IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-20L-SIL-3-30-70CRI.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-12570
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUEDATE] 03/30/21
[TESTDATE] 03/05/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MPP-LED-20L-SIL-3-30-70CRI
[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] 3000

CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20771
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	139
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.04
Maximum Candela	15526
Maximum Candela Angle	50H 65V
Maximum Candela (<90 Degrees Vertical)	15526
Maximum Candela Angle (<90 Degrees Vertical)	50H 65V
Maximum Candela At 90 Degrees Vertical	305 (1.5% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1179 (5.7% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	811.1	N.A.	3.9
FM - Front-Medium (30-60)	7759.6	N.A.	37.4
FH - Front-High (60-80)	6229.4	N.A.	30.0
FVH - Front-Very High (80-90)	244.9	N.A.	1.2
BL - Back-Low (0-30)	741.9	N.A.	3.6
BM - Back-Medium (30-60)	2582.2	N.A.	12.4
BH - Back-High (60-80)	1396.5	N.A.	6.7
BVH - Back-Very High (80-90)	221.5	N.A.	1.1
UL - Uplight-Low (90-100)	234.6	N.A.	1.1
UH - Uplight-High (100-180)	549.0	N.A.	2.6
Total	20770.7	N.A.	100.0
BUG Rating	B3-U4-G3		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	0	5	15	25	35	45	50	55	65	75
0.0	1251	1251	1251	1251	1251	1251	1251	1251	1251	1251
2.5	1272	1271	1279	1289	1287	1283	1272	1281	1266	1257
5.0	1221	1224	1233	1269	1290	1297	1294	1303	1300	1293
7.5	1207	1216	1194	1216	1219	1224	1242	1276	1301	1304
10.0	1189	1187	1203	1211	1231	1241	1245	1241	1296	1320
12.5	1219	1237	1242	1246	1245	1243	1255	1275	1284	1410
15.0	1260	1264	1281	1278	1319	1305	1299	1319	1379	1444
17.5	1403	1406	1434	1403	1414	1462	1474	1433	1490	1515
20.0	1553	1577	1610	1602	1668	1600	1635	1666	1661	1633
22.5	1895	1928	1970	1964	1943	1940	1895	1904	1881	1884
25.0	2415	2473	2382	2337	2390	2299	2268	2206	2216	2102
27.5	3084	3155	3073	2960	2819	2834	2676	2606	2524	2368
30.0	3832	3899	3825	3554	3420	3265	3193	3046	2802	2726
32.5	4310	4318	4317	4303	4019	3805	3582	3518	3146	2938
35.0	4781	4722	4715	4777	4755	4367	4129	3921	3425	3152
37.5	5228	5183	5146	5244	5296	5080	4735	4361	3779	3326
40.0	5802	5705	5708	5785	5840	5740	5383	4813	4109	3432
42.5	6440	6323	6374	6499	6442	6276	6065	5374	4385	3607
45.0	7253	7173	7266	7382	7209	6801	6566	6033	4539	3779
47.5	8247	8280	8307	8487	8190	7436	7076	6530	4864	4017
50.0	9345	9384	9363	9643	9342	8290	7702	6967	5334	4402
52.5	10670	10750	10554	10736	10511	9467	8518	7579	6020	4867
55.0	12042	12189	12159	12254	11910	10666	9617	8415	6897	5244
57.5	11940	11955	12382	13450	13656	12220	10873	9710	7743	5875
60.0	10736	10755	11216	12766	14444	14053	12828	11225	8945	6863
62.5	7579	7961	9131	11259	13391	15313	14803	12910	10216	8019
65.0	2970	3266	4715	8447	11972	14770	15526	14784	11656	9154
67.5	1375	1417	1937	3730	9544	13380	14772	15390	12152	9184
70.0	1004	1036	1261	2012	4753	11409	13144	14120	12609	8564
72.5	764	786	985	1421	2706	6740	9614	11139	11233	6393
75.0	575	601	789	1137	1734	2946	4645	6558	6706	3605
77.5	440	468	628	942	1279	1719	1992	2247	2583	1138
80.0	335	377	511	770	971	1140	1179	1141	953	748
82.5	260	307	421	639	714	738	720	732	661	590
85.0	238	298	332	482	500	528	471	460	464	468
87.5	159	196	247	343	288	338	314	295	318	352
90.0	77	94	138	162	188	213	222	231	251	271
92.5	90	96	140	162	186	214	218	228	247	261
95.0	102	99	142	165	186	211	216	222	245	251
97.5	112	102	142	166	186	208	214	214	235	212
100.0	118	105	142	167	185	205	210	205	215	168
102.5	122	108	140	168	185	201	205	197	188	135
105.0	124	113	138	168	185	195	195	180	160	124
107.5	125	118	135	168	182	186	179	158	135	116
110.0	126	121	132	167	178	170	158	137	116	112
112.5	125	123	128	165	171	152	138	122	104	107
115.0	125	124	126	158	158	135	124	112	97	103
117.5	125	125	124	148	142	123	115	105	93	101
120.0	125	124	119	134	130	115	108	101	92	98
122.5	123	122	112	121	121	111	105	98	91	95
125.0	118	116	106	110	114	107	102	98	91	94
127.5	112	110	102	102	108	105	102	98	92	95
130.0	105	104	99	98	105	105	103	99	94	96

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CANDELA TABULATION - (Cont.)

132.5	102	102	98	95	102	102	100	96	95	99
135.0	101	101	98	95	95	92	90	90	95	102
137.5	100	99	95	85	80	78	77	81	89	101
140.0	87	87	81	71	63	61	62	68	77	89
142.5	72	70	65	55	44	45	48	52	62	75
145.0	55	53	48	38	31	30	33	36	47	58
147.5	36	35	32	26	20	14	17	22	32	39
150.0	26	25	22	16	8	6	8	9	17	24
152.5	13	12	9	5	4	3	5	5	8	12
155.0	5	5	3	2	2	2	3	3	5	6
157.5	2	1	2	2	2	2	2	3	3	4
160.0	1	1	2	2	2	2	2	2	3	3
162.5	1	1	2	2	2	2	2	2	3	3
165.0	1	1	2	2	2	2	2	2	3	3
167.5	1	1	2	2	2	3	3	3	3	3
170.0	1	1	2	2	3	3	3	3	3	3
172.5	1	1	2	2	3	3	3	3	3	3
175.0	1	1	2	2	3	3	3	3	3	3
177.5	1	1	2	2	3	3	3	3	3	3
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**									
	85	**90**	**95**	**105**	**115**	**125**	**135**	**145**	**155**	**165**
0.0	1251	1251	1251	1251	1251	1251	1251	1251	1251	1251
2.5	1248	1239	1237	1242	1238	1243	1244	1250	1259	1269
5.0	1258	1241	1244	1279	1332	1345	1342	1346	1334	1332
7.5	1289	1267	1271	1335	1364	1364	1342	1314	1277	1266
10.0	1314	1287	1297	1374	1392	1342	1334	1335	1352	1318
12.5	1403	1367	1402	1478	1412	1372	1365	1404	1381	1444
15.0	1480	1420	1458	1530	1479	1497	1461	1547	1538	1584
17.5	1566	1517	1576	1614	1550	1564	1672	1644	1636	1728
20.0	1711	1637	1687	1673	1663	1708	1704	1784	1791	1833
22.5	1933	1847	1847	1792	1736	1809	1824	1914	1893	2006
25.0	2101	2055	1983	1878	1857	1875	1933	1991	2040	2094
27.5	2356	2197	2189	1973	1880	1976	2028	2119	2131	2248
30.0	2546	2363	2335	2080	1948	2060	2118	2173	2236	2351
32.5	2670	2470	2419	2174	1986	2089	2123	2267	2400	2563
35.0	2807	2526	2440	2166	1980	2087	2167	2360	2515	2706
37.5	2868	2602	2466	2113	1937	2041	2209	2398	2563	2779
40.0	2927	2670	2442	2037	1896	1980	2220	2366	2565	2867
42.5	3071	2688	2442	1955	1807	1962	2157	2279	2590	3011
45.0	3144	2753	2457	1912	1705	1952	2073	2196	2761	2996
47.5	3302	2866	2456	1867	1624	1877	1997	2145	3013	2891
50.0	3492	3077	2520	1831	1551	1819	1944	2104	3076	2826
52.5	3839	3338	2689	1850	1507	1742	1877	2090	2999	2710
55.0	4227	3694	2989	1879	1478	1660	1800	2033	2886	2569
57.5	4848	4175	3376	1947	1465	1582	1707	1935	2738	2436
60.0	5697	4833	3935	2035	1434	1471	1609	1811	2506	2290
62.5	6273	5303	4230	2108	1370	1341	1501	1669	2173	2140
65.0	6581	5367	4035	2063	1264	1203	1399	1536	1812	2018
67.5	6034	4635	3206	1784	1149	1057	1261	1394	1524	1881
70.0	5031	3549	2087	1340	979	913	1118	1232	1321	1704
72.5	3287	2218	1150	928	790	773	944	1054	1211	1425
75.0	1244	913	738	668	643	641	742	852	945	982
77.5	715	642	495	574	561	550	570	624	717	798

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CANDELA TABULATION - (Cont.)

80.0	532	500	390	512	501	481	509	548	605	641
82.5	445	401	332	451	431	407	449	484	527	535
85.0	390	291	301	401	376	363	375	383	447	448
87.5	324	176	296	348	329	321	326	311	311	336
90.0	231	140	276	305	291	272	290	278	264	255
92.5	173	197	249	295	282	261	275	269	255	237
95.0	168	245	231	288	275	248	267	261	251	234
97.5	182	247	228	266	258	228	255	249	243	225
100.0	192	229	221	233	243	213	243	240	235	213
102.5	184	208	205	205	225	205	232	232	229	201
105.0	168	186	188	184	205	198	221	225	222	187
107.5	152	165	170	168	185	189	213	218	214	171
110.0	137	148	155	155	168	179	204	211	205	155
112.5	126	136	142	145	155	171	194	205	196	141
115.0	118	126	132	138	145	163	184	196	185	129
117.5	112	119	124	133	138	158	176	187	172	119
120.0	107	113	118	128	135	153	169	176	158	112
122.5	104	108	113	124	132	149	162	166	142	108
125.0	100	105	109	120	131	145	156	154	125	105
127.5	99	103	108	118	130	144	149	142	112	101
130.0	100	103	108	118	129	142	143	129	102	98
132.5	102	105	110	119	126	135	135	118	97	96
135.0	105	108	112	119	122	122	122	108	94	95
137.5	108	110	113	115	112	105	100	92	92	95
140.0	100	104	105	102	96	86	76	72	79	86
142.5	85	89	88	85	77	65	53	54	62	70
145.0	67	69	70	65	56	45	36	35	45	53
147.5	45	47	48	45	38	27	22	25	29	35
150.0	28	28	29	28	21	13	9	14	19	22
152.5	14	15	15	14	11	8	5	5	8	13
155.0	8	8	8	8	7	5	4	2	2	2
157.5	5	5	5	5	5	5	3	2	0	0
160.0	4	5	5	5	5	5	3	2	0	0
162.5	4	4	5	5	5	4	3	1	0	0
165.0	4	4	4	5	5	4	2	1	0	0
167.5	4	4	4	5	5	4	2	1	0	0
170.0	4	4	4	5	4	4	2	1	0	0
172.5	4	4	4	4	4	4	2	1	0	0
175.0	4	4	4	4	4	3	2	1	0	0
177.5	3	4	4	4	4	3	2	1	0	0
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles	**Horizontal Angles**	
	175	**180**
0.0	1251	1251
2.5	1267	1281
5.0	1305	1284
7.5	1266	1288
10.0	1340	1321
12.5	1464	1475
15.0	1577	1506
17.5	1700	1764
20.0	1834	1769
22.5	2001	1987
25.0	2106	2065

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CANDELA TABULATION - (Cont.)

27.5	2277	2298
30.0	2444	2407
32.5	2606	2587
35.0	2749	2749
37.5	2788	2803
40.0	2698	2684
42.5	2583	2550
45.0	2352	2325
47.5	2250	2209
50.0	2153	2103
52.5	2060	2006
55.0	1979	1909
57.5	1890	1801
60.0	1809	1676
62.5	1754	1572
65.0	1739	1502
67.5	1708	1442
70.0	1645	1429
72.5	1356	1335
75.0	1291	1397
77.5	1161	1247
80.0	914	954
82.5	658	675
85.0	629	623
87.5	331	275
90.0	183	132
92.5	145	104
95.0	144	122
97.5	142	138
100.0	138	150
102.5	137	155
105.0	136	156
107.5	135	152
110.0	133	147
112.5	130	140
115.0	127	133
117.5	124	126
120.0	120	122
122.5	116	118
125.0	112	114
127.5	108	109
130.0	104	105
132.5	99	100
135.0	97	97
137.5	95	95
140.0	90	90
142.5	75	75
145.0	57	58
147.5	40	40
150.0	24	24
152.5	15	15
155.0	2	2
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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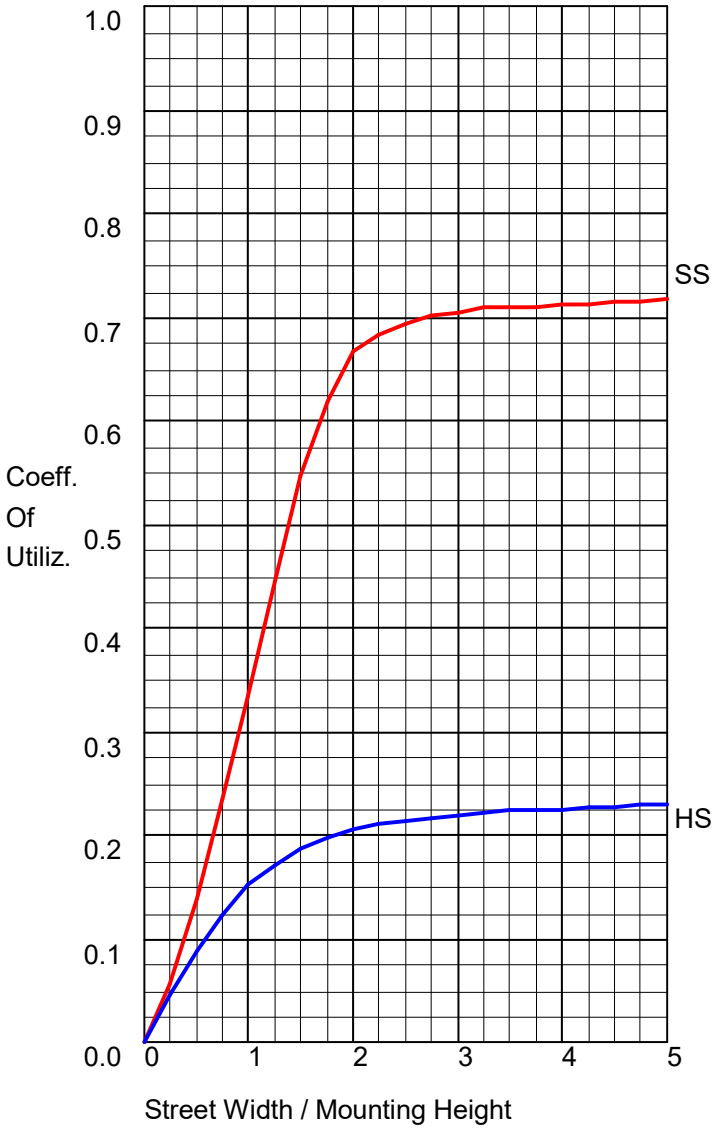
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	15045.0	72.4
Downward House Side	4942.2	23.8
Downward Total	19987.2	96.2
Upward Street Side	350.6	1.7
Upward House Side	433.0	2.1
Upward Total	783.6	3.8
Total Flux	20770.8	100.0

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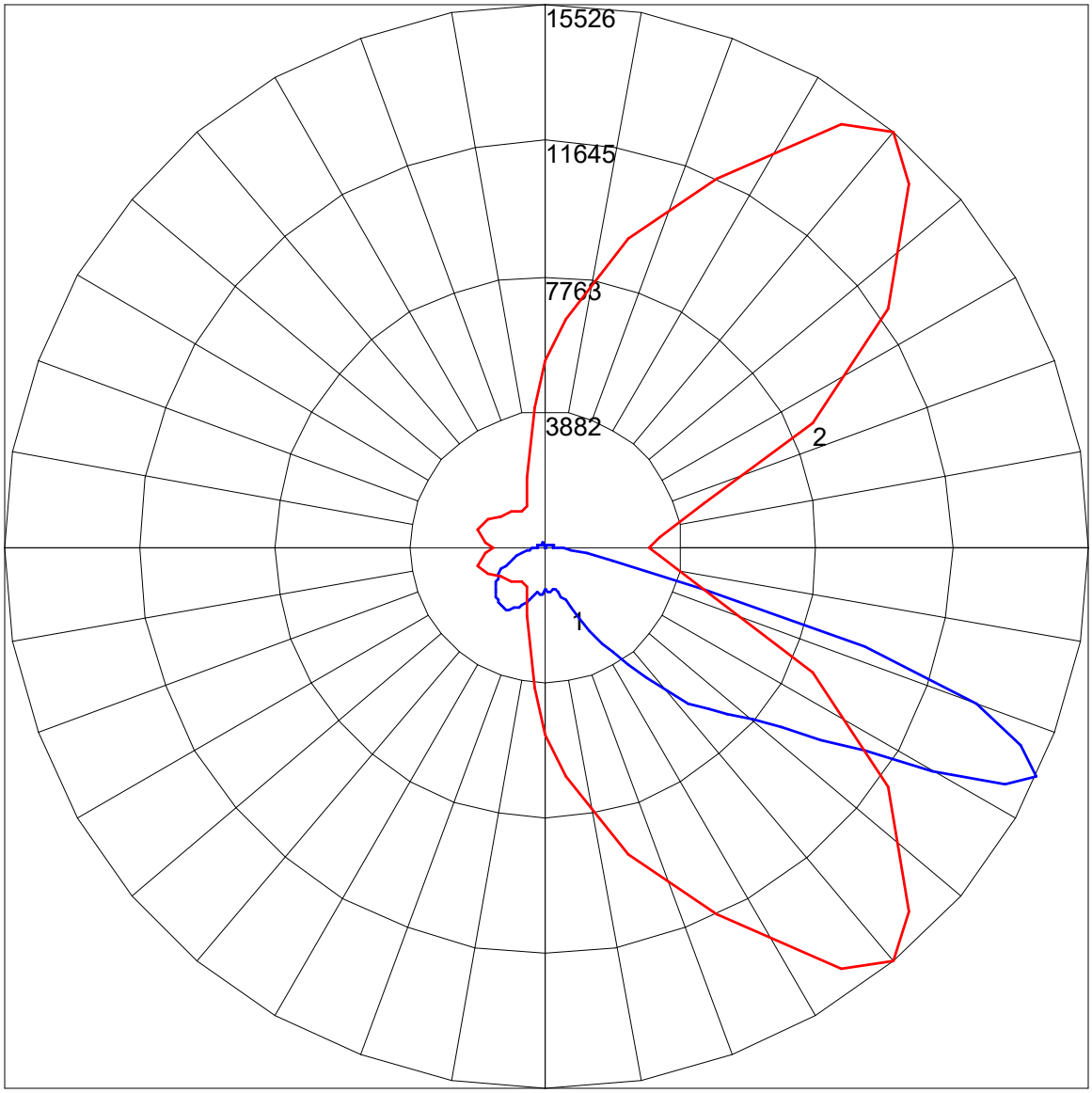
POLAR GRAPH



Maximum Candela = 15526 Located At Horizontal Angle = 50, Vertical Angle = 65
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

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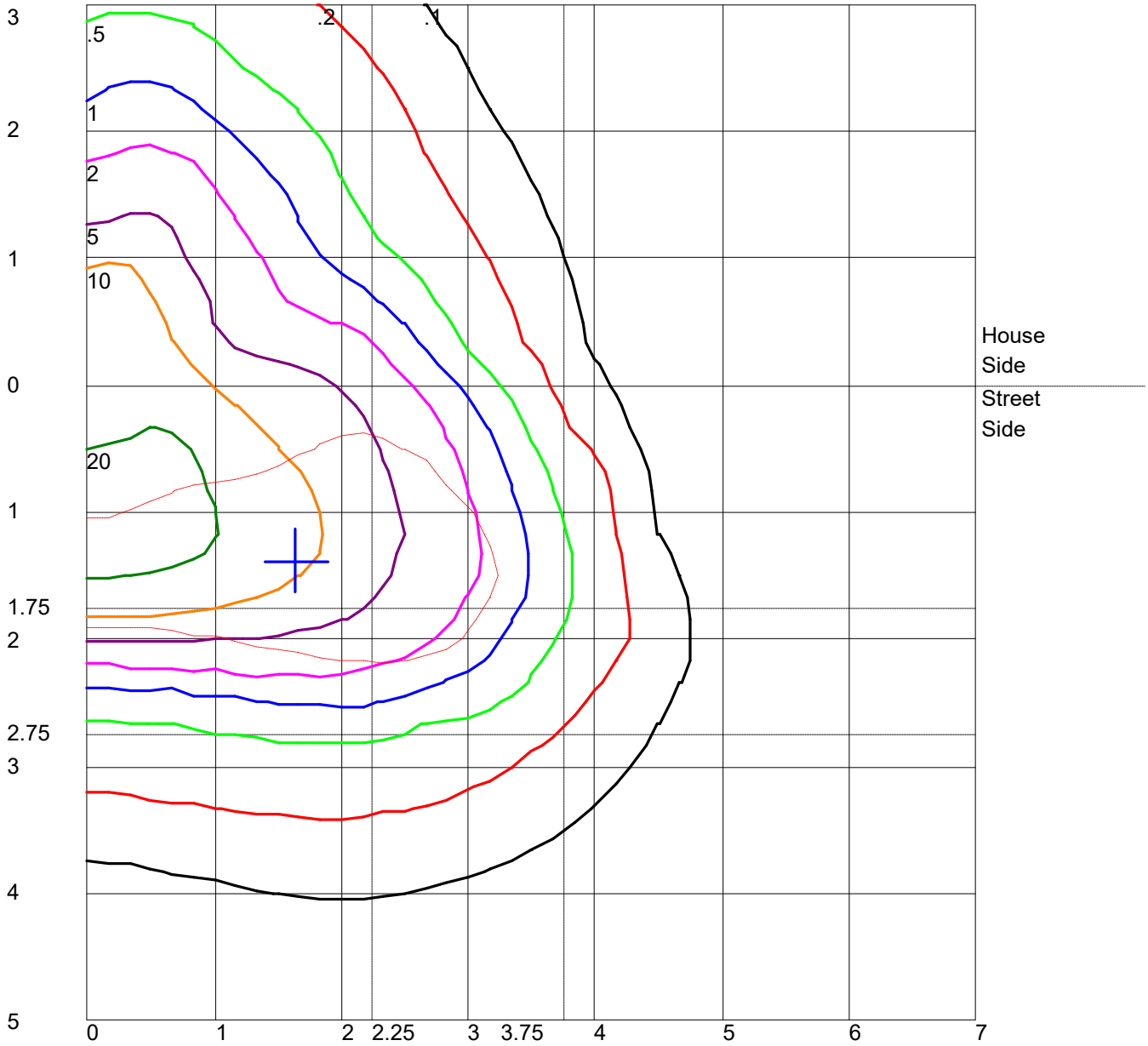
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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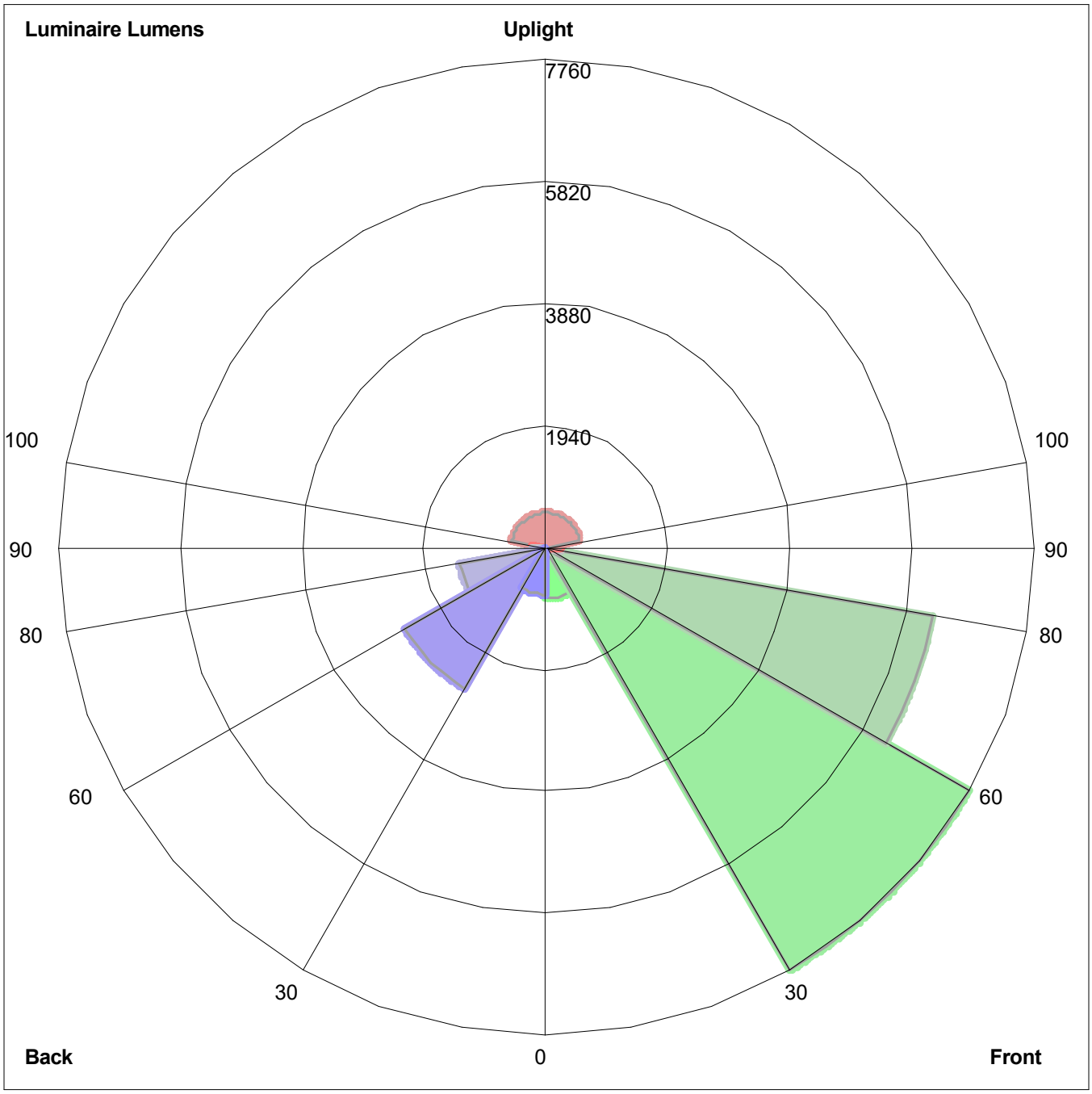
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=811.1, Medium=7759.6, High=6229.4, Very High=244.9
Back: Low=741.9, Medium=2582.2, High=1396.5, Very High=221.5
Uplight: Low=234.6, High=549.0

BUG Rating : B3-U4-G3

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