

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: P452243

Luminaire Tested: **GALN-SA3A-830-U-T3R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P452243  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA3A-830-U-T3R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8494 lumens  
Efficiency: N/A  
Efficacy: 91.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 93  
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: 24 FT

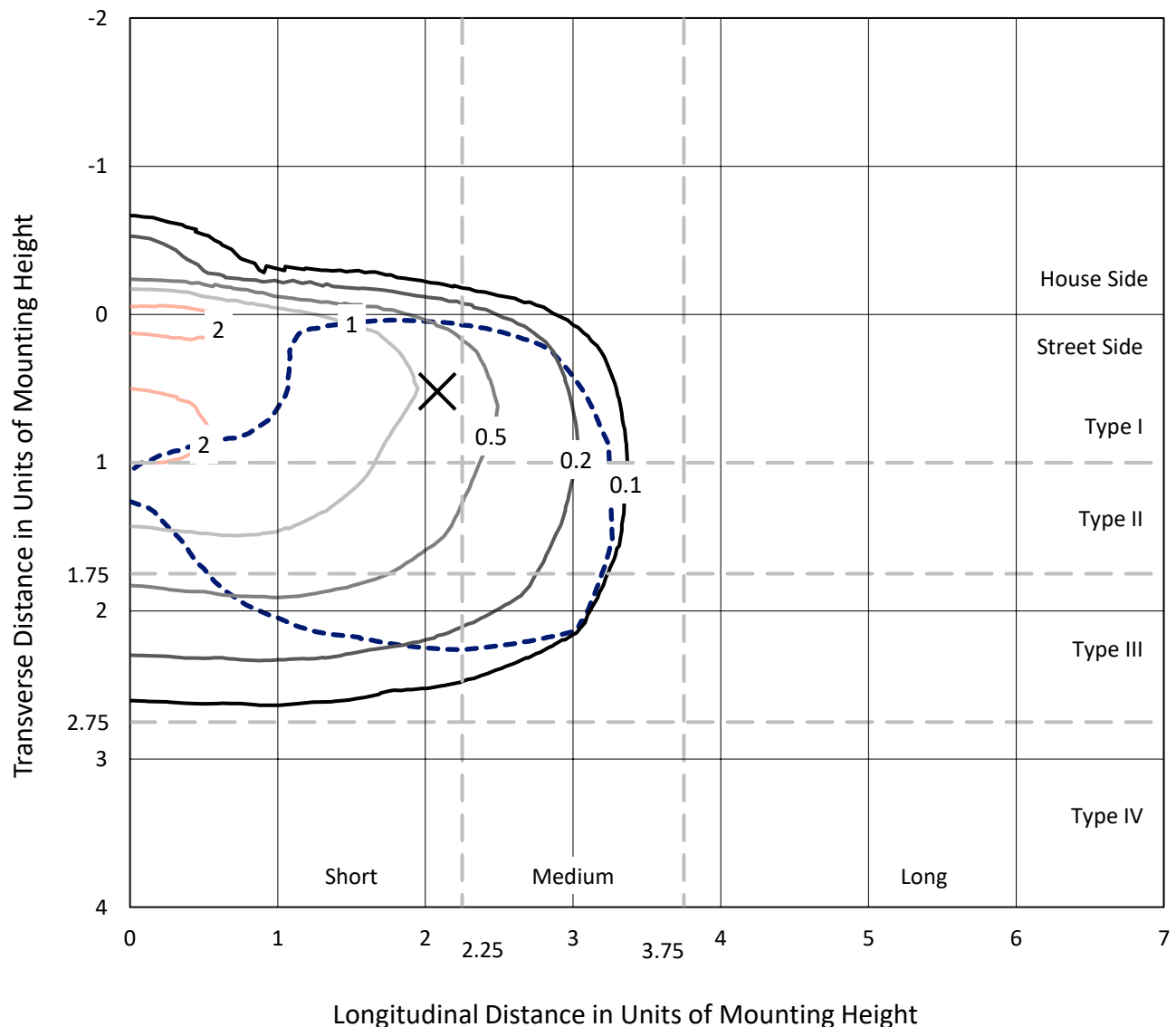


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## Iso-Footcandle Lines of Horizontal Illumination

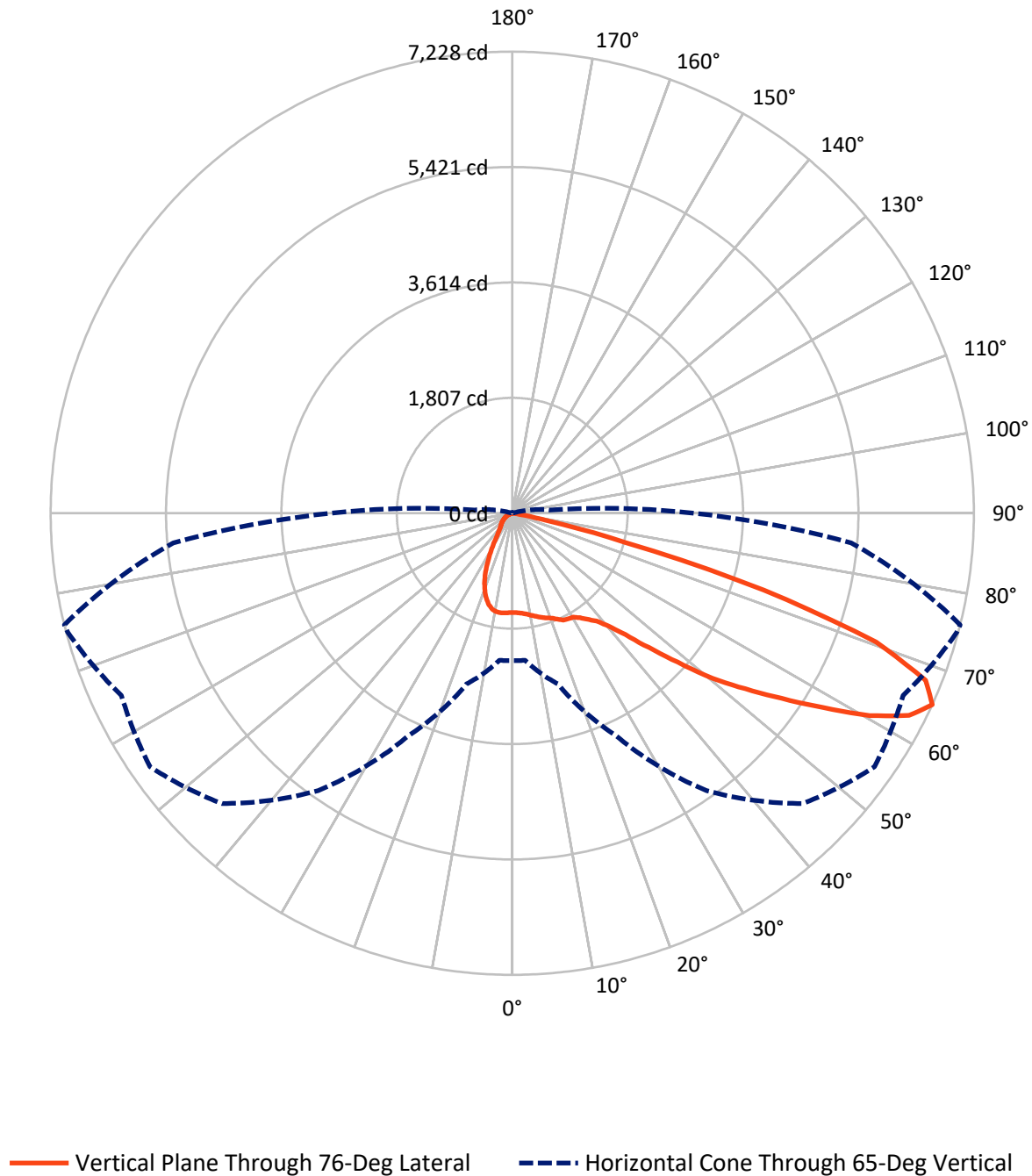
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc  
 Type III - Short - N/A

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## Luminous Intensity Polar Plot



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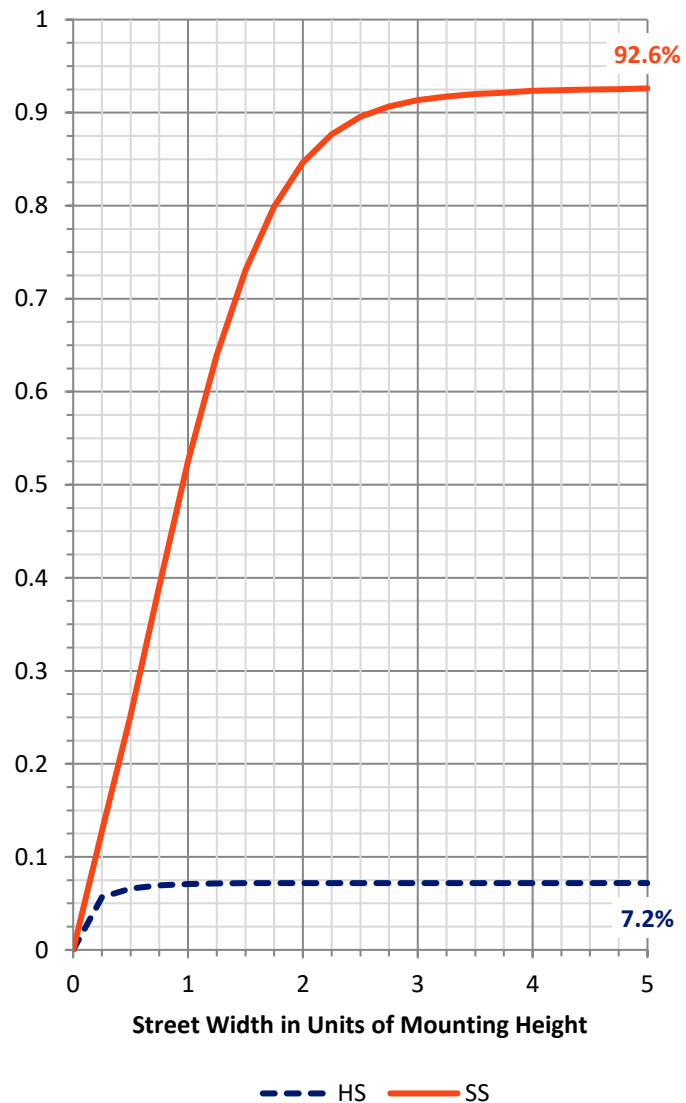
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 613.4    | 0.0    | 613.4  |
|                    | % Fixture | 7.2      | 0.0    | 7.2    |
| <b>Street Side</b> | Lumens    | 7880.6   | 0.0    | 7880.6 |
|                    | % Fixture | 92.8     | 0.0    | 92.8   |
| <b>Total</b>       | Lumens    | 8494.0   | 0.0    | 8494.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 128.0  | 1.5       |
| 10°-20°   | 285.0  | 3.4       |
| 20°-30°   | 459.2  | 5.4       |
| 30°-40°   | 798.5  | 9.4       |
| 40°-50°   | 1319.5 | 15.5      |
| 50°-60°   | 2038.4 | 24.0      |
| 60°-70°   | 2489.1 | 29.3      |
| 70°-80°   | 944.7  | 11.1      |
| 80°-90°   | 31.5   | 0.4       |
| 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°    | 8494.0 | 100.0     |
| 0°-180°   | 8494.0 | 100.0     |

**Coefficient of Utilization**



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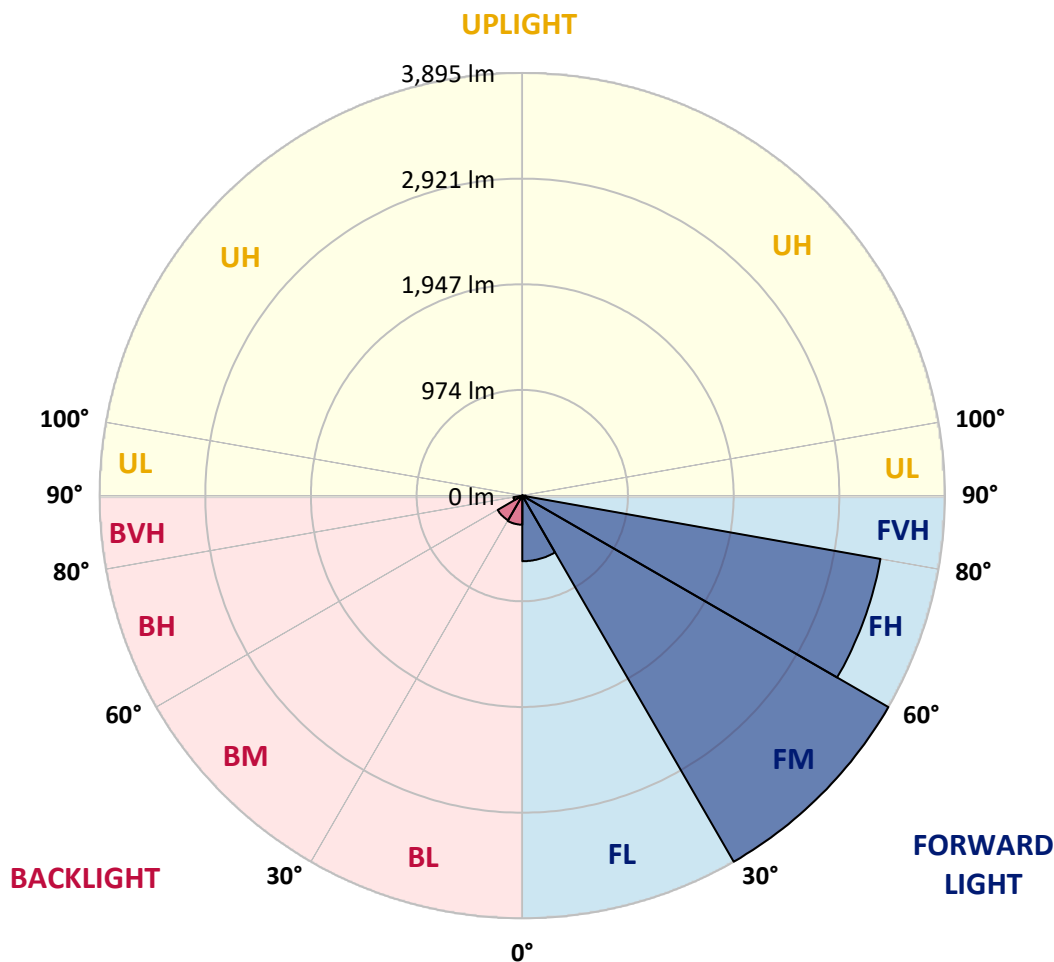
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 604.2  | 7.1       |                         |      |         |
| FM   | (30°-60°)   | 3894.6 | 45.9      |                         |      |         |
| FH   | (60°-80°)   | 3350.6 | 39.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 31.1   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 268.0  | 3.2       | B1/500                  |      |         |
| BM   | (30°-60°)   | 261.8  | 3.1       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 83.2   | 1.0       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.4    | 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-G2**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 76°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 |
| 2.5°  | 1484.9 | 1485.5 | 1489.1 | 1498.1 | 1511.8 | 1523.2 | 1532.8 | 1548.4 | 1559.2 | 1560.4 | 1564.0 |
| 5°    | 1382.3 | 1375.1 | 1382.3 | 1405.7 | 1426.7 | 1458.5 | 1497.5 | 1536.4 | 1571.2 | 1573.6 | 1590.4 |
| 7.5°  | 1267.2 | 1273.2 | 1284.6 | 1308.5 | 1348.1 | 1396.7 | 1453.1 | 1522.6 | 1588.6 | 1594.6 | 1627.6 |
| 10°   | 1150.2 | 1163.4 | 1182.0 | 1218.6 | 1273.8 | 1336.7 | 1413.5 | 1513.0 | 1616.2 | 1624.6 | 1681.6 |
| 12.5° | 1042.3 | 1048.3 | 1071.1 | 1120.2 | 1188.6 | 1277.4 | 1383.5 | 1507.6 | 1646.8 | 1657.0 | 1739.1 |
| 15°   | 959.5  | 967.3  | 987.1  | 1031.5 | 1107.6 | 1221.6 | 1358.9 | 1505.8 | 1676.8 | 1691.2 | 1796.7 |
| 17.5° | 943.9  | 948.7  | 957.1  | 987.1  | 1053.7 | 1177.2 | 1336.7 | 1505.2 | 1705.5 | 1722.9 | 1850.1 |
| 20°   | 1008.1 | 1003.9 | 995.5  | 992.5  | 1029.1 | 1143.0 | 1320.5 | 1510.0 | 1733.1 | 1752.9 | 1906.4 |
| 22.5° | 1168.8 | 1174.2 | 1125.0 | 1066.9 | 1054.9 | 1137.6 | 1318.1 | 1532.8 | 1776.9 | 1800.3 | 1969.4 |
| 25°   | 1510.0 | 1468.7 | 1391.9 | 1252.8 | 1147.8 | 1170.6 | 1345.1 | 1586.8 | 1827.9 | 1853.7 | 2026.4 |
| 27.5° | 1887.3 | 1874.7 | 1755.3 | 1526.2 | 1330.7 | 1240.2 | 1393.1 | 1628.2 | 1844.7 | 1871.1 | 2058.8 |
| 30°   | 2257.9 | 2272.9 | 2136.1 | 1883.1 | 1596.4 | 1369.1 | 1438.1 | 1643.8 | 1859.7 | 1887.3 | 2100.2 |
| 32.5° | 2601.5 | 2619.5 | 2499.6 | 2248.9 | 1909.4 | 1592.2 | 1515.4 | 1704.3 | 1922.6 | 1950.8 | 2169.1 |
| 35°   | 2872.0 | 2874.4 | 2783.8 | 2584.1 | 2251.3 | 1863.3 | 1682.8 | 1810.5 | 2007.8 | 2040.8 | 2242.3 |
| 37.5° | 3120.2 | 3116.6 | 3010.5 | 2838.4 | 2536.1 | 2132.5 | 1893.3 | 1932.8 | 2104.9 | 2139.1 | 2347.8 |
| 40°   | 3304.3 | 3306.7 | 3272.6 | 3110.6 | 2801.8 | 2381.4 | 2060.0 | 2047.4 | 2268.1 | 2321.4 | 2501.4 |
| 42.5° | 3427.3 | 3449.5 | 3466.3 | 3384.1 | 3135.8 | 2687.9 | 2316.0 | 2292.7 | 2551.1 | 2595.5 | 2718.4 |
| 45°   | 3526.8 | 3566.4 | 3650.4 | 3646.2 | 3456.7 | 3063.9 | 2667.5 | 2619.5 | 2952.3 | 2999.7 | 2994.9 |
| 47.5° | 3599.4 | 3639.6 | 3778.7 | 3862.7 | 3758.3 | 3428.5 | 3109.4 | 3068.1 | 3431.5 | 3483.1 | 3300.2 |
| 50°   | 3636.6 | 3684.6 | 3862.1 | 4024.6 | 3994.0 | 3779.9 | 3613.2 | 3615.6 | 4010.2 | 4060.0 | 3654.0 |
| 52.5° | 3549.6 | 3612.0 | 3906.4 | 4199.1 | 4258.5 | 4116.3 | 4085.2 | 4164.3 | 4525.3 | 4567.9 | 3973.6 |
| 55°   | 3272.0 | 3350.5 | 3845.9 | 4347.8 | 4564.9 | 4513.3 | 4621.3 | 4741.8 | 5088.5 | 5116.0 | 4301.7 |
| 57.5° | 3096.3 | 3179.6 | 3667.2 | 4474.4 | 4933.1 | 5012.3 | 5183.2 | 5271.4 | 5669.6 | 5739.7 | 4678.3 |
| 60°   | 2948.1 | 3013.5 | 3520.2 | 4501.4 | 5307.3 | 5622.8 | 5788.9 | 5880.1 | 6386.8 | 6432.4 | 5092.7 |
| 62.5° | 2701.7 | 2776.6 | 3272.0 | 4313.0 | 5495.7 | 6111.5 | 6455.8 | 6415.0 | 6941.5 | 6973.3 | 5346.9 |
| 65°   | 2305.2 | 2311.8 | 2768.2 | 3839.9 | 5301.4 | 6428.8 | 6924.1 | 6753.2 | 7206.6 | 7228.2 | 5327.1 |
| 67.5° | 1720.5 | 1784.1 | 2129.5 | 3018.3 | 4478.0 | 6157.7 | 7075.9 | 6762.2 | 7039.3 | 6979.3 | 4904.3 |
| 70°   | 1108.2 | 1156.8 | 1443.5 | 2093.0 | 3228.8 | 5138.8 | 6572.7 | 6298.7 | 6178.1 | 6045.0 | 4014.4 |
| 72.5° | 511.5  | 573.9  | 857.6  | 1195.8 | 1914.8 | 3660.6 | 5335.5 | 5117.2 | 4446.8 | 4118.1 | 2551.7 |
| 75°   | 223.1  | 238.7  | 423.4  | 630.9  | 897.8  | 1935.8 | 3517.8 | 3176.6 | 2008.4 | 1834.5 | 1021.3 |
| 77.5° | 136.1  | 146.3  | 221.9  | 338.2  | 352.6  | 737.6  | 1895.1 | 1385.9 | 620.7  | 547.5  | 277.1  |
| 80°   | 92.4   | 103.7  | 161.3  | 176.9  | 120.5  | 205.7  | 711.2  | 370.0  | 125.3  | 119.9  | 59.4   |
| 82.5° | 45.0   | 57.0   | 119.3  | 99.0   | 52.2   | 66.0   | 206.9  | 79.2   | 36.6   | 34.2   | 21.0   |
| 85°   | 6.6    | 11.4   | 67.2   | 64.8   | 23.4   | 15.6   | 36.6   | 19.8   | 12.6   | 12.0   | 9.6    |
| 87.5° | 0.0    | 0.0    | 22.8   | 10.2   | 2.4    | 2.4    | 4.2    | 4.2    | 4.8    | 4.2    | 4.8    |
| 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°    | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 | 1553.8 |
| 2.5°  | 1565.8 | 1568.8 | 1557.4 | 1541.2 | 1523.8 | 1506.4 | 1481.9 | 1459.7 | 1446.5 | 1454.3 | 1435.1 |
| 5°    | 1594.0 | 1591.6 | 1561.6 | 1512.4 | 1447.1 | 1368.5 | 1290.6 | 1224.0 | 1202.4 | 1170.0 | 1166.4 |
| 7.5°  | 1633.0 | 1626.4 | 1562.8 | 1450.1 | 1302.5 | 1155.0 | 1011.1 | 915.7  | 861.2  | 815.0  | 816.2  |
| 10°   | 1687.6 | 1668.4 | 1549.0 | 1340.3 | 1097.5 | 875.0  | 691.5  | 565.5  | 510.9  | 493.6  | 479.8  |
| 12.5° | 1743.9 | 1706.7 | 1510.6 | 1192.2 | 854.6  | 597.9  | 420.4  | 343.6  | 310.0  | 299.3  | 298.1  |
| 15°   | 1794.3 | 1735.5 | 1443.5 | 1014.1 | 621.3  | 382.0  | 286.7  | 261.5  | 257.3  | 257.9  | 257.3  |
| 17.5° | 1844.1 | 1758.3 | 1350.5 | 825.2  | 422.2  | 274.1  | 246.5  | 240.5  | 242.3  | 244.7  | 244.1  |
| 20°   | 1885.5 | 1763.1 | 1231.8 | 629.7  | 298.7  | 240.5  | 231.5  | 230.3  | 232.1  | 233.9  | 233.9  |
| 22.5° | 1930.4 | 1766.7 | 1090.9 | 436.0  | 244.1  | 223.7  | 218.9  | 218.9  | 221.3  | 223.7  | 224.3  |
| 25°   | 1964.0 | 1746.9 | 922.3  | 313.0  | 215.3  | 207.5  | 205.1  | 205.7  | 208.1  | 209.3  | 208.7  |
| 27.5° | 1969.4 | 1691.2 | 743.6  | 239.9  | 195.5  | 187.7  | 185.3  | 187.7  | 184.7  | 186.5  | 185.3  |
| 30°   | 1974.2 | 1620.4 | 562.5  | 202.1  | 177.5  | 165.5  | 161.9  | 158.3  | 155.9  | 152.9  | 152.3  |
| 32.5° | 1989.2 | 1537.0 | 410.8  | 181.7  | 160.7  | 147.5  | 139.1  | 128.9  | 121.1  | 118.7  | 118.1  |
| 35°   | 1995.8 | 1436.9 | 301.6  | 165.5  | 145.7  | 131.3  | 116.3  | 101.9  | 90.6   | 86.4   | 89.4   |
| 37.5° | 2021.0 | 1339.7 | 233.9  | 153.5  | 132.5  | 114.5  | 95.4   | 77.4   | 66.6   | 64.2   | 65.4   |
| 40°   | 2072.6 | 1234.2 | 196.1  | 143.3  | 121.1  | 99.0   | 75.6   | 58.2   | 51.0   | 48.6   | 48.0   |
| 42.5° | 2155.3 | 1129.2 | 174.5  | 133.7  | 109.7  | 83.4   | 59.4   | 45.6   | 39.6   | 37.8   | 37.8   |
| 45°   | 2256.1 | 1028.5 | 159.5  | 123.5  | 97.8   | 67.2   | 46.8   | 36.6   | 33.0   | 31.8   | 31.8   |
| 47.5° | 2388.6 | 940.3  | 146.9  | 113.3  | 84.6   | 53.4   | 37.8   | 31.8   | 29.4   | 30.0   | 30.6   |
| 50°   | 2522.9 | 875.0  | 133.1  | 101.9  | 69.6   | 43.8   | 32.4   | 28.2   | 27.6   | 28.2   | 28.2   |
| 52.5° | 2624.3 | 836.6  | 114.5  | 86.4   | 54.6   | 36.6   | 28.8   | 26.4   | 25.8   | 24.6   | 24.6   |
| 55°   | 2761.0 | 828.2  | 91.2   | 70.2   | 43.2   | 30.6   | 25.8   | 24.0   | 22.2   | 21.0   | 20.4   |
| 57.5° | 2936.7 | 837.8  | 70.2   | 54.6   | 33.6   | 25.2   | 22.8   | 19.8   | 17.4   | 15.0   | 15.0   |
| 60°   | 3045.9 | 816.2  | 54.6   | 42.0   | 24.6   | 20.4   | 17.4   | 14.4   | 11.4   | 9.6    | 9.0    |
| 62.5° | 3011.1 | 725.0  | 43.2   | 31.2   | 17.4   | 15.0   | 11.4   | 9.6    | 6.6    | 4.8    | 4.2    |
| 65°   | 2831.8 | 585.3  | 34.8   | 21.6   | 12.6   | 9.0    | 6.0    | 6.0    | 3.0    | 0.6    | 0.0    |
| 67.5° | 2478.6 | 433.6  | 27.6   | 14.4   | 7.2    | 4.2    | 3.0    | 1.8    | 0.0    | 0.0    | 0.0    |
| 70°   | 2017.4 | 313.0  | 21.6   | 9.0    | 4.2    | 3.0    | 1.2    | 0.6    | 0.0    | 0.0    | 0.0    |
| 72.5° | 1281.0 | 179.3  | 16.8   | 5.4    | 3.0    | 1.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 495.4  | 70.2   | 11.4   | 3.6    | 1.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 140.3  | 33.0   | 6.6    | 1.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 36.6   | 14.4   | 3.6    | 0.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 17.4   | 6.0    | 1.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 10.2   | 2.4    | 0.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 4.8    | 0.6    | 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)