

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: P236955

Luminaire Tested: **ARCH-L-AF72-220-D-U-T2R-7030-HSS**

Issue Date: 8/23/2018

Test Information

Test Method: LM-79-08
Report Number: P236955
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 8/23/2018
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-L-AF72-220-D-U-T2R-7030-HSS
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K, 945mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20104.8 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

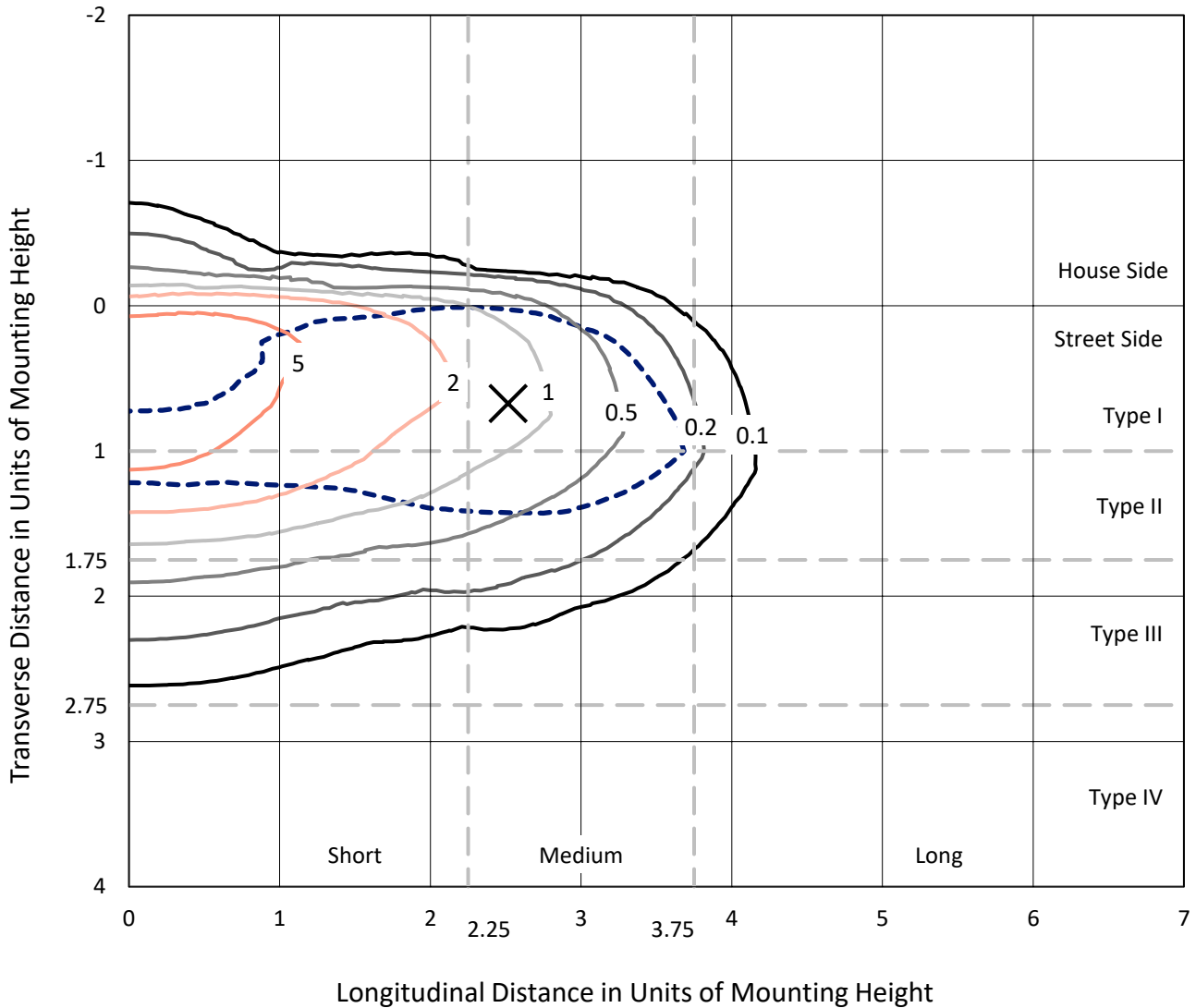
Input Watts (W): 222
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

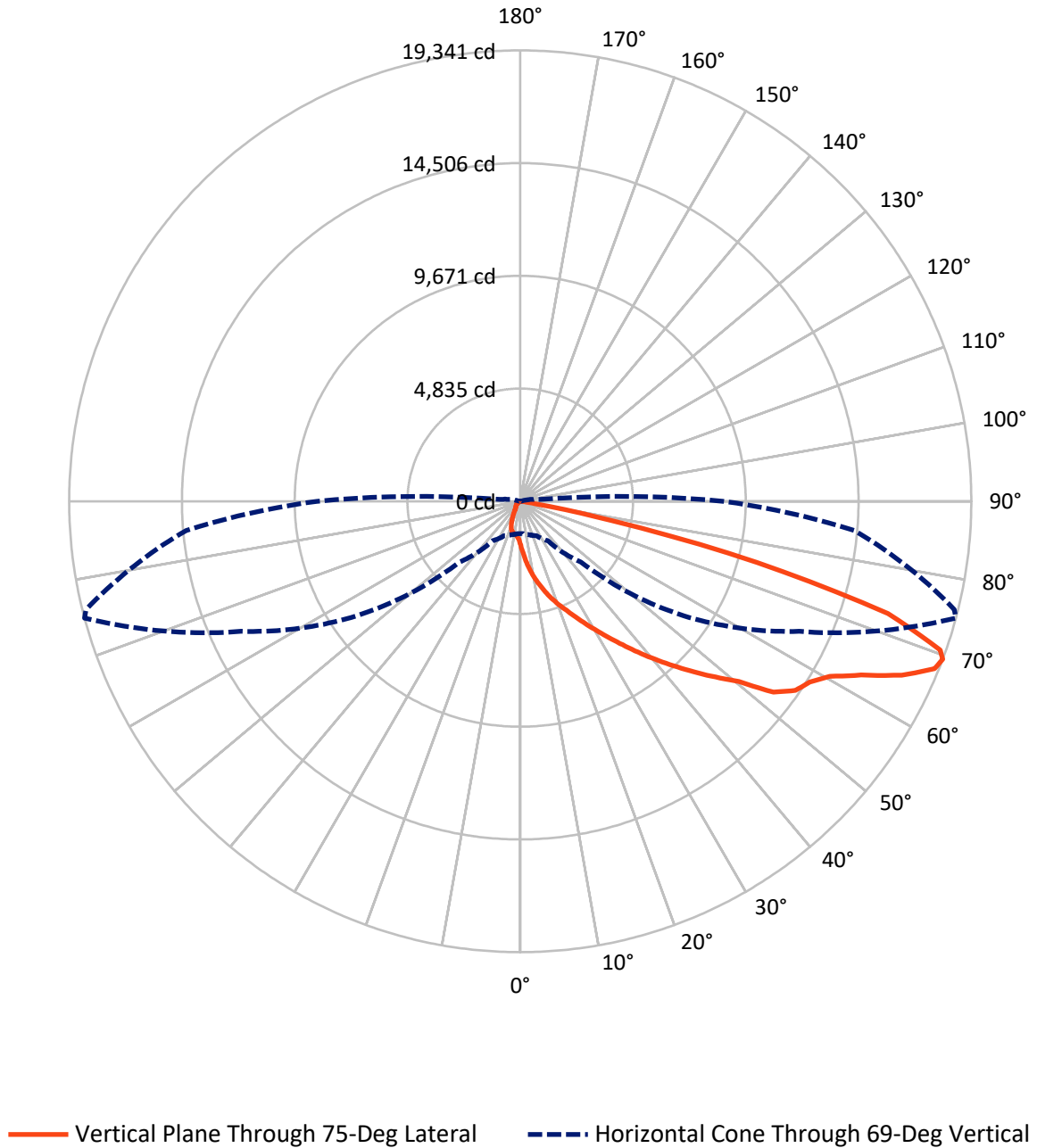
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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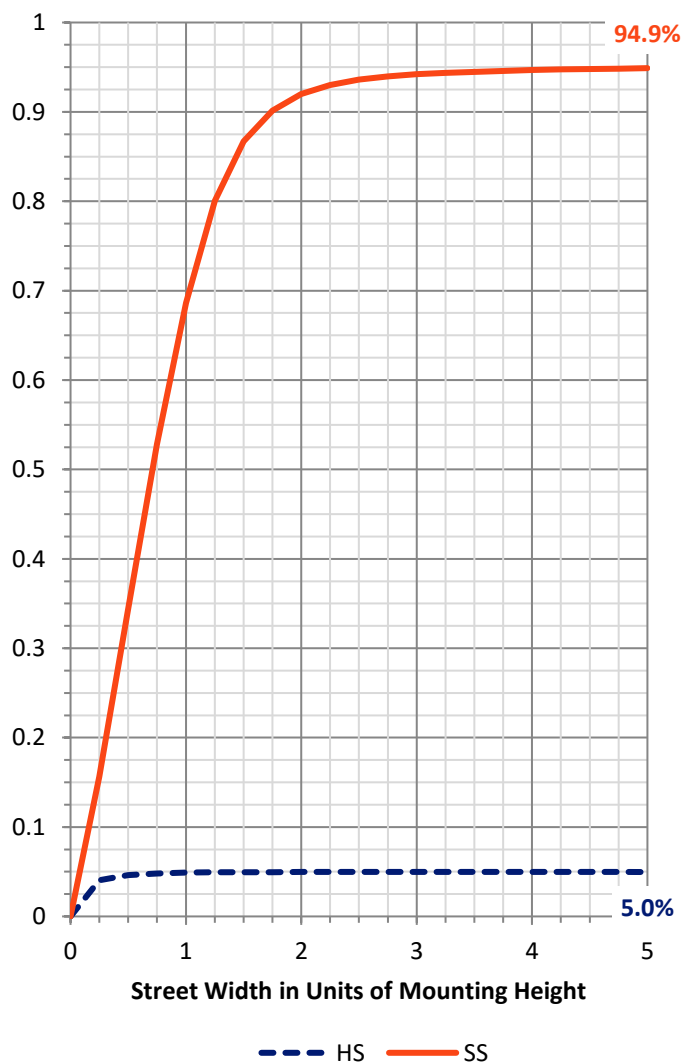
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1003.1 | 0.0 | 1003.1 |
| | % Fixture | 5.0 | 0.0 | 5.0 |
| Street Side | Lumens | 19101.7 | 0.0 | 19101.7 |
| | % Fixture | 95.0 | 0.0 | 95.0 |
| Total | Lumens | 20104.8 | 0.0 | 20104.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 218.1 | 1.1 |
| 10°-20° | 779.9 | 3.9 |
| 20°-30° | 1488.8 | 7.4 |
| 30°-40° | 2670.6 | 13.3 |
| 40°-50° | 4091.6 | 20.4 |
| 50°-60° | 4755.5 | 23.7 |
| 60°-70° | 4211.1 | 20.9 |
| 70°-80° | 1816.4 | 9.0 |
| 80°-90° | 72.8 | 0.4 |
| 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° | 20104.8 | 100.0 |
| 0°-180° | 20104.8 | 100.0 |

Coefficient of Utilization



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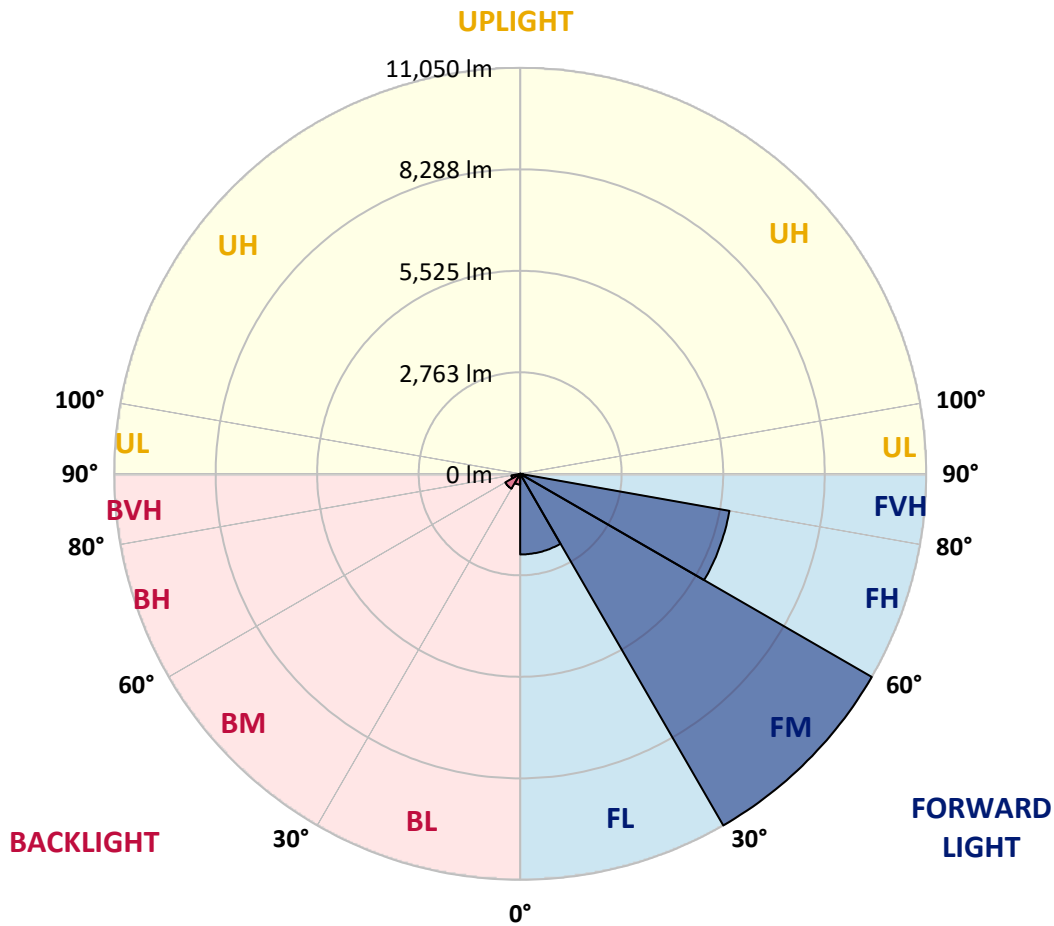
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2195.5 | 10.9 | | | |
| FM (30°-60°) | 11050.1 | 55.0 | | | |
| FH (60°-80°) | 5784.4 | 28.8 | | | G3/7500 |
| FVH (80°-90°) | 71.7 | 0.4 | | | G1/100 |
| BL (0°-30°) | 291.3 | 1.4 | B1/500 | | |
| BM (30°-60°) | 467.7 | 2.3 | B1/1000 | | |
| BH (60°-80°) | 243.0 | 1.2 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.1 | 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 Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 |
| 2.5° | 3081.7 | 3051.4 | 3021.0 | 2986.3 | 2908.2 | 2773.5 | 2604.3 | 2422.0 | 2196.3 | 2157.3 | 1974.9 |
| 5° | 3741.5 | 3728.5 | 3698.1 | 3650.4 | 3563.5 | 3416.0 | 3225.0 | 2955.9 | 2578.2 | 2513.2 | 2126.8 |
| 7.5° | 4205.9 | 4197.2 | 4171.2 | 4114.8 | 4036.7 | 3889.1 | 3689.3 | 3398.6 | 2960.2 | 2886.4 | 2317.8 |
| 10° | 4622.6 | 4618.3 | 4596.5 | 4544.5 | 4466.3 | 4305.8 | 4093.1 | 3789.2 | 3324.8 | 3242.4 | 2539.1 |
| 12.5° | 5000.2 | 5004.5 | 4995.9 | 4969.8 | 4913.4 | 4761.5 | 4518.4 | 4188.6 | 3676.3 | 3585.3 | 2803.9 |
| 15° | 5221.6 | 5234.6 | 5269.3 | 5321.5 | 5338.7 | 5217.2 | 4965.5 | 4600.9 | 4036.7 | 3958.5 | 3107.8 |
| 17.5° | 5147.8 | 5160.9 | 5269.3 | 5447.3 | 5616.6 | 5634.0 | 5408.3 | 4991.5 | 4392.6 | 4314.4 | 3407.2 |
| 20° | 4969.8 | 4987.2 | 5100.0 | 5343.1 | 5673.0 | 5903.1 | 5811.9 | 5416.8 | 4731.2 | 4635.7 | 3693.7 |
| 22.5° | 5169.5 | 5169.5 | 5204.2 | 5351.8 | 5651.3 | 6011.6 | 6133.0 | 5842.3 | 5078.4 | 4961.1 | 3980.2 |
| 25° | 5855.3 | 5842.3 | 5768.5 | 5707.7 | 5803.2 | 6124.4 | 6376.2 | 6276.3 | 5486.4 | 5351.8 | 4284.0 |
| 27.5° | 6723.4 | 6784.1 | 6645.2 | 6423.9 | 6206.9 | 6345.8 | 6593.1 | 6706.0 | 5937.8 | 5798.8 | 4596.5 |
| 30° | 7695.6 | 7721.7 | 7556.8 | 7261.6 | 6879.6 | 6745.1 | 6849.3 | 7075.0 | 6428.3 | 6276.3 | 4922.1 |
| 32.5° | 8572.5 | 8550.7 | 8411.9 | 8103.6 | 7630.5 | 7339.7 | 7179.1 | 7370.1 | 6962.1 | 6788.5 | 5256.4 |
| 35° | 9349.5 | 9366.7 | 9197.5 | 8841.6 | 8377.1 | 8068.9 | 7686.9 | 7704.3 | 7561.1 | 7361.5 | 5642.5 |
| 37.5° | 10048.2 | 10017.8 | 9857.3 | 9501.3 | 9080.3 | 8746.1 | 8342.4 | 8051.6 | 8216.6 | 8008.1 | 6076.7 |
| 40° | 10616.8 | 10586.4 | 10417.1 | 10069.9 | 9674.9 | 9401.4 | 9084.6 | 8516.0 | 8906.6 | 8668.0 | 6541.2 |
| 42.5° | 11068.2 | 11033.4 | 10890.2 | 10556.1 | 10174.1 | 9931.0 | 9779.0 | 9088.9 | 9644.6 | 9405.8 | 7062.0 |
| 45° | 11289.5 | 11259.1 | 11172.5 | 10920.7 | 10586.4 | 10373.7 | 10447.5 | 9748.6 | 10434.5 | 10234.9 | 7634.9 |
| 47.5° | 11029.1 | 11016.2 | 11115.9 | 11072.6 | 10881.5 | 10768.7 | 11024.8 | 10469.2 | 11263.5 | 11068.2 | 8294.6 |
| 50° | 10239.1 | 10260.9 | 10551.7 | 10911.9 | 11003.1 | 11137.7 | 11497.9 | 11228.8 | 12153.4 | 11945.0 | 9054.2 |
| 52.5° | 8290.3 | 8437.9 | 9314.7 | 10182.8 | 10855.6 | 11363.4 | 12053.5 | 12313.9 | 13603.0 | 13399.0 | 10239.1 |
| 55° | 6189.5 | 6250.2 | 7205.2 | 8689.6 | 10260.9 | 11346.0 | 12465.8 | 12951.9 | 14319.2 | 14110.9 | 10551.7 |
| 57.5° | 4909.1 | 4930.8 | 5403.9 | 6918.8 | 9036.9 | 10955.3 | 12682.9 | 13182.0 | 14631.8 | 14458.2 | 11016.2 |
| 60° | 3854.3 | 3880.4 | 4223.3 | 5264.9 | 7313.7 | 9900.6 | 12370.4 | 13381.6 | 15243.8 | 15104.9 | 11827.8 |
| 62.5° | 2999.2 | 3025.3 | 3233.6 | 3845.7 | 5486.4 | 8277.3 | 11741.0 | 13702.9 | 16407.0 | 16341.9 | 13156.0 |
| 65° | 2322.2 | 2330.8 | 2474.0 | 2760.6 | 3876.1 | 6519.4 | 10972.7 | 14002.3 | 17978.3 | 17921.8 | 14232.4 |
| 67.5° | 1714.5 | 1727.5 | 1827.4 | 2005.4 | 2617.3 | 4683.4 | 9714.0 | 13772.3 | 19163.2 | 18998.2 | 14623.0 |
| 69° | 1384.7 | 1397.7 | 1484.4 | 1627.6 | 2066.1 | 3689.3 | 8563.7 | 13203.8 | 19341.2 | 19185.0 | 14375.7 |
| 70° | 1184.9 | 1193.6 | 1280.4 | 1402.1 | 1762.3 | 3133.8 | 7652.3 | 12713.3 | 19106.7 | 18954.9 | 13811.4 |
| 72.5° | 759.6 | 802.9 | 889.8 | 967.9 | 1167.6 | 2074.8 | 5165.1 | 10543.0 | 16485.1 | 16224.7 | 10816.4 |
| 75° | 420.9 | 434.1 | 590.3 | 685.8 | 777.0 | 1349.9 | 2873.4 | 6575.8 | 10486.6 | 10304.2 | 5785.9 |
| 77.5° | 347.2 | 355.9 | 416.8 | 520.8 | 520.8 | 755.2 | 1085.2 | 2591.3 | 3988.9 | 3598.2 | 1566.9 |
| 80° | 243.1 | 251.8 | 316.9 | 342.8 | 373.2 | 425.3 | 351.6 | 568.5 | 616.3 | 547.0 | 234.4 |
| 82.5° | 169.3 | 178.0 | 217.0 | 282.1 | 299.5 | 199.6 | 130.2 | 169.3 | 178.0 | 178.0 | 91.1 |
| 85° | 30.4 | 43.3 | 160.6 | 234.4 | 178.0 | 60.7 | 73.8 | 60.7 | 56.4 | 60.7 | 21.8 |
| 87.5° | 0.0 | 0.0 | 99.9 | 112.9 | 95.5 | 26.0 | 30.4 | 21.8 | 13.0 | 17.4 | 8.6 |
| 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° | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 | 1870.7 |
| 2.5° | 1883.7 | 1792.6 | 1636.3 | 1523.5 | 1428.0 | 1354.3 | 1323.9 | 1276.1 | 1241.4 | 1258.7 | 1237.1 |
| 5° | 1935.8 | 1775.3 | 1523.5 | 1362.9 | 1250.0 | 1154.6 | 1076.4 | 1015.7 | 967.9 | 959.3 | 950.5 |
| 7.5° | 2018.3 | 1788.2 | 1458.4 | 1258.7 | 1089.5 | 942.0 | 820.3 | 729.2 | 659.7 | 659.7 | 633.7 |
| 10° | 2131.2 | 1823.0 | 1419.4 | 1154.6 | 902.8 | 703.2 | 581.6 | 494.8 | 460.1 | 455.7 | 447.1 |
| 12.5° | 2287.5 | 1888.1 | 1388.9 | 1020.1 | 703.2 | 512.2 | 438.3 | 408.0 | 395.0 | 390.6 | 386.3 |
| 15° | 2500.1 | 1983.6 | 1354.3 | 855.1 | 533.8 | 420.9 | 390.6 | 364.6 | 351.6 | 347.2 | 342.8 |
| 17.5° | 2704.1 | 2070.4 | 1280.4 | 685.8 | 434.1 | 382.0 | 347.2 | 325.5 | 308.2 | 303.8 | 303.8 |
| 20° | 2895.1 | 2144.2 | 1154.6 | 533.8 | 390.6 | 342.8 | 308.2 | 282.1 | 264.7 | 260.5 | 260.5 |
| 22.5° | 3094.8 | 2205.0 | 998.3 | 434.1 | 355.9 | 303.8 | 269.1 | 243.1 | 225.7 | 221.4 | 217.0 |
| 25° | 3307.4 | 2248.3 | 820.3 | 386.3 | 321.2 | 269.1 | 230.0 | 208.3 | 195.3 | 190.9 | 186.7 |
| 27.5° | 3537.5 | 2265.7 | 651.0 | 351.6 | 282.1 | 234.4 | 199.6 | 178.0 | 169.3 | 165.0 | 165.0 |
| 30° | 3745.9 | 2248.3 | 503.4 | 312.5 | 247.4 | 204.0 | 173.6 | 156.2 | 147.6 | 143.2 | 143.2 |
| 32.5° | 3962.9 | 2205.0 | 403.7 | 277.7 | 217.0 | 173.6 | 147.6 | 134.6 | 130.2 | 125.8 | 125.8 |
| 35° | 4193.0 | 2148.6 | 347.2 | 247.4 | 186.7 | 151.9 | 130.2 | 121.5 | 117.2 | 112.9 | 112.9 |
| 37.5° | 4462.0 | 2079.1 | 316.9 | 221.4 | 165.0 | 134.6 | 112.9 | 108.5 | 104.2 | 104.2 | 104.2 |
| 40° | 4765.9 | 1992.3 | 295.1 | 199.6 | 147.6 | 117.2 | 99.9 | 95.5 | 91.1 | 91.1 | 91.1 |
| 42.5° | 5087.0 | 1892.5 | 273.4 | 178.0 | 130.2 | 99.9 | 86.9 | 86.9 | 82.5 | 82.5 | 78.1 |
| 45° | 5447.3 | 1792.6 | 251.8 | 156.2 | 112.9 | 86.9 | 73.8 | 69.5 | 69.5 | 65.1 | 65.1 |
| 47.5° | 5872.6 | 1701.5 | 230.0 | 138.9 | 99.9 | 73.8 | 65.1 | 60.7 | 56.4 | 52.1 | 52.1 |
| 50° | 6471.7 | 1692.8 | 204.0 | 121.5 | 91.1 | 60.7 | 52.1 | 47.7 | 43.3 | 39.2 | 39.2 |
| 52.5° | 7066.4 | 1614.7 | 173.6 | 99.9 | 73.8 | 52.1 | 39.2 | 34.8 | 30.4 | 30.4 | 26.0 |
| 55° | 7200.8 | 1484.4 | 151.9 | 86.9 | 56.4 | 39.2 | 30.4 | 21.8 | 21.8 | 17.4 | 17.4 |
| 57.5° | 7495.9 | 1423.6 | 130.2 | 69.5 | 43.3 | 30.4 | 17.4 | 13.0 | 13.0 | 13.0 | 13.0 |
| 60° | 8077.6 | 1406.2 | 112.9 | 60.7 | 30.4 | 21.8 | 13.0 | 8.6 | 8.6 | 4.4 | 4.4 |
| 62.5° | 8880.6 | 1388.9 | 95.5 | 52.1 | 21.8 | 13.0 | 8.6 | 4.4 | 0.0 | 0.0 | 0.0 |
| 65° | 9323.3 | 1271.8 | 78.1 | 39.2 | 17.4 | 13.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 9206.1 | 1050.4 | 69.5 | 26.0 | 13.0 | 8.6 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 69° | 8715.7 | 885.4 | 56.4 | 21.8 | 13.0 | 8.6 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 8125.4 | 763.9 | 52.1 | 17.4 | 8.6 | 4.4 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 5768.5 | 399.4 | 34.8 | 13.0 | 8.6 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 2695.4 | 178.0 | 21.8 | 8.6 | 4.4 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 594.7 | 82.5 | 13.0 | 8.6 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 112.9 | 30.4 | 8.6 | 4.4 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 39.2 | 13.0 | 4.4 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 13.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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)