

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: P321412

Luminaire Tested: **GLEON-SA8C-827-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321412
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA8C-827-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(8) 80 CRI, 2700K, 1050mA 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: 33636 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G4

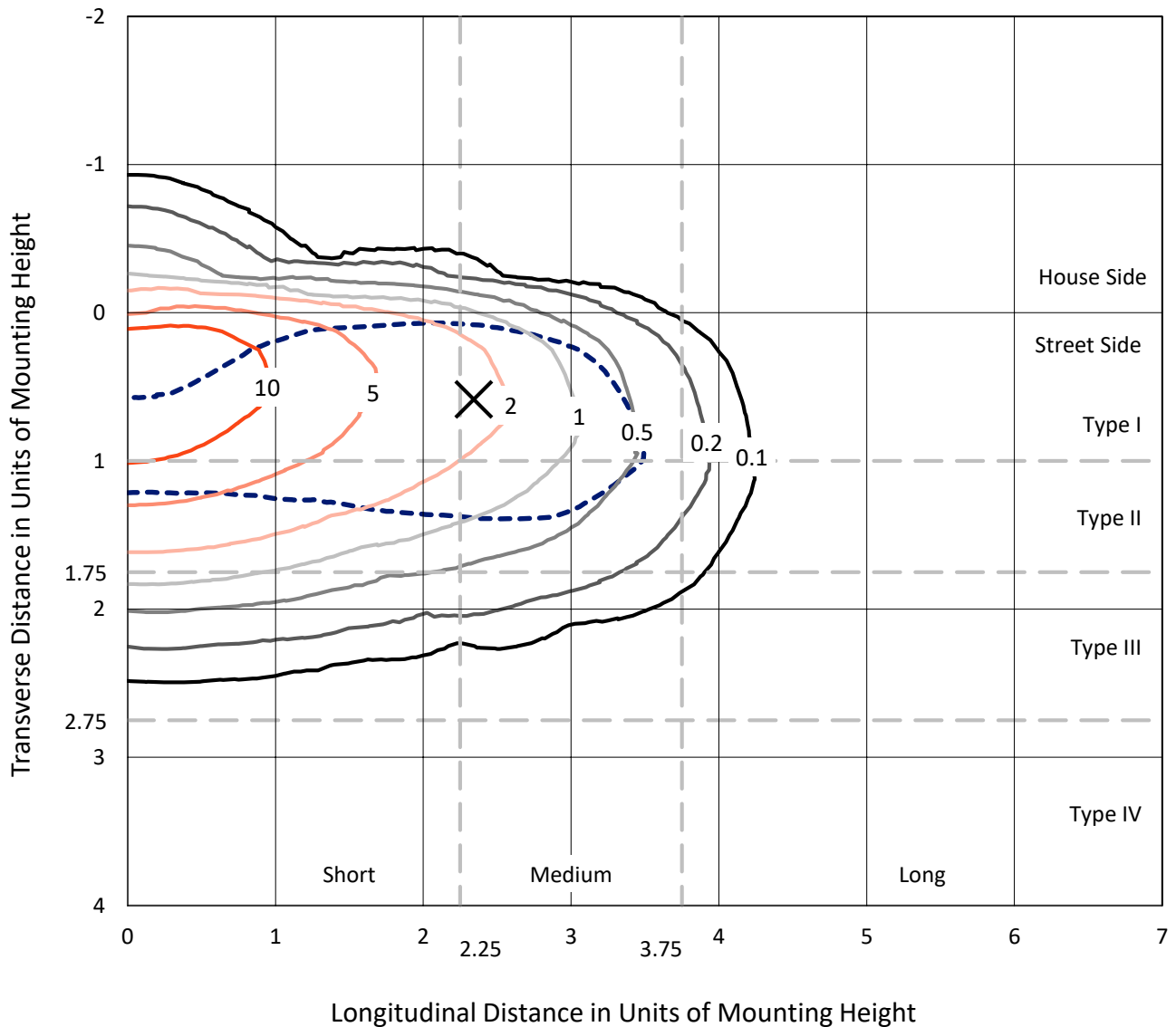
Input Watts (W): 445
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

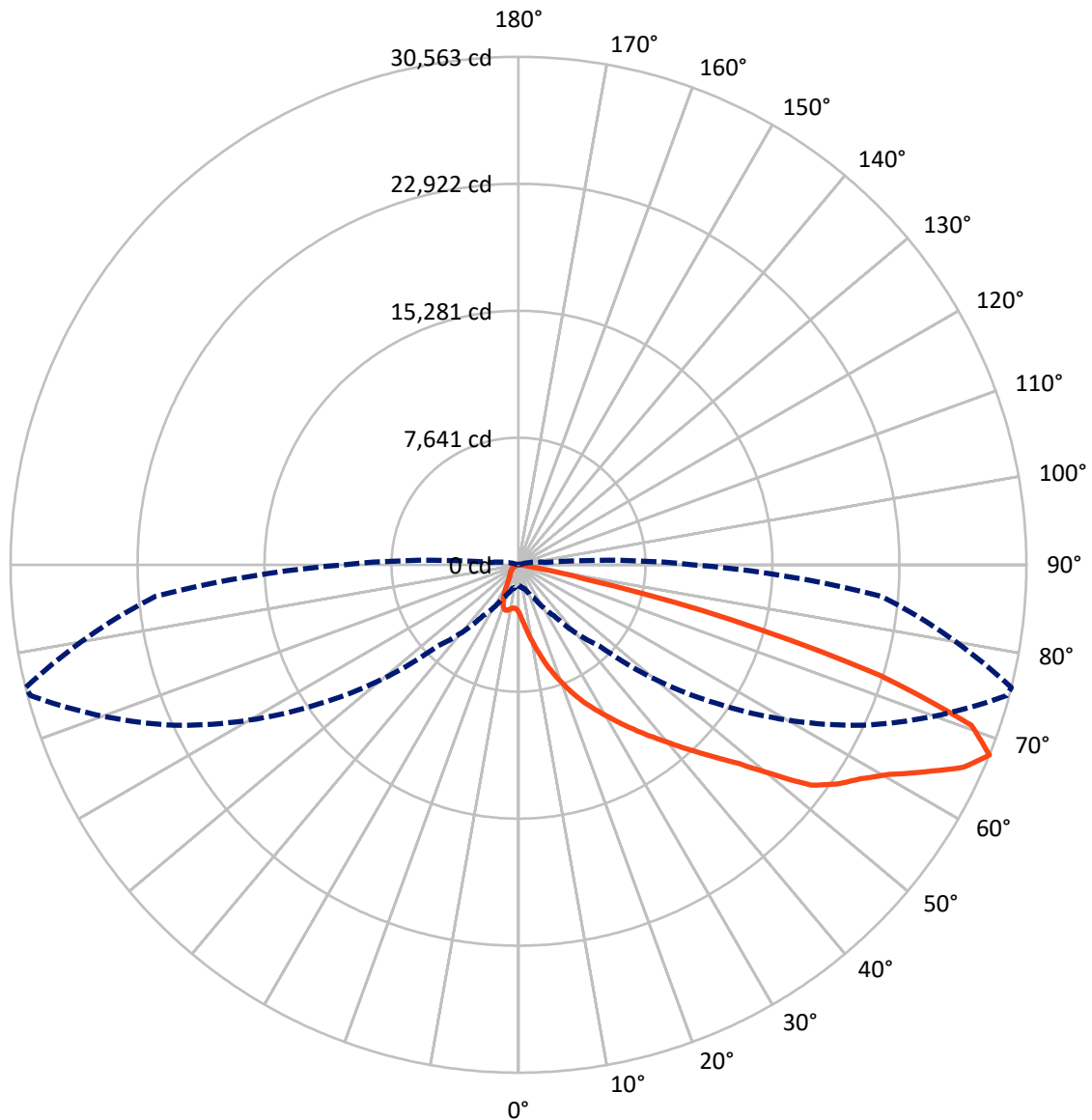
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.1 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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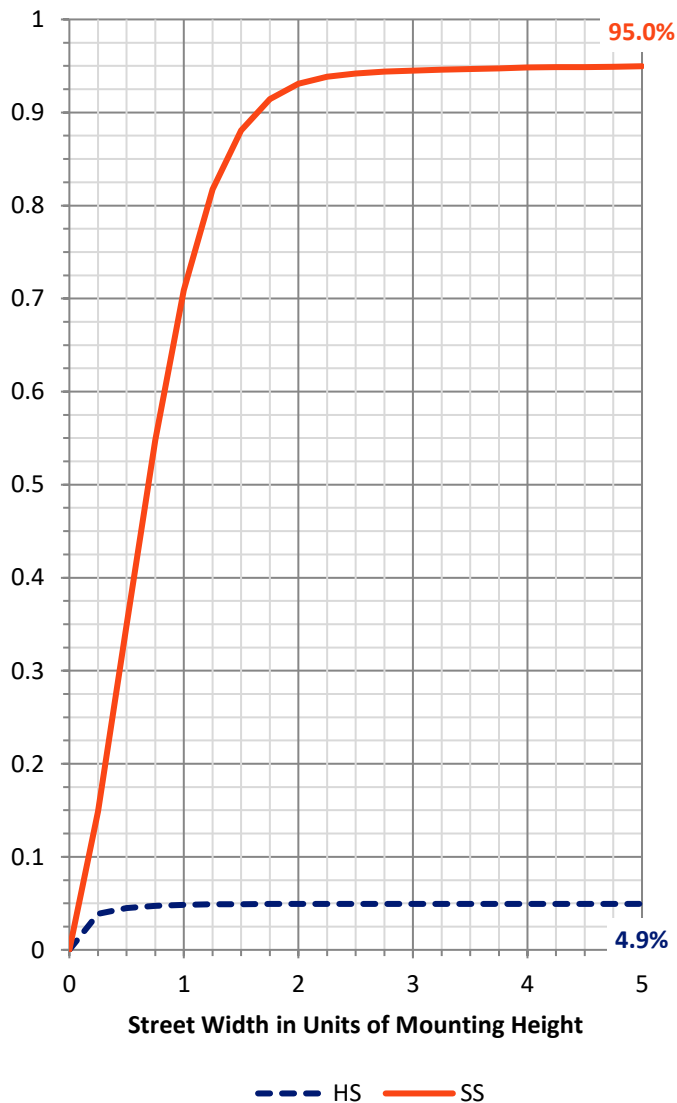
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1670.3 | 0.0 | 1670.3 |
| | % Fixture | 5.0 | 0.0 | 5.0 |
| Street Side | Lumens | 31965.7 | 0.0 | 31965.7 |
| | % Fixture | 95.0 | 0.0 | 95.0 |
| Total | Lumens | 33636.0 | 0.0 | 33636.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 354.8 | 1.1 |
| 10°-20° | 1406.5 | 4.2 |
| 20°-30° | 2861.8 | 8.5 |
| 30°-40° | 4967.1 | 14.8 |
| 40°-50° | 7017.8 | 20.9 |
| 50°-60° | 7958.6 | 23.7 |
| 60°-70° | 6600.9 | 19.6 |
| 70°-80° | 2391.0 | 7.1 |
| 80°-90° | 77.5 | 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° | 33636.0 | 100.0 |
| 0°-180° | 33636.0 | 100.0 |

Coefficient of Utilization

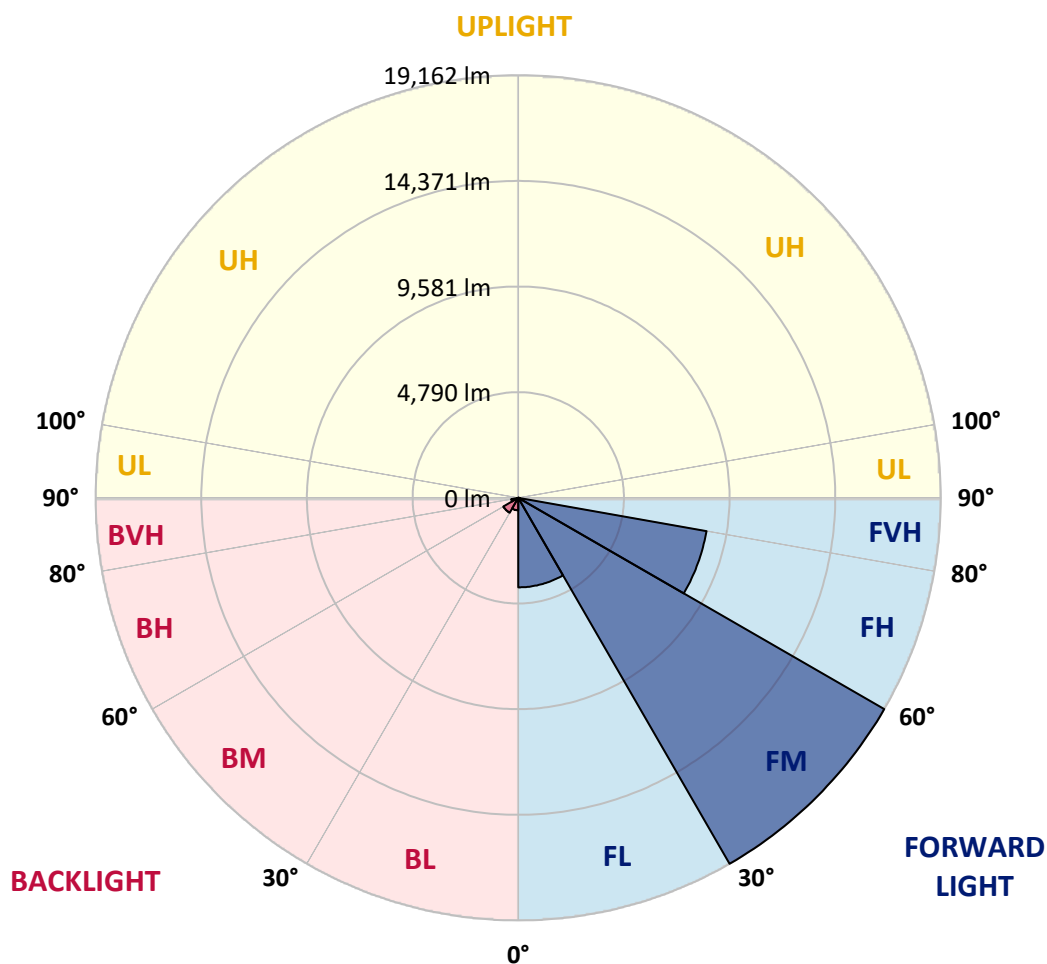


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 4059.8 | 12.1 | | | |
| FM (30°-60°) | 19161.7 | 57.0 | | | |
| FH (60°-80°) | 8669.1 | 25.8 | | | G4/12000 |
| FVH (80°-90°) | 75.1 | 0.2 | | | G1/100 |
| BL (0°-30°) | 563.3 | 1.7 | B2/1000 | | |
| BM (30°-60°) | 781.7 | 2.3 | B1/1000 | | |
| BH (60°-80°) | 322.8 | 1.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.4 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 |
| 2.5° | 4259.3 | 4163.5 | 4185.6 | 4123.7 | 4011.7 | 3781.8 | 3585.8 | 3400.1 | 3183.4 | 3176.1 | 2997.7 |
| 5° | 5743.5 | 5662.4 | 5652.1 | 5526.8 | 5323.4 | 4932.9 | 4552.6 | 4119.3 | 3635.9 | 3600.5 | 3221.8 |
| 7.5° | 7090.5 | 7025.7 | 7002.1 | 6853.2 | 6474.5 | 6094.2 | 5599.0 | 4962.3 | 4206.3 | 4141.4 | 3523.9 |
| 10° | 8125.1 | 8094.2 | 8100.1 | 7994.0 | 7669.7 | 7316.0 | 6666.1 | 5854.0 | 4853.3 | 4753.1 | 3886.5 |
| 12.5° | 8909.2 | 8916.6 | 8969.6 | 8904.8 | 8723.5 | 8461.2 | 7767.0 | 6804.6 | 5569.5 | 5432.5 | 4300.6 |
| 15° | 9485.5 | 9522.3 | 9619.6 | 9700.7 | 9687.4 | 9460.4 | 8823.7 | 7770.0 | 6330.0 | 6178.2 | 4761.9 |
| 17.5° | 9858.4 | 9899.6 | 10041.1 | 10220.9 | 10386.0 | 10332.9 | 9843.6 | 8701.4 | 7099.4 | 6924.0 | 5255.6 |
| 20° | 10185.5 | 10234.2 | 10386.0 | 10623.3 | 10931.3 | 10997.6 | 10676.3 | 9604.9 | 7867.2 | 7653.5 | 5765.6 |
| 22.5° | 10894.4 | 10893.0 | 10985.8 | 11124.4 | 11417.6 | 11588.6 | 11385.2 | 10443.5 | 8626.2 | 8403.7 | 6285.8 |
| 25° | 12176.7 | 12128.0 | 12095.6 | 11986.5 | 12051.4 | 12157.5 | 12044.0 | 11227.5 | 9389.7 | 9164.2 | 6813.4 |
| 27.5° | 13700.6 | 13730.1 | 13467.7 | 13174.4 | 12947.5 | 12838.4 | 12652.7 | 11954.1 | 10123.6 | 9876.0 | 7329.3 |
| 30° | 15308.5 | 15317.4 | 15007.9 | 14633.5 | 14133.9 | 13719.7 | 13398.5 | 12648.3 | 10878.2 | 10608.5 | 7830.4 |
| 32.5° | 16758.8 | 16701.3 | 16394.7 | 15884.8 | 15254.0 | 14788.3 | 14120.6 | 13423.5 | 11677.0 | 11416.2 | 8387.5 |
| 35° | 17908.3 | 17840.5 | 17467.7 | 17003.4 | 16349.0 | 15880.4 | 15077.1 | 14197.3 | 12517.1 | 12262.1 | 8946.1 |
| 37.5° | 18748.4 | 18668.8 | 18285.6 | 17808.1 | 17243.6 | 16971.0 | 16186.9 | 15038.8 | 13433.8 | 13159.7 | 9534.1 |
| 40° | 19040.2 | 18971.0 | 18730.7 | 18381.4 | 17927.5 | 17865.6 | 17364.5 | 16007.1 | 14431.6 | 14139.8 | 10200.3 |
| 42.5° | 18866.3 | 18798.5 | 18713.0 | 18595.1 | 18406.5 | 18465.4 | 18475.8 | 17111.0 | 15539.9 | 15252.5 | 10935.7 |
| 45° | 18176.6 | 18116.1 | 18204.6 | 18377.0 | 18611.3 | 18903.2 | 19489.7 | 18297.4 | 16777.9 | 16471.4 | 11786.1 |
| 47.5° | 17161.1 | 17116.9 | 17361.5 | 17791.9 | 18477.2 | 19281.9 | 20416.8 | 19544.3 | 18167.7 | 17883.3 | 12847.3 |
| 50° | 15716.8 | 15709.4 | 16198.7 | 16984.3 | 18038.0 | 19464.7 | 21374.7 | 20962.1 | 20098.4 | 19799.2 | 14322.5 |
| 52.5° | 13467.7 | 13482.5 | 14444.9 | 15702.0 | 17267.2 | 19340.9 | 21990.8 | 22783.7 | 22344.5 | 22033.5 | 15600.3 |
| 55° | 11326.3 | 11414.7 | 12097.1 | 13909.9 | 16085.2 | 18881.1 | 22203.0 | 23634.1 | 23584.0 | 23289.2 | 16310.7 |
| 57.5° | 9229.0 | 9389.7 | 10047.0 | 11740.4 | 14359.4 | 17821.4 | 22086.6 | 24002.6 | 24506.6 | 24281.1 | 17248.1 |
| 60° | 6956.4 | 7030.1 | 7787.6 | 9370.5 | 12144.2 | 15887.7 | 21242.1 | 24203.0 | 25768.2 | 25612.0 | 18608.4 |
| 62.5° | 4425.9 | 4610.1 | 5282.2 | 6809.0 | 9456.0 | 13202.4 | 19818.4 | 24200.1 | 27346.6 | 27432.1 | 20363.7 |
| 65° | 2331.6 | 2546.8 | 2903.4 | 4219.5 | 6498.1 | 10203.2 | 17676.9 | 23973.1 | 29283.2 | 29402.6 | 21735.8 |
| 67.5° | 1257.2 | 1319.1 | 1507.7 | 2190.1 | 3768.5 | 6912.2 | 14530.3 | 22853.0 | 30404.8 | 30562.5 | 21927.4 |
| 70° | 919.7 | 953.6 | 1024.3 | 1211.5 | 1896.8 | 4014.7 | 10602.6 | 20313.6 | 28959.0 | 28900.0 | 19482.4 |
| 72.5° | 706.0 | 759.0 | 812.1 | 887.2 | 1090.6 | 2142.9 | 6601.2 | 15906.9 | 23106.5 | 22717.4 | 14562.8 |
| 75° | 557.1 | 565.9 | 641.1 | 708.9 | 818.0 | 1220.3 | 2931.4 | 9264.4 | 14102.9 | 13181.8 | 7551.8 |
| 77.5° | 445.1 | 451.0 | 495.2 | 554.2 | 657.3 | 801.8 | 907.9 | 3644.7 | 4502.5 | 4017.6 | 1638.9 |
| 80° | 263.8 | 278.6 | 368.5 | 427.4 | 545.3 | 505.5 | 331.6 | 791.4 | 703.0 | 636.7 | 275.6 |
| 82.5° | 147.4 | 159.2 | 207.8 | 337.5 | 380.2 | 241.7 | 165.1 | 213.7 | 165.1 | 160.6 | 78.1 |
| 85° | 0.0 | 7.4 | 134.1 | 209.3 | 154.8 | 53.1 | 69.3 | 70.7 | 48.6 | 45.7 | 31.0 |
| 87.5° | 0.0 | 0.0 | 41.3 | 39.8 | 5.9 | 8.8 | 16.2 | 23.6 | 19.2 | 19.2 | 16.2 |
| 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° | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 | 2853.3 |
| 2.5° | 2909.3 | 2829.7 | 2679.4 | 2532.0 | 2408.2 | 2306.5 | 2215.1 | 2178.3 | 2148.8 | 2144.4 | 2120.8 |
| 5° | 3039.0 | 2878.4 | 2591.0 | 2355.2 | 2197.5 | 2085.4 | 1989.7 | 1930.7 | 1885.0 | 1867.3 | 1851.1 |
| 7.5° | 3235.0 | 2991.8 | 2579.2 | 2308.0 | 2119.3 | 1930.7 | 1753.8 | 1562.2 | 1442.9 | 1397.2 | 1370.6 |
| 10° | 3473.8 | 3142.2 | 2623.4 | 2294.7 | 1964.6 | 1566.7 | 1273.4 | 1030.2 | 931.5 | 899.0 | 890.2 |
| 12.5° | 3752.3 | 3329.3 | 2700.0 | 2212.2 | 1634.5 | 1112.7 | 878.4 | 795.9 | 773.8 | 763.4 | 763.4 |
| 15° | 4072.2 | 3534.2 | 2754.6 | 1973.4 | 1208.5 | 841.5 | 760.5 | 722.2 | 698.6 | 685.3 | 686.8 |
| 17.5° | 4399.3 | 3734.6 | 2728.0 | 1627.1 | 891.7 | 748.7 | 688.3 | 647.0 | 614.6 | 601.3 | 598.4 |
| 20° | 4729.5 | 3920.3 | 2580.7 | 1211.5 | 754.6 | 679.4 | 611.6 | 565.9 | 533.5 | 520.3 | 517.3 |
| 22.5° | 5071.4 | 4078.0 | 2321.3 | 888.7 | 678.0 | 602.8 | 536.5 | 490.8 | 459.8 | 448.0 | 442.1 |
| 25° | 5404.5 | 4206.3 | 1958.7 | 719.2 | 605.7 | 530.6 | 467.2 | 424.5 | 396.5 | 384.7 | 383.2 |
| 27.5° | 5715.5 | 4287.3 | 1538.7 | 635.2 | 542.4 | 465.7 | 408.2 | 369.9 | 346.3 | 337.5 | 336.0 |
| 30° | 5995.5 | 4294.7 | 1137.8 | 573.3 | 486.4 | 409.7 | 356.7 | 322.8 | 302.1 | 293.3 | 290.3 |
| 32.5° | 6278.5 | 4232.8 | 828.3 | 517.3 | 434.8 | 361.1 | 309.5 | 283.0 | 268.2 | 260.9 | 260.9 |
| 35° | 6545.2 | 4089.8 | 645.5 | 468.7 | 384.7 | 313.9 | 272.7 | 253.5 | 244.7 | 237.3 | 237.3 |
| 37.5° | 6806.1 | 3885.0 | 548.3 | 425.9 | 337.5 | 274.1 | 240.2 | 228.4 | 221.1 | 213.7 | 213.7 |
| 40° | 7071.4 | 3627.1 | 498.1 | 386.1 | 299.2 | 243.2 | 213.7 | 203.4 | 196.0 | 190.1 | 188.6 |
| 42.5° | 7397.1 | 3329.3 | 465.7 | 349.3 | 265.3 | 215.2 | 188.6 | 176.9 | 171.0 | 165.1 | 162.1 |
| 45° | 7774.4 | 3072.9 | 439.2 | 312.4 | 237.3 | 191.6 | 163.6 | 151.8 | 143.0 | 135.6 | 134.1 |
| 47.5° | 8318.2 | 2887.2 | 403.8 | 272.7 | 210.8 | 166.5 | 141.5 | 128.2 | 115.0 | 107.6 | 106.1 |
| 50° | 9012.4 | 2733.9 | 358.1 | 237.3 | 184.2 | 141.5 | 117.9 | 101.7 | 89.9 | 82.5 | 82.5 |
| 52.5° | 9357.3 | 2533.5 | 316.9 | 206.3 | 154.8 | 119.4 | 95.8 | 76.6 | 70.7 | 63.4 | 63.4 |
| 55° | 9495.8 | 2380.2 | 275.6 | 175.4 | 128.2 | 98.7 | 75.2 | 59.0 | 54.5 | 50.1 | 48.6 |
| 57.5° | 9884.9 | 2336.0 | 240.2 | 148.9 | 106.1 | 78.1 | 57.5 | 44.2 | 41.3 | 35.4 | 35.4 |
| 60° | 10511.3 | 2358.1 | 207.8 | 126.7 | 85.5 | 60.4 | 42.7 | 33.9 | 31.0 | 25.1 | 25.1 |
| 62.5° | 11187.7 | 2330.1 | 175.4 | 109.1 | 66.3 | 44.2 | 29.5 | 25.1 | 25.1 | 14.7 | 13.3 |
| 65° | 11317.4 | 2075.1 | 150.3 | 89.9 | 51.6 | 32.4 | 19.2 | 16.2 | 22.1 | 2.9 | 0.0 |
| 67.5° | 10503.9 | 1609.4 | 129.7 | 69.3 | 38.3 | 25.1 | 14.7 | 7.4 | 19.2 | 0.0 | 0.0 |
| 70° | 8399.3 | 1022.8 | 104.6 | 50.1 | 29.5 | 20.6 | 11.8 | 2.9 | 14.7 | 0.0 | 0.0 |
| 72.5° | 5939.5 | 593.9 | 82.5 | 35.4 | 25.1 | 16.2 | 8.8 | 0.0 | 8.8 | 0.0 | 0.0 |
| 75° | 3003.6 | 316.9 | 51.6 | 26.5 | 19.2 | 11.8 | 5.9 | 0.0 | 1.5 | 0.0 | 0.0 |
| 77.5° | 650.0 | 147.4 | 32.4 | 19.2 | 13.3 | 7.4 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 141.5 | 64.8 | 20.6 | 11.8 | 7.4 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 51.6 | 33.9 | 10.3 | 5.9 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 28.0 | 17.7 | 5.9 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 14.7 | 5.9 | 1.5 | 1.5 | 0.0 | 0.0 | 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)