

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: P648448

Luminaire Tested: **GALN-SA5B-835-U-T2R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P648448
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA5B-835-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3500K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17863.4 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

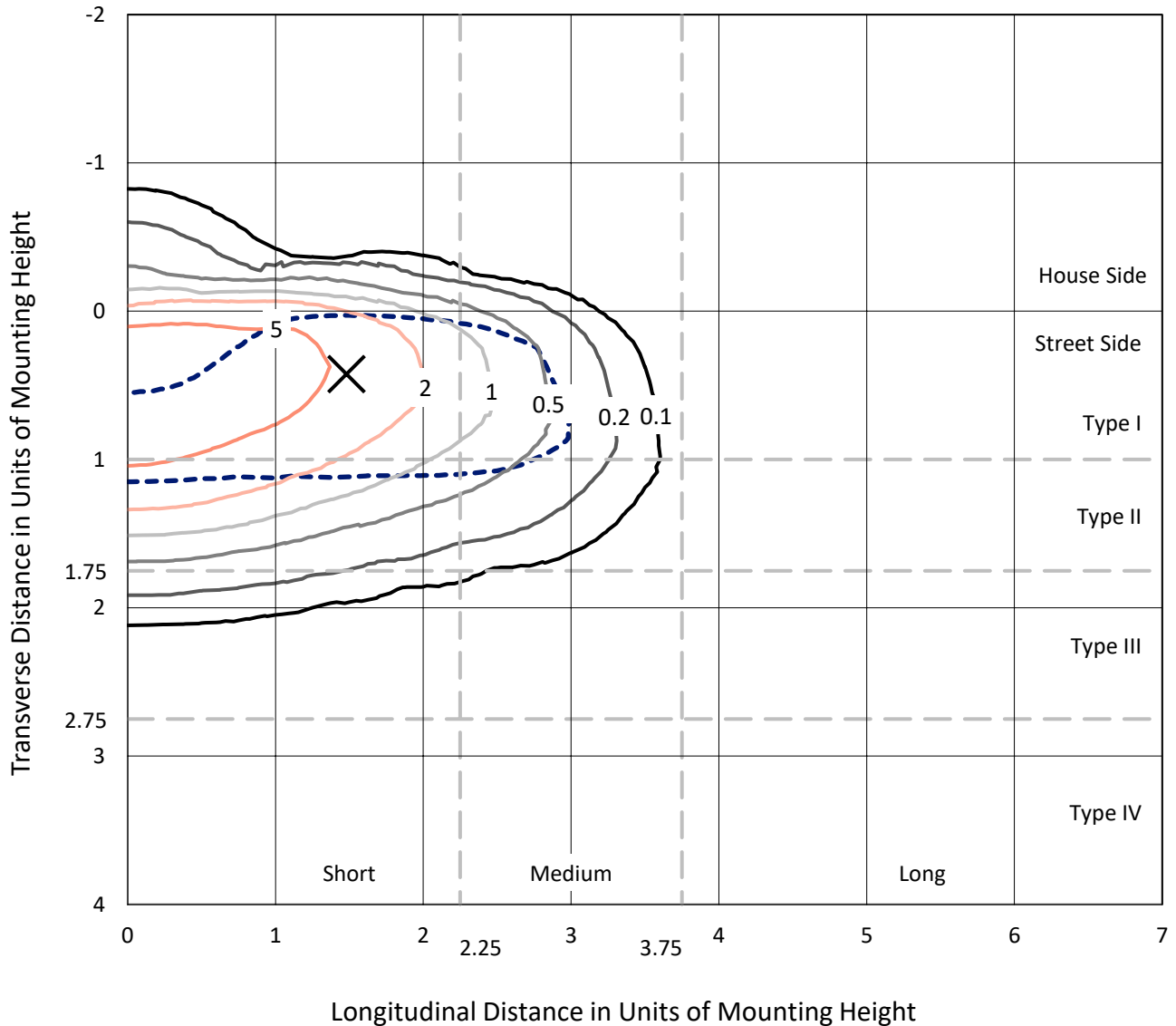
Input Watts (W): 204
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

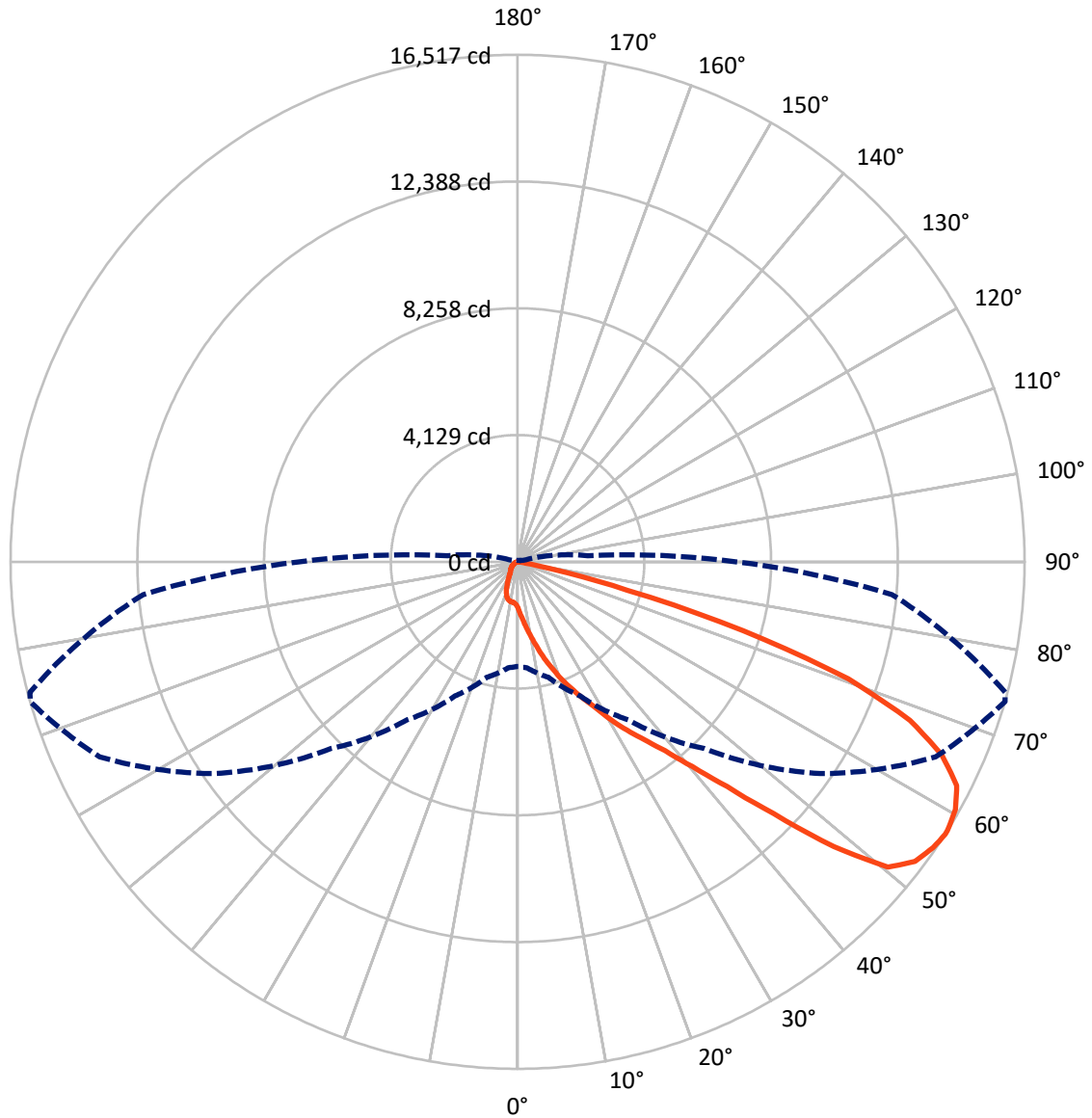
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral - - - Horizontal Cone Through 57-Deg Vertical

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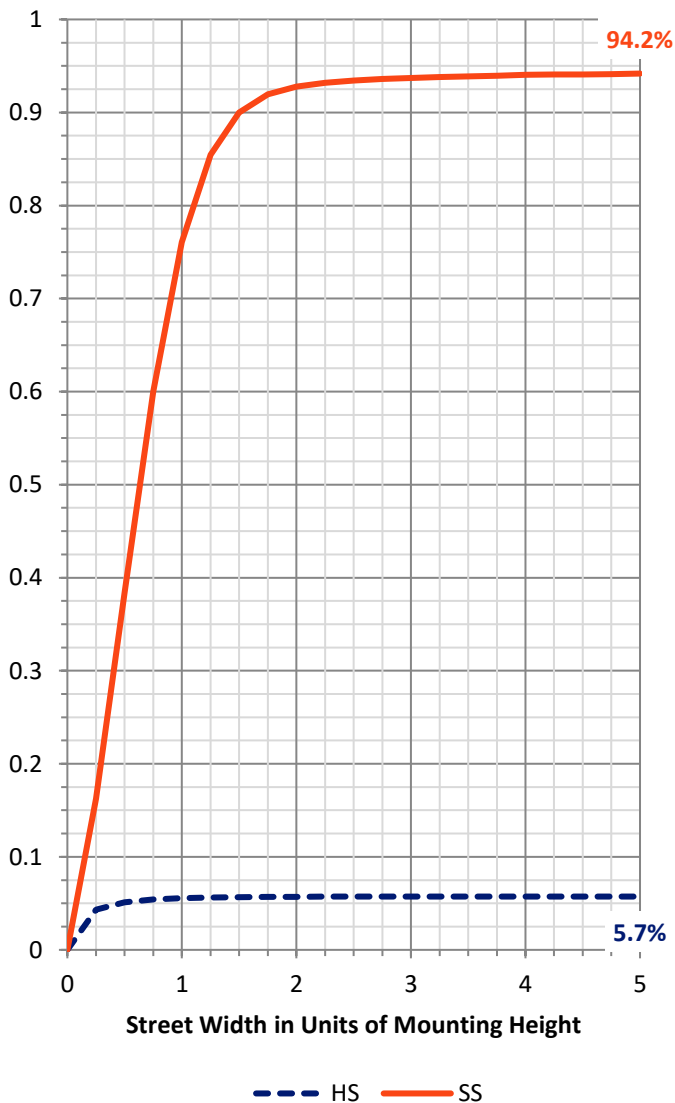
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1030.3 | 0.0 | 1030.3 |
| | % Fixture | 5.8 | 0.0 | 5.8 |
| Street Side | Lumens | 16833.1 | 0.0 | 16833.1 |
| | % Fixture | 94.2 | 0.0 | 94.2 |
| Total | Lumens | 17863.4 | 0.0 | 17863.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 180.6 | 1.0 |
| 10°-20° | 711.8 | 4.0 |
| 20°-30° | 1523.0 | 8.5 |
| 30°-40° | 2799.2 | 15.7 |
| 40°-50° | 4291.2 | 24.0 |
| 50°-60° | 4539.6 | 25.4 |
| 60°-70° | 2964.5 | 16.6 |
| 70°-80° | 810.0 | 4.5 |
| 80°-90° | 43.6 | 0.2 |
| 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° | 17863.4 | 100.0 |
| 0°-180° | 17863.4 | 100.0 |

Coefficient of Utilization

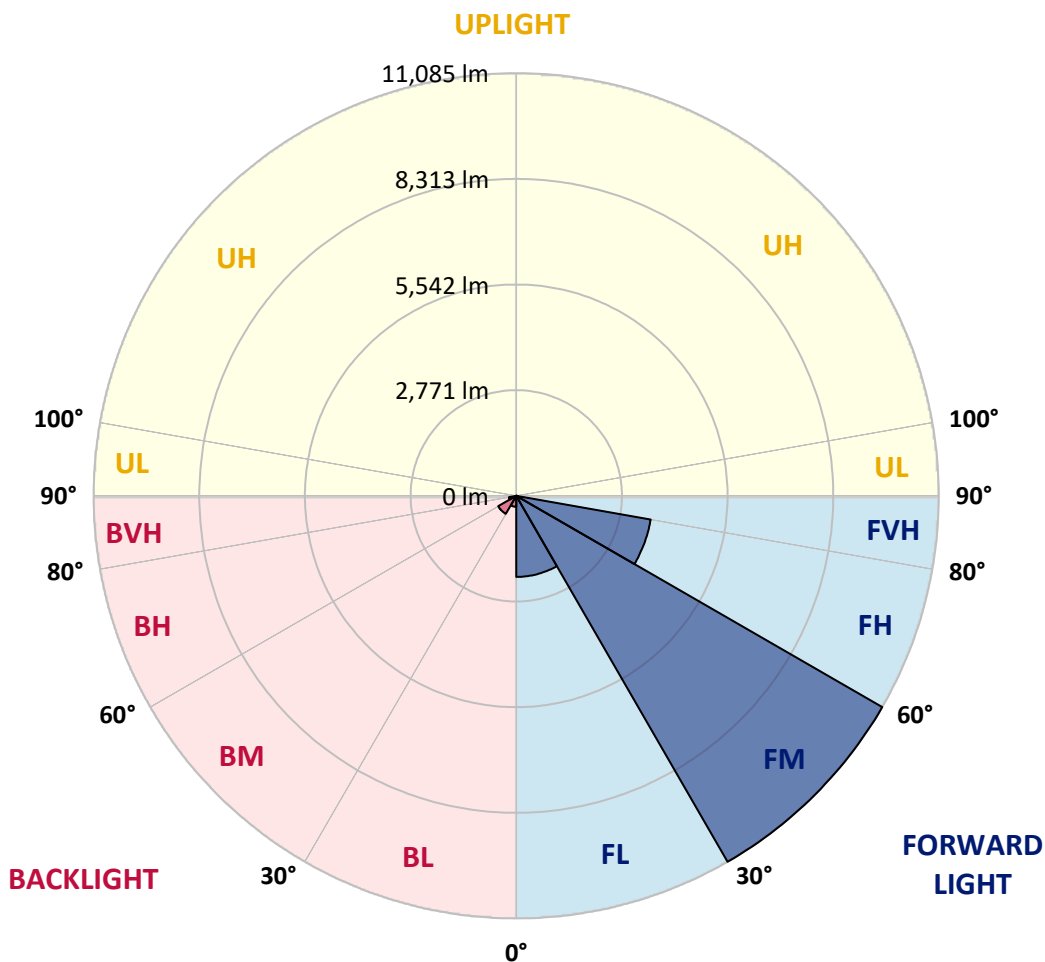


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2127.5 | 11.9 | | | |
| FM (30°-60°) | 11084.5 | 62.1 | | | |
| FH (60°-80°) | 3581.0 | 20.0 | | | G2/5000 |
| FVH (80°-90°) | 40.0 | 0.2 | | | G1/100 |
| BL (0°-30°) | 287.8 | 1.6 | B1/500 | | |
| BM (30°-60°) | 545.5 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 193.4 | 1.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 3.6 | 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° | 74° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 |
| 2.5° | 2189.2 | 2169.5 | 2130.0 | 2116.4 | 2058.4 | 1968.4 | 1889.5 | 1783.4 | 1699.5 | 1690.9 | 1589.8 |
| 5° | 2931.6 | 2887.2 | 2868.8 | 2780.0 | 2640.6 | 2509.8 | 2285.3 | 2115.2 | 1919.1 | 1904.3 | 1700.8 |
| 7.5° | 3647.0 | 3585.3 | 3566.8 | 3482.9 | 3320.2 | 3114.1 | 2823.1 | 2513.5 | 2202.7 | 2174.4 | 1850.0 |
| 10° | 4164.9 | 4173.6 | 4140.3 | 4084.8 | 3952.8 | 3743.1 | 3384.3 | 2961.2 | 2518.4 | 2482.7 | 2017.7 |
| 12.5° | 4536.2 | 4535.0 | 4541.2 | 4539.9 | 4469.6 | 4310.5 | 3933.1 | 3445.9 | 2866.2 | 2795.9 | 2210.1 |
| 15° | 4777.9 | 4781.6 | 4800.1 | 4864.2 | 4871.7 | 4773.0 | 4458.5 | 3909.7 | 3269.6 | 3182.0 | 2418.5 |
| 17.5° | 5022.2 | 5048.0 | 5077.6 | 5138.0 | 5192.3 | 5152.8 | 4930.9 | 4393.1 | 3634.6 | 3569.3 | 2641.8 |
| 20° | 5425.4 | 5461.2 | 5444.0 | 5480.9 | 5509.3 | 5513.0 | 5341.5 | 4839.6 | 4077.4 | 3967.6 | 2897.1 |
| 22.5° | 6070.4 | 6069.3 | 6024.9 | 5958.2 | 5902.7 | 5900.3 | 5744.9 | 5298.4 | 4479.5 | 4373.4 | 3153.6 |
| 25° | 6885.7 | 6889.4 | 6803.1 | 6613.1 | 6475.0 | 6306.0 | 6127.2 | 5700.5 | 4909.9 | 4779.2 | 3423.7 |
| 27.5° | 7820.6 | 7797.1 | 7666.4 | 7404.9 | 7131.1 | 6842.6 | 6584.8 | 6167.9 | 5366.2 | 5257.7 | 3733.3 |
| 30° | 8660.4 | 8651.8 | 8498.9 | 8179.5 | 7819.4 | 7529.5 | 7155.8 | 6753.8 | 5957.0 | 5823.8 | 4079.9 |
| 32.5° | 9442.4 | 9454.7 | 9242.6 | 8912.0 | 8564.3 | 8230.0 | 7835.4 | 7313.7 | 6536.6 | 6347.9 | 4457.2 |
| 35° | 10052.9 | 10065.2 | 9845.7 | 9570.7 | 9213.0 | 8935.5 | 8559.4 | 7910.6 | 7108.9 | 6949.8 | 4891.4 |
| 37.5° | 10378.5 | 10394.6 | 10267.5 | 10060.3 | 9837.1 | 9697.7 | 9347.5 | 8678.9 | 7804.6 | 7708.3 | 5404.5 |
| 40° | 10440.1 | 10458.7 | 10403.2 | 10347.7 | 10335.4 | 10435.2 | 10332.9 | 9584.2 | 8769.0 | 8618.6 | 6169.1 |
| 42.5° | 10255.2 | 10279.9 | 10304.5 | 10427.8 | 10679.4 | 11045.7 | 11402.2 | 10812.6 | 10011.0 | 9808.7 | 7104.0 |
| 45° | 9769.3 | 9766.8 | 9864.2 | 10183.6 | 10747.3 | 11529.2 | 12519.5 | 12350.6 | 11703.1 | 11462.6 | 8424.9 |
| 47.5° | 8937.9 | 8925.7 | 9136.5 | 9591.7 | 10469.7 | 11618.0 | 13431.0 | 14217.9 | 13862.7 | 13640.6 | 9844.5 |
| 50° | 7671.4 | 7731.7 | 8063.6 | 8698.7 | 9780.3 | 11349.1 | 13712.2 | 15442.6 | 15634.9 | 15399.4 | 10991.4 |
| 52.5° | 6187.7 | 6185.2 | 6705.6 | 7567.7 | 8759.1 | 10757.2 | 13516.1 | 15664.5 | 16210.9 | 16030.8 | 11556.3 |
| 55° | 4579.4 | 4611.4 | 5152.8 | 6022.4 | 7433.3 | 9676.7 | 12876.0 | 15436.4 | 16430.5 | 16303.5 | 11928.8 |
| 57° | 3406.4 | 3463.2 | 3897.3 | 4817.4 | 6278.9 | 8607.4 | 12023.7 | 15028.2 | 16516.8 | 16447.7 | 12238.4 |
| 57.5° | 3179.5 | 3182.0 | 3605.0 | 4441.3 | 5940.9 | 8196.8 | 11779.5 | 14858.0 | 16514.3 | 16476.1 | 12289.0 |
| 60° | 1957.3 | 2019.0 | 2311.3 | 3001.9 | 4348.7 | 6397.3 | 10142.9 | 13879.9 | 16386.1 | 16441.6 | 12504.7 |
| 62.5° | 1171.7 | 1197.6 | 1387.5 | 1809.3 | 2803.4 | 4669.4 | 8300.3 | 12628.1 | 16051.8 | 16220.8 | 12489.9 |
| 65° | 753.6 | 759.7 | 846.0 | 1095.2 | 1752.6 | 3156.1 | 6396.1 | 10974.2 | 15187.3 | 15498.1 | 12001.6 |
| 67.5° | 582.2 | 592.0 | 626.6 | 719.0 | 1016.3 | 1966.0 | 4523.9 | 9209.3 | 13788.6 | 14189.5 | 10817.5 |
| 70° | 516.8 | 521.7 | 534.0 | 563.6 | 672.2 | 1110.0 | 2814.5 | 7194.0 | 11434.2 | 11547.7 | 8465.6 |
| 72.5° | 421.8 | 435.3 | 473.6 | 483.5 | 532.8 | 693.1 | 1566.3 | 4828.5 | 7682.4 | 7710.8 | 4736.0 |
| 75° | 326.8 | 329.3 | 386.0 | 414.4 | 449.0 | 477.3 | 699.3 | 2434.6 | 3690.1 | 3492.8 | 1825.3 |
| 77.5° | 244.2 | 255.3 | 281.2 | 317.0 | 366.3 | 341.6 | 313.3 | 917.6 | 1145.8 | 1124.8 | 530.3 |
| 80° | 156.6 | 162.8 | 196.1 | 238.0 | 284.9 | 223.2 | 176.3 | 268.9 | 251.6 | 259.0 | 127.0 |
| 82.5° | 78.9 | 80.2 | 125.8 | 193.6 | 181.3 | 112.2 | 111.0 | 109.8 | 93.7 | 92.5 | 59.2 |
| 85° | 8.6 | 18.5 | 81.4 | 111.0 | 81.4 | 37.0 | 51.8 | 50.6 | 49.3 | 50.6 | 34.5 |
| 87.5° | 1.3 | 1.3 | 13.5 | 16.1 | 11.1 | 12.4 | 14.8 | 16.1 | 19.7 | 18.5 | 14.8 |
| 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° | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 | 1496.0 |
| 2.5° | 1540.4 | 1491.1 | 1399.8 | 1312.2 | 1246.9 | 1205.0 | 1150.7 | 1131.0 | 1102.6 | 1098.9 | 1085.3 |
| 5° | 1607.0 | 1513.3 | 1354.2 | 1228.4 | 1127.3 | 1050.8 | 984.2 | 928.7 | 884.3 | 874.5 | 879.4 |
| 7.5° | 1702.0 | 1562.6 | 1340.7 | 1169.2 | 1028.6 | 897.9 | 791.8 | 726.5 | 679.6 | 662.3 | 664.8 |
| 10° | 1809.3 | 1628.0 | 1338.1 | 1106.3 | 891.7 | 731.4 | 615.4 | 557.5 | 530.3 | 520.5 | 509.3 |
| 12.5° | 1936.4 | 1703.3 | 1332.0 | 1008.9 | 741.3 | 583.3 | 500.7 | 466.2 | 440.3 | 432.9 | 432.9 |
| 15° | 2079.4 | 1783.4 | 1302.4 | 888.0 | 601.9 | 482.2 | 426.7 | 399.6 | 391.0 | 383.6 | 383.6 |
| 17.5° | 2228.7 | 1862.4 | 1240.7 | 738.8 | 499.5 | 413.2 | 378.7 | 362.6 | 350.2 | 341.6 | 341.6 |
| 20° | 2398.8 | 1940.0 | 1142.1 | 606.8 | 421.8 | 368.8 | 341.6 | 323.1 | 313.3 | 305.8 | 303.4 |
| 22.5° | 2560.4 | 2002.9 | 1016.3 | 498.3 | 367.5 | 331.8 | 307.1 | 287.4 | 277.5 | 273.8 | 273.8 |
| 25° | 2728.1 | 2041.2 | 864.6 | 411.9 | 335.4 | 300.9 | 273.8 | 257.8 | 249.2 | 246.6 | 245.5 |
| 27.5° | 2890.9 | 2063.4 | 731.4 | 360.1 | 305.8 | 272.6 | 246.6 | 234.4 | 225.7 | 223.2 | 224.5 |
| 30° | 3088.2 | 2067.0 | 601.9 | 323.1 | 280.0 | 245.5 | 222.0 | 210.9 | 205.9 | 203.5 | 202.2 |
| 32.5° | 3288.1 | 2062.1 | 505.7 | 300.9 | 255.3 | 222.0 | 202.2 | 193.6 | 190.0 | 186.2 | 186.2 |
| 35° | 3512.5 | 2036.3 | 430.4 | 278.7 | 231.8 | 202.2 | 185.0 | 177.6 | 172.7 | 169.0 | 167.7 |
| 37.5° | 3791.3 | 2022.6 | 387.3 | 254.1 | 210.9 | 183.8 | 167.7 | 160.4 | 156.6 | 151.7 | 150.5 |
| 40° | 4230.3 | 2083.1 | 373.7 | 231.8 | 190.0 | 166.5 | 151.7 | 143.1 | 138.1 | 133.2 | 131.9 |
| 42.5° | 4777.9 | 2189.2 | 351.5 | 209.7 | 171.4 | 150.5 | 135.7 | 125.8 | 117.1 | 111.0 | 108.5 |
| 45° | 5487.1 | 2328.6 | 317.0 | 186.2 | 155.4 | 133.2 | 119.6 | 107.3 | 96.2 | 91.3 | 90.0 |
| 47.5° | 6230.8 | 2463.0 | 286.1 | 167.7 | 138.1 | 118.4 | 103.6 | 90.0 | 80.2 | 76.5 | 75.2 |
| 50° | 6687.1 | 2490.1 | 266.4 | 146.7 | 120.9 | 102.3 | 87.5 | 75.2 | 69.1 | 65.4 | 65.4 |
| 52.5° | 6895.6 | 2447.0 | 239.3 | 128.3 | 104.8 | 90.0 | 75.2 | 65.4 | 61.7 | 59.2 | 57.9 |
| 55° | 7041.1 | 2380.3 | 203.5 | 111.0 | 90.0 | 76.5 | 66.6 | 59.2 | 54.3 | 51.8 | 50.6 |
| 57° | 7126.2 | 2290.3 | 176.3 | 97.4 | 77.7 | 66.6 | 59.2 | 53.0 | 48.1 | 43.1 | 43.1 |
| 57.5° | 7129.9 | 2255.7 | 169.0 | 96.2 | 74.0 | 64.1 | 57.9 | 51.8 | 45.6 | 40.7 | 39.5 |
| 60° | 7020.1 | 2019.0 | 135.7 | 81.4 | 59.2 | 54.3 | 48.1 | 40.7 | 32.1 | 27.2 | 25.9 |
| 62.5° | 6667.4 | 1718.1 | 112.2 | 69.1 | 48.1 | 42.0 | 34.5 | 30.9 | 22.2 | 16.1 | 16.1 |
| 65° | 6133.4 | 1393.7 | 96.2 | 55.5 | 39.5 | 30.9 | 23.4 | 22.2 | 13.5 | 7.4 | 6.2 |
| 67.5° | 5361.3 | 1085.3 | 81.4 | 45.6 | 33.3 | 22.2 | 16.1 | 14.8 | 7.4 | 2.5 | 0.0 |
| 70° | 4084.8 | 740.0 | 67.8 | 37.0 | 24.7 | 16.1 | 11.1 | 8.6 | 4.9 | 1.3 | 0.0 |
| 72.5° | 2354.4 | 407.0 | 56.8 | 28.3 | 18.5 | 12.4 | 8.6 | 4.9 | 4.9 | 0.0 | 0.0 |
| 75° | 841.1 | 175.2 | 43.1 | 21.0 | 14.8 | 9.9 | 6.2 | 2.5 | 3.7 | 1.3 | 0.0 |
| 77.5° | 267.6 | 93.7 | 28.3 | 16.1 | 12.4 | 7.4 | 4.9 | 2.5 | 2.5 | 1.3 | 0.0 |
| 80° | 78.9 | 49.3 | 17.3 | 13.5 | 8.6 | 6.2 | 3.7 | 1.3 | 2.5 | 1.3 | 0.0 |
| 82.5° | 43.1 | 24.7 | 13.5 | 9.9 | 8.6 | 4.9 | 3.7 | 1.3 | 1.3 | 1.3 | 0.0 |
| 85° | 22.2 | 14.8 | 11.1 | 9.9 | 8.6 | 4.9 | 3.7 | 1.3 | 0.0 | 1.3 | 1.3 |
| 87.5° | 12.4 | 11.1 | 11.1 | 9.9 | 8.6 | 6.2 | 3.7 | 1.3 | 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)