

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-00456_8

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	4019
Efficacy	103.05 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.4
Two luminaires, plane 90°	1.4
Four luminaires	1.24

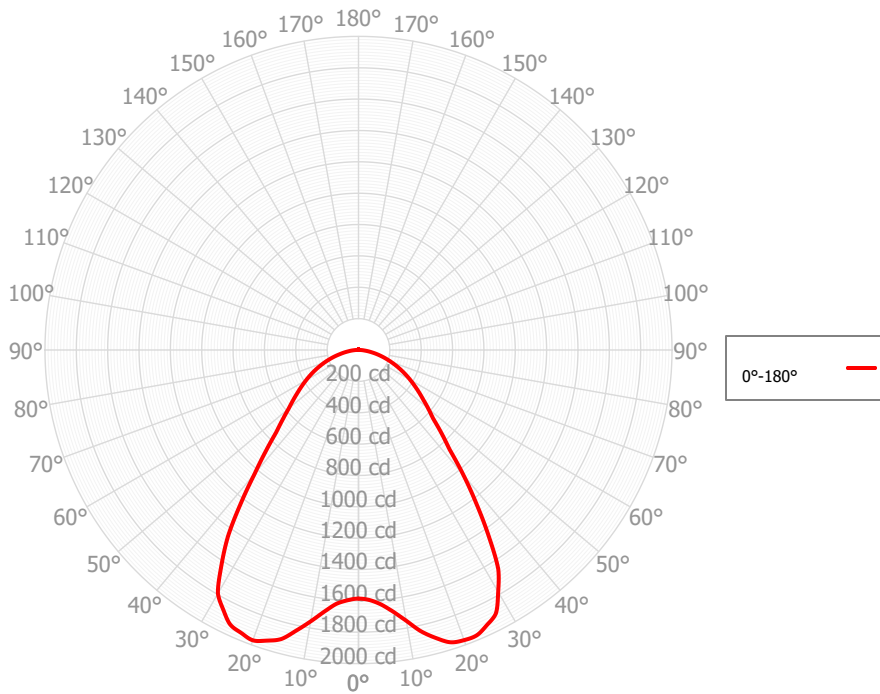
Full Beam Angle

0° - 180°	81°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-00456_8
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 CNFR MW
LUMINAIRE	Nom 12 inch diam, high bay, mid bay, low bay application
OTHER	Aluminum reflector, matte white interior finish, door with frosted conical 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°	162.39	4.04%	90.00° - 100.00°	5.83	0.15%
10.00° - 20.00°	538.97	13.41%	100.00° - 110.00°	2.50	0.06%
20.00° - 30.00°	883.26	21.98%	100.00° - 120.00°	5.19	0.13%
30.00° - 40.00°	889.73	22.14%	120.00° - 130.00°	2.85	0.07%
40.00° - 50.00°	588.64	14.65%	130.00° - 140.00°	2.26	0.06%
50.00° - 60.00°	425.18	10.58%	140.00° - 150.00°	1.73	0.04%
60.00° - 70.00°	298.73	7.43%	150.00° - 160.00°	1.13	0.03%
70.00° - 80.00°	162.10	4.03%	160.00° - 170.00°	0.68	0.02%
80.00° - 90.00°	49.89	1.24%	170.00° - 180.00°	0.22	0.01%
0.00° - 90.00°	3998.89	99.50%	0.00° - 180.00°	4018.79	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	1586.02	1586.02
2.50°	1596.60	1598.16
5.00°	1628.62	1625.89
7.50°	1682.79	1684.57
10.00°	1753.78	1757.96
12.50°	1837.49	1833.38
15.00°	1901.54	1909.45
17.50°	1955.20	1944.03
20.00°	1969.68	1970.73
22.50°	1970.33	1954.14
25.00°	1937.10	1933.91
27.50°	1896.64	1868.18
30.00°	1782.34	1793.60
32.50°	1660.00	1627.13
35.00°	1447.29	1451.67
37.50°	1234.82	1233.16
40.00°	1041.31	1030.47
42.50°	859.76	875.12
45.00°	746.38	742.65
47.50°	644.58	655.56
50.00°	580.67	581.46
52.50°	521.25	525.28
55.00°	471.44	474.46
57.50°	424.19	429.04
60.00°	380.83	386.23
62.50°	338.61	345.30
65.00°	297.60	305.33
67.50°	257.98	265.83
70.00°	219.43	228.10
72.50°	183.47	190.97
75.00°	148.94	155.74
77.50°	117.27	120.90
80.00°	86.67	92.95
82.50°	61.79	65.63
85.00°	38.21	46.01
87.50°	24.31	27.12
90.00°	11.59	16.30
92.50°	7.05	6.84
95.00°	2.95	4.41
97.50°	2.65	2.50
100.00°	2.39	2.27
102.50°	2.43	2.10
105.00°	2.52	2.06
107.50°	2.83	2.05
110.00°	3.07	2.06
112.50°	3.12	2.14

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	4780	4780	4780	4780	4666	4666	4666	4666	4454	4454	4454	4260	4260	4260	4083	4083	3999
	1	4432	4267	4120	3988	4324	4176	4042	3921	4004	3895	3795	3846	3758	3676	3701	3630	3553
	2	4092	3806	3570	3371	3990	3730	3514	3330	3589	3407	3251	3458	3308	3176	3337	3213	3103
	3	3782	3412	3126	2899	3686	3350	3085	2872	3231	3006	2820	3122	2931	2771	3021	2860	2722
	4	3503	3078	2767	2529	3415	3026	2735	2511	2926	2675	2476	2835	2618	2442	2749	2563	2409
	5	3253	2792	2471	2233	3173	2748	2446	2220	2665	2399	2196	2587	2354	2172	2514	2311	2149
	6	3029	2547	2223	1991	2956	2510	2204	1982	2439	2167	1964	2372	2131	1947	2310	2097	1930
	7	2828	2334	2014	1790	2762	2302	1999	1783	2242	1969	1770	2185	1940	1757	2132	1912	1745
	8	2647	2149	1836	1621	2587	2122	1823	1616	2070	1799	1606	2021	1775	1596	1974	1752	1586
	9	2484	1987	1682	1477	2429	1963	1672	1473	1918	1652	1465	1875	1632	1457	1835	1613	1450
	10	2337	1844	1549	1352	2287	1823	1540	1349	1784	1523	1343	1747	1507	1337	1712	1491	1331

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	52.4 fc	4.7 ft
6.5 ft	37.5 fc	5.6 ft
7.5 ft	28.2 fc	6.5 ft
8.0 ft	24.8 fc	6.9 ft
10.0 ft	15.9 fc	8.6 ft
12.0 ft	11.0 fc	10.3 ft
14.0 ft	8.1 fc	12.1 ft
16.0 ft	6.2 fc	13.8 ft
20.0 ft	4.0 fc	17.2 ft
24.0 ft	2.8 fc	20.7 ft
28.0 ft	2.0 fc	24.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	21736	21736	21736
45.00°	14466	14448	14430
55.00°	11265	11283	11301
65.00°	9651	9714	9776
75.00°	7887	7977	8067
85.00°	6008	6315	6621

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	18.3	19.7	18.7	20.0	20.4	18.3	19.8	18.7	20.1	20.4
	3H	19.9	21.1	20.2	21.5	21.8	19.9	21.2	20.3	21.5	21.9
	4H	20.4	21.6	20.8	22.0	22.4	20.5	21.7	20.9	22.0	22.4
	6H	20.8	21.9	21.2	22.3	22.7	20.9	22.0	21.3	22.4	22.8
	8H	20.9	22.0	21.4	22.4	22.8	21.0	22.1	21.5	22.5	22.9
	12H	21.0	22.0	21.4	22.4	22.8	21.1	22.1	21.6	22.5	22.9
4H	2H	18.8	20.0	19.2	20.4	20.8	18.9	20.1	19.3	20.4	20.8
	3H	20.6	21.6	21.0	22.0	22.4	20.7	21.7	21.1	22.1	22.5
	4H	21.3	22.2	21.7	22.6	23.0	21.4	22.3	21.8	22.7	23.1
	6H	21.8	22.6	22.3	23.0	23.5	21.9	22.7	22.4	23.1	23.6
	8H	21.9	22.7	22.4	23.1	23.6	22.1	22.8	22.5	23.2	23.7
	12H	22.1	22.7	22.6	23.2	23.7	22.2	22.8	22.7	23.3	23.8
8H	4H	21.5	22.2	22.0	22.7	23.2	21.6	22.3	22.1	22.8	23.3
	6H	22.1	22.7	22.6	23.2	23.7	22.2	22.8	22.8	23.3	23.8
	8H	22.4	22.9	22.9	23.4	23.9	22.5	23.0	23.0	23.5	24.0
	12H	22.6	23.0	23.1	23.5	24.1	22.7	23.2	23.2	23.7	24.3
12H	4H	21.5	22.2	22.0	22.7	23.1	21.6	22.3	22.1	22.8	23.2
	6H	22.2	22.7	22.7	23.2	23.7	22.3	22.8	22.8	23.3	23.9
	8H	22.5	22.9	23.0	23.4	24.0	22.6	23.1	23.1	23.6	24.1

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0