



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : VF2-L88-750-VF\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST]ATAL009605-R2  
 [TESTLAB]ATAL-LABS  
 [ISSUE DATE]30 NOV 2022  
 [MANUFACTURER]WILLIAMS OUTDOOR  
 [OTHER]H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMEN CATEGORY]VF2-L88-750-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 5000K LEDS  
 [BALLAST](1) PHILIPS ELECTRONIC DRIVER  
 [OTHER]INPUT WATTS: 75, 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	8274
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	75
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	87271	175693	82593
55	27773	54192	32299
65	22520	29131	25531
75	16518	15861	16518
85	0	6204	2336

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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>	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325
<b>2.5</b>	2852.327	2850.820	2850.229	2850.562	2851.819	2854.005	2857.117	2861.154	2866.112	2871.984
<b>5.0</b>	2431.550	2429.255	2428.487	2429.232	2431.472	2436.350	2448.735	2461.421	2475.528	2491.031
<b>7.5</b>	2248.832	2249.306	2249.841	2250.401	2256.410	2262.780	2269.035	2275.137	2281.100	2291.827
<b>10.0</b>	2282.214	2284.846	2286.612	2292.835	2300.424	2306.925	2312.273	2316.410	2329.386	2340.947
<b>12.5</b>	2432.867	2438.214	2440.928	2454.345	2463.624	2471.022	2482.563	2500.776	2516.386	2529.264
<b>15.0</b>	2621.295	2628.208	2639.157	2655.214	2668.798	2686.727	2715.520	2740.916	2757.694	2794.802
<b>17.5</b>	2805.418	2808.547	2826.403	2850.386	2872.088	2915.497	2955.400	2996.604	3049.704	3096.914
<b>20.0</b>	2985.851	2990.411	3013.572	3038.541	3077.069	3126.256	3175.580	3253.770	3319.901	3385.086
<b>22.5</b>	3192.287	3197.417	3220.371	3241.580	3290.432	3342.205	3405.213	3472.646	3542.887	3615.573
<b>25.0</b>	3261.100	3267.552	3291.146	3317.120	3366.735	3423.588	3499.492	3581.008	3671.700	3758.839
<b>27.5</b>	3323.051	3329.199	3347.579	3375.409	3418.199	3480.778	3553.560	3645.321	3731.505	3831.414
<b>30.0</b>	3477.345	3478.374	3484.914	3500.833	3522.616	3577.753	3639.502	3726.741	3837.712	3945.568
<b>32.5</b>	3772.723	3770.448	3769.639	3777.288	3796.023	3841.111	3903.912	3976.847	4066.615	4168.660
<b>35.0</b>	3756.057	3759.730	3759.817	3776.444	3813.715	3876.016	3973.728	4105.862	4265.921	4444.805
<b>37.5</b>	3661.380	3667.394	3655.243	3659.467	3676.271	3715.799	3782.154	3930.704	4121.837	4351.888
<b>40.0</b>	3322.298	3330.088	3324.279	3327.761	3351.226	3395.783	3489.705	3655.835	3895.946	4220.701
<b>42.5</b>	2983.216	2990.184	2980.637	2970.661	2985.909	3009.690	3104.096	3255.377	3457.527	3738.194
<b>45.0</b>	2130.241	2156.831	2166.281	2185.769	2244.147	2305.200	2448.978	2621.140	2850.836	3153.361
<b>47.5</b>	1277.266	1318.549	1330.807	1356.832	1420.583	1487.232	1609.662	1726.161	1905.930	2148.731
<b>50.0</b>	1034.814	1059.396	1055.803	1057.697	1074.946	1091.092	1118.565	1122.257	1140.200	1163.453
<b>52.5</b>	792.362	806.755	807.657	815.373	831.927	852.800	875.902	894.204	921.742	967.391
<b>55.0</b>	549.910	554.255	560.803	572.389	590.525	612.610	638.916	670.387	708.033	761.005
<b>57.5</b>	494.567	495.808	496.862	499.115	503.749	507.361	515.162	528.230	547.117	569.854
<b>60.0</b>	439.225	439.391	440.760	443.113	446.964	448.937	455.393	465.384	481.194	499.768
<b>62.5</b>	383.883	382.993	384.692	387.075	389.916	390.340	394.863	401.830	413.129	427.111
<b>65.0</b>	328.540	326.609	328.656	331.002	332.678	331.475	333.263	336.482	343.054	352.473
<b>67.5</b>	283.300	281.571	283.368	283.930	285.157	282.539	281.981	281.978	283.044	285.489
<b>70.0</b>	238.060	236.639	238.442	237.474	239.313	236.346	235.397	235.829	236.064	237.308
<b>72.5</b>	192.820	191.715	193.505	191.201	193.417	190.205	188.792	189.831	188.889	188.649
<b>75.0</b>	147.580	146.797	148.560	145.007	147.487	144.108	142.178	143.953	141.555	139.593
<b>77.5</b>	110.685	110.432	112.610	110.331	111.815	109.521	107.389	108.567	105.037	101.472
<b>80.0</b>	73.790	74.095	76.892	76.156	77.351	76.825	75.668	76.562	74.505	72.348
<b>82.5</b>	36.895	37.743	41.195	41.910	43.067	44.193	44.112	44.928	44.239	43.510
<b>85.0</b>	0.000	1.378	5.508	7.612	8.905	11.598	12.670	13.437	14.146	14.870
<b>87.5</b>	0.000	0.658	2.641	3.544	4.010	5.168	5.456	5.526	5.608	5.704
<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>	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325
<b>2.5</b>	2879.742	2891.506	2903.188	2915.643	2928.847	2942.778	2957.408	2972.710	2988.655	3005.214
<b>5.0</b>	2507.904	2526.118	2545.641	2566.438	2588.473	2611.103	2638.010	2664.806	2692.434	2720.840
<b>7.5</b>	2310.634	2332.487	2354.562	2376.775	2399.049	2421.310	2443.494	2463.749	2486.512	2511.999
<b>10.0</b>	2346.569	2364.314	2380.443	2397.520	2413.062	2426.858	2438.833	2448.931	2454.795	2476.947
<b>12.5</b>	2542.364	2555.011	2567.131	2579.010	2588.625	2597.200	2601.460	2601.322	2600.598	2608.836
<b>15.0</b>	2819.638	2838.548	2851.207	2875.965	2887.650	2886.717	2892.188	2885.315	2878.836	2870.270
<b>17.5</b>	3141.676	3185.557	3223.604	3250.983	3263.771	3269.993	3265.544	3234.204	3220.186	3190.121
<b>20.0</b>	3448.782	3499.841	3551.233	3588.670	3605.847	3597.897	3589.883	3564.360	3512.788	3458.883
<b>22.5</b>	3683.822	3741.676	3796.095	3812.290	3818.823	3804.758	3774.690	3740.776	3678.276	3618.448
<b>25.0</b>	3837.776	3905.813	3938.032	3961.649	3955.712	3940.380	3895.928	3837.804	3763.741	3671.812
<b>27.5</b>	3918.013	3989.044	4045.123	4077.094	4087.791	4066.835	4020.283	3948.884	3858.979	3751.103
<b>30.0</b>	4051.598	4138.419	4201.249	4237.041	4245.372	4245.105	4210.615	4136.629	4030.671	3913.686

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**CANDELA TABULATION - (Cont.)**

32.5	4272.284	4376.193	4471.568	4553.590	4609.304	4615.294	4546.559	4444.820	4334.878	4154.187
35.0	4588.937	4733.215	4875.860	5006.792	5113.820	5126.553	5073.667	4935.731	4692.351	4447.253
37.5	4618.904	4917.075	5224.056	5528.960	5583.896	5587.224	5505.122	5331.566	5122.086	4756.553
40.0	4567.651	4880.936	5179.779	5417.204	5605.172	5754.231	5724.532	5496.642	5181.331	4911.516
42.5	4089.126	4450.804	4830.764	5104.476	5260.079	5258.743	5264.519	5167.746	5084.634	4698.598
45.0	3461.873	3738.701	3972.460	4217.843	4388.070	4557.400	4578.116	4465.116	4288.551	4102.969
47.5	2443.138	2746.462	2993.524	3230.619	3411.738	3487.570	3526.935	3506.585	3408.156	3214.901
50.0	1357.681	1625.131	1889.829	2152.455	2367.470	2463.161	2489.336	2461.893	2394.488	2286.524
52.5	1045.265	1083.365	1131.136	1192.361	1377.220	1561.441	1645.651	1635.939	1560.546	1496.592
55.0	819.929	866.957	922.574	972.670	995.558	1003.930	999.164	1074.518	1072.996	987.378
57.5	600.371	655.816	712.654	761.399	800.170	817.082	823.289	795.920	754.268	740.760
60.0	520.633	542.594	565.513	589.250	616.578	650.884	663.067	647.568	622.091	609.542
62.5	444.237	462.360	482.222	504.019	521.189	537.501	532.092	522.869	517.176	509.181
65.0	365.562	380.253	397.287	416.431	431.674	443.351	437.607	430.648	424.987	419.227
67.5	290.068	296.426	310.825	326.788	342.454	349.597	347.979	344.537	340.357	335.558
70.0	240.124	244.257	250.072	257.195	265.282	263.447	262.774	261.226	258.806	257.765
72.5	189.592	191.736	195.284	201.365	208.143	206.647	204.006	196.646	188.400	186.843
75.0	138.567	138.552	139.690	145.315	150.476	151.633	150.524	145.792	141.705	141.656
77.5	97.808	94.193	90.930	92.030	94.127	98.108	98.923	97.074	96.626	98.069
80.0	69.716	67.590	66.285	67.393	67.855	67.845	65.248	61.386	59.277	57.992
82.5	41.892	41.417	41.681	42.792	43.199	43.309	41.641	39.421	38.783	38.412
85.0	14.264	15.540	17.099	18.209	18.635	18.870	18.574	18.077	18.666	19.267
87.5	5.015	5.508	6.085	6.248	5.965	5.544	5.168	4.776	4.966	5.197
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	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325
2.5	3022.355	3040.044	3058.248	3076.933	3096.061	3115.597	3146.649	3155.548	3175.627	3195.949
5.0	2749.973	2787.460	2814.983	2852.873	2891.566	2930.990	2971.074	3011.743	3052.924	3094.542
7.5	2541.223	2583.280	2625.651	2668.286	2711.144	2754.191	2797.400	2846.602	2905.507	2965.488
10.0	2502.340	2526.132	2548.317	2568.911	2589.209	2637.647	2689.248	2742.465	2793.811	2848.633
12.5	2613.901	2614.758	2611.460	2617.460	2635.817	2647.997	2662.014	2684.785	2738.861	2791.147
15.0	2851.096	2827.114	2808.190	2794.363	2775.680	2742.902	2743.681	2741.779	2737.986	2767.179
17.5	3143.225	3089.210	3041.002	2989.434	2932.784	2892.845	2848.139	2806.702	2791.334	2772.623
20.0	3400.878	3329.040	3256.072	3177.216	3107.528	3023.766	2948.045	2885.430	2816.500	2791.768
22.5	3560.447	3462.094	3372.354	3280.258	3187.760	3090.978	2996.302	2907.846	2840.179	2771.501
25.0	3575.556	3486.805	3376.028	3272.008	3168.759	3065.945	2971.651	2889.702	2812.656	2762.973
27.5	3637.602	3511.839	3381.191	3260.809	3147.783	3041.633	2940.107	2848.575	2787.704	2750.052
30.0	3774.516	3618.589	3477.886	3331.874	3194.786	3072.654	2976.593	2897.218	2838.014	2806.360
32.5	3961.114	3790.280	3603.658	3432.082	3281.928	3149.177	3029.686	2949.228	2890.794	2858.162
35.0	4204.631	3942.016	3713.682	3521.319	3332.662	3185.440	3064.551	2974.437	2922.113	2893.426
37.5	4413.265	4106.927	3804.575	3534.878	3338.842	3168.190	3032.937	2921.408	2849.141	2811.213
40.0	4566.189	4153.341	3809.388	3527.795	3244.630	3035.734	2880.261	2781.895	2723.993	2677.814
42.5	4333.678	4037.125	3642.337	3279.180	2997.513	2790.015	2639.818	2499.259	2400.068	2340.695
45.0	3905.864	3485.158	3138.830	2831.343	2569.250	2366.865	2199.545	2076.831	2001.158	1966.260
47.5	2976.282	2707.991	2378.358	2172.538	2002.331	1811.530	1672.561	1592.564	1530.232	1476.525
50.0	2094.829	1821.593	1677.984	1492.259	1324.133	1216.761	1192.910	1129.534	1049.293	986.400
52.5	1343.917	1267.404	1129.566	927.992	832.731	866.334	833.876	733.903	704.125	735.566
55.0	929.348	886.078	756.285	696.621	684.489	651.709	614.442	601.989	593.415	597.860
57.5	725.359	667.968	620.381	594.927	574.942	555.647	538.065	522.357	507.966	494.483
60.0	592.691	564.672	530.411	494.784	483.715	479.519	465.704	447.899	430.419	423.185
62.5	495.672	474.233	448.370	425.712	414.029	404.782	393.949	377.237	377.693	378.364
65.0	407.175	388.862	370.082	364.266	355.889	343.713	333.052	330.883	331.132	333.136
67.5	326.776	313.452	308.077	303.137	296.290	287.864	285.275	284.596	284.353	286.342

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**CANDELA TABULATION - (Cont.)**

<b>70.0</b>	254.420	249.297	248.125	246.105	241.479	237.912	236.520	235.782	236.350	238.512
<b>72.5</b>	189.960	190.655	190.788	189.916	189.006	189.370	187.803	186.583	186.520	189.115
<b>75.0</b>	141.120	139.149	136.531	137.258	139.322	140.759	140.653	138.694	138.067	142.322
<b>77.5</b>	98.820	98.509	97.425	95.881	95.605	95.789	97.187	96.498	97.890	100.525
<b>80.0</b>	58.065	59.666	60.559	61.652	63.015	63.343	62.347	60.482	63.769	66.054
<b>82.5</b>	37.571	36.361	34.778	33.885	33.163	34.758	36.046	36.884	37.693	37.706
<b>85.0</b>	19.599	19.710	19.554	19.759	19.867	19.734	19.283	18.676	17.658	17.829
<b>87.5</b>	5.462	5.766	6.119	6.530	7.028	7.899	8.623	9.177	9.474	9.399
<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>	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325
<b>2.5</b>	3216.475	3237.163	3257.975	3278.868	3299.801	3320.734	3341.624	3360.417	3379.093	3397.616
<b>5.0</b>	3136.521	3195.262	3220.689	3262.344	3304.048	3345.726	3387.303	3425.628	3463.692	3501.410
<b>7.5</b>	3025.512	3085.848	3146.466	3207.339	3268.428	3329.750	3391.257	3446.543	3501.934	3560.004
<b>10.0</b>	2915.601	2988.521	3061.425	3134.383	3207.937	3282.973	3358.315	3425.878	3493.838	3553.642
<b>12.5</b>	2841.879	2906.644	2988.336	3069.982	3151.664	3236.694	3322.737	3402.219	3479.388	3546.259
<b>15.0</b>	2815.925	2863.437	2929.150	3012.282	3094.838	3185.040	3283.646	3378.016	3464.717	3543.871
<b>17.5</b>	2776.499	2809.986	2840.936	2921.896	3013.549	3110.065	3218.992	3324.199	3422.536	3518.723
<b>20.0</b>	2763.945	2767.416	2792.258	2837.550	2927.673	3019.841	3129.917	3260.447	3363.152	3477.282
<b>22.5</b>	2743.838	2715.650	2728.086	2747.511	2812.125	2885.941	2993.758	3126.437	3274.617	3424.229
<b>25.0</b>	2720.287	2704.880	2705.036	2731.258	2786.135	2861.107	2971.796	3120.279	3294.117	3477.522
<b>27.5</b>	2735.180	2733.409	2745.505	2782.706	2836.141	2918.037	3032.661	3197.343	3391.268	3599.740
<b>30.0</b>	2791.327	2796.194	2823.358	2863.300	2916.964	3005.827	3124.647	3300.524	3510.516	3737.253
<b>32.5</b>	2855.241	2873.066	2906.437	2952.959	3015.147	3108.906	3232.257	3408.540	3626.283	3862.077
<b>35.0</b>	2877.755	2886.239	2914.807	2958.894	3021.629	3112.668	3237.381	3414.299	3622.493	3836.444
<b>37.5</b>	2807.742	2829.121	2869.385	2922.827	2993.344	3089.208	3216.884	3386.588	3557.350	3700.879
<b>40.0</b>	2638.586	2629.812	2643.165	2673.322	2722.040	2797.190	2900.642	3028.182	3154.530	3257.087
<b>42.5</b>	2315.769	2320.940	2348.218	2384.694	2434.307	2503.382	2584.400	2652.080	2703.057	2733.605
<b>45.0</b>	1932.488	1911.077	1904.052	1909.760	1927.812	1965.419	2016.043	2063.329	2104.783	2127.660
<b>47.5</b>	1435.868	1410.196	1397.958	1396.594	1406.949	1427.334	1447.686	1465.745	1487.719	1513.795
<b>50.0</b>	968.309	1014.120	1048.810	1075.951	1100.216	1125.649	1178.295	1191.658	1195.179	1190.681
<b>52.5</b>	772.925	798.553	812.105	817.756	821.966	830.049	908.903	925.740	942.563	954.232
<b>55.0</b>	608.800	608.661	595.188	573.319	551.491	538.119	639.512	662.020	696.608	731.492
<b>57.5</b>	479.722	469.014	472.177	475.636	480.921	488.292	572.750	588.272	606.024	621.350
<b>60.0</b>	423.893	425.408	428.391	432.515	438.550	446.087	505.988	520.289	537.196	551.958
<b>62.5</b>	379.902	382.197	384.792	388.940	395.494	403.732	439.225	451.919	467.883	481.639
<b>65.0</b>	335.213	337.819	341.036	345.171	351.621	361.181	372.463	383.361	398.019	411.237
<b>67.5</b>	289.294	292.615	295.972	297.501	300.238	306.732	316.242	326.329	338.510	347.663
<b>70.0</b>	242.323	244.279	245.896	246.792	247.734	252.071	260.022	269.508	281.319	290.605
<b>72.5</b>	193.572	196.105	196.813	197.028	195.424	197.933	203.801	212.545	223.090	233.510
<b>75.0</b>	146.180	149.179	149.642	148.440	146.155	144.550	147.580	155.817	165.203	175.261
<b>77.5</b>	102.881	104.199	104.783	104.543	108.014	108.604	112.442	118.587	122.343	121.315
<b>80.0</b>	66.473	65.785	67.344	73.129	75.398	75.160	77.304	83.033	86.237	86.266
<b>82.5</b>	38.070	38.178	41.038	43.762	45.263	42.974	42.166	47.565	52.301	52.934
<b>85.0</b>	18.136	19.278	21.213	22.230	20.525	13.530	7.028	14.564	25.012	27.963
<b>87.5</b>	8.765	8.374	7.901	8.841	8.365	4.969	3.514	6.210	10.482	11.465
<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>	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325
<b>2.5</b>	3415.952	3434.068	3451.931	3469.507	3486.764	3511.061	3518.471	3531.625	3544.400	3556.769

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**CANDELA TABULATION - (Cont.)**

<b>5.0</b>	3538.700	3572.664	3601.832	3630.458	3658.487	3685.865	3712.539	3738.458	3763.573	3787.836
<b>7.5</b>	3603.473	3649.118	3694.768	3740.389	3786.934	3829.732	3865.381	3896.431	3926.904	3956.752
<b>10.0</b>	3610.653	3668.086	3725.940	3783.058	3828.042	3873.458	3921.449	3963.885	4007.210	4043.495
<b>12.5</b>	3613.114	3679.849	3737.759	3787.833	3837.624	3887.045	3930.532	3972.186	4016.684	4064.438
<b>15.0</b>	3623.215	3697.249	3764.493	3829.813	3888.987	3939.624	3987.844	4033.161	4074.016	4117.017
<b>17.5</b>	3614.383	3706.180	3792.024	3873.938	3949.378	4020.503	4086.602	4146.810	4202.505	4248.877
<b>20.0</b>	3596.906	3717.276	3832.451	3942.141	4045.466	4141.375	4229.388	4305.781	4373.910	4434.219
<b>22.5</b>	3585.698	3744.157	3900.608	4048.750	4183.423	4309.202	4410.363	4504.278	4575.579	4634.803
<b>25.0</b>	3672.549	3864.993	4051.859	4215.394	4369.719	4491.902	4606.357	4687.265	4758.680	4792.797
<b>27.5</b>	3814.643	4032.863	4229.826	4410.647	4551.123	4674.517	4755.891	4818.853	4862.595	4886.909
<b>30.0</b>	3967.220	4199.172	4390.713	4536.597	4656.806	4733.705	4792.496	4844.424	4867.847	4867.700
<b>32.5</b>	4077.306	4259.711	4408.674	4519.730	4593.570	4656.751	4714.916	4715.560	4699.389	4678.655
<b>35.0</b>	4032.640	4167.231	4274.703	4357.191	4388.797	4397.081	4390.240	4383.421	4387.131	4353.798
<b>37.5</b>	3802.115	3865.693	3904.332	3928.334	3938.181	3944.604	3948.530	3942.437	3880.309	3827.101
<b>40.0</b>	3327.165	3369.984	3396.034	3408.641	3395.220	3370.620	3357.434	3326.093	3299.061	3212.533
<b>42.5</b>	2748.674	2752.811	2758.721	2761.310	2758.862	2752.987	2727.125	2692.170	2629.425	2531.841
<b>45.0</b>	2137.752	2139.433	2133.976	2120.797	2128.463	2128.981	2118.045	2080.861	2001.360	1883.313
<b>47.5</b>	1540.684	1568.829	1591.100	1603.491	1600.763	1578.262	1562.850	1536.823	1463.415	1355.646
<b>50.0</b>	1174.093	1151.279	1119.673	1143.350	1174.035	1190.293	1172.976	1110.147	1063.416	966.347
<b>52.5</b>	959.346	955.268	942.089	916.644	891.891	898.104	917.048	893.921	825.861	808.159
<b>55.0</b>	761.628	782.162	789.537	784.287	779.568	779.131	780.035	772.658	758.051	734.245
<b>57.5</b>	634.224	647.112	665.603	680.035	689.113	695.296	699.252	705.834	708.018	695.511
<b>60.0</b>	564.236	576.838	588.338	599.112	610.662	617.812	616.850	628.929	646.871	653.874
<b>62.5</b>	494.104	507.580	519.454	531.072	540.412	529.215	540.156	561.162	577.781	592.391
<b>65.0</b>	424.727	439.062	452.449	464.986	460.173	463.783	478.814	494.872	510.559	510.756
<b>67.5</b>	359.091	372.422	387.137	392.569	396.519	407.946	418.088	429.658	430.312	423.156
<b>70.0</b>	301.762	312.766	323.818	329.629	336.453	344.848	351.856	357.186	359.787	349.076
<b>72.5</b>	243.702	254.832	262.666	265.859	271.401	276.739	282.474	287.638	289.844	283.685
<b>75.0</b>	185.795	195.621	200.410	203.707	204.316	210.110	214.593	217.320	218.586	217.305
<b>77.5</b>	128.528	135.989	142.354	146.060	146.716	146.932	150.340	151.666	153.255	153.818
<b>80.0</b>	81.240	84.427	92.467	95.549	94.925	92.015	96.234	98.392	97.780	94.995
<b>82.5</b>	51.057	48.143	51.472	53.734	55.142	54.545	53.364	50.841	47.512	48.613
<b>85.0</b>	26.787	24.600	24.063	24.756	24.680	26.183	27.166	27.916	28.289	28.380
<b>87.5</b>	10.352	10.371	10.457	11.473	11.795	11.654	11.194	10.520	9.661	9.400
<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>125.0</b></u>	<u><b>127.5</b></u>	<u><b>130.0</b></u>	<u><b>132.5</b></u>	<u><b>135.0</b></u>	<u><b>137.5</b></u>	<u><b>140.0</b></u>	<u><b>142.5</b></u>	<u><b>145.0</b></u>	<u><b>147.5</b></u>
<b>0.0</b>	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325
<b>2.5</b>	3568.712	3580.204	3591.224	3601.753	3611.769	3621.253	3630.189	3638.558	3646.345	3653.535
<b>5.0</b>	3811.201	3831.914	3847.377	3862.032	3875.852	3888.810	3900.883	3911.211	3922.940	3933.130
<b>7.5</b>	3985.925	4014.377	4042.059	4066.693	4086.175	4104.963	4118.544	4130.250	4141.160	4151.242
<b>10.0</b>	4079.752	4115.927	4151.964	4187.805	4223.050	4241.598	4259.222	4275.804	4291.321	4305.754
<b>12.5</b>	4108.730	4149.805	4190.523	4230.803	4274.415	4302.832	4334.145	4363.485	4390.850	4405.402
<b>15.0</b>	4157.162	4194.883	4230.137	4262.272	4308.046	4349.849	4386.923	4423.051	4447.004	4468.131
<b>17.5</b>	4291.712	4328.760	4355.244	4380.261	4409.880	4433.018	4438.750	4456.592	4477.245	4496.051
<b>20.0</b>	4477.021	4512.167	4534.233	4536.082	4531.732	4518.965	4480.733	4455.987	4432.075	4419.369
<b>22.5</b>	4673.335	4689.963	4704.978	4667.526	4619.996	4565.184	4467.696	4372.828	4297.747	4252.067
<b>25.0</b>	4825.875	4812.835	4788.416	4716.426	4614.904	4503.592	4379.072	4242.308	4136.598	4044.160
<b>27.5</b>	4890.804	4843.740	4767.930	4685.229	4539.029	4378.108	4222.098	4066.752	3934.293	3836.149
<b>30.0</b>	4823.235	4781.757	4676.691	4520.107	4364.154	4187.964	4004.326	3838.305	3696.395	3572.928
<b>32.5</b>	4638.569	4553.251	4429.427	4256.896	4077.796	3878.517	3681.857	3501.033	3343.486	3218.135
<b>35.0</b>	4269.003	4153.595	4008.141	3847.185	3619.050	3414.146	3216.523	3047.814	2888.467	2746.569
<b>37.5</b>	3731.489	3619.135	3415.372	3205.526	3020.572	2804.637	2610.379	2437.542	2299.627	2172.629
<b>40.0</b>	3087.254	2899.201	2703.772	2497.213	2296.440	2106.709	1916.595	1801.157	1712.381	1625.614

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**CANDELA TABULATION - (Cont.)**

42.5	2384.229	2204.164	2003.082	1793.422	1564.376	1487.212	1390.252	1285.690	1181.225	1100.095
45.0	1740.885	1568.067	1361.948	1253.898	1153.802	1039.515	915.809	903.286	886.810	860.713
47.5	1203.594	1081.177	1014.937	917.087	813.362	791.898	766.957	735.104	692.271	656.238
50.0	910.461	850.544	767.791	751.779	727.034	696.426	654.455	640.417	630.087	624.733
52.5	773.520	737.959	719.417	697.257	667.987	654.155	641.076	628.459	616.452	604.959
55.0	722.617	704.472	684.519	672.216	657.204	643.770	630.836	620.080	611.282	604.392
57.5	686.081	679.418	666.866	655.964	643.630	631.090	622.003	612.980	605.988	601.366
60.0	647.159	649.264	643.446	628.279	622.107	613.868	608.236	603.143	598.294	585.835
62.5	596.417	586.430	592.067	587.473	588.195	591.892	576.350	561.616	545.718	533.397
65.0	500.521	498.576	514.665	531.815	522.521	517.301	505.064	496.934	486.961	478.702
67.5	408.550	400.975	422.630	436.273	433.567	431.356	428.734	426.900	425.213	421.379
70.0	339.923	333.269	339.302	343.907	342.609	343.807	347.835	352.945	357.147	352.839
72.5	276.162	271.037	268.306	261.817	258.123	266.738	274.408	278.478	281.537	277.813
75.0	211.098	208.716	206.200	201.330	196.904	199.973	204.558	206.258	206.109	203.037
77.5	150.872	147.716	144.896	140.936	136.645	135.731	136.933	135.921	132.352	132.034
80.0	91.123	87.667	84.458	84.014	85.246	87.410	91.424	94.437	95.318	95.943
82.5	50.011	52.232	53.728	54.595	55.033	55.820	58.263	60.225	60.424	60.245
85.0	28.271	27.837	26.887	25.638	25.227	24.884	25.676	26.271	25.764	24.813
87.5	9.145	7.660	6.348	5.213	5.600	5.978	6.898	7.758	8.109	8.191
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	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325	3329.325
2.5	3660.115	3666.070	3670.482	3677.278	3684.118	3690.324	3695.887	3700.800	3705.054	3708.645
5.0	3942.398	3950.727	3958.099	3964.500	3969.916	3974.335	3977.748	3978.934	3992.844	3994.735
7.5	4160.466	4168.797	4176.203	4188.042	4186.056	4186.831	4186.859	4186.132	4184.640	4182.891
10.0	4318.712	4323.284	4324.422	4321.828	4318.180	4313.582	4311.054	4307.841	4303.967	4299.460
12.5	4413.380	4417.258	4416.894	4410.442	4398.088	4384.097	4368.681	4355.781	4344.623	4332.936
15.0	4483.840	4485.952	4471.582	4454.792	4433.483	4406.774	4374.739	4341.348	4314.905	4292.248
17.5	4495.326	4484.946	4475.100	4453.030	4421.738	4391.164	4353.699	4316.894	4280.327	4257.973
20.0	4403.230	4394.912	4374.096	4358.202	4338.951	4309.685	4283.256	4256.069	4230.540	4211.306
22.5	4213.082	4211.541	4222.247	4227.612	4231.608	4230.137	4218.099	4206.740	4190.022	4175.868
25.0	4010.354	3997.061	4026.794	4072.879	4101.958	4124.757	4131.017	4132.319	4125.730	4118.062
27.5	3771.245	3767.518	3804.758	3866.241	3945.782	3966.998	3993.986	3998.605	4000.940	3993.916
30.0	3492.526	3461.783	3499.014	3578.367	3670.853	3756.897	3789.617	3800.615	3807.909	3796.360
32.5	3139.081	3092.417	3091.579	3172.392	3276.904	3384.673	3436.568	3469.920	3488.734	3492.914
35.0	2640.935	2583.088	2598.623	2675.272	2802.448	2896.404	2957.236	2970.420	2969.645	2963.763
37.5	2101.478	2041.570	2014.000	2060.040	2151.825	2250.510	2324.456	2332.869	2340.414	2342.144
40.0	1542.924	1478.431	1446.036	1483.237	1576.236	1690.744	1754.256	1785.532	1796.538	1796.687
42.5	1082.909	1080.027	1080.022	1093.880	1155.865	1223.614	1266.164	1280.586	1276.982	1262.697
45.0	827.291	792.360	763.190	773.265	834.808	904.458	960.530	990.461	1001.614	996.910
47.5	658.104	657.313	661.600	672.560	700.304	740.421	774.155	784.183	777.878	764.087
50.0	617.451	609.204	599.317	595.589	617.394	653.694	691.911	717.506	728.567	730.641
52.5	598.004	593.638	591.022	594.289	609.592	640.275	676.253	702.880	715.361	718.575
55.0	598.433	593.293	590.705	592.535	603.075	628.725	662.652	689.417	702.354	706.391
57.5	597.758	593.201	590.228	583.415	583.291	602.322	631.368	656.010	667.298	669.918
60.0	573.558	559.286	547.085	537.849	535.886	561.356	589.459	615.767	627.982	630.964
62.5	523.817	512.632	501.100	493.068	490.454	516.069	547.861	576.383	588.770	591.995
65.0	472.212	465.120	454.135	447.901	445.049	469.800	506.780	534.344	549.799	553.014
67.5	418.918	416.240	404.565	397.017	392.794	408.046	441.451	463.132	475.436	476.360
70.0	349.584	348.235	340.778	335.152	332.253	339.960	366.379	384.911	396.375	396.809
72.5	275.326	277.328	275.542	272.843	271.258	275.605	292.216	307.714	317.490	317.201
75.0	200.079	205.618	209.088	210.161	209.894	214.407	218.855	231.388	238.768	237.777
77.5	133.440	143.728	152.145	156.671	157.675	162.889	164.201	175.238	181.287	180.920

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

<b>80.0</b>	96.135	102.031	107.760	110.701	110.927	113.735	114.696	122.365	126.147	125.193
<b>82.5</b>	59.184	61.298	63.893	64.901	64.347	65.135	65.800	69.637	71.263	69.439
<b>85.0</b>	22.468	21.246	20.387	19.215	17.873	16.748	17.331	17.015	14.900	12.712
<b>87.5</b>	7.344	6.931	6.784	6.655	6.543	6.447	7.275	7.428	7.577	6.420
<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>	3329.325	3329.325	3329.325
<b>2.5</b>	3711.569	3713.823	3715.404
<b>5.0</b>	3996.638	3998.548	4000.461
<b>7.5</b>	4186.850	4190.015	4192.403
<b>10.0</b>	4296.347	4297.134	4297.378
<b>12.5</b>	4319.102	4315.536	4311.433
<b>15.0</b>	4268.234	4255.003	4248.184
<b>17.5</b>	4236.877	4221.113	4214.803
<b>20.0</b>	4197.250	4185.305	4180.837
<b>22.5</b>	4163.874	4154.915	4151.555
<b>25.0</b>	4112.658	4108.610	4107.633
<b>27.5</b>	3989.446	3987.415	3987.410
<b>30.0</b>	3790.527	3789.536	3788.316
<b>32.5</b>	3495.415	3502.645	3499.525
<b>35.0</b>	2955.611	2962.170	2949.835
<b>37.5</b>	2338.058	2347.145	2334.920
<b>40.0</b>	1786.705	1797.338	1783.254
<b>42.5</b>	1241.301	1236.568	1231.587
<b>45.0</b>	989.567	991.702	985.621
<b>47.5</b>	751.748	742.428	739.655
<b>50.0</b>	730.203	730.779	729.114
<b>52.5</b>	718.481	719.003	718.572
<b>55.0</b>	706.755	707.111	708.031
<b>57.5</b>	669.485	669.657	671.136
<b>60.0</b>	631.013	631.818	634.241
<b>62.5</b>	592.440	593.979	597.346
<b>65.0</b>	552.492	555.825	560.451
<b>67.5</b>	473.675	475.443	479.195
<b>70.0</b>	392.101	394.399	397.938
<b>72.5</b>	310.495	313.370	316.682
<b>75.0</b>	227.090	231.911	235.425
<b>77.5</b>	173.368	175.268	177.008
<b>80.0</b>	118.562	118.331	118.591
<b>82.5</b>	63.837	61.405	60.174
<b>85.0</b>	8.751	4.376	1.757
<b>87.5</b>	4.405	2.196	0.879
<b>90.0</b>	0.000	0.000	0.000



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VF2-L88-750-VF\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1310.11	N.A.	15.80
0-30	3053.63	N.A.	36.90
0-40	5309.13	N.A.	64.20
0-60	7634.06	N.A.	92.30
0-80	8242.86	N.A.	99.60
0-90	8274.45	N.A.	100.00
10-90	7959.31	N.A.	96.20
20-40	3999.02	N.A.	48.30
20-50	5639.3	N.A.	68.20
40-70	2743.57	N.A.	33.20
60-80	608.80	N.A.	7.40
70-80	190.16	N.A.	2.30
80-90	31.59	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	8274.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	315.14
10-20	994.97
20-30	1743.52
30-40	2255.5
40-50	1640.28
50-60	684.65
60-70	418.64
70-80	190.16
80-90	31.59
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

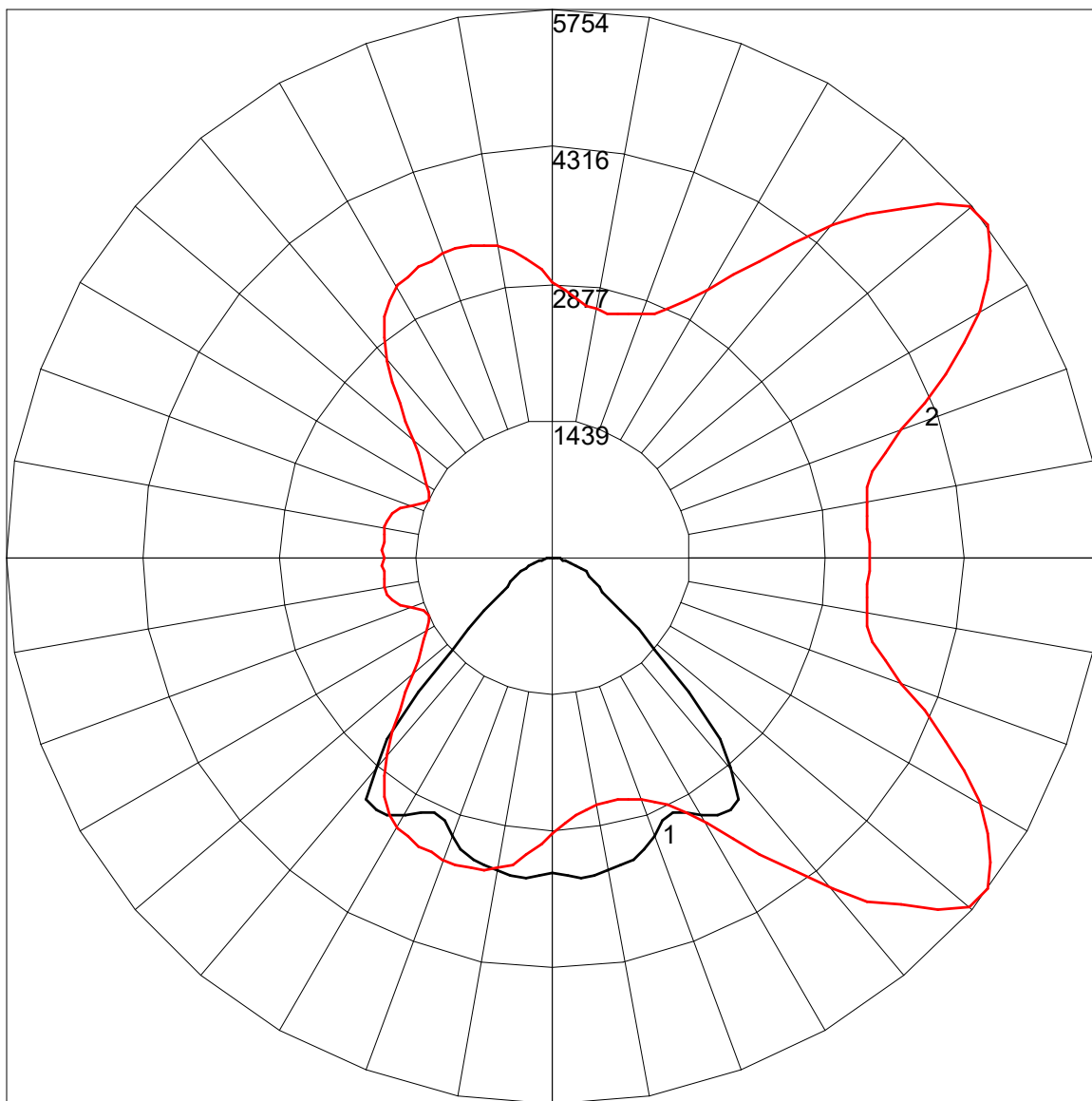
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VF2-L88-750-VF\_.IES**

**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	184	184	184	184	180	180	180	180	172	172	172	164	164	164	158	158	158	155
1	172	166	161	156	168	163	158	154	156	152	149	150	147	144	145	143	140	137
2	159	149	141	133	156	146	139	132	141	135	129	136	131	126	132	127	123	120
3	148	134	124	115	144	132	122	114	128	119	112	123	116	111	120	114	109	106
4	137	121	110	101	134	119	109	100	116	106	99	112	104	98	109	102	96	93
5	127	110	98	89	124	108	97	89	105	95	88	102	94	87	100	92	86	83
6	118	100	88	79	115	99	87	79	96	86	78	94	84	78	91	83	77	74
7	110	91	79	71	108	90	79	71	88	78	70	86	77	70	84	76	69	66
8	103	84	72	64	101	83	71	64	81	71	63	79	70	63	77	69	63	60
9	96	77	66	58	94	76	65	58	75	64	57	73	64	57	72	63	57	54
10	90	71	60	53	88	71	60	52	69	59	52	68	59	52	66	58	52	49

POLAR GRAPH



Maximum Candela = 5754.231 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.)