

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

DDS16GV 55L 35K EX TF2 PR16 NL

Nom 16 inch diam round high bay luminaire with prismatic refractor

Test Number

SP-00858_5

Test Date

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	4832
Efficacy	123.91 lm/W

Luminous Dimensions

0° - 180° Size	-1.33
90° - 270° Size	-1.33
Height	1

Spacing Criterion

Two luminaires, plane 0°	1.17
Two luminaires, plane 90°	1.17
Four luminaires	1.04

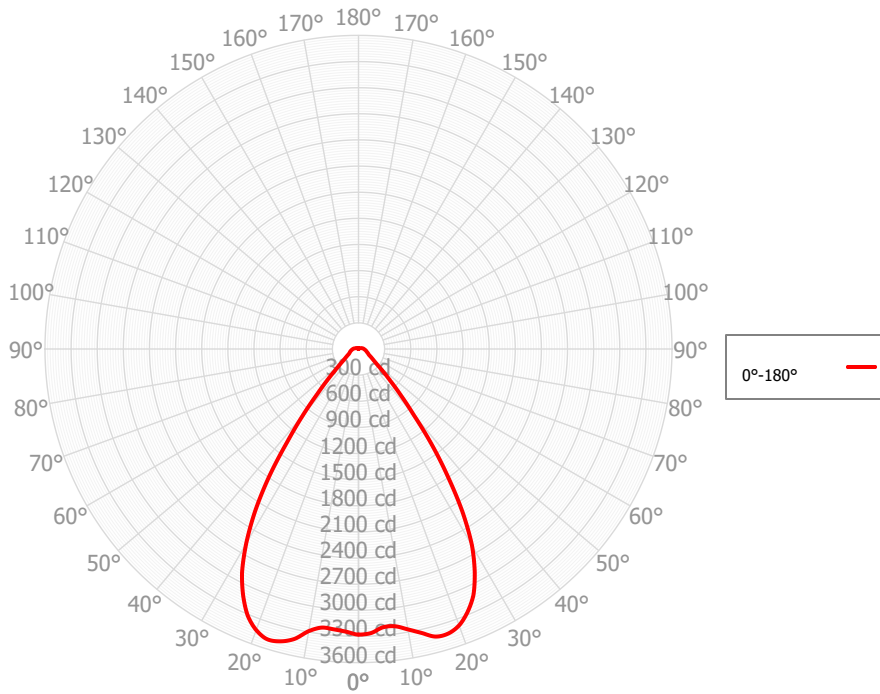
Full Beam Angle

0° - 180°	71°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-00858_5
TESTLAB	Spectrum Lighting Photometric lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	5/20/2019
UPDATE	1/21/2022
LUMCAT	DDS16GV 55L 35K EX TF2 PR16 NL
LUMINAIRE	Nom 16 inch diam round high bay luminaire with prismatic refractor
OTHER	No lens, Open aperture, regressed 6 inch domed diffuser
OTHER	Beam Angle: 70.5 degrees
OTHER	2.9% uplight
OTHER	97.1% downlight
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: 27K x 0.97, 30K x 0.99, 40K x 1.03
OTHER	Total luminaire wattages is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80+

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	314.04	6.50%	90.00° - 100.00°	59.44	1.23%
10.00° - 20.00°	967.78	20.03%	100.00° - 110.00°	39.32	0.81%
20.00° - 30.00°	1411.58	29.21%	100.00° - 120.00°	63.83	1.32%
30.00° - 40.00°	1100.16	22.77%	120.00° - 130.00°	8.95	0.19%
40.00° - 50.00°	422.81	8.75%	130.00° - 140.00°	3.71	0.08%
50.00° - 60.00°	177.26	3.67%	140.00° - 150.00°	3.08	0.06%
60.00° - 70.00°	119.29	2.47%	150.00° - 160.00°	1.75	0.04%
70.00° - 80.00°	98.59	2.04%	160.00° - 170.00°	0.94	0.02%
80.00° - 90.00°	78.93	1.63%	170.00° - 180.00°	0.21	0.00%
0.00° - 90.00°	4690.44	97.06%	0.00° - 180.00°	4832.35	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	3279.36	3279.36
2.50°	3265.54	3249.39
5.00°	3208.59	3232.14
7.50°	3211.56	3226.77
10.00°	3269.64	3289.66
12.50°	3339.30	3411.23
15.00°	3418.76	3475.36
17.50°	3426.19	3493.40
20.00°	3377.59	3434.63
22.50°	3270.64	3319.22
25.00°	3121.38	3132.04
27.50°	2891.10	2896.30
30.00°	2606.92	2579.29
32.50°	2227.91	2211.09
35.00°	1790.18	1791.26
37.50°	1378.56	1341.66
40.00°	981.73	992.78
42.50°	715.53	697.76
45.00°	517.96	506.54
47.50°	385.41	365.93
50.00°	283.99	282.39
52.50°	228.93	224.55
55.00°	194.04	189.44
57.50°	166.64	163.60
60.00°	142.23	143.80
62.50°	129.60	126.24
65.00°	121.20	116.81
67.50°	112.62	110.11
70.00°	103.97	104.69
72.50°	97.89	99.64
75.00°	92.56	94.12
77.50°	87.11	88.48
80.00°	81.62	83.19
82.50°	76.31	77.99
85.00°	71.04	73.17
87.50°	66.59	68.43
90.00°	62.31	63.95
92.50°	58.68	59.52
95.00°	55.16	54.48
97.50°	50.54	49.35
100.00°	45.76	44.03

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%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	5719	5719	5719	5719	5570	5570	5570	5570	5290	5290	5290	5035	5035	5035	4801	4801	4801	4690
	1	5366	5196	5044	4906	5228	5076	4939	4814	4851	4740	4639	4644	4556	4475	4453	4384	4320	4283
	2	5036	4746	4507	4307	4909	4648	4431	4246	4464	4285	4130	4294	4148	4019	4137	4019	3913	3926
	3	4728	4355	4066	3836	4612	4274	4008	3794	4121	3898	3714	3980	3793	3637	3849	3694	3562	3611
	4	4443	4011	3695	3453	4337	3943	3650	3424	3816	3565	3366	3698	3484	3311	3588	3406	3256	3332
	5	4179	3707	3377	3134	4083	3650	3343	3112	3543	3275	3070	3443	3211	3029	3349	3149	2989	3083
	6	3935	3437	3103	2863	3848	3389	3075	2847	3297	3021	2815	3212	2969	2783	3132	2919	2753	2860
	7	3710	3196	2863	2629	3631	3155	2840	2617	3076	2796	2592	3003	2754	2568	2934	2713	2544	2660
	8	3503	2980	2651	2425	3431	2945	2633	2415	2877	2596	2396	2813	2561	2377	2753	2527	2358	2480
	9	3313	2787	2464	2246	3247	2756	2449	2238	2697	2418	2223	2641	2388	2207	2588	2360	2192	2317
	10	3138	2612	2297	2088	3078	2585	2284	2081	2533	2258	2069	2484	2233	2056	2438	2209	2043	2171

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	108.4 fc	7.8 ft
6.5 ft	77.6 fc	9.2 ft
7.5 ft	58.3 fc	10.6 ft
8.0 ft	51.2 fc	11.3 ft
10.0 ft	32.8 fc	14.1 ft
12.0 ft	22.8 fc	17.0 ft
14.0 ft	16.7 fc	19.8 ft
16.0 ft	12.8 fc	22.6 ft
20.0 ft	8.2 fc	28.3 ft
24.0 ft	5.7 fc	33.9 ft
28.0 ft	4.2 fc	39.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	25408	25408	25408
45.00°	2900	2884	2868
55.00°	1107	1101	1094
65.00°	728	721	715
75.00°	606	608	611
85.00°	529	533	537

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	-	-	-	-	-	-	-	-	-	-
	3H	-	-	-	-	-	-	-	-	-	-
	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
4H	2H	-	-	-	-	-	-	-	-	-	-
	3H	-	-	-	-	-	-	-	-	-	-
	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
8H	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
12H	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0