

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: P321713

Luminaire Tested: **GLEON-SA9A-827-U-T3R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321713
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-11)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA9A-827-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23555 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G4

Input Watts (W): 290
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

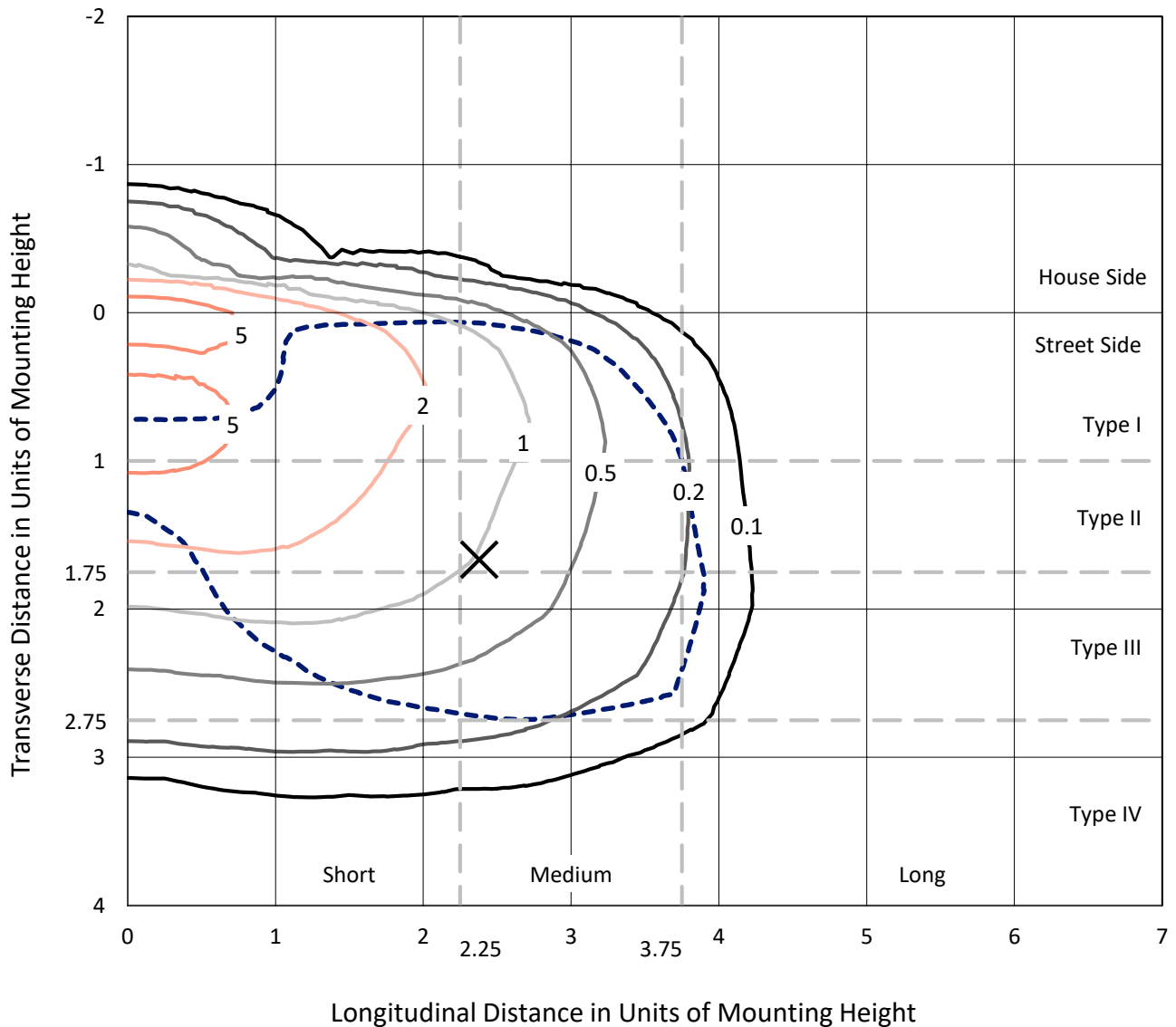




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Iso-Footcandle Lines of Horizontal Illumination

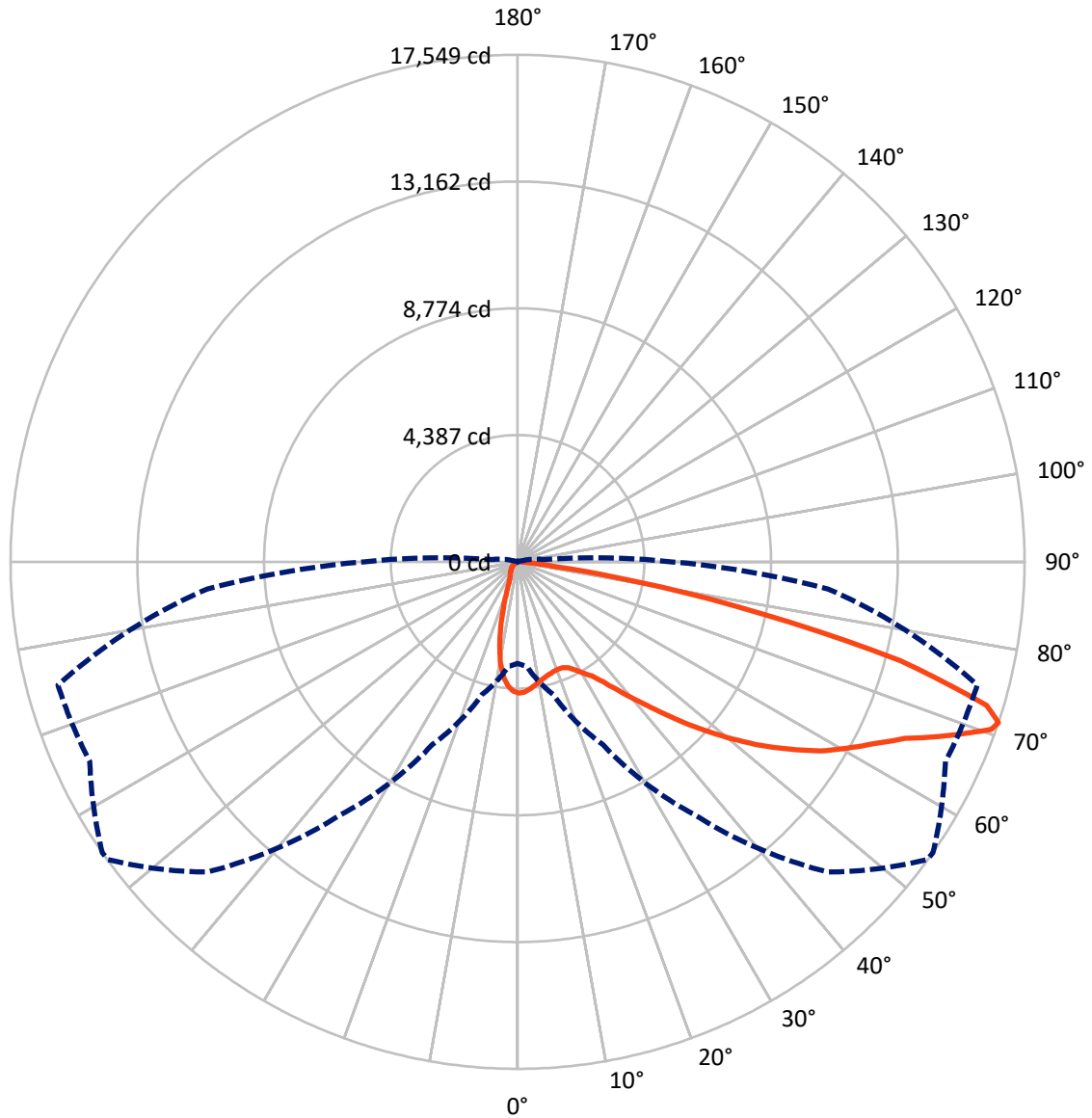
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1864.9 | 0.0 | 1864.9 |
| | % Fixture | 7.9 | 0.0 | 7.9 |
| Street Side | Lumens | 21690.1 | 0.0 | 21690.1 |
| | % Fixture | 92.1 | 0.0 | 92.1 |
| Total | Lumens | 23555.0 | 0.0 | 23555.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 387.3 | 1.6 |
| 10°-20° | 874.4 | 3.7 |
| 20°-30° | 1405.2 | 6.0 |
| 30°-40° | 2387.5 | 10.1 |
| 40°-50° | 3705.7 | 15.7 |
| 50°-60° | 4982.3 | 21.2 |
| 60°-70° | 6094.9 | 25.9 |
| 70°-80° | 3563.6 | 15.1 |
| 80°-90° | 154.0 | 0.7 |
| 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° | 23555.0 | 100.0 |
| 0°-180° | 23555.0 | 100.0 |

Coefficient of Utilization

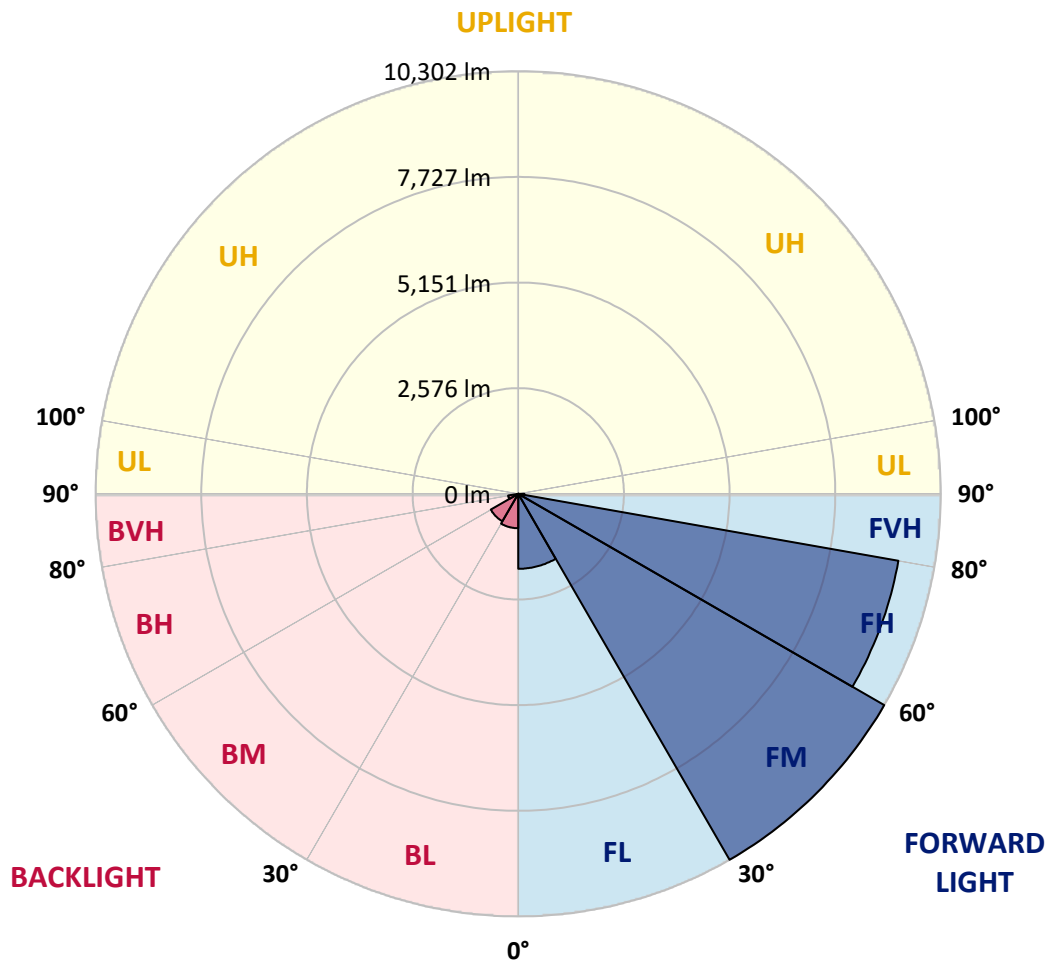


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1827.5 | 7.8 | | | |
| FM (30°-60°) | 10302.3 | 43.7 | | | |
| FH (60°-80°) | 9408.7 | 39.9 | | | G4/12000 |
| FVH (80°-90°) | 151.6 | 0.6 | | | G2/225 |
| BL (0°-30°) | 839.4 | 3.6 | B2/1000 | | |
| BM (30°-60°) | 773.2 | 3.3 | B1/1000 | | |
| BH (60°-80°) | 249.9 | 1.1 | 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 III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 54° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 |
| 2.5° | 4409.4 | 4414.7 | 4433.7 | 4442.2 | 4462.3 | 4496.1 | 4513.1 | 4514.1 | 4541.6 | 4552.2 | 4560.6 |
| 5° | 4097.4 | 4129.1 | 4160.8 | 4194.7 | 4256.0 | 4337.5 | 4417.9 | 4425.3 | 4514.1 | 4579.7 | 4614.6 |
| 7.5° | 3828.7 | 3857.3 | 3895.4 | 3949.3 | 4036.0 | 4164.0 | 4298.3 | 4314.2 | 4482.4 | 4631.5 | 4709.8 |
| 10° | 3552.7 | 3576.0 | 3631.0 | 3710.3 | 3829.8 | 4001.1 | 4182.0 | 4208.4 | 4453.8 | 4701.3 | 4838.8 |
| 12.5° | 3257.6 | 3271.4 | 3338.0 | 3452.2 | 3627.8 | 3845.7 | 4083.6 | 4118.5 | 4435.8 | 4781.7 | 4991.1 |
| 15° | 3033.4 | 3039.7 | 3103.2 | 3221.6 | 3422.6 | 3706.1 | 4007.5 | 4049.8 | 4440.1 | 4877.9 | 5157.2 |
| 17.5° | 2976.3 | 2979.4 | 3013.3 | 3094.7 | 3272.4 | 3581.2 | 3947.2 | 3999.0 | 4452.8 | 4972.1 | 5324.3 |
| 20° | 3207.9 | 3185.7 | 3150.8 | 3138.1 | 3214.2 | 3506.2 | 3911.2 | 3969.4 | 4469.7 | 5055.6 | 5474.5 |
| 22.5° | 3843.6 | 3778.0 | 3633.1 | 3439.5 | 3322.1 | 3511.4 | 3920.8 | 3978.9 | 4523.6 | 5158.2 | 5647.9 |
| 25° | 4787.0 | 4696.0 | 4449.6 | 4068.8 | 3702.9 | 3663.7 | 4000.1 | 4059.3 | 4628.3 | 5280.9 | 5814.0 |
| 27.5° | 5860.5 | 5770.6 | 5469.2 | 4925.5 | 4301.5 | 3965.2 | 4182.0 | 4237.0 | 4783.8 | 5389.9 | 5940.9 |
| 30° | 6888.6 | 6863.2 | 6507.8 | 5890.1 | 5054.6 | 4453.8 | 4416.8 | 4463.3 | 4899.1 | 5455.4 | 6041.4 |
| 32.5° | 7760.1 | 7719.9 | 7434.3 | 6833.6 | 5916.6 | 5040.8 | 4692.9 | 4706.6 | 4985.8 | 5540.0 | 6172.5 |
| 35° | 8568.1 | 8518.4 | 8267.8 | 7699.8 | 6800.8 | 5757.9 | 5118.0 | 5097.9 | 5175.1 | 5710.3 | 6362.9 |
| 37.5° | 9273.6 | 9319.1 | 9040.9 | 8500.4 | 7594.0 | 6503.6 | 5691.3 | 5631.0 | 5471.3 | 5987.4 | 6639.0 |
| 40° | 9863.8 | 9863.8 | 9718.9 | 9268.3 | 8450.7 | 7274.6 | 6339.6 | 6260.3 | 5916.6 | 6414.7 | 6989.0 |
| 42.5° | 10076.4 | 10121.8 | 10175.8 | 9920.9 | 9217.5 | 8076.3 | 7062.0 | 6979.5 | 6543.8 | 7020.8 | 7431.1 |
| 45° | 10089.1 | 10161.0 | 10437.0 | 10436.0 | 9910.3 | 8872.7 | 7876.4 | 7837.3 | 7347.6 | 7799.2 | 7979.0 |
| 47.5° | 9910.3 | 10000.2 | 10455.0 | 10713.1 | 10459.2 | 9614.2 | 8767.0 | 8718.3 | 8292.1 | 8753.2 | 8552.3 |
| 50° | 9634.3 | 9733.7 | 10262.5 | 10822.0 | 10832.6 | 10259.3 | 9705.1 | 9632.1 | 9331.8 | 9843.7 | 9144.6 |
| 52.5° | 9140.3 | 9332.8 | 10090.1 | 10847.4 | 11078.0 | 10816.7 | 10597.8 | 10566.1 | 10495.2 | 10893.9 | 9616.3 |
| 55° | 8083.7 | 8297.4 | 9657.5 | 10855.9 | 11305.4 | 11310.7 | 11434.4 | 11442.9 | 11585.6 | 11875.4 | 9967.4 |
| 57.5° | 7584.5 | 7705.1 | 8902.4 | 10896.1 | 11642.8 | 11871.2 | 12286.9 | 12352.5 | 12573.5 | 12807.3 | 10368.3 |
| 60° | 7270.4 | 7413.2 | 8530.1 | 10841.1 | 12172.7 | 12606.3 | 13077.0 | 13099.2 | 13336.1 | 13768.7 | 10910.9 |
| 62.5° | 7019.7 | 7160.4 | 8295.3 | 10629.5 | 12768.1 | 13490.5 | 13849.1 | 13851.2 | 14028.9 | 14914.1 | 11527.5 |
| 65° | 6401.0 | 6519.4 | 7820.4 | 10391.5 | 13161.6 | 14365.2 | 14745.9 | 14732.2 | 14877.1 | 16122.0 | 12243.5 |
| 67.5° | 5506.2 | 5597.2 | 6850.5 | 9489.4 | 13013.5 | 15160.6 | 16099.8 | 16054.3 | 15878.7 | 17165.9 | 12524.9 |
| 70° | 4257.1 | 4289.9 | 5399.4 | 7908.2 | 11625.8 | 15466.2 | 17408.1 | 17384.8 | 16493.2 | 16978.7 | 11493.6 |
| 71° | 3518.8 | 3626.7 | 4758.4 | 6979.5 | 10696.2 | 15183.8 | 17535.0 | 17548.8 | 16338.8 | 16468.9 | 10783.9 |
| 72.5° | 2043.4 | 2135.4 | 3449.0 | 5360.2 | 9081.1 | 14005.6 | 16877.1 | 16976.6 | 15617.5 | 14979.7 | 9211.2 |
| 75° | 437.9 | 468.5 | 1278.7 | 2594.4 | 4995.3 | 9816.2 | 13321.3 | 13675.6 | 12729.0 | 10190.6 | 5551.7 |
| 77.5° | 304.6 | 328.9 | 547.9 | 1177.2 | 1651.0 | 4850.4 | 8275.2 | 8675.0 | 7604.6 | 3829.8 | 1776.9 |
| 80° | 241.1 | 268.6 | 427.3 | 581.7 | 446.3 | 1564.3 | 3876.3 | 4120.7 | 2536.3 | 854.6 | 299.3 |
| 82.5° | 134.3 | 159.7 | 333.2 | 314.1 | 171.3 | 297.2 | 1085.2 | 1226.9 | 507.7 | 172.4 | 70.9 |
| 85° | 39.1 | 47.6 | 214.7 | 228.5 | 73.0 | 57.1 | 185.1 | 229.5 | 96.2 | 45.5 | 31.7 |
| 87.5° | 0.0 | 0.0 | 103.7 | 87.8 | 21.2 | 8.5 | 16.9 | 19.0 | 19.0 | 19.0 | 21.2 |
| 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° | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 | 4542.7 |
| 2.5° | 4560.6 | 4568.1 | 4541.6 | 4506.7 | 4469.7 | 4424.2 | 4376.6 | 4339.6 | 4338.5 | 4320.6 | 4302.6 |
| 5° | 4616.7 | 4612.5 | 4539.5 | 4428.4 | 4297.3 | 4160.8 | 4030.8 | 3883.7 | 3835.1 | 3774.8 | 3754.7 |
| 7.5° | 4720.4 | 4690.7 | 4536.3 | 4293.1 | 4005.4 | 3719.8 | 3424.7 | 3127.5 | 3000.6 | 2886.4 | 2866.3 |
| 10° | 4850.4 | 4794.4 | 4516.2 | 4090.0 | 3562.2 | 3035.5 | 2590.2 | 2186.2 | 2008.5 | 1872.1 | 1865.7 |
| 12.5° | 4985.8 | 4900.2 | 4460.2 | 3783.3 | 2981.6 | 2241.2 | 1728.2 | 1330.5 | 1182.5 | 1087.3 | 1095.7 |
| 15° | 5127.6 | 4999.6 | 4339.6 | 3369.7 | 2320.5 | 1520.9 | 1061.9 | 828.2 | 768.9 | 744.6 | 750.9 |
| 17.5° | 5272.5 | 5068.3 | 4171.4 | 2871.6 | 1667.9 | 981.5 | 735.1 | 669.5 | 669.5 | 674.8 | 676.9 |
| 20° | 5398.3 | 5105.3 | 3923.9 | 2313.1 | 1130.6 | 715.0 | 643.1 | 633.5 | 638.8 | 647.3 | 648.3 |
| 22.5° | 5523.1 | 5107.5 | 3601.3 | 1747.3 | 791.1 | 626.1 | 612.4 | 608.2 | 611.3 | 620.8 | 621.9 |
| 25° | 5624.7 | 5082.1 | 3197.3 | 1242.8 | 631.4 | 590.2 | 583.8 | 581.7 | 583.8 | 595.5 | 595.5 |
| 27.5° | 5665.9 | 4990.1 | 2704.4 | 873.6 | 565.9 | 550.0 | 547.9 | 550.0 | 553.2 | 561.6 | 562.7 |
| 30° | 5670.1 | 4829.3 | 2167.2 | 632.5 | 513.0 | 496.0 | 500.3 | 507.7 | 504.5 | 502.4 | 504.5 |
| 32.5° | 5680.7 | 4643.1 | 1643.6 | 520.4 | 468.5 | 442.1 | 436.8 | 436.8 | 424.1 | 416.7 | 412.5 |
| 35° | 5715.6 | 4424.2 | 1192.0 | 467.5 | 423.1 | 392.4 | 372.3 | 349.0 | 324.7 | 312.0 | 308.8 |
| 37.5° | 5770.6 | 4194.7 | 853.5 | 432.6 | 382.9 | 348.0 | 309.9 | 268.6 | 233.7 | 224.2 | 224.2 |
| 40° | 5871.1 | 3957.8 | 631.4 | 405.1 | 351.1 | 307.8 | 250.7 | 196.7 | 165.0 | 159.7 | 159.7 |
| 42.5° | 6029.7 | 3708.2 | 503.4 | 380.8 | 323.6 | 266.5 | 191.4 | 142.8 | 119.5 | 116.3 | 115.3 |
| 45° | 6194.7 | 3433.2 | 440.0 | 357.5 | 294.0 | 218.9 | 141.7 | 105.8 | 92.0 | 88.8 | 88.8 |
| 47.5° | 6359.7 | 3140.2 | 409.3 | 335.3 | 265.5 | 170.3 | 105.8 | 83.6 | 77.2 | 77.2 | 78.3 |
| 50° | 6499.3 | 2834.5 | 387.1 | 311.0 | 228.5 | 129.0 | 83.6 | 70.9 | 68.7 | 73.0 | 74.0 |
| 52.5° | 6534.2 | 2534.2 | 359.6 | 280.3 | 183.0 | 98.4 | 68.7 | 62.4 | 62.4 | 62.4 | 62.4 |
| 55° | 6513.1 | 2301.5 | 323.6 | 242.2 | 135.4 | 78.3 | 59.2 | 55.0 | 53.9 | 53.9 | 53.9 |
| 57.5° | 6585.0 | 2164.0 | 259.1 | 188.3 | 97.3 | 63.5 | 51.8 | 48.7 | 46.5 | 45.5 | 45.5 |
| 60° | 6729.9 | 2074.1 | 185.1 | 135.4 | 73.0 | 52.9 | 44.4 | 41.2 | 38.1 | 36.0 | 36.0 |
| 62.5° | 6922.4 | 1995.8 | 137.5 | 100.5 | 56.1 | 42.3 | 37.0 | 33.8 | 29.6 | 27.5 | 27.5 |
| 65° | 7070.5 | 1856.2 | 104.7 | 75.1 | 42.3 | 33.8 | 28.6 | 27.5 | 21.2 | 19.0 | 18.0 |
| 67.5° | 6844.1 | 1549.5 | 84.6 | 55.0 | 31.7 | 26.4 | 22.2 | 21.2 | 12.7 | 10.6 | 10.6 |
| 70° | 5870.0 | 1078.8 | 67.7 | 40.2 | 23.3 | 21.2 | 18.0 | 13.7 | 9.5 | 8.5 | 8.5 |
| 71° | 5323.2 | 901.1 | 61.3 | 33.8 | 20.1 | 20.1 | 16.9 | 11.6 | 8.5 | 7.4 | 7.4 |
| 72.5° | 4422.1 | 639.9 | 51.8 | 26.4 | 18.0 | 21.2 | 18.0 | 10.6 | 8.5 | 7.4 | 6.3 |
| 75° | 2567.0 | 267.6 | 36.0 | 18.0 | 13.7 | 25.4 | 23.3 | 9.5 | 6.3 | 5.3 | 5.3 |
| 77.5° | 772.1 | 98.4 | 20.1 | 11.6 | 10.6 | 22.2 | 26.4 | 8.5 | 3.2 | 1.1 | 1.1 |
| 80° | 140.7 | 42.3 | 12.7 | 7.4 | 7.4 | 13.7 | 20.1 | 4.2 | 0.0 | 0.0 | 0.0 |
| 82.5° | 49.7 | 21.2 | 7.4 | 4.2 | 3.2 | 6.3 | 9.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 28.6 | 14.8 | 4.2 | 2.1 | 0.0 | 1.1 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 19.0 | 4.2 | 0.0 | 0.0 | 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)