

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: P455790

Luminaire Tested: **GALN-SA7A-730-U-AFL-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P455790
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-SA7A-730-U-AFL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 3000K, 615mA 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: 23767 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

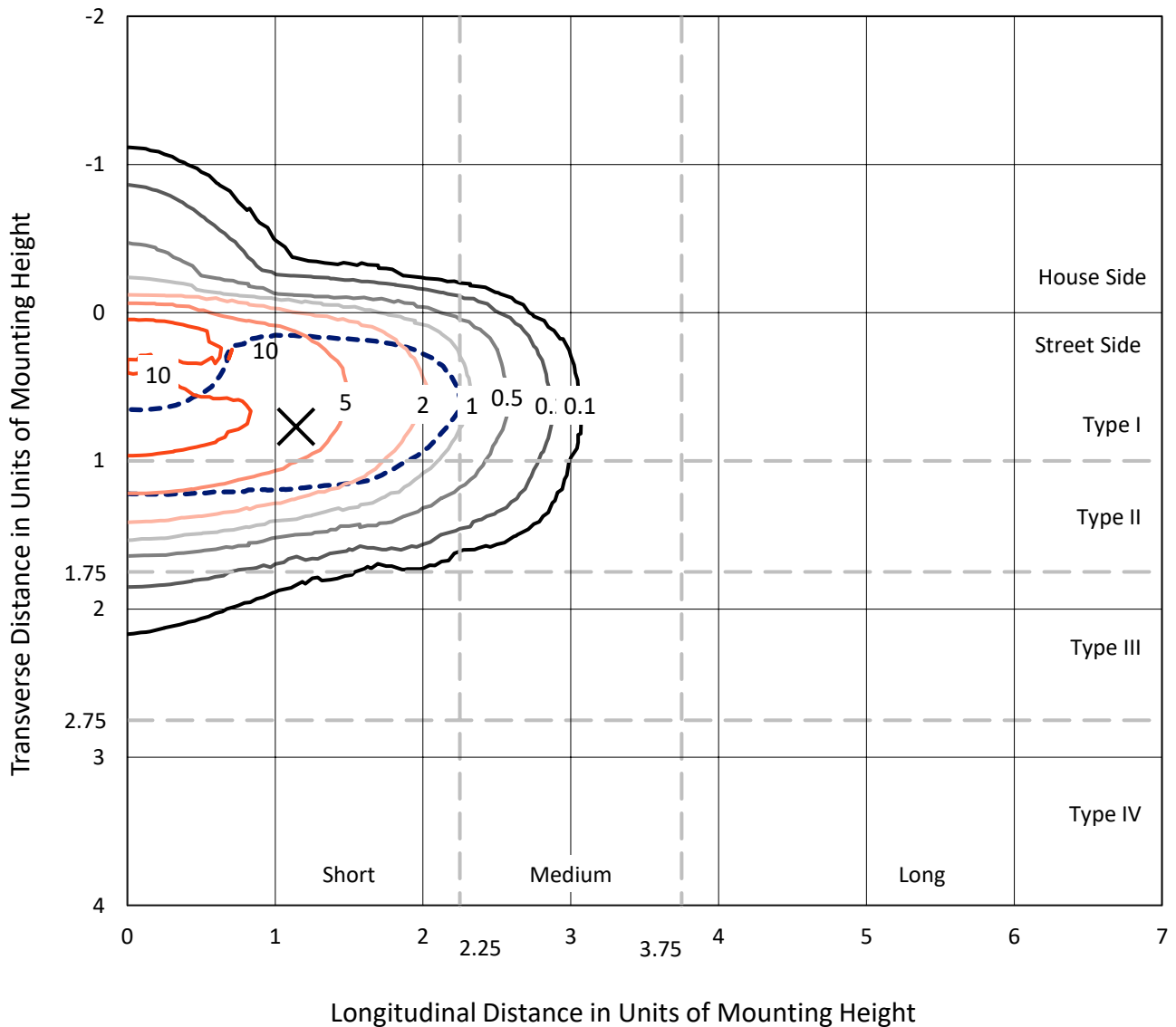
Input Watts (W): 215
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

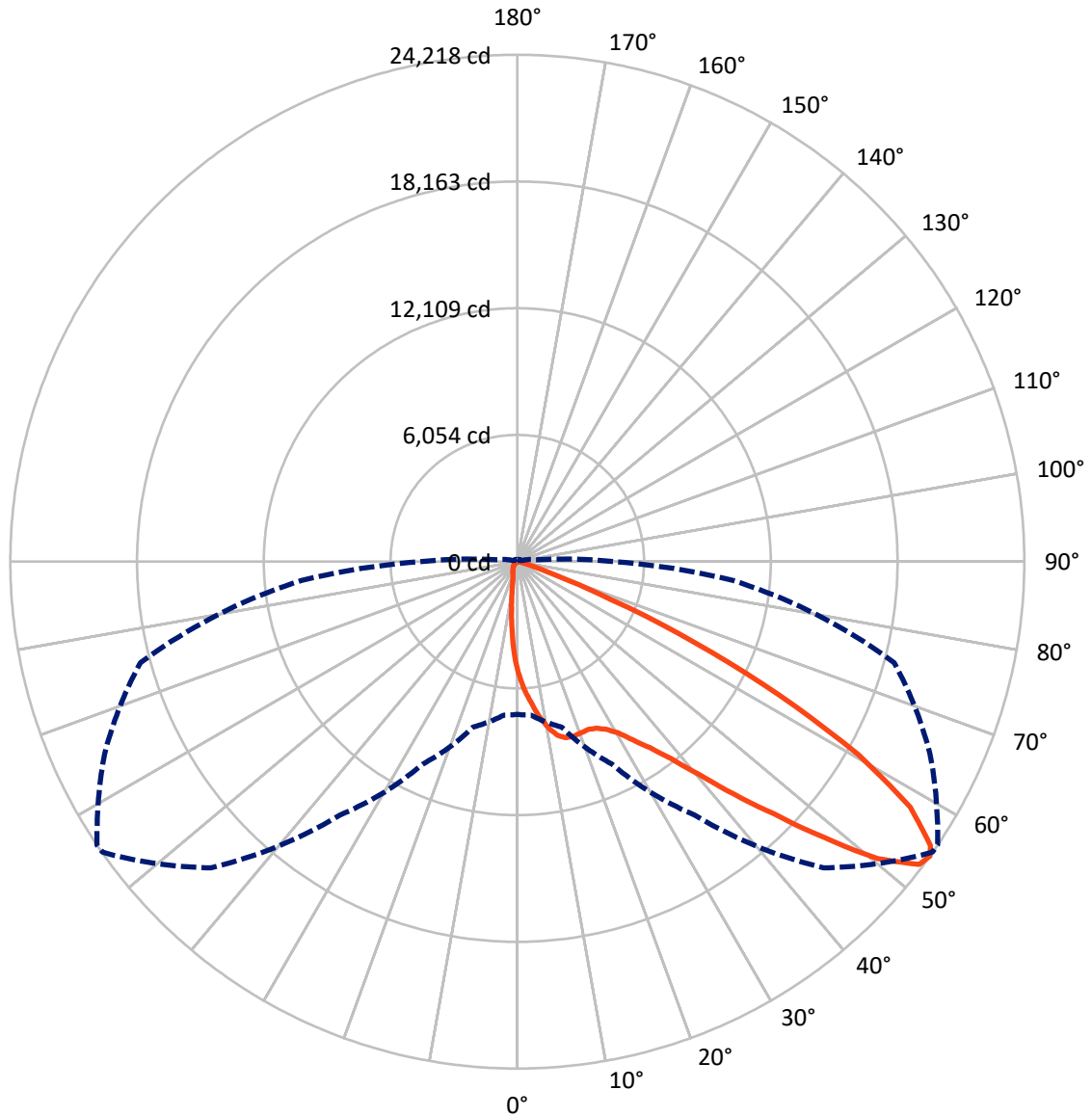
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.7 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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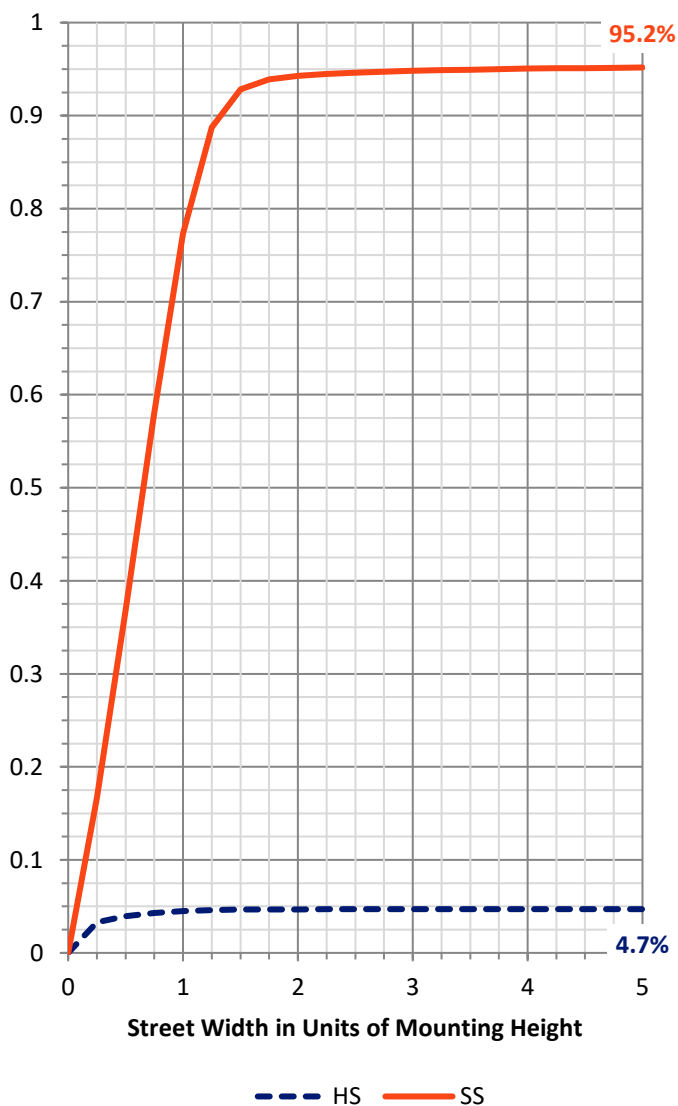
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1123.9 | 0.0 | 1123.9 |
| | % Fixture | 4.7 | 0.0 | 4.7 |
| Street Side | Lumens | 22643.1 | 0.0 | 22643.1 |
| | % Fixture | 95.3 | 0.0 | 95.3 |
| Total | Lumens | 23767.0 | 0.0 | 23767.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 466.6 | 2.0 |
| 10°-20° | 1261.4 | 5.3 |
| 20°-30° | 2184.6 | 9.2 |
| 30°-40° | 3771.0 | 15.9 |
| 40°-50° | 6418.3 | 27.0 |
| 50°-60° | 6351.8 | 26.7 |
| 60°-70° | 2899.1 | 12.2 |
| 70°-80° | 372.3 | 1.6 |
| 80°-90° | 41.9 | 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° | 23767.0 | 100.0 |
| 0°-180° | 23767.0 | 100.0 |

Coefficient of Utilization



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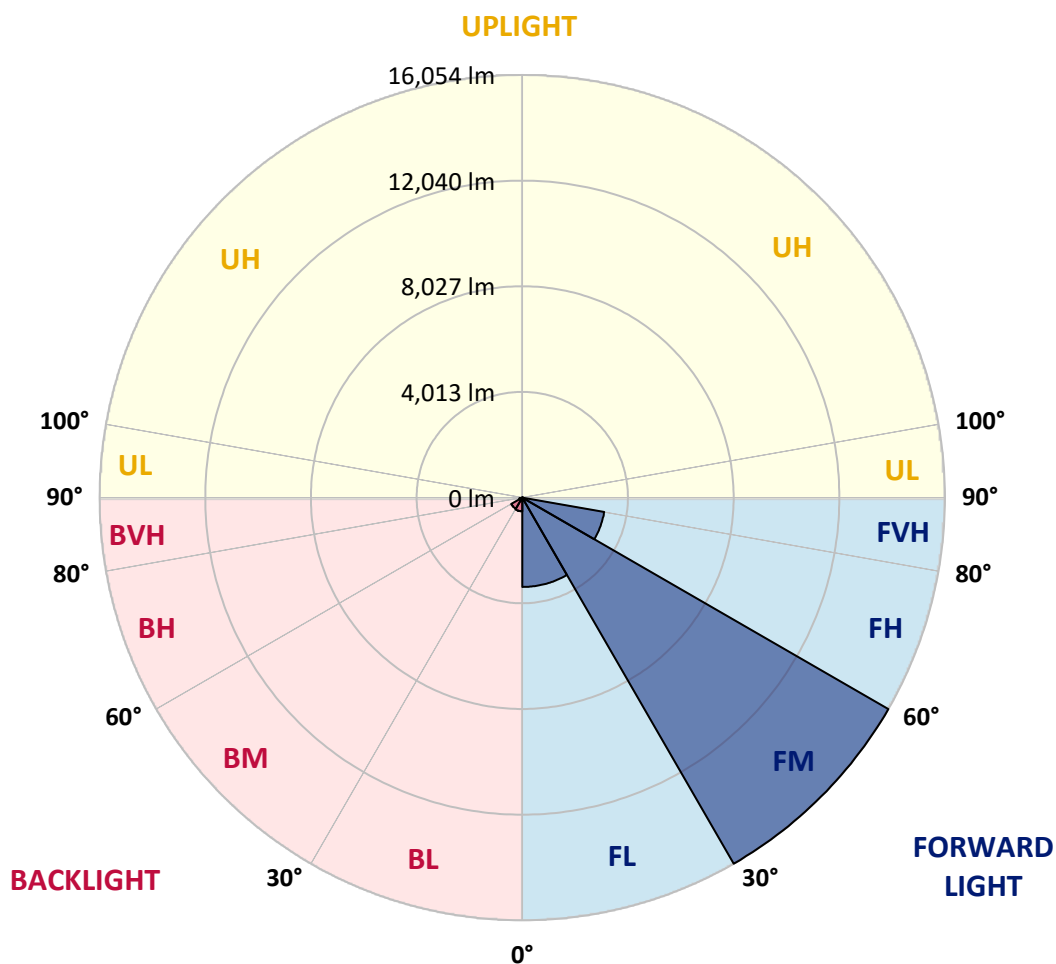
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3392.8 | 14.3 | | | |
| FM (30°-60°) | 16054.0 | 67.5 | | | |
| FH (60°-80°) | 3158.8 | 13.3 | | | G2/5000 |
| FVH (80°-90°) | 37.5 | 0.2 | | | G1/100 |
| BL (0°-30°) | 519.8 | 2.2 | B2/1000 | | |
| BM (30°-60°) | 487.1 | 2.0 | B1/1000 | | |
| BH (60°-80°) | 112.5 | 0.5 | B1/500 | | G1/500 |
| BVH (80°-90°) | 4.5 | 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-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 56° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 |
| 2.5° | 6710.7 | 6664.2 | 6600.0 | 6550.3 | 6433.3 | 6264.9 | 6086.9 | 6086.9 | 5915.3 | 5676.4 | 5432.7 |
| 5° | 7740.1 | 7709.7 | 7647.1 | 7518.8 | 7387.4 | 7151.6 | 6794.1 | 6731.5 | 6425.2 | 5992.3 | 5536.9 |
| 7.5° | 8158.6 | 8173.1 | 8176.3 | 8142.6 | 8080.1 | 7847.6 | 7493.2 | 7449.9 | 6960.8 | 6380.3 | 5673.2 |
| 10° | 7757.8 | 7828.3 | 7897.3 | 8036.8 | 8234.0 | 8290.1 | 8089.7 | 8044.8 | 7563.7 | 6773.2 | 5820.7 |
| 12.5° | 7161.3 | 7199.7 | 7238.2 | 7457.9 | 7854.0 | 8307.8 | 8517.8 | 8516.2 | 8108.9 | 7164.5 | 6008.3 |
| 15° | 6883.8 | 6917.5 | 6920.7 | 7018.5 | 7361.7 | 8022.3 | 8700.6 | 8724.7 | 8641.3 | 7647.1 | 6210.4 |
| 17.5° | 6941.6 | 6968.8 | 6946.4 | 6970.4 | 7150.0 | 7708.1 | 8679.8 | 8760.0 | 9072.6 | 8110.5 | 6393.2 |
| 20° | 7318.4 | 7371.3 | 7284.7 | 7217.4 | 7271.9 | 7624.7 | 8609.2 | 8721.5 | 9377.3 | 8562.7 | 6559.9 |
| 22.5° | 7995.1 | 8023.9 | 7914.9 | 7730.5 | 7634.3 | 7799.5 | 8590.0 | 8700.6 | 9637.1 | 8933.1 | 6656.2 |
| 25° | 8747.1 | 8737.5 | 8617.2 | 8410.4 | 8208.3 | 8152.2 | 8716.7 | 8816.1 | 9851.9 | 9266.7 | 6685.0 |
| 27.5° | 9499.2 | 9528.0 | 9326.0 | 9069.4 | 8827.3 | 8681.4 | 9000.5 | 9074.2 | 10094.1 | 9646.7 | 6720.3 |
| 30° | 10373.1 | 10326.6 | 10127.7 | 9834.3 | 9556.9 | 9353.2 | 9457.5 | 9478.3 | 10427.6 | 10150.2 | 6813.3 |
| 32.5° | 11510.0 | 11381.7 | 11158.8 | 10645.7 | 10446.8 | 10102.1 | 10127.7 | 10153.4 | 10833.3 | 10648.9 | 6925.5 |
| 35° | 13052.5 | 13046.1 | 12610.0 | 11918.9 | 11434.6 | 11006.5 | 10894.2 | 10915.1 | 11447.4 | 11389.7 | 7174.1 |
| 37.5° | 14909.4 | 14935.1 | 14438.0 | 13742.0 | 12850.5 | 12170.6 | 11939.7 | 11942.9 | 12380.7 | 12412.7 | 7552.5 |
| 40° | 16421.5 | 16488.8 | 16192.2 | 15722.4 | 14842.0 | 13778.9 | 13390.9 | 13355.6 | 13692.3 | 13652.2 | 8092.9 |
| 42.5° | 17072.5 | 17135.1 | 17245.7 | 17409.3 | 16925.0 | 16047.9 | 15132.3 | 15180.4 | 15283.0 | 15002.4 | 8699.0 |
| 45° | 16753.4 | 16852.8 | 17287.4 | 18297.6 | 18753.0 | 18458.0 | 17366.0 | 17197.6 | 16763.0 | 16469.6 | 9308.4 |
| 47.5° | 15424.1 | 15666.3 | 16392.6 | 18074.7 | 19668.6 | 20666.0 | 19886.7 | 19663.8 | 18244.7 | 17540.7 | 9696.4 |
| 50° | 13238.5 | 13253.0 | 14264.8 | 16415.1 | 19194.0 | 22059.4 | 22460.3 | 22293.5 | 19625.3 | 18142.1 | 9892.0 |
| 52.5° | 9597.0 | 9912.9 | 10839.7 | 13329.9 | 17138.3 | 21847.8 | 24100.7 | 24031.7 | 21049.2 | 18449.9 | 10174.2 |
| 54° | 7296.0 | 7356.9 | 8181.1 | 10652.1 | 14776.3 | 20685.2 | 24201.7 | 24217.7 | 21756.4 | 18635.9 | 10341.0 |
| 55° | 5981.1 | 5835.2 | 6701.1 | 9074.2 | 13164.8 | 19657.4 | 23871.4 | 23948.4 | 22073.9 | 18732.2 | 10464.5 |
| 57.5° | 2835.0 | 2836.6 | 3498.8 | 4786.5 | 8245.2 | 15263.8 | 21852.6 | 22125.2 | 22109.1 | 18897.3 | 10844.5 |
| 60° | 1435.1 | 1444.8 | 1590.7 | 2209.6 | 4072.9 | 10147.0 | 18068.3 | 18717.7 | 20407.8 | 18921.4 | 10969.6 |
| 62.5° | 1003.8 | 992.6 | 968.5 | 1063.1 | 1714.1 | 5156.9 | 13451.8 | 14016.2 | 17338.7 | 18005.8 | 10571.9 |
| 65° | 859.5 | 835.4 | 768.1 | 753.6 | 865.9 | 2054.1 | 8378.3 | 9298.7 | 13238.5 | 15590.9 | 9439.8 |
| 67.5° | 734.4 | 724.8 | 663.9 | 627.0 | 612.5 | 894.8 | 4323.1 | 4807.3 | 9048.6 | 11206.9 | 7150.0 |
| 70° | 623.8 | 619.0 | 582.1 | 535.6 | 495.5 | 535.6 | 1603.5 | 1986.7 | 5043.0 | 6034.0 | 3373.8 |
| 72.5° | 506.7 | 511.5 | 517.9 | 458.6 | 416.9 | 380.0 | 684.7 | 796.9 | 2110.2 | 2156.7 | 1180.2 |
| 75° | 444.2 | 439.4 | 439.4 | 399.3 | 348.0 | 282.2 | 376.8 | 405.7 | 646.2 | 599.7 | 274.2 |
| 77.5° | 312.7 | 301.5 | 352.8 | 328.7 | 290.2 | 200.4 | 214.9 | 227.7 | 267.8 | 229.3 | 128.3 |
| 80° | 216.5 | 216.5 | 226.1 | 295.0 | 261.4 | 145.9 | 131.5 | 141.1 | 158.7 | 136.3 | 73.8 |
| 82.5° | 121.9 | 125.1 | 147.5 | 157.1 | 152.3 | 97.8 | 86.6 | 88.2 | 105.8 | 93.0 | 46.5 |
| 85° | 14.4 | 24.1 | 85.0 | 83.4 | 62.5 | 43.3 | 48.1 | 49.7 | 65.7 | 57.7 | 27.3 |
| 87.5° | 1.6 | 3.2 | 17.6 | 22.4 | 16.0 | 17.6 | 17.6 | 17.6 | 22.4 | 25.7 | 19.2 |
| 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° | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 | 5280.3 |
| 2.5° | 5301.2 | 5179.3 | 4889.1 | 4552.4 | 4337.5 | 3987.9 | 3692.9 | 3479.6 | 3426.7 | 3324.1 | 3354.5 |
| 5° | 5294.8 | 5041.4 | 4449.7 | 3824.4 | 3157.3 | 2660.2 | 2289.8 | 1998.0 | 1869.7 | 1784.7 | 1725.4 |
| 7.5° | 5298.0 | 4901.9 | 3952.6 | 2956.9 | 2159.9 | 1672.5 | 1329.3 | 1151.3 | 1032.7 | 982.9 | 989.4 |
| 10° | 5307.6 | 4744.8 | 3375.4 | 2190.4 | 1457.6 | 1080.8 | 870.7 | 785.7 | 745.6 | 739.2 | 737.6 |
| 12.5° | 5330.1 | 4573.2 | 2823.8 | 1626.0 | 1019.8 | 785.7 | 705.5 | 676.7 | 663.9 | 663.9 | 659.0 |
| 15° | 5354.1 | 4384.0 | 2365.2 | 1209.0 | 785.7 | 675.1 | 638.2 | 623.8 | 615.7 | 615.7 | 614.1 |
| 17.5° | 5354.1 | 4165.9 | 1937.0 | 938.1 | 676.7 | 620.6 | 591.7 | 572.5 | 566.0 | 566.0 | 564.4 |
| 20° | 5320.4 | 3912.6 | 1557.0 | 755.3 | 614.1 | 569.2 | 540.4 | 519.5 | 511.5 | 508.3 | 506.7 |
| 22.5° | 5203.4 | 3574.2 | 1239.5 | 649.4 | 562.8 | 524.3 | 487.5 | 463.4 | 457.0 | 453.8 | 455.4 |
| 25° | 4994.9 | 3192.6 | 981.3 | 570.8 | 516.3 | 469.8 | 437.8 | 420.1 | 413.7 | 413.7 | 415.3 |
| 27.5° | 4780.1 | 2793.3 | 777.7 | 511.5 | 460.2 | 418.5 | 392.9 | 381.6 | 380.0 | 384.8 | 386.4 |
| 30° | 4581.2 | 2392.4 | 630.2 | 463.4 | 410.5 | 375.2 | 357.6 | 354.4 | 354.4 | 356.0 | 357.6 |
| 32.5° | 4359.9 | 2041.3 | 527.6 | 421.7 | 370.4 | 339.9 | 330.3 | 330.3 | 333.5 | 333.5 | 336.7 |
| 35° | 4220.4 | 1739.8 | 463.4 | 381.6 | 339.9 | 314.3 | 307.9 | 309.5 | 314.3 | 320.7 | 323.9 |
| 37.5° | 4145.1 | 1499.3 | 421.7 | 349.6 | 311.1 | 293.4 | 287.0 | 290.2 | 301.5 | 312.7 | 314.3 |
| 40° | 4151.5 | 1318.1 | 388.0 | 322.3 | 288.6 | 269.4 | 264.6 | 274.2 | 285.4 | 296.6 | 298.3 |
| 42.5° | 4222.0 | 1183.4 | 356.0 | 290.2 | 269.4 | 242.1 | 240.5 | 250.1 | 255.0 | 266.2 | 267.8 |
| 45° | 4305.4 | 1085.6 | 322.3 | 256.6 | 234.1 | 210.1 | 211.7 | 219.7 | 226.1 | 243.7 | 246.9 |
| 47.5° | 4331.1 | 1018.2 | 283.8 | 218.1 | 192.4 | 184.4 | 186.0 | 190.8 | 203.6 | 219.7 | 221.3 |
| 50° | 4359.9 | 976.5 | 246.9 | 184.4 | 163.6 | 162.0 | 163.6 | 166.8 | 174.8 | 181.2 | 179.6 |
| 52.5° | 4483.4 | 974.9 | 216.5 | 160.4 | 139.5 | 142.7 | 144.3 | 142.7 | 136.3 | 126.7 | 123.5 |
| 54° | 4598.9 | 979.7 | 202.0 | 149.1 | 128.3 | 133.1 | 131.5 | 123.5 | 107.4 | 97.8 | 93.0 |
| 55° | 4691.9 | 984.6 | 194.0 | 141.1 | 121.9 | 123.5 | 125.1 | 109.0 | 88.2 | 78.6 | 75.4 |
| 57.5° | 4874.7 | 973.3 | 174.8 | 123.5 | 107.4 | 101.0 | 99.4 | 72.2 | 48.1 | 41.7 | 38.5 |
| 60° | 4783.3 | 878.7 | 158.7 | 105.8 | 91.4 | 81.8 | 67.3 | 40.1 | 24.1 | 17.6 | 17.6 |
| 62.5° | 4424.1 | 745.6 | 141.1 | 86.6 | 75.4 | 62.5 | 35.3 | 22.4 | 11.2 | 6.4 | 4.8 |
| 65° | 3957.5 | 627.0 | 126.7 | 69.0 | 59.3 | 40.1 | 19.2 | 14.4 | 4.8 | 0.0 | 0.0 |
| 67.5° | 2942.4 | 465.0 | 107.4 | 54.5 | 44.9 | 25.7 | 12.8 | 8.0 | 1.6 | 0.0 | 0.0 |
| 70° | 1363.0 | 283.8 | 91.4 | 41.7 | 32.1 | 19.2 | 9.6 | 4.8 | 0.0 | 0.0 | 0.0 |
| 72.5° | 391.3 | 178.0 | 75.4 | 30.5 | 22.4 | 16.0 | 8.0 | 3.2 | 1.6 | 0.0 | 0.0 |
| 75° | 136.3 | 142.7 | 56.1 | 22.4 | 17.6 | 11.2 | 6.4 | 3.2 | 1.6 | 0.0 | 0.0 |
| 77.5° | 81.8 | 115.5 | 35.3 | 19.2 | 14.4 | 9.6 | 6.4 | 3.2 | 1.6 | 1.6 | 0.0 |
| 80° | 46.5 | 77.0 | 22.4 | 16.0 | 12.8 | 8.0 | 4.8 | 3.2 | 1.6 | 1.6 | 0.0 |
| 82.5° | 25.7 | 36.9 | 17.6 | 14.4 | 11.2 | 8.0 | 4.8 | 3.2 | 1.6 | 1.6 | 1.6 |
| 85° | 20.8 | 19.2 | 14.4 | 12.8 | 9.6 | 6.4 | 4.8 | 1.6 | 0.0 | 0.0 | 0.0 |
| 87.5° | 16.0 | 12.8 | 12.8 | 12.8 | 9.6 | 6.4 | 4.8 | 1.6 | 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)