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

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-12642
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUEDATE] 03/30/21
[TESTDATE] 03/29/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MPP-LED-20L-SIL-FT-50-70CRI-IH
[_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] 5000

CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	15163
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.05
Maximum Candela	10055
Maximum Candela Angle	45H 67.5V
Maximum Candela (<90 Degrees Vertical)	10055
Maximum Candela Angle (<90 Degrees Vertical)	45H 67.5V
Maximum Candela At 90 Degrees Vertical	218 (1.4% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1168 (7.7% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	963.0	N.A.	6.4
FM - Front-Medium (30-60)	5988.4	N.A.	39.5
FH - Front-High (60-80)	4891.6	N.A.	32.3
FVH - Front-Very High (80-90)	189.5	N.A.	1.2
BL - Back-Low (0-30)	624.3	N.A.	4.1
BM - Back-Medium (30-60)	1214.6	N.A.	8.0
BH - Back-High (60-80)	495.0	N.A.	3.3
BVH - Back-Very High (80-90)	109.1	N.A.	0.7
UL - Uplight-Low (90-100)	182.4	N.A.	1.2
UH - Uplight-High (100-180)	505.4	N.A.	3.3
Total	15163.3	N.A.	100.0
BUG Rating	B2-U4-G2		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0.0	5.0	15.0	25.0	35.0	42.5	45.0	55.0	65.0	75.0
0.0	1630	1630	1630	1630	1630	1630	1630	1630	1630	1630
2.5	1702	1710	1713	1706	1711	1703	1706	1690	1682	1679
5.0	1572	1552	1579	1666	1738	1757	1771	1763	1749	1716
7.5	1605	1607	1590	1614	1632	1595	1591	1658	1758	1739
10.0	1598	1582	1618	1635	1640	1646	1650	1677	1696	1789
12.5	1661	1719	1754	1726	1725	1708	1688	1710	1722	1926
15.0	1780	1777	1839	1788	1867	1845	1853	1847	1884	1931
17.5	1990	1970	2018	2007	1944	1972	2024	1986	2035	2058
20.0	2191	2225	2191	2162	2236	2113	2115	2201	2200	2169
22.5	2416	2408	2475	2436	2366	2357	2369	2319	2327	2358
25.0	2872	2823	2750	2620	2673	2581	2517	2478	2502	2427
27.5	3078	3135	3009	2981	2886	2870	2855	2677	2576	2597
30.0	3558	3585	3544	3265	3192	3137	3062	2881	2708	2701
32.5	3861	3862	3795	3697	3573	3456	3379	3136	2906	2812
35.0	4162	4134	4057	3963	3956	3845	3758	3362	3049	2874
37.5	4504	4429	4336	4266	4222	4251	4202	3673	3217	2918
40.0	4880	4769	4680	4617	4535	4595	4571	4012	3456	2949
42.5	5270	5201	5074	5024	4934	4984	4922	4504	3626	2990
45.0	5737	5683	5561	5509	5399	5399	5356	4959	3913	3276
47.5	6380	6278	6171	6100	5963	5884	5885	5438	4251	3567
50.0	6978	6920	6863	6823	6631	6541	6497	5999	4774	3871
52.5	7320	7326	7356	7523	7371	7226	7179	6731	5424	4275
55.0	7439	7486	7579	7965	8064	7967	7913	7451	6151	4614
57.5	7444	7514	7691	8224	8578	8722	8562	8144	6801	4820
60.0	7385	7473	7741	8414	8911	9220	9140	8799	7243	5137
62.5	7074	7190	7621	8559	9176	9483	9623	9286	7448	5743
65.0	5678	5823	6599	8229	9477	9824	9971	9191	7474	5861
67.5	3818	3850	4746	6734	9219	10023	10055	8714	7375	5666
70.0	2035	2254	3028	4652	7314	8952	9113	8121	6746	4848
72.5	1071	1193	2035	2979	4596	5946	6490	7131	5308	3169
75.0	770	825	1576	2310	3086	3735	3960	4488	2794	1507
77.5	596	636	918	1575	2262	2169	2217	2387	1559	924
80.0	450	487	656	844	1116	1152	1168	1166	823	658
82.5	353	385	510	634	581	465	433	367	352	475
85.0	280	299	399	383	251	215	211	216	243	289
87.5	151	160	190	158	149	160	164	176	192	219
90.0	61	71	100	118	137	151	155	166	179	195
92.5	69	75	103	121	141	154	159	168	183	196
95.0	78	79	105	125	142	155	160	168	184	192
97.5	86	84	108	128	144	156	161	166	180	164
100.0	93	89	110	131	146	156	160	163	168	124
102.5	99	93	112	133	148	156	160	157	149	106
105.0	104	98	113	136	149	155	157	146	129	97
107.5	107	103	115	139	150	153	153	130	111	97
110.0	111	108	117	141	149	146	142	115	97	97
112.5	114	112	117	141	144	135	129	105	91	94
115.0	117	116	119	139	136	123	117	100	88	93
117.5	119	118	119	133	126	115	110	96	86	92
120.0	121	121	117	124	118	109	106	94	86	91
122.5	121	119	113	116	113	106	103	92	86	90
125.0	118	117	109	109	109	105	101	93	87	89
127.5	113	113	107	106	107	103	101	94	89	90
130.0	111	110	106	104	106	104	103	96	90	92

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CANDELA TABULATION - (Cont.)

132.5	109	109	105	104	106	104	101	93	91	94
135.0	109	109	107	104	101	95	93	87	91	96
137.5	109	109	103	94	87	82	79	78	86	94
140.0	97	96	90	79	69	64	62	65	74	84
142.5	79	79	73	62	50	47	46	51	59	70
145.0	60	59	53	43	34	33	33	35	44	53
147.5	39	39	36	30	23	18	17	21	30	37
150.0	29	28	26	18	7	6	6	10	16	23
152.5	14	13	9	5	3	3	3	6	9	12
155.0	4	4	2	2	2	2	2	3	6	7
157.5	1	1	2	2	2	2	2	2	3	5
160.0	1	1	1	2	2	2	2	2	3	3
162.5	0	1	1	2	2	2	2	2	2	3
165.0	1	1	2	2	2	2	2	2	3	3
167.5	1	1	1	2	2	2	2	2	2	3
170.0	1	1	1	2	2	2	2	2	2	3
172.5	1	1	2	2	2	2	2	2	3	3
175.0	1	1	2	2	2	2	2	2	3	3
177.5	1	1	2	2	2	2	2	2	2	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	1630	1630	1630	1630	1630	1630	1630	1630	1630	1630
2.5	1666	1650	1642	1607	1595	1591	1583	1582	1587	1589
5.0	1706	1654	1627	1611	1688	1722	1712	1703	1702	1681
7.5	1724	1696	1646	1685	1727	1747	1722	1638	1549	1527
10.0	1799	1747	1677	1753	1728	1681	1578	1572	1515	1512
12.5	1954	1891	1797	1878	1763	1620	1552	1509	1477	1475
15.0	2062	1986	1886	1980	1753	1654	1536	1519	1466	1402
17.5	2187	2122	2064	2078	1846	1679	1604	1430	1279	1198
20.0	2302	2245	2214	2109	1900	1660	1463	1248	1118	1010
22.5	2491	2401	2393	2194	1887	1640	1298	1098	914	837
25.0	2559	2542	2486	2250	1863	1492	1138	909	804	745
27.5	2708	2634	2613	2326	1794	1315	977	825	716	675
30.0	2776	2692	2695	2414	1677	1161	889	742	672	645
32.5	2796	2700	2688	2379	1518	1038	816	695	641	672
35.0	2799	2689	2719	2265	1330	954	763	664	664	696
37.5	2830	2707	2739	2145	1163	881	719	671	671	753
40.0	2879	2768	2731	2004	1057	818	704	659	703	853
42.5	2861	2752	2747	1846	991	767	703	651	752	1068
45.0	2979	2753	2803	1718	917	770	696	637	807	1089
47.5	3033	2863	2738	1621	842	795	676	616	832	691
50.0	3172	2981	2739	1601	807	787	651	588	712	483
52.5	3393	3049	2808	1579	808	763	619	565	571	407
55.0	3637	3220	2859	1616	830	700	571	522	461	369
57.5	3719	3186	2816	1519	777	610	496	469	402	345
60.0	3861	3319	2828	1501	651	489	418	403	358	322
62.5	4056	3341	2792	1468	483	387	355	351	324	295
65.0	3984	3274	2611	1251	371	334	322	318	292	269
67.5	3682	2962	2278	834	327	308	300	292	261	246
70.0	2976	2213	1564	517	305	291	281	260	239	273
72.5	1734	1274	909	336	283	275	258	243	279	338
75.0	844	757	569	291	267	252	240	252	248	232
77.5	565	517	327	275	248	231	228	216	210	212

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CANDELA TABULATION - (Cont.)

80.0	442	387	256	262	228	221	227	208	198	194
82.5	358	299	206	245	219	214	215	206	196	190
85.0	293	197	193	228	213	200	214	206	197	188
87.5	241	97	212	220	208	197	215	208	199	188
90.0	165	87	204	218	209	199	217	211	201	188
92.5	110	155	190	223	215	203	222	215	207	193
95.0	108	192	181	220	214	194	220	215	211	198
97.5	144	191	175	205	204	176	208	208	207	194
100.0	152	179	170	185	192	169	200	201	202	188
102.5	146	164	161	166	181	166	192	196	197	179
105.0	137	151	150	152	168	164	185	191	193	168
107.5	127	138	141	141	156	160	180	188	189	157
110.0	118	128	131	133	145	155	176	185	184	146
112.5	111	120	123	126	136	151	172	183	179	134
115.0	106	113	117	123	130	148	167	180	173	125
117.5	101	109	112	120	126	145	162	174	164	119
120.0	99	105	109	117	123	142	158	167	153	117
122.5	96	101	105	114	122	140	153	159	141	113
125.0	93	97	102	112	121	137	150	152	129	112
127.5	93	97	101	112	121	137	145	142	119	111
130.0	95	98	103	113	121	136	141	133	112	110
132.5	97	100	105	113	119	131	134	124	106	109
135.0	101	103	107	114	116	118	122	116	105	108
137.5	102	105	109	111	109	102	102	100	104	108
140.0	94	97	99	98	92	86	78	81	91	101
142.5	81	84	85	81	74	65	57	61	73	83
145.0	62	65	65	61	53	45	39	42	54	64
147.5	42	45	45	42	36	30	26	31	37	45
150.0	26	27	28	26	21	14	13	20	26	30
152.5	14	15	14	14	10	8	7	8	15	20
155.0	9	9	9	8	7	6	4	5	5	7
157.5	6	6	6	6	6	5	4	3	2	2
160.0	4	5	5	5	5	5	3	2	2	1
162.5	4	4	5	5	5	4	3	2	2	0
165.0	4	4	5	5	5	4	3	2	2	0
167.5	4	4	4	5	5	4	3	2	1	0
170.0	4	4	4	5	4	4	3	2	1	0
172.5	4	4	4	4	4	4	3	2	1	0
175.0	4	4	4	4	4	3	3	2	1	0
177.5	4	4	4	4	4	3	2	2	1	0
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**	
	175.0	**180.0**
0.0	1630	1630
2.5	1596	1601
5.0	1679	1696
7.5	1507	1507
10.0	1499	1531
12.5	1462	1452
15.0	1354	1388
17.5	1167	1160
20.0	958	955
22.5	801	790
25.0	709	705

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CANDELA TABULATION - (Cont.)

27.5	672	671
30.0	651	651
32.5	692	695
35.0	737	738
37.5	812	817
40.0	934	953
42.5	1155	1107
45.0	680	650
47.5	494	491
50.0	422	420
52.5	382	383
55.0	353	356
57.5	327	330
60.0	299	301
62.5	273	275
65.0	251	256
67.5	235	239
70.0	297	298
72.5	335	284
75.0	208	192
77.5	187	156
80.0	160	118
82.5	147	94
85.0	135	82
87.5	130	85
90.0	122	82
92.5	121	96
95.0	125	117
97.5	123	131
100.0	121	141
102.5	120	145
105.0	122	146
107.5	126	145
110.0	129	141
112.5	130	137
115.0	129	133
117.5	128	129
120.0	125	127
122.5	123	125
125.0	121	122
127.5	118	119
130.0	115	116
132.5	113	113
135.0	110	110
137.5	109	109
140.0	105	106
142.5	90	90
145.0	69	70
147.5	49	49
150.0	31	32
152.5	22	22
155.0	10	10
157.5	2	2
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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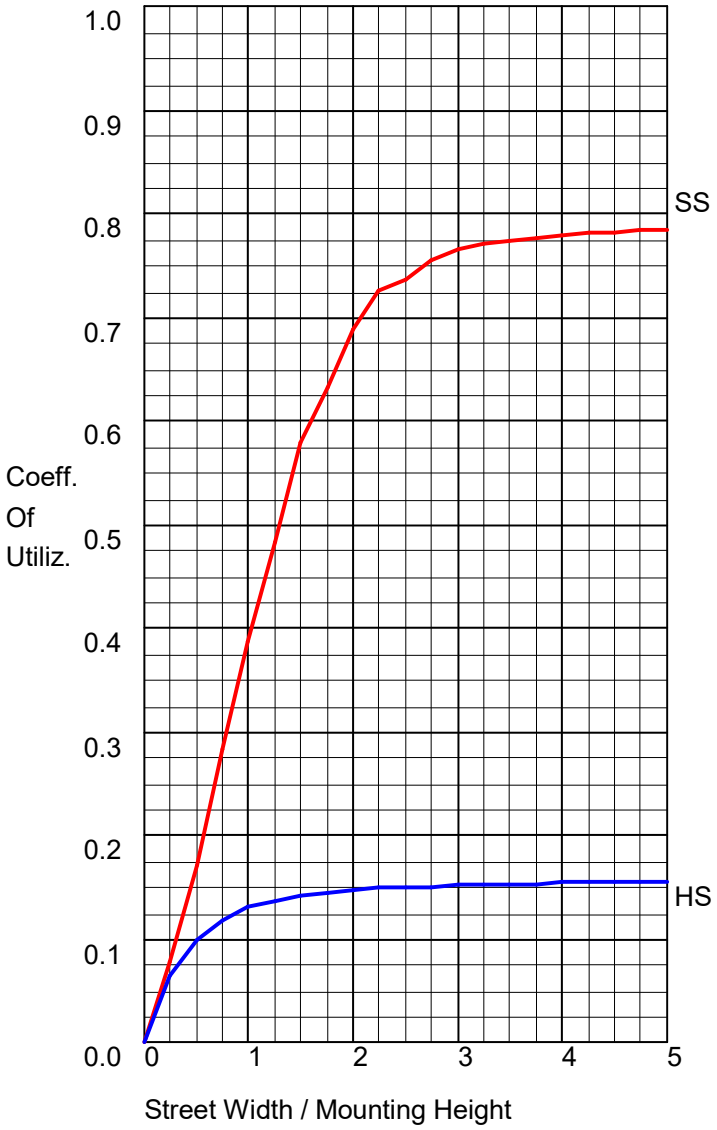
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	12032.4	79.4
Downward House Side	2443.0	16.1
Downward Total	14475.4	95.5
Upward Street Side	302.1	2.0
Upward House Side	385.7	2.5
Upward Total	687.8	4.5
Total Flux	15163.2	100.0

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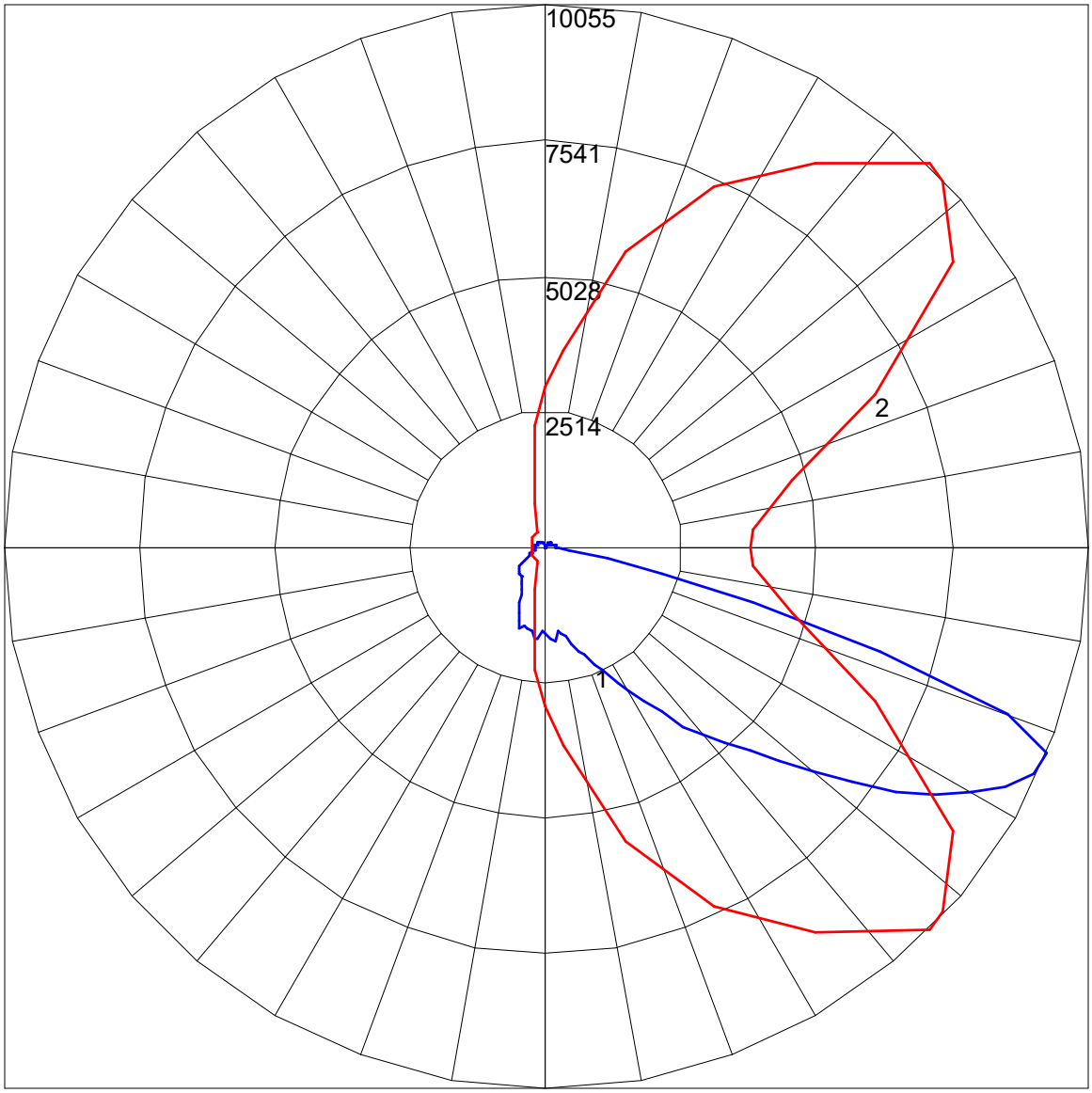
POLAR GRAPH



Maximum Candela = 10055 Located At Horizontal Angle = 45, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

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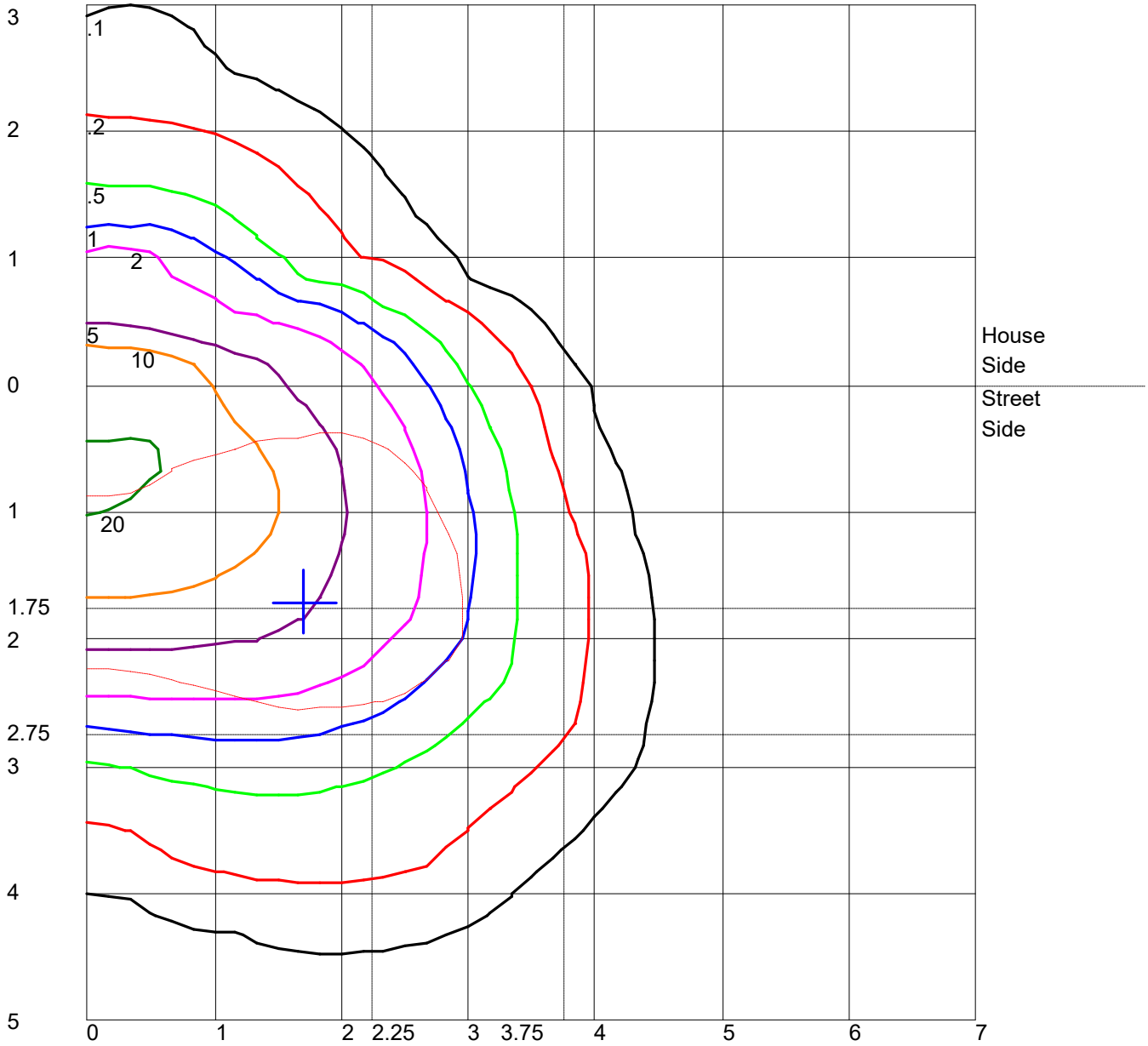
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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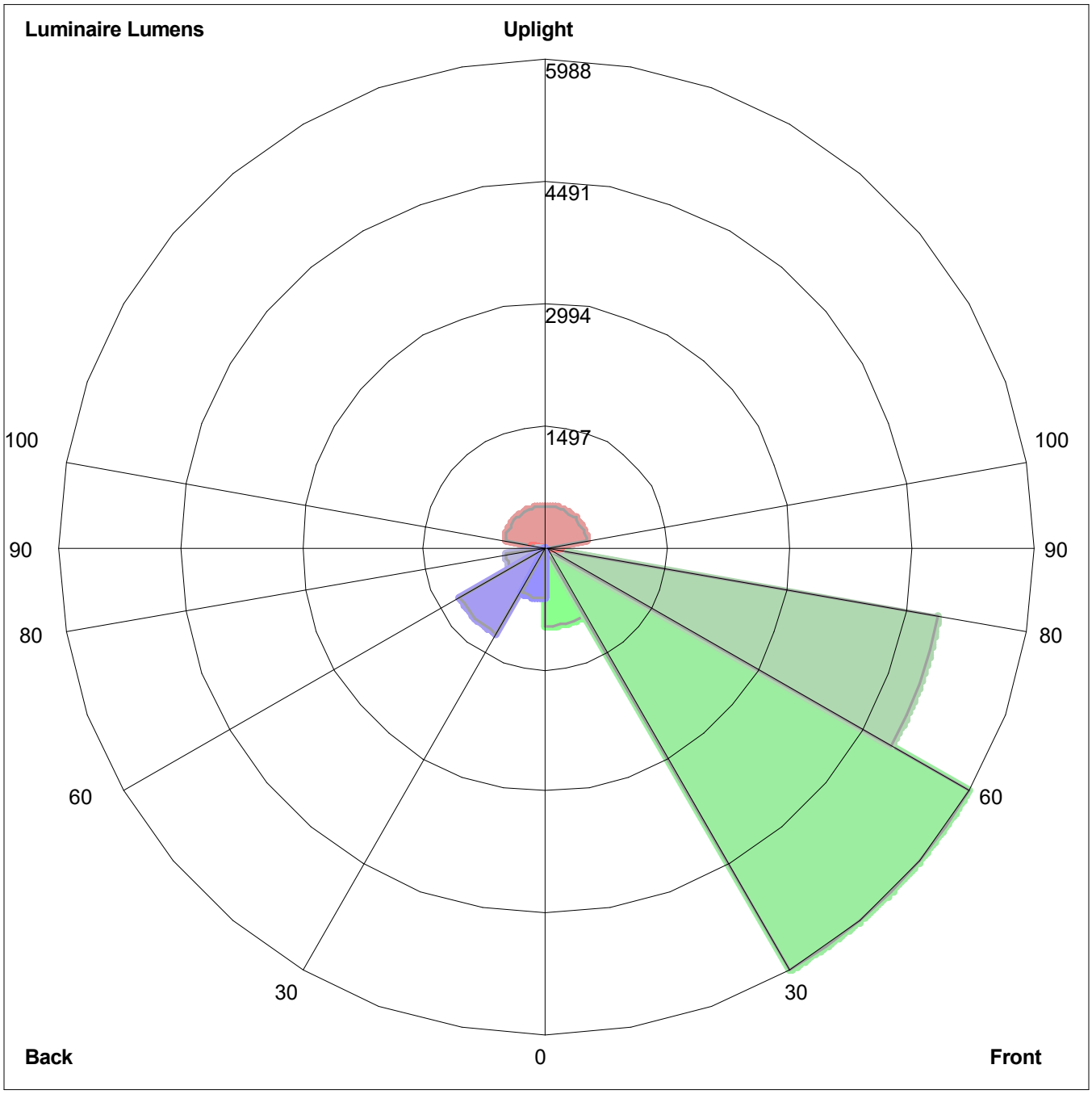
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=963.0, Medium=5988.4, High=4891.6, Very High=189.5
Back: Low=624.3, Medium=1214.6, High=495.0, Very High=109.1
Uplight: Low=182.4, High=505.4

BUG Rating : B2-U4-G2

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