

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SGE12LEDOS 10L 35K XX AR1223OS MW SO
Nom 12 inch diam, AR1223 trim, MW interior finish, Solite lens

Test Number

SP-01197_2_M-10L

Test Date

11/5/2020

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

Summary of Results

Power

Input Watts	8.7 W
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Lumen Output

Output Lumens	1039
Efficacy	119.45 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.23
Two luminaires, plane 90°	1.23
Four luminaires	1.24

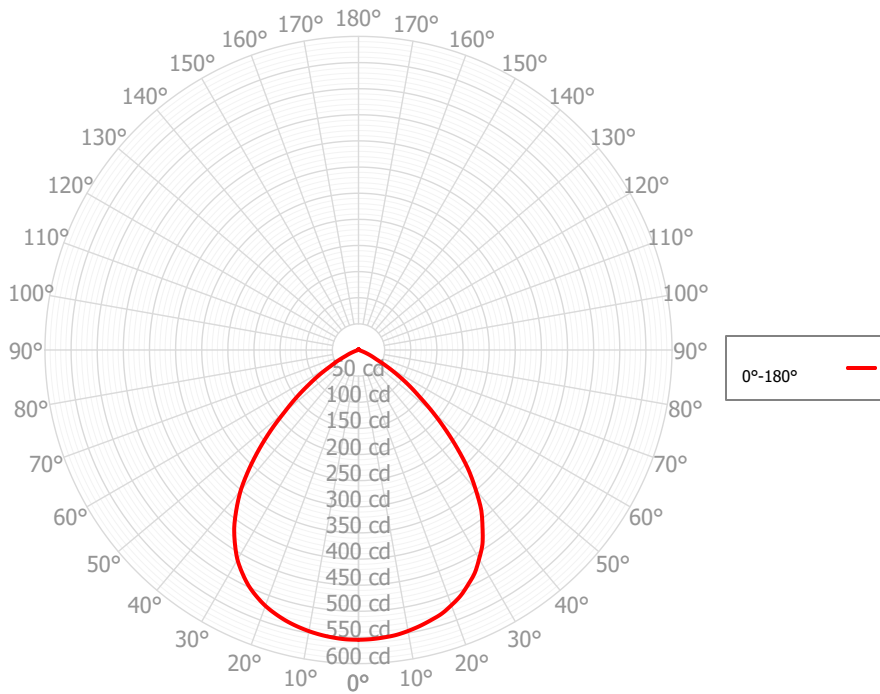
Full Beam Angle

0° - 180°	89°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-01197_2_M-10L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/5/2020
ISSUEDATE	12/28/2020
LUMCAT	SGE12LEDOS 10L 35K XX AR1223OS MW SO
LUMINAIRE	Nom 12 inch diam, AR1223 trim, MW interior finish, Solite lens
OTHER	Beam angle: 89 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°	53.34	5.13%	90.00° - 100.00°	0.43	0.04%
10.00° - 20.00°	151.18	14.55%	100.00° - 110.00°	0.42	0.04%
20.00° - 30.00°	228.09	21.95%	100.00° - 120.00°	0.81	0.08%
30.00° - 40.00°	256.77	24.71%	120.00° - 130.00°	0.39	0.04%
40.00° - 50.00°	206.03	19.83%	130.00° - 140.00°	0.38	0.04%
50.00° - 60.00°	106.13	10.21%	140.00° - 150.00°	0.33	0.03%
60.00° - 70.00°	30.01	2.89%	150.00° - 160.00°	0.28	0.03%
70.00° - 80.00°	3.98	0.38%	160.00° - 170.00°	0.17	0.02%
80.00° - 90.00°	0.84	0.08%	170.00° - 180.00°	0.06	0.01%
0.00° - 90.00°	1036.37	99.73%	0.00° - 180.00°	1039.21	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	554.57	554.57
2.50°	553.96	554.25
5.00°	552.33	552.50
7.50°	550.16	549.95
10.00°	546.06	546.38
12.50°	541.18	541.87
15.00°	535.36	536.37
17.50°	529.24	529.36
20.00°	519.82	521.08
22.50°	509.61	510.26
25.00°	495.84	497.63
27.50°	481.48	481.47
30.00°	461.73	463.30
32.50°	441.38	440.10
35.00°	413.80	414.62
37.50°	385.82	383.62
40.00°	349.11	350.60
42.50°	312.10	310.92
45.00°	269.10	269.39
47.50°	226.38	227.24
50.00°	186.15	184.96
52.50°	147.47	150.66
55.00°	117.57	117.46
57.50°	88.24	89.42
60.00°	61.28	61.77
62.50°	38.26	44.22
65.00°	27.34	27.09
67.50°	17.39	18.83
70.00°	9.76	10.86
72.50°	4.26	6.17
75.00°	2.85	2.04
77.50°	1.80	1.65
80.00°	1.32	1.28
82.50°	0.93	1.02
85.00°	0.66	0.77
87.50°	0.50	0.58
90.00°	0.45	0.44
92.50°	0.41	0.42
95.00°	0.37	0.40
97.50°	0.36	0.38
100.00°	0.38	0.36
102.50°	0.40	0.35
105.00°	0.43	0.36
107.50°	0.47	0.38
110.00°	0.51	0.37
112.50°	0.50	0.34

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	1236	1236	1236	1236	1207	1207	1207	1207	1153	1153	1153	1103	1103	1103	1058	1058	1036
	1	1162	1127	1094	1066	1136	1103	1074	1048	1060	1037	1015	1020	1002	984	984	969	949
	2	1084	1019	966	921	1059	1001	952	911	965	925	890	933	899	870	902	875	857
	3	1008	923	857	804	985	907	846	797	878	826	783	851	807	770	826	789	773
	4	938	837	764	708	916	824	756	703	800	741	694	777	726	685	756	712	698
	5	873	762	685	628	853	752	679	625	731	667	619	712	656	612	694	645	632
	6	814	697	618	562	796	688	613	560	670	604	555	653	595	550	638	586	575
	7	760	639	561	506	744	631	557	504	616	549	501	602	542	498	589	535	525
	8	712	589	511	458	697	582	508	457	569	502	455	557	496	452	545	491	482
	9	668	544	469	418	654	538	466	417	527	461	415	517	456	413	507	451	444
	10	628	505	431	382	616	500	429	382	490	425	380	481	421	379	472	417	410

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	18.3 fc	5.4 ft
6.5 ft	13.1 fc	6.4 ft
7.5 ft	9.9 fc	7.4 ft
8.0 ft	8.7 fc	7.9 ft
10.0 ft	5.5 fc	9.8 ft
12.0 ft	3.9 fc	11.8 ft
14.0 ft	2.8 fc	13.8 ft
16.0 ft	2.2 fc	15.7 ft
20.0 ft	1.4 fc	19.7 ft
24.0 ft	1.0 fc	23.6 ft
28.0 ft	0.7 fc	27.5 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	7600	7600	7600
45.00°	5216	5217	5218
55.00°	2809	2809	2808
65.00°	887	885	883
75.00°	151	140	129
85.00°	103	108	112

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	12.1	13.4	12.5	13.8	14.1	12.2	13.5	12.5	13.8	14.1
	3H	12.1	13.3	12.5	13.6	14.0	12.2	13.4	12.6	13.7	14.1
	4H	12.1	13.2	12.5	13.5	13.9	12.1	13.2	12.6	13.6	14.0
	6H	12.0	13.0	12.4	13.4	13.8	12.1	13.1	12.5	13.4	13.8
	8H	12.0	12.9	12.4	13.3	13.7	12.0	13.0	12.5	13.4	13.8
	12H	11.9	12.8	12.4	13.2	13.6	12.0	12.9	12.4	13.3	13.7
4H	2H	12.1	13.2	12.5	13.5	13.9	12.1	13.2	12.5	13.6	13.9
	3H	12.1	13.0	12.5	13.4	13.8	12.2	13.1	12.6	13.5	13.9
	4H	12.1	12.8	12.5	13.3	13.7	12.1	12.9	12.6	13.3	13.8
	6H	12.0	12.6	12.4	13.1	13.6	12.0	12.7	12.5	13.2	13.6
	8H	11.9	12.5	12.4	13.0	13.5	12.0	12.6	12.5	13.1	13.5
	12H	11.9	12.4	12.4	12.9	13.4	11.9	12.5	12.4	13.0	13.5
8H	4H	11.9	12.5	12.4	13.0	13.5	12.0	12.6	12.5	13.1	13.5
	6H	11.8	12.3	12.3	12.8	13.3	11.9	12.4	12.4	12.9	13.4
	8H	11.8	12.2	12.3	12.7	13.2	11.8	12.3	12.4	12.8	13.3
	12H	11.7	12.1	12.2	12.6	13.2	11.8	12.2	12.3	12.7	13.3
12H	4H	11.9	12.4	12.4	12.9	13.4	11.9	12.5	12.4	13.0	13.5
	6H	11.8	12.2	12.3	12.7	13.3	11.8	12.3	12.4	12.8	13.3
	8H	11.7	12.1	12.2	12.6	13.2	11.8	12.2	12.3	12.7	13.3

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0