

● **PROJECT INFORMATION**

Project:

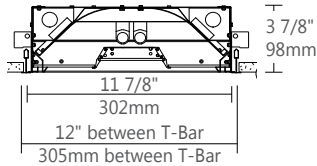
Notes:

Type:

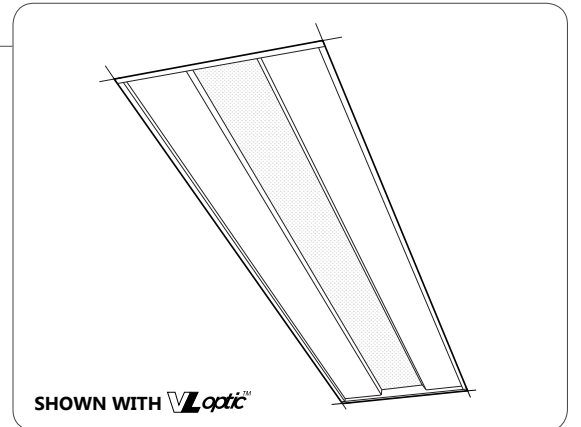
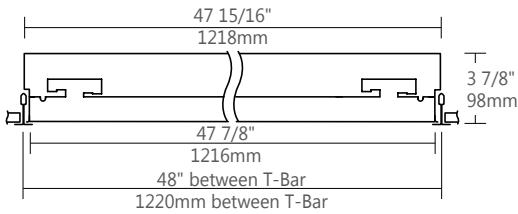
Approved by: Date:

● **DIMENSIONS**

SECTION VIEW



SIDE VIEW



TECHZONE™ AND LOGIX™ COMPATIBLE



cULus Listed
Type I.C.

● **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
PO	plano	14	1'X4'	VL	vl optic	T5	T5	1	1 lamp	W	white
				S	satin lens	T5HO	T5HO	2	2 lamps	C	custom
						T8	T8				

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

(1) Please consult factory (2) Available with T8 lamp only

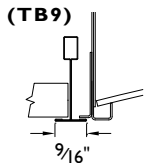
12	OTHER (OPTIONAL)	13	IC CONTROLS (OPTIONAL)	14	CUSTOM (OPTIONAL)
F	fuse	DS#	daylight sensor	C	custom
AR	air return	OS#	occupancy sensor		
FW(#)	flex whip (6' std)	DS+OS#	daylight+occupancy sensor		
CP	chicago plenum	DOS#	daylight&occupancy sensor		
			See integrated controls guide for further details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

SPECIFY BALLAST NAME (if needed)

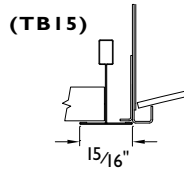
SPECIFY BATTERY NAME (if needed)

● **CEILING SYSTEM**

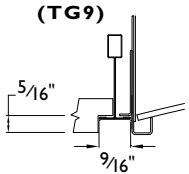
T-BAR STYLE MOUNTING



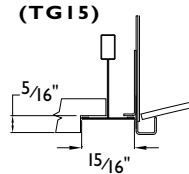
9/16" T-BAR



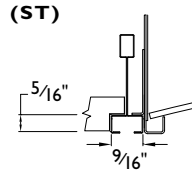
15/16" T-BAR



9/16" TEGULAR

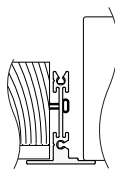


15/16" TEGULAR

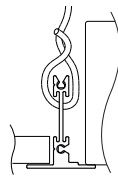


SCREW SLOT

DRYWALL WITH FLANGE KIT (DF)

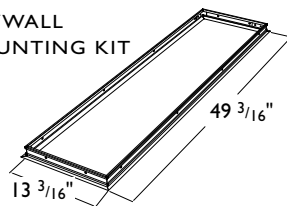


WITH WOOD FRAME



WITHOUT WOOD FRAME

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	Extruded aluminum (0.060" nominal)
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)

● **WEIGHT**

Standard	20 lbs / 9.0 kg
Drywall with Kit	22 lbs / 10.0 kg

● **APPROVALS**

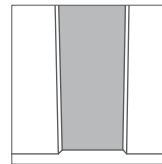
Certified to UL and CUL standards 
 Chicago Plenum Certified (CCEA)
 Meets NYC requirements
 Suitable for damp locations.
 IC Rated (Insulated ceiling)

● **OPTICAL SYSTEM**

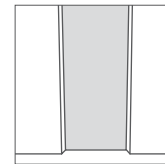
PLANO optical system includes two side lenses and one center lens. Center lens has an extruded aluminum frame and can be opened to replace the lamps. Side lenses are 0.08" PMMA satin blend.

There are two available options for center lens:

- VL^{opti}**: 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.



VL vl optic



S satin lens

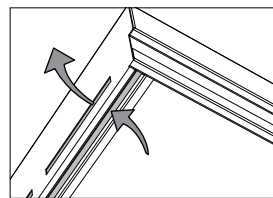
● **FINISH**

Highly reflective, matte powder coat white paint for high efficiency yet has a matte texture to diffuse glare and lamp image on the surfaces within the optical chamber. Custom finishes are also available (exterior only).

● **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

● **AIR RETURN**

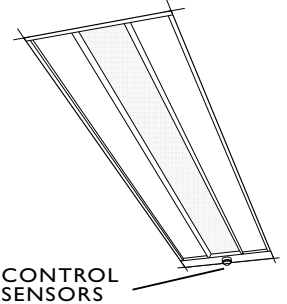


The air return (AR) option consists of discrete slots along the sides of the luminaire. These slots allow air to exhaust into the plenum and eliminate the need for unsightly air return grilles, and create a clean and well organized ceiling.

● **INTEGRATED CONTROL OPTIONS**

PLANO 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.

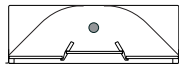
- Consult factory for other options.
- Refer to IC brochure for more information.



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

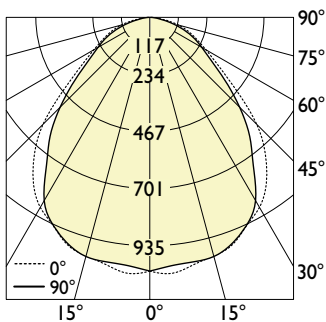
● **PHOTOMETRIC DATA**

I T5



with **V-Locite™**

PHOTOMETRIC CURVE



Test Lamp: 1xF28T5
 IES FILE: PO14-VL-T5-1.ies

Efficiency: 82.3%

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	1038	1038	1038	1038	1038	
5	1052	1027	1028	1021	1020	55
15	1011	1006	1005	1017	1013	240
25	939	941	940	944	938	403
35	831	839	799	757	739	493
45	619	590	559	535	520	461
55	341	342	334	318	306	329
65	212	218	209	195	199	226
75	122	112	106	101	94	138
85	25	20	20	20	20	42
90	2	2	2	2	3	

LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	2257	1686	1517
55	1481	1125	989
65	1185	826	744
75	995	528	436
85	400	143	125

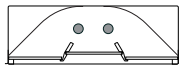
COEFFICIENTS OF UTILIZATION (%)

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	83	80	82	80	78
2	83	77	72	68	81	76	71	67	73	69	66
3	77	69	63	58	75	68	62	57	65	60	56
4	71	62	55	50	69	61	54	50	59	53	49
5	66	56	49	44	64	55	48	44	53	47	43
6	61	51	44	39	59	50	43	39	48	43	38
7	57	46	39	35	55	45	39	34	44	38	34
8	53	42	36	31	52	42	35	31	41	35	31
9	50	39	33	28	48	39	32	28	38	32	28
10	47	36	30	26	45	36	30	26	35	29	26

Based on floor reflectance of 20

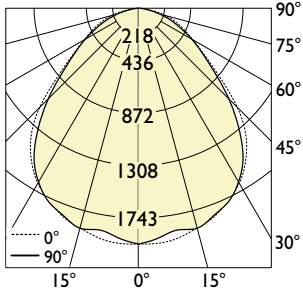
PHOTOMETRIC DATA

2 T5



with **VL_{opti}**

PHOTOMETRIC CURVE



Test Lamp: 2xF28T5
 IES FILE: PO14-VL-T5-2.ies

Efficiency: 80.1%

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	1961	1961	1961	1961	1961	
5	1961	1958	1918	1940	1918	104
15	1891	1870	1856	1865	1894	447
25	1763	1769	1755	1764	1776	751
35	1556	1557	1555	1555	1520	948
45	1166	1181	1136	1090	1067	921
55	669	698	680	649	651	666
65	423	435	418	398	388	455
75	238	221	210	197	181	271
85	47	40	40	37	34	82
90	4	4	5	5	3	

COEFFICIENTS OF UTILIZATION (%)

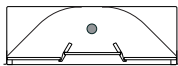
Ceiling	80				70				50			
	70	50	30	10	70	50	30	10	50	30	10	
Wall	70	50	30	10	70	50	30	10	50	30	10	
0	96	96	96	96	93	93	93	93	89	89	89	
1	88	85	82	79	86	83	80	78	80	78	75	
2	81	75	70	66	79	74	69	65	71	67	64	
3	75	67	61	56	69	73	60	56	63	58	55	
4	69	60	53	48	67	59	53	48	57	51	47	
5	64	54	47	42	62	53	47	42	51	46	41	
6	59	49	42	37	57	48	42	37	47	41	37	
7	55	44	38	33	53	44	37	33	43	37	33	
8	51	41	34	30	50	40	34	30	39	34	29	
9	48	37	31	27	47	37	31	27	36	31	27	
10	45	34	29	24	44	34	28	24	33	28	24	

Based on floor reflectance of 20

LUMINANCE DATA (CD/M²)

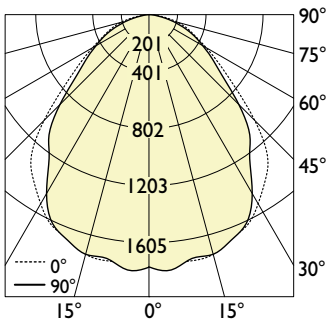
Vertical Angle	Horizontal Angles		
	0	45	90
45	4250	3423	3111
55	2905	2291	2102
65	2363	1657	1454
75	1945	1045	841
85	762	278	215

1 T5HO



with **VL_{opti}**

PHOTOMETRIC CURVE



Test Lamp: 1xF54T5HO
 IES FILE: PO14-VL-T5HO-1.ies

Efficiency: 82.3%

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	1774	1774	1774	1774	1774	
5	1754	1805	1790	1798	1803	96
15	1745	1735	1746	1738	1745	413
25	1635	1643	1642	1642	1620	696
35	1425	1444	1365	1274	1235	842
45	1052	1019	965	919	894	794
55	602	599	579	557	545	570
65	361	375	362	339	348	392
75	209	191	188	176	164	237
85	41	36	35	35	30	72
90	3	3	5	5	4	

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	82	89	86	83	80	82	80	78	
2	84	77	72	68	81	76	71	67	73	69	66	
3	77	69	63	58	75	68	62	57	65	60	56	
4	71	62	55	50	69	61	55	50	59	53	49	
5	66	56	49	44	64	55	48	44	53	47	43	
6	61	51	44	39	59	50	43	39	48	43	38	
7	57	46	39	35	55	46	39	35	44	39	34	
8	53	42	36	31	52	42	36	31	41	35	31	
9	50	39	33	28	48	39	32	28	38	32	28	
10	47	36	30	26	46	36	30	26	35	29	26	

Based on floor reflectance of 20

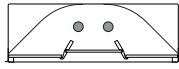
LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	3835	2907	2607
55	2618	1953	1761
65	2020	1434	1304
75	1715	935	760
85	657	245	192

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

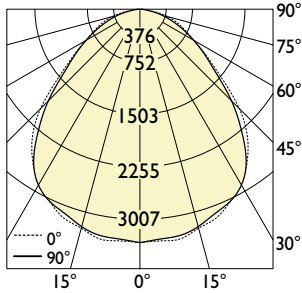
PHOTOMETRIC DATA

2 T5HO



with **VL_{opti}**

PHOTOMETRIC CURVE



Test Lamp: 2x F54T5HO
 IES FILE: PO14-VL-T5HO-2.ies

Efficiency: 80.1%

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	3340	3340	3340	3340	3340	
5	3329	3383	3339	3343	3303	180
15	3245	3229	3179	3240	3222	770
25	3045	3047	3030	3038	3042	1294
35	2674	2671	2712	2656	2653	1634
45	2012	2019	1963	1876	1856	1587
55	1164	1190	1168	1129	1133	1150
65	713	749	727	680	677	784
75	412	386	363	340	324	470
85	80	70	68	64	59	141
90	6	8	8	9	9	

COEFFICIENTS OF UTILIZATION (%)

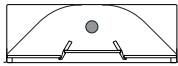
Ceiling	80				70				50			
	70	50	30	10	70	50	30	10	50	30	10	
Wall	70	50	30	10	70	50	30	10	50	30	10	
0	96	96	96	96	93	93	93	93	89	89	89	
1	88	85	82	79	86	83	80	78	80	77	75	
2	81	75	70	66	79	74	69	65	71	67	64	
3	75	67	61	56	73	66	60	55	63	58	55	
4	69	60	53	48	67	59	53	48	57	51	47	
5	63	54	47	42	62	53	47	42	51	46	41	
6	59	49	42	37	57	48	42	37	47	41	37	
7	55	44	38	33	53	44	37	33	43	37	33	
8	51	41	34	30	50	40	34	30	39	33	29	
9	48	37	31	27	47	37	31	27	36	31	27	
10	45	35	29	24	44	34	28	24	33	28	24	

Based on floor reflectance of 20

LUMINANCE DATA (CD/M²)

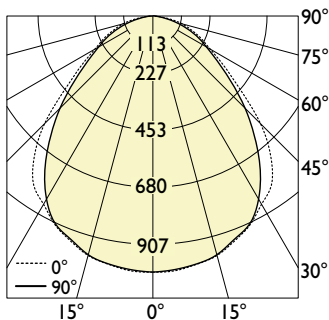
Vertical Angle	Horizontal Angles		
	0	45	90
45	7334	5916	5412
55	5056	3936	3661
65	3987	2879	2539
75	3373	1810	1500
85	1298	476	374

1 T8



with **VL_{opti}**

PHOTOMETRIC CURVE



Test Lamp: 1x F32T8
 IES FILE: PO14-VL-T8-1.ies

Efficiency: 80.9%

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	1017	1017	1017	1017	1017	
5	1016	1001	1020	1003	1011	54
15	985	978	982	982	982	234
25	915	921	927	918	911	392
35	821	805	784	755	743	481
45	605	582	551	527	518	455
55	345	339	334	319	313	328
65	212	215	206	196	196	224
75	121	109	104	99	92	135
85	22	19	20	19	18	41
90	2	2	2	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	97	97	97	97	94	94	94	94	90	90	90	
1	89	86	83	80	87	84	81	79	81	78	76	
2	82	76	71	67	80	75	70	66	72	68	65	
3	75	68	62	57	74	66	61	56	64	59	55	
4	70	61	54	49	68	60	54	49	58	52	48	
5	64	55	48	43	63	54	47	43	52	47	42	
6	60	50	43	38	58	49	42	38	47	42	37	
7	56	45	39	34	54	45	38	34	43	38	34	
8	52	42	35	30	51	41	35	30	40	34	30	
9	49	38	32	28	48	38	32	28	37	31	27	
10	46	35	29	25	45	35	29	25	34	29	25	

Based on floor reflectance of 20

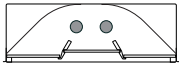
LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	2206	1661	1511
55	1497	1126	1012
65	1188	817	734
75	990	519	426
85	364	138	111

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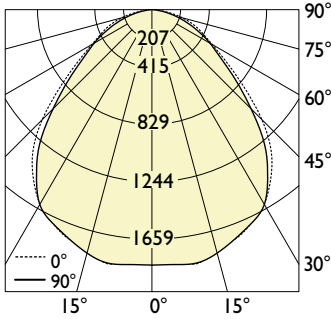
PHOTOMETRIC DATA

2 T8



with **V-logic™**

PHOTOMETRIC CURVE



Test Lamp: 2xF32T8
 IES FILE: PO14-VL-T8-2.ies

Efficiency: 77.0%

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles					Zonal Lumens
	0	22.5	45	67.5	90	
0	1847	1847	1847	1847	1847	
5	1815	1851	1824	1824	1850	99
15	1791	1802	1785	1800	1822	429
25	1702	1689	1712	1707	1704	724
35	1497	1506	1505	1504	1459	917
45	1125	1125	1096	1048	1014	886
55	656	667	646	626	605	639
65	404	417	405	375	369	436
75	227	212	200	183	173	259
85	44	38	38	36	33	78
90	4	4	5	5	4	

LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	4099	3302	2957
55	2850	2179	1956
65	2260	1606	1385
75	1860	995	803
85	707	267	209

COEFFICIENTS OF UTILIZATION (%)

Ceiling	80				70				50		
	70	50	30	10	70	50	30	10	50	30	10
Wall											
0	92	92	92	92	90	90	90	90	86	86	86
1	85	82	79	76	83	80	77	75	77	74	72
2	78	72	67	63	76	71	66	63	68	64	61
3	72	64	58	54	70	63	58	53	61	56	52
4	66	57	51	46	64	56	51	46	55	49	45
5	61	52	45	40	59	51	45	40	49	44	40
6	57	47	40	36	55	46	40	36	45	39	35
7	53	43	36	32	51	42	36	32	41	35	31
8	49	39	33	29	48	39	33	28	38	32	28
9	46	36	30	26	45	36	30	26	35	29	26
10	43	33	27	24	42	33	27	23	32	27	23

Based on floor reflectance of 20

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