

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: P654113

Luminaire Tested: **GLAN-SA9A-840-U-T2R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P654113
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA9A-840-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27914.5 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G3

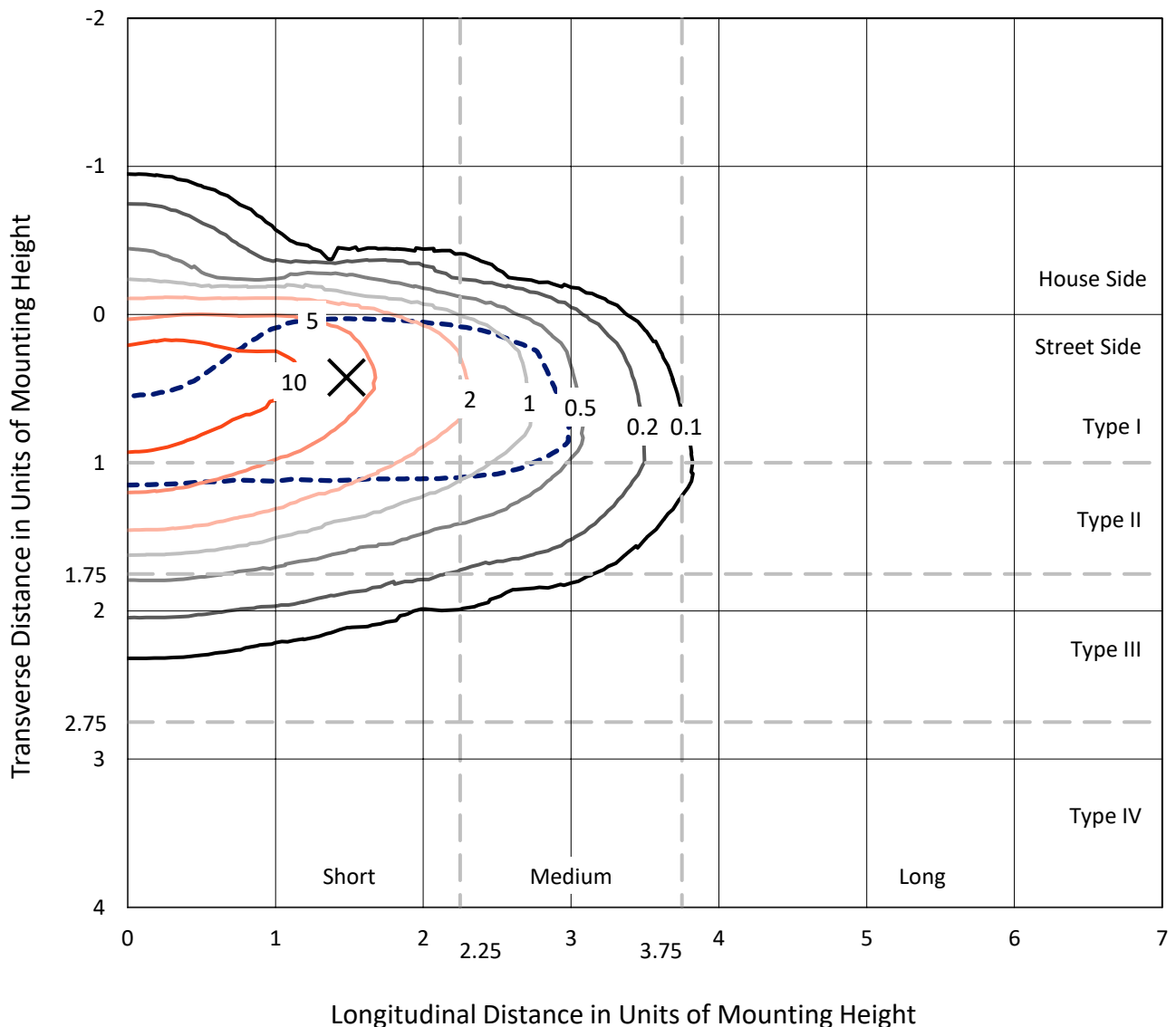
Input Watts (W): 274
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

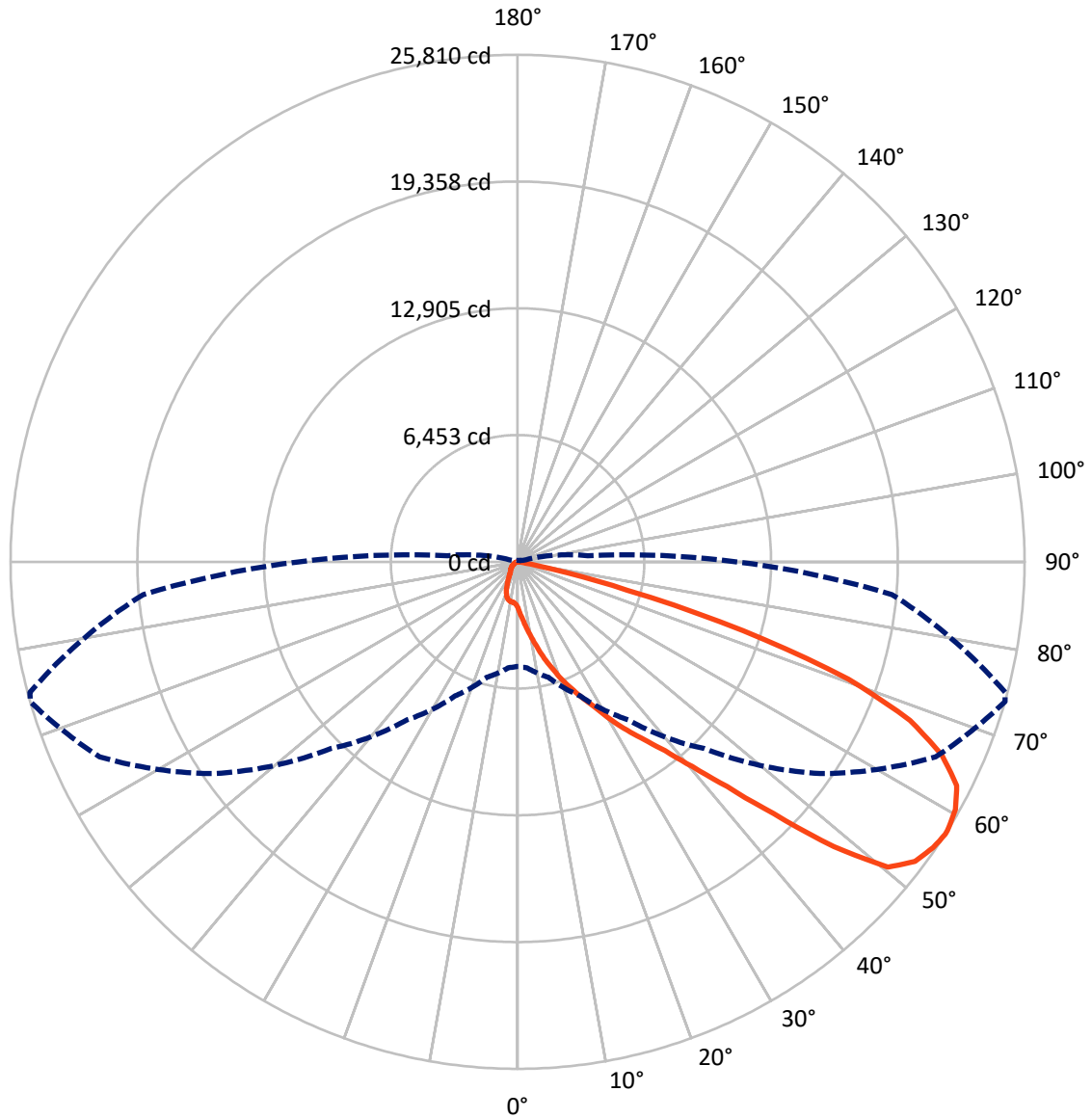
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.2 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral - - - Horizontal Cone Through 57-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1610.0 | 0.0 | 1610.0 |
| | % Fixture | 5.8 | 0.0 | 5.8 |
| Street Side | Lumens | 26304.5 | 0.0 | 26304.5 |
| | % Fixture | 94.2 | 0.0 | 94.2 |
| Total | Lumens | 27914.5 | 0.0 | 27914.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 282.2 | 1.0 |
| 10°-20° | 1112.2 | 4.0 |
| 20°-30° | 2379.9 | 8.5 |
| 30°-40° | 4374.2 | 15.7 |
| 40°-50° | 6705.8 | 24.0 |
| 50°-60° | 7093.8 | 25.4 |
| 60°-70° | 4632.4 | 16.6 |
| 70°-80° | 1265.8 | 4.5 |
| 80°-90° | 68.1 | 0.2 |
| 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° | 27914.5 | 100.0 |
| 0°-180° | 27914.5 | 100.0 |

Coefficient of Utilization

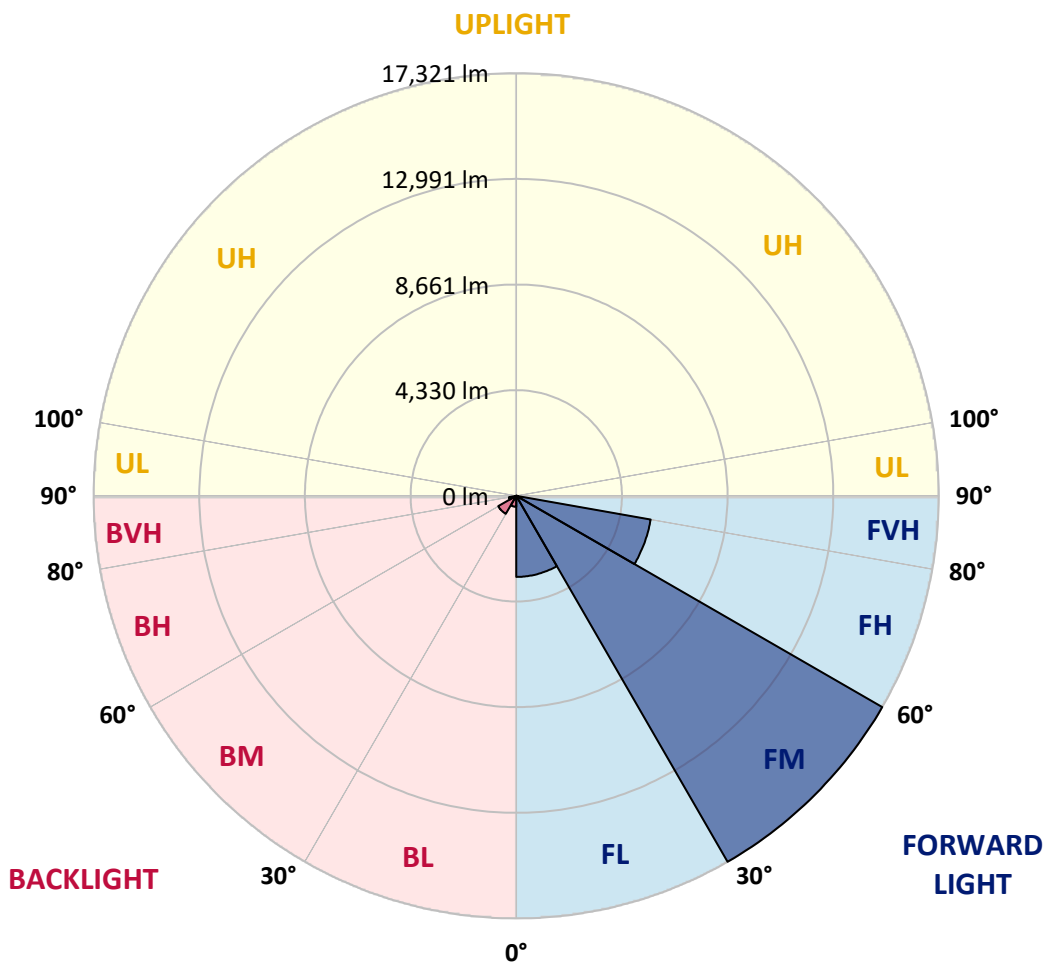


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3324.6 | 11.9 | | | |
| FM (30°-60°) | 17321.4 | 62.1 | | | |
| FH (60°-80°) | 5595.9 | 20.0 | | | G3/7500 |
| FVH (80°-90°) | 62.5 | 0.2 | | | G1/100 |
| BL (0°-30°) | 449.7 | 1.6 | B1/500 | | |
| BM (30°-60°) | 852.4 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 302.3 | 1.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 5.6 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G3
 Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 74° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 |
| 2.5° | 3420.9 | 3390.1 | 3328.4 | 3307.2 | 3216.7 | 3076.0 | 2952.6 | 2786.8 | 2655.8 | 2642.3 | 2484.3 |
| 5° | 4581.2 | 4511.8 | 4482.9 | 4344.1 | 4126.3 | 3922.0 | 3571.3 | 3305.3 | 2998.8 | 2975.7 | 2657.7 |
| 7.5° | 5699.0 | 5602.7 | 5573.7 | 5442.7 | 5188.3 | 4866.4 | 4411.5 | 3927.8 | 3442.1 | 3397.8 | 2890.9 |
| 10° | 6508.4 | 6522.0 | 6469.9 | 6383.2 | 6177.0 | 5849.3 | 5288.5 | 4627.4 | 3935.5 | 3879.6 | 3153.1 |
| 12.5° | 7088.5 | 7086.6 | 7096.3 | 7094.3 | 6984.5 | 6735.9 | 6146.1 | 5384.8 | 4479.0 | 4369.2 | 3453.7 |
| 15° | 7466.3 | 7472.1 | 7501.0 | 7601.2 | 7612.8 | 7458.6 | 6967.2 | 6109.5 | 5109.2 | 4972.4 | 3779.5 |
| 17.5° | 7848.0 | 7888.4 | 7934.7 | 8029.1 | 8113.9 | 8052.2 | 7705.3 | 6865.0 | 5679.7 | 5577.6 | 4128.2 |
| 20° | 8478.1 | 8534.0 | 8507.1 | 8564.8 | 8609.2 | 8615.0 | 8347.1 | 7562.7 | 6371.6 | 6200.1 | 4527.2 |
| 22.5° | 9486.1 | 9484.2 | 9414.8 | 9310.7 | 9224.0 | 9220.1 | 8977.3 | 8279.6 | 6999.9 | 6834.1 | 4928.1 |
| 25° | 10760.1 | 10765.8 | 10630.9 | 10334.1 | 10118.2 | 9854.2 | 9574.8 | 8908.0 | 7672.5 | 7468.2 | 5350.2 |
| 27.5° | 12220.9 | 12184.3 | 11980.0 | 11571.4 | 11143.6 | 10692.6 | 10289.8 | 9638.4 | 8385.6 | 8216.1 | 5833.9 |
| 30° | 13533.5 | 13519.9 | 13280.9 | 12781.8 | 12219.0 | 11766.1 | 11182.1 | 10553.8 | 9308.8 | 9100.6 | 6375.5 |
| 32.5° | 14755.3 | 14774.6 | 14443.1 | 13926.6 | 13383.1 | 12860.8 | 12244.0 | 11428.9 | 10214.6 | 9919.8 | 6965.2 |
| 35° | 15709.3 | 15728.6 | 15385.5 | 14955.8 | 14396.8 | 13963.2 | 13375.3 | 12361.6 | 11108.9 | 10860.3 | 7643.6 |
| 37.5° | 16218.1 | 16243.2 | 16044.7 | 15720.9 | 15372.1 | 15154.2 | 14606.9 | 13562.3 | 12195.8 | 12045.6 | 8445.4 |
| 40° | 16314.5 | 16343.4 | 16256.7 | 16169.9 | 16150.6 | 16306.8 | 16146.8 | 14976.9 | 13703.0 | 13467.9 | 9640.3 |
| 42.5° | 16025.4 | 16063.9 | 16102.5 | 16295.2 | 16688.4 | 17260.8 | 17817.8 | 16896.5 | 15643.8 | 15327.7 | 11101.2 |
| 45° | 15266.1 | 15262.2 | 15414.4 | 15913.7 | 16794.3 | 18016.3 | 19563.9 | 19299.9 | 18288.0 | 17912.2 | 13165.3 |
| 47.5° | 13967.1 | 13947.8 | 14277.3 | 14988.6 | 16360.7 | 18155.1 | 20988.2 | 22217.8 | 21662.7 | 21315.8 | 15383.7 |
| 50° | 11987.7 | 12082.1 | 12600.6 | 13593.2 | 15283.4 | 17734.9 | 21427.6 | 24131.6 | 24432.2 | 24064.1 | 17176.0 |
| 52.5° | 9669.2 | 9665.4 | 10478.7 | 11825.8 | 13687.6 | 16809.8 | 21121.1 | 24478.5 | 25332.3 | 25050.9 | 18058.7 |
| 55° | 7156.0 | 7206.1 | 8052.2 | 9411.0 | 11615.8 | 15121.5 | 20120.9 | 24121.9 | 25675.3 | 25476.8 | 18640.8 |
| 57° | 5323.2 | 5411.8 | 6090.3 | 7528.0 | 9811.9 | 13450.5 | 18789.1 | 23484.0 | 25810.2 | 25702.3 | 19124.5 |
| 57.5° | 4968.5 | 4972.4 | 5633.4 | 6940.2 | 9283.7 | 12808.8 | 18407.6 | 23218.1 | 25806.4 | 25746.6 | 19203.5 |
| 60° | 3058.6 | 3155.0 | 3611.8 | 4691.0 | 6795.6 | 9996.9 | 15850.0 | 21689.7 | 25605.9 | 25692.7 | 19540.8 |
| 62.5° | 1830.9 | 1871.4 | 2168.2 | 2827.4 | 4380.7 | 7296.7 | 12970.7 | 19733.5 | 25083.7 | 25347.7 | 19517.7 |
| 65° | 1177.6 | 1187.2 | 1322.1 | 1711.4 | 2738.7 | 4932.0 | 9994.9 | 17149.0 | 23732.6 | 24218.3 | 18754.5 |
| 67.5° | 909.7 | 925.1 | 979.1 | 1123.6 | 1588.1 | 3072.1 | 7069.3 | 14391.0 | 21547.1 | 22173.5 | 16904.3 |
| 70° | 807.5 | 815.3 | 834.5 | 880.8 | 1050.4 | 1734.6 | 4398.1 | 11241.9 | 17867.9 | 18045.2 | 13228.9 |
| 72.5° | 659.1 | 680.4 | 740.1 | 755.5 | 832.6 | 1083.1 | 2447.6 | 7545.4 | 12005.1 | 12049.4 | 7400.8 |
| 75° | 510.7 | 514.6 | 603.2 | 647.6 | 701.6 | 745.9 | 1092.8 | 3804.4 | 5766.5 | 5458.1 | 2852.4 |
| 77.5° | 381.6 | 399.0 | 439.4 | 495.3 | 572.4 | 533.9 | 489.5 | 1433.9 | 1790.5 | 1757.7 | 828.7 |
| 80° | 244.7 | 254.4 | 306.5 | 372.0 | 445.2 | 348.8 | 275.6 | 420.2 | 393.2 | 404.7 | 198.5 |
| 82.5° | 123.4 | 125.3 | 196.5 | 302.6 | 283.3 | 175.3 | 173.4 | 171.6 | 146.5 | 144.6 | 92.5 |
| 85° | 13.5 | 28.9 | 127.2 | 173.4 | 127.2 | 57.8 | 80.9 | 79.1 | 77.1 | 79.1 | 54.0 |
| 87.5° | 1.9 | 1.9 | 21.2 | 25.1 | 17.3 | 19.3 | 23.1 | 25.1 | 30.9 | 28.9 | 23.1 |
| 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° | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 | 2337.8 |
| 2.5° | 2407.2 | 2330.1 | 2187.4 | 2050.6 | 1948.5 | 1883.0 | 1798.1 | 1767.4 | 1723.0 | 1717.2 | 1696.0 |
| 5° | 2511.2 | 2364.8 | 2116.1 | 1919.6 | 1761.6 | 1642.1 | 1537.9 | 1451.2 | 1381.8 | 1366.5 | 1374.2 |
| 7.5° | 2659.7 | 2441.8 | 2094.9 | 1827.1 | 1607.3 | 1403.0 | 1237.3 | 1135.2 | 1061.9 | 1034.9 | 1038.8 |
| 10° | 2827.4 | 2544.0 | 2091.1 | 1728.8 | 1393.5 | 1142.9 | 961.7 | 871.1 | 828.7 | 813.3 | 796.0 |
| 12.5° | 3025.8 | 2661.6 | 2081.5 | 1576.5 | 1158.3 | 911.6 | 782.5 | 728.5 | 688.0 | 676.5 | 676.5 |
| 15° | 3249.4 | 2786.8 | 2035.2 | 1387.6 | 940.5 | 753.5 | 666.8 | 624.4 | 611.0 | 599.4 | 599.4 |
| 17.5° | 3482.6 | 2910.2 | 1938.8 | 1154.4 | 780.5 | 645.6 | 591.6 | 566.6 | 547.3 | 533.9 | 533.9 |
| 20° | 3748.6 | 3031.6 | 1784.7 | 948.2 | 659.1 | 576.3 | 533.9 | 504.9 | 489.5 | 477.9 | 474.1 |
| 22.5° | 4001.1 | 3129.9 | 1588.1 | 778.6 | 574.3 | 518.5 | 479.9 | 449.1 | 433.6 | 427.8 | 427.8 |
| 25° | 4263.2 | 3189.7 | 1351.1 | 643.7 | 524.2 | 470.3 | 427.8 | 402.8 | 389.3 | 385.4 | 383.5 |
| 27.5° | 4517.6 | 3224.4 | 1142.9 | 562.8 | 477.9 | 426.0 | 385.4 | 366.2 | 352.7 | 348.8 | 350.8 |
| 30° | 4825.9 | 3230.1 | 940.5 | 504.9 | 437.5 | 383.5 | 346.9 | 329.6 | 321.9 | 318.0 | 316.0 |
| 32.5° | 5138.2 | 3222.5 | 790.2 | 470.3 | 399.0 | 346.9 | 316.0 | 302.6 | 296.8 | 291.0 | 291.0 |
| 35° | 5489.0 | 3181.9 | 672.6 | 435.6 | 362.3 | 316.0 | 289.1 | 277.5 | 269.8 | 264.1 | 262.1 |
| 37.5° | 5924.5 | 3160.7 | 605.2 | 397.0 | 329.6 | 287.2 | 262.1 | 250.5 | 244.7 | 237.1 | 235.1 |
| 40° | 6610.6 | 3255.2 | 584.0 | 362.3 | 296.8 | 260.2 | 237.1 | 223.5 | 215.9 | 208.1 | 206.2 |
| 42.5° | 7466.3 | 3420.9 | 549.3 | 327.7 | 267.9 | 235.1 | 212.0 | 196.5 | 183.1 | 173.4 | 169.6 |
| 45° | 8574.5 | 3638.8 | 495.3 | 291.0 | 242.8 | 208.1 | 187.0 | 167.7 | 150.3 | 142.6 | 140.7 |
| 47.5° | 9736.7 | 3848.8 | 447.2 | 262.1 | 215.9 | 185.0 | 161.9 | 140.7 | 125.3 | 119.5 | 117.6 |
| 50° | 10449.8 | 3891.2 | 416.3 | 229.3 | 188.9 | 160.0 | 136.8 | 117.6 | 107.9 | 102.2 | 102.2 |
| 52.5° | 10775.5 | 3823.8 | 373.9 | 200.4 | 163.8 | 140.7 | 117.6 | 102.2 | 96.4 | 92.5 | 90.6 |
| 55° | 11002.9 | 3719.7 | 318.0 | 173.4 | 140.7 | 119.5 | 104.0 | 92.5 | 84.8 | 80.9 | 79.1 |
| 57° | 11135.8 | 3579.0 | 275.6 | 152.2 | 121.4 | 104.0 | 92.5 | 82.8 | 75.2 | 67.4 | 67.4 |
| 57.5° | 11141.7 | 3525.1 | 264.1 | 150.3 | 115.6 | 100.2 | 90.6 | 80.9 | 71.3 | 63.6 | 61.6 |
| 60° | 10970.1 | 3155.0 | 212.0 | 127.2 | 92.5 | 84.8 | 75.2 | 63.6 | 50.1 | 42.4 | 40.5 |
| 62.5° | 10418.9 | 2684.7 | 175.3 | 107.9 | 75.2 | 65.5 | 54.0 | 48.2 | 34.6 | 25.1 | 25.1 |
| 65° | 9584.4 | 2177.9 | 150.3 | 86.7 | 61.6 | 48.2 | 36.6 | 34.6 | 21.2 | 11.5 | 9.7 |
| 67.5° | 8378.0 | 1696.0 | 127.2 | 71.3 | 52.1 | 34.6 | 25.1 | 23.1 | 11.5 | 3.9 | 0.0 |
| 70° | 6383.2 | 1156.4 | 106.0 | 57.8 | 38.5 | 25.1 | 17.3 | 13.5 | 7.7 | 1.9 | 0.0 |
| 72.5° | 3679.2 | 636.0 | 88.6 | 44.3 | 28.9 | 19.3 | 13.5 | 7.7 | 7.7 | 0.0 | 0.0 |
| 75° | 1314.4 | 273.7 | 67.4 | 32.8 | 23.1 | 15.4 | 9.7 | 3.9 | 5.8 | 1.9 | 0.0 |
| 77.5° | 418.2 | 146.5 | 44.3 | 25.1 | 19.3 | 11.5 | 7.7 | 3.9 | 3.9 | 1.9 | 0.0 |
| 80° | 123.4 | 77.1 | 27.0 | 21.2 | 13.5 | 9.7 | 5.8 | 1.9 | 3.9 | 1.9 | 0.0 |
| 82.5° | 67.4 | 38.5 | 21.2 | 15.4 | 13.5 | 7.7 | 5.8 | 1.9 | 1.9 | 1.9 | 0.0 |
| 85° | 34.6 | 23.1 | 17.3 | 15.4 | 13.5 | 7.7 | 5.8 | 1.9 | 0.0 | 1.9 | 1.9 |
| 87.5° | 19.3 | 17.3 | 17.3 | 15.4 | 13.5 | 9.7 | 5.8 | 1.9 | 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)