

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00649\_7 ~ SR2DMO-XT20L-E1-SDD2F-XXK-XNMWNL.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] SP-00649\_7  
[TESTLAB] VLS-245-981  
[MANUFAC] Spectrum Lighting  
[ISSUEDATE] 3/16/2018  
[UPDATE] 4/30/2018  
[LUMCAT] SR2DMO-XT20L-E1-SDD2F-xxK-XN-MW-NL  
[LUMINAIRE] Nom. 2" Square Trim Downlight, Xtra Narrow Beam  
[OTHER] Matte White Trim, No lens  
[OTHER] 18.5 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

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1356
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	36
Total Luminaire Watts	37.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.32
Spacing Criterion (90-270)	0.30
Spacing Criterion (Diagonal)	0.34
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\_7 ~ SR2DMO-XT20L-E1-SDD2F-XXK-XNMWNL.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	53044	61492	51019
55	43524	44447	48355
65	22925	24537	24753
75	11431	12856	16017
85	11145	12905	10322

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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	5236.681	5236.681	5236.681	5236.681	5236.681	5236.681	5236.681	5236.681	5236.681	5236.681
2.5	4811.153	5208.647	4877.934	5189.983	4787.336	5147.624	4694.740	5153.588	4889.212	5181.164
5.0	3927.871	4163.128	3938.573	4125.734	3856.227	4277.641	4114.355	4325.030	4281.641	4185.300
7.5	3112.709	3140.249	2997.280	2965.582	2977.648	3100.070	3012.005	3214.946	3252.537	3122.742
10.0	2336.244	2359.390	2054.343	2267.251	2128.947	2292.288	1897.648	2382.006	2391.638	2380.444
12.5	1777.464	1626.929	1502.132	1607.163	1614.847	1626.030	1519.463	1646.748	1792.459	1657.350
15.0	1337.253	1354.479	1264.394	1351.568	1280.150	1310.375	1150.847	1320.174	1344.151	1372.819
17.5	1099.317	1104.047	1122.730	1124.937	1085.313	1120.006	1088.598	1133.349	1121.302	1109.877
20.0	966.964	1041.590	1056.597	1038.957	963.568	1020.194	1027.262	1041.404	952.865	1031.552
22.5	786.855	967.736	981.878	961.503	793.572	951.783	956.157	979.633	862.549	960.373
25.0	582.870	805.742	900.771	759.425	599.841	787.118	885.111	841.694	702.235	774.135
27.5	388.496	633.616	807.054	551.130	401.001	591.393	817.642	680.292	445.343	584.630
30.0	198.721	390.013	704.175	349.865	199.714	391.544	746.300	460.606	259.881	371.599
32.5	122.052	173.538	518.762	148.876	118.274	190.406	528.658	224.290	169.159	158.139
35.0	97.154	132.663	276.628	117.582	90.780	123.416	314.659	143.506	110.191	126.527
37.5	86.823	96.727	150.336	91.211	77.357	95.293	199.754	105.620	91.716	96.474
40.0	82.865	90.274	101.764	82.519	70.099	84.943	90.277	95.924	84.903	94.471
42.5	88.140	86.835	94.249	74.161	78.595	79.572	95.727	93.392	92.389	92.593
45.0	97.273	100.060	112.765	92.466	93.560	92.478	101.327	101.132	99.162	101.942
47.5	100.611	109.619	115.189	110.989	104.181	110.105	109.543	111.391	105.092	110.901
50.0	101.639	100.323	107.658	101.658	113.067	104.834	115.661	104.067	103.732	101.394
52.5	86.301	89.113	89.880	92.222	97.130	93.855	91.321	92.797	94.101	91.599
55.0	64.742	68.724	66.116	72.695	71.928	77.232	67.849	75.048	80.194	72.590
57.5	50.187	50.618	50.674	53.401	56.329	59.320	55.226	55.901	61.622	53.987
60.0	38.167	42.676	39.972	44.442	44.211	48.258	43.052	47.236	47.703	45.127
62.5	30.963	35.021	32.648	35.703	35.215	38.703	35.620	40.627	38.665	36.402
65.0	25.126	28.207	26.893	29.083	27.130	31.773	28.679	33.013	30.543	29.289
67.5	20.414	21.663	21.044	23.223	22.158	25.289	24.228	25.333	23.183	22.701
70.0	15.937	15.435	15.565	19.061	17.604	20.762	19.757	21.935	19.161	17.861
72.5	11.909	12.139	11.964	15.989	13.542	16.165	15.255	17.506	16.266	13.611
75.0	7.673	9.642	8.629	12.940	10.751	11.425	10.802	10.990	12.872	9.876
77.5	4.451	7.502	6.199	8.269	8.301	8.837	7.264	8.450	9.933	7.252
80.0	3.281	4.968	5.351	5.443	5.595	7.032	5.604	6.564	7.032	5.866
82.5	3.309	4.222	3.518	3.562	3.474	5.311	3.602	4.594	3.929	4.756
85.0	2.519	2.398	2.917	2.458	2.333	2.984	3.466	3.605	3.385	2.967
87.5	1.313	1.306	1.484	2.271	1.890	1.551	1.837	2.481	2.018	1.671
90.0	0.000	0.000	0.000	0.000	0.000	1.245	1.245	2.645	1.551	1.420
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	5236.681	5236.681	5236.681	5236.681	5236.681	5236.681	5236.681
2.5	4928.077	5172.219	4859.860	4998.170	4621.006	5023.735	4811.153
5.0	4216.132	4058.436	4197.270	3980.943	3988.765	4049.241	3927.871
7.5	3065.074	2979.806	3072.091	3025.844	2976.757	3136.225	3112.709
10.0	2193.159	2199.417	2194.613	2214.415	1995.517	2371.241	2336.244
12.5	1613.619	1485.052	1708.410	1573.468	1581.486	1730.014	1777.464
15.0	1264.809	1278.285	1328.831	1302.552	1186.702	1378.618	1337.253
17.5	1148.507	1089.151	1108.408	1095.241	1087.628	1111.792	1099.317
20.0	1053.262	1023.722	937.981	1022.347	990.291	1030.807	966.964
22.5	978.433	948.969	840.408	923.647	915.759	918.934	786.855
25.0	908.971	814.174	674.497	773.658	842.516	740.985	582.870
27.5	844.515	661.961	414.399	589.323	784.016	545.763	388.496
30.0	720.886	406.266	229.676	338.468	709.979	315.796	198.721
32.5	544.156	182.308	146.399	161.305	479.007	152.325	122.052
35.0	366.991	133.078	93.429	118.602	261.705	119.177	97.154
37.5	189.450	90.084	79.064	87.074	167.809	96.282	86.823
40.0	103.519	79.022	70.364	75.429	85.162	92.313	82.865
42.5	93.651	72.864	68.712	73.672	94.107	92.599	88.140
45.0	97.854	90.142	76.264	88.512	102.359	100.541	97.273
47.5	113.293	103.003	94.658	96.189	105.481	102.493	100.611
50.0	109.968	96.110	100.892	92.134	105.246	94.277	101.639
52.5	92.235	87.147	93.131	82.795	82.286	82.326	86.301
55.0	72.295	69.492	78.834	65.281	60.645	64.186	64.742
57.5	50.725	53.187	57.414	50.792	47.226	49.718	50.187
60.0	38.711	42.215	42.105	40.776	35.297	40.952	38.167
62.5	33.460	32.704	33.268	32.699	30.637	32.566	30.963
65.0	28.462	27.891	26.650	26.799	25.538	24.629	25.126

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00649\_7 ~ SR2DMO-XT20L-E1-SDD2F-XXK-XNMWNL.IES****CANDELA TABULATION - (Cont.)**

67.5	23.600	22.575	21.783	20.872	19.455	19.536	20.414
70.0	18.562	16.452	17.115	15.132	15.778	15.818	15.937
72.5	13.794	12.404	12.765	13.204	13.437	12.378	11.909
75.0	10.186	9.433	9.946	10.334	8.455	9.707	7.673
77.5	7.522	7.279	7.511	7.071	5.885	7.495	4.451
80.0	5.930	4.463	5.761	4.842	4.499	5.220	3.281
82.5	5.256	3.389	4.449	4.092	3.237	3.682	3.309
85.0	3.826	3.719	2.400	1.763	1.912	2.136	2.519
87.5	1.798	1.791	1.787	2.179	1.547	1.735	1.313
90.0	1.688	1.754	1.869	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	714.11	N.A.	52.70
0-30	1055.7	N.A.	77.80
0-40	1174.88	N.A.	86.60
0-60	1313.23	N.A.	96.80
0-80	1353.01	N.A.	99.80
0-90	1356.21	N.A.	100.00
10-90	1026.69	N.A.	75.70
20-40	460.77	N.A.	34.00
20-50	535.35	N.A.	39.50
40-70	166.78	N.A.	12.30
60-80	39.78	N.A.	2.90
70-80	11.36	N.A.	0.80
80-90	3.20	N.A.	0.20
90-110	0.11	N.A.	0.00
90-120	0.11	N.A.	0.00
90-130	0.11	N.A.	0.00
90-150	0.11	N.A.	0.00
90-180	0.11	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1356.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	329.52
10-20	384.59
20-30	341.60
30-40	119.17
40-50	74.58
50-60	63.77
60-70	28.43
70-80	11.36
80-90	3.20
90-100	0.11
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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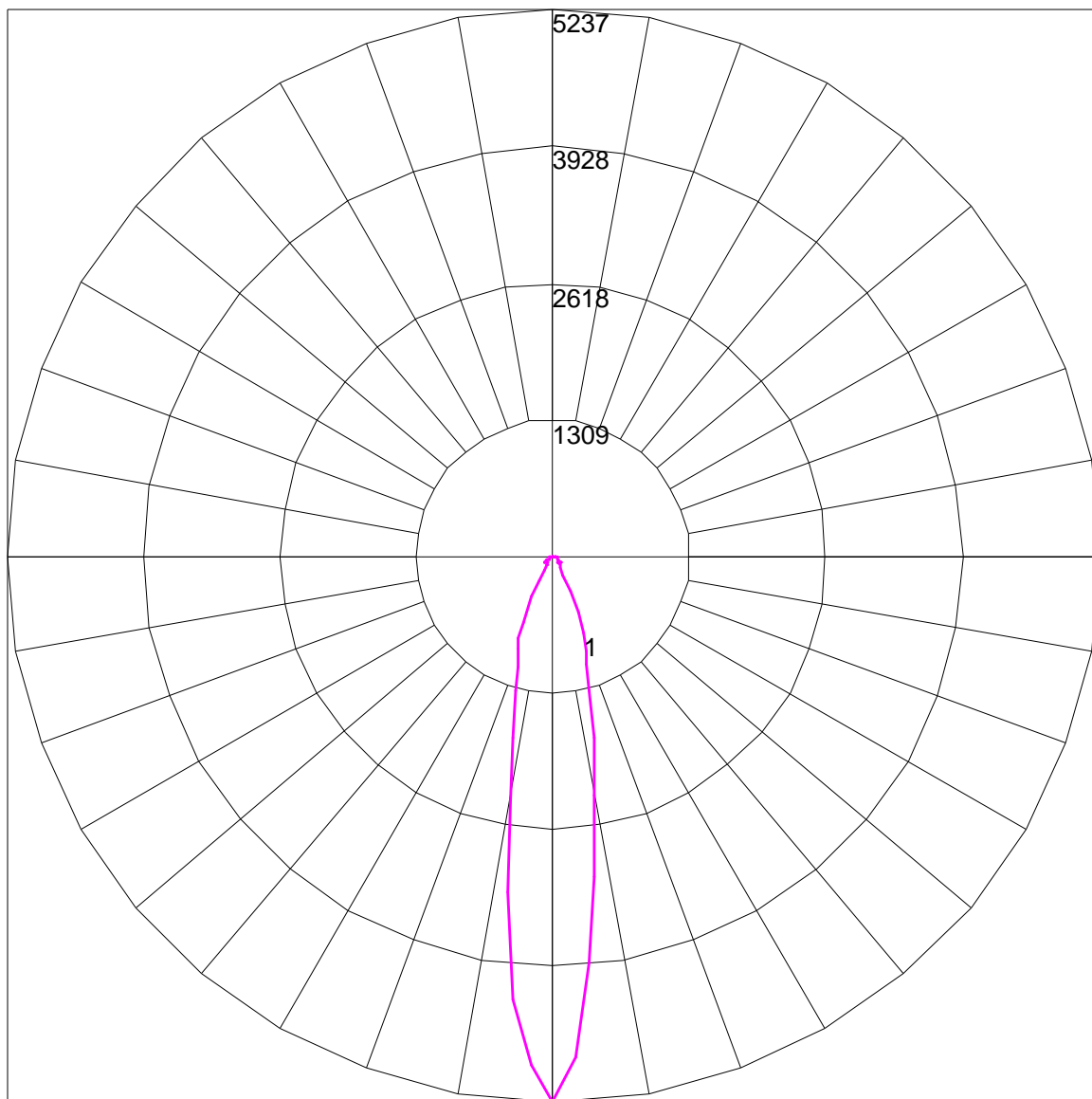
## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94
2	108	103	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88
3	103	97	92	88	101	96	91	88	93	89	86	91	88	85	88	86	84	82
4	99	91	86	82	97	90	85	82	88	84	81	86	83	80	84	81	79	77
5	94	86	81	77	93	86	80	77	84	79	76	82	78	75	81	77	75	73
6	90	82	77	73	89	81	76	72	80	75	72	78	74	71	77	74	71	70
7	87	78	73	69	85	77	72	69	76	72	68	75	71	68	74	70	68	66
8	83	75	69	65	82	74	69	65	73	68	65	72	68	65	71	67	65	63
9	80	71	66	63	79	71	66	62	70	65	62	69	65	62	68	65	62	61
10	77	69	63	60	76	68	63	60	67	63	60	67	63	60	66	62	59	58

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : SP-00649\_7 ~ SR2DMO-XT20L-E1-SDD2F-XXK-XNMWNL.IES

POLAR GRAPH



Maximum Candela = 5236.681 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)