

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: INVUE

Report Number: P148819

Luminaire Tested: **VWM-E05-LED-E1-RW-7030**

Issue Date: 03/03/2020

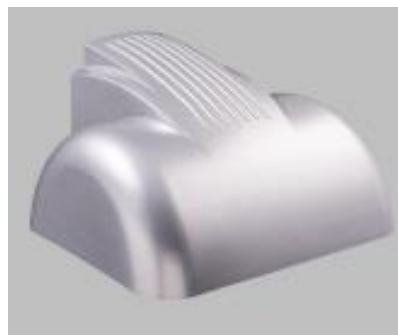
**Test Information**

Test Method: LM-79-08  
Report Number: P148819  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33677)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: VWM-E05-LED-E1-RW-7030  
Description: VISION WALL MEDIUM LED LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE  
Light Source: (105) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14266.2 lumens  
Efficiency: N/A  
Efficacy: 112.1 lumens/watt  
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B4 - U0 - G4

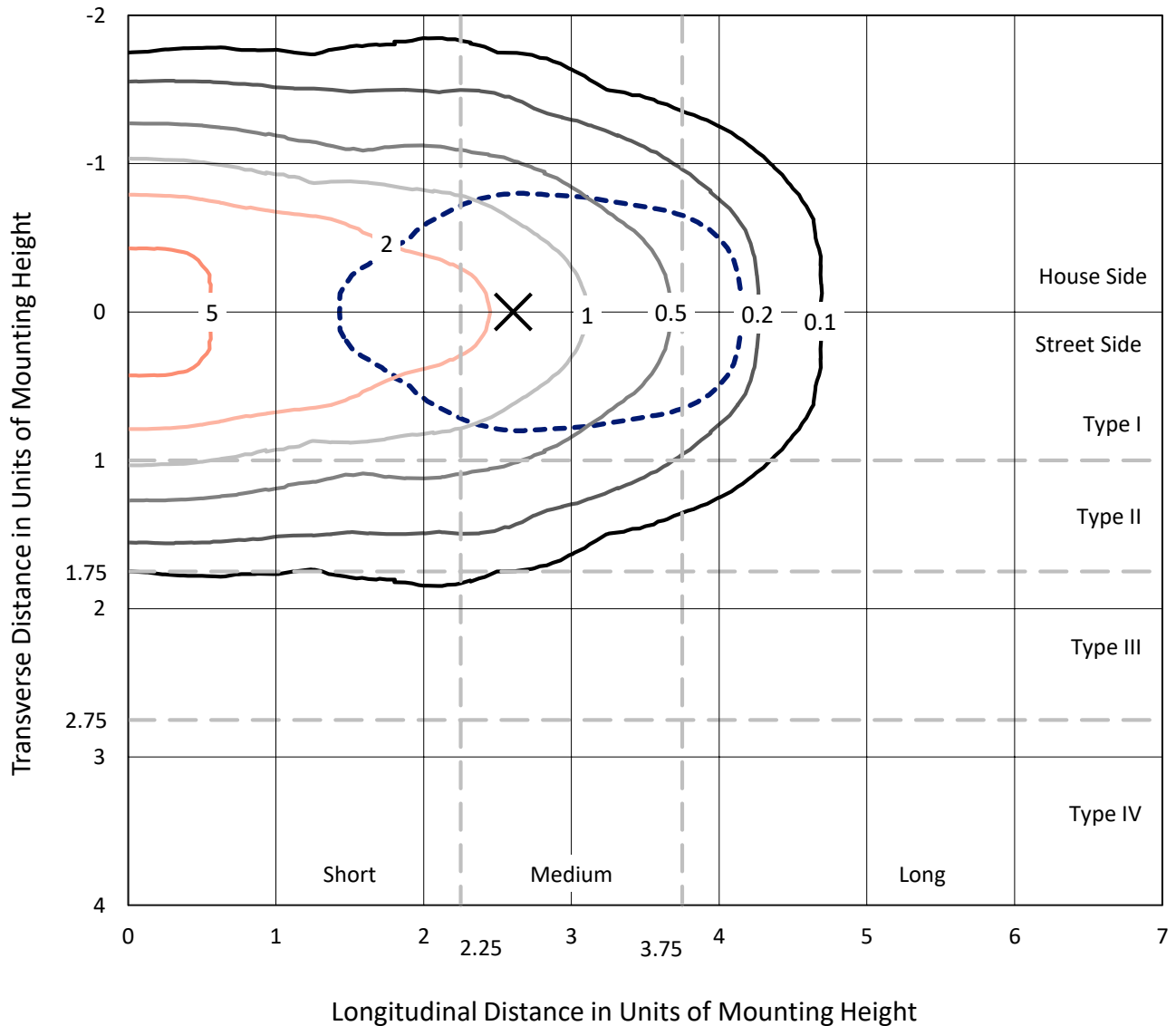
Input Watts (W): 127.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P148819  
 CATALOG NUMBER: VWM-E05-LED-E1-RW-7030

### Iso-Footcandle Lines of Horizontal Illumination

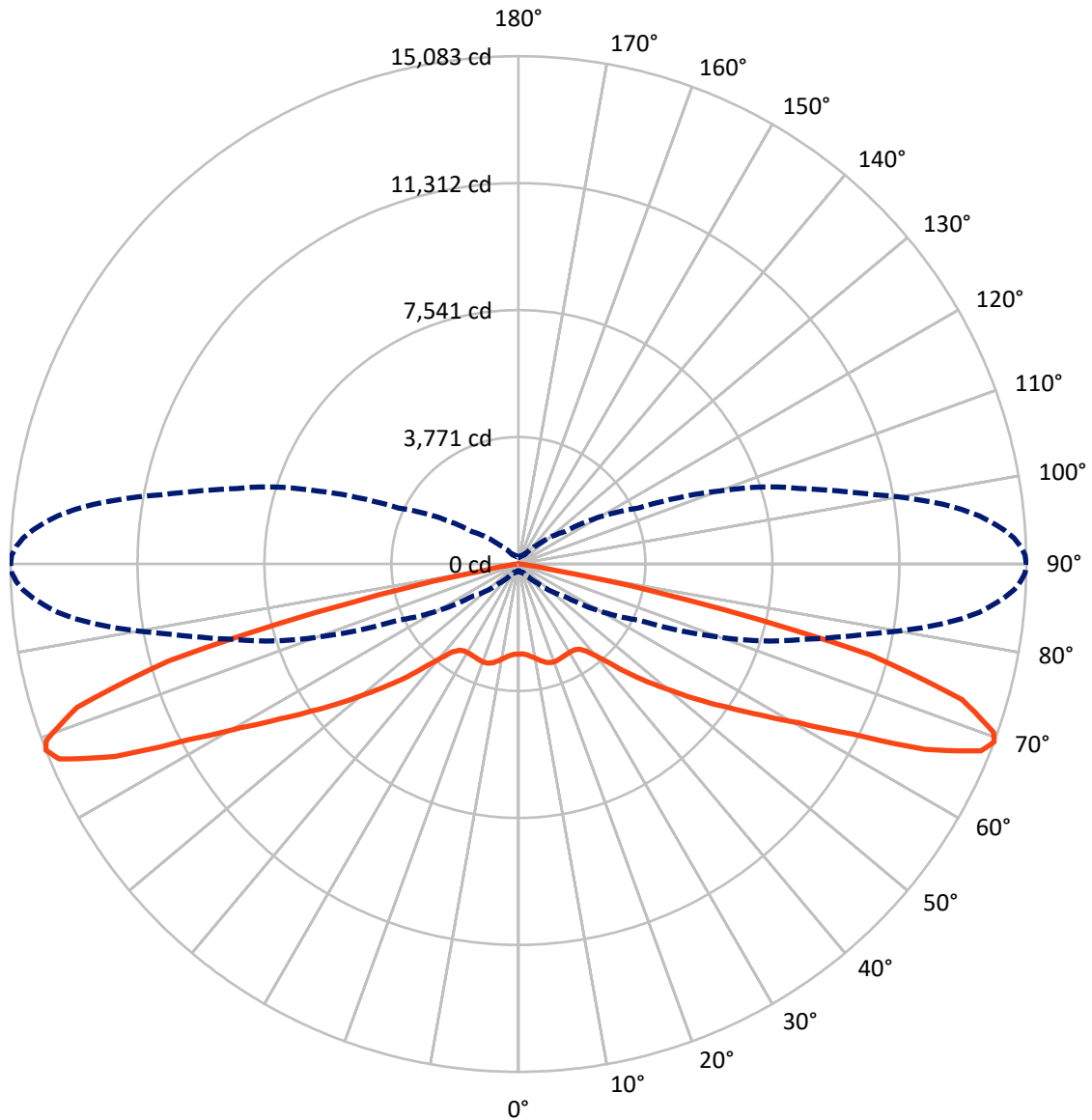
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.8 fc  
 Type I - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7133.1   | 0.0    | 7133.1  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 7133.1   | 0.0    | 7133.1  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 14266.2  | 0.0    | 14266.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 262.2   | 1.8       |
| 10°-20°   | 827.1   | 5.8       |
| 20°-30°   | 1340.0  | 9.4       |
| 30°-40°   | 1670.0  | 11.7      |
| 40°-50°   | 2086.9  | 14.6      |
| 50°-60°   | 2576.9  | 18.1      |
| 60°-70°   | 3201.9  | 22.4      |
| 70°-80°   | 2125.6  | 14.9      |
| 80°-90°   | 175.5   | 1.2       |
| 90°-100°  | 0.0     | 0.0       |
| 100°-110° | 0.0     | 0.0       |
| 110°-120° | 0.0     | 0.0       |
| 120°-130° | 0.0     | 0.0       |
| 130°-140° | 0.0     | 0.0       |
| 140°-150° | 0.0     | 0.0       |
| 150°-160° | 0.0     | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-90°    | 14266.2 | 100.0     |
| 0°-180°   | 14266.2 | 100.0     |



REPORT NUMBER: P148819

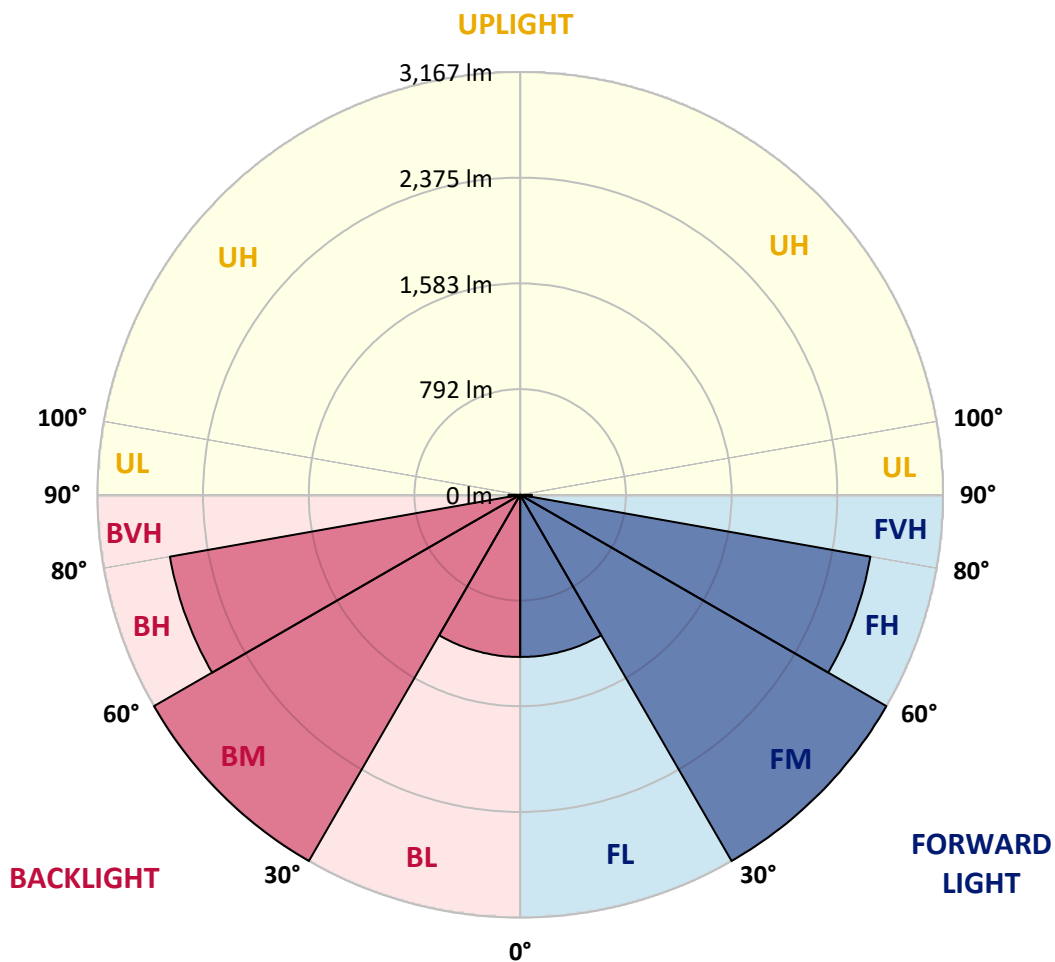
CATALOG NUMBER: VWM-E05-LED-E1-RW-7030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1214.7 | 8.5       |                         |      |         |
| FM   | (30°-60°)   | 3166.9 | 22.2      |                         |      |         |
| FH   | (60°-80°)   | 2663.8 | 18.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 87.7   | 0.6       |                         |      | G1/100  |
| BL   | (0°-30°)    | 1214.7 | 8.5       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3166.9 | 22.2      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2663.8 | 18.7      | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 87.7   | 0.6       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G4**

Type I Short





REPORT NUMBER: P148819

CATALOG NUMBER: VWM-E05-LED-E1-RW-7030

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 66°    | 67°    | 68°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 |
| 2.5°  | 2685.2 | 2687.6 | 2686.0 | 2689.0 | 2688.3 | 2688.2 | 2686.8 | 2683.7 | 2683.3 | 2682.9 | 2682.6 |
| 5°    | 2711.1 | 2708.0 | 2712.6 | 2717.2 | 2715.6 | 2716.4 | 2715.7 | 2715.7 | 2715.4 | 2715.1 | 2714.8 |
| 7.5°  | 2738.6 | 2737.8 | 2740.8 | 2753.0 | 2754.5 | 2759.1 | 2764.4 | 2768.2 | 2768.4 | 2768.5 | 2768.6 |
| 10°   | 2762.2 | 2762.9 | 2770.5 | 2788.0 | 2797.2 | 2811.6 | 2826.0 | 2837.5 | 2838.3 | 2839.2 | 2840.0 |
| 12.5° | 2781.1 | 2782.0 | 2793.3 | 2820.8 | 2842.9 | 2870.2 | 2901.4 | 2918.9 | 2920.4 | 2922.0 | 2923.5 |
| 15°   | 2782.7 | 2785.0 | 2804.8 | 2849.6 | 2893.8 | 2938.7 | 2976.0 | 2999.6 | 3000.8 | 3002.0 | 3003.2 |
| 17.5° | 2762.9 | 2764.4 | 2797.9 | 2864.1 | 2938.0 | 3008.0 | 3046.8 | 3057.4 | 3057.9 | 3058.4 | 3058.8 |
| 20°   | 2711.1 | 2715.0 | 2762.2 | 2860.3 | 2973.0 | 3064.2 | 3104.6 | 3090.2 | 3088.7 | 3087.3 | 3085.8 |
| 22.5° | 2627.4 | 2626.6 | 2688.3 | 2820.7 | 2979.8 | 3108.4 | 3144.2 | 3106.2 | 3101.7 | 3097.2 | 3092.7 |
| 25°   | 2491.9 | 2501.0 | 2573.4 | 2731.7 | 2941.0 | 3118.4 | 3172.4 | 3114.5 | 3108.1 | 3101.6 | 3095.1 |
| 27.5° | 2345.0 | 2350.4 | 2427.2 | 2597.0 | 2850.4 | 3084.0 | 3186.0 | 3131.3 | 3124.1 | 3116.8 | 3109.6 |
| 30°   | 2173.8 | 2180.6 | 2262.9 | 2440.1 | 2705.0 | 2995.8 | 3182.3 | 3169.3 | 3160.8 | 3152.4 | 3144.0 |
| 32.5° | 2006.3 | 2014.0 | 2087.8 | 2281.9 | 2552.0 | 2874.8 | 3159.4 | 3223.4 | 3214.7 | 3206.0 | 3197.4 |
| 35°   | 1832.8 | 1844.2 | 1934.0 | 2130.4 | 2404.4 | 2740.0 | 3124.4 | 3292.6 | 3287.9 | 3283.1 | 3278.3 |
| 37.5° | 1689.0 | 1691.2 | 1778.0 | 1984.2 | 2267.4 | 2611.4 | 3078.0 | 3380.2 | 3383.7 | 3387.2 | 3390.7 |
| 40°   | 1528.4 | 1542.8 | 1629.6 | 1847.2 | 2143.4 | 2502.6 | 3033.9 | 3498.9 | 3517.1 | 3535.3 | 3553.5 |
| 42.5° | 1384.5 | 1386.0 | 1474.3 | 1698.8 | 2008.6 | 2415.0 | 3009.5 | 3642.0 | 3680.9 | 3719.8 | 3758.7 |
| 45°   | 1233.0 | 1239.1 | 1319.0 | 1535.9 | 1853.4 | 2311.5 | 3008.7 | 3807.2 | 3869.3 | 3931.4 | 3993.5 |
| 47.5° | 1089.9 | 1092.2 | 1176.7 | 1378.4 | 1675.2 | 2167.0 | 3003.4 | 3984.5 | 4069.1 | 4153.6 | 4238.2 |
| 50°   | 953.0  | 950.6  | 1033.6 | 1227.7 | 1499.4 | 1977.4 | 2957.0 | 4185.4 | 4292.2 | 4399.0 | 4505.8 |
| 52.5° | 796.1  | 806.8  | 892.8  | 1078.5 | 1339.6 | 1784.8 | 2821.5 | 4405.4 | 4533.1 | 4660.8 | 4788.5 |
| 55°   | 642.3  | 647.0  | 739.0  | 912.6  | 1177.5 | 1605.2 | 2585.6 | 4607.8 | 4758.4 | 4909.0 | 5059.5 |
| 57.5° | 473.4  | 487.1  | 567.8  | 739.0  | 1013.1 | 1453.8 | 2285.6 | 4712.9 | 4896.1 | 5079.3 | 5262.5 |
| 60°   | 334.2  | 344.8  | 416.4  | 560.2  | 832.7  | 1294.6 | 2027.6 | 4654.3 | 4892.4 | 5130.5 | 5368.5 |
| 62.5° | 260.3  | 268.6  | 325.8  | 419.4  | 649.2  | 1135.6 | 1842.7 | 4464.8 | 4788.7 | 5112.6 | 5436.6 |
| 65°   | 228.3  | 236.0  | 287.7  | 335.6  | 484.8  | 973.4  | 1741.4 | 4264.6 | 4692.8 | 5121.0 | 5549.2 |
| 67.5° | 206.2  | 215.4  | 260.3  | 293.8  | 395.0  | 849.4  | 1714.8 | 4138.2 | 4623.2 | 5108.2 | 5593.2 |
| 69°   | 196.4  | 205.5  | 245.8  | 274.0  | 366.9  | 805.3  | 1669.2 | 3939.6 | 4421.8 | 4904.0 | 5386.1 |
| 70°   | 190.3  | 197.9  | 235.2  | 264.1  | 357.8  | 774.8  | 1593.0 | 3691.4 | 4164.9 | 4638.4 | 5111.9 |
| 72.5° | 176.6  | 180.4  | 213.1  | 241.2  | 331.8  | 626.4  | 1225.4 | 2741.6 | 3152.0 | 3562.5 | 3973.0 |
| 75°   | 156.0  | 160.6  | 191.0  | 218.4  | 258.8  | 388.9  | 775.6  | 1695.8 | 2002.2 | 2308.7 | 2615.1 |
| 77.5° | 134.7  | 138.6  | 165.2  | 208.6  | 201.0  | 242.8  | 463.5  | 943.8  | 1121.5 | 1299.2 | 1477.0 |
| 80°   | 108.0  | 112.6  | 136.2  | 207.0  | 165.9  | 188.8  | 333.4  | 659.9  | 707.8  | 755.8  | 803.8  |
| 82.5° | 79.2   | 82.9   | 106.6  | 167.4  | 127.2  | 142.3  | 254.2  | 559.4  | 576.1  | 592.7  | 609.4  |
| 85°   | 40.4   | 41.1   | 67.8   | 102.0  | 80.6   | 73.8   | 143.1  | 382.8  | 393.5  | 404.2  | 414.8  |
| 87.5° | 6.8    | 6.8    | 15.2   | 17.5   | 19.8   | 12.2   | 18.2   | 65.5   | 67.5   | 69.6   | 71.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P148819

CATALOG NUMBER: VWM-E05-LED-E1-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 69°    | 70°    | 71°    | 72°    | 73°    | 74°    | 75°    | 76°    | 77°    | 78°     | 79°     |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| 0°    | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1 | 2673.1  | 2673.1  |
| 2.5°  | 2682.2 | 2681.8 | 2680.5 | 2680.8 | 2681.7 | 2681.2 | 2682.2 | 2682.4 | 2683.2 | 2680.4  | 2679.8  |
| 5°    | 2714.5 | 2714.2 | 2714.0 | 2713.9 | 2714.5 | 2714.3 | 2715.0 | 2716.2 | 2715.9 | 2714.0  | 2713.7  |
| 7.5°  | 2768.8 | 2769.0 | 2769.7 | 2769.0 | 2770.5 | 2769.7 | 2768.2 | 2770.7 | 2772.3 | 2772.5  | 2774.2  |
| 10°   | 2840.8 | 2841.6 | 2844.3 | 2843.9 | 2846.6 | 2846.2 | 2846.6 | 2849.2 | 2851.0 | 2851.3  | 2853.2  |
| 12.5° | 2925.0 | 2926.6 | 2927.9 | 2929.3 | 2932.2 | 2930.5 | 2934.1 | 2935.7 | 2937.9 | 2942.5  | 2940.2  |
| 15°   | 3004.5 | 3005.7 | 3009.8 | 3010.1 | 3012.7 | 3013.8 | 3017.1 | 3018.5 | 3019.1 | 3022.8  | 3023.3  |
| 17.5° | 3059.2 | 3059.7 | 3061.2 | 3060.5 | 3062.8 | 3062.0 | 3064.2 | 3065.5 | 3067.5 | 3069.4  | 3073.0  |
| 20°   | 3084.4 | 3083.0 | 3082.1 | 3081.2 | 3079.7 | 3077.3 | 3078.0 | 3079.1 | 3079.4 | 3081.2  | 3083.8  |
| 22.5° | 3088.2 | 3083.7 | 3079.1 | 3075.9 | 3071.3 | 3067.4 | 3063.5 | 3063.8 | 3064.1 | 3063.7  | 3065.5  |
| 25°   | 3088.7 | 3082.2 | 3075.0 | 3066.2 | 3059.8 | 3051.0 | 3043.8 | 3043.1 | 3041.0 | 3041.1  | 3042.0  |
| 27.5° | 3102.4 | 3095.1 | 3085.0 | 3074.8 | 3060.9 | 3049.3 | 3037.6 | 3033.5 | 3029.4 | 3026.8  | 3025.8  |
| 30°   | 3135.5 | 3127.0 | 3115.0 | 3102.1 | 3087.0 | 3068.8 | 3052.1 | 3046.9 | 3041.0 | 3035.8  | 3031.4  |
| 32.5° | 3188.7 | 3180.0 | 3166.6 | 3153.2 | 3133.0 | 3115.0 | 3098.6 | 3090.2 | 3081.8 | 3072.6  | 3064.3  |
| 35°   | 3273.5 | 3268.7 | 3256.9 | 3245.1 | 3230.2 | 3216.1 | 3201.3 | 3191.9 | 3177.9 | 3170.7  | 3160.5  |
| 37.5° | 3394.2 | 3397.7 | 3397.7 | 3399.2 | 3394.6 | 3387.8 | 3377.1 | 3367.2 | 3362.6 | 3343.6  | 3331.5  |
| 40°   | 3571.6 | 3589.8 | 3606.5 | 3619.4 | 3630.7 | 3642.1 | 3651.8 | 3646.1 | 3647.9 | 3642.9  | 3635.6  |
| 42.5° | 3797.6 | 3836.4 | 3872.0 | 3907.6 | 3933.2 | 3973.3 | 4001.2 | 4010.1 | 4032.6 | 4041.4  | 4057.8  |
| 45°   | 4055.6 | 4117.7 | 4177.3 | 4232.4 | 4283.8 | 4341.1 | 4397.0 | 4438.6 | 4483.9 | 4535.4  | 4586.9  |
| 47.5° | 4322.7 | 4407.3 | 4495.2 | 4567.1 | 4641.3 | 4726.2 | 4800.4 | 4863.0 | 4944.6 | 5020.1  | 5103.2  |
| 50°   | 4612.6 | 4719.4 | 4819.4 | 4908.1 | 5003.6 | 5101.4 | 5203.0 | 5295.0 | 5405.2 | 5526.1  | 5656.9  |
| 52.5° | 4916.3 | 5044.0 | 5159.8 | 5271.1 | 5383.1 | 5495.2 | 5603.4 | 5733.2 | 5869.2 | 6028.7  | 6192.1  |
| 55°   | 5210.0 | 5360.6 | 5492.0 | 5615.7 | 5744.1 | 5869.3 | 5980.9 | 6154.6 | 6321.5 | 6511.8  | 6725.2  |
| 57.5° | 5445.7 | 5628.9 | 5780.4 | 5927.4 | 6072.1 | 6205.4 | 6342.4 | 6538.3 | 6751.0 | 6973.6  | 7244.1  |
| 60°   | 5606.6 | 5844.7 | 6038.2 | 6214.9 | 6392.4 | 6560.0 | 6717.7 | 6973.7 | 7226.7 | 7503.3  | 7840.0  |
| 62.5° | 5760.5 | 6084.4 | 6336.8 | 6577.8 | 6817.2 | 7032.3 | 7228.4 | 7550.5 | 7881.0 | 8222.9  | 8623.4  |
| 65°   | 5977.4 | 6405.6 | 6777.4 | 7113.3 | 7444.7 | 7760.9 | 8054.2 | 8462.3 | 8879.6 | 9329.6  | 9807.7  |
| 67.5° | 6078.2 | 6563.2 | 7047.3 | 7500.1 | 7921.0 | 8321.4 | 8698.2 | 9191.5 | 9682.6 | 10204.1 | 10781.9 |
| 69°   | 5868.3 | 6350.5 | 6868.0 | 7362.6 | 7827.6 | 8252.2 | 8660.0 | 9163.8 | 9674.4 | 10207.0 | 10789.9 |
| 70°   | 5585.4 | 6058.9 | 6581.3 | 7098.3 | 7543.1 | 7985.5 | 8408.2 | 8907.9 | 9425.1 | 9959.2  | 10569.3 |
| 72.5° | 4383.5 | 4794.0 | 5303.4 | 5805.1 | 6251.4 | 6695.4 | 7105.8 | 7617.3 | 8137.9 | 8698.9  | 9276.6  |
| 75°   | 2921.5 | 3228.0 | 3607.4 | 4073.0 | 4482.1 | 4874.6 | 5272.3 | 5704.9 | 6212.9 | 6675.2  | 7203.7  |
| 77.5° | 1654.7 | 1832.4 | 2052.9 | 2355.6 | 2649.2 | 2884.1 | 3167.8 | 3371.4 | 3666.2 | 3920.7  | 4189.7  |
| 80°   | 851.7  | 899.6  | 965.4  | 1038.0 | 1079.4 | 1072.9 | 1115.0 | 1073.4 | 1082.6 | 1048.6  | 1012.2  |
| 82.5° | 626.1  | 642.8  | 672.5  | 687.1  | 685.6  | 637.8  | 586.8  | 516.2  | 454.0  | 388.6   | 328.7   |
| 85°   | 425.5  | 436.1  | 443.6  | 454.8  | 451.7  | 431.0  | 385.2  | 323.8  | 263.9  | 211.8   | 169.4   |
| 87.5° | 73.7   | 75.7   | 75.2   | 81.5   | 81.8   | 75.9   | 62.4   | 53.3   | 44.9   | 33.5    | 23.6    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     |





REPORT NUMBER: P148819

CATALOG NUMBER: VWM-E05-LED-E1-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 80°     | 81°     | 82°     | 83°     | 84°     | 85°     | 86°     | 87°     | 88°     | 89°     | 90°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2673.1  | 2673.1  | 2673.1  | 2673.1  | 2673.1  | 2673.1  | 2673.1  | 2673.1  | 2673.1  | 2673.1  | 2673.1  |
| 2.5°  | 2679.2  | 2679.2  | 2680.7  | 2679.1  | 2679.1  | 2679.1  | 2678.4  | 2680.0  | 2679.2  | 2676.8  | 2674.6  |
| 5°    | 2714.2  | 2711.9  | 2711.2  | 2712.6  | 2714.2  | 2711.1  | 2713.4  | 2715.7  | 2711.9  | 2712.7  | 2711.1  |
| 7.5°  | 2772.8  | 2772.0  | 2771.2  | 2772.8  | 2772.8  | 2772.0  | 2772.8  | 2770.5  | 2769.0  | 2771.2  | 2773.5  |
| 10°   | 2851.2  | 2850.4  | 2852.0  | 2852.0  | 2855.0  | 2853.4  | 2852.7  | 2855.0  | 2853.4  | 2852.0  | 2852.7  |
| 12.5° | 2943.2  | 2941.0  | 2944.8  | 2944.8  | 2947.0  | 2947.1  | 2946.3  | 2947.0  | 2946.3  | 2944.0  | 2942.5  |
| 15°   | 3025.5  | 3022.4  | 3023.2  | 3029.2  | 3028.5  | 3030.0  | 3030.0  | 3028.5  | 3027.8  | 3027.0  | 3027.8  |
| 17.5° | 3075.0  | 3073.4  | 3073.4  | 3076.4  | 3078.8  | 3078.0  | 3078.0  | 3078.0  | 3077.2  | 3078.0  | 3079.5  |
| 20°   | 3084.0  | 3084.1  | 3084.8  | 3087.9  | 3091.7  | 3089.4  | 3089.5  | 3090.9  | 3089.4  | 3090.9  | 3091.7  |
| 22.5° | 3066.6  | 3068.1  | 3069.6  | 3073.4  | 3074.2  | 3074.2  | 3074.2  | 3074.9  | 3076.5  | 3076.4  | 3078.0  |
| 25°   | 3042.2  | 3043.8  | 3046.0  | 3049.0  | 3052.1  | 3052.1  | 3052.1  | 3053.6  | 3053.6  | 3054.4  | 3055.2  |
| 27.5° | 3024.0  | 3025.5  | 3027.8  | 3030.8  | 3034.6  | 3034.6  | 3034.6  | 3036.2  | 3036.2  | 3036.9  | 3038.4  |
| 30°   | 3026.2  | 3023.1  | 3025.5  | 3027.0  | 3029.3  | 3029.3  | 3028.6  | 3029.3  | 3030.0  | 3030.0  | 3030.8  |
| 32.5° | 3059.0  | 3052.1  | 3049.8  | 3049.0  | 3049.8  | 3047.6  | 3046.8  | 3045.2  | 3043.7  | 3043.7  | 3043.0  |
| 35°   | 3145.7  | 3135.1  | 3134.3  | 3128.2  | 3122.1  | 3116.0  | 3116.8  | 3112.2  | 3113.8  | 3110.0  | 3106.9  |
| 37.5° | 3323.8  | 3311.6  | 3319.2  | 3306.3  | 3298.0  | 3291.9  | 3285.0  | 3275.9  | 3270.6  | 3277.4  | 3277.4  |
| 40°   | 3642.8  | 3634.4  | 3632.1  | 3634.4  | 3626.8  | 3630.6  | 3613.8  | 3609.2  | 3599.4  | 3606.2  | 3615.3  |
| 42.5° | 4083.4  | 4078.1  | 4107.0  | 4112.4  | 4115.4  | 4120.0  | 4123.0  | 4097.9  | 4097.2  | 4091.8  | 4076.6  |
| 45°   | 4627.6  | 4659.6  | 4658.0  | 4693.1  | 4694.6  | 4684.0  | 4688.6  | 4677.1  | 4672.6  | 4655.8  | 4676.4  |
| 47.5° | 5187.0  | 5248.0  | 5270.8  | 5278.4  | 5307.4  | 5314.2  | 5286.8  | 5277.6  | 5293.6  | 5266.2  | 5270.0  |
| 50°   | 5787.6  | 5853.0  | 5906.4  | 5942.1  | 5962.6  | 5964.2  | 5943.6  | 5939.0  | 5953.5  | 5901.8  | 5926.1  |
| 52.5° | 6378.2  | 6477.2  | 6577.6  | 6631.0  | 6669.0  | 6672.0  | 6688.0  | 6669.0  | 6676.6  | 6664.4  | 6688.8  |
| 55°   | 6960.4  | 7131.8  | 7249.7  | 7354.0  | 7420.2  | 7477.3  | 7482.6  | 7503.2  | 7504.7  | 7529.8  | 7504.7  |
| 57.5° | 7529.8  | 7716.3  | 7921.8  | 8106.8  | 8209.5  | 8274.2  | 8335.1  | 8418.0  | 8436.3  | 8426.4  | 8442.4  |
| 60°   | 8201.8  | 8490.4  | 8769.7  | 8982.8  | 9160.2  | 9329.9  | 9421.2  | 9551.3  | 9571.9  | 9628.2  | 9579.5  |
| 62.5° | 9051.3  | 9469.9  | 9849.0  | 10135.9 | 10405.4 | 10669.5 | 10868.8 | 10969.3 | 11030.2 | 11148.2 | 11109.4 |
| 65°   | 10354.4 | 10856.7 | 11358.2 | 11769.2 | 12146.8 | 12461.2 | 12764.0 | 12908.7 | 13068.5 | 13236.0 | 13266.4 |
| 67.5° | 11427.5 | 12049.4 | 12614.9 | 13115.7 | 13573.2 | 13922.5 | 14237.6 | 14488.0 | 14682.8 | 14806.2 | 14816.1 |
| 69°   | 11476.2 | 12122.4 | 12736.6 | 13274.0 | 13751.2 | 14122.6 | 14454.6 | 14733.1 | 14922.6 | 15049.0 | 15082.5 |
| 70°   | 11243.3 | 11904.8 | 12559.3 | 13102.0 | 13590.6 | 13970.4 | 14322.1 | 14587.8 | 14799.3 | 14928.0 | 14972.9 |
| 72.5° | 9933.4  | 10639.8 | 11339.2 | 11814.9 | 12314.2 | 12766.3 | 13048.0 | 13318.9 | 13617.2 | 13656.1 | 13779.4 |
| 75°   | 7830.4  | 8424.2  | 8966.8  | 9330.6  | 9747.8  | 10153.4 | 10429.7 | 10501.2 | 10657.3 | 10853.6 | 10783.6 |
| 77.5° | 4537.8  | 4720.5  | 5070.6  | 5160.4  | 5084.3  | 5260.9  | 5319.5  | 5194.7  | 5188.6  | 5303.6  | 5075.2  |
| 80°   | 1005.4  | 948.4   | 1019.9  | 966.6   | 968.2   | 969.6   | 953.6   | 947.6   | 959.0   | 947.6   | 931.6   |
| 82.5° | 278.6   | 269.4   | 271.0   | 267.9   | 273.2   | 269.5   | 267.2   | 273.2   | 272.5   | 271.7   | 277.0   |
| 85°   | 134.0   | 132.4   | 130.2   | 129.4   | 126.4   | 122.6   | 116.4   | 116.4   | 119.4   | 114.9   | 117.2   |
| 87.5° | 17.5    | 16.8    | 16.8    | 19.8    | 17.5    | 14.4    | 14.4    | 14.4    | 13.7    | 13.7    | 13.7    |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |

(END OF REPORT)