



## IES ROAD REPORT

PHOTOMETRIC FILENAME : TEL22-4-LED-23L-45.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] 3044

[TESTLAB] TUV SUD America

[TESTDATE] 2/7/2017 4:45:17 PM

[ISSUE DATE] 11/15/2019

[MANUFAC] LSI INDUSTRIES, INC.

[\_SEARCH\_SOURCE TYPE] LED

[\_SEARCH\_APPLICATION] Outdoor

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

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

[LUMCAT] TEL22-4-LED-23L-45

### CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	23074
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	221.01
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	12639
Maximum Candela Angle	320H 70V
Maximum Candela (<90 Degrees Vertical)	12639
Maximum Candela Angle (<90 Degrees Vertical)	320H 70V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	3790 (16.4% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1848.9	N.A.	8.0
FM - Front-Medium (30-60)	7070.4	N.A.	30.6
FH - Front-High (60-80)	6715.2	N.A.	29.1
FVH - Front-Very High (80-90)	207.4	N.A.	0.9
BL - Back-Low (0-30)	1600.8	N.A.	6.9
BM - Back-Medium (30-60)	3907.2	N.A.	16.9
BH - Back-High (60-80)	1672.2	N.A.	7.2
BVH - Back-Very High (80-90)	51.8	N.A.	0.2
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	23073.9	N.A.	100.0
BUG Rating	B3-U0-G3		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<b>0</b>	<b>10</b>	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>	<b>70</b>	<b>80</b>	<b>90</b>
<b>0</b>	3788	3788	3788	3788	3788	3788	3788	3788	3788	3788
<b>5</b>	4020	3986	3971	3948	3923	3892	3864	3833	3806	3772
<b>10</b>	4237	4193	4148	4103	4053	4007	3968	3927	3872	3814
<b>15</b>	4445	4380	4317	4251	4216	4188	4136	4058	3987	3904
<b>20</b>	4639	4555	4497	4438	4430	4399	4331	4229	4123	4006
<b>25</b>	4799	4755	4727	4705	4677	4640	4565	4449	4285	4113
<b>30</b>	4994	4960	4974	4983	4946	4902	4819	4692	4463	4230
<b>35</b>	5367	5309	5340	5319	5234	5171	5137	5013	4722	4360
<b>40</b>	5623	5730	5796	5785	5693	5608	5626	5477	5036	4500
<b>45</b>	5960	5936	5937	5983	6113	6136	5997	5766	5412	4758
<b>50</b>	6625	6393	6305	6339	6380	6203	6398	6350	5974	5047
<b>55</b>	7687	7466	7271	7069	6758	6791	7214	7181	6500	5223
<b>60</b>	9142	9144	8968	8436	7751	7993	8473	8019	6720	5123
<b>65</b>	8224	9242	9746	10471	10238	10225	10005	7842	5775	3977
<b>70</b>	3546	5237	7261	9271	12639	12521	10192	7559	4404	2446
<b>75</b>	1009	1534	2358	4059	9153	10486	8001	4877	2462	1052
<b>80</b>	288	421	595	855	2195	3790	2413	1338	601	278
<b>85</b>	45	68	66	71	96	120	57	52	47	42
<b>90</b>	0	0	0	0	0	0	0	0	0	0
<b>95</b>	0	0	0	0	0	0	0	0	0	0
<b>100</b>	0	0	0	0	0	0	0	0	0	0
<b>105</b>	0	0	0	0	0	0	0	0	0	0
<b>110</b>	0	0	0	0	0	0	0	0	0	0
<b>115</b>	0	0	0	0	0	0	0	0	0	0
<b>120</b>	0	0	0	0	0	0	0	0	0	0
<b>125</b>	0	0	0	0	0	0	0	0	0	0
<b>130</b>	0	0	0	0	0	0	0	0	0	0
<b>135</b>	0	0	0	0	0	0	0	0	0	0
<b>140</b>	0	0	0	0	0	0	0	0	0	0
<b>145</b>	0	0	0	0	0	0	0	0	0	0
<b>150</b>	0	0	0	0	0	0	0	0	0	0
<b>155</b>	0	0	0	0	0	0	0	0	0	0
<b>160</b>	0	0	0	0	0	0	0	0	0	0
<b>165</b>	0	0	0	0	0	0	0	0	0	0
<b>170</b>	0	0	0	0	0	0	0	0	0	0
<b>175</b>	0	0	0	0	0	0	0	0	0	0
<b>180</b>	0	0	0	0	0	0	0	0	0	0

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<b>100</b>	<b>110</b>	<b>120</b>	<b>130</b>	<b>140</b>	<b>150</b>	<b>160</b>	<b>170</b>	<b>180</b>	<b>190</b>
<b>0</b>	3788	3788	3788	3788	3788	3788	3788	3788	3788	3788
<b>5</b>	3745	3723	3703	3687	3673	3664	3661	3654	3659	3654
<b>10</b>	3760	3722	3691	3664	3638	3627	3613	3610	3609	3610
<b>15</b>	3830	3773	3731	3697	3670	3657	3655	3657	3646	3657
<b>20</b>	3909	3833	3788	3756	3739	3736	3724	3720	3706	3720
<b>25</b>	3989	3893	3819	3808	3811	3823	3834	3831	3814	3831
<b>30</b>	4061	3925	3864	3879	3915	3954	3977	3978	3978	3978
<b>35</b>	4107	3943	3932	3979	4009	3992	3938	3875	3933	3875
<b>40</b>	4167	4023	4002	3958	3765	3558	3392	3302	3475	3302
<b>45</b>	4295	4123	3859	3456	3129	2890	2779	2735	2780	2735
<b>50</b>	4491	3895	3185	2689	2531	2595	2715	2766	2714	2766
<b>55</b>	4354	3033	2362	2234	2459	2701	2869	2912	2867	2912

**IES ROAD REPORT**  
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**CANDELA TABULATION - (Cont.)**

<b>60</b>	3294	2073	2018	2137	2378	2666	2804	2861	2859	2861
<b>65</b>	2090	1629	1801	1919	2020	2410	2721	2806	2834	2806
<b>70</b>	1226	1370	1541	1426	1779	1966	2136	2098	2188	2098
<b>75</b>	717	925	1045	1047	1108	1152	1200	1043	1113	1043
<b>80</b>	275	361	436	383	374	373	318	200	240	200
<b>85</b>	37	34	31	27	24	20	14	10	17	10
<b>90</b>	0	0	0	0	0	0	0	0	0	0
<b>95</b>	0	0	0	0	0	0	0	0	0	0
<b>100</b>	0	0	0	0	0	0	0	0	0	0
<b>105</b>	0	0	0	0	0	0	0	0	0	0
<b>110</b>	0	0	0	0	0	0	0	0	0	0
<b>115</b>	0	0	0	0	0	0	0	0	0	0
<b>120</b>	0	0	0	0	0	0	0	0	0	0
<b>125</b>	0	0	0	0	0	0	0	0	0	0
<b>130</b>	0	0	0	0	0	0	0	0	0	0
<b>135</b>	0	0	0	0	0	0	0	0	0	0
<b>140</b>	0	0	0	0	0	0	0	0	0	0
<b>145</b>	0	0	0	0	0	0	0	0	0	0
<b>150</b>	0	0	0	0	0	0	0	0	0	0
<b>155</b>	0	0	0	0	0	0	0	0	0	0
<b>160</b>	0	0	0	0	0	0	0	0	0	0
<b>165</b>	0	0	0	0	0	0	0	0	0	0
<b>170</b>	0	0	0	0	0	0	0	0	0	0
<b>175</b>	0	0	0	0	0	0	0	0	0	0
<b>180</b>	0	0	0	0	0	0	0	0	0	0

**Vert.  
Angles**

**Horizontal Angles**

	<b><u>200</u></b>	<b><u>210</u></b>	<b><u>220</u></b>	<b><u>230</u></b>	<b><u>240</u></b>	<b><u>250</u></b>	<b><u>260</u></b>	<b><u>270</u></b>	<b><u>280</u></b>	<b><u>290</u></b>
<b>0</b>	3788	3788	3788	3788	3788	3788	3788	3788	3788	3788
<b>5</b>	3661	3664	3673	3687	3703	3723	3745	3772	3806	3833
<b>10</b>	3613	3627	3638	3664	3691	3722	3760	3814	3872	3927
<b>15</b>	3655	3657	3670	3697	3731	3773	3830	3904	3987	4058
<b>20</b>	3724	3736	3739	3756	3788	3833	3909	4006	4123	4229
<b>25</b>	3834	3823	3811	3808	3819	3893	3989	4113	4285	4449
<b>30</b>	3977	3954	3915	3879	3864	3925	4061	4230	4463	4692
<b>35</b>	3938	3992	4009	3979	3932	3943	4107	4360	4722	5013
<b>40</b>	3392	3558	3765	3958	4002	4023	4167	4500	5036	5477
<b>45</b>	2779	2890	3129	3456	3859	4123	4295	4758	5412	5766
<b>50</b>	2715	2595	2531	2689	3185	3895	4491	5047	5974	6350
<b>55</b>	2869	2701	2459	2234	2362	3033	4354	5223	6500	7181
<b>60</b>	2804	2666	2378	2137	2018	2073	3294	5123	6720	8019
<b>65</b>	2721	2410	2020	1919	1801	1629	2090	3977	5775	7842
<b>70</b>	2136	1966	1779	1426	1541	1370	1226	2446	4404	7559
<b>75</b>	1200	1152	1108	1047	1045	925	717	1052	2462	4877
<b>80</b>	318	373	374	383	436	361	275	278	601	1338
<b>85</b>	14	20	24	27	31	34	37	42	47	52
<b>90</b>	0	0	0	0	0	0	0	0	0	0
<b>95</b>	0	0	0	0	0	0	0	0	0	0
<b>100</b>	0	0	0	0	0	0	0	0	0	0
<b>105</b>	0	0	0	0	0	0	0	0	0	0
<b>110</b>	0	0	0	0	0	0	0	0	0	0
<b>115</b>	0	0	0	0	0	0	0	0	0	0
<b>120</b>	0	0	0	0	0	0	0	0	0	0
<b>125</b>	0	0	0	0	0	0	0	0	0	0
<b>130</b>	0	0	0	0	0	0	0	0	0	0

**IES ROAD REPORT**  
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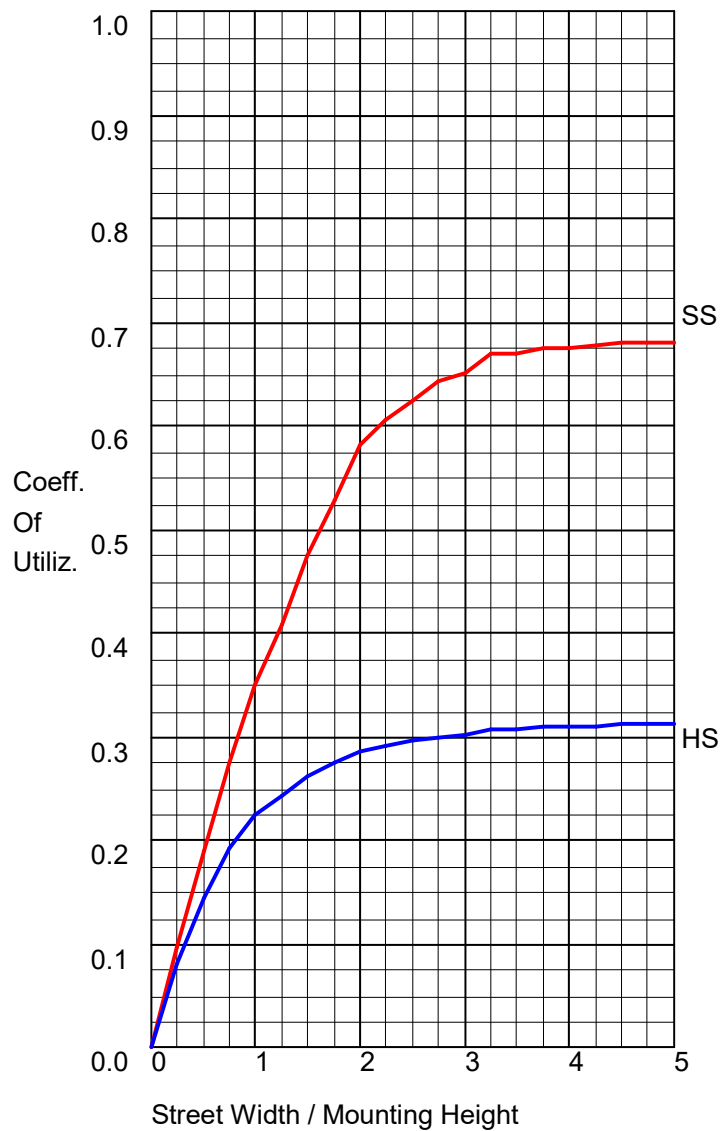
**CANDELA TABULATION - (Cont.)**

135	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0

**Vert. Horizontal Angles**  
**Angles**

	<u>300</u>	<u>310</u>	<u>320</u>	<u>330</u>	<u>340</u>	<u>350</u>	<u>360</u>
0	3788	3788	3788	3788	3788	3788	3788
5	3864	3892	3923	3948	3971	3986	4020
10	3968	4007	4053	4103	4148	4193	4237
15	4136	4188	4216	4251	4317	4380	4445
20	4331	4399	4430	4438	4497	4555	4639
25	4565	4640	4677	4705	4727	4755	4799
30	4819	4902	4946	4983	4974	4960	4994
35	5137	5171	5234	5319	5340	5309	5367
40	5626	5608	5693	5785	5796	5730	5623
45	5997	6136	6113	5983	5937	5936	5960
50	6398	6203	6380	6339	6305	6393	6625
55	7214	6791	6758	7069	7271	7466	7687
60	8473	7993	7751	8436	8968	9144	9142
65	10005	10225	10238	10471	9746	9242	8224
70	10192	12521	12639	9271	7261	5237	3546
75	8001	10486	9153	4059	2358	1534	1009
80	2413	3790	2195	855	595	421	288
85	57	120	96	71	66	68	45
90	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0

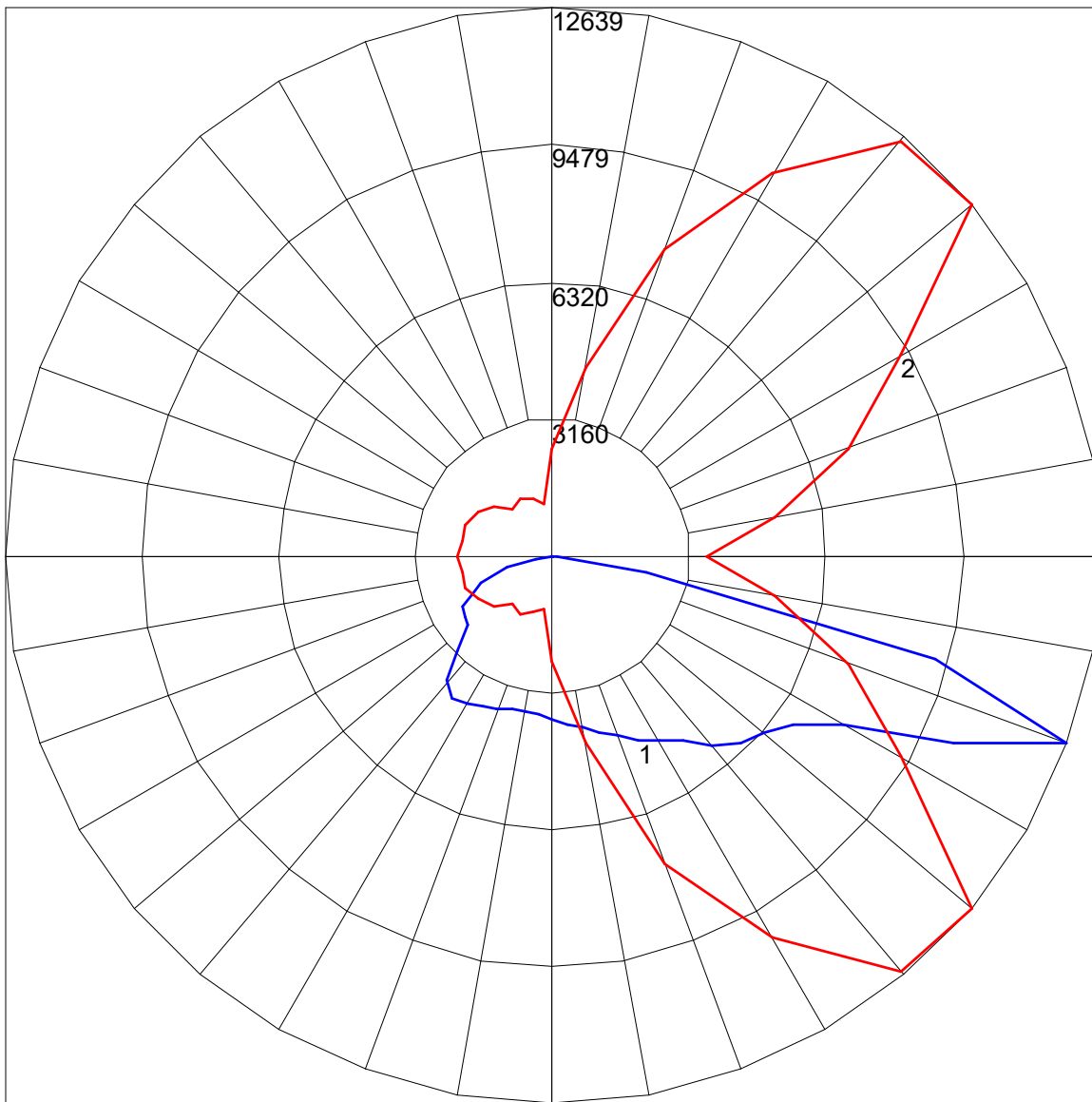
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

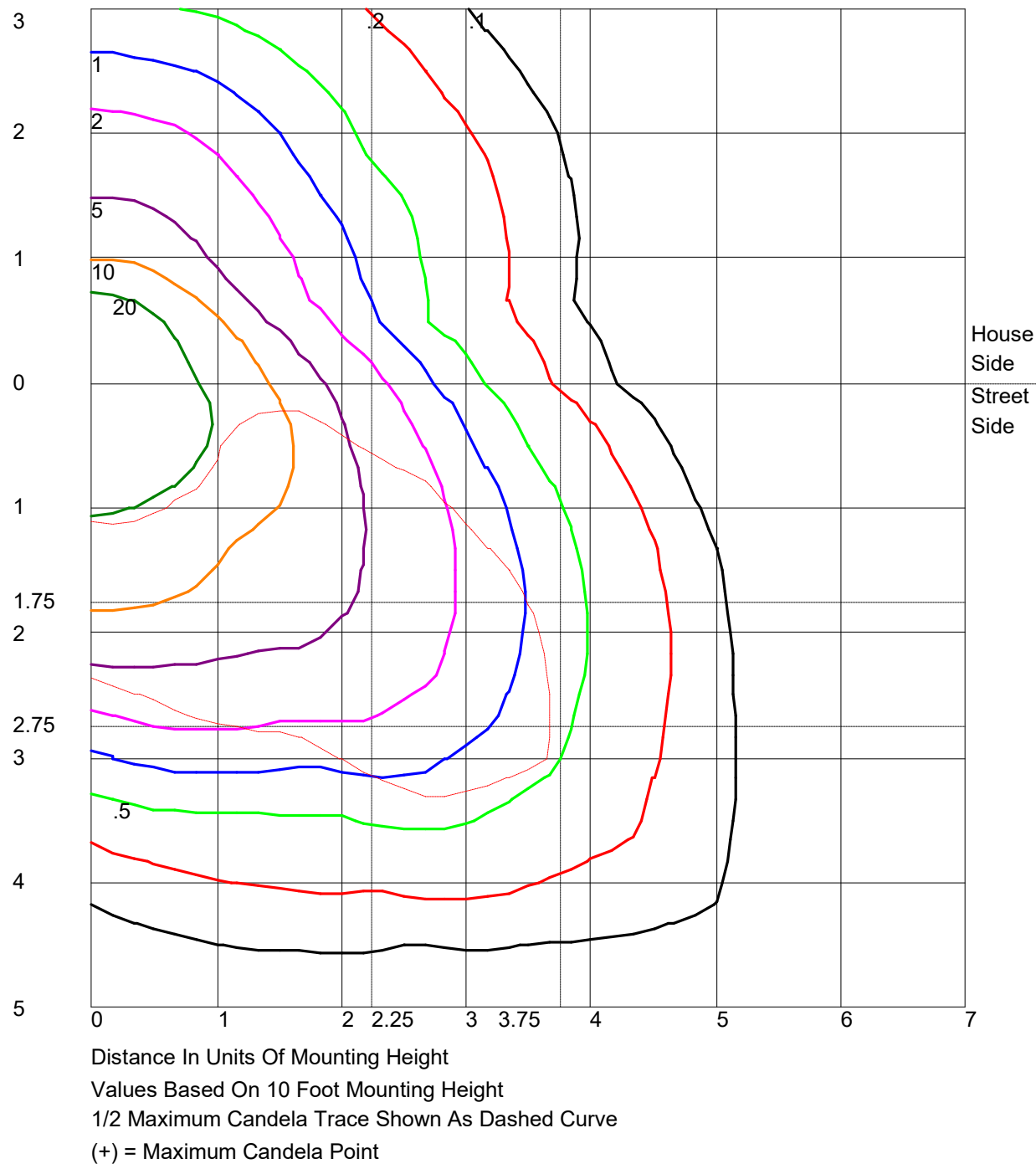
	Lumens	Percent Of Luminaire
Downward Street Side	15841.9	68.7
Downward House Side	7232.1	31.3
Downward Total	23074.0	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	23074.0	100.0

POLAR GRAPH



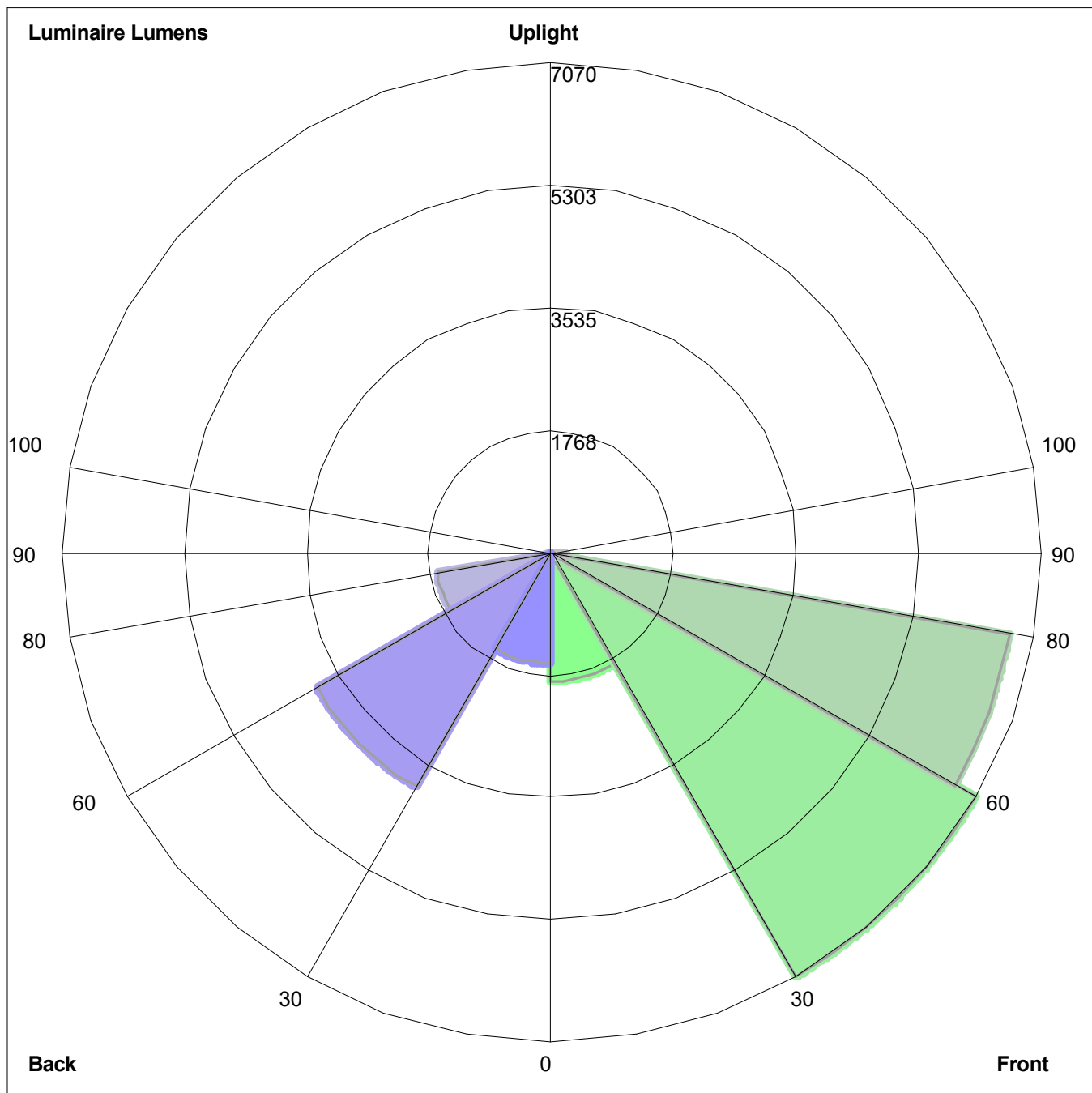
Maximum Candela = 12639 Located At Horizontal Angle = 320, Vertical Angle = 70  
# 1 - Vertical Plane Through Horizontal Angles (320 - 140) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1848.9, Medium=7070.4, High=6715.2, Very High=207.4  
Back: Low=1600.8, Medium=3907.2, High=1672.2, Very High=51.8  
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3