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

CHARACTERISTICS

IES Classification	Type II
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10620
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	102
Ballast Factor	1.00
Upward Waste Light Ratio	0.05
Maximum Candela	8271
Maximum Candela Angle	72.5H 62.5V
Maximum Candela (<90 Degrees Vertical)	8271
Maximum Candela Angle (<90 Degrees Vertical)	72.5H 62.5V
Maximum Candela At 90 Degrees Vertical	181 (1.7% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	701 (6.6% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-15L-SIL-2-40-70CRI-IH.IES

LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	816.8	N.A.	7.7
FM - Front-Medium (30-60)	5504.9	N.A.	51.8
FH - Front-High (60-80)	2078.1	N.A.	19.6
FVH - Front-Very High (80-90)	95.9	N.A.	0.9
BL - Back-Low (0-30)	388.2	N.A.	3.7
BM - Back-Medium (30-60)	820.1	N.A.	7.7
BH - Back-High (60-80)	306.9	N.A.	2.9
BVH - Back-Very High (80-90)	83.6	N.A.	0.8
UL - Uplight-Low (90-100)	150.1	N.A.	1.4
UH - Uplight-High (100-180)	375.4	N.A.	3.5
Total	10620.0	N.A.	100.0
BUG Rating	B1-U3-G2		

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-15L-SIL-2-40-70CRI-IH.IES

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	1124	1124	1124	1124	1124	1124	1124	1124	1124	1124
2.5	1109	1099	1104	1112	1111	1106	1094	1092	1098	1098
5.0	1197	1191	1214	1195	1198	1195	1205	1181	1115	1102
7.5	1112	1116	1120	1153	1188	1227	1229	1210	1202	1174
10.0	1231	1230	1197	1256	1232	1208	1223	1235	1237	1255
12.5	1315	1321	1278	1273	1315	1287	1253	1321	1380	1393
15.0	1393	1466	1437	1438	1420	1351	1428	1390	1482	1476
17.5	1644	1580	1618	1539	1584	1590	1522	1551	1601	1635
20.0	1780	1791	1822	1749	1728	1711	1759	1747	1741	1762
22.5	2121	2137	2130	1991	2040	1914	1962	1965	1933	1928
25.0	2398	2414	2410	2352	2253	2249	2212	2208	2178	2191
27.5	3064	3033	2952	2699	2677	2547	2548	2527	2509	2476
30.0	3600	3660	3510	3309	3123	3077	2964	2879	2860	2867
32.5	4068	4069	4058	3915	3790	3554	3503	3354	3329	3336
35.0	3915	3921	3969	4132	4331	4254	4158	3952	3783	3679
37.5	3972	3904	3889	3982	4371	4681	4821	4563	4226	4086
40.0	4265	4149	4075	4095	4353	4843	5049	5353	4657	4540
42.5	4557	4409	4299	4317	4531	5006	5158	5795	5265	5068
45.0	4648	4522	4411	4469	4736	5221	5528	5894	5870	5863
47.5	4534	4434	4329	4475	4851	5494	5939	5883	6383	6397
50.0	4249	4164	4079	4302	4819	5741	6287	6113	6881	6873
52.5	3775	3702	3634	3973	4612	5818	6562	6624	7229	7288
55.0	3184	3099	3048	3429	4208	5681	6799	7236	7635	7681
57.5	2477	2465	2414	2729	3511	5202	6851	7696	7795	7897
60.0	1772	1772	1773	2005	2597	4318	6485	7725	7865	8021
62.5	1051	1066	1115	1306	1720	3042	5734	7540	8271	8124
65.0	660	673	729	839	1054	1738	4586	6564	7921	7899
67.5	450	450	470	588	732	933	2943	5138	6633	6764
70.0	389	390	400	438	544	634	1609	3740	5054	5291
72.5	307	304	324	362	443	489	834	2394	3302	3499
75.0	215	217	237	271	355	412	533	1345	2071	2181
77.5	140	153	176	203	264	339	407	824	1260	1236
80.0	83	100	128	149	200	266	316	471	701	700
82.5	63	79	105	117	141	185	239	290	406	439
85.0	47	65	93	107	122	143	166	204	253	279
87.5	47	63	91	104	118	134	149	163	179	187
90.0	50	63	90	103	116	131	141	152	160	163
92.5	59	66	93	106	119	133	140	152	161	164
95.0	69	69	96	110	123	136	140	155	163	166
97.5	78	72	98	112	124	136	137	153	156	152
100.0	84	76	99	114	125	136	134	145	137	120
102.5	88	80	99	115	125	134	130	130	108	98
105.0	91	83	98	116	125	132	122	114	90	84
107.5	93	87	97	117	125	127	111	99	78	78
110.0	93	89	95	116	123	120	100	84	71	74
112.5	94	91	94	115	119	109	90	73	67	71
115.0	94	93	94	112	113	100	81	66	65	67
117.5	95	94	93	108	105	91	75	61	63	65
120.0	95	94	91	101	98	85	70	59	61	63
122.5	95	94	88	94	91	80	67	58	59	60
125.0	93	91	85	87	86	77	66	58	58	59
127.5	89	88	82	82	82	74	66	59	59	58
130.0	85	84	80	78	79	74	67	60	59	59

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-15L-SIL-2-40-70CRI-IH.IES

CANDELA TABULATION - (Cont.)

132.5	83	81	78	76	77	74	67	60	60	61
135.0	80	80	78	75	76	71	63	60	61	62
137.5	80	80	78	74	69	62	56	56	59	61
140.0	76	76	73	66	57	50	46	47	51	52
142.5	66	66	62	54	44	37	36	37	41	42
145.0	54	53	49	40	30	27	25	27	30	32
147.5	40	39	34	27	22	16	15	18	20	21
150.0	27	26	23	19	11	4	5	9	11	12
152.5	19	19	15	8	3	1	1	2	3	3
155.0	6	6	4	2	1	1	1	1	1	1
157.5	2	1	1	1	1	1	1	1	1	1
160.0	1	1	1	1	1	1	0	0	1	0
162.5	1	1	1	1	1	1	0	0	0	0
165.0	1	1	1	1	1	1	0	0	0	0
167.5	1	1	1	1	1	1	0	0	0	0
170.0	1	1	1	1	1	1	0	0	0	0
172.5	1	1	1	1	1	1	0	0	0	0
175.0	1	1	1	1	1	1	0	0	0	0
177.5	1	1	1	1	1	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	1124	1124	1124	1124	1124	1124	1124	1124	1124	1124
2.5	1108	1109	1126	1156	1164	1172	1173	1164	1166	1157
5.0	1094	1125	1176	1207	1184	1183	1177	1167	1125	1077
7.5	1123	1142	1192	1193	1180	1105	1070	1071	1055	1034
10.0	1179	1194	1226	1193	1142	1118	1068	1010	962	920
12.5	1269	1291	1354	1318	1152	1069	962	882	825	809
15.0	1373	1399	1417	1326	1197	1015	879	796	710	674
17.5	1541	1530	1574	1404	1190	934	800	676	604	571
20.0	1711	1663	1678	1474	1183	879	696	588	521	486
22.5	1964	1895	1919	1588	1111	801	619	502	455	447
25.0	2195	2121	2058	1606	1109	723	533	451	418	397
27.5	2541	2378	2339	1697	1012	642	470	416	374	358
30.0	2900	2701	2565	1761	936	554	439	376	340	324
32.5	3166	2918	2749	1759	838	502	401	343	323	312
35.0	3466	3152	2907	1679	723	471	365	326	309	294
37.5	3866	3464	3037	1536	614	427	332	314	292	272
40.0	4225	3831	3137	1349	549	374	316	301	272	248
42.5	4586	4104	3274	1149	482	327	309	283	249	225
45.0	5126	4418	3353	948	417	318	297	261	229	207
47.5	5487	4771	3424	775	363	313	278	239	215	194
50.0	5921	5189	3369	634	324	299	259	224	205	186
52.5	6494	5445	3355	541	309	284	242	214	198	179
55.0	6938	5680	3168	484	309	268	228	206	193	173
57.5	7093	5628	2824	408	318	253	218	200	187	167
60.0	7214	5397	2275	342	306	241	209	193	177	155
62.5	7022	4979	1726	303	278	228	201	184	165	150
65.0	6202	4068	1153	284	249	216	192	171	179	191
67.5	4968	2972	769	270	233	205	181	187	211	234
70.0	3736	2117	537	255	221	195	191	209	227	201
72.5	2437	1402	392	238	206	186	196	205	166	150
75.0	1536	917	308	225	196	184	200	171	150	129
77.5	687	443	242	212	187	191	178	152	136	124

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

CANDELA TABULATION - (Cont.)

80.0	412	321	202	198	184	180	161	149	140	128
82.5	295	249	170	186	186	163	163	153	144	132
85.0	238	160	162	187	169	162	166	157	148	135
87.5	190	70	171	179	171	162	170	160	151	139
90.0	137	54	166	181	173	165	173	165	156	143
92.5	95	117	150	186	179	168	177	170	162	148
95.0	90	155	141	184	176	159	173	167	161	148
97.5	111	156	139	169	167	149	166	163	159	145
100.0	121	148	138	148	159	144	161	160	157	141
102.5	119	137	131	128	147	139	156	157	155	135
105.0	112	124	121	114	133	133	150	154	152	128
107.5	103	111	109	103	118	125	144	150	148	121
110.0	93	98	99	94	104	115	137	145	143	113
112.5	84	89	89	87	93	107	128	140	138	105
115.0	77	81	81	81	85	100	119	133	131	100
117.5	71	75	75	77	78	95	112	125	123	95
120.0	67	70	70	73	75	90	107	118	113	92
122.5	64	65	66	69	73	87	101	111	103	89
125.0	61	62	63	67	73	85	97	104	94	85
127.5	60	61	63	67	73	84	94	96	85	83
130.0	60	61	63	67	73	84	91	90	79	81
132.5	61	62	64	69	72	78	87	85	76	79
135.0	63	64	66	71	71	71	76	77	76	78
137.5	64	66	68	69	65	62	60	62	67	74
140.0	58	60	61	59	54	50	45	47	54	62
142.5	48	50	50	47	42	37	32	33	40	47
145.0	36	38	37	35	30	25	22	23	28	34
147.5	23	23	24	22	19	15	12	15	19	23
150.0	12	12	13	13	10	6	5	7	12	15
152.5	4	5	5	5	4	4	4	4	5	8
155.0	2	2	2	3	3	3	4	4	4	4
157.5	1	1	1	2	2	3	3	4	3	2
160.0	1	1	1	2	2	3	3	3	3	2
162.5	1	1	1	2	2	2	3	3	2	2
165.0	0	1	1	1	2	2	2	2	2	2
167.5	0	0	1	1	2	2	2	2	2	1
170.0	0	0	0	1	1	2	2	2	2	1
172.5	0	0	0	1	1	1	2	2	2	1
175.0	0	0	0	1	1	1	1	1	1	1
177.5	0	0	0	1	1	1	1	1	1	1
180.0	1	1	1	1	1	1	1	1	1	1

Vert. Angles	**Horizontal Angles**	
	175.0	**180.0**
0.0	1124	1124
2.5	1163	1171
5.0	1043	1042
7.5	1040	1038
10.0	882	878
12.5	773	765
15.0	647	644
17.5	546	547
20.0	472	471
22.5	435	433
25.0	386	385

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

CANDELA TABULATION - (Cont.)

27.5	351	350
30.0	329	328
32.5	310	311
35.0	292	292
37.5	270	270
40.0	246	248
42.5	224	227
45.0	207	210
47.5	193	196
50.0	181	184
52.5	171	172
55.0	159	161
57.5	145	146
60.0	125	123
62.5	127	129
65.0	167	166
67.5	205	199
70.0	133	118
72.5	105	88
75.0	78	56
77.5	74	43
80.0	78	41
82.5	81	44
85.0	84	49
87.5	87	55
90.0	91	69
92.5	96	86
95.0	98	100
97.5	98	109
100.0	100	117
102.5	102	121
105.0	106	122
107.5	109	121
110.0	111	119
112.5	111	115
115.0	109	112
117.5	106	107
120.0	102	104
122.5	99	100
125.0	95	96
127.5	90	91
130.0	86	87
132.5	83	83
135.0	81	81
137.5	79	78
140.0	66	66
142.5	52	52
145.0	37	38
147.5	25	25
150.0	17	17
152.5	10	9
155.0	4	4
157.5	1	1
160.0	1	0
162.5	1	0
165.0	1	0

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

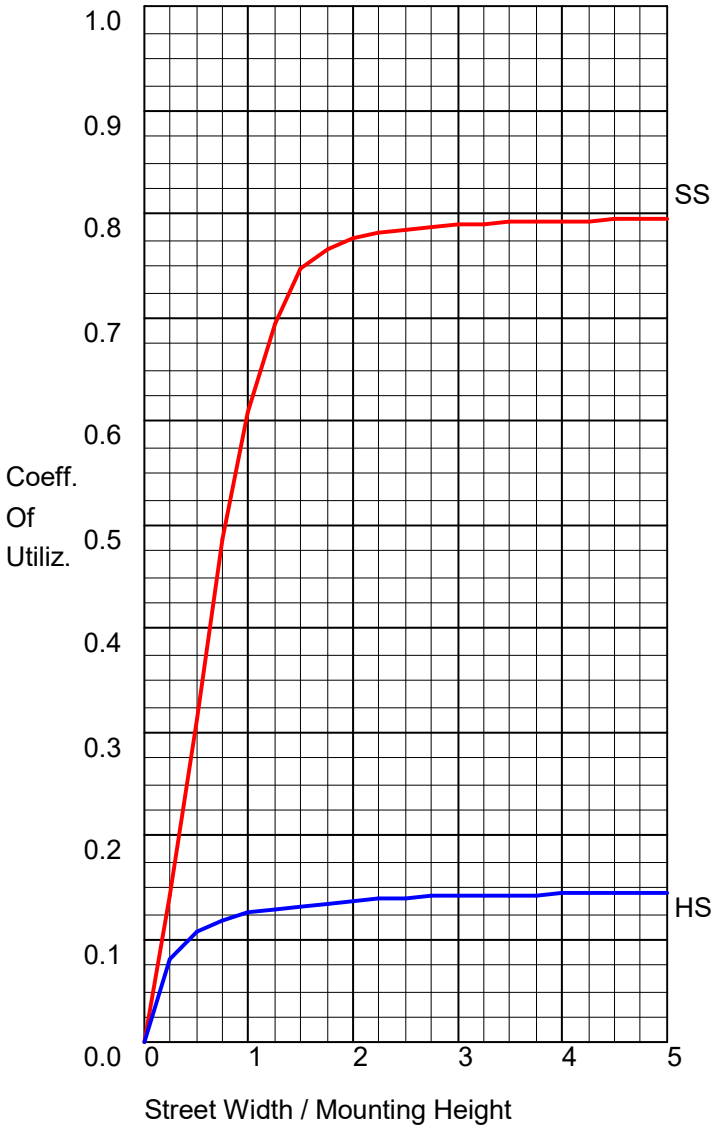
CANDELA TABULATION - (Cont.)

167.5	0	0
170.0	0	0
172.5	0	0
175.0	0	0
177.5	0	0
180.0	1	1

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-15L-SIL-2-40-70CRI-IH.IES

COEFFICIENTS OF UTILIZATION



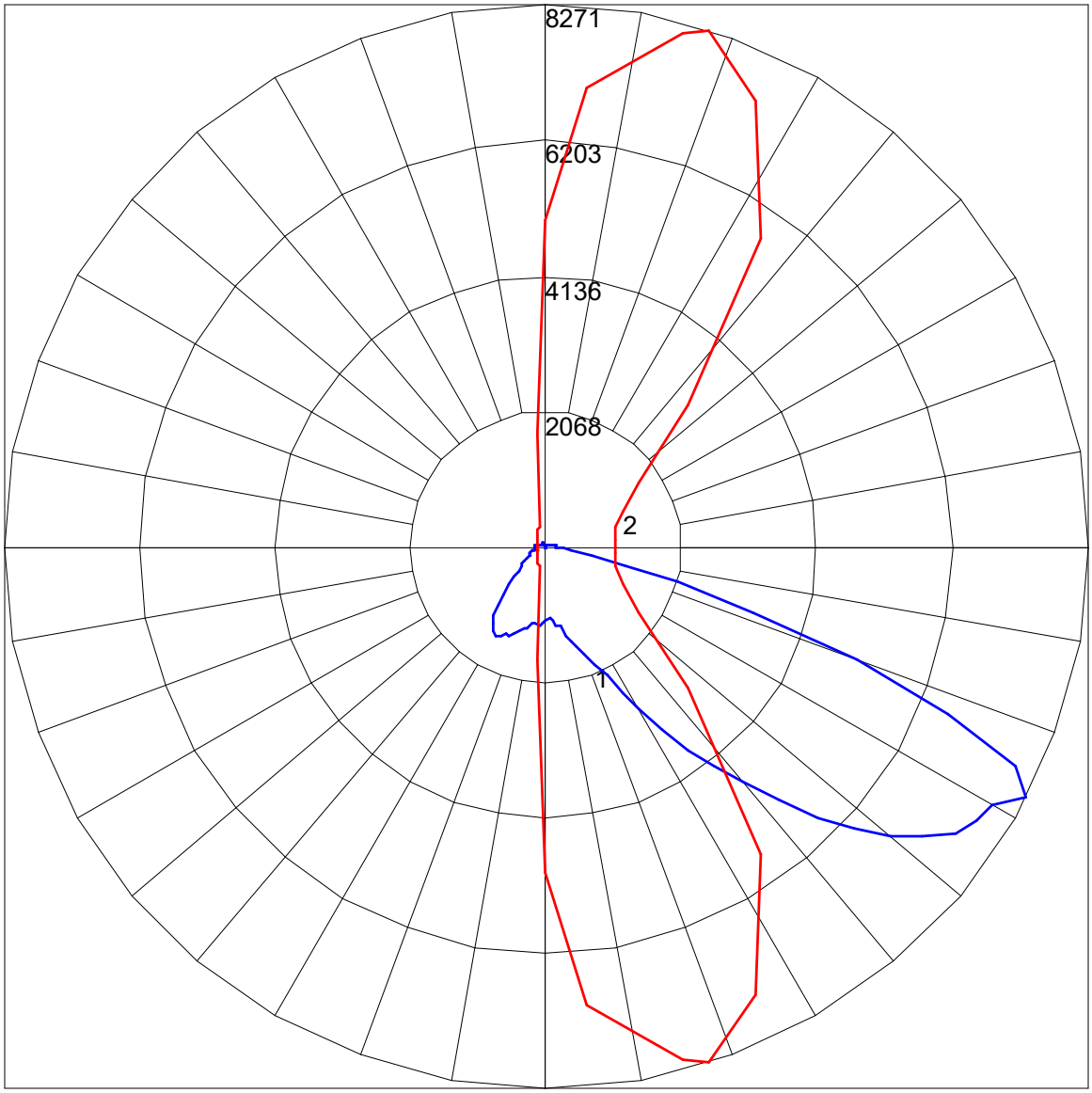
FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	8495.7	80.0
Downward House Side	1598.8	15.1
Downward Total	10094.5	95.1
Upward Street Side	241.6	2.3
Upward House Side	283.9	2.7
Upward Total	525.5	4.9
Total Flux	10620.0	100.0

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-15L-SIL-2-40-70CRI-IH.IES

POLAR GRAPH

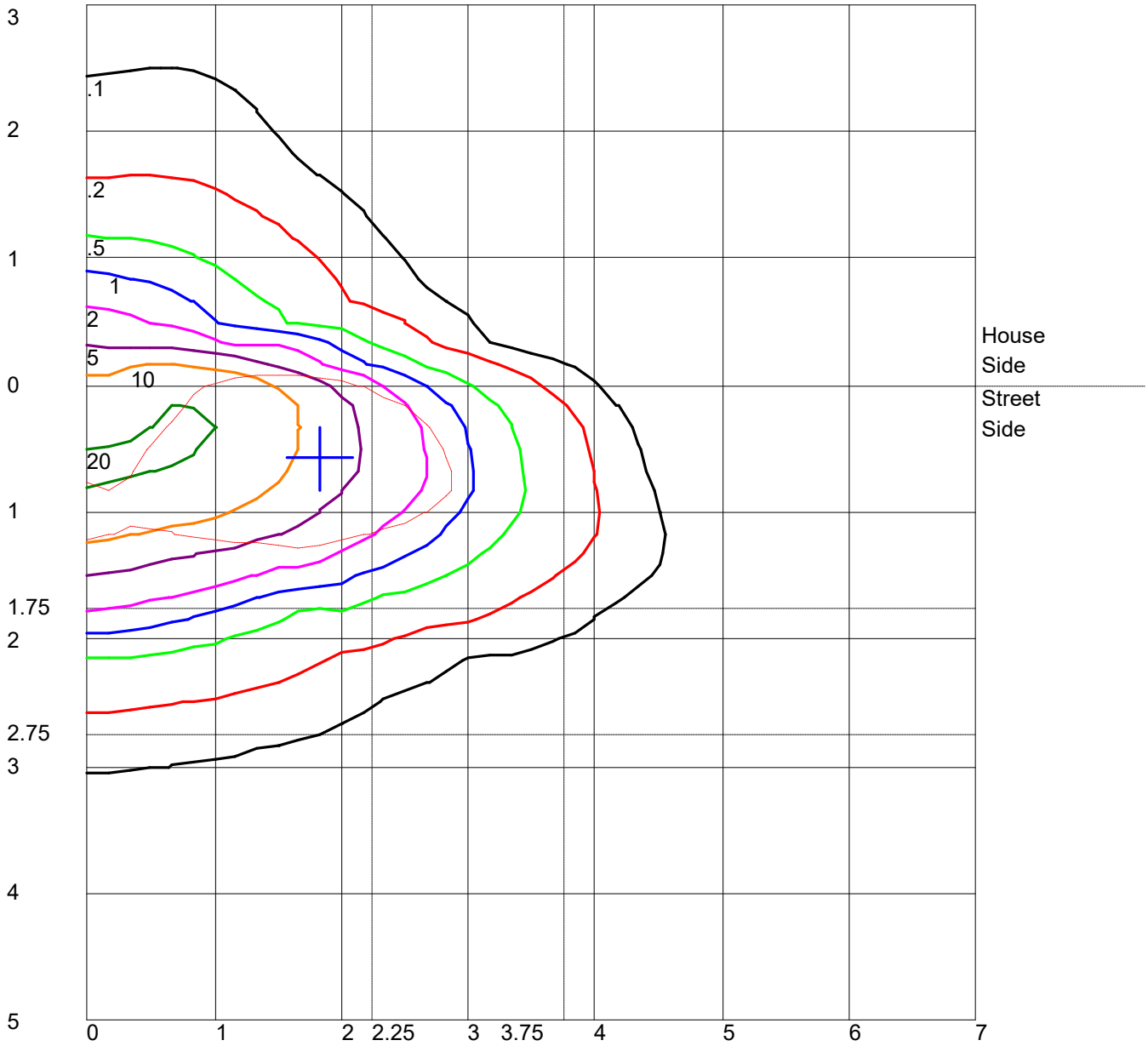


Maximum Candela = 8271 Located At Horizontal Angle = 72.5, Vertical Angle = 62.5
1 - Vertical Plane Through Horizontal Angles (72.5 - 252.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (62.5) (Through Max. Cd.)

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-15L-SIL-2-40-70CRI-IH.IES

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE

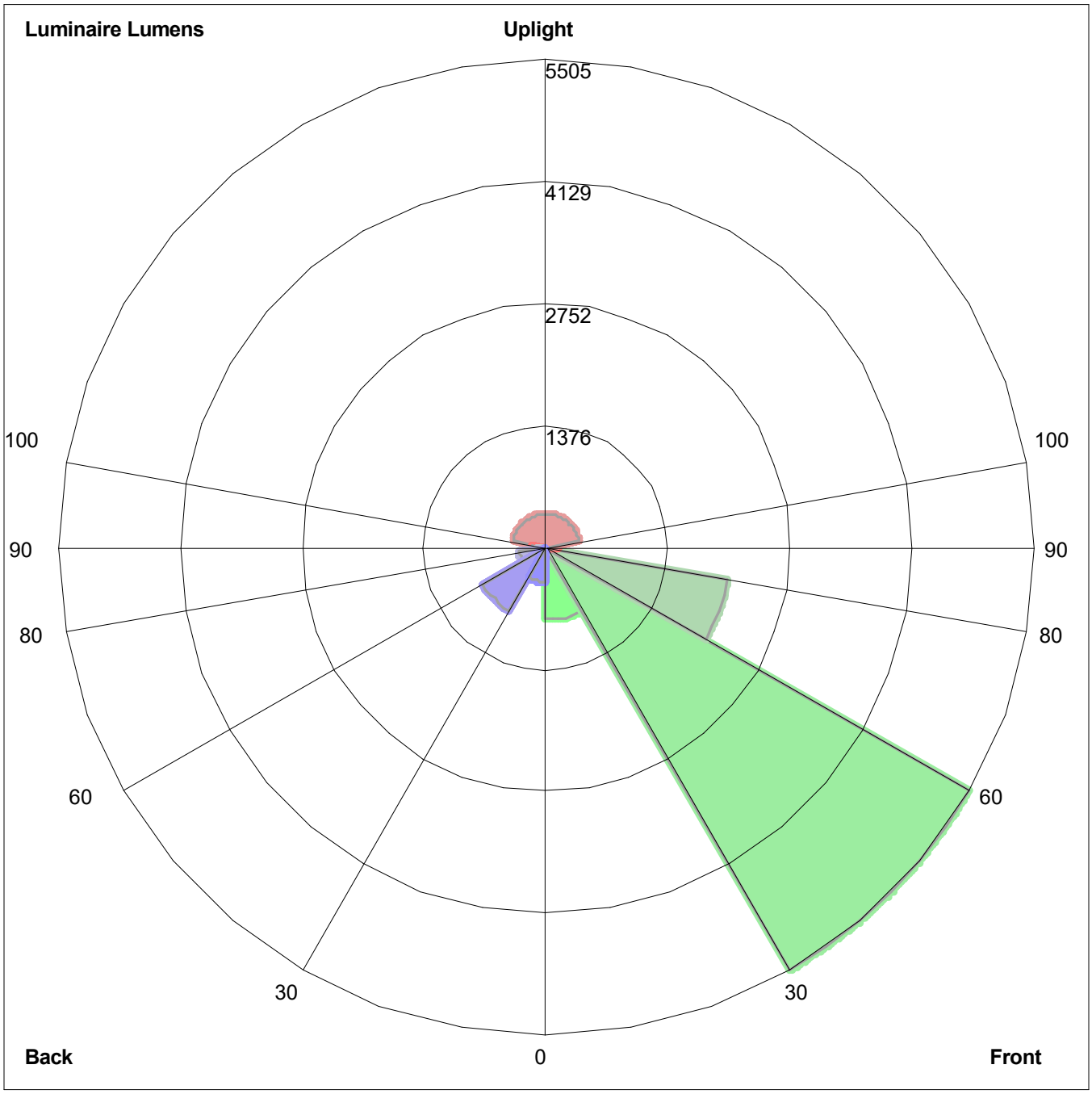


Distance In Units Of Mounting Height
Values Based On 10 Foot Mounting Height
1/2 Maximum Candela Trace Shown As Dashed Curve
(+) = Maximum Candela Point

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.

IES ROAD REPORT
PHOTOMETRIC FILENAME : MPP-LED-15L-SIL-2-40-70CRI-IH.IES

LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=816.8, Medium=5504.9, High=2078.1, Very High=95.9
Back: Low=388.2, Medium=820.1, High=306.9, Very High=83.6
Uplight: Low=150.1, High=375.4

BUG Rating : B1-U3-G2

Photometric Toolbox® Copyright 2002-2019 by Lighting Analysts, Inc.
Calculations based on published IES Methods and recommendations, values rounded for display purposes.
Results derived from content of manufacturers photometric file.