

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: STREETWORKS

Report Number: P841803

Luminaire Tested: **ARCH4-230-727-U-T2R**

Issue Date: 5/27/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P841803  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2403-329-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH4-230-727-U-T2R  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 905mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33554 lumens  
Efficiency: N/A  
Efficacy: 145.1 lumens/watt  
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G4

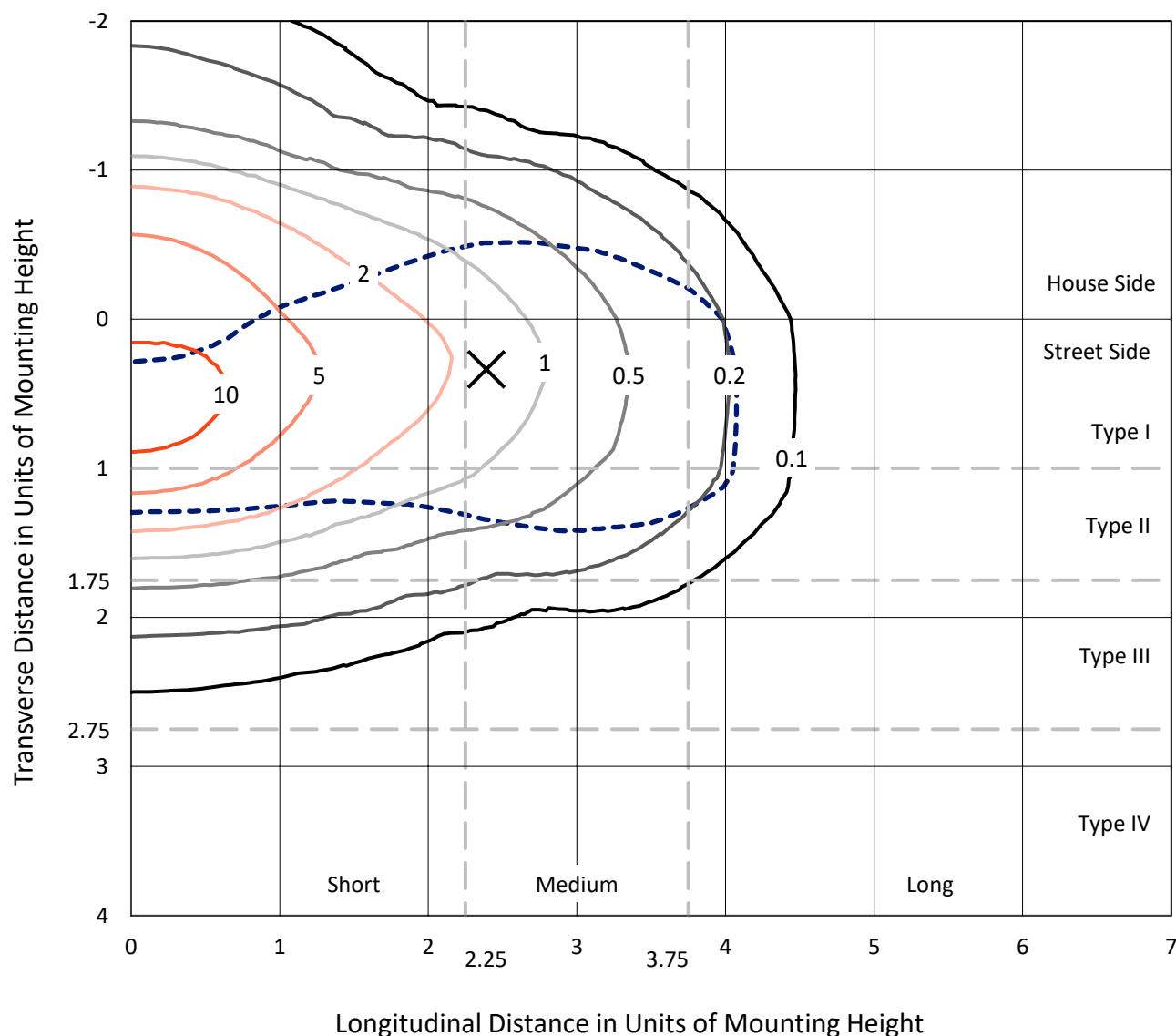
Input Watts (W): 231.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

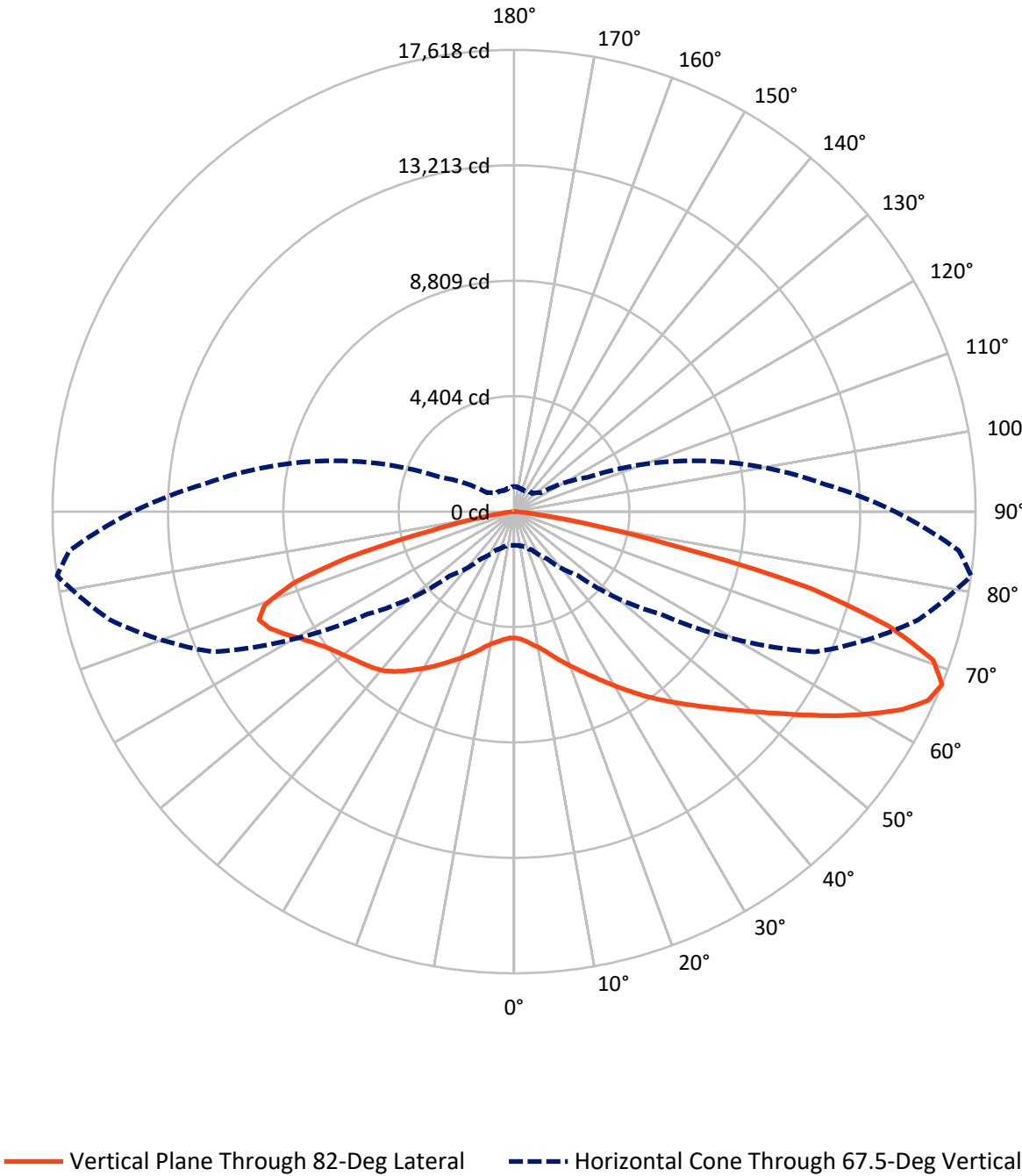
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.8 fc  
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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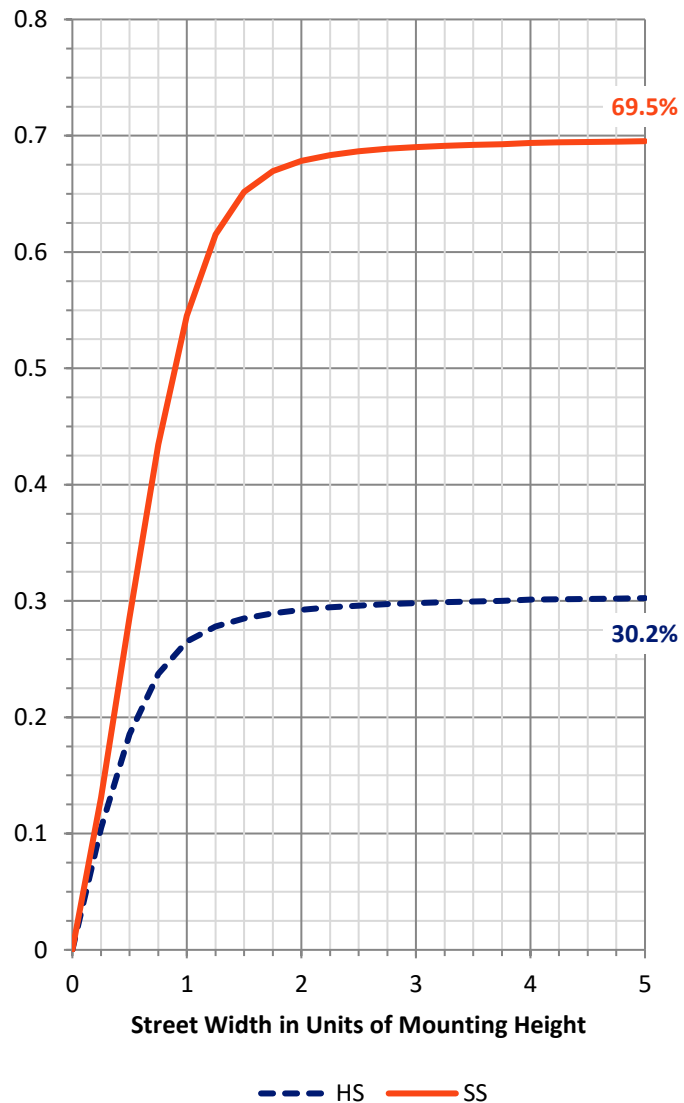
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10218.6  | 0.0    | 10218.6 |
|                    | % Fixture | 30.5     | 0.0    | 30.5    |
| <b>Street Side</b> | Lumens    | 23335.4  | 0.0    | 23335.4 |
|                    | % Fixture | 69.5     | 0.0    | 69.5    |
| <b>Total</b>       | Lumens    | 33554.0  | 0.0    | 33554.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 498.5   | 1.5       |
| 10°-20°   | 1795.5  | 5.4       |
| 20°-30°   | 3608.6  | 10.8      |
| 30°-40°   | 5668.6  | 16.9      |
| 40°-50°   | 6905.4  | 20.6      |
| 50°-60°   | 6524.8  | 19.4      |
| 60°-70°   | 5388.0  | 16.1      |
| 70°-80°   | 2934.0  | 8.7       |
| 80°-90°   | 230.7   | 0.7       |
| 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°    | 33554.0 | 100.0     |
| 0°-180°   | 33554.0 | 100.0     |

**Coefficient of Utilization**



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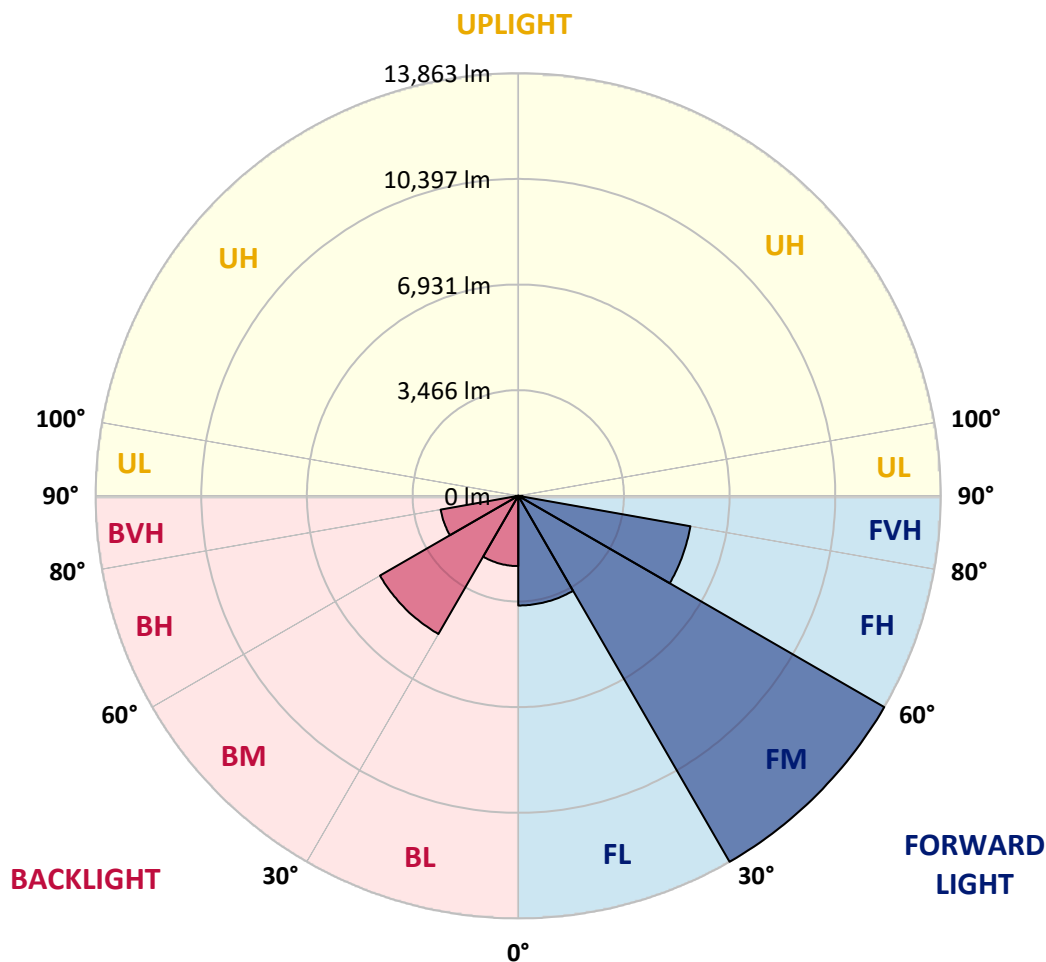
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 3598.2  | 10.7      |                         |      |         |
| FM   | (30°-60°)   | 13862.6 | 41.3      |                         |      |         |
| FH   | (60°-80°)   | 5735.6  | 17.1      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 139.0   | 0.4       |                         |      | G2/225  |
| BL   | (0°-30°)    | 2304.4  | 6.9       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 5236.2  | 15.6      | B4/8500                 |      |         |
| BH   | (60°-80°)   | 2586.4  | 7.7       | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 91.6    | 0.3       |                         |      | 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 II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 82°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4823.4  | 4823.4  | 4823.4  | 4823.4  | 4823.4  | 4823.4  | 4823.4  | 4823.4  | 4823.4  | 4823.4  | 4823.4  |
| 2.5°  | 5042.6  | 5042.6  | 5081.6  | 5081.6  | 5047.5  | 4993.9  | 4979.3  | 4920.8  | 4867.2  | 4867.2  | 4872.1  |
| 5°    | 5525.0  | 5520.1  | 5549.3  | 5510.3  | 5427.5  | 5320.3  | 5247.2  | 5120.6  | 5013.4  | 4979.3  | 4974.4  |
| 7.5°  | 6114.5  | 6109.6  | 6124.2  | 6060.9  | 5905.0  | 5729.6  | 5583.4  | 5378.8  | 5203.4  | 5130.3  | 5110.8  |
| 10°   | 6772.2  | 6767.3  | 6752.7  | 6645.5  | 6436.0  | 6163.2  | 5944.0  | 5661.4  | 5398.3  | 5281.3  | 5257.0  |
| 12.5° | 7527.4  | 7517.6  | 7483.5  | 7327.6  | 7040.2  | 6689.4  | 6372.7  | 6007.3  | 5656.5  | 5495.7  | 5442.1  |
| 15°   | 8370.3  | 8355.6  | 8292.3  | 8102.3  | 7717.4  | 7274.0  | 6864.8  | 6397.1  | 5968.3  | 5758.8  | 5685.7  |
| 17.5° | 9257.0  | 9257.0  | 9159.5  | 8876.9  | 8448.2  | 7897.7  | 7391.0  | 6796.6  | 6294.7  | 6036.5  | 5948.8  |
| 20°   | 10158.3 | 10153.4 | 10031.6 | 9690.6  | 9183.9  | 8550.5  | 7907.4  | 7254.5  | 6630.9  | 6319.1  | 6211.9  |
| 22.5° | 11108.4 | 11098.6 | 10947.6 | 10557.8 | 9953.7  | 9237.5  | 8487.2  | 7707.6  | 7001.2  | 6626.0  | 6489.6  |
| 25°   | 12199.7 | 12185.1 | 12000.0 | 11522.5 | 10806.3 | 9997.5  | 9140.0  | 8238.7  | 7425.1  | 6967.1  | 6806.3  |
| 27.5° | 13359.3 | 13339.8 | 13120.5 | 12565.1 | 11780.7 | 10806.3 | 9861.1  | 8852.6  | 7892.8  | 7347.1  | 7166.8  |
| 30°   | 14392.2 | 14377.5 | 14138.8 | 13568.8 | 12667.4 | 11610.2 | 10548.1 | 9466.5  | 8384.9  | 7751.5  | 7527.4  |
| 32.5° | 15171.7 | 15171.7 | 14957.3 | 14397.0 | 13461.6 | 12380.0 | 11239.9 | 10046.3 | 8896.4  | 8185.1  | 7922.0  |
| 35°   | 15644.3 | 15658.9 | 15473.8 | 15025.5 | 14143.7 | 13105.9 | 11956.1 | 10728.3 | 9442.1  | 8648.0  | 8365.4  |
| 37.5° | 15712.5 | 15761.2 | 15654.0 | 15352.0 | 14616.3 | 13710.1 | 12657.7 | 11386.1 | 10007.3 | 9115.7  | 8799.0  |
| 40°   | 15395.8 | 15429.9 | 15434.8 | 15317.9 | 14811.2 | 14143.7 | 13276.4 | 12082.8 | 10606.5 | 9607.8  | 9242.4  |
| 42.5° | 14762.4 | 14786.8 | 14830.6 | 14864.7 | 14669.9 | 14333.7 | 13749.0 | 12730.8 | 11244.8 | 10109.6 | 9680.8  |
| 45°   | 13943.9 | 13939.1 | 14012.1 | 14158.3 | 14148.6 | 14226.5 | 14012.1 | 13320.3 | 11907.4 | 10679.6 | 10168.1 |
| 47.5° | 12721.0 | 12696.7 | 12954.9 | 13286.2 | 13451.8 | 13817.3 | 14017.0 | 13783.1 | 12628.5 | 11308.1 | 10723.5 |
| 50°   | 10806.3 | 10781.9 | 11347.1 | 12126.6 | 12613.8 | 13169.3 | 13749.0 | 14060.9 | 13383.6 | 12014.6 | 11327.6 |
| 52.5° | 8477.4  | 8453.1  | 9169.3  | 10533.5 | 11595.6 | 12404.3 | 13208.2 | 14124.2 | 14099.8 | 12803.9 | 12009.7 |
| 55°   | 6304.5  | 6285.0  | 6981.7  | 8458.0  | 10177.8 | 11517.6 | 12545.6 | 13958.5 | 14772.2 | 13710.1 | 12838.0 |
| 57.5° | 4443.3  | 4433.6  | 5037.7  | 6260.6  | 8355.6  | 10436.0 | 11907.4 | 13637.0 | 15390.9 | 14694.2 | 13773.4 |
| 60°   | 3118.1  | 3103.5  | 3542.0  | 4487.2  | 6319.1  | 8803.9  | 11274.0 | 13208.2 | 15853.8 | 15663.8 | 14767.3 |
| 62.5° | 2099.9  | 2090.1  | 2401.9  | 3191.2  | 4487.2  | 6777.1  | 10314.2 | 12920.8 | 16116.9 | 16638.2 | 15771.0 |
| 65°   | 1593.2  | 1588.3  | 1729.6  | 2163.2  | 3176.6  | 4867.2  | 8789.3  | 12886.7 | 16151.0 | 17369.0 | 16623.6 |
| 67.5° | 1286.2  | 1291.1  | 1369.1  | 1617.5  | 2197.3  | 3459.2  | 6816.1  | 12672.3 | 15970.7 | 17617.5 | 17037.7 |
| 70°   | 1052.4  | 1052.4  | 1086.5  | 1252.1  | 1622.4  | 2333.7  | 4760.0  | 11697.9 | 15468.9 | 16969.5 | 16545.6 |
| 72.5° | 803.9   | 808.8   | 916.0   | 1013.4  | 1222.9  | 1637.0  | 3049.9  | 9680.8  | 14285.0 | 14962.2 | 14640.6 |
| 75°   | 638.2   | 633.4   | 696.7   | 833.1   | 950.1   | 1169.3  | 1870.9  | 6942.7  | 12155.9 | 11693.0 | 11488.4 |
| 77.5° | 458.0   | 453.1   | 501.8   | 618.8   | 721.1   | 828.3   | 1115.7  | 3503.0  | 6611.4  | 6075.5  | 5924.5  |
| 80°   | 311.8   | 302.1   | 345.9   | 428.7   | 477.5   | 487.2   | 545.7   | 1344.7  | 2884.3  | 2718.6  | 2684.5  |
| 82.5° | 160.8   | 160.8   | 185.1   | 243.6   | 248.5   | 253.3   | 243.6   | 433.6   | 954.9   | 891.6   | 852.6   |
| 85°   | 63.3    | 63.3    | 68.2    | 82.8    | 82.8    | 87.7    | 87.7    | 112.1   | 102.3   | 97.4    | 92.6    |
| 87.5° | 4.9     | 4.9     | 9.7     | 9.7     | 14.6    | 14.6    | 14.6    | 19.5    | 24.4    | 24.4    | 24.4    |
| 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°    | 4823.4  | 4823.4  | 4823.4 | 4823.4 | 4823.4 | 4823.4 | 4823.4 | 4823.4 | 4823.4 | 4823.4 | 4823.4 |
| 2.5°  | 4862.3  | 4842.9  | 4779.5 | 4764.9 | 4755.2 | 4740.5 | 4745.4 | 4711.3 | 4696.7 | 4701.6 | 4682.1 |
| 5°    | 4950.0  | 4915.9  | 4838.0 | 4803.9 | 4794.1 | 4779.5 | 4794.1 | 4769.8 | 4745.4 | 4755.2 | 4745.4 |
| 7.5°  | 5071.8  | 5023.1  | 4925.7 | 4891.6 | 4886.7 | 4872.1 | 4891.6 | 4872.1 | 4852.6 | 4862.3 | 4842.9 |
| 10°   | 5198.5  | 5135.2  | 5028.0 | 4993.9 | 4993.9 | 4989.0 | 5008.5 | 4979.3 | 4959.8 | 4964.7 | 4954.9 |
| 12.5° | 5383.7  | 5300.8  | 5183.9 | 5154.7 | 5140.1 | 5154.7 | 5159.5 | 5120.6 | 5086.5 | 5091.3 | 5076.7 |
| 15°   | 5607.8  | 5515.2  | 5388.5 | 5344.7 | 5334.9 | 5330.1 | 5310.6 | 5261.9 | 5218.0 | 5213.1 | 5198.5 |
| 17.5° | 5851.4  | 5734.5  | 5583.4 | 5539.6 | 5495.7 | 5481.1 | 5432.4 | 5369.0 | 5300.8 | 5300.8 | 5281.3 |
| 20°   | 6085.2  | 5953.7  | 5773.4 | 5710.1 | 5646.8 | 5588.3 | 5505.5 | 5403.1 | 5315.5 | 5300.8 | 5281.3 |
| 22.5° | 6338.6  | 6182.7  | 5973.2 | 5880.6 | 5768.6 | 5651.6 | 5510.3 | 5373.9 | 5261.9 | 5237.5 | 5222.9 |
| 25°   | 6621.2  | 6426.3  | 6177.8 | 6041.4 | 5861.1 | 5680.9 | 5471.4 | 5296.0 | 5164.4 | 5125.4 | 5115.7 |
| 27.5° | 6933.0  | 6699.1  | 6397.1 | 6197.3 | 5934.2 | 5651.6 | 5383.7 | 5174.2 | 5013.4 | 4964.7 | 4950.0 |
| 30°   | 7249.7  | 6972.0  | 6596.8 | 6304.5 | 5934.2 | 5559.1 | 5222.9 | 4979.3 | 4794.1 | 4725.9 | 4716.2 |
| 32.5° | 7566.4  | 7254.5  | 6777.1 | 6363.0 | 5875.7 | 5403.1 | 5013.4 | 4725.9 | 4516.4 | 4433.6 | 4453.1 |
| 35°   | 7946.4  | 7566.4  | 6942.7 | 6387.3 | 5778.3 | 5213.1 | 4774.6 | 4438.5 | 4224.1 | 4151.0 | 4165.6 |
| 37.5° | 8341.0  | 7878.2  | 7074.3 | 6367.8 | 5641.9 | 4998.8 | 4506.7 | 4180.3 | 3912.3 | 3785.6 | 3800.2 |
| 40°   | 8682.1  | 8160.8  | 7166.8 | 6299.6 | 5466.5 | 4755.2 | 4243.6 | 3814.8 | 3444.6 | 3322.8 | 3308.1 |
| 42.5° | 9003.6  | 8370.3  | 7215.6 | 6197.3 | 5266.7 | 4472.6 | 3868.4 | 3317.9 | 2947.6 | 2796.6 | 2801.5 |
| 45°   | 9339.8  | 8574.9  | 7196.1 | 6060.9 | 5018.3 | 4141.3 | 3386.1 | 2830.7 | 2504.3 | 2367.8 | 2372.7 |
| 47.5° | 9724.7  | 8794.1  | 7176.6 | 5914.7 | 4716.2 | 3712.5 | 2923.3 | 2401.9 | 2119.4 | 2021.9 | 2012.2 |
| 50°   | 10133.9 | 9037.7  | 7152.2 | 5734.5 | 4380.0 | 3235.1 | 2465.3 | 2002.4 | 1763.7 | 1700.4 | 1685.7 |
| 52.5° | 10596.8 | 9300.8  | 7137.6 | 5520.1 | 3975.6 | 2728.4 | 2056.0 | 1651.6 | 1490.9 | 1447.0 | 1442.1 |
| 55°   | 11152.2 | 9607.8  | 7157.1 | 5261.9 | 3488.4 | 2250.9 | 1710.1 | 1422.7 | 1315.5 | 1291.1 | 1286.2 |
| 57.5° | 11829.4 | 10002.4 | 7215.6 | 4959.8 | 2976.8 | 1836.8 | 1456.8 | 1281.4 | 1213.2 | 1193.7 | 1193.7 |
| 60°   | 12565.1 | 10450.6 | 7322.8 | 4618.7 | 2465.3 | 1515.2 | 1291.1 | 1169.3 | 1140.1 | 1164.4 | 1164.4 |
| 62.5° | 13359.3 | 10976.8 | 7512.8 | 4204.6 | 1987.8 | 1281.4 | 1159.6 | 1076.7 | 1057.2 | 1106.0 | 1110.8 |
| 65°   | 14095.0 | 11488.4 | 7634.6 | 3707.7 | 1578.6 | 1110.8 | 1057.2 | 984.2  | 993.9  | 1042.6 | 1037.8 |
| 67.5° | 14548.1 | 11912.3 | 7464.0 | 3084.0 | 1252.1 | 984.2  | 950.1  | 886.7  | 911.1  | 950.1  | 954.9  |
| 70°   | 14270.4 | 11673.5 | 6621.2 | 2328.9 | 979.3  | 857.5  | 833.1  | 794.2  | 813.6  | 862.4  | 881.8  |
| 72.5° | 12911.0 | 10455.5 | 5149.8 | 1573.7 | 789.3  | 721.1  | 730.8  | 711.3  | 735.7  | 779.5  | 823.4  |
| 75°   | 10479.9 | 7902.5  | 3454.3 | 1008.5 | 623.6  | 613.9  | 628.5  | 613.9  | 623.6  | 667.5  | 691.8  |
| 77.5° | 5471.4  | 3853.8  | 1719.8 | 628.5  | 462.8  | 477.5  | 501.8  | 506.7  | 535.9  | 545.7  | 555.4  |
| 80°   | 2553.0  | 1734.5  | 716.2  | 350.8  | 306.9  | 336.2  | 384.9  | 389.8  | 399.5  | 414.1  | 419.0  |
| 82.5° | 833.1   | 521.3   | 331.3  | 190.0  | 175.4  | 190.0  | 248.5  | 297.2  | 302.1  | 331.3  | 331.3  |
| 85°   | 87.7    | 53.6    | 73.1   | 78.0   | 68.2   | 82.8   | 112.1  | 107.2  | 48.7   | 29.2   | 29.2   |
| 87.5° | 24.4    | 19.5    | 24.4   | 24.4   | 19.5   | 19.5   | 14.6   | 4.9    | 0.0    | 0.0    | 0.0    |
| 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)