Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P452469

Luminaire Tested: **GALN-SA3B-830-U-T2-HSS**

Issue Date: 1/4/2021

Report Generated By 670248863

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Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P452469 |
| | 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-SA3B-830-U-T2-HSS |
| Description: | GALLEON AREA AND ROADWAY LUMINAIRE |
| | (3) 80 CRI, 3000K, 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: | 10091 lumens |
| Efficiency: | N/A |
| Efficacy: | 83.4 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): | 121 |
| 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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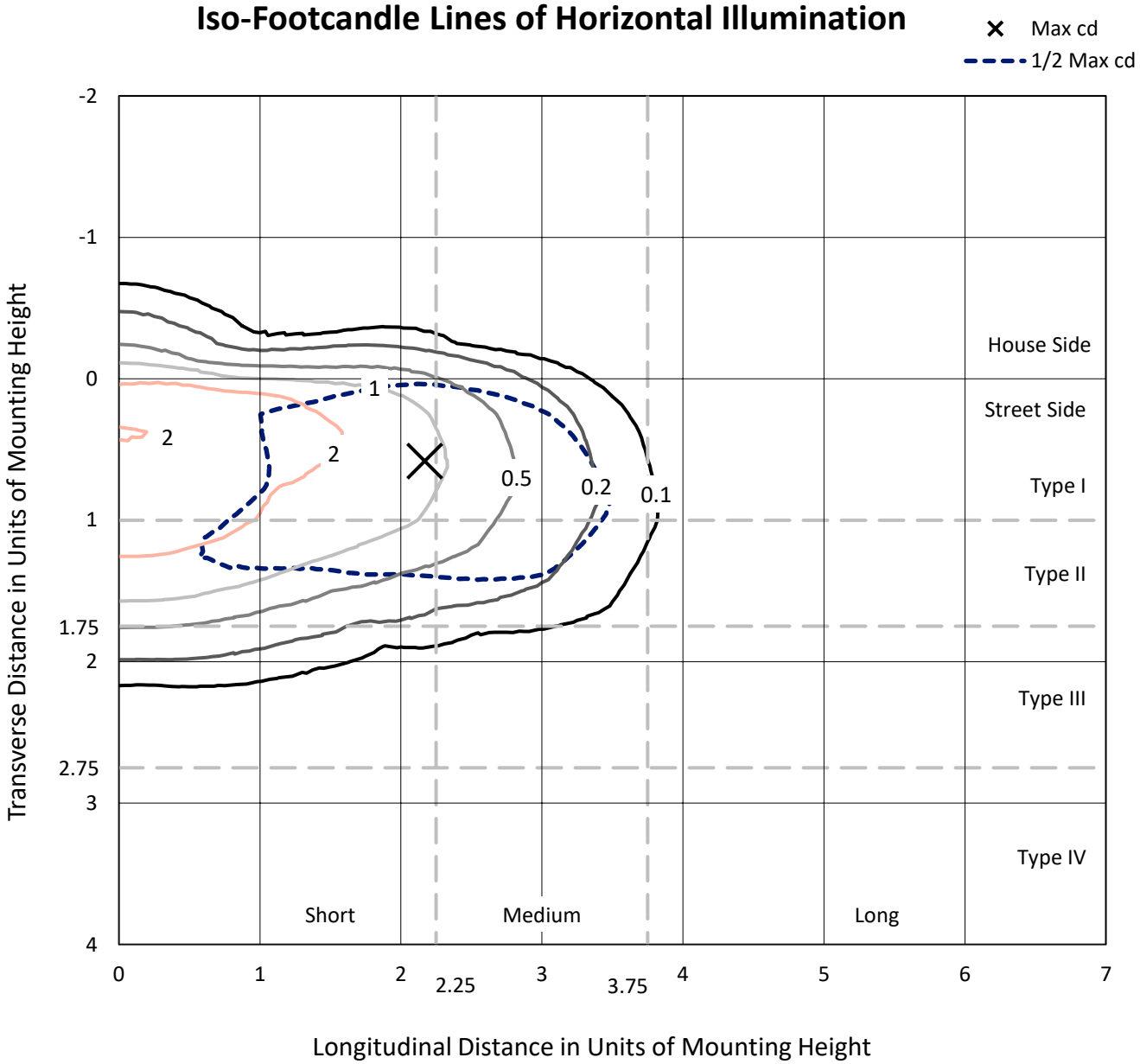
## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 3 fc
Type II - Short - N/A

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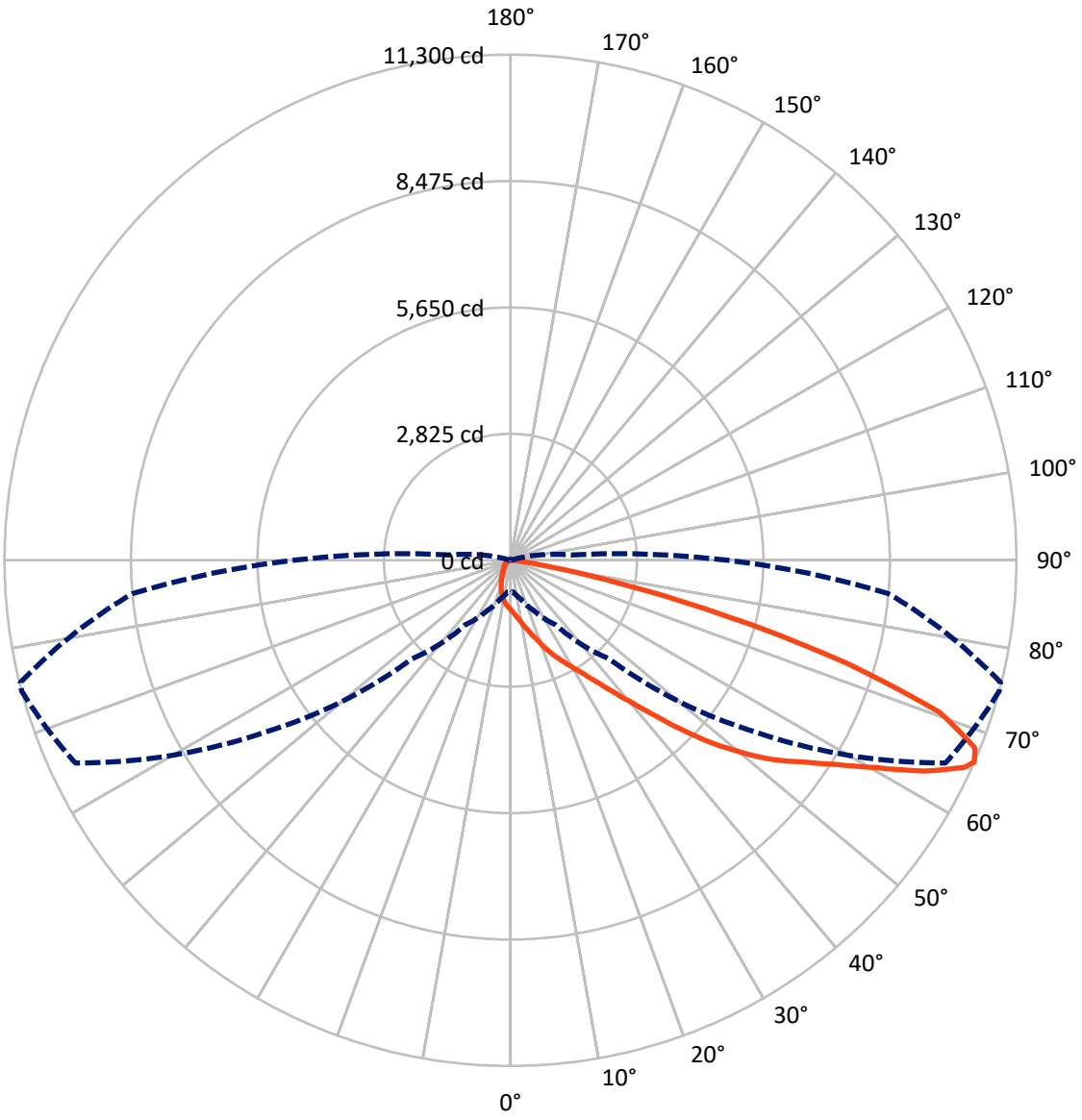
## Luminous Intensity Polar Plot



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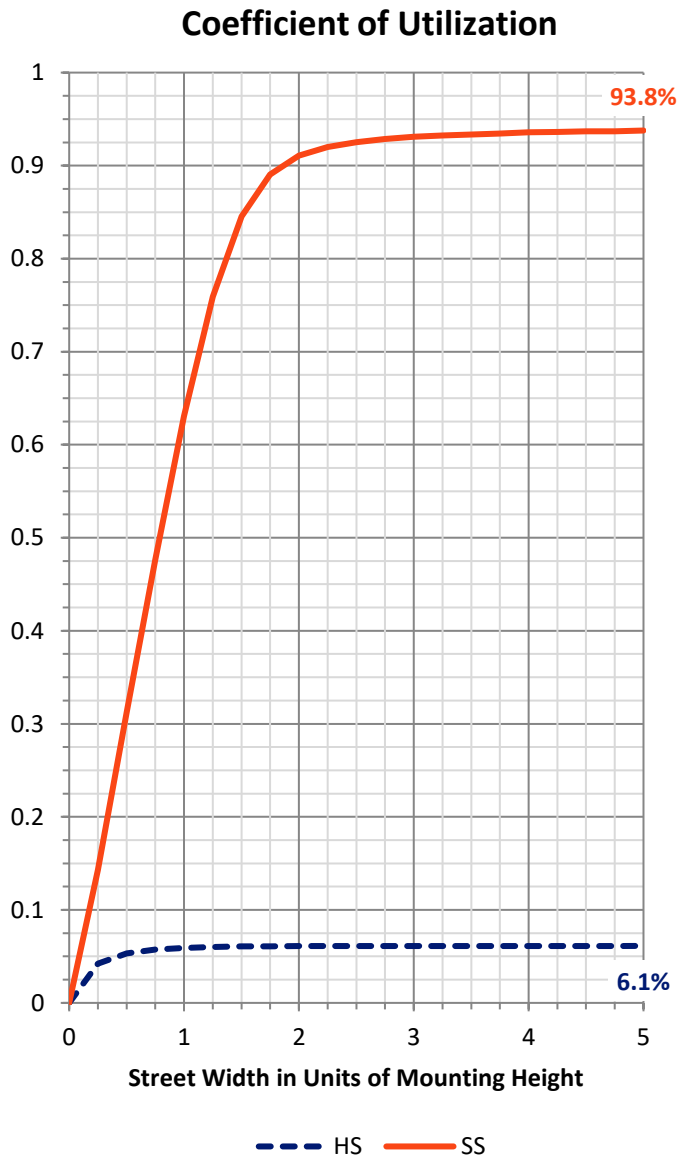
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 623.0 | 0.0 | 623.0 |
| | % Fixture | 6.2 | 0.0 | 6.2 |
| **Street Side** | Lumens | 9468.0 | 0.0 | 9468.0 |
| | % Fixture | 93.8 | 0.0 | 93.8 |
| **Total** | Lumens | 10091.0 | 0.0 | 10091.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 106.4 | 1.1 |
| 10°-20° | 313.3 | 3.1 |
| 20°-30° | 540.9 | 5.4 |
| 30°-40° | 975.7 | 9.7 |
| 40°-50° | 1762.7 | 17.5 |
| 50°-60° | 2748.0 | 27.2 |
| 60°-70° | 2610.5 | 25.9 |
| 70°-80° | 978.3 | 9.7 |
| 80°-90° | 55.2 | 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° | 10091.0 | 100.0 |
| 0°-180° | 10091.0 | 100.0 |



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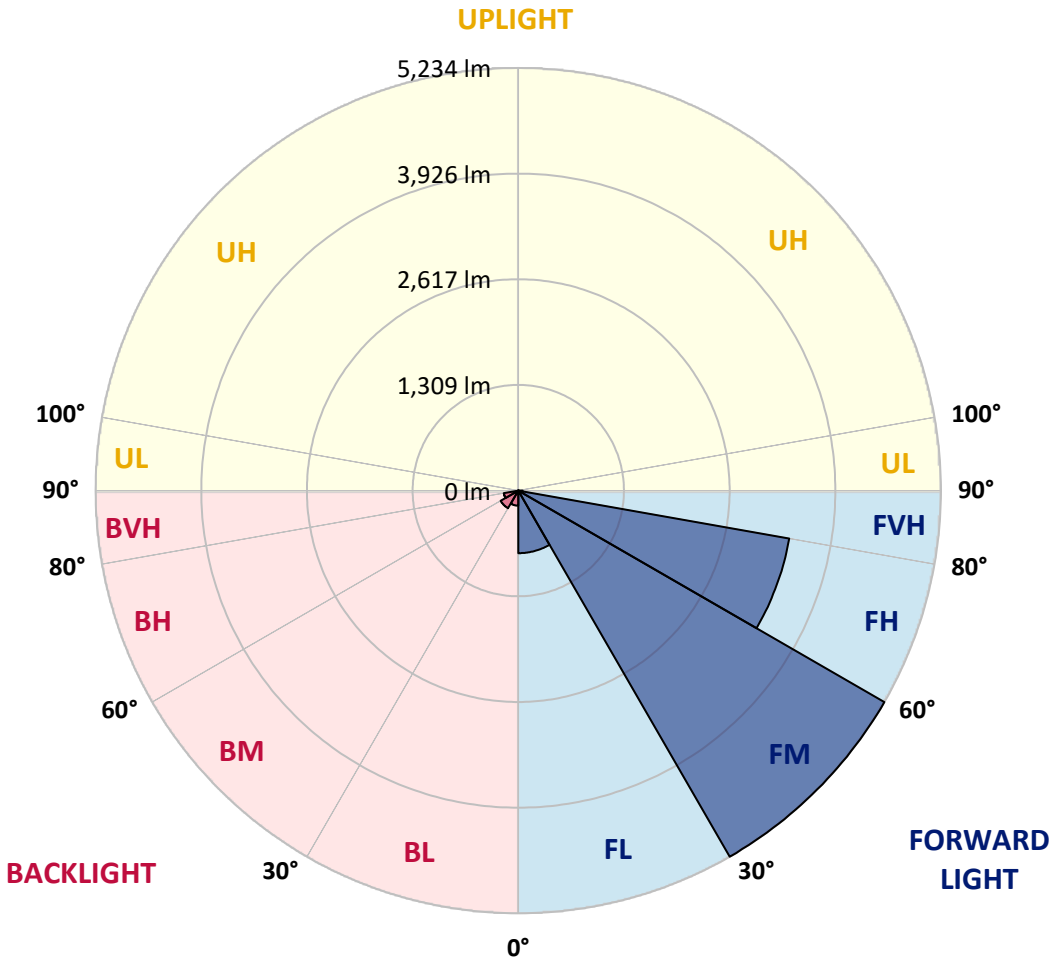
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 774.6 | 7.7 | | | |
| FM | (30°-60°) | 5234.2 | 51.9 | | | |
| FH | (60°-80°) | 3406.9 | 33.8 | | | G2/5000 |
| FVH | (80°-90°) | 52.3 | 0.5 | | | G1/100 |
| BL | (0°-30°) | 186.0 | 1.8 | B1/500 | | |
| BM | (30°-60°) | 252.2 | 2.5 | B1/1000 | | |
| BH | (60°-80°) | 181.9 | 1.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 2.8 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: 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° | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 | *1103.6* | 1103.6 | 1103.6 |
| 2.5° | 1318.4 | 1302.0 | 1307.2 | 1299.8 | 1282.6 | 1257.3 | 1234.9 | 1202.8 | *1170.7* | 1165.5 | 1129.7 |
| 5° | 1492.3 | 1487.8 | 1481.8 | 1460.2 | 1448.3 | 1409.5 | 1363.2 | 1308.0 | *1241.6* | 1229.6 | 1164.7 |
| 7.5° | 1610.9 | 1608.7 | 1611.7 | 1600.5 | 1590.0 | 1555.0 | 1505.7 | 1430.4 | *1327.4* | 1320.7 | 1212.5 |
| 10° | 1649.7 | 1655.7 | 1666.9 | 1684.8 | 1701.2 | 1690.0 | 1652.7 | 1558.7 | *1438.6* | 1419.2 | 1267.0 |
| 12.5° | 1627.3 | 1634.1 | 1660.9 | 1708.7 | 1761.7 | 1792.2 | 1777.3 | 1708.7 | *1556.5* | 1540.8 | 1328.1 |
| 15° | 1569.9 | 1578.1 | 1616.2 | 1690.0 | 1784.8 | 1871.3 | 1908.6 | 1859.4 | *1693.8* | 1668.4 | 1402.0 |
| 17.5° | 1484.8 | 1496.8 | 1551.2 | 1649.0 | 1778.8 | 1928.0 | 2033.2 | 2016.8 | *1840.0* | 1816.1 | 1482.6 |
| 20° | 1420.7 | 1429.6 | 1475.9 | 1587.8 | 1753.4 | 1959.4 | 2151.9 | 2198.1 | *2020.6* | 1979.5 | 1577.4 |
| 22.5° | 1463.2 | 1466.2 | 1481.8 | 1549.0 | 1707.9 | 1967.6 | 2256.3 | 2386.9 | *2212.3* | 2175.8 | 1675.8 |
| 25° | 1671.4 | 1641.5 | 1625.9 | 1610.9 | 1698.2 | 1960.1 | 2351.1 | 2583.9 | *2403.3* | 2364.5 | 1773.6 |
| 27.5° | 1999.7 | 1986.2 | 1907.2 | 1801.2 | 1781.1 | 1969.8 | 2413.8 | 2770.4 | *2583.2* | 2541.4 | 1869.1 |
| 30° | 2357.1 | 2333.9 | 2285.4 | 2130.2 | 1974.3 | 2038.5 | 2459.3 | 2951.8 | *2795.8* | 2740.6 | 1956.4 |
| 32.5° | 2685.4 | 2700.3 | 2627.9 | 2468.3 | 2287.7 | 2184.7 | 2518.2 | 3149.5 | *3039.8* | 2971.2 | 2057.9 |
| 35° | 3068.2 | 3098.0 | 2986.8 | 2833.9 | 2622.7 | 2448.9 | 2633.2 | 3372.6 | *3349.5* | 3262.9 | 2214.6 |
| 37.5° | 3456.9 | 3474.8 | 3406.9 | 3192.0 | 3001.7 | 2784.6 | 2849.5 | 3647.9 | *3730.7* | 3656.9 | 2401.8 |
| 40° | 3783.7 | 3808.3 | 3758.3 | 3567.3 | 3364.4 | 3173.4 | 3163.7 | 3947.9 | *4184.4* | 4108.3 | 2680.9 |
| 42.5° | 4033.7 | 4052.3 | 4053.8 | 3918.8 | 3736.0 | 3649.4 | 3564.3 | 4330.6 | *4753.0* | 4664.9 | 3004.7 |
| 45° | 4349.3 | 4376.1 | 4360.5 | 4268.7 | 4132.2 | 4116.5 | 4072.5 | 4793.2 | *5433.4* | 5322.3 | 3424.8 |
| 47.5° | 4837.3 | 4855.2 | 4816.4 | 4708.2 | 4569.4 | 4594.0 | 4567.9 | 5311.8 | *6127.4* | 6031.8 | 3859.8 |
| 50° | 5176.0 | 5205.9 | 5261.1 | 5304.4 | 5203.6 | 5112.6 | 5035.0 | 5796.1 | *6786.2* | 6700.4 | 4304.5 |
| 52.5° | 5172.3 | 5221.5 | 5396.1 | 5614.0 | 5834.1 | 5806.5 | 5583.4 | 6331.1 | *7415.2* | 7309.3 | 4722.4 |
| 55° | 4823.8 | 4919.3 | 5176.0 | 5562.5 | 6172.1 | 6475.8 | 6374.3 | 6950.4 | *7958.4* | 7886.8 | 5206.6 |
| 57.5° | 4104.6 | 4162.8 | 4519.4 | 5059.6 | 5983.3 | 6790.7 | 7290.6 | 7789.8 | *8609.8* | 8576.2 | 5958.7 |
| 60° | 2760.7 | 2786.9 | 3245.7 | 3913.5 | 5093.9 | 6476.6 | 7962.1 | 8805.3 | *9411.9* | 9395.5 | 6836.9 |
| 62.5° | 1581.8 | 1593.0 | 1925.8 | 2489.1 | 3624.8 | 5488.7 | 8018.8 | 10058.1 | *10373.7* | 10382.6 | 7853.2 |
| 65° | 851.4 | 857.3 | 1125.9 | 1461.0 | 2205.6 | 3912.0 | 7210.8 | 10744.5 | *11151.2* | 11168.3 | 8482.9 |
| 66° | *735.0* | *706.6* | *896.1* | *1245.3* | *1754.9* | *3113.7* | *6699.6* | *10719.9* | *11300.4* | *11281.7* | *8460.6* |
| 67.5° | 558.9 | 584.2 | 715.6 | 957.3 | 1300.5 | 2213.8 | 5531.2 | 10243.1 | *11187.0* | 11128.8 | 8116.6 |
| 70° | 399.9 | 410.4 | 509.6 | 682.7 | 885.7 | 1214.7 | 3534.5 | 8507.6 | *10167.7* | 10089.4 | 7071.2 |
| 72.5° | 258.2 | 269.4 | 361.1 | 493.9 | 640.2 | 663.3 | 1978.8 | 6146.8 | *7839.0* | 7827.8 | 5325.2 |
| 75° | 184.3 | 194.7 | 238.8 | 353.7 | 481.3 | 410.4 | 952.8 | 4142.6 | *4983.5* | 4949.9 | 3294.2 |
| 77.5° | 133.6 | 138.8 | 159.7 | 231.3 | 344.0 | 294.0 | 441.7 | 2212.3 | *2480.9* | 2598.1 | 1455.7 |
| 80° | 76.9 | 81.3 | 111.2 | 141.0 | 232.8 | 200.7 | 211.2 | 887.9 | *915.5* | 871.5 | 455.1 |
| 82.5° | 38.1 | 43.3 | 66.4 | 96.3 | 145.5 | 135.1 | 97.0 | 267.1 | *282.0* | 274.6 | 114.9 |
| 85° | 9.0 | 11.2 | 37.3 | 63.4 | 70.9 | 60.4 | 47.0 | 78.3 | *97.0* | 94.8 | 44.0 |
| 87.5° | 0.7 | 1.5 | 13.4 | 11.2 | 11.9 | 20.1 | 16.4 | 20.1 | *31.3* | 29.1 | 15.7 |
| 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° | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 | 1103.6 |
| 2.5° | 1113.3 | 1099.1 | 1058.0 | 1017.7 | 984.2 | 949.1 | 917.0 | 898.4 | 890.9 | 882.7 | 886.4 |
| 5° | 1128.9 | 1094.6 | 1011.8 | 940.1 | 870.0 | 810.3 | 762.6 | 732.0 | 717.0 | 714.8 | 711.1 |
| 7.5° | 1149.8 | 1090.9 | 962.5 | 850.6 | 758.8 | 692.4 | 638.0 | 593.9 | 580.5 | 568.6 | 558.9 |
| 10° | 1175.2 | 1084.2 | 901.3 | 756.6 | 658.8 | 575.3 | 503.6 | 451.4 | 424.6 | 417.1 | 422.3 |
| 12.5° | 1202.0 | 1071.5 | 837.2 | 670.0 | 557.4 | 450.7 | 384.3 | 358.2 | 350.7 | 347.7 | 348.5 |
| 15° | 1228.9 | 1055.8 | 770.0 | 586.5 | 444.0 | 359.6 | 329.1 | 322.3 | 319.4 | 317.9 | 316.4 |
| 17.5° | 1253.5 | 1030.4 | 694.7 | 505.1 | 359.6 | 307.4 | 296.2 | 290.3 | 284.3 | 282.0 | 278.3 |
| 20° | 1282.6 | 1001.3 | 626.8 | 414.1 | 304.4 | 278.3 | 264.9 | 253.7 | 244.7 | 238.8 | 238.0 |
| 22.5° | 1310.2 | 964.0 | 555.9 | 343.2 | 277.6 | 250.0 | 228.3 | 216.4 | 205.9 | 198.5 | 200.7 |
| 25° | 1325.2 | 918.5 | 492.5 | 299.2 | 252.9 | 221.6 | 197.7 | 182.8 | 171.6 | 167.9 | 167.1 |
| 27.5° | 1325.2 | 862.5 | 430.5 | 273.8 | 230.6 | 196.2 | 171.6 | 157.4 | 150.0 | 144.8 | 145.5 |
| 30° | 1314.7 | 800.6 | 373.1 | 254.4 | 211.2 | 173.9 | 150.7 | 138.0 | 132.1 | 128.3 | 127.6 |
| 32.5° | 1306.5 | 741.7 | 323.8 | 235.8 | 191.0 | 154.5 | 134.3 | 124.6 | 118.6 | 114.9 | 114.9 |
| 35° | 1319.2 | 690.9 | 285.8 | 217.1 | 172.4 | 139.5 | 121.6 | 112.7 | 106.7 | 103.7 | 103.0 |
| 37.5° | 1352.8 | 644.7 | 256.7 | 197.0 | 155.2 | 126.8 | 112.7 | 102.2 | 96.3 | 92.5 | 91.0 |
| 40° | 1435.6 | 618.6 | 235.0 | 178.3 | 138.8 | 116.4 | 102.2 | 92.5 | 85.1 | 81.3 | 80.6 |
| 42.5° | 1568.4 | 619.3 | 214.1 | 161.2 | 126.1 | 107.4 | 93.3 | 82.1 | 73.9 | 70.1 | 69.4 |
| 45° | 1768.4 | 647.7 | 197.7 | 144.8 | 114.9 | 97.7 | 83.6 | 71.6 | 64.2 | 60.4 | 60.4 |
| 47.5° | 2007.9 | 702.9 | 183.6 | 130.6 | 104.5 | 88.8 | 73.9 | 61.9 | 54.5 | 51.5 | 51.5 |
| 50° | 2267.5 | 774.5 | 169.4 | 115.7 | 95.5 | 79.1 | 63.4 | 53.7 | 47.8 | 45.5 | 45.5 |
| 52.5° | 2532.4 | 861.1 | 155.2 | 103.7 | 85.8 | 68.6 | 54.5 | 47.8 | 42.5 | 41.0 | 40.3 |
| 55° | 2880.1 | 971.5 | 140.3 | 91.0 | 75.4 | 58.9 | 48.5 | 41.8 | 35.8 | 33.6 | 32.8 |
| 57.5° | 3415.1 | 1137.9 | 123.9 | 79.8 | 61.9 | 49.2 | 41.8 | 35.1 | 28.4 | 24.6 | 23.9 |
| 60° | 4060.5 | 1340.8 | 106.7 | 70.1 | 50.0 | 40.3 | 33.6 | 26.9 | 20.9 | 16.4 | 15.7 |
| 62.5° | 4664.9 | 1469.9 | 90.3 | 58.9 | 39.5 | 30.6 | 23.9 | 20.1 | 14.9 | 10.4 | 9.7 |
| 65° | 4932.0 | 1426.6 | 74.6 | 47.8 | 31.3 | 21.6 | 15.7 | 14.2 | 9.0 | 4.5 | 3.7 |
| 66° | *4843.2* | *1362.5* | *68.6* | *43.3* | *28.4* | *18.7* | *13.4* | *11.9* | *6.7* | *2.2* | *2.2* |
| 67.5° | 4581.3 | 1211.0 | 59.7 | 37.3 | 24.6 | 14.9 | 10.4 | 9.0 | 3.7 | 0.7 | 0.0 |
| 70° | 3925.5 | 979.7 | 47.0 | 27.6 | 17.9 | 10.4 | 6.0 | 4.5 | 2.2 | 0.0 | 0.0 |
| 72.5° | 3015.2 | 729.7 | 37.3 | 20.9 | 12.7 | 6.0 | 3.0 | 1.5 | 2.2 | 0.0 | 0.0 |
| 75° | 1847.5 | 417.1 | 29.1 | 15.7 | 8.2 | 3.7 | 2.2 | 0.0 | 2.2 | 0.7 | 0.0 |
| 77.5° | 820.0 | 187.3 | 19.4 | 10.4 | 6.0 | 3.0 | 1.5 | 0.0 | 1.5 | 0.7 | 0.0 |
| 80° | 207.4 | 61.2 | 11.2 | 7.5 | 4.5 | 2.2 | 0.7 | 0.0 | 1.5 | 1.5 | 0.7 |
| 82.5° | 56.7 | 22.4 | 8.2 | 6.0 | 3.7 | 2.2 | 0.7 | 0.0 | 1.5 | 1.5 | 1.5 |
| 85° | 22.4 | 10.4 | 7.5 | 6.0 | 4.5 | 2.2 | 0.7 | 0.0 | 1.5 | 1.5 | 1.5 |
| 87.5° | 10.4 | 7.5 | 7.5 | 6.7 | 5.2 | 2.2 | 0.7 | 0.0 | 1.5 | 0.7 | 1.5 |
| 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)