IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-20L-SIL-2-30-70CRI.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-12569
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUEDATE] 03/30/21
[TESTDATE] 03/05/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MPP-LED-20L-SIL-2-30-70CRI
[_ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[OTHER] TEST PROCEDURE: IESNA LM-79-08
[OTHER] SCALED FROM ORIGINAL TEST DATA
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Outdoor
[_SEARCH_COLORTEMP] 3000

CHARACTERISTICS

IES Classification	Type II
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20226
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.05
Maximum Candela	12098
Maximum Candela Angle	72.5H 62.5V
Maximum Candela (<90 Degrees Vertical)	12098
Maximum Candela Angle (<90 Degrees Vertical)	72.5H 62.5V
Maximum Candela At 90 Degrees Vertical	324 (1.6% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1065 (5.3% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1240.3	N.A.	6.1
FM - Front-Medium (30-60)	7546.1	N.A.	37.3
FH - Front-High (60-80)	3098.5	N.A.	15.3
FVH - Front-Very High (80-90)	216.2	N.A.	1.1
BL - Back-Low (0-30)	1062.2	N.A.	5.3
BM - Back-Medium (30-60)	4403.7	N.A.	21.8
BH - Back-High (60-80)	1448.5	N.A.	7.2
BVH - Back-Very High (80-90)	242.9	N.A.	1.2
UL - Uplight-Low (90-100)	271.5	N.A.	1.3
UH - Uplight-High (100-180)	696.5	N.A.	3.4
Total	20226.4	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	45.0	55.0	65.0	72.5	75.0
0.0	1730	1730	1730	1730	1730	1730	1730	1730	1730	1730
2.5	1763	1759	1776	1803	1803	1795	1782	1743	1734	1734
5.0	1815	1806	1834	1867	1873	1863	1841	1814	1801	1810
7.5	1871	1862	1813	1832	1811	1815	1881	1885	1850	1840
10.0	1918	1925	1932	1937	1955	1901	1860	1928	1905	1909
12.5	2095	2130	2097	2075	2053	2003	2038	1964	2099	2103
15.0	2192	2188	2206	2198	2260	2173	2167	2216	2181	2264
17.5	2472	2461	2490	2359	2397	2507	2364	2449	2379	2447
20.0	2659	2658	2685	2650	2731	2635	2733	2705	2639	2638
22.5	3094	3068	3125	3041	3029	2975	2994	2952	2967	2950
25.0	3658	3636	3547	3463	3488	3321	3307	3350	3241	3239
27.5	4529	4550	4447	4269	3969	3864	3755	3709	3626	3613
30.0	5424	5461	5378	5082	4867	4417	4305	4176	4103	4116
32.5	5671	5697	5781	5949	5719	5266	5099	4761	4680	4555
35.0	5467	5429	5534	5905	6355	6083	5905	5413	5180	5048
37.5	5639	5588	5584	5754	6172	6564	6642	6325	5712	5535
40.0	5991	5919	5889	5956	6239	6606	6814	7390	6333	6179
42.5	6257	6127	6099	6160	6463	6851	7029	7699	7320	6959
45.0	6192	6102	6091	6226	6624	7191	7495	7577	8299	8060
47.5	5914	5872	5866	6121	6632	7512	7855	7683	8778	8778
50.0	5576	5529	5513	5816	6481	7738	8325	8074	9036	9090
52.5	4974	4934	4948	5257	6106	7757	8777	8867	9334	9493
55.0	4167	4148	4238	4515	5426	7438	9044	9594	9756	9960
57.5	3337	3327	3386	3700	4537	6641	8987	10073	10432	10584
60.0	2337	2366	2454	2719	3411	5422	8586	10387	11022	11042
62.5	1444	1463	1525	1742	2260	3718	7609	10169	12098	11541
65.0	1178	1177	1191	1236	1415	2101	6007	9458	11725	11913
67.5	1027	1026	1024	1068	1122	1207	3900	7890	10003	10389
70.0	760	771	819	899	985	996	1985	5679	7314	7908
72.5	609	620	616	636	810	868	1073	3258	4657	4997
75.0	517	540	541	548	629	729	823	1845	2851	3054
77.5	426	468	473	478	544	617	694	1228	1799	1783
80.0	381	421	427	419	469	540	586	827	1065	1057
82.5	338	358	376	367	406	460	508	621	747	748
85.0	269	289	315	314	343	391	426	473	539	562
87.5	163	187	241	255	277	308	334	354	373	376
90.0	107	133	194	219	238	261	271	288	301	305
92.5	122	135	197	222	242	263	267	287	299	303
95.0	141	140	200	227	245	265	262	287	297	300
97.5	158	145	201	228	246	261	253	280	283	269
100.0	168	150	199	229	245	257	246	265	249	227
102.5	176	156	197	229	243	253	239	242	207	190
105.0	180	163	192	229	242	249	228	215	176	171
107.5	181	169	187	229	240	240	210	187	156	158
110.0	182	174	181	227	236	229	190	163	145	150
112.5	181	177	177	223	230	211	173	145	137	142
115.0	180	178	173	217	219	194	158	132	131	135
117.5	180	178	171	207	205	180	148	123	127	130
120.0	178	176	167	194	191	168	140	118	122	124
122.5	176	174	161	179	179	159	134	115	118	118
125.0	171	169	155	164	168	153	132	115	114	114
127.5	164	162	149	152	158	148	132	116	114	114
130.0	156	154	145	142	152	145	132	118	115	115

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CANDELA TABULATION - (Cont.)

132.5	149	149	142	137	147	142	128	118	118	118
135.0	146	145	141	136	139	130	118	118	121	121
137.5	145	145	140	128	119	110	105	110	118	120
140.0	130	129	122	108	95	84	87	94	103	105
142.5	107	107	99	86	67	63	67	75	84	86
145.0	84	83	76	60	47	44	48	56	63	66
147.5	59	56	50	41	33	23	28	36	42	44
150.0	40	39	36	28	13	7	10	20	25	25
152.5	24	25	17	10	3	1	2	6	9	10
155.0	9	8	6	2	0	0	0	1	2	2
157.5	2	2	1	0	0	0	0	0	0	0
160.0	2	2	0	0	0	0	0	0	0	0
162.5	2	2	0	0	0	0	0	0	0	0
165.0	2	2	0	0	0	0	0	0	0	0
167.5	2	1	1	0	0	0	0	0	0	0
170.0	2	1	1	0	0	0	0	0	0	0
172.5	2	1	1	1	0	0	0	0	0	0
175.0	2	1	1	1	0	0	0	0	0	0
177.5	2	2	1	1	1	0	0	0	0	0
180.0	1	1	1	1	1	1	1	1	1	1

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	1730	1730	1730	1730	1730	1730	1730	1730	1730	1730
2.5	1720	1710	1711	1719	1710	1726	1739	1730	1734	1749
5.0	1727	1705	1709	1776	1790	1782	1807	1783	1769	1760
7.5	1790	1745	1757	1817	1828	1781	1726	1650	1659	1677
10.0	1863	1819	1817	1865	1842	1728	1756	1722	1711	1665
12.5	2043	1961	2005	2030	1854	1810	1743	1716	1700	1799
15.0	2230	2112	2156	2154	2009	1945	1810	1873	1850	1902
17.5	2442	2338	2423	2348	2155	2007	2037	1958	1985	2191
20.0	2658	2615	2644	2499	2350	2182	2071	2226	2296	2424
22.5	3070	2954	2959	2772	2504	2325	2335	2495	2615	2882
25.0	3343	3351	3234	3010	2719	2482	2584	2827	2990	3187
27.5	3838	3718	3686	3267	2849	2752	2921	3170	3359	3601
30.0	4193	4133	4079	3632	3114	3079	3241	3457	3661	3964
32.5	4533	4453	4430	3982	3341	3381	3460	3770	4088	4317
35.0	4968	4811	4759	4154	3515	3573	3726	4088	4238	4424
37.5	5397	5244	5154	4281	3674	3723	3967	4183	4313	4446
40.0	5912	5712	5526	4334	3826	3783	4076	4205	4309	4378
42.5	6392	6214	5809	4395	3884	3874	4065	4151	4162	4127
45.0	6938	6460	6245	4479	3734	3997	3973	3969	3819	3700
47.5	7592	7043	6517	4409	3744	3896	3787	3663	3403	3263
50.0	8189	7698	6723	4458	3680	3696	3526	3304	3010	2862
52.5	8983	8330	7026	4378	3539	3430	3211	2971	2672	2576
55.0	9733	8793	7221	4012	3321	3087	2882	2644	2425	2380
57.5	10290	9454	7012	3688	3069	2765	2539	2385	2227	2199
60.0	10799	9517	6599	3363	2713	2386	2233	2149	2020	1974
62.5	10892	9263	5833	2991	2328	2016	1945	1899	1780	1719
65.0	10337	8131	4657	2489	1829	1657	1672	1642	1522	1444
67.5	8603	5979	3253	1815	1424	1306	1371	1351	1229	1189
70.0	5936	3797	2066	1223	1070	1030	1078	1030	971	955
72.5	3748	2425	1386	906	877	828	850	810	775	749
75.0	2429	1711	1065	775	793	711	697	660	634	639
77.5	1149	887	783	702	721	614	589	564	564	563

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CANDELA TABULATION - (Cont.)

80.0	696	641	611	638	640	527	507	500	527	543
82.5	518	492	484	566	539	452	447	466	545	591
85.0	418	315	392	489	441	397	406	443	549	622
87.5	346	168	345	393	365	339	349	397	451	458
90.0	256	118	291	324	312	293	297	280	261	238
92.5	203	206	249	323	311	290	296	280	264	241
95.0	198	269	228	320	308	282	292	279	265	242
97.5	215	280	237	299	297	269	285	274	263	239
100.0	230	269	241	257	283	257	278	270	261	233
102.5	226	250	232	226	263	250	272	267	259	227
105.0	212	228	218	200	238	241	265	263	256	219
107.5	195	205	201	182	214	228	256	259	253	210
110.0	177	184	183	170	190	211	246	253	247	200
112.5	161	168	166	157	168	196	231	247	240	191
115.0	149	154	153	148	153	183	216	238	232	182
117.5	137	142	141	141	141	172	203	226	221	175
120.0	130	133	133	134	135	164	191	211	206	168
122.5	122	125	126	129	132	156	181	199	190	163
125.0	116	118	119	125	132	153	174	187	174	157
127.5	114	115	118	123	132	151	167	175	159	153
130.0	114	115	118	124	132	151	163	164	149	149
132.5	117	118	120	127	132	146	159	156	141	145
135.0	122	122	124	130	130	133	146	149	138	143
137.5	125	126	127	126	122	118	124	128	133	143
140.0	115	118	117	112	105	99	96	103	114	129
142.5	96	99	99	92	84	77	71	77	91	105
145.0	76	76	77	71	63	56	51	52	67	81
147.5	49	51	52	49	43	35	33	37	46	57
150.0	29	29	30	30	25	16	13	22	33	39
152.5	13	13	14	13	10	6	6	9	16	25
155.0	4	4	5	5	4	4	4	5	7	10
157.5	0	1	1	2	2	2	3	4	4	5
160.0	0	0	0	1	2	2	3	4	4	4
162.5	0	0	0	1	2	2	3	4	4	3
165.0	0	0	0	1	2	2	3	4	4	3
167.5	0	0	0	1	2	2	3	3	4	3
170.0	0	0	0	1	2	2	3	3	4	3
172.5	0	0	0	1	2	2	2	3	3	3
175.0	0	0	0	1	1	2	2	3	3	2
177.5	0	0	0	1	2	2	2	3	3	2
180.0	1	1	1	1	1	1	1	1	1	1

Vert. Angles	**Horizontal Angles**	
	175.0	**180.0**
0.0	1730	1730
2.5	1740	1754
5.0	1724	1709
7.5	1647	1664
10.0	1663	1623
12.5	1788	1800
15.0	1902	1838
17.5	2196	2240
20.0	2515	2416
22.5	2920	2916
25.0	3314	3326

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CANDELA TABULATION - (Cont.)

27.5	3722	3774
30.0	4214	4200
32.5	4440	4440
35.0	4546	4579
37.5	4575	4660
40.0	4501	4603
42.5	4179	4255
45.0	3686	3748
47.5	3249	3285
50.0	2859	2887
52.5	2566	2588
55.0	2368	2381
57.5	2173	2182
60.0	1920	1940
62.5	1652	1641
65.0	1352	1347
67.5	1127	1116
70.0	918	902
72.5	708	683
75.0	601	569
77.5	506	468
80.0	492	444
82.5	571	520
85.0	621	578
87.5	318	316
90.0	156	110
92.5	156	123
95.0	161	144
97.5	165	164
100.0	168	180
102.5	172	190
105.0	176	195
107.5	180	198
110.0	182	198
112.5	184	196
115.0	185	192
117.5	184	187
120.0	181	183
122.5	177	180
125.0	172	174
127.5	165	167
130.0	158	160
132.5	152	153
135.0	148	149
137.5	146	147
140.0	134	135
142.5	112	113
145.0	87	88
147.5	63	64
150.0	43	43
152.5	30	31
155.0	12	12
157.5	6	6
160.0	4	4
162.5	3	3
165.0	3	3

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CANDELA TABULATION - (Cont.)

167.5	2	2
170.0	2	2
172.5	2	2
175.0	2	2
177.5	2	2
180.0	1	1

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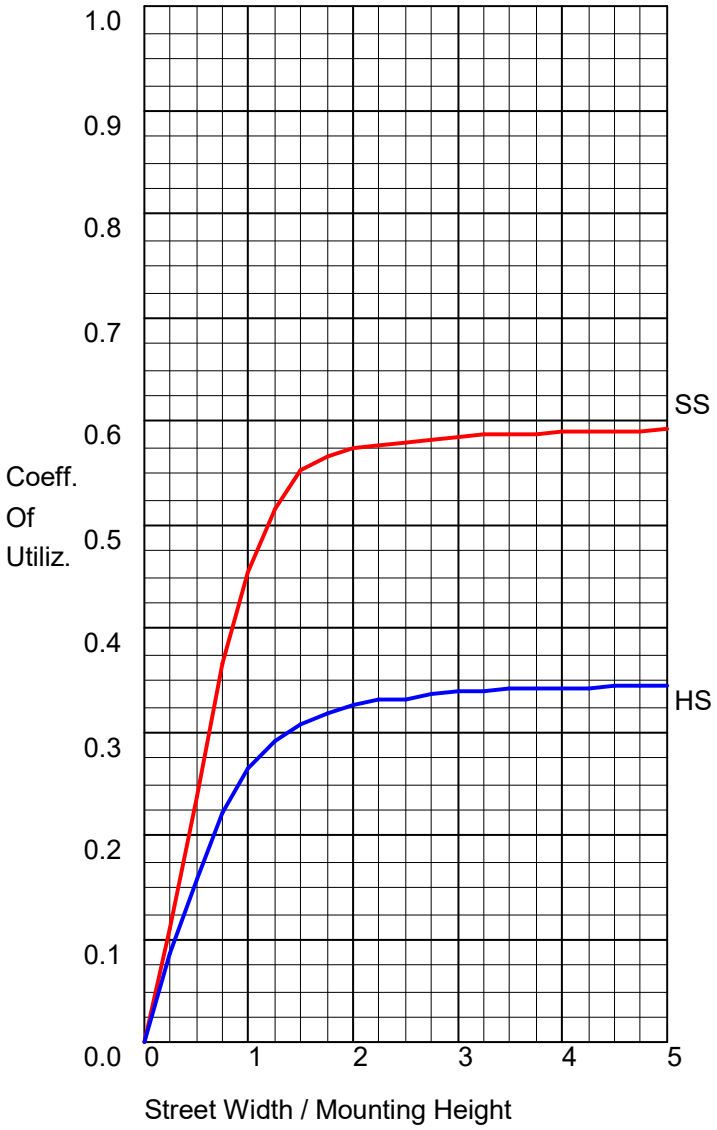
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	12101.0	59.8
Downward House Side	7157.3	35.4
Downward Total	19258.3	95.2
Upward Street Side	462.0	2.3
Upward House Side	506.1	2.5
Upward Total	968.1	4.8
Total Flux	20226.4	100.0

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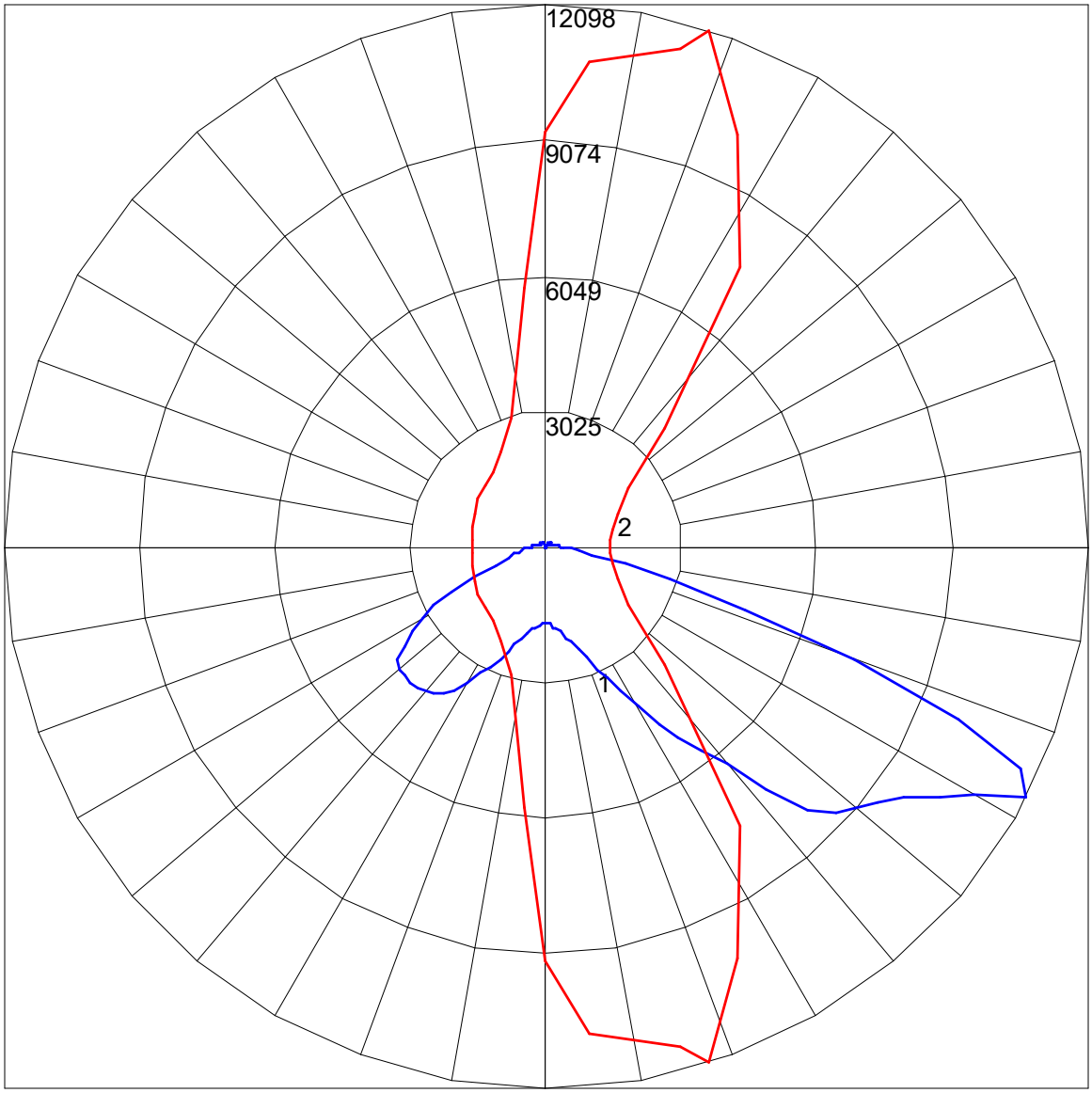
POLAR GRAPH



Maximum Candela = 12098 Located At Horizontal Angle = 72.5, Vertical Angle = 62.5
1 - Vertical Plane Through Horizontal Angles (72.5 - 252.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (62.5) (Through Max. Cd.)

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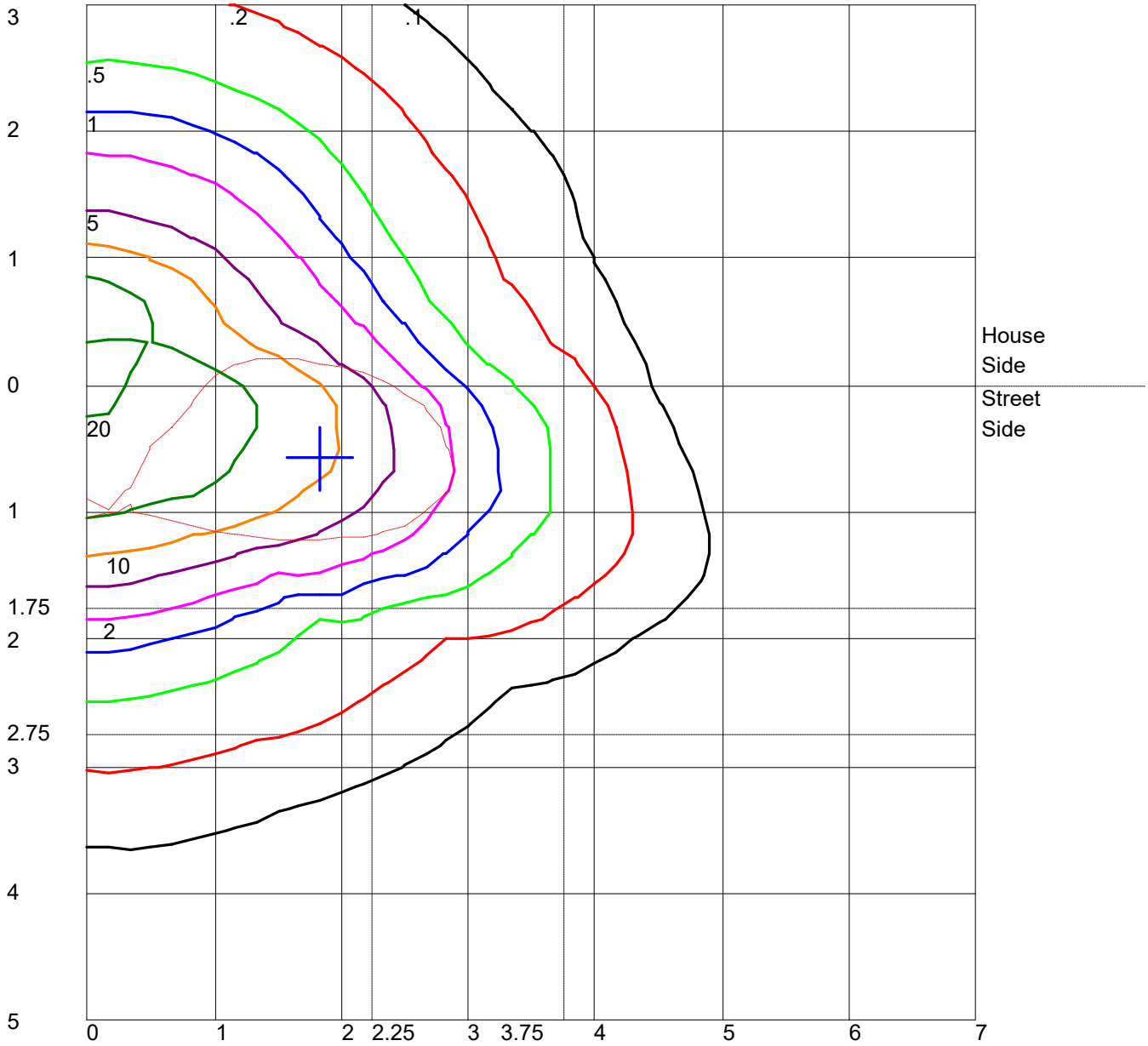
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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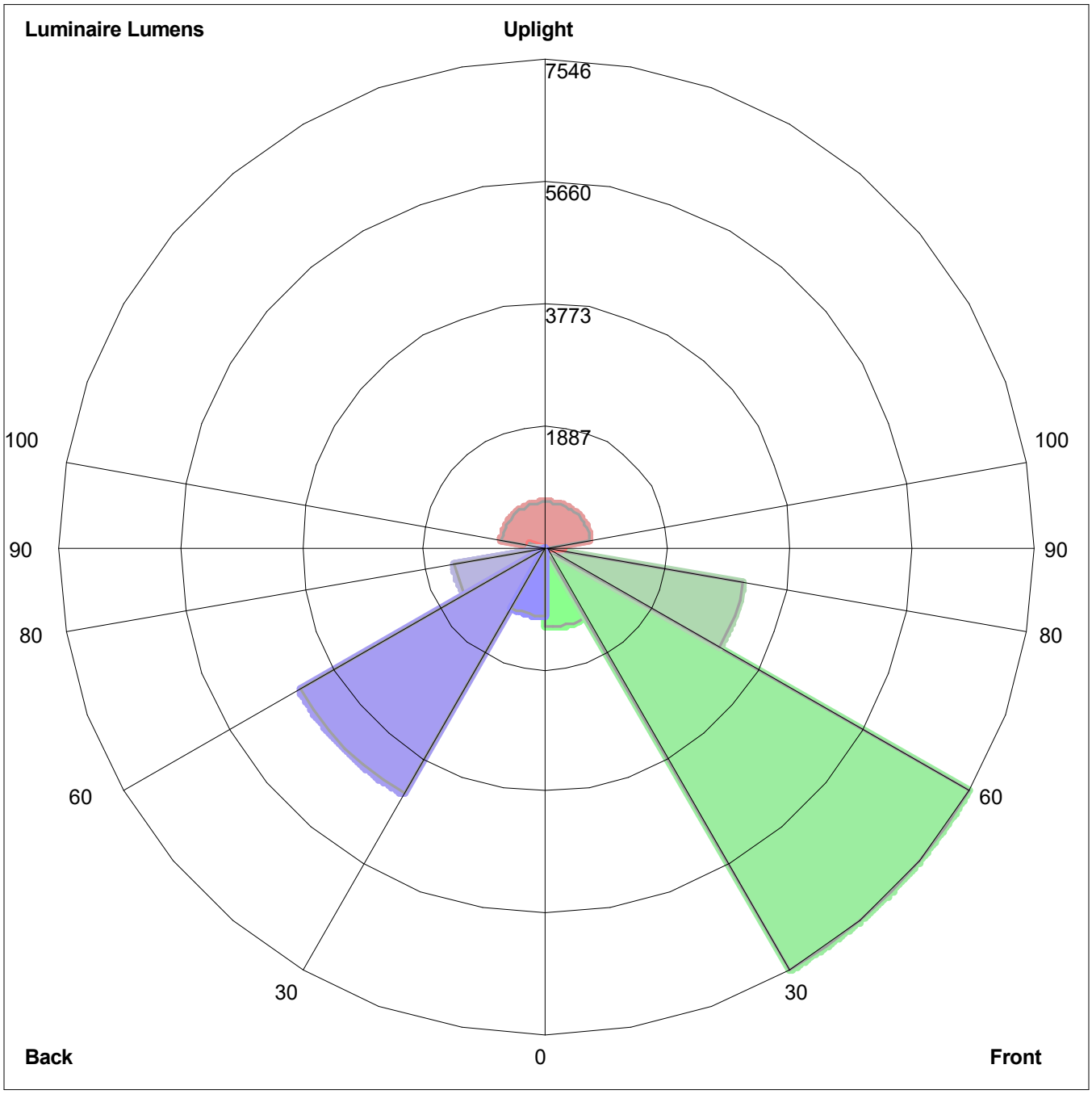
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1240.3, Medium=7546.1, High=3098.5, Very High=216.2
Back: Low=1062.2, Medium=4403.7, High=1448.5, Very High=242.9
Uplight: Low=271.5, High=696.5

BUG Rating : B3-U4-G3

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