

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: P191228

Luminaire Tested: **GAN-AF-10-LED-U-SL4-1200-HSS-ADJ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191228
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-10-LED-U-SL4-1200-HSS-ADJ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K, 1200mA 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: 53658.9 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 640
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

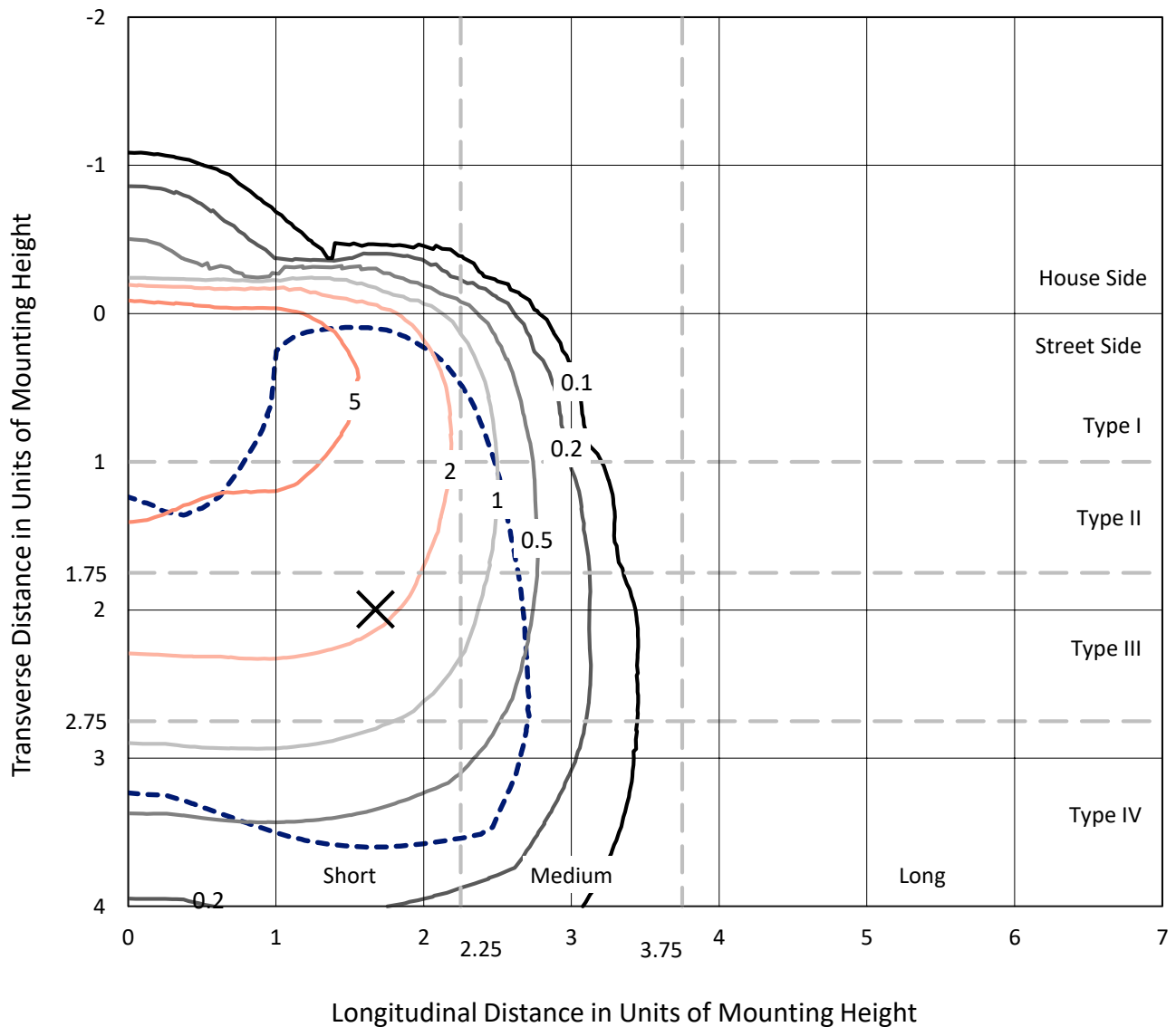


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

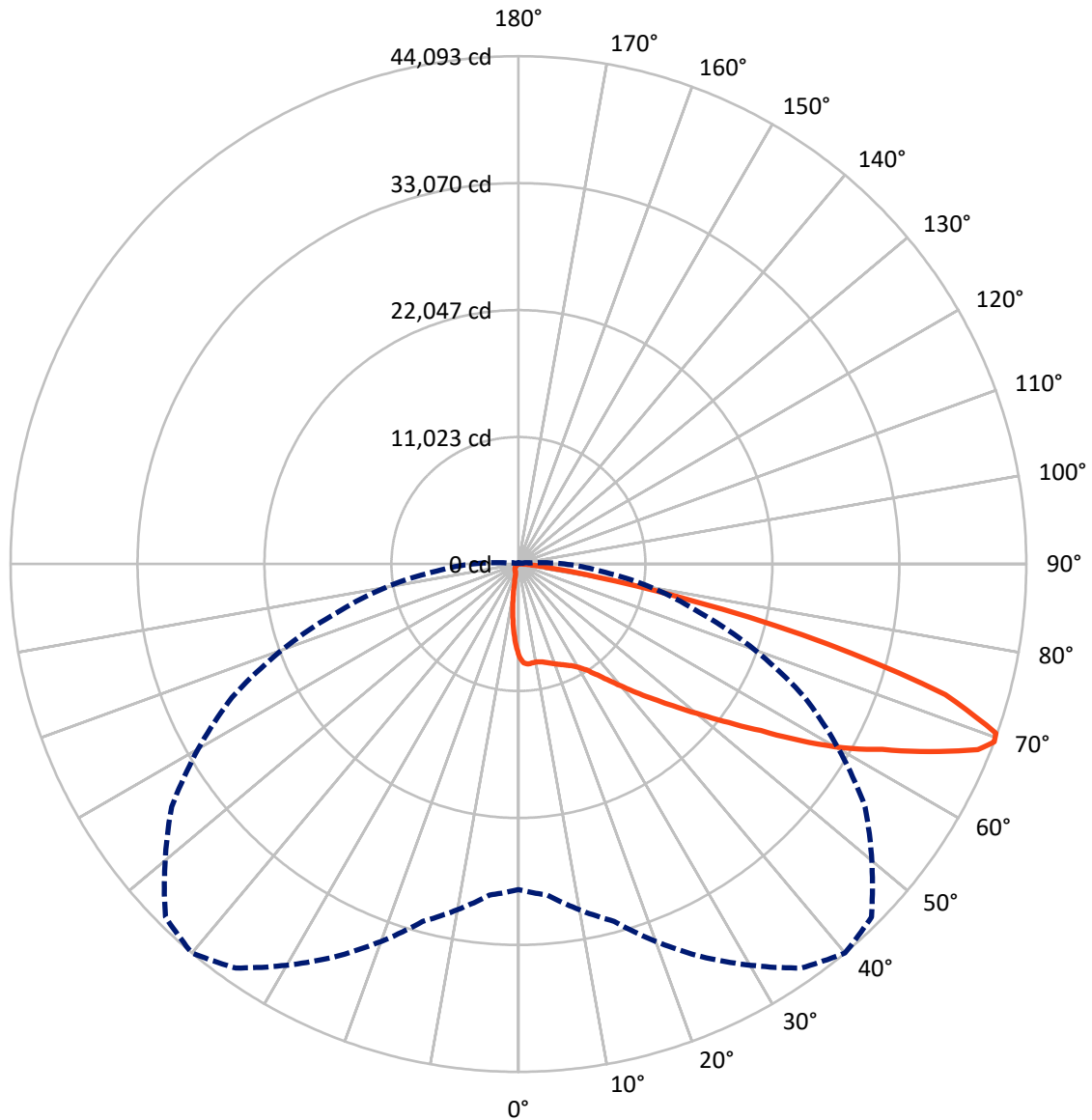


Based on 30 foot mounting height. Maximum calculated value = 9.7 fc
 Type IV - Short - Semi-Cutoff

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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 | 3139.3 | 0.0 | 3139.3 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 50519.5 | 0.0 | 50519.5 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 53658.9 | 0.0 | 53658.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 650.0 | 1.2 |
| 10°-20° | 1598.5 | 3.0 |
| 20°-30° | 2692.4 | 5.0 |
| 30°-40° | 4407.6 | 8.2 |
| 40°-50° | 7631.6 | 14.2 |
| 50°-60° | 12020.5 | 22.4 |
| 60°-70° | 15698.3 | 29.3 |
| 70°-80° | 8085.3 | 15.1 |
| 80°-90° | 874.6 | 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° | 53658.9 | 100.0 |
| 0°-180° | 53658.9 | 100.0 |

Coefficient of Utilization



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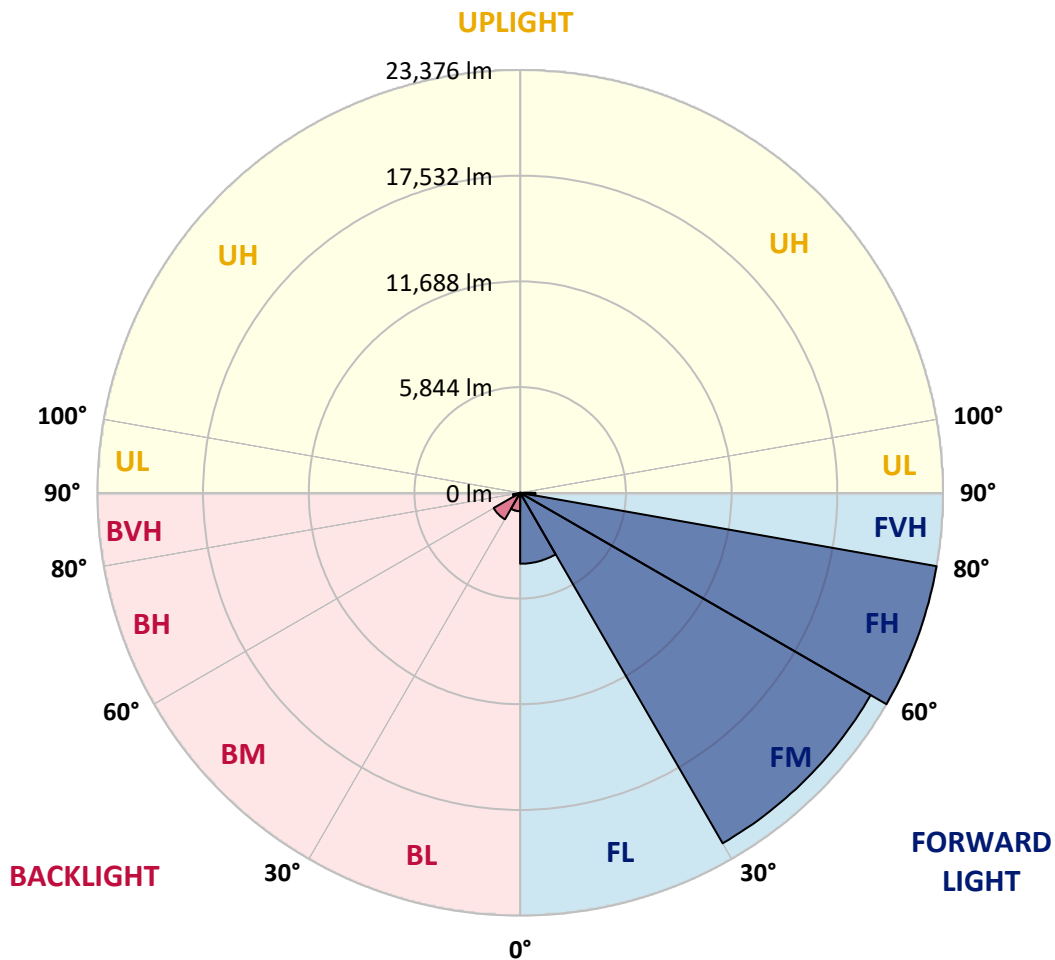
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 3924.0 | 7.3 | | | |
| FM | (30°-60°) | 22372.4 | 41.7 | | | |
| FH | (60°-80°) | 23376.0 | 43.6 | | | G5 |
| FVH | (80°-90°) | 847.1 | 1.6 | | | G5 |
| BL | (0°-30°) | 1016.9 | 1.9 | B3/2500 | | |
| BM | (30°-60°) | 1687.3 | 3.1 | B2/2500 | | |
| BH | (60°-80°) | 407.6 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 27.5 | 0.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 |
| 2.5° | 8802.6 | 8754.7 | 8726.0 | 8687.6 | 8639.7 | 8598.2 | 8582.3 | 8464.1 | 8352.3 | 8199.0 | 8023.3 |
| 5° | 8965.6 | 8949.6 | 8898.4 | 8847.4 | 8789.9 | 8726.0 | 8690.9 | 8550.3 | 8390.7 | 8167.0 | 7860.5 |
| 7.5° | 8981.5 | 8962.4 | 8898.4 | 8828.2 | 8748.4 | 8671.7 | 8611.0 | 8470.4 | 8323.5 | 8096.8 | 7723.1 |
| 10° | 8955.9 | 8933.6 | 8885.7 | 8809.0 | 8710.0 | 8636.6 | 8575.9 | 8441.7 | 8317.1 | 8112.7 | 7697.5 |
| 12.5° | 8927.2 | 8904.9 | 8882.5 | 8844.1 | 8757.9 | 8706.8 | 8655.7 | 8527.9 | 8416.1 | 8243.7 | 7790.2 |
| 15° | 8955.9 | 8943.1 | 8968.7 | 8952.8 | 8904.9 | 8860.1 | 8809.0 | 8694.1 | 8591.9 | 8448.1 | 7959.4 |
| 17.5° | 9077.4 | 9077.4 | 9157.1 | 9166.8 | 9122.1 | 9058.1 | 8984.7 | 8869.7 | 8783.5 | 8662.1 | 8160.7 |
| 20° | 9361.5 | 9352.0 | 9454.2 | 9473.3 | 9364.8 | 9265.8 | 9157.1 | 9016.6 | 8949.6 | 8872.9 | 8358.6 |
| 22.5° | 9850.3 | 9805.6 | 9866.3 | 9847.0 | 9633.0 | 9479.8 | 9345.6 | 9173.1 | 9138.0 | 9102.8 | 8579.1 |
| 25° | 10485.9 | 10460.3 | 10501.8 | 10313.4 | 9936.5 | 9728.9 | 9569.2 | 9374.3 | 9374.3 | 9409.5 | 8828.2 |
| 27.5° | 11409.0 | 11313.1 | 11172.6 | 10840.4 | 10275.0 | 10010.0 | 9837.5 | 9629.9 | 9684.2 | 9815.1 | 9157.1 |
| 30° | 12354.4 | 12248.9 | 11926.4 | 11415.3 | 10687.1 | 10409.2 | 10208.0 | 9990.8 | 10118.5 | 10358.1 | 9597.9 |
| 32.5° | 13287.0 | 13168.9 | 12712.1 | 12066.9 | 11277.9 | 11000.1 | 10805.2 | 10565.8 | 10779.8 | 11182.2 | 10243.1 |
| 35° | 14190.9 | 14085.5 | 13558.5 | 12798.3 | 12063.7 | 11833.7 | 11654.9 | 11447.2 | 11721.9 | 12284.1 | 11153.4 |
| 37.5° | 15206.6 | 15091.6 | 14449.6 | 13625.6 | 13018.7 | 12852.7 | 12721.6 | 12514.1 | 12993.1 | 13817.2 | 12421.4 |
| 40° | 16455.4 | 16260.6 | 15395.0 | 14574.2 | 14123.8 | 14044.0 | 13954.6 | 13925.8 | 14670.0 | 15810.2 | 14111.1 |
| 42.5° | 17886.3 | 17566.9 | 16385.1 | 15573.9 | 15337.5 | 15395.0 | 15372.7 | 15500.5 | 16768.4 | 18288.8 | 16167.9 |
| 45° | 19317.2 | 18905.3 | 17487.1 | 16640.6 | 16672.7 | 16873.9 | 16998.4 | 17509.4 | 19397.1 | 21131.4 | 18381.4 |
| 47.5° | 20530.9 | 20125.3 | 18544.3 | 17793.7 | 18177.0 | 18573.0 | 18911.6 | 19879.4 | 22099.2 | 23929.4 | 20102.9 |
| 50° | 21569.0 | 21185.7 | 19665.4 | 19061.8 | 19924.1 | 20562.9 | 21112.3 | 22546.3 | 25005.7 | 26059.8 | 21310.3 |
| 52.5° | 22418.6 | 22163.0 | 20828.0 | 20515.0 | 21920.3 | 22856.2 | 23661.1 | 25379.4 | 27580.1 | 27790.9 | 22249.3 |
| 55° | 23245.8 | 23063.8 | 22076.8 | 22242.9 | 24264.7 | 25539.1 | 26558.1 | 28384.9 | 29796.7 | 29234.6 | 23150.0 |
| 57.5° | 24197.7 | 24031.6 | 23501.4 | 24434.0 | 27347.0 | 28950.3 | 30061.9 | 31048.8 | 31748.3 | 30710.2 | 23999.7 |
| 60° | 25168.7 | 25072.8 | 25085.6 | 26867.8 | 30885.9 | 32425.4 | 33038.7 | 33294.2 | 33664.7 | 32099.6 | 24047.5 |
| 62.5° | 26094.9 | 26276.9 | 26896.5 | 29576.4 | 34274.7 | 35456.5 | 35766.2 | 36018.6 | 35584.3 | 32320.0 | 22217.4 |
| 65° | 27663.1 | 27960.2 | 29439.0 | 33201.5 | 38002.1 | 39266.9 | 39586.4 | 38720.7 | 35887.7 | 29470.9 | 18071.6 |
| 67.5° | 28429.7 | 28972.6 | 31610.9 | 36580.7 | 41617.7 | 43023.1 | 42904.9 | 38896.4 | 32204.9 | 22472.9 | 11597.4 |
| 69° | 28270.0 | 28848.1 | 32112.4 | 37615.6 | 42818.6 | 44093.1 | 43342.4 | 36746.8 | 27436.4 | 16279.8 | 7119.4 |
| 70° | 27637.6 | 28222.1 | 31853.7 | 37577.3 | 42971.9 | 43981.3 | 42531.1 | 34092.6 | 23198.0 | 11904.0 | 4452.4 |
| 72.5° | 23079.8 | 23584.4 | 28279.6 | 33964.9 | 39586.4 | 38765.4 | 35581.0 | 23619.5 | 11303.5 | 3241.9 | 1002.9 |
| 75° | 14206.8 | 14488.0 | 20291.5 | 25587.1 | 29898.9 | 27790.9 | 23705.8 | 11750.6 | 3369.7 | 916.7 | 555.8 |
| 77.5° | 7505.9 | 7633.7 | 11108.7 | 15082.0 | 18953.1 | 15682.4 | 12149.9 | 4583.3 | 1552.3 | 574.9 | 402.4 |
| 80° | 4436.4 | 4532.3 | 5982.3 | 6895.8 | 8202.1 | 6851.1 | 4858.1 | 2813.9 | 1111.5 | 360.9 | 357.7 |
| 82.5° | 2539.3 | 2599.9 | 4337.4 | 3832.8 | 3232.3 | 2759.6 | 2417.8 | 2666.9 | 667.6 | 242.7 | 370.5 |
| 85° | 932.6 | 945.4 | 2440.2 | 2916.1 | 1922.7 | 1143.5 | 1200.9 | 2210.3 | 178.9 | 153.3 | 290.6 |
| 87.5° | 434.3 | 424.8 | 1255.3 | 1785.5 | 1124.3 | 725.1 | 935.8 | 485.5 | 70.3 | 99.0 | 79.9 |
| 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° | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 | 8016.9 |
| 2.5° | 7921.1 | 7803.0 | 7589.0 | 7368.5 | 7145.0 | 6972.4 | 6803.2 | 6669.0 | 6624.3 | 6541.3 | 6547.7 |
| 5° | 7678.4 | 7461.2 | 7014.0 | 6560.5 | 6087.8 | 5698.0 | 5330.8 | 5033.7 | 4890.0 | 4743.1 | 4743.1 |
| 7.5° | 7467.5 | 7151.3 | 6451.9 | 5714.0 | 4950.7 | 4308.7 | 3730.6 | 3296.2 | 3056.7 | 2865.0 | 2861.8 |
| 10° | 7387.6 | 6959.7 | 5982.3 | 4925.1 | 3861.5 | 2986.4 | 2299.7 | 1858.9 | 1632.1 | 1485.2 | 1478.8 |
| 12.5° | 7422.8 | 6892.6 | 5621.4 | 4196.9 | 2861.8 | 1919.6 | 1331.9 | 1047.6 | 951.9 | 907.1 | 907.1 |
| 15° | 7525.0 | 6873.5 | 5260.5 | 3484.7 | 2021.8 | 1200.9 | 884.8 | 808.0 | 801.7 | 801.7 | 801.7 |
| 17.5° | 7649.6 | 6879.9 | 4890.0 | 2791.5 | 1376.6 | 859.2 | 763.3 | 753.8 | 760.2 | 760.2 | 760.2 |
| 20° | 7777.4 | 6883.0 | 4490.8 | 2149.5 | 971.0 | 747.4 | 718.6 | 715.5 | 721.8 | 721.8 | 725.1 |
| 22.5° | 7933.9 | 6899.0 | 4091.5 | 1606.5 | 801.7 | 705.8 | 683.5 | 683.5 | 686.7 | 686.7 | 683.5 |
| 25° | 8112.7 | 6931.0 | 3676.3 | 1191.3 | 731.4 | 677.1 | 658.0 | 654.8 | 658.0 | 654.8 | 651.6 |
| 27.5° | 8336.3 | 6975.7 | 3213.2 | 932.6 | 699.5 | 648.3 | 632.4 | 632.4 | 629.2 | 626.0 | 622.9 |
| 30° | 8617.3 | 7026.8 | 2692.5 | 792.1 | 667.6 | 622.9 | 606.8 | 603.6 | 600.5 | 594.1 | 594.1 |
| 32.5° | 9045.3 | 7138.6 | 2178.3 | 718.6 | 632.4 | 587.7 | 574.9 | 574.9 | 568.6 | 562.1 | 558.9 |
| 35° | 9703.3 | 7358.9 | 1718.4 | 673.9 | 594.1 | 549.3 | 533.4 | 533.4 | 527.0 | 523.9 | 520.6 |
| 37.5° | 10613.6 | 7694.3 | 1335.1 | 632.4 | 555.8 | 507.9 | 491.8 | 488.7 | 482.3 | 475.9 | 472.7 |
| 40° | 11824.2 | 8109.5 | 1050.8 | 594.1 | 517.4 | 466.4 | 453.6 | 447.1 | 434.3 | 424.8 | 424.8 |
| 42.5° | 13344.5 | 8582.3 | 852.8 | 552.6 | 472.7 | 428.0 | 418.4 | 408.9 | 386.5 | 376.9 | 373.7 |
| 45° | 14935.1 | 9007.1 | 721.8 | 504.6 | 428.0 | 389.6 | 383.3 | 367.3 | 338.6 | 329.0 | 329.0 |
| 47.5° | 16081.7 | 9106.1 | 635.6 | 459.9 | 386.5 | 348.1 | 344.9 | 316.2 | 290.6 | 284.3 | 281.1 |
| 50° | 16797.2 | 8911.2 | 565.4 | 415.2 | 348.1 | 309.9 | 300.2 | 265.1 | 249.1 | 242.7 | 239.6 |
| 52.5° | 17279.5 | 8563.1 | 507.9 | 376.9 | 313.0 | 274.7 | 252.4 | 226.8 | 214.0 | 207.7 | 207.7 |
| 55° | 17666.0 | 8071.2 | 450.3 | 341.8 | 284.3 | 245.9 | 214.0 | 194.9 | 182.1 | 175.6 | 175.6 |
| 57.5° | 17774.6 | 7403.7 | 392.8 | 313.0 | 255.5 | 217.2 | 182.1 | 169.3 | 153.3 | 150.1 | 150.1 |
| 60° | 16985.6 | 6199.5 | 348.1 | 277.8 | 230.0 | 188.4 | 159.7 | 143.7 | 127.8 | 124.6 | 121.3 |
| 62.5° | 14906.3 | 4797.3 | 306.6 | 245.9 | 201.2 | 162.9 | 137.4 | 118.2 | 105.4 | 105.4 | 105.4 |
| 65° | 11370.6 | 3216.4 | 268.3 | 214.0 | 175.6 | 137.4 | 118.2 | 95.9 | 89.4 | 89.4 | 92.6 |
| 67.5° | 6806.4 | 1750.3 | 230.0 | 182.1 | 150.1 | 115.0 | 99.0 | 83.1 | 79.9 | 83.1 | 83.1 |
| 69° | 3989.3 | 1028.5 | 207.7 | 162.9 | 130.9 | 102.2 | 86.2 | 73.4 | 79.9 | 83.1 | 83.1 |
| 70° | 2462.5 | 693.0 | 191.6 | 146.9 | 118.2 | 92.6 | 79.9 | 70.3 | 76.6 | 79.9 | 79.9 |
| 72.5° | 686.7 | 357.7 | 153.3 | 115.0 | 95.9 | 76.6 | 63.8 | 63.8 | 73.4 | 76.6 | 76.6 |
| 75° | 447.1 | 265.1 | 118.2 | 86.2 | 73.4 | 60.7 | 54.3 | 60.7 | 70.3 | 73.4 | 73.4 |
| 77.5° | 370.5 | 217.2 | 95.9 | 70.3 | 60.7 | 57.5 | 51.1 | 54.3 | 63.8 | 67.1 | 67.1 |
| 80° | 338.6 | 153.3 | 76.6 | 63.8 | 54.3 | 51.1 | 47.9 | 44.7 | 57.5 | 60.7 | 60.7 |
| 82.5° | 322.6 | 121.3 | 67.1 | 57.5 | 51.1 | 44.7 | 41.5 | 44.7 | 51.1 | 54.3 | 57.5 |
| 85° | 201.2 | 79.9 | 60.7 | 54.3 | 44.7 | 41.5 | 41.5 | 41.5 | 47.9 | 51.1 | 51.1 |
| 87.5° | 73.4 | 63.8 | 54.3 | 44.7 | 38.4 | 38.4 | 38.4 | 38.4 | 41.5 | 47.9 | 47.9 |
| 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)