



IES ROAD REPORT

PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-50-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] LED-11762

[TESTLAB] LSI INDUSTRIES, INC.

[ISSUE DATE] 06/10/2020

[TEST DATE] 04/27/20

[MANUFAC] LSI INDUSTRIES, INC.

[LUMCAT] ENM4-PT-FT-LED-18L-50-IL

[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.

[OTHER] TEST PROCEDURE: IESNA LM-79-08

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] Outdoor

[FACTORED] SCALED FROM ORIGINAL TEST DATA

CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	14516
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	149
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	10270
Maximum Candela Angle	40H 65V
Maximum Candela (<90 Degrees Vertical)	10270
Maximum Candela Angle (<90 Degrees Vertical)	40H 65V
Maximum Candela At 90 Degrees Vertical	42 (0.3% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1281 (8.8% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	812.2	N.A.	5.6
FM - Front-Medium (30-60)	6604.5	N.A.	45.5
FH - Front-High (60-80)	4788.3	N.A.	33.0
FVH - Front-Very High (80-90)	174.7	N.A.	1.2
BL - Back-Low (0-30)	552.0	N.A.	3.8
BM - Back-Medium (30-60)	1301.0	N.A.	9.0
BH - Back-High (60-80)	227.9	N.A.	1.6
BVH - Back-Very High (80-90)	11.7	N.A.	0.1
UL - Uplight-Low (90-100)	10.7	N.A.	0.1
UH - Uplight-High (100-180)	32.7	N.A.	0.2
Total	14515.7	N.A.	100.0
BUG Rating	B2-U2-G2		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>5</u>	<u>15</u>	<u>25</u>	<u>35</u>	<u>40</u>	<u>45</u>	<u>55</u>	<u>65</u>	<u>75</u>
0.0	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436
2.5	1403	1421	1421	1424	1423	1429	1436	1446	1442	1430
5.0	1321	1317	1348	1376	1374	1361	1371	1340	1324	1322
7.5	1252	1275	1293	1274	1236	1254	1244	1319	1383	1385
10.0	1248	1256	1251	1229	1240	1266	1299	1335	1353	1385
12.5	1357	1323	1317	1268	1282	1307	1315	1348	1424	1461
15.0	1428	1397	1412	1418	1424	1404	1394	1434	1502	1550
17.5	1520	1500	1483	1518	1563	1549	1575	1553	1592	1677
20.0	1676	1680	1697	1697	1694	1725	1742	1738	1724	1830
22.5	1854	1885	1933	1997	1958	1950	1958	1971	1911	2021
25.0	2137	2146	2168	2229	2359	2324	2279	2294	2201	2200
27.5	2636	2569	2609	2583	2661	2724	2693	2643	2535	2437
30.0	2989	3027	3033	3065	3054	3109	3122	3107	2869	2693
32.5	3781	3623	3544	3523	3581	3578	3587	3573	3241	3008
35.0	4165	4200	4082	4113	4065	4115	4049	4033	3715	3291
37.5	4794	4796	4602	4639	4677	4678	4556	4553	4145	3684
40.0	5199	5206	5229	5215	5220	5211	5144	4997	4645	4026
42.5	5514	5523	5598	5653	5768	5673	5647	5560	5133	4315
45.0	5841	5884	5923	6032	6288	6189	6211	5991	5566	4659
47.5	6225	6267	6303	6435	6722	6715	6738	6514	6039	5023
50.0	6588	6626	6704	6915	7216	7304	7361	7049	6552	5351
52.5	6894	6945	7070	7365	7782	7960	7950	7670	7014	5598
55.0	7155	7209	7373	7762	8371	8536	8503	8272	7324	5768
57.5	7390	7458	7717	8171	8930	9078	9121	8706	7484	5752
60.0	7585	7657	7993	8622	9400	9613	9600	8950	7491	5543
62.5	7628	7701	8202	9051	9827	10057	9934	8944	7234	5131
65.0	7038	7111	7842	9004	10020	10270	10055	8614	6667	4460
67.5	5938	5954	6868	8235	9536	9858	9604	7986	5786	3633
70.0	3512	3513	4717	6677	8239	8654	8374	6858	4649	2565
72.5	1411	1532	2168	3725	5899	6542	6658	5268	3207	1627
75.0	1063	1131	1453	2032	2960	3390	3936	3357	1984	1068
77.5	857	911	1198	1586	1826	1883	1903	1873	1266	763
80.0	689	742	1003	1258	1281	1221	1129	917	800	510
82.5	515	558	731	821	705	623	516	388	395	335
85.0	285	306	372	371	270	253	210	174	185	188
87.5	105	107	126	121	86	79	62	57	55	71
90.0	32	36	42	36	25	21	16	12	7	9
92.5	15	16	12	8	7	8	8	8	7	7
95.0	3	2	3	4	7	7	7	7	7	7
97.5	3	3	4	4	6	6	7	7	7	7
100.0	2	2	3	4	5	6	6	7	6	7
102.5	3	3	4	4	5	6	6	6	6	7
105.0	3	3	3	4	5	5	6	6	6	6
107.5	3	3	4	4	5	6	6	6	6	6
110.0	4	4	4	4	5	6	6	6	6	7
112.5	4	4	4	5	6	6	7	6	6	7
115.0	4	4	4	5	6	7	7	7	7	7
117.5	5	5	5	5	7	7	7	7	7	7
120.0	6	6	6	6	7	7	7	7	7	7
122.5	7	7	7	7	7	7	7	7	7	8
125.0	7	7	7	7	7	7	8	7	7	8
127.5	7	7	7	7	7	7	8	8	7	9
130.0	8	8	8	8	8	8	8	8	8	9

IES ROAD REPORT
PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-50-IL.IES

CANDELA TABULATION - (Cont.)

132.5	8	8	8	8	8	8	8	8	8	9
135.0	7	7	7	7	7	7	8	7	7	8
137.5	4	4	4	5	6	6	7	7	7	7
140.0	1	1	2	3	4	4	4	5	5	5
142.5	1	1	2	3	4	4	4	4	4	5
145.0	1	1	2	3	4	4	4	4	4	5
147.5	1	1	2	3	4	4	4	4	4	4
150.0	1	1	2	3	4	4	4	4	4	4
152.5	1	1	2	3	4	4	4	4	4	4
155.0	1	1	2	3	4	4	4	4	4	4
157.5	1	1	2	3	4	4	4	4	4	4
160.0	1	1	2	3	4	4	4	4	4	4
162.5	1	1	2	3	4	4	4	4	4	4
165.0	1	1	2	3	4	4	4	4	4	4
167.5	1	1	2	3	4	4	4	4	4	4
170.0	1	1	2	3	4	4	4	4	4	4
172.5	1	1	2	3	4	4	4	4	4	4
175.0	1	1	2	3	4	4	4	4	4	4
177.5	1	1	2	3	3	4	4	4	4	4
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Angles **Horizontal Angles**

	<u>85</u>	<u>90</u>	<u>95</u>	<u>105</u>	<u>115</u>	<u>125</u>	<u>135</u>	<u>145</u>	<u>155</u>	<u>165</u>
0.0	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436
2.5	1439	1448	1434	1431	1436	1438	1446	1452	1428	1400
5.0	1333	1344	1329	1362	1369	1383	1397	1406	1394	1362
7.5	1372	1399	1405	1439	1394	1322	1266	1299	1287	1334
10.0	1405	1367	1389	1407	1354	1341	1302	1298	1249	1301
12.5	1448	1478	1509	1491	1407	1318	1319	1363	1322	1320
15.0	1600	1579	1586	1513	1408	1429	1419	1327	1232	1113
17.5	1670	1678	1656	1633	1494	1480	1407	1189	994	878
20.0	1869	1832	1823	1644	1552	1509	1232	987	840	791
22.5	2035	2009	1990	1817	1648	1431	1064	874	807	787
25.0	2249	2216	2173	1943	1737	1317	951	845	813	817
27.5	2436	2401	2323	2120	1785	1185	931	860	874	910
30.0	2602	2606	2475	2195	1717	1165	952	899	959	1004
32.5	2839	2729	2564	2233	1643	1166	982	947	1037	1171
35.0	3033	2967	2702	2257	1540	1184	1010	983	1132	1299
37.5	3307	3147	2894	2205	1478	1187	1011	1013	1197	1360
40.0	3488	3245	2953	2148	1435	1180	997	1004	1197	1234
42.5	3656	3327	2971	2075	1371	1157	952	936	1054	934
45.0	3844	3439	3046	1984	1303	1099	876	785	779	654
47.5	4019	3518	3084	1888	1228	1000	747	609	535	463
50.0	4156	3536	3041	1814	1128	861	607	462	374	338
52.5	4234	3544	2998	1750	978	685	450	335	270	255
55.0	4257	3517	2927	1659	790	484	309	233	196	191
57.5	4168	3402	2800	1514	590	316	218	163	141	139
60.0	3916	3189	2566	1282	410	236	165	120	101	99
62.5	3492	2806	2216	1032	297	192	132	92	70	71
65.0	2941	2289	1735	757	238	156	105	70	51	50
67.5	2217	1693	1136	466	191	128	82	57	39	36
70.0	1456	1115	671	273	144	97	64	46	31	27
72.5	857	635	410	178	97	69	50	38	24	18
75.0	610	433	281	128	72	51	42	27	14	8
77.5	430	298	193	95	55	43	32	17	7	4

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PHOTOMETRIC FILENAME : ENM4-PT-FT-LED-18L-50-IL.IES

CANDELA TABULATION - (Cont.)

80.0	263	195	136	69	44	36	25	13	4	3
82.5	176	132	95	49	36	30	22	10	3	3
85.0	117	82	54	32	28	26	19	10	3	2
87.5	53	32	24	20	21	19	15	8	2	2
90.0	10	7	13	19	21	19	14	8	3	2
92.5	8	7	14	19	22	20	16	10	4	3
95.0	8	7	13	19	21	19	16	10	4	4
97.5	7	6	10	16	18	16	14	10	6	4
100.0	7	6	8	13	14	14	12	9	6	4
102.5	7	6	7	9	12	12	10	9	7	5
105.0	7	6	7	8	10	10	10	8	7	5
107.5	7	7	7	8	9	10	9	8	7	6
110.0	7	7	7	8	9	9	9	8	7	6
112.5	7	7	7	8	9	9	9	8	7	6
115.0	7	7	8	9	10	10	10	9	8	7
117.5	7	8	8	9	10	10	10	10	8	7
120.0	7	8	9	9	10	10	10	10	9	7
122.5	8	9	9	10	10	12	12	10	10	8
125.0	9	9	10	10	10	12	12	12	10	9
127.5	9	10	10	10	10	10	12	12	10	9
130.0	10	10	10	10	10	12	12	10	10	9
132.5	10	10	10	10	10	10	10	10	10	9
135.0	9	9	10	10	10	10	10	9	8	7
137.5	7	7	7	8	8	8	7	7	5	4
140.0	6	6	6	7	7	6	6	5	4	3
142.5	5	5	6	6	6	5	5	4	3	2
145.0	5	5	5	6	6	5	4	4	3	1
147.5	5	5	5	5	5	5	4	4	2	1
150.0	5	5	5	5	5	5	4	4	2	1
152.5	5	5	5	5	5	4	4	3	2	1
155.0	4	5	5	5	5	4	4	3	2	1
157.5	4	4	5	5	4	4	4	3	1	1
160.0	4	4	4	4	4	4	3	2	1	1
162.5	4	4	4	4	4	4	3	2	1	0
165.0	4	4	4	4	4	4	3	1	1	0
167.5	4	4	4	4	4	3	2	1	1	0
170.0	4	4	4	4	4	3	2	1	1	0
172.5	4	4	4	4	4	3	2	1	1	0
175.0	4	4	4	4	3	3	2	1	1	0
177.5	4	4	4	3	3	3	2	1	1	0
180.0	2	2	2	2	2	2	2	2	2	2

Vert. Horizontal Angles
Angles

	175	180
0.0	1436	1436
2.5	1412	1411
5.0	1346	1352
7.5	1335	1320
10.0	1343	1319
12.5	1329	1311
15.0	1132	1129
17.5	861	860
20.0	802	809
22.5	803	819
25.0	866	892

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CANDELA TABULATION - (Cont.)

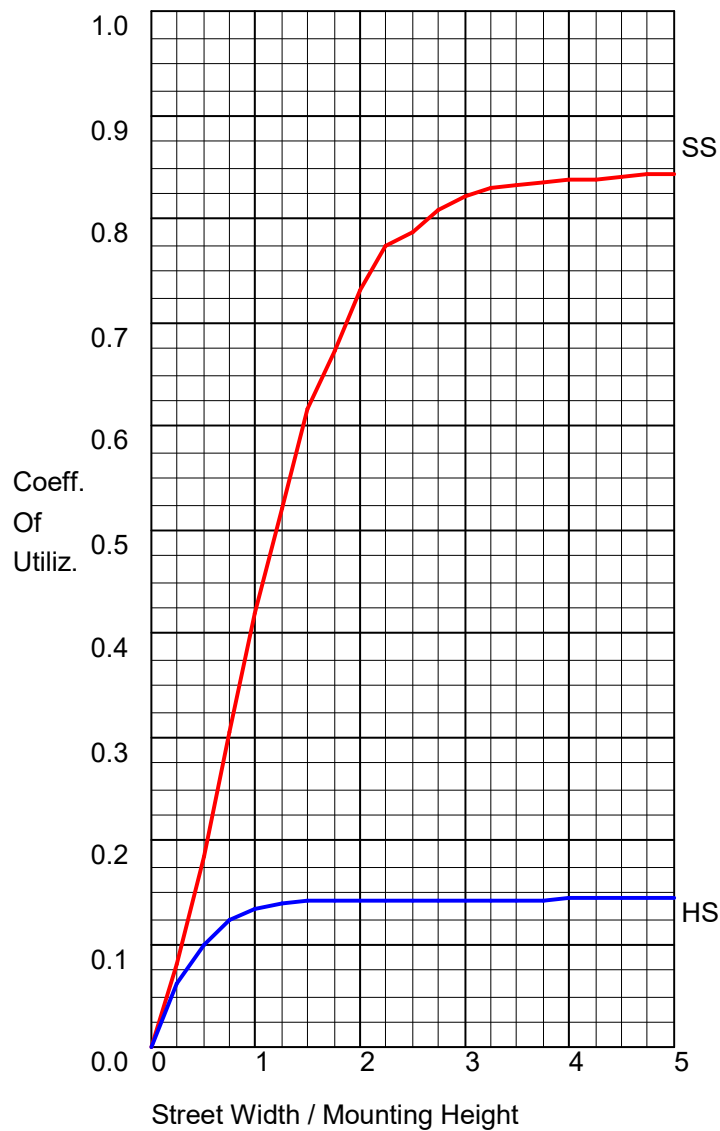
27.5	968	1002
30.0	1089	1094
32.5	1272	1279
35.0	1354	1364
37.5	1336	1311
40.0	1102	1072
42.5	819	800
45.0	613	606
47.5	464	466
50.0	358	360
52.5	274	273
55.0	209	210
57.5	161	162
60.0	121	125
62.5	93	95
65.0	70	72
67.5	50	52
70.0	36	39
72.5	21	22
75.0	8	9
77.5	2	3
80.0	1	1
82.5	0	0
85.0	0	0
87.5	0	0
90.0	0	0
92.5	1	0
95.0	2	1
97.5	3	3
100.0	3	3
102.5	4	4
105.0	4	4
107.5	4	4
110.0	4	5
112.5	5	5
115.0	6	6
117.5	6	6
120.0	7	7
122.5	7	7
125.0	8	7
127.5	8	7
130.0	8	7
132.5	7	7
135.0	6	6
137.5	4	4
140.0	1	1
142.5	1	1
145.0	1	0
147.5	1	0
150.0	0	0
152.5	0	0
155.0	0	0
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

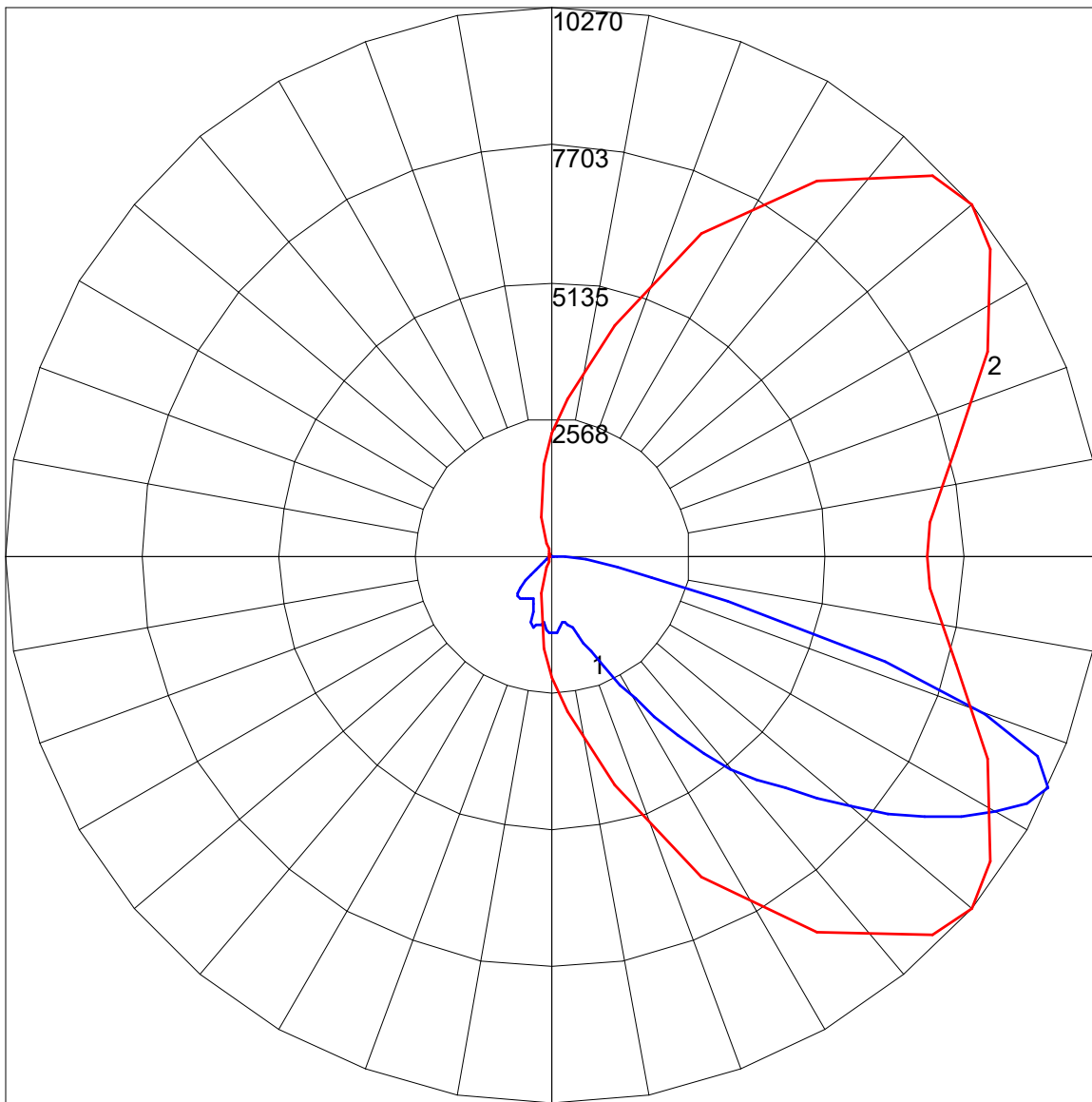
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

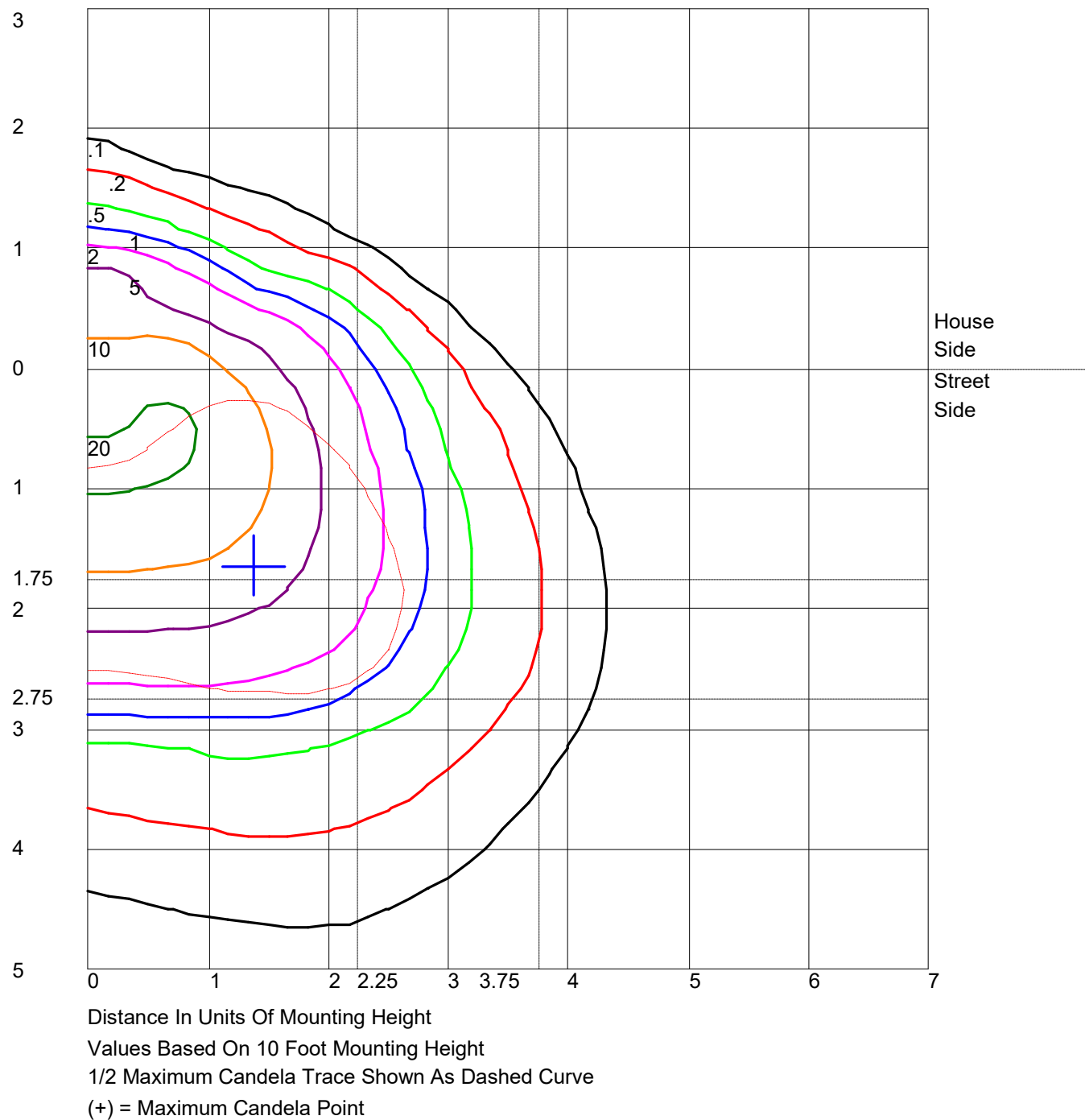
	Lumens	Percent Of Luminaire
Downward Street Side	12379.7	85.3
Downward House Side	2092.6	14.4
Downward Total	14472.3	99.7
Upward Street Side	19.0	0.1
Upward House Side	24.4	0.2
Upward Total	43.4	0.3
Total Flux	14515.7	100.0

POLAR GRAPH

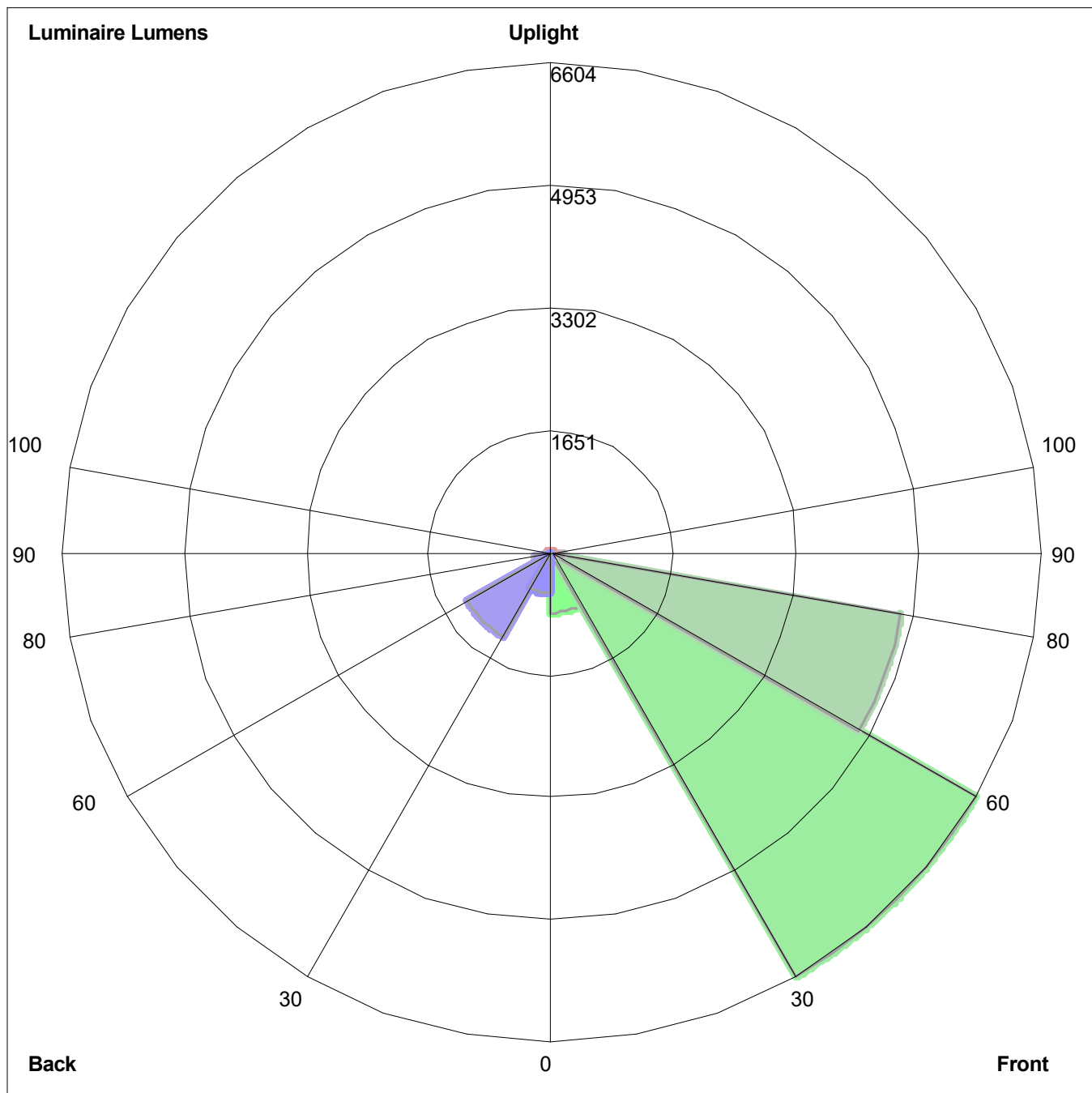


Maximum Candela = 10270 Located At Horizontal Angle = 40, Vertical Angle = 65
1 - Vertical Plane Through Horizontal Angles (40 - 220) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=812.2, Medium=6604.5, High=4788.3, Very High=174.7
Back: Low=552.0, Medium= 1301.0, High=227.9, Very High=11.7
Uplight: Low=10.7, High=32.7

BUG Rating : B2-U2-G2