

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

DMD22GZ 240L 35K DX DF22
Nom 22" diam round High Bay luminaire

Test Number

SP-01003

Test Date

12/12/2019

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

Summary of Results

Power

Input Watts	180 W
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Lumen Output

Output Lumens	23588
Efficacy	131.04 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.11
Two luminaires, plane 90°	1.11
Four luminaires	1.07

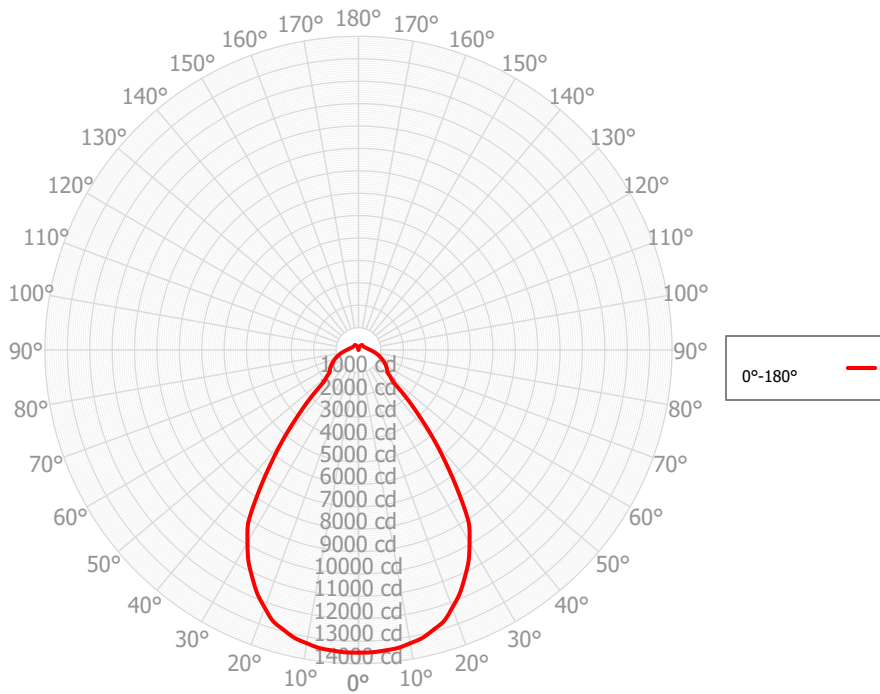
Full Beam Angle

0° - 180°	74°
90° - 270°	0°

IES File Header Contents

Keyword	Value
TEST	SP-01003
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	12/12/2019
ISSUEDATE	2/12/2020
LUMCAT	DMD22GZ 240L 35K DX DF22
LUMINAIRE	Nom 22" diam round High Bay luminaire
OTHER	Reflector: Diffuse refractor
LAMPCAT	N/A
LAMP	N/A
OTHER	Beam Angle: 74.0 deg
OTHER	Uplight: 8%
OTHER	Downlight: 92%
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, only 240L available

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	1,300.40	5.51%	90.00° - 100.00°	495.09	2.10%
10.00° - 20.00°	3,636.20	15.42%	100.00° - 110.00°	374.77	1.59%
20.00° - 30.00°	5,137.43	21.78%	100.00° - 120.00°	671.76	2.85%
30.00° - 40.00°	4,807.25	20.38%	120.00° - 130.00°	248.05	1.05%
40.00° - 50.00°	2,423.94	10.28%	130.00° - 140.00°	212.14	0.90%
50.00° - 60.00°	1,412.04	5.99%	140.00° - 150.00°	167.91	0.71%
60.00° - 70.00°	1,245.50	5.28%	150.00° - 160.00°	100.68	0.43%
70.00° - 80.00°	985.59	4.18%	160.00° - 170.00°	37.51	0.16%
80.00° - 90.00°	702.80	2.98%	170.00° - 180.00°	3.46	0.01%
0.00° - 90.00°	21,651.14	91.79%	0.00° - 180.00°	23,587.75	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	13,513.58	13,513.58
2.50°	13,513.58	13,513.58
5.00°	13,469.55	13,469.55
7.50°	13,421.85	13,421.85
10.00°	13,298.79	13,298.79
12.50°	13,171.08	13,171.08
15.00°	12,934.65	12,934.65
17.50°	12,693.77	12,693.77
20.00°	12,245.40	12,245.40
22.50°	11,791.88	11,791.88
25.00°	11,218.09	11,218.09
27.50°	10,641.64	10,641.64
30.00°	9,916.79	9,916.79
32.50°	9,174.20	9,174.20
35.00°	7,825.05	7,825.05
37.50°	6,482.29	6,482.29
40.00°	5,268.34	5,268.34
42.50°	4,067.10	4,067.10
45.00°	3,045.84	3,045.84
47.50°	2,087.96	2,087.96
50.00°	1,848.80	1,848.80
52.50°	1,626.87	1,626.87
55.00°	1,560.49	1,560.49
57.50°	1,493.18	1,493.18
60.00°	1,419.09	1,419.09
62.50°	1,343.46	1,343.46
65.00°	1,257.90	1,257.90
67.50°	1,173.11	1,173.11
70.00°	1,092.66	1,092.66
72.50°	1,012.27	1,012.27
75.00°	932.24	932.24
77.50°	853.12	853.12
80.00°	778.03	778.03
82.50°	705.09	705.09
85.00°	640.47	640.47
87.50°	579.22	579.22
90.00°	529.69	529.69
92.50°	483.92	483.92
95.00°	450.12	450.12
97.50°	418.74	418.74
100.00°	394.30	394.30
102.50°	371.41	371.41
105.00°	352.61	352.61
107.50°	334.92	334.92
110.00°	319.96	319.96
112.50°	306.82	306.82

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%
	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%
	0	27,620	27,620	27,620	27,620	26,752	26,752	26,752	26,752	25,133	25,133	25,133	23,651	23,651	23,651	22,291	22,291	22,291
	1	25,515	24,525	23,638	22,839	24,693	23,809	23,011	22,288	22,467	21,826	21,239	21,235	20,725	20,254	20,099	19,700	19,328
	2	23,653	22,005	20,644	19,499	22,889	21,409	20,172	19,123	20,288	19,273	18,397	19,254	18,428	17,704	18,298	17,634	17,042
	3	21,982	19,891	18,274	16,985	21,279	19,390	17,908	16,714	18,446	17,207	16,188	17,573	16,544	15,680	16,762	15,915	15,190
	4	20,481	18,097	16,352	15,019	19,837	17,673	16,062	14,816	16,872	15,504	14,421	16,129	14,972	14,036	15,437	14,466	13,662
	5	19,126	16,555	14,758	13,432	18,540	16,193	14,524	13,276	15,509	14,072	12,970	14,872	13,639	12,670	14,277	13,224	12,378
	6	17,902	15,217	13,415	12,121	17,369	14,907	13,222	11,998	14,318	12,850	11,755	13,768	12,491	11,516	13,253	12,147	11,282
	7	16,794	14,047	12,267	11,019	16,309	13,779	12,106	10,919	13,269	11,795	10,722	12,791	11,495	10,527	12,342	11,205	10,336
	8	15,789	13,018	11,276	10,078	15,348	12,785	11,140	9,996	12,339	10,877	9,833	11,921	10,622	9,672	11,527	10,376	9,514
	9	14,876	12,108	10,413	9,267	14,474	11,904	10,297	9,198	11,512	10,072	9,062	11,144	9,853	8,927	10,796	9,642	8,793
	10	14,047	11,300	9,656	8,562	13,680	11,119	9,556	8,503	10,773	9,362	8,387	10,447	9,172	8,272	10,138	8,989	8,159

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	446.7 fc	8.3 ft
6.5 ft	319.8 fc	9.8 ft
7.5 ft	240.2 fc	11.3 ft
8.0 ft	211.1 fc	12.1 ft
10.0 ft	135.1 fc	15.1 ft
12.0 ft	93.8 fc	18.1 ft
14.0 ft	68.9 fc	21.1 ft
16.0 ft	52.8 fc	24.1 ft
20.0 ft	33.8 fc	30.1 ft
24.0 ft	23.5 fc	36.2 ft
28.0 ft	17.2 fc	42.2 ft

Average Luminaire Luminance [cd/m

	0.00°	45.00°	90.00°
0.00°	55,303	55,303	55,303
45.00°	11,175	11,175	11,175
55.00°	6,102	6,102	6,102
65.00°	5,442	5,442	5,442
75.00°	4,672	4,672	4,672
85.00°	3,957	3,957	3,957

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	24.8	26.0	25.3	26.4	27.0	24.8	26.0	25.3	26.4	27.0
	3H	23.4	24.5	23.9	25.0	25.5	23.4	24.5	23.9	25.0	25.5
	4H	22.8	23.8	23.3	24.3	24.9	22.8	23.8	23.3	24.3	24.9
	6H	22.1	23.0	22.7	23.6	24.2	22.1	23.0	22.7	23.6	24.2
	8H	21.8	22.7	22.4	23.2	23.8	21.8	22.7	22.4	23.2	23.8
	12H	21.5	22.3	22.1	22.9	23.5	21.5	22.3	22.1	22.9	23.5
4H	2H	24.2	25.2	24.7	25.7	26.3	24.2	25.2	24.7	25.7	26.3
	3H	22.3	23.1	22.8	23.7	24.3	22.3	23.1	22.8	23.7	24.3
	4H	21.0	21.8	21.6	22.4	23.0	21.0	21.8	21.6	22.4	23.0
	6H	19.4	20.1	20.0	20.7	21.3	19.4	20.1	20.0	20.7	21.3
	8H	18.4	19.0	19.0	19.6	20.2	18.4	19.0	19.0	19.6	20.2
	12H	17.0	17.6	17.6	18.2	18.8	17.0	17.6	17.6	18.2	18.8
8H	4H	20.3	20.9	20.9	21.5	22.2	20.3	20.9	20.9	21.5	22.2
	6H	17.4	18.0	18.1	18.6	19.2	17.4	18.0	18.1	18.6	19.2
	8H	13.9	14.4	14.5	15.0	15.7	13.9	14.4	14.5	15.0	15.7
	12H	-	-	-	-	-	-	-	-	-	-
12H	4H	20.2	20.7	20.8	21.3	22.0	20.2	20.7	20.8	21.3	22.0
	6H	16.8	17.3	17.5	17.9	18.6	16.8	17.3	17.5	17.9	18.6
	8H	10.3	10.7	11.0	11.4	12.1	10.3	10.7	11.0	11.4	12.1

Corrected UGR values based on total output lumens

SHR = 1.0