

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: P299914

Luminaire Tested: **GLNA-AF-07-LED-E1-SL3-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299914
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
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-SL3-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33899.4 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G5

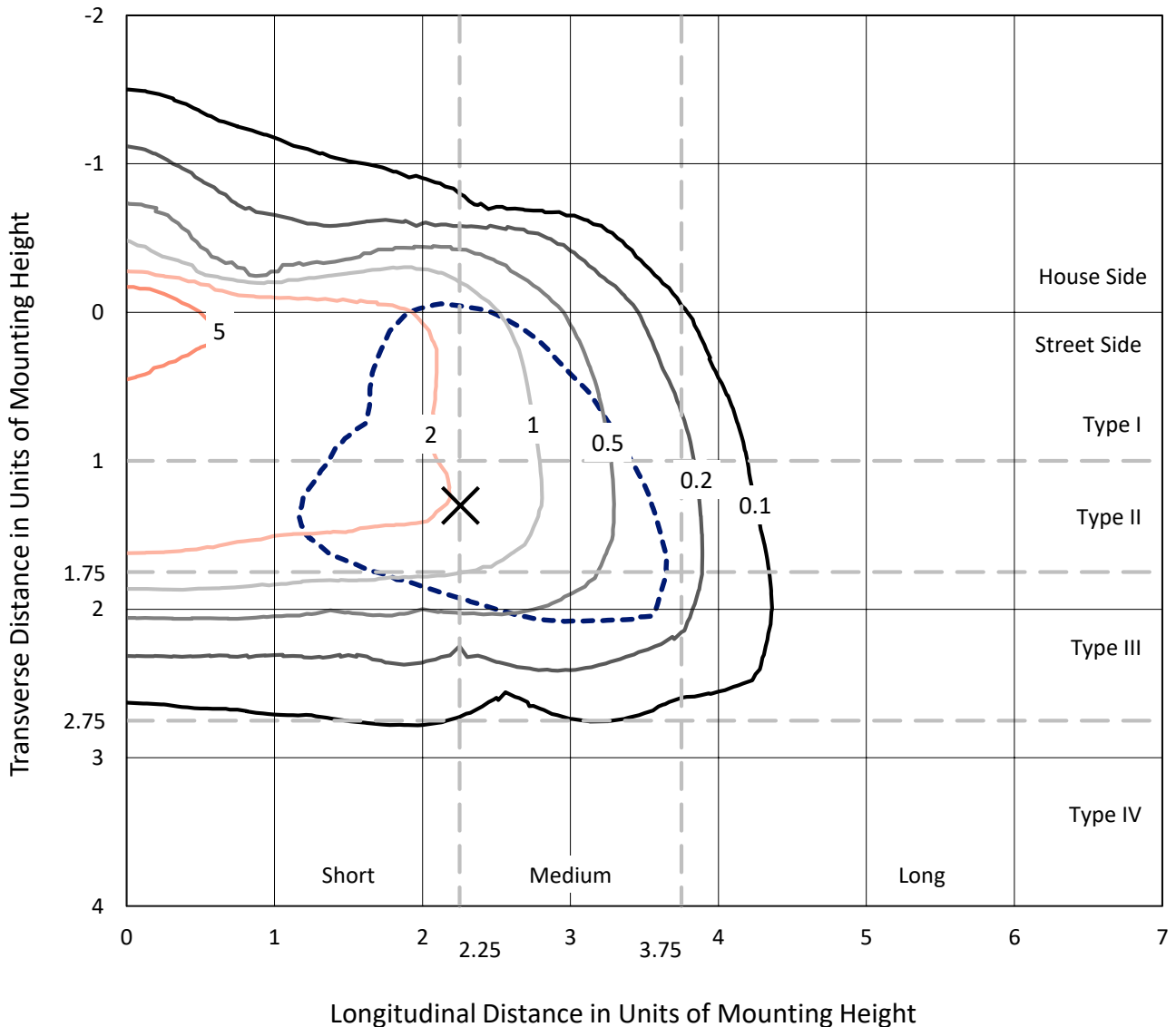
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

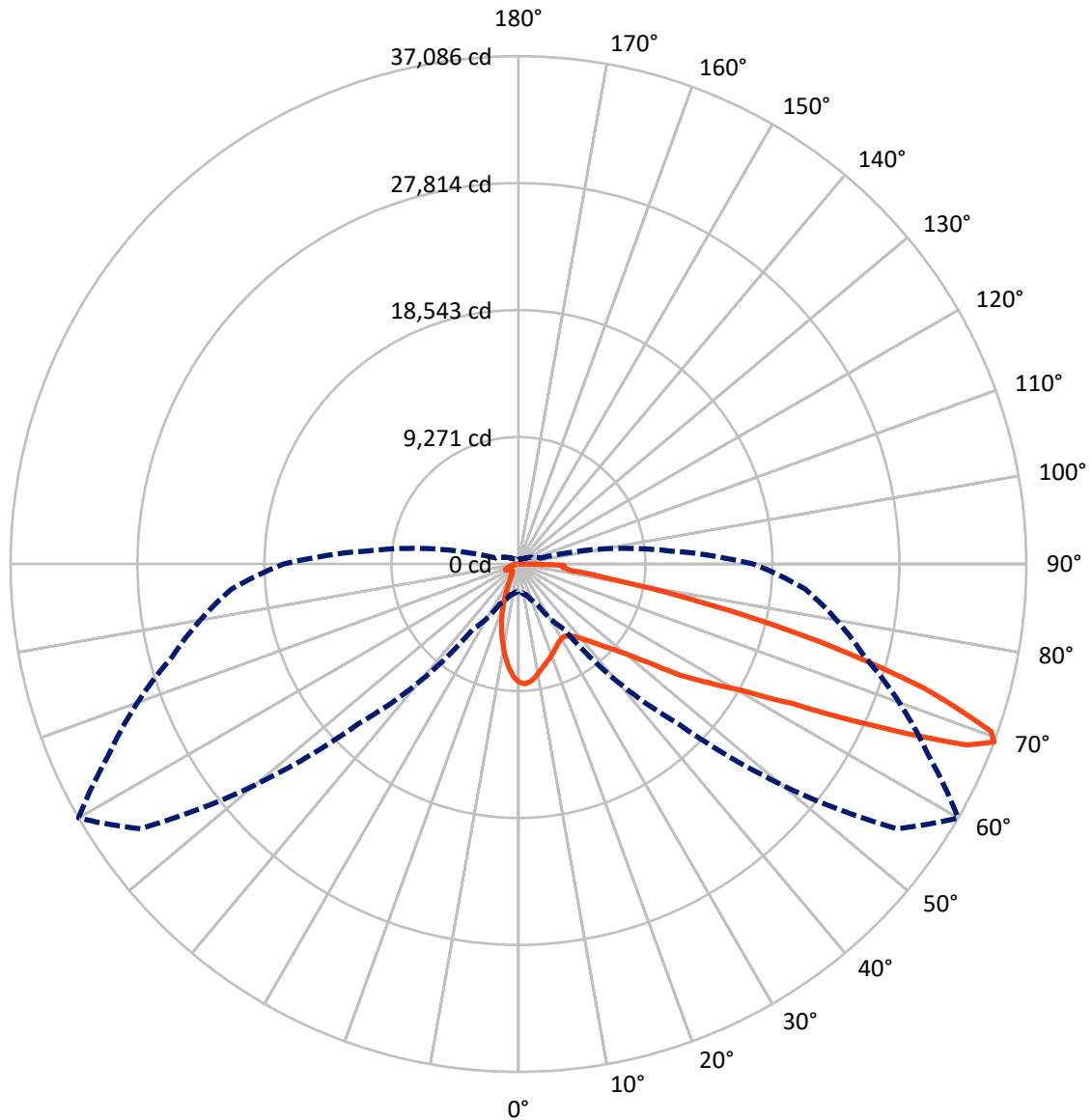
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.6 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4822.8 | 0.0 | 4822.8 |
| | % Fixture | 14.2 | 0.0 | 14.2 |
| Street Side | Lumens | 29076.6 | 0.0 | 29076.6 |
| | % Fixture | 85.8 | 0.0 | 85.8 |
| Total | Lumens | 33899.4 | 0.0 | 33899.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 730.4 | 2.2 |
| 10°-20° | 1556.1 | 4.6 |
| 20°-30° | 1982.8 | 5.8 |
| 30°-40° | 2725.8 | 8.0 |
| 40°-50° | 4422.9 | 13.0 |
| 50°-60° | 7093.2 | 20.9 |
| 60°-70° | 9440.5 | 27.8 |
| 70°-80° | 5097.2 | 15.0 |
| 80°-90° | 850.5 | 2.5 |
| 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° | 33899.4 | 100.0 |
| 0°-180° | 33899.4 | 100.0 |

Coefficient of Utilization



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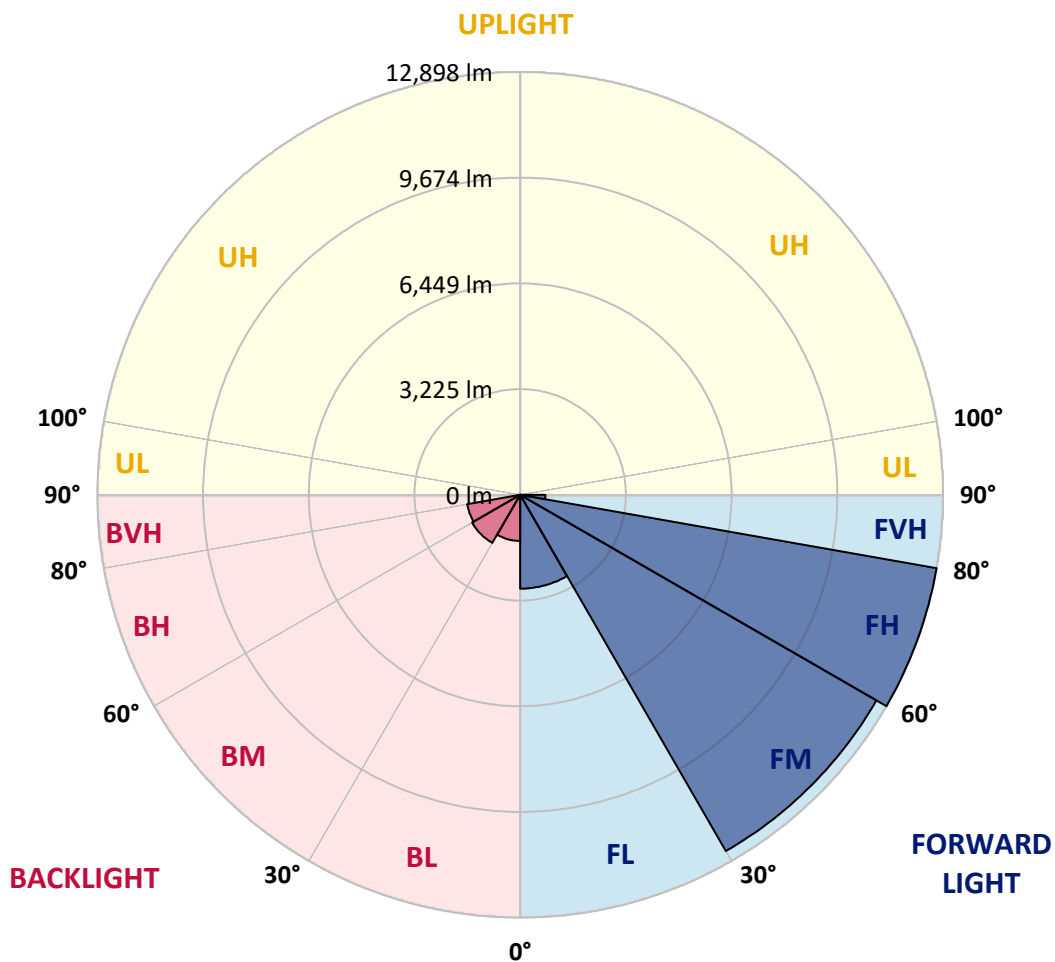
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2862.3 | 8.4 | | | |
| FM | (30°-60°) | 12547.6 | 37.0 | | | |
| FH | (60°-80°) | 12898.1 | 38.0 | | | G5 |
| FVH | (80°-90°) | 768.6 | 2.3 | | | G5 |
| BL | (0°-30°) | 1407.0 | 4.2 | B3/2500 | | |
| BM | (30°-60°) | 1694.4 | 5.0 | B2/2500 | | |
| BH | (60°-80°) | 1639.6 | 4.8 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 81.9 | 0.2 | | | 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 III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 |
| 2.5° | 8814.9 | 8834.6 | 8826.4 | 8821.5 | 8836.2 | 8813.3 | 8765.8 | 8751.1 | 8728.1 | 8674.1 | 8582.4 |
| 5° | 8484.2 | 8543.1 | 8539.8 | 8584.0 | 8657.7 | 8677.4 | 8656.1 | 8659.4 | 8616.8 | 8549.7 | 8397.4 |
| 7.5° | 7912.6 | 7937.2 | 7950.3 | 8046.9 | 8181.2 | 8289.3 | 8381.0 | 8410.5 | 8390.8 | 8333.5 | 8137.0 |
| 10° | 7323.1 | 7342.8 | 7373.9 | 7486.9 | 7657.2 | 7806.2 | 7979.8 | 8079.7 | 8122.3 | 8112.4 | 7893.0 |
| 12.5° | 6817.1 | 6836.8 | 6877.7 | 7005.4 | 7208.5 | 7391.9 | 7644.1 | 7768.5 | 7870.1 | 7930.7 | 7694.9 |
| 15° | 6363.5 | 6406.1 | 6445.4 | 6592.8 | 6820.4 | 7061.1 | 7346.1 | 7503.3 | 7660.5 | 7796.4 | 7519.6 |
| 17.5° | 6009.8 | 6052.4 | 6075.3 | 6209.6 | 6452.0 | 6746.7 | 7080.8 | 7265.8 | 7462.3 | 7685.0 | 7346.1 |
| 20° | 5805.1 | 5824.8 | 5814.9 | 5890.3 | 6108.1 | 6420.8 | 6817.1 | 7031.6 | 7269.1 | 7580.2 | 7172.5 |
| 22.5° | 5747.8 | 5749.4 | 5713.4 | 5705.2 | 5846.1 | 6109.7 | 6535.5 | 6795.8 | 7087.3 | 7511.4 | 7023.5 |
| 25° | 5887.0 | 5882.1 | 5783.8 | 5703.6 | 5718.3 | 5872.3 | 6263.6 | 6566.6 | 6935.0 | 7496.7 | 6908.8 |
| 27.5° | 6196.5 | 6211.2 | 6065.5 | 5914.8 | 5765.8 | 5760.9 | 6057.3 | 6376.6 | 6810.6 | 7563.9 | 6859.7 |
| 30° | 6630.4 | 6655.0 | 6499.4 | 6307.8 | 6027.8 | 5796.9 | 5977.1 | 6263.6 | 6733.6 | 7703.0 | 6851.5 |
| 32.5° | 7105.3 | 7131.5 | 7013.6 | 6812.2 | 6445.4 | 6019.6 | 6032.7 | 6273.5 | 6730.3 | 7897.9 | 6907.2 |
| 35° | 7611.3 | 7640.8 | 7580.2 | 7409.9 | 7002.2 | 6430.7 | 6245.6 | 6432.3 | 6836.8 | 8195.9 | 7056.2 |
| 37.5° | 8176.3 | 8222.1 | 8238.5 | 8076.4 | 7640.8 | 6972.7 | 6594.4 | 6733.6 | 7077.5 | 8610.2 | 7329.7 |
| 40° | 8990.2 | 9054.0 | 9049.1 | 8816.6 | 8372.8 | 7704.7 | 7133.2 | 7169.2 | 7452.5 | 9163.7 | 7766.9 |
| 42.5° | 10549.1 | 10562.2 | 10154.5 | 9648.5 | 9178.5 | 8474.3 | 7768.5 | 7739.1 | 7970.0 | 9864.6 | 8410.5 |
| 45° | 12532.2 | 12478.1 | 11570.9 | 10593.3 | 10020.2 | 9358.6 | 8595.5 | 8451.4 | 8626.6 | 10719.4 | 9216.1 |
| 47.5° | 14177.9 | 14053.5 | 12907.2 | 11557.8 | 10911.0 | 10319.8 | 9566.6 | 9314.4 | 9411.0 | 11688.8 | 10257.6 |
| 50° | 14749.4 | 14656.1 | 13706.3 | 12360.2 | 11754.3 | 11492.3 | 10762.0 | 10405.0 | 10431.2 | 12845.0 | 11477.6 |
| 52.5° | 14626.6 | 14613.5 | 13979.8 | 12889.2 | 12543.6 | 12723.8 | 12455.2 | 11972.1 | 11716.7 | 14128.8 | 12794.2 |
| 55° | 14336.8 | 14364.6 | 14135.3 | 13504.9 | 13445.9 | 13912.6 | 14667.5 | 14310.6 | 13516.3 | 15424.1 | 14155.0 |
| 57.5° | 13329.7 | 13401.7 | 13906.1 | 14279.4 | 14898.4 | 15592.8 | 16449.2 | 16347.7 | 15453.6 | 16824.2 | 15772.9 |
| 60° | 10739.1 | 10906.1 | 12258.7 | 14128.8 | 16393.5 | 18564.9 | 18948.1 | 18712.3 | 17451.4 | 18561.6 | 17909.9 |
| 62.5° | 7524.5 | 7698.1 | 9306.2 | 12232.5 | 16147.9 | 21921.9 | 23415.3 | 22398.4 | 20320.4 | 21121.1 | 20675.7 |
| 65° | 4028.4 | 4111.9 | 5340.1 | 8487.4 | 13632.6 | 22614.6 | 29944.3 | 28396.8 | 24862.9 | 24276.7 | 23042.0 |
| 67.5° | 2222.2 | 2268.0 | 2738.0 | 4285.5 | 8731.4 | 19914.3 | 34103.6 | 35272.9 | 30540.3 | 26377.7 | 22611.3 |
| 69° | 2009.3 | 2051.9 | 2359.7 | 3245.6 | 5842.8 | 16465.6 | 33697.5 | 37085.6 | 33029.4 | 26169.7 | 21019.6 |
| 70° | 1965.1 | 2004.4 | 2281.1 | 2991.8 | 4729.2 | 13572.0 | 32336.7 | 36622.2 | 33622.2 | 25424.6 | 19631.0 |
| 72.5° | 1768.6 | 1811.1 | 2079.7 | 2687.2 | 4041.5 | 6766.4 | 25614.6 | 30964.5 | 30525.6 | 22044.7 | 14890.3 |
| 75° | 1649.0 | 1688.3 | 2143.6 | 2631.5 | 3869.5 | 4282.2 | 16886.4 | 22820.9 | 22439.4 | 15420.8 | 8028.9 |
| 77.5° | 705.8 | 702.5 | 994.0 | 2227.1 | 3926.8 | 4146.3 | 9073.7 | 14256.5 | 13007.1 | 6591.1 | 2305.7 |
| 80° | 471.6 | 463.4 | 471.6 | 655.0 | 3601.0 | 4169.2 | 4753.8 | 7236.3 | 5466.1 | 1680.1 | 1136.5 |
| 82.5° | 406.1 | 399.6 | 414.3 | 399.6 | 1265.8 | 4758.7 | 4041.5 | 3848.2 | 2598.8 | 954.7 | 563.3 |
| 85° | 273.5 | 262.0 | 357.0 | 358.6 | 597.7 | 4228.2 | 4552.4 | 3250.5 | 2102.6 | 566.6 | 278.4 |
| 87.5° | 131.0 | 127.7 | 208.0 | 253.8 | 350.4 | 1717.8 | 5107.5 | 3330.8 | 2120.6 | 289.8 | 132.6 |
| 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° | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 | 8638.1 |
| 2.5° | 8554.6 | 8487.4 | 8421.9 | 8343.3 | 8261.4 | 8169.7 | 8123.9 | 8078.0 | 8066.6 | 8053.5 | 8007.6 |
| 5° | 8318.8 | 8223.8 | 8060.0 | 7879.9 | 7689.9 | 7504.9 | 7364.1 | 7275.6 | 7208.5 | 7174.1 | 7113.5 |
| 7.5° | 8014.2 | 7875.0 | 7588.4 | 7277.3 | 6958.0 | 6666.5 | 6414.3 | 6255.4 | 6104.8 | 6034.4 | 5954.1 |
| 10° | 7724.3 | 7516.4 | 7070.9 | 6612.4 | 6153.9 | 5713.4 | 5299.1 | 5006.0 | 4745.6 | 4599.9 | 4496.7 |
| 12.5° | 7475.4 | 7190.5 | 6573.1 | 5952.5 | 5323.7 | 4696.5 | 4075.9 | 3587.9 | 3180.1 | 2965.6 | 2855.9 |
| 15° | 7233.1 | 6889.2 | 6099.9 | 5312.2 | 4504.9 | 3651.7 | 2836.2 | 2282.7 | 1945.4 | 1811.1 | 1765.3 |
| 17.5° | 7013.6 | 6573.1 | 5625.0 | 4667.0 | 3659.9 | 2628.3 | 1906.1 | 1601.5 | 1472.2 | 1427.9 | 1413.2 |
| 20° | 6776.2 | 6253.8 | 5132.1 | 3992.4 | 2778.9 | 1837.3 | 1488.5 | 1354.3 | 1301.9 | 1288.8 | 1282.2 |
| 22.5° | 6546.9 | 5939.4 | 4660.5 | 3270.2 | 1996.2 | 1418.1 | 1278.9 | 1223.3 | 1215.1 | 1226.5 | 1226.5 |
| 25° | 6352.1 | 5657.7 | 4151.2 | 2515.3 | 1465.6 | 1193.8 | 1144.6 | 1131.5 | 1162.7 | 1205.2 | 1213.4 |
| 27.5° | 6206.3 | 5426.8 | 3609.2 | 1857.0 | 1167.6 | 1038.2 | 1036.6 | 1057.9 | 1134.8 | 1216.7 | 1233.1 |
| 30° | 6106.4 | 5207.4 | 3029.5 | 1339.5 | 979.3 | 913.8 | 940.0 | 985.8 | 1098.8 | 1215.1 | 1246.2 |
| 32.5° | 6055.7 | 5045.3 | 2425.2 | 1036.6 | 838.4 | 802.4 | 846.6 | 902.3 | 1013.6 | 1121.7 | 1162.7 |
| 35° | 6095.0 | 4925.8 | 1855.3 | 864.6 | 740.2 | 712.3 | 758.2 | 812.2 | 877.7 | 923.6 | 954.7 |
| 37.5° | 6242.3 | 4878.3 | 1400.1 | 774.6 | 673.0 | 646.8 | 682.9 | 714.0 | 740.2 | 753.3 | 768.0 |
| 40° | 6560.0 | 4929.0 | 1121.7 | 728.7 | 635.4 | 602.6 | 617.4 | 628.8 | 645.2 | 658.3 | 664.8 |
| 42.5° | 7028.4 | 5081.3 | 1005.5 | 710.7 | 615.7 | 568.2 | 565.0 | 569.9 | 591.2 | 615.7 | 620.6 |
| 45° | 7683.4 | 5349.9 | 997.3 | 722.2 | 605.9 | 540.4 | 525.7 | 532.2 | 565.0 | 602.6 | 609.2 |
| 47.5° | 8520.2 | 5759.3 | 1062.8 | 756.5 | 614.1 | 525.7 | 501.1 | 509.3 | 550.2 | 601.0 | 609.2 |
| 50° | 9533.8 | 6330.8 | 1172.5 | 807.3 | 650.1 | 528.9 | 492.9 | 497.8 | 540.4 | 596.1 | 604.3 |
| 52.5° | 10730.9 | 7141.4 | 1292.0 | 856.4 | 687.8 | 550.2 | 499.5 | 488.0 | 527.3 | 576.4 | 586.2 |
| 55° | 12062.2 | 8181.2 | 1414.8 | 900.7 | 707.4 | 576.4 | 512.6 | 474.9 | 502.7 | 543.7 | 551.9 |
| 57.5° | 13696.5 | 9635.4 | 1627.7 | 943.2 | 720.5 | 594.4 | 525.7 | 461.8 | 471.6 | 501.1 | 507.6 |
| 60° | 15908.8 | 11692.1 | 2002.7 | 1013.6 | 750.0 | 601.0 | 524.0 | 450.3 | 440.5 | 456.9 | 460.2 |
| 62.5° | 18560.0 | 13925.7 | 2315.5 | 1102.1 | 799.1 | 605.9 | 514.2 | 442.1 | 414.3 | 414.3 | 417.6 |
| 65° | 20133.7 | 14523.4 | 2141.9 | 1175.8 | 840.1 | 601.0 | 502.7 | 434.0 | 394.6 | 376.6 | 378.3 |
| 67.5° | 18799.1 | 12772.9 | 1835.7 | 1190.5 | 838.4 | 578.1 | 484.7 | 419.2 | 375.0 | 347.2 | 345.5 |
| 69° | 17127.2 | 11020.7 | 1698.1 | 1151.2 | 799.1 | 548.6 | 461.8 | 402.8 | 360.3 | 330.8 | 329.1 |
| 70° | 15779.4 | 9951.4 | 1608.1 | 1108.6 | 756.5 | 527.3 | 443.8 | 388.1 | 348.8 | 321.0 | 317.7 |
| 72.5° | 11472.7 | 6520.7 | 1373.9 | 953.1 | 623.9 | 442.1 | 383.2 | 340.6 | 311.1 | 294.8 | 291.5 |
| 75° | 5733.1 | 3109.7 | 1115.2 | 772.9 | 478.2 | 353.7 | 314.4 | 284.9 | 270.2 | 266.9 | 265.3 |
| 77.5° | 1883.2 | 1424.7 | 797.5 | 576.4 | 355.3 | 276.7 | 253.8 | 232.5 | 229.3 | 239.1 | 235.8 |
| 80° | 1034.9 | 828.6 | 506.0 | 381.5 | 242.4 | 203.1 | 199.8 | 188.3 | 193.2 | 209.6 | 206.3 |
| 82.5° | 527.3 | 430.7 | 312.8 | 229.3 | 163.8 | 145.7 | 158.8 | 152.3 | 158.8 | 173.6 | 171.9 |
| 85° | 260.4 | 235.8 | 198.1 | 139.2 | 108.1 | 93.3 | 113.0 | 117.9 | 121.2 | 132.6 | 132.6 |
| 87.5° | 150.7 | 139.2 | 104.8 | 65.5 | 54.0 | 49.1 | 65.5 | 63.9 | 75.3 | 81.9 | 80.2 |
| 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)