

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: P300897

Luminaire Tested: **GLNA-AF-10-LED-E1-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300897
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-10-LED-E1-SL4
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 55788 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 558
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: 25 FT

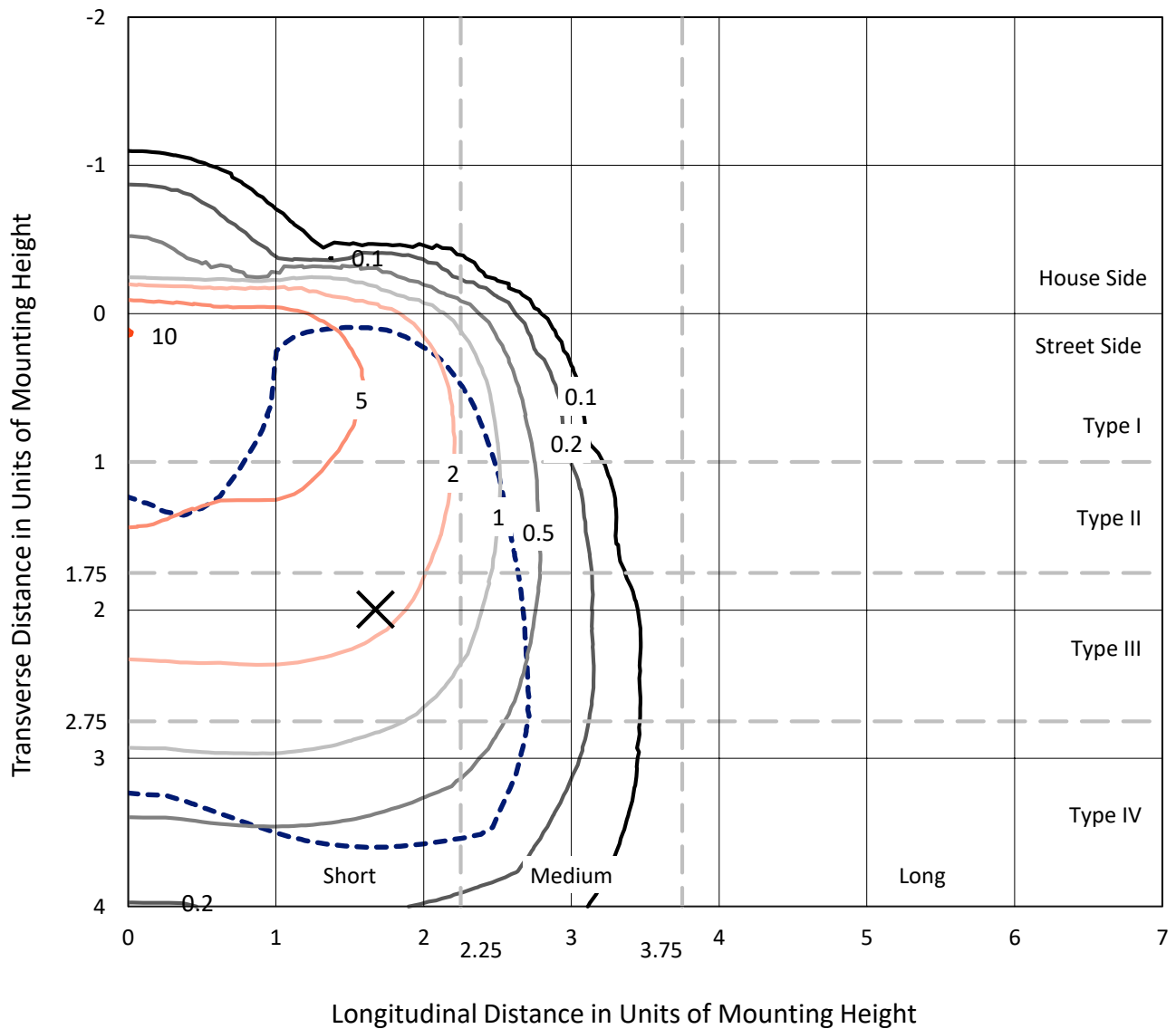


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Iso-Footcandle Lines of Horizontal Illumination

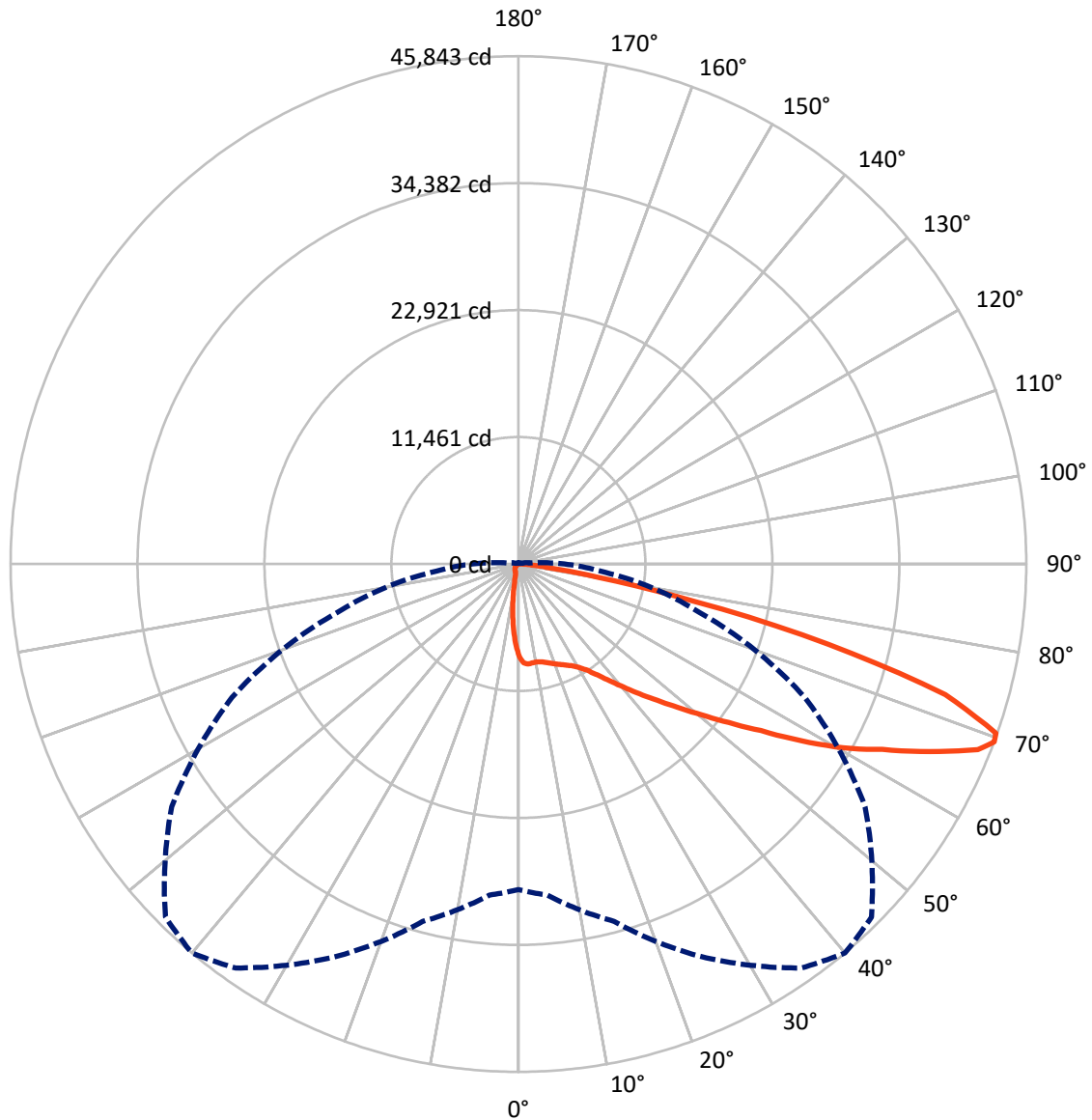
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3263.9 | 0.0 | 3263.9 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 52524.1 | 0.0 | 52524.1 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 55788.0 | 0.0 | 55788.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 675.8 | 1.2 |
| 10°-20° | 1661.9 | 3.0 |
| 20°-30° | 2799.3 | 5.0 |
| 30°-40° | 4582.5 | 8.2 |
| 40°-50° | 7934.4 | 14.2 |
| 50°-60° | 12497.5 | 22.4 |
| 60°-70° | 16321.2 | 29.3 |
| 70°-80° | 8406.1 | 15.1 |
| 80°-90° | 909.3 | 1.6 |
| 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° | 55788.0 | 100.0 |
| 0°-180° | 55788.0 | 100.0 |



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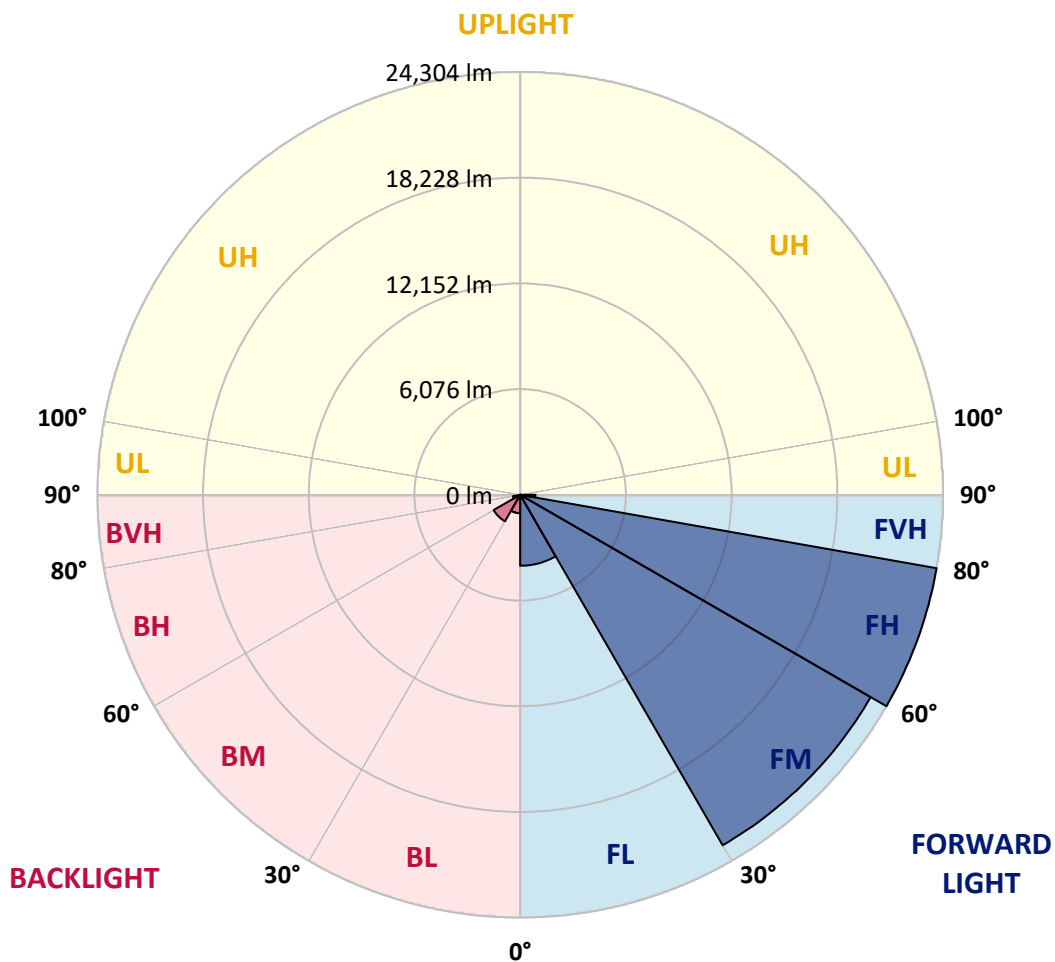
CATALOG NUMBER: GLNA-AF-10-LED-E1-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 4079.7 | 7.3 | | | |
| FM | (30°-60°) | 23260.1 | 41.7 | | | |
| FH | (60°-80°) | 24303.5 | 43.6 | | | G5 |
| FVH | (80°-90°) | 880.7 | 1.6 | | | G5 |
| BL | (0°-30°) | 1057.3 | 1.9 | B3/2500 | | |
| BM | (30°-60°) | 1754.3 | 3.1 | B2/2500 | | |
| BH | (60°-80°) | 423.8 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 28.5 | 0.1 | | | G1/100 |
| 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° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 |
| 2.5° | 9151.9 | 9102.1 | 9072.2 | 9032.4 | 8982.6 | 8939.4 | 8922.8 | 8799.9 | 8683.7 | 8524.3 | 8341.7 |
| 5° | 9321.3 | 9304.7 | 9251.5 | 9198.4 | 9138.6 | 9072.2 | 9035.7 | 8889.6 | 8723.5 | 8491.1 | 8172.3 |
| 7.5° | 9337.9 | 9317.9 | 9251.5 | 9178.5 | 9095.5 | 9015.8 | 8952.7 | 8806.6 | 8653.8 | 8418.0 | 8029.5 |
| 10° | 9311.3 | 9288.1 | 9238.3 | 9158.6 | 9055.6 | 8979.2 | 8916.1 | 8776.7 | 8647.2 | 8434.6 | 8002.9 |
| 12.5° | 9281.4 | 9258.2 | 9234.9 | 9195.1 | 9105.4 | 9052.3 | 8999.2 | 8866.3 | 8750.1 | 8570.8 | 8099.2 |
| 15° | 9311.3 | 9298.0 | 9324.6 | 9308.0 | 9258.2 | 9211.7 | 9158.6 | 9039.0 | 8932.7 | 8783.3 | 8275.2 |
| 17.5° | 9437.5 | 9437.5 | 9520.5 | 9530.5 | 9484.0 | 9417.6 | 9341.2 | 9221.6 | 9132.0 | 9005.8 | 8484.4 |
| 20° | 9733.0 | 9723.1 | 9829.3 | 9849.3 | 9736.4 | 9633.4 | 9520.5 | 9374.4 | 9304.7 | 9225.0 | 8690.3 |
| 22.5° | 10241.1 | 10194.6 | 10257.7 | 10237.8 | 10015.3 | 9855.9 | 9716.4 | 9537.1 | 9500.6 | 9464.1 | 8919.5 |
| 25° | 10901.9 | 10875.4 | 10918.5 | 10722.6 | 10330.8 | 10114.9 | 9948.9 | 9746.3 | 9746.3 | 9782.9 | 9178.5 |
| 27.5° | 11861.6 | 11762.0 | 11615.9 | 11270.5 | 10682.8 | 10407.1 | 10227.8 | 10012.0 | 10068.4 | 10204.6 | 9520.5 |
| 30° | 12844.6 | 12735.0 | 12399.6 | 11868.3 | 11111.1 | 10822.2 | 10613.0 | 10387.2 | 10520.1 | 10769.1 | 9978.8 |
| 32.5° | 13814.2 | 13691.3 | 13216.5 | 12545.7 | 11725.5 | 11436.6 | 11234.0 | 10985.0 | 11207.4 | 11625.9 | 10649.6 |
| 35° | 14754.0 | 14644.4 | 14096.5 | 13306.1 | 12542.4 | 12303.3 | 12117.3 | 11901.5 | 12187.1 | 12771.5 | 11596.0 |
| 37.5° | 15810.0 | 15690.4 | 15023.0 | 14166.2 | 13535.3 | 13362.6 | 13226.4 | 13010.6 | 13508.7 | 14365.4 | 12914.3 |
| 40° | 17108.4 | 16905.8 | 16005.9 | 15152.5 | 14684.2 | 14601.2 | 14508.2 | 14478.4 | 15252.1 | 16437.6 | 14671.0 |
| 42.5° | 18596.1 | 18264.0 | 17035.3 | 16191.8 | 15946.1 | 16005.9 | 15982.6 | 16115.5 | 17433.8 | 19014.5 | 16809.5 |
| 45° | 20083.7 | 19655.4 | 18181.0 | 17301.0 | 17334.2 | 17543.4 | 17672.9 | 18204.2 | 20166.8 | 21969.9 | 19110.8 |
| 47.5° | 21345.6 | 20923.9 | 19280.1 | 18499.7 | 18898.2 | 19310.0 | 19662.0 | 20668.2 | 22976.1 | 24878.9 | 20900.6 |
| 50° | 22424.8 | 22026.4 | 20445.7 | 19818.1 | 20714.7 | 21378.8 | 21950.0 | 23441.0 | 25997.9 | 27093.8 | 22155.9 |
| 52.5° | 23308.2 | 23042.5 | 21654.4 | 21329.0 | 22790.1 | 23763.1 | 24599.9 | 26386.5 | 28674.4 | 28893.6 | 23132.2 |
| 55° | 24168.2 | 23978.9 | 22952.8 | 23125.5 | 25227.5 | 26552.5 | 27611.8 | 29511.3 | 30979.0 | 30394.6 | 24068.6 |
| 57.5° | 25157.8 | 24985.1 | 24433.9 | 25403.5 | 28432.0 | 30099.0 | 31254.6 | 32280.8 | 33008.0 | 31928.8 | 24951.9 |
| 60° | 26167.3 | 26067.7 | 26081.0 | 27933.9 | 32111.4 | 33712.0 | 34349.6 | 34615.2 | 35000.4 | 33373.3 | 25001.7 |
| 62.5° | 27130.3 | 27319.6 | 27963.8 | 30749.9 | 35634.7 | 36863.3 | 37185.5 | 37447.8 | 36996.2 | 33602.4 | 23099.0 |
| 65° | 28760.8 | 29069.6 | 30607.1 | 34518.9 | 39510.0 | 40825.0 | 41157.0 | 40257.1 | 37311.6 | 30640.3 | 18788.7 |
| 67.5° | 29557.8 | 30122.3 | 32865.2 | 38032.2 | 43269.0 | 44730.1 | 44607.3 | 40439.8 | 33482.9 | 23364.6 | 12057.5 |
| 69° | 29391.7 | 29992.8 | 33386.6 | 39108.2 | 44517.6 | 45842.6 | 45062.2 | 38204.9 | 28525.0 | 16925.7 | 7401.9 |
| 70° | 28734.2 | 29341.9 | 33117.6 | 39068.3 | 44677.0 | 45726.4 | 44218.8 | 35445.4 | 24118.4 | 12376.3 | 4629.1 |
| 72.5° | 23995.5 | 24520.2 | 29401.7 | 35312.6 | 41157.0 | 40303.6 | 36992.9 | 24556.7 | 11752.0 | 3370.5 | 1042.7 |
| 75° | 14770.6 | 15062.8 | 21096.6 | 26602.3 | 31085.3 | 28893.6 | 24646.4 | 12216.9 | 3503.4 | 953.0 | 577.8 |
| 77.5° | 7803.7 | 7936.5 | 11549.5 | 15680.5 | 19705.2 | 16304.8 | 12632.0 | 4765.2 | 1613.9 | 597.7 | 418.4 |
| 80° | 4612.5 | 4712.1 | 6219.7 | 7169.4 | 8527.6 | 7123.0 | 5050.8 | 2925.6 | 1155.6 | 375.2 | 371.9 |
| 82.5° | 2640.0 | 2703.1 | 4509.5 | 3984.9 | 3360.6 | 2869.1 | 2513.8 | 2772.8 | 694.0 | 252.4 | 385.2 |
| 85° | 969.7 | 982.9 | 2537.0 | 3031.8 | 1999.1 | 1188.8 | 1248.6 | 2297.9 | 186.0 | 159.4 | 302.2 |
| 87.5° | 451.6 | 441.7 | 1305.0 | 1856.3 | 1168.9 | 753.8 | 973.0 | 504.7 | 73.1 | 102.9 | 83.0 |
| 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° | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 | 8335.0 |
| 2.5° | 8235.4 | 8112.5 | 7890.0 | 7660.9 | 7428.5 | 7249.1 | 7073.1 | 6933.7 | 6887.2 | 6800.8 | 6807.5 |
| 5° | 7983.0 | 7757.2 | 7292.3 | 6820.8 | 6329.3 | 5924.2 | 5542.3 | 5233.5 | 5084.0 | 4931.3 | 4931.3 |
| 7.5° | 7763.9 | 7435.1 | 6707.9 | 5940.8 | 5147.1 | 4479.7 | 3878.6 | 3427.0 | 3177.9 | 2978.7 | 2975.4 |
| 10° | 7680.8 | 7235.9 | 6219.7 | 5120.6 | 4014.8 | 3104.9 | 2390.9 | 1932.7 | 1696.9 | 1544.1 | 1537.5 |
| 12.5° | 7717.4 | 7166.1 | 5844.5 | 4363.4 | 2975.4 | 1995.8 | 1384.7 | 1089.2 | 989.6 | 943.1 | 943.1 |
| 15° | 7823.6 | 7146.2 | 5469.2 | 3622.9 | 2102.0 | 1248.6 | 919.8 | 840.1 | 833.5 | 833.5 | 833.5 |
| 17.5° | 7953.1 | 7152.8 | 5084.0 | 2902.3 | 1431.2 | 893.3 | 793.7 | 783.7 | 790.3 | 790.3 | 790.3 |
| 20° | 8086.0 | 7156.2 | 4668.9 | 2234.8 | 1009.5 | 777.0 | 747.2 | 743.8 | 750.5 | 750.5 | 753.8 |
| 22.5° | 8248.7 | 7172.8 | 4253.8 | 1670.3 | 833.5 | 733.9 | 710.6 | 710.6 | 714.0 | 714.0 | 710.6 |
| 25° | 8434.6 | 7206.0 | 3822.2 | 1238.6 | 760.4 | 704.0 | 684.1 | 680.7 | 684.1 | 680.7 | 677.4 |
| 27.5° | 8667.1 | 7252.5 | 3340.6 | 969.7 | 727.2 | 674.1 | 657.5 | 657.5 | 654.2 | 650.9 | 647.5 |
| 30° | 8959.3 | 7305.6 | 2799.4 | 823.5 | 694.0 | 647.5 | 630.9 | 627.6 | 624.3 | 617.7 | 617.7 |
| 32.5° | 9404.3 | 7421.8 | 2264.7 | 747.2 | 657.5 | 611.0 | 597.7 | 597.7 | 591.1 | 584.4 | 581.1 |
| 35° | 10088.4 | 7650.9 | 1786.5 | 700.7 | 617.7 | 571.2 | 554.6 | 554.6 | 547.9 | 544.6 | 541.3 |
| 37.5° | 11034.8 | 7999.6 | 1388.1 | 657.5 | 577.8 | 528.0 | 511.4 | 508.1 | 501.4 | 494.8 | 491.5 |
| 40° | 12293.3 | 8431.3 | 1092.5 | 617.7 | 538.0 | 484.8 | 471.5 | 464.9 | 451.6 | 441.7 | 441.7 |
| 42.5° | 13874.0 | 8922.8 | 886.6 | 574.5 | 491.5 | 445.0 | 435.0 | 425.1 | 401.8 | 391.8 | 388.5 |
| 45° | 15527.7 | 9364.4 | 750.5 | 524.7 | 445.0 | 405.1 | 398.5 | 381.9 | 352.0 | 342.0 | 342.0 |
| 47.5° | 16719.8 | 9467.4 | 660.8 | 478.2 | 401.8 | 362.0 | 358.6 | 328.8 | 302.2 | 295.5 | 292.2 |
| 50° | 17463.7 | 9264.8 | 587.8 | 431.7 | 362.0 | 322.1 | 312.1 | 275.6 | 259.0 | 252.4 | 249.1 |
| 52.5° | 17965.1 | 8902.9 | 528.0 | 391.8 | 325.4 | 285.6 | 262.3 | 235.8 | 222.5 | 215.8 | 215.8 |
| 55° | 18366.9 | 8391.5 | 468.2 | 355.3 | 295.5 | 255.7 | 222.5 | 202.6 | 189.3 | 182.6 | 182.6 |
| 57.5° | 18479.8 | 7697.4 | 408.4 | 325.4 | 265.7 | 225.8 | 189.3 | 176.0 | 159.4 | 156.1 | 156.1 |
| 60° | 17659.6 | 6445.5 | 362.0 | 288.9 | 239.1 | 195.9 | 166.0 | 149.4 | 132.8 | 129.5 | 126.2 |
| 62.5° | 15497.8 | 4987.7 | 318.8 | 255.7 | 209.2 | 169.4 | 142.8 | 122.9 | 109.6 | 109.6 | 109.6 |
| 65° | 11821.8 | 3344.0 | 278.9 | 222.5 | 182.6 | 142.8 | 122.9 | 99.6 | 93.0 | 93.0 | 96.3 |
| 67.5° | 7076.5 | 1819.8 | 239.1 | 189.3 | 156.1 | 119.5 | 102.9 | 86.3 | 83.0 | 86.3 | 86.3 |
| 69° | 4147.6 | 1069.3 | 215.8 | 169.4 | 136.1 | 106.3 | 89.7 | 76.4 | 83.0 | 86.3 | 86.3 |
| 70° | 2560.3 | 720.6 | 199.2 | 152.8 | 122.9 | 96.3 | 83.0 | 73.1 | 79.7 | 83.0 | 83.0 |
| 72.5° | 714.0 | 371.9 | 159.4 | 119.5 | 99.6 | 79.7 | 66.4 | 66.4 | 76.4 | 79.7 | 79.7 |
| 75° | 464.9 | 275.6 | 122.9 | 89.7 | 76.4 | 63.1 | 56.5 | 63.1 | 73.1 | 76.4 | 76.4 |
| 77.5° | 385.2 | 225.8 | 99.6 | 73.1 | 63.1 | 59.8 | 53.1 | 56.5 | 66.4 | 69.7 | 69.7 |
| 80° | 352.0 | 159.4 | 79.7 | 66.4 | 56.5 | 53.1 | 49.8 | 46.5 | 59.8 | 63.1 | 63.1 |
| 82.5° | 335.4 | 126.2 | 69.7 | 59.8 | 53.1 | 46.5 | 43.2 | 46.5 | 53.1 | 56.5 | 59.8 |
| 85° | 209.2 | 83.0 | 63.1 | 56.5 | 46.5 | 43.2 | 43.2 | 43.2 | 49.8 | 53.1 | 53.1 |
| 87.5° | 76.4 | 66.4 | 56.5 | 46.5 | 39.8 | 39.8 | 39.8 | 39.8 | 43.2 | 49.8 | 49.8 |
| 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)