



## IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-FT-LED-27L-40.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST]LED-8441  
[TESTLAB]LSI INDUSTRIES, INC  
[ISSUEDATE]01/10/17  
[TESTDATE]01/10/17  
[MANUFAC]LSI INDUSTRIES, INC  
[LUMCAT]HLN-FT-LED-27L-40  
[OTHER]TEST PROCEDURE: IESNA LM-79-08  
[\_ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED  
[\_SEARCH\_SOURCETYPE] LED  
[\_SEARCH\_APPLICATION] Outdoor

### CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	27305
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	238.2
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	15279
Maximum Candela Angle	45H 72.5V
Maximum Candela (<90 Degrees Vertical)	15279
Maximum Candela Angle (<90 Degrees Vertical)	45H 72.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	6833 (25.0% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1789.5	N.A.	6.6
FM - Front-Medium (30-60)	7947.2	N.A.	29.1
FH - Front-High (60-80)	9422.1	N.A.	34.5
FVH - Front-Very High (80-90)	640.3	N.A.	2.3
BL - Back-Low (0-30)	1800.1	N.A.	6.6
BM - Back-Medium (30-60)	4051.1	N.A.	14.8
BH - Back-High (60-80)	1535.4	N.A.	5.6
BVH - Back-Very High (80-90)	119.5	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	27305.2	N.A.	100.0
BUG Rating	B3-U0-G4		

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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>42.5</u>	<u>45.0</u>	<u>55.0</u>	<u>65.0</u>	<u>75.0</u>
0.0	4108	4108	4108	4108	4108	4108	4108	4108	4108	4108
2.5	4150	4117	4116	4122	4124	4106	4129	4123	4129	4129
5.0	4134	4103	4111	4126	4138	4129	4154	4156	4165	4167
7.5	4042	4014	4031	4068	4104	4113	4147	4179	4213	4225
10.0	3949	3921	3943	3986	4040	4074	4116	4183	4252	4294
12.5	3885	3858	3881	3929	3991	4038	4084	4177	4282	4362
15.0	3840	3818	3847	3900	3969	4026	4072	4174	4299	4420
17.5	3854	3830	3853	3905	3971	4034	4079	4183	4319	4469
20.0	3906	3883	3904	3957	4008	4066	4104	4205	4343	4508
22.5	3996	3974	3992	4046	4084	4128	4162	4241	4369	4537
25.0	4136	4116	4135	4173	4198	4233	4253	4292	4400	4564
27.5	4333	4324	4326	4350	4354	4377	4377	4370	4441	4582
30.0	4610	4574	4566	4575	4555	4556	4543	4487	4499	4600
32.5	4909	4883	4853	4845	4803	4784	4758	4651	4574	4617
35.0	5243	5210	5178	5158	5097	5058	5021	4859	4684	4642
37.5	5597	5564	5536	5515	5444	5392	5360	5121	4833	4685
40.0	5978	5943	5944	5915	5849	5792	5753	5454	5040	4765
42.5	6400	6366	6384	6376	6346	6258	6209	5872	5314	4884
45.0	6899	6864	6906	6950	6906	6804	6752	6374	5670	5052
47.5	7481	7447	7515	7611	7616	7455	7398	6962	6105	5287
50.0	8108	8076	8209	8423	8424	8271	8150	7651	6622	5610
52.5	8737	8739	8960	9299	9356	9175	9084	8431	7258	6004
55.0	9217	9230	9572	10106	10357	10233	10089	9360	7975	6536
57.5	9458	9474	9970	10817	11297	11289	11164	10518	8869	7161
60.0	9465	9507	10133	11269	12109	12291	12228	11669	9903	7856
62.5	9250	9307	10085	11519	12705	13178	13235	12817	10938	8546
65.0	9016	9079	9879	11513	13118	13836	13975	13802	11867	9110
67.5	8790	8886	9659	11392	13303	14284	14501	14439	12373	9080
70.0	8681	8770	9561	11355	13477	14644	14844	14565	11900	7917
72.5	8309	8323	9130	11315	14042	15211	15279	13841	9792	5470
75.0	6677	6663	7802	10290	13646	14615	14463	11487	6283	2717
77.5	3702	3982	5321	7761	11011	11863	11654	7130	2931	1394
80.0	1606	1763	2978	4545	6075	6833	6746	3649	1586	885
82.5	712	813	1733	2413	2848	3370	3323	1907	969	548
85.0	467	511	1033	1521	1709	1771	1619	862	564	326
87.5	340	379	710	992	1208	801	569	313	254	178
90.0	0	0	0	0	0	0	0	0	0	0

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	4108	4108	4108	4108	4108	4108	4108	4108	4108	4108
2.5	4144	4117	4116	4131	4129	4111	4111	4107	4096	4081
5.0	4179	4151	4150	4154	4141	4107	4090	4081	4069	4054
7.5	4241	4209	4208	4199	4160	4123	4103	4093	4070	4052
10.0	4319	4287	4285	4254	4204	4155	4120	4111	4097	4089
12.5	4406	4371	4370	4312	4248	4188	4156	4157	4151	4151
15.0	4495	4464	4454	4372	4290	4227	4199	4209	4196	4194
17.5	4580	4552	4537	4427	4330	4266	4237	4237	4222	4214
20.0	4656	4634	4618	4478	4366	4293	4260	4249	4228	4217
22.5	4720	4706	4691	4517	4393	4309	4268	4241	4214	4198
25.0	4763	4756	4749	4543	4403	4308	4254	4213	4180	4166
27.5	4790	4790	4787	4556	4393	4290	4221	4170	4132	4121

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**CANDELA TABULATION - (Cont.)**

30.0	4800	4803	4801	4544	4357	4244	4165	4109	4068	4061
32.5	4792	4797	4795	4510	4293	4179	4090	4028	3991	4002
35.0	4766	4771	4766	4453	4201	4088	3995	3929	3909	3948
37.5	4736	4733	4717	4371	4094	3979	3879	3814	3822	3948
40.0	4715	4693	4654	4265	3962	3845	3730	3683	3775	4082
42.5	4704	4651	4584	4149	3805	3693	3567	3540	3840	4008
45.0	4726	4617	4507	4010	3626	3518	3379	3415	3893	3726
47.5	4794	4616	4449	3860	3421	3318	3172	3319	3733	3406
50.0	4921	4647	4395	3706	3201	3100	2965	3237	3450	3054
52.5	5115	4725	4377	3541	2967	2877	2753	3106	3172	2780
55.0	5389	4874	4414	3384	2730	2656	2563	2899	2865	2511
57.5	5734	5069	4472	3242	2491	2429	2381	2643	2530	2264
60.0	6113	5282	4539	3108	2255	2210	2188	2355	2226	2048
62.5	6423	5379	4465	2926	2045	2015	1991	2073	1962	1866
65.0	6526	5184	4097	2655	1834	1815	1775	1827	1713	1709
67.5	6051	4439	3292	2243	1597	1602	1590	1626	1479	1575
70.0	4731	3188	2233	1708	1332	1364	1414	1418	1266	1459
72.5	2608	1772	1302	1199	1047	1119	1224	1212	1053	1325
75.0	1192	842	724	782	761	849	1004	983	817	1061
77.5	736	516	444	505	522	597	746	686	518	765
80.0	493	353	310	361	387	428	465	438	369	546
82.5	302	230	216	266	290	260	310	317	245	379
85.0	185	137	140	189	164	162	206	178	126	244
87.5	103	72	78	95	86	86	109	78	58	111
90.0	0	0	0	0	0	0	0	0	0	0

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

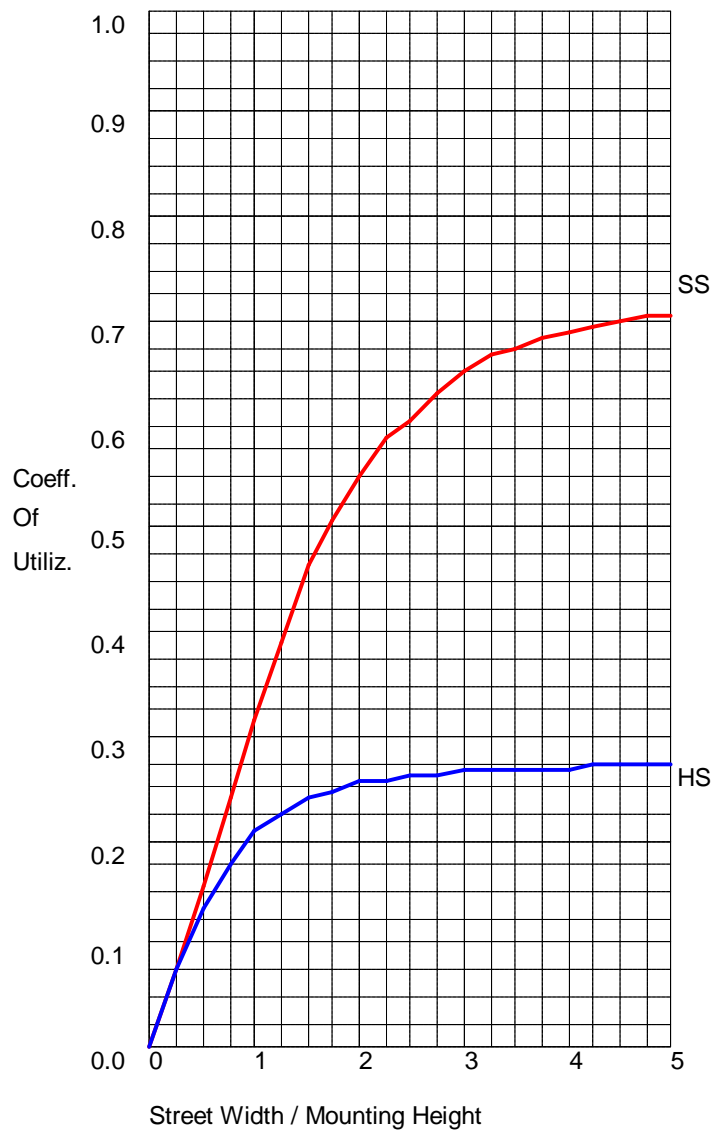
	<b><u>175.0</u></b>	<b><u>180.0</u></b>
0.0	4108	4108
2.5	4084	4092
5.0	4057	4067
7.5	4053	4062
10.0	4098	4107
12.5	4159	4169
15.0	4201	4211
17.5	4221	4231
20.0	4220	4232
22.5	4202	4212
25.0	4171	4178
27.5	4125	4135
30.0	4076	4086
32.5	4033	4049
35.0	4006	4033
37.5	4111	4154
40.0	4089	4079
42.5	3816	3787
45.0	3416	3378
47.5	3127	3117
50.0	2891	2886
52.5	2645	2651
55.0	2383	2393
57.5	2137	2113
60.0	1942	1921
62.5	1765	1752
65.0	1616	1601

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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	1496	1479
<b>70.0</b>	1398	1373
<b>72.5</b>	1300	1277
<b>75.0</b>	1074	1055
<b>77.5</b>	933	915
<b>80.0</b>	811	824
<b>82.5</b>	645	687
<b>85.0</b>	474	528
<b>87.5</b>	295	334
<b>90.0</b>	0	0

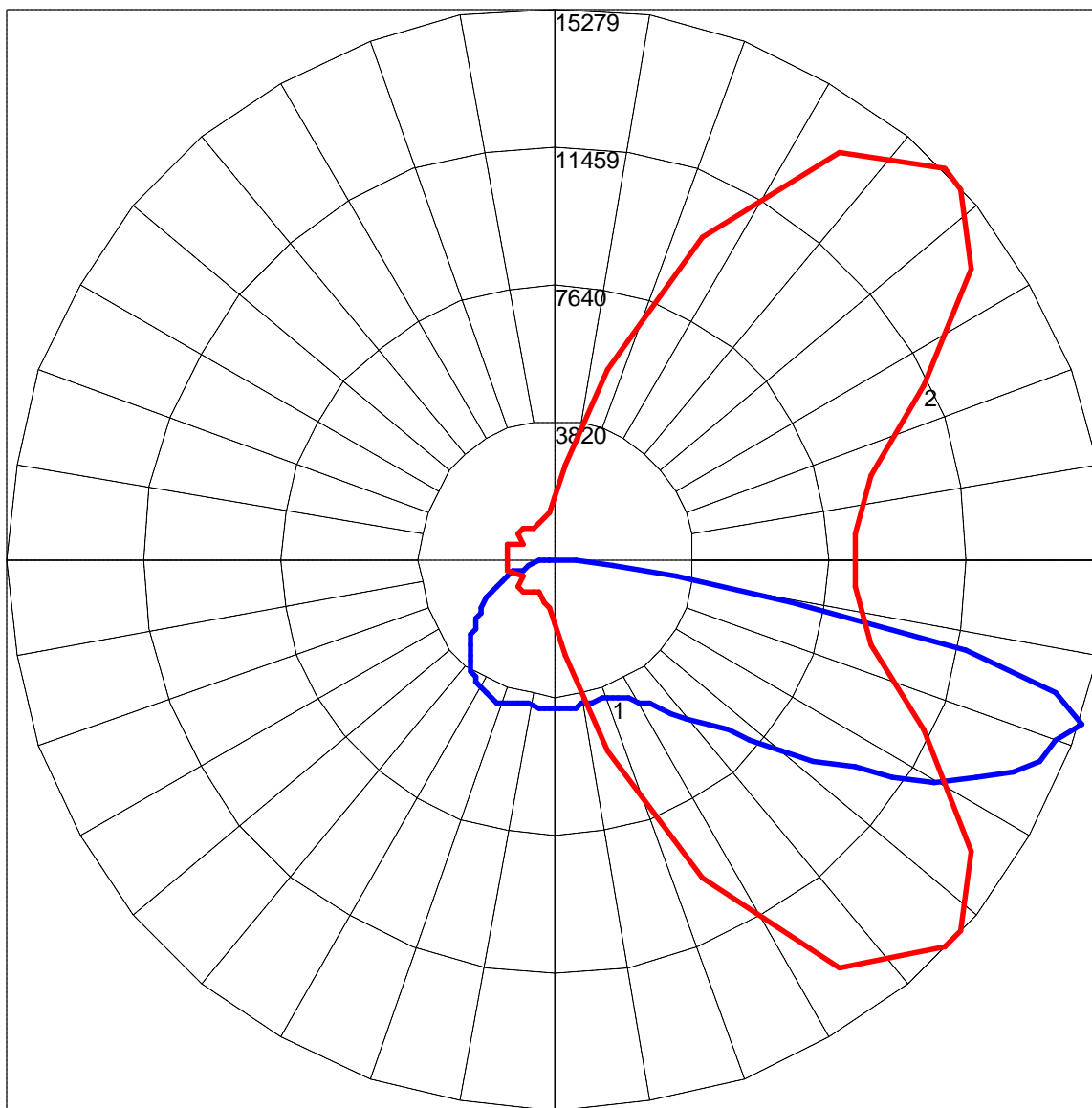
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

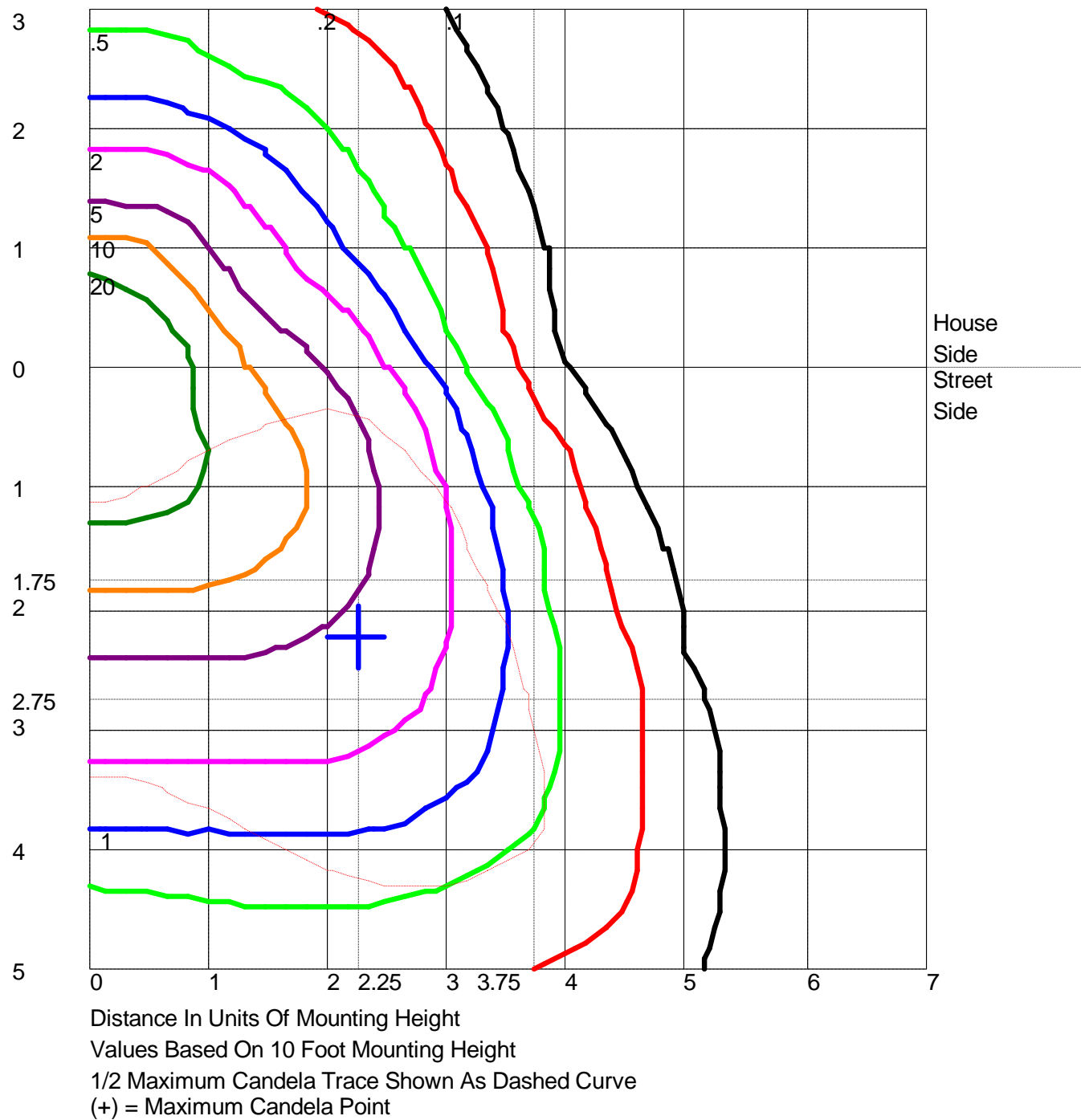
	Lumens	Percent Of Luminaire
Downward Street Side	19799.1	72.5
Downward House Side	7506.1	27.5
Downward Total	27305.2	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	27305.2	100.0

POLAR GRAPH



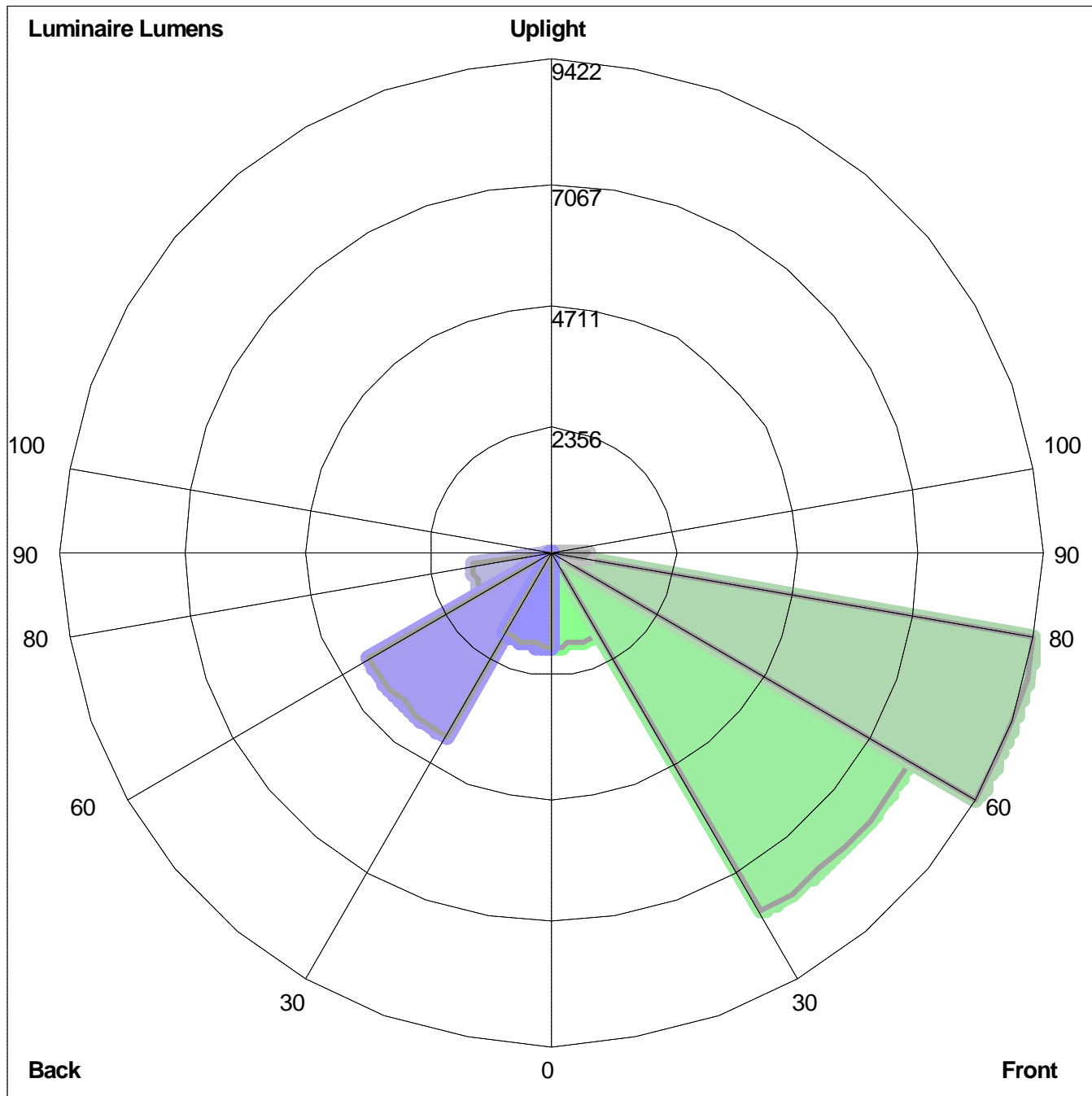
Maximum Candela = 15279 Located At Horizontal Angle = 45, Vertical Angle = 72.5  
# 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (72.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1789.5, Medium=7947.2, High=9422.1, Very High=640.3  
Back: Low=1800.1, Medium=4051.1, High=1535.4, Very High=119.5  
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G4