

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: P300337

Luminaire Tested: **GLNA-AF-07-LED-E1-T4FT-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300337
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)
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-T4FT-7060
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42212.9 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

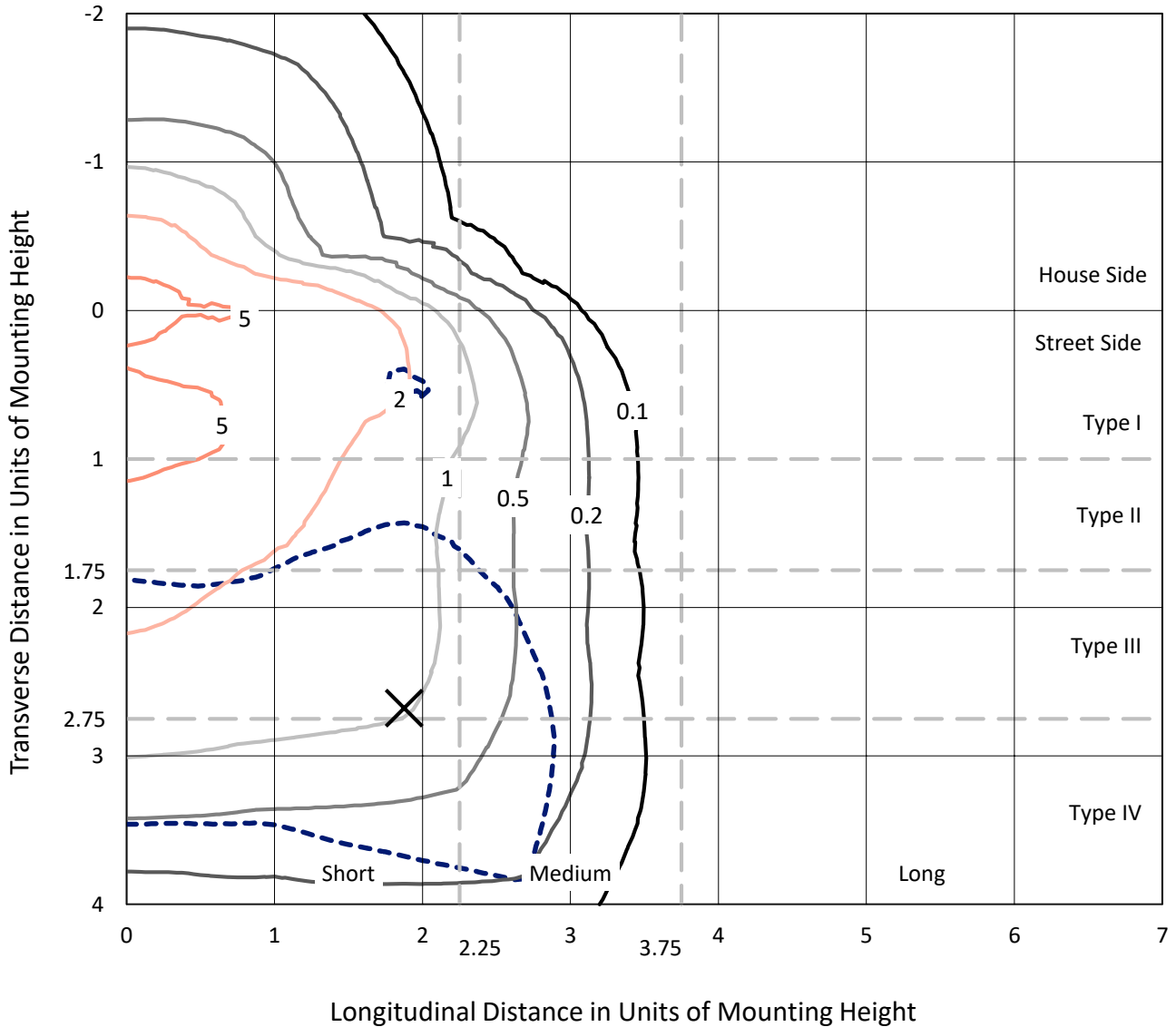
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

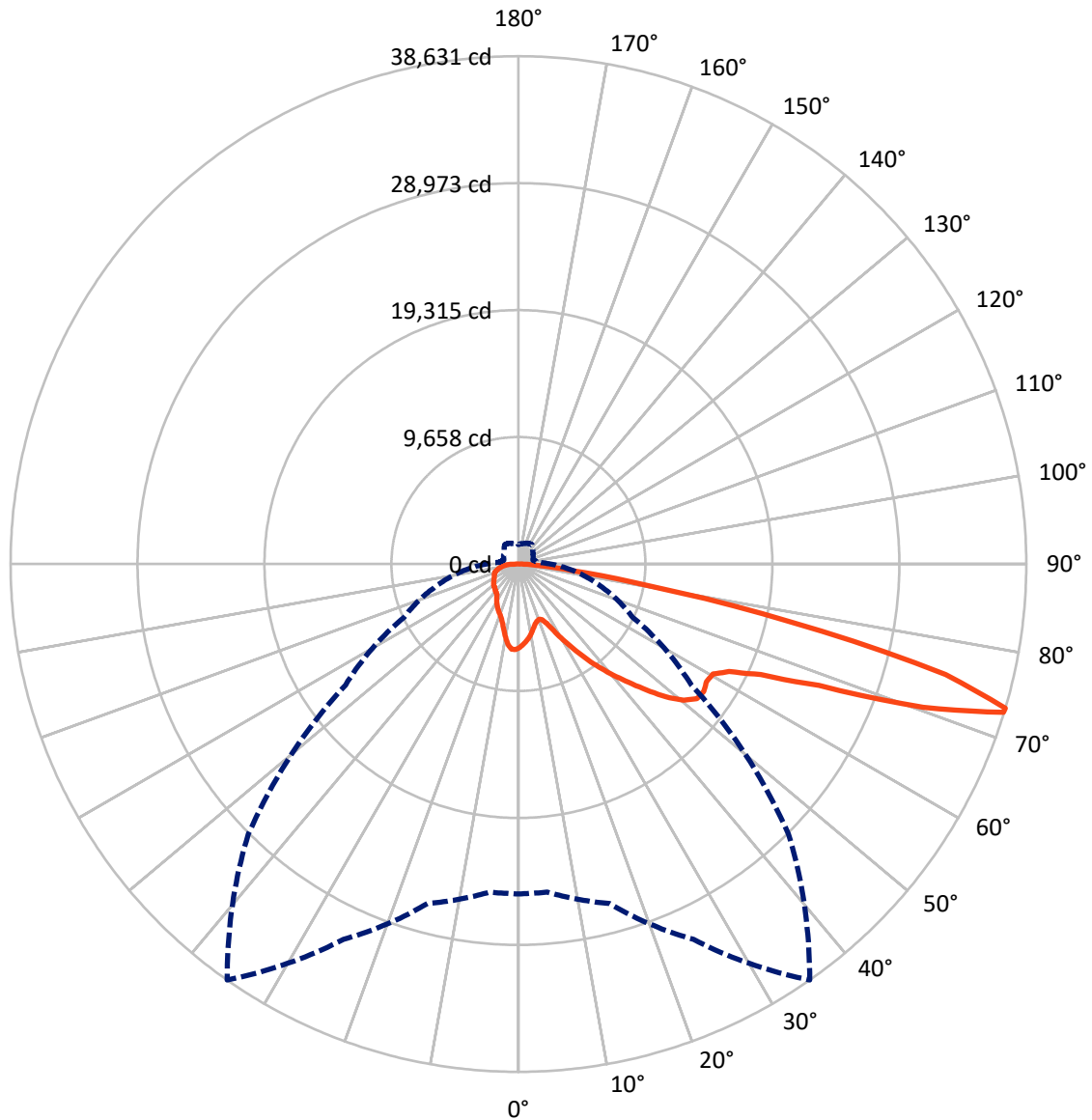
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 8051.2 | 0.0 | 8051.2 |
| | % Fixture | 19.1 | 0.0 | 19.1 |
| Street Side | Lumens | 34161.7 | 0.0 | 34161.7 |
| | % Fixture | 80.9 | 0.0 | 80.9 |
| Total | Lumens | 42212.9 | 0.0 | 42212.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 576.8 | 1.4 |
| 10°-20° | 1439.5 | 3.4 |
| 20°-30° | 2327.2 | 5.5 |
| 30°-40° | 3902.5 | 9.2 |
| 40°-50° | 6015.5 | 14.3 |
| 50°-60° | 8070.4 | 19.1 |
| 60°-70° | 10751.4 | 25.5 |
| 70°-80° | 8200.1 | 19.4 |
| 80°-90° | 929.4 | 2.2 |
| 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° | 42212.9 | 100.0 |
| 0°-180° | 42212.9 | 100.0 |



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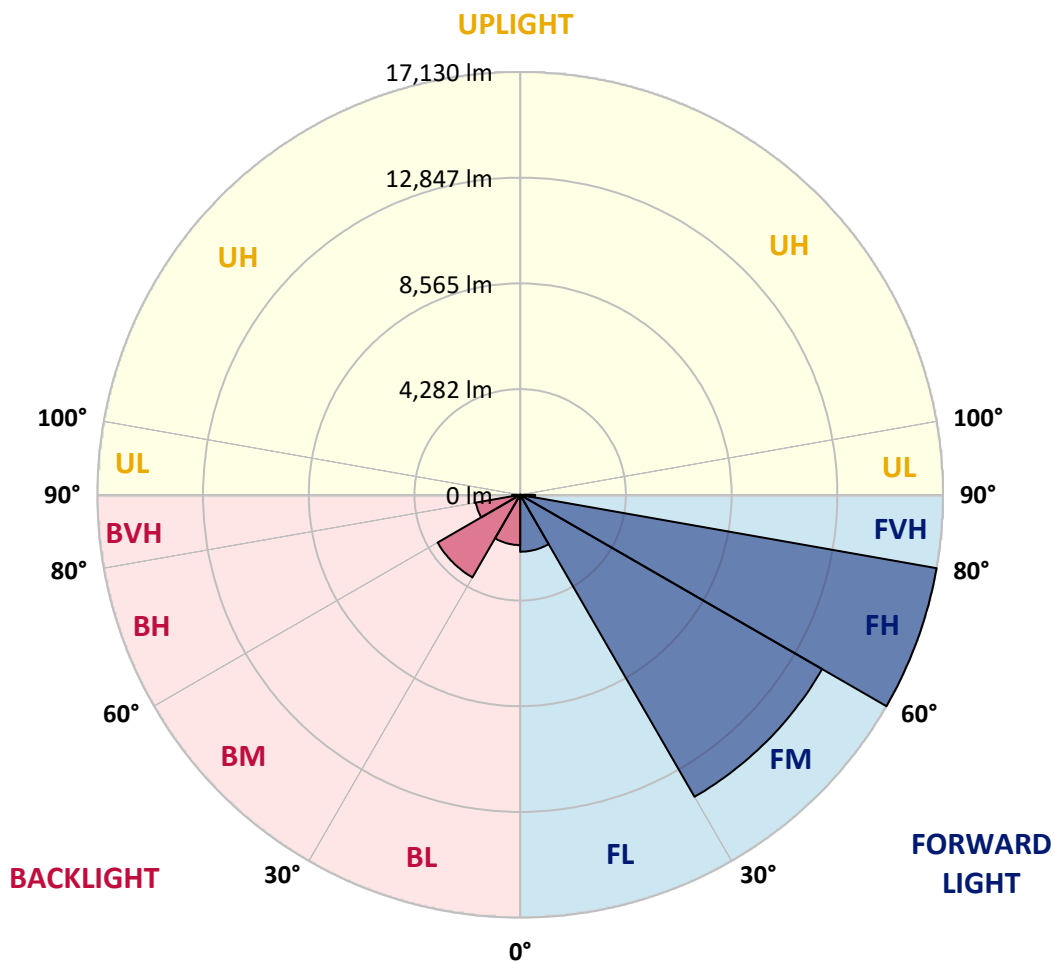
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2306.2 | 5.5 | | | |
| FM | (30°-60°) | 14124.7 | 33.5 | | | |
| FH | (60°-80°) | 17130.0 | 40.6 | | | G5 |
| FVH | (80°-90°) | 600.8 | 1.4 | | | G4/750 |
| BL | (0°-30°) | 2037.3 | 4.8 | B3/2500 | | |
| BM | (30°-60°) | 3863.7 | 9.2 | B3/5000 | | |
| BH | (60°-80°) | 1821.5 | 4.3 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 328.7 | 0.8 | | | G3/500 |
| 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° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 |
| 2.5° | 6119.9 | 6132.0 | 6117.8 | 6136.1 | 6166.5 | 6198.9 | 6221.2 | 6253.7 | 6290.1 | 6340.8 | 6353.0 |
| 5° | 5832.0 | 5850.3 | 5850.3 | 5882.7 | 5941.5 | 5994.2 | 6042.8 | 6095.5 | 6172.6 | 6259.7 | 6294.2 |
| 7.5° | 5515.8 | 5525.9 | 5544.2 | 5592.8 | 5678.0 | 5753.0 | 5821.9 | 5907.0 | 6012.4 | 6128.0 | 6188.8 |
| 10° | 5134.7 | 5148.9 | 5177.3 | 5246.2 | 5361.7 | 5465.1 | 5564.4 | 5682.0 | 5815.8 | 5959.7 | 6036.8 |
| 12.5° | 4865.1 | 4861.0 | 4873.2 | 4923.9 | 5025.2 | 5150.9 | 5294.8 | 5444.8 | 5609.0 | 5777.3 | 5870.5 |
| 15° | 4773.9 | 4751.6 | 4704.9 | 4692.8 | 4747.5 | 4873.2 | 5039.4 | 5223.9 | 5420.5 | 5623.2 | 5738.8 |
| 17.5° | 4830.6 | 4792.1 | 4664.4 | 4571.2 | 4563.0 | 4658.3 | 4834.7 | 5041.4 | 5268.5 | 5515.8 | 5659.7 |
| 20° | 5187.4 | 5096.2 | 4782.0 | 4565.1 | 4490.1 | 4536.7 | 4690.8 | 4909.7 | 5177.3 | 5505.7 | 5690.1 |
| 22.5° | 6040.8 | 5907.0 | 5240.1 | 4836.7 | 4583.3 | 4526.6 | 4642.1 | 4875.2 | 5187.4 | 5631.3 | 5866.5 |
| 25° | 7283.4 | 7092.9 | 6026.6 | 5513.8 | 4990.8 | 4688.7 | 4715.1 | 4954.3 | 5331.3 | 5923.2 | 6207.0 |
| 27.5° | 8264.6 | 8140.9 | 7054.4 | 6468.5 | 5732.7 | 5126.6 | 4952.3 | 5152.9 | 5625.3 | 6401.6 | 6691.5 |
| 30° | 8848.4 | 8773.4 | 8153.1 | 7551.0 | 6679.4 | 5823.9 | 5406.3 | 5525.9 | 6085.4 | 7064.5 | 7303.7 |
| 32.5° | 9525.4 | 9480.8 | 9176.8 | 8623.4 | 7701.0 | 6740.2 | 6126.0 | 6083.4 | 6701.7 | 7861.2 | 7970.6 |
| 35° | 10226.8 | 10212.6 | 10034.2 | 9636.9 | 8797.7 | 7948.3 | 7080.7 | 6792.9 | 7372.6 | 8688.2 | 8619.3 |
| 37.5° | 10879.5 | 10855.2 | 10751.8 | 10520.7 | 9945.0 | 9245.7 | 8053.7 | 7520.6 | 8096.3 | 9478.8 | 9172.7 |
| 40° | 12081.6 | 11891.1 | 11536.3 | 11362.0 | 11104.6 | 10338.3 | 8826.1 | 8199.7 | 8846.3 | 10232.9 | 9651.1 |
| 42.5° | 13547.2 | 13237.1 | 12576.2 | 12337.0 | 12300.6 | 11199.8 | 9353.1 | 8858.5 | 9602.5 | 10980.9 | 10121.4 |
| 45° | 14700.7 | 14408.8 | 13839.1 | 13537.1 | 13670.9 | 11980.3 | 9882.2 | 9561.9 | 10380.9 | 11765.4 | 10605.9 |
| 47.5° | 15931.1 | 15473.0 | 14718.9 | 14810.1 | 15102.0 | 12718.1 | 10421.4 | 10318.0 | 11234.3 | 12643.1 | 11207.9 |
| 50° | 15975.7 | 15625.0 | 15294.6 | 15839.9 | 16294.0 | 13397.2 | 11096.4 | 11110.6 | 12278.3 | 13747.9 | 12008.7 |
| 52.5° | 15049.3 | 14974.3 | 15499.4 | 16356.8 | 17011.6 | 13934.4 | 11864.7 | 11929.6 | 13614.1 | 15016.9 | 12888.4 |
| 55° | 14725.0 | 14639.9 | 15246.0 | 16176.4 | 17108.9 | 14378.4 | 12697.9 | 12815.4 | 15229.7 | 16354.8 | 13745.9 |
| 57.5° | 15515.6 | 15327.0 | 15367.6 | 16091.3 | 16871.7 | 14864.9 | 13606.0 | 13843.2 | 16985.2 | 17524.4 | 14297.3 |
| 60° | 17725.1 | 17321.7 | 16555.5 | 16537.2 | 16999.4 | 15594.6 | 14656.1 | 14945.9 | 18809.6 | 18083.9 | 14082.4 |
| 62.5° | 20824.6 | 20421.2 | 18986.0 | 18051.5 | 17982.6 | 16798.7 | 15945.3 | 16022.3 | 19863.7 | 17325.8 | 12770.8 |
| 65° | 24179.5 | 23818.6 | 22215.2 | 20895.5 | 20259.0 | 18793.4 | 17443.4 | 16502.8 | 19519.1 | 15239.9 | 10476.1 |
| 67.5° | 28252.0 | 27864.8 | 26486.3 | 25268.0 | 24655.8 | 22012.5 | 18495.4 | 16042.6 | 17331.9 | 11805.9 | 7530.7 |
| 70° | 31100.1 | 30704.8 | 30161.5 | 31148.7 | 32646.7 | 26656.6 | 18631.2 | 14171.6 | 12945.2 | 7847.0 | 4532.6 |
| 72.5° | 27384.3 | 27199.9 | 28191.1 | 32348.8 | 38588.2 | 29474.3 | 16841.3 | 10318.0 | 7518.6 | 4165.7 | 2623.1 |
| 73° | 25089.6 | 25049.1 | 26739.7 | 31507.5 | 38630.8 | 29040.5 | 16056.8 | 9590.3 | 6448.3 | 3685.3 | 2398.1 |
| 75° | 11329.6 | 11655.9 | 15361.5 | 24066.0 | 33563.0 | 23930.1 | 11301.2 | 5501.6 | 3642.7 | 2546.1 | 1810.2 |
| 77.5° | 2722.4 | 2835.9 | 4806.3 | 11428.9 | 21195.6 | 14260.8 | 5120.5 | 2720.4 | 2329.2 | 1798.1 | 1321.7 |
| 80° | 1159.5 | 1198.0 | 1850.8 | 4222.5 | 9979.5 | 5742.8 | 2359.6 | 1822.4 | 1611.6 | 1254.8 | 926.4 |
| 82.5° | 644.6 | 685.2 | 1050.0 | 1915.6 | 4027.9 | 1958.2 | 1439.3 | 1269.0 | 1060.2 | 756.1 | 602.1 |
| 85° | 364.9 | 387.2 | 614.2 | 1070.3 | 1706.8 | 786.5 | 861.5 | 843.3 | 598.0 | 389.2 | 296.0 |
| 87.5° | 172.3 | 186.5 | 296.0 | 496.6 | 668.9 | 308.1 | 437.9 | 482.5 | 375.0 | 237.2 | 154.1 |
| 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):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 | 6371.2 |
| 2.5° | 6367.2 | 6403.7 | 6446.2 | 6468.5 | 6488.8 | 6513.1 | 6537.5 | 6537.5 | 6541.5 | 6543.5 |
| 5° | 6322.6 | 6397.6 | 6464.5 | 6492.9 | 6498.9 | 6498.9 | 6492.9 | 6460.4 | 6432.0 | 6444.2 |
| 7.5° | 6229.3 | 6338.8 | 6395.6 | 6385.4 | 6308.4 | 6219.2 | 6144.2 | 6053.0 | 6006.4 | 5998.2 |
| 10° | 6095.5 | 6221.2 | 6231.4 | 6130.0 | 5939.5 | 5748.9 | 5590.8 | 5436.7 | 5363.8 | 5345.5 |
| 12.5° | 5947.6 | 6063.1 | 5998.2 | 5789.5 | 5483.4 | 5205.6 | 5005.0 | 4848.9 | 4779.9 | 4761.7 |
| 15° | 5828.0 | 5907.0 | 5742.8 | 5414.4 | 5029.3 | 4735.3 | 4569.1 | 4453.6 | 4404.9 | 4390.7 |
| 17.5° | 5765.1 | 5781.3 | 5481.3 | 5037.4 | 4627.9 | 4382.6 | 4279.2 | 4224.5 | 4206.3 | 4196.1 |
| 20° | 5795.5 | 5682.0 | 5232.0 | 4686.7 | 4299.5 | 4127.2 | 4102.9 | 4088.7 | 4084.6 | 4078.6 |
| 22.5° | 5947.6 | 5651.6 | 5002.9 | 4354.3 | 4011.7 | 3936.7 | 3956.9 | 3954.9 | 3950.9 | 3946.8 |
| 25° | 6219.2 | 5678.0 | 4779.9 | 4038.0 | 3770.4 | 3754.2 | 3790.7 | 3790.7 | 3774.5 | 3774.5 |
| 27.5° | 6578.0 | 5732.7 | 4530.6 | 3738.0 | 3551.5 | 3553.5 | 3581.9 | 3573.8 | 3555.6 | 3543.4 |
| 30° | 7015.9 | 5767.2 | 4238.7 | 3468.4 | 3346.8 | 3338.7 | 3346.8 | 3312.3 | 3257.6 | 3253.5 |
| 32.5° | 7463.9 | 5724.6 | 3900.2 | 3229.2 | 3129.9 | 3111.6 | 3105.5 | 3056.9 | 2994.1 | 2975.8 |
| 35° | 7869.3 | 5568.5 | 3555.6 | 3038.7 | 2923.1 | 2882.6 | 2910.9 | 2894.7 | 2838.0 | 2823.8 |
| 37.5° | 8165.2 | 5278.6 | 3245.4 | 2870.4 | 2775.1 | 2765.0 | 2783.2 | 2789.3 | 2722.4 | 2708.2 |
| 40° | 8363.9 | 4885.4 | 2979.9 | 2728.5 | 2746.7 | 2708.2 | 2647.4 | 2604.8 | 2584.6 | 2578.5 |
| 42.5° | 8524.0 | 4475.9 | 2756.9 | 2661.6 | 2752.8 | 2641.3 | 2509.6 | 2440.7 | 2477.1 | 2493.4 |
| 45° | 8708.5 | 4076.5 | 2570.4 | 2578.5 | 2722.4 | 2564.3 | 2414.3 | 2347.4 | 2361.6 | 2365.6 |
| 47.5° | 8961.9 | 3590.0 | 2369.7 | 2444.7 | 2621.1 | 2511.6 | 2355.5 | 2260.2 | 2193.3 | 2162.9 |
| 50° | 9312.6 | 3014.3 | 2160.9 | 2294.7 | 2521.7 | 2473.1 | 2264.3 | 2162.9 | 2039.3 | 2010.9 |
| 52.5° | 9555.8 | 2477.1 | 1988.6 | 2169.0 | 2432.5 | 2396.1 | 2191.3 | 2059.6 | 1929.8 | 1905.5 |
| 55° | 9424.1 | 2057.5 | 1838.6 | 2029.1 | 2315.0 | 2300.8 | 2130.5 | 1954.1 | 1852.8 | 1832.5 |
| 57.5° | 8765.3 | 1792.0 | 1723.1 | 1897.4 | 2171.0 | 2219.7 | 2049.4 | 1864.9 | 1792.0 | 1777.8 |
| 60° | 7508.4 | 1625.7 | 1650.1 | 1808.2 | 2053.5 | 2138.6 | 1968.3 | 1816.3 | 1767.6 | 1757.5 |
| 62.5° | 5825.9 | 1514.3 | 1595.3 | 1743.3 | 1962.3 | 2081.9 | 1923.7 | 1810.2 | 1792.0 | 1779.8 |
| 65° | 4173.8 | 1425.1 | 1536.6 | 1678.5 | 1879.1 | 2029.1 | 1907.5 | 1802.1 | 1806.2 | 1796.0 |
| 67.5° | 2835.9 | 1346.0 | 1465.6 | 1605.5 | 1798.1 | 1982.5 | 1885.2 | 1773.7 | 1824.4 | 1812.2 |
| 70° | 1984.5 | 1269.0 | 1382.5 | 1512.2 | 1696.7 | 1917.7 | 1844.7 | 1731.2 | 1727.1 | 1678.5 |
| 72.5° | 1548.7 | 1167.6 | 1269.0 | 1382.5 | 1567.0 | 1826.4 | 1763.6 | 1635.9 | 1569.0 | 1518.3 |
| 73° | 1477.8 | 1143.3 | 1240.6 | 1354.1 | 1538.6 | 1804.1 | 1741.3 | 1609.5 | 1534.5 | 1487.9 |
| 75° | 1222.4 | 1037.9 | 1127.1 | 1228.4 | 1417.0 | 1698.7 | 1631.8 | 1489.9 | 1394.7 | 1366.3 |
| 77.5° | 960.9 | 887.9 | 973.0 | 1064.2 | 1248.7 | 1544.7 | 1469.7 | 1333.8 | 1281.1 | 1256.8 |
| 80° | 711.5 | 735.8 | 810.8 | 891.9 | 1082.5 | 1380.5 | 1313.6 | 1177.8 | 1412.9 | 1354.1 |
| 82.5° | 500.7 | 557.5 | 626.4 | 699.4 | 908.1 | 1220.3 | 1139.2 | 999.4 | 1033.8 | 859.5 |
| 85° | 296.0 | 364.9 | 429.7 | 492.6 | 654.8 | 1011.5 | 940.6 | 796.7 | 652.7 | 622.3 |
| 87.5° | 172.3 | 202.7 | 221.0 | 285.8 | 450.0 | 762.2 | 662.9 | 589.9 | 338.5 | 229.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)