IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-20L-SIL-FT-50-70CRI.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-12571
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUEDATE] 03/30/21
[TESTDATE] 03/05/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MPP-LED-20L-SIL-FT-50-70CRI
[OTHER] TEST PROCEDURE: IESNA LM-79-08
[_ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[OTHER] SCALED FROM ORIGINAL TEST DATA
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Outdoor
[_SEARCH_COLORTEMP] 5000

CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20983
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	141
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.04
Maximum Candela	11166
Maximum Candela Angle	37.5H 67.5V
Maximum Candela (<90 Degrees Vertical)	11166
Maximum Candela Angle (<90 Degrees Vertical)	37.5H 67.5V
Maximum Candela At 90 Degrees Vertical	299 (1.4% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	2574 (12.3% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1060.4	N.A.	5.1
FM - Front-Medium (30-60)	6167.4	N.A.	29.4
FH - Front-High (60-80)	6589.9	N.A.	31.4
FVH - Front-Very High (80-90)	364.1	N.A.	1.7
BL - Back-Low (0-30)	947.9	N.A.	4.5
BM - Back-Medium (30-60)	3172.4	N.A.	15.1
BH - Back-High (60-80)	1540.0	N.A.	7.3
BVH - Back-Very High (80-90)	265.2	N.A.	1.3
UL - Uplight-Low (90-100)	241.4	N.A.	1.2
UH - Uplight-High (100-180)	633.9	N.A.	3.0
Total	20982.6	N.A.	100.0
BUG Rating	B3-U4-G3		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0.0	5.0	15.0	25.0	35.0	37.5	45.0	55.0	65.0	75.0
0.0	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844
2.5	1924	1941	1935	1943	1939	1932	1925	1916	1898	1880
5.0	1827	1812	1857	1924	1963	1962	1977	2001	1996	1947
7.5	1882	1888	1825	1860	1857	1856	1840	1925	2009	1996
10.0	1872	1839	1876	1904	1898	1924	1923	1943	1985	2032
12.5	1979	1992	2015	1988	1979	1977	1969	2001	1992	2206
15.0	2080	2064	2095	2062	2141	2134	2120	2125	2156	2209
17.5	2277	2265	2295	2256	2205	2216	2259	2252	2277	2339
20.0	2401	2448	2459	2436	2504	2507	2338	2455	2449	2399
22.5	2651	2634	2683	2685	2621	2634	2614	2586	2570	2625
25.0	2925	2946	2910	2821	2910	2883	2754	2714	2764	2695
27.5	3192	3239	3180	3143	3060	3046	3013	2858	2820	2825
30.0	3619	3640	3609	3379	3341	3318	3159	3059	2911	3003
32.5	3870	3890	3831	3776	3646	3568	3449	3276	3082	3089
35.0	4205	4150	4067	4017	4005	3985	3745	3453	3193	3129
37.5	4494	4467	4348	4282	4263	4247	4199	3733	3387	3184
40.0	4861	4792	4696	4608	4563	4552	4568	4050	3598	3169
42.5	5315	5218	5097	5003	4930	4926	4938	4492	3758	3267
45.0	5820	5755	5592	5498	5394	5388	5335	5010	3928	3456
47.5	6430	6394	6222	6119	5998	5960	5836	5438	4312	3693
50.0	7141	7110	6939	6908	6718	6611	6480	5995	4764	4051
52.5	7725	7702	7623	7697	7490	7332	7177	6607	5424	4520
55.0	8044	8052	8076	8330	8286	8177	7960	7297	6128	4764
57.5	8220	8246	8408	8760	8975	8992	8725	8107	6897	5184
60.0	8302	8350	8619	9112	9494	9595	9465	8833	7670	5834
62.5	8374	8439	8833	9469	9992	10140	10073	9507	8179	6389
65.0	8281	8342	8816	9694	10453	10739	10817	10007	8438	6678
67.5	7939	8018	8599	9737	11048	11166	11016	10366	8292	6122
70.0	6599	6806	7644	9249	11025	11080	11017	10009	7365	5190
72.5	3823	4148	5914	7623	9715	10133	10736	8424	5818	3600
75.0	1764	2003	4092	5688	7534	8097	8575	6528	3889	1959
77.5	834	909	2056	3575	5168	5085	4674	4005	2078	1200
80.0	680	727	1175	1815	2574	2569	2157	2129	1297	891
82.5	541	594	834	1240	1410	1360	1238	1157	786	651
85.0	415	461	616	743	731	691	748	567	448	502
87.5	279	305	391	431	286	268	344	296	315	342
90.0	88	106	154	177	200	206	220	230	245	262
92.5	99	110	157	181	203	208	224	230	247	260
95.0	112	113	160	184	205	210	225	228	244	252
97.5	123	117	160	186	206	211	224	222	237	216
100.0	132	122	160	187	206	209	220	216	219	173
102.5	140	128	159	188	205	208	216	208	196	151
105.0	144	133	157	189	204	206	211	192	171	141
107.5	147	139	155	189	202	204	201	172	150	135
110.0	149	144	153	188	198	198	188	154	135	131
112.5	150	147	152	186	191	188	170	143	125	127
115.0	151	149	150	180	179	174	156	135	119	124
117.5	152	151	148	171	166	162	149	129	114	121
120.0	152	151	144	159	156	153	142	125	113	119
122.5	150	149	139	149	149	147	138	123	113	117
125.0	146	145	135	139	144	142	135	123	113	115
127.5	141	140	132	133	138	138	133	125	115	117
130.0	137	136	130	128	135	135	133	125	117	119

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CANDELA TABULATION - (Cont.)

132.5	134	133	129	126	133	134	130	120	118	122
135.0	134	134	131	127	125	123	117	113	119	125
137.5	131	132	125	113	104	101	97	99	110	124
140.0	113	113	105	93	82	80	77	83	94	109
142.5	92	91	85	72	57	56	56	63	77	91
145.0	69	69	61	50	40	40	39	45	57	70
147.5	46	45	41	34	26	24	20	27	39	47
150.0	33	32	30	20	9	8	6	11	22	30
152.5	17	16	11	6	2	2	2	5	8	14
155.0	6	5	3	2	2	2	2	2	4	6
157.5	2	2	2	2	2	2	2	2	2	3
160.0	2	2	2	2	2	2	2	2	2	3
162.5	2	1	2	2	2	2	2	2	2	3
165.0	1	1	2	2	2	2	2	2	2	3
167.5	1	1	2	2	2	2	2	2	2	3
170.0	2	1	2	2	2	2	2	2	3	3
172.5	1	1	2	2	2	2	2	2	3	3
175.0	1	1	2	2	2	2	2	2	2	3
177.5	2	1	2	2	2	2	2	2	3	3
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**									
	85.0	**90.0**	**95.0**	**105.0**	**115.0**	**125.0**	**135.0**	**145.0**	**155.0**	**165.0**
0.0	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844
2.5	1866	1849	1850	1836	1821	1829	1821	1811	1806	1808
5.0	1899	1852	1816	1840	1940	1950	1924	1909	1880	1862
7.5	1961	1900	1876	1932	1955	1933	1905	1837	1761	1714
10.0	1998	1961	1921	2000	1933	1886	1792	1775	1769	1711
12.5	2191	2080	2042	2133	1976	1825	1774	1789	1759	1820
15.0	2275	2169	2137	2169	1991	1925	1807	1908	1930	1959
17.5	2422	2328	2308	2289	2048	1935	2070	2023	2021	2102
20.0	2567	2417	2422	2324	2131	2096	2090	2137	2177	2234
22.5	2726	2626	2606	2414	2177	2225	2225	2332	2296	2438
25.0	2799	2786	2700	2431	2280	2276	2374	2401	2492	2561
27.5	2970	2866	2874	2536	2316	2399	2465	2577	2597	2757
30.0	3056	2940	2978	2660	2414	2525	2617	2645	2756	2867
32.5	3065	2972	2985	2722	2481	2589	2657	2789	2941	3102
35.0	3093	2962	3001	2692	2469	2613	2762	2918	3027	3171
37.5	3088	2977	3031	2649	2451	2597	2802	2938	3051	3225
40.0	3065	3050	2995	2581	2435	2553	2823	2910	3069	3305
42.5	3143	3005	3009	2535	2387	2527	2772	2877	3100	3587
45.0	3175	3012	3036	2536	2274	2545	2714	2823	3169	3845
47.5	3243	3097	2976	2494	2191	2514	2641	2743	3437	3460
50.0	3342	3208	2997	2482	2102	2421	2547	2672	3417	3144
52.5	3593	3290	3115	2476	2058	2341	2430	2678	3181	2918
55.0	3834	3489	3196	2410	2025	2246	2303	2680	2926	2735
57.5	4161	3694	3268	2347	1933	2097	2162	2581	2699	2561
60.0	4457	3848	3397	2294	1808	1913	1983	2410	2475	2377
62.5	4641	3918	3343	2200	1658	1729	1800	2223	2244	2193
65.0	4562	3814	3101	2019	1487	1534	1615	2035	2013	2011
67.5	4119	3296	2692	1772	1346	1359	1452	1864	1767	1784
70.0	3245	2433	1917	1481	1194	1224	1303	1678	1499	1619
72.5	2086	1642	1201	1168	1030	1074	1146	1446	1308	1468
75.0	1168	1016	872	927	888	897	1005	1243	1043	1191
77.5	770	695	616	731	718	737	841	970	859	1103

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CANDELA TABULATION - (Cont.)

80.0	616	546	477	606	577	581	665	724	741	973
82.5	484	427	386	525	496	485	533	565	642	800
85.0	404	295	337	453	414	408	426	446	549	614
87.5	324	164	310	362	348	339	361	350	371	444
90.0	212	125	260	296	291	275	299	290	281	275
92.5	166	194	232	287	280	263	280	275	262	246
95.0	169	239	219	277	272	245	272	268	259	244
97.5	191	240	217	256	257	226	259	256	252	236
100.0	199	228	214	226	242	217	248	248	244	224
102.5	191	212	205	203	227	214	240	241	238	213
105.0	179	196	192	186	211	208	232	236	232	199
107.5	166	179	180	175	195	202	225	230	225	185
110.0	155	166	168	166	180	194	219	227	219	171
112.5	147	156	159	159	168	188	212	222	214	158
115.0	139	148	152	154	160	181	204	216	205	149
117.5	134	141	145	151	156	176	197	209	194	143
120.0	129	136	140	149	153	172	191	200	181	139
122.5	125	131	136	145	152	169	184	188	165	137
125.0	122	127	132	142	151	166	178	177	152	134
127.5	121	125	130	141	150	164	171	165	140	132
130.0	123	126	132	141	150	162	164	154	132	130
132.5	125	129	133	142	147	156	158	145	126	129
135.0	129	133	136	143	143	142	145	137	125	128
137.5	133	136	138	139	133	123	121	120	124	128
140.0	121	125	125	121	112	101	93	97	107	118
142.5	103	106	105	100	89	77	67	72	86	98
145.0	80	82	83	77	65	54	47	49	64	76
147.5	53	55	56	53	44	33	30	34	43	53
150.0	33	33	33	32	26	14	12	22	30	33
152.5	18	18	18	15	10	5	4	6	14	22
155.0	7	7	7	6	5	3	2	2	2	5
157.5	4	5	4	4	3	2	2	1	0	0
160.0	4	4	4	4	3	2	2	1	0	0
162.5	4	4	4	4	3	2	2	0	0	0
165.0	4	4	4	4	3	2	2	1	0	0
167.5	4	4	4	4	3	2	2	1	0	0
170.0	4	4	4	4	3	2	2	1	0	0
172.5	4	4	4	4	3	2	2	1	0	0
175.0	4	4	4	4	3	2	2	1	0	0
177.5	4	4	4	4	3	2	2	1	0	0
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**	
	175.0	**180.0**
0.0	1844	1844
2.5	1820	1836
5.0	1860	1846
7.5	1722	1714
10.0	1733	1742
12.5	1836	1847
15.0	1967	1893
17.5	2070	2173
20.0	2231	2181
22.5	2437	2437
25.0	2584	2557

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CANDELA TABULATION - (Cont.)

27.5	2814	2852
30.0	2989	2983
32.5	3204	3210
35.0	3287	3302
37.5	3362	3412
40.0	3520	3636
42.5	3834	3861
45.0	3454	3444
47.5	3190	3206
50.0	3027	3029
52.5	2874	2870
55.0	2719	2716
57.5	2546	2533
60.0	2366	2354
62.5	2185	2181
65.0	2020	2010
67.5	1782	1761
70.0	1642	1617
72.5	1409	1295
75.0	1162	1105
77.5	1153	1103
80.0	1103	1052
82.5	929	889
85.0	715	712
87.5	499	533
90.0	232	196
92.5	156	122
95.0	153	142
97.5	149	158
100.0	145	167
102.5	144	170
105.0	146	170
107.5	149	167
110.0	151	162
112.5	153	158
115.0	152	154
117.5	150	152
120.0	149	149
122.5	146	147
125.0	144	145
127.5	140	141
130.0	137	137
132.5	133	133
135.0	131	131
137.5	130	130
140.0	125	125
142.5	104	105
145.0	82	83
147.5	60	61
150.0	37	37
152.5	25	26
155.0	8	7
157.5	0	0
160.0	0	0
162.5	0	0
165.0	0	0

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CANDELA TABULATION - (Cont.)

167.5	0	0
170.0	0	0
172.5	0	0
175.0	0	0
177.5	0	0
180.0	2	2

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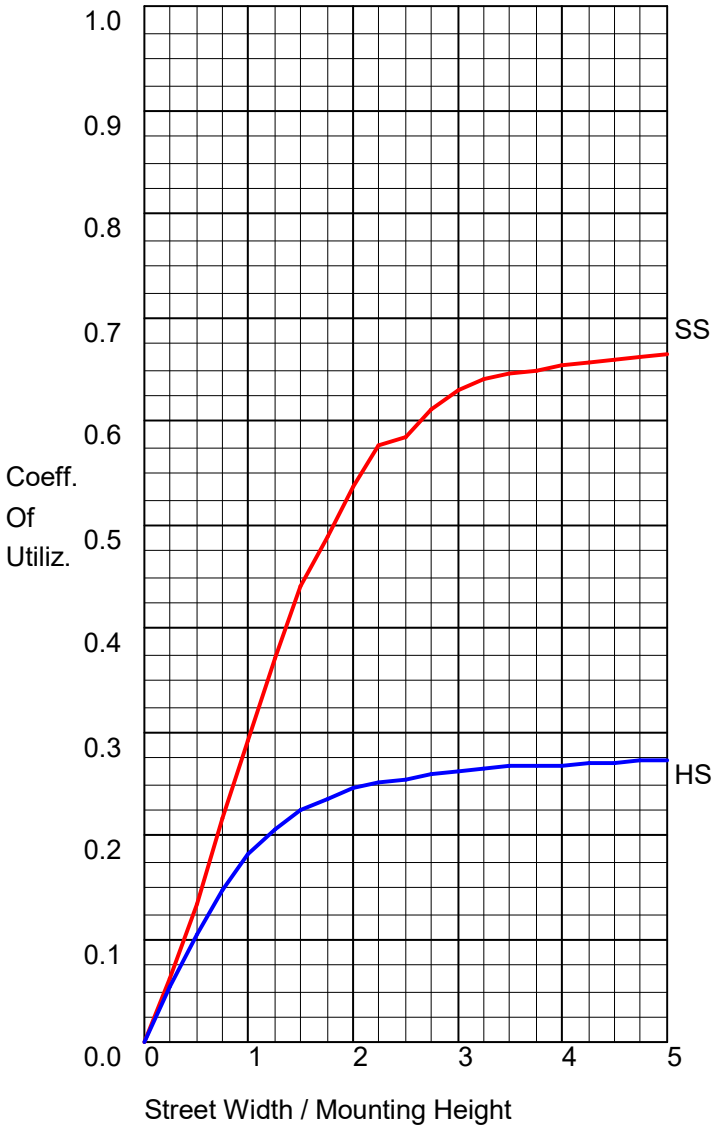
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	14181.8	67.6
Downward House Side	5925.5	28.2
Downward Total	20107.3	95.8
Upward Street Side	400.7	1.9
Upward House Side	474.5	2.3
Upward Total	875.2	4.2
Total Flux	20982.5	100.0

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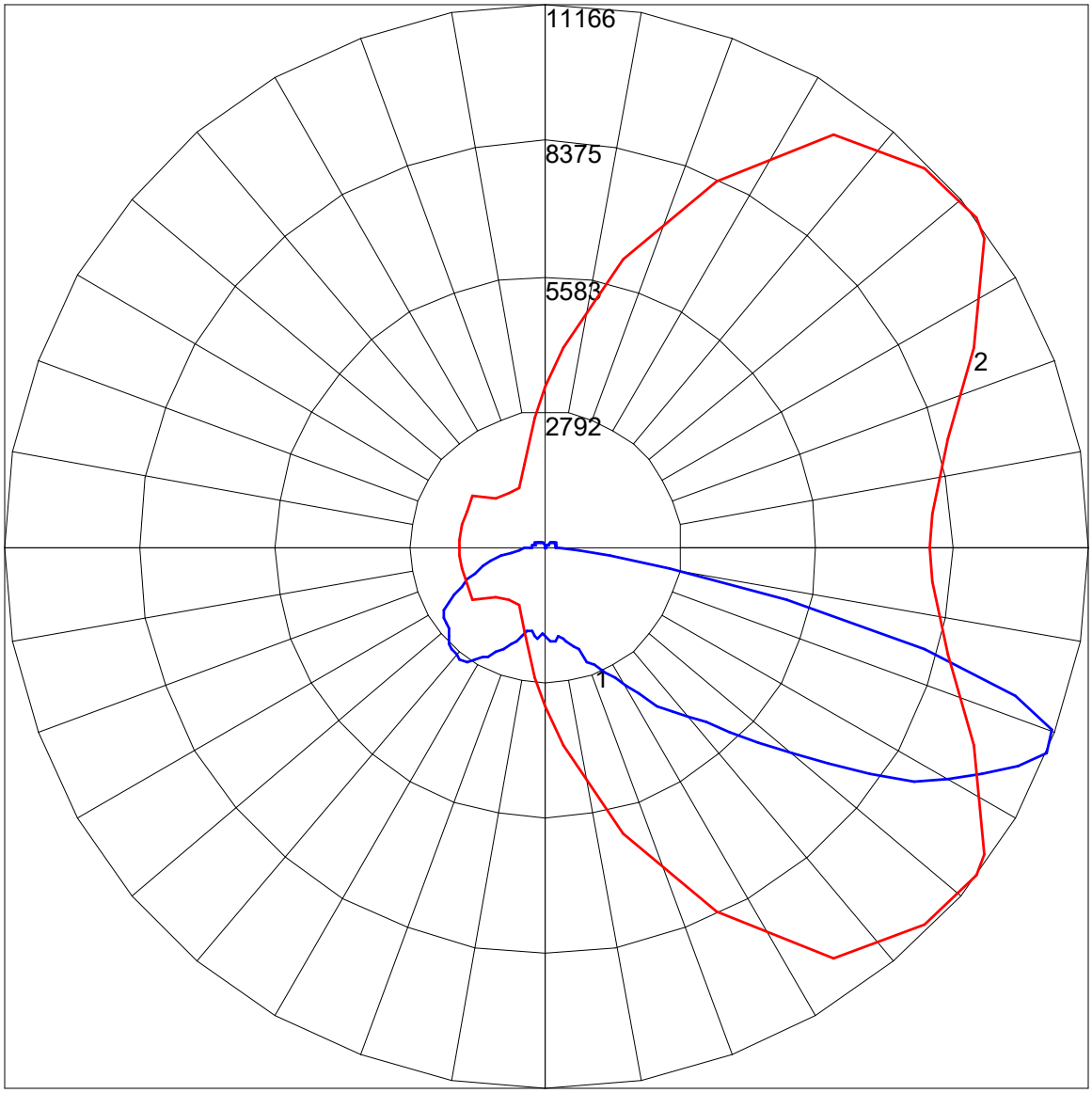
POLAR GRAPH



Maximum Candela = 11166 Located At Horizontal Angle = 37.5, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (37.5 - 217.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

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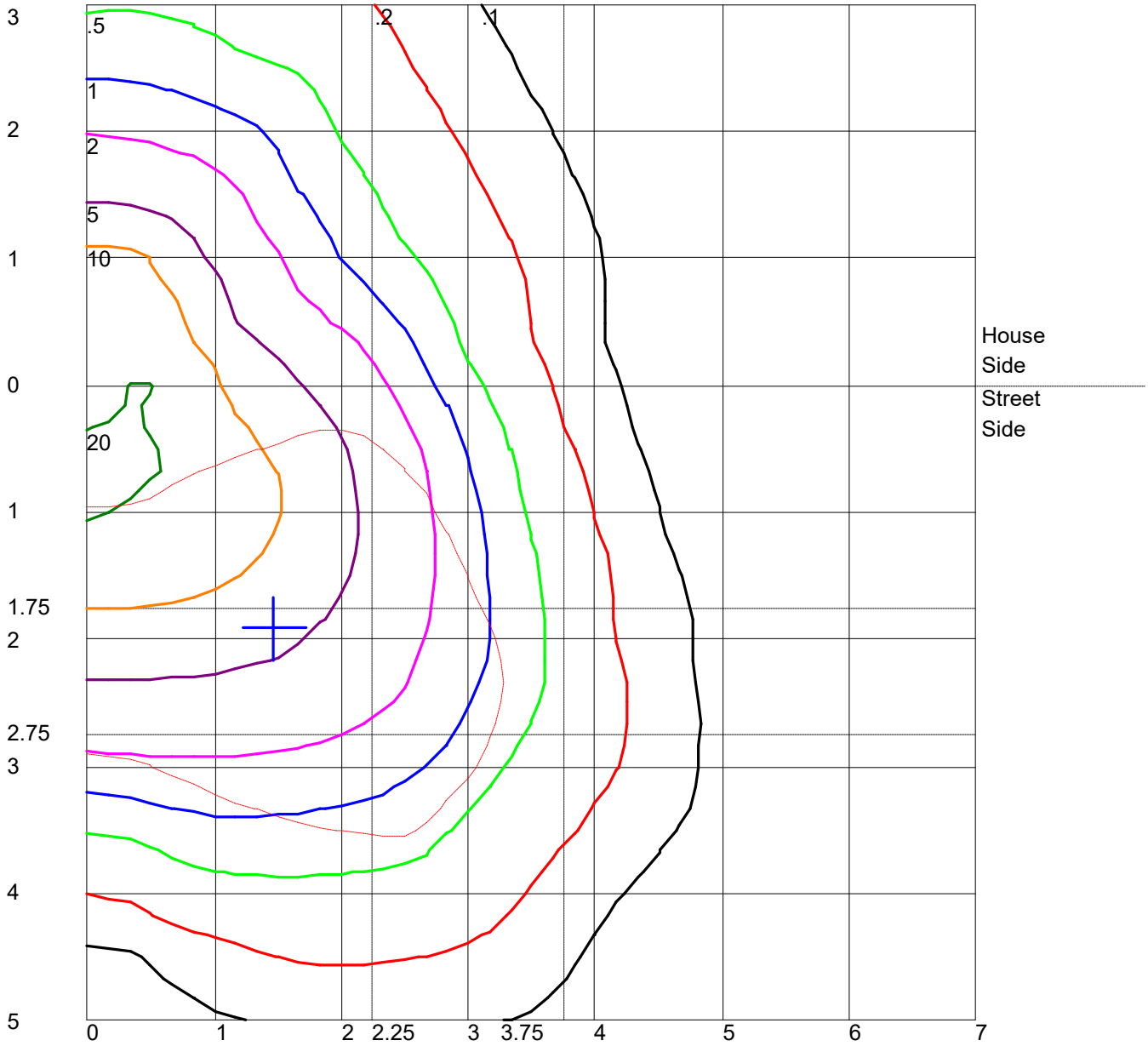
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



Distance In Units Of Mounting Height

Values Based On 10 Foot Mounting Height

1/2 Maximum Candela Trace Shown As Dashed Curve

(+) = Maximum Candela Point

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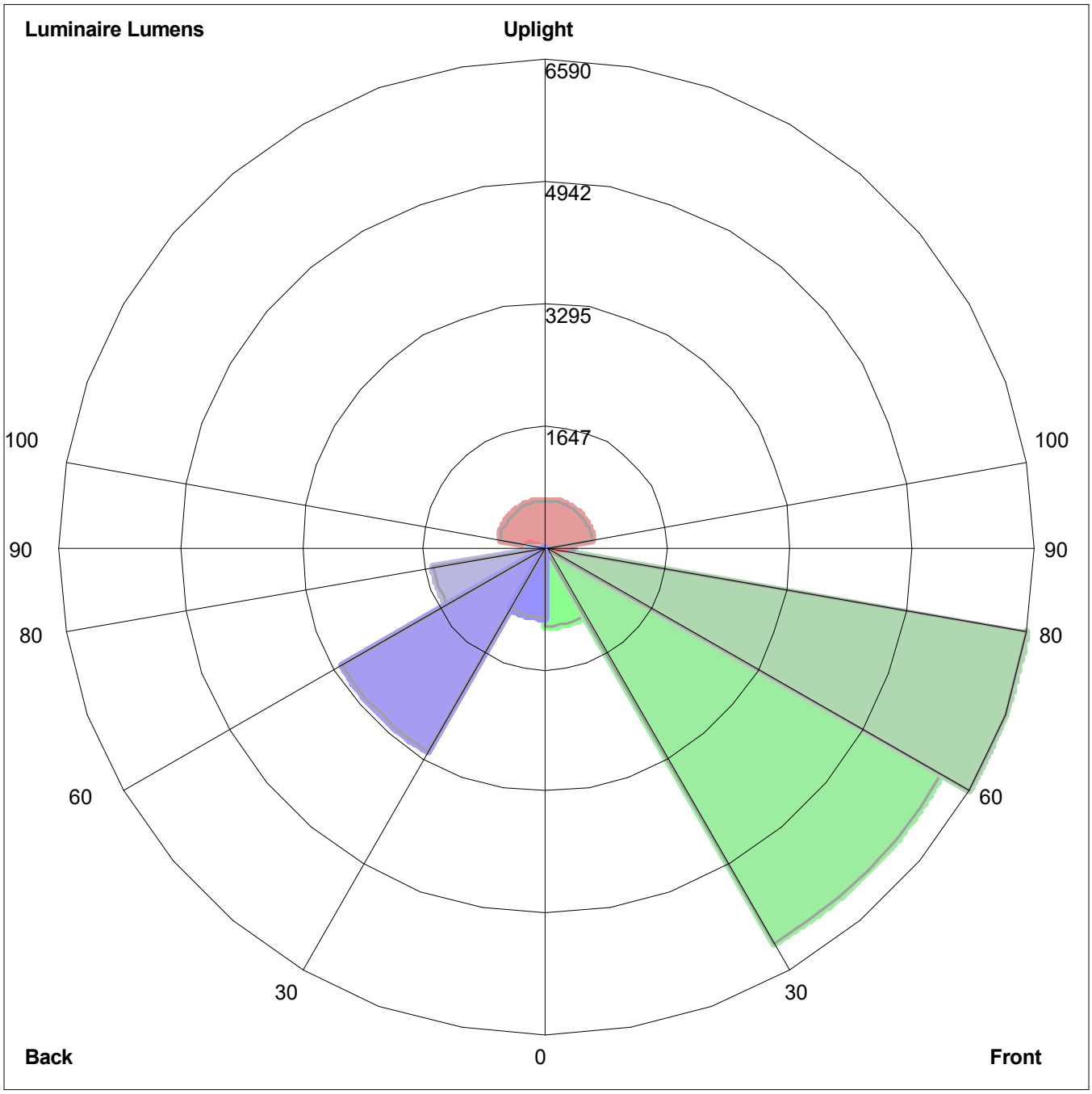
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1060.4, Medium=6167.4, High=6589.9, Very High=364.1
Back: Low=947.9, Medium=3172.4, High= 1540.0, Very High=265.2
Uplight: Low=241.4, High=633.9

BUG Rating : B3-U4-G3

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