

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: P300713

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-7060-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300713
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-AFL-7060-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31972 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 374
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

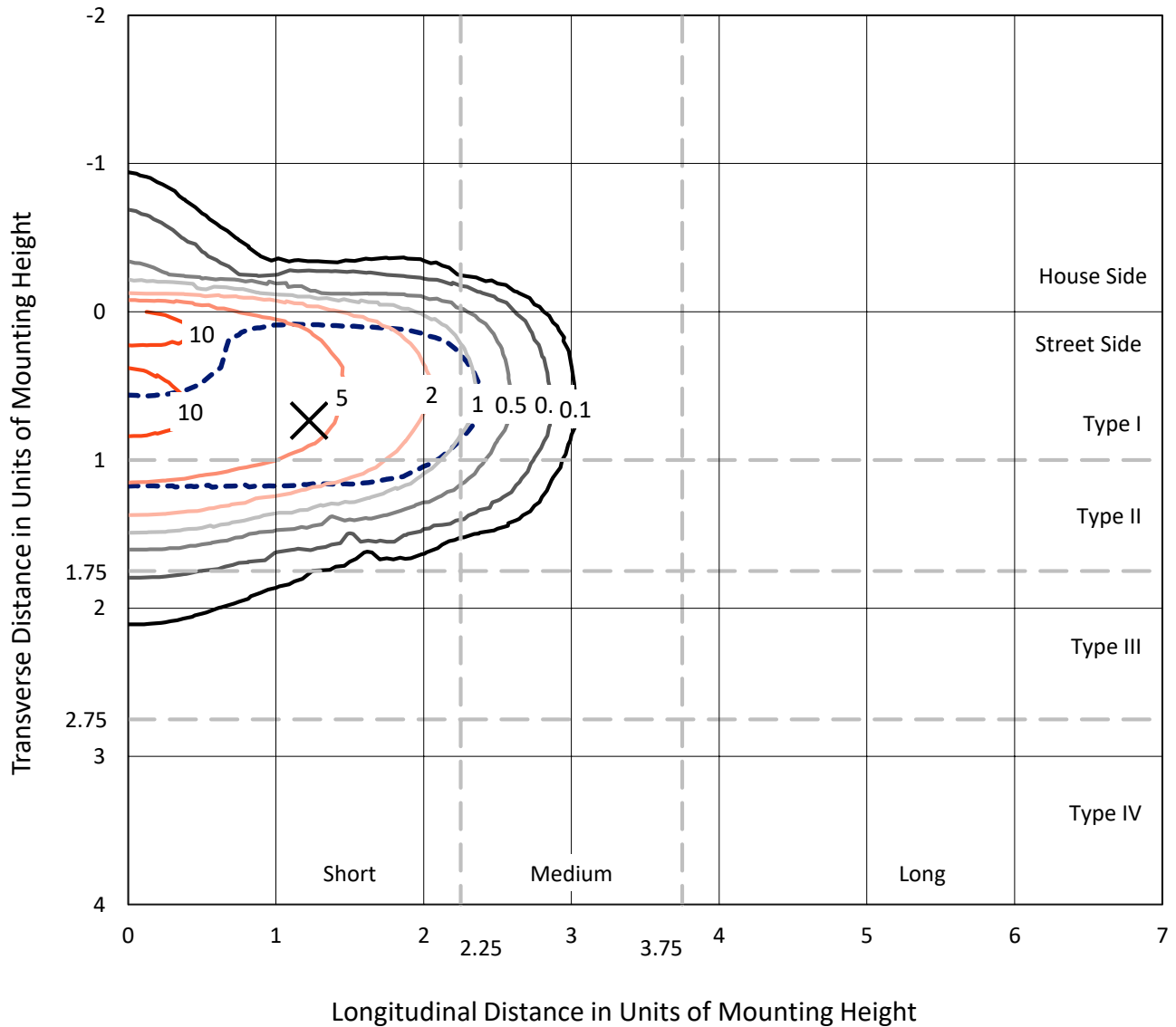


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

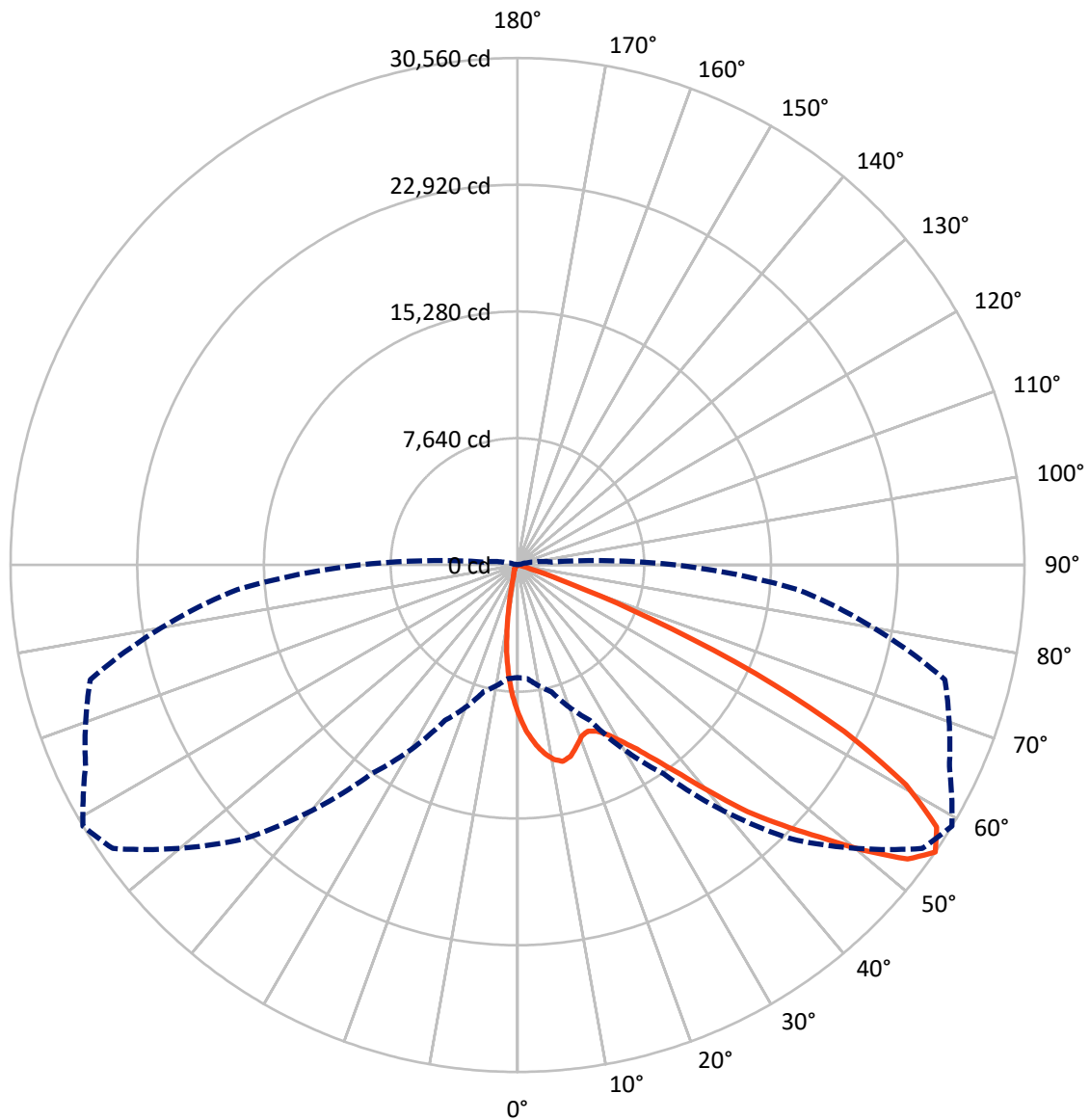


Based on 30 foot mounting height. Maximum calculated value = 12.4 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1785.8 | 0.0 | 1785.8 |
| | % Fixture | 5.6 | 0.0 | 5.6 |
| Street Side | Lumens | 30186.2 | 0.0 | 30186.2 |
| | % Fixture | 94.4 | 0.0 | 94.4 |
| Total | Lumens | 31972.0 | 0.0 | 31972.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 753.8 | 2.4 |
| 10°-20° | 1804.9 | 5.6 |
| 20°-30° | 3071.3 | 9.6 |
| 30°-40° | 5281.9 | 16.5 |
| 40°-50° | 8154.7 | 25.5 |
| 50°-60° | 8198.1 | 25.6 |
| 60°-70° | 4204.0 | 13.1 |
| 70°-80° | 455.6 | 1.4 |
| 80°-90° | 47.6 | 0.1 |
| 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° | 31972.0 | 100.0 |
| 0°-180° | 31972.0 | 100.0 |



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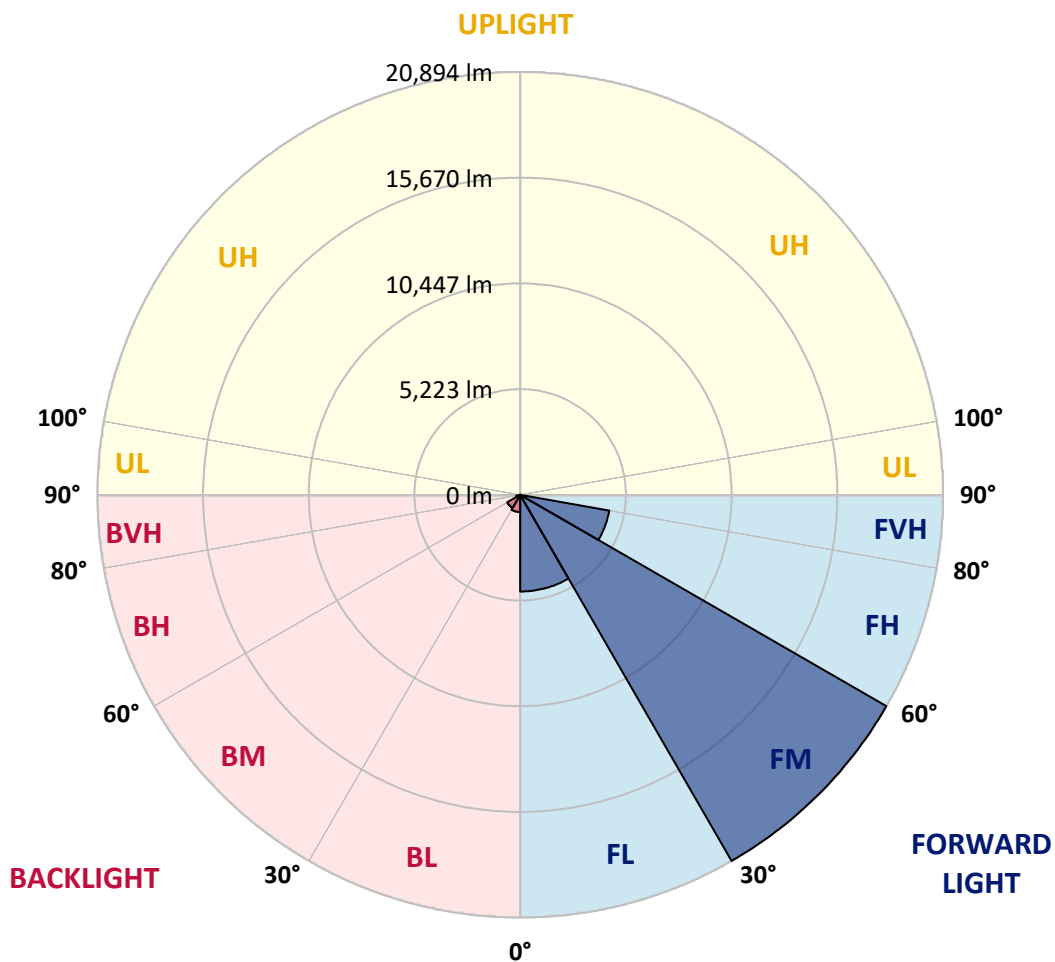
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 4777.7 | 14.9 | | | |
| FM (30°-60°) | 20893.6 | 65.3 | | | |
| FH (60°-80°) | 4468.3 | 14.0 | | | G2/5000 |
| FVH (80°-90°) | 46.6 | 0.1 | | | G1/100 |
| BL (0°-30°) | 852.4 | 2.7 | B2/1000 | | |
| BM (30°-60°) | 741.1 | 2.3 | B1/1000 | | |
| BH (60°-80°) | 191.3 | 0.6 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.0 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 |
| 2.5° | 10649.1 | 10535.9 | 10501.9 | 10479.3 | 10375.5 | 10245.3 | 10067.9 | 9984.9 | 9815.1 | 9541.5 | 9205.7 |
| 5° | 11624.5 | 11603.8 | 11528.3 | 11486.8 | 11375.5 | 11190.6 | 10907.6 | 10771.7 | 10501.9 | 10041.5 | 9439.6 |
| 7.5° | 11198.1 | 11328.3 | 11432.1 | 11605.7 | 11824.5 | 11817.0 | 11579.3 | 11437.7 | 11135.9 | 10528.3 | 9700.0 |
| 10° | 9551.0 | 9656.6 | 9826.4 | 10220.8 | 11024.5 | 11734.0 | 12013.2 | 11911.3 | 11669.8 | 10975.5 | 9951.0 |
| 12.5° | 9228.3 | 9217.0 | 9247.2 | 9362.3 | 9783.0 | 10794.4 | 11939.6 | 12145.3 | 12096.2 | 11384.9 | 10188.7 |
| 15° | 9400.0 | 9386.8 | 9383.0 | 9422.7 | 9524.5 | 9951.0 | 11386.8 | 11977.4 | 12356.6 | 11764.2 | 10390.6 |
| 17.5° | 9881.1 | 9824.5 | 9794.4 | 9762.3 | 9732.1 | 9837.7 | 10722.7 | 11507.6 | 12396.2 | 12096.2 | 10558.5 |
| 20° | 10705.7 | 10611.3 | 10500.0 | 10318.9 | 10149.1 | 10096.2 | 10443.4 | 11024.5 | 12254.7 | 12349.1 | 10667.9 |
| 22.5° | 11741.5 | 11620.8 | 11428.3 | 11098.1 | 10752.8 | 10552.8 | 10581.1 | 10871.7 | 12043.4 | 12624.5 | 10718.9 |
| 25° | 12905.7 | 12751.0 | 12494.4 | 12035.9 | 11528.3 | 11173.6 | 10988.7 | 11090.6 | 11947.2 | 12947.2 | 10777.4 |
| 27.5° | 14152.8 | 13981.1 | 13645.3 | 13020.8 | 12445.3 | 11966.1 | 11588.7 | 11575.5 | 12111.3 | 13369.8 | 10871.7 |
| 30° | 15388.7 | 15362.3 | 14924.5 | 14264.2 | 13501.9 | 12918.9 | 12375.5 | 12305.7 | 12569.8 | 13954.7 | 11058.5 |
| 32.5° | 17037.8 | 16839.6 | 16303.8 | 15624.5 | 14745.3 | 14045.3 | 13401.9 | 13239.6 | 13273.6 | 14635.9 | 11347.2 |
| 35° | 19117.0 | 18900.0 | 18145.3 | 17207.6 | 16224.5 | 15398.1 | 14686.8 | 14466.1 | 14383.0 | 15751.0 | 11834.0 |
| 37.5° | 20460.4 | 20456.6 | 19983.0 | 19028.3 | 17973.6 | 17062.3 | 16288.7 | 16030.2 | 15862.3 | 17098.1 | 12588.7 |
| 40° | 20496.3 | 20584.9 | 20647.2 | 20637.8 | 19886.8 | 19047.2 | 18360.4 | 18041.5 | 17651.0 | 18898.1 | 13564.2 |
| 42.5° | 19396.2 | 19624.6 | 20173.6 | 21105.7 | 21551.0 | 21217.0 | 20637.8 | 20324.6 | 19743.4 | 20824.6 | 14752.8 |
| 45° | 17909.5 | 18067.9 | 19028.3 | 20745.3 | 22452.9 | 23368.0 | 22926.4 | 22366.1 | 21600.0 | 22834.0 | 15818.9 |
| 47.5° | 17243.4 | 17271.7 | 17892.5 | 19777.4 | 22520.8 | 25130.2 | 25398.1 | 24486.8 | 23286.8 | 24452.9 | 16652.8 |
| 50° | 15252.8 | 15303.8 | 16160.4 | 18100.0 | 21724.6 | 25962.3 | 27881.2 | 27017.0 | 25126.4 | 25700.0 | 16956.6 |
| 52.5° | 11496.2 | 11567.9 | 12654.7 | 15343.4 | 19535.9 | 25607.6 | 29658.5 | 29449.1 | 27141.5 | 26309.5 | 16973.6 |
| 55° | 6783.0 | 6877.4 | 7915.1 | 10328.3 | 15366.1 | 23351.0 | 29790.6 | 30560.4 | 28732.1 | 26669.8 | 16947.2 |
| 57.5° | 3167.9 | 3234.0 | 3828.3 | 5320.8 | 9556.6 | 18454.7 | 27801.9 | 29798.1 | 29609.5 | 26860.4 | 17134.0 |
| 60° | 1683.0 | 1701.9 | 1845.3 | 2303.8 | 4318.9 | 11701.9 | 23920.8 | 26907.6 | 28809.5 | 27124.6 | 17362.3 |
| 62.5° | 1286.8 | 1292.5 | 1284.9 | 1339.6 | 1815.1 | 5194.3 | 18081.2 | 22120.8 | 25588.7 | 26926.4 | 17109.5 |
| 65° | 1115.1 | 1124.5 | 1071.7 | 1058.5 | 1164.2 | 1852.8 | 10741.5 | 15767.9 | 20107.6 | 24252.9 | 15386.8 |
| 67.5° | 1000.0 | 1003.8 | 939.6 | 884.9 | 903.8 | 1001.9 | 4237.7 | 8632.1 | 13309.4 | 17777.4 | 11152.8 |
| 70° | 920.8 | 917.0 | 847.2 | 760.4 | 735.8 | 684.9 | 1347.2 | 3164.2 | 6360.4 | 9015.1 | 5186.8 |
| 72.5° | 815.1 | 817.0 | 783.0 | 669.8 | 611.3 | 479.2 | 624.5 | 922.6 | 1898.1 | 2456.6 | 1215.1 |
| 75° | 722.6 | 713.2 | 671.7 | 600.0 | 503.8 | 315.1 | 309.4 | 411.3 | 584.9 | 581.1 | 262.3 |
| 77.5° | 522.6 | 513.2 | 526.4 | 492.5 | 386.8 | 203.8 | 154.7 | 198.1 | 237.7 | 230.2 | 73.6 |
| 80° | 383.0 | 377.4 | 339.6 | 409.4 | 341.5 | 139.6 | 96.2 | 105.7 | 122.6 | 103.8 | 22.6 |
| 82.5° | 262.3 | 260.4 | 239.6 | 226.4 | 194.3 | 84.9 | 60.4 | 66.0 | 79.2 | 58.5 | 11.3 |
| 85° | 41.5 | 47.2 | 173.6 | 137.7 | 115.1 | 37.7 | 41.5 | 45.3 | 52.8 | 32.1 | 3.8 |
| 87.5° | 0.0 | 0.0 | 81.1 | 71.7 | 22.6 | 15.1 | 24.5 | 26.4 | 26.4 | 17.0 | 0.0 |
| 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° | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 | 9000.0 |
| 2.5° | 9034.0 | 8845.3 | 8496.2 | 8135.9 | 7801.9 | 7403.8 | 7130.2 | 6924.5 | 6686.8 | 6622.6 | 6762.3 |
| 5° | 9096.2 | 8739.6 | 7988.7 | 7171.7 | 6403.8 | 5552.8 | 4901.9 | 4386.8 | 3920.8 | 3762.3 | 3905.7 |
| 7.5° | 9194.4 | 8664.2 | 7439.6 | 6094.3 | 4758.5 | 3430.2 | 2520.8 | 1922.6 | 1541.5 | 1428.3 | 1488.7 |
| 10° | 9292.5 | 8554.7 | 6803.8 | 4818.9 | 2992.5 | 1669.8 | 1086.8 | 867.9 | 786.8 | 769.8 | 779.2 |
| 12.5° | 9373.6 | 8407.6 | 6028.3 | 3426.4 | 1600.0 | 894.3 | 711.3 | 675.5 | 664.2 | 664.2 | 667.9 |
| 15° | 9422.7 | 8184.9 | 5109.4 | 2179.2 | 920.8 | 675.5 | 620.8 | 609.4 | 609.4 | 611.3 | 615.1 |
| 17.5° | 9417.0 | 7901.9 | 4103.8 | 1318.9 | 688.7 | 598.1 | 566.0 | 556.6 | 554.7 | 558.5 | 560.4 |
| 20° | 9347.2 | 7532.1 | 3094.3 | 869.8 | 600.0 | 545.3 | 513.2 | 496.2 | 494.3 | 498.1 | 501.9 |
| 22.5° | 9215.1 | 7075.5 | 2213.2 | 669.8 | 541.5 | 494.3 | 454.7 | 439.6 | 439.6 | 443.4 | 447.2 |
| 25° | 9054.7 | 6517.0 | 1513.2 | 567.9 | 488.7 | 439.6 | 401.9 | 388.7 | 392.5 | 401.9 | 403.8 |
| 27.5° | 8854.7 | 5888.7 | 1028.3 | 486.8 | 424.5 | 384.9 | 356.6 | 347.2 | 356.6 | 369.8 | 373.6 |
| 30° | 8683.0 | 5234.0 | 734.0 | 420.8 | 360.4 | 332.1 | 315.1 | 315.1 | 328.3 | 352.8 | 358.5 |
| 32.5° | 8551.0 | 4600.0 | 566.0 | 371.7 | 313.2 | 288.7 | 279.2 | 288.7 | 309.4 | 334.0 | 339.6 |
| 35° | 8534.0 | 4077.4 | 479.2 | 332.1 | 279.2 | 254.7 | 250.9 | 267.9 | 288.7 | 307.5 | 311.3 |
| 37.5° | 8664.2 | 3594.3 | 432.1 | 300.0 | 249.1 | 226.4 | 222.6 | 243.4 | 264.2 | 286.8 | 292.5 |
| 40° | 8911.3 | 3215.1 | 398.1 | 269.8 | 224.5 | 200.0 | 192.5 | 207.5 | 235.8 | 266.0 | 273.6 |
| 42.5° | 9232.1 | 2901.9 | 360.4 | 239.6 | 200.0 | 166.0 | 156.6 | 173.6 | 203.8 | 235.8 | 245.3 |
| 45° | 9537.7 | 2632.1 | 318.9 | 205.7 | 167.9 | 128.3 | 124.5 | 147.2 | 162.3 | 194.3 | 201.9 |
| 47.5° | 9705.7 | 2394.3 | 283.0 | 167.9 | 130.2 | 103.8 | 103.8 | 109.4 | 124.5 | 162.3 | 169.8 |
| 50° | 9649.1 | 2203.8 | 245.3 | 124.5 | 90.6 | 79.2 | 79.2 | 77.4 | 100.0 | 130.2 | 135.8 |
| 52.5° | 9535.9 | 2094.3 | 211.3 | 96.2 | 62.3 | 56.6 | 50.9 | 56.6 | 69.8 | 83.0 | 84.9 |
| 55° | 9518.9 | 2075.5 | 177.4 | 77.4 | 43.4 | 37.7 | 28.3 | 28.3 | 28.3 | 26.4 | 22.6 |
| 57.5° | 9651.0 | 2105.7 | 149.1 | 62.3 | 32.1 | 24.5 | 15.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 9786.8 | 2137.7 | 128.3 | 43.4 | 22.6 | 13.2 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 9560.4 | 2066.0 | 107.5 | 26.4 | 17.0 | 5.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 8398.1 | 1758.5 | 84.9 | 18.9 | 11.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 5973.6 | 1177.4 | 56.6 | 11.3 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 2726.4 | 492.5 | 35.8 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 583.0 | 152.8 | 24.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 118.9 | 111.3 | 9.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 37.7 | 175.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 22.6 | 126.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 3.8 | 18.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)