

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-00456_9

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
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Lumen Output

Output Lumens	3600
Efficacy	92.31 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.58
Two luminaires, plane 90°	1.58
Four luminaires	1.33

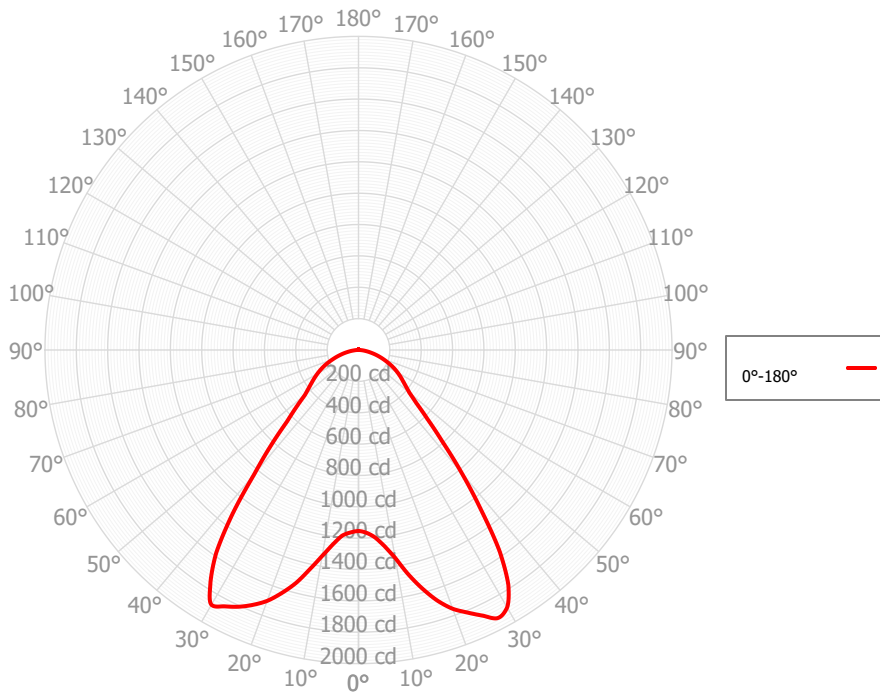
Full Beam Angle

0° - 180°	82°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-00456_9
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 DL MW
LUMINAIRE	Nom 12 inch diam, high bay, mid bay, low bay application
OTHER	Aluminum reflector, matte white interior finish, door with drop lens
OTHER	Beam angle: 81 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°	121.03	3.36%	90.00° - 100.00°	3.94	0.11%
10.00° - 20.00°	445.53	12.38%	100.00° - 110.00°	1.88	0.05%
20.00° - 30.00°	849.43	23.59%	100.00° - 120.00°	4.31	0.12%
30.00° - 40.00°	946.11	26.28%	120.00° - 130.00°	2.32	0.06%
40.00° - 50.00°	513.55	14.27%	130.00° - 140.00°	1.74	0.05%
50.00° - 60.00°	320.98	8.92%	140.00° - 150.00°	1.36	0.04%
60.00° - 70.00°	231.22	6.42%	150.00° - 160.00°	0.91	0.03%
70.00° - 80.00°	122.28	3.40%	160.00° - 170.00°	0.61	0.02%
80.00° - 90.00°	34.55	0.96%	170.00° - 180.00°	0.19	0.01%
0.00° - 90.00°	3584.69	99.57%	0.00° - 180.00°	3600.09	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	1155.31	1155.31
2.50°	1167.53	1165.14
5.00°	1199.70	1188.87
7.50°	1260.63	1250.44
10.00°	1346.24	1333.70
12.50°	1465.27	1431.84
15.00°	1576.21	1537.96
17.50°	1677.15	1625.17
20.00°	1756.88	1703.23
22.50°	1812.67	1759.82
25.00°	1869.48	1807.06
27.50°	1927.33	1843.86
30.00°	1896.50	1876.43
32.50°	1779.79	1757.77
35.00°	1571.59	1584.37
37.50°	1282.47	1323.75
40.00°	1024.17	1035.11
42.50°	790.76	827.72
45.00°	620.99	644.29
47.50°	499.51	535.72
50.00°	424.28	446.47
52.50°	381.02	400.78
55.00°	346.61	364.83
57.50°	317.78	333.40
60.00°	288.46	302.89
62.50°	258.87	272.21
65.00°	227.60	241.50
67.50°	195.44	209.12
70.00°	165.89	176.50
72.50°	137.59	147.32
75.00°	110.71	118.55
77.50°	84.48	93.23
80.00°	62.88	68.23
82.50°	43.16	48.24
85.00°	28.09	28.57
87.50°	14.69	17.87
90.00°	8.27	7.61
92.50°	4.17	5.09
95.00°	2.69	2.75
97.50°	1.98	2.32
100.00°	1.91	1.89
102.50°	2.01	1.73
105.00°	1.80	1.58
107.50°	1.53	1.73
110.00°	2.02	1.88
112.50°	2.67	1.94

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%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	0	4282	4282	4282	4282	4181	4181	4181	4181	3992	3992	3992	3818	3818	3818	3659	3659	3585
	1	3983	3841	3714	3599	3887	3759	3644	3540	3606	3512	3426	3466	3390	3320	3336	3276	3207
	2	3686	3438	3233	3060	3596	3371	3183	3024	3245	3088	2952	3129	2999	2884	3022	2915	2852
	3	3413	3090	2841	2642	3329	3035	2804	2618	2930	2733	2571	2833	2667	2527	2743	2603	2548
	4	3165	2792	2519	2310	3087	2745	2491	2294	2657	2437	2263	2576	2386	2232	2500	2337	2288
	5	2940	2534	2251	2041	2869	2495	2229	2030	2421	2187	2008	2352	2147	1987	2288	2109	2066
	6	2737	2311	2025	1820	2672	2278	2008	1812	2215	1975	1796	2156	1943	1780	2101	1913	1875
	7	2554	2116	1833	1634	2495	2088	1819	1628	2034	1792	1616	1984	1767	1605	1936	1742	1709
	8	2388	1945	1667	1476	2334	1921	1656	1471	1875	1634	1463	1831	1613	1454	1790	1593	1564
	9	2238	1795	1524	1341	2189	1774	1515	1337	1734	1497	1330	1696	1479	1324	1661	1462	1437
	10	2102	1662	1399	1224	2058	1644	1391	1221	1609	1376	1216	1576	1362	1210	1545	1347	1325

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	38.2 fc	4.7 ft
6.5 ft	27.3 fc	5.6 ft
7.5 ft	20.5 fc	6.4 ft
8.0 ft	18.1 fc	6.9 ft
10.0 ft	11.6 fc	8.6 ft
12.0 ft	8.0 fc	10.3 ft
14.0 ft	5.9 fc	12.0 ft
16.0 ft	4.5 fc	13.7 ft
20.0 ft	2.9 fc	17.2 ft
24.0 ft	2.0 fc	20.6 ft
28.0 ft	1.5 fc	24.0 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	15834	15834	15834
45.00°	12036	12149	12262
55.00°	8282	8391	8500
65.00°	7381	7494	7606
75.00°	5862	5966	6070
85.00°	4416	4436	4455

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	16.8	18.1	17.2	18.5	18.8	17.0	18.3	17.3	18.6	19.0
	3H	18.4	19.6	18.7	19.9	20.3	18.5	19.8	18.9	20.1	20.5
	4H	18.9	20.0	19.3	20.4	20.8	19.1	20.2	19.5	20.6	21.0
	6H	19.2	20.3	19.7	20.7	21.1	19.5	20.5	19.9	20.9	21.3
	8H	19.3	20.3	19.8	20.7	21.2	19.6	20.6	20.0	21.0	21.4
	12H	19.4	20.4	19.9	20.8	21.2	19.6	20.6	20.1	21.0	21.4
4H	2H	17.3	18.5	17.8	18.8	19.2	17.5	18.7	17.9	19.0	19.4
	3H	19.1	20.0	19.5	20.5	20.9	19.3	20.2	19.7	20.7	21.1
	4H	19.8	20.6	20.2	21.0	21.5	20.0	20.8	20.4	21.2	21.7
	6H	20.2	20.9	20.7	21.4	21.9	20.4	21.2	20.9	21.6	22.1
	8H	20.4	21.0	20.8	21.5	22.0	20.6	21.3	21.1	21.7	22.2
	12H	20.5	21.1	20.9	21.5	22.0	20.7	21.3	21.2	21.8	22.3
8H	4H	20.0	20.7	20.5	21.1	21.6	20.2	20.9	20.7	21.3	21.8
	6H	20.5	21.1	21.1	21.6	22.1	20.8	21.3	21.3	21.8	22.3
	8H	20.7	21.2	21.3	21.8	22.3	21.0	21.5	21.5	22.0	22.5
	12H	20.9	21.4	21.4	21.9	22.4	21.2	21.6	21.7	22.1	22.7
12H	4H	20.0	20.6	20.5	21.1	21.6	20.2	20.8	20.7	21.3	21.8
	6H	20.6	21.1	21.1	21.6	22.1	20.8	21.3	21.3	21.8	22.3
	8H	20.8	21.3	21.3	21.8	22.3	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