

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SGE14LEDOS 15L 35K XX AR1423OS MW SO
Nom 14 inch diam, AR1423 trim, MW interior finish, Solite lens

Test Number

SP-01198_1_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	1447
Efficacy	107.16 lm/W

Luminous Dimensions

0° - 180° Size	-1.17
90° - 270° Size	-1.17
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.23
Two luminaires, plane 90°	1.23
Four luminaires	1.26

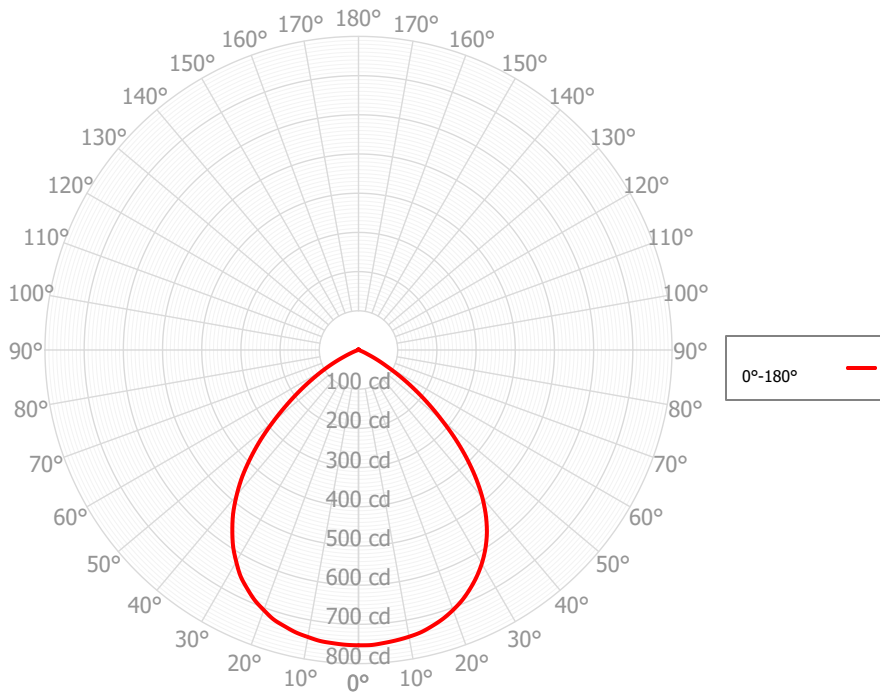
Full Beam Angle

0° - 180°	91°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-01198_1_M-15L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/5/2020
ISSUEDATE	12/28/2020
LUMCAT	SGE14LEDOS 15L 35K XX AR1423OS MW SO
LUMINAIRE	Nom 14 inch diam, AR1423 trim, MW interior finish, Solite lens
OTHER	Beam angle: 91.2 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°	72.53	5.01%	90.00° - 100.00°	0.44	0.03%
10.00° - 20.00°	205.65	14.22%	100.00° - 110.00°	0.41	0.03%
20.00° - 30.00°	308.98	21.36%	100.00° - 120.00°	0.88	0.06%
30.00° - 40.00°	351.58	24.30%	120.00° - 130.00°	0.49	0.03%
40.00° - 50.00°	297.61	20.57%	130.00° - 140.00°	0.38	0.03%
50.00° - 60.00°	161.71	11.18%	140.00° - 150.00°	0.35	0.02%
60.00° - 70.00°	40.61	2.81%	150.00° - 160.00°	0.30	0.02%
70.00° - 80.00°	3.94	0.27%	160.00° - 170.00°	0.19	0.01%
80.00° - 90.00°	0.99	0.07%	170.00° - 180.00°	0.07	0.00%
0.00° - 90.00°	1443.60	99.78%	0.00° - 180.00°	1446.72	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	753.51	753.51
2.50°	753.54	752.90
5.00°	750.37	751.01
7.50°	747.02	748.96
10.00°	742.95	743.68
12.50°	737.64	738.21
15.00°	728.81	729.67
17.50°	718.75	720.85
20.00°	705.89	706.34
22.50°	691.12	691.35
25.00°	672.93	671.87
27.50°	652.61	651.26
30.00°	629.25	623.94
32.50°	602.33	595.33
35.00°	571.15	561.31
37.50°	534.27	525.41
40.00°	491.85	483.76
42.50°	443.41	439.62
45.00°	390.25	389.49
47.50°	334.09	337.90
50.00°	276.00	283.56
52.50°	223.29	232.31
55.00°	173.37	185.74
57.50°	127.51	143.06
60.00°	83.28	105.23
62.50°	52.62	71.37
65.00°	26.31	41.53
67.50°	14.56	22.60
70.00°	6.23	12.65
72.50°	3.73	6.64
75.00°	2.16	3.34
77.50°	1.55	1.94
80.00°	1.03	1.58
82.50°	0.86	1.34
85.00°	0.71	1.15
87.50°	0.63	0.81
90.00°	0.56	0.41
92.50°	0.47	0.38
95.00°	0.39	0.45
97.50°	0.35	0.38
100.00°	0.33	0.29
102.50°	0.45	0.32
105.00°	0.51	0.36
107.50°	0.42	0.36
110.00°	0.39	0.36
112.50°	0.54	0.35

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	1722	1722	1722	1722	1681	1681	1681	1681	1606	1606	1606	1537	1537	1537	1473	1473	1444
	1	1618	1568	1523	1482	1581	1536	1495	1458	1475	1443	1413	1420	1394	1369	1369	1348	1329
	2	1507	1417	1343	1280	1473	1391	1323	1265	1342	1285	1236	1296	1250	1208	1254	1216	1182
	3	1401	1281	1189	1115	1369	1260	1174	1105	1219	1146	1086	1181	1120	1068	1146	1095	1072
	4	1302	1161	1058	979	1272	1143	1047	973	1109	1026	960	1077	1006	948	1048	986	966
	5	1211	1056	947	867	1183	1041	939	863	1012	923	854	985	907	846	960	892	874
	6	1128	964	853	774	1103	951	847	771	926	834	765	903	821	759	882	809	794
	7	1053	883	773	696	1030	872	768	694	851	757	689	831	747	684	813	738	724
	8	985	812	704	629	964	803	700	628	785	691	624	768	683	621	752	675	663
	9	924	751	644	573	905	742	641	571	727	634	569	712	627	566	698	621	610
	10	868	696	593	524	851	689	590	523	675	584	521	662	578	519	650	573	563

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	24.9 fc	5.6 ft
6.5 ft	17.8 fc	6.6 ft
7.5 ft	13.4 fc	7.7 ft
8.0 ft	11.8 fc	8.2 ft
10.0 ft	7.5 fc	10.2 ft
12.0 ft	5.2 fc	12.3 ft
14.0 ft	3.8 fc	14.3 ft
16.0 ft	2.9 fc	16.3 ft
20.0 ft	1.9 fc	20.4 ft
24.0 ft	1.3 fc	24.5 ft
28.0 ft	1.0 fc	28.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	7544	7544	7544
45.00°	5525	5523	5520
55.00°	3026	3080	3134
65.00°	623	713	804
75.00°	84	95	106
85.00°	81	94	107

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	12.5	13.8	12.8	14.1	14.4	12.9	14.2	13.3	14.6	14.9
	3H	12.4	13.6	12.8	13.9	14.3	12.8	14.0	13.2	14.4	14.7
	4H	12.3	13.4	12.7	13.8	14.2	12.8	13.9	13.2	14.2	14.6
	6H	12.2	13.2	12.7	13.6	14.0	12.7	13.7	13.1	14.1	14.5
	8H	12.2	13.2	12.6	13.5	14.0	12.7	13.6	13.1	14.0	14.4
	12H	12.2	13.1	12.6	13.5	13.9	12.6	13.5	13.1	13.9	14.4
4H	2H	12.4	13.5	12.8	13.8	14.2	12.8	13.9	13.2	14.3	14.7
	3H	12.3	13.2	12.7	13.6	14.0	12.8	13.7	13.2	14.1	14.5
	4H	12.2	13.0	12.7	13.4	13.9	12.7	13.5	13.2	13.9	14.4
	6H	12.1	12.8	12.6	13.3	13.7	12.6	13.3	13.1	13.8	14.2
	8H	12.1	12.7	12.6	13.2	13.6	12.6	13.2	13.1	13.7	14.1
	12H	12.0	12.6	12.5	13.1	13.6	12.5	13.1	13.0	13.6	14.1
8H	4H	12.1	12.7	12.6	13.2	13.6	12.6	13.2	13.1	13.7	14.1
	6H	12.0	12.5	12.5	13.0	13.5	12.5	13.0	13.0	13.5	14.0
	8H	11.9	12.4	12.4	12.9	13.4	12.4	12.9	12.9	13.4	13.9
	12H	11.9	12.3	12.4	12.8	13.4	12.4	12.8	12.9	13.3	13.9
12H	4H	12.0	12.6	12.5	13.1	13.6	12.5	13.1	13.0	13.6	14.1
	6H	11.9	12.4	12.5	12.9	13.4	12.4	12.9	13.0	13.4	13.9
	8H	11.9	12.3	12.4	12.8	13.4	12.4	12.8	12.9	13.3	13.9

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0