

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

SGE10LEDOS 15L 35K XX AR1023OS MW FG
Nom 10 inch diam, AR1023 trim, MW interior finish, frosted glass lens

Test Number

SP-00690_2_M-15L

Test Date

11/5/2020

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

Summary of Results

Power

Input Watts	13.5 W
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Lumen Output

Output Lumens	1201
Efficacy	88.99 lm/W

Luminous Dimensions

0° - 180° Size	-0.83
90° - 270° Size	-0.83
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.18
Two luminaires, plane 90°	1.18
Four luminaires	1.24

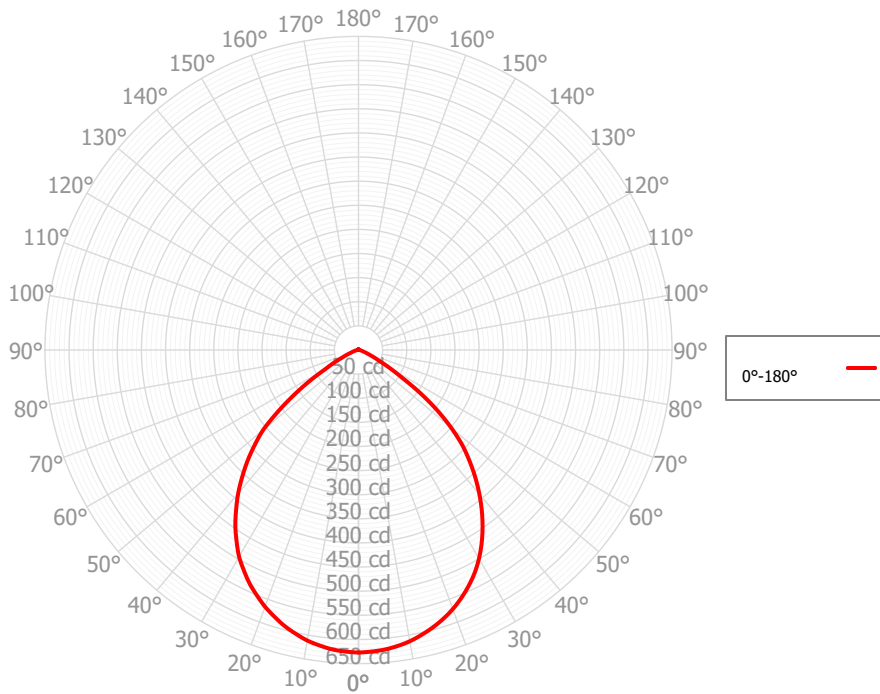
Full Beam Angle

0° - 180°	92°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-00690_2_M-15L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/5/2020
ISSUEDATE	12/28/2020
LUMCAT	SGE10LEDOS 15L 35K XX AR1023OS MW FG
LUMINAIRE	Nom 10 inch diam, AR1023 trim, MW interior finish, frosted glass lens
OTHER	Beam angle: 91.8 deg
LAMPCAT	N/A
LAMP	N/A, G4
OTHER	CCT Output Multiplier: 27K x 0.96, 30K x 0.99, 40K x 1.03
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	60.02	5.00%	90.00° - 100.00°	0.69	0.06%
10.00° - 20.00°	167.19	13.92%	100.00° - 110.00°	0.62	0.05%
20.00° - 30.00°	246.65	20.53%	100.00° - 120.00°	1.13	0.09%
30.00° - 40.00°	278.07	23.15%	120.00° - 130.00°	0.52	0.04%
40.00° - 50.00°	249.38	20.76%	130.00° - 140.00°	0.51	0.04%
50.00° - 60.00°	144.12	12.00%	140.00° - 150.00°	0.46	0.04%
60.00° - 70.00°	39.02	3.25%	150.00° - 160.00°	0.28	0.02%
70.00° - 80.00°	10.14	0.84%	160.00° - 170.00°	0.19	0.02%
80.00° - 90.00°	2.96	0.25%	170.00° - 180.00°	0.07	0.01%
0.00° - 90.00°	1197.54	99.68%	0.00° - 180.00°	1201.37	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	627.18	627.18
2.50°	625.85	625.77
5.00°	623.44	623.12
7.50°	619.05	617.90
10.00°	613.16	611.67
12.50°	604.85	602.49
15.00°	595.42	592.34
17.50°	584.45	579.72
20.00°	571.66	566.44
22.50°	556.69	550.61
25.00°	539.94	534.24
27.50°	521.29	514.93
30.00°	499.60	495.14
32.50°	475.16	470.43
35.00°	448.47	445.15
37.50°	420.02	416.74
40.00°	389.83	388.08
42.50°	358.43	356.85
45.00°	325.61	325.52
47.50°	291.96	292.12
50.00°	251.03	258.30
52.50°	206.45	211.63
55.00°	157.93	165.16
57.50°	107.68	121.30
60.00°	74.74	79.75
62.50°	48.10	57.81
65.00°	33.11	37.41
67.50°	21.60	26.75
70.00°	15.13	17.29
72.50°	9.92	13.57
75.00°	7.74	10.17
77.50°	6.16	7.97
80.00°	4.66	5.96
82.50°	3.16	4.52
85.00°	2.06	3.12
87.50°	1.01	1.80
90.00°	0.68	0.85
92.50°	0.39	0.73
95.00°	0.46	0.69
97.50°	0.54	0.82
100.00°	0.49	0.86
102.50°	0.45	0.78
105.00°	0.51	0.67
107.50°	0.57	0.52
110.00°	0.57	0.43
112.50°	0.56	0.42

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	1429	1429	1429	1429	1396	1396	1396	1396	1333	1333	1333	1275	1275	1275	1222	1222	1198
	1	1340	1297	1259	1224	1309	1270	1235	1204	1220	1192	1166	1174	1151	1130	1131	1113	1096
	2	1246	1169	1105	1052	1217	1147	1089	1040	1106	1057	1015	1068	1028	993	1033	1000	971
	3	1156	1055	976	913	1129	1036	964	905	1002	940	889	970	918	874	941	897	860
	4	1073	954	867	800	1048	939	857	795	910	840	784	883	823	774	859	807	764
	5	997	866	775	707	974	853	768	703	829	754	696	807	741	689	786	728	682
	6	928	790	697	630	907	779	691	628	758	680	622	739	670	617	721	660	612
	7	866	723	631	566	847	714	626	564	696	617	560	680	609	556	664	601	552
	8	810	665	574	511	792	657	570	510	642	563	507	628	556	504	614	550	501
	9	759	614	525	465	744	607	522	464	594	516	462	582	510	459	570	505	457
	10	714	569	483	425	699	563	480	424	552	475	423	541	471	421	531	466	419

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	20.7 fc	5.7 ft
6.5 ft	14.8 fc	6.7 ft
7.5 ft	11.1 fc	7.7 ft
8.0 ft	9.8 fc	8.3 ft
10.0 ft	6.3 fc	10.3 ft
12.0 ft	4.4 fc	12.4 ft
14.0 ft	3.2 fc	14.4 ft
16.0 ft	2.4 fc	16.5 ft
20.0 ft	1.6 fc	20.6 ft
24.0 ft	1.1 fc	24.8 ft
28.0 ft	0.8 fc	28.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	12477	12477	12477
45.00°	9161	9160	9160
55.00°	5478	5540	5603
65.00°	1559	1609	1660
75.00°	595	642	688
85.00°	471	531	591

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	14.3	15.7	14.7	16.0	16.3	14.7	16.1	15.1	16.4	16.7
	3H	14.4	15.6	14.8	15.9	16.3	14.8	16.0	15.2	16.3	16.7
	4H	14.3	15.5	14.8	15.8	16.2	14.8	15.9	15.2	16.3	16.7
	6H	14.3	15.3	14.7	15.7	16.1	14.8	15.8	15.2	16.2	16.6
	8H	14.3	15.3	14.7	15.7	16.1	14.7	15.7	15.2	16.1	16.5
	12H	14.3	15.2	14.7	15.6	16.0	14.7	15.6	15.1	16.0	16.5
4H	2H	14.3	15.4	14.7	15.8	16.1	14.7	15.8	15.1	16.2	16.6
	3H	14.4	15.3	14.8	15.7	16.1	14.8	15.7	15.2	16.2	16.6
	4H	14.4	15.2	14.8	15.6	16.1	14.8	15.6	15.3	16.1	16.5
	6H	14.4	15.1	14.8	15.5	16.0	14.8	15.5	15.3	16.0	16.4
	8H	14.3	15.0	14.8	15.4	15.9	14.8	15.5	15.3	15.9	16.4
	12H	14.3	14.9	14.8	15.4	15.9	14.8	15.4	15.3	15.8	16.3
8H	4H	14.3	14.9	14.8	15.4	15.9	14.7	15.4	15.2	15.9	16.3
	6H	14.3	14.8	14.8	15.3	15.8	14.7	15.3	15.3	15.8	16.3
	8H	14.3	14.7	14.8	15.3	15.8	14.7	15.2	15.3	15.7	16.2
	12H	14.2	14.7	14.8	15.2	15.8	14.7	15.2	15.2	15.7	16.2
12H	4H	14.3	14.8	14.7	15.3	15.8	14.7	15.3	15.2	15.8	16.3
	6H	14.2	14.7	14.8	15.2	15.7	14.7	15.2	15.2	15.7	16.2
	8H	14.2	14.7	14.7	15.2	15.7	14.7	15.1	15.2	15.6	16.2

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0