



## IES ROAD REPORT

PHOTOMETRIC FILENAME : XENM3-SA-3-LED-HO-NW.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST]LED-4779  
[TESTLAB]LSI INDUSTRIES, INC  
[ISSUE DATE]11/23/13  
[TEST DATE]11/23/13  
[MANUFACTURER]LSI INDUSTRIES, INC  
[LUMCAT]XENM3-SA-3-LED-HO-NW  
[ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.  
[OTHER]TEST PROCEDURE: IESNA LM-79-08  
[ABSOLUTE LUMENS]9010  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Outdoor

### CHARACTERISTICS

IES Classification	Type II
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	9010
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	108
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	6038
Maximum Candela Angle	55H 52.5V
Maximum Candela (<90 Degrees Vertical)	6038
Maximum Candela Angle (<90 Degrees Vertical)	55H 52.5V
Maximum Candela At 90 Degrees Vertical	2 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1032 (11.5% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1128.3	N.A.	12.5
FM - Front-Medium (30-60)	4447.6	N.A.	49.4
FH - Front-High (60-80)	1684.8	N.A.	18.7
FVH - Front-Very High (80-90)	73.2	N.A.	0.8
BL - Back-Low (0-30)	591.7	N.A.	6.6
BM - Back-Medium (30-60)	814.1	N.A.	9.0
BH - Back-High (60-80)	247.7	N.A.	2.7
BVH - Back-Very High (80-90)	10.2	N.A.	0.1
UL - Uplight-Low (90-100)	1.8	N.A.	0.0
UH - Uplight-High (100-180)	10.3	N.A.	0.1
Total	9009.7	N.A.	100.0
BUG Rating	B2-U2-G1		

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**CANDELA TABULATION**

Vert. Angles	Horizontal Angles									
	<u>0.0</u>	<u>5.0</u>	<u>15.0</u>	<u>25.0</u>	<u>35.0</u>	<u>45.0</u>	<u>55.0</u>	<u>57.5</u>	<u>65.0</u>	<u>75.0</u>
0.0	1751	1751	1751	1751	1751	1751	1751	1751	1751	1751
2.5	1737	1731	1736	1747	1760	1777	1782	1781	1787	1795
5.0	1643	1644	1659	1692	1733	1795	1863	1869	1910	1958
7.5	1679	1676	1691	1739	1792	1874	1973	1997	2091	2192
10.0	1734	1743	1791	1894	2007	2108	2171	2187	2270	2400
12.5	1831	1844	1915	2080	2243	2356	2426	2425	2463	2563
15.0	1904	1934	2075	2292	2459	2578	2661	2653	2647	2670
17.5	2072	2122	2376	2643	2760	2806	2825	2797	2762	2725
20.0	2225	2290	2615	2979	3110	3025	2836	2836	2827	2768
22.5	2305	2406	2869	3294	3372	3196	2879	2839	2825	2734
25.0	2376	2494	3063	3535	3560	3291	2964	2866	2713	2575
27.5	2354	2485	3157	3686	3674	3414	3030	2898	2583	2482
30.0	2293	2462	3223	3719	3783	3586	3146	3019	2597	2346
32.5	2288	2483	3339	3787	3874	3797	3432	3266	2765	2447
35.0	2427	2657	3550	3848	3965	3863	3573	3472	3132	2858
37.5	2610	2855	3797	3976	4144	3970	3777	3735	3565	3338
40.0	2826	3134	3996	4128	4138	4313	4068	4040	4083	3843
42.5	3098	3363	4125	4115	4297	4756	4550	4446	4536	4157
45.0	3281	3544	4178	4166	4264	5146	5150	5009	4812	4261
47.5	3257	3576	4174	4222	4371	5286	5711	5566	4993	4271
50.0	2638	3036	3703	4075	4474	5280	6037	5942	5068	4231
52.5	2589	2975	3376	3544	4357	5222	6038	5981	5201	4057
55.0	1956	2304	2864	3317	3892	5045	5835	5855	5286	3935
57.5	1763	1980	2219	2578	3628	4747	5481	5571	5163	3792
60.0	1628	1841	2004	2207	2994	4206	5025	5072	4958	3761
62.5	838	994	1310	1944	2613	3724	4350	4472	4527	3633
65.0	788	809	865	1215	2210	3008	3504	3620	4022	3570
67.5	321	323	469	877	1390	2502	3057	3156	3286	2883
70.0	41	43	71	264	960	2001	2437	2397	2640	2855
72.5	27	29	43	91	404	1485	2106	2231	2491	2521
75.0	19	22	31	65	305	1136	1945	2035	2160	2080
77.5	12	13	21	41	241	958	1534	1582	1602	1446
80.0	7	8	11	18	177	628	1000	1032	1010	862
82.5	4	4	5	9	90	253	482	528	523	408
85.0	2	1	2	3	13	48	122	146	148	95
87.5	0	0	1	2	2	2	2	2	2	2
90.0	0	0	1	2	2	2	2	2	2	2
92.5	0	0	1	1	2	2	2	2	2	2
95.0	0	0	1	1	2	2	2	2	1	1
97.5	0	0	1	1	2	2	1	1	1	1
100.0	0	0	1	1	2	2	1	1	1	1
102.5	0	0	1	1	2	1	1	1	1	1
105.0	0	0	1	1	2	1	1	1	1	1
107.5	0	0	1	1	2	1	1	1	1	1
110.0	0	0	1	1	2	1	1	1	1	1
112.5	0	0	1	1	2	1	1	1	1	1
115.0	0	0	1	1	2	1	1	1	1	1
117.5	0	0	1	1	2	2	1	1	1	1
120.0	0	0	1	1	2	2	1	1	1	1
122.5	0	0	1	1	2	1	1	1	1	1
125.0	0	0	1	1	2	2	1	1	1	1
127.5	0	0	1	1	2	2	1	1	1	1
130.0	0	0	1	1	2	2	1	1	1	1

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**CANDELA TABULATION - (Cont.)**

132.5	0	0	1	1	2	2	1	1	1	1
135.0	0	0	1	1	2	2	1	1	1	2
137.5	0	0	1	1	2	1	1	1	1	1
140.0	0	0	1	1	2	2	1	1	1	1
142.5	0	0	1	1	2	2	1	1	1	1
145.0	0	0	1	1	2	1	1	1	1	1
147.5	0	0	1	1	2	2	1	1	1	2
150.0	0	0	1	1	2	2	2	2	2	2
152.5	0	0	1	1	2	2	2	2	2	2
155.0	0	0	1	2	2	2	2	2	1	2
157.5	1	0	1	2	2	2	1	1	1	2
160.0	0	1	1	1	2	1	1	1	1	1
162.5	0	0	1	1	2	1	1	1	1	1
165.0	1	1	1	1	2	1	1	1	1	1
167.5	0	0	1	1	1	1	1	1	1	1
170.0	0	0	1	1	1	1	1	1	1	1
172.5	1	1	1	1	1	1	1	1	1	1
175.0	0	1	1	1	1	1	1	1	0	0
177.5	1	0	1	1	1	1	1	1	0	0
180.0	1	1	1	1	1	1	1	1	1	1

Vert. Angles	Horizontal Angles									
	<u>85.0</u>	<u>90.0</u>	<u>95.0</u>	<u>105.0</u>	<u>115.0</u>	<u>125.0</u>	<u>135.0</u>	<u>145.0</u>	<u>155.0</u>	<u>165.0</u>
0.0	1751	1751	1751	1751	1751	1751	1751	1751	1751	1751
2.5	1800	1803	1798	1786	1784	1764	1745	1725	1703	1691
5.0	1982	1983	1975	1957	1924	1854	1771	1681	1584	1533
7.5	2242	2243	2228	2207	2089	1929	1780	1640	1514	1425
10.0	2484	2494	2478	2412	2200	2018	1881	1729	1570	1433
12.5	2686	2705	2695	2502	2270	2127	1994	1813	1585	1379
15.0	2799	2816	2779	2431	2242	2163	2012	1729	1398	1137
17.5	2830	2831	2767	2305	2168	2045	1782	1454	1081	848
20.0	2818	2819	2727	2197	2047	1784	1503	1024	754	560
22.5	2741	2750	2578	2124	1972	1517	1035	625	459	396
25.0	2579	2590	2419	2091	1866	1230	679	414	380	360
27.5	2446	2448	2283	2076	1687	939	459	389	370	344
30.0	2331	2327	2242	2021	1434	678	405	384	366	333
32.5	2452	2436	2326	1953	1196	499	405	383	359	316
35.0	2718	2694	2552	1923	1030	456	411	377	344	300
37.5	2975	2912	2681	1895	908	493	406	338	325	290
40.0	3216	3104	2810	1805	730	542	426	301	285	287
42.5	3396	3234	2868	1668	588	502	451	279	245	266
45.0	3523	3269	2917	1554	602	482	454	229	222	210
47.5	3427	3196	2852	1400	642	486	454	186	174	175
50.0	3387	3129	2791	1250	647	449	433	154	128	163
52.5	2978	2819	2595	1075	625	403	392	136	109	95
55.0	2771	2656	2535	908	592	398	279	122	64	47
57.5	2613	2539	2439	814	535	369	203	86	52	38
60.0	2436	2413	2260	770	469	260	130	56	45	30
62.5	2239	2215	2167	632	356	200	76	41	35	27
65.0	2150	2051	1980	491	243	118	69	37	31	25
67.5	1787	1704	1705	362	157	80	57	38	26	22
70.0	1908	1738	1612	262	86	76	47	39	21	17
72.5	1828	1623	1424	170	44	51	37	20	17	13
75.0	1575	1364	1031	75	35	32	23	14	14	14
77.5	1131	973	653	38	25	25	15	14	16	18

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**CANDELA TABULATION - (Cont.)**

80.0	663	569	365	23	30	18	15	16	15	16
82.5	358	295	181	17	20	15	15	10	7	6
85.0	68	75	29	4	8	8	5	3	3	1
87.5	1	1	1	1	2	2	2	2	2	1
90.0	1	2	2	2	2	2	2	2	2	1
92.5	2	2	2	2	2	3	3	2	2	1
95.0	2	2	2	2	3	3	3	3	2	1
97.5	1	1	2	2	3	3	3	3	2	1
100.0	1	2	2	2	3	3	3	3	2	1
102.5	1	1	2	2	3	3	3	3	2	1
105.0	1	1	2	2	3	3	3	3	2	1
107.5	1	1	2	2	3	4	4	3	2	1
110.0	1	1	2	3	3	4	4	3	2	1
112.5	1	1	2	3	3	4	4	3	3	1
115.0	1	2	2	3	4	4	4	3	3	2
117.5	2	2	2	3	4	4	4	4	3	2
120.0	1	2	2	3	4	4	4	4	3	2
122.5	2	2	2	3	4	4	4	4	3	2
125.0	2	2	2	3	4	4	4	4	3	2
127.5	2	2	2	3	4	4	4	4	3	2
130.0	2	2	2	3	4	4	5	4	3	2
132.5	2	2	2	3	4	4	4	4	4	2
135.0	2	2	2	3	4	4	5	4	4	3
137.5	2	2	2	3	4	4	4	4	4	2
140.0	2	2	2	3	4	4	4	4	3	3
142.5	2	2	2	3	4	4	4	4	3	2
145.0	2	2	2	3	4	4	4	4	3	2
147.5	2	2	2	3	4	4	4	4	3	3
150.0	2	2	2	3	4	4	4	4	4	3
152.5	2	2	2	3	4	4	4	4	4	3
155.0	2	2	2	3	4	4	4	4	3	3
157.5	2	2	2	3	3	4	4	4	3	2
160.0	1	2	2	3	3	3	4	4	3	2
162.5	1	1	2	2	3	3	3	3	3	2
165.0	1	1	2	2	3	3	3	3	2	2
167.5	1	1	1	2	2	3	3	3	2	1
170.0	1	1	1	1	2	2	3	2	2	1
172.5	1	1	1	1	2	2	3	3	2	1
175.0	1	1	1	1	2	2	2	2	1	1
177.5	0	1	1	1	2	2	2	2	1	1
180.0	1	1	1	1	1	1	1	1	1	1

**Vert. Horizontal Angles**

	<u>175.0</u>	<u>180.0</u>
0.0	1751	1751
2.5	1681	1689
5.0	1489	1495
7.5	1352	1350
10.0	1324	1315
12.5	1210	1200
15.0	948	936
17.5	666	620
20.0	415	369
22.5	319	291
25.0	280	258

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : XENM3-SA-3-LED-HO-NW.IES**

**CANDELA TABULATION - (Cont.)**

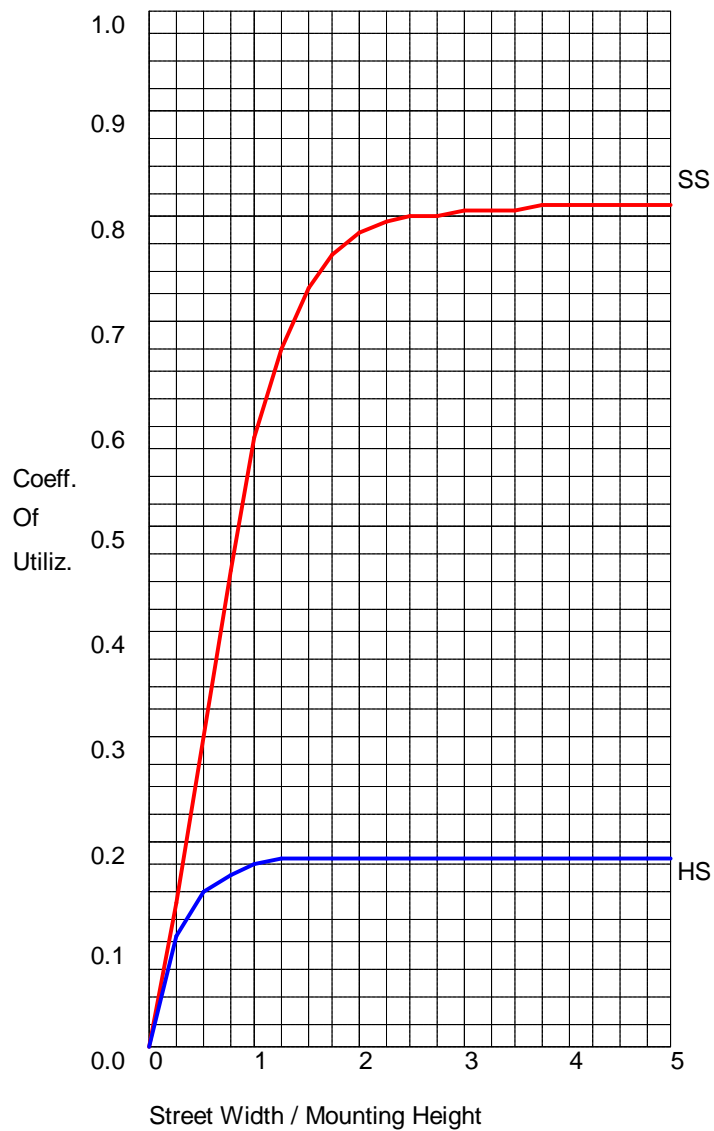
27.5	263	239
30.0	246	227
32.5	230	199
35.0	211	182
37.5	208	175
40.0	205	170
42.5	187	153
45.0	151	120
47.5	133	110
50.0	113	92
52.5	57	53
55.0	39	38
57.5	32	31
60.0	27	25
62.5	25	24
65.0	26	23
67.5	25	22
70.0	21	19
72.5	14	12
75.0	14	12
77.5	16	13
80.0	13	10
82.5	3	2
85.0	0	0
87.5	0	0
90.0	0	0
92.5	0	0
95.0	0	0
97.5	0	0
100.0	0	0
102.5	0	0
105.0	0	0
107.5	0	0
110.0	0	0
112.5	0	0
115.0	1	0
117.5	1	0
120.0	1	0
122.5	1	1
125.0	1	1
127.5	2	1
130.0	2	2
132.5	2	2
135.0	2	2
137.5	2	2
140.0	2	2
142.5	2	2
145.0	2	2
147.5	3	2
150.0	3	3
152.5	3	3
155.0	3	3
157.5	2	2
160.0	2	2
162.5	1	1
165.0	1	1

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : XENM3-SA-3-LED-HO-NW.IES**

**CANDELA TABULATION - (Cont.)**

<b>167.5</b>	0	0
<b>170.0</b>	0	0
<b>172.5</b>	0	0
<b>175.0</b>	0	0
<b>177.5</b>	0	0
<b>180.0</b>	1	1

COEFFICIENTS OF UTILIZATION

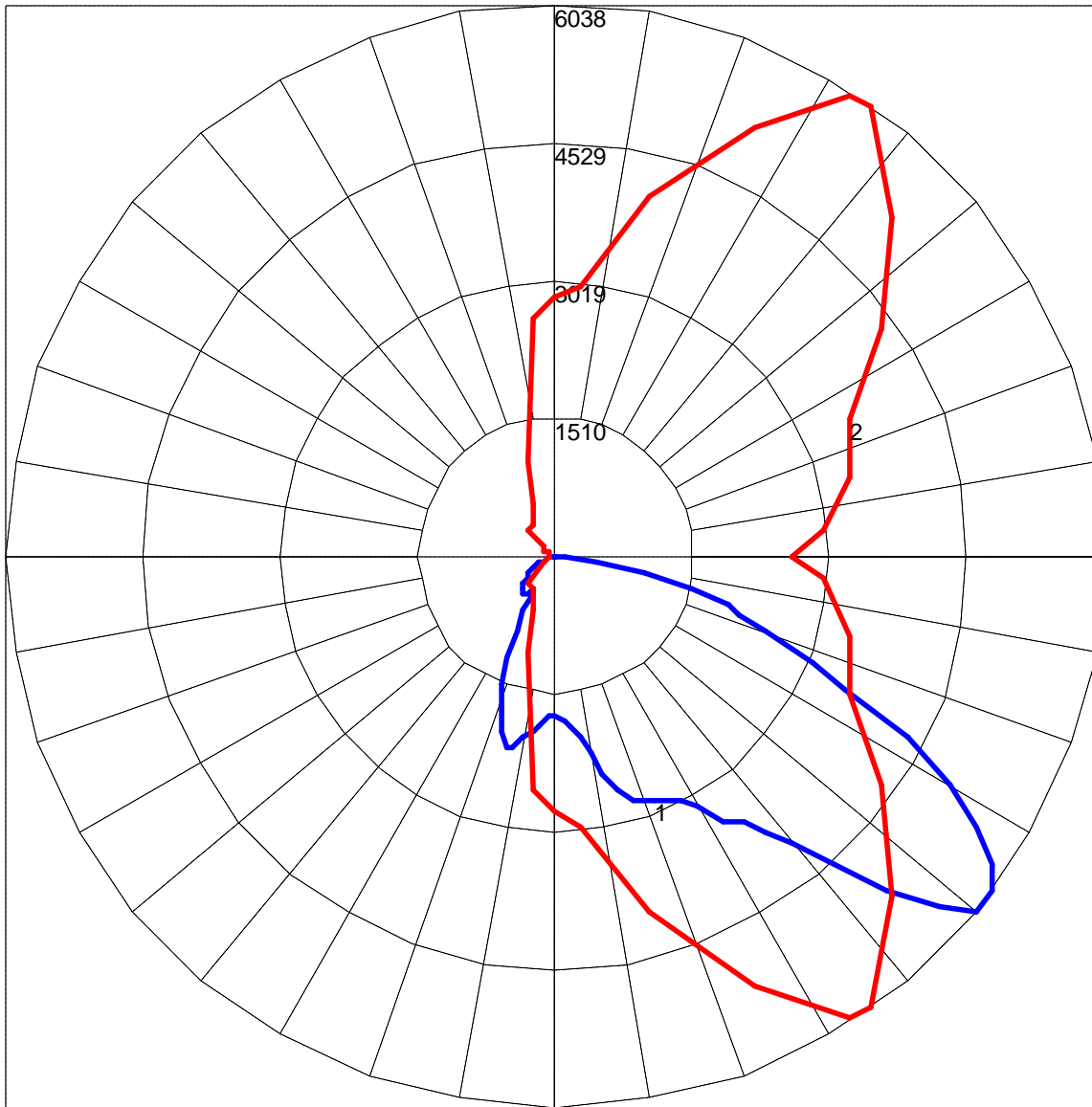


FLUX DISTRIBUTION

	Lumens	Percent Of Luminaire
Downward Street Side	7333.8	81.4
Downward House Side	1663.7	18.5
Downward Total	8997.5	99.9
Upward Street Side	3.7	0.0
Upward House Side	8.4	0.1
Upward Total	12.1	0.1
Total Flux	9009.6	100.0

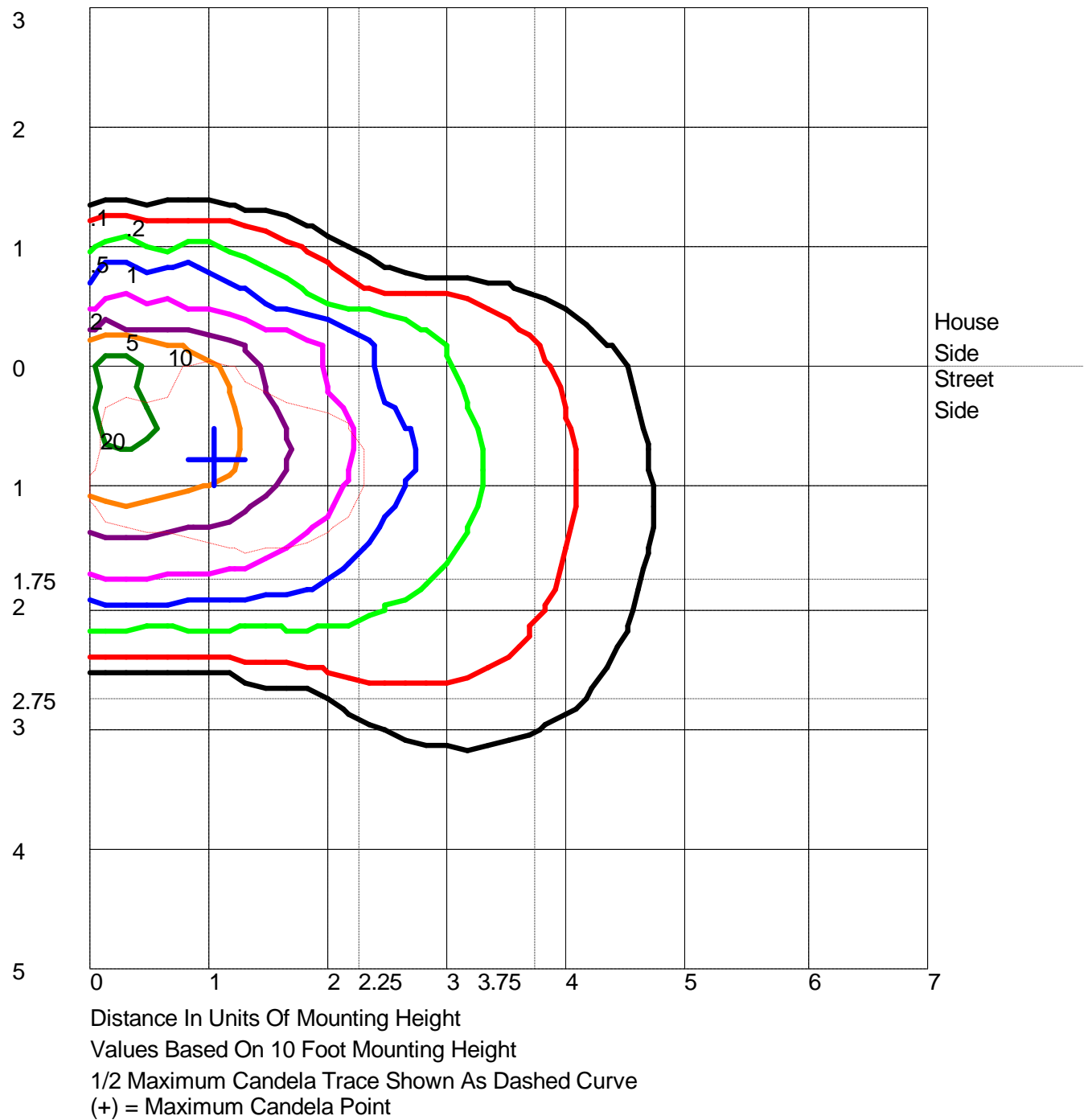


POLAR GRAPH

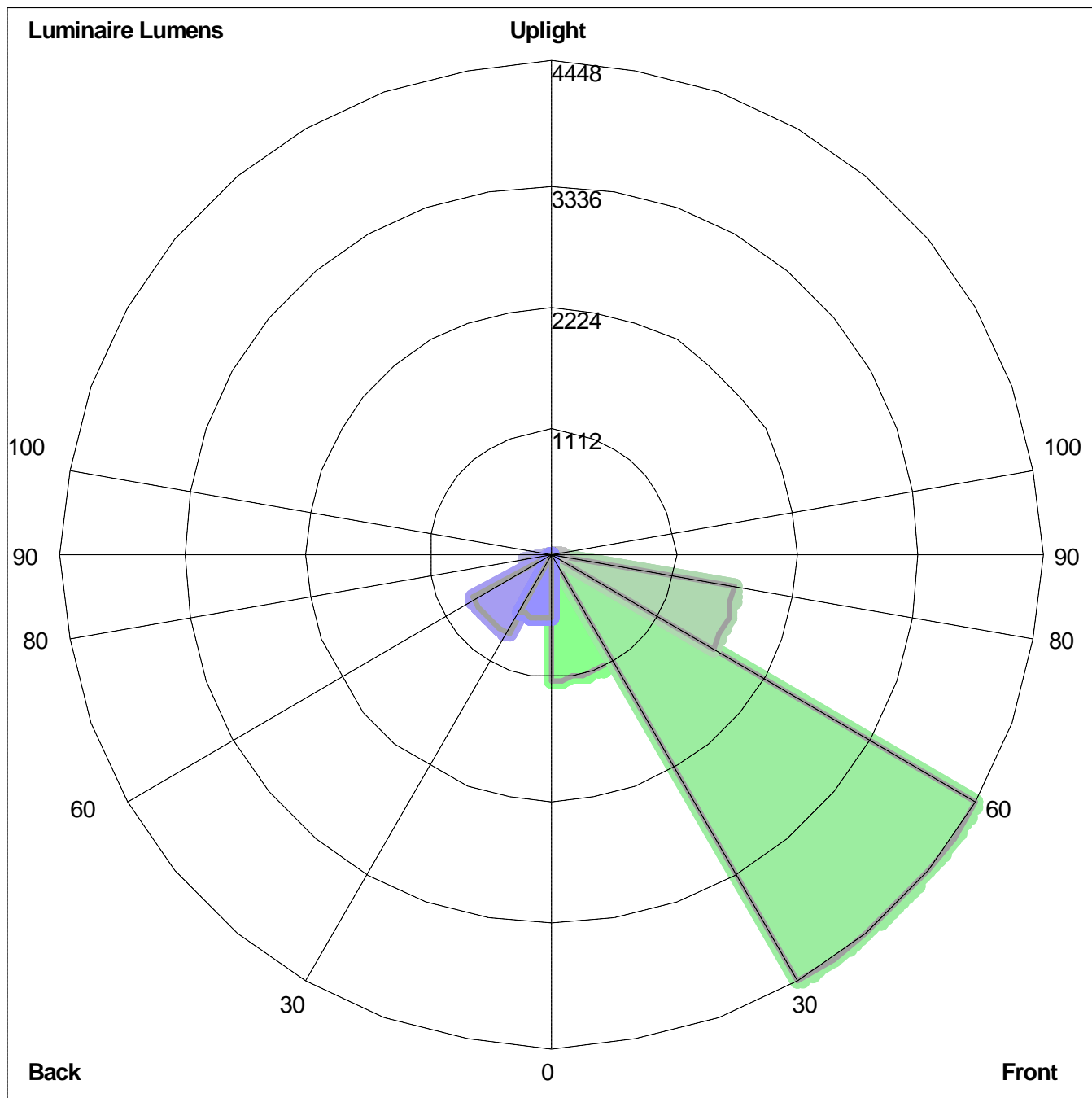


Maximum Candela = 6038 Located At Horizontal Angle = 55, Vertical Angle = 52.5  
# 1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (52.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1128.3, Medium=4447.6, High=1684.8, Very High=73.2  
Back: Low=591.7, Medium=814.1, High=247.7, Very High=10.2  
Uplight: Low=1.8, High=10.3

BUG Rating : B2-U2-G1