, 3500K and 4000K. BIOS SkyBlue® Dynamic (DYN) Choice of 3000K, 3500K, and 4000K with Bio-Dimming™ BIOS Tunable White (BTW) Choice of 4000-2700K and 3500-2700K; does not use a bio-dimmer, it uses TW drivers, which allow independent control of CCT and intensity; e.g., BTW4027 provides combined SkyBlue + white light at 4000K, SkyBlue is removed at 2700K. Light output can be adjusted for each CCT. Consult BIOS guide for more information on BIOS technology.
CCT Axitune Systems	Consult Axitune technical sheet for more information on color technology.
LED life	Minimum 50,000h with 85% of lumen maintenance in 25°C ambient temperature, in compliance with IES LM-80 testing measurements.
Thermal Management	Aluminum housing acting as the heat sink to maximize life.
Environment	Dry and damp rated in operating ambient temperatures of 0-40°C (32-104°F).

WAVE 1x1 LED | Recessed T-Bar & Drywall

● SPECIFICATIONS

CONSTRUCTION

Housing	Die formed cold rolled sheet steel (20 gauge)
Central Lens Housing	Extruded aluminum (0.060" nominal)
Center Lens	PMMA Precision formed microconical structure 92 percent transmission, cuts off glare above 55°.
Side lens	0.08" PMMA satin blend
Reflectors	Die formed cold rolled sheet steel (22 gauge)
Interior Brackets	Die formed cold rolled sheet steel (20 gauge)
Drywall Flange Kit	Extruded aluminum (0.060" nominal)

● FINISH

Highly reflective, matte powder coat white paint for high efficiency. Matte texture to diffuse glare and lamp image on the surface within the optical chamber exterior. Custom finishes are also available.

● 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.

● APPROVALS

Certified to UL and CSA standards
Chicago Plenum Certified (CCEA)
Meets NYC requirements
Suitable for damp locations.

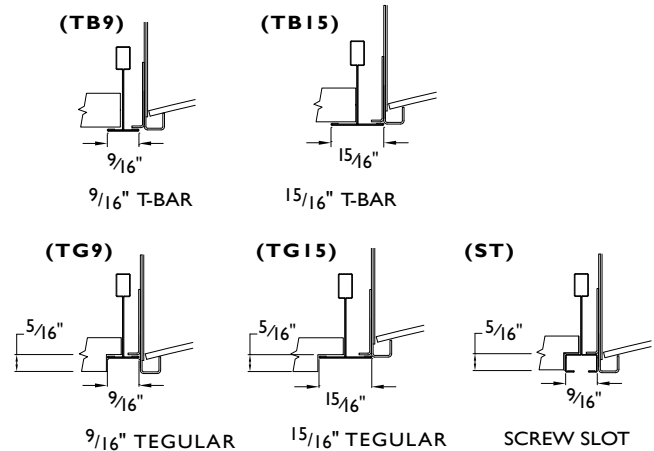


● WEIGHT

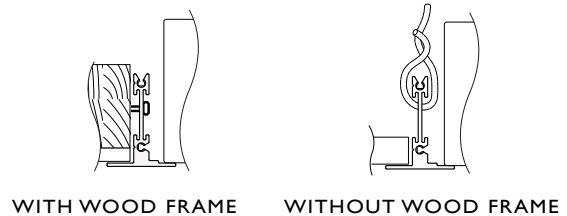
Standard	8 lbs / 3.6 kg
Drywall with Kit	9 lbs / 4.1 kg

● CEILING SYSTEM

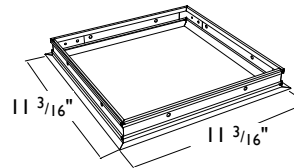
T-BAR STYLE MOUNTING



DRYWALL WITH FLANGE KIT (DF)



DRYWALL MOUNTING KIT



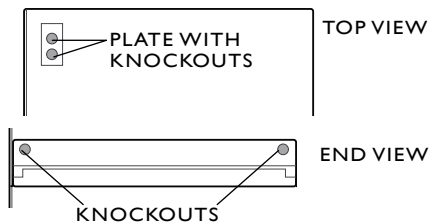
FIXTURE DIMENSIONS
11 3/8" / 11 3/8"

CUT HOLE DIMENSIONS
12 7/16" / 12 7/16"

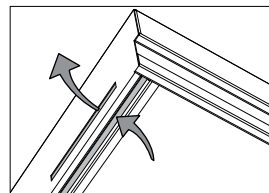
i Installation sheets for all mountings options are available at: www.axislighting.com

● STANDARD AND END MOUNT POWER FEED

Knockouts for BX cable connection are provided both on the top and on the ends of the luminaire. This allows for an end mount power feed solution if it is required. (BX CABLE BY OTHERS)



● AIR RETURN

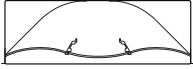


The air return (AR) option consists of discreet slots along the sides of the luminaire. These slots allow air to exhaust into the plenum and eliminate the need for unsightly air return grilles, and create a clean and well organized ceiling.

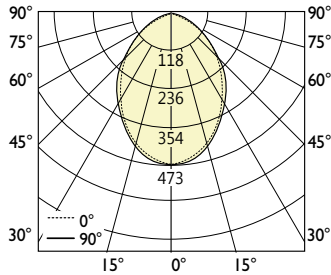
WAVE 1x1 LED | Recessed T-Bar & Drywall

● PHOTOMETRIC DATA

LED



PHOTOMETRIC CURVE



Luminaire Lumens: 900 lm
Input Watts: 11.45 W
Efficacy: 79 lm/W
 IES FILE: WALED-11-900-80-40-VL.ies

TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	473	473	473	473	473	
10	455	455	454	453	455	22
20	391	391	392	393	393	37
30	313	316	321	326	329	44
40	245	250	258	261	262	45
50	149	156	158	161	166	33
60	93	98	98	98	99	23
70	54	57	54	50	50	14
80	22	21	19	20	20	5
90	0	0	0	0	0	

LUMINANCE DATA (cd/m²)

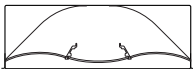
Vertical Angle	Horizontal Angles		
	0	45	90
45	2277	2389	2433
55	1624	1775	1789
65	1382	1419	1419
75	1189	1067	1037
85	634	634	634

COEFFICIENTS OF UTILIZATION (%)

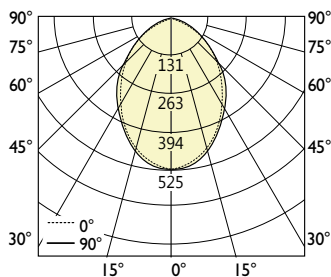
Ceiling	80				70				50			
	70	50	30	10	70	50	30	10	50	30	10	10
Wall	70	50	30	10	70	50	30	10	50	30	10	10
0	119	119	119	119	117	117	117	117	111	111	111	111
1	111	107	103	98	108	104	101	96	100	97	94	94
2	102	95	89	81	99	93	87	81	89	85	79	79
3	94	85	77	69	92	83	76	69	80	74	68	68
4	87	76	68	60	85	75	67	59	72	66	59	59
5	81	69	61	52	79	68	60	52	66	59	52	52
6	75	63	54	46	73	62	54	46	60	53	46	46
7	70	57	49	41	68	57	49	41	55	48	41	41
8	65	53	45	37	64	52	45	37	51	44	37	37
9	61	49	41	34	60	48	41	34	47	40	34	34
10	58	45	38	31	56	45	38	31	44	37	31	31

Based on floor reflectance of 20

LED



PHOTOMETRIC CURVE



Luminaire Lumens: 1000 lm
Input Watts: 12.87 W
Efficacy: 78 lm/W
 IES FILE: WALED-11-1000-80-40-VL.ies

TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	525	525	525	525	525	
10	505	505	504	503	505	24
20	435	435	436	437	437	41
30	348	352	357	362	366	49
40	272	277	287	290	291	50
50	166	174	176	179	185	37
60	104	109	109	109	110	26
70	60	63	60	56	56	15
80	24	23	21	22	22	6
90	0	0	0	0	0	

LUMINANCE DATA (cd/m²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	2530	2654	2704
55	1804	1972	1988
65	1536	1577	1577
75	1322	1186	1152
85	704	704	704

COEFFICIENTS OF UTILIZATION (%)

Ceiling	80				70				50			
Wall	70	50	30	10	70	50	30	10	50	30	10	
0	119	119	119	119	117	117	117	117	111	111	111	
1	111	107	103	98	108	104	101	96	100	97	94	
2	102	95	89	81	99	93	87	81	89	85	79	
3	94	85	77	69	92	83	76	69	80	74	68	
4	87	76	68	60	85	75	67	59	72	66	59	
5	81	69	61	52	79	68	60	52	66	59	52	
6	75	63	54	46	73	62	54	46	60	53	46	
7	70	57	49	41	68	57	49	41	55	48	41	
8	65	53	45	37	64	52	45	37	51	44	37	
9	61	49	41	34	60	48	41	34	47	40	34	
10	58	45	38	31	56	45	38	31	44	37	31	

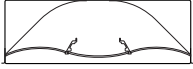
Based on floor reflectance of 20

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

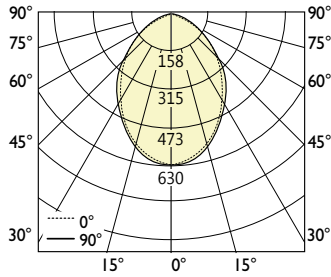
WAVE 1x1 LED | Recessed T-Bar & Drywall

● PHOTOMETRIC DATA

LED



PHOTOMETRIC CURVE



Luminaire Lumens: 1200 lm
Input Watts: 15.77 W
Efficacy: 76 lm/W
 IES FILE: WALED-11-1200-80-40-VL.ies
 TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	630	630	630	630	630	
10	607	607	605	604	607	29
20	521	521	523	524	524	49
30	418	422	428	435	439	59
40	326	333	345	348	350	60
50	199	208	211	215	221	44
60	124	131	131	131	132	31
70	72	76	72	67	67	18
80	29	28	25	26	26	7
90	0	0	0	0	0	

LUMINANCE DATA (cd/m²)

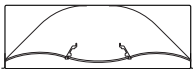
Vertical Angle	Horizontal Angles		
	0	45	90
45	3036	3185	3245
55	2165	2367	2385
65	1843	1893	1893
75	1586	1423	1383
85	845	845	845

COEFFICIENTS OF UTILIZATION (%)

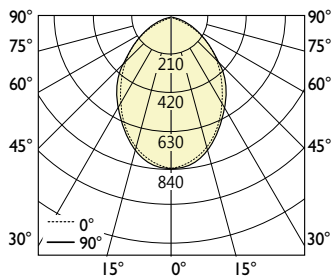
Ceiling	80				70				50			
	70	50	30	10	70	50	30	10	50	30	10	10
Wall	70	50	30	10	70	50	30	10	50	30	10	10
0	119	119	119	119	117	117	117	117	111	111	111	111
1	111	107	103	98	108	104	101	96	100	97	94	94
2	102	95	89	81	99	93	87	81	89	85	79	79
3	94	85	77	69	92	83	76	69	80	74	68	68
4	87	76	68	60	85	75	67	59	72	66	59	59
5	81	69	61	52	79	68	60	52	66	59	52	52
6	75	63	54	46	73	62	54	46	60	53	46	46
7	70	57	49	41	68	57	49	41	55	48	41	41
8	65	53	45	37	64	52	45	37	51	44	37	37
9	61	49	41	34	60	48	41	34	47	40	34	34
10	58	45	38	31	56	45	38	31	44	37	31	31

Based on floor reflectance of 20

LED



PHOTOMETRIC CURVE



Luminaire Lumens: 1600 lm
Input Watts: 21.73 w
Efficacy: 74 lm/w
 IES FILE: WALED-11-1600-80-40-VL.ies
 TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	840	840	840	840	840	
10	809	809	807	805	809	38
20	695	695	697	699	699	65
30	557	562	571	580	585	78
40	435	444	459	465	466	80
50	266	278	281	286	295	59
60	166	175	175	175	176	41
70	96	101	96	89	89	24
80	38	37	33	35	35	10
90	0	0	0	0	0	

LUMINANCE DATA (cd/m²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	4048	4247	4326
55	2887	3156	3180
65	2457	2523	2523
75	2114	1898	1843
85	1127	1127	1127

COEFFICIENTS OF UTILIZATION (%)

Ceiling	80				70				50			
Wall	70	50	30	10	70	50	30	10	50	30	10	
0	119	119	119	119	117	117	117	117	111	111	111	
1	111	107	103	98	108	104	101	96	100	97	94	
2	102	95	89	81	99	93	87	81	89	85	79	
3	94	85	77	69	92	83	76	69	80	74	68	
4	87	76	68	60	85	75	67	59	72	66	59	
5	81	69	61	52	79	68	60	52	66	59	52	
6	75	63	54	46	73	62	54	46	60	53	46	
7	70	57	49	41	68	57	49	41	55	48	41	
8	65	53	45	37	64	52	45	37	51	44	37	
9	61	49	41	34	60	48	41	34	47	40	34	
10	58	45	38	31	56	45	38	31	44	37	31	

Based on floor reflectance of 20

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