

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: P190818

Luminaire Tested: **GLEON-AF-10-LED-E1-5MQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190818
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-10-LED-E1-5MQ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 63313.5 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G5

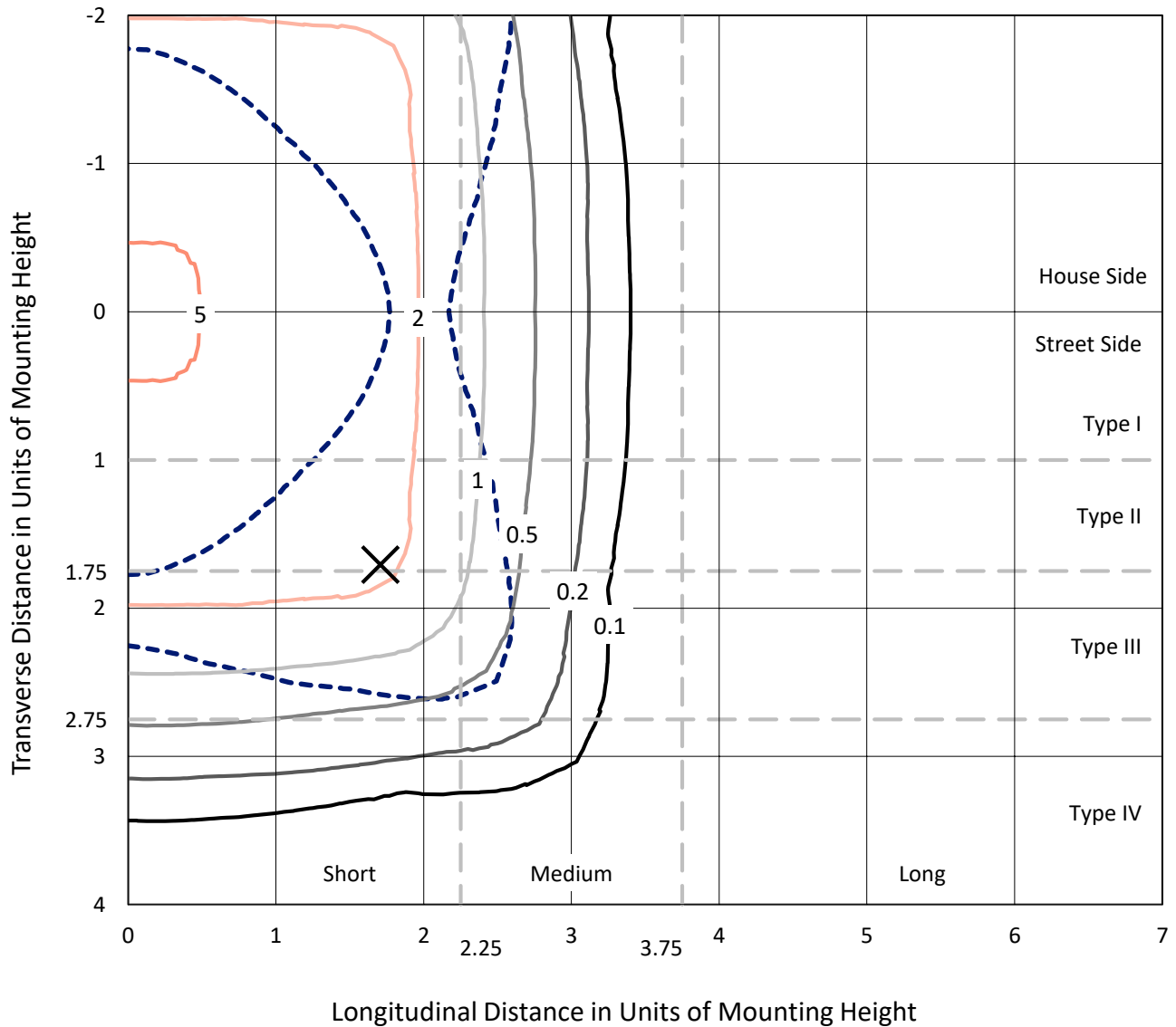
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

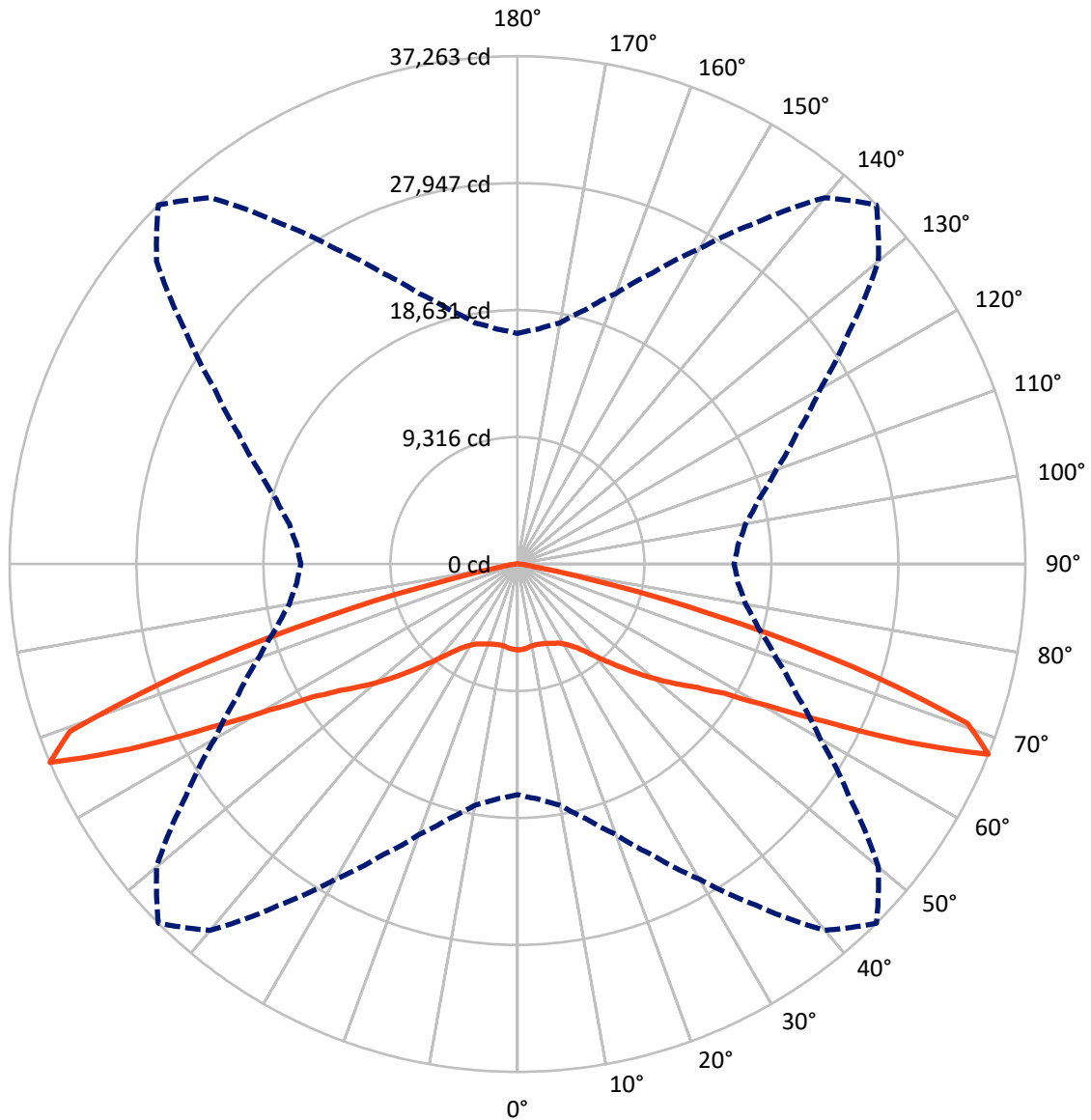
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 31656.7 | 0.0 | 31656.7 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 31656.7 | 0.0 | 31656.7 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 63313.5 | 0.0 | 63313.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 590.5 | 0.9 |
| 10°-20° | 1713.6 | 2.7 |
| 20°-30° | 2913.1 | 4.6 |
| 30°-40° | 4762.1 | 7.5 |
| 40°-50° | 8501.2 | 13.4 |
| 50°-60° | 14333.2 | 22.6 |
| 60°-70° | 22243.0 | 35.1 |
| 70°-80° | 7815.2 | 12.3 |
| 80°-90° | 441.7 | 0.7 |
| 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° | 63313.5 | 100.0 |
| 0°-180° | 63313.5 | 100.0 |

Coefficient of Utilization



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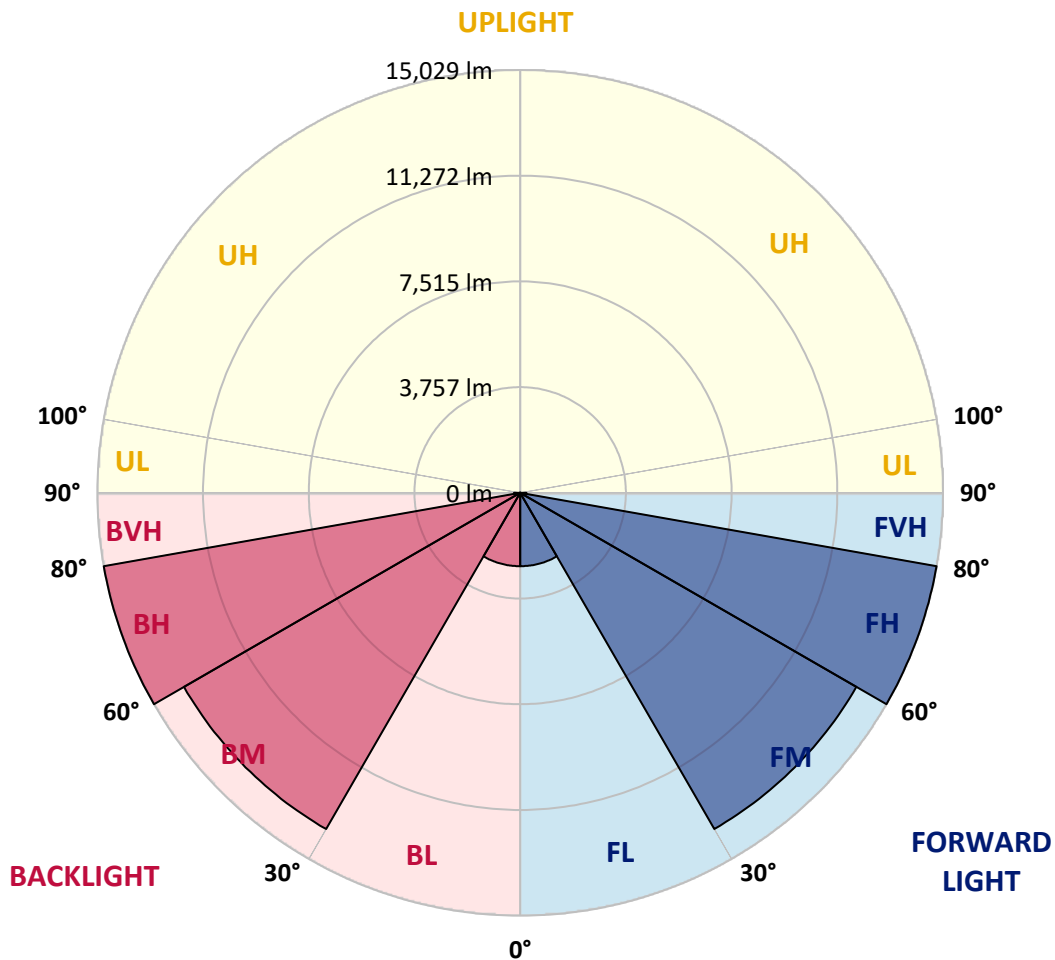
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 2608.6 | 4.1 | | | |
| FM | (30°-60°) | 13798.2 | 21.8 | | | |
| FH | (60°-80°) | 15029.1 | 23.7 | | | G5 |
| FVH | (80°-90°) | 220.8 | 0.3 | | | G2/225 |
| BL | (0°-30°) | 2608.6 | 4.1 | B4/5000 | | |
| BM | (30°-60°) | 13798.2 | 21.8 | B5 | | |
| BH | (60°-80°) | 15029.1 | 23.7 | B5 | | G5 |
| BVH | (80°-90°) | 220.8 | 0.3 | | | 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 V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 |
| 2.5° | 6286.1 | 6292.0 | 6292.0 | 6292.0 | 6289.1 | 6289.1 | 6283.3 | 6289.1 | 6286.1 | 6277.4 | 6280.3 |
| 5° | 6233.8 | 6239.6 | 6239.6 | 6236.6 | 6245.4 | 6242.5 | 6233.8 | 6239.6 | 6236.6 | 6230.8 | 6233.8 |
| 7.5° | 6158.1 | 6166.8 | 6166.8 | 6163.9 | 6172.6 | 6169.7 | 6163.9 | 6166.8 | 6166.8 | 6158.1 | 6158.1 |
| 10° | 6073.6 | 6079.4 | 6079.4 | 6076.5 | 6091.1 | 6091.1 | 6088.2 | 6096.9 | 6099.9 | 6091.1 | 6085.2 |
| 12.5° | 5995.0 | 6003.7 | 6003.7 | 6015.4 | 6030.0 | 6035.7 | 6050.3 | 6062.0 | 6073.6 | 6070.7 | 6059.0 |
| 15° | 5948.5 | 5954.3 | 5965.8 | 5980.5 | 6003.7 | 6024.2 | 6047.4 | 6073.6 | 6096.9 | 6102.7 | 6085.2 |
| 17.5° | 5919.3 | 5928.0 | 5945.5 | 5965.8 | 5997.9 | 6032.9 | 6067.8 | 6102.7 | 6134.7 | 6146.4 | 6126.0 |
| 20° | 5910.6 | 5916.4 | 5933.8 | 5968.8 | 6012.5 | 6064.9 | 6114.4 | 6155.1 | 6198.8 | 6213.4 | 6198.8 |
| 22.5° | 5928.0 | 5939.7 | 5960.0 | 6000.8 | 6059.0 | 6126.0 | 6184.2 | 6239.6 | 6294.9 | 6321.1 | 6300.8 |
| 25° | 6006.7 | 6018.3 | 6044.5 | 6096.9 | 6160.9 | 6230.8 | 6297.8 | 6361.8 | 6411.3 | 6437.5 | 6423.0 |
| 27.5° | 6152.2 | 6166.8 | 6198.8 | 6251.3 | 6321.1 | 6396.8 | 6469.6 | 6522.0 | 6562.7 | 6571.5 | 6554.0 |
| 30° | 6370.6 | 6402.6 | 6440.5 | 6498.7 | 6580.2 | 6644.3 | 6717.1 | 6763.6 | 6813.2 | 6813.2 | 6798.6 |
| 32.5° | 6711.3 | 6743.3 | 6784.0 | 6839.3 | 6903.4 | 6973.4 | 7037.4 | 7078.1 | 7130.6 | 7133.4 | 7098.5 |
| 35° | 7220.8 | 7235.3 | 7270.3 | 7305.2 | 7363.5 | 7424.6 | 7479.9 | 7506.1 | 7549.8 | 7552.8 | 7520.7 |
| 37.5° | 7893.4 | 7896.3 | 7919.6 | 7931.2 | 7983.6 | 8050.6 | 8103.0 | 8120.5 | 8161.2 | 8155.4 | 8123.4 |
| 40° | 8676.6 | 8691.2 | 8699.9 | 8717.4 | 8772.7 | 8836.8 | 8892.1 | 8900.8 | 8944.5 | 8935.7 | 8895.0 |
| 42.5° | 9582.1 | 9587.9 | 9637.4 | 9663.6 | 9716.1 | 9748.1 | 9818.0 | 9826.7 | 9879.0 | 9855.8 | 9809.2 |
| 45° | 10598.3 | 10650.7 | 10697.2 | 10749.7 | 10805.0 | 10842.9 | 10898.1 | 10886.5 | 10921.4 | 10886.5 | 10860.3 |
| 47.5° | 11666.9 | 11704.7 | 11809.5 | 11891.0 | 11981.3 | 12013.3 | 12091.9 | 12057.0 | 12091.9 | 12042.4 | 12033.7 |
| 50° | 12843.1 | 12910.0 | 13000.4 | 13093.5 | 13189.6 | 13242.0 | 13343.9 | 13300.2 | 13346.8 | 13300.2 | 13274.0 |
| 52.5° | 14001.9 | 14019.4 | 14217.4 | 14354.3 | 14488.2 | 14549.3 | 14610.5 | 14590.0 | 14593.0 | 14590.0 | 14563.9 |
| 55° | 15102.5 | 15143.3 | 15341.3 | 15527.6 | 15760.5 | 15932.4 | 16037.1 | 16025.4 | 15999.3 | 15973.1 | 15929.4 |
| 57.5° | 16342.9 | 16383.6 | 16610.8 | 16840.7 | 17105.7 | 17350.3 | 17562.8 | 17781.2 | 17865.6 | 17889.0 | 17792.8 |
| 60° | 18020.0 | 18017.0 | 18319.8 | 18599.4 | 18977.9 | 19341.9 | 19807.7 | 20282.3 | 20826.8 | 21080.0 | 20745.2 |
| 62.5° | 19726.2 | 19796.0 | 20232.7 | 20727.7 | 21508.1 | 22268.0 | 23126.9 | 23971.3 | 24833.2 | 25534.8 | 24789.5 |
| 65° | 19522.3 | 19790.2 | 20439.5 | 21560.4 | 23001.7 | 24713.8 | 26565.5 | 28525.0 | 30295.3 | 31512.3 | 30146.8 |
| 67.5° | 16919.4 | 17300.8 | 17961.7 | 19324.4 | 21126.6 | 23595.7 | 26705.3 | 30580.6 | 35084.9 | 37262.7 | 34563.7 |
| 70° | 12263.7 | 12694.6 | 13387.6 | 14718.2 | 16503.0 | 18849.7 | 22227.2 | 26880.0 | 32843.0 | 35038.3 | 32065.5 |
| 72.5° | 6102.7 | 6335.6 | 6763.6 | 7611.0 | 8962.0 | 10866.1 | 13929.1 | 18401.4 | 23677.2 | 25692.0 | 22975.5 |
| 75° | 2073.1 | 2180.8 | 2253.6 | 2530.2 | 2958.2 | 3706.5 | 5229.2 | 8044.8 | 12272.4 | 14712.4 | 12097.7 |
| 77.5° | 1196.6 | 1199.6 | 1249.1 | 1298.5 | 1371.4 | 1452.9 | 1656.7 | 2175.0 | 3761.8 | 5342.8 | 3892.8 |
| 80° | 774.5 | 771.6 | 812.3 | 850.2 | 899.7 | 940.4 | 952.1 | 1007.4 | 1161.8 | 1377.2 | 1231.6 |
| 82.5° | 401.8 | 451.3 | 541.6 | 591.1 | 684.3 | 701.7 | 678.4 | 658.1 | 695.9 | 722.1 | 739.6 |
| 85° | 221.3 | 192.2 | 288.3 | 372.7 | 413.5 | 419.3 | 419.3 | 396.0 | 410.5 | 401.8 | 436.7 |
| 87.5° | 101.9 | 93.2 | 113.5 | 183.4 | 195.1 | 165.9 | 174.7 | 154.4 | 110.7 | 107.7 | 122.2 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 | 6309.5 |
| 2.5° | 6280.3 | 6283.3 | 6283.3 | 6292.0 | 6294.9 | 6300.8 | 6306.6 | 6309.5 |
| 5° | 6230.8 | 6239.6 | 6233.8 | 6242.5 | 6242.5 | 6248.3 | 6248.3 | 6251.3 |
| 7.5° | 6158.1 | 6166.8 | 6166.8 | 6166.8 | 6163.9 | 6172.6 | 6172.6 | 6172.6 |
| 10° | 6082.4 | 6088.2 | 6085.2 | 6079.4 | 6073.6 | 6082.4 | 6079.4 | 6076.5 |
| 12.5° | 6059.0 | 6044.5 | 6032.9 | 6027.0 | 6015.4 | 6018.3 | 6009.5 | 6009.5 |
| 15° | 6073.6 | 6047.4 | 6027.0 | 6018.3 | 6006.7 | 6000.8 | 5995.0 | 5997.9 |
| 17.5° | 6111.5 | 6079.4 | 6053.2 | 6038.7 | 6024.2 | 6015.4 | 6003.7 | 6006.7 |
| 20° | 6178.4 | 6140.6 | 6102.7 | 6073.6 | 6047.4 | 6032.9 | 6024.2 | 6021.2 |
| 22.5° | 6277.4 | 6222.1 | 6166.8 | 6123.1 | 6088.2 | 6067.8 | 6059.0 | 6053.2 |
| 25° | 6391.0 | 6329.8 | 6265.8 | 6216.3 | 6181.4 | 6155.1 | 6137.7 | 6137.7 |
| 27.5° | 6533.7 | 6484.2 | 6425.9 | 6367.7 | 6335.6 | 6309.5 | 6297.8 | 6292.0 |
| 30° | 6772.4 | 6725.8 | 6679.3 | 6623.9 | 6583.1 | 6556.9 | 6536.6 | 6519.1 |
| 32.5° | 7078.1 | 7040.3 | 7002.4 | 6961.7 | 6923.8 | 6888.9 | 6856.8 | 6842.3 |
| 35° | 7509.1 | 7479.9 | 7453.7 | 7407.1 | 7392.6 | 7372.2 | 7354.7 | 7340.2 |
| 37.5° | 8103.0 | 8091.3 | 8091.3 | 8041.8 | 8030.3 | 8021.5 | 8004.0 | 8006.9 |
| 40° | 8883.3 | 8895.0 | 8880.4 | 8862.9 | 8854.3 | 8830.9 | 8830.9 | 8851.3 |
| 42.5° | 9806.3 | 9815.0 | 9847.0 | 9818.0 | 9850.0 | 9820.8 | 9803.3 | 9818.0 |
| 45° | 10877.8 | 10909.8 | 10973.8 | 10944.8 | 10965.1 | 10915.6 | 10854.4 | 10857.4 |
| 47.5° | 12080.2 | 12109.4 | 12135.6 | 12115.2 | 12118.1 | 12036.6 | 11955.0 | 11934.7 |
| 50° | 13329.4 | 13341.0 | 13355.5 | 13326.4 | 13332.2 | 13242.0 | 13148.8 | 13151.8 |
| 52.5° | 14563.9 | 14619.2 | 14677.4 | 14598.8 | 14581.3 | 14479.5 | 14348.4 | 14296.0 |
| 55° | 15976.0 | 16054.6 | 15987.6 | 15850.8 | 15714.0 | 15577.1 | 15405.3 | 15376.2 |
| 57.5° | 17717.1 | 17583.2 | 17373.6 | 17114.5 | 16925.2 | 16733.0 | 16558.3 | 16485.6 |
| 60° | 20139.5 | 19635.8 | 19257.4 | 18873.0 | 18631.4 | 18395.5 | 18165.6 | 18130.6 |
| 62.5° | 23563.7 | 22693.0 | 21939.0 | 21144.1 | 20494.8 | 19988.2 | 19583.5 | 19469.9 |
| 65° | 27855.4 | 25796.9 | 24012.0 | 22346.6 | 20899.5 | 19807.7 | 19120.6 | 18817.7 |
| 67.5° | 29701.3 | 25636.7 | 22576.6 | 20212.4 | 18319.8 | 16998.0 | 16255.5 | 15885.7 |
| 70° | 26099.7 | 21260.6 | 17932.6 | 15565.4 | 13841.8 | 12432.5 | 11759.9 | 11364.0 |
| 72.5° | 17955.9 | 13524.4 | 10694.3 | 8729.0 | 7351.8 | 6172.6 | 5706.7 | 5671.9 |
| 75° | 8062.3 | 5339.9 | 3680.3 | 2835.9 | 2387.6 | 2076.0 | 1979.9 | 1907.1 |
| 77.5° | 2256.5 | 1668.3 | 1487.9 | 1391.7 | 1298.5 | 1190.8 | 1150.1 | 1158.8 |
| 80° | 1097.6 | 1036.6 | 995.7 | 934.7 | 850.2 | 760.0 | 719.1 | 736.6 |
| 82.5° | 727.9 | 719.1 | 745.3 | 701.7 | 579.4 | 492.0 | 413.5 | 378.5 |
| 85° | 442.5 | 448.4 | 457.2 | 460.0 | 390.2 | 273.7 | 186.4 | 209.6 |
| 87.5° | 174.7 | 200.9 | 218.4 | 227.1 | 212.6 | 131.0 | 104.9 | 107.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)