IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-15L-SIL-2-40-70CRI.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-15L-SIL-2-40-70CRI
[_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] 4000

CHARACTERISTICS

IES Classification	Type II
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	15397
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	151
Total Luminaire Watts	102
Ballast Factor	1.00
Upward Waste Light Ratio	0.05
Maximum Candela	9209
Maximum Candela Angle	72.5H 62.5V
Maximum Candela (<90 Degrees Vertical)	9209
Maximum Candela Angle (<90 Degrees Vertical)	72.5H 62.5V
Maximum Candela At 90 Degrees Vertical	246 (1.6% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	810 (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)	944.2	N.A.	6.1
FM - Front-Medium (30-60)	5744.3	N.A.	37.3
FH - Front-High (60-80)	2358.7	N.A.	15.3
FVH - Front-Very High (80-90)	164.5	N.A.	1.1
BL - Back-Low (0-30)	808.6	N.A.	5.3
BM - Back-Medium (30-60)	3352.3	N.A.	21.8
BH - Back-High (60-80)	1102.7	N.A.	7.2
BVH - Back-Very High (80-90)	184.9	N.A.	1.2
UL - Uplight-Low (90-100)	206.6	N.A.	1.3
UH - Uplight-High (100-180)	530.3	N.A.	3.4
Total	15397.1	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	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317
2.5	1342	1339	1352	1372	1372	1367	1357	1327	1320	1320
5.0	1381	1375	1396	1421	1426	1418	1401	1381	1371	1378
7.5	1424	1417	1380	1395	1378	1381	1431	1435	1409	1400
10.0	1460	1465	1471	1474	1488	1447	1416	1468	1450	1453
12.5	1595	1622	1596	1580	1563	1525	1551	1495	1598	1601
15.0	1669	1666	1680	1673	1720	1654	1650	1687	1660	1723
17.5	1882	1873	1895	1796	1825	1908	1800	1864	1811	1863
20.0	2024	2023	2044	2017	2078	2006	2081	2059	2009	2009
22.5	2355	2335	2379	2315	2306	2265	2279	2248	2259	2246
25.0	2784	2767	2700	2636	2655	2528	2517	2550	2468	2466
27.5	3447	3464	3385	3249	3022	2942	2858	2823	2760	2750
30.0	4129	4157	4094	3868	3705	3363	3277	3179	3123	3133
32.5	4317	4337	4400	4529	4354	4009	3882	3624	3562	3467
35.0	4161	4133	4213	4495	4838	4631	4495	4120	3943	3843
37.5	4292	4254	4250	4380	4699	4997	5056	4815	4348	4214
40.0	4561	4506	4483	4534	4749	5029	5187	5625	4821	4704
42.5	4763	4664	4643	4690	4920	5215	5351	5861	5572	5297
45.0	4714	4645	4636	4740	5042	5474	5705	5768	6318	6136
47.5	4502	4470	4465	4659	5048	5718	5979	5848	6682	6682
50.0	4245	4209	4197	4428	4933	5891	6337	6147	6879	6920
52.5	3787	3756	3767	4002	4649	5904	6681	6750	7105	7226
55.0	3172	3157	3226	3437	4131	5662	6885	7304	7427	7582
57.5	2540	2532	2578	2817	3454	5055	6841	7668	7941	8057
60.0	1779	1801	1868	2070	2597	4127	6536	7907	8390	8405
62.5	1099	1114	1160	1325	1720	2830	5792	7742	9209	8785
65.0	897	896	907	941	1077	1599	4573	7200	8925	9068
67.5	782	782	780	813	854	919	2969	6006	7615	7909
70.0	579	587	624	684	750	758	1510	4323	5568	6020
72.5	463	472	469	484	616	661	817	2480	3546	3804
75.0	393	411	412	417	479	555	626	1405	2171	2325
77.5	324	356	361	364	415	470	529	935	1369	1357
80.0	290	320	325	318	358	410	446	629	810	805
82.5	258	273	286	279	309	350	387	473	568	570
85.0	205	220	240	239	261	297	324	360	410	427
87.5	124	143	183	194	210	235	255	270	285	286
90.0	81	101	148	166	181	198	206	220	229	232
92.5	93	103	150	169	184	200	203	218	227	231
95.0	107	107	152	172	186	201	200	218	226	228
97.5	121	111	153	173	187	199	193	214	215	204
100.0	128	114	152	174	186	196	187	202	189	172
102.5	133	119	150	174	185	193	182	184	158	145
105.0	136	124	146	174	184	189	173	164	134	130
107.5	138	129	143	174	183	183	160	143	119	121
110.0	139	132	138	172	180	174	145	124	111	114
112.5	138	135	135	170	175	161	132	110	104	108
115.0	137	135	132	165	167	148	121	100	100	103
117.5	136	135	130	158	156	136	112	94	97	98
120.0	135	134	127	148	145	128	107	90	93	94
122.5	133	132	123	136	136	121	102	88	90	90
125.0	130	129	118	125	128	116	100	88	87	87
127.5	125	124	114	115	121	112	100	88	87	87
130.0	118	117	111	108	115	111	101	90	88	88

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CANDELA TABULATION - (Cont.)

132.5	114	113	108	104	112	108	97	90	90	90
135.0	111	111	108	104	106	99	90	90	92	92
137.5	111	111	107	97	91	84	80	84	90	91
140.0	98	98	93	83	72	64	66	71	78	80
142.5	81	81	75	66	52	48	51	57	64	66
145.0	64	63	57	46	36	34	36	42	49	50
147.5	44	43	38	32	25	18	21	28	32	34
150.0	31	30	27	21	11	5	8	15	19	19
152.5	18	19	13	7	2	1	2	4	6	8
155.0	6	6	4	2	0	0	0	1	1	2
157.5	2	2	1	0	0	0	0	0	0	0
160.0	1	1	0	0	0	0	0	0	0	0
162.5	1	1	0	0	0	0	0	0	0	0
165.0	1	1	0	0	0	0	0	0	0	0
167.5	1	1	1	0	0	0	0	0	0	0
170.0	1	1	1	0	0	0	0	0	0	0
172.5	1	1	1	1	0	0	0	0	0	0
175.0	1	1	1	1	0	0	0	0	0	0
177.5	1	1	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	1317	1317	1317	1317	1317	1317	1317	1317	1317	1317
2.5	1310	1301	1302	1309	1301	1314	1324	1317	1320	1331
5.0	1315	1298	1301	1352	1362	1357	1376	1357	1347	1340
7.5	1362	1328	1337	1383	1392	1356	1314	1256	1263	1277
10.0	1418	1385	1383	1419	1402	1316	1337	1311	1302	1268
12.5	1556	1493	1526	1545	1411	1378	1327	1306	1294	1370
15.0	1698	1608	1642	1640	1529	1481	1378	1426	1408	1448
17.5	1858	1780	1845	1788	1641	1527	1551	1490	1511	1668
20.0	2023	1991	2013	1902	1789	1662	1577	1695	1748	1845
22.5	2337	2249	2253	2110	1906	1770	1777	1899	1991	2194
25.0	2545	2551	2462	2291	2070	1889	1967	2152	2276	2426
27.5	2922	2831	2806	2487	2169	2095	2224	2413	2557	2742
30.0	3191	3146	3105	2765	2370	2344	2468	2632	2787	3017
32.5	3451	3390	3372	3031	2543	2574	2634	2870	3112	3286
35.0	3781	3662	3623	3162	2676	2720	2837	3112	3226	3368
37.5	4108	3992	3923	3259	2797	2834	3020	3184	3283	3385
40.0	4500	4348	4207	3299	2913	2880	3102	3201	3280	3332
42.5	4866	4730	4421	3346	2956	2949	3095	3160	3168	3141
45.0	5281	4917	4754	3410	2842	3043	3024	3022	2907	2817
47.5	5779	5362	4961	3356	2851	2966	2883	2788	2590	2484
50.0	6233	5860	5118	3393	2801	2814	2684	2515	2291	2178
52.5	6838	6341	5348	3333	2694	2611	2444	2262	2034	1961
55.0	7408	6693	5497	3054	2528	2349	2194	2013	1846	1812
57.5	7833	7196	5338	2807	2337	2105	1933	1816	1695	1674
60.0	8221	7245	5023	2560	2066	1816	1700	1636	1537	1502
62.5	8291	7051	4440	2276	1772	1535	1481	1445	1355	1309
65.0	7869	6189	3546	1895	1392	1262	1273	1250	1159	1099
67.5	6549	4551	2476	1381	1084	994	1044	1028	936	905
70.0	4519	2890	1573	931	814	785	821	784	739	727
72.5	2854	1846	1056	690	667	630	647	616	590	570
75.0	1849	1302	811	590	604	542	530	502	482	487
77.5	875	676	597	534	549	468	448	429	429	428

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CANDELA TABULATION - (Cont.)

80.0	530	488	465	485	488	401	386	381	401	413
82.5	395	374	368	431	410	344	341	355	415	450
85.0	318	240	298	372	335	302	309	337	418	474
87.5	263	128	262	299	278	258	266	303	344	349
90.0	195	90	221	246	238	223	226	213	198	181
92.5	154	157	189	246	237	221	225	214	201	183
95.0	150	205	173	244	235	215	222	213	202	184
97.5	164	214	180	227	226	204	217	208	200	182
100.0	175	204	183	196	215	196	212	205	198	177
102.5	172	190	177	172	200	190	207	203	197	173
105.0	162	173	166	152	181	183	201	200	195	167
107.5	148	156	153	139	163	173	195	197	193	160
110.0	135	141	139	129	145	161	187	193	188	152
112.5	123	128	126	120	128	149	176	188	183	145
115.0	113	117	116	112	117	139	165	181	177	139
117.5	105	108	108	107	108	131	155	172	168	133
120.0	98	101	101	102	103	125	146	161	157	128
122.5	93	95	95	98	101	119	138	151	145	124
125.0	88	90	91	95	100	116	132	142	132	120
127.5	87	88	90	94	100	115	127	133	121	116
130.0	87	88	90	94	101	115	124	125	113	113
132.5	89	90	91	97	100	111	121	119	107	110
135.0	93	93	94	98	99	102	111	114	105	109
137.5	95	96	97	96	93	90	94	97	101	109
140.0	88	90	89	85	80	76	73	78	87	98
142.5	73	76	75	70	64	59	54	59	69	80
145.0	57	58	59	54	48	42	39	40	52	61
147.5	37	39	40	37	33	26	25	29	35	43
150.0	22	22	23	23	19	12	10	17	25	30
152.5	10	11	11	11	8	5	4	6	12	19
155.0	3	3	4	4	3	3	3	4	5	8
157.5	0	1	1	1	2	2	2	3	3	4
160.0	0	0	0	1	1	2	2	3	3	3
162.5	0	0	0	1	1	2	2	3	3	2
165.0	0	0	0	1	1	2	2	3	3	2
167.5	0	0	0	1	1	2	2	2	3	2
170.0	0	0	0	1	1	2	2	2	3	2
172.5	0	0	0	1	1	2	2	2	2	2
175.0	0	0	0	1	1	1	2	2	2	2
177.5	0	0	0	1	1	1	2	2	2	2
180.0	1	1	1	1	1	1	1	1	1	1

Vert. Angles	**Horizontal Angles**	
	175.0	**180.0**
0.0	1317	1317
2.5	1324	1335
5.0	1313	1301
7.5	1253	1266
10.0	1266	1235
12.5	1361	1371
15.0	1448	1399
17.5	1671	1705
20.0	1915	1839
22.5	2222	2219
25.0	2523	2532

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CANDELA TABULATION - (Cont.)

27.5	2834	2873
30.0	3208	3197
32.5	3379	3380
35.0	3461	3486
37.5	3482	3548
40.0	3426	3504
42.5	3181	3239
45.0	2806	2853
47.5	2474	2501
50.0	2177	2198
52.5	1954	1970
55.0	1803	1813
57.5	1654	1661
60.0	1462	1477
62.5	1258	1249
65.0	1029	1025
67.5	858	849
70.0	699	686
72.5	539	520
75.0	457	433
77.5	385	356
80.0	374	338
82.5	435	396
85.0	473	440
87.5	242	241
90.0	118	84
92.5	119	94
95.0	123	109
97.5	126	125
100.0	128	136
102.5	131	145
105.0	133	149
107.5	136	150
110.0	139	150
112.5	141	149
115.0	141	146
117.5	141	143
120.0	138	140
122.5	135	136
125.0	131	132
127.5	126	127
130.0	121	122
132.5	115	117
135.0	112	113
137.5	111	112
140.0	102	103
142.5	85	86
145.0	67	67
147.5	49	49
150.0	33	33
152.5	23	23
155.0	9	9
157.5	5	4
160.0	3	3
162.5	2	2
165.0	2	2

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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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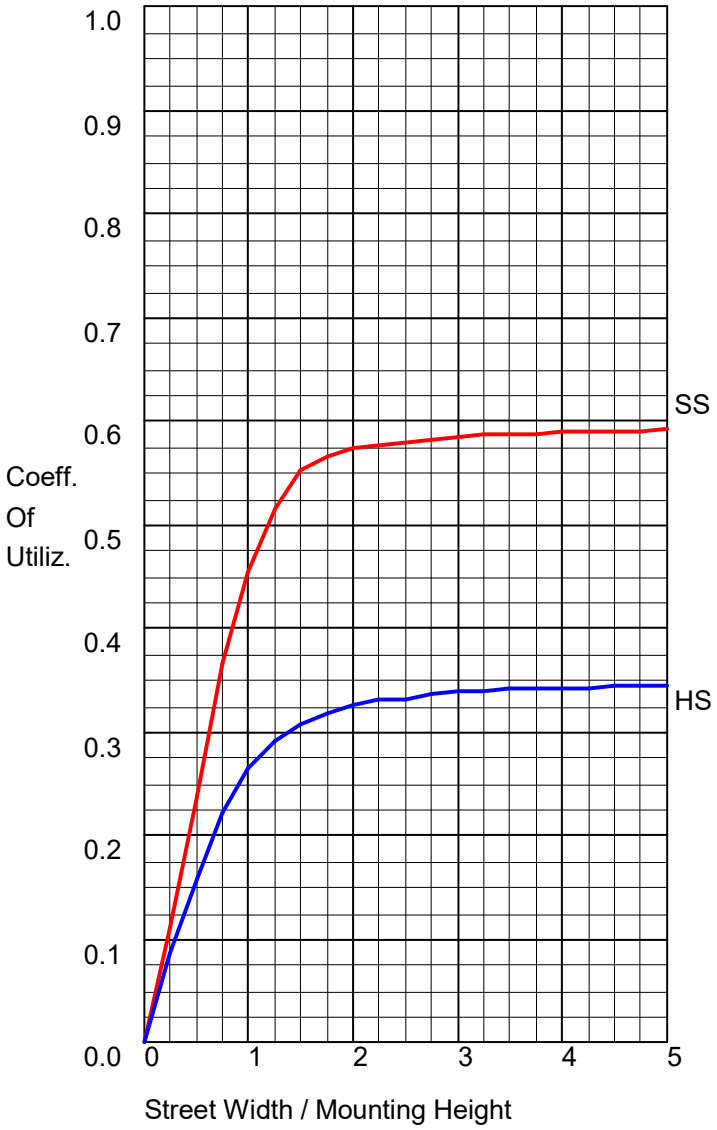
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	9211.7	59.8
Downward House Side	5448.4	35.4
Downward Total	14660.1	95.2
Upward Street Side	351.7	2.3
Upward House Side	385.2	2.5
Upward Total	736.9	4.8
Total Flux	15397.0	100.0

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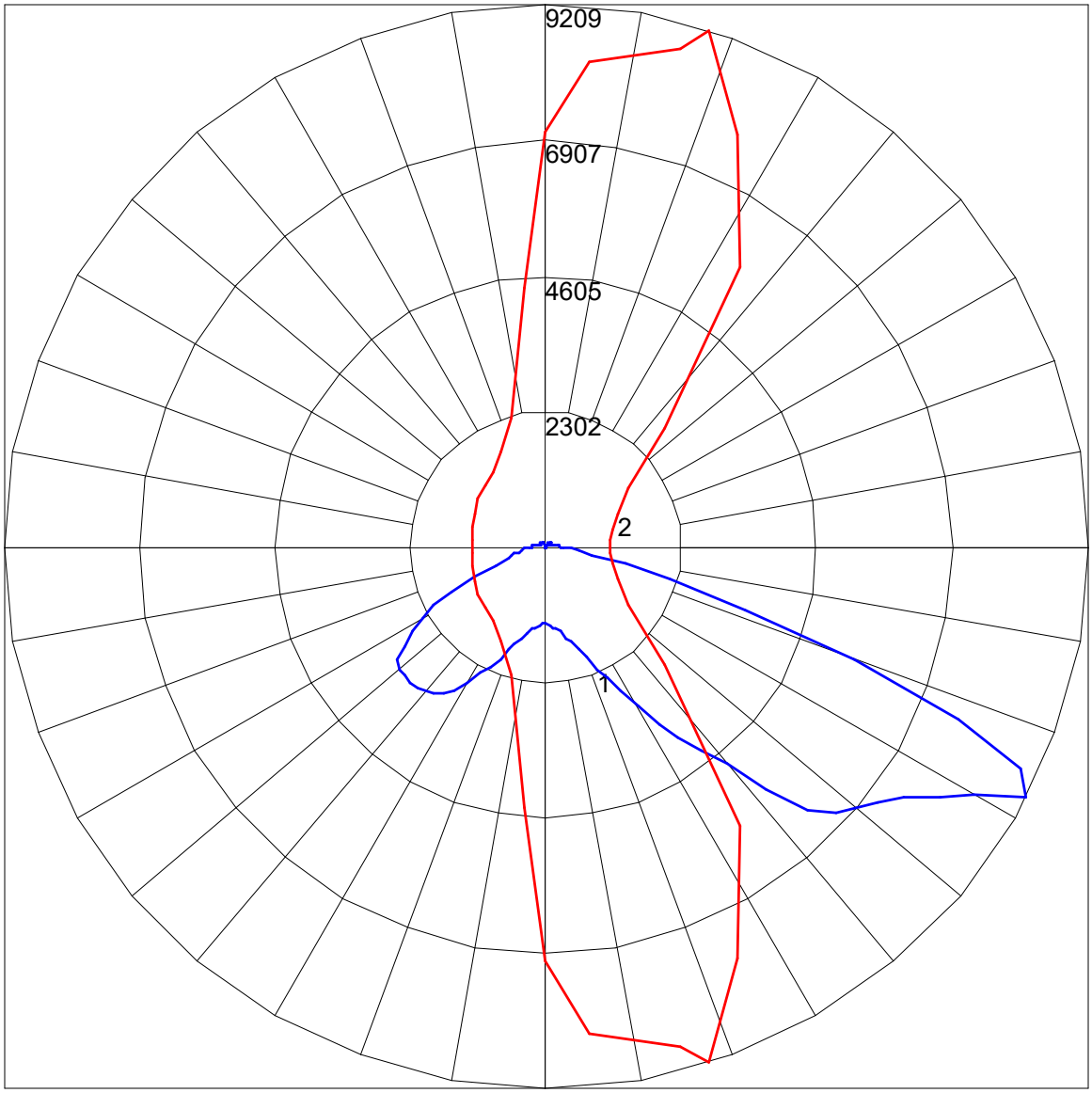
POLAR GRAPH



Maximum Candela = 9209 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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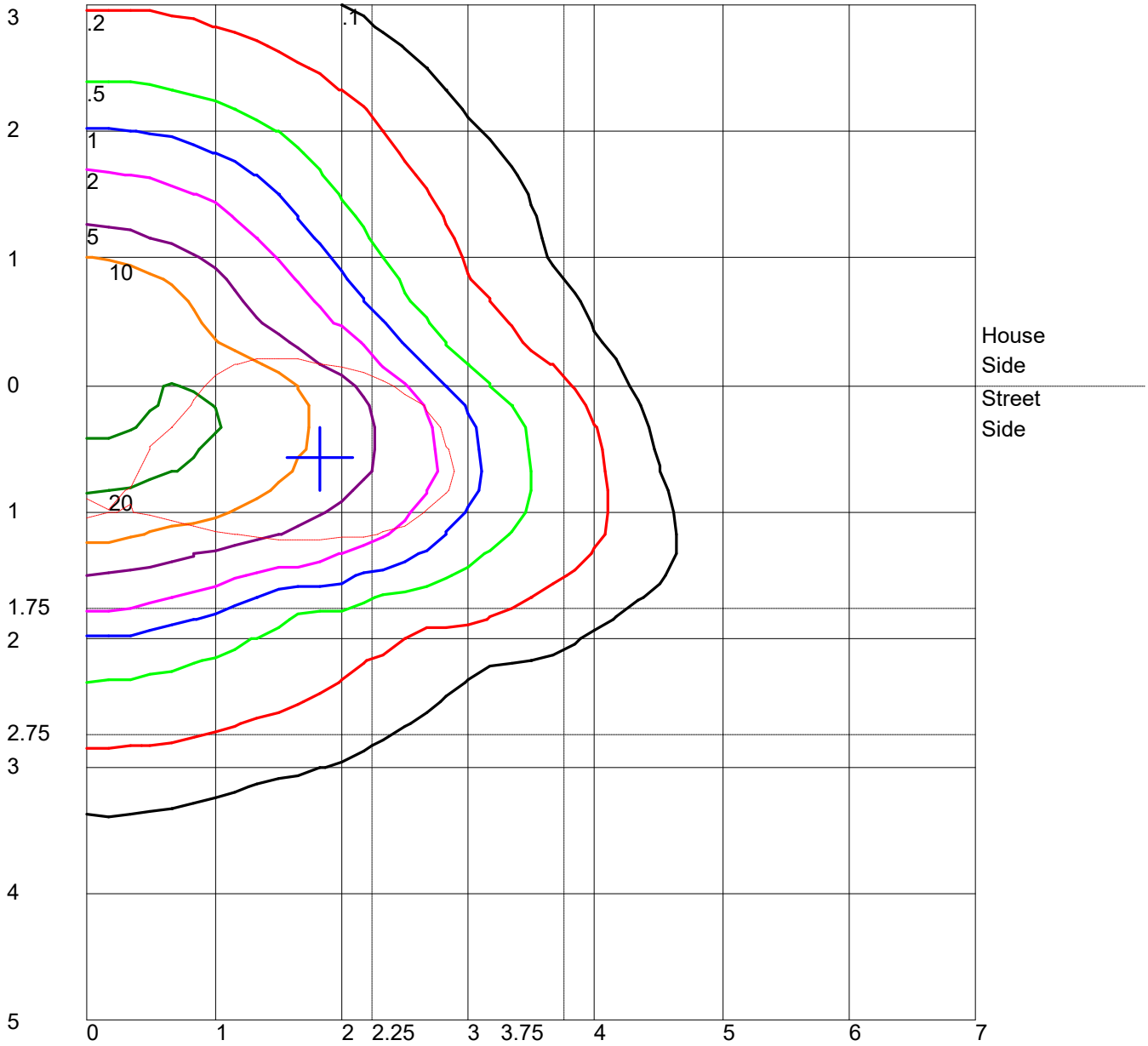
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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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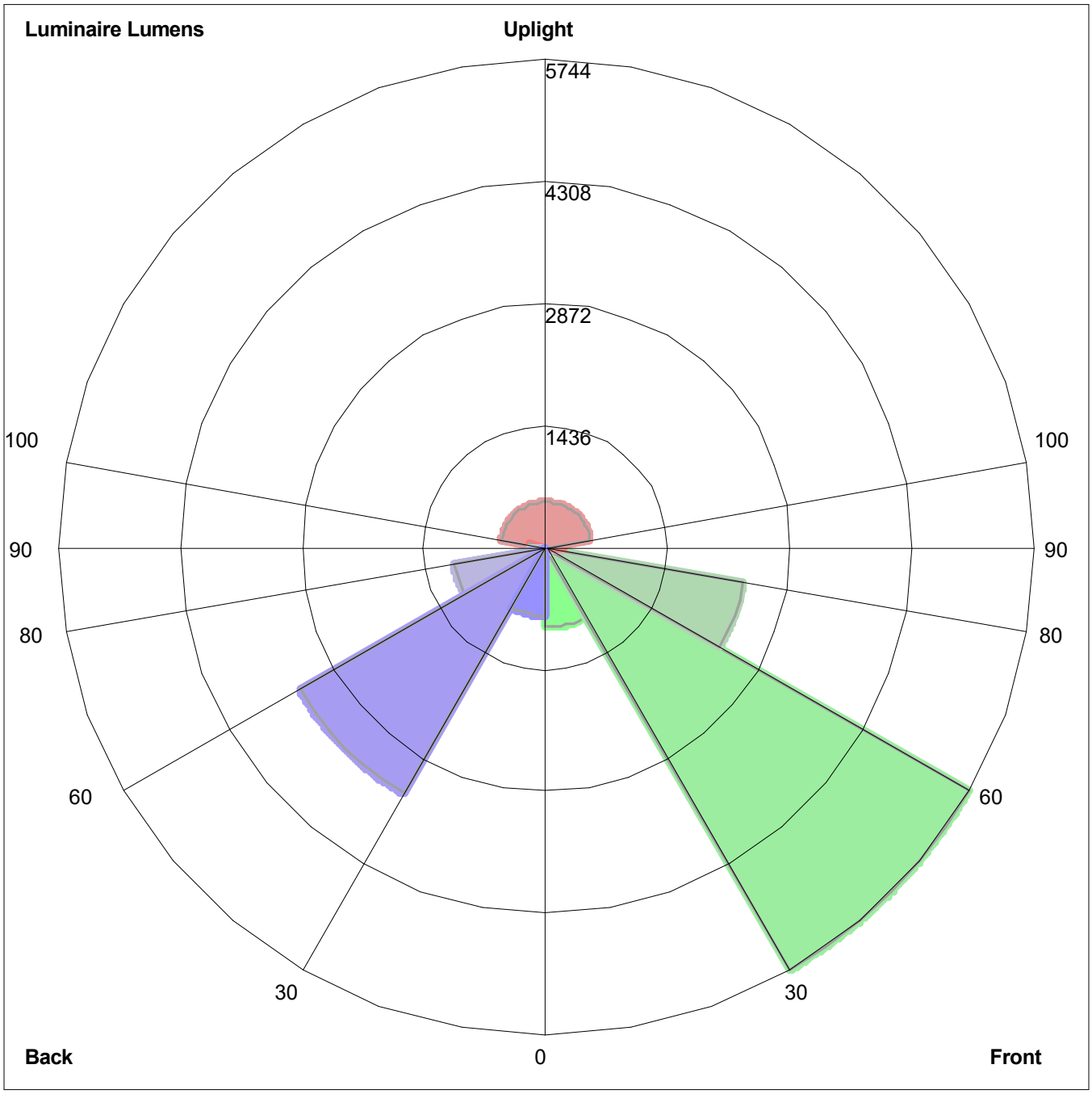
LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=944.2, Medium=5744.3, High=2358.7, Very High=164.5
Back: Low=808.6, Medium=3352.3, High=1102.7, Very High=184.9
Uplight: Low=206.6, High=530.3

BUG Rating : B3-U4-G3

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