

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SGE12LEDOS 15L 35K XX AR1223OS MW FG
Nom 12 inch diam, AR1223 trim, MW interior finish, frosted glass lens

Test Number

SP-01197_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	1249
Efficacy	92.51 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.17
Two luminaires, plane 90°	1.15
Four luminaires	1.23

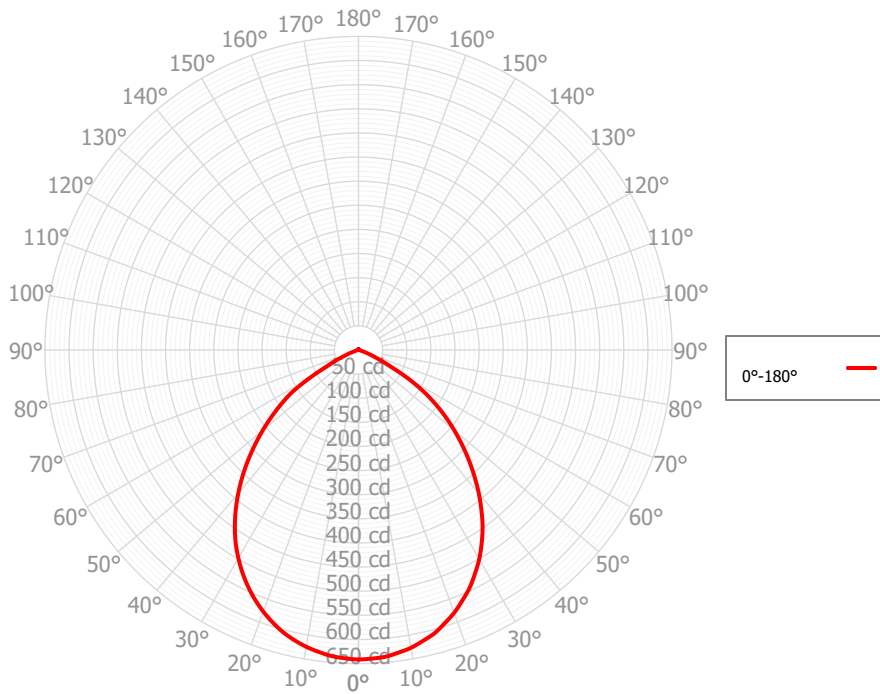
Full Beam Angle

0° - 180°	90°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-01197_M-15L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/5/2020
ISSUEDATE	12/28/2020
LUMCAT	SGE12LEDOS 15L 35K XX AR1223OS MW FG
LUMINAIRE	Nom 12 inch diam, AR1223 trim, MW interior finish, frosted glass lens
OTHER	Beam angle: 90.5 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, scaled from 45L

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	61.37	4.91%	90.00° - 100.00°	0.50	0.04%
10.00° - 20.00°	170.56	13.66%	100.00° - 110.00°	0.52	0.04%
20.00° - 30.00°	249.21	19.95%	100.00° - 120.00°	1.00	0.08%
30.00° - 40.00°	278.53	22.30%	120.00° - 130.00°	0.50	0.04%
40.00° - 50.00°	249.06	19.94%	130.00° - 140.00°	0.49	0.04%
50.00° - 60.00°	172.06	13.78%	140.00° - 150.00°	0.37	0.03%
60.00° - 70.00°	55.98	4.48%	150.00° - 160.00°	0.31	0.03%
70.00° - 80.00°	7.18	0.57%	160.00° - 170.00°	0.20	0.02%
80.00° - 90.00°	1.55	0.12%	170.00° - 180.00°	0.06	0.01%
0.00° - 90.00°	1245.50	99.72%	0.00° - 180.00°	1248.95	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	641.64	641.64
2.50°	640.41	639.84
5.00°	638.38	637.01
7.50°	632.95	631.39
10.00°	626.96	624.74
12.50°	617.69	615.98
15.00°	608.15	605.41
17.50°	594.15	592.12
20.00°	579.91	577.19
22.50°	562.45	560.36
25.00°	544.51	541.52
27.50°	522.90	520.83
30.00°	500.62	498.13
32.50°	475.21	474.02
35.00°	448.69	446.88
37.50°	418.66	418.13
40.00°	388.04	387.60
42.50°	356.07	356.35
45.00°	323.96	323.99
47.50°	291.58	291.31
50.00°	259.35	259.17
52.50°	227.32	227.13
55.00°	194.02	195.57
57.50°	159.45	164.05
60.00°	120.58	120.03
62.50°	78.33	76.40
65.00°	50.39	52.60
67.50°	31.08	29.99
70.00°	18.07	18.53
72.50°	7.94	8.48
75.00°	4.62	5.72
77.50°	3.58	3.42
80.00°	2.80	2.67
82.50°	2.07	1.94
85.00°	1.42	1.22
87.50°	0.78	0.70
90.00°	0.59	0.52
92.50°	0.43	0.43
95.00°	0.41	0.45
97.50°	0.41	0.48
100.00°	0.46	0.51
102.50°	0.51	0.50
105.00°	0.57	0.45
107.50°	0.60	0.40
110.00°	0.48	0.35
112.50°	0.42	0.40

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	1486	1486	1486	1486	1451	1451	1451	1451	1386	1386	1386	1326	1326	1326	1271	1271	1246
	1	1392	1347	1307	1270	1360	1319	1283	1250	1267	1237	1210	1219	1195	1173	1175	1156	1132
	2	1292	1211	1144	1088	1262	1188	1127	1075	1145	1094	1050	1106	1063	1026	1069	1035	1004
	3	1197	1090	1006	940	1169	1071	994	932	1035	970	916	1002	947	900	971	925	885
	4	1109	983	891	821	1083	968	882	815	938	863	804	910	846	794	884	829	783
	5	1029	891	795	723	1005	878	787	719	853	773	712	829	759	705	807	746	697
	6	957	811	713	643	935	800	708	640	778	696	635	758	685	630	740	675	624
	7	892	742	645	576	872	732	640	574	714	631	570	697	622	566	681	614	563
	8	834	682	586	520	816	674	582	519	658	575	516	643	568	513	629	561	510
	9	782	629	536	473	765	622	533	472	608	527	469	596	521	467	583	515	465
	10	735	583	493	432	720	577	490	431	565	485	429	554	480	428	543	475	426

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	21.2 fc	5.5 ft
6.5 ft	15.2 fc	6.6 ft
7.5 ft	11.4 fc	7.6 ft
8.0 ft	10.0 fc	8.1 ft
10.0 ft	6.4 fc	10.1 ft
12.0 ft	4.5 fc	12.1 ft
14.0 ft	3.3 fc	14.1 ft
16.0 ft	2.5 fc	16.1 ft
20.0 ft	1.6 fc	20.2 ft
24.0 ft	1.1 fc	24.2 ft
28.0 ft	0.8 fc	28.2 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	8794	8794	8794
45.00°	6279	6279	6279
55.00°	4636	4645	4654
65.00°	1634	1652	1670
75.00°	245	259	274
85.00°	223	216	208

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	15.5	16.9	15.9	17.2	17.6	15.6	17.0	16.0	17.3	17.7
	3H	15.6	16.8	16.0	17.1	17.5	15.7	16.9	16.0	17.2	17.6
	4H	15.5	16.7	15.9	17.0	17.4	15.6	16.7	16.0	17.1	17.5
	6H	15.4	16.5	15.9	16.9	17.3	15.5	16.6	16.0	17.0	17.4
	8H	15.4	16.4	15.8	16.8	17.2	15.5	16.5	15.9	16.9	17.3
	12H	15.4	16.3	15.8	16.7	17.2	15.5	16.4	15.9	16.8	17.2
4H	2H	15.5	16.7	15.9	17.0	17.4	15.6	16.8	16.0	17.1	17.5
	3H	15.6	16.5	16.0	16.9	17.3	15.7	16.6	16.1	17.0	17.4
	4H	15.5	16.3	16.0	16.8	17.2	15.6	16.4	16.0	16.9	17.3
	6H	15.4	16.2	15.9	16.6	17.1	15.5	16.3	16.0	16.7	17.2
	8H	15.4	16.1	15.9	16.5	17.0	15.5	16.2	16.0	16.6	17.1
	12H	15.4	15.9	15.9	16.4	16.9	15.4	16.0	15.9	16.5	17.0
8H	4H	15.4	16.1	15.9	16.5	17.0	15.5	16.2	16.0	16.6	17.1
	6H	15.3	15.9	15.8	16.4	16.8	15.4	15.9	15.9	16.4	16.9
	8H	15.3	15.7	15.8	16.3	16.8	15.3	15.8	15.9	16.4	16.9
	12H	15.2	15.7	15.7	16.2	16.7	15.3	15.7	15.8	16.2	16.8
12H	4H	15.4	15.9	15.8	16.4	16.9	15.4	16.0	15.9	16.5	17.0
	6H	15.3	15.8	15.8	16.2	16.8	15.3	15.8	15.9	16.3	16.9
	8H	15.2	15.7	15.7	16.2	16.7	15.3	15.7	15.8	16.2	16.8

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0