

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: P509997

Luminaire Tested: **VERD-M-CA3-180-750-U-T2**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P509997
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-CA3-180-750-U-T2
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 5000K, 1120mA LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25983 lumens
Efficiency: N/A
Efficacy: 141.9 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

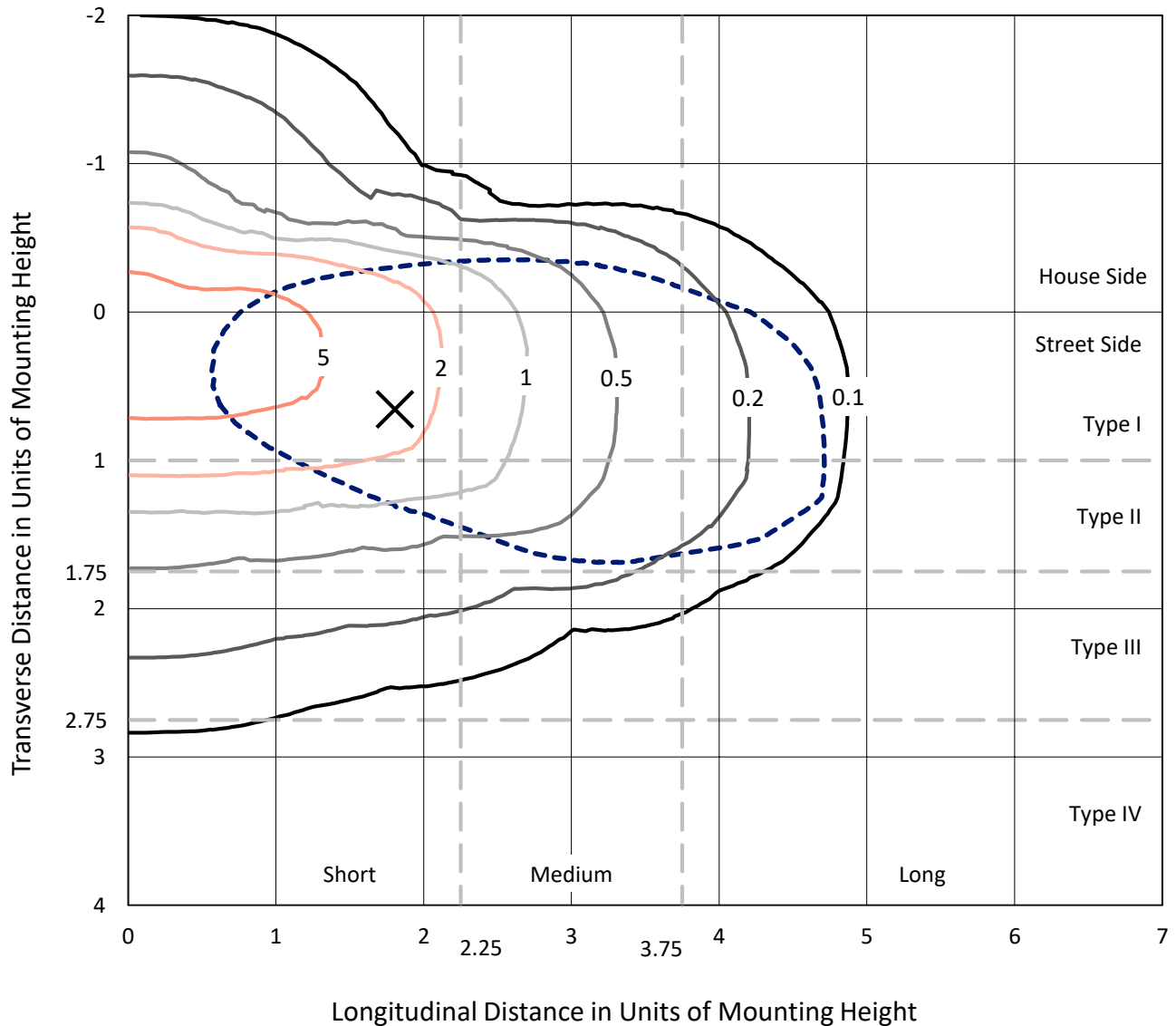
Input Watts (W): 183.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

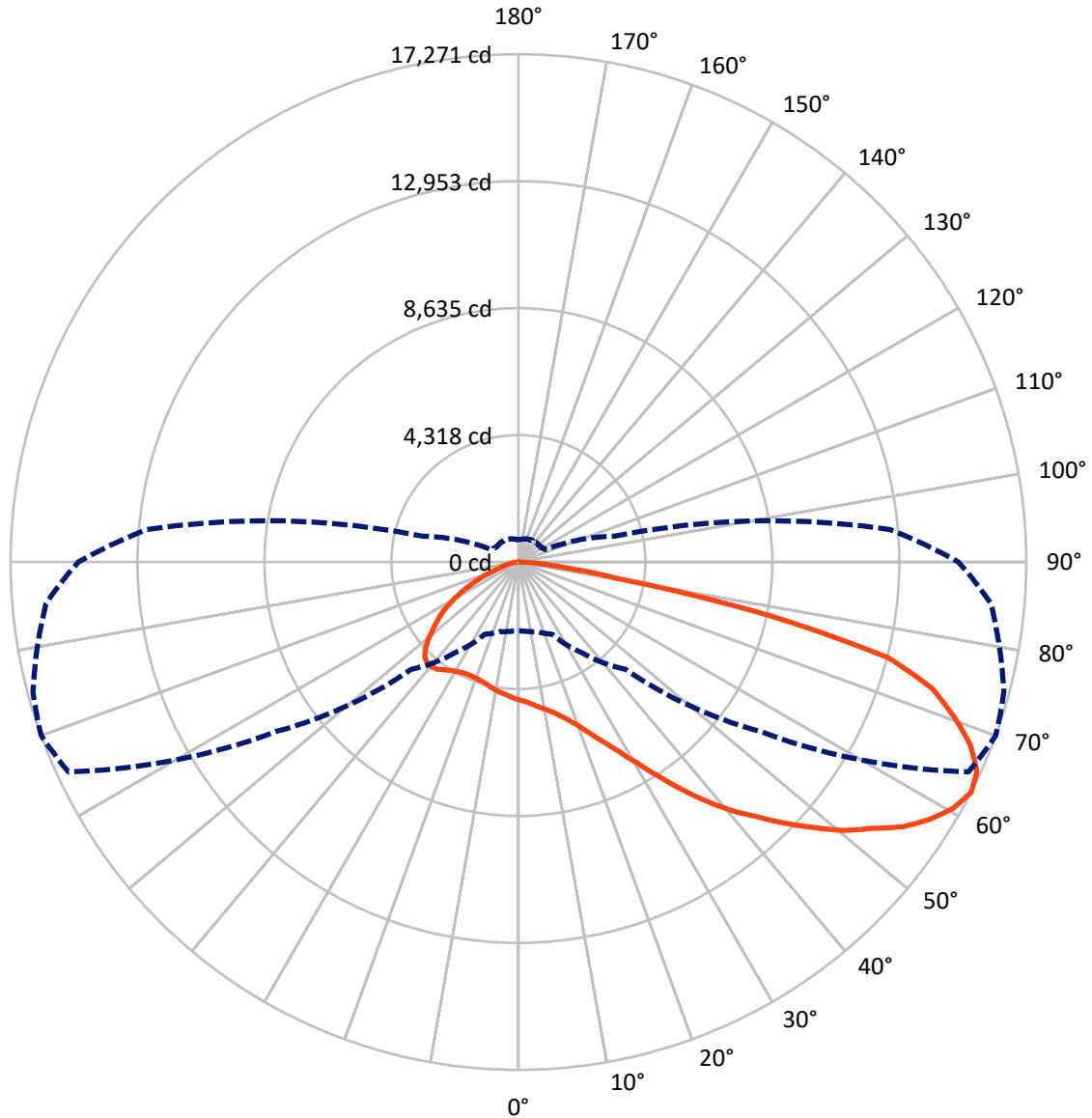
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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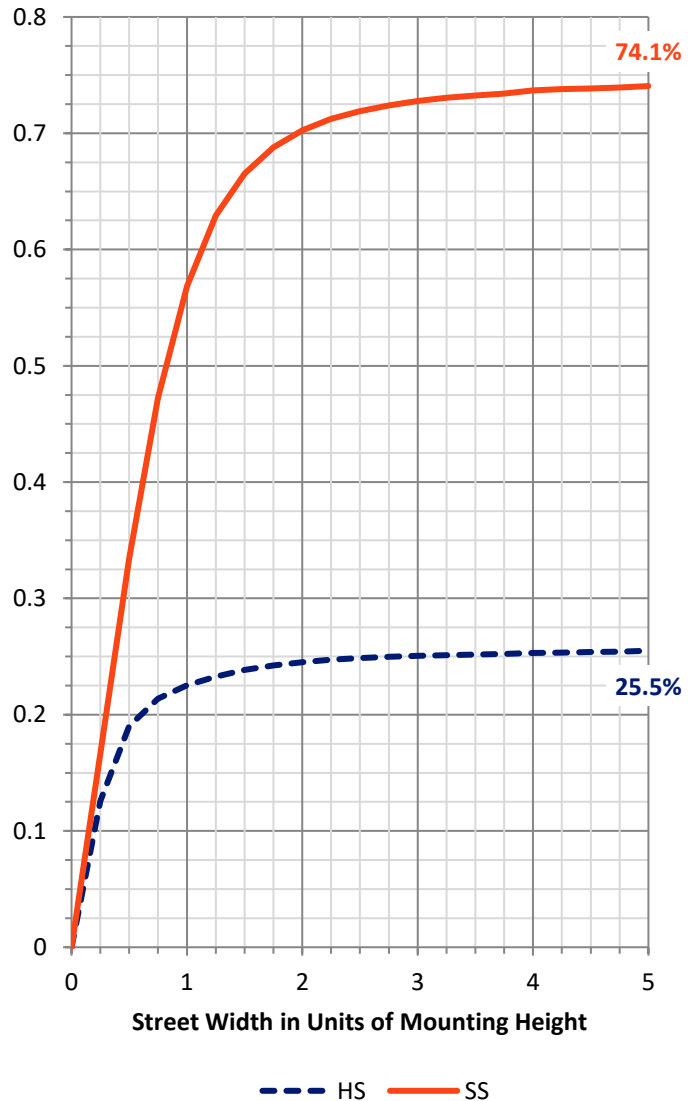
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6727.1 | 0.0 | 6727.1 |
| | % Fixture | 25.9 | 0.0 | 25.9 |
| Street Side | Lumens | 19255.9 | 0.0 | 19255.9 |
| | % Fixture | 74.1 | 0.0 | 74.1 |
| Total | Lumens | 25983.0 | 0.0 | 25983.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 450.4 | 1.7 |
| 10°-20° | 1367.9 | 5.3 |
| 20°-30° | 2321.5 | 8.9 |
| 30°-40° | 3359.1 | 12.9 |
| 40°-50° | 4408.0 | 17.0 |
| 50°-60° | 5150.6 | 19.8 |
| 60°-70° | 5168.9 | 19.9 |
| 70°-80° | 3293.7 | 12.7 |
| 80°-90° | 462.9 | 1.8 |
| 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° | 25983.0 | 100.0 |
| 0°-180° | 25983.0 | 100.0 |

Coefficient of Utilization



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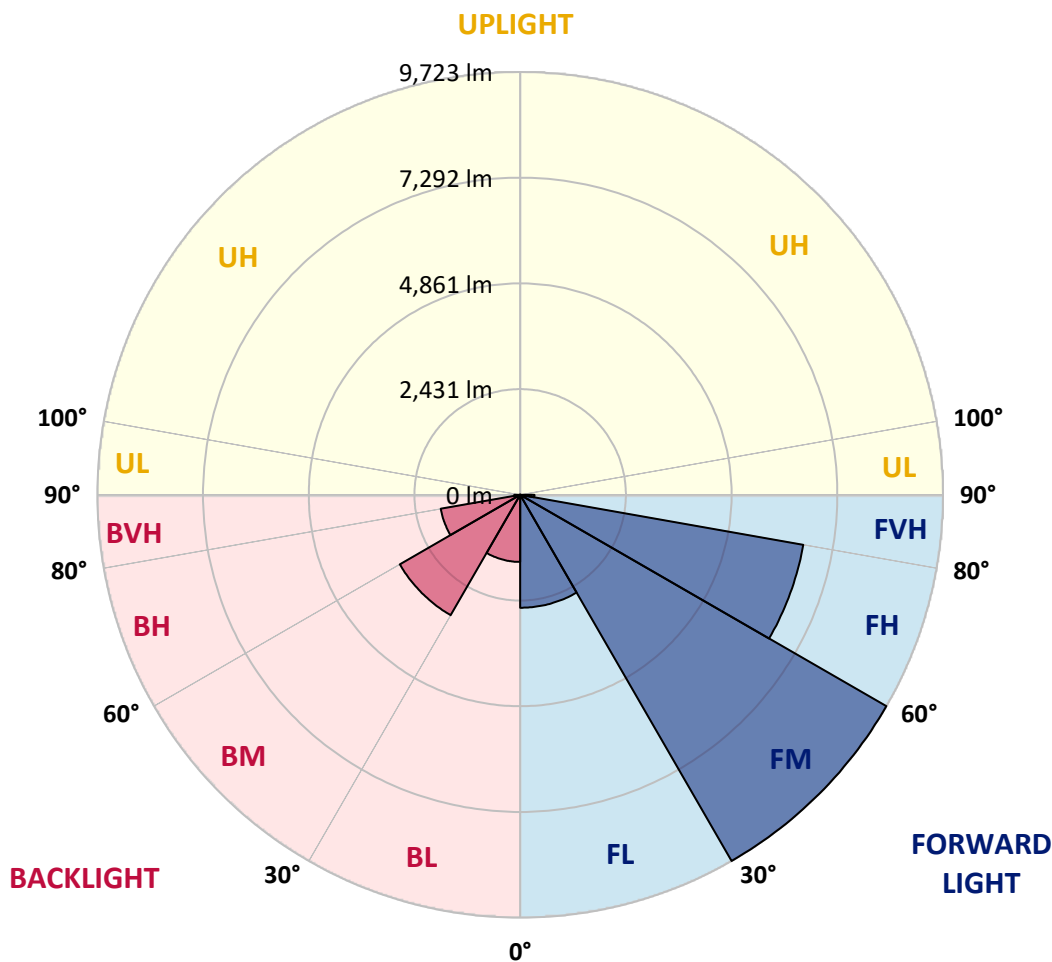
CATALOG NUMBER: VERD-M-CA3-180-750-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2597.0 | 10.0 | | | |
| FM (30°-60°) | 9722.6 | 37.4 | | | |
| FH (60°-80°) | 6609.8 | 25.4 | | | G3/7500 |
| FVH (80°-90°) | 326.5 | 1.3 | | | G3/500 |
| BL (0°-30°) | 1542.8 | 5.9 | B3/2500 | | |
| BM (30°-60°) | 3195.2 | 12.3 | B3/5000 | | |
| BH (60°-80°) | 1852.7 | 7.1 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 136.4 | 0.5 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 70° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0° | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 |
| 2.5° | 4869.2 | 4920.9 | 4913.8 | 4882.1 | 4904.4 | 4843.4 | 4821.1 | 4787.0 | 4751.8 | 4740.1 | 4720.1 |
| 5° | 5099.4 | 5167.5 | 5154.5 | 5112.3 | 5111.1 | 5024.2 | 4974.9 | 4910.3 | 4856.3 | 4814.0 | 4751.8 |
| 7.5° | 5314.2 | 5392.9 | 5381.1 | 5340.1 | 5337.7 | 5237.9 | 5135.8 | 5034.8 | 4972.5 | 4918.5 | 4804.6 |
| 10° | 5542.0 | 5601.9 | 5591.3 | 5538.5 | 5527.9 | 5430.5 | 5310.7 | 5183.9 | 5092.3 | 5017.2 | 4855.1 |
| 12.5° | 5752.2 | 5815.6 | 5820.3 | 5754.5 | 5738.1 | 5633.6 | 5529.1 | 5361.2 | 5242.6 | 5156.9 | 4918.5 |
| 15° | 5948.3 | 6023.4 | 6009.3 | 5943.6 | 5926.0 | 5820.3 | 5718.1 | 5563.1 | 5439.9 | 5320.1 | 5021.9 |
| 17.5° | 6105.6 | 6177.2 | 6159.6 | 6130.3 | 6120.9 | 6038.7 | 5954.1 | 5786.2 | 5677.0 | 5523.2 | 5181.5 |
| 20° | 6213.6 | 6280.6 | 6287.6 | 6279.4 | 6333.4 | 6255.9 | 6208.9 | 6090.3 | 5970.6 | 5832.0 | 5399.9 |
| 22.5° | 6255.9 | 6335.7 | 6403.8 | 6456.7 | 6568.2 | 6556.5 | 6548.3 | 6480.2 | 6362.7 | 6160.8 | 5688.8 |
| 25° | 6268.8 | 6348.7 | 6454.3 | 6584.7 | 6784.3 | 6855.9 | 6907.6 | 6924.0 | 6796.0 | 6636.3 | 6048.1 |
| 27.5° | 6271.2 | 6356.9 | 6464.9 | 6675.1 | 6979.2 | 7195.2 | 7318.5 | 7376.0 | 7304.4 | 7177.6 | 6536.5 |
| 30° | 6221.8 | 6309.9 | 6448.5 | 6729.1 | 7131.8 | 7486.4 | 7690.7 | 7945.5 | 7915.0 | 7808.1 | 7148.3 |
| 32.5° | 6079.8 | 6159.6 | 6351.0 | 6719.7 | 7283.3 | 7784.6 | 8102.8 | 8544.3 | 8647.6 | 8578.4 | 7853.9 |
| 35° | 5825.0 | 5922.4 | 6170.2 | 6642.2 | 7365.5 | 8074.7 | 8587.8 | 9274.6 | 9461.3 | 9466.0 | 8719.3 |
| 37.5° | 5567.8 | 5641.8 | 5933.0 | 6496.6 | 7411.3 | 8331.8 | 9048.0 | 10006.1 | 10277.4 | 10283.2 | 9439.0 |
| 40° | 5294.3 | 5362.4 | 5682.9 | 6301.7 | 7364.3 | 8533.8 | 9476.6 | 10709.5 | 11098.1 | 11061.7 | 10145.9 |
| 42.5° | 4939.7 | 5014.8 | 5333.0 | 6036.3 | 7246.9 | 8689.9 | 9912.2 | 11448.0 | 11821.4 | 11862.5 | 10883.2 |
| 45° | 4636.7 | 4696.6 | 4974.9 | 5621.9 | 7032.0 | 8774.5 | 10320.8 | 12235.9 | 12663.3 | 12619.8 | 11669.9 |
| 47.5° | 4263.4 | 4352.6 | 4649.7 | 5284.9 | 6645.7 | 8753.3 | 10711.8 | 13015.5 | 13491.0 | 13451.1 | 12352.1 |
| 50° | 3288.8 | 3392.1 | 4082.5 | 4931.4 | 6152.6 | 8587.8 | 11066.4 | 13761.1 | 14351.7 | 14247.2 | 13074.2 |
| 52.5° | 2987.0 | 3016.4 | 3291.2 | 4525.2 | 5666.5 | 8212.0 | 11327.1 | 14702.8 | 15052.7 | 15011.6 | 13805.7 |
| 55° | 2802.7 | 2859.1 | 2984.7 | 3727.9 | 5229.7 | 7601.5 | 11507.9 | 15489.4 | 15884.0 | 15691.4 | 14467.9 |
| 57.5° | 2640.7 | 2680.6 | 2829.7 | 3191.4 | 4727.1 | 6760.8 | 11455.1 | 16152.8 | 16505.1 | 16236.2 | 15114.9 |
| 60° | 2468.1 | 2493.9 | 2643.0 | 2913.1 | 4184.7 | 5832.0 | 10918.5 | 16837.4 | 16993.5 | 16747.0 | 15662.0 |
| 62.5° | 2334.2 | 2358.9 | 2448.1 | 2707.6 | 3762.0 | 5167.5 | 10040.2 | 16885.5 | 17270.6 | 17091.0 | 16127.0 |
| 65° | 2162.8 | 2179.2 | 2290.8 | 2495.1 | 3369.8 | 4771.8 | 9266.4 | 16433.5 | 17136.8 | 17092.2 | 16305.5 |
| 67.5° | 1973.8 | 1993.7 | 2099.4 | 2243.8 | 2868.5 | 4305.6 | 7972.5 | 16189.2 | 16570.8 | 16614.3 | 15970.8 |
| 70° | 1751.8 | 1765.9 | 1875.1 | 1979.6 | 2454.0 | 3779.6 | 6338.1 | 15253.4 | 15698.4 | 15697.3 | 14937.6 |
| 72.5° | 1512.3 | 1511.1 | 1619.2 | 1729.5 | 2055.9 | 3174.9 | 4962.0 | 13542.7 | 14720.4 | 14632.3 | 13467.6 |
| 75° | 1247.0 | 1264.6 | 1369.1 | 1456.0 | 1710.7 | 2573.7 | 3455.5 | 9810.1 | 12995.5 | 13116.5 | 11623.0 |
| 77.5° | 797.3 | 809.0 | 867.7 | 956.9 | 1196.5 | 1966.7 | 2254.4 | 5451.6 | 8677.0 | 10466.4 | 9149.0 |
| 80° | 582.4 | 588.3 | 639.9 | 691.6 | 796.1 | 1197.6 | 1146.0 | 2369.4 | 3439.1 | 5138.1 | 5612.5 |
| 82.5° | 396.9 | 398.0 | 439.1 | 450.9 | 456.7 | 540.1 | 543.6 | 1153.0 | 1637.9 | 1929.1 | 2478.6 |
| 85° | 263.0 | 218.4 | 170.3 | 225.4 | 231.3 | 198.4 | 193.7 | 520.2 | 812.5 | 974.5 | 918.2 |
| 87.5° | 58.7 | 57.5 | 66.9 | 68.1 | 65.8 | 56.4 | 47.0 | 79.8 | 122.1 | 120.9 | 155.0 |
| 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° | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 | 4689.6 |
| 2.5° | 4701.3 | 4695.4 | 4662.6 | 4593.3 | 4546.3 | 4498.2 | 4471.2 | 4454.7 | 4460.6 | 4433.6 | 4421.9 |
| 5° | 4713.1 | 4683.7 | 4590.9 | 4508.8 | 4434.8 | 4351.4 | 4282.1 | 4272.7 | 4286.8 | 4262.2 | 4248.1 |
| 7.5° | 4743.6 | 4681.4 | 4562.8 | 4421.9 | 4298.6 | 4219.9 | 4120.1 | 4069.6 | 4066.1 | 4041.4 | 4046.1 |
| 10° | 4761.2 | 4680.2 | 4521.7 | 4351.4 | 4207.0 | 4067.3 | 3960.4 | 3904.1 | 3900.5 | 3865.3 | 3857.1 |
| 12.5° | 4809.3 | 4693.1 | 4473.5 | 4265.7 | 4104.8 | 3918.2 | 3805.4 | 3753.8 | 3747.9 | 3698.6 | 3679.8 |
| 15° | 4883.3 | 4722.4 | 4423.0 | 4165.9 | 3958.1 | 3783.1 | 3648.1 | 3578.8 | 3568.3 | 3510.7 | 3490.8 |
| 17.5° | 5000.7 | 4805.8 | 4407.8 | 4075.5 | 3830.1 | 3638.7 | 3480.2 | 3405.0 | 3344.0 | 3312.3 | 3285.3 |
| 20° | 5159.2 | 4909.1 | 4425.4 | 3991.0 | 3669.2 | 3448.5 | 3251.2 | 3152.6 | 3110.3 | 3058.7 | 3062.2 |
| 22.5° | 5384.7 | 5071.2 | 4455.9 | 3925.2 | 3523.6 | 3245.4 | 3023.4 | 2913.1 | 2836.8 | 2793.3 | 2795.7 |
| 25° | 5701.7 | 5315.4 | 4515.8 | 3863.0 | 3365.1 | 3023.4 | 2761.6 | 2607.8 | 2530.3 | 2502.1 | 2472.8 |
| 27.5° | 6102.1 | 5607.8 | 4657.9 | 3786.6 | 3177.3 | 2772.2 | 2482.2 | 2302.5 | 2223.8 | 2181.6 | 2175.7 |
| 30° | 6616.4 | 5991.7 | 4824.6 | 3730.3 | 2980.0 | 2458.7 | 2135.8 | 1993.7 | 1924.4 | 1864.6 | 1836.4 |
| 32.5° | 7243.4 | 6534.2 | 5010.1 | 3673.9 | 2735.8 | 2107.6 | 1815.2 | 1706.0 | 1595.7 | 1519.4 | 1522.9 |
| 35° | 7971.3 | 7124.8 | 5286.0 | 3602.3 | 2449.3 | 1780.0 | 1578.1 | 1437.2 | 1333.8 | 1283.4 | 1259.9 |
| 37.5° | 8658.2 | 7730.6 | 5610.1 | 3529.5 | 2128.7 | 1567.5 | 1344.4 | 1214.1 | 1134.2 | 1095.5 | 1103.7 |
| 40° | 9353.3 | 8355.3 | 5889.6 | 3351.0 | 1769.5 | 1374.9 | 1113.1 | 1039.1 | 1007.4 | 976.9 | 980.4 |
| 42.5° | 9975.6 | 8853.1 | 6093.9 | 3152.6 | 1518.2 | 1154.2 | 948.7 | 965.2 | 983.9 | 966.3 | 961.6 |
| 45° | 10623.7 | 9435.5 | 6273.5 | 2814.4 | 1308.0 | 980.4 | 907.6 | 953.4 | 994.5 | 992.2 | 986.3 |
| 47.5° | 11274.2 | 9975.6 | 6291.1 | 2365.9 | 1116.6 | 921.7 | 906.4 | 940.5 | 994.5 | 1003.9 | 996.9 |
| 50° | 11944.7 | 10541.6 | 6187.8 | 1837.6 | 1035.6 | 928.8 | 907.6 | 913.5 | 973.4 | 983.9 | 980.4 |
| 52.5° | 12687.9 | 11153.3 | 5933.0 | 1397.2 | 1003.9 | 940.5 | 911.1 | 902.9 | 937.0 | 955.8 | 959.3 |
| 55° | 13371.3 | 11639.4 | 5455.1 | 1234.0 | 980.4 | 941.7 | 937.0 | 910.0 | 911.1 | 901.8 | 925.2 |
| 57.5° | 13945.4 | 12103.2 | 4912.7 | 1144.8 | 959.3 | 931.1 | 948.7 | 898.2 | 884.1 | 845.4 | 836.0 |
| 60° | 14539.6 | 12480.1 | 4149.5 | 1083.7 | 934.6 | 918.2 | 919.4 | 878.3 | 843.0 | 786.7 | 770.2 |
| 62.5° | 14961.1 | 12679.7 | 3408.6 | 1012.1 | 900.6 | 898.2 | 880.6 | 850.1 | 818.4 | 769.1 | 762.0 |
| 65° | 15083.2 | 12574.0 | 2618.4 | 937.0 | 856.0 | 865.4 | 833.6 | 791.4 | 659.9 | 598.8 | 598.8 |
| 67.5° | 14679.3 | 11923.5 | 1938.5 | 850.1 | 801.9 | 820.7 | 758.5 | 623.5 | 555.4 | 519.0 | 524.8 |
| 70° | 13572.1 | 10872.7 | 1262.2 | 723.3 | 724.5 | 739.7 | 625.8 | 561.2 | 496.7 | 474.4 | 486.1 |
| 72.5° | 12092.6 | 9314.6 | 832.5 | 576.5 | 610.6 | 584.7 | 571.8 | 516.6 | 459.1 | 433.3 | 441.5 |
| 75° | 9965.0 | 7354.9 | 577.7 | 453.2 | 395.7 | 499.0 | 508.4 | 434.4 | 389.8 | 473.2 | 492.0 |
| 77.5° | 7872.7 | 5112.3 | 476.7 | 317.0 | 292.4 | 368.7 | 407.4 | 402.7 | 644.6 | 757.3 | 749.1 |
| 80° | 4681.4 | 2943.6 | 388.6 | 219.6 | 206.7 | 237.2 | 320.5 | 462.6 | 722.1 | 542.5 | 516.6 |
| 82.5° | 2122.9 | 1338.5 | 206.7 | 115.1 | 135.0 | 157.3 | 239.5 | 575.3 | 473.2 | 347.5 | 327.6 |
| 85° | 829.0 | 436.8 | 82.2 | 50.5 | 47.0 | 58.7 | 109.2 | 277.1 | 190.2 | 153.8 | 153.8 |
| 87.5° | 106.8 | 78.7 | 23.5 | 17.6 | 15.3 | 18.8 | 35.2 | 153.8 | 89.2 | 75.1 | 72.8 |
| 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)