

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: P458240

Luminaire Tested: **GALN-SA9C-827-U-T2-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458240
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-SA9C-827-U-T2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 1050mA 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: 35025 lumens
Efficiency: N/A
Efficacy: 72.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G4

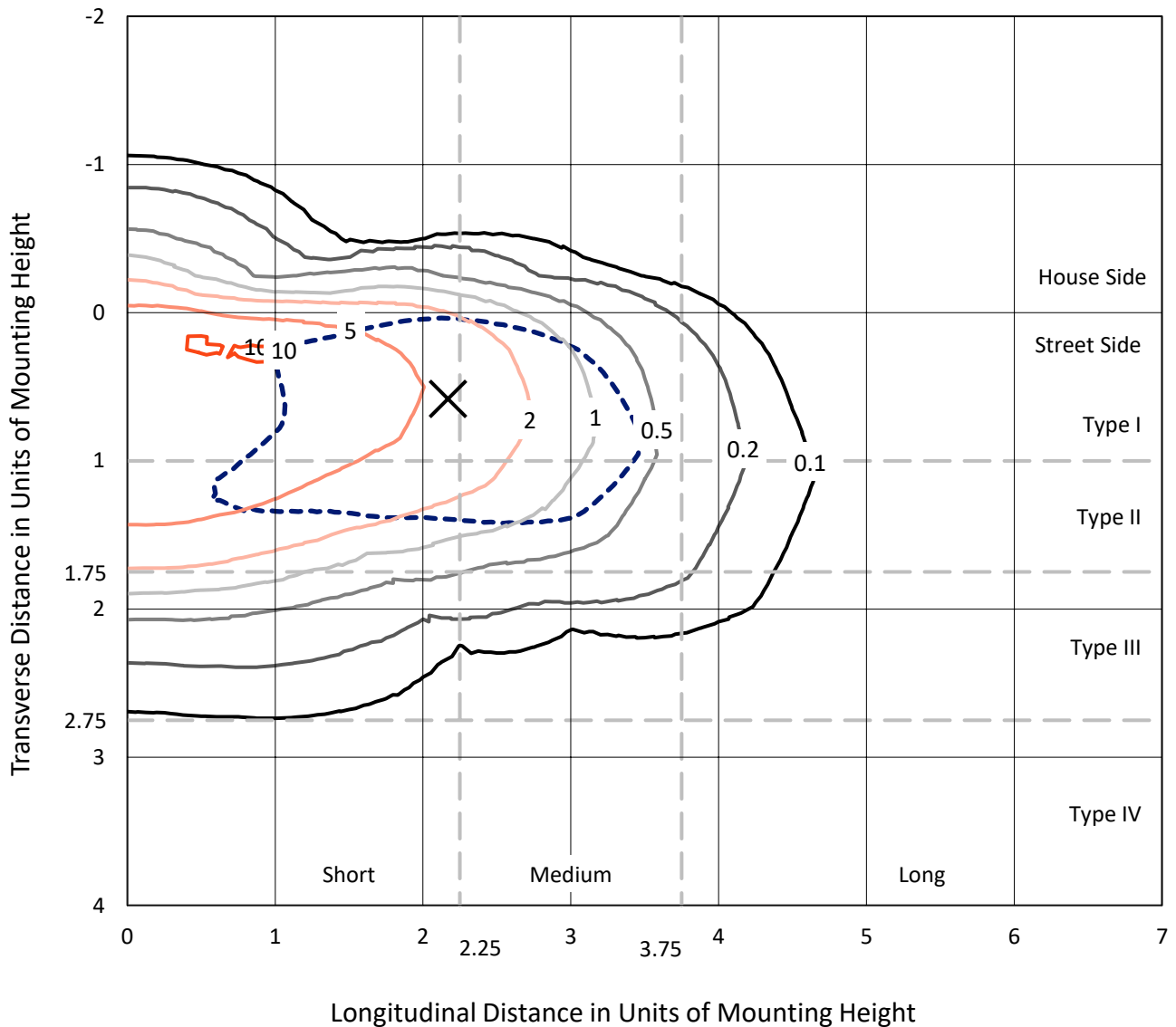
Input Watts (W): 481
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

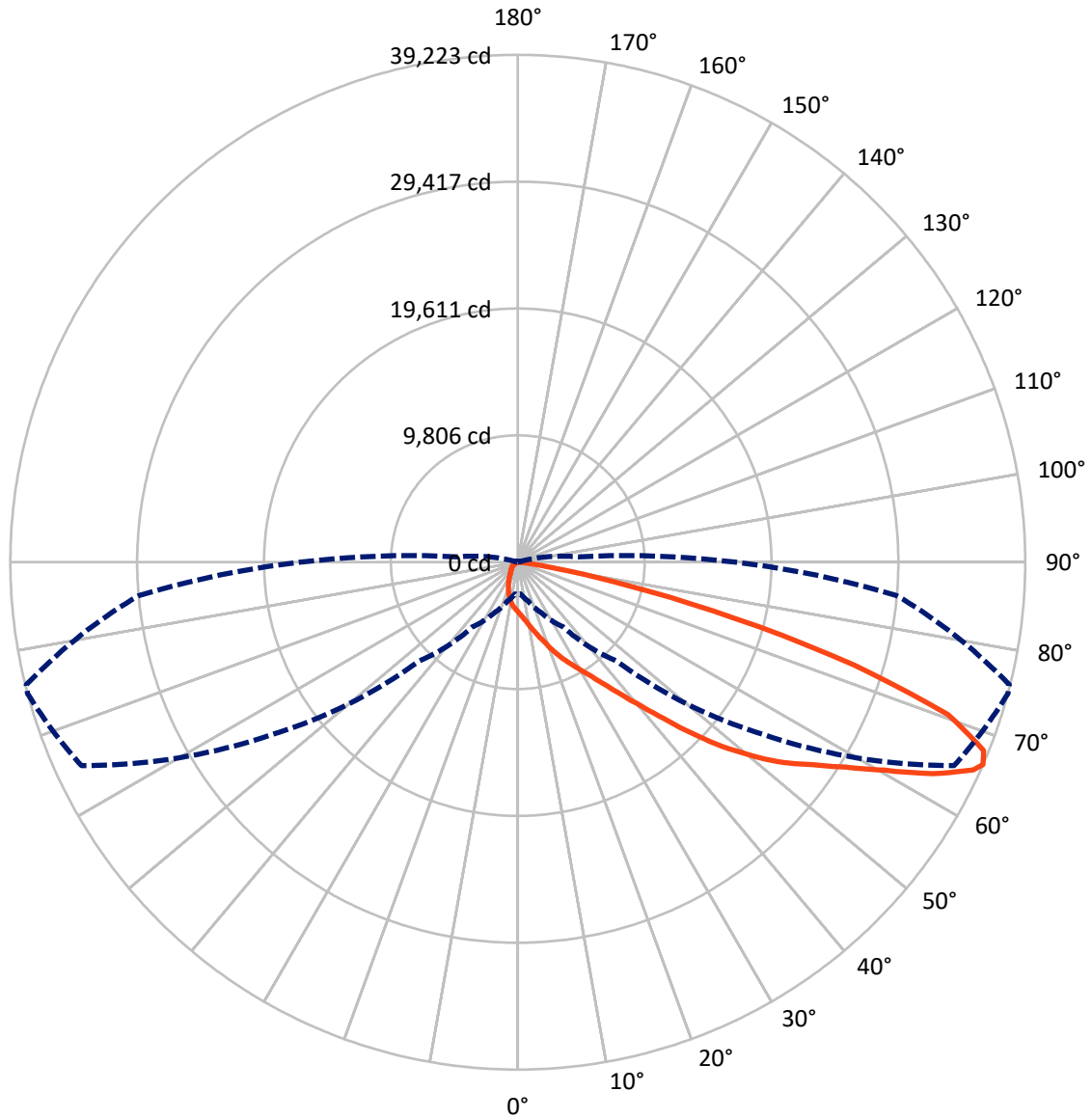
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 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 | 2162.3 | 0.0 | 2162.3 |
| | % Fixture | 6.2 | 0.0 | 6.2 |
| Street Side | Lumens | 32862.7 | 0.0 | 32862.7 |
| | % Fixture | 93.8 | 0.0 | 93.8 |
| Total | Lumens | 35025.0 | 0.0 | 35025.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 369.4 | 1.1 |
| 10°-20° | 1087.3 | 3.1 |
| 20°-30° | 1877.5 | 5.4 |
| 30°-40° | 3386.6 | 9.7 |
| 40°-50° | 6118.0 | 17.5 |
| 50°-60° | 9538.0 | 27.2 |
| 60°-70° | 9060.7 | 25.9 |
| 70°-80° | 3395.8 | 9.7 |
| 80°-90° | 191.6 | 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° | 35025.0 | 100.0 |
| 0°-180° | 35025.0 | 100.0 |

Coefficient of Utilization



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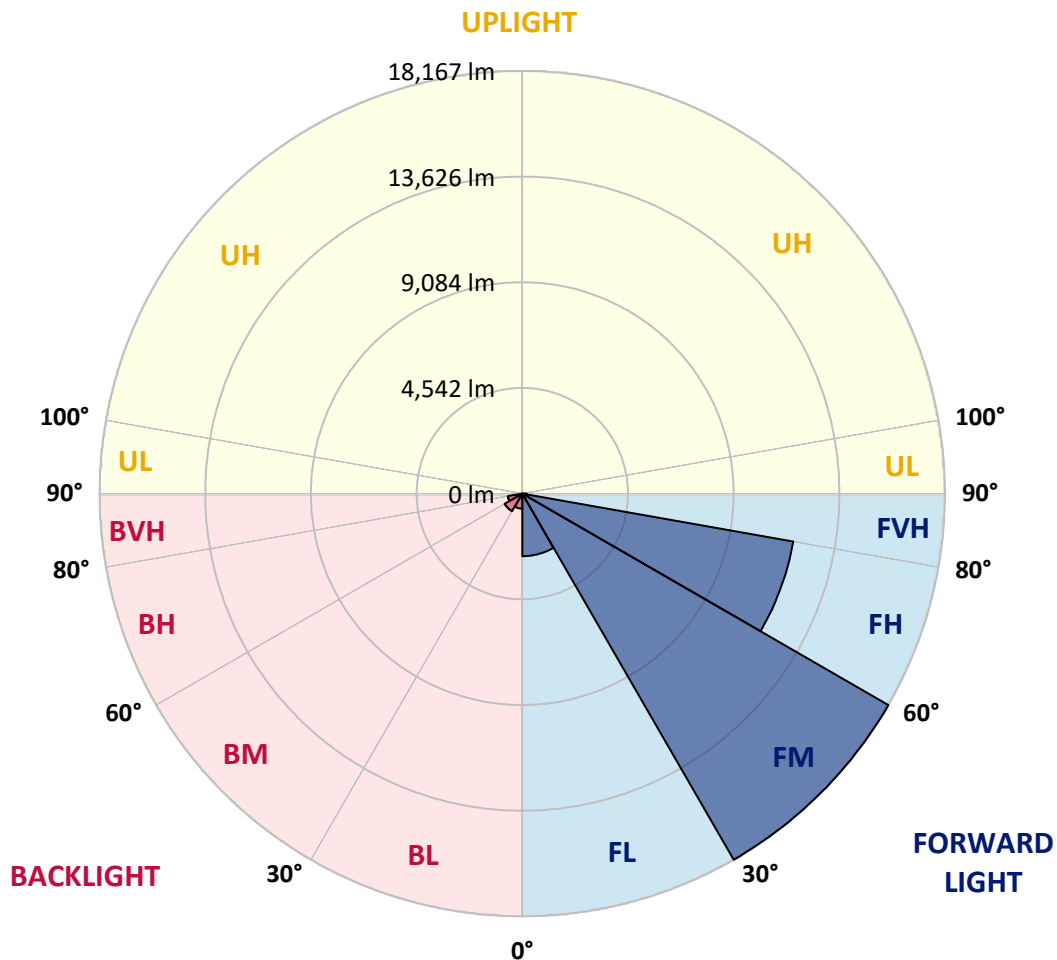
CATALOG NUMBER: GALN-SA9C-827-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2688.5 | 7.7 | | | |
| FM (30°-60°) | 18167.5 | 51.9 | | | |
| FH (60°-80°) | 11825.1 | 33.8 | | | G4/12000 |
| FVH (80°-90°) | 181.7 | 0.5 | | | G2/225 |
| BL (0°-30°) | 645.8 | 1.8 | B2/1000 | | |
| BM (30°-60°) | 875.2 | 2.5 | B1/1000 | | |
| BH (60°-80°) | 631.4 | 1.8 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 9.9 | 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 Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 |
| 2.5° | 4576.2 | 4519.2 | 4537.3 | 4511.5 | 4451.9 | 4363.8 | 4286.1 | 4174.8 | 4063.4 | 4045.3 | 3921.0 |
| 5° | 5179.6 | 5164.1 | 5143.4 | 5068.3 | 5026.8 | 4892.2 | 4731.6 | 4539.9 | 4309.4 | 4268.0 | 4042.7 |
| 7.5° | 5591.4 | 5583.6 | 5594.0 | 5555.1 | 5518.9 | 5397.2 | 5226.2 | 4964.7 | 4607.3 | 4584.0 | 4208.4 |
| 10° | 5726.1 | 5746.8 | 5785.6 | 5847.8 | 5904.8 | 5865.9 | 5736.4 | 5410.1 | 4993.2 | 4925.8 | 4397.5 |
| 12.5° | 5648.4 | 5671.7 | 5764.9 | 5930.7 | 6114.5 | 6220.7 | 6168.9 | 5930.7 | 5402.3 | 5348.0 | 4609.9 |
| 15° | 5449.0 | 5477.4 | 5609.5 | 5865.9 | 6194.8 | 6495.2 | 6624.7 | 6453.8 | 5878.9 | 5790.8 | 4866.3 |
| 17.5° | 5153.7 | 5195.2 | 5384.2 | 5723.5 | 6174.1 | 6692.1 | 7057.2 | 7000.3 | 6386.5 | 6303.6 | 5146.0 |
| 20° | 4931.0 | 4962.1 | 5122.6 | 5511.1 | 6086.1 | 6800.8 | 7469.0 | 7629.6 | 7013.2 | 6870.8 | 5474.9 |
| 22.5° | 5078.6 | 5089.0 | 5143.4 | 5376.4 | 5928.1 | 6829.3 | 7831.6 | 8284.8 | 7678.8 | 7551.9 | 5816.7 |
| 25° | 5801.2 | 5697.6 | 5643.2 | 5591.4 | 5894.4 | 6803.4 | 8160.5 | 8968.5 | 8341.8 | 8207.1 | 6156.0 |
| 27.5° | 6940.7 | 6894.1 | 6619.6 | 6251.8 | 6181.9 | 6837.1 | 8378.0 | 9616.0 | 8965.9 | 8820.9 | 6487.5 |
| 30° | 8181.2 | 8100.9 | 7932.6 | 7393.9 | 6852.6 | 7075.4 | 8536.0 | 10245.3 | 9704.0 | 9512.4 | 6790.5 |
| 32.5° | 9320.7 | 9372.5 | 9121.3 | 8567.1 | 7940.4 | 7583.0 | 8740.6 | 10931.6 | 10550.9 | 10312.6 | 7142.7 |
| 35° | 10649.3 | 10752.9 | 10367.0 | 9836.1 | 9103.2 | 8499.8 | 9139.4 | 11705.9 | 11625.7 | 11325.2 | 7686.6 |
| 37.5° | 11998.6 | 12060.7 | 11825.1 | 11079.2 | 10418.8 | 9665.2 | 9890.5 | 12661.6 | 12949.1 | 12692.7 | 8336.6 |
| 40° | 13132.9 | 13218.4 | 13044.9 | 12381.9 | 11677.5 | 11014.5 | 10980.8 | 13702.7 | 14523.7 | 14259.5 | 9305.2 |
| 42.5° | 14000.5 | 14065.3 | 14070.4 | 13601.7 | 12967.2 | 12666.8 | 12371.5 | 15031.3 | 16497.1 | 16191.5 | 10429.2 |
| 45° | 15096.0 | 15189.2 | 15134.9 | 14816.3 | 14342.4 | 14288.0 | 14135.2 | 16636.9 | 18859.0 | 18473.1 | 11887.2 |
| 47.5° | 16789.7 | 16851.9 | 16717.2 | 16341.7 | 15860.0 | 15945.5 | 15854.8 | 18436.9 | 21267.5 | 20936.0 | 13397.1 |
| 50° | 17965.5 | 18069.1 | 18260.8 | 18411.0 | 18061.3 | 17745.4 | 17476.0 | 20117.6 | 23554.3 | 23256.5 | 14940.6 |
| 52.5° | 17952.6 | 18123.5 | 18729.5 | 19485.7 | 20249.7 | 20153.9 | 19379.6 | 21974.5 | 25737.5 | 25369.8 | 16390.9 |
| 55° | 16743.1 | 17074.6 | 17965.5 | 19307.0 | 21422.9 | 22477.0 | 22124.8 | 24124.1 | 27622.9 | 27374.3 | 18071.7 |
| 57.5° | 14246.5 | 14448.6 | 15686.5 | 17561.5 | 20767.7 | 23569.9 | 25305.0 | 27037.6 | 29883.8 | 29767.3 | 20682.2 |
| 60° | 9582.3 | 9672.9 | 11265.7 | 13583.6 | 17680.6 | 22479.6 | 27635.9 | 30562.4 | 32667.9 | 32610.9 | 23730.4 |
| 62.5° | 5490.4 | 5529.2 | 6684.3 | 8639.6 | 12581.3 | 19050.6 | 27832.7 | 34910.6 | 36006.1 | 36037.2 | 27257.8 |
| 65° | 2955.0 | 2975.7 | 3908.0 | 5070.8 | 7655.5 | 13578.4 | 25027.9 | 37293.3 | 38704.7 | 38764.3 | 29443.6 |
| 66° | 2551.0 | 2452.6 | 3110.4 | 4322.4 | 6091.2 | 10807.3 | 23253.9 | 37207.8 | 39222.7 | 39157.9 | 29365.9 |
| 67.5° | 1939.8 | 2027.8 | 2483.6 | 3322.7 | 4514.0 | 7684.0 | 19198.3 | 35552.9 | 38829.0 | 38627.0 | 28172.0 |
| 70° | 1388.1 | 1424.4 | 1768.8 | 2369.7 | 3074.1 | 4216.2 | 12267.9 | 29529.0 | 35291.3 | 35019.4 | 24543.6 |
| 72.5° | 896.1 | 934.9 | 1253.5 | 1714.5 | 2222.1 | 2302.3 | 6868.2 | 21334.9 | 27208.6 | 27169.7 | 18483.5 |
| 75° | 639.7 | 675.9 | 828.7 | 1227.6 | 1670.4 | 1424.4 | 3307.2 | 14378.6 | 17297.3 | 17180.8 | 11434.0 |
| 77.5° | 463.6 | 481.7 | 554.2 | 802.8 | 1193.9 | 1020.4 | 1533.2 | 7678.8 | 8611.1 | 9017.7 | 5052.7 |
| 80° | 266.8 | 282.3 | 385.9 | 489.5 | 808.0 | 696.7 | 732.9 | 3081.9 | 3177.7 | 3024.9 | 1579.8 |
| 82.5° | 132.1 | 150.2 | 230.5 | 334.1 | 505.0 | 468.8 | 336.7 | 927.2 | 978.9 | 953.1 | 398.8 |
| 85° | 31.1 | 38.8 | 129.5 | 220.1 | 246.0 | 209.8 | 163.2 | 271.9 | 336.7 | 328.9 | 152.8 |
| 87.5° | 2.6 | 5.2 | 46.6 | 38.8 | 41.4 | 69.9 | 57.0 | 69.9 | 108.8 | 101.0 | 54.4 |
| 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° | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 | 3830.3 |
| 2.5° | 3864.0 | 3814.8 | 3672.4 | 3532.5 | 3416.0 | 3294.2 | 3182.9 | 3118.1 | 3092.2 | 3063.7 | 3076.7 |
| 5° | 3918.4 | 3799.3 | 3511.8 | 3263.2 | 3019.7 | 2812.5 | 2646.8 | 2540.6 | 2488.8 | 2481.0 | 2468.1 |
| 7.5° | 3990.9 | 3786.3 | 3340.9 | 2952.4 | 2633.8 | 2403.3 | 2214.3 | 2061.5 | 2014.9 | 1973.4 | 1939.8 |
| 10° | 4079.0 | 3763.0 | 3128.5 | 2626.1 | 2286.8 | 1996.7 | 1748.1 | 1566.8 | 1473.6 | 1447.7 | 1465.8 |
| 12.5° | 4172.2 | 3719.0 | 2905.8 | 2325.6 | 1934.6 | 1564.2 | 1333.8 | 1243.1 | 1217.2 | 1206.9 | 1209.4 |
| 15° | 4265.4 | 3664.6 | 2672.7 | 2035.6 | 1540.9 | 1248.3 | 1142.1 | 1118.8 | 1108.4 | 1103.3 | 1098.1 |
| 17.5° | 4350.9 | 3576.5 | 2411.1 | 1753.3 | 1248.3 | 1067.0 | 1028.2 | 1007.4 | 986.7 | 978.9 | 966.0 |
| 20° | 4451.9 | 3475.5 | 2175.4 | 1437.3 | 1056.6 | 966.0 | 919.4 | 880.5 | 849.5 | 828.7 | 826.1 |
| 22.5° | 4547.7 | 3346.0 | 1929.4 | 1191.3 | 963.4 | 867.6 | 792.5 | 751.0 | 714.8 | 688.9 | 696.7 |
| 25° | 4599.5 | 3188.1 | 1709.3 | 1038.5 | 877.9 | 769.2 | 686.3 | 634.5 | 595.7 | 582.7 | 580.1 |
| 27.5° | 4599.5 | 2993.8 | 1494.3 | 950.5 | 800.3 | 681.1 | 595.7 | 546.5 | 520.6 | 502.4 | 505.0 |
| 30° | 4563.2 | 2778.9 | 1294.9 | 883.1 | 732.9 | 603.4 | 523.1 | 479.1 | 458.4 | 445.4 | 442.9 |
| 32.5° | 4534.8 | 2574.3 | 1124.0 | 818.4 | 663.0 | 536.1 | 466.2 | 432.5 | 411.8 | 398.8 | 398.8 |
| 35° | 4578.8 | 2398.2 | 991.9 | 753.6 | 598.2 | 484.3 | 422.1 | 391.1 | 370.3 | 360.0 | 357.4 |
| 37.5° | 4695.3 | 2237.6 | 890.9 | 683.7 | 538.7 | 440.3 | 391.1 | 354.8 | 334.1 | 321.1 | 316.0 |
| 40° | 4982.8 | 2147.0 | 815.8 | 619.0 | 481.7 | 404.0 | 354.8 | 321.1 | 295.2 | 282.3 | 279.7 |
| 42.5° | 5443.8 | 2149.5 | 743.3 | 559.4 | 437.7 | 372.9 | 323.7 | 284.9 | 256.4 | 243.4 | 240.9 |
| 45° | 6137.9 | 2248.0 | 686.3 | 502.4 | 398.8 | 339.3 | 290.1 | 248.6 | 222.7 | 209.8 | 209.8 |
| 47.5° | 6969.2 | 2439.6 | 637.1 | 453.2 | 362.6 | 308.2 | 256.4 | 215.0 | 189.1 | 178.7 | 178.7 |
| 50° | 7870.4 | 2688.2 | 587.9 | 401.4 | 331.5 | 274.5 | 220.1 | 186.5 | 165.7 | 158.0 | 158.0 |
| 52.5° | 8789.8 | 2988.6 | 538.7 | 360.0 | 297.8 | 238.3 | 189.1 | 165.7 | 147.6 | 142.4 | 139.8 |
| 55° | 9996.7 | 3371.9 | 486.9 | 316.0 | 261.6 | 204.6 | 168.3 | 145.0 | 124.3 | 116.5 | 114.0 |
| 57.5° | 11853.6 | 3949.5 | 429.9 | 277.1 | 215.0 | 170.9 | 145.0 | 121.7 | 98.4 | 85.5 | 82.9 |
| 60° | 14093.7 | 4653.9 | 370.3 | 243.4 | 173.5 | 139.8 | 116.5 | 93.2 | 72.5 | 57.0 | 54.4 |
| 62.5° | 16191.5 | 5101.9 | 313.4 | 204.6 | 137.3 | 106.2 | 82.9 | 69.9 | 51.8 | 36.3 | 33.7 |
| 65° | 17118.6 | 4951.7 | 259.0 | 165.7 | 108.8 | 75.1 | 54.4 | 49.2 | 31.1 | 15.5 | 12.9 |
| 66° | 16810.5 | 4729.0 | 238.3 | 150.2 | 98.4 | 64.7 | 46.6 | 41.4 | 23.3 | 7.8 | 7.8 |
| 67.5° | 15901.4 | 4203.3 | 207.2 | 129.5 | 85.5 | 51.8 | 36.3 | 31.1 | 12.9 | 2.6 | 0.0 |
| 70° | 13625.0 | 3400.4 | 163.2 | 95.8 | 62.2 | 36.3 | 20.7 | 15.5 | 7.8 | 0.0 | 0.0 |
| 72.5° | 10465.4 | 2532.8 | 129.5 | 72.5 | 44.0 | 20.7 | 10.4 | 5.2 | 7.8 | 0.0 | 0.0 |
| 75° | 6412.4 | 1447.7 | 101.0 | 54.4 | 28.5 | 12.9 | 7.8 | 0.0 | 7.8 | 2.6 | 0.0 |
| 77.5° | 2846.2 | 650.0 | 67.3 | 36.3 | 20.7 | 10.4 | 5.2 | 0.0 | 5.2 | 2.6 | 0.0 |
| 80° | 720.0 | 212.4 | 38.8 | 25.9 | 15.5 | 7.8 | 2.6 | 0.0 | 5.2 | 5.2 | 2.6 |
| 82.5° | 196.8 | 77.7 | 28.5 | 20.7 | 12.9 | 7.8 | 2.6 | 0.0 | 5.2 | 5.2 | 5.2 |
| 85° | 77.7 | 36.3 | 25.9 | 20.7 | 15.5 | 7.8 | 2.6 | 0.0 | 5.2 | 5.2 | 5.2 |
| 87.5° | 36.3 | 25.9 | 25.9 | 23.3 | 18.1 | 7.8 | 2.6 | 0.0 | 5.2 | 2.6 | 5.2 |
| 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)