



## IES ROAD REPORT

PHOTOMETRIC FILENAME : VA1-L160-740-T4-F-S-XXX-DIM-UNV\_.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] GEN FROM ATAL011762  
[TESTLAB] ATA-LABS  
[ISSUE DATE] 2023-01-18  
[MANUFAC] WILLIAMS OUTDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMCAT] VA1-L160-740-T4-F-S-xxx-DIM-UNV\_  
[LUMINAIRE] VA1 LED AREA LIGHT FIXTURE WITH TYPE IV  
[MORE] OPTICS AND CLEAR LENS  
[LAMP] LED  
[BALLASTCAT] X1-EUD-200S105DT  
[BALLAST] (1) INVENTRONICS ELECTRONIC DRIVER  
[ \_SEARCH\_ SOURCETYPE] LED  
[ \_SEARCH\_ APPLICATION] Outdoor, Architectural, Area, Parking, Site  
[ \_SEARCH\_ MOUNTING] Pole

### CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	16337
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	131
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	15182.936
Maximum Candela Angle	42.5H 72.5V
Maximum Candela (<90 Degrees Vertical)	15182.936
Maximum Candela Angle (<90 Degrees Vertical)	42.5H 72.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1117.717 (6.8% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

**IES ROAD REPORT****PHOTOMETRIC FILENAME : VA1-L160-740-T4-F-S-XXX-DIM-UNV\_.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1290.6	N.A.	7.9
FM - Front-Medium (30-60)	4997.6	N.A.	30.6
FH - Front-High (60-80)	5712.5	N.A.	35.0
FVH - Front-Very High (80-90)	102.7	N.A.	0.6
BL - Back-Low (0-30)	869.7	N.A.	5.3
BM - Back-Medium (30-60)	2063.2	N.A.	12.6
BH - Back-High (60-80)	1226.3	N.A.	7.5
BVH - Back-Very High (80-90)	74.6	N.A.	0.5
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	16337.2	N.A.	100.0
BUG Rating	B3-U0-G3		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<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	2637.745	2637.745	2637.745	2637.745	2637.745	2637.745	2637.745	2637.745	2637.745	2637.745
2.5	2859.966	2846.749	2830.227	2818.661	2805.444	2788.096	2770.747	2750.921	2718.703	2681.528
5.0	3094.580	3084.666	3064.840	3042.535	3002.882	2960.751	2935.142	2871.532	2793.878	2708.790
7.5	3245.756	3240.800	3226.756	3211.060	3168.103	3112.754	3084.666	2984.708	2866.575	2744.312
10.0	3292.018	3294.496	3281.279	3280.453	3254.843	3204.451	3178.842	3067.318	2939.272	2781.487
12.5	3293.670	3298.627	3286.235	3288.714	3281.279	3231.712	3209.408	3116.884	2997.099	2819.487
15.0	3284.583	3288.714	3273.844	3272.192	3272.192	3231.712	3215.190	3145.798	3048.318	2865.749
17.5	3256.496	3261.452	3256.496	3254.843	3248.235	3216.017	3207.756	3180.494	3096.232	2908.706
20.0	3187.103	3192.886	3211.060	3220.973	3221.799	3198.668	3197.016	3206.929	3102.841	2935.968
22.5	3098.710	3104.493	3170.581	3179.668	3177.190	3173.885	3177.190	3170.581	3110.275	2973.969
25.0	3029.317	3040.883	3152.407	3119.363	3123.493	3151.581	3163.972	3153.233	3131.754	3018.578
27.5	2993.795	3024.361	3101.188	3084.666	3097.884	3146.624	3168.103	3172.233	3162.320	3079.710
30.0	3016.100	3040.883	3053.274	3079.710	3122.667	3170.581	3192.886	3225.930	3224.278	3158.189
32.5	3078.057	3064.840	3065.666	3132.580	3192.060	3231.712	3254.843	3310.192	3308.540	3254.017
35.0	3148.276	3119.363	3129.276	3240.800	3296.975	3333.323	3352.323	3415.107	3408.498	3364.715
37.5	3276.322	3251.539	3281.279	3387.020	3440.716	3463.847	3469.630	3514.240	3515.892	3487.804
40.0	3477.065	3456.412	3471.282	3575.371	3640.633	3623.285	3626.589	3603.459	3624.111	3624.937
42.5	3706.721	3683.590	3706.721	3788.505	3863.681	3819.071	3802.549	3708.374	3744.722	3781.897
45.0	3965.291	3950.422	3972.726	4056.989	4140.425	4053.684	4014.031	3911.595	3911.595	3964.465
47.5	4260.210	4230.470	4269.297	4389.908	4394.039	4340.342	4297.385	4176.774	4132.990	4182.556
50.0	4588.173	4546.867	4579.085	4732.741	4679.870	4652.609	4621.217	4532.824	4437.822	4442.779
52.5	5024.355	5005.354	4931.005	5054.920	5017.746	5018.572	5011.963	5015.268	4802.959	4746.784
55.0	5665.410	5643.931	5451.450	5429.145	5396.101	5466.319	5517.538	5545.625	5215.184	5109.443
57.5	6653.429	6602.210	6260.204	5948.763	5803.369	6039.634	6181.724	6054.504	5645.584	5432.449
60.0	7058.219	7045.827	7078.045	6659.211	6327.944	6769.909	7021.044	6613.776	6009.895	5647.236
62.5	7341.572	7399.399	7660.447	7557.185	7013.609	7763.710	8180.066	7192.047	6204.029	5682.758
65.0	7856.234	7981.801	8626.987	8573.290	8149.500	9482.829	9976.012	7919.017	5927.285	5442.362
67.5	7666.230	7863.669	9316.783	10066.884	9660.441	12047.877	12460.928	8305.633	5206.923	4928.527
70.0	6245.334	6382.467	8569.160	11240.775	11224.253	14659.187	14636.056	7387.834	4042.945	3791.810
72.5	4025.597	4262.688	6536.948	10056.144	11263.906	15182.936	14569.142	4564.216	2572.483	1765.381
75.0	1591.899	1672.857	2904.576	5933.067	8483.245	11211.035	8731.076	1859.556	1477.897	811.233
77.5	987.192	959.931	878.973	1705.901	3173.059	3022.709	1649.726	755.058	807.102	523.749
80.0	651.795	741.840	514.662	817.841	1117.717	824.450	612.968	426.269	464.270	342.006
82.5	346.963	407.268	322.180	422.964	465.096	344.485	326.310	241.222	240.396	194.960
85.0	150.351	191.656	140.437	161.916	183.395	133.002	140.437	110.698	104.089	85.915
87.5	46.262	60.305	31.392	32.218	38.001	28.087	26.435	28.087	22.305	22.305
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<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	2637.745	2637.745	2637.745	2637.745	2637.745	2637.745	2637.745	2637.745	2637.745	2637.745
2.5	2641.049	2625.353	2608.005	2571.657	2539.439	2501.438	2475.829	2454.350	2442.785	2431.219
5.0	2619.571	2582.396	2541.917	2460.133	2389.088	2324.652	2278.390	2247.825	2228.824	2216.433
7.5	2611.310	2551.004	2491.525	2368.436	2270.129	2199.085	2158.606	2142.083	2128.866	2124.735
10.0	2604.701	2521.264	2441.133	2284.173	2178.432	2118.126	2096.648	2099.952	2113.996	2132.996
12.5	2602.222	2494.829	2392.392	2205.693	2102.431	2065.256	2075.169	2109.039	2161.084	2213.128
15.0	2609.657	2474.177	2347.783	2132.996	2038.821	2030.560	2067.734	2132.996	2223.041	2301.521
17.5	2615.440	2458.481	2306.478	2068.560	1986.776	2000.820	2047.908	2133.822	2213.128	2278.390
20.0	2623.701	2446.089	2270.955	2012.385	1943.819	1968.602	2017.342	2066.908	2133.822	2204.867
22.5	2636.093	2433.698	2232.955	1960.341	1906.644	1940.514	1952.906	1980.993	2039.647	2106.561
25.0	2659.224	2430.393	2201.563	1916.558	1876.905	1901.688	1873.600	1895.905	1932.253	1995.863
27.5	2693.094	2436.176	2181.736	1884.340	1853.774	1844.687	1802.555	1812.469	1842.208	1904.166

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**CANDELA TABULATION - (Cont.)**

30.0	2746.790	2458.481	2172.649	1858.730	1836.426	1786.033	1742.250	1742.250	1756.294	1818.251
32.5	2816.183	2491.525	2174.301	1843.034	1823.208	1738.946	1686.901	1670.379	1690.205	1775.294
35.0	2910.359	2539.439	2187.519	1837.252	1805.860	1699.293	1635.683	1606.769	1664.596	1752.163
37.5	3022.709	2605.527	2215.607	1844.687	1773.642	1661.292	1573.725	1576.203	1643.944	1742.250
40.0	3161.494	2706.311	2268.477	1868.644	1740.598	1627.422	1525.811	1557.203	1624.117	1741.424
42.5	3341.584	2844.270	2348.609	1895.905	1714.162	1600.160	1503.506	1533.246	1605.117	1733.989
45.0	3562.153	3028.491	2464.263	1905.818	1707.554	1571.247	1495.245	1507.637	1585.290	1719.945
47.5	3814.115	3254.017	2619.571	1913.253	1705.075	1545.638	1477.071	1479.549	1559.681	1627.422
50.0	4108.207	3512.587	2792.226	1940.514	1703.423	1521.681	1447.331	1448.984	1457.245	1591.899
52.5	4431.213	3782.723	2977.273	2009.081	1705.901	1510.941	1419.244	1411.809	1388.678	1564.638
55.0	4819.481	4242.036	3308.540	2066.908	1710.032	1528.289	1420.070	1357.286	1362.243	1519.202
57.5	5450.623	4913.657	3619.155	2118.953	1762.902	1591.073	1481.202	1377.113	1388.678	1485.332
60.0	6064.418	5221.793	3869.464	2240.390	1823.208	1619.987	1531.594	1431.635	1481.202	1505.985
62.5	6027.243	5239.967	4140.425	2310.608	1808.338	1589.421	1487.810	1386.200	1546.464	1475.419
65.0	5595.191	5042.529	3930.595	2154.475	1779.425	1578.682	1415.939	1248.241	1430.809	1358.938
67.5	4156.947	3634.024	2585.700	1572.073	1583.638	1541.507	1352.330	1119.369	1268.893	1277.980
70.0	2061.125	1619.987	1130.108	874.016	1118.543	1390.330	1308.546	1005.367	1111.934	1157.369
72.5	867.407	711.274	598.098	560.924	663.360	1088.803	1239.154	872.364	926.887	1024.367
75.0	535.314	470.878	412.225	406.442	441.139	708.796	1065.672	752.579	741.014	842.624
77.5	363.485	318.049	282.527	285.831	313.093	444.443	802.972	644.360	582.402	623.707
80.0	238.744	206.526	183.395	193.308	213.961	277.570	508.879	464.270	443.617	463.443
82.5	137.133	115.654	103.263	115.654	130.524	162.742	277.570	321.354	324.658	346.963
85.0	61.958	51.218	44.610	52.871	61.958	76.001	128.046	152.003	147.046	141.264
87.5	16.522	14.044	13.218	15.696	18.174	22.305	38.001	38.001	33.870	22.305
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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

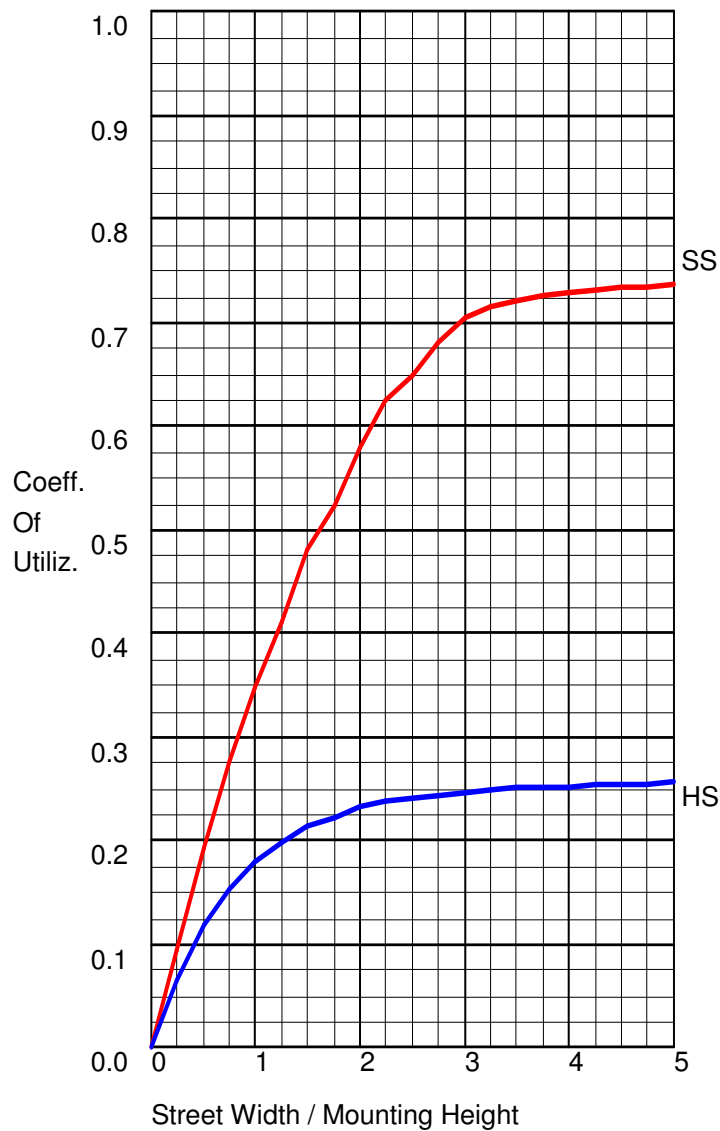
	<b>175.0</b>	<b>180.0</b>
0.0	2637.745	2637.745
2.5	2413.871	2425.437
5.0	2203.215	2206.519
7.5	2119.779	2118.126
10.0	2144.562	2139.605
12.5	2246.172	2242.042
15.0	2340.348	2343.652
17.5	2313.087	2315.565
20.0	2245.346	2243.694
22.5	2145.388	2152.823
25.0	2046.256	2056.995
27.5	1947.123	1958.689
30.0	1873.600	1886.818
32.5	1840.556	1853.774
35.0	1821.556	1833.121
37.5	1826.512	1835.599
40.0	1836.426	1844.687
42.5	1824.034	1832.295
45.0	1769.511	1776.120
47.5	1726.554	1735.641
50.0	1736.467	1743.076
52.5	1727.380	1734.815
55.0	1683.597	1697.640
57.5	1640.639	1653.857
60.0	1587.769	1598.508
62.5	1491.115	1506.811
65.0	1372.982	1406.026

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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	1247.415	1292.024
<b>70.0</b>	1114.412	1172.239
<b>72.5</b>	988.845	1039.237
<b>75.0</b>	825.276	863.277
<b>77.5</b>	674.100	726.144
<b>80.0</b>	607.185	646.012
<b>82.5</b>	351.094	356.050
<b>85.0</b>	102.437	92.523
<b>87.5</b>	9.087	4.957
<b>90.0</b>	0.000	0.000

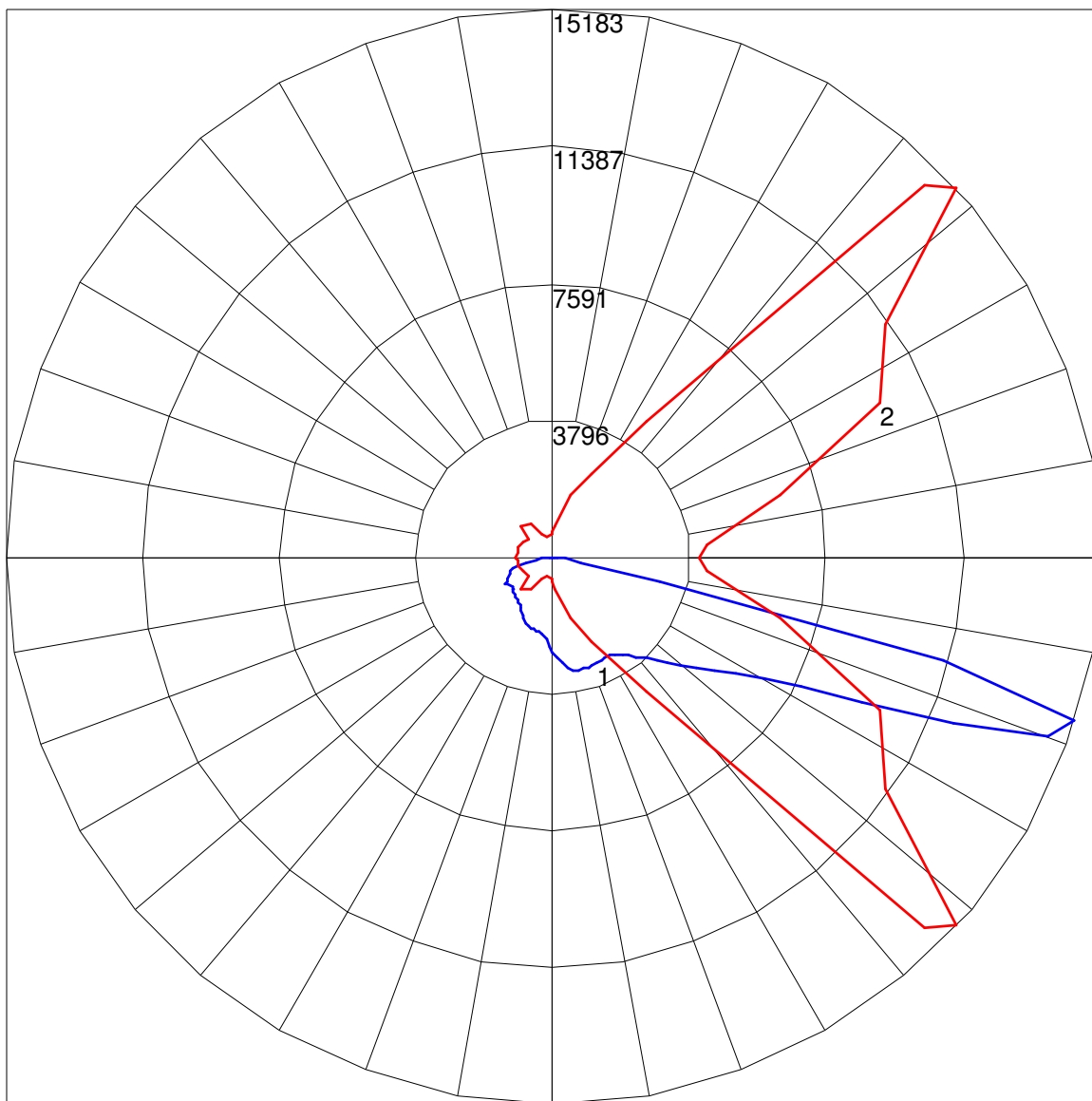
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

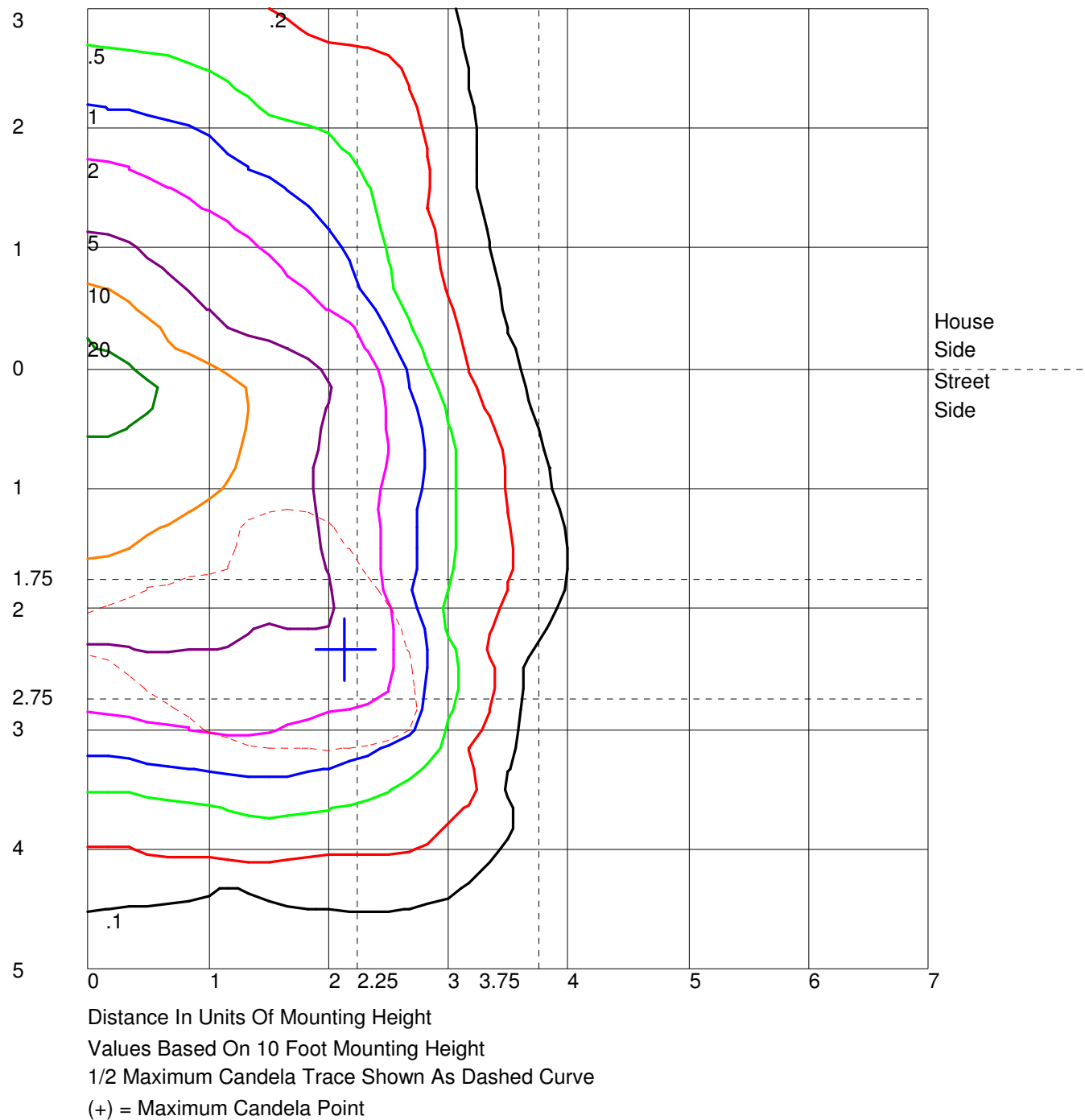
	Lumens	Percent Of Luminaire
Downward Street Side	12103.4	74.1
Downward House Side	4233.7	25.9
Downward Total	16337.1	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	16337.1	100.0

POLAR GRAPH



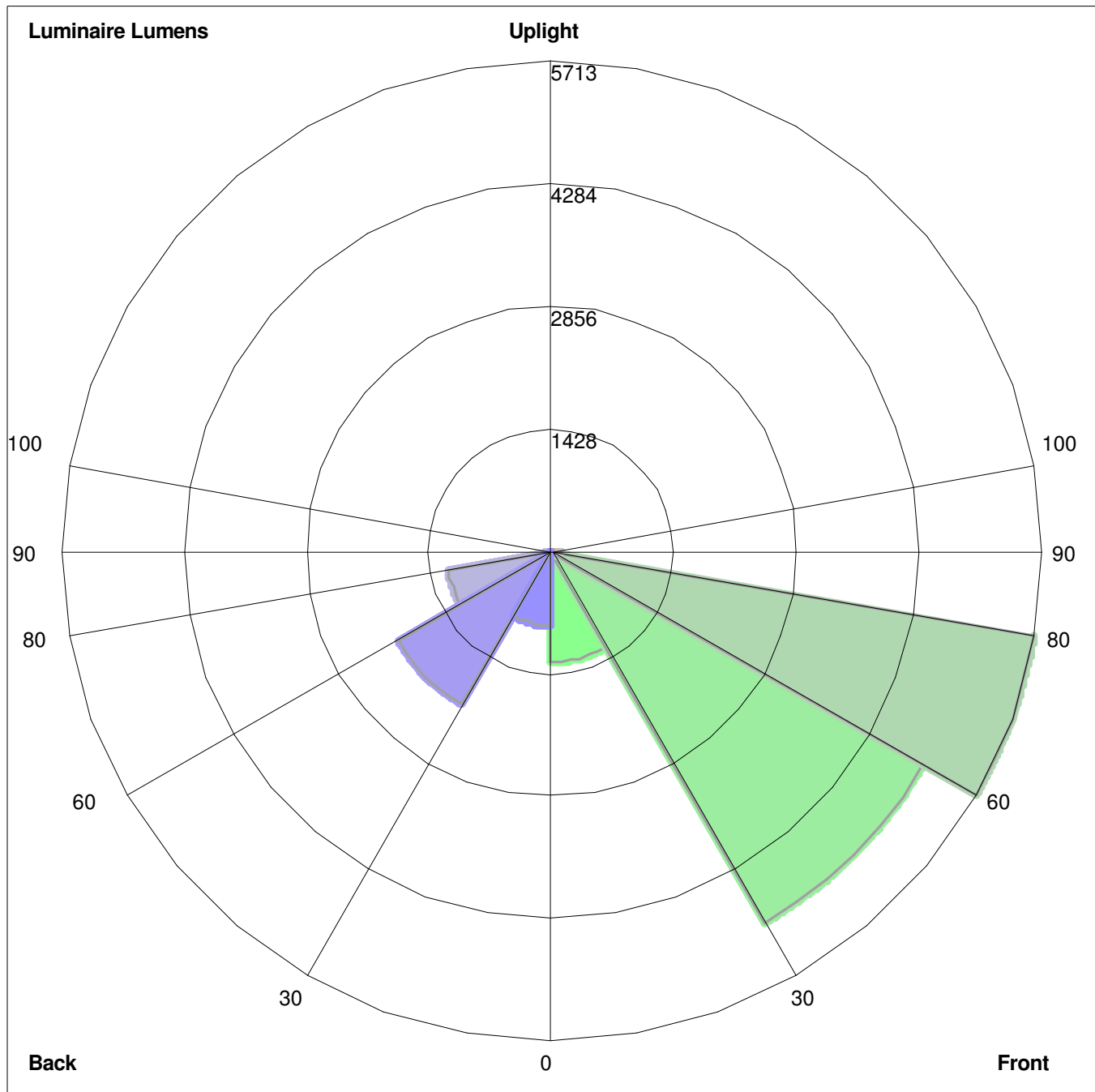
Maximum Candela = 15182.936 Located At Horizontal Angle = 42.5, Vertical Angle = 72.5  
# 1 - Vertical Plane Through Horizontal Angles (42.5 - 222.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (72.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1290.6, Medium=4997.6, High=5712.5, Very High=102.7  
Back: Low=869.7, Medium=2063.2, High=1226.3, Very High=74.6  
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3