

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: P458915

Luminaire Tested: **GALN-SA4B-735-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458915
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4B-735-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3500K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15100 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

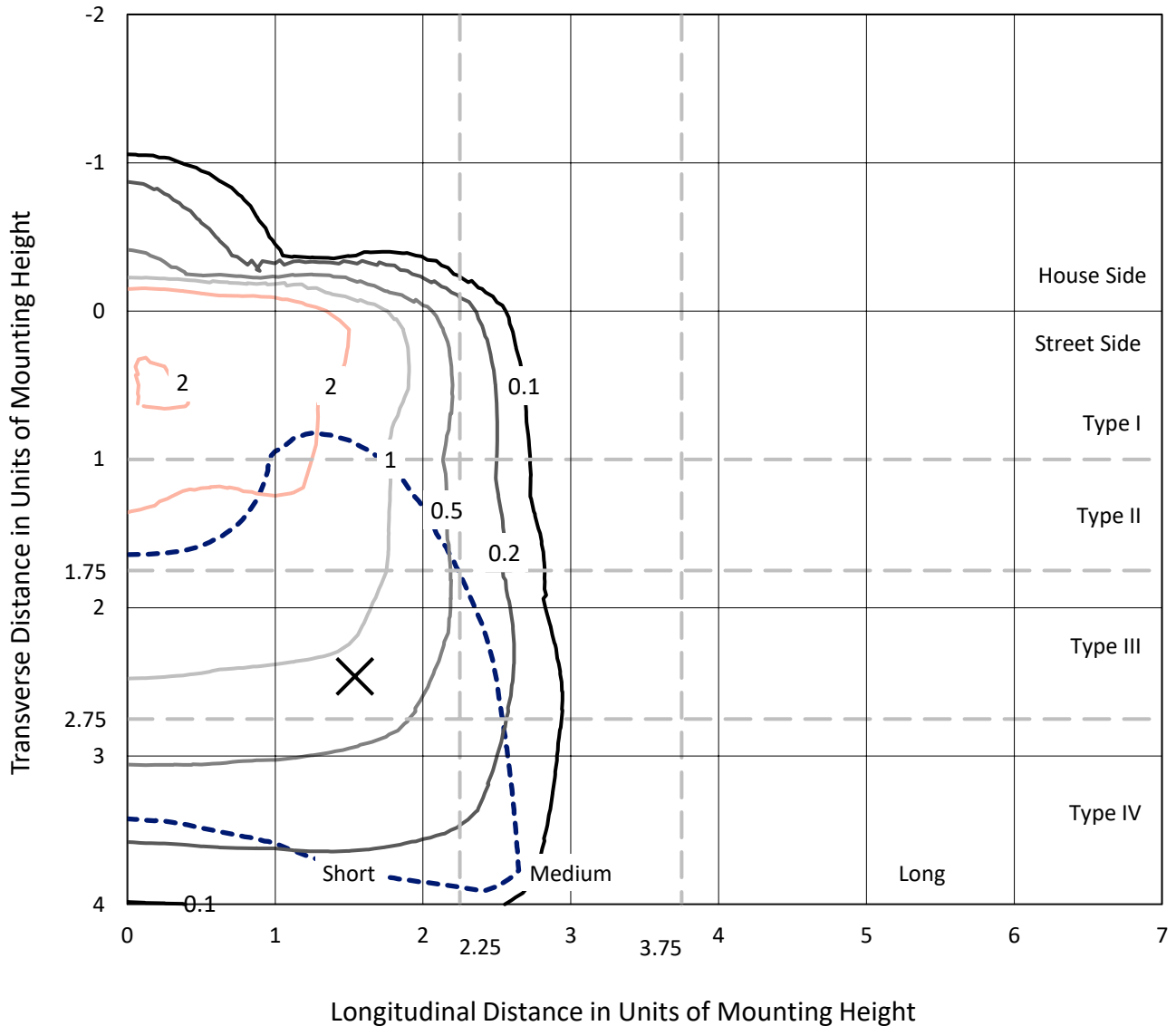
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

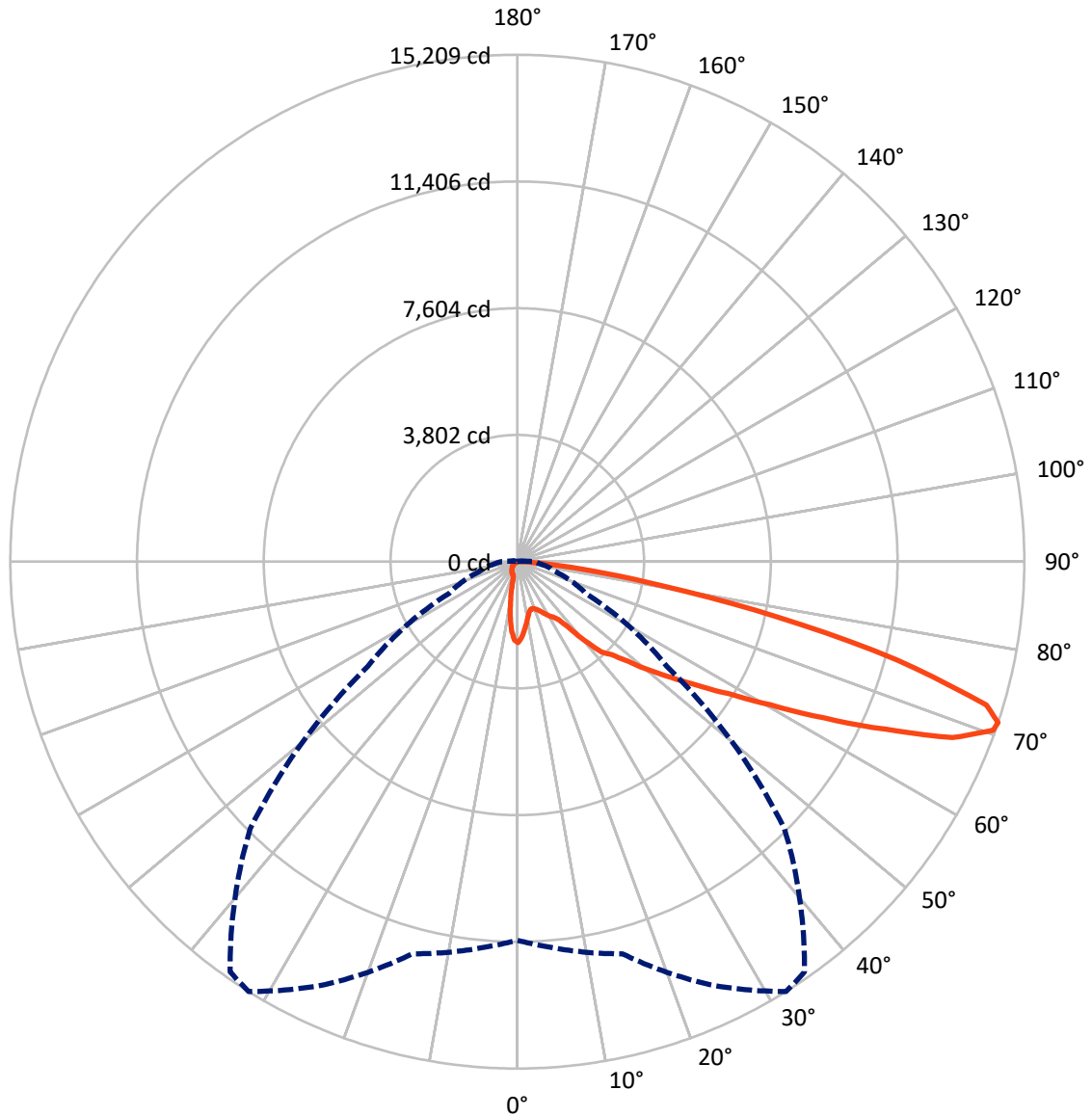
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1264.8 | 0.0 | 1264.8 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 13835.2 | 0.0 | 13835.2 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 15100.0 | 0.0 | 15100.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 197.5 | 1.3 |
| 10°-20° | 428.5 | 2.8 |
| 20°-30° | 666.7 | 4.4 |
| 30°-40° | 1110.7 | 7.4 |
| 40°-50° | 2066.1 | 13.7 |
| 50°-60° | 3317.1 | 22.0 |
| 60°-70° | 4461.7 | 29.5 |
| 70°-80° | 2647.2 | 17.5 |
| 80°-90° | 204.6 | 1.4 |
| 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° | 15100.0 | 100.0 |
| 0°-180° | 15100.0 | 100.0 |



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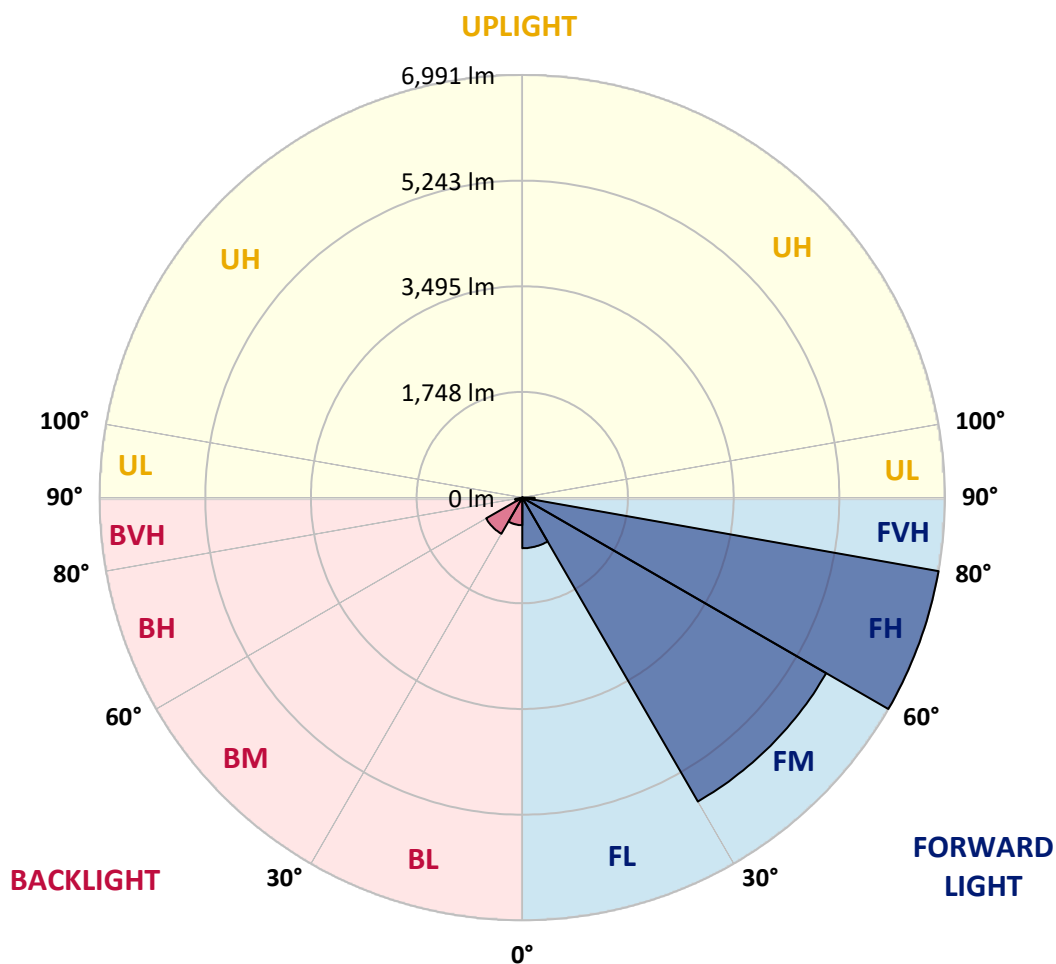
CATALOG NUMBER: GALN-SA4B-735-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 836.9 | 5.5 | | | |
| FM | (30°-60°) | 5803.9 | 38.4 | | | |
| FH | (60°-80°) | 6990.6 | 46.3 | | | G3/7500 |
| FVH | (80°-90°) | 203.8 | 1.3 | | | G2/225 |
| BL | (0°-30°) | 455.7 | 3.0 | B1/500 | | |
| BM | (30°-60°) | 690.0 | 4.6 | B1/1000 | | |
| BH | (60°-80°) | 118.3 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 0.8 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 |
| 2.5° | 2252.1 | 2275.3 | 2271.8 | 2280.0 | 2299.7 | 2307.8 | 2329.8 | 2354.1 | 2387.7 | 2410.9 | 2426.0 |
| 5° | 2016.8 | 2034.2 | 2036.5 | 2077.1 | 2096.8 | 2118.8 | 2183.7 | 2254.5 | 2333.3 | 2395.9 | 2437.6 |
| 7.5° | 1765.3 | 1774.6 | 1793.1 | 1846.4 | 1896.3 | 1918.3 | 2016.8 | 2139.7 | 2263.7 | 2380.8 | 2456.1 |
| 10° | 1557.8 | 1568.3 | 1601.9 | 1658.7 | 1705.0 | 1734.0 | 1870.8 | 2024.9 | 2198.8 | 2372.7 | 2482.8 |
| 12.5° | 1439.6 | 1445.4 | 1458.1 | 1509.1 | 1568.3 | 1599.6 | 1746.8 | 1922.9 | 2146.7 | 2376.2 | 2528.0 |
| 15° | 1431.5 | 1429.2 | 1414.1 | 1435.0 | 1488.3 | 1520.7 | 1664.5 | 1853.4 | 2100.3 | 2387.7 | 2581.3 |
| 17.5° | 1474.4 | 1468.6 | 1432.6 | 1432.6 | 1476.7 | 1503.4 | 1629.7 | 1816.3 | 2077.1 | 2414.4 | 2656.7 |
| 20° | 1540.4 | 1531.2 | 1472.1 | 1467.4 | 1510.3 | 1538.1 | 1650.6 | 1818.6 | 2081.7 | 2464.2 | 2757.5 |
| 22.5° | 1623.9 | 1613.5 | 1524.2 | 1526.5 | 1572.9 | 1600.7 | 1710.8 | 1860.4 | 2110.7 | 2525.7 | 2865.3 |
| 25° | 1732.9 | 1721.3 | 1615.8 | 1611.1 | 1659.8 | 1684.2 | 1800.1 | 1934.5 | 2151.3 | 2602.2 | 3006.7 |
| 27.5° | 1877.7 | 1853.4 | 1727.1 | 1720.1 | 1772.3 | 1803.6 | 1907.9 | 2034.2 | 2223.2 | 2707.7 | 3196.8 |
| 30° | 1997.1 | 1970.5 | 1849.9 | 1831.4 | 1887.0 | 1911.4 | 2019.2 | 2168.7 | 2364.6 | 2892.0 | 3459.9 |
| 32.5° | 2153.6 | 2114.2 | 1972.8 | 1924.1 | 1983.2 | 2014.5 | 2180.3 | 2419.0 | 2574.4 | 3086.7 | 3772.9 |
| 35° | 2506.0 | 2481.6 | 2308.9 | 2138.5 | 2135.1 | 2174.5 | 2417.9 | 2671.7 | 2790.0 | 3390.4 | 4199.4 |
| 37.5° | 3010.2 | 2992.8 | 2809.7 | 2581.3 | 2515.2 | 2496.7 | 2706.5 | 2949.9 | 3134.2 | 3807.6 | 4695.5 |
| 40° | 3595.5 | 3555.0 | 3386.9 | 3193.3 | 3107.5 | 3053.1 | 3047.3 | 3363.7 | 3583.9 | 4374.4 | 5212.5 |
| 42.5° | 4015.1 | 3940.9 | 3736.9 | 3723.0 | 3704.5 | 3647.7 | 3483.1 | 3968.8 | 4164.6 | 4984.1 | 5765.4 |
| 45° | 4455.6 | 4343.2 | 4039.5 | 3987.3 | 3980.4 | 3976.9 | 4141.5 | 4685.1 | 4797.5 | 5644.8 | 6333.3 |
| 47.5° | 4797.5 | 4708.3 | 4459.1 | 4435.9 | 4464.9 | 4543.7 | 5012.0 | 5445.5 | 5422.3 | 6233.6 | 6809.7 |
| 50° | 5253.0 | 5185.8 | 4908.8 | 4952.8 | 5102.4 | 5231.0 | 5993.7 | 6274.2 | 5935.8 | 6697.3 | 7156.3 |
| 52.5° | 5790.9 | 5666.8 | 5409.5 | 5528.9 | 5758.4 | 5972.8 | 7035.7 | 6999.8 | 6296.2 | 7046.2 | 7414.8 |
| 55° | 6256.8 | 6168.7 | 6080.6 | 6204.7 | 6547.8 | 6815.5 | 7976.9 | 7543.4 | 6558.2 | 7326.7 | 7528.4 |
| 57.5° | 7045.0 | 7024.1 | 6933.7 | 7060.1 | 7476.2 | 7754.4 | 8819.6 | 7965.3 | 6726.3 | 7472.7 | 7395.1 |
| 60° | 8211.1 | 8177.5 | 8009.4 | 8170.5 | 8713.0 | 9149.9 | 9596.2 | 8344.4 | 6764.5 | 7415.9 | 7011.4 |
| 62.5° | 9613.6 | 9498.8 | 9355.1 | 9592.7 | 10336.9 | 10529.3 | 10327.6 | 8569.2 | 6621.9 | 6963.9 | 6086.4 |
| 65° | 10923.4 | 10805.1 | 10808.6 | 11309.3 | 12119.6 | 12250.5 | 11180.7 | 8535.6 | 6204.7 | 5831.4 | 4489.2 |
| 67.5° | 11926.0 | 11906.3 | 12047.7 | 13024.8 | 14084.2 | 13993.8 | 11943.4 | 8032.6 | 4967.9 | 3779.8 | 2385.4 |
| 70° | 11977.0 | 12015.2 | 12420.9 | 14070.3 | 15146.0 | 15002.2 | 11878.5 | 6529.2 | 3097.1 | 1738.7 | 940.0 |
| 71° | 11360.3 | 11617.7 | 12178.7 | 14037.9 | 15208.6 | 15021.9 | 11331.4 | 5468.6 | 2271.8 | 1212.4 | 678.1 |
| 72.5° | 9680.8 | 9816.4 | 11028.8 | 13211.4 | 14713.6 | 14314.9 | 9943.9 | 3833.1 | 1454.7 | 741.8 | 389.5 |
| 75° | 5331.9 | 5665.7 | 7385.8 | 10364.7 | 11768.3 | 11418.3 | 6480.5 | 1820.9 | 725.6 | 405.7 | 161.1 |
| 77.5° | 2538.4 | 2473.5 | 3603.6 | 6164.1 | 7979.2 | 7960.7 | 3265.2 | 809.1 | 423.1 | 274.7 | 81.1 |
| 80° | 725.6 | 816.0 | 1379.3 | 2930.2 | 4430.1 | 4478.8 | 1254.1 | 390.6 | 293.3 | 214.4 | 41.7 |
| 82.5° | 219.1 | 223.7 | 506.5 | 1295.9 | 2203.5 | 2077.1 | 470.6 | 199.4 | 211.0 | 170.4 | 24.3 |
| 85° | 38.3 | 47.5 | 149.5 | 456.7 | 840.3 | 637.5 | 118.2 | 95.0 | 139.1 | 112.4 | 13.9 |
| 87.5° | 2.3 | 3.5 | 49.8 | 52.2 | 74.2 | 42.9 | 20.9 | 13.9 | 30.1 | 30.1 | 8.1 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 | 2428.3 |
| 2.5° | 2436.4 | 2443.4 | 2438.7 | 2428.3 | 2410.9 | 2390.1 | 2362.2 | 2339.1 | 2319.4 | 2308.9 | 2321.7 |
| 5° | 2451.5 | 2460.8 | 2437.6 | 2385.4 | 2306.6 | 2220.8 | 2123.5 | 2048.1 | 1989.0 | 1970.5 | 1963.5 |
| 7.5° | 2474.7 | 2480.5 | 2417.9 | 2302.0 | 2135.1 | 1932.2 | 1754.9 | 1605.4 | 1489.4 | 1454.7 | 1403.7 |
| 10° | 2504.8 | 2501.3 | 2383.1 | 2167.5 | 1874.3 | 1569.4 | 1294.7 | 1090.7 | 936.6 | 880.9 | 876.3 |
| 12.5° | 2551.2 | 2532.6 | 2339.1 | 1984.4 | 1563.6 | 1164.9 | 825.3 | 645.6 | 548.3 | 515.8 | 508.8 |
| 15° | 2609.1 | 2565.1 | 2269.5 | 1769.9 | 1197.4 | 752.3 | 508.8 | 454.4 | 441.6 | 439.3 | 437.0 |
| 17.5° | 2677.5 | 2608.0 | 2178.0 | 1506.8 | 841.5 | 488.0 | 425.4 | 424.2 | 425.4 | 423.1 | 421.9 |
| 20° | 2770.3 | 2653.2 | 2069.0 | 1195.0 | 556.4 | 411.5 | 405.7 | 405.7 | 406.8 | 405.7 | 405.7 |
| 22.5° | 2868.8 | 2706.5 | 1934.5 | 912.2 | 419.6 | 390.6 | 389.5 | 391.8 | 394.1 | 392.9 | 392.9 |
| 25° | 2990.5 | 2776.0 | 1757.2 | 624.8 | 375.5 | 373.2 | 374.4 | 379.0 | 383.7 | 384.8 | 383.7 |
| 27.5° | 3166.7 | 2861.8 | 1567.1 | 430.0 | 344.3 | 346.6 | 358.2 | 369.8 | 376.7 | 377.9 | 377.9 |
| 30° | 3364.9 | 2956.9 | 1319.1 | 348.9 | 318.8 | 318.8 | 332.7 | 354.7 | 369.8 | 372.1 | 373.2 |
| 32.5° | 3619.9 | 3067.0 | 1044.3 | 314.1 | 294.4 | 292.1 | 304.8 | 331.5 | 359.3 | 367.4 | 367.4 |
| 35° | 3935.1 | 3196.8 | 776.6 | 292.1 | 277.0 | 271.2 | 278.2 | 300.2 | 336.1 | 359.3 | 361.6 |
| 37.5° | 4304.9 | 3319.7 | 568.0 | 272.4 | 260.8 | 252.7 | 257.3 | 274.7 | 303.7 | 338.5 | 347.7 |
| 40° | 4646.8 | 3428.6 | 424.2 | 256.2 | 244.6 | 238.8 | 242.3 | 250.4 | 274.7 | 307.2 | 313.0 |
| 42.5° | 5020.1 | 3513.2 | 337.3 | 238.8 | 228.3 | 226.0 | 226.0 | 229.5 | 245.7 | 264.3 | 265.4 |
| 45° | 5392.1 | 3543.4 | 282.8 | 217.9 | 211.0 | 213.3 | 212.1 | 209.8 | 216.8 | 214.4 | 214.4 |
| 47.5° | 5657.6 | 3507.4 | 234.1 | 198.2 | 198.2 | 201.7 | 195.9 | 187.8 | 184.3 | 170.4 | 171.5 |
| 50° | 5839.5 | 3376.5 | 192.4 | 175.0 | 184.3 | 188.9 | 177.3 | 164.6 | 151.8 | 136.8 | 133.3 |
| 52.5° | 5914.9 | 3143.5 | 157.6 | 144.9 | 163.4 | 169.2 | 155.3 | 140.3 | 120.5 | 107.8 | 104.3 |
| 55° | 5866.2 | 2856.0 | 131.0 | 118.2 | 137.9 | 144.9 | 131.0 | 113.6 | 91.6 | 77.7 | 75.3 |
| 57.5° | 5651.8 | 2512.9 | 111.3 | 93.9 | 110.1 | 114.8 | 105.5 | 86.9 | 64.9 | 51.0 | 51.0 |
| 60° | 5280.9 | 2158.2 | 90.4 | 74.2 | 82.3 | 89.3 | 80.0 | 62.6 | 44.0 | 31.3 | 29.0 |
| 62.5° | 4528.6 | 1752.6 | 73.0 | 58.0 | 58.0 | 63.8 | 55.6 | 45.2 | 27.8 | 16.2 | 15.1 |
| 65° | 3269.8 | 1202.0 | 58.0 | 42.9 | 41.7 | 41.7 | 34.8 | 30.1 | 16.2 | 7.0 | 4.6 |
| 67.5° | 1776.9 | 678.1 | 46.4 | 32.5 | 29.0 | 27.8 | 22.0 | 17.4 | 7.0 | 1.2 | 0.0 |
| 70° | 698.9 | 260.8 | 35.9 | 22.0 | 18.5 | 17.4 | 11.6 | 8.1 | 4.6 | 0.0 | 0.0 |
| 71° | 474.1 | 179.7 | 31.3 | 18.5 | 15.1 | 12.8 | 9.3 | 7.0 | 3.5 | 0.0 | 0.0 |
| 72.5° | 271.2 | 111.3 | 24.3 | 13.9 | 11.6 | 9.3 | 7.0 | 4.6 | 3.5 | 0.0 | 0.0 |
| 75° | 118.2 | 56.8 | 15.1 | 10.4 | 8.1 | 5.8 | 4.6 | 3.5 | 1.2 | 0.0 | 0.0 |
| 77.5° | 60.3 | 31.3 | 10.4 | 8.1 | 4.6 | 3.5 | 2.3 | 1.2 | 0.0 | 0.0 | 0.0 |
| 80° | 33.6 | 16.2 | 7.0 | 4.6 | 3.5 | 2.3 | 1.2 | 1.2 | 0.0 | 0.0 | 0.0 |
| 82.5° | 18.5 | 9.3 | 3.5 | 2.3 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 11.6 | 5.8 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.8 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 1.2 | 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)