

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: P196962

Luminaire Tested: **NVN-AF-06-LED-U-AFL-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196962
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-06-LED-U-AFL-8030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24672 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 333
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

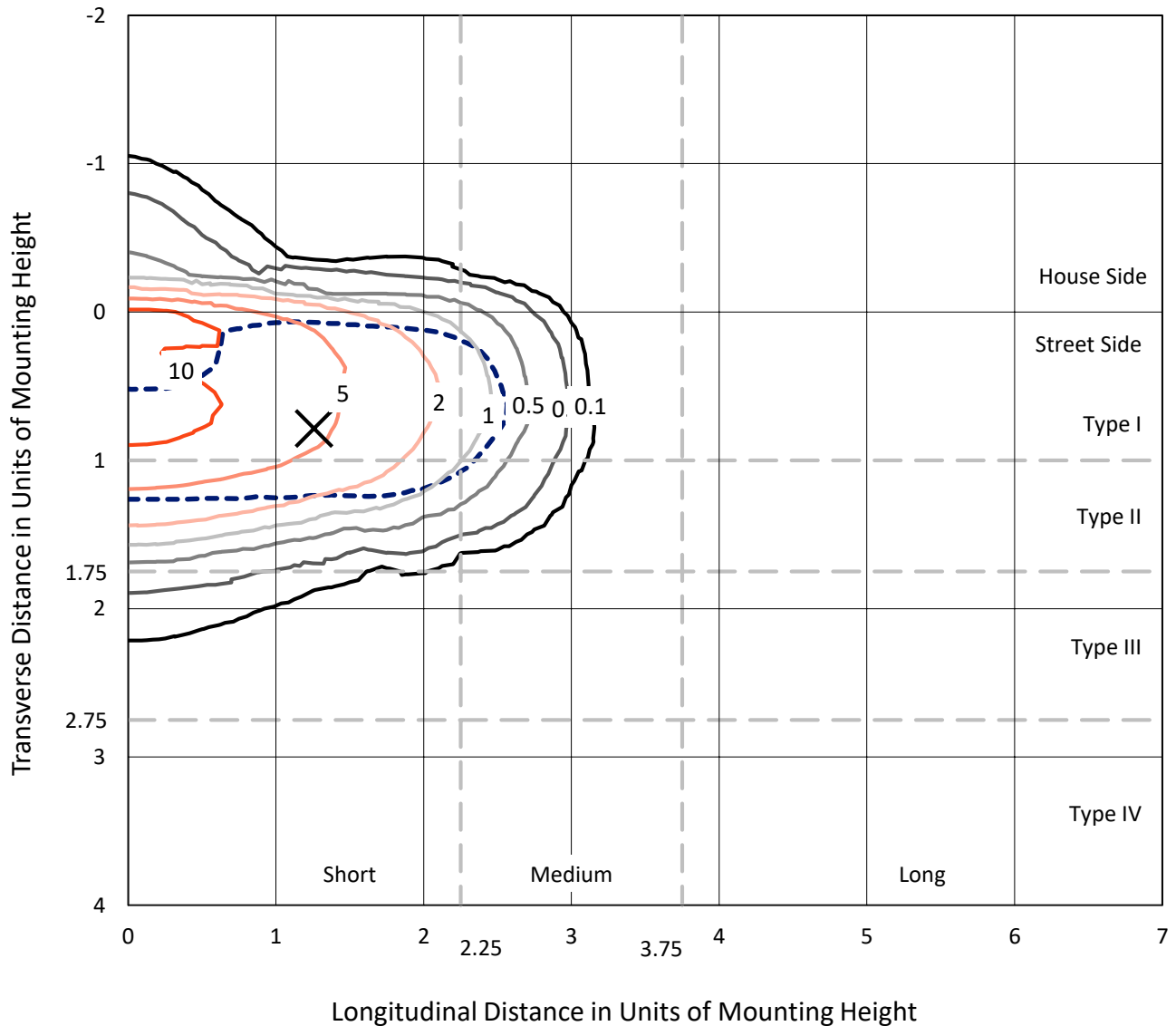


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

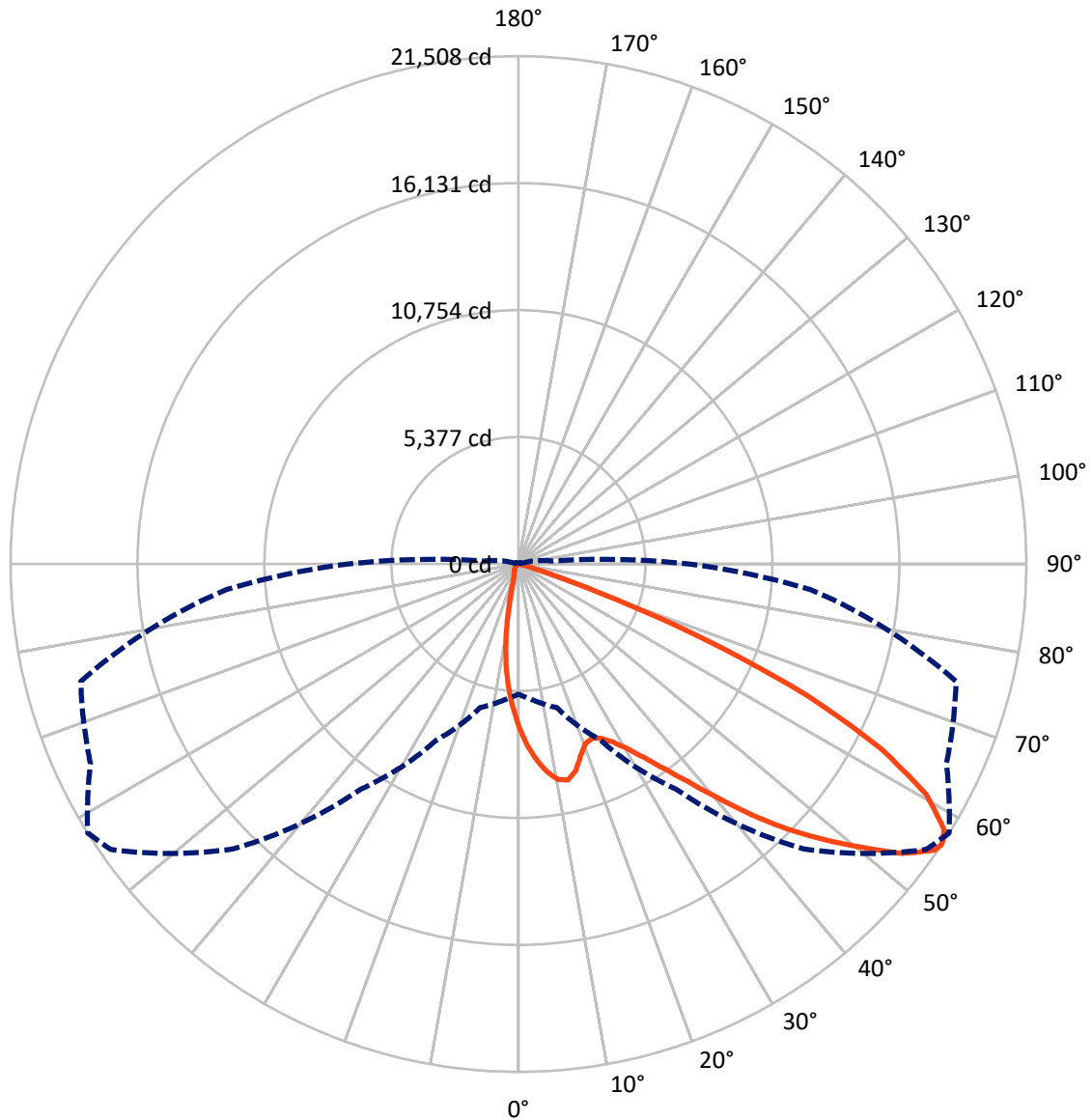


Based on 25 foot mounting height. Maximum calculated value = 13.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1540.0 | 0.0 | 1540.0 |
| | % Fixture | 6.2 | 0.0 | 6.2 |
| Street Side | Lumens | 23132.0 | 0.0 | 23132.0 |
| | % Fixture | 93.8 | 0.0 | 93.8 |
| Total | Lumens | 24672.0 | 0.0 | 24672.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 595.9 | 2.4 |
| 10°-20° | 1386.6 | 5.6 |
| 20°-30° | 2333.1 | 9.5 |
| 30°-40° | 3995.2 | 16.2 |
| 40°-50° | 6028.8 | 24.4 |
| 50°-60° | 6266.8 | 25.4 |
| 60°-70° | 3518.1 | 14.3 |
| 70°-80° | 482.2 | 2.0 |
| 80°-90° | 65.3 | 0.3 |
| 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° | 24672.0 | 100.0 |
| 0°-180° | 24672.0 | 100.0 |

Coefficient of Utilization



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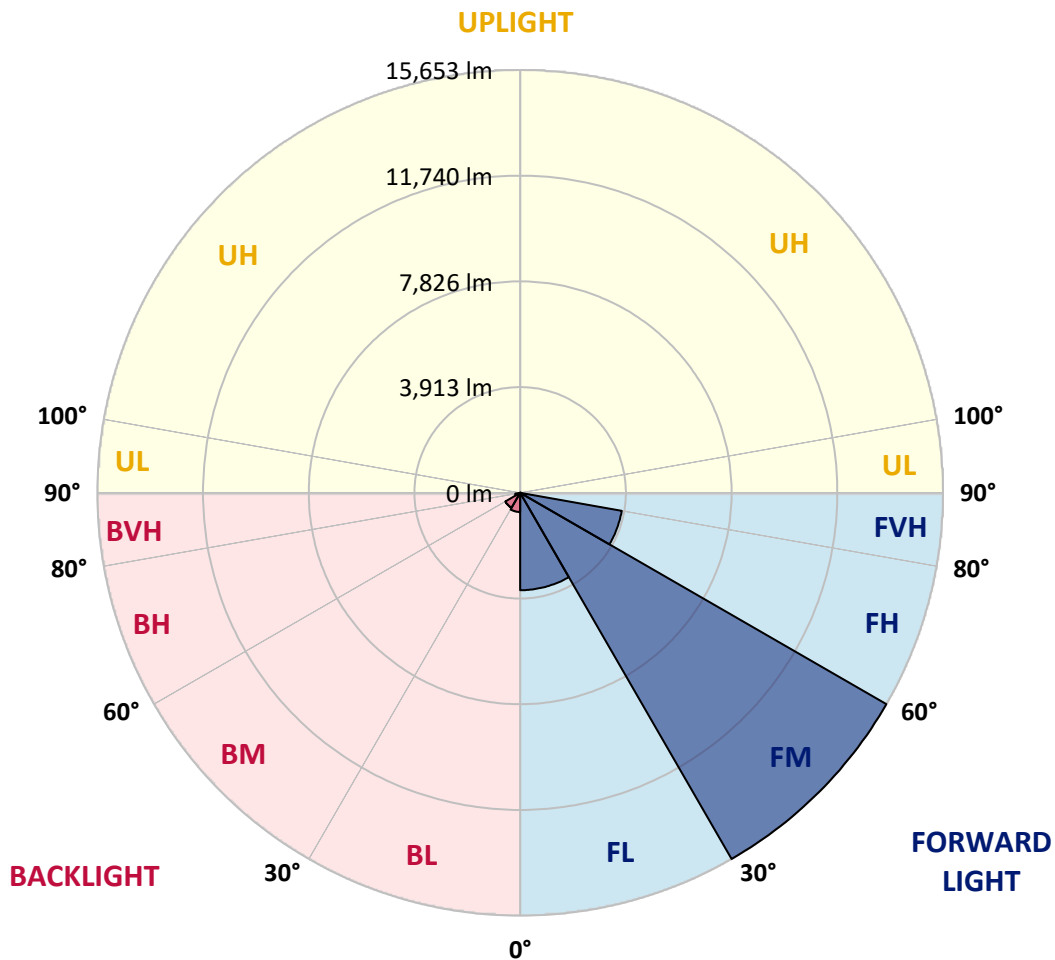
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3605.1 | 14.6 | | | |
| FM | (30°-60°) | 15652.9 | 63.4 | | | |
| FH | (60°-80°) | 3817.6 | 15.5 | | | G2/5000 |
| FVH | (80°-90°) | 56.3 | 0.2 | | | G1/100 |
| BL | (0°-30°) | 710.4 | 2.9 | B2/1000 | | |
| BM | (30°-60°) | 637.9 | 2.6 | B1/1000 | | |
| BH | (60°-80°) | 182.7 | 0.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 9.0 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 58° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 |
| 2.5° | 8404.7 | 8353.9 | 8301.1 | 8203.3 | 8112.9 | 7973.6 | 7781.6 | 7734.6 | 7584.0 | 7335.5 | 7104.0 |
| 5° | 9129.4 | 9120.0 | 9084.2 | 9005.1 | 8907.3 | 8737.9 | 8521.4 | 8376.4 | 8143.0 | 7751.5 | 7305.4 |
| 7.5° | 8700.2 | 8779.3 | 8909.1 | 9093.6 | 9217.9 | 9200.9 | 9035.3 | 8909.1 | 8677.6 | 8143.0 | 7503.0 |
| 10° | 7333.6 | 7348.7 | 7527.5 | 7915.3 | 8528.9 | 9101.1 | 9317.6 | 9283.7 | 9071.0 | 8485.6 | 7676.2 |
| 12.5° | 6851.7 | 6861.2 | 6902.6 | 7026.8 | 7425.9 | 8224.0 | 9204.7 | 9381.6 | 9364.7 | 8813.1 | 7860.7 |
| 15° | 6889.4 | 6895.0 | 6906.3 | 6945.9 | 7058.8 | 7459.7 | 8632.4 | 9082.3 | 9552.9 | 9123.7 | 8041.4 |
| 17.5° | 7186.8 | 7183.0 | 7147.3 | 7109.6 | 7145.4 | 7277.2 | 8048.9 | 8523.3 | 9513.4 | 9385.4 | 8190.1 |
| 20° | 7766.6 | 7785.4 | 7664.9 | 7497.4 | 7410.8 | 7416.4 | 7760.9 | 8116.7 | 9291.3 | 9588.7 | 8301.1 |
| 22.5° | 8581.6 | 8594.8 | 8397.1 | 8107.3 | 7853.2 | 7725.2 | 7821.2 | 8009.4 | 9035.3 | 9776.9 | 8391.5 |
| 25° | 9554.8 | 9554.8 | 9278.1 | 8865.9 | 8472.4 | 8192.0 | 8109.2 | 8180.7 | 8937.4 | 9989.6 | 8481.9 |
| 27.5° | 10605.1 | 10642.8 | 10281.4 | 9741.1 | 9221.6 | 8811.3 | 8551.5 | 8538.3 | 9012.7 | 10256.9 | 8583.5 |
| 30° | 11747.7 | 11781.6 | 11352.4 | 10691.7 | 10076.2 | 9551.0 | 9152.0 | 9065.4 | 9300.7 | 10616.4 | 8732.2 |
| 32.5° | 12884.7 | 12912.9 | 12438.5 | 11764.7 | 11047.5 | 10430.1 | 9904.9 | 9767.5 | 9818.3 | 11141.6 | 8950.6 |
| 35° | 14330.3 | 14336.0 | 13735.5 | 12933.6 | 12167.5 | 11442.8 | 10778.3 | 10642.8 | 10586.3 | 11804.2 | 9264.9 |
| 37.5° | 15480.4 | 15435.2 | 15055.0 | 14296.4 | 13417.4 | 12660.7 | 11879.5 | 11702.6 | 11567.0 | 12736.0 | 9752.4 |
| 40° | 15751.5 | 15751.5 | 15695.0 | 15467.2 | 14768.9 | 14040.4 | 13283.7 | 13020.2 | 12720.9 | 13833.4 | 10407.5 |
| 42.5° | 15045.6 | 15090.8 | 15463.5 | 15958.5 | 15964.2 | 15497.4 | 14757.6 | 14535.5 | 14008.4 | 15083.2 | 11122.8 |
| 45° | 13466.3 | 13479.5 | 14373.6 | 15710.1 | 16617.4 | 16884.7 | 16338.8 | 16031.9 | 15301.6 | 16382.1 | 11777.8 |
| 47.5° | 12897.8 | 12939.3 | 13319.5 | 14953.4 | 16666.3 | 18008.4 | 17855.9 | 17434.3 | 16498.8 | 17567.9 | 12389.6 |
| 50° | 12024.4 | 12075.3 | 12540.2 | 13839.0 | 16225.8 | 18729.4 | 19307.2 | 18855.5 | 17588.6 | 18556.2 | 12692.7 |
| 52.5° | 9935.0 | 10014.1 | 10671.0 | 12365.1 | 15124.7 | 18759.5 | 20636.2 | 20365.1 | 18704.9 | 19085.1 | 12656.9 |
| 55° | 6836.7 | 6895.0 | 7661.2 | 9652.7 | 12903.5 | 17839.0 | 21208.4 | 21394.8 | 19700.6 | 19203.7 | 12483.7 |
| 56° | 5515.3 | 5733.6 | 6294.6 | 8224.0 | 11638.6 | 17055.9 | 21076.6 | 21507.7 | 19996.2 | 19184.9 | 12408.4 |
| 57.5° | 3646.1 | 3687.5 | 4299.3 | 5959.5 | 9345.9 | 15356.2 | 20481.8 | 21266.8 | 20376.4 | 19088.9 | 12353.8 |
| 60° | 1714.8 | 1733.6 | 1953.9 | 2750.1 | 5057.9 | 11190.6 | 18548.6 | 19851.2 | 20515.7 | 18887.5 | 12352.0 |
| 62.5° | 1118.1 | 1121.9 | 1148.2 | 1312.0 | 2068.7 | 6095.0 | 15376.9 | 17251.7 | 19361.8 | 18864.9 | 12316.2 |
| 65° | 920.5 | 929.9 | 897.9 | 918.6 | 1082.3 | 2298.3 | 10846.1 | 13449.4 | 16653.1 | 18334.1 | 11913.4 |
| 67.5° | 811.3 | 813.2 | 769.9 | 745.4 | 792.5 | 1008.9 | 5464.5 | 8483.7 | 12455.5 | 15578.3 | 9812.7 |
| 70° | 739.8 | 737.9 | 688.9 | 632.5 | 634.4 | 670.1 | 1780.7 | 3523.8 | 6891.3 | 9249.9 | 5633.9 |
| 72.5° | 656.9 | 660.7 | 632.5 | 553.4 | 527.1 | 474.4 | 670.1 | 950.6 | 2345.4 | 2970.3 | 1485.2 |
| 75° | 576.0 | 568.5 | 540.2 | 489.4 | 440.5 | 318.1 | 336.9 | 404.7 | 611.8 | 606.1 | 320.0 |
| 77.5° | 436.7 | 429.2 | 442.4 | 417.9 | 344.5 | 222.1 | 184.5 | 210.8 | 276.7 | 257.9 | 129.9 |
| 80° | 333.2 | 329.4 | 301.2 | 357.6 | 314.4 | 167.5 | 126.1 | 129.9 | 150.6 | 137.4 | 64.0 |
| 82.5° | 240.9 | 239.1 | 227.8 | 220.2 | 199.5 | 122.4 | 96.0 | 101.6 | 112.9 | 96.0 | 47.1 |
| 85° | 92.2 | 92.2 | 178.8 | 150.6 | 137.4 | 82.8 | 67.8 | 73.4 | 86.6 | 69.6 | 32.0 |
| 87.5° | 15.1 | 15.1 | 120.5 | 99.8 | 62.1 | 41.4 | 43.3 | 47.1 | 50.8 | 41.4 | 24.5 |
| 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° | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 | 6985.4 |
| 2.5° | 6966.6 | 6840.4 | 6563.7 | 6296.5 | 6063.0 | 5807.0 | 5677.2 | 5526.6 | 5470.1 | 5357.2 | 5368.5 |
| 5° | 7038.1 | 6774.6 | 6219.3 | 5633.9 | 5097.4 | 4551.5 | 4163.8 | 3798.6 | 3595.3 | 3393.9 | 3393.9 |
| 7.5° | 7111.5 | 6708.7 | 5850.3 | 4914.8 | 4011.3 | 3075.8 | 2413.2 | 1882.3 | 1586.8 | 1389.2 | 1383.5 |
| 10° | 7162.3 | 6624.0 | 5430.6 | 4080.9 | 2748.2 | 1584.9 | 956.2 | 752.9 | 679.5 | 647.5 | 645.6 |
| 12.5° | 7228.2 | 6539.3 | 4952.5 | 3098.3 | 1526.6 | 752.9 | 596.7 | 564.7 | 551.5 | 544.0 | 544.0 |
| 15° | 7284.7 | 6418.8 | 4372.7 | 2083.8 | 801.9 | 564.7 | 513.9 | 502.6 | 500.7 | 498.8 | 500.7 |
| 17.5° | 7297.9 | 6247.5 | 3678.1 | 1219.8 | 581.6 | 493.2 | 470.6 | 461.2 | 461.2 | 459.3 | 459.3 |
| 20° | 7267.7 | 6021.6 | 2910.1 | 752.9 | 502.6 | 453.6 | 429.2 | 417.9 | 416.0 | 416.0 | 416.0 |
| 22.5° | 7205.6 | 5733.6 | 2151.5 | 570.4 | 457.4 | 417.9 | 385.9 | 374.6 | 374.6 | 376.5 | 378.4 |
| 25° | 7128.4 | 5392.9 | 1477.6 | 491.3 | 423.5 | 380.2 | 348.2 | 336.9 | 340.7 | 344.5 | 346.4 |
| 27.5° | 7030.6 | 4986.3 | 967.5 | 425.4 | 378.4 | 342.6 | 314.4 | 306.8 | 314.4 | 321.9 | 325.6 |
| 30° | 6932.7 | 4540.2 | 655.1 | 368.9 | 327.5 | 301.2 | 284.2 | 282.4 | 293.6 | 310.6 | 312.5 |
| 32.5° | 6868.7 | 4082.8 | 495.1 | 331.3 | 288.0 | 265.4 | 257.9 | 261.6 | 278.6 | 297.4 | 301.2 |
| 35° | 6863.0 | 3636.7 | 421.6 | 301.2 | 261.6 | 240.9 | 237.2 | 248.5 | 267.3 | 282.4 | 286.1 |
| 37.5° | 6951.5 | 3218.8 | 382.1 | 278.6 | 240.9 | 220.2 | 214.6 | 235.3 | 252.2 | 267.3 | 271.1 |
| 40° | 7130.3 | 2844.2 | 355.8 | 257.9 | 224.0 | 199.5 | 195.8 | 212.7 | 229.6 | 246.6 | 252.2 |
| 42.5° | 7354.3 | 2494.1 | 325.6 | 237.2 | 205.2 | 176.9 | 173.2 | 186.4 | 203.3 | 227.8 | 231.5 |
| 45° | 7548.2 | 2168.5 | 293.6 | 214.6 | 184.5 | 152.5 | 150.6 | 165.6 | 178.8 | 201.4 | 205.2 |
| 47.5° | 7712.0 | 1897.4 | 263.5 | 190.1 | 158.1 | 135.5 | 133.6 | 141.2 | 148.7 | 169.4 | 173.2 |
| 50° | 7625.4 | 1667.8 | 233.4 | 156.2 | 128.0 | 116.7 | 114.8 | 114.8 | 124.2 | 144.9 | 148.7 |
| 52.5° | 7412.7 | 1524.7 | 205.2 | 129.9 | 105.4 | 99.8 | 94.1 | 96.0 | 105.4 | 114.8 | 116.7 |
| 55° | 7241.4 | 1456.9 | 180.7 | 114.8 | 88.5 | 82.8 | 77.2 | 75.3 | 77.2 | 73.4 | 69.6 |
| 56° | 7200.0 | 1449.4 | 175.1 | 111.1 | 84.7 | 77.2 | 69.6 | 65.9 | 64.0 | 56.5 | 54.6 |
| 57.5° | 7181.2 | 1449.4 | 165.6 | 103.5 | 79.1 | 69.6 | 60.2 | 52.7 | 45.2 | 39.5 | 39.5 |
| 60° | 7166.1 | 1458.8 | 154.4 | 90.4 | 67.8 | 56.5 | 43.3 | 32.0 | 26.4 | 26.4 | 26.4 |
| 62.5° | 7134.1 | 1455.1 | 141.2 | 75.3 | 58.4 | 43.3 | 26.4 | 20.7 | 18.8 | 20.7 | 22.6 |
| 65° | 6774.6 | 1351.5 | 124.2 | 60.2 | 45.2 | 30.1 | 15.1 | 15.1 | 16.9 | 20.7 | 22.6 |
| 67.5° | 5458.8 | 1024.0 | 101.6 | 47.1 | 32.0 | 22.6 | 13.2 | 13.2 | 16.9 | 20.7 | 22.6 |
| 70° | 2998.6 | 540.2 | 86.6 | 33.9 | 24.5 | 18.8 | 13.2 | 11.3 | 16.9 | 20.7 | 22.6 |
| 72.5° | 732.2 | 225.9 | 79.1 | 26.4 | 22.6 | 16.9 | 11.3 | 11.3 | 16.9 | 20.7 | 22.6 |
| 75° | 180.7 | 169.4 | 64.0 | 20.7 | 18.8 | 15.1 | 11.3 | 11.3 | 16.9 | 20.7 | 22.6 |
| 77.5° | 84.7 | 224.0 | 43.3 | 18.8 | 16.9 | 13.2 | 11.3 | 11.3 | 16.9 | 20.7 | 20.7 |
| 80° | 50.8 | 169.4 | 26.4 | 16.9 | 15.1 | 13.2 | 11.3 | 11.3 | 16.9 | 20.7 | 22.6 |
| 82.5° | 30.1 | 48.9 | 18.8 | 16.9 | 15.1 | 11.3 | 11.3 | 11.3 | 16.9 | 20.7 | 22.6 |
| 85° | 26.4 | 24.5 | 18.8 | 16.9 | 15.1 | 13.2 | 11.3 | 11.3 | 18.8 | 22.6 | 22.6 |
| 87.5° | 20.7 | 18.8 | 16.9 | 15.1 | 15.1 | 13.2 | 11.3 | 11.3 | 16.9 | 20.7 | 22.6 |
| 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)