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

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-12637
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUEDATE] 03/30/21
[TESTDATE] 03/26/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MPP-LED-20L-SIL-2-30-70CRI-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] 3000

CHARACTERISTICS

IES Classification	Type II
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	13951
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.05
Maximum Candela	10864
Maximum Candela Angle	72.5H 62.5V
Maximum Candela (<90 Degrees Vertical)	10864
Maximum Candela Angle (<90 Degrees Vertical)	72.5H 62.5V
Maximum Candela At 90 Degrees Vertical	238 (1.7% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	922 (6.6% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1073.0	N.A.	7.7
FM - Front-Medium (30-60)	7231.7	N.A.	51.8
FH - Front-High (60-80)	2729.9	N.A.	19.6
FVH - Front-Very High (80-90)	126.0	N.A.	0.9
BL - Back-Low (0-30)	509.9	N.A.	3.7
BM - Back-Medium (30-60)	1077.3	N.A.	7.7
BH - Back-High (60-80)	403.3	N.A.	2.9
BVH - Back-Very High (80-90)	109.8	N.A.	0.8
UL - Uplight-Low (90-100)	197.1	N.A.	1.4
UH - Uplight-High (100-180)	493.3	N.A.	3.5
Total	13951.3	N.A.	100.0
BUG Rating	B2-U3-G2		

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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	1477	1477	1477	1477	1477	1477	1477	1477	1477	1477
2.5	1457	1444	1451	1461	1459	1454	1437	1435	1443	1443
5.0	1573	1564	1595	1570	1574	1570	1583	1552	1464	1448
7.5	1461	1466	1471	1514	1560	1611	1614	1589	1579	1543
10.0	1618	1616	1572	1650	1619	1587	1606	1623	1625	1648
12.5	1727	1735	1679	1672	1727	1691	1646	1735	1814	1830
15.0	1830	1926	1889	1889	1865	1775	1876	1826	1947	1938
17.5	2159	2075	2126	2022	2081	2089	1999	2037	2103	2148
20.0	2338	2353	2394	2298	2271	2248	2311	2295	2287	2315
22.5	2786	2807	2799	2615	2681	2515	2578	2582	2539	2534
25.0	3150	3172	3165	3090	2959	2955	2905	2901	2862	2878
27.5	4025	3984	3878	3547	3516	3346	3348	3319	3295	3253
30.0	4729	4808	4610	4347	4103	4042	3894	3782	3758	3766
32.5	5344	5345	5330	5143	4979	4669	4602	4406	4373	4382
35.0	5143	5151	5214	5428	5690	5589	5463	5192	4969	4833
37.5	5218	5129	5109	5231	5742	6148	6334	5994	5552	5368
40.0	5603	5450	5354	5379	5719	6363	6633	7032	6118	5964
42.5	5986	5792	5647	5671	5953	6576	6776	7614	6917	6657
45.0	6106	5940	5795	5870	6221	6859	7262	7742	7712	7702
47.5	5956	5825	5688	5879	6372	7217	7803	7728	8385	8403
50.0	5581	5470	5359	5651	6330	7543	8259	8031	9040	9028
52.5	4959	4864	4774	5220	6059	7643	8621	8702	9496	9574
55.0	4182	4071	4005	4505	5528	7463	8932	9505	10030	10091
57.5	3254	3237	3172	3585	4612	6833	9001	10111	10239	10374
60.0	2328	2327	2329	2634	3411	5672	8519	10148	10333	10536
62.5	1382	1400	1465	1716	2259	3996	7532	9905	10864	10672
65.0	867	883	957	1102	1385	2283	6025	8623	10406	10377
67.5	591	590	616	773	962	1226	3866	6750	8714	8886
70.0	512	513	525	575	715	833	2114	4914	6639	6950
72.5	403	400	426	475	582	642	1095	3144	4338	4597
75.0	283	285	311	356	467	541	700	1767	2721	2866
77.5	183	202	231	266	347	445	536	1083	1655	1624
80.0	108	132	168	195	263	349	415	618	922	920
82.5	83	104	137	154	185	243	315	381	533	577
85.0	62	85	122	140	160	187	218	268	333	366
87.5	62	84	120	137	155	176	195	214	234	246
90.0	66	83	118	135	153	172	184	199	210	214
92.5	78	86	122	139	156	175	183	200	211	215
95.0	91	91	126	145	161	180	183	204	214	218
97.5	103	95	129	148	163	180	180	201	205	200
100.0	110	99	130	150	164	179	176	191	180	157
102.5	116	105	130	152	164	176	171	171	142	130
105.0	119	109	130	153	164	173	160	149	118	110
107.5	122	114	127	153	164	167	146	130	103	103
110.0	122	117	126	153	161	157	131	110	94	98
112.5	123	120	124	151	156	144	118	95	88	93
115.0	124	122	123	148	149	131	107	86	85	88
117.5	125	124	122	141	138	120	99	80	84	85
120.0	126	124	119	133	129	111	92	77	81	83
122.5	125	123	116	123	120	106	88	76	78	80
125.0	122	120	111	114	113	101	87	76	76	77
127.5	117	115	108	108	108	98	87	78	77	76
130.0	111	110	105	103	104	97	88	80	78	78

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CANDELA TABULATION - (Cont.)

132.5	108	107	103	99	102	98	88	80	80	80
135.0	106	106	103	99	100	93	83	80	81	82
137.5	106	106	103	97	91	82	73	74	78	80
140.0	100	100	95	86	76	65	60	62	67	68
142.5	87	86	82	71	58	48	47	49	54	56
145.0	71	69	63	53	40	36	33	36	40	41
147.5	52	52	44	36	29	21	20	24	27	28
150.0	36	35	31	25	14	6	6	12	14	15
152.5	25	25	19	10	4	2	2	3	4	4
155.0	9	8	5	3	2	1	1	1	2	2
157.5	2	2	2	2	1	1	1	1	1	1
160.0	1	1	1	2	1	1	0	0	1	0
162.5	1	1	1	2	1	1	0	0	0	0
165.0	1	1	2	2	1	1	0	0	0	0
167.5	1	1	2	2	1	1	0	0	0	0
170.0	1	1	2	2	1	1	0	0	0	0
172.5	1	1	2	2	1	1	0	0	0	0
175.0	1	1	2	2	2	1	0	0	0	0
177.5	1	1	2	2	2	1	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	1477	1477	1477	1477	1477	1477	1477	1477	1477	1477
2.5	1456	1457	1480	1519	1528	1540	1541	1529	1531	1520
5.0	1436	1478	1545	1585	1556	1553	1546	1532	1478	1415
7.5	1476	1500	1566	1568	1550	1452	1406	1407	1385	1359
10.0	1549	1568	1610	1568	1500	1468	1403	1328	1263	1209
12.5	1668	1696	1779	1731	1513	1405	1264	1159	1084	1062
15.0	1803	1838	1862	1742	1572	1334	1154	1046	933	885
17.5	2024	2009	2067	1844	1564	1227	1050	887	793	750
20.0	2248	2184	2204	1937	1553	1155	914	773	685	638
22.5	2581	2489	2520	2085	1459	1053	813	660	598	587
25.0	2884	2786	2704	2110	1457	950	701	592	549	521
27.5	3338	3124	3072	2229	1330	844	617	546	492	469
30.0	3810	3549	3370	2314	1230	728	577	494	446	426
32.5	4159	3834	3612	2310	1100	660	527	450	423	410
35.0	4553	4141	3818	2205	950	619	480	427	406	386
37.5	5078	4551	3989	2017	806	562	436	413	384	357
40.0	5549	5032	4122	1772	721	491	416	396	357	326
42.5	6025	5391	4301	1509	633	430	405	373	327	296
45.0	6734	5805	4405	1246	547	418	391	343	301	272
47.5	7208	6268	4498	1018	477	411	365	314	282	255
50.0	7779	6817	4426	833	426	393	340	295	270	244
52.5	8531	7154	4408	710	405	373	319	280	261	234
55.0	9113	7462	4161	636	405	352	300	271	253	228
57.5	9318	7394	3709	536	419	333	287	262	246	219
60.0	9477	7090	2989	449	402	316	275	253	233	203
62.5	9226	6540	2268	398	365	300	264	242	216	198
65.0	8147	5344	1514	373	326	284	253	225	234	251
67.5	6526	3904	1011	355	306	269	238	246	277	307
70.0	4907	2781	706	334	291	256	251	275	299	265
72.5	3201	1842	516	312	271	244	257	269	218	198
75.0	2018	1205	404	296	257	242	262	225	197	170
77.5	902	582	319	278	246	251	234	199	179	162

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CANDELA TABULATION - (Cont.)

80.0	541	421	265	261	242	236	211	196	183	168
82.5	388	327	223	244	245	214	214	202	189	173
85.0	313	210	212	246	223	212	218	206	194	178
87.5	250	91	225	234	225	213	223	210	199	182
90.0	180	71	218	238	228	216	227	216	205	187
92.5	126	153	198	245	234	221	232	223	212	195
95.0	118	203	184	242	230	209	227	219	211	195
97.5	145	205	182	222	219	195	218	214	208	190
100.0	159	195	180	194	209	189	211	210	206	184
102.5	156	180	172	168	193	183	205	206	203	178
105.0	148	162	158	150	175	176	198	203	199	168
107.5	135	145	144	135	156	164	189	198	195	158
110.0	122	130	130	124	137	152	180	191	188	149
112.5	110	117	117	114	122	141	168	183	181	138
115.0	102	107	107	107	111	132	156	175	172	131
117.5	94	99	99	101	103	125	148	164	161	126
120.0	88	91	92	95	99	118	140	155	149	121
122.5	84	85	87	91	96	114	133	145	135	117
125.0	80	82	84	87	95	111	127	136	123	112
127.5	79	80	83	87	95	110	123	126	112	109
130.0	80	80	83	88	95	110	120	118	104	107
132.5	81	82	84	91	95	103	114	112	99	104
135.0	84	84	87	93	94	93	99	101	99	103
137.5	84	87	89	91	85	82	80	82	87	98
140.0	76	80	80	77	71	65	60	61	71	82
142.5	63	65	65	61	56	48	41	43	53	62
145.0	48	50	49	45	39	33	29	30	36	44
147.5	31	31	32	29	25	19	15	20	25	30
150.0	16	16	17	17	13	8	7	10	16	20
152.5	6	6	6	6	6	6	5	6	6	10
155.0	2	3	3	4	4	4	5	5	5	5
157.5	1	2	2	2	3	4	4	5	4	3
160.0	1	1	2	2	3	4	4	4	4	3
162.5	1	1	2	2	3	3	4	4	3	2
165.0	0	1	1	2	2	3	3	3	3	2
167.5	0	0	1	2	2	2	3	3	3	2
170.0	0	0	0	1	2	2	2	2	2	2
172.5	0	0	0	1	2	2	2	2	2	2
175.0	0	0	0	1	1	2	2	2	2	1
177.5	0	0	0	1	1	1	2	2	2	1
180.0	1	1	1	1	1	1	1	1	1	1

Vert. Angles	**Horizontal Angles**	
	175.0	**180.0**
0.0	1477	1477
2.5	1528	1538
5.0	1370	1369
7.5	1366	1363
10.0	1159	1153
12.5	1016	1005
15.0	850	846
17.5	717	718
20.0	620	618
22.5	571	569
25.0	507	505

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CANDELA TABULATION - (Cont.)

27.5	462	460
30.0	432	431
32.5	408	408
35.0	384	383
37.5	355	355
40.0	324	325
42.5	294	298
45.0	272	276
47.5	253	257
50.0	238	242
52.5	225	227
55.0	209	211
57.5	190	191
60.0	164	161
62.5	167	170
65.0	220	218
67.5	270	261
70.0	175	155
72.5	137	115
75.0	103	73
77.5	98	57
80.0	103	54
82.5	107	58
85.0	110	63
87.5	114	72
90.0	119	91
92.5	126	113
95.0	129	132
97.5	129	144
100.0	131	154
102.5	133	158
105.0	139	160
107.5	144	159
110.0	146	156
112.5	146	152
115.0	143	147
117.5	139	141
120.0	134	136
122.5	130	132
125.0	125	126
127.5	118	120
130.0	113	114
132.5	108	109
135.0	107	107
137.5	104	103
140.0	87	86
142.5	67	67
145.0	49	50
147.5	33	33
150.0	22	22
152.5	13	12
155.0	5	5
157.5	2	1
160.0	1	0
162.5	1	0
165.0	1	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	1	1

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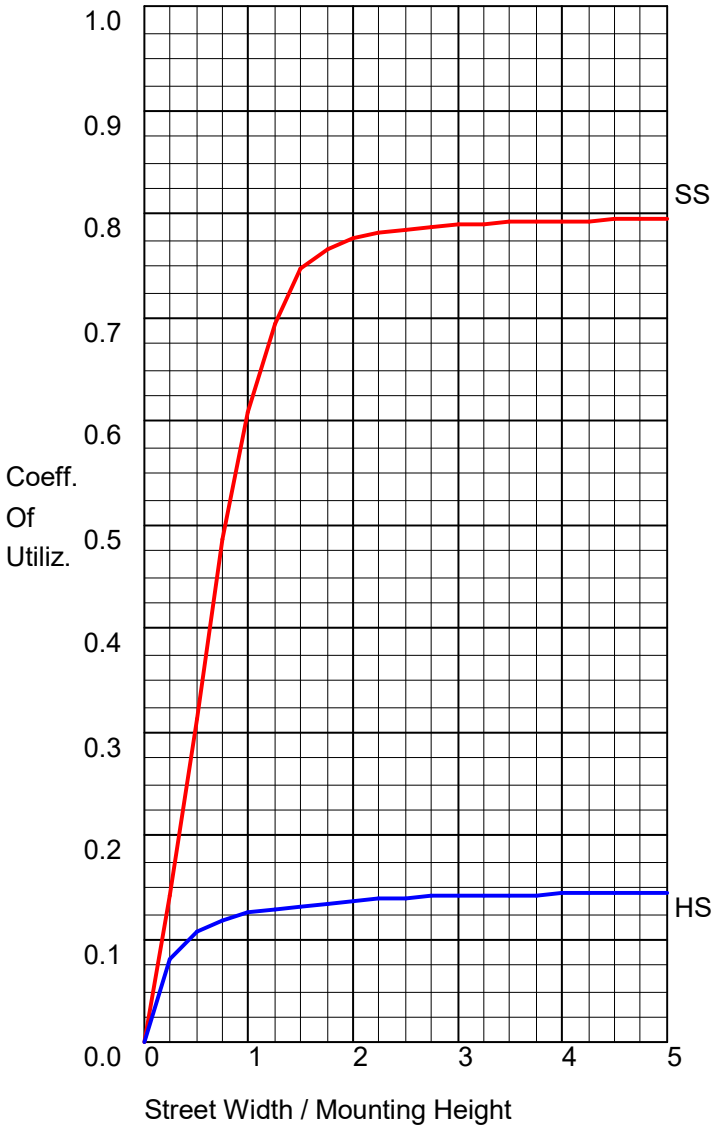
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	11160.6	80.0
Downward House Side	2100.3	15.1
Downward Total	13260.9	95.1
Upward Street Side	317.6	2.3
Upward House Side	372.8	2.7
Upward Total	690.4	4.9
Total Flux	13951.3	100.0

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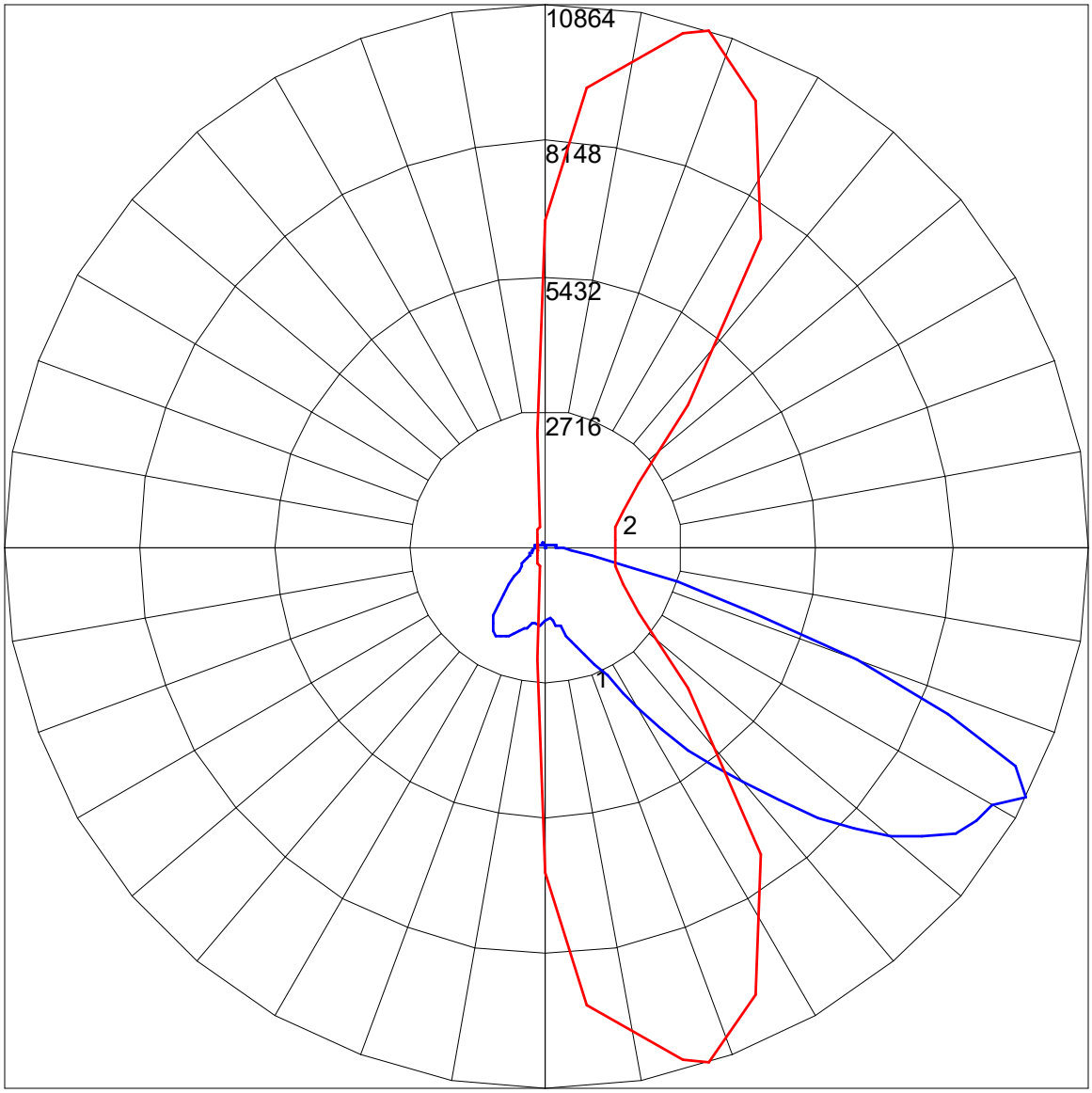
POLAR GRAPH



Maximum Candela = 10864 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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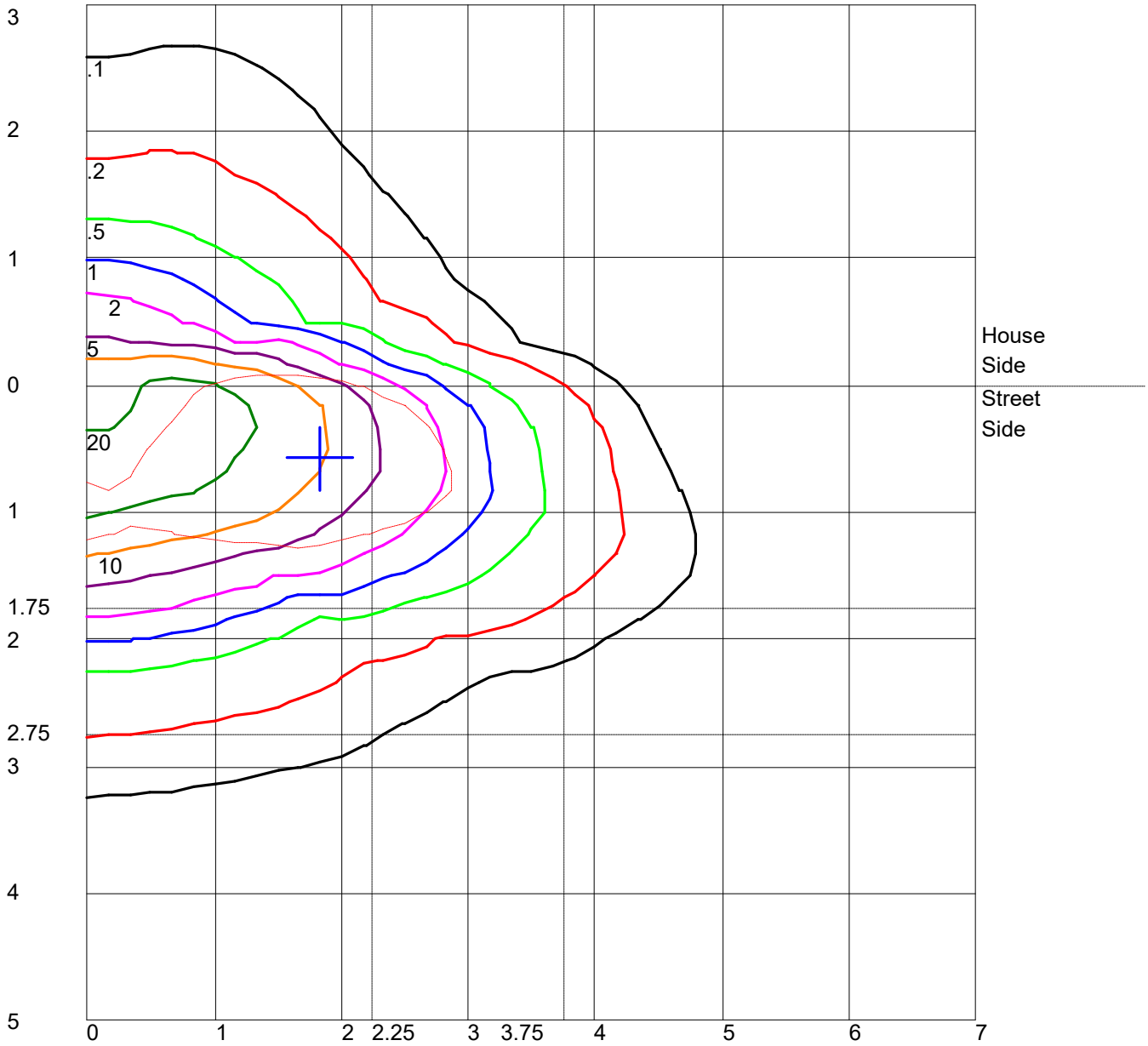
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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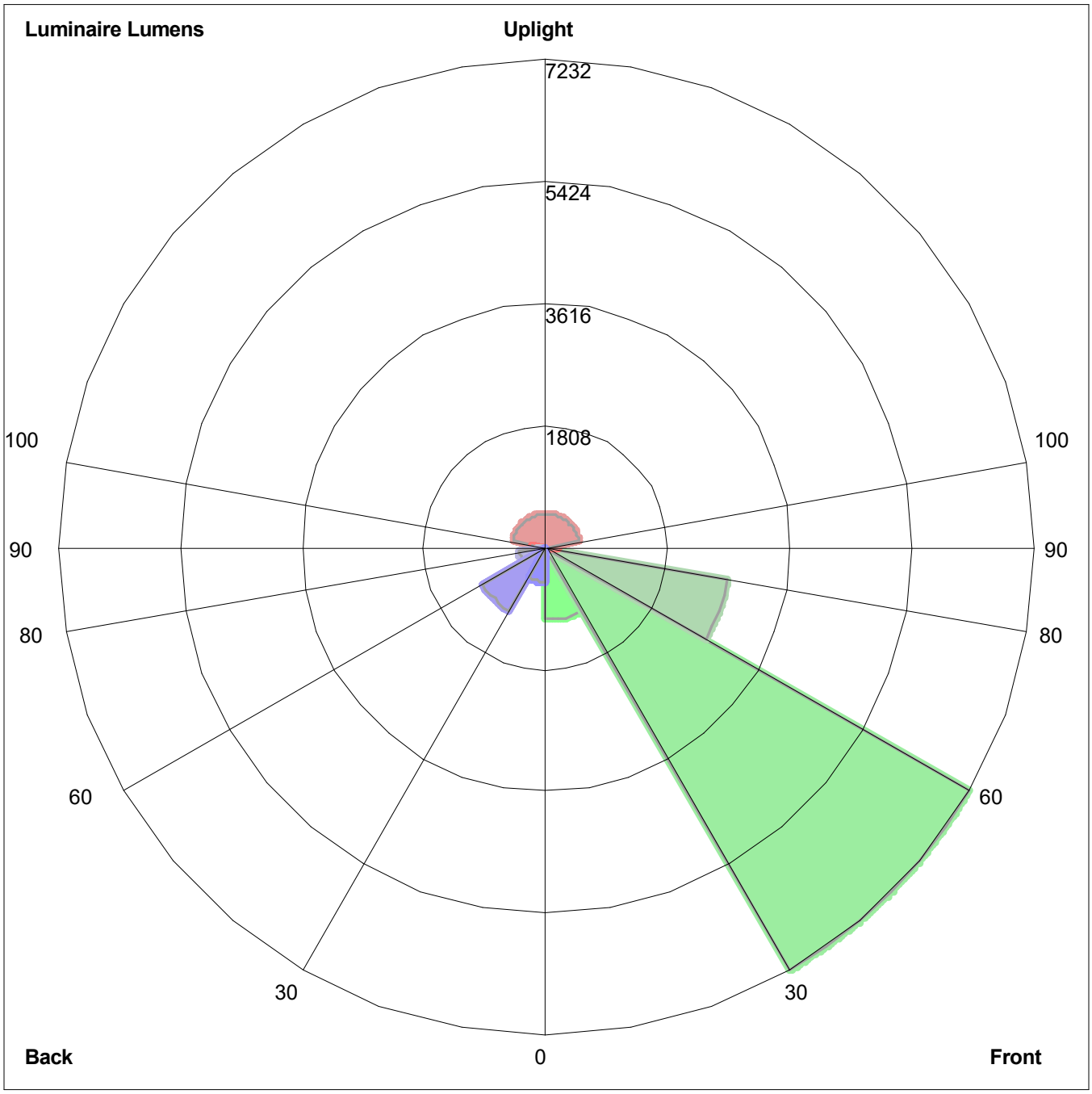
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low= 1073.0, Medium=7231.7, High=2729.9, Very High=126.0
Back: Low=509.9, Medium=1077.3, High=403.3, Very High=109.8
Uplight: Low=197.1, High=493.3

BUG Rating : B2-U3-G2

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