

P949

Medium Beam
Two 26-32-42W Triple Tube Lamps
8 3/8" Conoid Apertures

Optics and Applications

The two reflector optical system features an elliptical primary reflector and a deep parabolic shielding cone designed for use in higher ceilings. Pattern edges blend softly with adjacent units. See model P942 on page 56 for shallower recess depth and wider distribution.

Design Features

Construction allows easy access to all components. Vented air flow design lowers fixture temperature for optimal lamp performance. Fixtures accept Philips, Osram Sylvania, GE or other compatible lamps despite the variance in lamp bases. Maximum ceiling thickness 2". Ballast and lamp service from below.

Finish

A specular clear Alzak cone is standard. Optional colors and Softglow® finishes are available. The housing and all structural parts are phosphated for corrosion resistance before being painted optical matte black for control of stray light leaks.

Ballast

Fully electronic, microprocessor controlled with variable starting current for inrush protection to assure rated lamp life. Input voltage ranges from 120V through 277V. Operates 26W, 32W or 42W triple tube lamps interchangeably. Power factor .98, starting temperature 0° F (-18° C), THD < 10%. Pre-heat start < 1.0 second. End of lamp life protection. Rated for > 50,000 starts.

General

Fixtures are pre-wired, UL and C-UL listed for eight wire 75°C branch circuit wiring. Union made IBEW. Luminaire Efficiency Rating (LER) data is in the photometric directory located in Section Z.

Accessories

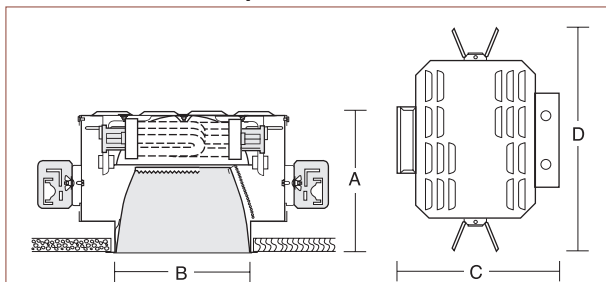
- G Gold cone.
- H Mocha cone.
- P Graphite cone.
- T Titanium cone.
- W Wheat cone.
- Y Pewter cone.
- Z Bronze cone.
- S Softglow® finishes: add S before color letters. e.g. SW for Softglow® wheat cone, SC for Softglow® clear cone.
- R2 26" support rails.
- R5 52" support rails.
- WT White trim flange.
- WHT White complete trim.
- DCE Double circuiting.
- V347 347 volt ballast.
- F Fuse.

- DM Dimming ballast, 26 or 32W. Specify watts and volts.
- DM2 Dimming ballasts, two 42W. Specify volts.
- LS Lamp shield, acrylic, 26-32W only.
- LP Prism lens, acrylic, 26-32W only.
- EM Emergency power includes integral charger light and test switch visible through aperture. Single lamp operation for 90 minutes. Specify volts.
- WRL Wattage restriction label, specify wattage.

Matching Units

- Sloped ceilings [Page P58](#)
- Shallow depth downlight [Page P56](#)
- Wall washer [Page P67](#)
- Surface cylinder [Pages P42, P43](#)

Dimensions and Lamps



Number	A Depth	B Aperture	C Width	D Length	Lamps
P949	9 1/4" 234mm	8 3/8" 213mm	13 1/2" 343mm	19" 483mm	Two 26-32-42W Triple Tube

Brightness

Number	Lamps	Plane	85°	75°	65°	55°	45°
P949	Two 32W Triple Tube Philips	0°	12	17	32	58	7031
		90°	11	19	37	54	8534
	Two 42W Triple Tube Philips	0°	16	23	44	74	9398
		90°	15	26	50	72	11411
	Two 32W Triple Tube Osram/Sylvania	0°	12	15	23	48	6454
		90°	12	25	38	93	7385
	Two 42W Triple Tube Osram/Sylvania	0°	15	21	30	62	8442
		90°	16	33	50	121	9661

Data in footlamberts. Photometer readings, Maximum Brightness Method. See note 7 on the other side.

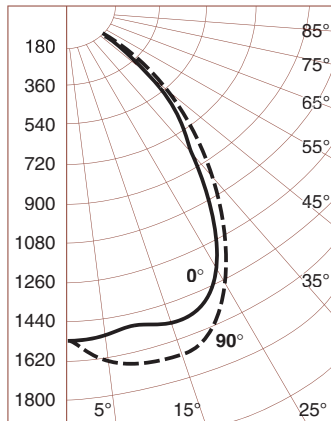
* Click for link to pages in blue.

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Performance Datachart

Single Unit Initial Footcandles, 30" Work Plane						Ceiling to Floor		Multiple Units Initial Footcandles, 30" Work Plane			
P949 Two 32W Philips Triple Tube Read Top Data								Ceiling 80% Walls 50% Floor 20%			
P949 Two 42W Philips Triple Tube Read Bottom Data								Spacing is Maximum Over Work Plane			
Nadir		15°		25°		35°					
FC	Diam	FC	Diam	FC	Diam	FC	Diam	Spacing	RCR 1	RCR 3	RCR 8
51	48 3'	35 5'	16 8'	8'				6'	60	51	35
61	56 3'	43 5'	23 8'					7'	66	57	38
36	35 3'	25 6'	12 9'	9'				7'	43	36	25
44	40 3'	31 6'	16 9'					8'	47	41	27
27	26 4'	19 7'	9 11'	11'				8'	32	27	19
33	30 4'	23 7'	12 11'					9'	36	31	21
17	16 5'	12 9'	5 13'	12'				11'	20	17	12
20	19 5'	14 9'	8 13'					11'	22	19	13
12	11 6'	8 11'	4 16'	14'				13'	14	12	8
14	13 6'	10 11'	5 16'					14'	15	13	9

Candlepower Distribution

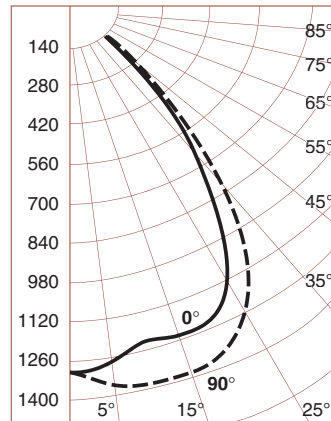


P949 Two 32W Triple Tube Philips
Eff. 44% S/M 0° 1.08 S/M 90° 1.17

Candelas

°	0°	90°
	4800*	4800*
0	1539	1539
5	1513	1654
10	1455	1686
15	1539	1696
20	1487	1644
25	1377	1461
30	1030	1220
35	764	1015
40	654	801
45	281	362
50	60	109
55	17	17
60	9	10
65	0	0
70	0	0
75	0	0
80	0	0
85	0	0
90	0	0

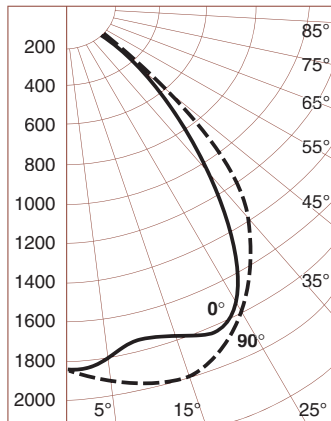
° Vertical Angles
* Initial Lamp Lumens



P949 Two 32W Triple Tube Osram Sylvania
Eff. 36% S/M 0° 1.06 S/M 90° 1.14

°	0°	90°
	4800*	4800*
0	1304	1304
5	1280	1380
10	1208	1392
15	1248	1396
20	1236	1360
25	1124	1256
30	855	987
35	623	755
40	501	585
45	202	283
50	48	85
55	14	14
60	8	8
65	3	3
70	0	0
75	0	0
80	0	0
85	0	0
90	0	0

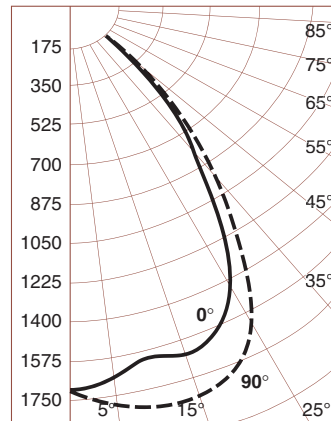
° Vertical Angles
* Initial Lamp Lumens



P949 Two 42W Triple Tube Osram
Eff. 42% S/M 0° 1.15 S/M 90° 1.25

°	0°	90°
	6400*	6400*
0	1845	1845
5	1816	1946
10	1692	1972
15	1749	2008
20	1816	1941
25	1728	1775
30	1439	1599
35	1123	1392
40	892	1056
45	220	473
50	47	134
55	17	23
60	12	15
65	5	12
70	0	0
75	0	0
80	0	0
85	0	0
90	0	0

° Vertical Angles
* Initial Lamp Lumens



P949 Two 42W Triple Tube Osram Sylvania
Eff. 35% S/M 0° 1.06 S/M 90° 1.14

°	0°	90°
	6400*	6400*
0	1698	1698
5	1667	1797
10	1573	1813
15	1625	1818
20	1609	1771
25	1463	1635
30	1113	1285
35	811	983
40	652	762
45	263	368
50	62	111
55	18	18
60	11	10
65	4	4
70	0	0
75	0	0
80	0	0
85	0	0
90	0	0

° Vertical Angles
* Initial Lamp Lumens

Notes

- Data on all charts calculated with a clear specular cone finish.
- Specular cone multipliers: Gold x .92, Wheat x .88, Pewter x .80, Mocha x .78, Graphite x .78, Titanium x .78, Bronze x .75.
- Softglow® cone multipliers: Clear x .93, Gold x .92, Wheat x .87, Pewter x .78, Mocha x .78, Graphite x .77, Titanium x .77, Bronze x .76.
- Single unit Datachart pattern diameters are determined by the number of degrees from each side of nadir. Therefore a 20° diameter represents a total 40° pattern width at the work plane 30" above the floor. Footcandle values are at the edge of that diameter.
- Datachart spacing is rounded off to the nearest foot.
- Data by IES methods. Compact fluorescent data vary due to lamp lumen differences, power input, burning position, ambient temperature and ballast characteristics. A modification factor should be applied.
- Brightness data from the Average Luminance Method are inaccurate for small aperture downlights. They are theoretical calculations derived for large surfaces such as troffers. For a complete discussion refer to section Z brochure Z1.

Coefficients of Utilization

Ceiling	80%				70%		50%		30%		0
	70	50	30	10	50	10	50	10	50	10	0
Wall %	Zonal Cavity Method - Floor Reflectance 20%										
RCR	Zonal Cavity Method - Floor Reflectance 20%										
1	.49	.48	.47	.46	.47	.45	.45	.43	.43	.42	.40
2	.46	.44	.42	.41	.43	.40	.42	.39	.41	.38	.37
3	.44	.41	.38	.37	.40	.36	.39	.36	.38	.35	.34
4	.41	.38	.35	.33	.37	.33	.36	.33	.35	.32	.31
5	.39	.35	.32	.30	.35	.30	.34	.30	.33	.30	.29
6	.37	.32	.30	.28	.32	.28	.31	.27	.31	.27	.26
7	.35	.30	.27	.25	.30	.25	.29	.25	.29	.25	.24
8	.33	.28	.25	.23	.28	.23	.27	.23	.27	.23	.22
9	.31	.26	.24	.22	.26	.22	.26	.22	.25	.21	.21
10	.29	.25	.22	.20	.24	.20	.24	.20	.24	.20	.19

See notes 4, 5 and 6.