

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: P300574

Luminaire Tested: **GLNA-AF-07-LED-E1-RW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300574
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24166)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-RW
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND
Rectangular Wide Type I OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42890.8 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 391
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

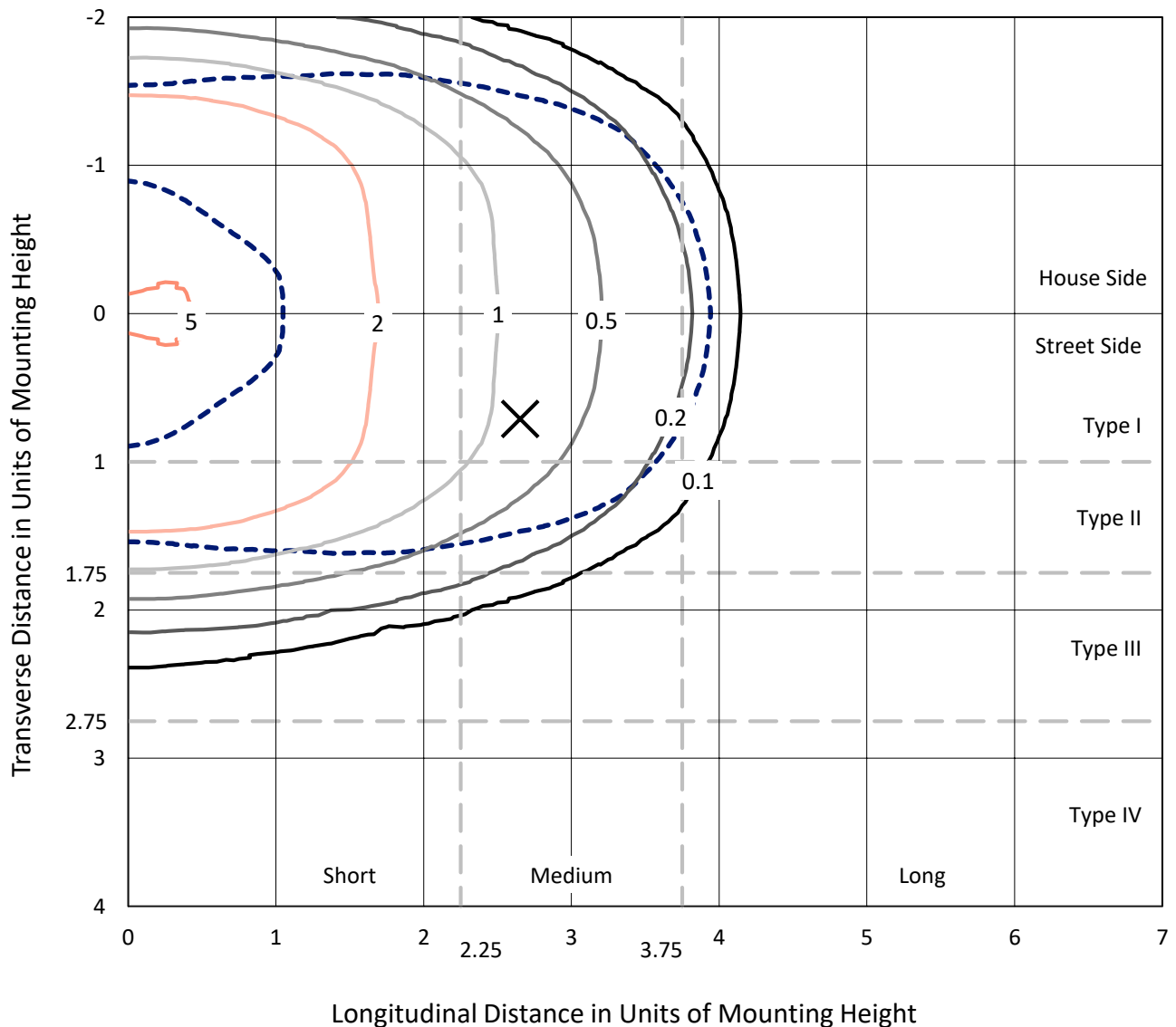


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

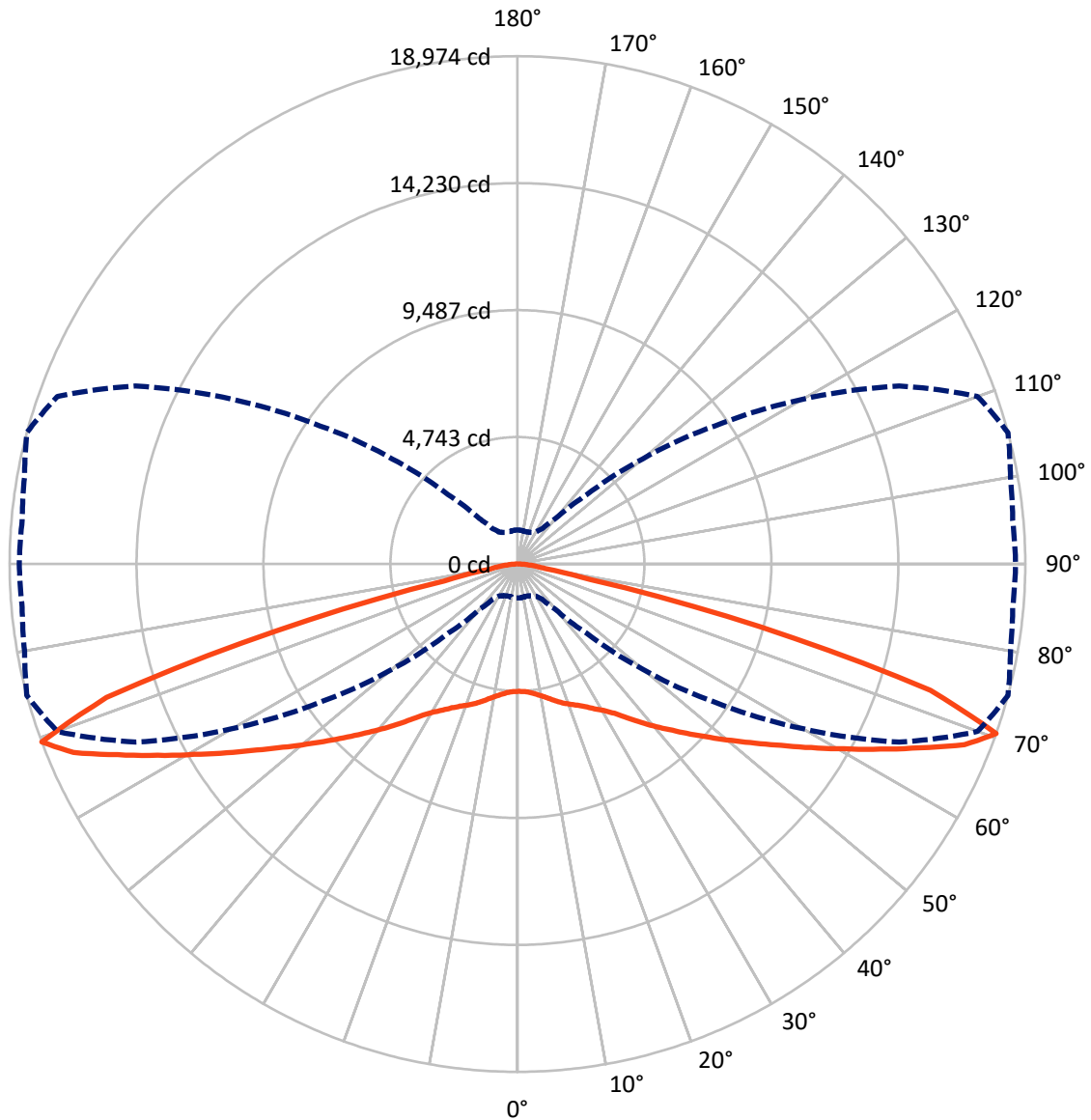


Based on 30 foot mounting height. Maximum calculated value = 5.3 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 21445.4 | 0.0 | 21445.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 21445.4 | 0.0 | 21445.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 42890.8 | 0.0 | 42890.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 456.3 | 1.1 |
| 10°-20° | 1417.8 | 3.3 |
| 20°-30° | 2668.4 | 6.2 |
| 30°-40° | 4725.3 | 11.0 |
| 40°-50° | 7902.2 | 18.4 |
| 50°-60° | 11011.8 | 25.7 |
| 60°-70° | 10211.6 | 23.8 |
| 70°-80° | 4069.6 | 9.5 |
| 80°-90° | 427.8 | 1.0 |
| 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° | 42890.8 | 100.0 |
| 0°-180° | 42890.8 | 100.0 |



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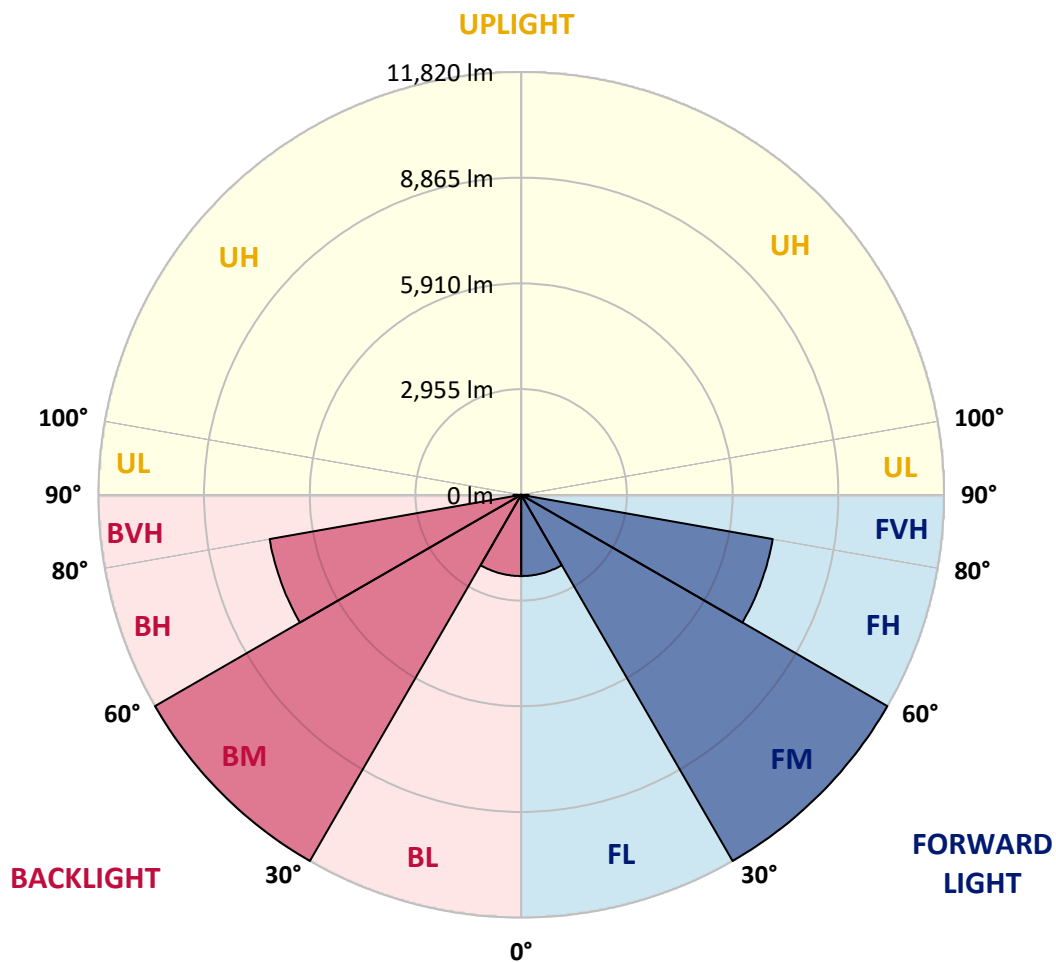
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2271.2 | 5.3 | | | |
| FM | (30°-60°) | 11819.6 | 27.6 | | | |
| FH | (60°-80°) | 7140.6 | 16.6 | | | G3/7500 |
| FVH | (80°-90°) | 213.9 | 0.5 | | | G2/225 |
| BL | (0°-30°) | 2271.2 | 5.3 | B3/2500 | | |
| BM | (30°-60°) | 11819.6 | 27.6 | B5 | | |
| BH | (60°-80°) | 7140.6 | 16.6 | B5 | | G5 |
| BVH | (80°-90°) | 213.9 | 0.5 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 |
| 2.5° | 4749.5 | 4745.4 | 4749.5 | 4747.5 | 4751.5 | 4751.5 | 4755.6 | 4763.7 | 4763.7 | 4769.8 | 4767.7 |
| 5° | 4702.9 | 4700.8 | 4706.9 | 4713.0 | 4719.1 | 4731.2 | 4743.4 | 4761.6 | 4775.8 | 4786.0 | 4796.1 |
| 7.5° | 4611.6 | 4611.6 | 4619.7 | 4633.9 | 4648.1 | 4674.5 | 4702.9 | 4739.3 | 4775.8 | 4806.2 | 4832.6 |
| 10° | 4536.6 | 4540.7 | 4550.8 | 4575.2 | 4599.5 | 4640.0 | 4678.5 | 4731.2 | 4781.9 | 4832.6 | 4873.1 |
| 12.5° | 4492.0 | 4498.1 | 4516.4 | 4552.9 | 4593.4 | 4648.1 | 4706.9 | 4773.8 | 4830.6 | 4891.4 | 4931.9 |
| 15° | 4506.2 | 4510.3 | 4536.6 | 4581.2 | 4633.9 | 4702.9 | 4781.9 | 4861.0 | 4927.9 | 4992.7 | 5047.5 |
| 17.5° | 4585.3 | 4591.4 | 4621.8 | 4672.5 | 4727.2 | 4808.3 | 4893.4 | 4982.6 | 5065.7 | 5138.7 | 5205.6 |
| 20° | 4727.2 | 4733.3 | 4771.8 | 4826.5 | 4891.4 | 4974.5 | 5059.6 | 5152.9 | 5246.1 | 5323.2 | 5398.2 |
| 22.5° | 4927.9 | 4938.0 | 4974.5 | 5029.2 | 5102.2 | 5191.4 | 5292.7 | 5392.1 | 5481.3 | 5552.2 | 5619.1 |
| 25° | 5191.4 | 5213.7 | 5248.1 | 5309.0 | 5386.0 | 5467.1 | 5576.5 | 5677.9 | 5763.0 | 5829.9 | 5878.6 |
| 27.5° | 5564.4 | 5594.8 | 5621.1 | 5679.9 | 5754.9 | 5832.0 | 5941.4 | 6030.6 | 6111.7 | 6176.6 | 6213.0 |
| 30° | 6059.0 | 6089.4 | 6115.7 | 6172.5 | 6241.4 | 6314.4 | 6417.8 | 6496.8 | 6547.5 | 6598.2 | 6596.2 |
| 32.5° | 6659.0 | 6691.4 | 6701.6 | 6762.4 | 6833.3 | 6912.4 | 7005.6 | 7050.2 | 7090.8 | 7096.9 | 7060.4 |
| 35° | 7330.0 | 7346.2 | 7386.7 | 7467.8 | 7548.9 | 7613.8 | 7703.0 | 7725.3 | 7725.3 | 7694.9 | 7613.8 |
| 37.5° | 8065.8 | 8075.9 | 8132.7 | 8223.9 | 8307.0 | 8373.9 | 8434.7 | 8479.3 | 8457.0 | 8392.2 | 8256.4 |
| 40° | 8872.6 | 8890.8 | 8971.9 | 9053.0 | 9146.3 | 9209.1 | 9274.0 | 9282.1 | 9259.8 | 9164.5 | 8980.0 |
| 42.5° | 9642.9 | 9659.1 | 9740.2 | 9867.9 | 9989.5 | 10076.7 | 10137.5 | 10149.7 | 10078.7 | 9991.6 | 9762.5 |
| 45° | 10305.8 | 10348.3 | 10453.7 | 10603.7 | 10780.1 | 10903.7 | 10986.9 | 11021.3 | 10958.5 | 10845.0 | 10579.4 |
| 47.5° | 10830.8 | 10873.3 | 11023.3 | 11201.7 | 11420.7 | 11621.3 | 11759.2 | 11832.2 | 11815.9 | 11730.8 | 11440.9 |
| 50° | 11215.9 | 11256.5 | 11418.6 | 11637.6 | 11893.0 | 12142.3 | 12377.4 | 12551.8 | 12612.6 | 12574.1 | 12308.5 |
| 52.5° | 11260.5 | 11327.4 | 11518.0 | 11811.9 | 12144.3 | 12484.9 | 12819.3 | 13115.3 | 13316.0 | 13346.4 | 13149.8 |
| 55° | 10638.2 | 10705.1 | 10968.6 | 11404.4 | 11899.0 | 12454.5 | 12989.6 | 13488.3 | 13883.6 | 14086.3 | 13982.9 |
| 57.5° | 9170.6 | 9290.2 | 9567.9 | 10078.7 | 10806.4 | 11637.6 | 12491.0 | 13376.8 | 14181.6 | 14718.7 | 14822.1 |
| 60° | 7027.9 | 7169.8 | 7449.6 | 7992.8 | 8803.7 | 9794.9 | 10934.2 | 12243.7 | 13664.6 | 14872.8 | 15594.4 |
| 62.5° | 4508.3 | 4642.0 | 4936.0 | 5408.3 | 6069.1 | 7143.5 | 8365.8 | 9920.6 | 11830.1 | 13737.6 | 15456.6 |
| 65° | 2317.0 | 2389.9 | 2544.0 | 2829.8 | 3344.7 | 4147.4 | 5244.1 | 6794.8 | 8978.0 | 11331.5 | 13816.7 |
| 67.5° | 1467.6 | 1481.8 | 1516.3 | 1556.8 | 1688.6 | 1966.3 | 2477.1 | 3444.0 | 5240.0 | 7694.9 | 10603.7 |
| 70° | 1269.0 | 1269.0 | 1252.7 | 1246.7 | 1262.9 | 1301.4 | 1380.5 | 1605.5 | 2211.6 | 3652.8 | 6115.7 |
| 72.5° | 1161.5 | 1149.4 | 1121.0 | 1098.7 | 1094.6 | 1094.6 | 1110.8 | 1145.3 | 1242.6 | 1487.9 | 2394.0 |
| 75° | 1070.3 | 1035.8 | 997.3 | 971.0 | 960.8 | 950.7 | 948.7 | 954.8 | 975.0 | 1013.5 | 1143.3 |
| 77.5° | 958.8 | 914.2 | 869.6 | 843.3 | 831.1 | 816.9 | 804.8 | 790.6 | 780.4 | 792.6 | 849.4 |
| 80° | 825.0 | 774.4 | 739.9 | 723.7 | 711.5 | 691.2 | 664.9 | 640.6 | 618.3 | 614.2 | 648.7 |
| 82.5° | 664.9 | 606.1 | 608.1 | 614.2 | 591.9 | 563.5 | 535.2 | 508.8 | 470.3 | 450.0 | 470.3 |
| 85° | 537.2 | 506.8 | 492.6 | 531.1 | 498.7 | 456.1 | 411.5 | 364.9 | 304.1 | 255.4 | 277.7 |
| 87.5° | 208.8 | 208.8 | 312.2 | 480.4 | 431.8 | 352.7 | 302.0 | 257.4 | 160.1 | 123.7 | 125.7 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 | 4757.6 |
| 2.5° | 4765.7 | 4769.8 | 4767.7 | 4765.7 | 4765.7 | 4763.7 | 4765.7 | 4765.7 |
| 5° | 4802.2 | 4812.3 | 4812.3 | 4816.4 | 4816.4 | 4818.4 | 4820.4 | 4818.4 |
| 7.5° | 4856.9 | 4875.2 | 4887.3 | 4901.5 | 4903.5 | 4905.6 | 4909.6 | 4905.6 |
| 10° | 4911.7 | 4948.1 | 4974.5 | 5000.8 | 5013.0 | 5017.1 | 5021.1 | 5021.1 |
| 12.5° | 4980.6 | 5031.2 | 5077.9 | 5124.5 | 5146.8 | 5159.0 | 5159.0 | 5167.1 |
| 15° | 5094.1 | 5144.8 | 5199.5 | 5262.3 | 5300.9 | 5321.1 | 5327.2 | 5327.2 |
| 17.5° | 5254.2 | 5298.8 | 5345.4 | 5406.3 | 5454.9 | 5481.3 | 5487.3 | 5485.3 |
| 20° | 5440.7 | 5483.3 | 5509.6 | 5548.2 | 5590.7 | 5621.1 | 5629.2 | 5629.2 |
| 22.5° | 5653.6 | 5677.9 | 5681.9 | 5694.1 | 5728.6 | 5769.1 | 5787.4 | 5791.4 |
| 25° | 5888.7 | 5894.8 | 5878.6 | 5878.6 | 5900.9 | 5939.4 | 5957.6 | 5959.7 |
| 27.5° | 6192.8 | 6162.4 | 6121.8 | 6107.6 | 6121.8 | 6166.4 | 6188.7 | 6196.8 |
| 30° | 6571.8 | 6498.9 | 6405.6 | 6354.9 | 6346.8 | 6405.6 | 6446.2 | 6452.2 |
| 32.5° | 7005.6 | 6900.2 | 6776.6 | 6673.2 | 6646.8 | 6683.3 | 6732.0 | 6730.0 |
| 35° | 7520.5 | 7394.8 | 7244.8 | 7113.1 | 7052.3 | 7088.8 | 7157.7 | 7165.8 |
| 37.5° | 8114.5 | 7950.3 | 7778.0 | 7611.7 | 7516.5 | 7526.6 | 7599.6 | 7623.9 |
| 40° | 8777.3 | 8564.5 | 8347.6 | 8124.6 | 7988.8 | 7962.4 | 8051.6 | 8065.8 |
| 42.5° | 9486.8 | 9213.1 | 8939.5 | 8663.8 | 8489.5 | 8448.9 | 8552.3 | 8546.2 |
| 45° | 10242.9 | 9894.3 | 9574.0 | 9269.9 | 9063.1 | 9002.3 | 9087.5 | 9087.5 |
| 47.5° | 11055.8 | 10626.0 | 10244.9 | 9900.3 | 9675.3 | 9588.2 | 9669.2 | 9675.3 |
| 50° | 11917.3 | 11461.2 | 11013.2 | 10630.1 | 10360.5 | 10249.0 | 10354.4 | 10370.6 |
| 52.5° | 12774.8 | 12330.8 | 11878.8 | 11440.9 | 11114.6 | 10978.7 | 11100.4 | 11153.1 |
| 55° | 13644.4 | 13208.6 | 12776.8 | 12349.1 | 11961.9 | 11801.7 | 11931.5 | 11998.4 |
| 57.5° | 14562.7 | 14159.3 | 13747.8 | 13316.0 | 12943.0 | 12693.7 | 12831.5 | 12920.7 |
| 60° | 15639.0 | 15294.4 | 14866.7 | 14390.3 | 14013.3 | 13759.9 | 13839.0 | 13918.0 |
| 62.5° | 16490.4 | 16624.2 | 16261.4 | 15710.0 | 15225.5 | 14901.2 | 14978.2 | 15061.3 |
| 65° | 16078.9 | 17451.3 | 17773.6 | 17216.1 | 16545.1 | 16040.4 | 16008.0 | 16050.5 |
| 67.5° | 13439.6 | 16105.3 | 18049.3 | 18580.4 | 18018.8 | 17317.5 | 17187.7 | 17250.6 |
| 70° | 8990.2 | 12310.5 | 15740.4 | 18294.5 | 18973.6 | 18702.0 | 18574.3 | 18612.8 |
| 72.5° | 4317.7 | 7169.8 | 10678.7 | 14074.1 | 16141.8 | 17090.4 | 17394.5 | 17542.5 |
| 75° | 1579.1 | 2846.0 | 5146.8 | 7755.7 | 9363.2 | 10838.9 | 11801.7 | 12195.0 |
| 77.5° | 952.7 | 1149.4 | 1644.0 | 2475.1 | 2803.5 | 3137.9 | 3008.2 | 3073.1 |
| 80° | 705.4 | 796.6 | 902.1 | 1013.5 | 1050.0 | 1050.0 | 1009.5 | 977.1 |
| 82.5° | 494.6 | 553.4 | 604.1 | 664.9 | 681.1 | 650.7 | 535.2 | 425.7 |
| 85° | 318.3 | 344.6 | 366.9 | 405.4 | 395.3 | 377.0 | 253.4 | 225.0 |
| 87.5° | 146.0 | 166.2 | 174.3 | 192.6 | 184.5 | 176.4 | 125.7 | 105.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)