

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: P194557

Luminaire Tested: **GAN-AF-09-LED-U-SL4-7060-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P194557
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-09-LED-U-SL4-7060-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43189 lumens
Efficiency: N/A
Efficacy: 86.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G5

Input Watts (W): 501
Input Voltage (V): NR
Input Current (A_{in}): 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

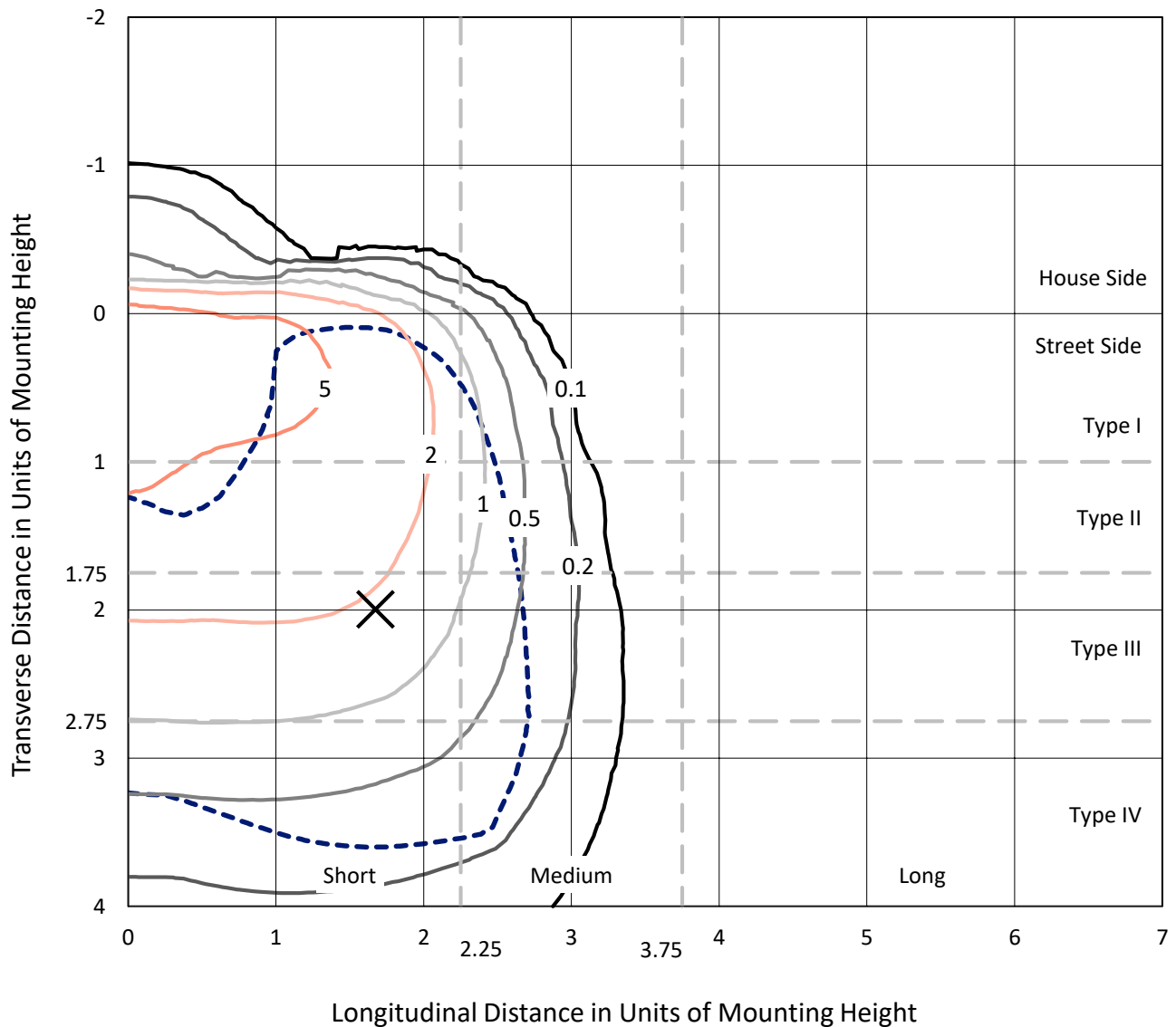


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

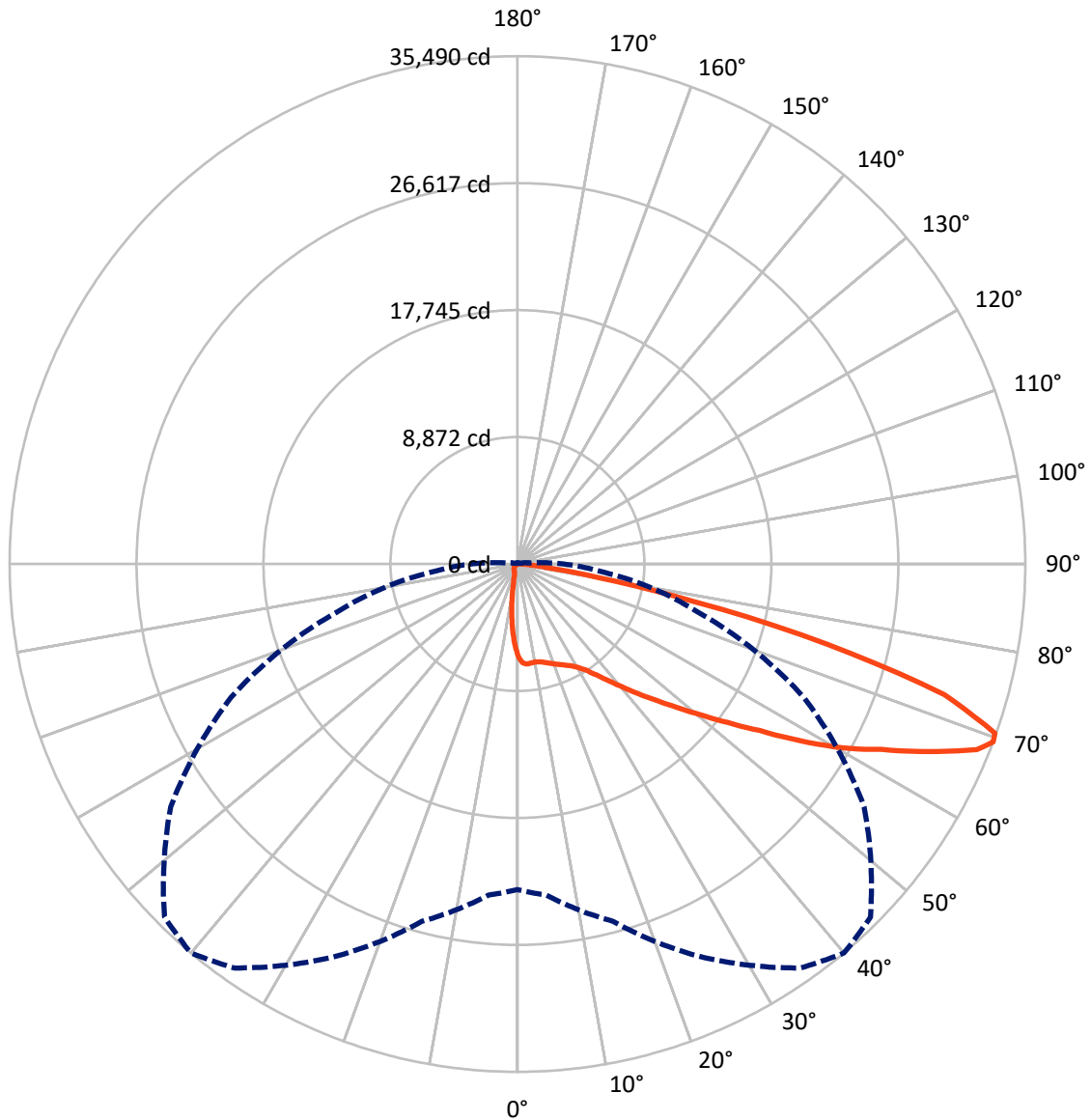


Based on 30 foot mounting height. Maximum calculated value = 7.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2526.8 | 0.0 | 2526.8 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 40662.2 | 0.0 | 40662.2 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 43189.0 | 0.0 | 43189.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 523.2 | 1.2 |
| 10°-20° | 1286.6 | 3.0 |
| 20°-30° | 2167.1 | 5.0 |
| 30°-40° | 3547.6 | 8.2 |
| 40°-50° | 6142.5 | 14.2 |
| 50°-60° | 9675.1 | 22.4 |
| 60°-70° | 12635.3 | 29.3 |
| 70°-80° | 6507.7 | 15.1 |
| 80°-90° | 703.9 | 1.6 |
| 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° | 43189.0 | 100.0 |
| 0°-180° | 43189.0 | 100.0 |

Coefficient of Utilization



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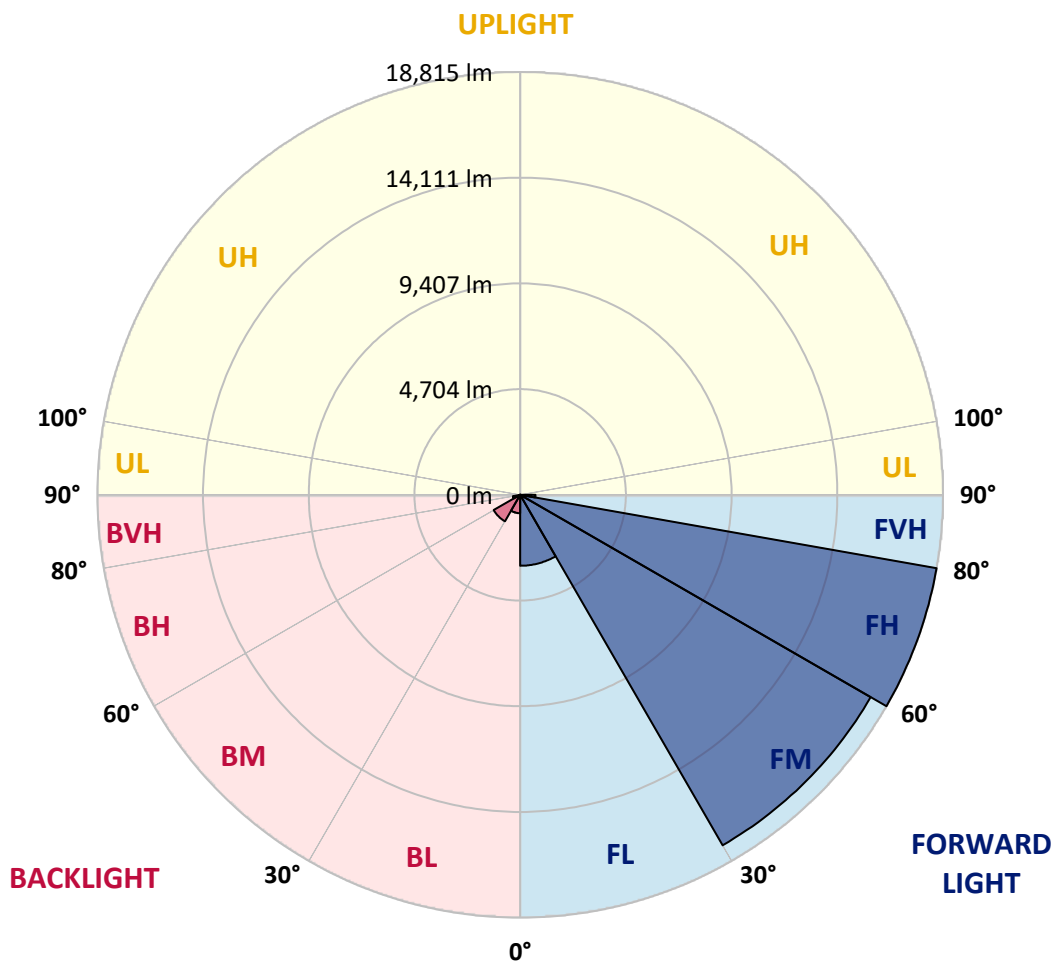
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 3158.3 | 7.3 | | | |
| FM | (30°-60°) | 18007.1 | 41.7 | | | |
| FH | (60°-80°) | 18814.9 | 43.6 | | | G5 |
| FVH | (80°-90°) | 681.8 | 1.6 | | | G4/750 |
| BL | (0°-30°) | 818.5 | 1.9 | B2/1000 | | |
| BM | (30°-60°) | 1358.1 | 3.1 | B2/2500 | | |
| BH | (60°-80°) | 328.1 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 22.1 | 0.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 |
| 2.5° | 7085.1 | 7046.5 | 7023.4 | 6992.5 | 6954.0 | 6920.5 | 6907.7 | 6812.6 | 6722.6 | 6599.2 | 6457.8 |
| 5° | 7216.2 | 7203.3 | 7162.2 | 7121.1 | 7074.8 | 7023.4 | 6995.1 | 6882.0 | 6753.4 | 6573.5 | 6326.7 |
| 7.5° | 7229.0 | 7213.6 | 7162.2 | 7105.6 | 7041.4 | 6979.7 | 6930.8 | 6817.7 | 6699.5 | 6516.9 | 6216.1 |
| 10° | 7208.5 | 7190.5 | 7151.9 | 7090.2 | 7010.5 | 6951.4 | 6902.5 | 6794.6 | 6694.3 | 6529.8 | 6195.6 |
| 12.5° | 7185.3 | 7167.3 | 7149.3 | 7118.5 | 7049.1 | 7007.9 | 6966.8 | 6864.0 | 6774.0 | 6635.2 | 6270.1 |
| 15° | 7208.5 | 7198.2 | 7218.8 | 7205.9 | 7167.3 | 7131.3 | 7090.2 | 6997.7 | 6915.4 | 6799.7 | 6406.4 |
| 17.5° | 7306.2 | 7306.2 | 7370.4 | 7378.1 | 7342.1 | 7290.7 | 7231.6 | 7139.1 | 7069.6 | 6972.0 | 6568.3 |
| 20° | 7535.0 | 7527.2 | 7609.5 | 7624.9 | 7537.5 | 7457.8 | 7370.4 | 7257.3 | 7203.3 | 7141.6 | 6727.7 |
| 22.5° | 7928.3 | 7892.3 | 7941.1 | 7925.7 | 7753.5 | 7630.1 | 7522.1 | 7383.3 | 7355.0 | 7326.7 | 6905.1 |
| 25° | 8439.9 | 8419.3 | 8452.7 | 8301.0 | 7997.7 | 7830.6 | 7702.1 | 7545.2 | 7545.2 | 7573.5 | 7105.6 |
| 27.5° | 9182.8 | 9105.7 | 8992.6 | 8725.2 | 8270.2 | 8056.8 | 7918.0 | 7750.9 | 7794.6 | 7900.0 | 7370.4 |
| 30° | 9943.8 | 9858.9 | 9599.3 | 9188.0 | 8601.8 | 8378.2 | 8216.2 | 8041.4 | 8144.2 | 8337.0 | 7725.2 |
| 32.5° | 10694.4 | 10599.3 | 10231.7 | 9712.4 | 9077.4 | 8853.8 | 8696.9 | 8504.1 | 8676.4 | 9000.3 | 8244.5 |
| 35° | 11422.0 | 11337.1 | 10913.0 | 10301.1 | 9709.8 | 9524.7 | 9380.8 | 9213.7 | 9434.8 | 9887.2 | 8977.2 |
| 37.5° | 12239.5 | 12146.9 | 11630.2 | 10966.9 | 10478.5 | 10344.8 | 10239.4 | 10072.3 | 10457.9 | 11121.2 | 9997.8 |
| 40° | 13244.7 | 13087.8 | 12391.2 | 11730.5 | 11368.0 | 11303.7 | 11231.7 | 11208.6 | 11807.6 | 12725.4 | 11357.7 |
| 42.5° | 14396.4 | 14139.3 | 13188.1 | 12535.1 | 12344.9 | 12391.2 | 12373.2 | 12476.0 | 13496.6 | 14720.3 | 13013.3 |
| 45° | 15548.1 | 15216.4 | 14075.0 | 13393.8 | 13419.5 | 13581.4 | 13681.7 | 14093.0 | 15612.3 | 17008.3 | 14794.8 |
| 47.5° | 16525.0 | 16198.5 | 14926.0 | 14321.8 | 14630.3 | 14949.1 | 15221.6 | 16000.5 | 17787.2 | 19260.3 | 16180.5 |
| 50° | 17360.5 | 17052.0 | 15828.3 | 15342.4 | 16036.5 | 16550.7 | 16992.9 | 18147.1 | 20126.6 | 20975.0 | 17152.2 |
| 52.5° | 18044.3 | 17838.6 | 16764.1 | 16512.1 | 17643.3 | 18396.5 | 19044.3 | 20427.4 | 22198.7 | 22368.4 | 17908.1 |
| 55° | 18710.1 | 18563.6 | 17769.2 | 17902.9 | 19530.2 | 20556.0 | 21376.0 | 22846.5 | 23982.8 | 23530.4 | 18633.0 |
| 57.5° | 19476.2 | 19342.6 | 18915.8 | 19666.5 | 22011.0 | 23301.6 | 24196.2 | 24990.6 | 25553.6 | 24718.1 | 19316.8 |
| 60° | 20257.7 | 20180.6 | 20190.9 | 21625.4 | 24859.4 | 26098.6 | 26592.2 | 26797.8 | 27096.0 | 25836.3 | 19355.4 |
| 62.5° | 21003.3 | 21149.8 | 21648.5 | 23805.4 | 27587.0 | 28538.2 | 28787.6 | 28990.7 | 28641.1 | 26013.7 | 17882.3 |
| 65° | 22265.5 | 22504.6 | 23694.9 | 26723.3 | 30587.1 | 31605.2 | 31862.3 | 31165.6 | 28885.3 | 23720.6 | 14545.5 |
| 67.5° | 22882.5 | 23319.5 | 25443.0 | 29443.1 | 33497.3 | 34628.4 | 34533.3 | 31307.0 | 25921.2 | 18088.0 | 9334.5 |
| 69° | 22754.0 | 23219.3 | 25846.6 | 30276.1 | 34463.9 | 35489.6 | 34885.5 | 29576.8 | 22083.0 | 13103.3 | 5730.3 |
| 70° | 22245.0 | 22715.4 | 25638.4 | 30245.2 | 34587.3 | 35399.6 | 34232.5 | 27440.5 | 18671.6 | 9581.3 | 3583.7 |
| 72.5° | 18576.5 | 18982.6 | 22761.7 | 27337.7 | 31862.3 | 31201.6 | 28638.5 | 19010.9 | 9098.0 | 2609.3 | 807.2 |
| 75° | 11434.8 | 11661.1 | 16332.2 | 20594.5 | 24065.1 | 22368.4 | 19080.3 | 9457.9 | 2712.2 | 737.8 | 447.3 |
| 77.5° | 6041.3 | 6144.2 | 8941.2 | 12139.2 | 15255.0 | 12622.5 | 9779.2 | 3689.1 | 1249.4 | 462.7 | 323.9 |
| 80° | 3570.8 | 3647.9 | 4815.1 | 5550.3 | 6601.8 | 5514.3 | 3910.2 | 2264.9 | 894.6 | 290.5 | 287.9 |
| 82.5° | 2043.8 | 2092.6 | 3491.1 | 3084.9 | 2601.6 | 2221.2 | 1946.1 | 2146.6 | 537.3 | 195.4 | 298.2 |
| 85° | 750.7 | 761.0 | 1964.1 | 2347.1 | 1547.6 | 920.3 | 966.6 | 1779.0 | 144.0 | 123.4 | 233.9 |
| 87.5° | 349.6 | 341.9 | 1010.3 | 1437.1 | 904.9 | 583.6 | 753.2 | 390.8 | 56.6 | 79.7 | 64.3 |
| 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° | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 | 6452.7 |
| 2.5° | 6375.5 | 6280.4 | 6108.2 | 5930.8 | 5750.8 | 5612.0 | 5475.8 | 5367.8 | 5331.8 | 5265.0 | 5270.1 |
| 5° | 6180.2 | 6005.3 | 5645.4 | 5280.4 | 4899.9 | 4586.3 | 4290.6 | 4051.5 | 3935.9 | 3817.6 | 3817.6 |
| 7.5° | 6010.5 | 5756.0 | 5193.0 | 4599.1 | 3984.7 | 3468.0 | 3002.7 | 2653.0 | 2460.2 | 2306.0 | 2303.4 |
| 10° | 5946.2 | 5601.7 | 4815.1 | 3964.1 | 3108.1 | 2403.7 | 1851.0 | 1496.2 | 1313.7 | 1195.4 | 1190.3 |
| 12.5° | 5974.5 | 5547.7 | 4524.6 | 3378.0 | 2303.4 | 1545.0 | 1072.0 | 843.2 | 766.1 | 730.1 | 730.1 |
| 15° | 6056.8 | 5532.3 | 4234.1 | 2804.7 | 1627.3 | 966.6 | 712.1 | 650.4 | 645.3 | 645.3 | 645.3 |
| 17.5° | 6157.0 | 5537.5 | 3935.9 | 2246.9 | 1108.0 | 691.5 | 614.4 | 606.7 | 611.8 | 611.8 | 611.8 |
| 20° | 6259.9 | 5540.0 | 3614.5 | 1730.1 | 781.5 | 601.6 | 578.4 | 575.9 | 581.0 | 581.0 | 583.6 |
| 22.5° | 6385.8 | 5552.9 | 3293.2 | 1293.1 | 645.3 | 568.1 | 550.1 | 550.1 | 552.7 | 552.7 | 550.1 |
| 25° | 6529.8 | 5578.6 | 2959.0 | 958.9 | 588.7 | 545.0 | 529.6 | 527.0 | 529.6 | 527.0 | 524.4 |
| 27.5° | 6709.7 | 5614.6 | 2586.2 | 750.7 | 563.0 | 521.9 | 509.0 | 509.0 | 506.4 | 503.9 | 501.3 |
| 30° | 6936.0 | 5655.7 | 2167.2 | 637.6 | 537.3 | 501.3 | 488.4 | 485.9 | 483.3 | 478.2 | 478.2 |
| 32.5° | 7280.4 | 5745.7 | 1753.3 | 578.4 | 509.0 | 473.0 | 462.7 | 462.7 | 457.6 | 452.5 | 449.9 |
| 35° | 7810.0 | 5923.1 | 1383.1 | 542.4 | 478.2 | 442.2 | 429.3 | 429.3 | 424.2 | 421.6 | 419.0 |
| 37.5° | 8542.7 | 6193.0 | 1074.6 | 509.0 | 447.3 | 408.8 | 395.9 | 393.3 | 388.2 | 383.0 | 380.5 |
| 40° | 9517.0 | 6527.2 | 845.8 | 478.2 | 416.5 | 375.3 | 365.1 | 359.9 | 349.6 | 341.9 | 341.9 |
| 42.5° | 10740.7 | 6907.7 | 686.4 | 444.7 | 380.5 | 344.5 | 336.8 | 329.1 | 311.1 | 303.4 | 300.8 |
| 45° | 12021.0 | 7249.6 | 581.0 | 406.2 | 344.5 | 313.6 | 308.5 | 295.6 | 272.5 | 264.8 | 264.8 |
| 47.5° | 12943.9 | 7329.3 | 511.6 | 370.2 | 311.1 | 280.2 | 277.6 | 254.5 | 233.9 | 228.8 | 226.2 |
| 50° | 13519.7 | 7172.5 | 455.0 | 334.2 | 280.2 | 249.4 | 241.7 | 213.4 | 200.5 | 195.4 | 192.8 |
| 52.5° | 13907.9 | 6892.3 | 408.8 | 303.4 | 251.9 | 221.1 | 203.1 | 182.5 | 172.2 | 167.1 | 167.1 |
| 55° | 14219.0 | 6496.4 | 362.5 | 275.1 | 228.8 | 198.0 | 172.2 | 156.8 | 146.5 | 141.4 | 141.4 |
| 57.5° | 14306.4 | 5959.1 | 316.2 | 251.9 | 205.7 | 174.8 | 146.5 | 136.3 | 123.4 | 120.8 | 120.8 |
| 60° | 13671.4 | 4989.9 | 280.2 | 223.7 | 185.1 | 151.7 | 128.5 | 115.7 | 102.8 | 100.3 | 97.7 |
| 62.5° | 11997.8 | 3861.3 | 246.8 | 198.0 | 162.0 | 131.1 | 110.5 | 95.1 | 84.8 | 84.8 | 84.8 |
| 65° | 9152.0 | 2588.8 | 215.9 | 172.2 | 141.4 | 110.5 | 95.1 | 77.1 | 72.0 | 72.0 | 74.6 |
| 67.5° | 5478.3 | 1408.8 | 185.1 | 146.5 | 120.8 | 92.5 | 79.7 | 66.8 | 64.3 | 66.8 | 66.8 |
| 69° | 3210.9 | 827.8 | 167.1 | 131.1 | 105.4 | 82.3 | 69.4 | 59.1 | 64.3 | 66.8 | 66.8 |
| 70° | 1982.1 | 557.9 | 154.2 | 118.3 | 95.1 | 74.6 | 64.3 | 56.6 | 61.7 | 64.3 | 64.3 |
| 72.5° | 552.7 | 287.9 | 123.4 | 92.5 | 77.1 | 61.7 | 51.4 | 51.4 | 59.1 | 61.7 | 61.7 |
| 75° | 359.9 | 213.4 | 95.1 | 69.4 | 59.1 | 48.8 | 43.7 | 48.8 | 56.6 | 59.1 | 59.1 |
| 77.5° | 298.2 | 174.8 | 77.1 | 56.6 | 48.8 | 46.3 | 41.1 | 43.7 | 51.4 | 54.0 | 54.0 |
| 80° | 272.5 | 123.4 | 61.7 | 51.4 | 43.7 | 41.1 | 38.6 | 36.0 | 46.3 | 48.8 | 48.8 |
| 82.5° | 259.6 | 97.7 | 54.0 | 46.3 | 41.1 | 36.0 | 33.4 | 36.0 | 41.1 | 43.7 | 46.3 |
| 85° | 162.0 | 64.3 | 48.8 | 43.7 | 36.0 | 33.4 | 33.4 | 33.4 | 38.6 | 41.1 | 41.1 |
| 87.5° | 59.1 | 51.4 | 43.7 | 36.0 | 30.8 | 30.8 | 30.8 | 30.8 | 33.4 | 38.6 | 38.6 |
| 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)