

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: P317873

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P317873
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-10)
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
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31315 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

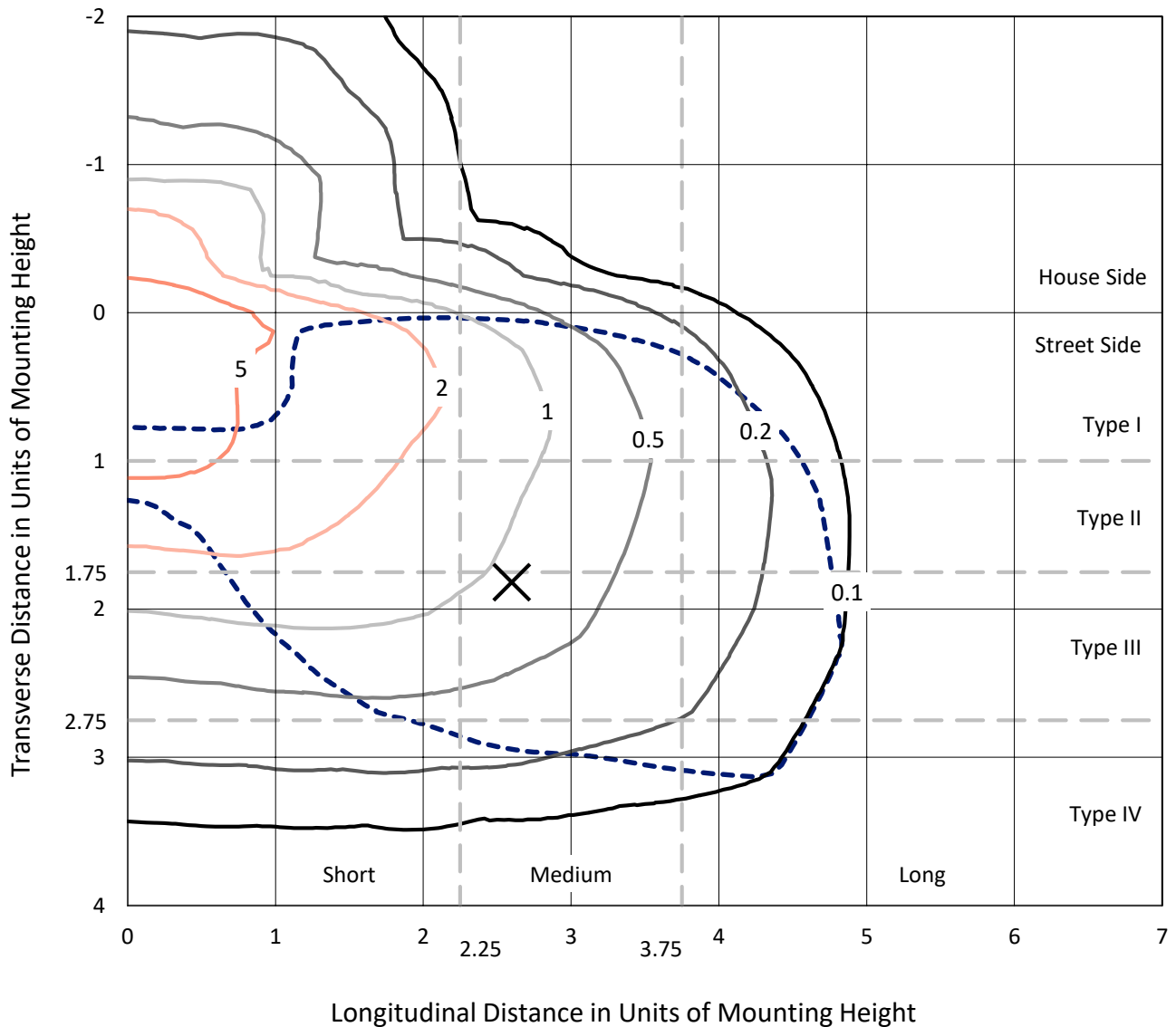
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

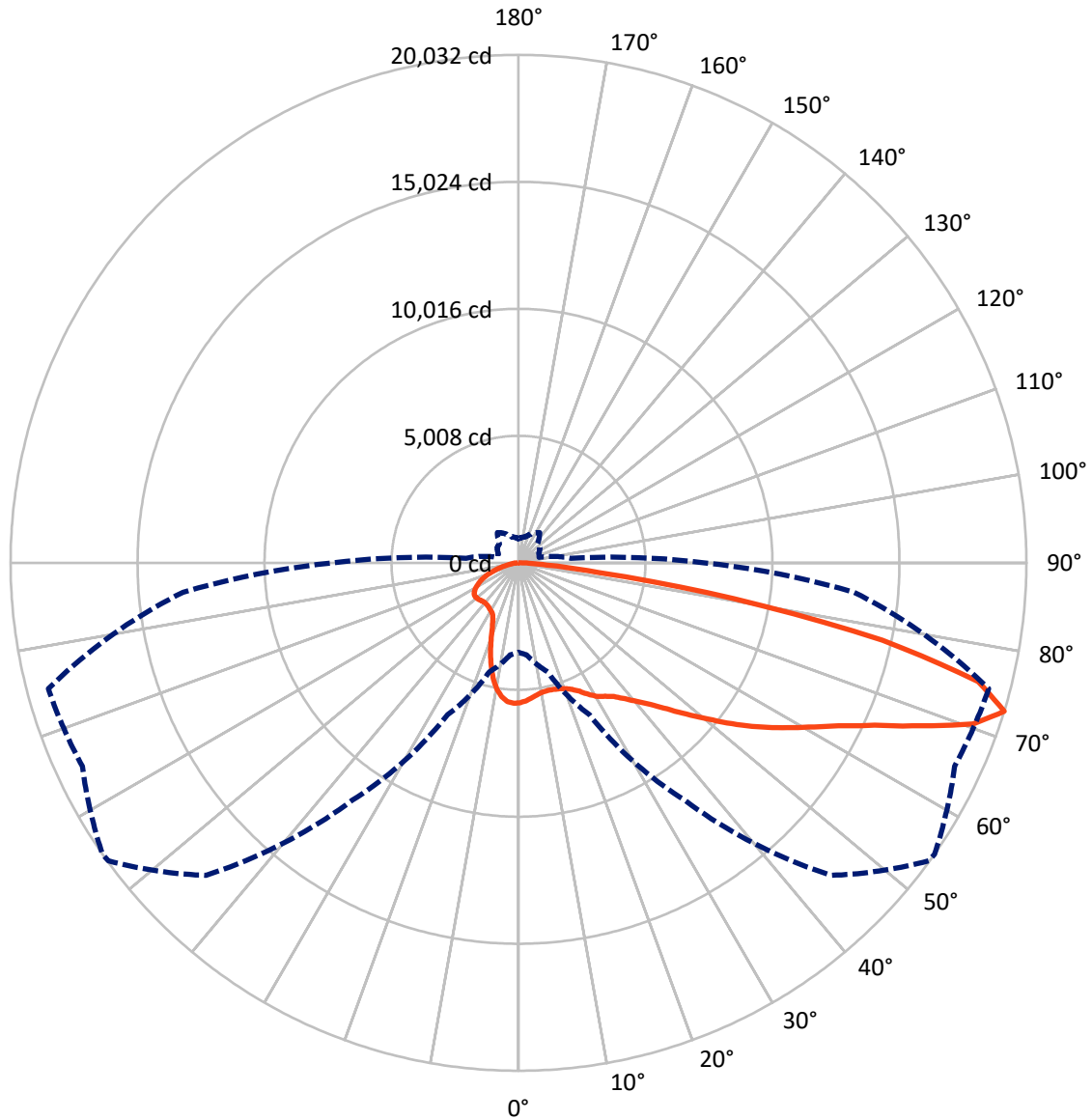
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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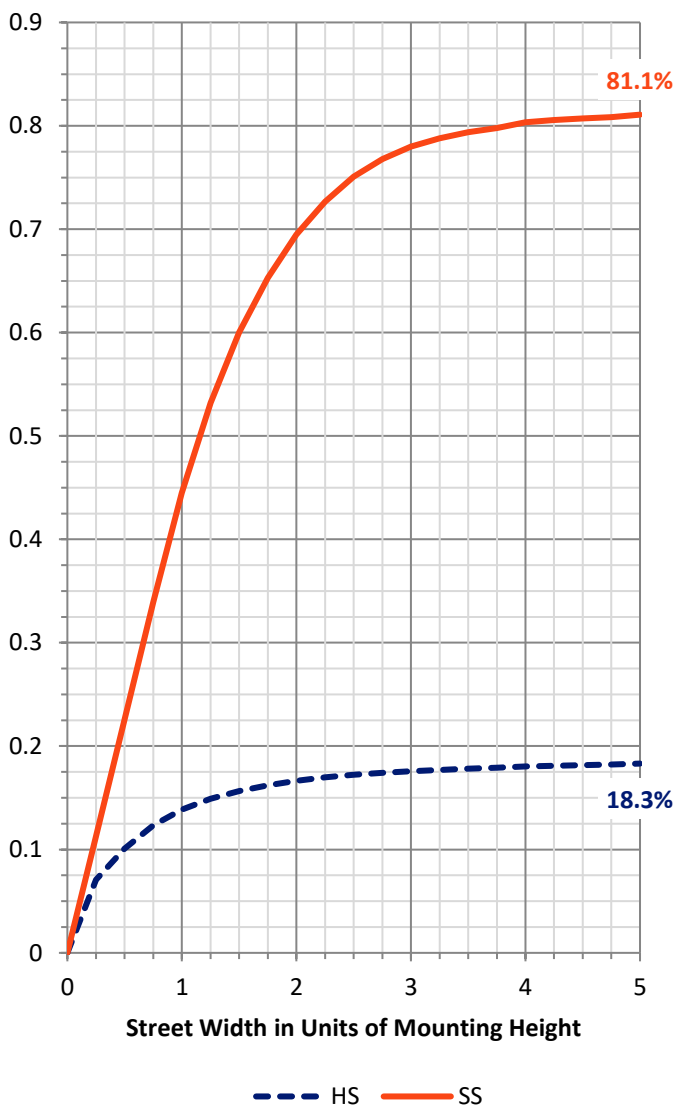
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5820.4 | 0.0 | 5820.4 |
| | % Fixture | 18.6 | 0.0 | 18.6 |
| Street Side | Lumens | 25494.6 | 0.0 | 25494.6 |
| | % Fixture | 81.4 | 0.0 | 81.4 |
| Total | Lumens | 31315.0 | 0.0 | 31315.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 499.8 | 1.6 |
| 10°-20° | 1330.6 | 4.2 |
| 20°-30° | 2193.9 | 7.0 |
| 30°-40° | 3245.3 | 10.4 |
| 40°-50° | 4529.8 | 14.5 |
| 50°-60° | 5897.9 | 18.8 |
| 60°-70° | 7248.3 | 23.1 |
| 70°-80° | 5681.8 | 18.1 |
| 80°-90° | 687.6 | 2.2 |
| 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° | 31315.0 | 100.0 |
| 0°-180° | 31315.0 | 100.0 |

Coefficient of Utilization

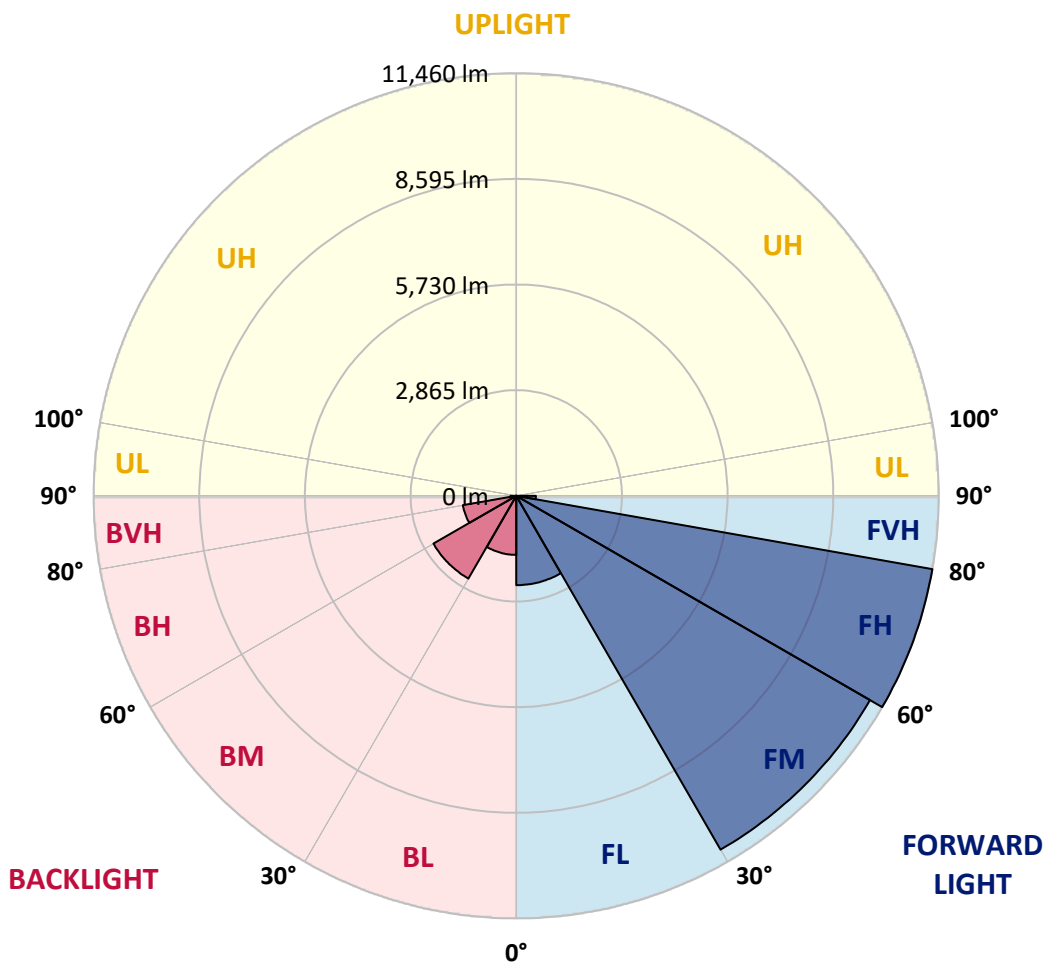


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2422.9 | 7.7 | | | |
| FM (30°-60°) | 11079.9 | 35.4 | | | |
| FH (60°-80°) | 11460.2 | 36.6 | | | G4/12000 |
| FVH (80°-90°) | 531.6 | 1.7 | | | G4/750 |
| BL (0°-30°) | 1601.4 | 5.1 | B3/2500 | | |
| BM (30°-60°) | 2593.1 | 8.3 | B3/5000 | | |
| BH (60°-80°) | 1469.9 | 4.7 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 156.0 | 0.5 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4
 Type IV Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 54° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 |
| 2.5° | 5343.5 | 5330.8 | 5346.7 | 5368.9 | 5393.2 | 5426.0 | 5445.0 | 5453.5 | 5486.3 | 5499.0 | 5526.5 |
| 5° | 5096.0 | 5089.6 | 5116.1 | 5154.2 | 5208.1 | 5284.3 | 5345.6 | 5357.2 | 5444.0 | 5505.3 | 5561.4 |
| 7.5° | 4916.2 | 4916.2 | 4946.8 | 4992.3 | 5052.6 | 5155.2 | 5241.9 | 5257.8 | 5404.8 | 5537.0 | 5640.7 |
| 10° | 4773.4 | 4778.7 | 4814.6 | 4868.6 | 4939.4 | 5048.4 | 5163.7 | 5181.7 | 5394.3 | 5611.1 | 5776.1 |
| 12.5° | 4678.2 | 4690.9 | 4723.7 | 4772.3 | 4860.1 | 4992.3 | 5138.3 | 5162.6 | 5416.5 | 5716.9 | 5939.0 |
| 15° | 4738.5 | 4759.6 | 4762.8 | 4782.9 | 4831.6 | 4975.4 | 5153.1 | 5178.5 | 5464.1 | 5824.7 | 6124.1 |
| 17.5° | 5002.9 | 5010.3 | 4977.5 | 4935.2 | 4911.9 | 5004.0 | 5197.5 | 5224.0 | 5521.2 | 5931.6 | 6301.8 |
| 20° | 5404.8 | 5400.6 | 5329.7 | 5215.5 | 5097.0 | 5111.8 | 5270.5 | 5298.0 | 5598.4 | 6025.7 | 6479.5 |
| 22.5° | 5912.5 | 5897.7 | 5788.8 | 5578.3 | 5376.3 | 5291.7 | 5398.5 | 5421.8 | 5714.7 | 6160.0 | 6669.8 |
| 25° | 6528.1 | 6495.3 | 6351.5 | 6069.1 | 5771.9 | 5554.0 | 5591.0 | 5613.2 | 5884.0 | 6310.2 | 6844.4 |
| 27.5° | 7177.5 | 7144.7 | 6961.8 | 6620.1 | 6224.5 | 5885.0 | 5856.5 | 5875.5 | 6076.5 | 6421.3 | 6973.4 |
| 30° | 7856.6 | 7821.7 | 7654.6 | 7271.7 | 6704.7 | 6227.7 | 6104.0 | 6111.4 | 6211.9 | 6481.6 | 7079.2 |
| 32.5° | 8538.8 | 8506.0 | 8318.8 | 7874.6 | 7226.2 | 6595.8 | 6282.7 | 6273.2 | 6293.3 | 6544.0 | 7198.7 |
| 35° | 9230.5 | 9243.2 | 9024.3 | 8532.4 | 7803.7 | 7005.1 | 6494.3 | 6474.2 | 6429.7 | 6672.0 | 7367.9 |
| 37.5° | 9970.9 | 9962.4 | 9679.0 | 9164.9 | 8407.6 | 7449.4 | 6797.8 | 6794.6 | 6641.3 | 6914.2 | 7633.4 |
| 40° | 10465.9 | 10471.2 | 10298.8 | 9812.3 | 9017.9 | 7941.2 | 7187.0 | 7179.6 | 6978.7 | 7277.0 | 7981.4 |
| 42.5° | 10659.5 | 10694.4 | 10738.8 | 10429.9 | 9656.8 | 8511.3 | 7651.4 | 7640.8 | 7449.4 | 7797.3 | 8390.7 |
| 45° | 10673.2 | 10743.0 | 11018.0 | 10978.9 | 10304.1 | 9163.9 | 8244.7 | 8215.1 | 8077.6 | 8489.1 | 8879.4 |
| 47.5° | 10554.8 | 10626.7 | 11083.6 | 11305.7 | 10882.6 | 9852.4 | 8938.6 | 8915.3 | 8796.9 | 9354.3 | 9408.2 |
| 50° | 10295.6 | 10364.4 | 10948.2 | 11465.4 | 11358.6 | 10514.6 | 9738.2 | 9676.9 | 9613.4 | 10353.8 | 10013.2 |
| 52.5° | 9810.1 | 9942.3 | 10767.4 | 11503.5 | 11643.1 | 11102.6 | 10579.1 | 10538.9 | 10573.8 | 11408.3 | 10619.3 |
| 55° | 8660.4 | 8808.5 | 10300.9 | 11471.8 | 11853.6 | 11596.6 | 11420.0 | 11417.8 | 11598.7 | 12514.7 | 11269.8 |
| 57.5° | 8016.3 | 8121.0 | 9351.1 | 11417.8 | 12103.2 | 12087.4 | 12252.4 | 12272.5 | 12624.7 | 13719.4 | 11950.9 |
| 60° | 7652.4 | 7762.4 | 8869.8 | 11217.9 | 12490.3 | 12722.0 | 13101.7 | 13141.9 | 13667.6 | 15053.1 | 12770.6 |
| 62.5° | 7321.4 | 7442.0 | 8571.6 | 10810.7 | 12946.2 | 13629.5 | 14119.2 | 14155.2 | 14771.8 | 16423.9 | 13562.8 |
| 65° | 6755.5 | 6892.0 | 8134.7 | 10543.1 | 13360.8 | 14813.0 | 15412.8 | 15437.1 | 16040.0 | 17860.3 | 14168.9 |
| 67.5° | 5955.9 | 6080.7 | 7310.8 | 9951.9 | 13667.6 | 16250.5 | 17132.6 | 17146.3 | 17297.6 | 18874.6 | 14478.8 |
| 70° | 5021.9 | 5069.5 | 6136.8 | 8731.3 | 13304.8 | 17594.8 | 19017.4 | 19020.6 | 18444.1 | 19524.0 | 14428.0 |
| 72.5° | 3528.5 | 3640.6 | 4455.0 | 6609.5 | 11433.7 | 17430.8 | 19995.8 | 20031.7 | 18977.2 | 19196.1 | 13275.2 |
| 75° | 2164.0 | 2282.5 | 2794.4 | 4005.5 | 7253.7 | 13708.8 | 18474.8 | 18724.4 | 17977.7 | 17115.6 | 10844.6 |
| 77.5° | 1446.9 | 1491.4 | 1823.5 | 2335.4 | 3286.3 | 7887.2 | 14203.8 | 14673.4 | 14934.7 | 12481.9 | 6935.3 |
| 80° | 807.0 | 891.6 | 1208.9 | 1451.2 | 1461.7 | 3134.0 | 8516.6 | 8626.6 | 8309.3 | 4970.1 | 2139.7 |
| 82.5° | 427.3 | 473.8 | 807.0 | 852.5 | 797.5 | 1049.2 | 3174.1 | 3177.3 | 2654.8 | 1332.7 | 635.7 |
| 85° | 331.1 | 370.2 | 553.2 | 520.4 | 407.2 | 465.4 | 1047.1 | 1104.2 | 903.3 | 545.8 | 207.3 |
| 87.5° | 165.0 | 205.2 | 375.5 | 330.0 | 159.7 | 133.3 | 374.4 | 399.8 | 356.4 | 213.7 | 75.1 |
| 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° | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 | 5523.3 |
| 2.5° | 5537.0 | 5546.6 | 5558.2 | 5545.5 | 5541.3 | 5524.3 | 5495.8 | 5489.4 | 5474.6 | 5475.7 | 5484.2 |
| 5° | 5585.7 | 5601.6 | 5595.2 | 5546.6 | 5488.4 | 5406.9 | 5322.3 | 5250.4 | 5202.8 | 5199.6 | 5196.5 |
| 7.5° | 5678.8 | 5689.4 | 5639.6 | 5501.1 | 5338.2 | 5149.9 | 4972.2 | 4816.8 | 4722.6 | 4699.3 | 4694.1 |
| 10° | 5824.7 | 5822.6 | 5686.2 | 5406.9 | 5082.2 | 4745.9 | 4460.3 | 4244.5 | 4118.7 | 4081.7 | 4072.1 |
| 12.5° | 5987.6 | 5963.3 | 5702.0 | 5235.6 | 4720.5 | 4254.1 | 3892.3 | 3652.2 | 3521.1 | 3478.8 | 3468.2 |
| 15° | 6155.8 | 6095.5 | 5662.9 | 4979.6 | 4276.3 | 3724.2 | 3344.4 | 3122.3 | 3051.5 | 3028.2 | 3024.0 |
| 17.5° | 6312.3 | 6196.0 | 5550.8 | 4632.7 | 3769.6 | 3196.4 | 2900.2 | 2811.4 | 2828.3 | 2859.0 | 2860.0 |
| 20° | 6465.7 | 6263.7 | 5371.0 | 4194.8 | 3235.5 | 2761.6 | 2661.2 | 2726.7 | 2807.1 | 2869.5 | 2878.0 |
| 22.5° | 6617.0 | 6311.3 | 5139.3 | 3689.2 | 2757.4 | 2517.3 | 2588.2 | 2707.7 | 2799.7 | 2867.4 | 2879.1 |
| 25° | 6743.9 | 6322.9 | 4819.9 | 3149.8 | 2425.3 | 2425.3 | 2553.3 | 2666.5 | 2757.4 | 2824.1 | 2835.7 |
| 27.5° | 6790.4 | 6244.6 | 4369.3 | 2650.6 | 2258.2 | 2383.0 | 2504.6 | 2598.8 | 2676.0 | 2746.8 | 2759.5 |
| 30° | 6808.4 | 6099.7 | 3849.0 | 2249.7 | 2189.4 | 2337.5 | 2439.0 | 2519.4 | 2592.4 | 2659.0 | 2670.7 |
| 32.5° | 6811.6 | 5925.2 | 3296.8 | 2022.3 | 2141.8 | 2289.9 | 2357.6 | 2428.5 | 2506.7 | 2533.2 | 2537.4 |
| 35° | 6831.7 | 5719.0 | 2715.1 | 1906.0 | 2097.4 | 2245.5 | 2299.4 | 2350.2 | 2223.3 | 2232.8 | 2241.3 |
| 37.5° | 6889.8 | 5514.8 | 2228.6 | 1840.4 | 2068.9 | 2222.2 | 2286.7 | 2102.7 | 2003.3 | 1980.0 | 1976.8 |
| 40° | 6998.8 | 5296.9 | 1867.9 | 1787.5 | 2058.3 | 2233.9 | 2205.3 | 1963.1 | 1791.7 | 1663.8 | 1644.7 |
| 42.5° | 7150.0 | 5062.1 | 1637.3 | 1752.6 | 2065.7 | 2289.9 | 2092.1 | 1828.8 | 1544.2 | 1461.7 | 1451.2 |
| 45° | 7320.3 | 4815.7 | 1512.5 | 1728.3 | 2091.1 | 2333.3 | 2068.9 | 1650.0 | 1428.9 | 1366.5 | 1361.3 |
| 47.5° | 7485.3 | 4514.2 | 1448.0 | 1717.7 | 2126.0 | 2298.4 | 1970.5 | 1595.0 | 1373.9 | 1341.2 | 1344.3 |
| 50° | 7674.6 | 4242.4 | 1408.9 | 1706.1 | 2156.6 | 2276.2 | 1859.4 | 1566.4 | 1352.8 | 1393.0 | 1435.3 |
| 52.5° | 7834.4 | 3961.1 | 1373.9 | 1682.8 | 2168.3 | 2237.0 | 1830.9 | 1571.7 | 1352.8 | 1430.0 | 1470.2 |
| 55° | 8023.7 | 3748.5 | 1333.8 | 1634.1 | 2146.1 | 2126.0 | 1810.8 | 1603.5 | 1368.7 | 1320.0 | 1324.2 |
| 57.5° | 8268.0 | 3678.7 | 1289.3 | 1558.0 | 2072.0 | 1964.1 | 1801.3 | 1634.1 | 1359.1 | 1328.5 | 1339.0 |
| 60° | 8606.5 | 3752.7 | 1271.4 | 1458.6 | 1956.7 | 1837.2 | 1802.3 | 1618.3 | 1292.5 | 1239.6 | 1240.7 |
| 62.5° | 8929.1 | 3835.2 | 1270.3 | 1396.2 | 1815.0 | 1724.0 | 1778.0 | 1566.4 | 1258.7 | 1228.0 | 1239.6 |
| 65° | 9034.8 | 3751.7 | 1219.5 | 1326.4 | 1655.3 | 1588.7 | 1733.6 | 1511.4 | 1233.3 | 1186.7 | 1184.6 |
| 67.5° | 8893.1 | 3492.5 | 1116.9 | 1213.2 | 1472.3 | 1431.1 | 1675.4 | 1445.9 | 1193.1 | 1155.0 | 1148.7 |
| 70° | 8472.2 | 2914.0 | 990.0 | 1064.0 | 1263.9 | 1253.4 | 1583.4 | 1369.7 | 1139.1 | 1106.4 | 1078.9 |
| 72.5° | 7339.4 | 2076.3 | 834.5 | 885.3 | 1029.1 | 1063.0 | 1456.4 | 1270.3 | 1063.0 | 992.1 | 949.8 |
| 75° | 6027.8 | 1536.8 | 685.4 | 696.0 | 781.6 | 873.7 | 1281.9 | 1153.9 | 973.1 | 852.5 | 819.7 |
| 77.5° | 3691.4 | 940.3 | 545.8 | 550.0 | 560.6 | 697.0 | 1055.6 | 1023.9 | 858.8 | 710.8 | 687.5 |
| 80° | 1195.2 | 513.0 | 394.5 | 414.6 | 382.9 | 510.9 | 816.5 | 871.5 | 737.2 | 594.4 | 569.0 |
| 82.5° | 454.8 | 299.3 | 266.5 | 280.3 | 265.5 | 342.7 | 595.5 | 698.1 | 603.9 | 488.7 | 397.7 |
| 85° | 220.0 | 169.2 | 157.6 | 176.6 | 163.9 | 175.6 | 380.8 | 514.0 | 458.0 | 318.4 | 296.2 |
| 87.5° | 78.3 | 75.1 | 60.3 | 81.4 | 69.8 | 62.4 | 116.3 | 259.1 | 302.5 | 218.9 | 195.7 |
| 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)