

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

Test Number

SP-00456_10

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	3615
Efficacy	92.7 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.21
Two luminaires, plane 90°	1.21
Four luminaires	1.33

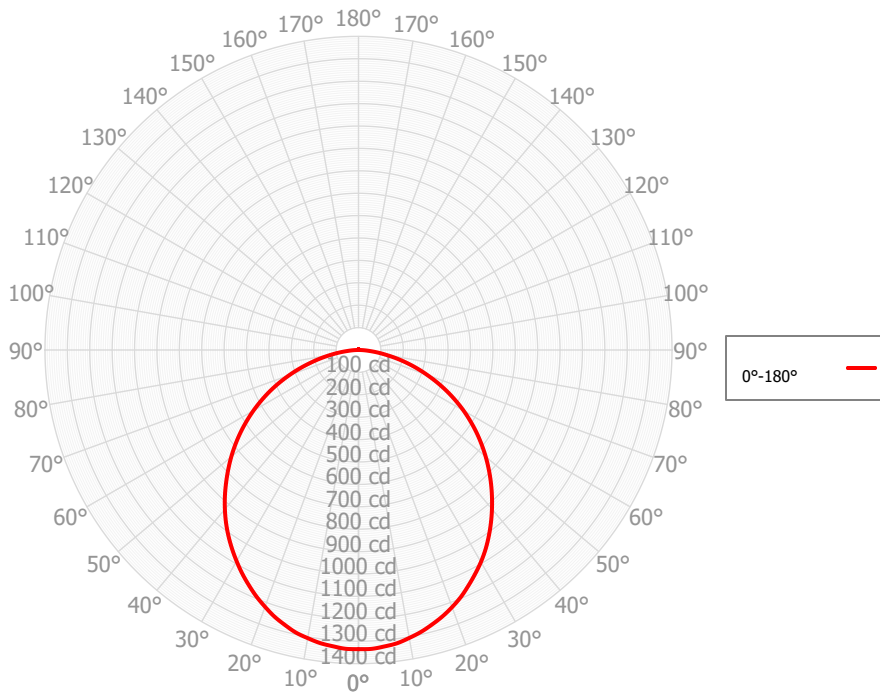
Full Beam Angle

0° - 180°	108°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-00456_10
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 FO MW
LUMINAIRE	Nom 12 inch diam, high bay, mid bay, low bay application
OTHER	Aluminum reflector, matte white interior finish, door with fusion optix opaque lens
OTHER	Beam angle: 108 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°	128.04	3.54%	90.00° - 100.00°	2.62	0.07%
10.00° - 20.00°	357.90	9.90%	100.00° - 110.00°	2.13	0.06%
20.00° - 30.00°	534.10	14.77%	100.00° - 120.00°	4.42	0.12%
30.00° - 40.00°	633.23	17.51%	120.00° - 130.00°	2.33	0.06%
40.00° - 50.00°	644.49	17.83%	130.00° - 140.00°	1.98	0.05%
50.00° - 60.00°	574.52	15.89%	140.00° - 150.00°	1.34	0.04%
60.00° - 70.00°	430.83	11.92%	150.00° - 160.00°	0.88	0.02%
70.00° - 80.00°	237.25	6.56%	160.00° - 170.00°	0.51	0.01%
80.00° - 90.00°	60.79	1.68%	170.00° - 180.00°	0.18	0.01%
0.00° - 90.00°	3601.14	99.61%	0.00° - 180.00°	3615.40	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	1335.95	1335.95
2.50°	1335.86	1335.43
5.00°	1328.93	1327.81
7.50°	1320.77	1319.78
10.00°	1305.72	1306.58
12.50°	1289.49	1292.42
15.00°	1269.06	1270.94
17.50°	1247.26	1248.32
20.00°	1221.97	1220.35
22.50°	1194.05	1191.27
25.00°	1161.18	1158.72
27.50°	1127.69	1125.01
30.00°	1093.31	1088.74
32.50°	1055.65	1051.55
35.00°	1014.46	1012.79
37.50°	971.54	971.88
40.00°	927.18	928.24
42.50°	881.86	882.88
45.00°	835.93	835.87
47.50°	788.99	788.74
50.00°	741.57	741.54
52.50°	692.85	692.96
55.00°	643.69	643.59
57.50°	593.01	592.96
60.00°	541.98	541.80
62.50°	488.87	489.70
65.00°	435.48	437.32
67.50°	381.31	383.41
70.00°	327.12	329.20
72.50°	275.47	275.96
75.00°	223.97	222.83
77.50°	174.15	174.74
80.00°	125.69	127.08
82.50°	85.74	86.54
85.00°	48.85	47.68
87.50°	23.84	23.87
90.00°	5.10	3.74
92.50°	3.04	2.69
95.00°	1.69	1.89
97.50°	1.78	1.87
100.00°	1.82	1.88
102.50°	1.78	1.96
105.00°	1.87	2.07
107.50°	2.12	2.26
110.00°	2.22	2.22
112.50°	2.20	1.90

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	4301	4301	4301	4301	4199	4199	4199	4199	4009	4009	4009	3836	3836	3836	3676	3676	3601
	1	3934	3764	3611	3474	3835	3680	3541	3415	3524	3410	3305	3381	3287	3201	3248	3173	3104
	2	3580	3285	3041	2836	3484	3215	2991	2801	3085	2896	2733	2964	2807	2668	2853	2723	2607
	3	3266	2888	2595	2362	3175	2830	2558	2340	2720	2487	2296	2618	2420	2254	2524	2357	2203
	4	2992	2561	2245	2004	2908	2512	2217	1989	2419	2163	1960	2334	2112	1932	2254	2062	1904
	5	2753	2290	1967	1728	2676	2249	1945	1718	2171	1903	1698	2098	1862	1678	2029	1824	1658
	6	2544	2064	1742	1511	2474	2029	1725	1503	1962	1691	1489	1900	1659	1474	1842	1628	1460
	7	2360	1873	1557	1336	2297	1843	1543	1330	1786	1516	1319	1733	1490	1309	1683	1465	1298
	8	2198	1710	1404	1193	2141	1685	1392	1189	1636	1370	1181	1590	1349	1172	1547	1328	1164
	9	2054	1571	1275	1075	2003	1549	1265	1071	1506	1247	1065	1467	1229	1059	1429	1212	1052
	10	1927	1450	1165	975	1880	1431	1157	973	1394	1142	968	1360	1127	963	1327	1113	958

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	44.2 fc	7.5 ft
6.5 ft	31.6 fc	8.9 ft
7.5 ft	23.8 fc	10.2 ft
8.0 ft	20.9 fc	10.9 ft
10.0 ft	13.4 fc	13.6 ft
12.0 ft	9.3 fc	16.4 ft
14.0 ft	6.8 fc	19.1 ft
16.0 ft	5.2 fc	21.8 ft
20.0 ft	3.3 fc	27.3 ft
24.0 ft	2.3 fc	32.7 ft
28.0 ft	1.7 fc	38.2 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	18309	18309	18309
45.00°	16202	16202	16201
55.00°	15380	15380	15379
65.00°	14122	14137	14152
75.00°	11860	11844	11829
85.00°	7681	7635	7589

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	20.7	22.4	21.1	22.7	23.0	20.7	22.4	21.1	22.7	23.0
	3H	22.5	23.9	22.9	24.3	24.6	22.5	23.9	22.9	24.3	24.7
	4H	23.1	24.5	23.5	24.8	25.2	23.1	24.5	23.5	24.8	25.2
	6H	23.5	24.8	23.9	25.2	25.6	23.5	24.8	23.9	25.2	25.6
	8H	23.6	24.9	24.1	25.3	25.7	23.7	24.9	24.1	25.3	25.7
	12H	23.7	24.9	24.2	25.3	25.7	23.7	24.9	24.2	25.3	25.7
4H	2H	21.4	22.7	21.8	23.1	23.5	21.4	22.7	21.8	23.1	23.5
	3H	23.3	24.5	23.7	24.9	25.3	23.3	24.5	23.7	24.9	25.3
	4H	24.1	25.1	24.5	25.5	26.0	24.1	25.1	24.5	25.5	26.0
	6H	24.6	25.5	25.1	25.9	26.4	24.6	25.5	25.1	26.0	26.4
	8H	24.8	25.6	25.2	26.1	26.5	24.8	25.6	25.2	26.1	26.5
	12H	24.9	25.6	25.3	26.1	26.6	24.9	25.6	25.4	26.1	26.6
8H	4H	24.3	25.2	24.8	25.6	26.1	24.3	25.2	24.8	25.6	26.1
	6H	25.0	25.7	25.5	26.2	26.7	25.0	25.7	25.5	26.2	26.7
	8H	25.2	25.8	25.7	26.3	26.8	25.2	25.8	25.7	26.4	26.9
	12H	25.4	25.9	25.9	26.4	27.0	25.4	25.9	25.9	26.4	27.0
12H	4H	24.4	25.1	24.8	25.6	26.1	24.4	25.1	24.9	25.6	26.1
	6H	25.0	25.7	25.6	26.1	26.7	25.0	25.7	25.6	26.1	26.7
	8H	25.3	25.9	25.8	26.3	26.9	25.3	25.9	25.8	26.4	26.9

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0