Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire
ALDDH12GV 55L 35K XX AL12MWI DR12A CN MW
Nom 12 inch diam, high bay, mid bay, low bay application

Test Number
SP-00456_7

Test Date
3/10/2021

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

Summary of Results

Power

Input Watts	39 W

Lumen Output

Output Lumens	4058
Efficacy	104.06 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.51
Two luminaires, plane 90°	1.52
Four luminaires	1.26

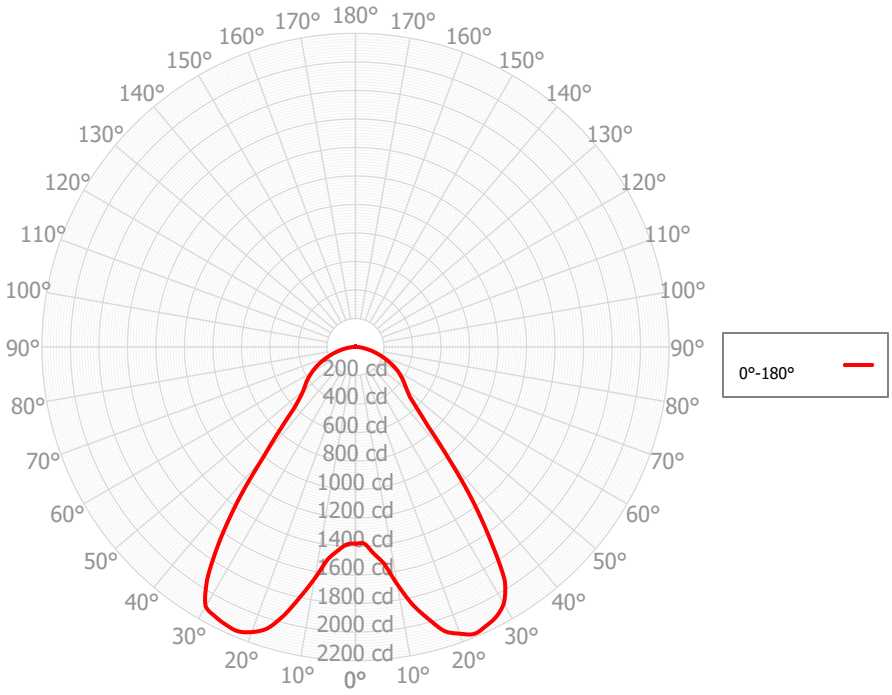
Full Beam Angle

0° - 180°	79°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-00456_7
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	3/10/2021
ISSUEDATE	3/18/2021
LUMCAT	ALDDH12GV 55L 35K XX AL12MWI DR12A CN MW
LUMINAIRE	Nom 12 inch diam, high bay, mid bay, low bay application
OTHER	Aluminum reflector, matte white interior finish, door with conical lens
OTHER	Beam angle: 79 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°	147.22	3.63%	90.00° - 100.00°	5.18	0.13%
10.00° - 20.00°	559.22	13.78%	100.00° - 110.00°	2.40	0.06%
20.00° - 30.00°	990.87	24.42%	100.00° - 120.00°	5.00	0.12%
30.00° - 40.00°	1001.29	24.67%	120.00° - 130.00°	2.13	0.05%
40.00° - 50.00°	503.73	12.41%	130.00° - 140.00°	1.87	0.05%
50.00° - 60.00°	368.11	9.07%	140.00° - 150.00°	1.53	0.04%
60.00° - 70.00°	275.12	6.78%	150.00° - 160.00°	0.96	0.02%
70.00° - 80.00°	149.27	3.68%	160.00° - 170.00°	0.61	0.01%
80.00° - 90.00°	46.11	1.14%	170.00° - 180.00°	0.23	0.01%
0.00° - 90.00°	4040.94	99.57%	0.00° - 180.00°	4058.44	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	1379.96	1379.96
2.50°	1380.96	1386.74
5.00°	1453.30	1434.94
7.50°	1532.87	1504.24
10.00°	1691.87	1649.63
12.50°	1851.77	1797.83
15.00°	1975.76	1953.15
17.50°	2092.29	2073.63
20.00°	2141.05	2129.18
22.50°	2178.91	2158.82
25.00°	2161.70	2150.91
27.50°	2135.84	2132.32
30.00°	2080.07	2101.89
32.50°	1951.63	1938.65
35.00°	1645.55	1662.47
37.50°	1331.43	1344.30
40.00°	1002.80	998.09
42.50°	752.14	773.99
45.00°	611.17	611.28
47.50°	517.01	530.03
50.00°	473.25	478.68
52.50°	437.33	445.42
55.00°	407.90	416.96
57.50°	377.08	385.06
60.00°	345.36	352.59
62.50°	310.33	318.45
65.00°	273.68	284.17
67.50°	237.48	247.41
70.00°	201.45	210.75
72.50°	168.15	177.01
75.00°	135.56	143.80
77.50°	106.21	114.68
80.00°	77.37	86.56
82.50°	56.54	63.21
85.00°	36.32	41.68
87.50°	22.29	25.96
90.00°	8.91	13.23
92.50°	5.79	7.30
95.00°	3.03	3.22
97.50°	2.89	2.31
100.00°	2.78	1.75
102.50°	2.77	1.66
105.00°	2.79	1.65
107.50°	2.87	1.73
110.00°	2.91	1.90
112.50°	2.86	2.14

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	ρfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	ρcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	ρw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
RCR	0	4827	4827	4827	4827	4713	4713	4713	4713	4500	4500	4500	4304	4304	4304	4125	4125	4125	4041
	1	4487	4326	4182	4052	4379	4234	4103	3985	4062	3955	3857	3903	3817	3737	3757	3688	3624	3610
	2	4154	3874	3642	3448	4053	3798	3586	3406	3656	3479	3326	3526	3378	3249	3404	3284	3176	3213
	3	3849	3486	3205	2982	3755	3424	3164	2955	3306	3084	2902	3197	3009	2852	3095	2938	2803	2875
	4	3573	3155	2848	2614	3486	3103	2817	2596	3004	2756	2561	2912	2699	2526	2827	2644	2492	2589
	5	3324	2870	2552	2318	3245	2826	2528	2305	2743	2481	2280	2665	2436	2256	2593	2393	2232	2344
	6	3100	2623	2303	2073	3027	2586	2284	2064	2515	2247	2046	2449	2211	2029	2387	2176	2012	2134
	7	2897	2408	2091	1868	2831	2376	2075	1862	2316	2045	1849	2259	2016	1836	2206	1989	1823	1951
	8	2713	2219	1908	1695	2653	2192	1896	1689	2140	1871	1679	2091	1848	1670	2045	1825	1660	1792
	9	2547	2053	1750	1545	2493	2029	1739	1541	1984	1719	1533	1942	1700	1526	1902	1681	1518	1651
	10	2396	1905	1611	1416	2347	1885	1603	1413	1846	1586	1406	1809	1569	1400	1774	1553	1394	1528

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	45.6 fc	4.5 ft
6.5 ft	32.7 fc	5.3 ft
7.5 ft	24.5 fc	6.1 ft
8.0 ft	21.6 fc	6.6 ft
10.0 ft	13.8 fc	8.2 ft
12.0 ft	9.6 fc	9.8 ft
14.0 ft	7.0 fc	11.5 ft
16.0 ft	5.4 fc	13.1 ft
20.0 ft	3.4 fc	16.4 ft
24.0 ft	2.4 fc	19.7 ft
28.0 ft	1.8 fc	23.0 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	18912	18912	18912
45.00°	11846	11846	11847
55.00°	9746	9800	9854
65.00°	8875	8960	9045
75.00°	7178	7287	7396
85.00°	5712	5922	6133

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	17.5	18.9	17.9	19.2	19.5	17.6	19.0	18.0	19.3	19.6
	3H	19.2	20.4	19.6	20.7	21.1	19.3	20.5	19.7	20.8	21.2
	4H	19.7	20.9	20.2	21.2	21.6	19.9	21.0	20.3	21.4	21.8
	6H	20.1	21.2	20.6	21.6	22.0	20.3	21.3	20.7	21.7	22.1
	8H	20.3	21.2	20.7	21.6	22.1	20.4	21.4	20.8	21.8	22.2
	12H	20.3	21.3	20.8	21.7	22.1	20.5	21.4	20.9	21.8	22.3
4H	2H	18.1	19.3	18.5	19.6	20.0	18.2	19.3	18.6	19.7	20.1
	3H	19.9	20.9	20.4	21.3	21.7	20.1	21.0	20.5	21.4	21.8
	4H	20.6	21.5	21.1	21.9	22.3	20.8	21.6	21.2	22.0	22.5
	6H	21.1	21.8	21.6	22.3	22.8	21.3	22.0	21.7	22.5	22.9
	8H	21.3	22.0	21.8	22.4	22.9	21.5	22.1	21.9	22.6	23.1
	12H	21.4	22.0	21.9	22.5	23.0	21.6	22.2	22.1	22.7	23.2
8H	4H	20.9	21.5	21.3	22.0	22.5	21.0	21.7	21.5	22.1	22.6
	6H	21.5	22.0	22.0	22.5	23.0	21.6	22.2	22.2	22.7	23.2
	8H	21.7	22.2	22.2	22.7	23.2	21.9	22.4	22.4	22.9	23.4
	12H	21.9	22.3	22.4	22.8	23.4	22.1	22.6	22.6	23.1	23.6
12H	4H	20.9	21.5	21.4	22.0	22.5	21.0	21.6	21.5	22.1	22.6
	6H	21.5	22.0	22.0	22.5	23.0	21.7	22.2	22.2	22.7	23.2
	8H	21.8	22.2	22.3	22.7	23.3	22.0	22.4	22.5	22.9	23.5

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0