IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-20L-SIL-3-50-70CRI.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-3-50-70CRI
[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 III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	21285
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	143
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.04
Maximum Candela	15910
Maximum Candela Angle	50H 65V
Maximum Candela (<90 Degrees Vertical)	15910
Maximum Candela Angle (<90 Degrees Vertical)	50H 65V
Maximum Candela At 90 Degrees Vertical	313 (1.5% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1208 (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)	831.2	N.A.	3.9
FM - Front-Medium (30-60)	7951.9	N.A.	37.4
FH - Front-High (60-80)	6383.8	N.A.	30.0
FVH - Front-Very High (80-90)	251.0	N.A.	1.2
BL - Back-Low (0-30)	760.2	N.A.	3.6
BM - Back-Medium (30-60)	2646.2	N.A.	12.4
BH - Back-High (60-80)	1431.2	N.A.	6.7
BVH - Back-Very High (80-90)	227.0	N.A.	1.1
UL - Uplight-Low (90-100)	240.4	N.A.	1.1
UH - Uplight-High (100-180)	562.6	N.A.	2.6
Total	21285.5	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	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282
2.5	1304	1303	1311	1321	1319	1315	1304	1313	1297	1288
5.0	1252	1255	1263	1300	1322	1329	1326	1335	1332	1325
7.5	1237	1246	1223	1246	1249	1255	1273	1308	1333	1337
10.0	1218	1216	1233	1241	1261	1271	1276	1271	1328	1352
12.5	1249	1268	1273	1277	1276	1274	1286	1307	1315	1445
15.0	1291	1296	1313	1310	1352	1337	1331	1352	1413	1480
17.5	1438	1441	1470	1438	1449	1498	1510	1468	1527	1553
20.0	1591	1617	1650	1642	1710	1639	1676	1707	1702	1673
22.5	1942	1976	2019	2013	1992	1988	1942	1951	1928	1930
25.0	2475	2534	2441	2395	2450	2356	2324	2260	2271	2154
27.5	3161	3233	3149	3034	2889	2904	2742	2671	2587	2427
30.0	3927	3995	3920	3642	3505	3346	3272	3122	2871	2793
32.5	4417	4425	4424	4410	4119	3899	3671	3605	3224	3011
35.0	4900	4839	4831	4895	4872	4475	4232	4018	3510	3231
37.5	5357	5311	5274	5374	5427	5206	4853	4469	3872	3408
40.0	5946	5847	5850	5928	5984	5882	5516	4932	4211	3518
42.5	6600	6480	6532	6660	6602	6431	6215	5507	4494	3696
45.0	7432	7350	7446	7565	7388	6970	6728	6182	4652	3873
47.5	8451	8485	8513	8697	8393	7620	7252	6692	4985	4117
50.0	9577	9616	9595	9882	9574	8496	7893	7140	5466	4511
52.5	10934	11016	10816	11003	10772	9702	8730	7767	6170	4987
55.0	12341	12491	12460	12558	12205	10930	9855	8623	7068	5374
57.5	12236	12251	12689	13783	13994	12523	11142	9950	7935	6021
60.0	11003	11022	11494	13083	14802	14401	13146	11503	9166	7033
62.5	7767	8158	9357	11539	13723	15692	15170	13230	10469	8218
65.0	3044	3347	4831	8656	12269	15137	15910	15151	11944	9381
67.5	1409	1452	1985	3823	9780	13712	15138	15772	12453	9411
70.0	1029	1062	1293	2062	4871	11692	13470	14470	12922	8776
72.5	783	805	1010	1456	2774	6907	9853	11415	11512	6552
75.0	589	616	809	1165	1777	3019	4760	6721	6872	3695
77.5	451	479	643	965	1311	1762	2041	2302	2647	1166
80.0	343	386	523	789	995	1168	1208	1169	977	766
82.5	266	314	432	655	731	756	738	750	678	605
85.0	244	306	340	494	512	541	482	471	475	480
87.5	163	201	253	352	295	346	322	303	326	361
90.0	79	96	142	166	193	218	228	237	257	277
92.5	92	99	143	166	191	219	223	233	253	268
95.0	105	102	146	169	191	217	221	228	251	257
97.5	114	104	146	170	191	213	219	219	240	218
100.0	121	107	145	171	190	210	215	210	221	172
102.5	125	111	143	172	190	206	210	202	192	138
105.0	127	116	141	173	189	200	200	184	164	127
107.5	128	121	138	173	187	191	184	162	138	119
110.0	129	124	135	171	183	174	162	140	119	114
112.5	128	126	132	169	175	155	142	125	106	110
115.0	128	127	129	162	162	139	127	114	99	106
117.5	128	128	127	152	146	126	117	108	95	103
120.0	128	127	122	137	133	118	111	103	94	101
122.5	126	125	115	124	124	113	107	101	93	98
125.0	121	119	109	113	117	110	105	100	93	96
127.5	114	113	104	105	111	107	105	101	95	97
130.0	108	106	102	100	107	107	106	102	96	99

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CANDELA TABULATION - (Cont.)

132.5	105	104	100	97	105	105	102	99	97	102
135.0	103	103	100	97	98	95	92	92	98	104
137.5	102	102	97	87	82	80	79	83	91	103
140.0	89	89	83	73	65	62	64	69	79	91
142.5	73	72	67	57	45	46	49	53	64	76
145.0	56	54	50	39	32	31	34	37	48	60
147.5	37	35	32	27	20	14	17	22	32	40
150.0	27	25	23	17	8	6	8	9	17	24
152.5	13	13	9	5	4	3	5	6	9	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	1282	1282	1282	1282	1282	1282	1282	1282	1282	1282
2.5	1279	1270	1267	1273	1269	1274	1274	1281	1290	1300
5.0	1289	1272	1275	1311	1365	1378	1375	1379	1367	1365
7.5	1321	1298	1303	1368	1398	1397	1375	1346	1308	1297
10.0	1347	1319	1330	1408	1427	1375	1367	1368	1386	1351
12.5	1438	1401	1437	1515	1447	1406	1399	1438	1415	1479
15.0	1516	1455	1494	1568	1516	1535	1497	1586	1576	1623
17.5	1605	1554	1615	1654	1588	1602	1713	1685	1676	1771
20.0	1754	1677	1728	1714	1704	1750	1747	1828	1836	1878
22.5	1981	1893	1892	1836	1779	1854	1869	1962	1940	2056
25.0	2153	2106	2032	1925	1903	1922	1981	2041	2090	2146
27.5	2414	2252	2243	2022	1926	2025	2078	2171	2184	2304
30.0	2609	2421	2393	2132	1996	2111	2171	2227	2291	2409
32.5	2736	2531	2479	2228	2035	2141	2175	2323	2460	2626
35.0	2877	2589	2501	2219	2029	2139	2220	2419	2577	2773
37.5	2939	2666	2527	2165	1985	2092	2264	2457	2627	2848
40.0	3000	2736	2502	2087	1943	2029	2275	2424	2628	2938
42.5	3147	2755	2502	2003	1851	2011	2211	2335	2654	3086
45.0	3222	2821	2518	1959	1747	2000	2125	2250	2829	3070
47.5	3384	2937	2517	1913	1664	1924	2047	2198	3088	2963
50.0	3578	3153	2583	1877	1590	1864	1992	2156	3153	2896
52.5	3934	3421	2755	1896	1545	1785	1923	2141	3074	2777
55.0	4332	3786	3064	1925	1515	1701	1845	2083	2957	2632
57.5	4969	4278	3460	1995	1501	1621	1749	1983	2806	2497
60.0	5839	4953	4032	2085	1469	1508	1649	1856	2568	2346
62.5	6428	5434	4335	2160	1404	1374	1538	1710	2227	2193
65.0	6744	5501	4135	2115	1296	1233	1434	1574	1857	2068
67.5	6183	4750	3286	1828	1178	1084	1293	1428	1562	1928
70.0	5155	3637	2138	1373	1003	936	1146	1263	1353	1747
72.5	3369	2273	1178	951	809	792	968	1080	1241	1460
75.0	1275	936	757	684	659	657	761	873	969	1006
77.5	733	658	508	588	575	564	584	639	735	818

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CANDELA TABULATION - (Cont.)

80.0	545	512	400	525	514	493	522	562	619	657
82.5	456	411	340	462	441	417	460	496	540	549
85.0	400	298	309	411	385	372	385	393	458	459
87.5	332	180	303	357	337	329	334	318	318	344
90.0	236	143	283	313	299	279	297	285	270	262
92.5	177	202	255	303	289	268	282	276	261	243
95.0	173	251	237	295	281	254	273	267	257	240
97.5	186	253	233	273	265	233	261	255	249	230
100.0	197	235	226	239	249	218	249	246	241	218
102.5	188	214	210	210	230	210	238	238	235	206
105.0	173	191	192	188	210	203	227	230	228	192
107.5	155	169	174	172	190	194	218	223	219	175
110.0	140	152	158	159	173	184	209	216	210	158
112.5	129	140	145	149	158	175	199	210	201	144
115.0	121	129	135	142	149	167	188	201	190	132
117.5	114	122	127	136	142	162	180	192	177	122
120.0	110	116	121	132	138	157	173	180	162	115
122.5	106	111	116	127	136	153	166	170	145	110
125.0	102	107	112	123	134	149	160	158	128	107
127.5	102	106	110	121	133	147	153	145	114	103
130.0	102	106	111	121	132	145	147	132	105	101
132.5	105	108	113	122	129	139	139	121	99	99
135.0	108	111	115	122	125	125	125	111	96	97
137.5	110	113	116	118	115	108	102	94	95	97
140.0	102	106	107	105	99	88	78	74	81	88
142.5	87	91	91	87	79	67	54	55	64	72
145.0	69	71	72	67	58	47	37	36	47	54
147.5	47	48	50	47	39	28	23	25	30	36
150.0	28	29	30	28	21	13	9	14	20	22
152.5	14	15	15	14	11	8	6	5	8	13
155.0	8	9	9	8	7	6	4	2	2	2
157.5	6	6	6	6	6	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	1282	1282
2.5	1298	1313
5.0	1337	1316
7.5	1297	1320
10.0	1373	1353
12.5	1501	1512
15.0	1616	1543
17.5	1743	1807
20.0	1879	1813
22.5	2051	2037
25.0	2158	2116

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CANDELA TABULATION - (Cont.)

27.5	2334	2355
30.0	2505	2467
32.5	2670	2651
35.0	2818	2817
37.5	2857	2873
40.0	2765	2751
42.5	2647	2614
45.0	2410	2383
47.5	2306	2264
50.0	2206	2156
52.5	2111	2056
55.0	2028	1956
57.5	1936	1846
60.0	1854	1717
62.5	1798	1611
65.0	1782	1539
67.5	1750	1478
70.0	1686	1464
72.5	1390	1368
75.0	1323	1432
77.5	1190	1278
80.0	936	977
82.5	674	692
85.0	645	638
87.5	340	281
90.0	188	135
92.5	148	106
95.0	147	125
97.5	145	141
100.0	142	154
102.5	140	159
105.0	140	160
107.5	138	156
110.0	136	151
112.5	133	143
115.0	130	136
117.5	127	129
120.0	123	125
122.5	119	121
125.0	115	117
127.5	111	112
130.0	106	107
132.5	102	102
135.0	99	99
137.5	98	98
140.0	92	92
142.5	76	76
145.0	58	59
147.5	41	41
150.0	24	24
152.5	15	16
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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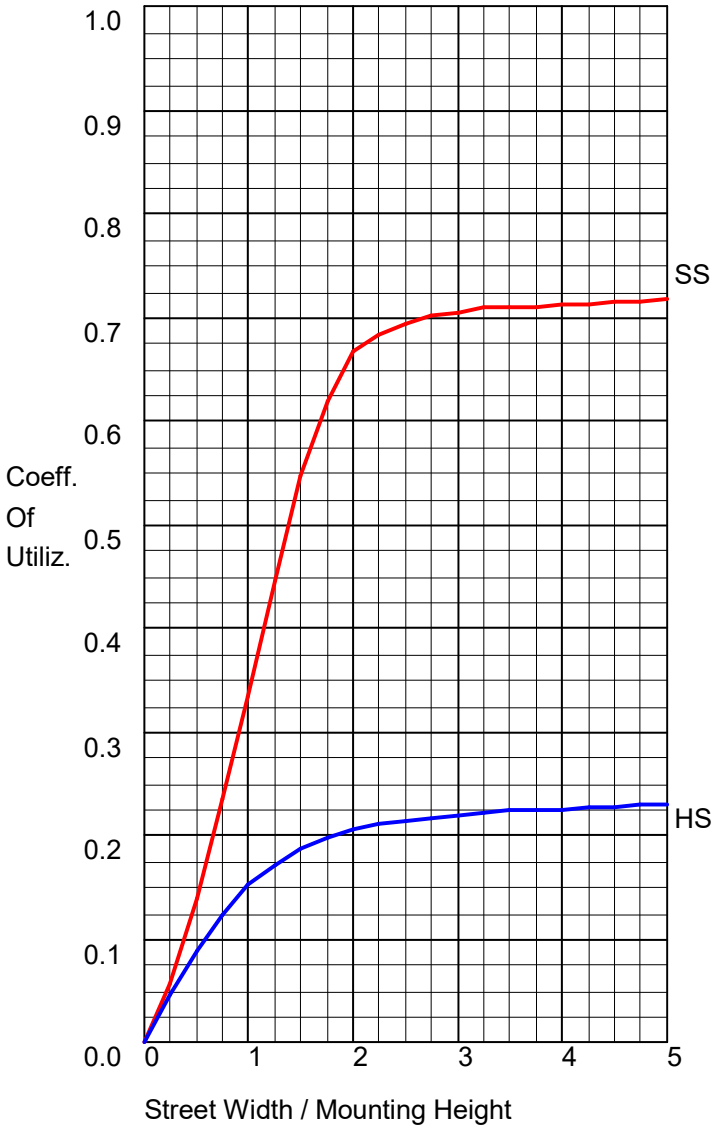
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	15417.9	72.4
Downward House Side	5064.7	23.8
Downward Total	20482.6	96.2
Upward Street Side	359.2	1.7
Upward House Side	443.7	2.1
Upward Total	802.9	3.8
Total Flux	21285.5	100.0

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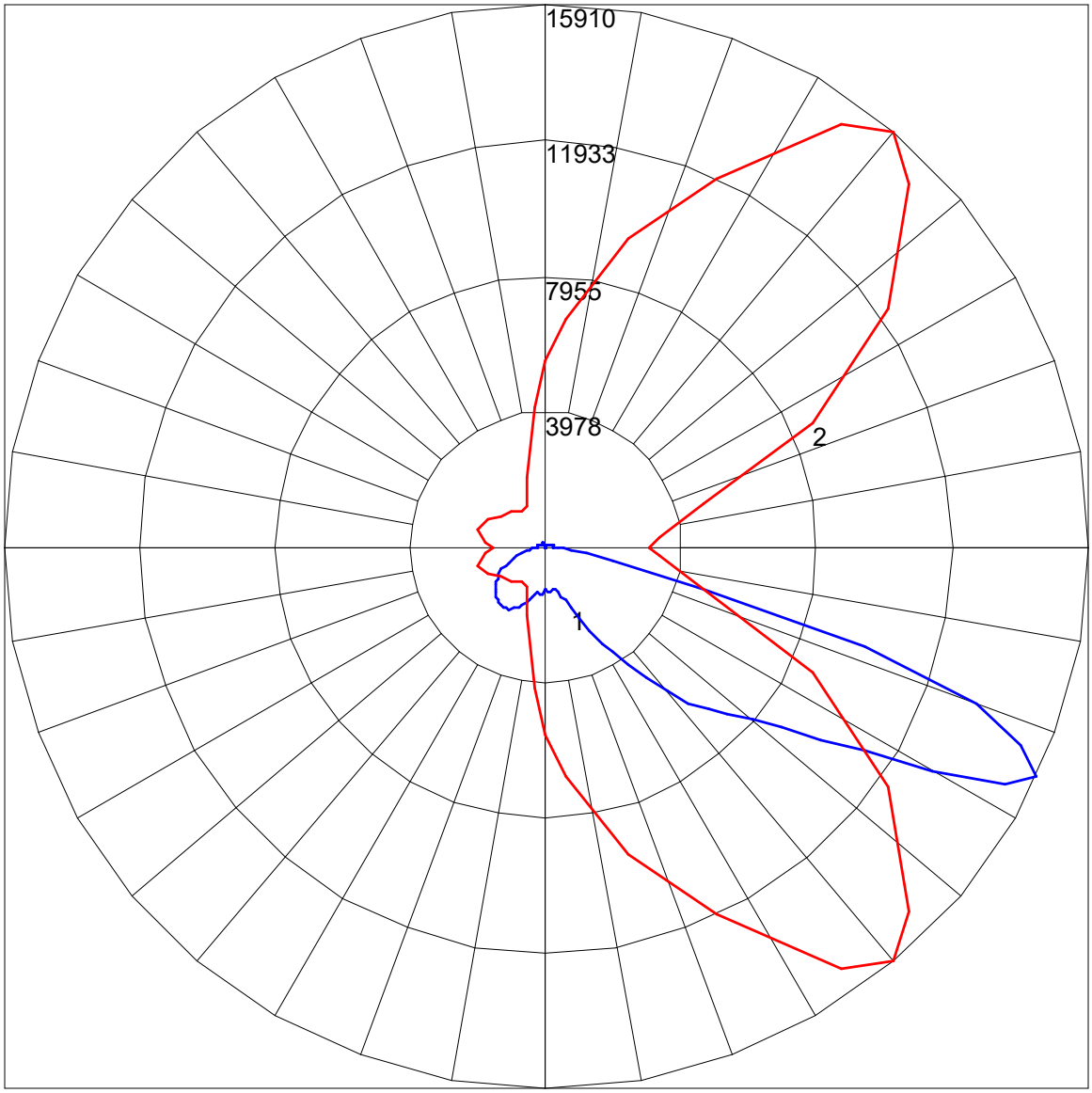
POLAR GRAPH



Maximum Candela = 15910 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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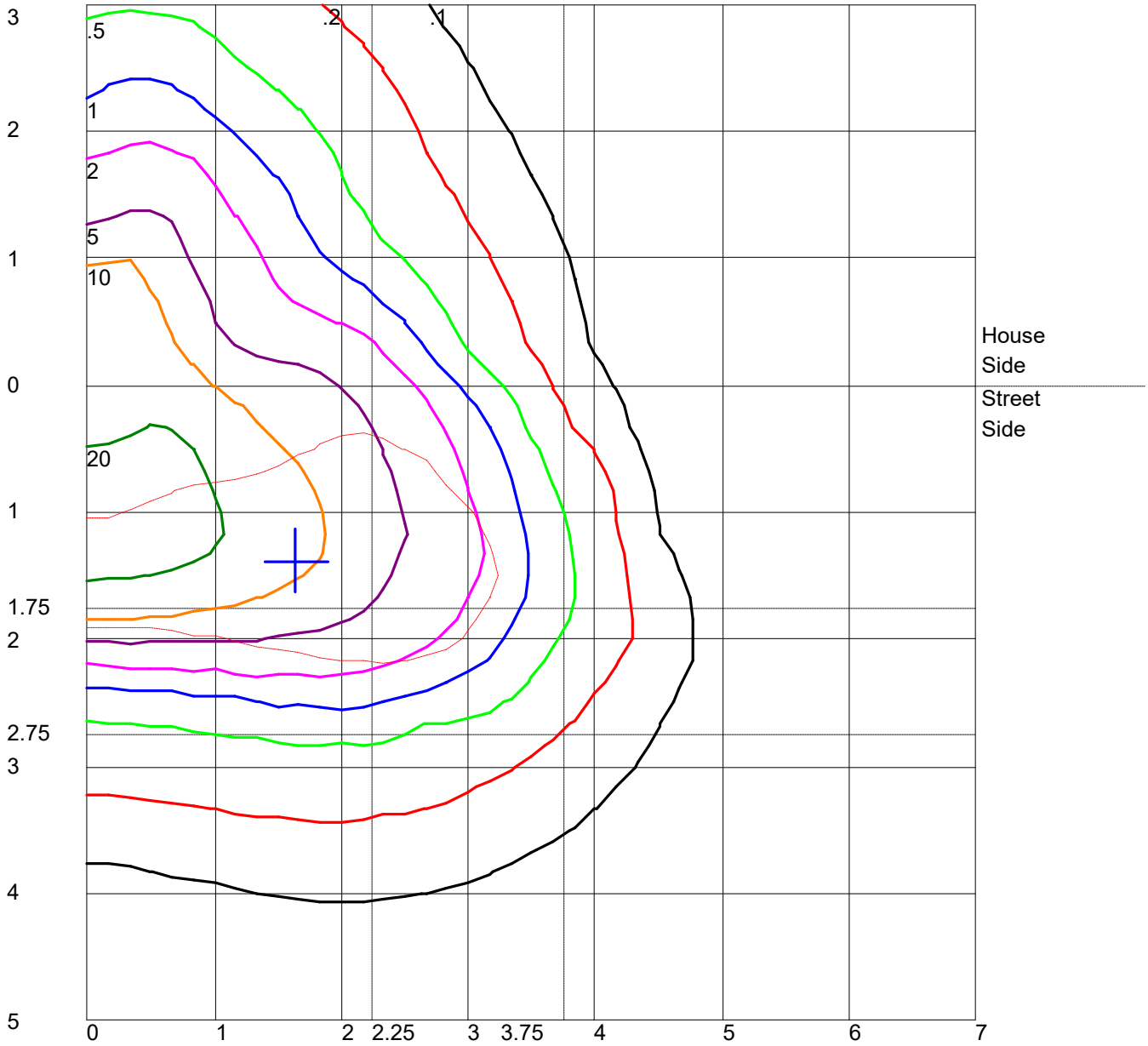
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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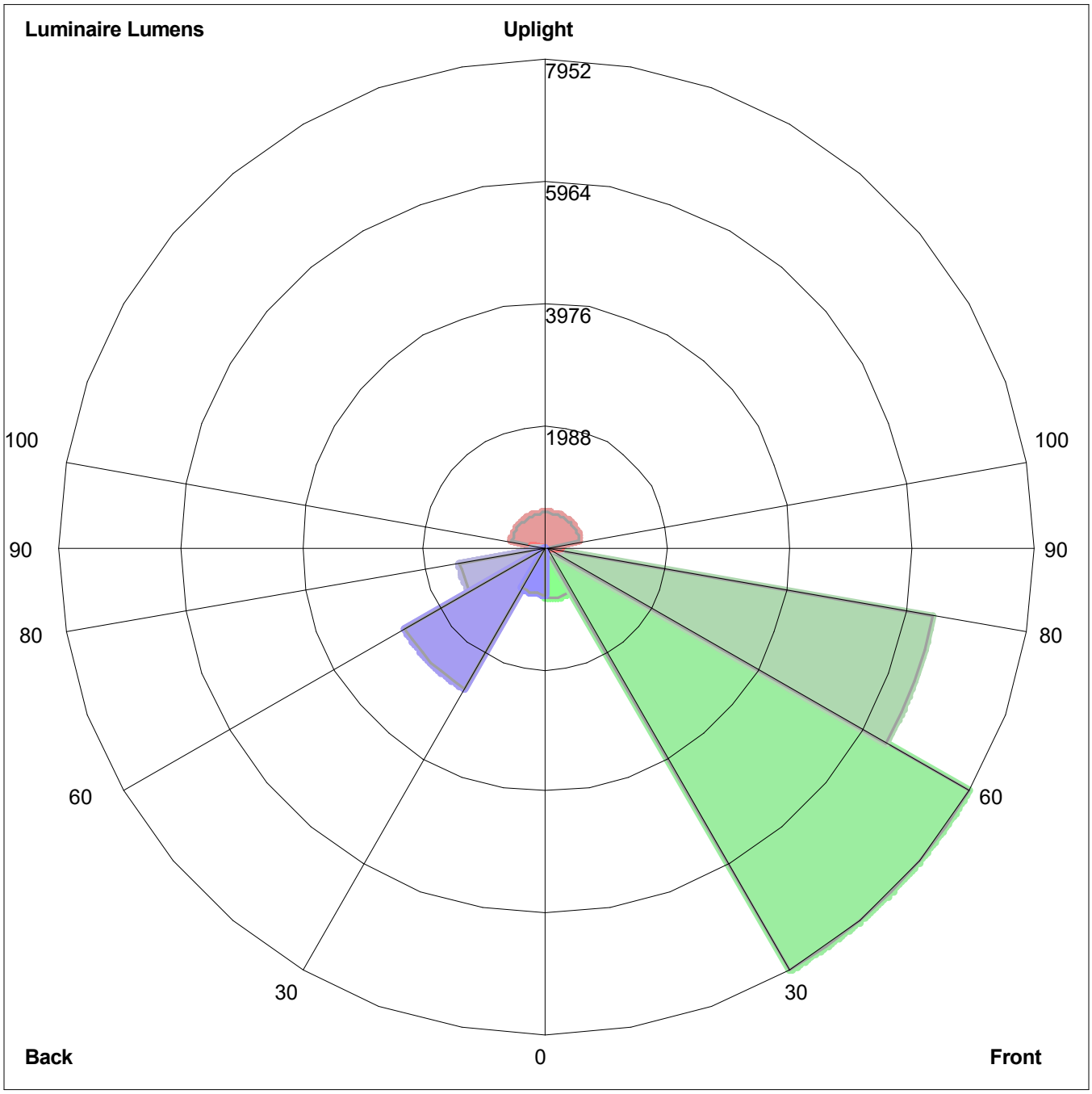
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=831.2, Medium=7951.9, High=6383.8, Very High=251.0
Back: Low=760.2, Medium=2646.2, High=1431.2, Very High=227.0
Uplight: Low=240.4, High=562.6

BUG Rating : B3-U4-G3

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