

● **PROJECT INFORMATION**

Project:

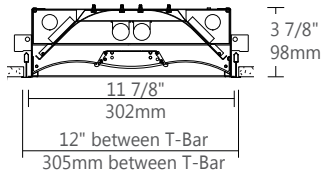
Type:

Notes:

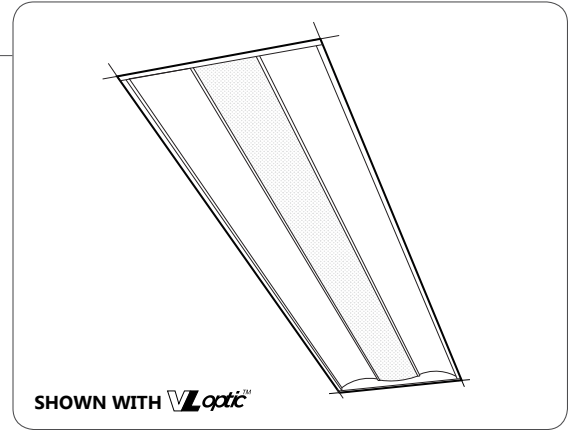
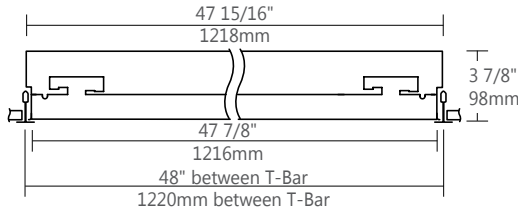
Approved by: Date:

● **DIMENSIONS**

SECTION VIEW



SIDE VIEW



TECHZONE™ AND LOGIX™ COMPATIBLE

● **ORDERING CODE**

1	2	3	4	5	6	7	8	9	10	11	12	13	14
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● **PRODUCT SPECIFICATIONS**

1 PRODUCT ID	2 SIZE	3 CENTER OPTIC	4 LAMP	5 LAMP CONFIGURATION	6 FINISH
WA wave	14 1'X4'	VL vl optic	T5 T5 T5HO T5HO T8 T8	1 1 lamp 2 2 lamps	W white C custom

7 VOLTAGE	8 BALLAST	9 CIRCUITS	10 MOUNTING/SUSPENSION	11 BATTERY (OPTIONAL)
120 120V 277 277V 347 347V ⁽¹⁾ UNV universal	D dimming E instant start ⁽²⁾ ERS program start BI bi-level dimming +M master +S satellite	1 1 regular 2 2 regular 2A/B 2 alternating +E(#) emergency section +NL(#) night light section +GTD(#) generator transfer device	TB9 t-bar 9/16" TB15 t-bar 15/16" ST screw slot t-bar TG9 tegular 9/16" TG15 tegular 15/16" DF drywall flange	B# battery pack

(1) Please consult factory

(2) Available with T8 lamp only

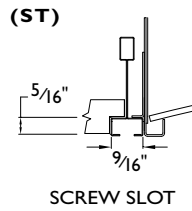
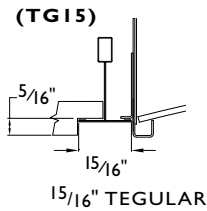
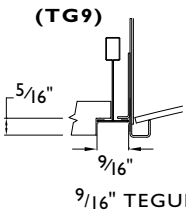
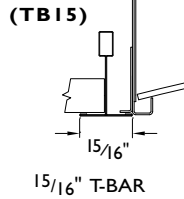
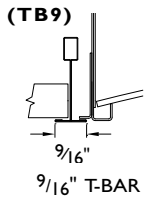
12 OTHER (OPTIONAL)	13 IC CONTROLS (OPTIONAL)	14 CUSTOM (OPTIONAL)
F fuse AR air return FW(#) flex whip (6' std) CP chicago plenum	DS# daylight sensor OS# occupancy sensor DS+OS# daylight+occupancy sensor DOS# daylight&occupancy sensor <small>See integrated controls guide for further details</small>	C custom <small>Please specify</small>

SPECIFY BALLAST NAME (if needed)

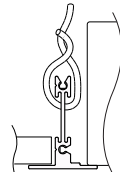
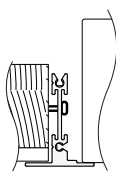
SPECIFY BATTERY NAME (if needed)

● **CEILING SYSTEM**

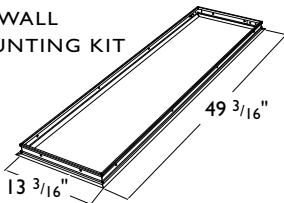
T-BAR STYLE MOUNTING



DRYWALL WITH FLANGE KIT (DF)



DRYWALL MOUNTING KIT



FIXTURE DIMENSIONS
47 3/8" / 11 3/8"

CUT HOLE DIMENSIONS
48 7/16" / 12 7/16"

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


● **CONSTRUCTION**

- Housing** Die formed cold rolled sheet steel (20 gauge)
- Central Lens Housing Reflectors** Extruded aluminum (0.060" nominal)
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)

● **WEIGHT**

Standard	19.2 lbs / 8.7 kg
Drywall with Kit	21.2 lbs / 9.6 kg

● **APPROVALS**

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

● **OPTICAL SYSTEM**

WAVE optical system includes two side lenses and one center lens. Center lens has an extruded aluminum frame and can be opened to replace the lamps. Side lenses are 0.08" PMMA satin blend.

There are three available options for center lens:

- VL^{Optic}**: PMMA Precision formed microconical structure (VL Optic) 92 percent transmissive that cuts off glare above 55 degrees.
- SATIN**: PMMA blend satin lens (0.12" nominal) 68% transmissive.
- MICRO SLOTS**: The Micro Slots (MS) diffuser consists of a steel micro-slotted grid backed with a translucent frosted acrylic overlay.

● **FINISH**

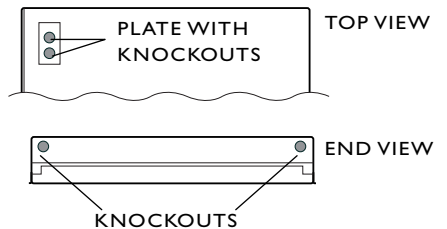
Highly reflective, matte powder coat white paint for high efficiency. Matte texture to diffuse glare and lamp image on the surface within the optical chamber exterior. Custom finishes are also available.

● **ELECTRICAL**

- Ballast** Electronic IS, Electronic Rapid Start, Dimming (0-10V, Line, EcoSystem, DALI), BI-level dimming
With preinstalled ballast disconnect as per NEC & CEC
- Emergency** Emergency battery pack or emergency circuit
- Voltage** 120V, 277V, 347V, UNV

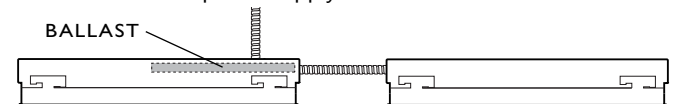
● **STANDARD AND END MOUNT POWER FEED**

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 OTHER)



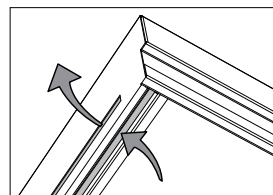
● **MASTER / SATELLITE CONFIGURATION**

Master / Satellite configuration allows the satellite luminaire to share a ballast and power supply with the master luminaire.



(BX CABLE BY OTHER) **i** Check Master/Satellite Installation Guide file DIA-PO-WA.MS.INST for details.

● **AIR RETURN**

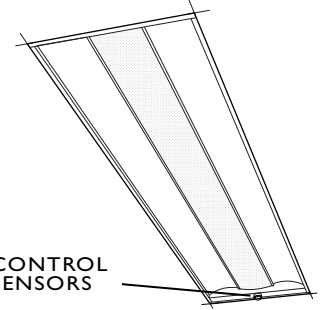


The air return (AR) option consists of discrete slots along the sides of the luminaire. These slots allow air to exhaust into the plenum and eliminate the need for unsightly air return grilles, and create a clean and well organized ceiling.

● **INTEGRATED CONTROL OPTIONS**

WAVE luminaires allow the use of integrated controls such as daylight sensors (DS), occupancy sensors (OS), individual daylight sensors and occupancy sensors (DS+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.

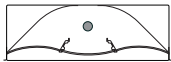
- Consult factory for other options.
- Refer to IC brochure for more information.



SENSORS	BRAND	Model	TYPE	CODE	COMPATIBLE DIMMING BALLAST
Daylight Sensor (DS)	Lutron	EC-DIR-WH	Daylight	LD	EcoSystem
	Wattstopper	FD-301	Daylight	WD	0-10V
	Philips	Luxsense	Daylight	PL	0-10V
Occupancy Sensor (OS)	Wattstopper	FS-205	PIR Occupancy	WP1	Programmed Rapid Start
		FS-355	PIR Occupancy	WP2	Programmed Rapid Start
		FS-155	PIR Occupancy	WP3	Programmed Rapid Start
		FS-505	Ultrasonic Occupancy	WU1	Programmed Rapid Start
		FS-505C	Ultrasonic Occupancy	WU2	Programmed Rapid Start
		FM-105	High Frequency Occupancy	WH	Programmed Rapid Start
Daylight & Occupancy Sensors (DOS)	Philips	Actilume	Daylight & PIR Occupancy	PA	DALI or 0-10V

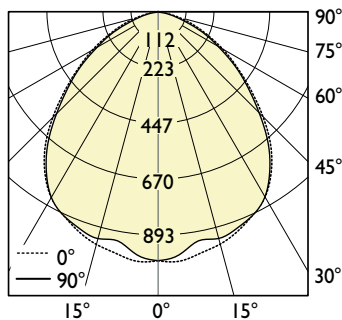
● **PHOTOMETRIC DATA**

I T5



with **VL optic™**

PHOTOMETRIC CURVE



Test Lamp: 1xF28T5
 IES FILE:WA14-VL-T5-I

Efficiency: 84.8%

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

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	999	999	999	999	999	
5	1005	995	983	981	980	53
15	966	955	928	924	942	225
25	901	885	892	902	902	381
35	793	787	812	797	784	486
45	600	633	628	593	579	488
55	392	412	418	390	381	392
65	225	239	244	216	211	261
75	100	108	107	83	78	132
85	21	22	24	21	19	41
90	2	3	2	2	3	

LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	2138	1867	1671
55	1665	1397	1224
65	1235	961	792
75	805	535	362
85	342	171	120

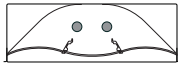
COEFFICIENTS OF UTILIZATION (%)

Ceiling	80			70			50				
	70	50	30	10	70	50	30	10	50	30	10
Wall	70	50	30	10	70	50	30	10	50	30	10
0	101	101	101	101	99	99	99	99	94	94	94
1	93	90	86	84	91	88	85	82	84	82	80
2	86	79	74	70	83	78	73	69	75	71	67
3	79	70	64	59	77	69	63	58	66	61	57
4	72	63	56	50	70	62	55	50	60	54	49
5	67	56	49	44	65	55	49	44	54	48	43
6	62	51	44	39	60	50	43	38	49	43	38
7	57	46	39	34	56	46	39	34	44	38	34
8	53	42	35	31	52	42	35	31	41	35	30
9	50	39	32	28	49	38	32	28	38	32	27
10	47	36	29	25	46	36	29	25	35	29	25

Based on floor reflectance of 20

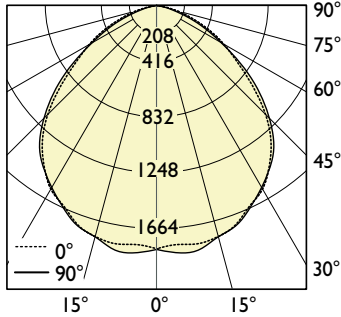
PHOTOMETRIC DATA

2 T5



with **VLoptics™**

PHOTOMETRIC CURVE



Test Lamp: 2xF28T5
 IES FILE: WA14-VL-T5-2

Efficiency: 82.5%

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	1818	1818	1818	1818	1818	
5	1792	1857	1872	1836	1852	99
15	1789	1795	1792	1803	1793	429
25	1659	1683	1703	1674	1671	718
35	1482	1519	1481	1491	1489	905
45	1176	1191	1228	1219	1215	951
55	766	812	845	822	814	796
65	466	480	496	447	426	531
75	205	222	221	174	157	271
85	43	41	46	45	38	82
90	4	5	5	5	5	

COEFFICIENTS OF UTILIZATION (%)

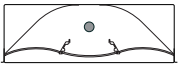
Ceiling	80				70				50			
	70	50	30	10	70	50	30	10	50	30	10	
Wall	70	50	30	10	70	50	30	10	50	30	10	
0	98	98	98	98	96	96	96	96	92	92	92	
1	91	87	84	81	89	85	82	80	82	79	77	
2	83	77	72	67	81	75	70	66	72	68	65	
3	76	68	62	57	74	67	61	56	64	59	55	
4	70	61	54	48	68	60	53	48	57	52	47	
5	65	54	47	42	63	53	47	42	52	46	41	
6	60	49	42	37	58	48	42	37	47	41	36	
7	55	45	38	33	54	44	37	33	43	37	32	
8	52	41	34	29	50	40	34	29	39	33	29	
9	48	37	31	26	47	37	31	26	36	30	26	
10	45	35	28	24	44	34	28	24	33	28	24	

Based on floor reflectance of 20

LUMINANCE DATA (CD/M²)

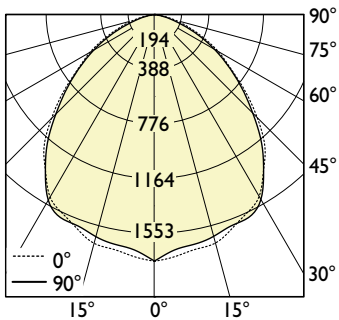
Vertical Angle	Horizontal Angles		
	0	45	90
45	4189	3654	3507
55	3257	2824	2615
65	2551	1957	1596
75	1650	1105	736
85	684	331	246

1 T5HO



with **VLoptics™**

PHOTOMETRIC CURVE



Test Lamp: 1xF54T5HO
 IES FILE: WA14-VL-T5HO-1

Efficiency: 84.8%

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	1747	1747	1747	1747	1747	
5	1720	1727	1715	1701	1673	92
15	1676	1637	1617	1600	1626	389
25	1553	1521	1554	1559	1585	656
35	1352	1362	1400	1378	1354	838
45	1037	1093	1080	1024	993	840
55	664	714	727	668	653	675
65	392	406	420	376	360	451
75	177	185	182	144	132	227
85	36	38	42	36	31	70
90	4	4	5	4	5	

COEFFICIENTS OF UTILIZATION (%)

Ceiling	80				70				50			
	70	50	30	10	70	50	30	10	50	30	10	
Wall	70	50	30	10	70	50	30	10	50	30	10	
0	101	101	101	101	99	99	99	99	94	94	94	
1	93	90	87	84	91	88	85	82	84	82	80	
2	86	79	74	70	84	78	73	69	75	71	67	
3	79	70	64	59	77	69	63	58	67	61	57	
4	72	63	56	51	70	62	55	50	60	54	49	
5	67	56	49	44	65	56	49	44	54	48	43	
6	62	51	44	39	60	50	43	38	49	43	38	
7	57	46	39	34	56	46	39	34	44	38	34	
8	54	42	36	31	52	42	35	31	41	35	30	
9	50	39	32	28	49	39	32	28	38	32	28	
10	47	36	30	25	46	36	29	25	35	29	25	

Based on floor reflectance of 20

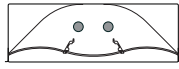
LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	3695	3212	2866
55	2822	2429	2097
65	2146	1655	1348
75	1424	911	616
85	585	297	203

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

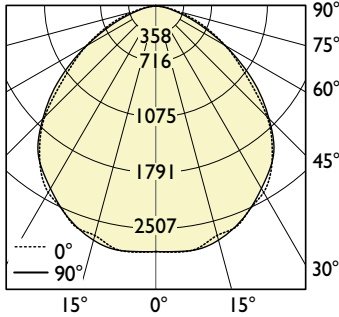
PHOTOMETRIC DATA

2 T5HO



with **VL^optic™**

PHOTOMETRIC CURVE



Test Lamp: 2xF54T5HO
 IES FILE: WA14-VL-T5HO-2

Efficiency: 82.5%

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	3158	3158	3158	3158	3158	
5	3176	3153	3146	3224	3170	171
15	3055	3084	3095	3093	3119	739
25	2878	2909	2947	2876	2879	1238
35	2590	2614	2560	2545	2562	1565
45	2040	2063	2115	2113	2070	1639
55	1324	1396	1469	1414	1408	1370
65	791	829	862	762	737	917
75	350	379	376	297	274	466
85	71	72	81	73	64	141
90	6	8	9	8	9	

COEFFICIENTS OF UTILIZATION (%)

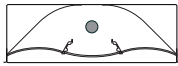
Ceiling	80				70				50			
	70	50	30	10	70	50	30	10	50	30	10	
Wall	70	50	30	10	70	50	30	10	50	30	10	
0	98	98	98	98	96	96	96	96	92	92	92	
1	91	87	84	81	89	85	82	80	82	79	77	
2	83	77	72	67	81	75	70	66	72	68	65	
3	76	68	62	57	74	67	61	56	64	59	55	
4	70	61	54	48	68	59	53	48	57	52	47	
5	64	54	47	42	63	53	47	42	52	46	41	
6	60	49	42	37	58	48	42	37	47	41	36	
7	55	45	38	33	54	44	37	33	43	37	32	
8	52	41	34	29	50	40	34	29	39	33	29	
9	48	37	31	26	47	37	31	26	36	30	26	
10	45	35	28	24	44	34	28	24	33	28	24	

Based on floor reflectance of 20

LUMINANCE DATA (CD/M²)

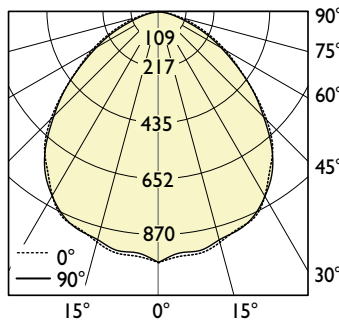
Vertical Angle	Horizontal Angles		
	0	45	90
45	7264	6292	5974
55	5628	4909	4522
65	4335	3400	2763
75	2815	1880	1281
85	1147	581	417

1 T8



with **VL^optic™**

PHOTOMETRIC CURVE



Test Lamp: 1xF32T8
 IES FILE: WA14-VL-T8-1

Efficiency: 83.4%

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	978	978	978	978	978	
5	957	966	973	971	944	52
15	931	935	918	920	921	221
25	886	870	862	876	880	372
35	758	770	789	788	773	473
45	600	618	621	591	583	482
55	385	403	416	387	380	389
65	228	238	239	215	210	259
75	101	108	106	84	77	131
85	21	21	23	21	19	40
90	2	2	3	2	2	

COEFFICIENTS OF UTILIZATION (%)

Ceiling	80				70				50			
	70	50	30	10	70	50	30	10	50	30	10	
Wall	70	50	30	10	70	50	30	10	50	30	10	
0	99	99	99	99	97	97	97	97	93	93	93	
1	92	88	85	82	90	86	84	81	83	81	78	
2	84	78	73	68	82	76	72	68	73	69	66	
3	77	69	63	58	75	68	62	57	65	60	56	
4	71	62	55	50	69	61	54	49	59	53	49	
5	66	55	48	43	64	54	48	43	53	47	42	
6	61	50	43	38	59	49	43	38	48	42	37	
7	56	46	39	34	55	45	38	33	44	38	33	
8	53	42	35	30	51	41	35	30	40	34	30	
9	49	38	32	27	48	38	31	27	37	31	27	
10	46	35	29	25	45	35	29	25	34	28	24	

Based on floor reflectance of 20

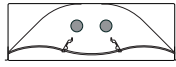
LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	2136	1847	1683
55	1637	1391	1220
65	1251	944	787
75	816	528	359
85	338	167	120

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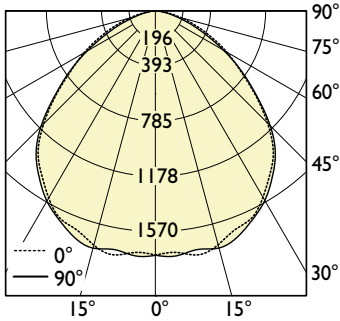
PHOTOMETRIC DATA

2 T8



with **V-Optic™**

PHOTOMETRIC CURVE



Test Lamp: 2xF32T8
 IES FILE: WA14-VL-T8-2

Efficiency: 79.5%

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	1740	1740	1740	1740	1740	
5	1726	1767	1741	1748	1751	94
15	1725	1728	1726	1717	1749	412
25	1627	1630	1646	1661	1640	698
35	1424	1466	1454	1455	1452	884
45	1133	1174	1189	1164	1161	921
55	740	788	816	773	754	761
65	442	458	464	423	395	503
75	198	211	205	164	153	258
85	41	41	45	42	36	79
90	4	5	6	5	4	

COEFFICIENTS OF UTILIZATION (%)

Ceiling	80				70				50		
	70	50	30	10	70	50	30	10	50	30	10
Wall											
0	95	95	95	95	93	93	93	93	88	88	88
1	87	84	81	78	85	82	79	77	79	77	74
2	80	74	69	65	78	73	68	64	70	66	63
3	73	66	60	55	72	64	59	54	62	57	53
4	68	58	52	47	66	57	51	46	55	50	46
5	62	52	46	41	61	52	45	40	50	44	40
6	58	47	41	36	56	47	40	35	45	39	35
7	53	43	36	32	52	42	36	31	41	35	31
8	50	39	33	28	49	39	33	28	38	32	28
9	47	36	30	25	45	36	30	25	35	29	25
10	44	33	27	23	43	33	27	23	32	27	23

Based on floor reflectance of 20

LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	4034	3538	3350
55	3147	2727	2423
65	2424	1831	1483
75	1597	1026	713
85	654	318	234

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