

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: P320143

Luminaire Tested: **GLEON-SA9D-827-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P320143
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA9D-827-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48454 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

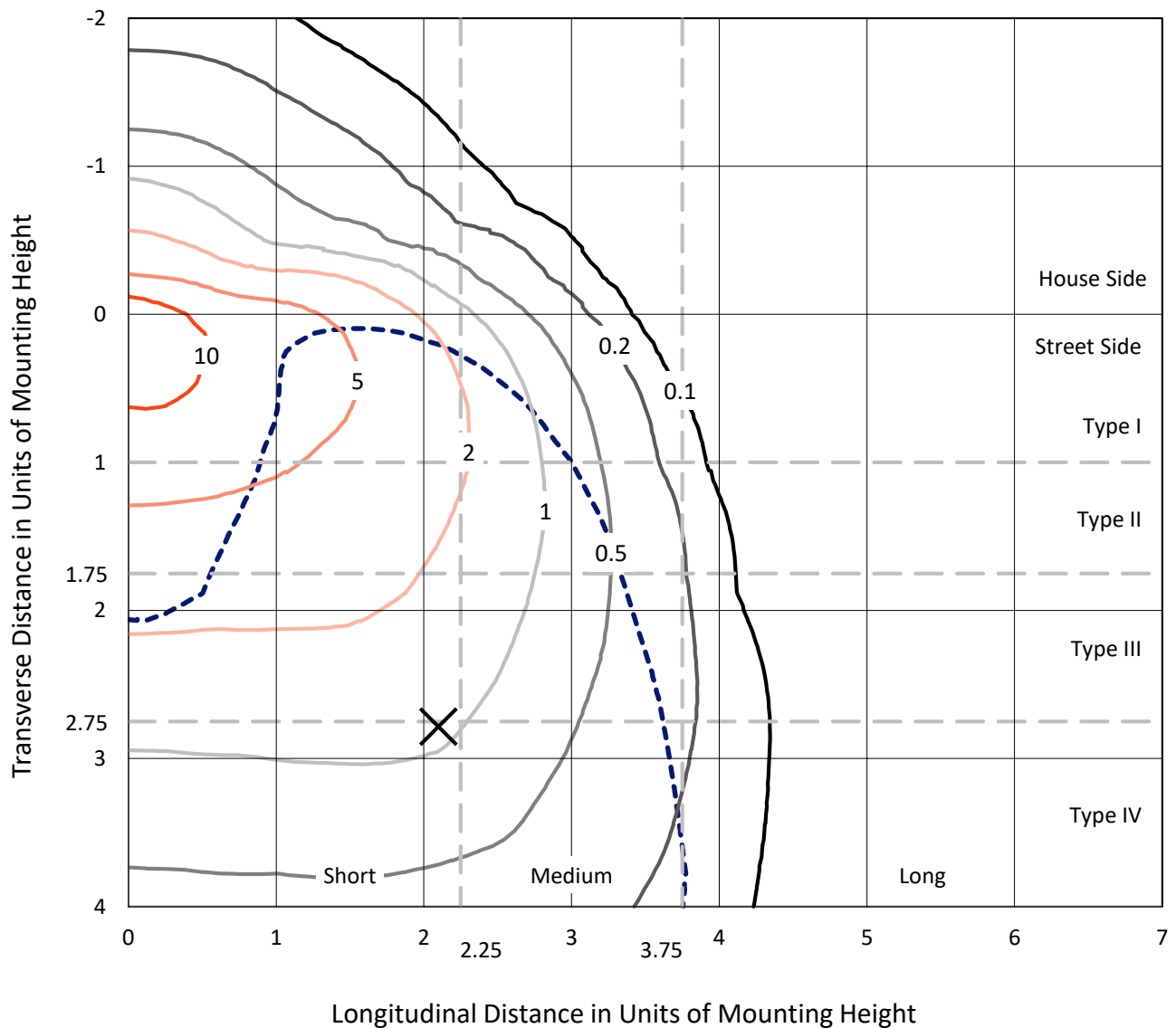
Input Watts (W): 575
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

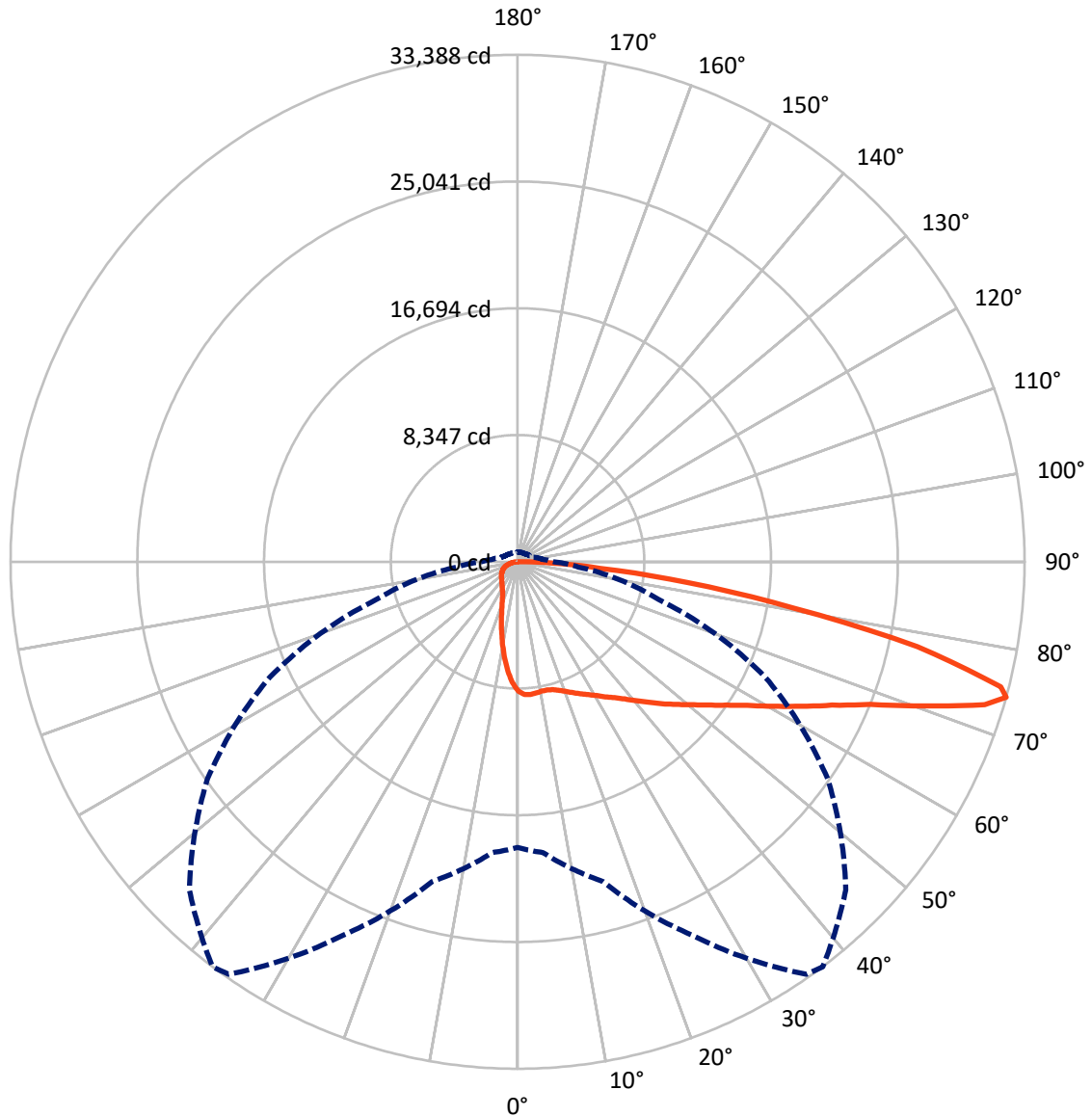
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 37-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6666.9 | 0.0 | 6666.9 |
| | % Fixture | 13.8 | 0.0 | 13.8 |
| Street Side | Lumens | 41787.1 | 0.0 | 41787.1 |
| | % Fixture | 86.2 | 0.0 | 86.2 |
| Total | Lumens | 48454.0 | 0.0 | 48454.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 751.8 | 1.6 |
| 10°-20° | 1927.1 | 4.0 |
| 20°-30° | 2969.3 | 6.1 |
| 30°-40° | 4317.8 | 8.9 |
| 40°-50° | 6355.0 | 13.1 |
| 50°-60° | 8924.5 | 18.4 |
| 60°-70° | 11295.7 | 23.3 |
| 70°-80° | 9946.3 | 20.5 |
| 80°-90° | 1966.6 | 4.1 |
| 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° | 48454.0 | 100.0 |
| 0°-180° | 48454.0 | 100.0 |

Coefficient of Utilization

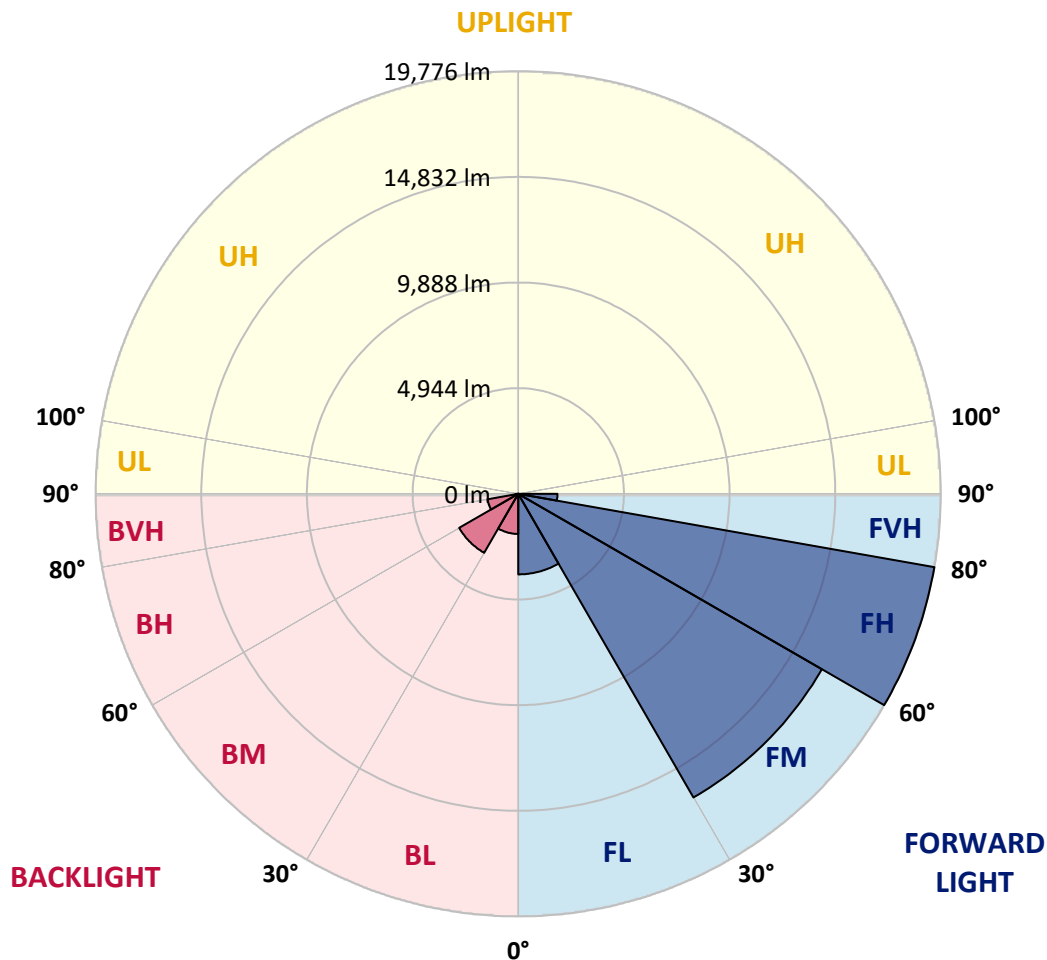


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3770.3 | 7.8 | | | |
| FM (30°-60°) | 16406.9 | 33.9 | | | |
| FH (60°-80°) | 19776.5 | 40.8 | | | G5 |
| FVH (80°-90°) | 1833.4 | 3.8 | | | G5 |
| BL (0°-30°) | 1877.9 | 3.9 | B3/2500 | | |
| BM (30°-60°) | 3190.4 | 6.6 | B3/5000 | | |
| BH (60°-80°) | 1465.5 | 3.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 133.2 | 0.3 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 37° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 |
| 2.5° | 8829.3 | 8831.0 | 8829.3 | 8815.6 | 8783.2 | 8755.9 | 8733.7 | 8701.3 | 8629.6 | 8575.0 | 8493.0 |
| 5° | 8912.9 | 8902.7 | 8895.8 | 8870.2 | 8819.0 | 8788.3 | 8745.6 | 8684.2 | 8566.4 | 8457.2 | 8324.1 |
| 7.5° | 8873.6 | 8861.7 | 8846.3 | 8815.6 | 8757.6 | 8732.0 | 8672.2 | 8592.0 | 8450.4 | 8307.0 | 8115.8 |
| 10° | 8752.5 | 8749.1 | 8742.2 | 8735.4 | 8685.9 | 8665.4 | 8610.8 | 8525.5 | 8385.5 | 8211.4 | 7987.8 |
| 12.5° | 8617.6 | 8626.2 | 8653.5 | 8689.3 | 8667.1 | 8656.9 | 8622.7 | 8564.7 | 8421.3 | 8233.6 | 7963.9 |
| 15° | 8532.3 | 8556.2 | 8629.6 | 8723.4 | 8742.2 | 8738.8 | 8730.3 | 8692.7 | 8540.8 | 8332.6 | 8018.5 |
| 17.5° | 8503.3 | 8542.5 | 8682.5 | 8837.8 | 8892.4 | 8904.4 | 8907.8 | 8842.9 | 8674.0 | 8453.8 | 8074.9 |
| 20° | 8556.2 | 8605.7 | 8810.5 | 9023.8 | 9110.9 | 9117.7 | 9102.4 | 8989.7 | 8800.3 | 8557.9 | 8105.6 |
| 22.5° | 8716.6 | 8761.0 | 9017.0 | 9257.7 | 9356.7 | 9366.9 | 9320.8 | 9150.1 | 8933.4 | 8680.8 | 8148.3 |
| 25° | 9025.6 | 9080.2 | 9336.2 | 9576.8 | 9628.1 | 9629.8 | 9563.2 | 9351.5 | 9107.5 | 8853.2 | 8240.4 |
| 27.5° | 9428.4 | 9483.0 | 9713.4 | 9948.9 | 9921.6 | 9906.3 | 9815.8 | 9604.2 | 9334.5 | 9090.4 | 8404.3 |
| 30° | 9877.2 | 9937.0 | 10155.5 | 10322.7 | 10257.9 | 10227.1 | 10153.7 | 9880.7 | 9650.2 | 9414.7 | 8655.2 |
| 32.5° | 10341.5 | 10396.1 | 10587.3 | 10701.6 | 10619.7 | 10606.0 | 10495.1 | 10245.9 | 10061.6 | 9909.7 | 9061.4 |
| 35° | 10817.7 | 10856.9 | 11044.7 | 11109.6 | 11000.3 | 10996.9 | 10966.2 | 10737.5 | 10621.4 | 10693.1 | 9651.9 |
| 37.5° | 11304.1 | 11314.4 | 11474.8 | 11478.2 | 11445.8 | 11459.4 | 11491.9 | 11348.5 | 11380.9 | 11604.5 | 10420.0 |
| 40° | 11737.7 | 11765.0 | 11881.0 | 11916.9 | 11973.2 | 12021.0 | 12183.1 | 12089.3 | 12340.2 | 12736.1 | 11375.8 |
| 42.5° | 12058.5 | 12111.4 | 12297.5 | 12389.7 | 12572.3 | 12647.4 | 12876.1 | 12963.1 | 13468.3 | 14062.3 | 12512.5 |
| 45° | 12329.9 | 12411.8 | 12710.5 | 12900.0 | 13208.9 | 13340.3 | 13668.0 | 13959.9 | 14743.3 | 15501.1 | 13709.0 |
| 47.5° | 12623.5 | 12727.6 | 13101.4 | 13463.2 | 13883.1 | 14031.6 | 14627.3 | 15064.2 | 16103.6 | 16948.5 | 14837.2 |
| 50° | 13055.3 | 13135.5 | 13500.8 | 14069.1 | 14593.1 | 14784.3 | 15608.7 | 16235.1 | 17486.2 | 18327.6 | 15815.2 |
| 52.5° | 13657.8 | 13627.1 | 13936.0 | 14733.1 | 15436.3 | 15671.8 | 16656.6 | 17481.0 | 18887.4 | 19575.3 | 16641.3 |
| 55° | 14263.7 | 14212.5 | 14429.3 | 15427.8 | 16419.4 | 16666.9 | 17810.4 | 18732.1 | 20220.4 | 20698.3 | 17274.5 |
| 57.5° | 14937.9 | 14840.6 | 15023.2 | 16211.2 | 17539.1 | 17834.3 | 19102.5 | 20061.7 | 21531.3 | 21606.4 | 17677.3 |
| 60° | 15632.6 | 15501.1 | 15706.0 | 17182.3 | 18960.8 | 19309.0 | 20614.7 | 21358.9 | 22767.0 | 22333.5 | 17807.0 |
| 62.5° | 16240.2 | 16148.0 | 16463.8 | 18266.2 | 20563.5 | 20945.8 | 22099.6 | 22738.0 | 23985.6 | 22635.6 | 17339.4 |
| 65° | 16771.0 | 16786.4 | 17332.5 | 19484.8 | 22350.5 | 22758.5 | 23803.0 | 24437.9 | 24944.9 | 22456.4 | 16245.3 |
| 67.5° | 17404.2 | 17491.3 | 18423.2 | 21089.2 | 24600.1 | 25047.3 | 26281.3 | 26291.5 | 25480.8 | 21405.0 | 14091.3 |
| 70° | 18327.6 | 18506.8 | 19923.5 | 23314.9 | 27798.6 | 28413.1 | 29365.5 | 27380.5 | 24728.1 | 18554.6 | 11087.4 |
| 72.5° | 19146.9 | 19481.4 | 21519.3 | 25861.4 | 31697.0 | 32162.9 | 31169.6 | 26752.4 | 21582.5 | 13905.3 | 6907.4 |
| 74° | 18814.0 | 19228.8 | 21809.5 | 27115.9 | 33164.8 | 33388.4 | 30560.2 | 24919.3 | 17994.8 | 9629.8 | 4014.4 |
| 75° | 18097.2 | 18547.8 | 21386.2 | 27104.0 | 32978.8 | 32854.2 | 29089.0 | 22825.0 | 14820.1 | 6567.8 | 2671.1 |
| 77.5° | 14605.1 | 15081.3 | 18020.4 | 23229.5 | 27040.8 | 26923.0 | 22345.4 | 15311.7 | 6491.0 | 2154.0 | 1356.9 |
| 80° | 8491.3 | 8854.9 | 11186.4 | 14751.9 | 18233.7 | 18447.1 | 14695.5 | 7576.5 | 2553.4 | 1210.1 | 920.0 |
| 82.5° | 3772.0 | 4022.9 | 5403.7 | 7530.4 | 11003.7 | 11278.5 | 7696.0 | 3970.0 | 1577.1 | 735.6 | 553.0 |
| 85° | 2474.9 | 2660.9 | 3280.5 | 3586.0 | 5239.9 | 5427.6 | 3766.9 | 3091.0 | 1041.1 | 404.5 | 406.2 |
| 87.5° | 1780.2 | 1959.4 | 2437.3 | 2128.4 | 2404.9 | 2276.9 | 2049.9 | 2860.6 | 418.2 | 230.4 | 136.5 |
| 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° | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 | 8537.4 |
| 2.5° | 8457.2 | 8429.9 | 8368.4 | 8252.4 | 8187.5 | 8132.9 | 8042.4 | 7989.5 | 7965.6 | 7963.9 | 7974.2 |
| 5° | 8247.3 | 8184.1 | 8025.4 | 7830.8 | 7675.5 | 7533.8 | 7358.0 | 7252.2 | 7177.1 | 7132.7 | 7144.7 |
| 7.5° | 8003.2 | 7904.2 | 7655.0 | 7344.4 | 7095.2 | 6820.4 | 6549.0 | 6386.8 | 6260.5 | 6166.7 | 6183.7 |
| 10° | 7835.9 | 7699.4 | 7335.8 | 6888.6 | 6473.9 | 6074.5 | 5700.7 | 5477.1 | 5299.6 | 5163.1 | 5173.3 |
| 12.5° | 7779.6 | 7595.3 | 7091.7 | 6494.4 | 5912.4 | 5366.2 | 4878.0 | 4535.0 | 4352.3 | 4197.0 | 4209.0 |
| 15° | 7788.1 | 7540.6 | 6886.9 | 6139.4 | 5407.1 | 4719.3 | 4127.0 | 3725.9 | 3478.5 | 3370.9 | 3372.6 |
| 17.5° | 7794.9 | 7477.5 | 6671.9 | 5758.7 | 4907.0 | 4115.1 | 3471.6 | 3065.4 | 2831.6 | 2732.6 | 2734.3 |
| 20° | 7772.8 | 7375.1 | 6405.6 | 5321.8 | 4384.8 | 3560.4 | 2937.4 | 2592.6 | 2415.1 | 2338.3 | 2338.3 |
| 22.5° | 7743.7 | 7253.9 | 6105.2 | 4883.2 | 3869.3 | 3079.1 | 2555.1 | 2292.2 | 2189.8 | 2138.6 | 2136.9 |
| 25° | 7757.4 | 7163.4 | 5798.0 | 4432.6 | 3394.8 | 2695.0 | 2300.8 | 2126.7 | 2058.4 | 2026.0 | 2024.3 |
| 27.5° | 7830.8 | 7120.8 | 5514.7 | 3983.7 | 2980.1 | 2406.6 | 2130.1 | 2007.2 | 1962.8 | 1942.3 | 1942.3 |
| 30° | 7963.9 | 7120.8 | 5219.4 | 3601.3 | 2635.3 | 2193.2 | 1998.7 | 1915.0 | 1884.3 | 1870.7 | 1870.7 |
| 32.5° | 8196.0 | 7160.0 | 4934.4 | 3222.4 | 2360.5 | 2026.0 | 1889.4 | 1833.1 | 1809.2 | 1802.4 | 1802.4 |
| 35° | 8595.4 | 7293.2 | 4656.1 | 2864.0 | 2138.6 | 1889.4 | 1785.3 | 1752.9 | 1735.8 | 1734.1 | 1739.2 |
| 37.5° | 9157.0 | 7564.5 | 4395.0 | 2599.5 | 1981.6 | 1778.5 | 1698.3 | 1672.7 | 1662.4 | 1671.0 | 1677.8 |
| 40° | 9863.6 | 7933.2 | 4157.8 | 2360.5 | 1862.1 | 1689.7 | 1618.0 | 1601.0 | 1595.9 | 1607.8 | 1618.0 |
| 42.5° | 10717.0 | 8431.6 | 3963.2 | 2188.1 | 1770.0 | 1614.6 | 1549.8 | 1529.3 | 1524.2 | 1537.8 | 1551.5 |
| 45° | 11640.4 | 8967.5 | 3826.6 | 2060.1 | 1698.3 | 1558.3 | 1490.0 | 1467.8 | 1457.6 | 1464.4 | 1479.8 |
| 47.5° | 12480.1 | 9474.4 | 3772.0 | 1969.6 | 1630.0 | 1510.5 | 1437.1 | 1409.8 | 1392.7 | 1389.3 | 1401.3 |
| 50° | 13188.4 | 9851.6 | 3797.6 | 1915.0 | 1575.4 | 1457.6 | 1385.9 | 1355.2 | 1329.6 | 1314.2 | 1322.8 |
| 52.5° | 13703.9 | 10088.9 | 3821.5 | 1891.1 | 1532.7 | 1399.6 | 1329.6 | 1300.6 | 1266.4 | 1240.8 | 1240.8 |
| 55° | 14077.7 | 10143.5 | 3768.6 | 1872.4 | 1500.3 | 1336.4 | 1266.4 | 1239.1 | 1205.0 | 1176.0 | 1172.6 |
| 57.5° | 14224.5 | 9989.9 | 3572.3 | 1845.0 | 1478.1 | 1276.7 | 1199.9 | 1179.4 | 1150.4 | 1116.2 | 1114.5 |
| 60° | 14026.5 | 9515.4 | 3193.4 | 1787.0 | 1449.1 | 1227.2 | 1133.3 | 1119.7 | 1106.0 | 1073.6 | 1071.9 |
| 62.5° | 13231.1 | 8474.3 | 2703.6 | 1669.2 | 1391.0 | 1174.3 | 1071.9 | 1078.7 | 1080.4 | 1058.2 | 1054.8 |
| 65° | 11788.9 | 7044.0 | 2225.7 | 1515.6 | 1304.0 | 1111.1 | 1008.7 | 1041.1 | 1059.9 | 1056.5 | 1051.4 |
| 67.5° | 9692.9 | 5482.2 | 1886.0 | 1353.5 | 1189.6 | 1024.1 | 940.4 | 978.0 | 993.4 | 1005.3 | 1001.9 |
| 70° | 7194.2 | 3865.9 | 1560.0 | 1182.8 | 1051.4 | 921.7 | 851.7 | 870.5 | 860.2 | 873.9 | 879.0 |
| 72.5° | 4011.0 | 2319.5 | 1271.6 | 1012.1 | 908.0 | 802.2 | 752.7 | 749.3 | 727.1 | 727.1 | 727.1 |
| 74° | 2406.6 | 1701.7 | 1118.0 | 906.3 | 821.0 | 723.7 | 681.0 | 665.7 | 645.2 | 646.9 | 645.2 |
| 75° | 1935.5 | 1462.7 | 1025.8 | 836.3 | 759.5 | 677.6 | 634.9 | 614.4 | 599.1 | 599.1 | 597.4 |
| 77.5° | 1222.1 | 1111.1 | 826.1 | 665.7 | 607.6 | 558.1 | 529.1 | 501.8 | 501.8 | 500.1 | 498.4 |
| 80° | 923.4 | 884.1 | 643.5 | 503.5 | 466.0 | 428.4 | 409.6 | 397.7 | 397.7 | 402.8 | 401.1 |
| 82.5° | 633.2 | 665.7 | 452.3 | 351.6 | 332.8 | 305.5 | 302.1 | 303.8 | 298.7 | 291.9 | 290.2 |
| 85° | 462.5 | 500.1 | 305.5 | 221.9 | 203.1 | 186.0 | 199.7 | 206.5 | 198.0 | 182.6 | 175.8 |
| 87.5° | 177.5 | 327.7 | 163.9 | 92.2 | 85.3 | 73.4 | 85.3 | 88.8 | 95.6 | 75.1 | 76.8 |
| 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)