

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00649 ~ SR2DMO-XT13L-E1-SDD2F-XXK-MDMWGL.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] SP-00649\_M-13L  
[TESTLAB] VLS-245-981  
[MANUFAC] Spectrum Lighting  
[ISSUE DATE] 3/16/2018  
[UPDATE] 4/30/2018  
[LUMCAT] SR2DMO-XT13L-E1-SDD2F-xxK-MD-MW-GL  
[LUMINAIRE] Nom. 2" Square Trim Downlight, Medium Beam  
[OTHER] Matte White Trim, Clear Glass lens  
[OTHER] 34.4 Degree Beam Angle  
[LAMP] N/A  
[LAMPCAT] N/A, Min. 83 CRI  
[OTHER] Total Luminaire Watts is approximate  
[OTHER] For New Construction Non-IC Housing: SR2DMO-XT-series  
[OTHER] For SDD2F Downlight Trim  
[OTHER] LEDXT lumen output is the same for all available CCT's  
[OTHER] This report prepared by Spectrum Lighting, scaled from 20L

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	676
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	45
Total Luminaire Watts	15
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.60
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.17 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.00 ft

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00649 ~ SR2DMO-XT13L-E1-SDD2F-XXK-MDMWGL.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	21269	18472	20915
55	13939	12146	16878
65	6597	7940	7264
75	4331	4504	4341
85	4455	5008	5132

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
<b>0.0</b>	1615.357	1615.357	1615.357	1615.357	1615.357	1615.357	1615.357	1615.357	1615.357	1615.357
<b>2.5</b>	1609.750	1596.137	1604.739	1596.091	1590.285	1596.640	1603.153	1587.641	1601.907	1592.870
<b>5.0</b>	1562.519	1563.338	1559.287	1560.481	1552.207	1555.178	1551.831	1557.399	1551.507	1563.883
<b>7.5</b>	1498.379	1471.185	1483.476	1464.232	1456.432	1459.986	1468.190	1444.724	1467.974	1463.233
<b>10.0</b>	1356.014	1356.163	1346.770	1344.703	1338.914	1332.533	1320.402	1328.174	1331.402	1355.446
<b>12.5</b>	1188.801	1167.737	1165.708	1163.298	1150.736	1156.300	1154.683	1138.836	1167.942	1163.744
<b>15.0</b>	988.281	978.935	982.559	963.819	964.761	956.707	960.489	951.487	969.682	968.820
<b>17.5</b>	779.782	789.176	798.184	790.161	784.465	784.452	791.041	781.654	785.309	790.354
<b>20.0</b>	595.133	612.919	654.452	622.106	611.820	622.806	654.309	617.451	615.551	613.670
<b>22.5</b>	414.429	463.687	529.732	476.687	454.649	480.442	538.400	485.222	455.640	466.796
<b>25.0</b>	280.335	329.731	423.837	334.665	313.353	343.780	444.865	358.381	304.407	324.730
<b>27.5</b>	151.084	220.600	325.062	234.714	197.710	241.312	348.837	253.427	195.627	222.465
<b>30.0</b>	106.706	138.437	234.729	138.376	116.698	146.372	250.597	161.725	117.230	130.356
<b>32.5</b>	66.613	92.203	146.820	100.165	82.247	103.386	171.402	110.012	77.995	93.375
<b>35.0</b>	58.827	63.371	100.791	64.488	61.263	68.341	106.135	69.550	61.696	62.045
<b>37.5</b>	51.223	53.380	63.664	54.764	54.994	56.430	68.925	56.215	52.795	52.851
<b>40.0</b>	46.883	46.209	49.986	45.412	48.905	46.563	48.264	45.218	47.400	44.753
<b>42.5</b>	42.617	41.596	39.736	41.144	42.979	40.984	37.517	38.671	42.603	39.866
<b>45.0</b>	39.004	36.582	33.874	36.781	38.355	35.582	31.502	33.650	38.027	35.392
<b>47.5</b>	35.229	31.273	28.374	31.655	34.698	32.122	27.946	30.958	34.237	31.866
<b>50.0</b>	30.549	26.416	24.591	26.866	31.923	28.709	25.324	28.203	30.672	28.053
<b>52.5</b>	25.795	21.828	20.884	23.803	29.676	25.940	22.510	25.371	27.062	23.708
<b>55.0</b>	20.735	18.424	18.068	20.770	25.106	23.050	19.641	22.418	23.442	19.665
<b>57.5</b>	15.917	15.601	15.320	17.851	19.406	19.186	17.265	19.341	18.906	16.071
<b>60.0</b>	11.835	12.196	13.477	14.644	14.858	15.389	14.996	15.620	14.241	12.577
<b>62.5</b>	8.573	8.568	11.521	10.613	10.756	11.939	12.339	11.357	10.942	9.208
<b>65.0</b>	7.230	6.803	8.702	7.435	7.961	8.851	9.625	8.268	7.761	6.913
<b>67.5</b>	5.544	5.559	6.085	6.048	5.548	7.093	7.464	6.003	6.339	5.695
<b>70.0</b>	3.349	4.416	4.179	4.669	4.478	5.500	5.402	4.458	4.980	4.278
<b>72.5</b>	2.768	3.422	3.137	3.300	3.619	4.257	4.176	3.236	3.821	2.742
<b>75.0</b>	2.907	2.870	3.023	2.817	2.914	3.146	3.156	2.806	2.912	2.525
<b>77.5</b>	2.478	2.105	2.524	2.441	2.384	2.172	2.479	2.328	2.285	2.147
<b>80.0</b>	1.783	1.512	1.940	1.890	1.949	2.099	2.033	1.685	1.709	1.234
<b>82.5</b>	1.091	1.307	1.387	1.497	1.473	1.748	1.462	1.593	1.392	1.100
<b>85.0</b>	1.007	1.052	1.132	1.266	1.160	1.143	1.184	1.744	1.345	1.018
<b>87.5</b>	0.839	0.946	1.070	0.980	0.926	0.931	1.068	0.923	1.071	0.849
<b>90.0</b>	0.000	0.000	0.000	0.000	1.054	0.825	0.809	0.983	0.828	0.825
<b>92.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>97.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>100.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>102.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>105.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>107.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>110.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>112.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>115.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>117.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>120.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>122.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>125.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**CANDELA TABULATION - (Cont.)**

127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Vert.  
Angles**

**Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	1615.357	1615.357	1615.357	1615.357	1615.357	1615.357	1615.357
2.5	1600.899	1600.711	1595.322	1603.491	1612.069	1594.336	1609.750
5.0	1563.019	1560.589	1568.393	1558.947	1556.870	1566.023	1562.519
7.5	1472.733	1477.648	1472.851	1477.666	1485.331	1469.377	1498.379
10.0	1342.655	1351.992	1370.661	1345.558	1333.486	1359.167	1356.014
12.5	1169.841	1168.402	1176.493	1166.935	1163.042	1166.103	1188.801
15.0	970.007	980.335	978.806	976.981	974.947	972.678	988.281
17.5	800.123	787.191	782.216	778.599	783.973	777.737	779.782
20.0	645.391	613.597	587.445	602.247	641.558	592.519	595.133
22.5	525.156	458.048	421.864	439.525	504.090	437.533	414.429
25.0	418.885	327.458	264.494	312.095	394.824	298.542	280.335
27.5	316.818	215.590	173.550	202.116	286.926	199.166	151.084
30.0	216.083	141.018	93.829	135.296	202.503	121.386	106.706
32.5	146.471	89.733	73.997	85.517	120.765	85.708	66.613
35.0	84.113	64.661	56.966	63.760	85.584	60.472	58.827
37.5	62.067	52.676	50.749	50.626	53.085	51.543	51.223
40.0	46.650	45.269	44.945	43.625	43.235	44.457	46.883
42.5	39.280	39.687	40.329	38.006	34.082	39.770	42.617
45.0	32.740	34.906	35.778	32.911	28.866	35.408	39.004
47.5	27.969	30.373	31.375	27.897	24.129	31.390	35.229
50.0	23.281	25.988	27.061	24.404	21.291	27.388	30.549
52.5	20.254	21.635	22.911	21.057	18.582	23.402	25.795
55.0	17.258	18.526	18.864	18.279	16.253	19.533	20.735
57.5	14.796	15.616	14.971	15.512	13.948	15.748	15.917
60.0	12.376	12.165	11.592	11.365	11.697	12.524	11.835
62.5	10.314	8.661	8.846	7.378	9.442	9.623	8.573
65.0	8.239	7.030	6.545	5.606	7.179	7.154	7.230

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67.5	6.096	5.484	4.672	4.119	5.357	4.873	5.544
70.0	4.307	4.096	3.832	3.635	4.027	3.801	3.349
72.5	3.251	3.044	3.524	2.964	3.123	2.993	2.768
75.0	2.642	2.683	2.957	2.154	2.410	2.442	2.907
77.5	2.218	2.236	2.381	1.707	1.875	1.641	2.478
80.0	1.620	1.864	1.832	1.757	1.733	1.331	1.783
82.5	1.267	1.607	1.461	1.392	1.264	1.442	1.091
85.0	1.164	1.244	1.408	1.033	0.959	1.058	1.007
87.5	1.184	1.266	0.939	0.848	0.941	0.629	0.839
90.0	0.713	0.895	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	407.85	N.A.	60.40
0-30	567.77	N.A.	84.00
0-40	618.14	N.A.	91.50
0-60	663.29	N.A.	98.20
0-80	674.20	N.A.	99.80
0-90	675.47	N.A.	100.00
10-90	533.62	N.A.	79.00
20-40	210.28	N.A.	31.10
20-50	237.60	N.A.	35.20
40-70	53.07	N.A.	7.90
60-80	10.91	N.A.	1.60
70-80	3.00	N.A.	0.40
80-90	1.26	N.A.	0.20
90-110	0.06	N.A.	0.00
90-120	0.06	N.A.	0.00
90-130	0.06	N.A.	0.00
90-150	0.06	N.A.	0.00
90-180	0.06	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	675.53	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	141.85
10-20	266.00
20-30	159.92
30-40	50.36
40-50	27.32
50-60	17.84
60-70	7.91
70-80	3.00
80-90	1.26
90-100	0.06
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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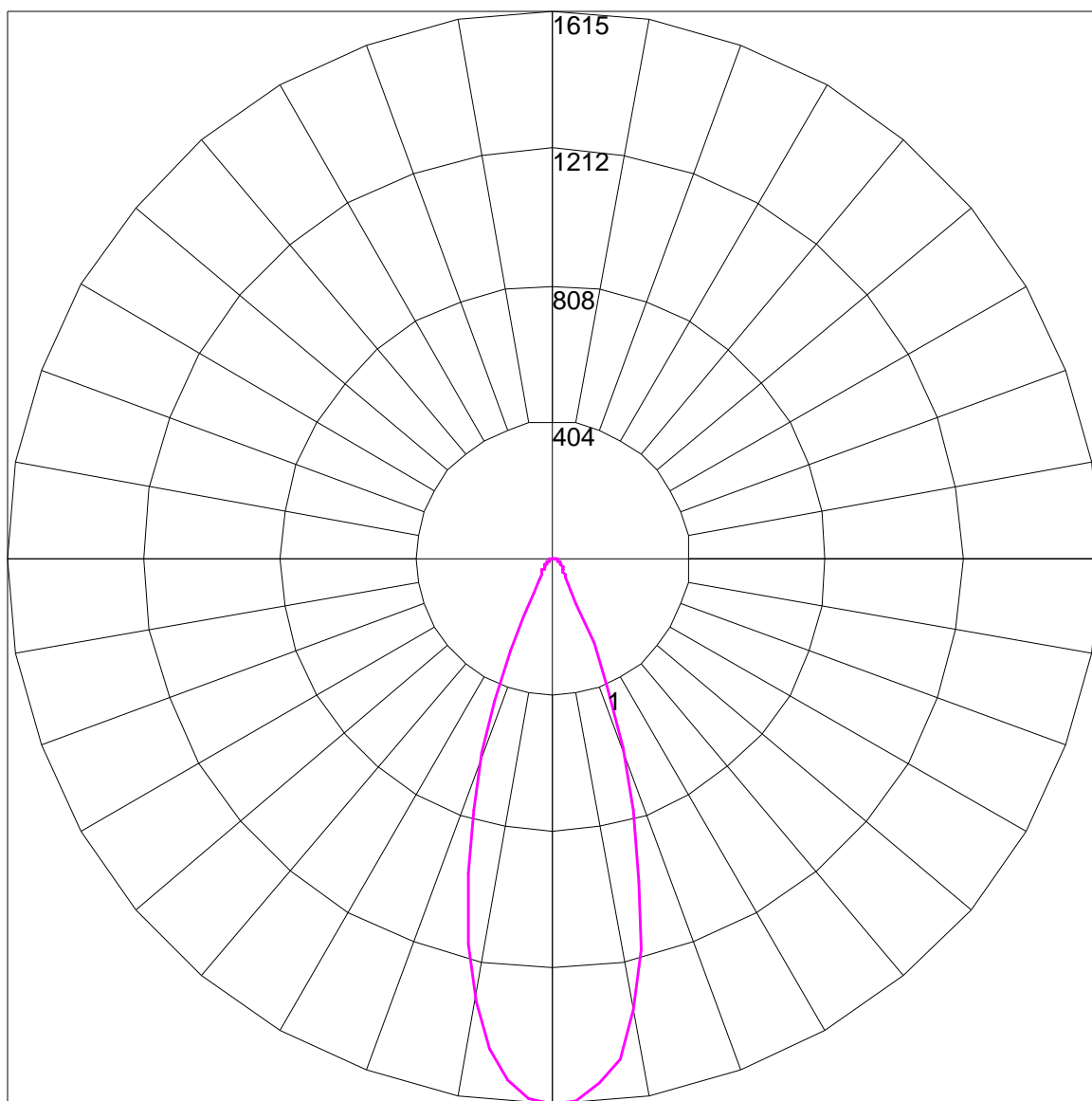
## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	107	111	109	107	105	105	104	102	101	100	99	98	97	96	94
2	109	105	101	98	107	103	99	97	100	97	95	97	94	93	94	92	91	89
3	104	99	94	91	102	97	93	90	95	91	88	92	89	87	90	88	86	84
4	100	93	88	85	98	92	88	84	90	86	83	88	85	82	86	84	81	80
5	96	89	83	80	94	88	83	79	86	82	79	84	81	78	83	80	77	76
6	92	84	79	75	91	84	79	75	82	78	75	81	77	74	80	76	74	72
7	89	81	75	72	87	80	75	71	79	74	71	78	74	71	76	73	70	69
8	85	77	72	68	84	77	72	68	75	71	68	75	71	68	74	70	67	66
9	82	74	69	65	81	73	69	65	73	68	65	72	68	65	71	67	65	64
10	79	71	66	63	78	71	66	63	70	65	62	69	65	62	68	65	62	61

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : SP-00649 ~ SR2DMO-XT13L-E1-SDD2F-XXK-MDMWGL.IES

POLAR GRAPH



Maximum Candela = 1615.357 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)