

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: LUMARK

Report Number: P380875

Luminaire Tested: **PRV-XL-PA4B-740-U-T2R**

Issue Date: 1/15/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P380875  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-9)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 1/15/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: PRV-XL-PA4B-740-U-T2R  
Description: PREVAIL AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 39689 lumens  
Efficiency: N/A  
Efficacy: 131.0 lumens/watt  
Luminous Opening: Rectangular (W 1.42' x L: 1.79' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G4

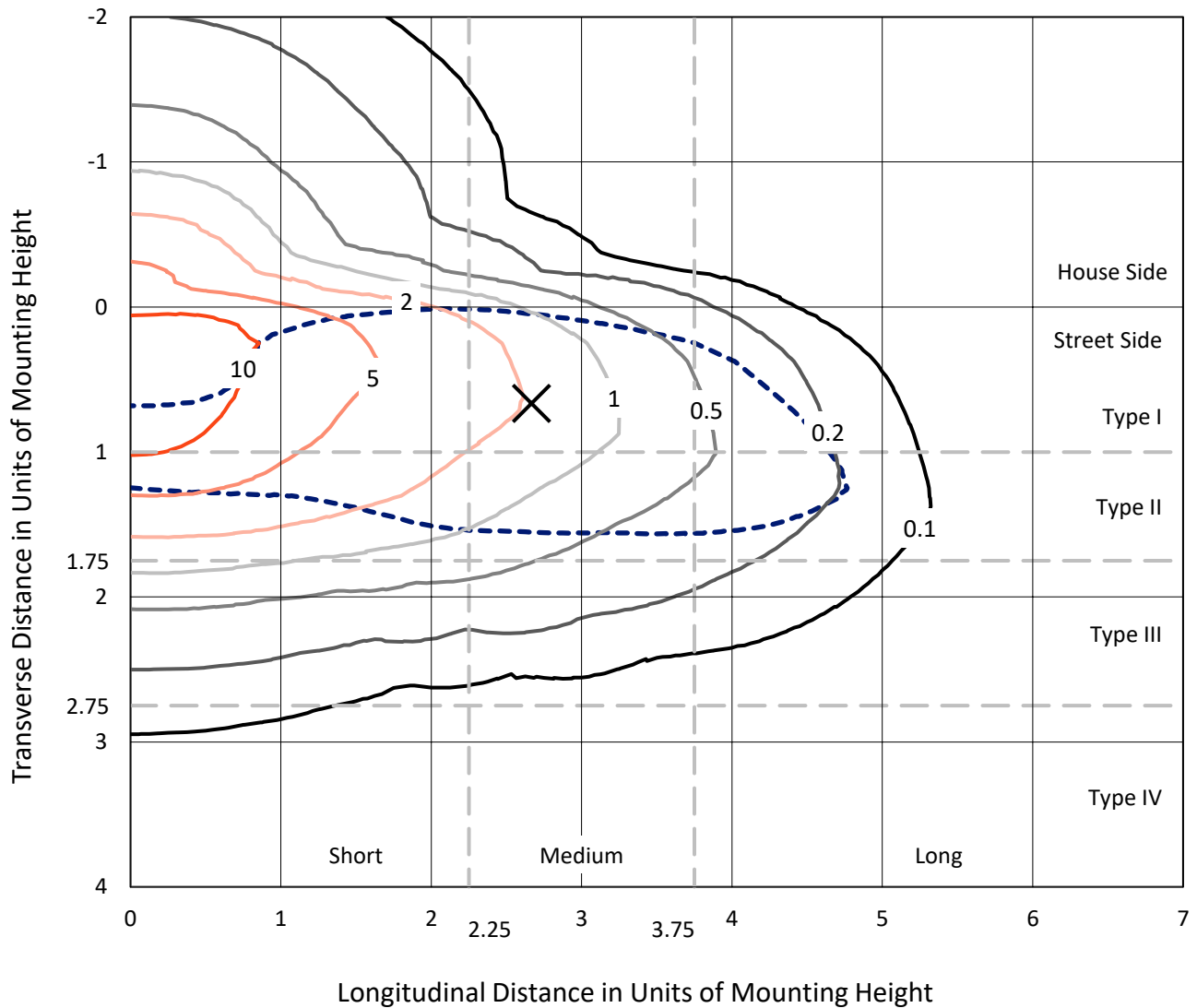
Input Watts (W): 303  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

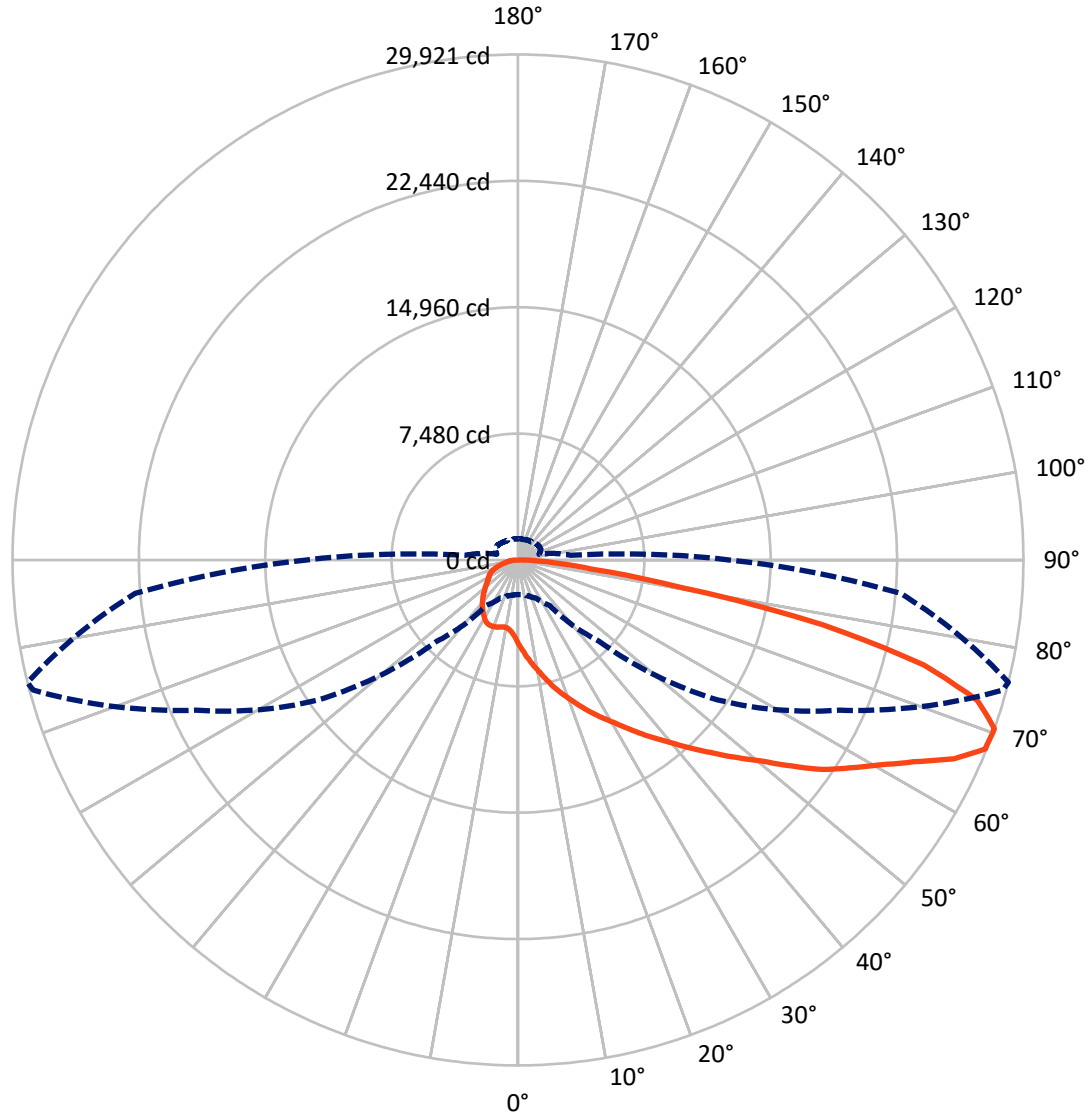
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.5 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6479.6   | 0.0    | 6479.6  |
|                    | % Fixture | 16.3     | 0.0    | 16.3    |
| <b>Street Side</b> | Lumens    | 33209.4  | 0.0    | 33209.4 |
|                    | % Fixture | 83.7     | 0.0    | 83.7    |
| <b>Total</b>       | Lumens    | 39689.0  | 0.0    | 39689.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 515.7   | 1.3       |
| 10°-20°   | 1752.7  | 4.4       |
| 20°-30°   | 3135.8  | 7.9       |
| 30°-40°   | 5072.7  | 12.8      |
| 40°-50°   | 7338.4  | 18.5      |
| 50°-60°   | 8399.2  | 21.2      |
| 60°-70°   | 7726.4  | 19.5      |
| 70°-80°   | 4777.9  | 12.0      |
| 80°-90°   | 970.2   | 2.4       |
| 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°    | 39689.0 | 100.0     |
| 0°-180°   | 39689.0 | 100.0     |

**Coefficient of Utilization**

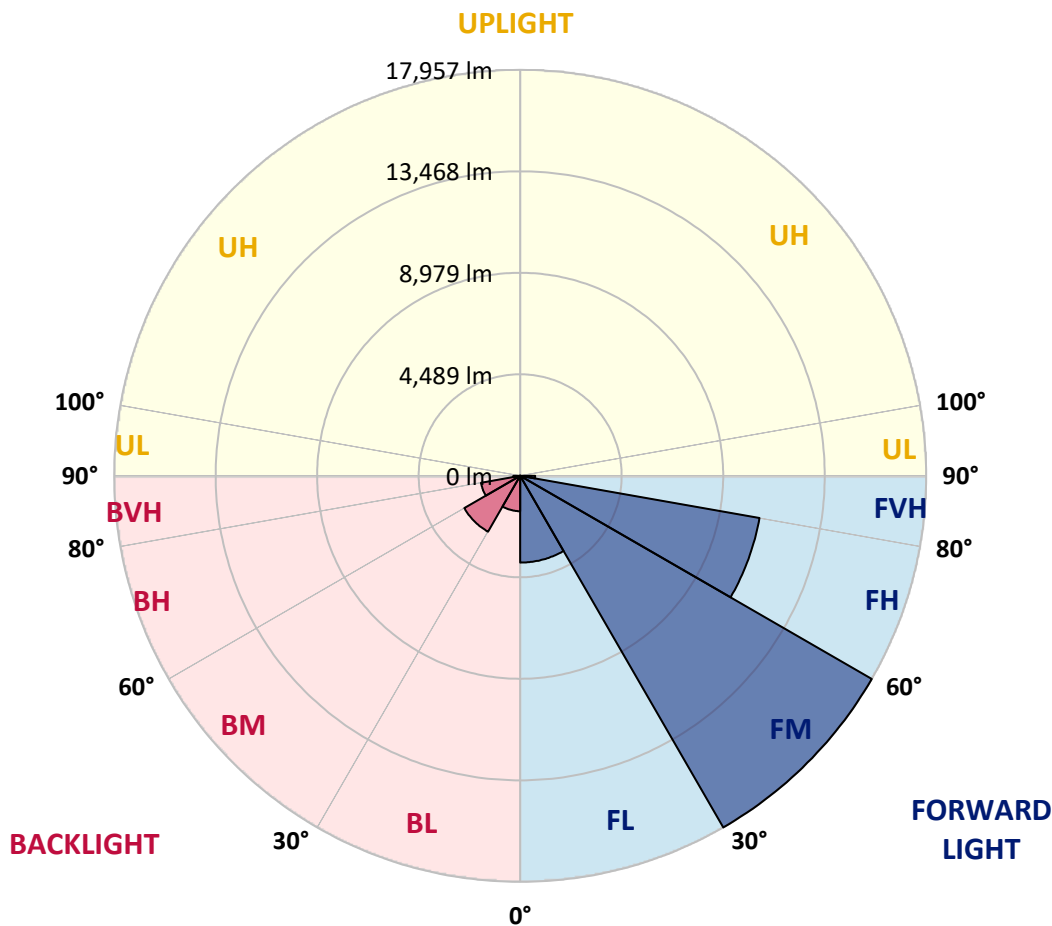


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 3839.2  | 9.7       |                         |      |          |
| FM (30°-60°)   | 17957.4 | 45.2      |                         |      |          |
| FH (60°-80°)   | 10746.7 | 27.1      |                         |      | G4/12000 |
| FVH (80°-90°)  | 666.0   | 1.7       |                         |      | G4/750   |
| BL (0°-30°)    | 1565.0  | 3.9       | B3/2500                 |      |          |
| BM (30°-60°)   | 2852.9  | 7.2       | B3/5000                 |      |          |
| BH (60°-80°)   | 1757.5  | 4.4       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 304.2   | 0.8       |                         |      | G3/500   |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**  
 Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4963.3  | 4963.3  | 4963.3  | 4963.3  | 4963.3  | 4963.3  | 4963.3  | 4963.3  | 4963.3  | 4963.3  | 4963.3  |
| 2.5°  | 6325.4  | 6278.5  | 6273.3  | 6200.2  | 6132.3  | 5949.7  | 5819.2  | 5589.6  | 5359.9  | 5354.7  | 5125.1  |
| 5°    | 7311.8  | 7264.9  | 7238.8  | 7150.0  | 7035.2  | 6795.2  | 6560.3  | 6205.4  | 5814.0  | 5787.9  | 5354.7  |
| 7.5°  | 7979.9  | 7938.1  | 7885.9  | 7849.4  | 7739.8  | 7525.8  | 7238.8  | 6816.0  | 6278.5  | 6226.3  | 5620.9  |
| 10°   | 8428.7  | 8402.6  | 8392.2  | 8366.1  | 8298.2  | 8126.0  | 7849.4  | 7400.6  | 6743.0  | 6685.6  | 5902.7  |
| 12.5° | 8621.8  | 8611.4  | 8658.3  | 8731.4  | 8757.5  | 8689.7  | 8423.5  | 8000.7  | 7254.4  | 7191.8  | 6241.9  |
| 15°   | 8397.4  | 8407.8  | 8527.9  | 8778.4  | 9044.5  | 9190.7  | 9034.1  | 8621.8  | 7833.7  | 7745.0  | 6638.6  |
| 17.5° | 8293.0  | 8308.7  | 8392.2  | 8632.2  | 9008.0  | 9462.1  | 9535.1  | 9211.6  | 8392.2  | 8266.9  | 7056.1  |
| 20°   | 8475.7  | 8496.5  | 8559.2  | 8747.1  | 9008.0  | 9493.4  | 9874.4  | 9775.2  | 8940.2  | 8809.7  | 7458.0  |
| 22.5° | 8940.2  | 8966.3  | 8961.0  | 9081.1  | 9258.5  | 9592.5  | 10062.3 | 10307.5 | 9514.3  | 9368.1  | 7875.5  |
| 25°   | 9931.8  | 9910.9  | 9733.5  | 9676.0  | 9723.0  | 9937.0  | 10312.8 | 10819.0 | 10114.4 | 9968.3  | 8313.9  |
| 27.5° | 11278.3 | 11252.2 | 10928.6 | 10636.3 | 10375.4 | 10469.3 | 10667.7 | 11231.3 | 10725.1 | 10558.1 | 8731.4  |
| 30°   | 12718.7 | 12687.4 | 12311.6 | 11836.7 | 11257.4 | 11121.7 | 11095.6 | 11591.4 | 11340.9 | 11163.5 | 9175.0  |
| 32.5° | 14122.6 | 14096.5 | 13694.7 | 13141.5 | 12343.0 | 11935.9 | 11685.4 | 11993.3 | 12040.3 | 11868.0 | 9660.4  |
| 35°   | 15401.3 | 15401.3 | 15056.8 | 14399.3 | 13496.4 | 12880.5 | 12468.2 | 12489.1 | 12844.0 | 12645.7 | 10213.6 |
| 37.5° | 16539.0 | 16533.8 | 16158.1 | 15510.9 | 14644.5 | 13940.0 | 13428.5 | 13089.3 | 13611.2 | 13439.0 | 10792.9 |
| 40°   | 17441.9 | 17405.4 | 17128.8 | 16565.1 | 15693.6 | 14994.2 | 14477.5 | 13793.8 | 14467.1 | 14310.5 | 11408.8 |
| 42.5° | 18099.5 | 18078.7 | 17890.8 | 17400.2 | 16570.4 | 15912.8 | 15557.9 | 14681.1 | 15437.8 | 15281.3 | 12129.0 |
| 45°   | 18355.3 | 18397.0 | 18397.0 | 17932.5 | 17274.9 | 16674.7 | 16518.2 | 15657.0 | 16486.9 | 16330.3 | 12901.4 |
| 47.5° | 17943.0 | 18052.6 | 18277.0 | 18308.3 | 17729.0 | 17321.9 | 17374.1 | 16638.2 | 17567.2 | 17483.7 | 13746.9 |
| 50°   | 16653.9 | 16857.4 | 17348.0 | 18235.2 | 17911.6 | 17817.7 | 18104.7 | 17640.3 | 18725.8 | 18699.7 | 14775.0 |
| 52.5° | 13329.4 | 13825.2 | 15354.3 | 16946.1 | 17786.4 | 18047.3 | 18830.2 | 18767.6 | 20218.4 | 20260.2 | 16116.3 |
| 55°   | 10224.0 | 10411.9 | 12181.2 | 14889.8 | 17019.2 | 17974.3 | 19315.6 | 19868.8 | 21836.3 | 21888.5 | 17348.0 |
| 57.5° | 8266.9  | 8392.2  | 9357.7  | 12181.2 | 15270.8 | 17577.6 | 19696.5 | 20510.7 | 23078.5 | 23214.2 | 18444.0 |
| 60°   | 6549.9  | 6732.5  | 7379.7  | 9321.2  | 12823.1 | 16622.5 | 19962.7 | 21225.7 | 24414.5 | 24618.1 | 19754.0 |
| 62.5° | 4869.3  | 4958.1  | 5568.7  | 6904.8  | 10151.0 | 14905.5 | 19821.8 | 22003.3 | 26053.3 | 26298.6 | 21330.1 |
| 65°   | 3465.4  | 3543.7  | 3976.9  | 4911.1  | 7504.9  | 12583.0 | 19002.4 | 22582.7 | 28109.6 | 28360.1 | 22916.7 |
| 67.5° | 2593.8  | 2625.2  | 2870.5  | 3434.1  | 5057.2  | 9775.2  | 17342.8 | 22483.5 | 29612.7 | 29837.1 | 23553.4 |
| 70°   | 2051.1  | 2061.5  | 2181.5  | 2484.2  | 3288.0  | 6805.6  | 14435.8 | 21027.4 | 29722.3 | 29920.6 | 22749.7 |
| 72.5° | 1701.4  | 1696.2  | 1764.0  | 1910.2  | 2291.1  | 4305.7  | 10693.8 | 18323.9 | 28313.1 | 28448.8 | 20505.5 |
| 75°   | 1403.9  | 1414.4  | 1461.3  | 1544.8  | 1748.4  | 2839.1  | 6930.8  | 14618.4 | 24978.2 | 24832.1 | 17207.1 |
| 77.5° | 1179.5  | 1174.3  | 1195.2  | 1268.2  | 1414.4  | 2040.6  | 4060.4  | 10563.3 | 18511.8 | 18438.8 | 11293.9 |
| 80°   | 949.9   | 960.3   | 991.6   | 1054.2  | 1189.9  | 1555.3  | 2400.7  | 6591.6  | 9931.8  | 9665.6  | 5396.5  |
| 82.5° | 636.7   | 735.9   | 798.5   | 871.6   | 1028.1  | 1148.2  | 1524.0  | 3350.6  | 4441.4  | 4373.5  | 2447.7  |
| 85°   | 302.7   | 401.9   | 595.0   | 678.5   | 835.0   | 720.2   | 1033.4  | 1597.0  | 2223.3  | 2197.2  | 882.0   |
| 87.5° | 62.6    | 62.6    | 318.4   | 381.0   | 516.7   | 307.9   | 574.1   | 694.1   | 1075.1  | 1007.3  | 360.1   |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 4963.3  | 4963.3 | 4963.3 | 4963.3 | 4963.3 | 4963.3 | 4963.3 | 4963.3 | 4963.3 | 4963.3 | 4963.3 |
| 2.5°  | 4989.4  | 4848.5 | 4566.6 | 4342.2 | 4112.6 | 3982.1 | 3820.3 | 3742.0 | 3726.4 | 3684.6 | 3715.9 |
| 5°    | 5078.1  | 4801.5 | 4269.2 | 3919.5 | 3684.6 | 3569.8 | 3512.4 | 3491.5 | 3486.3 | 3475.9 | 3475.9 |
| 7.5°  | 5198.1  | 4775.4 | 4081.3 | 3726.4 | 3575.0 | 3538.5 | 3554.1 | 3585.5 | 3590.7 | 3601.1 | 3595.9 |
| 10°   | 5344.3  | 4780.6 | 3976.9 | 3679.4 | 3606.3 | 3611.6 | 3663.7 | 3705.5 | 3726.4 | 3742.0 | 3736.8 |
| 12.5° | 5547.8  | 4843.2 | 3961.2 | 3710.7 | 3679.4 | 3700.3 | 3752.5 | 3794.2 | 3815.1 | 3820.3 | 3820.3 |
| 15°   | 5814.0  | 4973.7 | 3997.8 | 3778.6 | 3752.5 | 3768.1 | 3799.4 | 3815.1 | 3820.3 | 3815.1 | 3815.1 |
| 17.5° | 6106.2  | 5130.3 | 4050.0 | 3820.3 | 3778.6 | 3762.9 | 3752.5 | 3736.8 | 3705.5 | 3684.6 | 3684.6 |
| 20°   | 6388.1  | 5271.2 | 4076.0 | 3815.1 | 3742.0 | 3679.4 | 3616.8 | 3538.5 | 3486.3 | 3444.5 | 3444.5 |
| 22.5° | 6669.9  | 5401.7 | 4076.0 | 3757.7 | 3642.9 | 3522.8 | 3392.4 | 3267.1 | 3188.8 | 3136.6 | 3136.6 |
| 25°   | 6967.4  | 5526.9 | 4044.7 | 3658.5 | 3486.3 | 3314.1 | 3136.6 | 2980.1 | 2901.8 | 2849.6 | 2839.1 |
| 27.5° | 7217.9  | 5600.0 | 3961.2 | 3517.6 | 3293.2 | 3074.0 | 2870.5 | 2708.7 | 2651.3 | 2604.3 | 2604.3 |
| 30°   | 7484.1  | 5647.0 | 3804.7 | 3334.9 | 3074.0 | 2823.5 | 2614.7 | 2484.2 | 2421.6 | 2353.8 | 2348.6 |
| 32.5° | 7781.5  | 5678.3 | 3627.2 | 3141.8 | 2849.6 | 2583.4 | 2406.0 | 2301.6 | 2165.9 | 2092.8 | 2082.4 |
| 35°   | 8126.0  | 5720.0 | 3439.3 | 2922.6 | 2625.2 | 2385.1 | 2280.7 | 2108.5 | 1978.0 | 1915.4 | 1910.2 |
| 37.5° | 8491.3  | 5751.3 | 3235.8 | 2729.5 | 2421.6 | 2254.6 | 2150.2 | 1946.7 | 1831.9 | 1737.9 | 1727.5 |
| 40°   | 8877.5  | 5751.3 | 3027.0 | 2541.7 | 2259.8 | 2197.2 | 1998.9 | 1816.2 | 1623.1 | 1576.1 | 1565.7 |
| 42.5° | 9305.5  | 5740.9 | 2818.3 | 2359.0 | 2108.5 | 2066.7 | 1910.2 | 1717.1 | 1617.9 | 1576.1 | 1565.7 |
| 45°   | 9759.6  | 5704.4 | 2619.9 | 2150.2 | 1951.9 | 1868.4 | 1748.4 | 1696.2 | 1654.4 | 1654.4 | 1654.4 |
| 47.5° | 10276.2 | 5673.1 | 2395.5 | 1962.3 | 1837.1 | 1743.1 | 1654.4 | 1623.1 | 1617.9 | 1633.6 | 1649.2 |
| 50°   | 10939.0 | 5662.6 | 2207.6 | 1826.7 | 1748.4 | 1638.8 | 1628.3 | 1602.2 | 1607.5 | 1607.5 | 1607.5 |
| 52.5° | 11742.8 | 5568.7 | 2030.2 | 1727.5 | 1659.6 | 1529.2 | 1560.5 | 1586.6 | 1597.0 | 1591.8 | 1586.6 |
| 55°   | 12332.5 | 5401.7 | 1878.8 | 1659.6 | 1597.0 | 1487.4 | 1529.2 | 1570.9 | 1581.4 | 1565.7 | 1565.7 |
| 57.5° | 12864.9 | 5166.8 | 1758.8 | 1607.5 | 1555.3 | 1461.3 | 1508.3 | 1550.0 | 1539.6 | 1534.4 | 1529.2 |
| 60°   | 13475.5 | 4942.4 | 1664.9 | 1581.4 | 1513.5 | 1450.9 | 1492.6 | 1518.7 | 1503.1 | 1492.6 | 1487.4 |
| 62.5° | 14138.3 | 4723.2 | 1597.0 | 1581.4 | 1482.2 | 1445.7 | 1477.0 | 1487.4 | 1456.1 | 1445.7 | 1445.7 |
| 65°   | 14446.2 | 4378.8 | 1524.0 | 1581.4 | 1466.5 | 1435.2 | 1445.7 | 1435.2 | 1403.9 | 1403.9 | 1398.7 |
| 67.5° | 13940.0 | 3809.9 | 1430.0 | 1560.5 | 1487.4 | 1419.6 | 1398.7 | 1383.0 | 1346.5 | 1346.5 | 1336.1 |
| 70°   | 12541.3 | 3131.4 | 1294.3 | 1492.6 | 1492.6 | 1414.4 | 1336.1 | 1299.5 | 1257.8 | 1273.4 | 1252.6 |
| 72.5° | 10714.6 | 2484.2 | 1127.3 | 1377.8 | 1461.3 | 1409.1 | 1268.2 | 1210.8 | 1174.3 | 1189.9 | 1158.6 |
| 75°   | 8679.2  | 1925.8 | 929.0  | 1195.2 | 1383.0 | 1383.0 | 1200.4 | 1122.1 | 1080.3 | 1080.3 | 1043.8 |
| 77.5° | 5532.2  | 1424.8 | 756.8  | 991.6  | 1242.1 | 1346.5 | 1143.0 | 1022.9 | 960.3  | 944.6  | 918.5  |
| 80°   | 2740.0  | 1002.1 | 621.1  | 788.1  | 1059.5 | 1263.0 | 1101.2 | 908.1  | 819.4  | 788.1  | 741.1  |
| 82.5° | 1456.1  | 694.1  | 495.8  | 615.8  | 845.5  | 1137.7 | 1049.0 | 782.9  | 673.3  | 626.3  | 574.1  |
| 85°   | 652.4   | 428.0  | 396.6  | 469.7  | 641.9  | 934.2  | 944.6  | 641.9  | 516.7  | 615.8  | 454.1  |
| 87.5° | 240.1   | 193.1  | 193.1  | 240.1  | 370.5  | 391.4  | 668.0  | 412.3  | 328.8  | 224.4  | 177.4  |
| 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)