

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: P453194

Luminaire Tested: **GALN-SA4B-722-U-T2-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453194
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-11)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4B-722-U-T2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2200K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12370 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

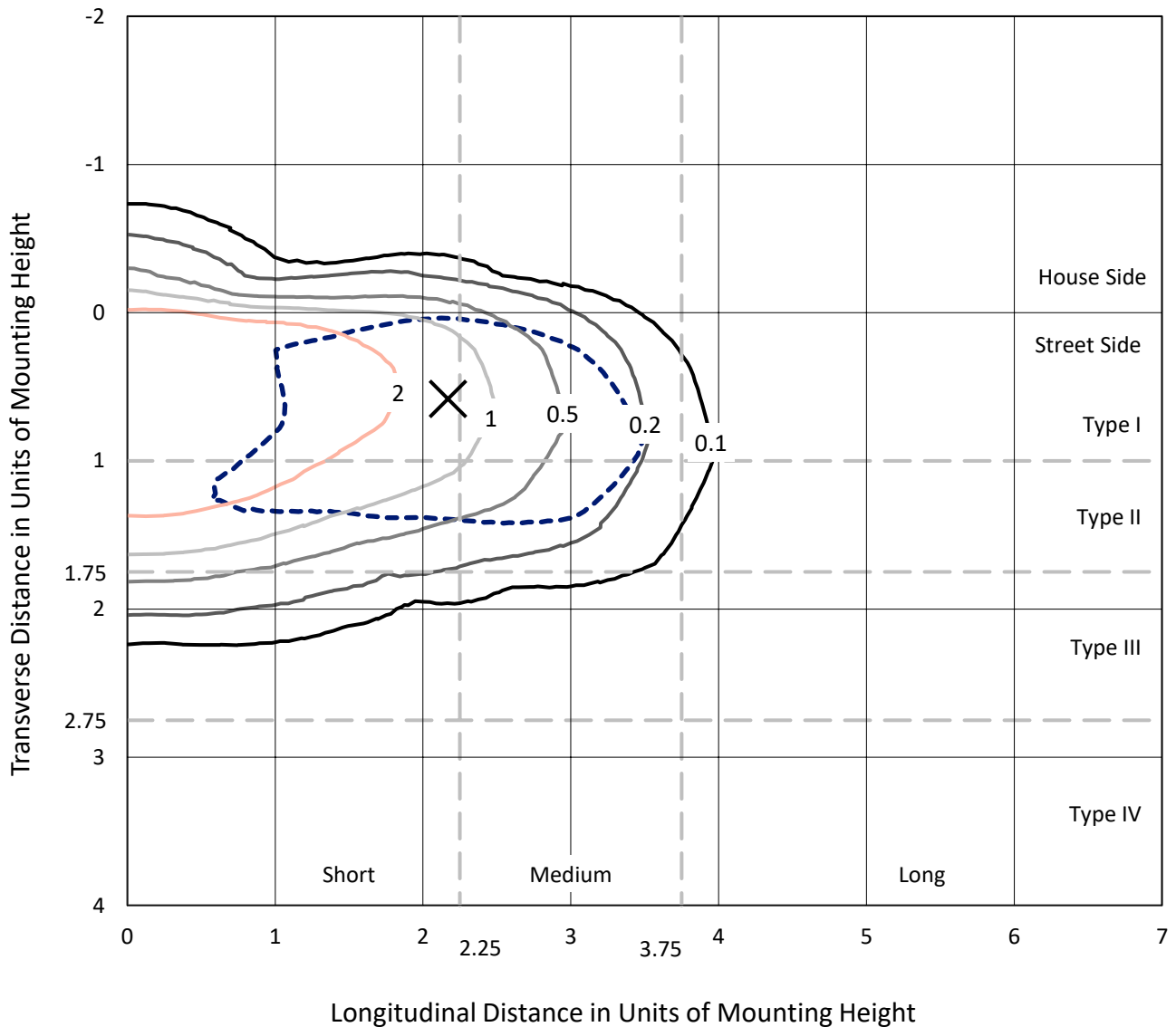
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

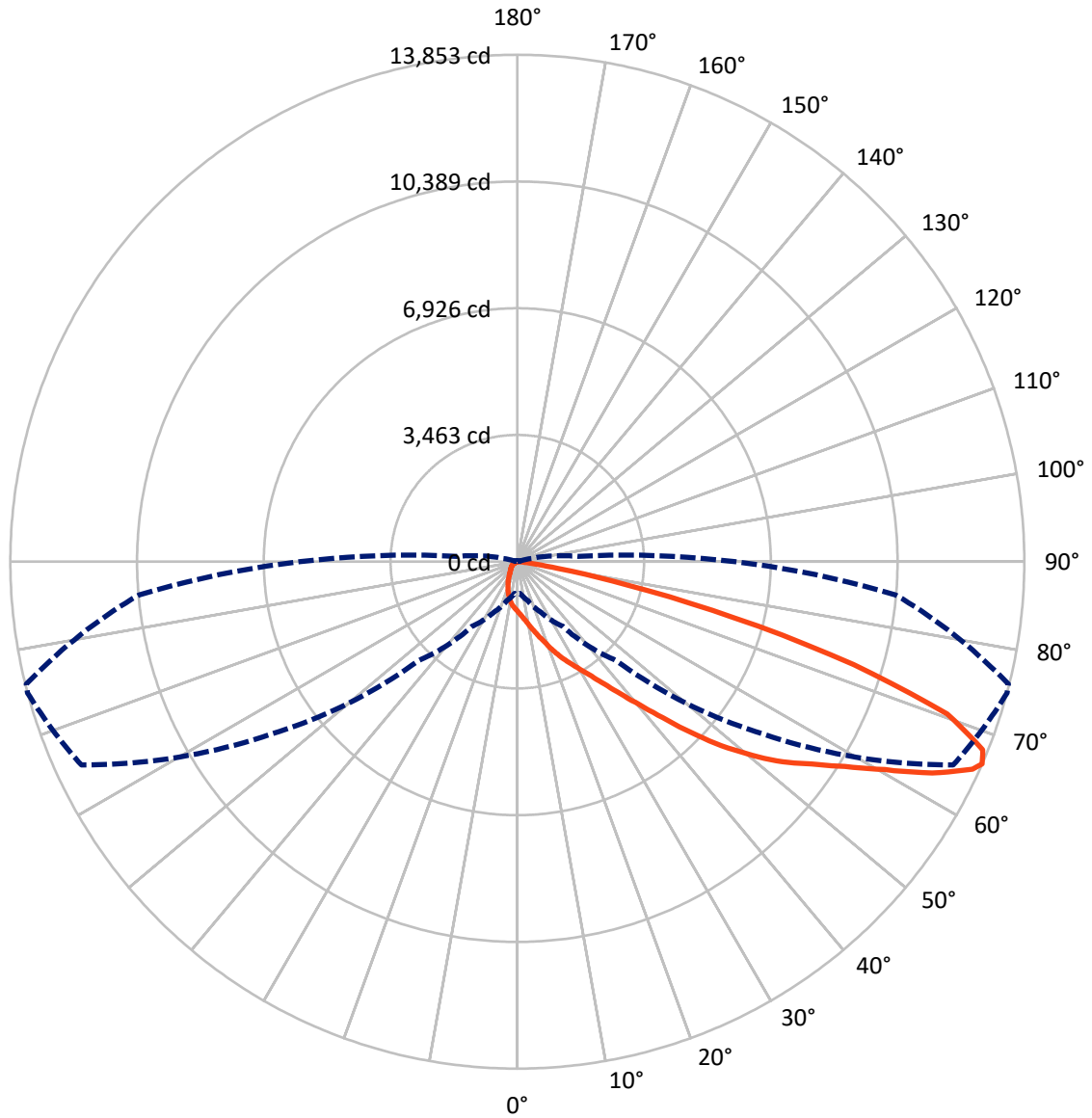
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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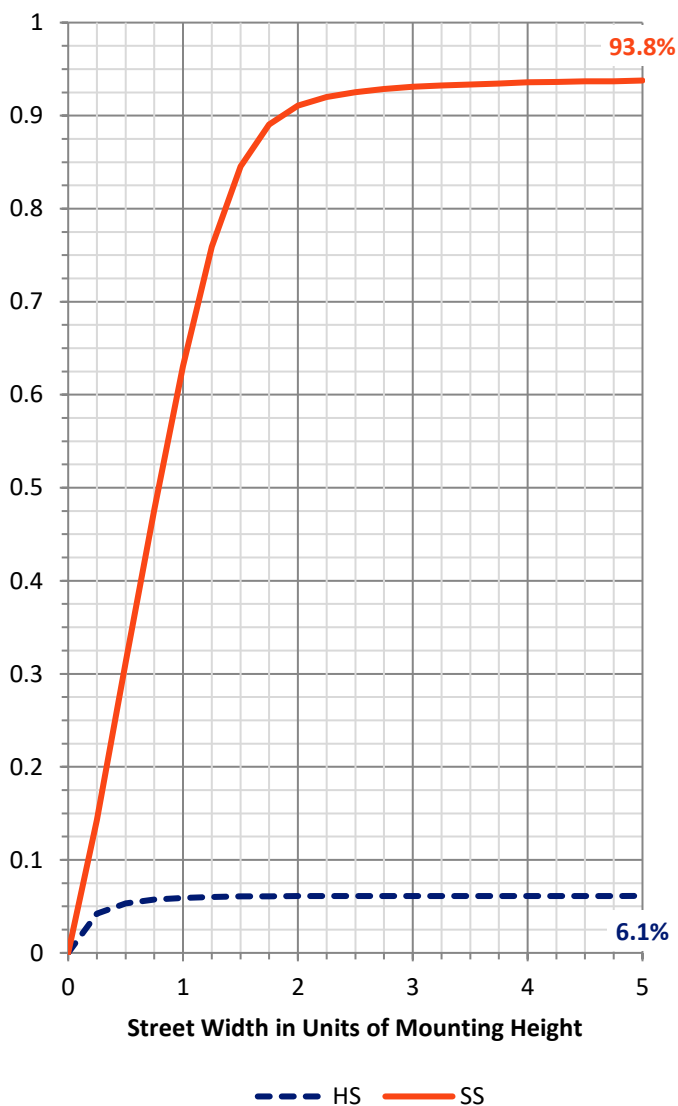
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 763.7 | 0.0 | 763.7 |
| | % Fixture | 6.2 | 0.0 | 6.2 |
| Street Side | Lumens | 11606.3 | 0.0 | 11606.3 |
| | % Fixture | 93.8 | 0.0 | 93.8 |
| Total | Lumens | 12370.0 | 0.0 | 12370.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 130.5 | 1.1 |
| 10°-20° | 384.0 | 3.1 |
| 20°-30° | 663.1 | 5.4 |
| 30°-40° | 1196.1 | 9.7 |
| 40°-50° | 2160.7 | 17.5 |
| 50°-60° | 3368.6 | 27.2 |
| 60°-70° | 3200.0 | 25.9 |
| 70°-80° | 1199.3 | 9.7 |
| 80°-90° | 67.7 | 0.5 |
| 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° | 12370.0 | 100.0 |
| 0°-180° | 12370.0 | 100.0 |

Coefficient of Utilization



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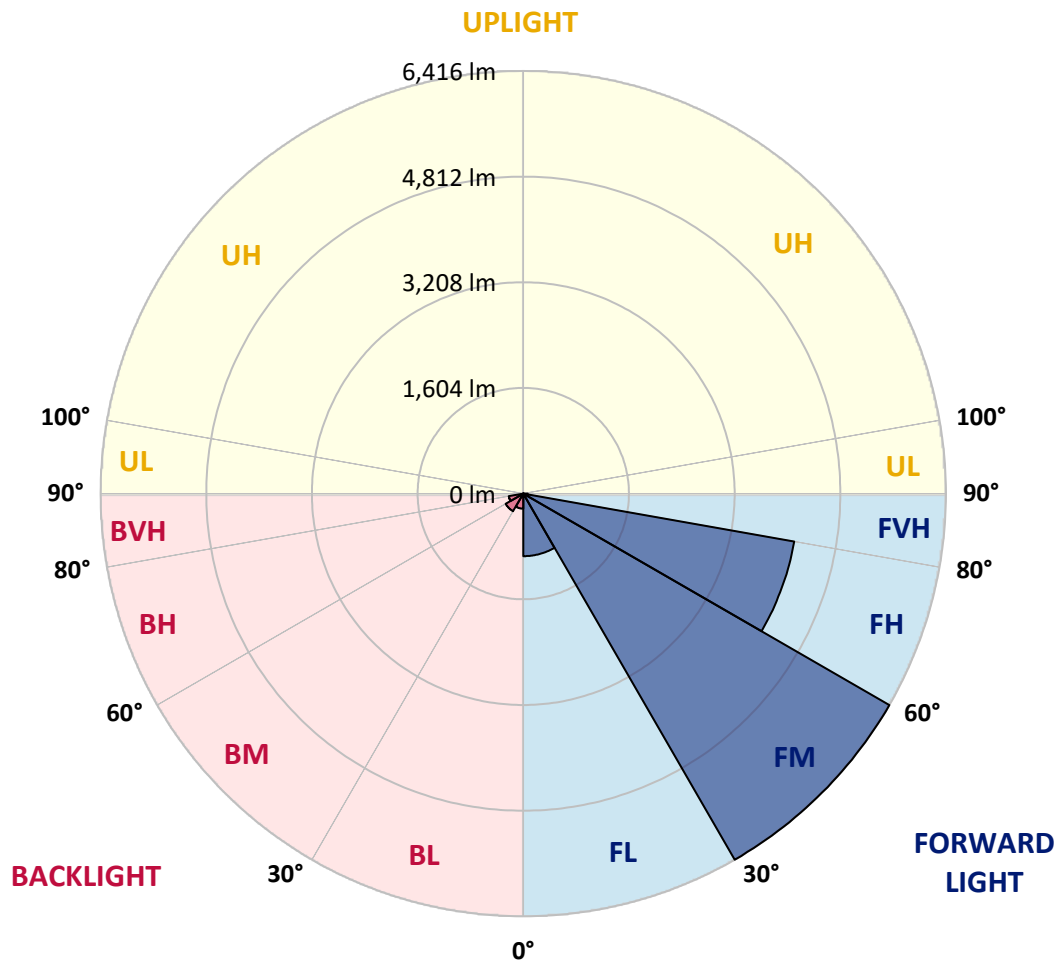
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 949.5 | 7.7 | | | |
| FM (30°-60°) | 6416.3 | 51.9 | | | |
| FH (60°-80°) | 4176.3 | 33.8 | | | G2/5000 |
| FVH (80°-90°) | 64.2 | 0.5 | | | G1/100 |
| BL (0°-30°) | 228.1 | 1.8 | B1/500 | | |
| BM (30°-60°) | 309.1 | 2.5 | B1/1000 | | |
| BH (60°-80°) | 223.0 | 1.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 3.5 | 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-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0° | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 |
| 2.5° | 1616.2 | 1596.1 | 1602.5 | 1593.3 | 1572.3 | 1541.2 | 1513.8 | 1474.4 | 1435.1 | 1428.7 | 1384.8 |
| 5° | 1829.3 | 1823.8 | 1816.5 | 1790.0 | 1775.4 | 1727.8 | 1671.1 | 1603.4 | 1522.0 | 1507.4 | 1427.8 |
| 7.5° | 1974.8 | 1972.0 | 1975.7 | 1961.9 | 1949.1 | 1906.2 | 1845.8 | 1753.4 | 1627.2 | 1618.9 | 1486.3 |
| 10° | 2022.3 | 2029.6 | 2043.3 | 2065.3 | 2085.4 | 2071.7 | 2026.0 | 1910.7 | 1763.5 | 1739.7 | 1553.1 |
| 12.5° | 1994.9 | 2003.1 | 2036.0 | 2094.6 | 2159.5 | 2197.0 | 2178.7 | 2094.6 | 1908.0 | 1888.8 | 1628.1 |
| 15° | 1924.4 | 1934.5 | 1981.2 | 2071.7 | 2187.9 | 2294.0 | 2339.7 | 2279.3 | 2076.3 | 2045.2 | 1718.6 |
| 17.5° | 1820.2 | 1834.8 | 1901.6 | 2021.4 | 2180.5 | 2363.5 | 2492.4 | 2472.3 | 2255.6 | 2226.3 | 1817.4 |
| 20° | 1741.5 | 1752.5 | 1809.2 | 1946.4 | 2149.5 | 2401.9 | 2637.9 | 2694.6 | 2476.9 | 2426.6 | 1933.6 |
| 22.5° | 1793.6 | 1797.3 | 1816.5 | 1898.8 | 2093.7 | 2412.0 | 2765.9 | 2926.0 | 2712.0 | 2667.1 | 2054.3 |
| 25° | 2048.8 | 2012.3 | 1993.0 | 1974.8 | 2081.8 | 2402.8 | 2882.1 | 3167.5 | 2946.1 | 2898.6 | 2174.1 |
| 27.5° | 2451.3 | 2434.8 | 2337.9 | 2208.0 | 2183.3 | 2414.7 | 2958.9 | 3396.1 | 3166.6 | 3115.3 | 2291.2 |
| 30° | 2889.4 | 2861.1 | 2801.6 | 2611.4 | 2420.2 | 2498.9 | 3014.7 | 3618.4 | 3427.2 | 3359.5 | 2398.2 |
| 32.5° | 3291.9 | 3310.2 | 3221.4 | 3025.7 | 2804.3 | 2678.1 | 3087.0 | 3860.8 | 3726.3 | 3642.2 | 2522.6 |
| 35° | 3761.1 | 3797.7 | 3661.4 | 3473.9 | 3215.0 | 3001.9 | 3227.8 | 4134.3 | 4105.9 | 3999.8 | 2714.7 |
| 37.5° | 4237.6 | 4259.6 | 4176.3 | 3912.9 | 3679.7 | 3413.5 | 3493.1 | 4471.8 | 4573.3 | 4482.7 | 2944.3 |
| 40° | 4638.2 | 4668.4 | 4607.1 | 4373.0 | 4124.2 | 3890.0 | 3878.2 | 4839.5 | 5129.4 | 5036.1 | 3286.4 |
| 42.5° | 4944.7 | 4967.5 | 4969.3 | 4803.8 | 4579.7 | 4473.6 | 4369.3 | 5308.7 | 5826.4 | 5718.5 | 3683.3 |
| 45° | 5331.6 | 5364.5 | 5345.3 | 5232.8 | 5065.4 | 5046.2 | 4992.2 | 5875.8 | 6660.6 | 6524.3 | 4198.3 |
| 47.5° | 5929.7 | 5951.7 | 5904.1 | 5771.5 | 5601.4 | 5631.6 | 5599.5 | 6511.5 | 7511.2 | 7394.1 | 4731.5 |
| 50° | 6345.0 | 6381.6 | 6449.3 | 6502.3 | 6378.8 | 6267.2 | 6172.1 | 7105.1 | 8318.8 | 8213.6 | 5276.7 |
| 52.5° | 6340.4 | 6400.8 | 6614.8 | 6881.9 | 7151.7 | 7117.9 | 6844.4 | 7760.9 | 9089.9 | 8960.0 | 5788.9 |
| 55° | 5913.3 | 6030.4 | 6345.0 | 6818.8 | 7566.1 | 7938.3 | 7813.9 | 8520.1 | 9755.8 | 9668.0 | 6382.5 |
| 57.5° | 5031.5 | 5102.9 | 5540.1 | 6202.3 | 7334.7 | 8324.3 | 8937.1 | 9549.0 | 10554.3 | 10513.1 | 7304.5 |
| 60° | 3384.2 | 3416.3 | 3978.8 | 4797.4 | 6244.4 | 7939.2 | 9760.3 | 10793.9 | 11537.5 | 11517.4 | 8381.0 |
| 62.5° | 1939.1 | 1952.8 | 2360.7 | 3051.3 | 4443.4 | 6728.2 | 9829.8 | 12329.6 | 12716.5 | 12727.5 | 9626.8 |
| 65° | 1043.6 | 1050.9 | 1380.2 | 1790.9 | 2703.7 | 4795.6 | 8839.3 | 13171.1 | 13669.6 | 13690.6 | 10398.8 |
| 66° | 900.9 | 866.2 | 1098.5 | 1526.6 | 2151.3 | 3816.9 | 8212.7 | 13140.9 | 13852.5 | 13829.7 | 10371.3 |
| 67.5° | 685.1 | 716.2 | 877.2 | 1173.5 | 1594.3 | 2713.8 | 6780.4 | 12556.4 | 13713.5 | 13642.2 | 9949.7 |
| 70° | 490.3 | 503.1 | 624.7 | 836.9 | 1085.7 | 1489.1 | 4332.7 | 10429.0 | 12464.1 | 12368.0 | 8668.2 |
| 72.5° | 316.5 | 330.2 | 442.7 | 605.5 | 784.8 | 813.1 | 2425.7 | 7535.0 | 9609.4 | 9595.7 | 6527.9 |
| 75° | 225.9 | 238.7 | 292.7 | 433.5 | 590.0 | 503.1 | 1168.0 | 5078.2 | 6109.0 | 6067.9 | 4038.2 |
| 77.5° | 163.7 | 170.1 | 195.7 | 283.5 | 421.7 | 360.4 | 541.5 | 2712.0 | 3041.2 | 3184.8 | 1784.5 |
| 80° | 94.2 | 99.7 | 136.3 | 172.9 | 285.4 | 246.0 | 258.8 | 1088.4 | 1122.3 | 1068.3 | 557.9 |
| 82.5° | 46.6 | 53.1 | 81.4 | 118.0 | 178.4 | 165.6 | 118.9 | 327.4 | 345.7 | 336.6 | 140.9 |
| 85° | 11.0 | 13.7 | 45.7 | 77.7 | 86.9 | 74.1 | 57.6 | 96.0 | 118.9 | 116.2 | 54.0 |
| 87.5° | 0.9 | 1.8 | 16.5 | 13.7 | 14.6 | 24.7 | 20.1 | 24.7 | 38.4 | 35.7 | 19.2 |
| 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° | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 | 1352.8 |
| 2.5° | 1364.7 | 1347.3 | 1297.0 | 1247.6 | 1206.4 | 1163.4 | 1124.1 | 1101.3 | 1092.1 | 1082.0 | 1086.6 |
| 5° | 1383.9 | 1341.8 | 1240.3 | 1152.5 | 1066.5 | 993.3 | 934.8 | 897.3 | 879.0 | 876.2 | 871.7 |
| 7.5° | 1409.5 | 1337.2 | 1179.9 | 1042.7 | 930.2 | 848.8 | 782.0 | 728.1 | 711.6 | 697.0 | 685.1 |
| 10° | 1440.6 | 1329.0 | 1104.9 | 927.5 | 807.6 | 705.2 | 617.4 | 553.4 | 520.4 | 511.3 | 517.7 |
| 12.5° | 1473.5 | 1313.5 | 1026.2 | 821.4 | 683.3 | 552.5 | 471.0 | 439.0 | 429.9 | 426.2 | 427.1 |
| 15° | 1506.4 | 1294.2 | 943.9 | 718.9 | 544.2 | 440.9 | 403.4 | 395.1 | 391.5 | 389.6 | 387.8 |
| 17.5° | 1536.6 | 1263.1 | 851.5 | 619.2 | 440.9 | 376.8 | 363.1 | 355.8 | 348.5 | 345.7 | 341.2 |
| 20° | 1572.3 | 1227.5 | 768.3 | 507.6 | 373.2 | 341.2 | 324.7 | 311.0 | 300.0 | 292.7 | 291.8 |
| 22.5° | 1606.1 | 1181.7 | 681.4 | 420.7 | 340.3 | 306.4 | 279.9 | 265.3 | 252.4 | 243.3 | 246.0 |
| 25° | 1624.4 | 1125.9 | 603.7 | 366.8 | 310.1 | 271.7 | 242.4 | 224.1 | 210.4 | 205.8 | 204.9 |
| 27.5° | 1624.4 | 1057.3 | 527.8 | 335.7 | 282.6 | 240.6 | 210.4 | 193.0 | 183.8 | 177.4 | 178.4 |
| 30° | 1611.6 | 981.4 | 457.3 | 311.9 | 258.8 | 213.1 | 184.8 | 169.2 | 161.9 | 157.3 | 156.4 |
| 32.5° | 1601.6 | 909.2 | 397.0 | 289.0 | 234.2 | 189.3 | 164.6 | 152.7 | 145.4 | 140.9 | 140.9 |
| 35° | 1617.1 | 847.0 | 350.3 | 266.2 | 211.3 | 171.0 | 149.1 | 138.1 | 130.8 | 127.1 | 126.2 |
| 37.5° | 1658.3 | 790.3 | 314.6 | 241.5 | 190.2 | 155.5 | 138.1 | 125.3 | 118.0 | 113.4 | 111.6 |
| 40° | 1759.8 | 758.3 | 288.1 | 218.6 | 170.1 | 142.7 | 125.3 | 113.4 | 104.3 | 99.7 | 98.8 |
| 42.5° | 1922.6 | 759.2 | 262.5 | 197.6 | 154.6 | 131.7 | 114.3 | 100.6 | 90.6 | 86.0 | 85.1 |
| 45° | 2167.7 | 793.9 | 242.4 | 177.4 | 140.9 | 119.8 | 102.4 | 87.8 | 78.7 | 74.1 | 74.1 |
| 47.5° | 2461.3 | 861.6 | 225.0 | 160.1 | 128.1 | 108.8 | 90.6 | 75.9 | 66.8 | 63.1 | 63.1 |
| 50° | 2779.7 | 949.4 | 207.6 | 141.8 | 117.1 | 97.0 | 77.7 | 65.9 | 58.5 | 55.8 | 55.8 |
| 52.5° | 3104.4 | 1055.5 | 190.2 | 127.1 | 105.2 | 84.1 | 66.8 | 58.5 | 52.1 | 50.3 | 49.4 |
| 55° | 3530.6 | 1190.9 | 172.0 | 111.6 | 92.4 | 72.3 | 59.5 | 51.2 | 43.9 | 41.2 | 40.2 |
| 57.5° | 4186.4 | 1394.9 | 151.8 | 97.9 | 75.9 | 60.4 | 51.2 | 43.0 | 34.8 | 30.2 | 29.3 |
| 60° | 4977.6 | 1643.6 | 130.8 | 86.0 | 61.3 | 49.4 | 41.2 | 32.9 | 25.6 | 20.1 | 19.2 |
| 62.5° | 5718.5 | 1801.9 | 110.7 | 72.3 | 48.5 | 37.5 | 29.3 | 24.7 | 18.3 | 12.8 | 11.9 |
| 65° | 6045.9 | 1748.8 | 91.5 | 58.5 | 38.4 | 26.5 | 19.2 | 17.4 | 11.0 | 5.5 | 4.6 |
| 66° | 5937.1 | 1670.2 | 84.1 | 53.1 | 34.8 | 22.9 | 16.5 | 14.6 | 8.2 | 2.7 | 2.7 |
| 67.5° | 5616.0 | 1484.5 | 73.2 | 45.7 | 30.2 | 18.3 | 12.8 | 11.0 | 4.6 | 0.9 | 0.0 |
| 70° | 4812.0 | 1200.9 | 57.6 | 33.8 | 22.0 | 12.8 | 7.3 | 5.5 | 2.7 | 0.0 | 0.0 |
| 72.5° | 3696.1 | 894.5 | 45.7 | 25.6 | 15.5 | 7.3 | 3.7 | 1.8 | 2.7 | 0.0 | 0.0 |
| 75° | 2264.7 | 511.3 | 35.7 | 19.2 | 10.1 | 4.6 | 2.7 | 0.0 | 2.7 | 0.9 | 0.0 |
| 77.5° | 1005.2 | 229.6 | 23.8 | 12.8 | 7.3 | 3.7 | 1.8 | 0.0 | 1.8 | 0.9 | 0.0 |
| 80° | 254.3 | 75.0 | 13.7 | 9.1 | 5.5 | 2.7 | 0.9 | 0.0 | 1.8 | 1.8 | 0.9 |
| 82.5° | 69.5 | 27.4 | 10.1 | 7.3 | 4.6 | 2.7 | 0.9 | 0.0 | 1.8 | 1.8 | 1.8 |
| 85° | 27.4 | 12.8 | 9.1 | 7.3 | 5.5 | 2.7 | 0.9 | 0.0 | 1.8 | 1.8 | 1.8 |
| 87.5° | 12.8 | 9.1 | 9.1 | 8.2 | 6.4 | 2.7 | 0.9 | 0.0 | 1.8 | 0.9 | 1.8 |
| 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)