

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: McGRAW-EDISON

Report Number: P647718

Luminaire Tested: **GALN-SA1A-835-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P647718
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA1A-835-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 80 CRI, 3500K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3546.2 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

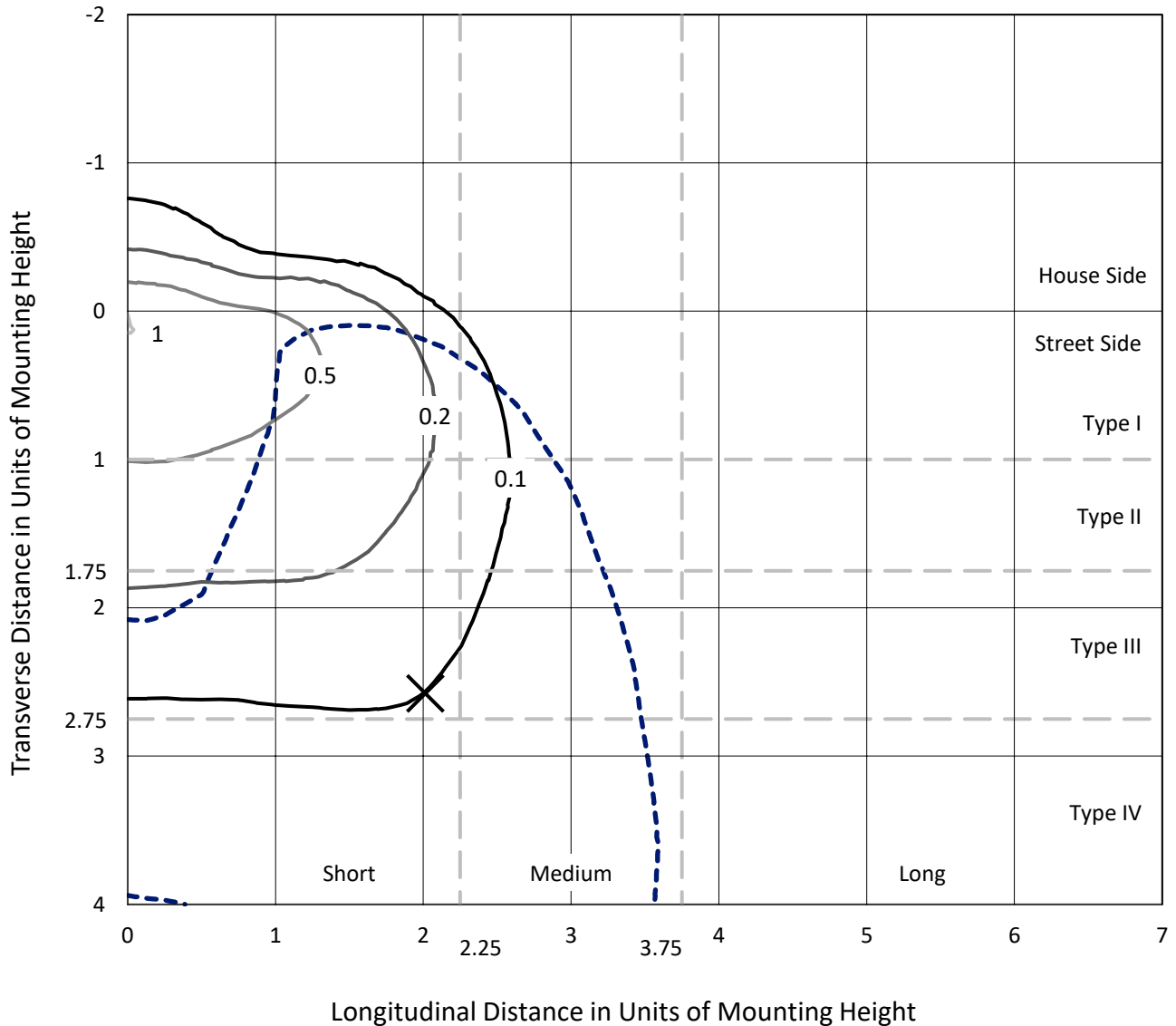
Input Watts (W): 33
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

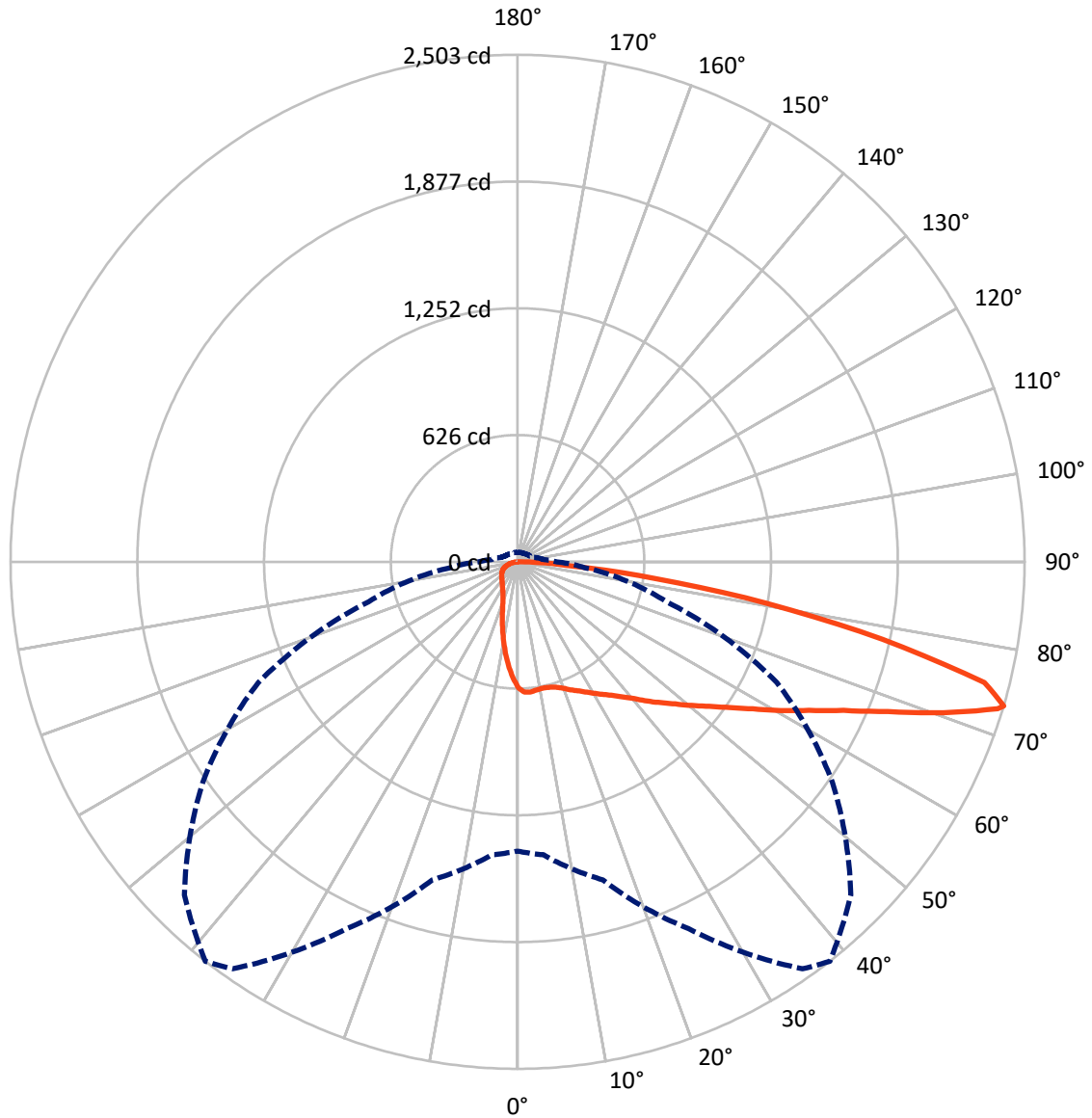
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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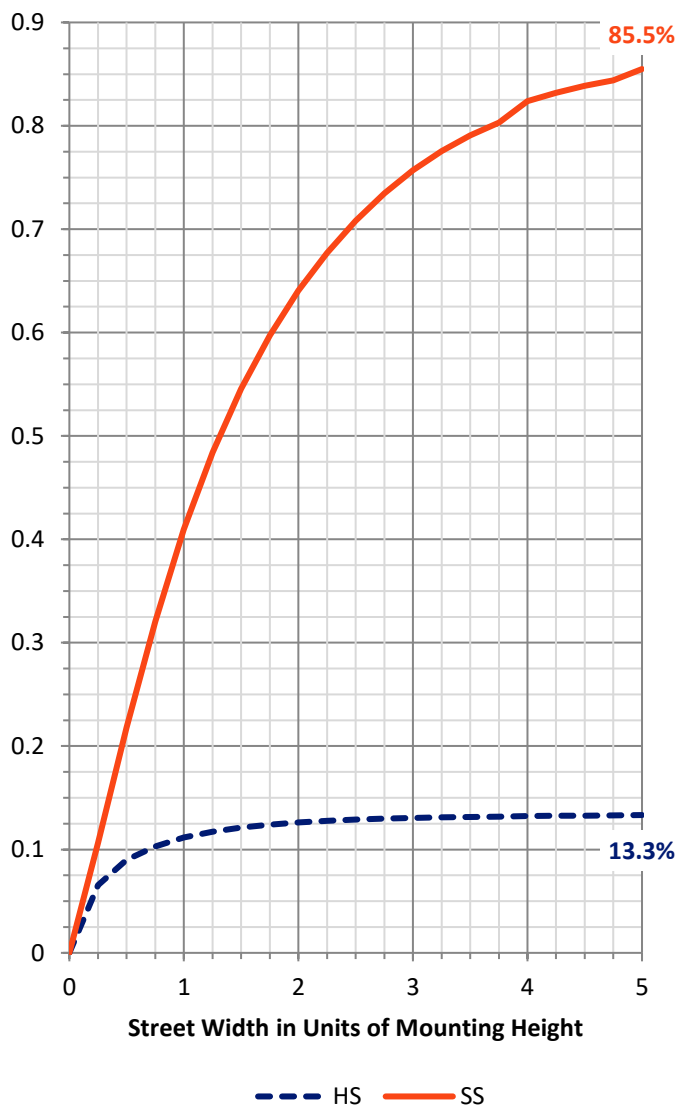
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 476.7 | 0.0 | 476.7 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 3069.5 | 0.0 | 3069.5 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 3546.2 | 0.0 | 3546.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 54.4 | 1.5 |
| 10°-20° | 139.5 | 3.9 |
| 20°-30° | 217.2 | 6.1 |
| 30°-40° | 318.5 | 9.0 |
| 40°-50° | 472.5 | 13.3 |
| 50°-60° | 669.4 | 18.9 |
| 60°-70° | 849.2 | 23.9 |
| 70°-80° | 706.9 | 19.9 |
| 80°-90° | 118.8 | 3.3 |
| 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° | 3546.2 | 100.0 |
| 0°-180° | 3546.2 | 100.0 |

Coefficient of Utilization

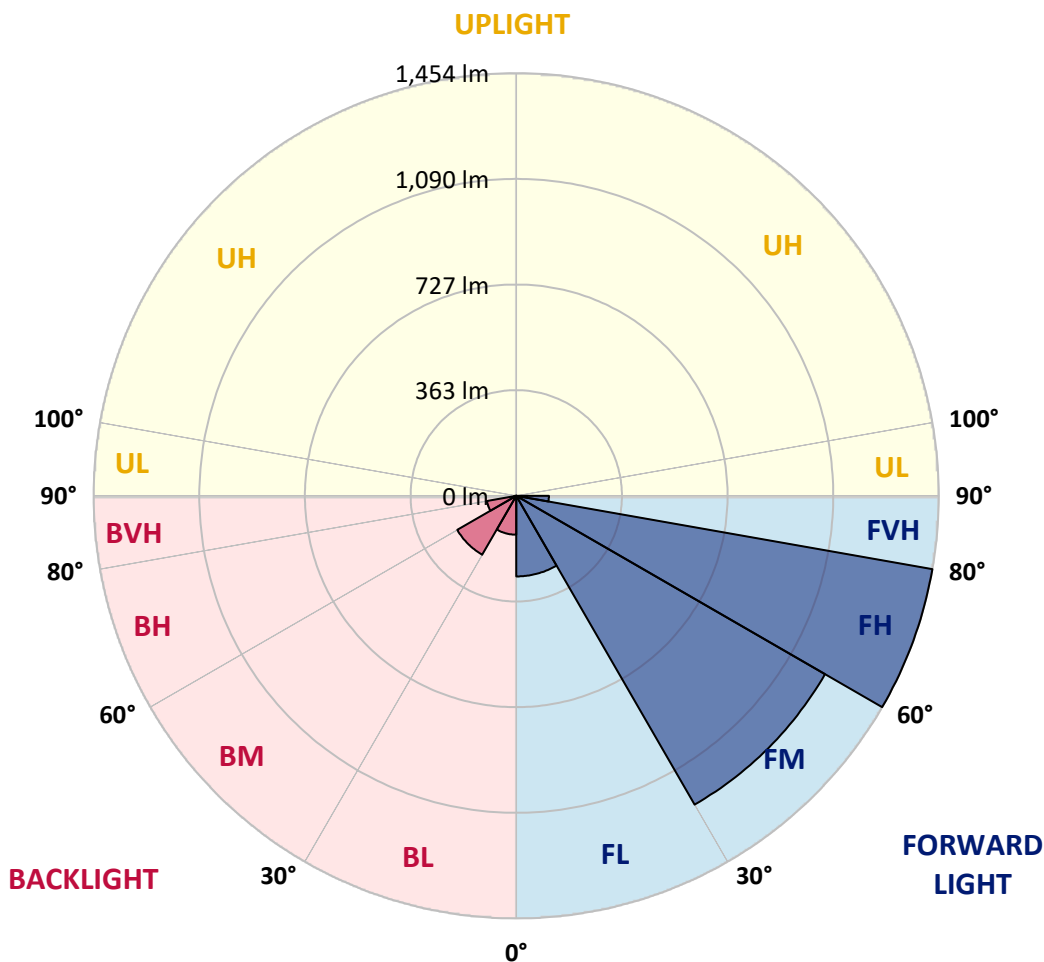


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 277.2 | 7.8 | | | |
| FM (30°-60°) | 1226.4 | 34.6 | | | |
| FH (60°-80°) | 1453.6 | 41.0 | | | G1/1800 |
| FVH (80°-90°) | 112.3 | 3.2 | | | G2/225 |
| BL (0°-30°) | 133.8 | 3.8 | B1/500 | | |
| BM (30°-60°) | 234.0 | 6.6 | B1/1000 | | |
| BH (60°-80°) | 102.5 | 2.9 | B0/110 | | G0/110 |
| BVH (80°-90°) | 6.4 | 0.2 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 |
| 2.5° | 648.0 | 651.2 | 649.7 | 647.5 | 646.1 | 644.6 | 642.6 | 636.8 | 632.2 | 627.2 | 619.4 |
| 5° | 652.9 | 654.8 | 653.4 | 650.7 | 647.5 | 646.1 | 642.2 | 634.6 | 627.2 | 618.8 | 607.2 |
| 7.5° | 650.0 | 650.8 | 649.3 | 645.8 | 643.0 | 640.4 | 636.0 | 627.7 | 618.6 | 608.4 | 593.2 |
| 10° | 640.0 | 643.0 | 643.0 | 640.3 | 637.4 | 636.0 | 631.6 | 623.6 | 615.4 | 603.8 | 585.8 |
| 12.5° | 631.8 | 635.0 | 637.6 | 636.8 | 636.7 | 636.7 | 633.2 | 627.2 | 617.6 | 606.6 | 585.1 |
| 15° | 626.2 | 630.0 | 635.6 | 638.8 | 640.8 | 641.4 | 640.0 | 634.9 | 625.0 | 612.2 | 587.6 |
| 17.5° | 625.0 | 629.6 | 639.9 | 646.8 | 652.1 | 651.8 | 651.5 | 644.3 | 633.4 | 620.2 | 590.5 |
| 20° | 630.4 | 636.4 | 650.7 | 661.6 | 669.2 | 667.9 | 665.6 | 656.2 | 643.6 | 628.8 | 593.4 |
| 22.5° | 646.6 | 652.9 | 668.4 | 680.5 | 687.9 | 687.9 | 681.3 | 668.8 | 655.4 | 638.8 | 597.2 |
| 25° | 669.9 | 676.7 | 693.3 | 705.5 | 708.9 | 706.3 | 699.7 | 684.7 | 669.2 | 653.3 | 605.2 |
| 27.5° | 698.3 | 706.5 | 721.9 | 732.2 | 731.2 | 729.1 | 722.3 | 703.1 | 687.7 | 673.1 | 618.8 |
| 30° | 733.7 | 739.8 | 755.8 | 758.2 | 754.6 | 754.2 | 744.6 | 725.4 | 710.9 | 699.7 | 638.2 |
| 32.5° | 767.2 | 772.6 | 785.4 | 786.4 | 780.0 | 780.8 | 771.8 | 754.2 | 746.0 | 742.0 | 670.9 |
| 35° | 802.7 | 805.5 | 816.4 | 815.3 | 811.0 | 810.5 | 806.9 | 790.0 | 792.6 | 799.8 | 717.1 |
| 37.5° | 832.3 | 837.9 | 844.1 | 845.1 | 844.9 | 846.9 | 849.3 | 841.3 | 856.3 | 878.9 | 777.8 |
| 40° | 859.5 | 864.4 | 873.5 | 876.7 | 884.6 | 888.5 | 896.8 | 896.9 | 931.6 | 968.9 | 852.5 |
| 42.5° | 878.0 | 886.1 | 903.3 | 909.1 | 928.2 | 940.2 | 952.4 | 965.4 | 1015.7 | 1063.5 | 940.6 |
| 45° | 894.0 | 904.8 | 933.4 | 951.4 | 977.3 | 991.9 | 1017.7 | 1045.0 | 1117.3 | 1179.9 | 1030.1 |
| 47.5° | 918.2 | 927.8 | 960.7 | 992.5 | 1031.5 | 1048.4 | 1087.0 | 1127.7 | 1222.2 | 1290.9 | 1115.9 |
| 50° | 951.8 | 957.6 | 991.1 | 1043.0 | 1092.8 | 1114.4 | 1165.5 | 1224.2 | 1334.3 | 1400.4 | 1191.2 |
| 52.5° | 994.9 | 997.3 | 1023.9 | 1093.0 | 1158.7 | 1185.5 | 1253.2 | 1321.7 | 1432.4 | 1495.5 | 1250.8 |
| 55° | 1045.8 | 1041.8 | 1062.6 | 1146.1 | 1234.0 | 1269.0 | 1341.7 | 1420.4 | 1542.8 | 1572.4 | 1294.3 |
| 57.5° | 1096.0 | 1089.8 | 1106.5 | 1210.6 | 1327.0 | 1369.2 | 1453.9 | 1522.2 | 1641.3 | 1644.3 | 1324.8 |
| 60° | 1149.3 | 1144.7 | 1164.5 | 1286.2 | 1440.9 | 1490.9 | 1569.2 | 1627.7 | 1736.6 | 1694.4 | 1329.5 |
| 62.5° | 1203.9 | 1196.6 | 1224.8 | 1371.3 | 1569.2 | 1614.7 | 1690.6 | 1739.8 | 1830.2 | 1713.0 | 1283.3 |
| 65° | 1257.0 | 1253.7 | 1297.3 | 1472.5 | 1715.4 | 1767.1 | 1840.8 | 1874.3 | 1905.0 | 1685.0 | 1168.5 |
| 67.5° | 1313.5 | 1320.3 | 1390.0 | 1607.5 | 1906.1 | 1971.0 | 2050.4 | 2019.0 | 1926.5 | 1552.2 | 984.1 |
| 70° | 1399.6 | 1404.0 | 1511.7 | 1784.3 | 2151.8 | 2230.1 | 2268.5 | 2070.5 | 1823.1 | 1300.1 | 739.8 |
| 72.5° | 1436.6 | 1456.1 | 1620.5 | 1969.9 | 2431.0 | 2478.8 | 2341.9 | 1955.7 | 1518.8 | 883.1 | 388.7 |
| 73° | 1428.4 | 1451.7 | 1625.5 | 1998.2 | 2452.7 | 2503.0 | 2326.2 | 1896.7 | 1411.8 | 760.6 | 333.2 |
| 75° | 1326.1 | 1354.7 | 1560.4 | 1974.6 | 2410.3 | 2380.3 | 2075.1 | 1616.5 | 954.0 | 345.9 | 151.8 |
| 77.5° | 1046.3 | 1054.5 | 1236.4 | 1594.5 | 1898.1 | 1842.4 | 1553.0 | 1010.3 | 389.7 | 128.6 | 86.1 |
| 80° | 524.8 | 555.1 | 696.9 | 913.4 | 1269.2 | 1251.0 | 980.2 | 477.8 | 162.4 | 75.5 | 57.1 |
| 82.5° | 252.5 | 274.0 | 339.4 | 445.4 | 701.3 | 684.7 | 485.5 | 261.1 | 103.1 | 44.1 | 33.7 |
| 85° | 162.6 | 178.6 | 216.1 | 212.5 | 288.4 | 275.4 | 218.1 | 197.6 | 61.1 | 23.0 | 23.4 |
| 87.5° | 107.3 | 117.5 | 141.0 | 112.8 | 104.9 | 94.9 | 96.3 | 111.3 | 12.0 | 8.8 | 3.2 |
| 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° | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 |
| 2.5° | 616.2 | 613.6 | 605.0 | 596.6 | 588.6 | 581.0 | 576.0 | 569.3 | 564.9 | 566.1 | 567.9 |
| 5° | 600.8 | 595.0 | 579.7 | 564.9 | 550.9 | 534.3 | 520.9 | 510.0 | 501.8 | 498.8 | 498.2 |
| 7.5° | 584.6 | 574.7 | 553.0 | 527.5 | 503.6 | 483.0 | 459.2 | 447.4 | 433.5 | 428.8 | 427.1 |
| 10° | 574.7 | 561.6 | 530.9 | 495.4 | 459.6 | 425.3 | 399.5 | 378.5 | 359.5 | 355.9 | 354.1 |
| 12.5° | 571.9 | 554.5 | 513.3 | 467.6 | 419.9 | 377.9 | 339.7 | 312.0 | 293.5 | 289.4 | 283.1 |
| 15° | 570.3 | 548.7 | 496.8 | 439.6 | 379.1 | 327.8 | 287.6 | 255.3 | 238.5 | 227.3 | 227.5 |
| 17.5° | 568.9 | 542.1 | 478.4 | 409.0 | 343.8 | 284.8 | 240.3 | 211.3 | 195.8 | 189.9 | 189.3 |
| 20° | 567.0 | 534.3 | 457.2 | 376.7 | 303.6 | 245.5 | 205.3 | 183.6 | 173.2 | 168.2 | 168.0 |
| 22.5° | 566.1 | 526.6 | 436.4 | 343.8 | 267.9 | 215.2 | 182.0 | 166.8 | 160.2 | 156.8 | 156.8 |
| 25° | 568.1 | 521.2 | 414.5 | 312.6 | 236.3 | 189.4 | 166.0 | 155.6 | 151.8 | 150.0 | 149.4 |
| 27.5° | 574.3 | 518.9 | 392.9 | 281.3 | 207.3 | 171.8 | 155.2 | 148.0 | 145.2 | 143.8 | 144.0 |
| 30° | 586.2 | 518.7 | 371.7 | 250.6 | 185.6 | 158.4 | 146.6 | 141.6 | 139.4 | 138.6 | 138.4 |
| 32.5° | 605.2 | 523.0 | 350.9 | 225.1 | 167.4 | 147.2 | 138.6 | 135.0 | 134.0 | 133.3 | 133.2 |
| 35° | 637.4 | 535.5 | 330.2 | 201.9 | 153.4 | 137.2 | 131.0 | 129.2 | 127.8 | 128.3 | 128.6 |
| 37.5° | 680.9 | 556.9 | 310.6 | 183.6 | 142.8 | 129.7 | 124.6 | 122.9 | 122.1 | 122.8 | 123.3 |
| 40° | 739.2 | 587.8 | 294.2 | 169.0 | 135.1 | 123.6 | 118.9 | 117.5 | 116.7 | 117.8 | 117.9 |
| 42.5° | 803.4 | 623.4 | 280.5 | 157.6 | 129.0 | 118.4 | 113.9 | 112.4 | 111.7 | 112.4 | 112.5 |
| 45° | 869.5 | 664.8 | 273.6 | 149.4 | 123.8 | 114.6 | 109.9 | 108.1 | 106.7 | 106.3 | 107.0 |
| 47.5° | 934.6 | 700.9 | 273.3 | 144.4 | 119.6 | 111.1 | 106.2 | 104.1 | 102.3 | 101.3 | 101.2 |
| 50° | 987.7 | 729.5 | 278.2 | 142.2 | 116.0 | 107.3 | 102.3 | 100.3 | 98.0 | 95.9 | 96.3 |
| 52.5° | 1027.8 | 748.2 | 280.4 | 141.2 | 113.9 | 103.4 | 98.3 | 96.5 | 93.7 | 91.1 | 91.1 |
| 55° | 1053.6 | 752.5 | 275.0 | 140.2 | 112.4 | 99.1 | 93.7 | 92.1 | 89.3 | 86.7 | 86.7 |
| 57.5° | 1062.4 | 739.0 | 255.5 | 137.8 | 110.7 | 95.5 | 89.1 | 87.7 | 85.5 | 82.9 | 82.5 |
| 60° | 1041.9 | 692.9 | 221.5 | 130.6 | 107.5 | 91.7 | 84.1 | 83.5 | 82.7 | 80.5 | 80.3 |
| 62.5° | 963.2 | 595.2 | 184.5 | 121.1 | 102.1 | 87.7 | 79.5 | 80.5 | 81.1 | 79.9 | 79.7 |
| 65° | 832.3 | 483.2 | 157.6 | 108.1 | 94.9 | 82.1 | 74.5 | 77.1 | 78.7 | 78.7 | 78.3 |
| 67.5° | 675.1 | 371.1 | 132.8 | 96.9 | 85.9 | 74.5 | 68.9 | 70.9 | 72.1 | 71.7 | 72.7 |
| 70° | 479.8 | 251.3 | 108.1 | 84.1 | 74.5 | 65.9 | 61.7 | 61.7 | 60.9 | 60.4 | 60.4 |
| 72.5° | 232.7 | 143.6 | 87.7 | 70.3 | 63.5 | 56.3 | 52.9 | 51.4 | 49.9 | 49.6 | 48.6 |
| 73° | 194.4 | 128.8 | 83.7 | 67.7 | 60.9 | 54.9 | 51.1 | 48.9 | 47.8 | 47.1 | 46.8 |
| 75° | 118.4 | 97.7 | 69.9 | 57.1 | 51.8 | 47.3 | 43.8 | 41.9 | 40.9 | 40.2 | 40.1 |
| 77.5° | 77.9 | 72.9 | 54.3 | 43.7 | 39.6 | 36.9 | 35.5 | 33.4 | 32.8 | 32.0 | 32.0 |
| 80° | 58.1 | 55.7 | 38.8 | 30.9 | 28.4 | 26.0 | 25.6 | 25.2 | 23.6 | 22.6 | 22.2 |
| 82.5° | 37.4 | 39.6 | 26.5 | 20.6 | 18.0 | 16.1 | 16.2 | 16.8 | 15.2 | 13.8 | 13.4 |
| 85° | 26.6 | 28.7 | 16.1 | 9.4 | 7.6 | 6.6 | 7.4 | 6.6 | 6.8 | 5.4 | 4.4 |
| 87.5° | 4.4 | 7.6 | 2.8 | 1.2 | 0.6 | 0.4 | 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)