

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

DLD22GZ 300L 35K DX DF22
Nom 22" diam round High Bay luminaire

Test Number

SP-00959_2

Test Date

11/19/2019

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

Summary of Results

Power

Input Watts	221 W
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Lumen Output

Output Lumens	28655
Efficacy	129.66 lm/W

Luminous Dimensions

0° - 180° Size	-1.83
90° - 270° Size	-1.83
Height	0.83

Spacing Criterion

Two luminaires, plane 0°	1.12
Two luminaires, plane 90°	1.12
Four luminaires	1.07

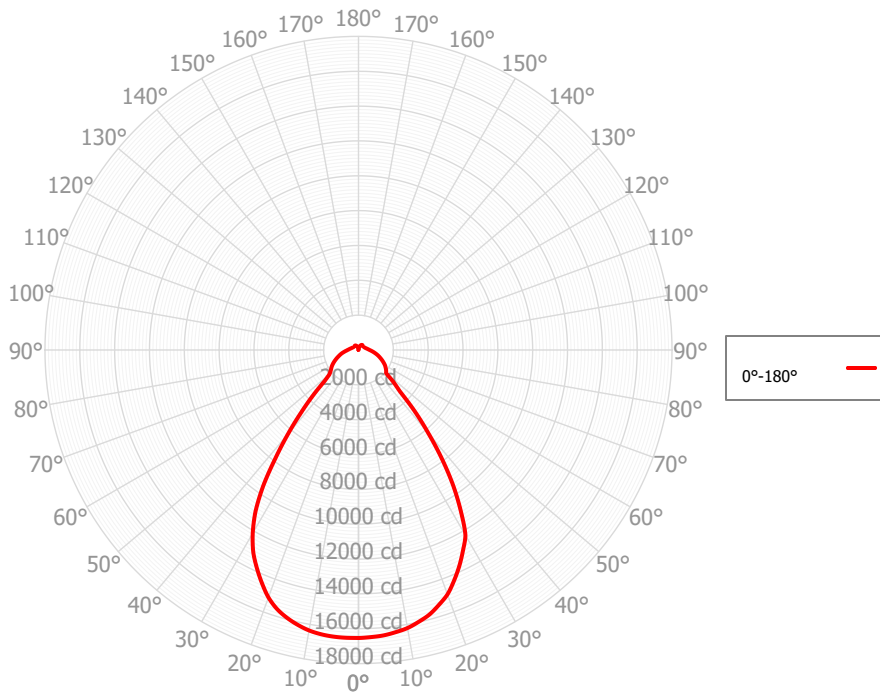
Full Beam Angle

0° - 180°	74°
90° - 270°	0°

IES File Header Contents

Keyword	Value
TEST	SP-00959_2
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/19/2019
ISSUEDATE	2/12/2020
LUMCAT	DLD22GZ 300L 35K DX DF22
LUMINAIRE	Nom 22" diam round High Bay luminaire
OTHER	Diffuse Refractor
LAMPCAT	N/A
LAMP	N/A
OTHER	Beam Angle: 73.6 deg
OTHER	Uplight: 8.2%
OTHER	Downlight: 91.8%
OTHER	CCT Output Multipliers: 27K x 0.95, 30K x 0.97, 40K x 1.03
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80
_CCTMULT	27K x 0.95, 30K x 0.97, 40K x 1.03
_LAMPMULT	N/A, 300L only

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	1,590.45	5.55%	90.00° - 100.00°	595.21	2.08%
10.00° - 20.00°	4,442.65	15.50%	100.00° - 110.00°	448.67	1.57%
20.00° - 30.00°	6,296.49	21.97%	100.00° - 120.00°	805.81	2.81%
30.00° - 40.00°	5,807.20	20.27%	120.00° - 130.00°	297.39	1.04%
40.00° - 50.00°	2,897.81	10.11%	130.00° - 140.00°	258.21	0.90%
50.00° - 60.00°	1,726.32	6.02%	140.00° - 150.00°	209.07	0.73%
60.00° - 70.00°	1,515.96	5.29%	150.00° - 160.00°	128.90	0.45%
70.00° - 80.00°	1,186.73	4.14%	160.00° - 170.00°	50.05	0.17%
80.00° - 90.00°	841.85	2.94%	170.00° - 180.00°	4.89	0.02%
0.00° - 90.00°	26,305.47	91.80%	0.00° - 180.00°	28,655.01	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	16,534.25	16,534.25
2.50°	16,499.37	16,538.02
5.00°	16,449.53	16,519.51
7.50°	16,341.46	16,461.27
10.00°	16,209.25	16,350.36
12.50°	15,983.93	16,158.55
15.00°	15,726.22	15,909.38
17.50°	15,347.52	15,583.93
20.00°	14,934.06	15,117.97
22.50°	14,334.55	14,487.48
25.00°	13,690.89	13,810.43
27.50°	12,989.44	13,085.99
30.00°	12,277.24	12,145.03
32.50°	10,913.11	11,012.43
35.00°	9,458.44	9,549.97
37.50°	7,856.72	7,830.29
40.00°	6,240.35	6,295.86
42.50°	4,796.57	4,886.58
45.00°	3,362.95	3,698.26
47.50°	2,710.96	2,638.75
50.00°	2,081.44	2,183.19
52.50°	2,002.95	2,029.61
55.00°	1,924.22	1,922.46
57.50°	1,840.38	1,835.39
60.00°	1,754.75	1,734.51
62.50°	1,648.69	1,628.60
65.00°	1,542.60	1,519.38
67.50°	1,436.31	1,409.17
70.00°	1,331.30	1,303.95
72.50°	1,233.79	1,199.98
75.00°	1,136.26	1,108.41
77.50°	1,038.67	1,019.30
80.00°	943.71	927.50
82.50°	858.43	835.29
85.00°	776.04	757.33
87.50°	702.39	680.94
90.00°	636.21	627.20
92.50°	589.00	575.02
95.00°	545.51	537.67
97.50°	510.12	500.77
100.00°	477.47	470.03
102.50°	449.91	439.61
105.00°	425.24	417.38
107.50°	405.22	395.56
110.00°	388.76	379.03
112.50°	377.31	362.77

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	pfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	33,554	33,554	33,554	33,554	32,500	32,500	32,500	32,500	30,534	30,534	30,534	28,734	28,734	28,734	27,082	27,082	27,082
	1	31,005	29,807	28,732	27,765	30,008	28,937	27,971	27,095	27,308	26,532	25,821	25,812	25,195	24,624	24,432	23,950	23,499
	2	28,748	26,751	25,101	23,714	27,821	26,027	24,528	23,257	24,666	23,436	22,374	23,411	22,410	21,533	22,251	21,446	20,729
	3	26,721	24,186	22,225	20,663	25,867	23,578	21,782	20,334	22,432	20,931	19,695	21,372	20,125	19,078	20,388	19,362	18,483
	4	24,899	22,009	19,893	18,277	24,119	21,494	19,541	18,031	20,522	18,864	17,551	19,620	18,218	17,083	18,780	17,603	16,629
	5	23,256	20,138	17,959	16,351	22,545	19,699	17,675	16,162	18,869	17,126	15,790	18,096	16,600	15,426	17,374	16,096	15,071
	6	21,771	18,515	16,329	14,760	21,124	18,138	16,095	14,610	17,423	15,643	14,315	16,756	15,208	14,025	16,131	14,790	13,741
	7	20,426	17,095	14,935	13,422	19,838	16,769	14,741	13,300	16,150	14,363	13,061	15,570	13,998	12,825	15,025	13,647	12,593
	8	19,206	15,846	13,732	12,280	18,671	15,562	13,568	12,180	15,022	13,248	11,982	14,514	12,939	11,787	14,037	12,640	11,595
	9	18,098	14,741	12,685	11,295	17,611	14,493	12,544	11,211	14,018	12,271	11,046	13,571	12,005	10,882	13,149	11,748	10,720
	10	17,092	13,760	11,766	10,438	16,647	13,541	11,645	10,367	13,121	11,408	10,226	12,724	11,179	10,087	12,350	10,956	9,949

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	546.6 fc	8.2 ft
6.5 ft	391.3 fc	9.7 ft
7.5 ft	293.9 fc	11.2 ft
8.0 ft	258.3 fc	12.0 ft
10.0 ft	165.3 fc	15.0 ft
12.0 ft	114.8 fc	18.0 ft
14.0 ft	84.4 fc	21.0 ft
16.0 ft	64.6 fc	24.0 ft
20.0 ft	41.3 fc	30.0 ft
24.0 ft	28.7 fc	36.0 ft
28.0 ft	21.1 fc	42.0 ft

Average Luminaire Luminance [cd/m

	0.00°	45.00°	90.00°
0.00°	67,665	67,665	67,665
45.00°	12,338	12,646	12,953
55.00°	7,524	7,522	7,520
65.00°	6,673	6,648	6,623
75.00°	5,694	5,659	5,624
85.00°	4,794	4,765	4,736

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	25.5	26.7	26.1	27.2	27.7	25.5	26.7	26.0	27.2	27.7
	3H	24.2	25.3	24.7	25.8	26.3	24.2	25.3	24.7	25.8	26.4
	4H	23.6	24.6	24.1	25.1	25.7	23.6	24.6	24.1	25.1	25.7
	6H	23.0	23.9	23.5	24.4	25.0	23.0	23.9	23.5	24.5	25.0
	8H	22.7	23.5	23.2	24.1	24.7	22.7	23.6	23.3	24.1	24.7
	12H	22.4	23.2	22.9	23.8	24.4	22.4	23.3	23.0	23.8	24.4
4H	2H	25.0	26.0	25.5	26.5	27.1	25.0	26.0	25.5	26.5	27.1
	3H	23.1	24.0	23.7	24.5	25.1	23.1	24.0	23.7	24.6	25.1
	4H	21.9	22.7	22.5	23.3	23.9	22.0	22.8	22.6	23.3	24.0
	6H	20.4	21.1	21.0	21.7	22.3	20.6	21.2	21.2	21.8	22.5
	8H	19.5	20.1	20.1	20.7	21.3	19.7	20.3	20.3	20.9	21.6
	12H	18.3	18.8	18.9	19.5	20.1	18.6	19.2	19.2	19.8	20.4
8H	4H	21.2	21.9	21.8	22.5	23.1	21.3	22.0	21.9	22.6	23.2
	6H	18.7	19.2	19.3	19.8	20.5	18.9	19.4	19.5	20.1	20.7
	8H	15.9	16.4	16.5	17.0	17.7	16.5	17.0	17.2	17.6	18.3
	12H	-	-	-	-	-	0.4	0.8	1.0	1.4	2.2
12H	4H	21.1	21.7	21.7	22.3	22.9	21.2	21.8	21.8	22.4	23.0
	6H	18.1	18.6	18.8	19.2	19.9	18.4	18.9	19.1	19.5	20.2
	8H	13.9	14.3	14.5	14.9	15.7	15.0	15.4	15.6	16.0	16.8

Corrected UGR values based on total output lumens

SHR = 1.0