



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : VF2-L106-740-VF\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from ATAL009605-R2

[TESTLAB]ATAL-LABS

[ISSUE DATE] 15 DEC 2022

[MANUFACTURER]WILLIAMS OUTDOOR

[OTHER]H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMEN CATEGORY]VF2-L106-74-VF-MTG-CLR-OPT-DIM-UNV

[LUMINAIRE]VOLTAIRE MEDIUM ARCHITECTURAL FLOOD LIGHT WITH  
[MORE]VERTICAL FLOOD MOLDED REFRACTIVE CLEAR ACRYLIC LENS AND A  
[MORE]CLEAR GLASS LENS.

[LAMP CATEGORY]LUXEON TX 4000K LEDS

[BALLAST](1) PHILIPS ELECTRONIC DRIVER

[OTHER]INPUT WATTS: 98, VAC: 120.05, TEMP: 25.6 C

[\_SEARCH\_SOURCE TYPE] LED

[\_SEARCH\_APPLICATION] Outdoor, Architectural, Facade, Landscape, Parking, Site, Flood, Wet Location

[\_SEARCH\_MOUNTING] Arm, Ground, Pole, Post Top, Wall

[\_SEARCH\_CERTIFICATION] DLC

[\_SEARCH\_CLASSIFICATION] IP66

Note: Candela values converted from Type-B to Type-C

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	9594
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	98
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.62
Spacing Criterion (90-270)	1.50
Spacing Criterion (Diagonal)	1.48
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.00 ft
Luminous Width (90-270)	0.69 ft (Diameter)
Luminous Height	0.00 ft

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**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	101185	203703	95761
55	32201	62832	37448
65	26110	33775	29601
75	19151	18389	19151
85	0	7193	2708

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**CANDELA TABULATION**

	<u>0.0</u>	<u>2.5</u>	<u>5.0</u>	<u>7.5</u>	<u>10.0</u>	<u>12.5</u>	<u>15.0</u>	<u>17.5</u>	<u>20.0</u>	<u>22.5</u>
<b>0.0</b>	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115
<b>2.5</b>	3307.070	3305.322	3304.637	3305.023	3306.481	3309.015	3312.623	3317.304	3323.052	3329.861
<b>5.0</b>	2819.208	2816.547	2815.657	2816.521	2819.118	2824.774	2839.134	2853.842	2870.197	2888.172
<b>7.5</b>	2607.360	2607.909	2608.530	2609.179	2616.146	2623.531	2630.783	2637.858	2644.772	2657.209
<b>10.0</b>	2646.063	2649.116	2651.164	2658.379	2667.178	2674.714	2680.915	2685.712	2700.756	2714.161
<b>12.5</b>	2820.736	2826.935	2830.081	2845.637	2856.396	2864.974	2878.355	2899.472	2917.570	2932.500
<b>15.0</b>	3039.204	3047.219	3059.914	3078.531	3094.280	3115.068	3148.452	3177.896	3197.349	3240.374
<b>17.5</b>	3252.682	3256.309	3277.012	3304.819	3329.981	3380.311	3426.576	3474.349	3535.914	3590.651
<b>20.0</b>	3461.882	3467.168	3494.021	3522.971	3567.641	3624.670	3681.858	3772.513	3849.187	3924.765
<b>22.5</b>	3701.229	3707.176	3733.790	3758.380	3815.021	3875.048	3948.101	4026.286	4107.724	4191.998
<b>25.0</b>	3781.012	3788.493	3815.848	3845.964	3903.489	3969.405	4057.411	4151.923	4257.074	4358.106
<b>27.5</b>	3852.840	3859.968	3881.279	3913.545	3963.158	4035.713	4120.099	4226.489	4326.413	4442.250
<b>30.0</b>	4031.732	4032.926	4040.509	4058.966	4084.221	4148.149	4219.743	4320.890	4449.553	4574.604
<b>32.5</b>	4374.203	4371.565	4370.628	4379.495	4401.218	4453.494	4526.307	4610.870	4714.950	4833.264
<b>35.0</b>	4354.880	4359.138	4359.239	4378.517	4421.730	4493.964	4607.254	4760.454	4946.031	5153.434
<b>37.5</b>	4245.108	4252.081	4237.994	4242.891	4262.373	4308.204	4385.138	4557.370	4778.975	5045.703
<b>40.0</b>	3851.967	3860.999	3854.264	3858.302	3885.507	3937.168	4046.064	4238.679	4517.072	4893.601
<b>42.5</b>	3458.826	3466.904	3455.836	3444.269	3461.947	3489.520	3598.978	3774.377	4008.756	4334.169
<b>45.0</b>	2469.863	2500.691	2511.648	2534.243	2601.928	2672.715	2839.414	3039.024	3305.340	3656.097
<b>47.5</b>	1480.899	1528.763	1542.976	1573.150	1647.065	1724.339	1866.288	2001.360	2209.790	2491.300
<b>50.0</b>	1199.793	1228.294	1224.128	1226.325	1246.323	1265.043	1296.896	1301.177	1321.981	1348.940
<b>52.5</b>	918.687	935.375	936.421	945.366	964.560	988.761	1015.546	1036.766	1068.694	1121.621
<b>55.0</b>	637.581	642.619	650.211	663.644	684.672	710.277	740.778	777.266	820.914	882.331
<b>57.5</b>	573.415	574.854	576.076	578.688	584.061	588.248	597.293	612.446	634.344	660.705
<b>60.0</b>	509.250	509.443	511.029	513.758	518.223	520.510	527.996	539.580	557.910	579.444
<b>62.5</b>	445.085	444.053	446.023	448.786	452.081	452.571	457.815	465.894	478.994	495.205
<b>65.0</b>	380.919	378.681	381.053	383.773	385.716	384.321	386.395	390.127	397.747	408.667
<b>67.5</b>	328.466	326.462	328.545	329.197	330.620	327.584	326.937	326.934	328.169	331.004
<b>70.0</b>	276.014	274.366	276.456	275.335	277.466	274.026	272.926	273.428	273.700	275.142
<b>72.5</b>	223.561	222.280	224.355	221.684	224.253	220.529	218.891	220.096	219.003	218.726
<b>75.0</b>	171.108	170.200	172.245	168.125	171.000	167.083	164.845	166.904	164.123	161.848
<b>77.5</b>	128.331	128.038	130.562	127.920	129.641	126.982	124.510	125.876	121.782	117.650
<b>80.0</b>	85.554	85.908	89.150	88.297	89.682	89.074	87.732	88.769	86.383	83.883
<b>82.5</b>	42.777	43.760	47.762	48.591	49.933	51.240	51.145	52.091	51.292	50.447
<b>85.0</b>	0.000	1.598	6.386	8.825	10.325	13.448	14.691	15.580	16.402	17.241
<b>87.5</b>	0.000	0.763	3.062	4.109	4.649	5.992	6.326	6.407	6.503	6.614
<b>90.0</b>	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>25.0</u>	<u>27.5</u>	<u>30.0</u>	<u>32.5</u>	<u>35.0</u>	<u>37.5</u>	<u>40.0</u>	<u>42.5</u>	<u>45.0</u>	<u>47.5</u>
<b>0.0</b>	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115
<b>2.5</b>	3338.855	3352.495	3366.039	3380.479	3395.790	3411.941	3428.903	3446.645	3465.133	3484.331
<b>5.0</b>	2907.736	2928.854	2951.489	2975.602	3001.149	3027.388	3058.585	3089.652	3121.685	3154.620
<b>7.5</b>	2679.015	2704.352	2729.946	2755.701	2781.526	2807.336	2833.057	2856.541	2882.933	2912.483
<b>10.0</b>	2720.680	2741.254	2759.954	2779.753	2797.774	2813.768	2827.653	2839.361	2846.160	2871.843
<b>12.5</b>	2947.689	2962.353	2976.406	2990.178	3001.326	3011.267	3016.207	3016.047	3015.208	3024.759
<b>15.0</b>	3269.169	3291.094	3305.771	3334.477	3348.024	3346.942	3353.285	3345.316	3337.804	3327.873
<b>17.5</b>	3642.549	3693.426	3737.539	3769.282	3784.109	3791.323	3786.164	3749.828	3733.575	3698.718
<b>20.0</b>	3998.616	4057.815	4117.401	4160.807	4180.723	4171.504	4162.213	4132.621	4072.828	4010.328
<b>22.5</b>	4271.129	4338.206	4401.301	4420.078	4427.653	4411.345	4376.483	4337.162	4264.698	4195.331
<b>25.0</b>	4449.628	4528.511	4565.867	4593.249	4586.366	4568.589	4517.050	4449.660	4363.789	4257.204
<b>27.5</b>	4542.657	4625.012	4690.032	4727.099	4739.502	4715.204	4661.231	4578.449	4474.210	4349.136
<b>30.0</b>	4697.539	4798.201	4871.047	4912.546	4922.205	4921.896	4881.908	4796.126	4673.276	4537.640

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**CANDELA TABULATION - (Cont.)**

32.5	4953.408	5073.884	5184.463	5279.562	5344.159	5351.104	5271.411	5153.451	5025.981	4816.483
35.0	5320.544	5487.824	5653.211	5805.017	5929.109	5943.872	5882.554	5722.628	5440.446	5156.271
37.5	5355.289	5700.998	6056.921	6410.434	6474.129	6477.987	6382.796	6181.570	5938.693	5514.883
40.0	5295.865	5659.097	6005.584	6280.862	6498.797	6671.619	6637.186	6372.963	6007.383	5694.552
42.5	4741.050	5160.390	5600.925	5918.275	6098.686	6097.137	6103.833	5991.633	5895.270	5447.689
45.0	4013.794	4334.756	4605.783	4890.288	5087.654	5283.980	5307.999	5176.983	4972.269	4757.099
47.5	2832.644	3184.326	3470.777	3745.671	3955.666	4043.588	4089.228	4065.634	3951.514	3727.449
50.0	1574.135	1884.223	2191.122	2495.618	2744.912	2855.859	2886.207	2854.389	2776.238	2651.062
52.5	1211.910	1256.085	1311.471	1382.457	1596.789	1810.380	1908.015	1896.755	1809.342	1735.192
55.0	950.649	1005.175	1069.659	1127.742	1154.279	1163.986	1158.459	1245.827	1244.062	1144.794
57.5	696.087	760.372	826.272	882.788	927.740	947.348	954.545	922.813	874.519	858.858
60.0	603.637	629.100	655.672	683.194	714.879	754.654	768.780	750.809	721.270	706.720
62.5	515.061	536.074	559.102	584.374	604.282	623.194	616.924	606.230	599.629	590.359
65.0	423.843	440.876	460.627	482.823	500.495	514.034	507.374	499.306	492.742	486.064
67.5	336.313	343.685	360.380	378.888	397.051	405.332	403.457	399.466	394.620	389.056
70.0	278.406	283.199	289.942	298.199	307.576	305.447	304.668	302.873	300.067	298.860
72.5	219.818	222.304	226.418	233.468	241.326	239.592	236.530	227.997	218.436	216.631
75.0	160.659	160.641	161.961	168.482	174.466	175.807	174.522	169.035	164.297	164.240
77.5	113.402	109.210	105.427	106.702	109.133	113.749	114.694	112.550	112.031	113.704
80.0	80.831	78.366	76.854	78.138	78.673	78.661	75.651	71.172	68.727	67.238
82.5	48.571	48.021	48.326	49.614	50.086	50.214	48.280	45.705	44.966	44.536
85.0	16.539	18.018	19.826	21.113	21.607	21.879	21.536	20.959	21.641	22.338
87.5	5.815	6.387	7.055	7.244	6.916	6.428	5.993	5.537	5.758	6.026
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>50.0</u>	<u>52.5</u>	<u>55.0</u>	<u>57.5</u>	<u>60.0</u>	<u>62.5</u>	<u>65.0</u>	<u>67.5</u>	<u>70.0</u>	<u>72.5</u>
0.0	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115
2.5	3504.204	3524.714	3545.821	3567.484	3589.662	3612.312	3648.315	3658.632	3681.912	3705.474
5.0	3188.397	3231.861	3263.772	3307.703	3352.564	3398.274	3444.748	3491.901	3539.648	3587.901
7.5	2946.366	2995.128	3044.254	3093.687	3143.378	3193.288	3243.385	3300.432	3368.728	3438.272
10.0	2901.285	2928.870	2954.592	2978.469	3002.003	3058.163	3117.990	3179.692	3239.224	3302.786
12.5	3030.632	3031.626	3027.801	3034.758	3056.042	3070.163	3086.415	3112.816	3175.513	3236.135
15.0	3305.643	3277.837	3255.896	3239.864	3218.202	3180.199	3181.103	3178.897	3174.499	3208.346
17.5	3644.345	3581.718	3525.824	3466.035	3400.354	3354.047	3302.214	3254.170	3236.352	3214.658
20.0	3943.076	3859.784	3775.183	3683.755	3602.957	3505.841	3418.047	3345.451	3265.530	3236.855
22.5	4128.084	4014.051	3910.003	3803.225	3695.981	3583.769	3473.998	3371.440	3292.984	3213.357
25.0	4145.601	4042.701	3914.263	3793.660	3673.949	3554.745	3445.418	3350.404	3261.073	3203.470
27.5	4217.539	4071.727	3920.249	3780.675	3649.630	3526.557	3408.844	3302.719	3232.144	3188.488
30.0	4376.282	4195.496	4032.360	3863.070	3704.126	3562.523	3451.147	3359.117	3290.475	3253.774
32.5	4592.629	4394.560	4178.184	3979.254	3805.161	3651.246	3512.705	3419.420	3351.669	3313.835
35.0	4874.969	4570.487	4305.750	4082.718	3863.984	3693.289	3553.128	3448.647	3387.981	3354.721
37.5	5116.865	4761.688	4411.133	4098.439	3871.148	3673.290	3516.473	3387.164	3303.375	3259.401
40.0	5294.170	4815.502	4416.713	4090.227	3761.917	3519.717	3339.457	3225.408	3158.275	3104.734
42.5	5024.590	4680.758	4223.030	3801.975	3475.402	3234.823	3060.681	2897.712	2782.707	2713.868
45.0	4528.570	4040.792	3639.250	3282.740	2978.862	2744.211	2550.215	2407.938	2320.200	2279.738
47.5	3450.787	3139.722	2757.537	2518.903	2321.560	2100.340	1939.215	1846.464	1774.195	1711.925
50.0	2428.805	2112.007	1945.503	1730.168	1535.238	1410.748	1383.094	1309.613	1216.581	1143.660
52.5	1558.176	1469.465	1309.651	1075.940	965.492	1004.452	966.820	850.908	816.383	852.836
55.0	1077.513	1027.344	876.859	807.682	793.616	755.611	712.402	697.964	688.022	693.176
57.5	841.001	774.461	719.287	689.775	666.604	644.232	623.848	605.635	588.950	573.318
60.0	687.183	654.696	614.974	573.666	560.833	555.968	539.950	519.307	499.040	490.653
62.5	574.696	549.839	519.853	493.582	480.037	469.315	456.756	437.379	437.909	438.686
65.0	472.091	450.858	429.084	422.340	412.627	398.510	386.150	383.635	383.924	386.248
67.5	378.873	363.425	357.194	351.466	343.527	333.758	330.757	329.969	329.687	331.993

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**CANDELA TABULATION - (Cont.)**

<b>70.0</b>	294.982	289.042	287.683	285.341	279.977	275.843	274.228	273.373	274.031	276.538
<b>72.5</b>	220.245	221.051	221.205	220.194	219.139	219.562	217.745	216.329	216.257	219.266
<b>75.0</b>	163.619	161.334	158.299	159.141	161.535	163.200	163.077	160.806	160.079	165.013
<b>77.5</b>	114.575	114.214	112.957	111.167	110.847	111.061	112.682	111.883	113.497	116.552
<b>80.0</b>	67.321	69.178	70.214	71.481	73.062	73.442	72.288	70.125	73.937	76.585
<b>82.5</b>	43.561	42.158	40.323	39.287	38.449	40.300	41.792	42.764	43.703	43.718
<b>85.0</b>	22.724	22.852	22.671	22.908	23.034	22.880	22.357	21.654	20.474	20.671
<b>87.5</b>	6.332	6.685	7.094	7.571	8.148	9.158	9.997	10.639	10.984	10.897
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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

	<u><b>75.0</b></u>	<u><b>77.5</b></u>	<u><b>80.0</b></u>	<u><b>82.5</b></u>	<u><b>85.0</b></u>	<u><b>87.5</b></u>	<u><b>90.0</b></u>	<u><b>92.5</b></u>	<u><b>95.0</b></u>	<u><b>97.5</b></u>
<b>0.0</b>	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115
<b>2.5</b>	3729.273	3753.260	3777.389	3801.613	3825.884	3850.154	3874.374	3896.164	3917.817	3939.293
<b>5.0</b>	3636.572	3704.678	3734.159	3782.455	3830.808	3879.131	3927.336	3971.771	4015.903	4059.635
<b>7.5</b>	3507.865	3577.820	3648.103	3718.681	3789.509	3860.607	3931.919	3996.020	4060.242	4127.570
<b>10.0</b>	3380.431	3464.977	3549.504	3634.094	3719.374	3806.372	3893.726	3972.061	4050.855	4120.194
<b>12.5</b>	3294.955	3370.046	3464.762	3559.424	3654.129	3752.715	3852.476	3944.630	4034.101	4111.634
<b>15.0</b>	3264.864	3319.950	3396.140	3492.526	3588.244	3692.827	3807.153	3916.569	4017.092	4108.865
<b>17.5</b>	3219.152	3257.978	3293.862	3387.730	3493.994	3605.899	3732.191	3854.172	3968.186	4079.707
<b>20.0</b>	3204.597	3208.621	3237.424	3289.937	3394.428	3501.291	3628.916	3780.255	3899.335	4031.660
<b>22.5</b>	3181.284	3148.602	3163.020	3185.543	3260.458	3346.042	3471.048	3624.881	3796.684	3970.149
<b>25.0</b>	3153.978	3136.115	3136.296	3166.699	3230.324	3317.249	3445.586	3617.741	3819.293	4031.939
<b>27.5</b>	3171.246	3169.193	3183.216	3226.348	3288.303	3383.256	3516.153	3707.091	3931.932	4173.641
<b>30.0</b>	3236.344	3241.988	3273.481	3319.791	3382.011	3485.042	3622.805	3826.722	4070.192	4333.078
<b>32.5</b>	3310.448	3331.115	3369.806	3423.745	3495.848	3604.554	3747.571	3951.959	4204.416	4477.802
<b>35.0</b>	3336.552	3346.388	3379.511	3430.627	3503.363	3608.916	3753.512	3958.636	4200.021	4448.082
<b>37.5</b>	3255.377	3280.164	3326.848	3388.809	3470.568	3581.715	3729.747	3926.506	4124.493	4290.904
<b>40.0</b>	3059.252	3049.079	3064.561	3099.527	3156.011	3243.142	3363.087	3510.961	3657.452	3776.360
<b>42.5</b>	2684.969	2690.964	2722.592	2764.883	2822.405	2902.493	2996.427	3074.897	3134.002	3169.420
<b>45.0</b>	2240.582	2215.757	2207.612	2214.230	2235.160	2278.763	2337.458	2392.283	2440.346	2466.870
<b>47.5</b>	1664.787	1635.022	1620.833	1619.251	1631.257	1654.892	1678.488	1699.427	1724.904	1755.138
<b>50.0</b>	1122.685	1175.800	1216.020	1247.488	1275.622	1305.109	1366.148	1381.643	1385.725	1380.509
<b>52.5</b>	896.152	925.865	941.577	948.130	953.011	962.382	1053.808	1073.330	1092.835	1106.364
<b>55.0</b>	705.861	705.699	690.078	664.722	639.415	623.910	741.468	767.565	807.668	848.112
<b>57.5</b>	556.204	543.788	547.456	551.466	557.594	566.140	664.062	682.060	702.641	720.410
<b>60.0</b>	491.474	493.230	496.689	501.470	508.467	517.206	586.656	603.239	622.841	639.956
<b>62.5</b>	440.469	443.129	446.139	450.948	458.547	468.099	509.250	523.968	542.477	558.426
<b>65.0</b>	388.656	391.676	395.406	400.201	407.680	418.764	431.844	444.480	461.475	476.800
<b>67.5</b>	335.416	339.267	343.158	344.932	348.104	355.634	366.660	378.356	392.479	403.091
<b>70.0</b>	280.956	283.224	285.100	286.138	287.230	292.259	301.476	312.476	326.170	336.935
<b>72.5</b>	224.433	227.369	228.191	228.440	226.581	229.489	236.292	246.431	258.657	270.738
<b>75.0</b>	169.486	172.962	173.499	172.106	169.456	167.595	171.108	180.660	191.541	203.202
<b>77.5</b>	119.284	120.811	121.488	121.209	125.234	125.919	130.368	137.493	141.847	140.656
<b>80.0</b>	77.070	76.274	78.081	84.788	87.419	87.143	89.628	96.271	99.985	100.019
<b>82.5</b>	44.141	44.265	47.581	50.738	52.479	49.825	48.888	55.147	60.639	61.374
<b>85.0</b>	21.028	22.351	24.595	25.774	23.797	15.686	8.148	16.886	29.001	32.421
<b>87.5</b>	10.163	9.709	9.161	10.251	9.699	5.761	4.074	7.201	12.153	13.293
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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

	<u><b>100.0</b></u>	<u><b>102.5</b></u>	<u><b>105.0</b></u>	<u><b>107.5</b></u>	<u><b>110.0</b></u>	<u><b>112.5</b></u>	<u><b>115.0</b></u>	<u><b>117.5</b></u>	<u><b>120.0</b></u>	<u><b>122.5</b></u>
<b>0.0</b>	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115
<b>2.5</b>	3960.553	3981.557	4002.268	4022.646	4042.654	4070.825	4079.416	4094.668	4109.478	4123.820

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**CANDELA TABULATION - (Cont.)**

5.0	4102.870	4142.248	4176.067	4209.257	4241.755	4273.497	4304.423	4334.475	4363.594	4391.725
7.5	4177.970	4230.892	4283.820	4336.714	4390.680	4440.301	4481.633	4517.633	4552.965	4587.571
10.0	4186.294	4252.884	4319.961	4386.185	4438.341	4490.998	4546.639	4595.841	4646.074	4688.144
12.5	4189.148	4266.522	4333.665	4391.722	4449.451	4506.751	4557.172	4605.466	4657.058	4712.425
15.0	4200.859	4286.695	4364.661	4440.395	4509.003	4567.713	4623.620	4676.162	4723.530	4773.387
17.5	4190.618	4297.050	4396.581	4491.555	4579.022	4661.486	4738.123	4807.930	4872.504	4926.269
20.0	4170.356	4309.916	4443.453	4570.631	4690.430	4801.628	4903.673	4992.246	5071.236	5141.160
22.5	4157.360	4341.082	4522.476	4694.236	4850.381	4996.211	5113.500	5222.388	5305.057	5373.723
25.0	4258.058	4481.184	4697.842	4887.448	5066.377	5208.040	5340.743	5434.549	5517.349	5556.906
27.5	4422.806	4675.816	4904.181	5113.830	5276.702	5419.769	5514.115	5587.116	5637.832	5666.022
30.0	4599.708	4868.640	5090.717	5259.860	5399.234	5488.392	5556.557	5616.763	5643.922	5643.751
32.5	4727.345	4938.830	5111.543	5240.304	5325.916	5399.171	5466.609	5467.356	5448.606	5424.567
35.0	4675.558	4831.607	4956.213	5051.851	5088.497	5098.101	5090.171	5082.264	5086.566	5047.918
37.5	4408.280	4481.995	4526.793	4554.623	4566.040	4573.486	4578.039	4570.974	4498.941	4437.250
40.0	3857.610	3907.255	3937.459	3952.076	3936.515	3907.993	3892.705	3856.367	3825.026	3724.703
42.5	3186.891	3191.688	3198.540	3201.542	3198.704	3191.892	3161.907	3121.378	3048.630	2935.489
45.0	2478.571	2480.519	2474.193	2458.912	2467.801	2468.401	2455.722	2412.609	2320.434	2183.567
47.5	1786.313	1818.946	1844.766	1859.133	1855.971	1829.882	1812.013	1781.837	1696.725	1571.775
50.0	1361.277	1334.826	1298.181	1325.632	1361.210	1380.060	1359.981	1287.135	1232.955	1120.411
52.5	1112.293	1107.565	1092.285	1062.782	1034.083	1041.288	1063.252	1036.437	957.527	937.003
55.0	883.053	906.861	915.411	909.325	903.854	903.346	904.396	895.843	878.906	851.305
57.5	735.337	750.280	771.719	788.452	798.978	806.147	810.733	818.364	820.897	806.395
60.0	654.192	668.803	682.136	694.628	708.019	716.309	715.194	729.199	750.000	758.120
62.5	572.878	588.502	602.270	615.741	626.569	613.587	626.272	650.627	669.895	686.835
65.0	492.440	509.061	524.583	539.118	533.538	537.723	555.151	573.768	591.957	592.186
67.5	416.340	431.797	448.857	455.156	459.735	472.984	484.743	498.158	498.916	490.619
70.0	349.871	362.630	375.443	382.182	390.093	399.827	407.952	414.131	417.147	404.729
72.5	282.555	295.459	304.543	308.245	314.670	320.859	327.508	333.495	336.053	328.913
75.0	215.417	226.808	232.361	236.184	236.890	243.607	248.805	251.967	253.435	251.950
77.5	149.018	157.669	165.050	169.346	170.107	170.357	174.308	175.846	177.689	178.341
80.0	94.192	97.888	107.209	110.782	110.059	106.685	111.577	114.078	113.368	110.140
82.5	59.197	55.818	59.678	62.301	63.934	63.241	61.871	58.946	55.087	56.364
85.0	31.058	28.522	27.899	28.704	28.615	30.358	31.498	32.367	32.800	32.905
87.5	12.002	12.024	12.124	13.302	13.675	13.512	12.979	12.198	11.201	10.899
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**

	<u>125.0</u>	<u>127.5</u>	<u>130.0</u>	<u>132.5</u>	<u>135.0</u>	<u>137.5</u>	<u>140.0</u>	<u>142.5</u>	<u>145.0</u>	<u>147.5</u>
0.0	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115
2.5	4137.666	4150.991	4163.769	4175.975	4187.588	4198.585	4208.945	4218.649	4227.677	4236.014
5.0	4418.816	4442.831	4460.759	4477.751	4493.773	4508.797	4522.795	4534.770	4548.368	4560.183
7.5	4621.396	4654.384	4686.478	4715.040	4737.628	4759.411	4775.158	4788.730	4801.379	4813.069
10.0	4730.180	4772.123	4813.905	4855.460	4896.325	4917.830	4938.263	4957.489	4975.480	4992.214
12.5	4763.779	4811.402	4858.612	4905.314	4955.879	4988.826	5025.132	5059.149	5090.877	5107.748
15.0	4819.933	4863.667	4904.542	4941.800	4994.871	5043.339	5086.324	5128.212	5155.983	5180.479
17.5	4975.934	5018.889	5049.594	5078.600	5112.941	5139.768	5146.413	5167.100	5191.046	5212.849
20.0	5190.786	5231.535	5257.119	5259.263	5254.219	5239.417	5195.089	5166.399	5138.674	5123.944
22.5	5418.398	5437.677	5455.086	5411.663	5356.555	5293.005	5179.974	5069.982	4982.931	4929.968
25.0	5595.257	5580.139	5551.827	5468.359	5350.652	5221.593	5077.221	4918.653	4796.090	4688.915
27.5	5670.538	5615.970	5528.074	5432.188	5262.679	5076.103	4895.221	4715.108	4561.532	4447.741
30.0	5592.197	5544.105	5422.289	5240.741	5059.924	4855.646	4642.729	4450.240	4285.705	4142.554
32.5	5378.089	5279.169	5135.604	4935.567	4727.913	4496.864	4268.851	4059.197	3876.533	3731.198
35.0	4949.604	4815.797	4647.153	4460.537	4196.030	3958.458	3729.329	3533.722	3348.971	3184.451
37.5	4326.395	4196.128	3959.879	3716.578	3502.137	3251.776	3026.548	2826.156	2666.253	2519.009
40.0	3579.451	3361.416	3134.831	2895.340	2662.558	2442.578	2222.155	2088.313	1985.384	1884.783

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

42.5	2764.344	2555.570	2322.430	2079.344	1813.782	1724.316	1611.898	1490.666	1369.546	1275.481
45.0	2018.432	1818.062	1579.081	1453.805	1337.751	1205.243	1061.815	1047.296	1028.193	997.935
47.5	1395.482	1253.547	1176.747	1063.297	943.035	918.150	889.232	852.301	802.640	760.861
50.0	1055.615	986.145	890.198	871.634	842.945	807.456	758.794	742.518	730.541	724.333
52.5	896.841	855.611	834.112	808.420	774.483	758.446	743.282	728.653	714.732	701.407
55.0	837.822	816.785	793.651	779.386	761.981	746.406	731.409	718.938	708.737	700.750
57.5	795.461	787.737	773.183	760.544	746.243	731.703	721.168	710.706	702.600	697.241
60.0	750.334	752.775	746.030	728.445	721.288	711.736	705.206	699.301	693.679	679.234
62.5	691.503	679.924	686.460	681.134	681.971	686.257	668.237	651.154	632.721	618.436
65.0	580.318	578.064	596.718	616.602	605.827	599.774	585.586	576.159	564.597	555.021
67.5	473.685	464.902	490.010	505.828	502.690	500.127	497.086	494.961	493.005	488.559
70.0	394.117	386.402	393.396	398.736	397.231	398.620	403.290	409.215	414.086	409.092
72.5	320.190	314.248	311.082	303.558	299.276	309.263	318.157	322.875	326.422	322.104
75.0	244.753	241.992	239.074	233.428	228.297	231.855	237.170	239.141	238.970	235.407
77.5	174.926	171.266	167.996	163.405	158.431	157.371	158.764	157.591	153.453	153.085
80.0	105.650	101.644	97.923	97.408	98.837	101.346	106.000	109.493	110.515	111.239
82.5	57.984	60.559	62.294	63.299	63.807	64.719	67.552	69.827	70.057	69.851
85.0	32.778	32.275	31.174	29.726	29.249	28.851	29.770	30.460	29.872	28.769
87.5	10.604	8.882	7.360	6.044	6.493	6.931	7.998	8.995	9.402	9.497
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>150.0</u>	<u>152.5</u>	<u>155.0</u>	<u>157.5</u>	<u>160.0</u>	<u>162.5</u>	<u>165.0</u>	<u>167.5</u>	<u>170.0</u>	<u>172.5</u>
0.0	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115	3860.115
2.5	4243.642	4250.546	4255.662	4263.541	4271.471	4278.667	4285.117	4290.813	4295.746	4299.910
5.0	4570.929	4580.585	4589.133	4596.554	4602.834	4607.957	4611.914	4613.289	4629.417	4631.610
7.5	4823.763	4833.423	4842.009	4855.736	4853.433	4854.332	4854.365	4853.521	4851.791	4849.764
10.0	5007.238	5012.539	5013.858	5010.851	5006.621	5001.291	4998.360	4994.634	4990.142	4984.917
12.5	5116.999	5121.495	5121.074	5113.592	5099.269	5083.047	5065.173	5050.217	5037.281	5023.730
15.0	5198.692	5201.142	5184.480	5165.013	5140.307	5109.340	5072.197	5033.482	5002.825	4976.555
17.5	5212.009	5199.975	5188.559	5162.971	5126.689	5091.241	5047.803	5005.130	4962.733	4936.816
20.0	5105.231	5095.586	5071.452	5053.024	5030.704	4996.772	4966.130	4934.608	4905.010	4882.708
22.5	4884.767	4882.981	4895.393	4901.614	4906.248	4904.542	4890.585	4877.415	4858.031	4841.621
25.0	4649.719	4634.306	4668.780	4722.212	4755.927	4782.361	4789.620	4791.129	4783.489	4774.599
27.5	4372.489	4368.168	4411.346	4482.630	4574.853	4599.451	4630.741	4636.097	4638.804	4630.661
30.0	4049.334	4013.690	4056.857	4148.861	4256.091	4355.853	4393.790	4406.542	4414.999	4401.608
32.5	3639.541	3585.437	3584.465	3678.162	3799.337	3924.286	3984.455	4023.124	4044.938	4049.785
35.0	3061.975	2994.907	3012.917	3101.787	3249.238	3358.174	3428.705	3443.990	3443.091	3436.272
37.5	2436.514	2367.055	2335.089	2388.469	2494.888	2609.306	2695.040	2704.795	2713.543	2715.549
40.0	1788.910	1714.135	1676.576	1719.707	1827.533	1960.297	2033.935	2070.196	2082.958	2083.130
42.5	1255.555	1252.214	1252.208	1268.276	1340.143	1418.693	1468.027	1484.748	1480.569	1464.007
45.0	959.184	918.684	884.865	896.545	967.900	1048.654	1113.666	1148.369	1161.300	1155.846
47.5	763.025	762.108	767.078	779.786	811.953	858.465	897.578	909.205	901.894	885.904
50.0	715.890	706.329	694.866	690.543	715.824	757.912	802.222	831.897	844.722	847.125
52.5	693.343	688.281	685.248	689.036	706.779	742.353	784.067	814.940	829.410	833.137
55.0	693.840	687.881	684.880	687.003	699.223	728.962	768.298	799.330	814.329	819.009
57.5	693.058	687.774	684.328	676.429	676.284	698.349	732.027	760.597	773.684	776.721
60.0	664.999	648.453	634.306	623.597	621.322	650.852	683.436	713.938	728.100	731.557
62.5	607.328	594.361	580.990	571.678	568.647	598.345	635.206	668.274	682.636	686.376
65.0	547.496	539.274	526.538	519.310	516.003	544.700	587.575	619.534	637.453	641.180
67.5	485.705	482.601	469.065	460.313	455.416	473.100	511.831	536.968	551.234	552.305
70.0	405.318	403.754	395.108	388.584	385.223	394.159	424.790	446.277	459.568	460.071
72.5	319.221	321.542	319.472	316.343	314.505	319.544	338.803	356.772	368.107	367.772
75.0	231.977	238.400	242.422	243.666	243.358	248.589	253.746	268.278	276.834	275.686
77.5	154.714	166.643	176.401	181.648	182.813	188.858	190.379	203.176	210.189	209.763

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

<b>80.0</b>	111.462	118.298	124.941	128.349	128.612	131.868	132.981	141.874	146.258	145.152
<b>82.5</b>	68.620	71.071	74.080	75.248	74.606	75.519	76.290	80.739	82.624	80.510
<b>85.0</b>	26.051	24.634	23.638	22.279	20.723	19.419	20.095	19.728	17.275	14.739
<b>87.5</b>	8.515	8.036	7.865	7.716	7.586	7.475	8.435	8.613	8.786	7.444
<b>90.0</b>	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><b>175.0</b></u>	<u><b>177.5</b></u>	<u><b>180.0</b></u>
<b>0.0</b>	3860.115	3860.115	3860.115
<b>2.5</b>	4303.299	4305.912	4307.746
<b>5.0</b>	4633.816	4636.031	4638.249
<b>7.5</b>	4854.354	4858.022	4860.791
<b>10.0</b>	4981.307	4982.220	4982.502
<b>12.5</b>	5007.690	5003.556	4998.798
<b>15.0</b>	4948.713	4933.372	4925.466
<b>17.5</b>	4912.357	4894.079	4886.763
<b>20.0</b>	4866.412	4852.563	4847.381
<b>22.5</b>	4827.715	4817.328	4813.431
<b>25.0</b>	4768.333	4763.639	4762.506
<b>27.5</b>	4625.477	4623.123	4623.117
<b>30.0</b>	4394.846	4393.696	4392.281
<b>32.5</b>	4052.684	4061.067	4057.449
<b>35.0</b>	3426.820	3434.424	3420.123
<b>37.5</b>	2710.812	2721.347	2707.173
<b>40.0</b>	2071.557	2083.885	2067.555
<b>42.5</b>	1439.199	1433.712	1427.937
<b>45.0</b>	1147.332	1149.807	1142.757
<b>47.5</b>	871.597	860.792	857.577
<b>50.0</b>	846.618	847.285	845.355
<b>52.5</b>	833.027	833.633	833.133
<b>55.0</b>	819.432	819.844	820.911
<b>57.5</b>	776.220	776.420	778.134
<b>60.0</b>	731.614	732.548	735.357
<b>62.5</b>	686.892	688.676	692.580
<b>65.0</b>	640.574	644.440	649.803
<b>67.5</b>	549.192	551.242	555.592
<b>70.0</b>	454.613	457.278	461.381
<b>72.5</b>	359.997	363.331	367.169
<b>75.0</b>	263.295	268.884	272.958
<b>77.5</b>	201.009	203.210	205.228
<b>80.0</b>	137.464	137.196	137.498
<b>82.5</b>	74.015	71.194	69.767
<b>85.0</b>	10.146	5.073	2.037
<b>87.5</b>	5.107	2.546	1.019
<b>90.0</b>	0.000	0.000	0.000



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VF2-L106-740-VF\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1518.98	N.A.	15.80
0-30	3540.47	N.A.	36.90
0-40	6155.56	N.A.	64.20
0-60	8851.15	N.A.	92.30
0-80	9557.00	N.A.	99.60
0-90	9593.63	N.A.	100.00
10-90	9228.25	N.A.	96.20
20-40	4636.58	N.A.	48.30
20-50	6538.37	N.A.	68.20
40-70	3180.97	N.A.	33.20
60-80	705.86	N.A.	7.40
70-80	220.47	N.A.	2.30
80-90	36.63	N.A.	0.40
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	9593.63	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	365.38
10-20	1153.59
20-30	2021.49
30-40	2615.09
40-50	1901.79
50-60	793.80
60-70	485.38
70-80	220.47
80-90	36.63
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

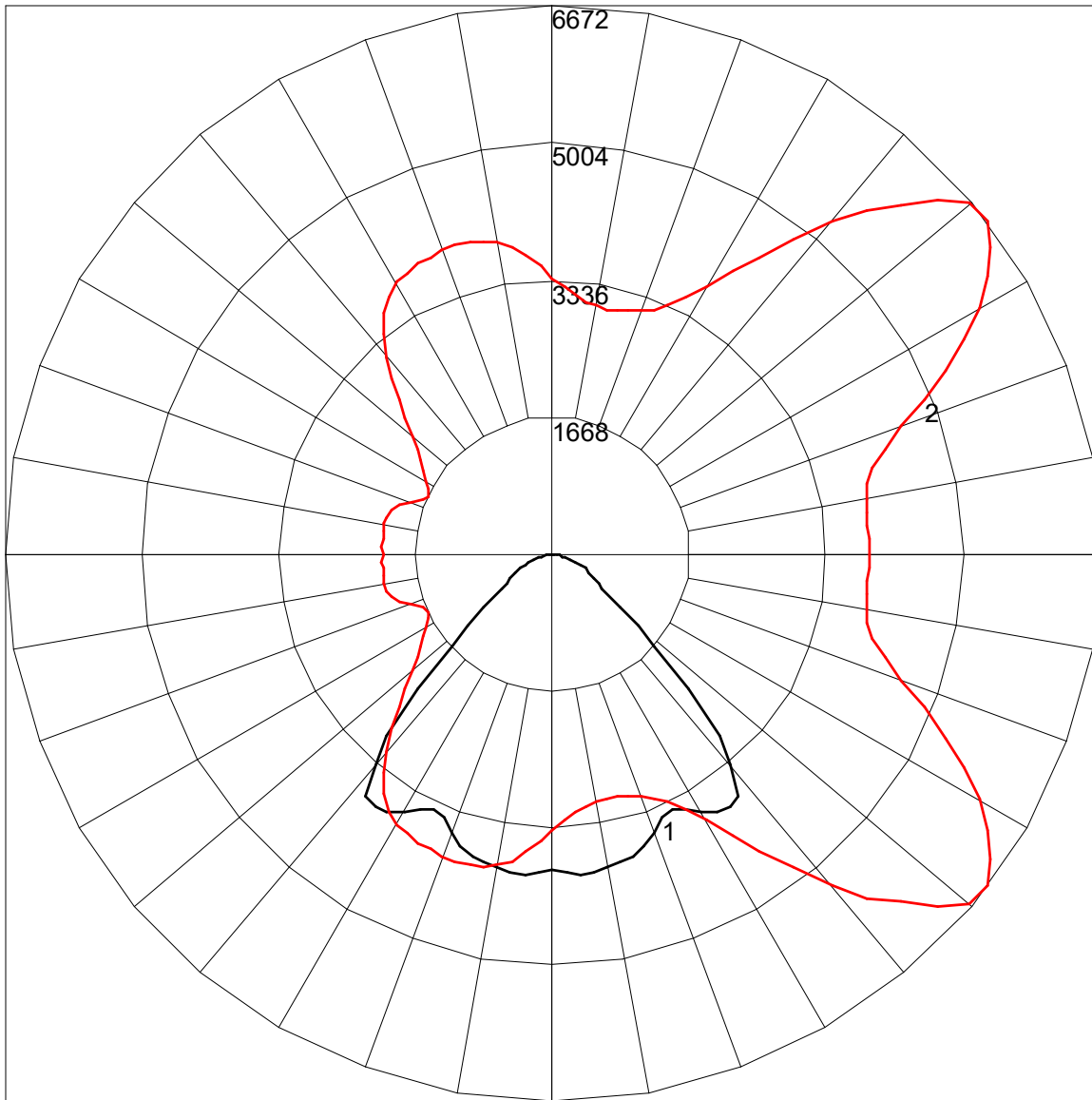
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VF2-L106-740-VF\_.IES**

**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	213	213	213	213	208	208	208	208	199	199	199	191	191	191	183	183	183	179
1	199	193	187	181	195	189	183	178	181	177	173	174	171	167	168	165	163	159
2	185	173	163	155	180	170	161	153	164	156	149	158	152	146	153	148	143	140
3	171	156	143	134	167	153	142	133	148	138	130	143	135	128	139	132	126	123
4	159	141	127	117	155	138	126	116	134	123	115	130	121	113	126	118	112	108
5	147	127	113	103	144	126	112	103	122	110	102	119	108	101	115	107	100	96
6	137	116	102	92	134	114	101	91	111	99	91	108	98	90	106	96	89	86
7	128	106	92	82	125	105	91	82	102	90	81	100	89	81	97	88	80	77
8	119	97	83	74	117	96	83	74	94	82	73	92	81	73	90	80	73	69
9	112	90	76	67	109	89	76	67	87	75	66	85	74	66	83	73	66	63
10	105	83	70	61	103	82	69	61	80	69	61	79	68	60	77	67	60	57

POLAR GRAPH



Maximum Candela = 6671.619 Located At Horizontal Angle = 37.5, Vertical Angle = 40  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (40) (Through Max. Cd.)