

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SP-00648_9 ~ SR2MX-XT20L-E1-RH2BGC2-35K-MD-MW.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] SP-00648_9
[TESTLAB] Spectrum Lighting Photometric Lab, VLS-245-981
[MANUFAC] Spectrum Lighting
[ISSUEDATE] 5/16/2018
[UPDATE] 7/12/2018
[LUMCAT] SR2Mx-XT20L-E1-RH2BGC2-35K-MD-MW
[LUMINAIRE] Nominal 2" Round Downlight, Medium Beam
[OTHER] Matte White Trim, Decorative Round Trim - Bubble Glass
[OTHER] 28.9 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: SR2MO-XT-series
[OTHER] For Remodel/Retrofit Housing: SR2MR-XT-Series
[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	759
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	32
Total Luminaire Watts	23.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.52
Spacing Criterion (90-270)	0.54
Spacing Criterion (Diagonal)	0.50
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	0.13 ft (Diameter)
Luminous Width (90-270)	0.13 ft (Diameter)
Luminous Height	0.18 ft

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SP-00648_9 ~ SR2MX-XT20L-E1-RH2BGC2-35K-MD-MW.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	29276	31101	32724
55	17598	20223	20508
65	9483	11439	11177
75	3505	3355	3640
85	1645	1470	1249

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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	2003.858	2003.858	2003.858	2003.858	2003.858	2003.858	2003.858	2003.858	2003.858	2003.858
2.5	2008.367	2005.198	2000.197	1995.596	1990.897	1965.024	1962.572	1943.606	1951.326	1947.756
5.0	2070.106	2047.409	2014.027	1971.554	1929.729	1875.411	1867.498	1896.634	1920.893	1945.859
7.5	1969.661	1978.225	1948.152	1941.084	1922.640	1889.340	1882.620	1887.177	1907.539	1892.763
10.0	1722.931	1758.092	1741.032	1792.120	1792.316	1711.290	1719.257	1682.584	1691.323	1630.367
12.5	1361.840	1416.271	1406.561	1486.343	1466.939	1334.146	1342.963	1283.430	1298.220	1234.683
15.0	1002.001	1045.283	1023.287	1082.032	1054.496	916.457	920.436	879.461	908.954	857.462
17.5	749.230	780.855	762.138	780.566	739.128	638.013	639.286	609.294	621.790	611.963
20.0	523.946	555.342	550.889	584.859	551.385	477.067	460.494	414.719	422.902	427.639
22.5	357.749	375.020	365.052	396.953	390.649	352.548	336.628	297.133	301.585	293.094
25.0	223.291	234.222	229.913	261.590	268.206	240.371	228.919	207.629	209.397	198.085
27.5	142.714	144.928	143.055	165.994	177.148	173.371	172.662	160.645	162.790	163.965
30.0	113.446	114.242	118.222	132.130	142.359	144.753	145.475	139.100	142.307	143.230
32.5	96.309	98.034	98.997	108.723	119.966	127.547	129.624	126.429	134.022	133.744
35.0	88.899	91.510	95.458	102.302	109.722	115.102	121.246	118.732	124.909	122.990
37.5	84.367	86.478	89.902	96.558	98.955	101.703	105.471	103.230	114.189	110.116
40.0	78.593	82.693	85.261	90.098	89.388	87.739	91.693	91.449	99.696	96.380
42.5	72.592	75.513	78.231	78.806	79.760	77.487	80.382	82.305	86.977	88.064
45.0	65.732	69.260	69.831	73.037	73.475	70.742	70.298	70.358	76.059	76.385
47.5	60.932	61.659	60.739	66.460	64.807	60.871	63.272	65.175	69.970	71.503
50.0	55.578	56.350	57.642	60.765	57.789	58.921	59.788	60.971	65.309	65.209
52.5	48.792	51.775	52.305	53.902	52.567	52.787	54.333	54.407	57.195	56.623
55.0	40.842	44.955	46.934	45.389	47.596	45.184	46.227	47.649	48.388	48.428
57.5	36.608	39.913	42.341	41.732	40.676	39.299	41.338	42.727	42.234	43.105
60.0	31.962	35.032	37.486	37.254	35.274	35.522	36.977	37.552	37.163	37.535
62.5	26.563	30.302	32.454	31.944	31.761	32.412	33.166	32.272	32.510	31.875
65.0	22.057	25.402	26.605	26.443	25.996	24.744	26.720	24.341	24.027	23.201
67.5	18.159	20.376	20.815	20.868	19.084	17.545	19.248	16.879	16.027	15.266
70.0	13.583	15.843	15.158	15.769	14.843	12.760	14.227	11.836	11.907	11.328
72.5	9.019	11.549	10.828	11.034	11.246	9.041	9.894	8.011	8.748	8.105
75.0	7.922	8.792	7.584	7.774	8.228	6.789	7.371	5.844	7.086	5.879
77.5	6.727	7.123	6.700	6.440	6.588	6.008	5.439	4.573	6.371	5.212
80.0	5.523	6.336	5.297	5.750	5.383	4.974	4.229	3.581	5.145	4.370
82.5	4.590	5.041	4.039	4.216	2.946	3.622	3.750	2.886	3.430	3.399
85.0	3.498	2.994	3.126	3.556	2.656	2.582	2.401	2.618	2.402	2.793
87.5	1.929	1.884	2.430	2.139	1.922	2.241	2.314	2.161	1.917	1.977
90.0	1.745	0.747	1.335	1.808	1.488	1.213	1.511	1.270	1.302	1.464
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	2003.858	2003.858	2003.858	2003.858	2003.858	2003.858	2003.858
2.5	1964.010	1984.476	2002.113	2000.677	2008.507	2008.277	2008.367
5.0	1966.119	1979.965	2005.818	2040.284	2062.990	2071.026	2070.106
7.5	1889.786	1866.970	1887.058	1951.925	1965.764	1985.351	1969.661
10.0	1641.689	1581.232	1609.038	1726.961	1723.598	1763.224	1722.931
12.5	1258.887	1197.539	1228.116	1365.708	1356.810	1404.338	1361.840
15.0	901.185	870.485	894.092	997.886	988.521	1033.164	1002.001
17.5	662.813	631.108	642.977	728.176	736.706	765.432	749.230
20.0	457.063	433.384	440.501	503.245	508.492	540.195	523.946
22.5	317.243	301.007	307.423	350.283	360.302	372.519	357.749
25.0	200.247	182.970	182.624	218.922	221.029	236.953	223.291
27.5	156.278	142.843	131.869	139.354	137.501	145.748	142.714
30.0	133.392	119.239	111.666	112.214	112.856	114.972	113.446
32.5	121.357	108.151	97.909	95.797	95.673	96.906	96.309
35.0	113.315	97.938	90.405	87.588	86.639	89.978	88.899
37.5	101.097	89.517	81.001	80.553	80.798	82.144	84.367
40.0	89.866	77.258	70.703	74.571	73.549	79.140	78.593
42.5	82.546	73.512	64.617	64.715	67.048	69.159	72.592
45.0	73.594	67.990	58.819	57.366	61.344	62.586	65.732
47.5	68.843	60.619	52.357	50.722	53.591	56.935	60.932
50.0	62.433	54.121	46.620	45.907	48.408	50.566	55.578
52.5	53.301	46.883	40.557	40.902	42.712	44.329	48.792
55.0	47.010	39.374	34.554	34.628	36.405	38.023	40.842
57.5	41.763	33.748	29.765	30.444	31.170	34.168	36.608
60.0	36.371	28.954	26.022	26.347	26.590	29.818	31.962
62.5	29.731	24.704	22.816	22.242	22.424	24.316	26.563
65.0	23.104	19.130	18.282	18.682	18.842	19.844	22.057

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SP-00648_9 ~ SR2MX-XT20L-E1-RH2BGC2-35K-MD-MW.IES****CANDELA TABULATION - (Cont.)**

67.5	16.496	13.318	13.714	15.540	15.363	16.164	18.159
70.0	12.084	9.827	10.872	12.230	11.846	12.464	13.583
72.5	9.211	7.139	8.649	8.903	8.866	8.852	9.019
75.0	7.870	6.579	7.682	7.054	7.248	8.377	7.922
77.5	6.530	5.537	5.845	5.785	5.713	7.063	6.727
80.0	4.991	4.286	4.248	5.083	4.702	5.160	5.523
82.5	3.707	3.102	3.193	4.423	4.070	4.062	4.590
85.0	1.748	2.322	1.999	2.263	2.171	2.357	3.498
87.5	1.906	1.518	1.639	1.960	1.473	2.379	1.929
90.0	0.471	1.304	1.214	0.595	1.515	0.699	1.745
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	453.39	N.A.	59.70
0-30	567.18	N.A.	74.70
0-40	631.98	N.A.	83.20
0-60	724.83	N.A.	95.50
0-80	755.93	N.A.	99.60
0-90	759.04	N.A.	100.00
10-90	577.72	N.A.	76.10
20-40	178.59	N.A.	23.50
20-50	232.01	N.A.	30.60
40-70	115.58	N.A.	15.20
60-80	31.10	N.A.	4.10
70-80	8.36	N.A.	1.10
80-90	3.12	N.A.	0.40
90-110	0.17	N.A.	0.00
90-120	0.17	N.A.	0.00
90-130	0.17	N.A.	0.00
90-150	0.17	N.A.	0.00
90-180	0.17	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	759.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	181.33
10-20	272.06
20-30	113.80
30-40	64.80
40-50	53.42
50-60	39.43
60-70	22.74
70-80	8.36
80-90	3.12
90-100	0.17
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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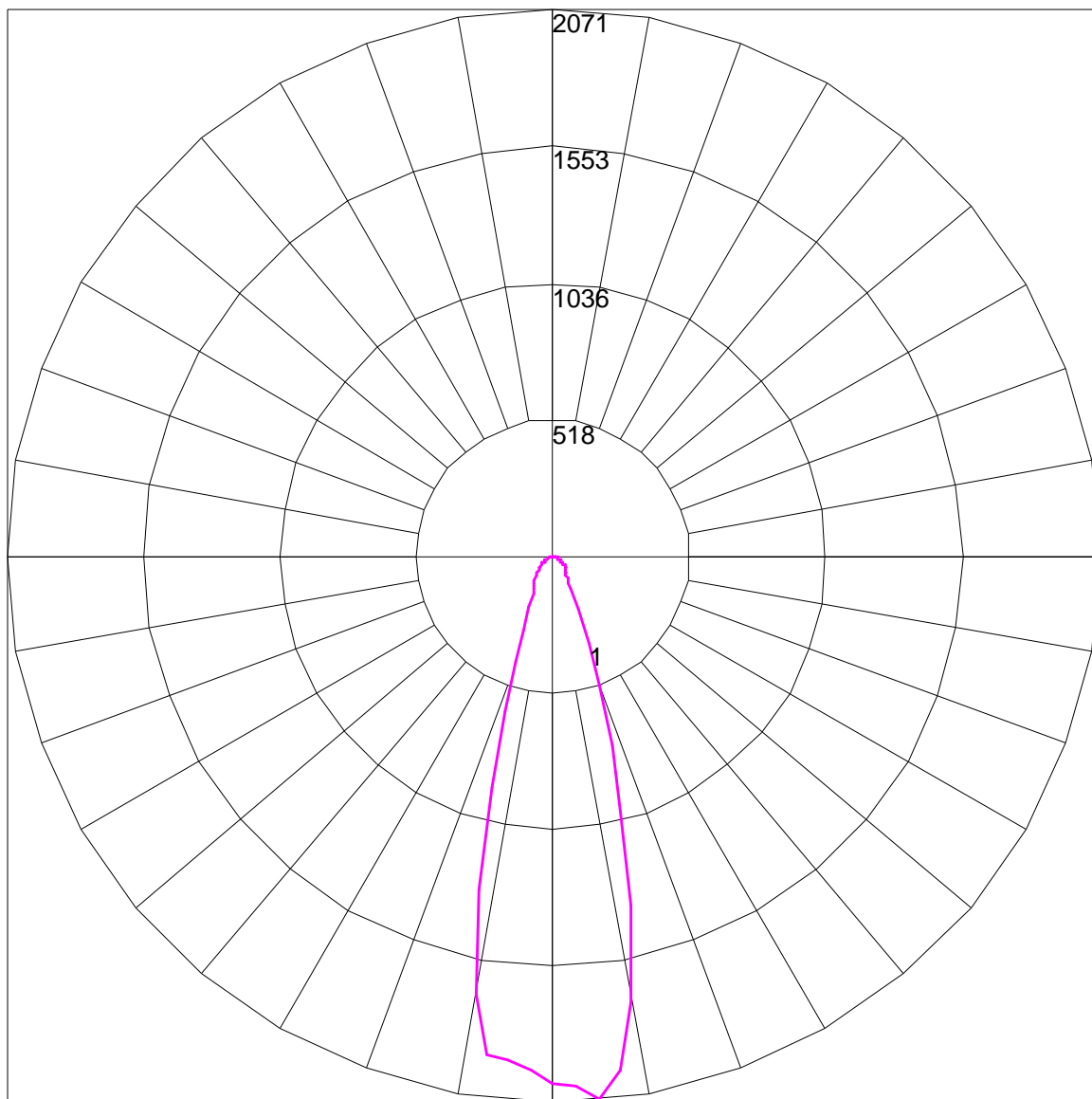
COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	96	106	101	98	95	98	95	92	95	93	90	92	90	89	87
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81
4	98	91	86	82	96	90	85	81	88	83	80	86	82	79	84	81	78	77
5	94	86	80	76	92	85	80	76	83	79	75	82	78	75	80	77	74	73
6	90	82	76	72	89	81	76	72	79	75	71	78	74	71	77	73	70	69
7	86	78	72	68	85	77	72	68	76	71	68	75	71	68	74	70	67	66
8	83	75	69	65	82	74	69	65	73	68	65	72	68	65	71	67	64	63
9	80	72	66	63	79	71	66	62	70	66	62	69	65	62	68	65	62	61
10	77	69	64	60	77	68	63	60	68	63	60	67	63	60	66	62	60	58

IES INDOOR REPORT
PHOTOMETRIC FILENAME : SP-00648_9 ~ SR2MX-XT20L-E1-RH2BGC2-35K-MD-MW.IES

POLAR GRAPH



Maximum Candela = 2071.026 Located At Horizontal Angle = 337.5, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180)