

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-00456_32

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	4560
Efficacy	116.93 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.69
Two luminaires, plane 90°	0.7
Four luminaires	0.85

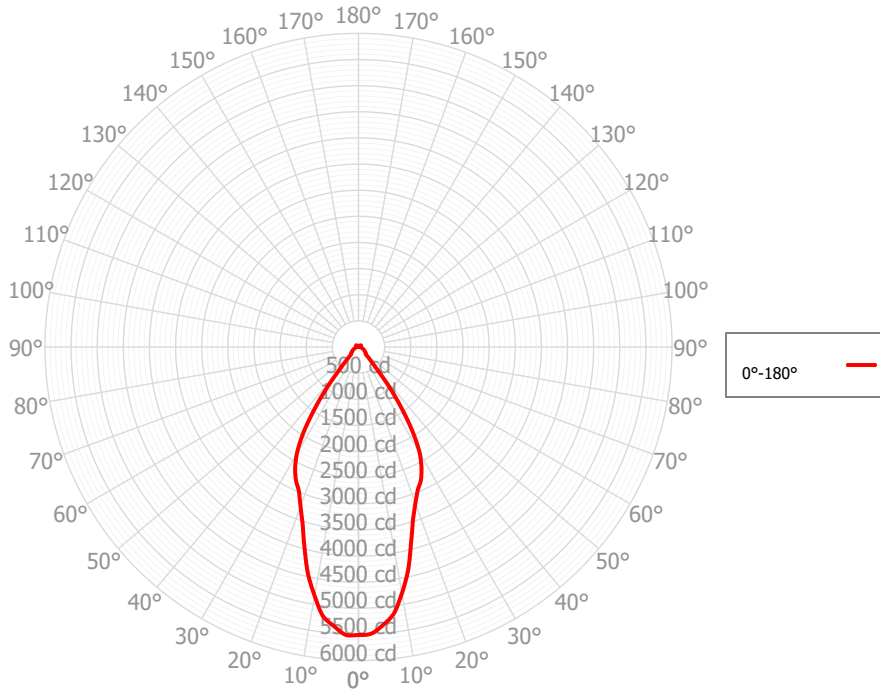
Full Beam Angle

0° - 180°	52°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-00456_32
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	3/9/2021
ISSUEDATE	3/19/2021
LUMCAT	PRDDH12GV 55L 35K XX PR12 DR12A PC MW
LUMINAIRE	Nom 12 inch diam, high bay, mid bay, low bay application
OTHER	Prismatic refractor, door with clear polycarbonate lens
OTHER	Beam angle: 52 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°	501.70	11.00%	90.00° - 100.00°	35.62	0.78%
10.00° - 20.00°	1095.84	24.03%	100.00° - 110.00°	48.29	1.06%
20.00° - 30.00°	1282.36	28.12%	100.00° - 120.00°	99.31	2.18%
30.00° - 40.00°	900.85	19.75%	120.00° - 130.00°	48.13	1.06%
40.00° - 50.00°	203.92	4.47%	130.00° - 140.00°	31.17	0.68%
50.00° - 60.00°	137.31	3.01%	140.00° - 150.00°	10.62	0.23%
60.00° - 70.00°	102.36	2.24%	150.00° - 160.00°	1.35	0.03%
70.00° - 80.00°	68.87	1.51%	160.00° - 170.00°	0.65	0.01%
80.00° - 90.00°	39.99	0.88%	170.00° - 180.00°	0.23	0.00%
0.00° - 90.00°	4333.19	95.02%	0.00° - 180.00°	4560.27	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	5512.45	5512.45
2.50°	5492.93	5515.52
5.00°	5345.24	5364.85
7.50°	5153.56	5197.64
10.00°	4785.93	4835.38
12.50°	4381.17	4457.41
15.00°	3883.90	3986.98
17.50°	3466.02	3553.49
20.00°	3181.79	3242.53
22.50°	2963.06	2981.42
25.00°	2821.53	2827.23
27.50°	2611.06	2627.61
30.00°	2343.12	2361.05
32.50°	1940.59	1991.08
35.00°	1459.58	1513.72
37.50°	983.61	1039.88
40.00°	509.62	568.61
42.50°	320.13	330.85
45.00°	199.85	211.64
47.50°	185.01	181.91
50.00°	183.12	182.09
52.50°	167.47	168.68
55.00°	151.73	152.60
57.50°	139.24	140.10
60.00°	126.86	127.89
62.50°	115.03	114.89
65.00°	103.36	102.12
67.50°	92.25	91.53
70.00°	81.59	81.32
72.50°	71.88	72.82
75.00°	63.20	65.21
77.50°	56.00	60.05
80.00°	48.96	53.68
82.50°	42.09	45.13
85.00°	34.84	37.14
87.50°	27.31	29.88
90.00°	25.92	25.92
92.50°	27.56	24.94
95.00°	33.43	29.34
97.50°	40.67	37.16
100.00°	43.46	41.53
102.50°	45.40	44.43
105.00°	46.62	45.30
107.50°	47.78	45.63
110.00°	48.91	46.65
112.50°	50.21	47.78

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	5375	5375	5375	5375	5223	5223	5223	5223	4941	4941	4941	4682	4682	4682	4445	4445	4333
	1	5076	4931	4800	4683	4938	4809	4693	4587	4581	4489	4404	4372	4300	4232	4179	4123	4071
	2	4792	4542	4336	4162	4666	4443	4256	4098	4256	4104	3973	4084	3962	3854	3925	3827	3740
	3	4526	4203	3953	3753	4412	4121	3892	3708	3966	3776	3619	3823	3666	3534	3691	3562	3451
	4	4279	3904	3630	3421	4176	3836	3583	3388	3707	3492	3323	3587	3406	3259	3475	3323	3198
	5	4050	3640	3354	3143	3956	3583	3317	3118	3473	3245	3069	3372	3175	3021	3277	3109	2974
	6	3838	3405	3115	2906	3753	3356	3085	2887	3263	3026	2849	3176	2970	2812	3095	2916	2776
	7	3642	3195	2905	2701	3565	3152	2880	2686	3072	2832	2656	2997	2785	2627	2927	2740	2598
	8	3461	3005	2719	2522	3391	2969	2698	2510	2899	2658	2486	2834	2619	2462	2773	2581	2438
	9	3293	2834	2553	2363	3229	2803	2536	2353	2742	2502	2334	2685	2469	2314	2631	2437	2295
	10	3138	2680	2405	2222	3080	2652	2390	2214	2598	2361	2197	2548	2333	2181	2500	2305	2165

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	182.2 fc	2.7 ft
6.5 ft	130.5 fc	3.1 ft
7.5 ft	98.0 fc	3.6 ft
8.0 ft	86.1 fc	3.9 ft
10.0 ft	55.1 fc	4.8 ft
12.0 ft	38.3 fc	5.8 ft
14.0 ft	28.1 fc	6.8 ft
16.0 ft	21.5 fc	7.7 ft
20.0 ft	13.8 fc	9.7 ft
24.0 ft	9.6 fc	11.6 ft
28.0 ft	7.0 fc	13.5 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	75548	75548	75548
45.00°	3874	3931	3988
55.00°	3625	3631	3636
65.00°	3352	3342	3332
75.00°	3347	3373	3400
85.00°	5478	5568	5659

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	10.3	11.4	10.8	11.8	12.2	10.4	11.4	10.8	11.8	12.2
	3H	12.1	13.0	12.6	13.5	14.0	12.1	13.0	12.6	13.5	14.0
	4H	12.9	13.8	13.4	14.2	14.7	12.9	13.8	13.4	14.2	14.7
	6H	13.7	14.5	14.2	14.9	15.5	13.8	14.6	14.3	15.0	15.5
	8H	14.1	14.8	14.6	15.3	15.8	14.2	14.9	14.7	15.4	15.9
	12H	14.5	15.2	15.0	15.7	16.2	14.6	15.3	15.2	15.8	16.4
4H	2H	10.9	11.7	11.4	12.2	12.7	10.9	11.7	11.4	12.2	12.7
	3H	12.9	13.6	13.4	14.1	14.6	12.9	13.6	13.4	14.1	14.6
	4H	13.8	14.5	14.4	15.0	15.5	13.9	14.5	14.4	15.0	15.6
	6H	14.8	15.3	15.4	15.9	16.5	14.9	15.4	15.5	16.0	16.6
	8H	15.3	15.8	15.9	16.3	16.9	15.4	15.9	16.0	16.5	17.0
	12H	15.8	16.2	16.4	16.8	17.4	15.9	16.4	16.5	17.0	17.6
8H	4H	14.2	14.7	14.7	15.2	15.8	14.2	14.7	14.8	15.3	15.9
	6H	15.4	15.8	16.0	16.4	17.0	15.5	15.9	16.1	16.5	17.1
	8H	16.0	16.4	16.6	17.0	17.6	16.2	16.5	16.8	17.1	17.7
	12H	16.7	17.0	17.3	17.6	18.3	16.9	17.2	17.5	17.8	18.5
12H	4H	14.2	14.7	14.8	15.3	15.8	14.3	14.7	14.9	15.3	15.9
	6H	15.5	15.9	16.1	16.4	17.1	15.7	16.0	16.3	16.6	17.2
	8H	16.3	16.6	16.9	17.2	17.8	16.4	16.7	17.0	17.3	18.0

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0