

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00648 ~ SR2DMO-XT10L-E1-RDD2F-XXK-MDMWGL.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] SP-00648\_M-10L  
[TESTLAB] VLS-245-981  
[MANUFAC] Spectrum Lighting  
[ISSUE DATE] 3/16/2018  
[UPDATE] 4/30/2018  
[LUMCAT] SR2DMO-XT10L-E1-RDD2F-xxK-MD-MW-GL  
[LUMINAIRE] Nom. 2" Round Trim Downlight, Medium Beam  
[OTHER] Matte White Trim, Clear Glass lens  
[OTHER] 31.8 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 RDD2F 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	691
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	62
Total Luminaire Watts	11.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.54
Spacing Criterion (90-270)	0.54
Spacing Criterion (Diagonal)	0.54
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.15 ft (Diameter)
Luminous Width (90-270)	0.15 ft (Diameter)
Luminous Height	0.00 ft

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00648 ~ SR2DMO-XT10L-E1-RDD2F-XXK-MDMWGL.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	20684	20921	21486
55	17823	21080	21809
65	13491	15442	15170
75	8751	8380	9269
85	6654	9328	10585

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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>	1970.817	1970.817	1970.817	1970.817	1970.817	1970.817	1970.817	1970.817	1970.817	1970.817
<b>2.5</b>	1940.797	1966.663	1952.902	1959.715	1957.490	1950.109	1928.741	1964.084	1937.315	1964.228
<b>5.0</b>	1868.248	1863.435	1869.444	1864.097	1870.230	1864.661	1863.510	1863.516	1859.720	1864.002
<b>7.5</b>	1728.252	1750.017	1743.254	1749.379	1751.103	1739.422	1717.747	1755.082	1719.854	1751.269
<b>10.0</b>	1544.176	1538.786	1545.914	1545.036	1555.017	1550.683	1550.171	1548.304	1539.878	1539.937
<b>12.5</b>	1319.854	1318.632	1325.498	1322.230	1338.690	1324.488	1312.298	1334.385	1304.592	1323.458
<b>15.0</b>	1070.683	1069.401	1068.204	1070.013	1075.686	1079.379	1073.934	1081.711	1067.569	1070.018
<b>17.5</b>	841.375	817.850	830.398	811.983	830.589	823.567	834.035	826.648	828.278	825.046
<b>20.0</b>	624.030	625.291	622.498	618.582	624.950	621.839	615.741	637.754	622.536	635.814
<b>22.5</b>	453.279	436.785	444.813	436.720	444.283	449.451	460.195	452.224	459.553	454.984
<b>25.0</b>	309.012	309.571	311.668	309.541	316.245	315.117	316.857	324.189	319.283	325.116
<b>27.5</b>	199.517	185.899	200.216	191.690	204.165	200.565	207.918	198.472	206.421	203.500
<b>30.0</b>	109.295	118.564	119.492	122.249	124.273	124.810	117.135	128.925	122.496	128.212
<b>32.5</b>	62.685	53.882	64.121	60.181	64.895	68.371	74.111	61.060	72.679	62.190
<b>35.0</b>	38.853	40.645	43.263	42.363	45.145	43.094	41.111	45.594	41.811	44.512
<b>37.5</b>	29.033	29.291	30.528	30.945	31.041	32.666	33.729	31.167	32.098	29.358
<b>40.0</b>	26.345	27.984	28.421	28.169	27.390	28.173	27.932	28.233	26.281	26.484
<b>42.5</b>	24.894	26.942	26.346	26.493	25.031	26.383	25.927	25.412	24.715	24.015
<b>45.0</b>	24.034	24.822	24.310	25.121	24.966	25.160	24.089	24.239	23.428	23.390
<b>47.5</b>	22.720	22.684	22.883	23.786	24.560	24.184	22.640	23.068	22.431	22.759
<b>50.0</b>	21.195	20.964	22.192	22.585	23.577	22.451	21.319	22.016	21.348	22.099
<b>52.5</b>	19.118	19.250	21.203	21.398	22.304	20.403	20.281	20.956	20.178	21.240
<b>55.0</b>	16.799	18.559	19.869	19.292	20.556	19.001	19.201	19.463	19.046	19.574
<b>57.5</b>	15.185	17.835	17.900	17.096	18.662	17.855	18.030	17.976	17.952	17.790
<b>60.0</b>	13.871	14.978	15.221	15.882	16.536	16.113	16.264	16.697	15.750	15.560
<b>62.5</b>	11.756	12.176	12.834	14.744	13.887	14.145	13.315	15.267	12.514	13.340
<b>65.0</b>	9.369	9.920	10.724	11.274	10.535	11.914	10.737	11.513	10.040	11.151
<b>67.5</b>	7.528	7.840	8.847	8.229	8.331	9.604	8.716	8.187	8.112	8.947
<b>70.0</b>	5.901	6.141	7.083	6.775	6.953	7.384	6.817	6.548	6.855	6.718
<b>72.5</b>	4.791	4.886	5.009	5.280	5.323	5.239	4.997	5.432	5.665	5.263
<b>75.0</b>	3.722	3.690	3.564	3.825	3.942	3.287	3.178	4.829	3.748	4.092
<b>77.5</b>	2.776	2.099	2.879	2.843	3.031	2.282	2.457	3.358	2.776	2.523
<b>80.0</b>	2.020	2.141	2.800	2.162	2.619	2.020	2.520	2.261	2.305	1.808
<b>82.5</b>	1.361	1.327	1.543	1.307	1.639	2.062	1.694	1.566	1.892	1.552
<b>85.0</b>	0.953	0.876	1.336	1.243	1.516	1.078	1.188	1.321	1.471	1.400
<b>87.5</b>	0.798	0.967	0.984	0.821	0.842	0.817	0.624	1.088	0.602	0.750
<b>90.0</b>	0.000	0.000	0.000	0.000	0.837	0.394	0.652	0.816	0.900	0.831
<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	1970.817	1970.817	1970.817	1970.817	1970.817	1970.817	1970.817
2.5	1950.965	1961.026	1954.939	1948.962	1928.387	1967.931	1940.797
5.0	1859.643	1862.237	1857.818	1860.625	1862.466	1864.119	1868.248
7.5	1728.828	1741.187	1730.110	1731.187	1712.927	1750.315	1728.252
10.0	1532.690	1533.086	1530.479	1540.094	1541.958	1543.129	1544.176
12.5	1301.952	1316.391	1305.068	1325.459	1313.874	1331.280	1319.854
15.0	1063.684	1067.253	1068.435	1076.895	1071.672	1080.240	1070.683
17.5	821.595	830.652	827.977	846.230	844.604	835.252	841.375
20.0	627.980	637.742	634.061	640.356	620.963	636.388	624.030
22.5	457.912	458.128	455.209	460.717	455.731	445.586	453.279
25.0	321.874	323.338	317.954	316.002	303.225	310.894	309.012
27.5	201.651	202.233	193.468	198.390	197.683	185.107	199.517
30.0	124.639	123.931	120.317	115.468	101.445	116.237	109.295
32.5	66.828	60.472	62.089	61.139	63.890	55.263	62.685
35.0	42.262	42.012	40.574	42.003	37.477	40.870	38.853
37.5	31.808	28.185	29.149	30.243	30.039	28.338	29.033
40.0	27.417	27.437	26.469	27.213	25.846	25.979	26.345
42.5	25.481	26.470	26.056	24.851	23.188	23.766	24.894
45.0	24.235	24.903	24.713	23.248	20.780	22.289	24.034
47.5	23.257	23.272	23.143	21.823	20.357	20.984	22.720
50.0	21.803	21.478	21.144	20.587	20.221	20.498	21.195
52.5	20.175	19.723	19.047	19.399	18.749	19.741	19.118
55.0	18.878	18.070	18.095	18.263	17.094	17.776	16.799
57.5	17.698	16.193	17.390	16.259	15.274	15.746	15.185
60.0	15.708	13.795	14.691	13.392	13.435	13.445	13.871
62.5	13.455	11.609	11.595	10.935	11.291	11.239	11.756
65.0	10.630	9.853	8.910	8.804	9.131	9.283	9.369

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**CANDELA TABULATION - (Cont.)**

67.5	7.705	7.923	6.480	6.945	7.059	7.362	7.528
70.0	6.491	5.808	5.759	5.185	5.187	5.475	5.901
72.5	4.906	4.681	4.500	3.517	3.622	5.126	4.791
75.0	2.708	3.834	2.679	2.691	3.342	4.239	3.722
77.5	1.899	3.033	2.320	2.416	2.757	2.448	2.776
80.0	1.927	2.074	1.762	2.108	1.786	1.303	2.020
82.5	1.869	1.640	1.305	1.044	1.060	1.399	1.361
85.0	0.995	1.025	0.982	0.885	0.879	0.789	0.953
87.5	0.527	0.804	0.518	0.784	0.695	0.632	0.798
90.0	0.844	0.885	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	459.71	N.A.	66.60
0-30	607.85	N.A.	88.00
0-40	639.72	N.A.	92.60
0-60	675.00	N.A.	97.70
0-80	689.31	N.A.	99.80
0-90	690.58	N.A.	100.00
10-90	522.52	N.A.	75.70
20-40	180.02	N.A.	26.10
20-50	198.65	N.A.	28.80
40-70	45.56	N.A.	6.60
60-80	14.32	N.A.	2.10
70-80	4.03	N.A.	0.60
80-90	1.27	N.A.	0.20
90-110	0.05	N.A.	0.00
90-120	0.05	N.A.	0.00
90-130	0.05	N.A.	0.00
90-150	0.05	N.A.	0.00
90-180	0.05	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	690.63	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	168.06
10-20	291.64
20-30	148.14
30-40	31.87
40-50	18.64
50-60	16.64
60-70	10.29
70-80	4.03
80-90	1.27
90-100	0.05
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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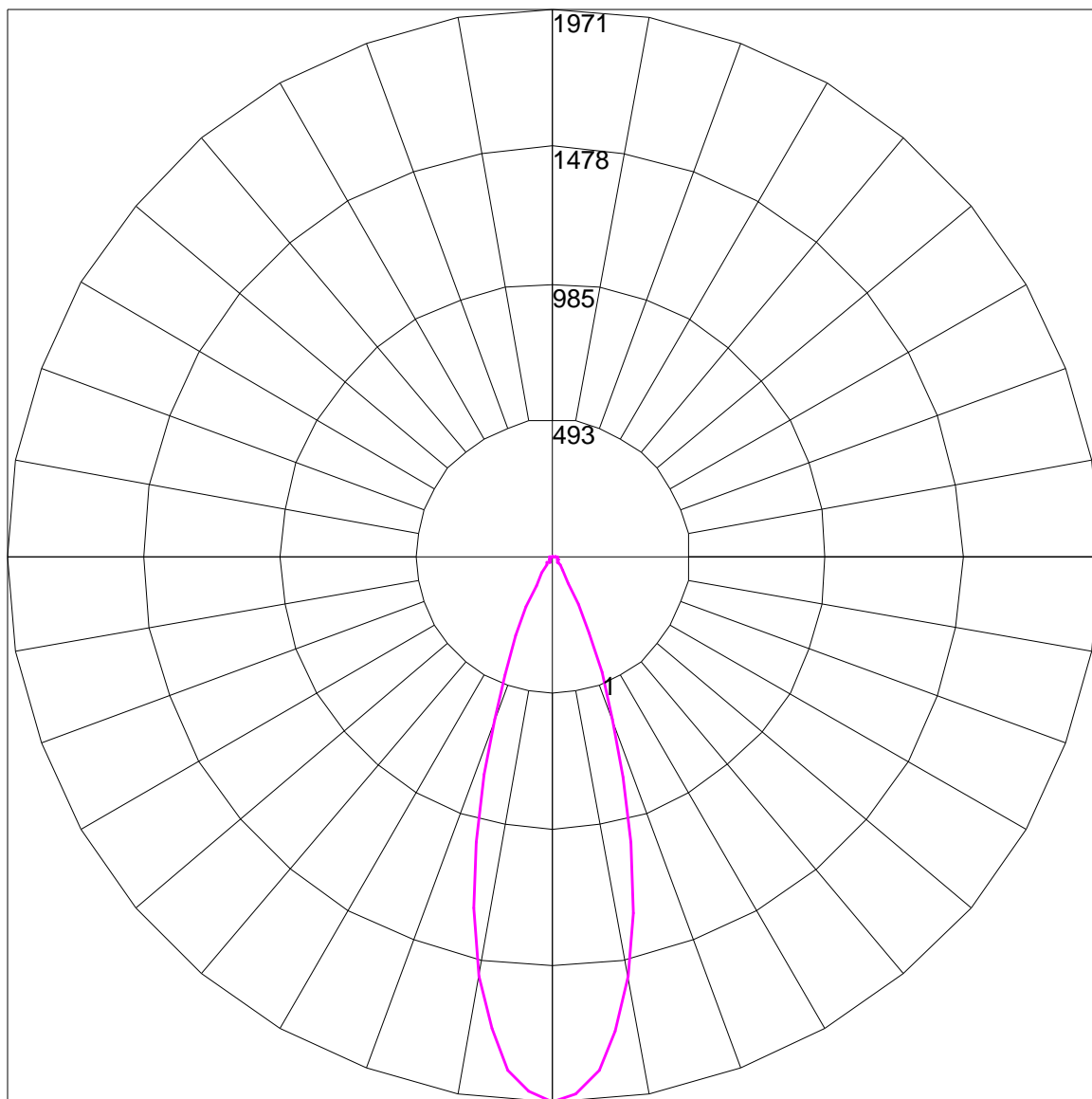
## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	112	109	107	112	109	107	106	105	104	102	102	101	99	98	97	96	95
2	109	105	102	99	107	103	100	97	100	98	95	97	95	93	95	93	91	90
3	105	99	95	92	103	98	94	91	96	92	90	93	91	88	91	89	87	85
4	101	95	90	86	99	93	89	86	91	88	85	89	86	84	88	85	83	82
5	97	90	85	82	96	89	85	81	88	84	81	86	83	80	85	82	79	78
6	94	86	81	78	92	85	81	77	84	80	77	83	79	76	82	78	76	75
7	90	83	78	74	89	82	77	74	81	77	74	80	76	73	79	75	73	72
8	87	79	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69
9	84	77	72	68	83	76	71	68	75	71	68	74	71	68	74	70	68	67
10	82	74	69	66	81	73	69	66	73	69	66	72	68	66	71	68	65	64

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : SP-00648 ~ SR2DMO-XT10L-E1-RDD2F-XXK-MDMWGL.IES

POLAR GRAPH



Maximum Candela = 1970.817 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)