

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: P452709

Luminaire Tested: **GALN-SA3C-830-U-T4FT-HSS**

Issue Date: 1/4/2021

### Test Information

Test Method: LM-79-08  
Report Number: P452709  
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-SA3C-830-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 80 CRI, 3000K, 1050mA 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: 12009 lumens  
Efficiency: N/A  
Efficacy: 75.1 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): 160  
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

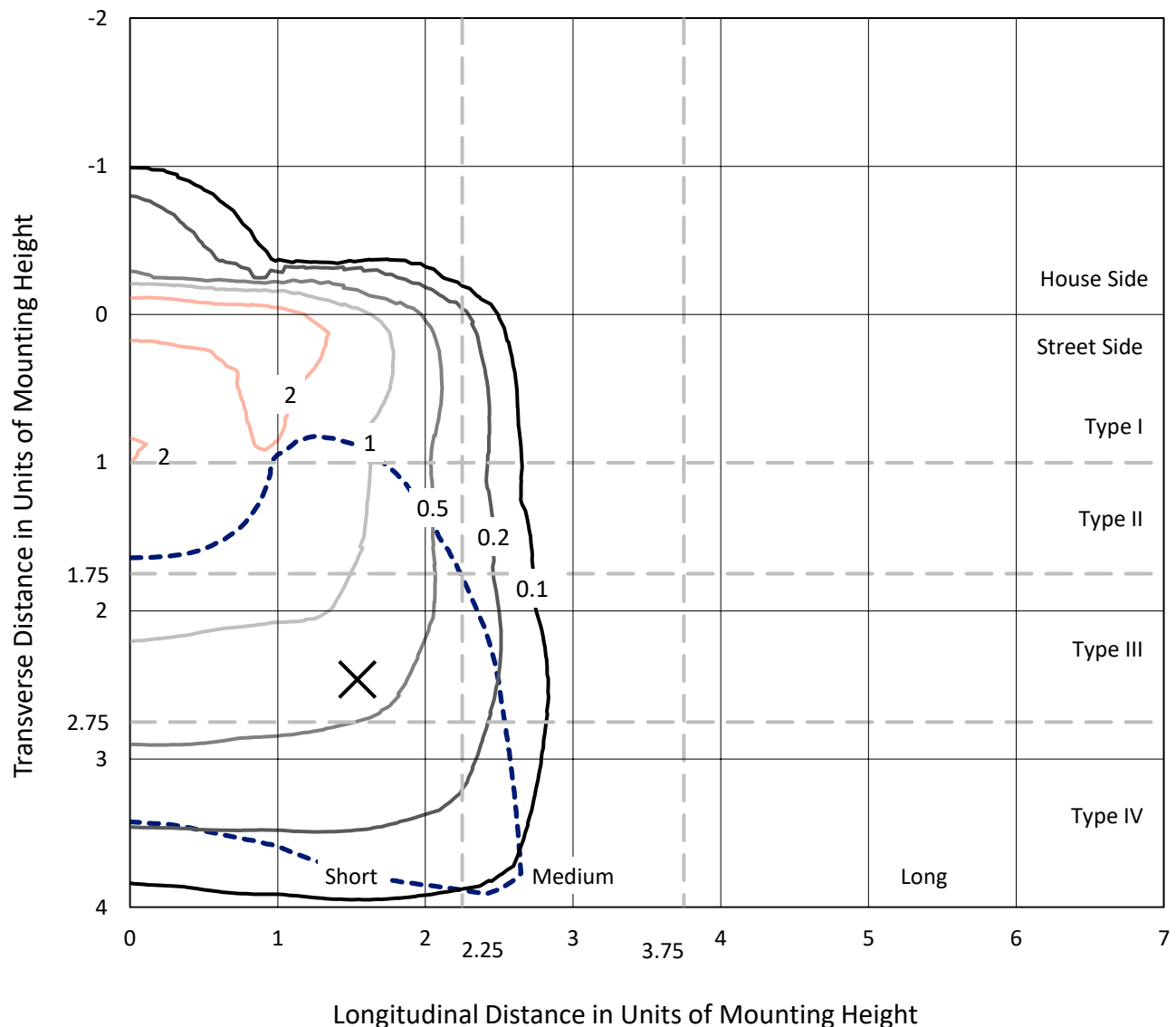


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

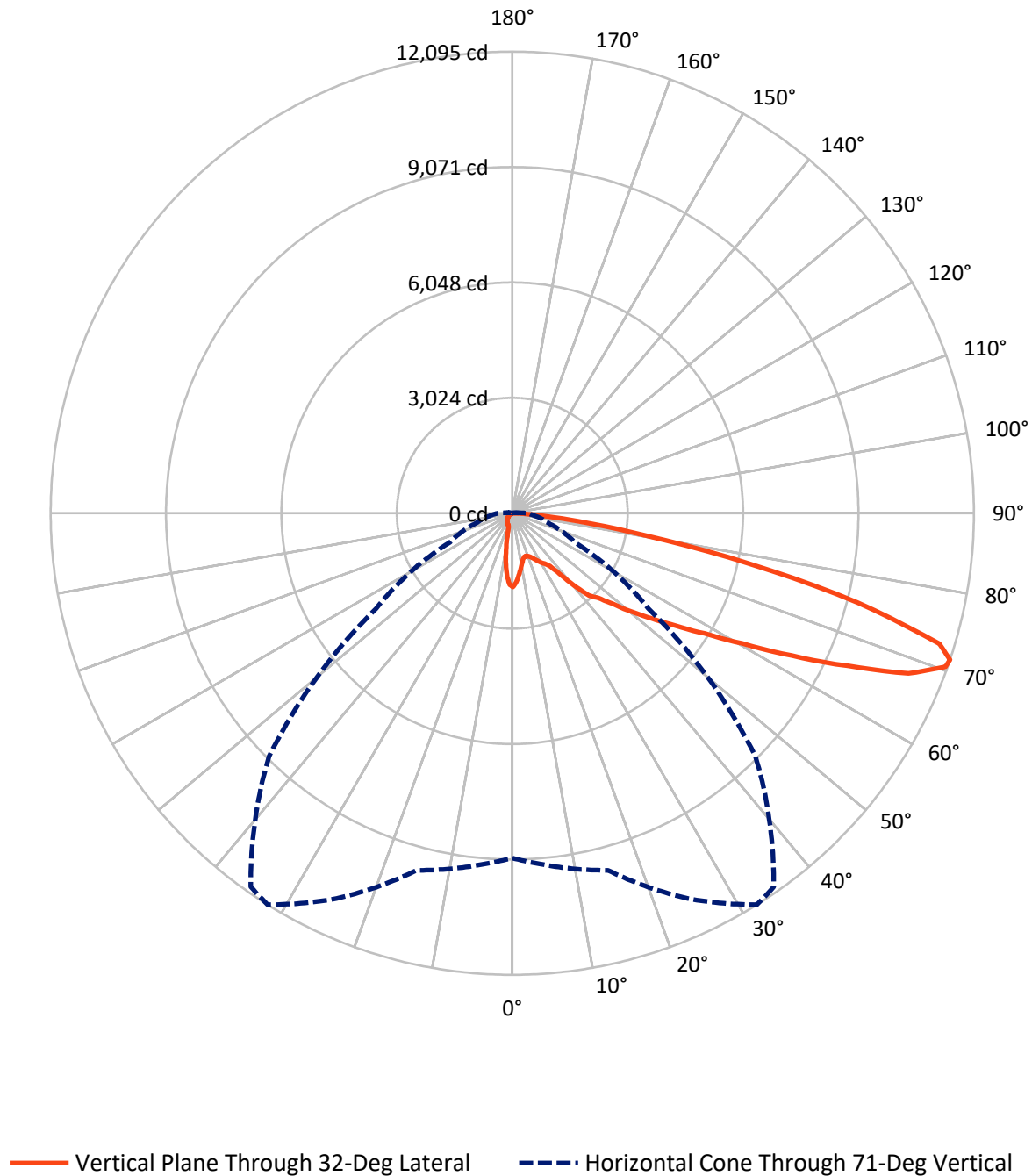


Based on 25 foot mounting height. Maximum calculated value = 3.1 fc  
 Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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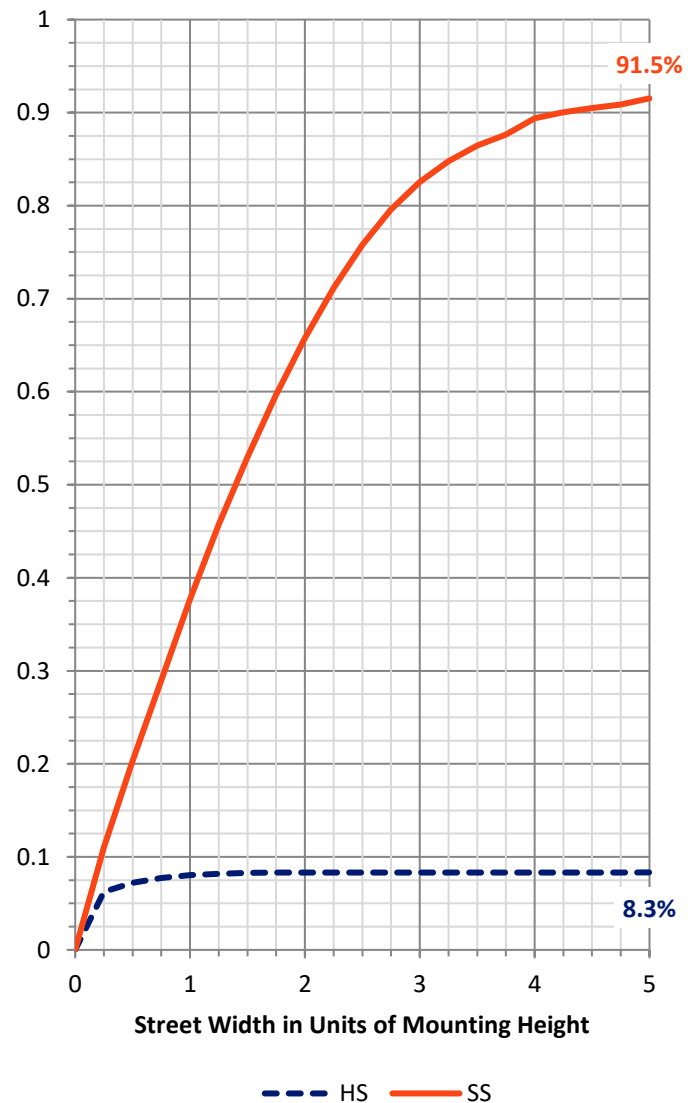
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1005.9   | 0.0    | 1005.9  |
|                    | % Fixture | 8.4      | 0.0    | 8.4     |
| <b>Street Side</b> | Lumens    | 11003.1  | 0.0    | 11003.1 |
|                    | % Fixture | 91.6     | 0.0    | 91.6    |
| <b>Total</b>       | Lumens    | 12009.0  | 0.0    | 12009.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 157.0   | 1.3       |
| 10°-20°   | 340.8   | 2.8       |
| 20°-30°   | 530.2   | 4.4       |
| 30°-40°   | 883.3   | 7.4       |
| 40°-50°   | 1643.1  | 13.7      |
| 50°-60°   | 2638.1  | 22.0      |
| 60°-70°   | 3548.4  | 29.5      |
| 70°-80°   | 2105.3  | 17.5      |
| 80°-90°   | 162.7   | 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°    | 12009.0 | 100.0     |
| 0°-180°   | 12009.0 | 100.0     |

**Coefficient of Utilization**



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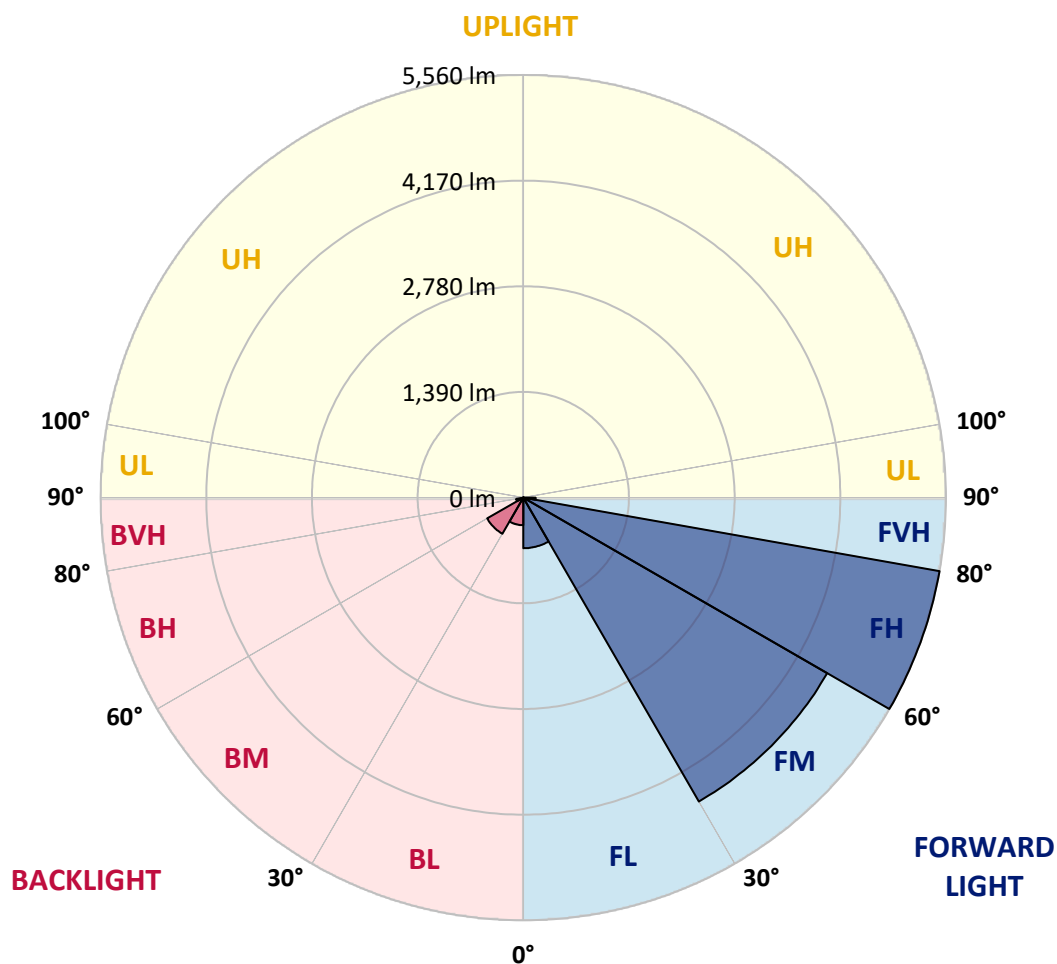
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 665.6  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 4615.8 | 38.4      |                         |      |         |
| FH   | (60°-80°)   | 5559.6 | 46.3      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 162.1  | 1.3       |                         |      | G2/225  |
| BL   | (0°-30°)    | 362.4  | 3.0       | B1/500                  |      |         |
| BM   | (30°-60°)   | 548.7  | 4.6       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 94.1   | 0.8       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.6    | 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°    | 1931.2 | 1931.2 | 1931.2 | 1931.2  | 1931.2  | 1931.2  | 1931.2 | 1931.2 | 1931.2 | 1931.2 | 1931.2 |
| 2.5°  | 1791.1 | 1809.6 | 1806.8 | 1813.2  | 1828.9  | 1835.4  | 1852.9 | 1872.2 | 1899.0 | 1917.4 | 1929.4 |
| 5°    | 1604.0 | 1617.8 | 1619.7 | 1651.9  | 1667.6  | 1685.1  | 1736.7 | 1793.0 | 1855.6 | 1905.4 | 1938.6 |
| 7.5°  | 1403.9 | 1411.3 | 1426.1 | 1468.5  | 1508.1  | 1525.6  | 1604.0 | 1701.7 | 1800.3 | 1893.4 | 1953.4 |
| 10°   | 1238.9 | 1247.2 | 1274.0 | 1319.1  | 1356.0  | 1379.1  | 1487.8 | 1610.4 | 1748.7 | 1887.0 | 1974.6 |
| 12.5° | 1144.9 | 1149.5 | 1159.7 | 1200.2  | 1247.2  | 1272.1  | 1389.2 | 1529.3 | 1707.2 | 1889.8 | 2010.5 |
| 15°   | 1138.5 | 1136.6 | 1124.6 | 1141.2  | 1183.6  | 1209.4  | 1323.7 | 1474.0 | 1670.4 | 1899.0 | 2052.9 |
| 17.5° | 1172.6 | 1168.0 | 1139.4 | 1139.4  | 1174.4  | 1195.6  | 1296.1 | 1444.5 | 1651.9 | 1920.2 | 2112.8 |
| 20°   | 1225.1 | 1217.7 | 1170.7 | 1167.0  | 1201.1  | 1223.3  | 1312.7 | 1446.4 | 1655.6 | 1959.8 | 2193.0 |
| 22.5° | 1291.5 | 1283.2 | 1212.2 | 1214.1  | 1250.9  | 1273.0  | 1360.6 | 1479.5 | 1678.7 | 2008.7 | 2278.8 |
| 25°   | 1378.1 | 1368.9 | 1285.0 | 1281.3  | 1320.1  | 1339.4  | 1431.6 | 1538.5 | 1710.9 | 2069.5 | 2391.2 |
| 27.5° | 1493.4 | 1474.0 | 1373.5 | 1368.0  | 1409.5  | 1434.4  | 1517.3 | 1617.8 | 1768.1 | 2153.4 | 2542.4 |
| 30°   | 1588.3 | 1567.1 | 1471.2 | 1456.5  | 1500.7  | 1520.1  | 1605.8 | 1724.7 | 1880.5 | 2300.0 | 2751.7 |
| 32.5° | 1712.8 | 1681.4 | 1569.0 | 1530.2  | 1577.3  | 1602.1  | 1734.0 | 1923.9 | 2047.4 | 2454.8 | 3000.6 |
| 35°   | 1993.0 | 1973.6 | 1836.3 | 1700.8  | 1698.0  | 1729.4  | 1922.9 | 2124.8 | 2218.8 | 2696.4 | 3339.8 |
| 37.5° | 2394.0 | 2380.2 | 2234.5 | 2052.9  | 2000.4  | 1985.6  | 2152.5 | 2346.1 | 2492.6 | 3028.2 | 3734.3 |
| 40°   | 2859.5 | 2827.3 | 2693.6 | 2539.6  | 2471.4  | 2428.1  | 2423.5 | 2675.2 | 2850.3 | 3479.0 | 4145.5 |
| 42.5° | 3193.2 | 3134.2 | 2972.0 | 2960.9  | 2946.2  | 2901.0  | 2770.1 | 3156.3 | 3312.1 | 3963.9 | 4585.2 |
| 45°   | 3543.5 | 3454.1 | 3212.6 | 3171.1  | 3165.6  | 3162.8  | 3293.7 | 3726.0 | 3815.5 | 4489.3 | 5036.9 |
| 47.5° | 3815.5 | 3744.5 | 3546.3 | 3527.8  | 3550.9  | 3613.6  | 3986.0 | 4330.8 | 4312.3 | 4957.6 | 5415.8 |
| 50°   | 4177.7 | 4124.3 | 3904.0 | 3939.0  | 4057.9  | 4160.2  | 4766.8 | 4989.9 | 4720.7 | 5326.3 | 5691.4 |
| 52.5° | 4605.5 | 4506.8 | 4302.2 | 4397.1  | 4579.7  | 4750.2  | 5595.5 | 5566.9 | 5007.4 | 5603.8 | 5896.9 |
| 55°   | 4976.0 | 4906.0 | 4835.9 | 4934.6  | 5207.4  | 5420.4  | 6344.0 | 5999.3 | 5215.7 | 5826.9 | 5987.3 |
| 57.5° | 5602.9 | 5586.3 | 5514.4 | 5614.9  | 5945.8  | 6167.0  | 7014.2 | 6334.8 | 5349.4 | 5943.0 | 5881.3 |
| 60°   | 6530.2 | 6503.5 | 6369.8 | 6498.0  | 6929.4  | 7276.9  | 7631.8 | 6636.3 | 5379.8 | 5897.9 | 5576.2 |
| 62.5° | 7645.7 | 7554.4 | 7440.1 | 7629.1  | 8220.9  | 8373.9  | 8213.5 | 6815.1 | 5266.4 | 5538.4 | 4840.5 |
| 65°   | 8687.3 | 8593.3 | 8596.1 | 8994.3  | 9638.7  | 9742.8  | 8892.0 | 6788.4 | 4934.6 | 4637.7 | 3570.2 |
| 67.5° | 9484.7 | 9469.0 | 9581.5 | 10358.6 | 11201.2 | 11129.3 | 9498.5 | 6388.3 | 3951.0 | 3006.1 | 1897.1 |
| 70°   | 9525.3 | 9555.7 | 9878.3 | 11190.1 | 12045.6 | 11931.3 | 9446.9 | 5192.7 | 2463.1 | 1382.7 | 747.6  |
| 71°   | 9034.9 | 9239.5 | 9685.7 | 11164.3 | 12095.3 | 11946.9 | 9011.8 | 4349.2 | 1806.8 | 964.2  | 539.3  |
| 72.5° | 7699.1 | 7807.0 | 8771.2 | 10507.0 | 11701.7 | 11384.6 | 7908.4 | 3048.5 | 1156.9 | 590.0  | 309.7  |
| 75°   | 4240.4 | 4505.9 | 5873.9 | 8243.0  | 9359.3  | 9081.0  | 5154.0 | 1448.2 | 577.1  | 322.6  | 128.1  |
| 77.5° | 2018.8 | 1967.2 | 2866.0 | 4902.3  | 6345.9  | 6331.1  | 2596.8 | 643.4  | 336.5  | 218.5  | 64.5   |
| 80°   | 577.1  | 649.0  | 1097.0 | 2330.4  | 3523.2  | 3562.0  | 997.4  | 310.7  | 233.2  | 170.5  | 33.2   |
| 82.5° | 174.2  | 177.9  | 402.8  | 1030.6  | 1752.4  | 1651.9  | 374.3  | 158.6  | 167.8  | 135.5  | 19.4   |
| 85°   | 30.4   | 37.8   | 118.9  | 363.2   | 668.3   | 507.0   | 94.0   | 75.6   | 110.6  | 89.4   | 11.1   |
| 87.5° | 1.8    | 2.8    | 39.6   | 41.5    | 59.0    | 34.1    | 16.6   | 11.1   | 24.0   | 24.0   | 6.5    |
| 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°    | 1931.2 | 1931.2 | 1931.2 | 1931.2 | 1931.2 | 1931.2 | 1931.2 | 1931.2 | 1931.2 | 1931.2 | 1931.2 |
| 2.5°  | 1937.7 | 1943.2 | 1939.5 | 1931.2 | 1917.4 | 1900.8 | 1878.7 | 1860.3 | 1844.6 | 1836.3 | 1846.4 |
| 5°    | 1949.7 | 1957.0 | 1938.6 | 1897.1 | 1834.4 | 1766.2 | 1688.8 | 1628.9 | 1581.9 | 1567.1 | 1561.6 |
| 7.5°  | 1968.1 | 1972.7 | 1922.9 | 1830.8 | 1698.0 | 1536.7 | 1395.7 | 1276.7 | 1184.6 | 1156.9 | 1116.3 |
| 10°   | 1992.1 | 1989.3 | 1895.3 | 1723.8 | 1490.6 | 1248.2 | 1029.7 | 867.4  | 744.8  | 700.6  | 696.9  |
| 12.5° | 2028.9 | 2014.2 | 1860.3 | 1578.2 | 1243.5 | 926.4  | 656.3  | 513.5  | 436.0  | 410.2  | 404.7  |
| 15°   | 2075.0 | 2040.0 | 1804.9 | 1407.6 | 952.3  | 598.3  | 404.7  | 361.4  | 351.2  | 349.4  | 347.5  |
| 17.5° | 2129.4 | 2074.1 | 1732.1 | 1198.4 | 669.2  | 388.1  | 338.3  | 337.4  | 338.3  | 336.5  | 335.5  |
| 20°   | 2203.2 | 2110.1 | 1645.5 | 950.4  | 442.5  | 327.2  | 322.6  | 322.6  | 323.6  | 322.6  | 322.6  |
| 22.5° | 2281.5 | 2152.5 | 1538.5 | 725.5  | 333.7  | 310.7  | 309.7  | 311.6  | 313.4  | 312.5  | 312.5  |
| 25°   | 2378.3 | 2207.8 | 1397.5 | 496.9  | 298.7  | 296.8  | 297.8  | 301.4  | 305.1  | 306.0  | 305.1  |
| 27.5° | 2518.4 | 2276.0 | 1246.3 | 342.0  | 273.8  | 275.6  | 284.8  | 294.1  | 299.6  | 300.5  | 300.5  |
| 30°   | 2676.1 | 2351.6 | 1049.0 | 277.5  | 253.5  | 253.5  | 264.6  | 282.1  | 294.1  | 295.9  | 296.8  |
| 32.5° | 2878.9 | 2439.2 | 830.6  | 249.8  | 234.1  | 232.3  | 242.4  | 263.6  | 285.8  | 292.2  | 292.2  |
| 35°   | 3129.6 | 2542.4 | 617.6  | 232.3  | 220.3  | 215.7  | 221.2  | 238.8  | 267.3  | 285.8  | 287.6  |
| 37.5° | 3423.7 | 2640.1 | 451.7  | 216.6  | 207.4  | 201.0  | 204.6  | 218.5  | 241.5  | 269.2  | 276.5  |
| 40°   | 3695.6 | 2726.8 | 337.4  | 203.7  | 194.5  | 189.9  | 192.7  | 199.1  | 218.5  | 244.3  | 248.9  |
| 42.5° | 3992.4 | 2794.1 | 268.3  | 189.9  | 181.6  | 179.8  | 179.8  | 182.5  | 195.4  | 210.2  | 211.1  |
| 45°   | 4288.4 | 2818.0 | 224.9  | 173.3  | 167.8  | 169.6  | 168.7  | 166.9  | 172.4  | 170.5  | 170.5  |
| 47.5° | 4499.5 | 2789.5 | 186.2  | 157.6  | 157.6  | 160.4  | 155.8  | 149.3  | 146.6  | 135.5  | 136.4  |
| 50°   | 4644.2 | 2685.3 | 153.0  | 139.2  | 146.6  | 150.3  | 141.0  | 130.9  | 120.8  | 108.8  | 106.0  |
| 52.5° | 4704.1 | 2500.0 | 125.4  | 115.2  | 130.0  | 134.6  | 123.5  | 111.5  | 95.9   | 85.7   | 83.0   |
| 55°   | 4665.4 | 2271.4 | 104.2  | 94.0   | 109.7  | 115.2  | 104.2  | 90.3   | 72.8   | 61.8   | 59.9   |
| 57.5° | 4494.8 | 1998.5 | 88.5   | 74.7   | 87.6   | 91.3   | 83.9   | 69.1   | 51.6   | 40.6   | 40.6   |
| 60°   | 4199.9 | 1716.4 | 71.9   | 59.0   | 65.4   | 71.0   | 63.6   | 49.8   | 35.0   | 24.9   | 23.0   |
| 62.5° | 3601.6 | 1393.8 | 58.1   | 46.1   | 46.1   | 50.7   | 44.2   | 36.0   | 22.1   | 12.9   | 12.0   |
| 65°   | 2600.5 | 955.9  | 46.1   | 34.1   | 33.2   | 33.2   | 27.7   | 24.0   | 12.9   | 5.5    | 3.7    |
| 67.5° | 1413.2 | 539.3  | 36.9   | 25.8   | 23.0   | 22.1   | 17.5   | 13.8   | 5.5    | 0.9    | 0.0    |
| 70°   | 555.9  | 207.4  | 28.6   | 17.5   | 14.7   | 13.8   | 9.2    | 6.5    | 3.7    | 0.0    | 0.0    |
| 71°   | 377.0  | 142.9  | 24.9   | 14.7   | 12.0   | 10.1   | 7.4    | 5.5    | 2.8    | 0.0    | 0.0    |
| 72.5° | 215.7  | 88.5   | 19.4   | 11.1   | 9.2    | 7.4    | 5.5    | 3.7    | 2.8    | 0.0    | 0.0    |
| 75°   | 94.0   | 45.2   | 12.0   | 8.3    | 6.5    | 4.6    | 3.7    | 2.8    | 0.9    | 0.0    | 0.0    |
| 77.5° | 47.9   | 24.9   | 8.3    | 6.5    | 3.7    | 2.8    | 1.8    | 0.9    | 0.0    | 0.0    | 0.0    |
| 80°   | 26.7   | 12.9   | 5.5    | 3.7    | 2.8    | 1.8    | 0.9    | 0.9    | 0.0    | 0.0    | 0.0    |
| 82.5° | 14.7   | 7.4    | 2.8    | 1.8    | 0.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 9.2    | 4.6    | 0.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 4.6    | 1.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.9    | 0.9    | 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)