

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: P458139

Luminaire Tested: **GALN-SA9C-740-U-AFL-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458139
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA9C-740-U-AFL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52218 lumens
Efficiency: N/A
Efficacy: 108.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

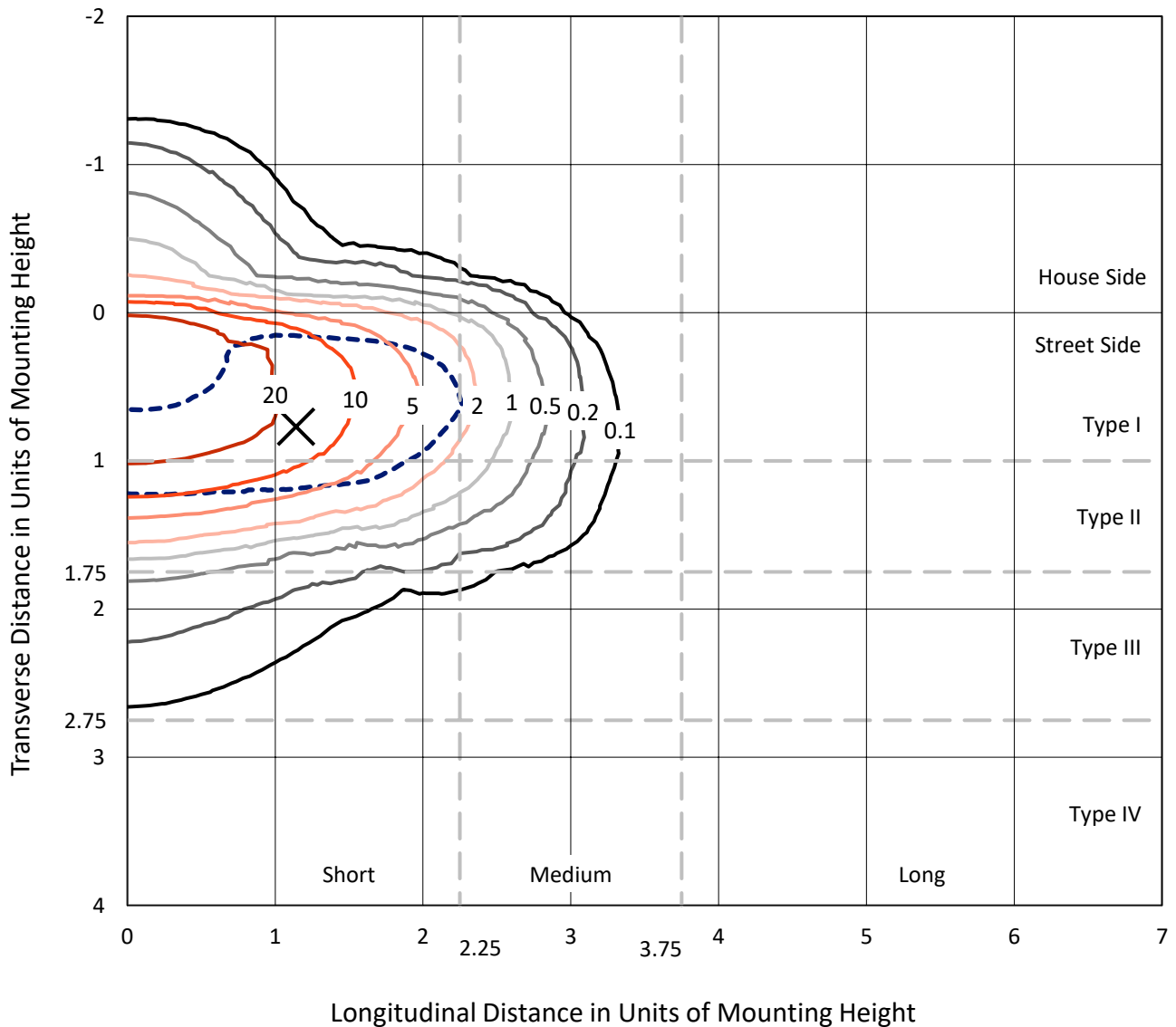
Input Watts (W): 481
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

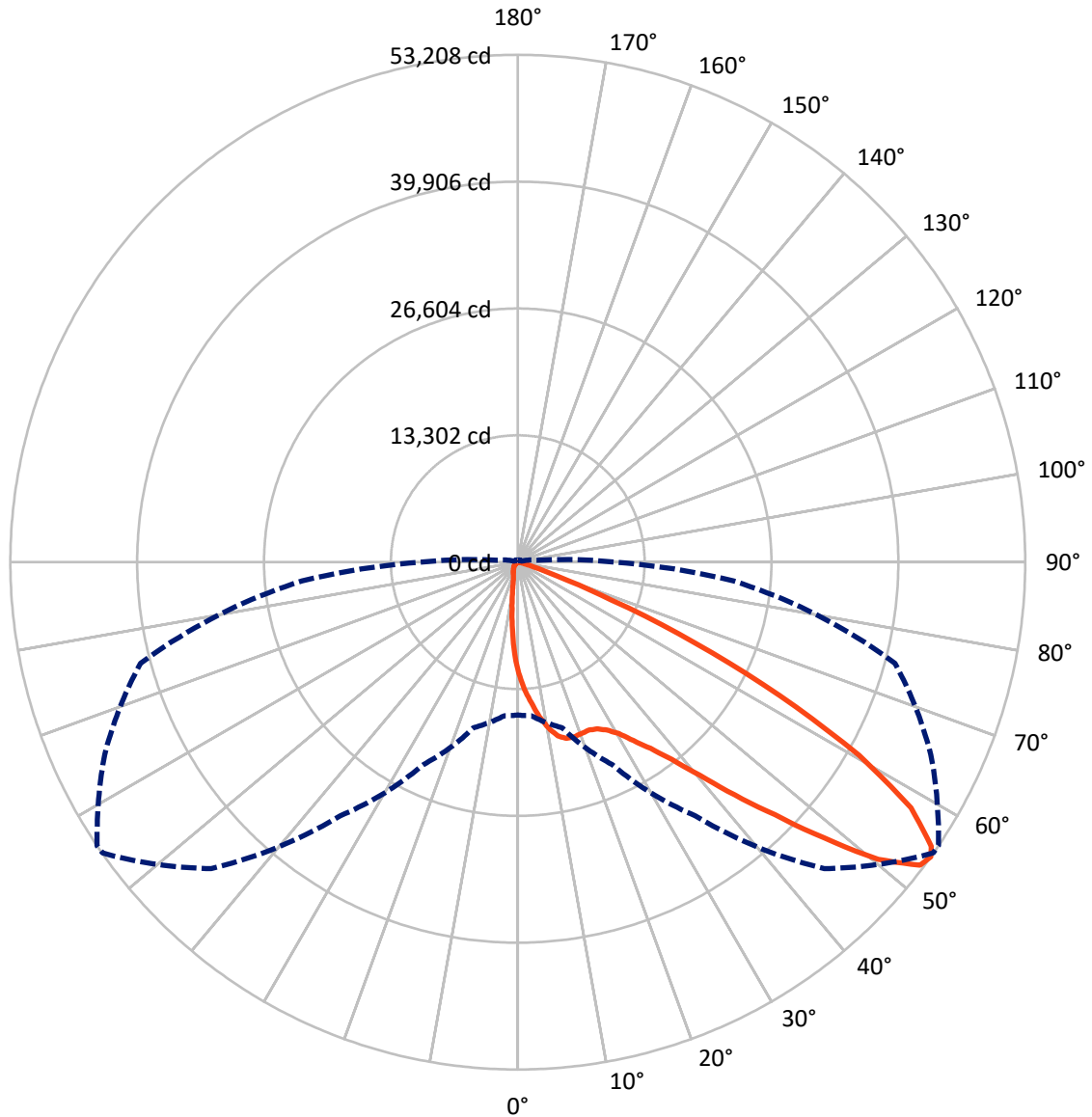
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 27.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral - - - Horizontal Cone Through 54-Deg Vertical

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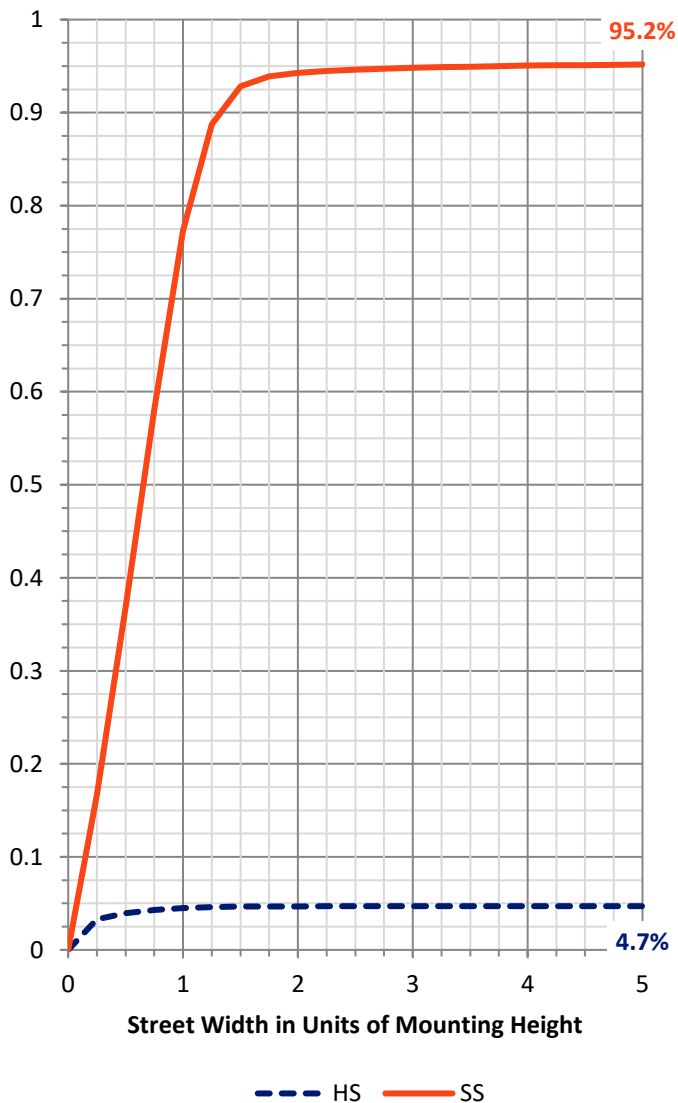
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2469.3 | 0.0 | 2469.3 |
| | % Fixture | 4.7 | 0.0 | 4.7 |
| Street Side | Lumens | 49748.7 | 0.0 | 49748.7 |
| | % Fixture | 95.3 | 0.0 | 95.3 |
| Total | Lumens | 52218.0 | 0.0 | 52218.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1025.2 | 2.0 |
| 10°-20° | 2771.4 | 5.3 |
| 20°-30° | 4799.8 | 9.2 |
| 30°-40° | 8285.1 | 15.9 |
| 40°-50° | 14101.6 | 27.0 |
| 50°-60° | 13955.3 | 26.7 |
| 60°-70° | 6369.5 | 12.2 |
| 70°-80° | 818.0 | 1.6 |
| 80°-90° | 92.2 | 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° | 52218.0 | 100.0 |
| 0°-180° | 52218.0 | 100.0 |

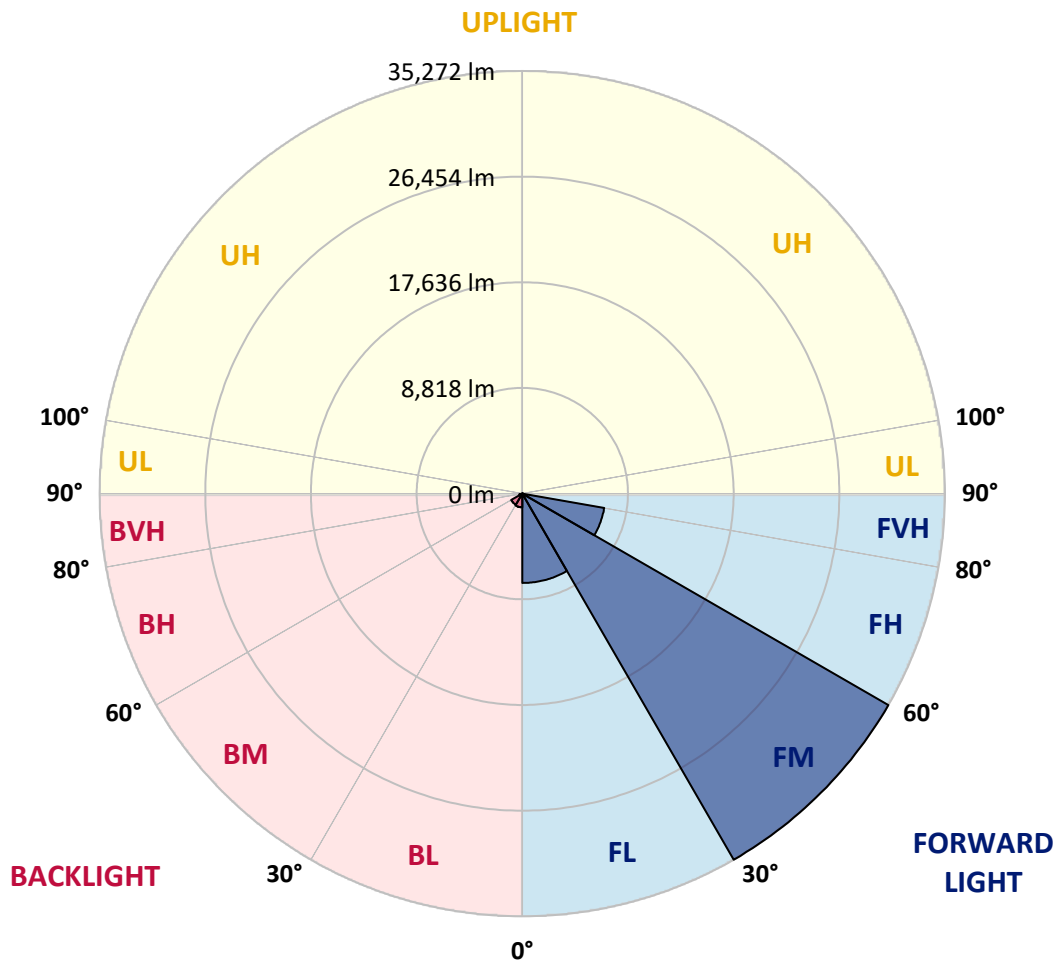


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 7454.3 | 14.3 | | | |
| FM (30°-60°) | 35271.9 | 67.5 | | | |
| FH (60°-80°) | 6940.2 | 13.3 | | | G3/7500 |
| FVH (80°-90°) | 82.3 | 0.2 | | | G1/100 |
| BL (0°-30°) | 1142.0 | 2.2 | B3/2500 | | |
| BM (30°-60°) | 1070.1 | 2.0 | B2/2500 | | |
| BH (60°-80°) | 247.3 | 0.5 | B1/500 | | G1/500 |
| 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: B3-U0-G3
 Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 56° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 |
| 2.5° | 14743.9 | 14641.7 | 14500.8 | 14391.6 | 14134.4 | 13764.5 | 13373.4 | 13373.4 | 12996.5 | 12471.5 | 11936.0 |
| 5° | 17005.7 | 16938.7 | 16801.3 | 16519.5 | 16230.6 | 15712.7 | 14927.1 | 14789.7 | 14116.8 | 13165.6 | 12165.0 |
| 7.5° | 17925.2 | 17956.9 | 17963.9 | 17889.9 | 17752.5 | 17241.7 | 16463.1 | 16368.0 | 15293.5 | 14018.1 | 12464.5 |
| 10° | 17044.4 | 17199.4 | 17350.9 | 17657.4 | 18090.8 | 18214.1 | 17773.7 | 17675.0 | 16618.1 | 14881.3 | 12788.6 |
| 12.5° | 15733.9 | 15818.4 | 15903.0 | 16385.6 | 17255.8 | 18252.8 | 18714.3 | 18710.8 | 17816.0 | 15740.9 | 13200.8 |
| 15° | 15124.4 | 15198.4 | 15205.4 | 15420.3 | 16174.2 | 17625.7 | 19116.0 | 19168.8 | 18985.6 | 16801.3 | 13644.7 |
| 17.5° | 15251.2 | 15311.1 | 15261.8 | 15314.6 | 15709.2 | 16935.2 | 19070.2 | 19246.3 | 19933.3 | 17819.5 | 14046.3 |
| 20° | 16079.1 | 16195.4 | 16005.1 | 15857.2 | 15976.9 | 16752.0 | 18915.1 | 19161.8 | 20602.7 | 18813.0 | 14412.7 |
| 22.5° | 17565.8 | 17629.2 | 17389.7 | 16984.5 | 16773.1 | 17136.0 | 18872.9 | 19116.0 | 21173.4 | 19626.8 | 14624.1 |
| 25° | 19218.1 | 19197.0 | 18932.8 | 18478.3 | 18034.4 | 17911.1 | 19151.2 | 19369.6 | 21645.5 | 20359.6 | 14687.5 |
| 27.5° | 20870.4 | 20933.8 | 20489.9 | 19926.3 | 19394.3 | 19073.7 | 19774.8 | 19936.8 | 22177.5 | 21194.5 | 14765.0 |
| 30° | 22790.5 | 22688.3 | 22251.5 | 21606.7 | 20997.3 | 20549.8 | 20778.8 | 20824.6 | 22910.3 | 22300.8 | 14969.4 |
| 32.5° | 25288.3 | 25006.5 | 24516.8 | 23389.4 | 22952.5 | 22195.1 | 22251.5 | 22307.8 | 23801.6 | 23396.4 | 15216.0 |
| 35° | 28677.5 | 28663.4 | 27705.1 | 26186.7 | 25122.7 | 24182.1 | 23935.5 | 23981.3 | 25150.9 | 25024.1 | 15762.0 |
| 37.5° | 32757.1 | 32813.5 | 31721.4 | 30192.4 | 28233.6 | 26739.8 | 26232.5 | 26239.5 | 27201.3 | 27271.8 | 16593.5 |
| 40° | 36079.4 | 36227.3 | 35575.6 | 34543.3 | 32609.2 | 30273.4 | 29420.8 | 29343.3 | 30083.2 | 29995.1 | 17780.7 |
| 42.5° | 37509.7 | 37647.1 | 37890.2 | 38249.5 | 37185.6 | 35258.5 | 33246.8 | 33352.5 | 33578.0 | 32961.5 | 19112.4 |
| 45° | 36808.6 | 37027.0 | 37981.8 | 40201.3 | 41201.8 | 40553.6 | 38154.4 | 37784.5 | 36829.8 | 36185.0 | 20451.2 |
| 47.5° | 33888.0 | 34420.0 | 36015.9 | 39711.6 | 43213.5 | 45404.8 | 43692.6 | 43202.9 | 40085.0 | 38538.4 | 21303.8 |
| 50° | 29086.1 | 29117.8 | 31340.9 | 36065.3 | 42170.7 | 48466.3 | 49347.1 | 48980.7 | 43118.4 | 39859.6 | 21733.6 |
| 52.5° | 21085.3 | 21779.4 | 23815.7 | 29287.0 | 37654.1 | 48001.3 | 52951.1 | 52799.7 | 46246.8 | 40536.0 | 22353.6 |
| 54° | 16029.8 | 16163.7 | 17974.5 | 23403.5 | 32464.7 | 45447.1 | 53173.1 | 53208.3 | 47800.5 | 40944.7 | 22720.0 |
| 55° | 13140.9 | 12820.3 | 14722.7 | 19936.8 | 28924.1 | 43188.8 | 52447.4 | 52616.5 | 48498.0 | 41156.0 | 22991.3 |
| 57.5° | 6228.7 | 6232.2 | 7687.3 | 10516.2 | 18115.4 | 33535.7 | 48011.9 | 48610.8 | 48575.5 | 41518.9 | 23826.3 |
| 60° | 3153.1 | 3174.3 | 3494.8 | 4854.7 | 8948.5 | 22293.7 | 39697.5 | 41124.3 | 44837.6 | 41571.8 | 24101.0 |
| 62.5° | 2205.4 | 2180.8 | 2127.9 | 2335.8 | 3766.1 | 11330.1 | 29554.7 | 30794.8 | 38094.5 | 39560.1 | 23227.3 |
| 65° | 1888.3 | 1835.5 | 1687.5 | 1655.8 | 1902.4 | 4513.0 | 18407.8 | 20430.1 | 29086.1 | 34254.4 | 20740.1 |
| 67.5° | 1613.5 | 1592.4 | 1458.5 | 1377.5 | 1345.8 | 1965.9 | 9498.1 | 10562.0 | 19880.5 | 24622.5 | 15709.2 |
| 70° | 1370.5 | 1359.9 | 1278.9 | 1176.7 | 1088.6 | 1176.7 | 3523.0 | 4365.0 | 11079.9 | 13257.2 | 7412.5 |
| 72.5° | 1113.3 | 1123.8 | 1137.9 | 1007.6 | 916.0 | 835.0 | 1504.3 | 1750.9 | 4636.3 | 4738.5 | 2593.0 |
| 75° | 975.9 | 965.3 | 965.3 | 877.2 | 764.5 | 620.1 | 827.9 | 891.3 | 1419.8 | 1317.6 | 602.4 |
| 77.5° | 687.0 | 662.3 | 775.1 | 722.2 | 637.7 | 440.4 | 472.1 | 500.3 | 588.3 | 503.8 | 281.8 |
| 80° | 475.6 | 475.6 | 496.7 | 648.2 | 574.3 | 320.6 | 288.9 | 310.0 | 348.8 | 299.5 | 162.1 |
| 82.5° | 267.8 | 274.8 | 324.1 | 345.3 | 334.7 | 214.9 | 190.2 | 193.8 | 232.5 | 204.3 | 102.2 |
| 85° | 31.7 | 52.8 | 186.7 | 183.2 | 137.4 | 95.1 | 105.7 | 109.2 | 144.4 | 126.8 | 59.9 |
| 87.5° | 3.5 | 7.0 | 38.8 | 49.3 | 35.2 | 38.8 | 38.8 | 38.8 | 49.3 | 56.4 | 42.3 |
| 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° | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 | 11601.3 |
| 2.5° | 11647.1 | 11379.4 | 10741.7 | 10001.9 | 9529.8 | 8761.8 | 8113.5 | 7645.0 | 7528.7 | 7303.2 | 7370.2 |
| 5° | 11633.0 | 11076.4 | 9776.4 | 8402.4 | 6936.8 | 5844.7 | 5030.9 | 4389.7 | 4107.9 | 3921.1 | 3790.8 |
| 7.5° | 11640.1 | 10769.9 | 8684.3 | 6496.5 | 4745.5 | 3674.5 | 2920.6 | 2529.5 | 2268.8 | 2159.6 | 2173.7 |
| 10° | 11661.2 | 10424.6 | 7416.0 | 4812.5 | 3202.4 | 2374.5 | 1913.0 | 1726.3 | 1638.2 | 1624.1 | 1620.6 |
| 12.5° | 11710.6 | 10047.7 | 6204.1 | 3572.4 | 2240.6 | 1726.3 | 1550.1 | 1486.7 | 1458.5 | 1458.5 | 1448.0 |
| 15° | 11763.4 | 9632.0 | 5196.5 | 2656.4 | 1726.3 | 1483.2 | 1402.2 | 1370.5 | 1352.8 | 1352.8 | 1349.3 |
| 17.5° | 11763.4 | 9152.8 | 4255.8 | 2061.0 | 1486.7 | 1363.4 | 1300.0 | 1257.7 | 1243.6 | 1243.6 | 1240.1 |
| 20° | 11689.4 | 8596.2 | 3420.9 | 1659.3 | 1349.3 | 1250.7 | 1187.3 | 1141.5 | 1123.8 | 1116.8 | 1113.3 |
| 22.5° | 11432.2 | 7852.8 | 2723.3 | 1426.8 | 1236.6 | 1152.0 | 1071.0 | 1018.2 | 1004.1 | 997.0 | 1000.5 |
| 25° | 10974.2 | 7014.4 | 2156.1 | 1254.2 | 1134.4 | 1032.2 | 961.8 | 923.0 | 908.9 | 908.9 | 912.5 |
| 27.5° | 10502.2 | 6137.1 | 1708.7 | 1123.8 | 1011.1 | 919.5 | 863.1 | 838.5 | 835.0 | 845.5 | 849.1 |
| 30° | 10065.3 | 5256.4 | 1384.6 | 1018.2 | 901.9 | 824.4 | 785.6 | 778.6 | 778.6 | 782.1 | 785.6 |
| 32.5° | 9579.1 | 4484.8 | 1159.1 | 926.6 | 813.8 | 746.9 | 725.7 | 725.7 | 732.8 | 732.8 | 739.8 |
| 35° | 9272.6 | 3822.5 | 1018.2 | 838.5 | 746.9 | 690.5 | 676.4 | 679.9 | 690.5 | 704.6 | 711.7 |
| 37.5° | 9107.0 | 3294.0 | 926.6 | 768.0 | 683.5 | 644.7 | 630.6 | 637.7 | 662.3 | 687.0 | 690.5 |
| 40° | 9121.1 | 2895.9 | 852.6 | 708.1 | 634.1 | 591.9 | 581.3 | 602.4 | 627.1 | 651.8 | 655.3 |
| 42.5° | 9276.1 | 2600.0 | 782.1 | 637.7 | 591.9 | 532.0 | 528.5 | 549.6 | 560.2 | 584.8 | 588.3 |
| 45° | 9459.3 | 2385.1 | 708.1 | 563.7 | 514.4 | 461.5 | 465.0 | 482.7 | 496.7 | 535.5 | 542.5 |
| 47.5° | 9515.7 | 2237.1 | 623.6 | 479.1 | 422.8 | 405.1 | 408.7 | 419.2 | 447.4 | 482.7 | 486.2 |
| 50° | 9579.1 | 2145.5 | 542.5 | 405.1 | 359.3 | 355.8 | 359.3 | 366.4 | 384.0 | 398.1 | 394.6 |
| 52.5° | 9850.4 | 2142.0 | 475.6 | 352.3 | 306.5 | 313.5 | 317.1 | 313.5 | 299.5 | 278.3 | 271.3 |
| 54° | 10104.1 | 2152.6 | 443.9 | 327.6 | 281.8 | 292.4 | 288.9 | 271.3 | 236.0 | 214.9 | 204.3 |
| 55° | 10308.4 | 2163.1 | 426.3 | 310.0 | 267.8 | 271.3 | 274.8 | 239.6 | 193.8 | 172.6 | 165.6 |
| 57.5° | 10710.0 | 2138.5 | 384.0 | 271.3 | 236.0 | 222.0 | 218.4 | 158.5 | 105.7 | 91.6 | 84.6 |
| 60° | 10509.2 | 1930.6 | 348.8 | 232.5 | 200.8 | 179.7 | 148.0 | 88.1 | 52.8 | 38.8 | 38.8 |
| 62.5° | 9720.0 | 1638.2 | 310.0 | 190.2 | 165.6 | 137.4 | 77.5 | 49.3 | 24.7 | 14.1 | 10.6 |
| 65° | 8694.8 | 1377.5 | 278.3 | 151.5 | 130.4 | 88.1 | 42.3 | 31.7 | 10.6 | 0.0 | 0.0 |
| 67.5° | 6464.8 | 1021.7 | 236.0 | 119.8 | 98.6 | 56.4 | 28.2 | 17.6 | 3.5 | 0.0 | 0.0 |
| 70° | 2994.6 | 623.6 | 200.8 | 91.6 | 70.5 | 42.3 | 21.1 | 10.6 | 0.0 | 0.0 | 0.0 |
| 72.5° | 859.6 | 391.1 | 165.6 | 66.9 | 49.3 | 35.2 | 17.6 | 7.0 | 3.5 | 0.0 | 0.0 |
| 75° | 299.5 | 313.5 | 123.3 | 49.3 | 38.8 | 24.7 | 14.1 | 7.0 | 3.5 | 0.0 | 0.0 |
| 77.5° | 179.7 | 253.7 | 77.5 | 42.3 | 31.7 | 21.1 | 14.1 | 7.0 | 3.5 | 3.5 | 0.0 |
| 80° | 102.2 | 169.1 | 49.3 | 35.2 | 28.2 | 17.6 | 10.6 | 7.0 | 3.5 | 3.5 | 0.0 |
| 82.5° | 56.4 | 81.0 | 38.8 | 31.7 | 24.7 | 17.6 | 10.6 | 7.0 | 3.5 | 3.5 | 3.5 |
| 85° | 45.8 | 42.3 | 31.7 | 28.2 | 21.1 | 14.1 | 10.6 | 3.5 | 0.0 | 0.0 | 0.0 |
| 87.5° | 35.2 | 28.2 | 28.2 | 28.2 | 21.1 | 14.1 | 10.6 | 3.5 | 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)