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 PC MW

Nom 12 inch diam, high bay, mid bay, low bay application

Test Number

SP-00456_11

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	3881
Efficacy	99.5 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.13
Two luminaires, plane 90°	1.13
Four luminaires	1.02

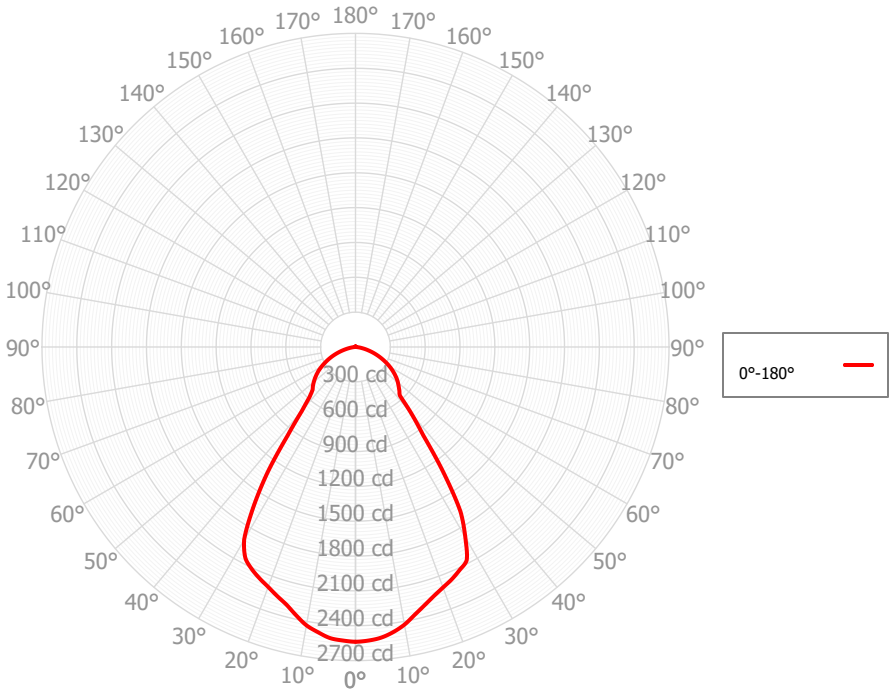
Full Beam Angle

0° - 180°	71°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-00456_11
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	3/10/2021
ISSUEDATE	4/20/2021
LUMCAT	ALDDH12GV 55L 35K XX AL12MWI DR12A PC MW
LUMINAIRE	Nom 12 inch diam, high bay, mid bay, low bay application
OTHER	Aluminum reflector, matte white interior finish, door with clear polycarbonate lens
OTHER	Beam angle: 71 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°	240.65	6.20%	90.00° - 100.00°	2.24	0.06%
10.00° - 20.00°	649.75	16.74%	100.00° - 110.00°	2.07	0.05%
20.00° - 30.00°	966.76	24.91%	100.00° - 120.00°	4.07	0.10%
30.00° - 40.00°	808.11	20.82%	120.00° - 130.00°	1.89	0.05%
40.00° - 50.00°	424.79	10.95%	130.00° - 140.00°	1.79	0.05%
50.00° - 60.00°	365.45	9.42%	140.00° - 150.00°	1.42	0.04%
60.00° - 70.00°	260.59	6.72%	150.00° - 160.00°	1.06	0.03%
70.00° - 80.00°	125.63	3.24%	160.00° - 170.00°	0.59	0.02%
80.00° - 90.00°	25.61	0.66%	170.00° - 180.00°	0.22	0.01%
0.00° - 90.00°	3867.35	99.66%	0.00° - 180.00°	3880.64	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	2538.61	2538.61
2.50°	2530.81	2530.19
5.00°	2513.25	2516.42
7.50°	2477.46	2477.38
10.00°	2427.98	2433.94
12.50°	2361.19	2365.97
15.00°	2301.52	2297.45
17.50°	2247.86	2247.64
20.00°	2204.07	2199.04
22.50°	2165.79	2157.59
25.00°	2120.46	2111.78
27.50°	2072.59	2052.10
30.00°	1891.69	1918.45
32.50°	1684.67	1640.45
35.00°	1324.35	1323.69
37.50°	958.31	957.40
40.00°	750.12	717.14
42.50°	564.94	587.62
45.00°	534.50	523.46
47.50°	504.67	497.27
50.00°	476.87	468.58
52.50°	447.17	438.98
55.00°	413.52	406.89
57.50°	378.61	374.30
60.00°	342.00	336.98
62.50°	303.98	299.30
65.00°	264.66	262.31
67.50°	226.51	225.28
70.00°	189.07	187.89
72.50°	153.06	151.04
75.00°	117.63	116.11
77.50°	87.28	83.78
80.00°	58.08	57.00
82.50°	37.14	34.91
85.00°	17.15	19.30
87.50°	9.83	9.06
90.00°	3.24	3.91
92.50°	2.53	1.76
95.00°	1.96	1.51
97.50°	1.94	1.45
100.00°	1.98	1.46
102.50°	2.14	1.78
105.00°	2.15	2.18
107.50°	1.94	1.98
110.00°	1.87	1.72
112.50°	1.94	1.73

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	4617	4617	4617	4617	4508	4508	4508	4508	4304	4304	4304	4118	4118	4118	3948	3948	3948	3867
	1	4310	4164	4033	3915	4208	4077	3959	3851	3913	3817	3729	3763	3686	3614	3625	3563	3506	3489
	2	4005	3749	3538	3360	3910	3678	3484	3320	3544	3382	3243	3420	3286	3169	3306	3196	3099	3129
	3	3725	3393	3136	2931	3637	3334	3096	2905	3223	3020	2854	3120	2949	2805	3025	2881	2758	2821
	4	3472	3088	2807	2592	3390	3039	2777	2575	2946	2720	2541	2860	2665	2507	2780	2613	2475	2559
	5	3243	2826	2535	2320	3169	2785	2512	2307	2707	2467	2283	2634	2425	2260	2567	2384	2237	2336
	6	3037	2599	2306	2095	2970	2565	2288	2086	2499	2253	2069	2437	2219	2052	2379	2186	2036	2144
	7	2851	2402	2111	1907	2790	2372	2096	1901	2316	2068	1888	2263	2041	1875	2214	2015	1863	1978
	8	2682	2229	1943	1747	2627	2203	1931	1742	2155	1909	1733	2110	1886	1723	2067	1865	1714	1832
	9	2530	2076	1797	1610	2479	2054	1788	1606	2012	1769	1598	1973	1751	1591	1936	1733	1584	1703
	10	2391	1940	1670	1490	2345	1921	1662	1487	1884	1646	1481	1850	1631	1476	1818	1616	1470	1590

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	83.9 fc	3.9 ft
6.5 ft	60.1 fc	4.6 ft
7.5 ft	45.1 fc	5.3 ft
8.0 ft	39.7 fc	5.7 ft
10.0 ft	25.4 fc	7.1 ft
12.0 ft	17.6 fc	8.5 ft
14.0 ft	13.0 fc	9.9 ft
16.0 ft	9.9 fc	11.4 ft
20.0 ft	6.3 fc	14.2 ft
24.0 ft	4.4 fc	17.0 ft
28.0 ft	3.2 fc	19.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	34792	34792	34792
45.00°	10360	10306	10253
55.00°	9881	9841	9801
65.00°	8583	8564	8545
75.00°	6229	6208	6188
85.00°	2697	2782	2866

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	17.7	19.1	18.1	19.4	19.7	17.7	19.0	18.1	19.3	19.7
	3H	19.2	20.4	19.6	20.7	21.1	19.2	20.4	19.6	20.7	21.1
	4H	19.7	20.8	20.1	21.1	21.5	19.6	20.7	20.0	21.1	21.5
	6H	19.9	20.9	20.3	21.3	21.7	19.9	20.9	20.3	21.3	21.7
	8H	20.0	20.9	20.4	21.3	21.7	19.9	20.9	20.3	21.3	21.7
	12H	20.0	20.9	20.4	21.3	21.7	19.9	20.8	20.4	21.2	21.7
4H	2H	18.2	19.4	18.7	19.7	20.1	18.2	19.3	18.6	19.7	20.1
	3H	19.9	20.8	20.3	21.2	21.6	19.9	20.8	20.3	21.2	21.6
	4H	20.5	21.3	20.9	21.7	22.1	20.4	21.2	20.9	21.7	22.1
	6H	20.8	21.5	21.2	21.9	22.4	20.7	21.4	21.2	21.9	22.4
	8H	20.8	21.5	21.3	22.0	22.4	20.8	21.5	21.3	21.9	22.4
	12H	20.9	21.4	21.4	21.9	22.4	20.8	21.4	21.3	21.9	22.4
8H	4H	20.6	21.3	21.1	21.7	22.2	20.6	21.2	21.0	21.7	22.2
	6H	21.0	21.5	21.5	22.0	22.5	21.0	21.5	21.5	22.0	22.5
	8H	21.1	21.6	21.6	22.1	22.6	21.1	21.5	21.6	22.1	22.6
	12H	21.2	21.6	21.7	22.1	22.7	21.1	21.5	21.6	22.0	22.6
12H	4H	20.6	21.2	21.1	21.7	22.2	20.6	21.1	21.1	21.6	22.1
	6H	21.0	21.5	21.5	22.0	22.5	21.0	21.4	21.5	21.9	22.5
	8H	21.1	21.6	21.7	22.1	22.6	21.1	21.5	21.6	22.0	22.6

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0