



## IES ROAD REPORT

PHOTOMETRIC FILENAME : HPG-23L-FT-40K8.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] LED-12230  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUE DATE] 10/22/2021  
[TEST DATE] 09/24/20  
[MANUFACT] LSI INDUSTRIES, INC.  
[LUMCAT] HPG-23L-FT-40K8  
[OTHER] TEST PROCEDURE: IESNA LM-79-08  
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.  
[OTHER] SCALED FROM ORIGINAL TEST DATA  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Outdoor  
[SEARCH\_COLORTEMP] 4000

### CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	24314
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	198
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	11593
Maximum Candela Angle	45H 65V
Maximum Candela (<90 Degrees Vertical)	11593
Maximum Candela Angle (<90 Degrees Vertical)	45H 65V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1468 (6.0% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)



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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	2237.9	N.A.	9.2
FM - Front-Medium (30-60)	7384.5	N.A.	30.4
FH - Front-High (60-80)	5112.6	N.A.	21.0
FVH - Front-Very High (80-90)	155.9	N.A.	0.6
BL - Back-Low (0-30)	2343.4	N.A.	9.6
BM - Back-Medium (30-60)	5232.6	N.A.	21.5
BH - Back-High (60-80)	1749.7	N.A.	7.2
BVH - Back-Very High (80-90)	97.6	N.A.	0.4
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	24314.2	N.A.	100.0
BUG Rating	B4-U0-G3		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>0.0</b></u>	<u><b>5.0</b></u>	<u><b>15.0</b></u>	<u><b>25.0</b></u>	<u><b>35.0</b></u>	<u><b>45.0</b></u>	<u><b>47.5</b></u>	<u><b>55.0</b></u>	<u><b>65.0</b></u>	<u><b>75.0</b></u>
<b>0.0</b>	5513	5513	5513	5513	5513	5513	5513	5513	5513	5513
<b>2.5</b>	5461	5477	5467	5473	5501	5543	5524	5527	5530	5541
<b>5.0</b>	5432	5456	5443	5450	5472	5520	5505	5518	5523	5538
<b>7.5</b>	5366	5386	5376	5394	5428	5477	5464	5475	5493	5518
<b>10.0</b>	5289	5311	5306	5319	5369	5429	5420	5445	5466	5506
<b>12.5</b>	5215	5239	5236	5259	5313	5381	5375	5411	5439	5483
<b>15.0</b>	5157	5179	5174	5205	5257	5335	5327	5372	5408	5467
<b>17.5</b>	5102	5130	5122	5150	5217	5290	5292	5341	5380	5445
<b>20.0</b>	5067	5102	5098	5129	5192	5267	5264	5316	5365	5427
<b>22.5</b>	5055	5084	5089	5128	5197	5265	5263	5308	5349	5412
<b>25.0</b>	5055	5078	5103	5146	5221	5285	5286	5326	5366	5413
<b>27.5</b>	5083	5105	5133	5181	5253	5323	5316	5354	5381	5427
<b>30.0</b>	5106	5138	5177	5226	5304	5359	5348	5374	5399	5451
<b>32.5</b>	5133	5160	5206	5276	5365	5420	5412	5419	5443	5492
<b>35.0</b>	5156	5179	5238	5334	5436	5496	5485	5489	5483	5506
<b>37.5</b>	5215	5235	5292	5416	5523	5588	5574	5555	5529	5500
<b>40.0</b>	5361	5380	5415	5538	5634	5702	5681	5650	5575	5503
<b>42.5</b>	5545	5555	5609	5721	5820	5864	5846	5797	5659	5561
<b>45.0</b>	5790	5804	5850	5958	6051	6100	6095	6016	5792	5645
<b>47.5</b>	6198	6209	6262	6337	6368	6430	6439	6325	5928	5755
<b>50.0</b>	6764	6795	6781	6844	6850	6887	6876	6648	6119	5897
<b>52.5</b>	7450	7492	7448	7505	7478	7504	7470	7089	6405	6071
<b>55.0</b>	8095	8143	8143	8261	8317	8322	8281	7725	6781	6232
<b>57.5</b>	8682	8691	8796	8980	9297	9277	9232	8573	7147	6399
<b>60.0</b>	8688	8771	9043	9434	10152	10363	10331	9325	7535	6584
<b>62.5</b>	8043	8200	8657	9320	10693	11341	11265	9963	7714	6430
<b>65.0</b>	6889	6983	7521	8432	10387	11593	11534	10103	7425	5801
<b>67.5</b>	5247	5309	5753	6701	8881	10593	10695	9601	6593	4691
<b>70.0</b>	3486	3573	3866	4716	6622	8596	8829	8166	5305	3382
<b>72.5</b>	2170	2147	2390	2958	4302	6121	6450	6294	3541	2041
<b>75.0</b>	1295	1324	1456	1852	2747	3865	4073	3973	2280	1248
<b>77.5</b>	849	866	969	1288	1683	2373	2495	2317	1385	666
<b>80.0</b>	576	588	619	884	1172	1408	1468	1200	623	336
<b>82.5</b>	360	356	403	621	733	618	570	399	280	238
<b>85.0</b>	202	206	228	447	419	181	158	121	124	153
<b>87.5</b>	93	96	112	201	193	64	62	56	56	63
<b>90.0</b>	0	0	0	0	0	0	0	0	0	0

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>85.0</b></u>	<u><b>90.0</b></u>	<u><b>95.0</b></u>	<u><b>105.0</b></u>	<u><b>115.0</b></u>	<u><b>125.0</b></u>	<u><b>135.0</b></u>	<u><b>145.0</b></u>	<u><b>155.0</b></u>	<u><b>165.0</b></u>
<b>0.0</b>	5513	5513	5513	5513	5513	5513	5513	5513	5513	5513
<b>2.5</b>	5573	5589	5585	5553	5538	5539	5558	5510	5492	5490
<b>5.0</b>	5580	5593	5592	5567	5554	5549	5569	5536	5516	5514
<b>7.5</b>	5575	5595	5594	5573	5563	5567	5588	5539	5516	5503
<b>10.0</b>	5561	5588	5592	5576	5575	5569	5572	5539	5524	5528
<b>12.5</b>	5555	5577	5588	5576	5569	5559	5578	5565	5564	5572
<b>15.0</b>	5545	5572	5585	5571	5556	5565	5601	5590	5594	5609
<b>17.5</b>	5534	5568	5580	5566	5534	5557	5615	5612	5612	5629
<b>20.0</b>	5526	5565	5575	5547	5507	5557	5619	5621	5627	5645
<b>22.5</b>	5517	5558	5568	5517	5491	5553	5617	5624	5632	5661
<b>25.0</b>	5505	5537	5543	5465	5457	5540	5609	5614	5628	5659
<b>27.5</b>	5499	5516	5509	5399	5398	5496	5571	5594	5614	5638

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**CANDELA TABULATION - (Cont.)**

30.0	5503	5508	5484	5329	5332	5431	5513	5545	5574	5601
32.5	5504	5491	5443	5250	5245	5347	5434	5468	5505	5543
35.0	5485	5449	5383	5151	5143	5254	5340	5374	5415	5457
37.5	5440	5389	5309	5027	5022	5132	5218	5238	5279	5332
40.0	5405	5329	5217	4904	4877	4972	5046	5065	5110	5175
42.5	5406	5298	5158	4773	4707	4786	4835	4868	4930	5046
45.0	5450	5300	5125	4646	4502	4567	4606	4632	4704	4987
47.5	5516	5331	5111	4516	4268	4315	4343	4370	4496	4968
50.0	5624	5393	5114	4384	4014	4038	4076	4133	4417	4645
52.5	5745	5463	5120	4245	3737	3734	3824	4000	4143	4208
55.0	5816	5476	5059	4056	3435	3454	3571	3587	3761	3825
57.5	5949	5564	5056	3840	3064	3142	3194	3294	3344	3412
60.0	6088	5678	5102	3746	2742	2763	2871	2970	2938	2972
62.5	5822	5349	4737	3474	2503	2376	2506	2637	2577	2558
65.0	5155	4555	3866	2870	2065	2062	2141	2337	2265	2266
67.5	4087	3604	3033	2370	1576	1702	1926	2153	1977	1993
70.0	2908	2553	2156	2005	1321	1309	1555	1572	1645	1727
72.5	1578	1412	1232	1443	1123	1077	1111	1287	1334	1449
75.0	831	748	741	895	744	764	818	960	1008	1185
77.5	429	404	449	537	506	462	523	641	699	898
80.0	254	243	274	327	305	307	361	387	436	586
82.5	200	189	188	221	215	212	224	246	257	340
85.0	128	121	123	134	136	136	140	145	164	176
87.5	65	62	66	71	75	74	72	80	71	83
90.0	0	0	0	0	0	0	0	0	0	0

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

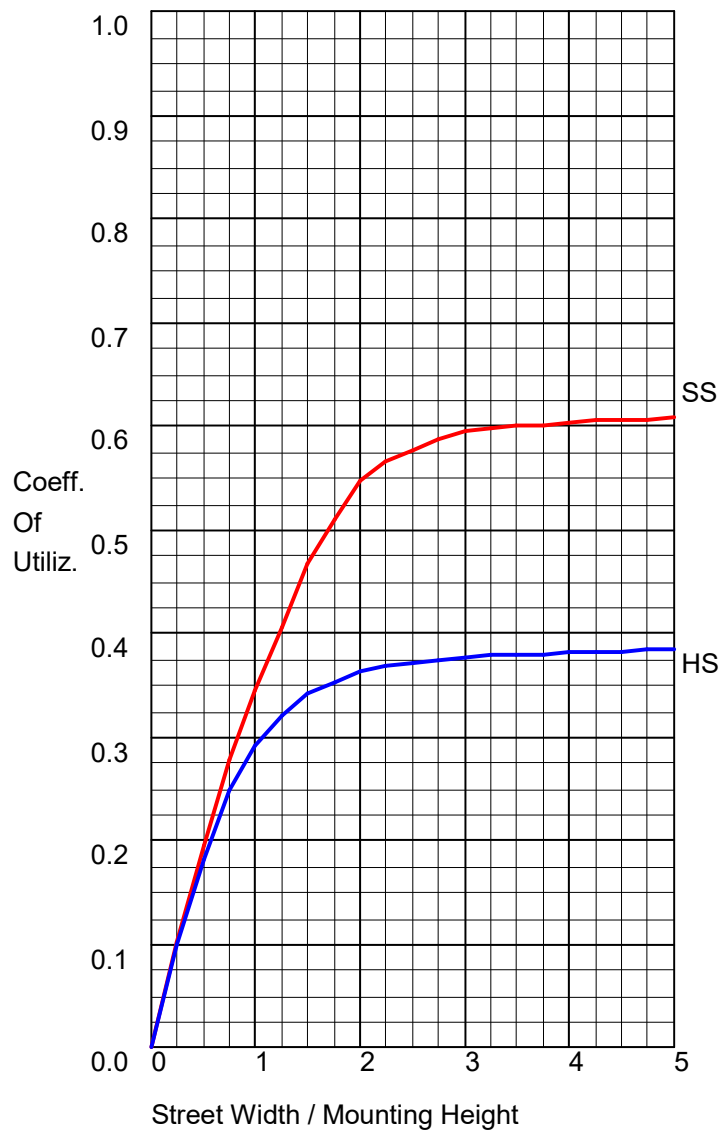
	<u>175.0</u>	<u>180.0</u>
0.0	5513	5513
2.5	5487	5465
5.0	5518	5495
7.5	5508	5489
10.0	5535	5511
12.5	5584	5563
15.0	5621	5597
17.5	5648	5623
20.0	5670	5655
22.5	5689	5670
25.0	5691	5670
27.5	5674	5661
30.0	5635	5628
32.5	5575	5558
35.0	5493	5471
37.5	5371	5357
40.0	5255	5248
42.5	5247	5272
45.0	5421	5476
47.5	5272	5283
50.0	4716	4712
52.5	4248	4249
55.0	3866	3877
57.5	3439	3423
60.0	2961	2965
62.5	2603	2619
65.0	2336	2352

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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	2099	2119
<b>70.0</b>	1845	1852
<b>72.5</b>	1575	1584
<b>75.0</b>	1337	1362
<b>77.5</b>	1068	1081
<b>80.0</b>	779	819
<b>82.5</b>	515	540
<b>85.0</b>	279	287
<b>87.5</b>	126	131
<b>90.0</b>	0	0

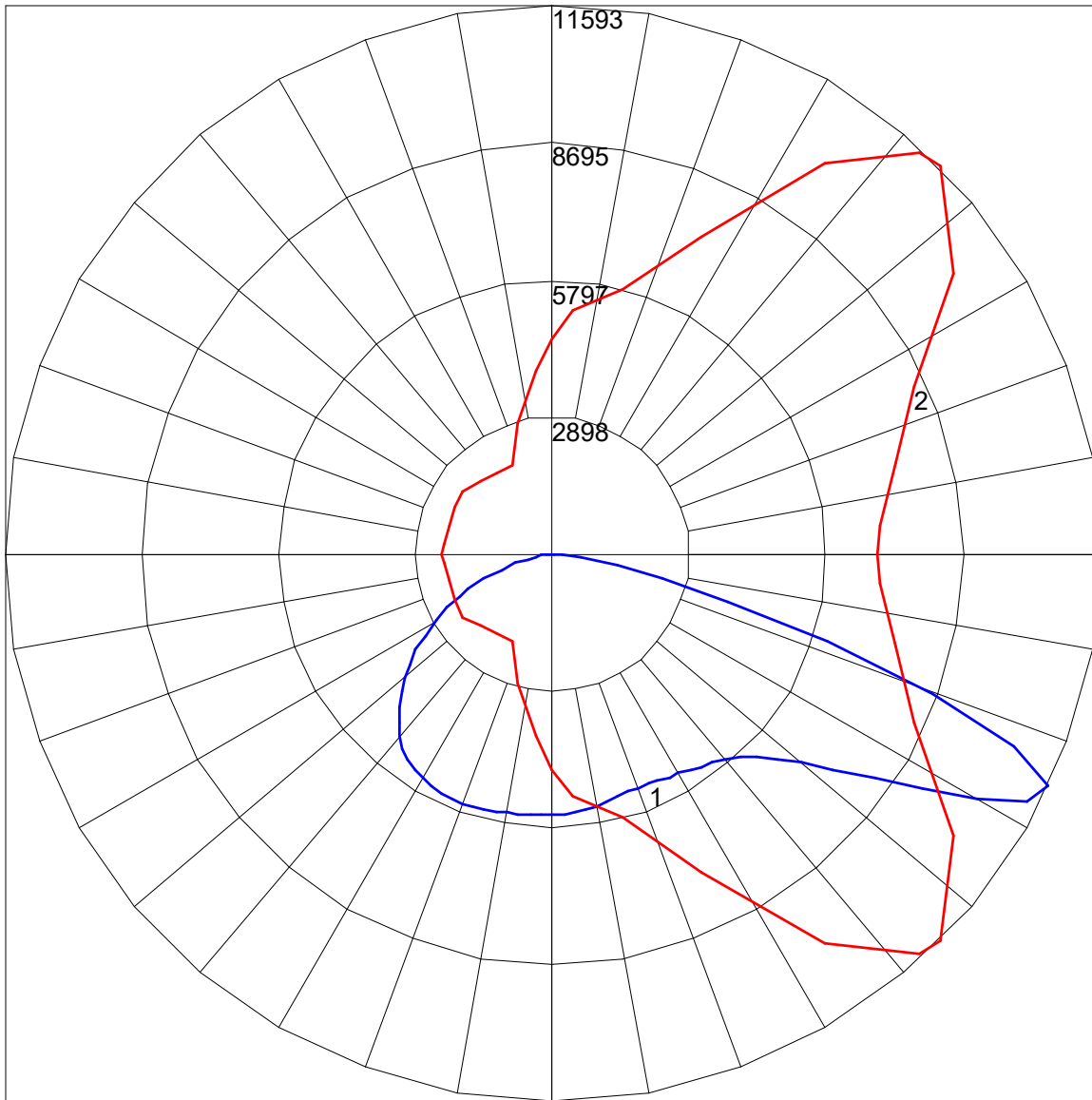
### COEFFICIENTS OF UTILIZATION



### FLUX DISTRIBUTION

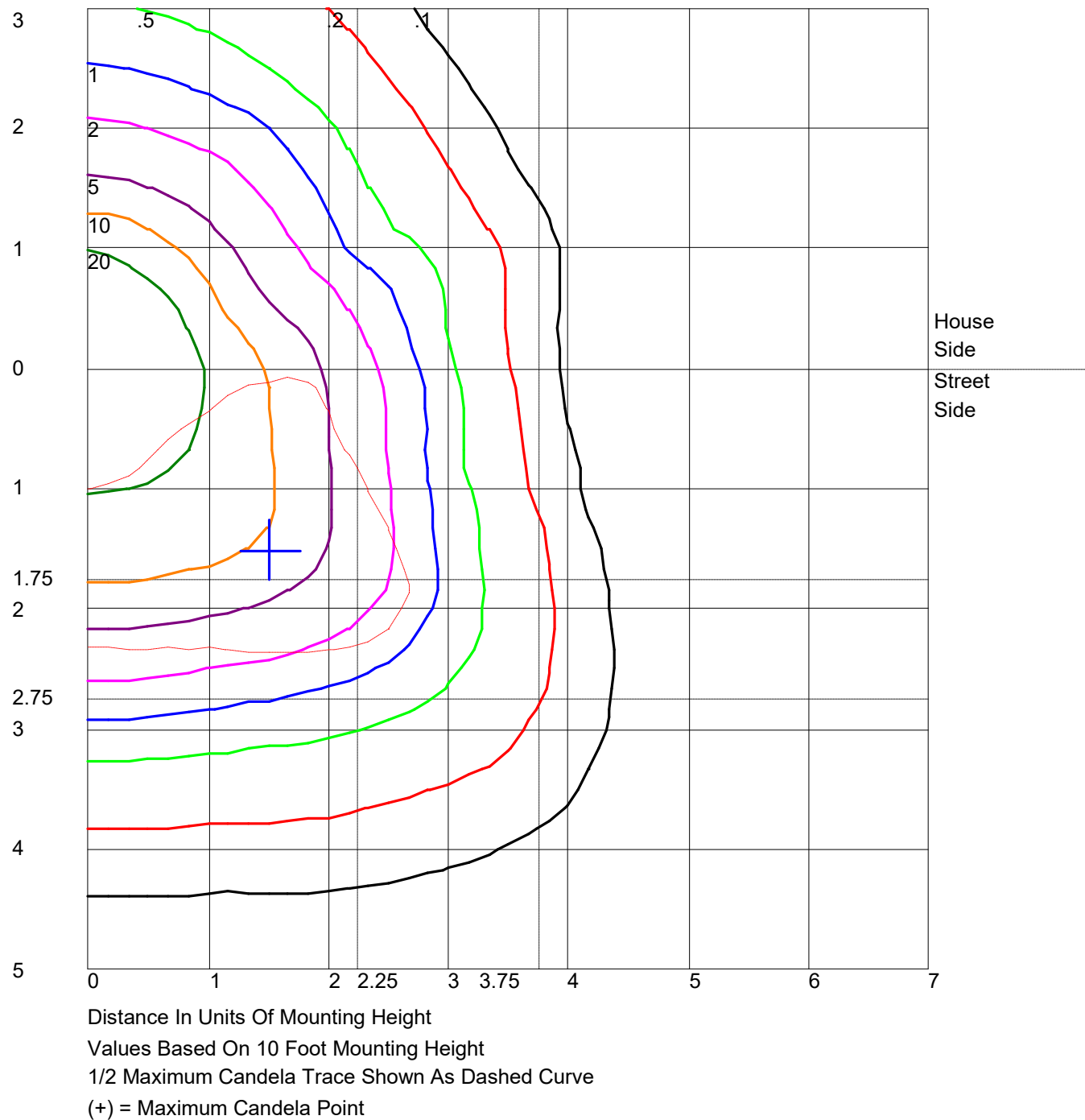
	Lumens	Percent Of Luminaire
Downward Street Side	14890.9	61.2
Downward House Side	9423.3	38.8
Downward Total	24314.3	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	24314.3	100.0

POLAR GRAPH

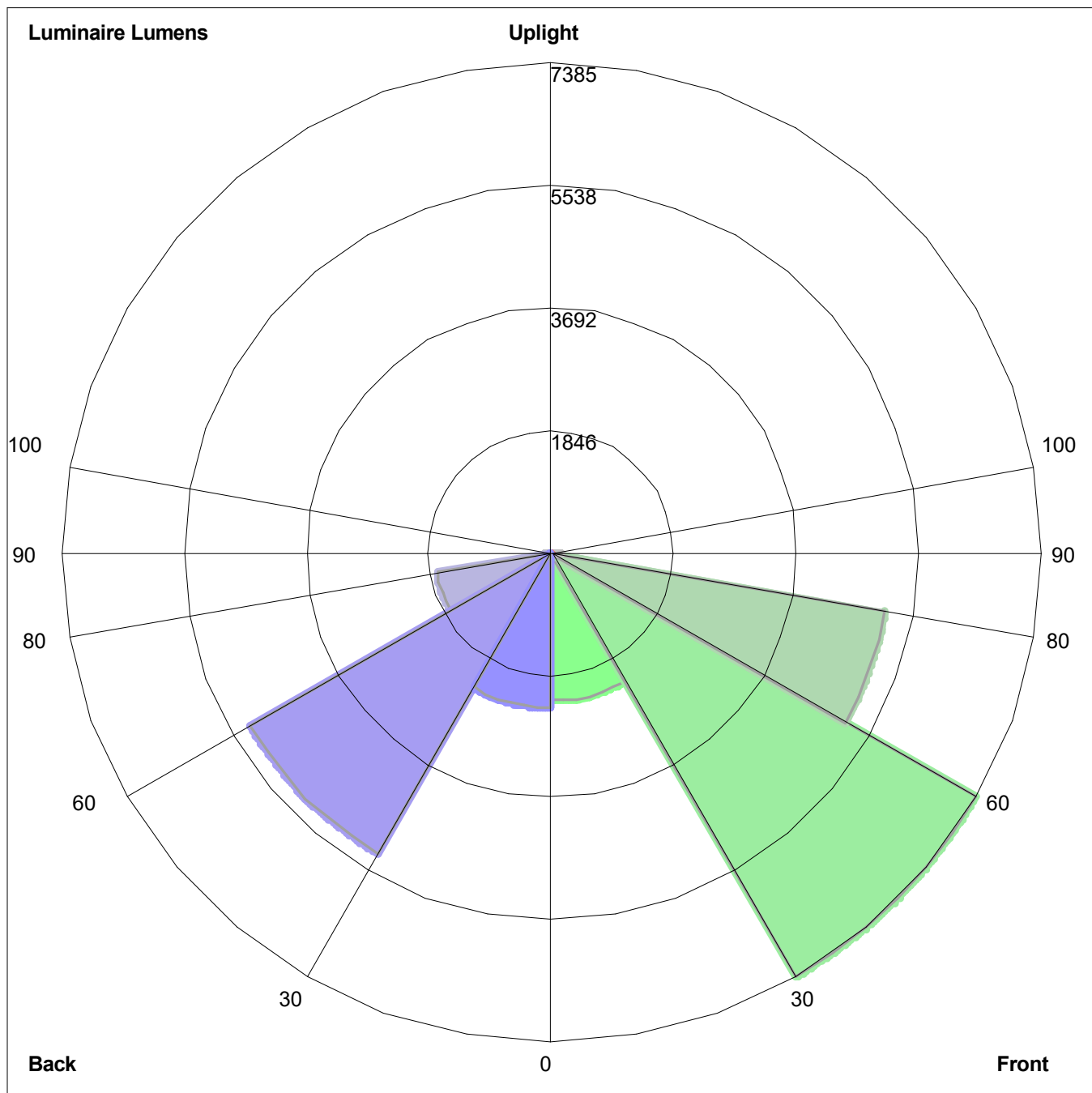


Maximum Candela = 11593 Located At Horizontal Angle = 45, Vertical Angle = 65  
# 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=2237.9, Medium=7384.5, High=5112.6, Very High=155.9  
Back: Low=2343.4, Medium=5232.6, High=1749.7, Very High=97.6  
Uplight: Low=0.0, High=0.0

BUG Rating : B4-U0-G3