

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00648\_7 ~ SR2DMO-XT20L-E1-RDD2F-XXK-XNMWNL.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] SP-00648\_7  
[TESTLAB] VLS-245-981  
[MANUFAC] Spectrum Lighting  
[ISSUEDATE] 3/16/2018  
[UPDATE] 4/30/2018  
[LUMCAT] SR2DMO-XT20L-E1-RDD2F-xxK-XN-MW-NL  
[LUMINAIRE] Nom. 2" Round Trim Downlight, Xtra Narrow Beam  
[OTHER] Matte White Trim, No lens  
[OTHER] 15.8 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

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1672
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	45
Total Luminaire Watts	37.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.28
Spacing Criterion (90-270)	0.26
Spacing Criterion (Diagonal)	0.28
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\_7 ~ SR2DMO-XT20L-E1-RDD2F-XXK-XNMWNL.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	59795	55128	54013
55	69081	69439	70016
65	54316	51252	52566
75	25205	24664	30545
85	15633	17504	17274

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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>
0.0	11609.290	11609.290	11609.290	11609.290	11609.290	11609.290	11609.290	11609.290	11609.290	11609.290
2.5	11316.180	10951.970	11511.990	11150.110	11072.170	10742.190	11290.680	10727.440	11429.670	10865.850
5.0	8651.914	8429.921	8864.387	8303.707	8809.114	8933.372	9060.605	8973.188	8958.536	8845.483
7.5	6077.102	5979.886	5766.948	5653.947	5498.891	5687.644	5917.597	5991.104	6133.822	5971.917
10.0	3882.412	3615.291	3759.685	3399.942	3392.139	3289.146	3768.458	3666.302	3999.040	3829.415
12.5	2041.412	2060.231	1897.419	1782.186	1919.468	2020.812	2026.611	2151.591	1941.877	2112.581
15.0	1432.404	1348.021	1356.216	1273.768	1248.566	1215.860	1320.209	1241.212	1386.831	1314.917
17.5	959.811	960.402	950.642	933.587	956.330	971.034	974.092	984.269	942.377	981.214
20.0	884.505	869.456	875.398	857.909	842.249	827.818	859.433	836.302	865.377	847.060
22.5	817.105	810.339	821.447	801.741	800.314	792.373	812.197	795.255	805.408	801.318
25.0	769.239	777.606	762.261	772.369	743.740	736.324	761.376	739.572	764.606	738.496
27.5	660.008	637.544	702.098	656.137	682.137	661.089	709.651	671.285	719.898	669.079
30.0	415.730	419.536	460.672	435.388	479.206	497.976	501.486	504.986	480.578	471.479
32.5	224.870	257.147	224.040	262.539	235.682	263.075	261.563	264.707	248.708	232.044
35.0	135.434	130.044	148.930	140.263	140.124	134.901	161.173	139.921	160.758	138.348
37.5	78.156	77.781	77.970	75.332	81.293	85.719	82.785	91.362	78.979	84.217
40.0	73.898	66.817	70.489	65.342	67.163	63.760	68.252	68.837	70.524	69.409
42.5	70.831	63.805	63.739	61.470	61.949	59.411	61.432	61.820	63.235	63.533
45.0	69.480	64.733	64.057	62.741	62.761	58.888	60.931	61.772	65.360	61.799
47.5	70.087	68.206	64.870	65.040	64.504	60.521	60.974	65.326	67.155	60.835
50.0	73.245	72.763	69.098	68.097	68.039	64.829	65.522	67.555	66.974	64.441
52.5	71.804	69.696	71.741	70.299	71.776	70.442	70.292	69.196	66.181	68.695
55.0	65.112	63.862	65.449	71.950	65.993	66.182	66.642	64.756	62.430	63.783
57.5	57.875	57.483	59.086	64.934	59.417	57.622	62.764	57.953	58.165	57.948
60.0	50.143	50.953	52.446	53.230	53.563	51.315	55.662	52.786	52.043	49.348
62.5	43.640	42.959	44.850	45.127	47.013	45.755	48.107	48.103	45.903	40.878
65.0	37.721	35.271	35.593	38.000	36.506	38.032	38.354	38.421	39.734	34.402
67.5	30.323	29.449	27.338	30.860	28.886	30.570	30.405	29.085	31.330	28.853
70.0	21.879	22.884	19.779	24.104	24.688	25.186	24.658	22.418	21.864	24.651
72.5	11.930	15.901	14.088	17.831	18.443	19.563	18.062	17.931	16.952	17.983
75.0	10.720	9.245	10.490	14.394	12.991	14.280	13.035	14.135	13.208	12.076
77.5	9.307	8.644	7.948	9.087	8.937	11.237	10.324	8.456	9.566	8.356
80.0	6.772	6.394	5.607	6.092	6.009	5.714	7.310	4.927	4.900	7.610
82.5	3.770	3.113	3.974	5.222	3.707	2.843	5.909	5.667	4.488	4.367
85.0	2.239	3.014	2.507	2.920	2.474	2.865	3.852	3.530	2.071	3.969
87.5	1.963	0.865	1.951	1.298	1.820	2.016	2.111	1.287	2.355	1.761
90.0	0.000	0.000	1.535	0.000	1.148	1.350	1.385	1.312	2.251	1.476
92.5	0.000	0.000	0.000	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	0.000	0.000	0.000
97.5	0.000	0.000	0.000	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	0.000	0.000	0.000
102.5	0.000	0.000	0.000	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	0.000	0.000	0.000
107.5	0.000	0.000	0.000	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	0.000	0.000	0.000
112.5	0.000	0.000	0.000	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	0.000	0.000	0.000
117.5	0.000	0.000	0.000	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	0.000	0.000	0.000
122.5	0.000	0.000	0.000	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	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	11609.290	11609.290	11609.290	11609.290	11609.290	11609.290	11609.290
2.5	11184.850	11048.320	10828.270	10462.220	10916.720	10565.310	11316.180
5.0	8423.120	8624.820	8151.741	8165.591	8359.785	8326.727	8651.914
7.5	5790.340	5523.416	5639.912	5753.303	5914.888	5987.629	6077.102
10.0	3628.259	3542.363	3335.409	3283.841	3652.737	3592.345	3882.412
12.5	1858.998	1920.092	1845.651	2015.004	2050.057	2213.985	2041.412
15.0	1338.332	1304.958	1285.795	1276.870	1386.197	1327.496	1432.404
17.5	938.596	957.564	954.727	977.836	974.693	981.136	959.811
20.0	862.743	852.808	852.862	844.507	877.722	859.110	884.505
22.5	798.160	800.401	785.995	784.732	804.712	801.166	817.105
25.0	759.327	732.533	749.902	748.366	758.781	765.843	769.239
27.5	656.111	661.956	611.115	581.752	616.868	596.166	660.008
30.0	426.209	441.487	391.808	380.747	379.732	384.845	415.730
32.5	242.353	200.456	234.604	235.162	217.717	238.930	224.870
35.0	139.912	128.927	120.749	102.122	121.116	109.785	135.434
37.5	74.371	73.771	73.026	73.509	74.103	76.905	78.156
40.0	65.630	65.025	65.582	63.621	64.946	63.956	73.898
42.5	61.577	59.008	60.681	59.658	60.184	62.243	70.831
45.0	63.830	56.749	57.123	56.499	58.461	62.343	69.480
47.5	66.138	54.607	58.699	61.086	61.928	67.119	70.087
50.0	68.509	62.475	62.663	66.411	68.525	72.500	73.245
52.5	67.970	69.832	62.444	62.799	68.581	68.873	71.804
55.0	64.316	62.613	60.523	58.590	65.215	64.440	65.112
57.5	58.219	55.395	56.767	53.045	58.259	56.391	57.875
60.0	49.975	48.181	52.422	47.649	49.849	48.274	50.143
62.5	41.587	41.111	42.773	43.333	43.061	40.576	43.640
65.0	33.127	34.483	33.266	36.487	36.063	33.886	37.721

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00648\_7 ~ SR2DMO-XT20L-E1-RDD2F-XXK-XNMWNL.IES****CANDELA TABULATION - (Cont.)**

67.5	28.416	28.953	28.501	26.063	26.316	28.832	30.323
70.0	22.637	24.363	22.499	20.724	19.709	21.435	21.879
72.5	14.477	17.360	15.640	16.638	15.349	14.504	11.930
75.0	12.395	12.295	10.403	12.737	10.781	9.678	10.720
77.5	9.314	9.318	7.100	7.512	7.851	8.691	9.307
80.0	5.481	7.369	4.646	6.876	4.433	4.764	6.772
82.5	2.869	3.723	2.952	3.024	2.358	3.921	3.770
85.0	1.811	3.071	2.646	2.008	1.818	2.227	2.239
87.5	1.772	1.164	1.559	1.746	1.351	1.893	1.963
90.0	0.285	0.823	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	1080.67	N.A.	64.60
0-30	1406.96	N.A.	84.10
0-40	1513.8	N.A.	90.50
0-60	1619.25	N.A.	96.80
0-80	1668.94	N.A.	99.80
0-90	1672.09	N.A.	100.00
10-90	1016.29	N.A.	60.80
20-40	433.13	N.A.	25.90
20-50	482.47	N.A.	28.90
40-70	141.54	N.A.	8.50
60-80	49.69	N.A.	3.00
70-80	13.60	N.A.	0.80
80-90	3.15	N.A.	0.20
90-110	0.10	N.A.	0.00
90-120	0.10	N.A.	0.00
90-130	0.10	N.A.	0.00
90-150	0.10	N.A.	0.00
90-180	0.10	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1672.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	655.80
10-20	424.88
20-30	326.29
30-40	106.84
40-50	49.34
50-60	56.11
60-70	36.09
70-80	13.60
80-90	3.15
90-100	0.10
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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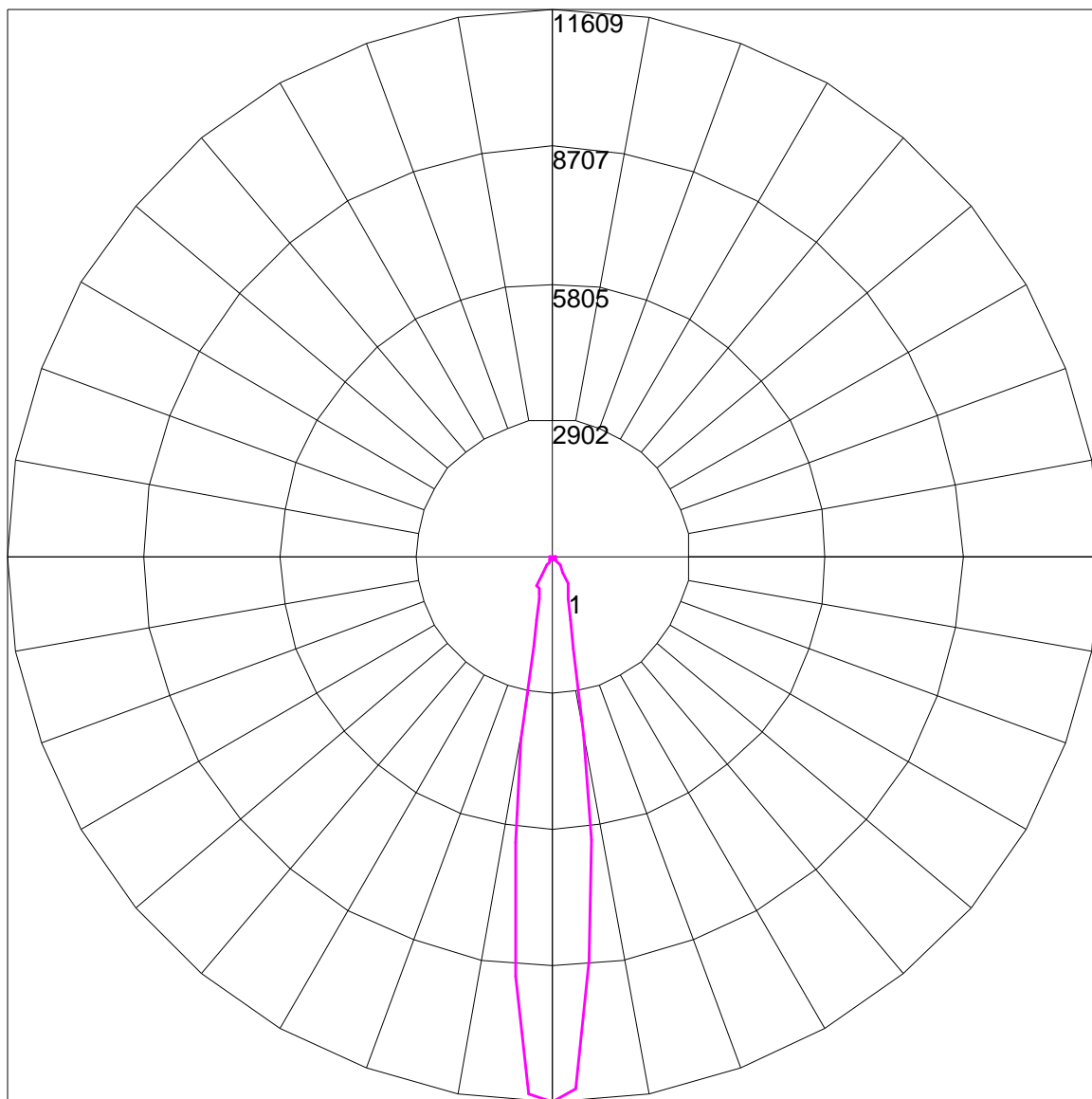
## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	105	102	99	107	104	101	98	101	98	96	98	96	94	95	93	92	90
3	105	100	96	92	103	99	95	92	96	93	90	94	91	89	91	89	87	86
4	101	95	91	87	100	94	90	87	92	88	86	90	87	85	88	86	84	82
5	98	91	86	83	96	90	86	82	89	85	82	87	84	81	86	83	80	79
6	95	87	83	79	93	87	82	79	85	81	78	84	81	78	83	80	77	76
7	92	84	80	76	90	84	79	76	83	79	76	81	78	75	80	77	75	74
8	89	81	77	74	88	81	77	73	80	76	73	79	75	73	78	75	73	71
9	86	79	74	71	85	78	74	71	78	74	71	77	73	71	76	73	70	69
10	84	77	72	69	83	76	72	69	75	72	69	75	71	69	74	71	69	68

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : SP-00648\_7 ~ SR2DMO-XT20L-E1-RDD2F-XXK-XNMWNL.IES

POLAR GRAPH



Maximum Candela = 11609.29 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)