

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: P191989

Luminaire Tested: **GLEON-AF-01-LED-E1-SL4-7050-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191989
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-01-LED-E1-SL4-7050-600-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 5000K, 615mA LIGHTSQUARE 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: 3333 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 34
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: 25 FT

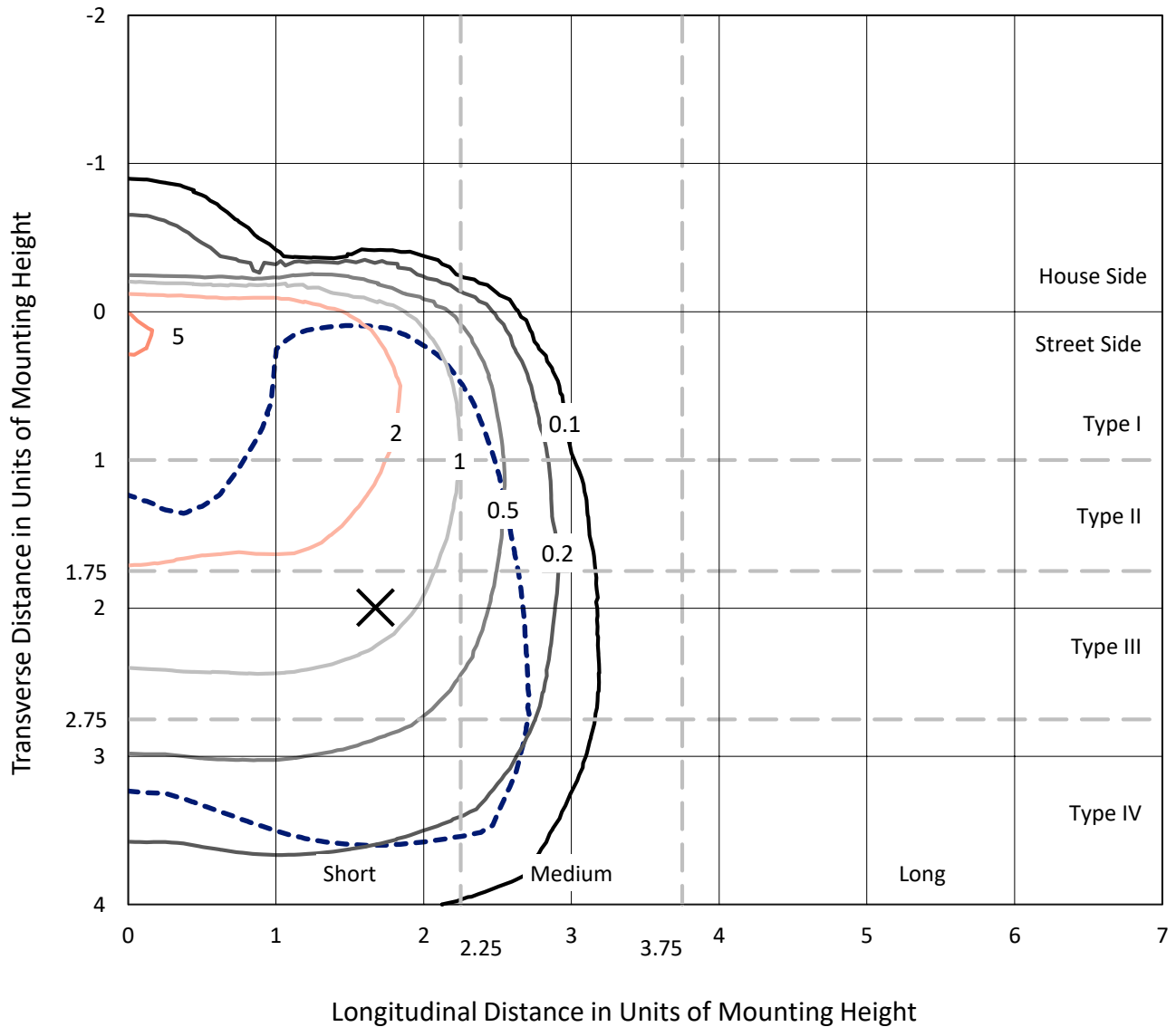


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

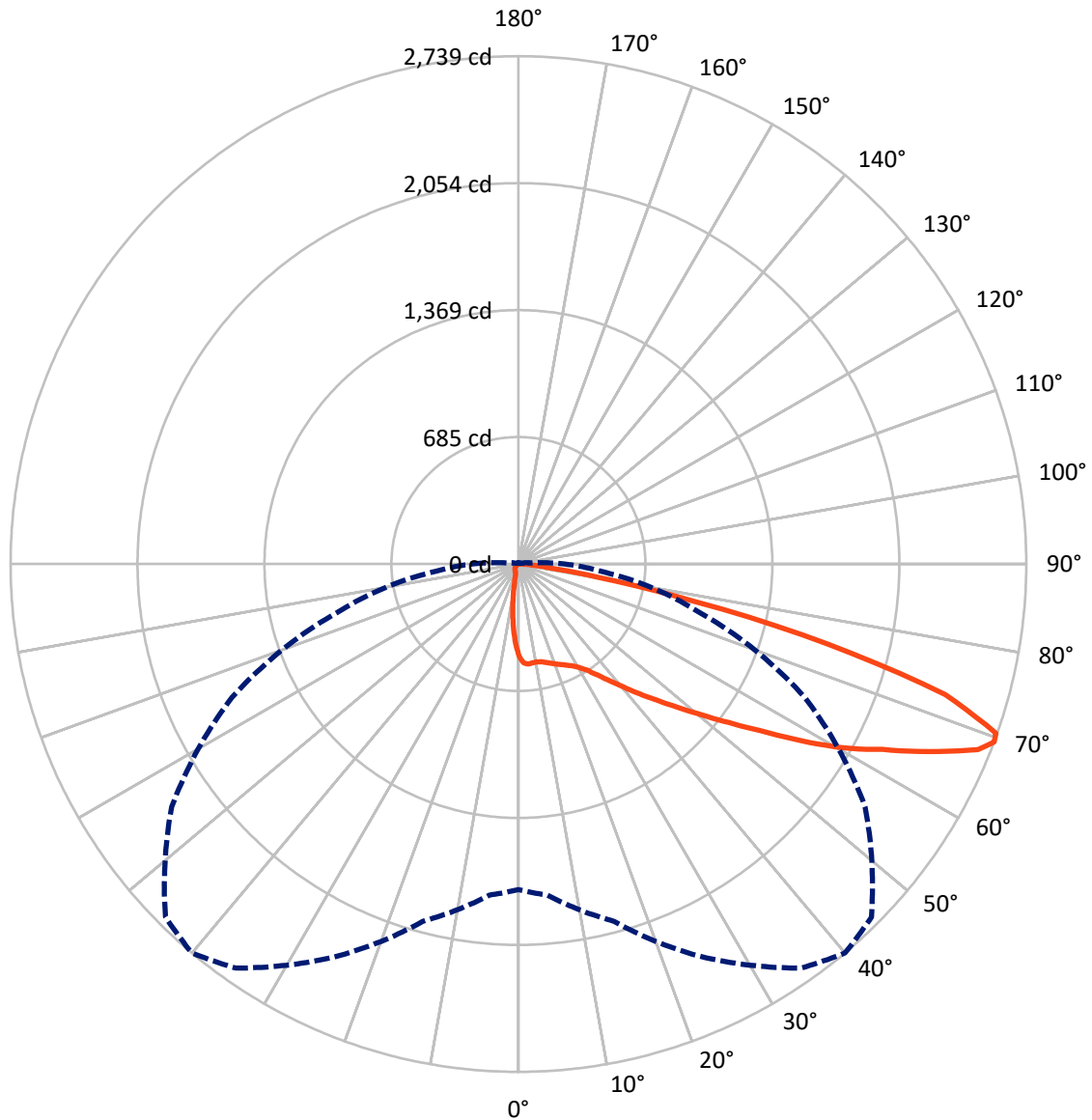


Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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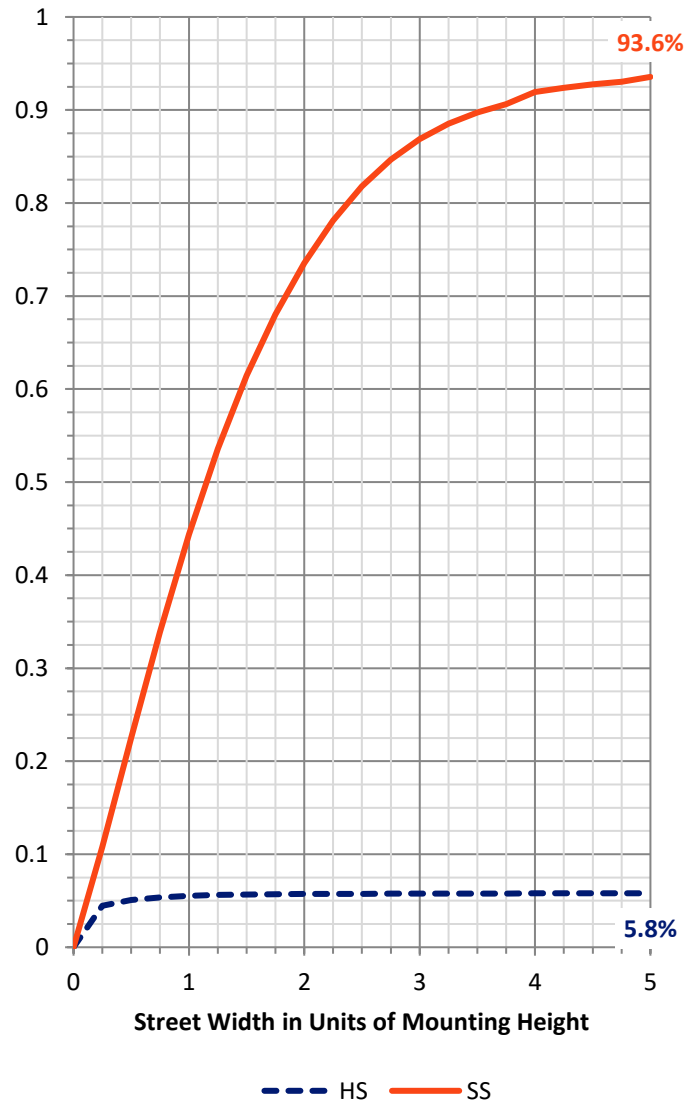
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 195.0 | 0.0 | 195.0 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 3138.0 | 0.0 | 3138.0 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 3333.0 | 0.0 | 3333.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 40.4 | 1.2 |
| 10°-20° | 99.3 | 3.0 |
| 20°-30° | 167.2 | 5.0 |
| 30°-40° | 273.8 | 8.2 |
| 40°-50° | 474.0 | 14.2 |
| 50°-60° | 746.6 | 22.4 |
| 60°-70° | 975.1 | 29.3 |
| 70°-80° | 502.2 | 15.1 |
| 80°-90° | 54.3 | 1.6 |
| 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° | 3333.0 | 100.0 |
| 0°-180° | 3333.0 | 100.0 |



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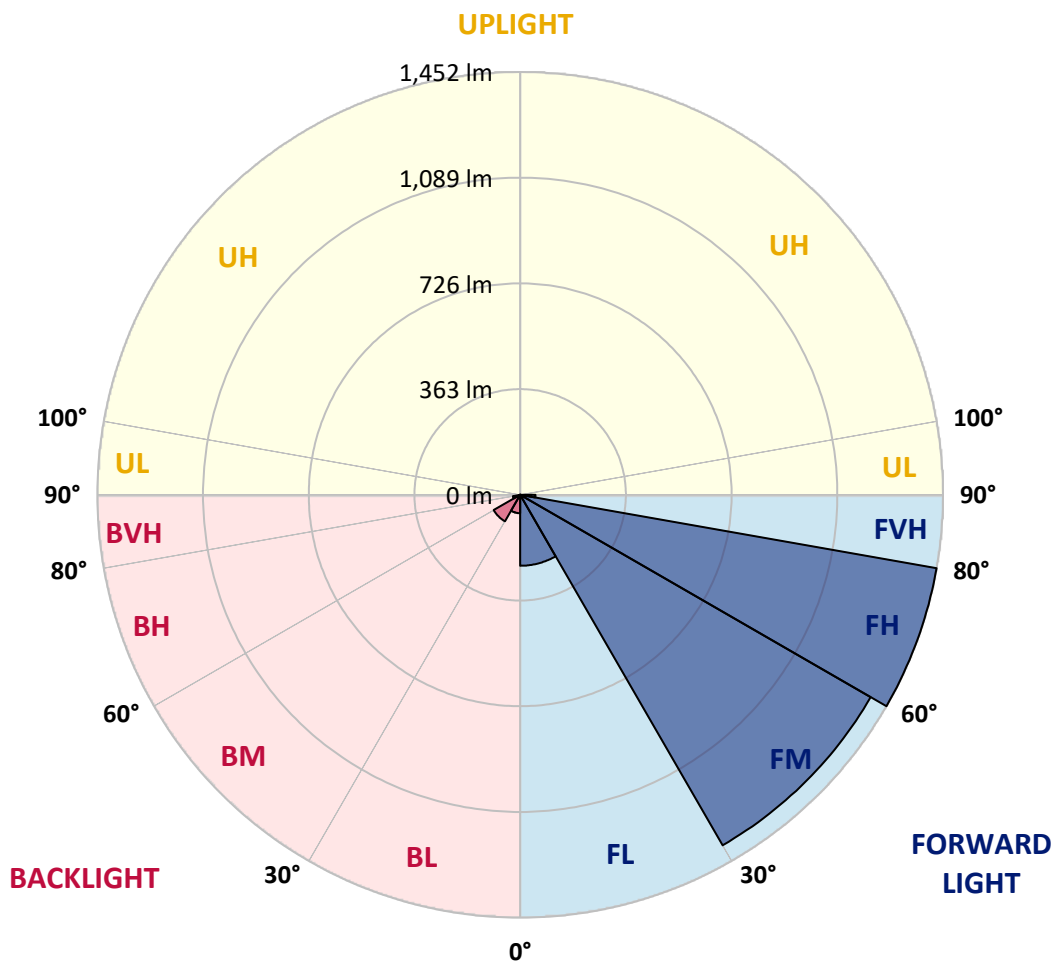
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 243.7 | 7.3 | | | |
| FM | (30°-60°) | 1389.7 | 41.7 | | | |
| FH | (60°-80°) | 1452.0 | 43.6 | | | G1/1800 |
| FVH | (80°-90°) | 52.6 | 1.6 | | | G1/100 |
| BL | (0°-30°) | 63.2 | 1.9 | B0/110 | | |
| BM | (30°-60°) | 104.8 | 3.1 | B0/220 | | |
| BH | (60°-80°) | 25.3 | 0.8 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 1.7 | 0.1 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 |
| 2.5° | 546.8 | 543.8 | 542.0 | 539.6 | 536.7 | 534.1 | 533.1 | 525.7 | 518.8 | 509.3 | 498.4 |
| 5° | 556.9 | 555.9 | 552.7 | 549.5 | 546.0 | 542.0 | 539.8 | 531.1 | 521.2 | 507.3 | 488.2 |
| 7.5° | 557.9 | 556.7 | 552.7 | 548.4 | 543.4 | 538.6 | 534.9 | 526.1 | 517.0 | 502.9 | 479.7 |
| 10° | 556.3 | 554.9 | 551.9 | 547.2 | 541.0 | 536.5 | 532.7 | 524.4 | 516.6 | 503.9 | 478.1 |
| 12.5° | 554.5 | 553.1 | 551.7 | 549.4 | 544.0 | 540.8 | 537.6 | 529.7 | 522.8 | 512.1 | 483.9 |
| 15° | 556.3 | 555.5 | 557.1 | 556.1 | 553.1 | 550.3 | 547.2 | 540.0 | 533.7 | 524.8 | 494.4 |
| 17.5° | 563.8 | 563.8 | 568.8 | 569.4 | 566.6 | 562.6 | 558.1 | 550.9 | 545.6 | 538.0 | 506.9 |
| 20° | 581.5 | 580.9 | 587.2 | 588.4 | 581.7 | 575.5 | 568.8 | 560.1 | 555.9 | 551.1 | 519.2 |
| 22.5° | 611.8 | 609.1 | 612.8 | 611.6 | 598.4 | 588.8 | 580.5 | 569.8 | 567.6 | 565.4 | 532.9 |
| 25° | 651.3 | 649.7 | 652.3 | 640.6 | 617.2 | 604.3 | 594.4 | 582.3 | 582.3 | 584.5 | 548.4 |
| 27.5° | 708.7 | 702.7 | 694.0 | 673.3 | 638.2 | 621.8 | 611.1 | 598.2 | 601.5 | 609.7 | 568.8 |
| 30° | 767.4 | 760.8 | 740.8 | 709.1 | 663.8 | 646.6 | 634.1 | 620.6 | 628.5 | 643.4 | 596.2 |
| 32.5° | 825.3 | 818.0 | 789.6 | 749.5 | 700.5 | 683.3 | 671.2 | 656.3 | 669.6 | 694.6 | 636.2 |
| 35° | 881.5 | 874.9 | 842.2 | 795.0 | 749.3 | 735.0 | 723.9 | 711.0 | 728.1 | 763.0 | 692.8 |
| 37.5° | 944.6 | 937.4 | 897.5 | 846.3 | 808.7 | 798.3 | 790.2 | 777.3 | 807.1 | 858.2 | 771.6 |
| 40° | 1022.1 | 1010.0 | 956.3 | 905.3 | 877.3 | 872.3 | 866.8 | 865.0 | 911.2 | 982.0 | 876.5 |
| 42.5° | 1111.0 | 1091.2 | 1017.8 | 967.4 | 952.7 | 956.3 | 954.9 | 962.8 | 1041.6 | 1136.0 | 1004.3 |
| 45° | 1199.9 | 1174.3 | 1086.2 | 1033.6 | 1035.6 | 1048.1 | 1055.8 | 1087.6 | 1204.8 | 1312.6 | 1141.8 |
| 47.5° | 1275.3 | 1250.1 | 1151.9 | 1105.2 | 1129.1 | 1153.7 | 1174.7 | 1234.8 | 1372.7 | 1486.4 | 1248.7 |
| 50° | 1339.8 | 1315.9 | 1221.5 | 1184.0 | 1237.6 | 1277.3 | 1311.4 | 1400.5 | 1553.2 | 1618.7 | 1323.7 |
| 52.5° | 1392.5 | 1376.7 | 1293.7 | 1274.3 | 1361.6 | 1419.7 | 1469.7 | 1576.4 | 1713.1 | 1726.2 | 1382.0 |
| 55° | 1443.9 | 1432.6 | 1371.3 | 1381.6 | 1507.2 | 1586.4 | 1649.6 | 1763.1 | 1850.8 | 1815.9 | 1438.0 |
| 57.5° | 1503.0 | 1492.7 | 1459.8 | 1517.7 | 1698.6 | 1798.2 | 1867.3 | 1928.6 | 1972.0 | 1907.6 | 1490.7 |
| 60° | 1563.3 | 1557.4 | 1558.2 | 1668.9 | 1918.5 | 2014.1 | 2052.2 | 2068.1 | 2091.1 | 1993.9 | 1493.7 |
| 62.5° | 1620.9 | 1632.2 | 1670.7 | 1837.1 | 2129.0 | 2202.4 | 2221.6 | 2237.3 | 2210.3 | 2007.5 | 1380.0 |
| 65° | 1718.3 | 1736.7 | 1828.6 | 2062.3 | 2360.5 | 2439.0 | 2458.9 | 2405.1 | 2229.1 | 1830.6 | 1122.5 |
| 67.5° | 1765.9 | 1799.6 | 1963.5 | 2272.2 | 2585.1 | 2672.4 | 2665.0 | 2416.0 | 2000.4 | 1395.9 | 720.4 |
| 69° | 1756.0 | 1791.9 | 1994.6 | 2336.5 | 2659.7 | 2738.8 | 2692.2 | 2282.5 | 1704.2 | 1011.2 | 442.2 |
| 70° | 1716.7 | 1753.0 | 1978.6 | 2334.1 | 2669.2 | 2731.9 | 2641.8 | 2117.7 | 1440.9 | 739.4 | 276.6 |
| 72.5° | 1433.6 | 1464.9 | 1756.6 | 2109.7 | 2458.9 | 2407.9 | 2210.1 | 1467.1 | 702.1 | 201.4 | 62.3 |
| 75° | 882.5 | 899.9 | 1260.4 | 1589.3 | 1857.2 | 1726.2 | 1472.5 | 729.9 | 209.3 | 56.9 | 34.5 |
| 77.5° | 466.2 | 474.2 | 690.0 | 936.8 | 1177.3 | 974.1 | 754.7 | 284.7 | 96.4 | 35.7 | 25.0 |
| 80° | 275.6 | 281.5 | 371.6 | 428.3 | 509.5 | 425.6 | 301.8 | 174.8 | 69.0 | 22.4 | 22.2 |
| 82.5° | 157.7 | 161.5 | 269.4 | 238.1 | 200.8 | 171.4 | 150.2 | 165.7 | 41.5 | 15.1 | 23.0 |
| 85° | 57.9 | 58.7 | 151.6 | 181.1 | 119.4 | 71.0 | 74.6 | 137.3 | 11.1 | 9.5 | 18.1 |
| 87.5° | 27.0 | 26.4 | 78.0 | 110.9 | 69.8 | 45.0 | 58.1 | 30.2 | 4.4 | 6.2 | 5.0 |
| 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° | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 | 498.0 |
| 2.5° | 492.0 | 484.7 | 471.4 | 457.7 | 443.8 | 433.1 | 422.6 | 414.2 | 411.5 | 406.3 | 406.7 |
| 5° | 476.9 | 463.4 | 435.7 | 407.5 | 378.1 | 353.9 | 331.1 | 312.7 | 303.7 | 294.6 | 294.6 |
| 7.5° | 463.8 | 444.2 | 400.8 | 354.9 | 307.5 | 267.6 | 231.7 | 204.7 | 189.9 | 178.0 | 177.8 |
| 10° | 458.9 | 432.3 | 371.6 | 305.9 | 239.9 | 185.5 | 142.8 | 115.5 | 101.4 | 92.3 | 91.9 |
| 12.5° | 461.1 | 428.1 | 349.2 | 260.7 | 177.8 | 119.2 | 82.7 | 65.1 | 59.1 | 56.3 | 56.3 |
| 15° | 467.4 | 426.9 | 326.8 | 216.4 | 125.6 | 74.6 | 55.0 | 50.2 | 49.8 | 49.8 | 49.8 |
| 17.5° | 475.2 | 427.3 | 303.7 | 173.4 | 85.5 | 53.4 | 47.4 | 46.8 | 47.2 | 47.2 | 47.2 |
| 20° | 483.1 | 427.5 | 278.9 | 133.5 | 60.3 | 46.4 | 44.6 | 44.4 | 44.8 | 44.8 | 45.0 |
| 22.5° | 492.8 | 428.5 | 254.1 | 99.8 | 49.8 | 43.8 | 42.5 | 42.5 | 42.7 | 42.7 | 42.5 |
| 25° | 503.9 | 430.5 | 228.4 | 74.0 | 45.4 | 42.1 | 40.9 | 40.7 | 40.9 | 40.7 | 40.5 |
| 27.5° | 517.8 | 433.3 | 199.6 | 57.9 | 43.4 | 40.3 | 39.3 | 39.3 | 39.1 | 38.9 | 38.7 |
| 30° | 535.3 | 436.5 | 167.2 | 49.2 | 41.5 | 38.7 | 37.7 | 37.5 | 37.3 | 36.9 | 36.9 |
| 32.5° | 561.8 | 443.4 | 135.3 | 44.6 | 39.3 | 36.5 | 35.7 | 35.7 | 35.3 | 34.9 | 34.7 |
| 35° | 602.7 | 457.1 | 106.7 | 41.9 | 36.9 | 34.1 | 33.1 | 33.1 | 32.7 | 32.5 | 32.3 |
| 37.5° | 659.3 | 477.9 | 82.9 | 39.3 | 34.5 | 31.5 | 30.6 | 30.4 | 30.0 | 29.6 | 29.4 |
| 40° | 734.5 | 503.7 | 65.3 | 36.9 | 32.1 | 29.0 | 28.2 | 27.8 | 27.0 | 26.4 | 26.4 |
| 42.5° | 828.9 | 533.1 | 53.0 | 34.3 | 29.4 | 26.6 | 26.0 | 25.4 | 24.0 | 23.4 | 23.2 |
| 45° | 927.7 | 559.5 | 44.8 | 31.3 | 26.6 | 24.2 | 23.8 | 22.8 | 21.0 | 20.4 | 20.4 |
| 47.5° | 998.9 | 565.6 | 39.5 | 28.6 | 24.0 | 21.6 | 21.4 | 19.6 | 18.1 | 17.7 | 17.5 |
| 50° | 1043.4 | 553.5 | 35.1 | 25.8 | 21.6 | 19.2 | 18.6 | 16.5 | 15.5 | 15.1 | 14.9 |
| 52.5° | 1073.3 | 531.9 | 31.5 | 23.4 | 19.4 | 17.1 | 15.7 | 14.1 | 13.3 | 12.9 | 12.9 |
| 55° | 1097.3 | 501.3 | 28.0 | 21.2 | 17.7 | 15.3 | 13.3 | 12.1 | 11.3 | 10.9 | 10.9 |
| 57.5° | 1104.1 | 459.9 | 24.4 | 19.4 | 15.9 | 13.5 | 11.3 | 10.5 | 9.5 | 9.3 | 9.3 |
| 60° | 1055.1 | 385.1 | 21.6 | 17.3 | 14.3 | 11.7 | 9.9 | 8.9 | 7.9 | 7.7 | 7.5 |
| 62.5° | 925.9 | 298.0 | 19.0 | 15.3 | 12.5 | 10.1 | 8.5 | 7.3 | 6.5 | 6.5 | 6.5 |
| 65° | 706.3 | 199.8 | 16.7 | 13.3 | 10.9 | 8.5 | 7.3 | 6.0 | 5.6 | 5.6 | 5.8 |
| 67.5° | 422.8 | 108.7 | 14.3 | 11.3 | 9.3 | 7.1 | 6.2 | 5.2 | 5.0 | 5.2 | 5.2 |
| 69° | 247.8 | 63.9 | 12.9 | 10.1 | 8.1 | 6.3 | 5.4 | 4.6 | 5.0 | 5.2 | 5.2 |
| 70° | 153.0 | 43.1 | 11.9 | 9.1 | 7.3 | 5.8 | 5.0 | 4.4 | 4.8 | 5.0 | 5.0 |
| 72.5° | 42.7 | 22.2 | 9.5 | 7.1 | 6.0 | 4.8 | 4.0 | 4.0 | 4.6 | 4.8 | 4.8 |
| 75° | 27.8 | 16.5 | 7.3 | 5.4 | 4.6 | 3.8 | 3.4 | 3.8 | 4.4 | 4.6 | 4.6 |
| 77.5° | 23.0 | 13.5 | 6.0 | 4.4 | 3.8 | 3.6 | 3.2 | 3.4 | 4.0 | 4.2 | 4.2 |
| 80° | 21.0 | 9.5 | 4.8 | 4.0 | 3.4 | 3.2 | 3.0 | 2.8 | 3.6 | 3.8 | 3.8 |
| 82.5° | 20.0 | 7.5 | 4.2 | 3.6 | 3.2 | 2.8 | 2.6 | 2.8 | 3.2 | 3.4 | 3.6 |
| 85° | 12.5 | 5.0 | 3.8 | 3.4 | 2.8 | 2.6 | 2.6 | 2.6 | 3.0 | 3.2 | 3.2 |
| 87.5° | 4.6 | 4.0 | 3.4 | 2.8 | 2.4 | 2.4 | 2.4 | 2.4 | 2.6 | 3.0 | 3.0 |
| 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)