

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CL1324GV 55L 35K XX TF2 MWI MW

Nom 24" diam downlight with frosted diffuser and matte white interior

Test Number

SP-01252

Test Date

6/16/2021

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

Summary of Results

Power

Input Watts	39.1 W
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Lumen Output

Output Lumens	4452
Efficacy	113.86 lm/W

Luminous Dimensions

0° - 180° Size	-2
90° - 270° Size	-2
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.31
Two luminaires, plane 90°	1.32
Four luminaires	1.44

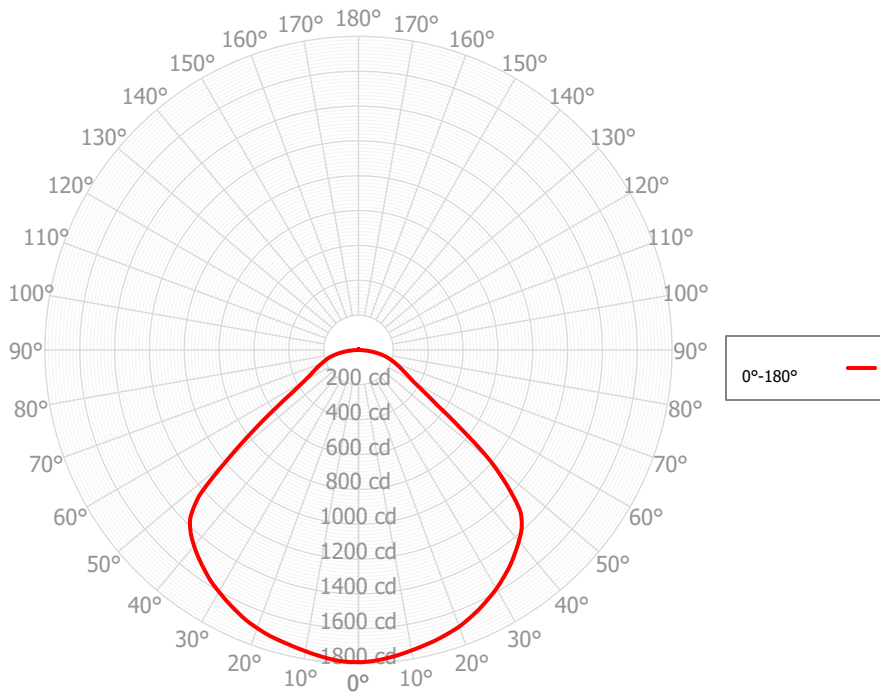
Full Beam Angle

0° - 180°	102°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-01252
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/16/2021
ISSUEDATE	7/6/2021
LUMCAT	CL1324GV 55L 35K XX TF2 MWI MW
LUMINAIRE	Nom 24" diam downlight with frosted diffuser and matte white interior
OTHER	Beam angle:
LAMPCAT	GV 55L
LAMP	N/A
OTHER	CCT Output Multipliers: 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	80+
_CCTMULT	27K x 0.97, 30K x 0.99, 40K x 1.03
_LAMPMULT	15L x 0.27, 27L x 0.47, 37L x 0.68

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	171.62	3.85%	90.00° - 100.00°	2.48	0.06%
10.00° - 20.00°	488.09	10.96%	100.00° - 110.00°	1.77	0.04%
20.00° - 30.00°	760.35	17.08%	100.00° - 120.00°	3.66	0.08%
30.00° - 40.00°	956.03	21.47%	120.00° - 130.00°	1.74	0.04%
40.00° - 50.00°	994.86	22.35%	130.00° - 140.00°	1.27	0.03%
50.00° - 60.00°	538.78	12.10%	140.00° - 150.00°	1.24	0.03%
60.00° - 70.00°	283.55	6.37%	150.00° - 160.00°	0.96	0.02%
70.00° - 80.00°	185.15	4.16%	160.00° - 170.00°	0.63	0.01%
80.00° - 90.00°	61.37	1.38%	170.00° - 180.00°	0.21	0.00%
0.00° - 90.00°	4439.79	99.73%	0.00° - 180.00°	4451.97	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	1792.49	1792.49
2.50°	1788.25	1790.97
5.00°	1778.22	1782.69
7.50°	1765.80	1769.65
10.00°	1751.68	1756.03
12.50°	1737.72	1742.14
15.00°	1723.84	1729.39
17.50°	1707.51	1717.02
20.00°	1690.33	1699.40
22.50°	1666.36	1680.73
25.00°	1641.00	1655.58
27.50°	1612.21	1629.83
30.00°	1583.07	1602.96
32.50°	1549.05	1575.49
35.00°	1514.50	1541.30
37.50°	1473.98	1506.51
40.00°	1432.63	1468.71
42.50°	1386.82	1425.60
45.00°	1315.67	1366.02
47.50°	1164.61	1242.26
50.00°	983.43	987.44
52.50°	739.84	761.11
55.00°	550.98	575.19
57.50°	443.06	442.17
60.00°	365.81	363.91
62.50°	320.70	312.28
65.00°	284.52	280.23
67.50°	254.98	251.01
70.00°	227.89	223.24
72.50°	202.10	200.62
75.00°	175.93	179.82
77.50°	149.64	151.20
80.00°	117.49	120.91
82.50°	84.07	88.81
85.00°	50.55	56.52
87.50°	17.02	29.15
90.00°	8.70	3.70
92.50°	1.36	2.64
95.00°	1.53	1.70
97.50°	1.68	1.49
100.00°	1.71	1.37
102.50°	1.74	1.51
105.00°	1.76	1.61
107.50°	1.83	1.61
110.00°	2.00	1.58
112.50°	2.15	1.50

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	5297	5297	5297	5297	5172	5172	5172	5172	4940	4940	4940	4727	4727	4727	4532	4532	4440
	1	4899	4711	4543	4391	4779	4610	4457	4319	4421	4296	4181	4247	4146	4052	4087	4006	3921
	2	4507	4180	3909	3682	4393	4096	3848	3638	3940	3732	3552	3795	3622	3471	3662	3520	3444
	3	4148	3724	3396	3135	4042	3655	3351	3107	3524	3265	3051	3403	3183	2998	3291	3105	2947
	4	3825	3337	2979	2706	3727	3279	2945	2687	3169	2879	2650	3067	2816	2614	2972	2757	2698
	5	3536	3006	2636	2362	3445	2957	2609	2349	2864	2558	2324	2777	2509	2298	2697	2462	2411
	6	3277	2722	2350	2083	3195	2681	2329	2073	2602	2288	2055	2528	2249	2037	2459	2212	2167
	7	3046	2478	2110	1852	2971	2442	2093	1845	2375	2061	1832	2311	2029	1818	2252	1999	1960
	8	2839	2267	1907	1660	2771	2236	1893	1654	2178	1866	1644	2123	1841	1634	2072	1816	1782
	9	2654	2083	1734	1497	2592	2057	1722	1493	2006	1700	1485	1959	1679	1478	1914	1658	1628
	10	2488	1923	1585	1359	2432	1900	1575	1356	1856	1557	1350	1815	1539	1344	1776	1522	1495

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	59.3 fc	6.8 ft
6.5 ft	42.4 fc	8.0 ft
7.5 ft	31.9 fc	9.2 ft
8.0 ft	28.0 fc	9.8 ft
10.0 ft	17.9 fc	12.3 ft
12.0 ft	12.4 fc	14.8 ft
14.0 ft	9.1 fc	17.2 ft
16.0 ft	7.0 fc	19.7 ft
20.0 ft	4.5 fc	24.6 ft
24.0 ft	3.1 fc	29.5 ft
28.0 ft	2.3 fc	34.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	6142	6142	6142
45.00°	6375	6436	6497
55.00°	3291	3327	3364
65.00°	2307	2298	2289
75.00°	2329	2342	2355
85.00°	1987	2046	2105

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	13.3	14.8	13.7	15.1	15.4	13.3	14.8	13.6	15.1	15.4
	3H	14.8	16.1	15.2	16.5	16.8	14.7	16.1	15.1	16.4	16.8
	4H	15.5	16.7	15.9	17.1	17.5	15.5	16.7	15.9	17.1	17.5
	6H	16.1	17.3	16.5	17.6	18.0	16.1	17.3	16.5	17.6	18.0
	8H	16.3	17.4	16.8	17.8	18.2	16.3	17.4	16.8	17.8	18.2
	12H	16.5	17.5	16.9	17.9	18.3	16.5	17.5	16.9	17.9	18.4
4H	2H	13.7	15.0	14.1	15.3	15.7	13.7	15.0	14.1	15.3	15.7
	3H	15.5	16.6	15.9	17.0	17.4	15.5	16.5	15.9	16.9	17.3
	4H	16.4	17.3	16.8	17.8	18.2	16.4	17.3	16.8	17.7	18.2
	6H	17.2	18.0	17.6	18.4	18.9	17.2	18.0	17.7	18.5	18.9
	8H	17.5	18.2	17.9	18.7	19.1	17.5	18.2	17.9	18.7	19.2
	12H	17.7	18.3	18.1	18.8	19.3	17.7	18.4	18.2	18.9	19.3
8H	4H	16.7	17.5	17.2	17.9	18.4	16.7	17.5	17.2	17.9	18.4
	6H	17.7	18.3	18.2	18.8	19.3	17.7	18.3	18.2	18.8	19.3
	8H	18.0	18.6	18.6	19.1	19.6	18.1	18.6	18.6	19.2	19.7
	12H	18.3	18.8	18.8	19.3	19.9	18.4	18.9	18.9	19.4	19.9
12H	4H	16.8	17.5	17.3	17.9	18.4	16.8	17.5	17.3	17.9	18.4
	6H	17.8	18.3	18.3	18.8	19.3	17.8	18.4	18.3	18.8	19.4
	8H	18.2	18.7	18.7	19.2	19.8	18.2	18.7	18.7	19.2	19.8

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0