

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: P649642

Luminaire Tested: **GLAN-SA9D-835-U-SL4-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P649642
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA9D-835-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3500K, 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: 45168.9 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

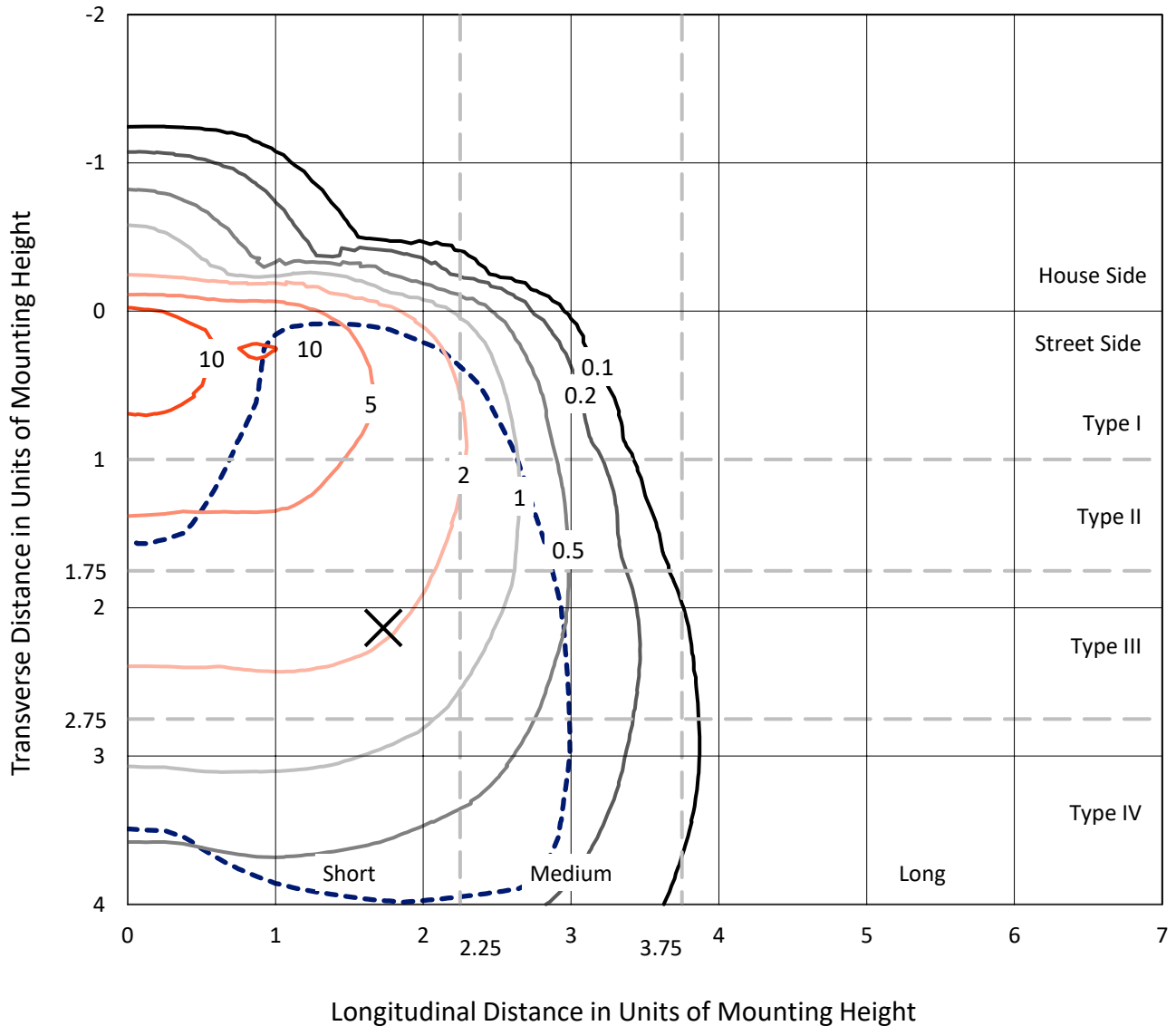
Input Watts (W): 552
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

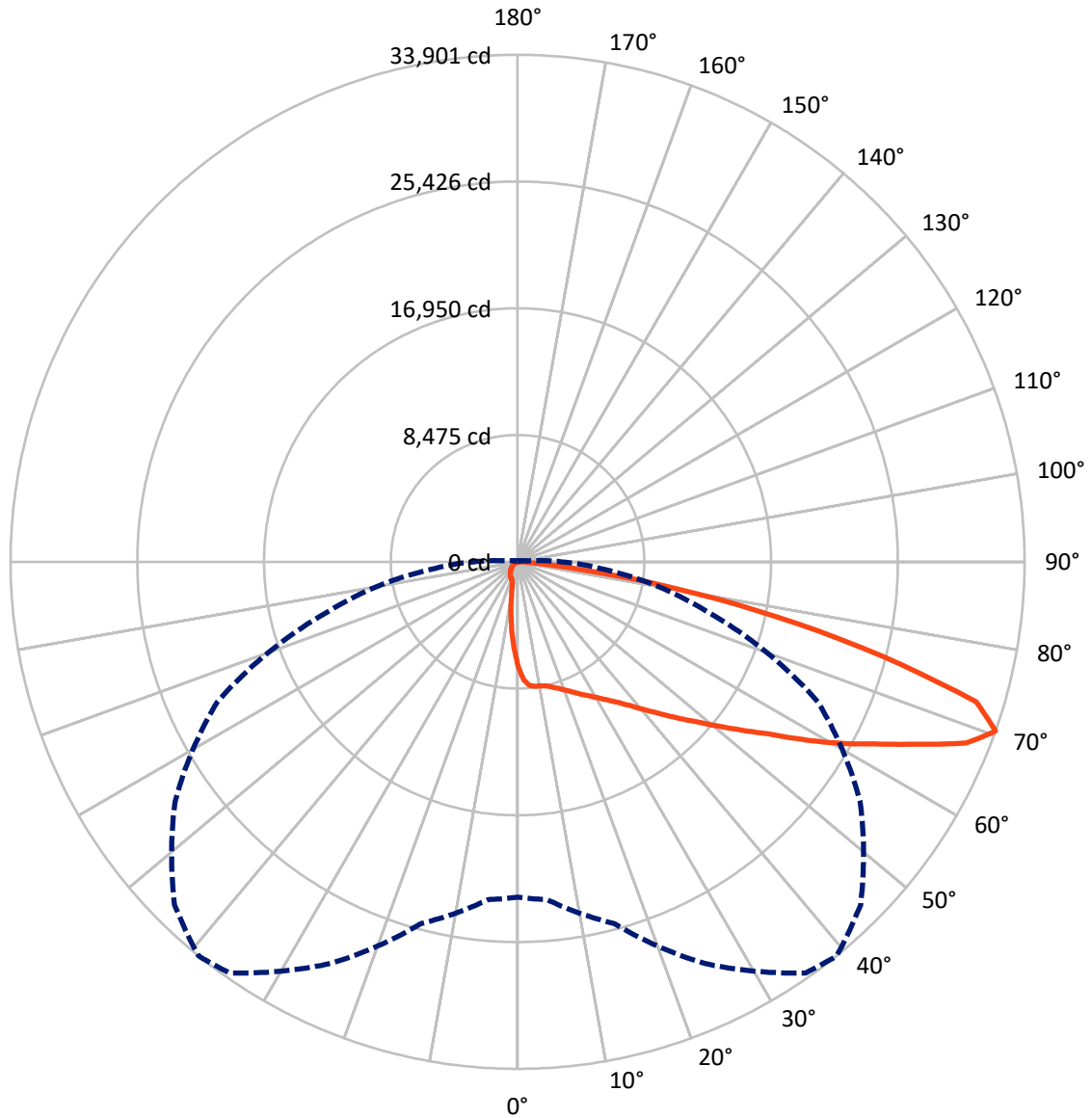
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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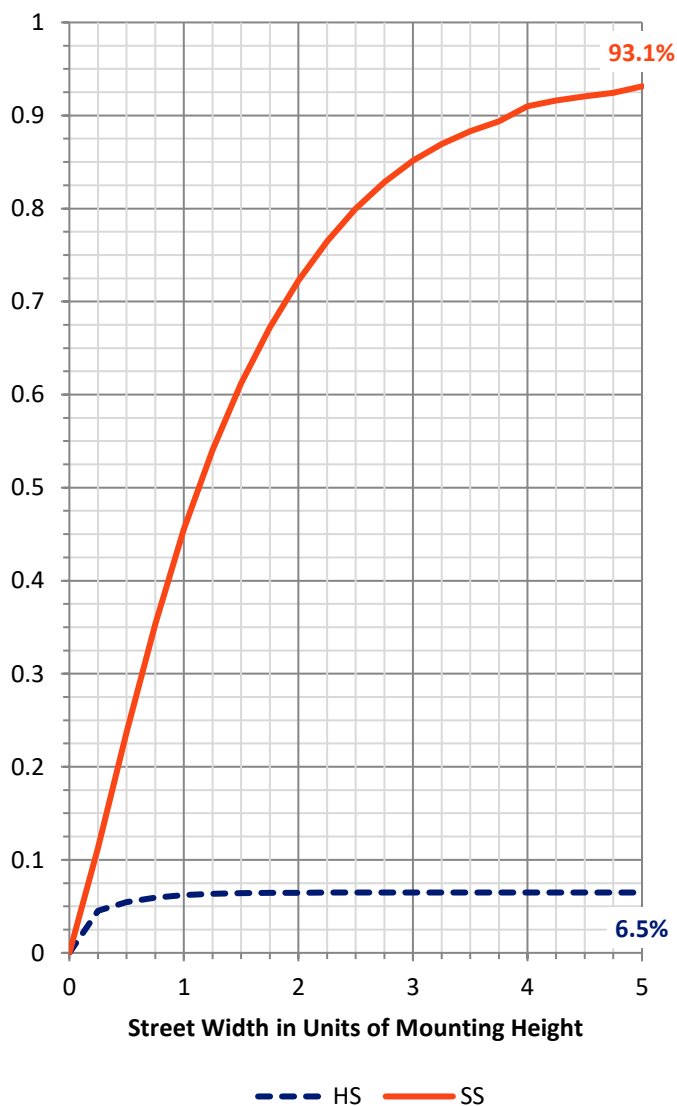
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2945.2 | 0.0 | 2945.2 |
| | % Fixture | 6.5 | 0.0 | 6.5 |
| Street Side | Lumens | 42223.7 | 0.0 | 42223.7 |
| | % Fixture | 93.5 | 0.0 | 93.5 |
| Total | Lumens | 45168.9 | 0.0 | 45168.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 601.1 | 1.3 |
| 10°-20° | 1562.2 | 3.5 |
| 20°-30° | 2617.1 | 5.8 |
| 30°-40° | 4058.8 | 9.0 |
| 40°-50° | 6431.9 | 14.2 |
| 50°-60° | 9428.3 | 20.9 |
| 60°-70° | 12084.8 | 26.8 |
| 70°-80° | 7593.7 | 16.8 |
| 80°-90° | 791.1 | 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° | 45168.9 | 100.0 |
| 0°-180° | 45168.9 | 100.0 |

Coefficient of Utilization



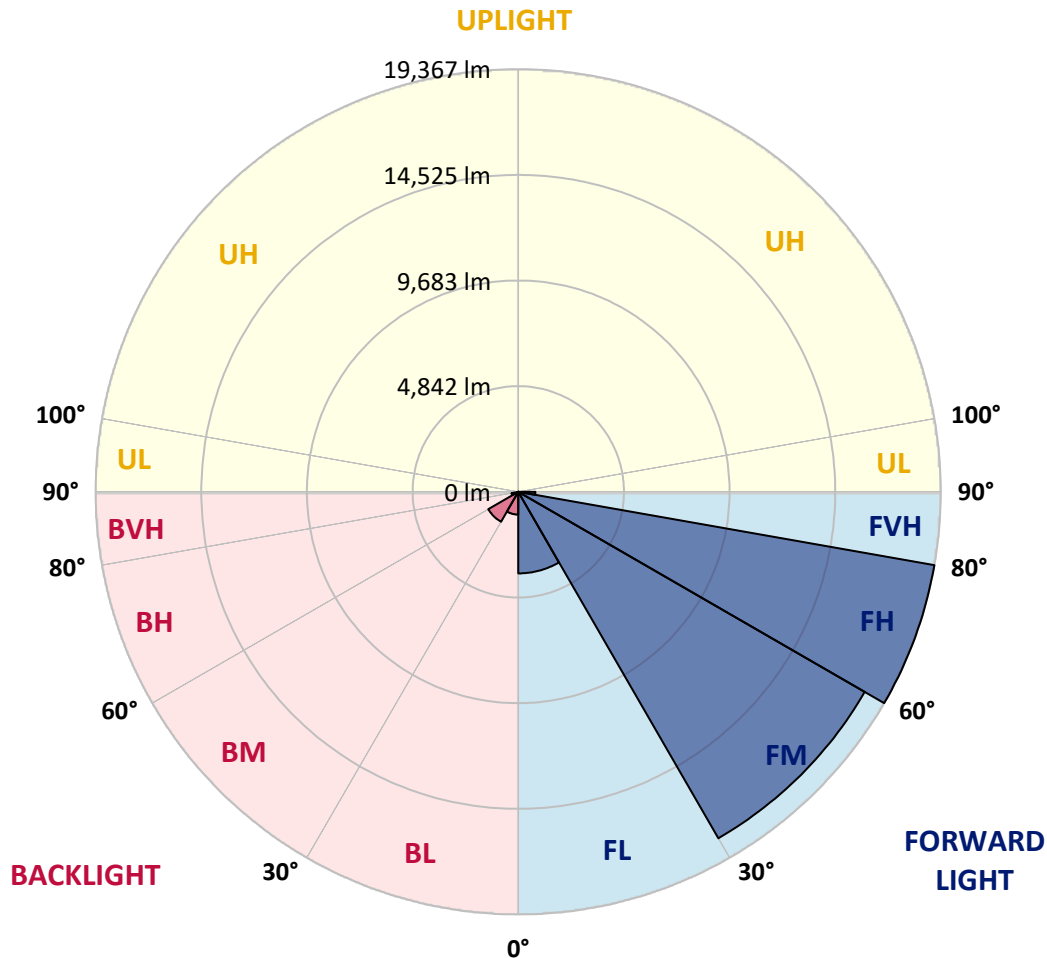
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|--------|
| | | | B | U | G |
| FL (0°-30°) | 3737.5 | 8.3 | | | |
| FM (30°-60°) | 18334.0 | 40.6 | | | |
| FH (60°-80°) | 19367.0 | 42.9 | | | G5 |
| FVH (80°-90°) | 785.3 | 1.7 | | | G5 |
| BL (0°-30°) | 1042.9 | 2.3 | B3/2500 | | |
| BM (30°-60°) | 1585.0 | 3.5 | B2/2500 | | |
| BH (60°-80°) | 311.5 | 0.7 | B1/500 | | G1/500 |
| BVH (80°-90°) | 5.8 | 0.0 | | | G0/10 |
| 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° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 |
| 2.5° | 8143.7 | 8116.3 | 8079.9 | 8037.4 | 7916.0 | 7894.8 | 7821.9 | 7667.1 | 7482.0 | 7330.2 | 7120.8 |
| 5° | 8529.1 | 8544.3 | 8517.0 | 8441.1 | 8353.0 | 8301.4 | 8210.4 | 7970.6 | 7730.9 | 7424.2 | 7081.3 |
| 7.5° | 8617.1 | 8647.5 | 8614.1 | 8541.3 | 8456.2 | 8401.7 | 8328.8 | 8122.4 | 7843.2 | 7494.1 | 7023.6 |
| 10° | 8608.1 | 8644.5 | 8623.2 | 8556.5 | 8486.6 | 8435.0 | 8356.1 | 8192.2 | 7967.6 | 7600.3 | 7041.8 |
| 12.5° | 8592.9 | 8641.4 | 8638.4 | 8605.0 | 8547.3 | 8507.8 | 8459.3 | 8313.6 | 8104.2 | 7755.1 | 7142.0 |
| 15° | 8550.4 | 8611.0 | 8665.7 | 8693.0 | 8696.1 | 8696.1 | 8635.3 | 8480.5 | 8280.2 | 7958.5 | 7272.5 |
| 17.5° | 8568.6 | 8638.4 | 8775.0 | 8853.9 | 8908.5 | 8902.5 | 8838.7 | 8671.8 | 8450.2 | 8167.9 | 7409.1 |
| 20° | 8680.9 | 8775.0 | 8966.2 | 9124.1 | 9178.6 | 9160.5 | 9075.4 | 8881.2 | 8629.3 | 8347.0 | 7542.6 |
| 22.5° | 8957.1 | 9042.1 | 9281.8 | 9467.0 | 9506.5 | 9457.9 | 9336.5 | 9072.5 | 8844.8 | 8541.3 | 7703.5 |
| 25° | 9369.8 | 9470.1 | 9691.7 | 9831.3 | 9831.3 | 9803.9 | 9634.0 | 9324.4 | 9087.6 | 8811.4 | 7912.9 |
| 27.5° | 9870.7 | 9955.7 | 10174.2 | 10298.6 | 10225.8 | 10146.9 | 9976.9 | 9603.6 | 9376.0 | 9151.3 | 8164.9 |
| 30° | 10377.6 | 10432.2 | 10662.9 | 10717.5 | 10641.7 | 10541.5 | 10359.4 | 9986.1 | 9785.7 | 9612.7 | 8529.1 |
| 32.5° | 10857.2 | 10975.5 | 11166.8 | 11154.6 | 11051.4 | 11002.9 | 10835.9 | 10438.3 | 10326.0 | 10307.8 | 9039.0 |
| 35° | 11336.7 | 11427.8 | 11597.8 | 11640.2 | 11549.2 | 11540.1 | 11418.7 | 11124.2 | 11127.3 | 11245.7 | 9834.2 |
| 37.5° | 11749.5 | 11831.5 | 12031.8 | 12125.9 | 12144.1 | 12189.7 | 12141.1 | 11946.9 | 12223.0 | 12547.8 | 10887.5 |
| 40° | 12095.5 | 12210.9 | 12465.8 | 12629.8 | 12817.9 | 12984.9 | 12994.0 | 13036.5 | 13591.9 | 14150.5 | 12262.5 |
| 42.5° | 12365.7 | 12526.6 | 12896.9 | 13200.4 | 13631.4 | 13843.9 | 14013.8 | 14247.5 | 15182.4 | 16017.1 | 13883.3 |
| 45° | 12717.8 | 12903.0 | 13364.3 | 13840.9 | 14514.7 | 14863.7 | 15100.5 | 15725.8 | 17052.2 | 18190.4 | 15546.7 |
| 47.5° | 13300.6 | 13397.7 | 13868.2 | 14563.3 | 15449.5 | 15947.3 | 16408.7 | 17355.7 | 19058.5 | 20078.3 | 16930.7 |
| 50° | 14050.3 | 14114.0 | 14469.1 | 15434.3 | 16581.7 | 17237.3 | 18078.1 | 19192.0 | 21140.7 | 21644.5 | 17713.8 |
| 52.5° | 14878.9 | 14900.2 | 15167.3 | 16393.5 | 17850.4 | 18676.0 | 19617.0 | 20991.9 | 22837.4 | 22761.5 | 18232.9 |
| 55° | 15841.1 | 15810.7 | 16038.3 | 17434.6 | 19352.9 | 20296.8 | 21392.6 | 22834.3 | 24309.5 | 23553.7 | 18530.3 |
| 57.5° | 16942.9 | 16861.0 | 17082.5 | 18815.6 | 21277.2 | 22406.4 | 23520.3 | 24424.8 | 25450.8 | 24218.4 | 18673.0 |
| 60° | 18096.3 | 17932.4 | 18196.5 | 20366.7 | 23544.6 | 24616.0 | 25541.8 | 25784.7 | 26652.7 | 24746.6 | 18427.1 |
| 62.5° | 19016.0 | 19019.0 | 19510.7 | 22017.9 | 25875.7 | 26813.6 | 27305.3 | 27523.9 | 27687.7 | 24631.2 | 17134.1 |
| 65° | 20451.6 | 20500.2 | 21286.3 | 24309.5 | 28574.0 | 29387.5 | 29724.4 | 29014.1 | 27733.3 | 23198.6 | 15191.5 |
| 67.5° | 21932.8 | 22087.6 | 23526.4 | 27466.2 | 31691.3 | 32346.9 | 31912.8 | 29302.5 | 26494.9 | 19929.6 | 11518.9 |
| 70° | 22415.5 | 22670.4 | 25041.0 | 29639.4 | 33561.0 | 33900.9 | 32431.9 | 27957.9 | 22148.4 | 13324.9 | 5797.3 |
| 72.5° | 20539.7 | 20952.5 | 24169.9 | 28847.2 | 32368.1 | 32073.7 | 29017.2 | 23447.5 | 14080.6 | 5059.8 | 1769.6 |
| 75° | 14484.3 | 14666.5 | 20087.4 | 23930.0 | 26033.5 | 25198.8 | 22072.5 | 15115.7 | 5791.3 | 1420.5 | 607.1 |
| 77.5° | 7478.9 | 7390.9 | 11946.9 | 15877.5 | 18566.7 | 17701.7 | 14453.9 | 7824.9 | 2194.5 | 591.9 | 376.4 |
| 80° | 3866.9 | 3930.7 | 5169.1 | 8319.7 | 11333.7 | 10429.2 | 7706.5 | 3627.2 | 1168.5 | 327.8 | 288.4 |
| 82.5° | 2167.2 | 2033.6 | 2971.6 | 3633.2 | 5299.6 | 4155.3 | 2956.4 | 2567.8 | 509.9 | 197.3 | 273.2 |
| 85° | 394.6 | 412.8 | 1630.0 | 1963.8 | 1839.3 | 1168.5 | 953.1 | 1714.9 | 148.7 | 109.3 | 191.2 |
| 87.5° | 6.1 | 6.1 | 315.7 | 564.5 | 358.1 | 163.9 | 300.5 | 245.9 | 30.4 | 42.5 | 33.4 |
| 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° | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 | 7047.9 |
| 2.5° | 7014.5 | 6899.2 | 6683.7 | 6471.2 | 6201.0 | 5979.5 | 5830.8 | 5676.0 | 5518.1 | 5530.3 | 5566.7 |
| 5° | 6893.1 | 6692.8 | 6267.8 | 5818.6 | 5387.6 | 4999.1 | 4616.6 | 4273.7 | 4134.0 | 4006.5 | 4012.6 |
| 7.5° | 6771.7 | 6489.4 | 5867.2 | 5163.0 | 4510.4 | 3848.8 | 3369.2 | 2974.5 | 2765.2 | 2607.3 | 2561.7 |
| 10° | 6717.0 | 6343.7 | 5499.9 | 4531.7 | 3605.9 | 2883.5 | 2267.3 | 1945.6 | 1696.7 | 1617.8 | 1639.1 |
| 12.5° | 6741.3 | 6270.9 | 5169.1 | 3961.0 | 2859.2 | 2009.3 | 1578.4 | 1414.4 | 1359.8 | 1350.7 | 1344.6 |
| 15° | 6786.9 | 6219.3 | 4844.3 | 3329.7 | 2100.4 | 1493.3 | 1326.4 | 1296.1 | 1290.0 | 1283.9 | 1286.9 |
| 17.5° | 6847.6 | 6173.7 | 4498.3 | 2737.8 | 1611.7 | 1305.2 | 1256.6 | 1241.4 | 1238.4 | 1238.4 | 1238.4 |
| 20° | 6908.3 | 6122.1 | 4112.8 | 2209.7 | 1344.6 | 1232.3 | 1202.0 | 1192.9 | 1189.8 | 1189.8 | 1186.8 |
| 22.5° | 6978.1 | 6076.6 | 3721.2 | 1736.1 | 1238.4 | 1180.7 | 1153.4 | 1147.3 | 1144.3 | 1141.3 | 1141.3 |
| 25° | 7078.2 | 6018.9 | 3305.4 | 1420.5 | 1171.6 | 1132.1 | 1104.8 | 1098.8 | 1095.7 | 1083.6 | 1086.6 |
| 27.5° | 7211.8 | 5976.5 | 2877.4 | 1226.3 | 1110.9 | 1071.5 | 1053.2 | 1044.1 | 1038.1 | 1028.9 | 1032.0 |
| 30° | 7393.9 | 5940.0 | 2422.1 | 1120.0 | 1041.1 | 1007.7 | 989.5 | 983.4 | 977.3 | 968.3 | 968.3 |
| 32.5° | 7709.6 | 5955.2 | 1942.5 | 1035.0 | 977.3 | 937.9 | 919.7 | 913.6 | 907.6 | 898.4 | 898.4 |
| 35° | 8183.1 | 6043.2 | 1554.0 | 962.2 | 901.5 | 862.0 | 843.8 | 843.8 | 834.7 | 822.5 | 819.5 |
| 37.5° | 8957.1 | 6267.8 | 1247.5 | 892.4 | 828.6 | 792.2 | 770.9 | 764.9 | 755.8 | 737.6 | 734.5 |
| 40° | 9870.7 | 6616.9 | 1050.2 | 822.5 | 761.9 | 725.4 | 707.2 | 689.0 | 664.7 | 646.5 | 643.5 |
| 42.5° | 11018.1 | 6975.0 | 910.6 | 752.8 | 698.1 | 664.7 | 643.5 | 613.1 | 576.7 | 552.4 | 549.4 |
| 45° | 12213.9 | 7302.9 | 816.5 | 689.0 | 637.4 | 610.1 | 585.8 | 537.2 | 491.7 | 461.3 | 458.3 |
| 47.5° | 13106.3 | 7363.6 | 740.6 | 628.3 | 585.8 | 558.5 | 525.1 | 464.4 | 403.7 | 376.4 | 367.3 |
| 50° | 13528.2 | 7069.2 | 661.7 | 567.6 | 534.2 | 503.9 | 461.3 | 391.6 | 324.8 | 291.4 | 285.3 |
| 52.5° | 13676.9 | 6559.2 | 598.0 | 512.9 | 482.6 | 446.2 | 394.6 | 315.7 | 254.9 | 221.6 | 218.5 |
| 55° | 13616.2 | 5915.7 | 540.3 | 461.3 | 421.9 | 379.4 | 327.8 | 251.9 | 188.2 | 160.9 | 154.8 |
| 57.5° | 13297.5 | 5096.2 | 482.6 | 409.7 | 361.2 | 318.7 | 261.1 | 188.2 | 127.5 | 103.2 | 100.1 |
| 60° | 12438.6 | 3979.2 | 424.9 | 352.1 | 306.5 | 261.1 | 206.4 | 133.6 | 78.9 | 57.7 | 57.7 |
| 62.5° | 10987.7 | 2953.3 | 370.3 | 294.4 | 258.0 | 209.5 | 145.7 | 85.0 | 42.5 | 30.4 | 27.3 |
| 65° | 9181.7 | 2179.3 | 309.6 | 248.9 | 215.5 | 163.9 | 103.2 | 51.6 | 21.2 | 9.1 | 6.1 |
| 67.5° | 6407.4 | 1344.6 | 258.0 | 203.3 | 176.0 | 118.4 | 63.7 | 21.2 | 9.1 | 0.0 | 0.0 |
| 70° | 2910.8 | 640.4 | 197.3 | 154.8 | 133.6 | 85.0 | 33.4 | 12.1 | 6.1 | 0.0 | 0.0 |
| 72.5° | 904.5 | 336.9 | 139.6 | 112.3 | 91.1 | 54.7 | 18.2 | 9.1 | 6.1 | 0.0 | 0.0 |
| 75° | 418.9 | 215.5 | 88.0 | 60.7 | 51.6 | 27.3 | 12.1 | 6.1 | 3.1 | 0.0 | 0.0 |
| 77.5° | 312.7 | 166.9 | 51.6 | 33.4 | 27.3 | 18.2 | 9.1 | 6.1 | 3.1 | 0.0 | 0.0 |
| 80° | 273.2 | 85.0 | 30.4 | 21.2 | 15.2 | 12.1 | 6.1 | 3.1 | 0.0 | 0.0 | 0.0 |
| 82.5° | 245.9 | 42.5 | 18.2 | 12.1 | 9.1 | 6.1 | 3.1 | 3.1 | 0.0 | 0.0 | 0.0 |
| 85° | 133.6 | 24.3 | 12.1 | 9.1 | 6.1 | 3.1 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 24.3 | 12.1 | 9.1 | 6.1 | 6.1 | 3.1 | 3.1 | 3.1 | 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)