



## IES ROAD REPORT

PHOTOMETRIC FILENAME : VA1-L220-730-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-L220-730-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	20058
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	182
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	18641.287
Maximum Candela Angle	42.5H 72.5V
Maximum Candela (<90 Degrees Vertical)	18641.287
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	1372.309 (6.8% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

**IES ROAD REPORT****PHOTOMETRIC FILENAME : VA1-L220-730-T4-F-S-XXX-DIM-UNV\_.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1584.6	N.A.	7.9
FM - Front-Medium (30-60)	6135.9	N.A.	30.6
FH - Front-High (60-80)	7013.7	N.A.	35.0
FVH - Front-Very High (80-90)	126.1	N.A.	0.6
BL - Back-Low (0-30)	1067.8	N.A.	5.3
BM - Back-Medium (30-60)	2533.2	N.A.	12.6
BH - Back-High (60-80)	1505.6	N.A.	7.5
BVH - Back-Very High (80-90)	91.6	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	20058.5	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	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567
2.5	3511.406	3495.178	3474.893	3460.693	3444.464	3423.165	3401.865	3377.522	3337.966	3292.324	
5.0	3799.459	3787.288	3762.945	3735.560	3686.875	3635.147	3603.705	3525.606	3430.265	3325.795	
7.5	3985.071	3978.985	3961.743	3942.471	3889.729	3821.773	3787.288	3664.561	3519.520	3369.408	
10.0	4041.870	4044.913	4028.684	4027.670	3996.228	3934.357	3902.915	3765.988	3608.776	3415.051	
12.5	4043.899	4049.984	4034.770	4037.813	4028.684	3967.828	3940.443	3826.845	3679.775	3461.707	
15.0	4032.742	4037.813	4019.556	4017.528	4017.528	3967.828	3947.543	3862.344	3742.660	3518.506	
17.5	3998.256	4004.342	3998.256	3996.228	3988.114	3948.557	3938.414	3904.943	3801.488	3571.248	
20.0	3913.058	3920.157	3942.471	3954.643	3955.657	3927.257	3925.229	3937.400	3809.602	3604.719	
22.5	3804.531	3811.630	3892.772	3903.929	3900.886	3896.829	3900.886	3892.772	3818.730	3651.376	
25.0	3719.332	3733.532	3870.458	3829.887	3834.959	3869.444	3884.658	3871.472	3845.101	3706.146	
27.5	3675.718	3713.246	3807.573	3787.288	3803.516	3863.358	3889.729	3894.801	3882.629	3781.202	
30.0	3703.103	3733.532	3748.746	3781.202	3833.944	3892.772	3920.157	3960.728	3958.700	3877.558	
32.5	3779.174	3762.945	3763.960	3846.116	3919.143	3967.828	3996.228	4064.184	4062.155	3995.214	
35.0	3865.387	3829.887	3842.059	3978.985	4047.956	4092.584	4115.912	4192.996	4184.882	4131.126	
37.5	4022.599	3992.171	4028.684	4158.511	4224.439	4252.838	4259.938	4314.709	4316.737	4282.252	
40.0	4269.067	4243.710	4261.967	4389.765	4469.892	4448.593	4452.650	4424.250	4449.607	4450.621	
42.5	4551.034	4522.634	4551.034	4651.447	4743.746	4688.975	4668.690	4553.063	4597.691	4643.333	
45.0	4868.501	4850.244	4877.629	4981.085	5083.526	4977.028	4928.343	4802.573	4802.573	4867.487	
47.5	5230.596	5194.082	5241.753	5389.836	5394.908	5328.980	5276.238	5128.154	5074.398	5135.254	
50.0	5633.261	5582.548	5622.104	5810.759	5745.845	5712.374	5673.832	5565.305	5448.664	5454.750	
52.5	6168.796	6145.468	6054.184	6206.324	6160.682	6161.696	6153.582	6157.639	5896.972	5828.001	
55.0	6955.871	6929.500	6693.174	6665.789	6625.218	6711.431	6774.316	6808.801	6403.093	6273.266	
57.5	8168.939	8106.054	7686.146	7303.766	7125.254	7415.335	7589.790	7433.592	6931.528	6669.846	
60.0	8665.932	8650.718	8690.274	8176.039	7769.316	8311.951	8620.289	8120.254	7378.822	6933.557	
62.5	9013.827	9084.826	9405.335	9278.551	8611.161	9532.119	10043.312	8830.244	7617.175	6977.170	
65.0	9645.717	9799.887	10592.032	10526.105	10005.784	11642.817	12248.337	9722.802	7277.395	6682.017	
67.5	9412.435	9654.846	11438.949	12359.907	11860.885	14792.129	15299.264	10197.481	6392.950	6051.141	
70.0	7667.889	7836.258	10521.033	13801.186	13780.900	17998.239	17969.840	9070.626	4963.842	4655.504	
72.5	4942.543	5233.638	8025.927	12346.721	13829.585	18641.287	17887.684	5603.847	3158.440	2167.497	
75.0	1954.500	2053.899	3566.177	7284.494	10415.549	13764.672	10719.830	2283.124	1814.531	996.014	
77.5	1212.054	1178.583	1079.184	2094.470	3895.815	3711.218	2025.499	927.044	990.943	643.048	
80.0	800.260	910.815	631.891	1004.128	1372.309	1012.242	752.589	523.364	570.020	419.908	
82.5	425.994	500.036	395.566	519.307	571.035	422.951	400.637	296.167	295.153	239.368	
85.0	184.597	235.311	172.426	198.797	225.168	163.298	172.426	135.912	127.798	105.484	
87.5	56.799	74.042	38.542	39.557	46.656	34.485	32.457	34.485	27.385	27.385	
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	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567	3238.567
2.5	3242.624	3223.353	3202.054	3157.426	3117.869	3071.213	3039.770	3013.399	2999.199	2985.000	
5.0	3216.253	3170.611	3120.912	3020.499	2933.272	2854.159	2797.359	2759.831	2736.503	2721.289	
7.5	3206.111	3132.069	3059.041	2907.915	2787.217	2699.989	2650.290	2630.005	2613.776	2608.705	
10.0	3197.997	3095.555	2997.171	2804.459	2674.633	2600.591	2574.220	2578.277	2595.520	2618.848	
12.5	3194.954	3063.098	2937.329	2708.104	2581.320	2535.678	2547.849	2589.434	2653.333	2717.232	
15.0	3204.082	3037.742	2882.558	2618.848	2503.221	2493.078	2538.720	2618.848	2729.403	2825.759	
17.5	3211.182	3018.471	2831.845	2539.735	2439.322	2456.564	2514.378	2619.862	2717.232	2797.359	
20.0	3221.325	3003.256	2788.231	2470.764	2386.580	2417.008	2476.850	2537.706	2619.862	2707.089	
22.5	3236.539	2988.042	2741.575	2406.865	2340.938	2382.523	2397.737	2432.222	2504.235	2586.391	
25.0	3264.938	2983.985	2703.032	2353.109	2304.424	2334.852	2300.367	2327.752	2372.380	2450.479	
27.5	3306.524	2991.085	2678.690	2313.552	2276.024	2264.867	2213.139	2225.311	2261.824	2337.895	

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

30.0	3372.451	3018.471	2667.533	2282.110	2254.724	2192.854	2139.098	2139.098	2156.340	2232.411
32.5	3457.650	3059.041	2669.561	2262.839	2238.496	2135.040	2071.141	2050.856	2075.199	2179.668
35.0	3573.277	3117.869	2685.790	2255.739	2217.196	2086.355	2008.257	1972.757	2043.756	2151.269
37.5	3711.218	3199.011	2720.275	2264.867	2177.640	2039.699	1932.186	1935.229	2018.399	2139.098
40.0	3881.615	3322.752	2785.188	2294.281	2137.069	1998.114	1873.359	1911.901	1994.057	2138.083
42.5	4102.726	3492.135	2883.573	2327.752	2104.612	1964.643	1845.973	1882.487	1970.729	2128.955
45.0	4373.537	3718.318	3025.570	2339.923	2096.498	1929.143	1835.831	1851.045	1946.386	2111.712
47.5	4682.889	3995.214	3216.253	2349.052	2093.455	1897.701	1813.517	1816.559	1914.944	1998.114
50.0	5043.970	4312.680	3428.236	2382.523	2091.427	1868.287	1777.003	1779.031	1789.174	1954.500
52.5	5440.550	4644.347	3655.433	2466.707	2094.470	1855.102	1742.518	1733.389	1704.990	1921.029
55.0	5917.257	5208.282	4062.155	2537.706	2099.541	1876.401	1743.532	1666.447	1672.533	1865.244
57.5	6692.160	6032.884	4443.521	2601.605	2164.454	1953.486	1818.588	1690.790	1704.990	1823.659
60.0	7445.764	6411.207	4750.845	2750.703	2238.496	1988.985	1880.458	1757.732	1818.588	1849.016
62.5	7400.121	6433.521	5083.526	2836.916	2220.239	1951.457	1826.702	1701.947	1898.715	1811.488
65.0	6869.658	6191.110	4825.902	2645.219	2184.740	1938.272	1738.461	1532.564	1756.717	1668.476
67.5	5103.812	4461.778	3174.668	1930.158	1944.358	1892.630	1660.362	1374.337	1557.920	1569.077
70.0	2530.606	1988.985	1387.523	1073.099	1373.323	1707.018	1606.605	1234.368	1365.209	1420.994
72.5	1064.985	873.287	734.332	688.690	814.460	1336.809	1521.407	1071.070	1138.012	1257.696
75.0	657.248	578.134	506.121	499.021	541.621	870.245	1308.410	924.001	909.801	1034.556
77.5	446.279	390.494	346.881	350.938	384.409	545.678	985.871	791.131	715.061	765.775
80.0	293.124	253.568	225.168	237.339	262.696	340.795	624.791	570.020	544.664	569.006
82.5	168.369	141.998	126.784	141.998	160.255	199.811	340.795	394.551	398.609	425.994
85.0	76.070	62.885	54.771	64.913	76.070	93.313	157.212	186.626	180.540	173.440
87.5	20.285	17.243	16.228	19.271	22.314	27.385	46.656	46.656	41.585	27.385
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

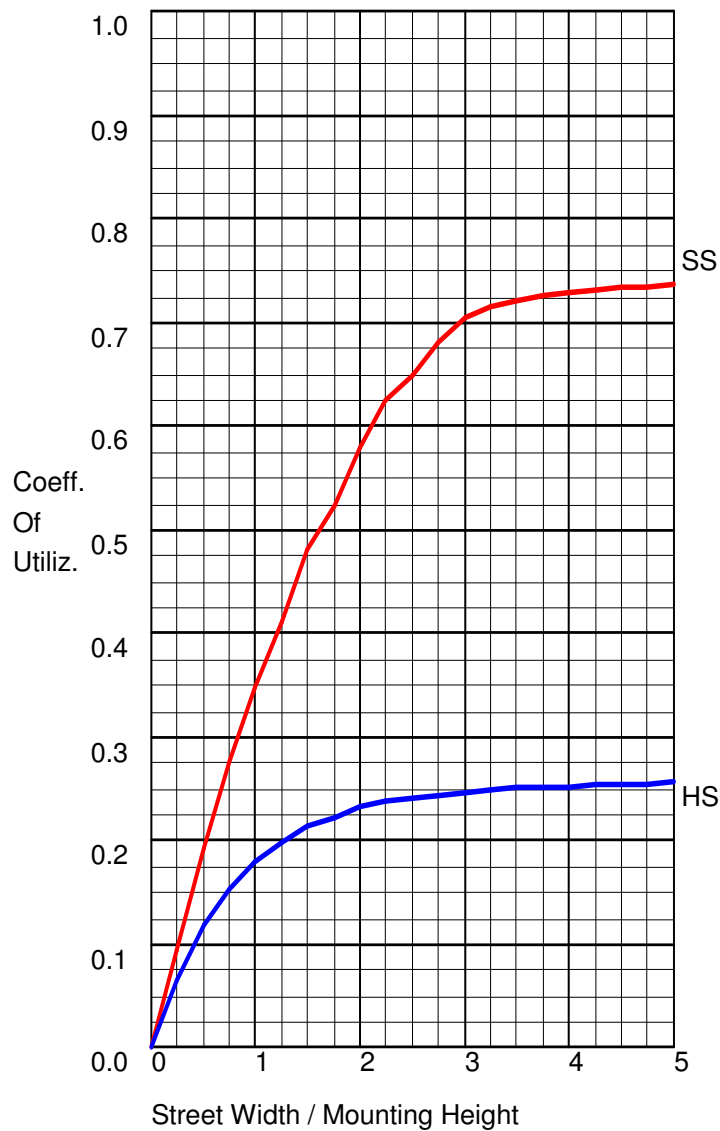
**Vert. Angles**      **Horizontal Angles**

	<u>175.0</u>	<u>180.0</u>
0.0	3238.567	3238.567
2.5	2963.700	2977.900
5.0	2705.061	2709.118
7.5	2602.619	2600.591
10.0	2633.048	2626.962
12.5	2757.803	2752.732
15.0	2873.430	2877.487
17.5	2839.959	2843.002
20.0	2756.789	2754.760
22.5	2634.062	2643.190
25.0	2512.349	2525.535
27.5	2390.637	2404.837
30.0	2300.367	2316.595
32.5	2259.796	2276.024
35.0	2236.468	2250.667
37.5	2242.553	2253.710
40.0	2254.724	2264.867
42.5	2239.510	2249.653
45.0	2172.569	2180.683
47.5	2119.826	2130.983
50.0	2131.998	2140.112
52.5	2120.841	2129.969
55.0	2067.084	2084.327
57.5	2014.342	2030.571
60.0	1949.429	1962.614
62.5	1830.759	1850.030
65.0	1685.718	1726.289

**IES ROAD REPORT****PHOTOMETRIC FILENAME : VA1-L220-730-T4-F-S-XXX-DIM-UNV\_.IES****CANDELA TABULATION - (Cont.)**

<b>67.5</b>	1531.549	1586.320
<b>70.0</b>	1368.252	1439.251
<b>72.5</b>	1214.082	1275.953
<b>75.0</b>	1013.257	1059.913
<b>77.5</b>	827.645	891.544
<b>80.0</b>	745.489	793.160
<b>82.5</b>	431.065	437.151
<b>85.0</b>	125.770	113.598
<b>87.5</b>	11.157	6.086
<b>90.0</b>	0.000	0.000

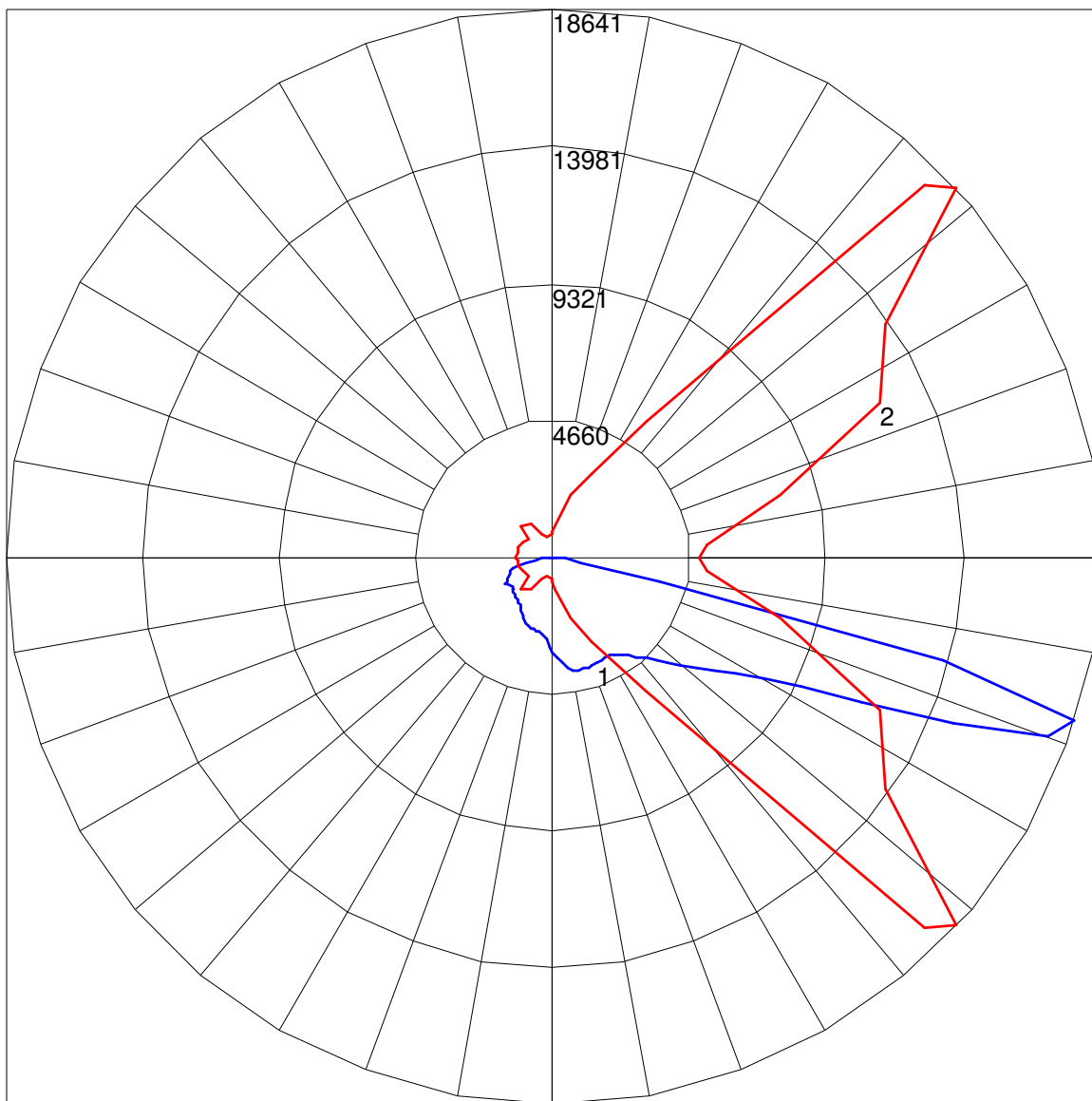
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

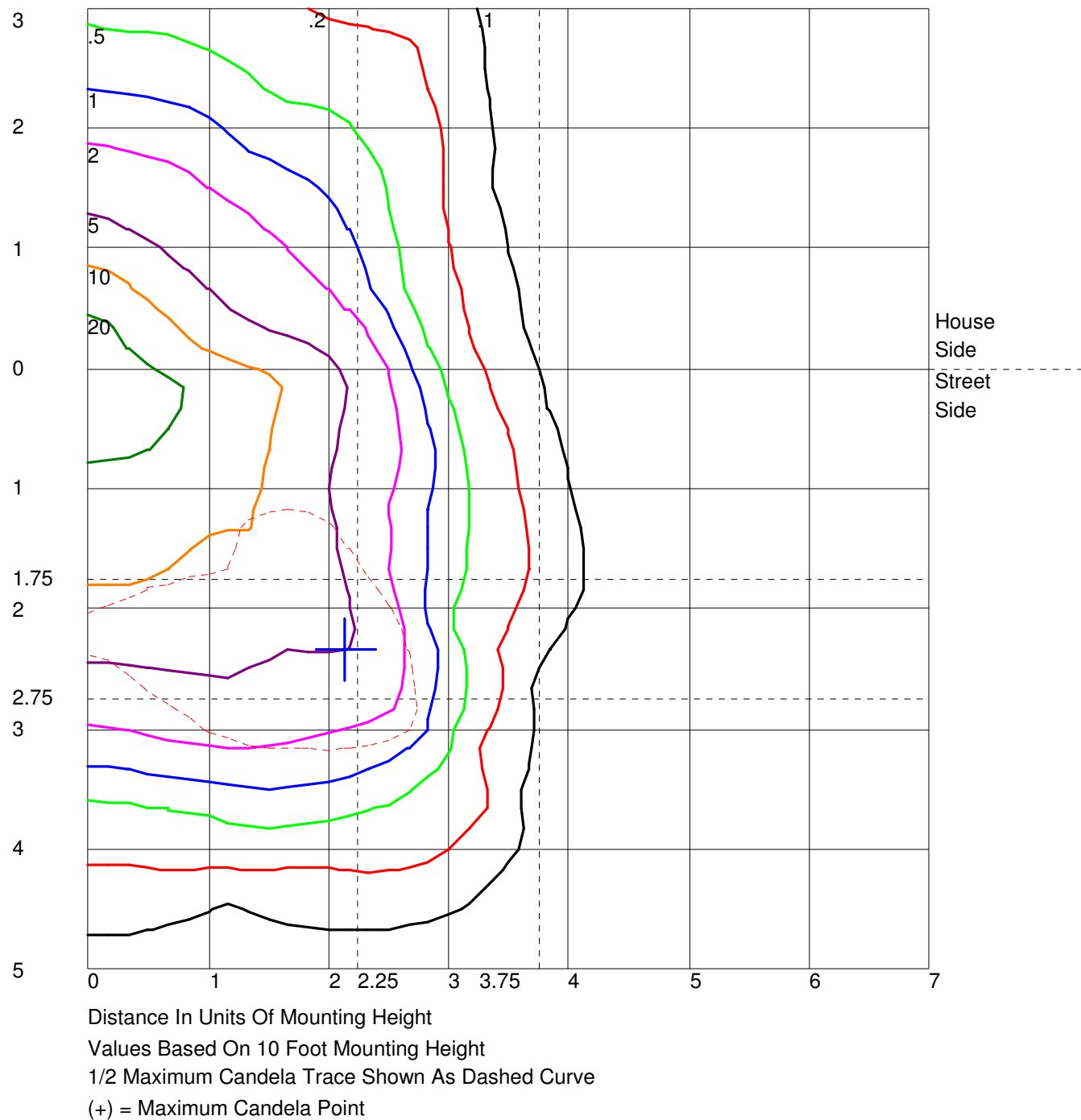
	Lumens	Percent Of Luminaire
Downward Street Side	14860.3	74.1
Downward House Side	5198.1	25.9
Downward Total	20058.4	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	20058.4	100.0

POLAR GRAPH



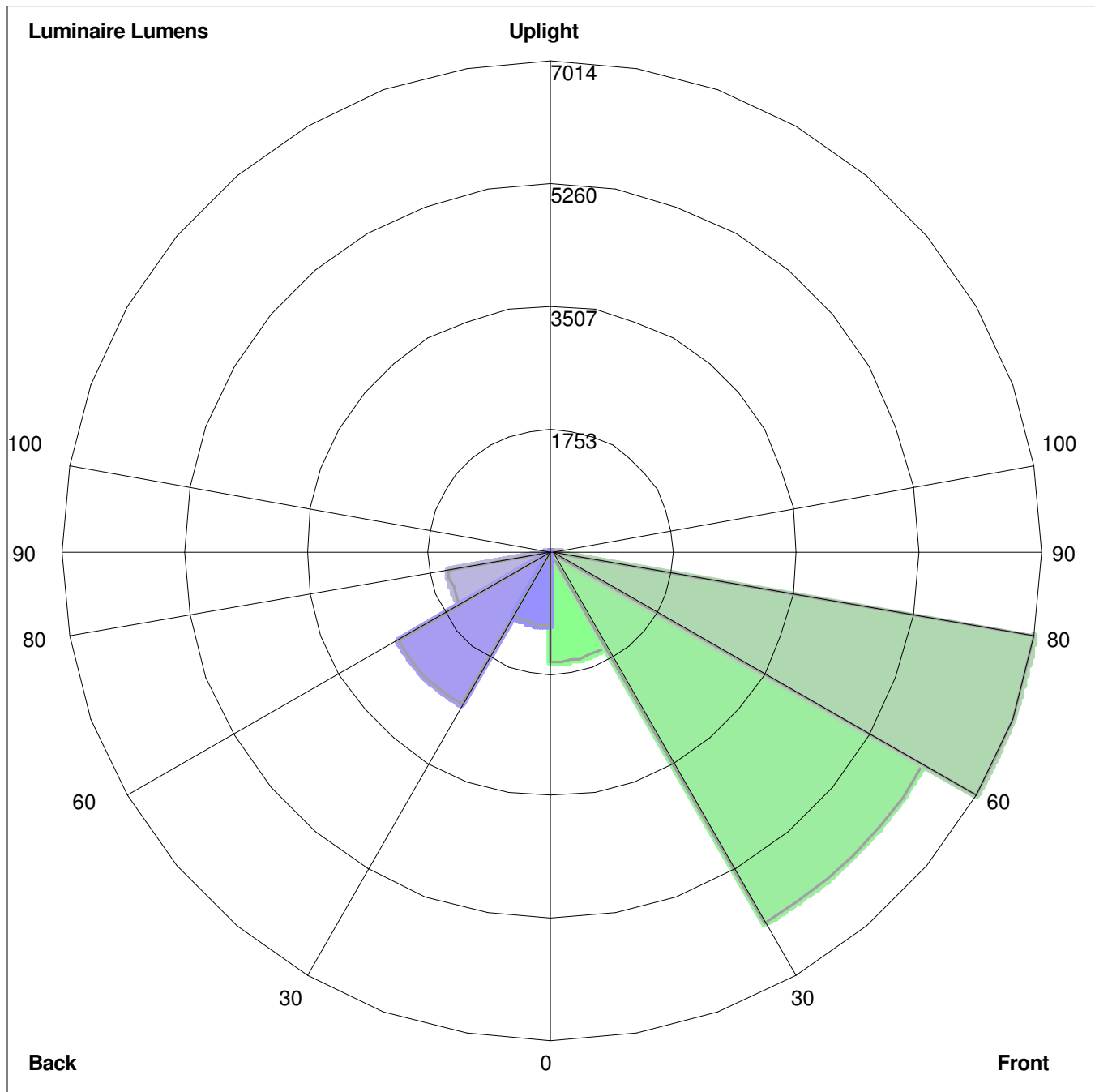
Maximum Candela = 18641.287 Located At Horizontal Angle = 42.5, Vertical Angle = 72.5  
# 1 - Vertical Plane Through Horizontal Angles (42.5 - 222.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (72.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1584.6, Medium=6135.9, High=7013.7, Very High=126.1  
Back: Low=1067.8, Medium=2533.2, High=1505.6, Very High=91.6  
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3