

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

PRDDH12GV 55L 35K XX PR12 DR12A FO MW
Nom 12 inch diam, high bay, mid bay, low bay application

Test Number

SP-00456_31

Test Date

3/9/2021

The results contained in this report pertain only to this IES file.

Summary of Results

Power

Input Watts	39 W
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Lumen Output

Output Lumens	4498
Efficacy	115.32 lm/W

Luminous Dimensions

0° - 180° Size	-1
90° - 270° Size	-1
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.2
Two luminaires, plane 90°	1.2
Four luminaires	1.4

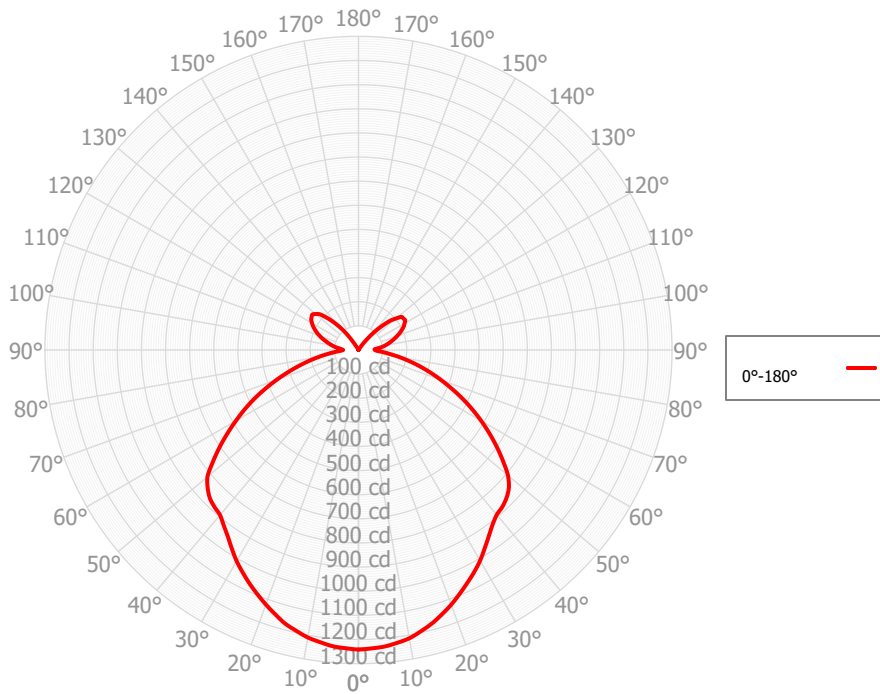
Full Beam Angle

0° - 180°	117°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-00456_31
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	3/9/2021
ISSUE DATE	3/19/2021
LUMCAT	PRDDH12GV 55L 35K XX PR12 DR12A FO MW
LUMINAIRE	Nom 12 inch diam, high bay, mid bay, low bay application
OTHER	Prismatic refractor, door with fusion opix lens
OTHER	Beam angle: 117 degrees
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multiplier: 27K x 0.97, 30K x 0.99, 40K x 1.03
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	83
_CCTMULT	27K x 0.97, 30K x 0.99, 40K x 1.03
_CCTMULTA	50K x 1.06
_LAMPMULT	15L x 0.27, 27L x 0.46, 37L x 0.68

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	118.76	2.64%	90.00° - 100.00°	91.87	2.04%
10.00° - 20.00°	330.42	7.35%	100.00° - 110.00°	149.52	3.32%
20.00° - 30.00°	492.01	10.94%	100.00° - 120.00°	345.82	7.69%
30.00° - 40.00°	592.64	13.18%	120.00° - 130.00°	205.49	4.57%
40.00° - 50.00°	667.26	14.84%	130.00° - 140.00°	131.59	2.93%
50.00° - 60.00°	626.39	13.93%	140.00° - 150.00°	30.09	0.67%
60.00° - 70.00°	469.13	10.43%	150.00° - 160.00°	1.35	0.03%
70.00° - 80.00°	277.48	6.17%	160.00° - 170.00°	0.62	0.01%
80.00° - 90.00°	116.42	2.59%	170.00° - 180.00°	0.18	0.00%
0.00° - 90.00°	3690.52	82.06%	0.00° - 180.00°	4497.53	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	1241.86	1241.86
2.50°	1238.57	1237.79
5.00°	1234.39	1232.80
7.50°	1224.98	1221.90
10.00°	1213.81	1210.49
12.50°	1194.76	1192.72
15.00°	1174.45	1174.66
17.50°	1149.65	1148.94
20.00°	1123.83	1123.14
22.50°	1094.98	1096.01
25.00°	1066.39	1068.78
27.50°	1038.40	1039.97
30.00°	1008.43	1010.69
32.50°	974.33	977.19
35.00°	942.08	944.54
37.50°	913.17	917.58
40.00°	891.94	893.45
42.50°	882.52	883.44
45.00°	867.72	870.83
47.50°	845.81	848.18
50.00°	809.05	817.49
52.50°	754.93	760.67
55.00°	699.81	703.35
57.50°	643.69	644.71
60.00°	587.41	586.95
62.50°	530.99	531.16
65.00°	474.48	474.64
67.50°	417.92	416.72
70.00°	364.70	360.46
72.50°	313.68	306.98
75.00°	265.03	256.71
77.50°	217.71	210.98
80.00°	174.81	168.96
82.50°	134.09	131.56
85.00°	102.89	99.63
87.50°	75.62	73.57
90.00°	67.81	63.96
92.50°	66.65	69.59
95.00°	80.81	81.18
97.50°	99.40	97.67
100.00°	114.17	112.22
102.50°	128.05	125.41
105.00°	142.20	140.32
107.50°	156.41	156.27
110.00°	170.99	171.33
112.50°	185.62	185.91

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	pfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	0	5162	5162	5162	5162	4948	4948	4948	4948	4549	4549	4549	4184	4184	4184	3848	3848	3691
	1	4685	4465	4267	4089	4480	4284	4107	3947	3945	3805	3676	3634	3524	3421	3347	3262	3123
	2	4247	3874	3565	3306	4053	3720	3441	3204	3430	3204	3008	3163	2981	2821	2916	2771	2642
	3	3862	3389	3022	2730	3682	3256	2923	2653	3008	2732	2505	2778	2551	2361	2564	2380	2223
	4	3528	2991	2598	2297	3362	2877	2516	2238	2663	2360	2121	2464	2211	2007	2278	2070	1979
	5	3236	2662	2261	1964	3084	2564	2193	1916	2378	2063	1822	2205	1939	1730	2043	1820	1742
	6	2982	2388	1989	1703	2843	2302	1932	1663	2141	1823	1586	1989	1718	1510	1848	1617	1548
	7	2759	2157	1767	1493	2633	2083	1719	1461	1941	1626	1396	1808	1536	1332	1684	1449	1389
	8	2563	1962	1583	1323	2448	1896	1542	1296	1771	1462	1241	1654	1384	1187	1544	1309	1257
	9	2390	1795	1430	1183	2285	1737	1394	1160	1626	1324	1112	1522	1257	1066	1424	1191	1145
	10	2237	1651	1300	1067	2141	1599	1269	1046	1501	1208	1005	1408	1148	965	1320	1091	1050

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	41.1 fc	9.0 ft
6.5 ft	29.4 fc	10.6 ft
7.5 ft	22.1 fc	12.2 ft
8.0 ft	19.4 fc	13.1 ft
10.0 ft	12.4 fc	16.3 ft
12.0 ft	8.6 fc	19.6 ft
14.0 ft	6.3 fc	22.9 ft
16.0 ft	4.9 fc	26.1 ft
20.0 ft	3.1 fc	32.7 ft
24.0 ft	2.2 fc	39.2 ft
28.0 ft	1.6 fc	45.7 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	17020	17020	17020
45.00°	16818	16833	16848
55.00°	16721	16742	16764
65.00°	15387	15388	15390
75.00°	14034	13924	13814
85.00°	16180	16051	15923

UGR CIE 190:2010

Ceiling reflectance		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall reflectance		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Plane reflectance		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
2H	2H	19.9	21.2	20.6	21.9	22.6	20.0	21.3	20.6	21.9	22.6
	3H	21.7	22.9	22.3	23.5	24.3	21.7	22.9	22.3	23.5	24.3
	4H	22.4	23.5	23.1	24.2	24.9	22.4	23.5	23.0	24.1	24.9
	6H	23.0	24.0	23.6	24.7	25.5	22.9	24.0	23.6	24.6	25.4
	8H	23.2	24.2	23.9	24.9	25.7	23.2	24.1	23.8	24.8	25.6
	12H	23.4	24.3	24.1	25.0	25.8	23.4	24.3	24.0	25.0	25.8
4H	2H	20.5	21.6	21.2	22.3	23.1	20.5	21.7	21.2	22.3	23.1
	3H	22.5	23.5	23.2	24.1	24.9	22.5	23.4	23.2	24.1	24.9
	4H	23.4	24.2	24.0	24.9	25.7	23.3	24.2	24.0	24.9	25.7
	6H	24.1	24.8	24.8	25.5	26.4	24.0	24.8	24.7	25.5	26.3
	8H	24.4	25.1	25.1	25.8	26.6	24.3	25.0	25.0	25.7	26.6
	12H	24.6	25.3	25.4	26.0	26.9	24.6	25.2	25.3	26.0	26.8
8H	4H	23.7	24.4	24.4	25.1	25.9	23.6	24.3	24.3	25.0	25.9
	6H	24.5	25.1	25.3	25.9	26.7	24.5	25.1	25.2	25.8	26.7
	8H	24.9	25.5	25.7	26.2	27.1	24.9	25.4	25.6	26.2	27.0
	12H	25.3	25.8	26.1	26.6	27.5	25.3	25.7	26.0	26.5	27.4
12H	4H	23.7	24.3	24.4	25.1	25.9	23.7	24.3	24.4	25.0	25.9
	6H	24.6	25.1	25.4	25.9	26.8	24.6	25.1	25.3	25.8	26.7
	8H	25.1	25.5	25.8	26.3	27.2	25.0	25.5	25.8	26.2	27.2

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0