Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

CY0608SQOBFAGV 15L 35K XX

Nom 6" x 8" cube shaped decorative luminaire with open bottom

Test Number

SP-00987_1

Test Date

12/24/2019

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

Summary of Results

Power

Input Watts	10 W

Lumen Output

Output Lumens	1210
Efficacy	121.02 lm/W

Luminous Dimensions

0° - 180° Size	0.5
90° - 270° Size	0.5
Height	0.67

Spacing Criterion

Two luminaires, plane 0°	1.06
Two luminaires, plane 90°	1.06
Four luminaires	0.94

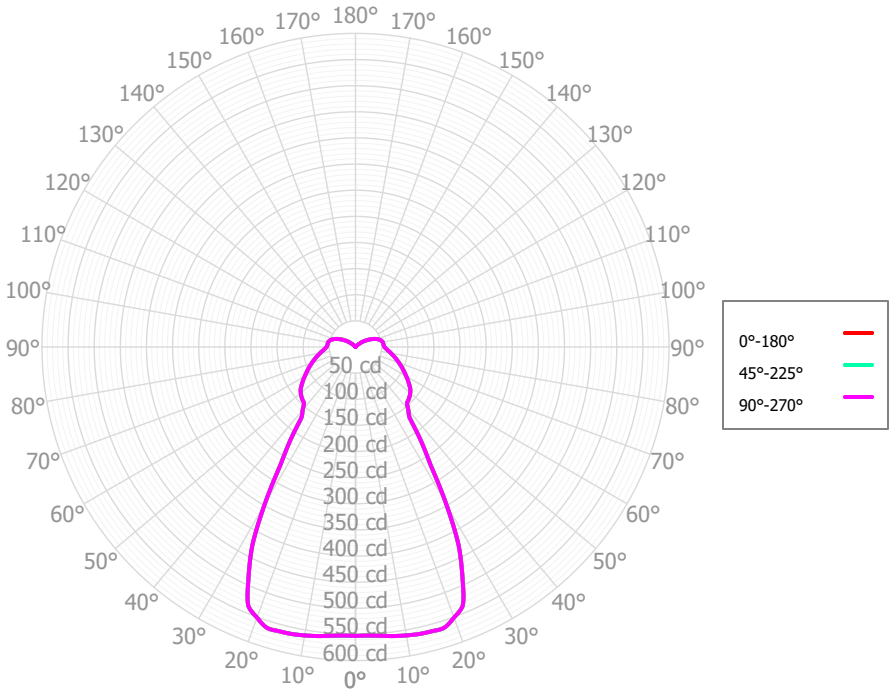
Full Beam Angle

0° - 180°	64°
90° - 270°	64°

IES File Header Contents

Keyword	Value
TEST	SP-00987_1
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	12/24/2019
ISSUEDATE	7/6/2020
LUMCAT	CY0608SQOBFAGV 15L 35K XX
LUMINAIRE	Nom 6" x 8" cube shaped decorative luminaire with open bottom
OTHER	Beam angle: 63 degrees
LAMPCAT	N/A
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, scaled from 27L
_CRI	80+
_CCTMULT	27K x 0.97, 30K x 0.99, 40K 1.03
_LAMPMULT	only 15L tested

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	55.38	4.57%	90.00° - 100.00°	58.87	4.86%
10.00° - 20.00°	158.98	13.12%	100.00° - 110.00°	52.28	4.31%
20.00° - 30.00°	216.08	17.83%	100.00° - 120.00°	88.07	7.27%
30.00° - 40.00°	139.37	11.50%	120.00° - 130.00°	16.95	1.40%
40.00° - 50.00°	111.36	9.19%	130.00° - 140.00°	4.00	0.33%
50.00° - 60.00°	112.10	9.25%	140.00° - 150.00°	0.58	0.05%
60.00° - 70.00°	99.18	8.19%	150.00° - 160.00°	0.35	0.03%
70.00° - 80.00°	82.97	6.85%	160.00° - 170.00°	0.23	0.02%
80.00° - 90.00°	67.06	5.53%	170.00° - 180.00°	0.08	0.01%
0.00° - 90.00°	1,042.48	86.04%	0.00° - 180.00°	1,211.61	100.00%

Candela Distribution

	0.00°	45.00°	90.00°
0.00°	552.85	552.85	552.85
2.50°	552.85	552.85	552.85
5.00°	554.84	554.84	554.84
7.50°	557.99	557.99	557.99
10.00°	560.47	560.47	560.47
12.50°	562.65	562.65	562.65
15.00°	563.32	563.32	563.32
17.50°	563.51	563.51	563.51
20.00°	551.20	551.20	551.20
22.50°	536.16	536.16	536.16
25.00°	484.11	484.11	484.11
27.50°	427.31	427.31	427.31
30.00°	347.59	347.59	347.59
32.50°	266.96	266.96	266.96
35.00°	216.81	216.81	216.81
37.50°	169.57	169.57	169.57
40.00°	157.09	157.09	157.09
42.50°	145.97	145.97	145.97
45.00°	143.26	143.26	143.26
47.50°	140.36	140.36	140.36
50.00°	136.64	136.64	136.64
52.50°	132.15	132.15	132.15
55.00°	125.56	125.56	125.56
57.50°	118.92	118.92	118.92
60.00°	112.20	112.20	112.20
62.50°	105.81	105.81	105.81
65.00°	99.97	99.97	99.97
67.50°	94.25	94.25	94.25
70.00°	88.69	88.69	88.69
72.50°	83.39	83.39	83.39
75.00°	78.33	78.33	78.33
77.50°	73.57	73.57	73.57
80.00°	69.02	69.02	69.02
82.50°	64.87	64.87	64.87
85.00°	60.94	60.94	60.94
87.50°	57.97	57.97	57.97
90.00°	55.40	55.40	55.40
92.50°	54.39	54.39	54.39
95.00°	53.82	53.82	53.82
97.50°	53.43	53.43	53.43
100.00°	53.07	53.07	53.07
102.50°	51.63	51.63	51.63
105.00°	50.08	50.08	50.08
107.50°	47.19	47.19	47.19
110.00°	44.23	44.23	44.23
112.50°	40.24	40.24	40.24

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%
	0	1,402	1,402	1,402	1,402	1,350	1,350	1,350	1,350	1,252	1,252	1,252	1,163	1,163	1,163	1,081	1,081	1,081	1,042
	1	1,269	1,207	1,152	1,103	1,218	1,163	1,114	1,069	1,081	1,041	1,004	1,005	973	944	935	910	887	876
	2	1,161	1,062	981	912	1,113	1,025	951	888	955	894	842	890	841	798	830	791	756	761
	3	1,068	946	851	776	1,024	914	828	758	855	783	724	799	740	690	748	700	658	674
	4	988	851	751	674	948	824	732	661	773	695	634	725	660	608	681	627	582	604
RCR	5	917	772	670	595	881	749	655	584	705	625	563	664	596	542	626	568	522	548
	6	855	705	605	532	822	685	592	523	647	566	506	612	542	489	578	519	472	501
	7	800	648	550	481	770	631	539	473	597	517	459	566	497	445	537	477	431	461
	8	750	599	503	438	723	583	494	432	554	476	419	527	458	407	501	441	396	427
	9	706	556	464	401	681	542	456	396	517	440	386	493	424	376	470	410	365	398
	10	666	518	429	370	644	506	422	366	483	409	357	462	395	348	442	382	339	371

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	18.3 fc	6.9 ft
6.5 ft	13.1 fc	8.1 ft
7.5 ft	9.8 fc	9.4 ft
8.0 ft	8.6 fc	10.0 ft
10.0 ft	5.5 fc	12.5 ft
12.0 ft	3.8 fc	15.0 ft
14.0 ft	2.8 fc	17.5 ft
16.0 ft	2.2 fc	20.0 ft
20.0 ft	1.4 fc	25.0 ft
24.0 ft	1.0 fc	30.0 ft
28.0 ft	0.7 fc	35.0 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	23,803	23,803	23,803
45.00°	3,728	3,013	3,728
55.00°	3,235	2,543	3,235
65.00°	2,629	2,011	2,629
75.00°	2,171	1,614	2,171
85.00°	1,845	1,329	1,845

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	14.6	13.9	15.2	15.8	13.3	14.6	13.9	15.2	15.8
	3H	15.3	16.4	15.9	17.0	17.7	15.3	16.4	15.9	17.0	17.7
	4H	16.2	17.3	16.8	17.9	18.6	16.2	17.3	16.8	17.9	18.6
	6H	17.0	18.0	17.6	18.6	19.3	17.0	18.0	17.6	18.6	19.3
	8H	17.4	18.4	18.0	19.0	19.7	17.4	18.4	18.0	19.0	19.7
	12H	17.8	18.7	18.4	19.3	20.1	17.8	18.7	18.4	19.3	20.1
4H	2H	13.8	14.9	14.4	15.5	16.2	13.8	14.9	14.4	15.5	16.2
	3H	16.0	17.0	16.6	17.6	18.3	16.0	17.0	16.6	17.6	18.3
	4H	17.0	17.9	17.7	18.6	19.3	17.0	17.9	17.7	18.6	19.3
	6H	18.1	18.8	18.7	19.5	20.2	18.1	18.8	18.7	19.5	20.2
	8H	18.5	19.2	19.2	19.9	20.7	18.5	19.2	19.2	19.9	20.7
	12H	19.0	19.6	19.7	20.3	21.1	19.0	19.6	19.7	20.3	21.1
8H	4H	17.4	18.1	18.0	18.8	19.5	17.4	18.1	18.0	18.8	19.5
	6H	18.6	19.2	19.3	19.9	20.7	18.6	19.2	19.3	19.9	20.7
	8H	19.2	19.7	19.9	20.4	21.2	19.2	19.7	19.9	20.4	21.2
	12H	19.8	20.3	20.5	21.0	21.8	19.8	20.3	20.5	21.0	21.8
12H	4H	17.4	18.1	18.1	18.8	19.6	17.4	18.1	18.1	18.8	19.6
	6H	18.7	19.2	19.4	19.9	20.7	18.7	19.2	19.4	19.9	20.7
	8H	19.3	19.8	20.1	20.5	21.4	19.3	19.8	20.1	20.5	21.4

Corrected UGR values based on total output lumens

SHR = 1.0