



IES ROAD REPORT

PHOTOMETRIC FILENAME : ALS HI 4 UV 850-EHS.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] Q2018032101 scaled from 112w
[TESTLAB] QSSI
[ISSUE DATE] 2018-3-21
[MANUFAC] LumenFocus, LLC
[LUMCAT] ALS HI 4 UV 850-EHS
[LUMINAIRE] ALS WITH ONE 37W LED ARRAY, HOUSE SIDE SHIELD
[LAMPCAT] SAMSUNG 351B-N WITH TYPE IV OPTICS
[LAMP] SAMSUNG 351B-N LEDs

CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3027
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	74
Total Luminaire Watts	40.7
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	2335.113
Maximum Candela Angle	350H 65V
Maximum Candela (<90 Degrees Vertical)	2335.113
Maximum Candela Angle (<90 Degrees Vertical)	350H 65V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	487.881 (16.1% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	235.2	N.A.	7.8
FM - Front-Medium (30-60)	1260.8	N.A.	41.7
FH - Front-High (60-80)	1206.4	N.A.	39.9
FVH - Front-Very High (80-90)	42.9	N.A.	1.4
BL - Back-Low (0-30)	125.3	N.A.	4.1
BM - Back-Medium (30-60)	132.1	N.A.	4.4
BH - Back-High (60-80)	22.3	N.A.	0.7
BVH - Back-Very High (80-90)	1.7	N.A.	0.1
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	3026.7	N.A.	100.0
BUG Rating	B1-U0-G1		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
0	410.345	410.345	410.345	410.345	410.345	410.345	410.345	410.345	410.345	410.345
5	437.629	436.619	436.366	435.103	432.830	429.548	424.750	421.467	414.901	418.765
10	467.427	466.416	468.689	467.174	464.901	459.093	453.285	442.174	432.073	427.275
15	508.336	509.346	512.881	517.679	518.942	511.619	503.033	481.821	458.588	437.199
20	587.124	589.649	593.690	597.730	594.952	582.073	557.831	535.104	502.528	460.836
25	678.034	675.003	680.054	679.801	659.599	630.559	608.589	579.548	541.164	498.336
30	802.529	796.974	793.691	791.923	723.994	683.589	637.629	600.508	552.276	503.790
35	1060.612	1032.581	990.157	945.459	852.530	781.317	685.357	607.579	558.336	505.306
40	1364.653	1366.926	1288.138	1155.814	1045.712	978.035	863.641	670.963	542.427	483.841
45	1498.240	1512.381	1514.654	1360.360	1257.582	1231.824	1133.339	841.671	564.397	448.740
50	1535.866	1517.432	1482.078	1422.987	1397.229	1423.745	1380.815	1091.672	706.064	426.265
55	1574.250	1573.240	1528.543	1470.967	1546.220	1614.655	1531.826	1264.653	855.307	510.104
60	1842.686	1812.131	1746.474	1657.332	1690.918	1765.666	1645.715	1314.148	934.096	549.750
65	2321.729	2301.022	2261.628	2049.505	1775.261	1806.827	1611.119	1225.006	886.116	509.093
70	1837.636	1843.444	1876.020	1992.182	1989.909	1731.070	1531.321	1097.480	501.088	283.082
75	486.821	498.513	804.549	993.945	1394.704	1295.461	885.863	471.416	137.274	55.631
80	192.425	184.572	212.678	285.734	418.841	467.023	215.228	56.213	26.263	16.692
85	37.450	39.116	44.243	47.526	65.152	58.510	27.298	20.253	13.990	9.293
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Angles	Horizontal Angles									
	<u>100</u>	<u>110</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>160</u>	<u>170</u>	<u>180</u>	<u>190</u>
0	410.345	410.345	410.345	410.345	410.345	410.345	410.345	410.345	410.345	410.345
5	412.628	407.578	402.527	397.982	388.133	377.275	373.487	370.204	366.416	367.679
10	413.891	398.992	376.769	359.598	350.002	343.183	335.608	331.315	328.032	329.042
15	411.618	375.254	350.254	333.335	314.143	301.769	294.446	289.901	288.133	287.628
20	413.638	351.264	316.416	285.860	269.951	259.345	248.991	246.971	246.466	246.971
25	429.548	335.103	277.527	244.193	217.173	214.648	214.900	209.092	209.597	210.860
30	415.659	318.184	240.153	196.971	175.506	167.425	171.718	165.152	165.910	166.920
35	382.830	282.577	204.294	155.556	133.082	131.314	130.809	130.304	133.082	129.799
40	358.840	245.203	163.132	119.874	93.334	77.526	69.420	64.546	60.480	63.510
45	317.678	210.860	129.799	78.031	57.980	41.945	25.808	22.475	24.596	24.495
50	286.618	162.375	87.097	46.869	27.046	15.177	8.914	6.919	5.606	6.364
55	272.476	137.122	52.399	21.389	10.177	4.470	2.273	2.752	2.980	2.879

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CANDELA TABULATION - (Cont.)

60	260.355	84.369	22.829	9.167	2.752	2.349	2.727	8.763	9.647	9.116
65	149.496	29.848	9.596	2.904	2.475	3.712	3.258	2.929	2.980	2.954
70	47.652	11.263	4.823	3.030	3.258	3.460	6.137	5.303	8.965	5.152
75	13.738	5.152	2.980	3.232	3.864	5.707	5.581	5.126	3.460	3.965
80	6.919	2.727	3.207	3.662	3.965	4.141	4.545	5.530	4.419	5.454
85	2.273	2.752	3.359	3.914	4.318	4.520	4.520	4.444	4.343	4.343
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Vert.
Angles**

Horizontal Angles

	<u>200</u>	<u>210</u>	<u>220</u>	<u>230</u>	<u>240</u>	<u>250</u>	<u>260</u>	<u>270</u>	<u>280</u>	<u>290</u>
0	410.345	410.345	410.345	410.345	410.345	410.345	410.345	410.345	410.345	410.345
5	371.972	377.780	384.345	388.386	392.679	397.982	402.275	416.694	420.962	425.255
10	333.588	337.123	342.173	350.759	358.840	382.830	398.487	419.725	430.305	441.164
15	291.921	297.476	302.527	320.961	333.082	350.759	383.841	416.038	439.396	462.376
20	249.496	255.304	264.395	274.496	296.466	319.951	357.325	417.830	460.608	501.770
25	213.890	221.718	218.435	225.759	249.749	289.143	338.133	425.356	493.437	540.407
30	172.476	176.769	172.728	181.819	205.304	247.223	318.688	424.421	502.275	564.902
35	129.546	131.566	130.304	141.415	163.637	215.658	295.961	410.078	510.861	573.235
40	68.106	76.364	87.147	101.011	129.799	173.991	264.648	391.012	493.942	581.821
45	22.298	34.142	49.950	68.435	91.617	138.890	218.183	344.295	464.901	588.387
50	8.182	13.914	18.636	35.859	58.889	99.849	181.314	310.178	444.699	733.842
55	2.727	2.248	6.869	13.738	32.096	67.248	152.021	295.607	532.579	883.085
60	5.202	2.450	1.970	4.899	11.566	32.424	108.334	280.784	603.286	988.136
65	2.752	4.444	2.626	2.096	5.126	12.323	47.475	172.930	569.700	989.904
70	4.849	4.091	2.853	3.914	2.702	5.859	14.041	58.283	361.138	852.277
75	13.182	4.975	4.621	3.384	3.030	2.374	7.525	15.859	64.218	295.380
80	4.899	4.621	4.394	3.586	3.157	2.551	2.349	8.106	18.990	38.611
85	4.343	4.242	4.091	3.712	3.232	2.576	2.147	2.778	10.303	18.005
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

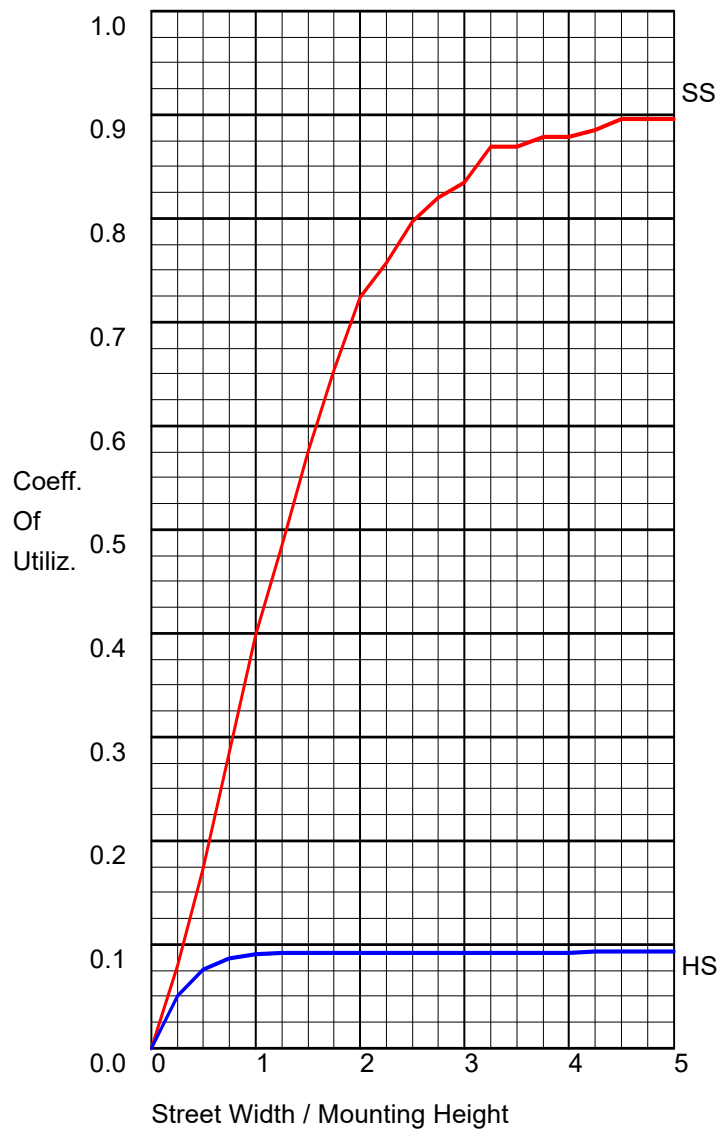
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Vert.
Angles**

Horizontal Angles

	<u>300</u>	<u>310</u>	<u>320</u>	<u>330</u>	<u>340</u>	<u>350</u>	<u>360</u>
0	410.345	410.345	410.345	410.345	410.345	410.345	410.345
5	430.305	433.335	435.356	435.861	438.891	439.144	437.629
10	451.012	460.356	465.154	466.416	469.952	468.942	467.427
15	485.608	500.002	505.558	510.356	513.891	508.841	508.336
20	533.084	557.579	581.569	587.882	594.195	587.882	587.124
25	580.558	607.579	634.347	662.882	679.801	677.024	678.034
30	611.872	651.266	685.610	740.408	780.307	788.135	802.529
35	623.993	689.145	769.953	851.267	913.641	993.945	1060.612
40	674.246	834.348	947.985	1011.874	1157.834	1279.299	1364.653
45	858.085	1088.137	1186.622	1218.693	1357.330	1463.139	1498.240
50	1106.319	1329.552	1364.906	1371.472	1418.441	1510.361	1535.866
55	1331.320	1563.392	1559.099	1487.381	1448.745	1517.179	1574.250
60	1413.391	1694.453	1754.807	1707.584	1649.503	1755.565	1842.686
65	1377.532	1737.635	1893.696	1808.090	2123.748	2335.113	2321.729
70	1371.724	1620.715	1808.847	2118.192	2131.829	2030.061	1837.636
75	485.533	1271.471	1556.068	1521.725	1120.965	830.055	486.821
80	114.824	394.724	472.856	487.881	323.588	217.248	192.425
85	25.404	47.879	123.359	81.414	55.859	45.606	37.450
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000

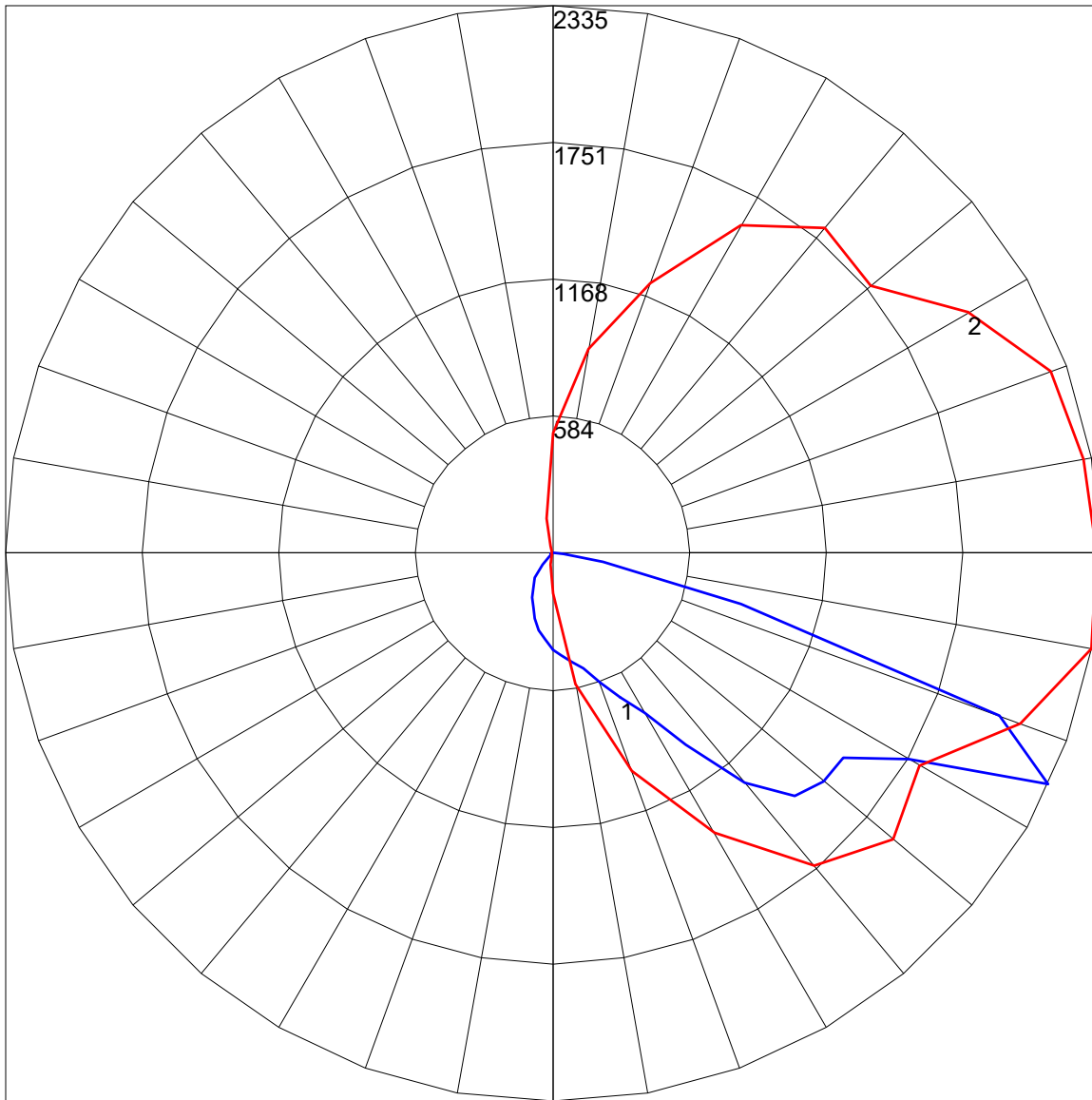
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

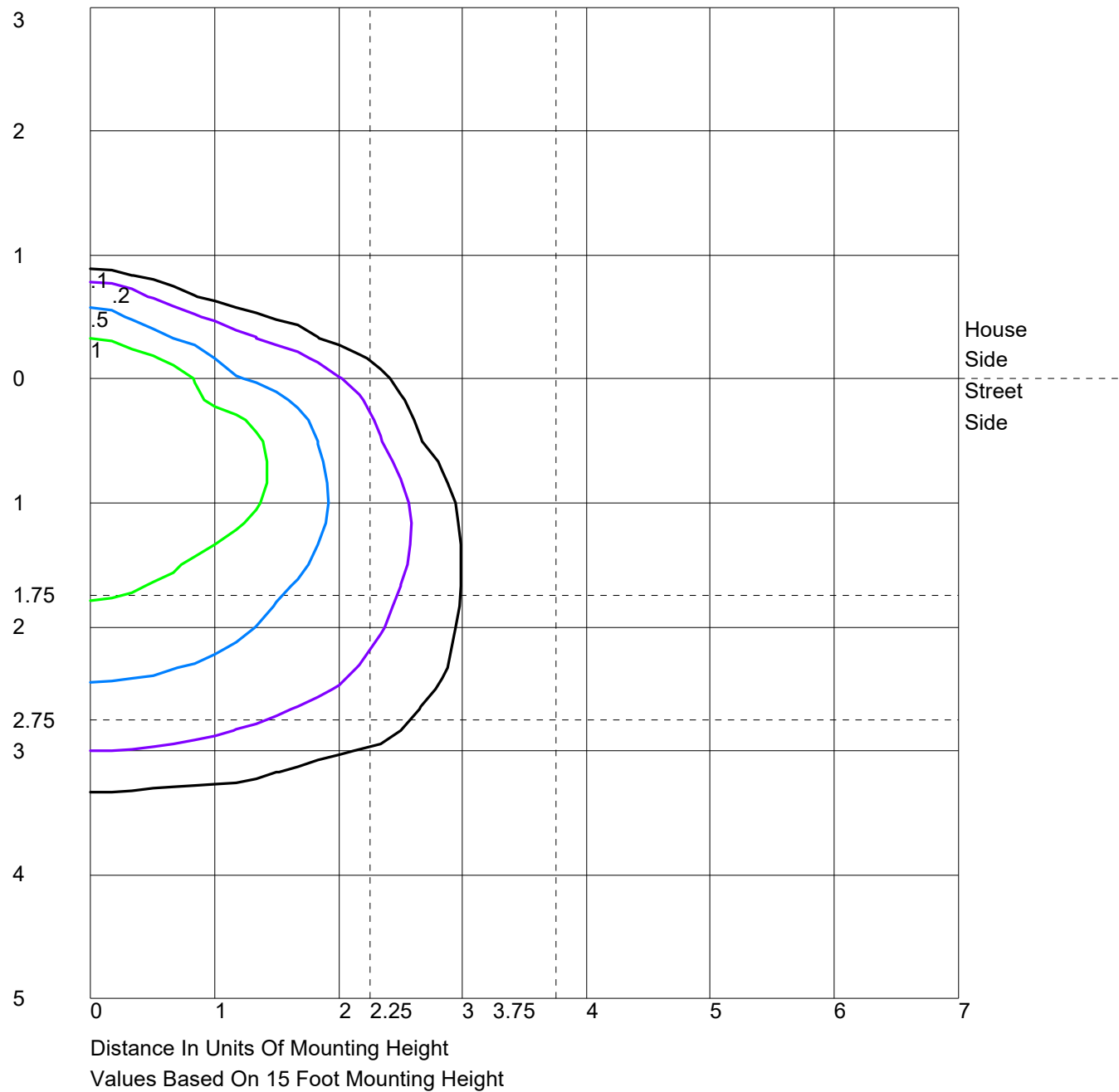
	Lumens	Percent Of Luminaire
Downward Street Side	2745.3	90.7
Downward House Side	281.4	9.3
Downward Total	3026.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	3026.7	100.0

POLAR GRAPH

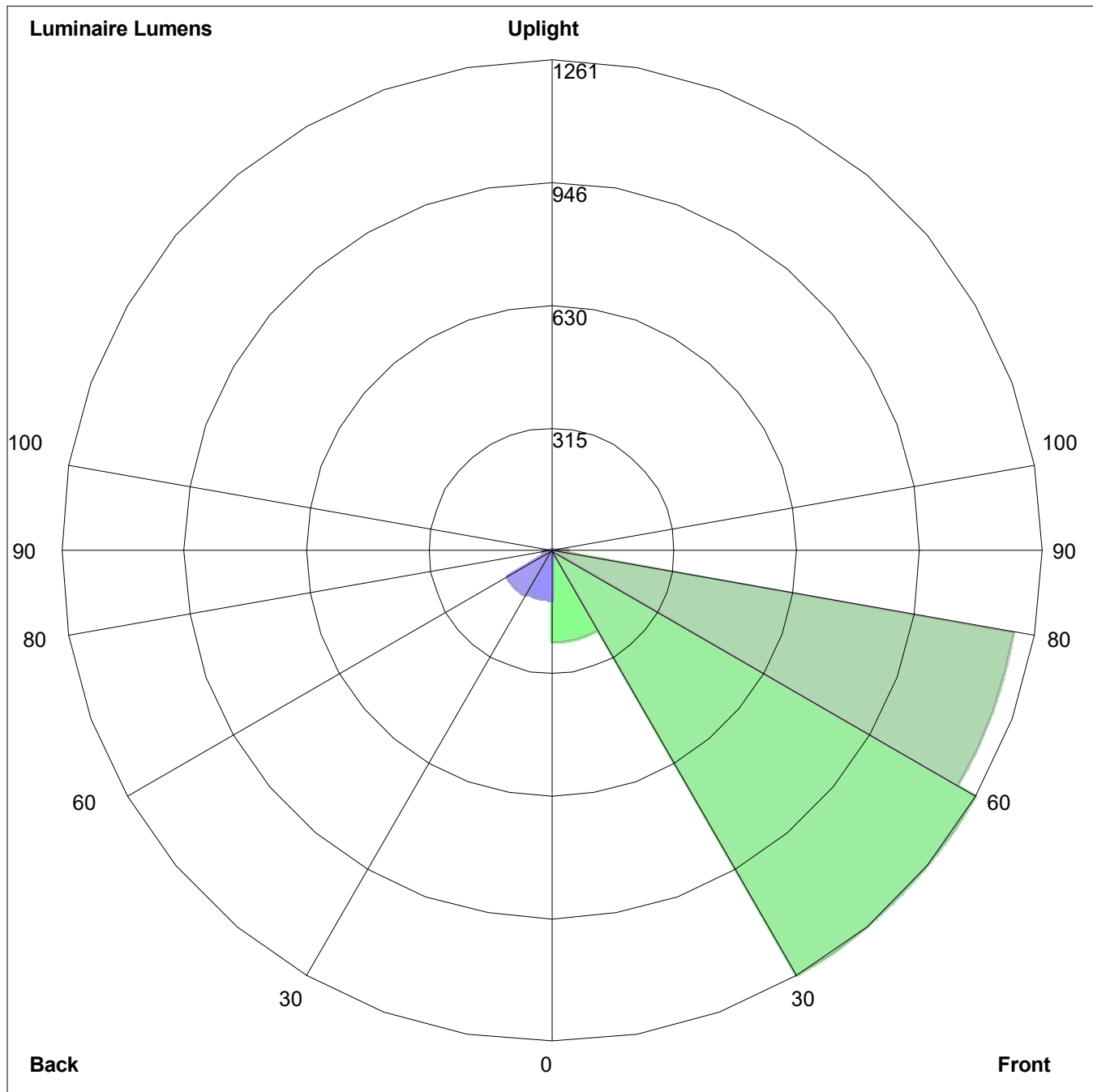


Maximum Candela = 2335.113 Located At Horizontal Angle = 350, Vertical Angle = 65
1 - Vertical Plane Through Horizontal Angles (350 - 170) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=235.2, Medium=1260.8, High=1206.4, Very High=42.9
Back: Low=125.3, Medium=132.1, High=22.3, Very High=1.7
Uplight: Low=0.0, High=0.0

BUG Rating : B1-U0-G1