

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: P453087

Luminaire Tested: **GALN-SA4A-750-U-T4FT**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453087  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4A-750-U-T4FT  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18051 lumens  
Efficiency: N/A  
Efficacy: 149.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3

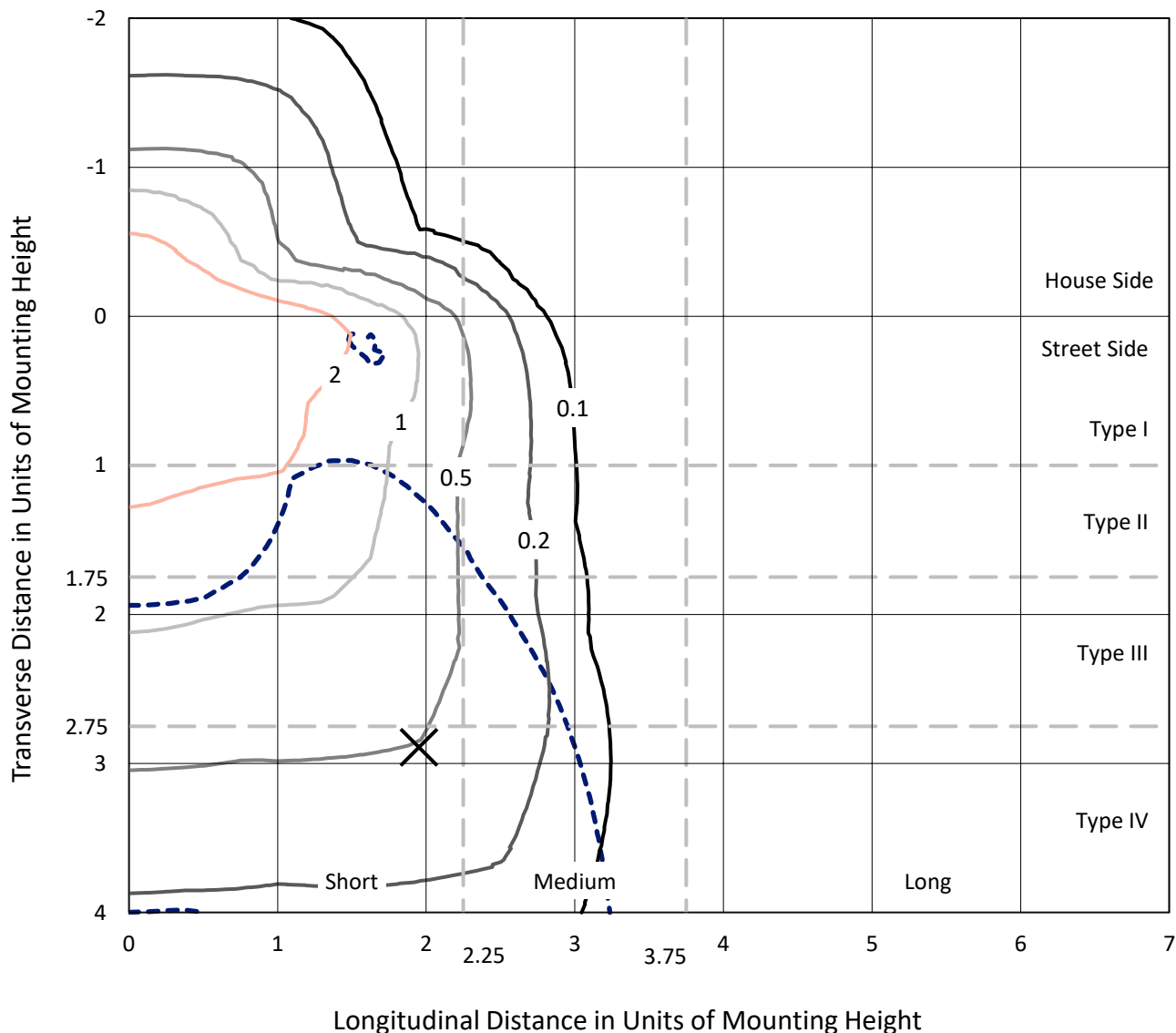
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

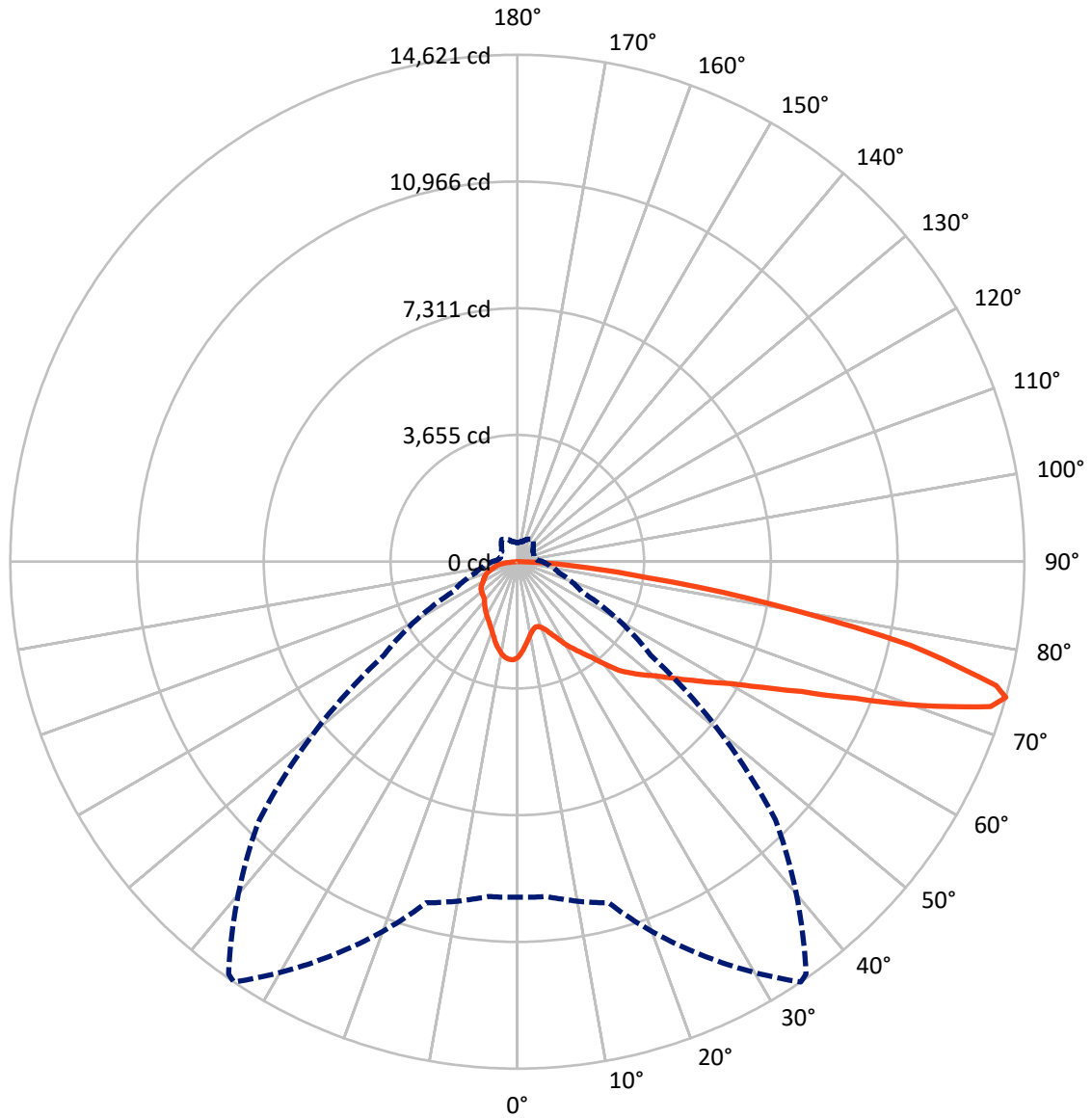
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral    - - - Horizontal Cone Through 74-Deg Vertical

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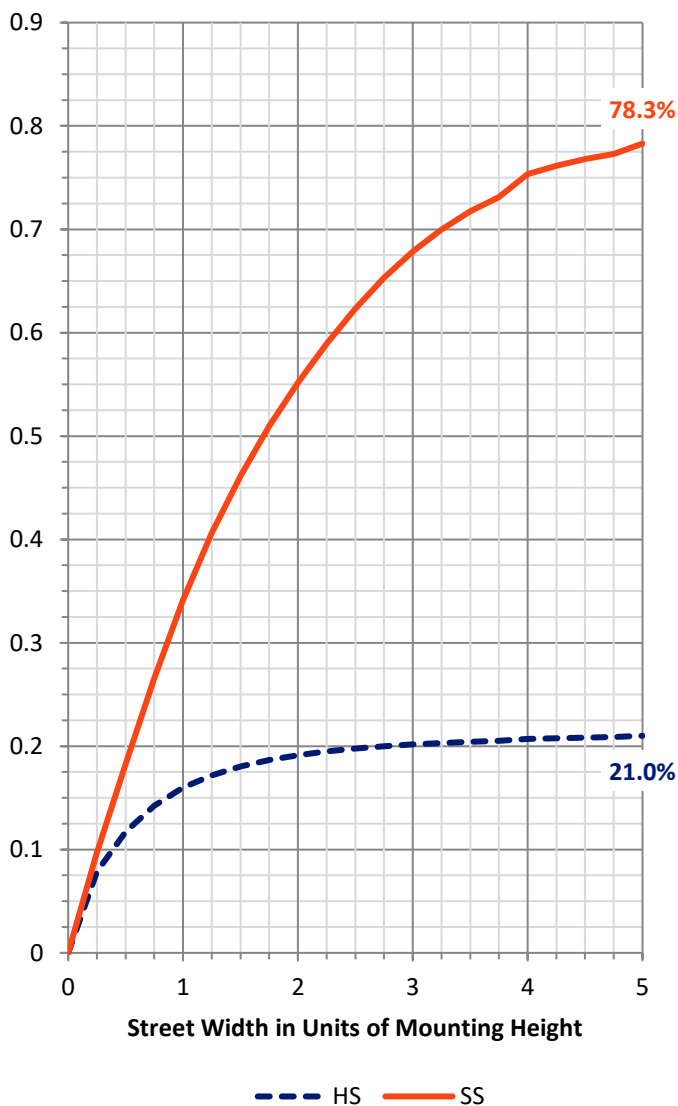
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3841.3   | 0.0    | 3841.3  |
|                    | % Fixture | 21.3     | 0.0    | 21.3    |
| <b>Street Side</b> | Lumens    | 14209.6  | 0.0    | 14209.6 |
|                    | % Fixture | 78.7     | 0.0    | 78.7    |
| <b>Total</b>       | Lumens    | 18051.0  | 0.0    | 18051.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 250.6   | 1.4       |
| 10°-20°   | 686.1   | 3.8       |
| 20°-30°   | 1131.3  | 6.3       |
| 30°-40°   | 1694.5  | 9.4       |
| 40°-50°   | 2463.4  | 13.6      |
| 50°-60°   | 3440.7  | 19.1      |
| 60°-70°   | 4307.6  | 23.9      |
| 70°-80°   | 3562.0  | 19.7      |
| 80°-90°   | 514.7   | 2.9       |
| 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°    | 18051.0 | 100.0     |
| 0°-180°   | 18051.0 | 100.0     |

**Coefficient of Utilization**



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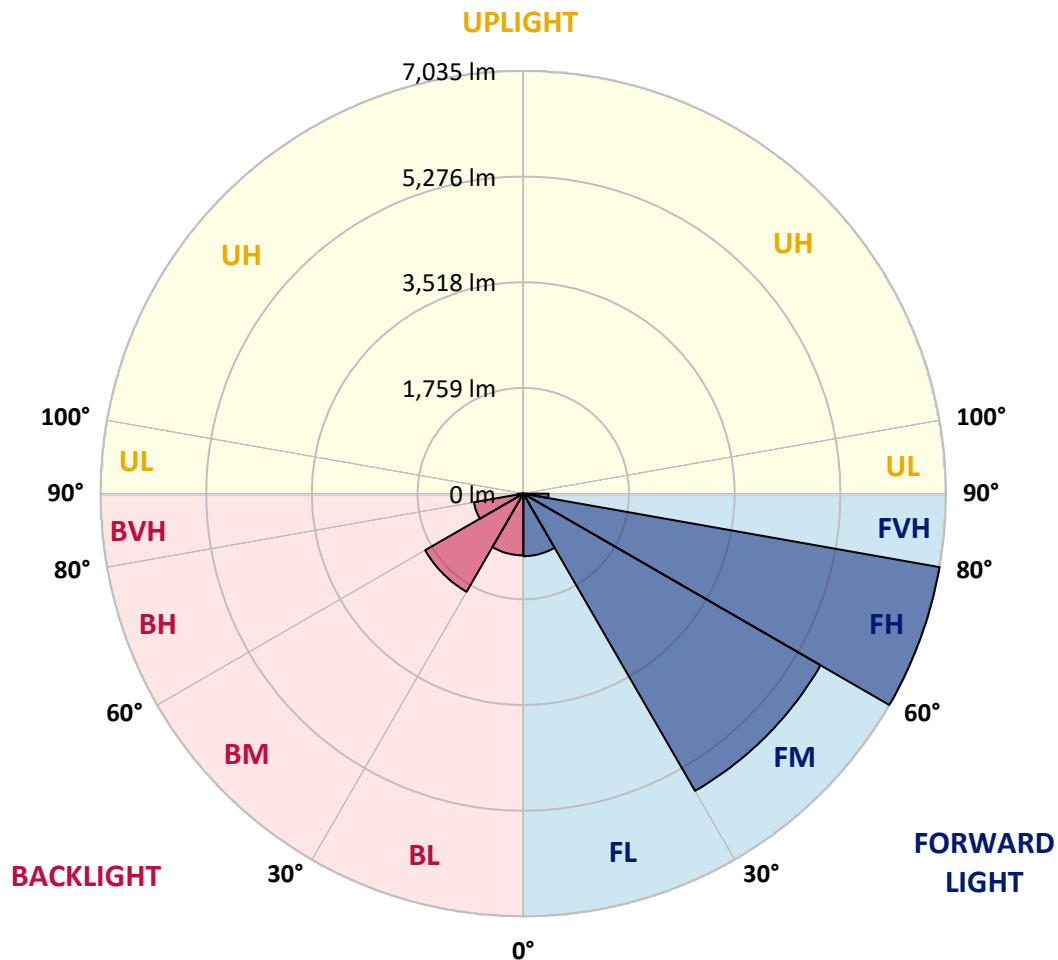
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1040.5 | 5.8       |                         |      |         |
| FM (30°-60°)   | 5712.1 | 31.6      |                         |      |         |
| FH (60°-80°)   | 7035.3 | 39.0      |                         |      | G3/7500 |
| FVH (80°-90°)  | 421.6  | 2.3       |                         |      | G3/500  |
| BL (0°-30°)    | 1027.5 | 5.7       | B3/2500                 |      |         |
| BM (30°-60°)   | 1886.5 | 10.5      | B2/2500                 |      |         |
| BH (60°-80°)   | 834.3  | 4.6       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 93.0   | 0.5       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 34°     | 35°     | 45°     | 55°    | 65°    | 75°    | 85°    |
|-------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0°    | 2756.0  | 2756.0  | 2756.0  | 2756.0  | 2756.0  | 2756.0  | 2756.0  | 2756.0 | 2756.0 | 2756.0 | 2756.0 |
| 2.5°  | 2547.0  | 2560.0  | 2567.0  | 2592.0  | 2598.0  | 2606.0  | 2627.0  | 2655.0 | 2691.0 | 2723.0 | 2751.0 |
| 5°    | 2335.0  | 2355.0  | 2367.0  | 2389.0  | 2432.0  | 2436.0  | 2492.0  | 2556.0 | 2629.0 | 2697.0 | 2753.0 |
| 7.5°  | 2134.0  | 2156.0  | 2166.0  | 2206.0  | 2263.0  | 2272.0  | 2354.0  | 2455.0 | 2577.0 | 2680.0 | 2766.0 |
| 10°   | 1983.0  | 1994.0  | 2016.0  | 2046.0  | 2114.0  | 2120.0  | 2227.0  | 2362.0 | 2520.0 | 2672.0 | 2788.0 |
| 12.5° | 1901.0  | 1907.0  | 1912.0  | 1944.0  | 2011.0  | 2020.0  | 2132.0  | 2285.0 | 2475.0 | 2678.0 | 2824.0 |
| 15°   | 1913.0  | 1915.0  | 1893.0  | 1899.0  | 1953.0  | 1966.0  | 2077.0  | 2234.0 | 2447.0 | 2693.0 | 2878.0 |
| 17.5° | 2014.0  | 2007.0  | 1953.0  | 1925.0  | 1963.0  | 1969.0  | 2066.0  | 2214.0 | 2434.0 | 2721.0 | 2934.0 |
| 20°   | 2173.0  | 2163.0  | 2070.0  | 2008.0  | 2030.0  | 2035.0  | 2102.0  | 2229.0 | 2447.0 | 2767.0 | 3021.0 |
| 22.5° | 2371.0  | 2367.0  | 2226.0  | 2151.0  | 2150.0  | 2150.0  | 2185.0  | 2283.0 | 2486.0 | 2830.0 | 3112.0 |
| 25°   | 2648.0  | 2627.0  | 2443.0  | 2346.0  | 2319.0  | 2317.0  | 2313.0  | 2372.0 | 2536.0 | 2897.0 | 3220.0 |
| 27.5° | 2932.0  | 2896.0  | 2732.0  | 2583.0  | 2525.0  | 2518.0  | 2492.0  | 2498.0 | 2600.0 | 2973.0 | 3343.0 |
| 30°   | 3187.0  | 3164.0  | 3010.0  | 2845.0  | 2776.0  | 2760.0  | 2688.0  | 2655.0 | 2707.0 | 3110.0 | 3539.0 |
| 32.5° | 3382.0  | 3368.0  | 3248.0  | 3098.0  | 2996.0  | 2993.0  | 2888.0  | 2861.0 | 2874.0 | 3276.0 | 3763.0 |
| 35°   | 3540.0  | 3545.0  | 3484.0  | 3354.0  | 3237.0  | 3220.0  | 3150.0  | 3116.0 | 3078.0 | 3516.0 | 4045.0 |
| 37.5° | 3756.0  | 3767.0  | 3763.0  | 3651.0  | 3508.0  | 3512.0  | 3496.0  | 3440.0 | 3339.0 | 3784.0 | 4358.0 |
| 40°   | 3994.0  | 4002.0  | 4001.0  | 3958.0  | 3883.0  | 3887.0  | 3881.0  | 3817.0 | 3666.0 | 4125.0 | 4706.1 |
| 42.5° | 4323.0  | 4285.0  | 4186.0  | 4229.0  | 4273.0  | 4292.0  | 4333.0  | 4272.0 | 4065.0 | 4489.0 | 5033.1 |
| 45°   | 4691.1  | 4619.1  | 4395.0  | 4415.0  | 4578.1  | 4614.1  | 4840.1  | 4756.1 | 4498.1 | 4907.1 | 5418.1 |
| 47.5° | 4923.1  | 4852.1  | 4663.1  | 4659.1  | 4875.1  | 4910.1  | 5310.1  | 5279.1 | 4892.1 | 5358.1 | 5888.1 |
| 50°   | 5130.1  | 5120.1  | 4907.1  | 4958.1  | 5169.1  | 5221.1  | 5822.1  | 5793.1 | 5285.1 | 5890.1 | 6400.1 |
| 52.5° | 5437.1  | 5356.1  | 5186.1  | 5291.1  | 5570.1  | 5638.1  | 6330.1  | 6245.1 | 5646.1 | 6360.1 | 6897.1 |
| 55°   | 5575.1  | 5556.1  | 5546.1  | 5637.1  | 6020.1  | 6069.1  | 6824.1  | 6629.1 | 5954.1 | 6758.1 | 7275.1 |
| 57.5° | 5944.1  | 5909.1  | 6008.1  | 6070.1  | 6550.1  | 6625.1  | 7340.1  | 7030.1 | 6224.1 | 7074.1 | 7459.1 |
| 60°   | 6422.1  | 6403.1  | 6494.1  | 6606.1  | 7142.1  | 7256.1  | 7928.1  | 7372.1 | 6441.1 | 7233.1 | 7358.1 |
| 62.5° | 7136.1  | 7134.1  | 7117.1  | 7357.1  | 7981.1  | 8086.1  | 8603.1  | 7705.1 | 6475.1 | 7114.1 | 6836.1 |
| 65°   | 8160.1  | 8124.1  | 7976.1  | 8238.1  | 9025.1  | 9148.1  | 9306.1  | 7891.1 | 6270.1 | 6503.1 | 5756.1 |
| 67.5° | 9231.1  | 9229.1  | 9109.1  | 9449.1  | 10524.1 | 10651.1 | 10185.1 | 7850.1 | 5701.1 | 5268.1 | 4088.0 |
| 70°   | 10119.1 | 10076.1 | 10229.1 | 11135.1 | 12439.1 | 12586.1 | 10954.1 | 7367.1 | 4541.1 | 3479.0 | 2429.0 |
| 72.5° | 10332.1 | 10334.1 | 10652.1 | 12435.1 | 14278.2 | 14301.2 | 11231.1 | 5971.1 | 3039.0 | 1919.0 | 1215.0 |
| 74°   | 9676.1  | 9693.1  | 10186.1 | 12500.1 | 14621.2 | 14517.2 | 10523.1 | 4693.1 | 2055.0 | 1253.0 | 876.0  |
| 75°   | 8832.1  | 8725.1  | 9438.1  | 12067.1 | 14265.2 | 14153.2 | 9694.1  | 3766.0 | 1568.0 | 1001.0 | 767.0  |
| 77.5° | 4722.1  | 4831.1  | 5931.1  | 9005.1  | 11589.1 | 11460.1 | 6573.1  | 1806.0 | 847.0  | 697.0  | 552.0  |
| 80°   | 1681.0  | 1854.0  | 2606.0  | 4712.1  | 7430.1  | 7470.1  | 3137.0  | 828.0  | 596.0  | 514.0  | 390.0  |
| 82.5° | 686.0   | 705.0   | 1119.0  | 2091.0  | 3773.0  | 3809.0  | 1281.0  | 492.0  | 426.0  | 354.0  | 233.0  |
| 85°   | 268.0   | 276.0   | 495.0   | 940.0   | 1610.0  | 1715.0  | 443.0   | 260.0  | 262.0  | 203.0  | 119.0  |
| 87.5° | 90.0    | 102.0   | 203.0   | 313.0   | 547.0   | 536.0   | 129.0   | 77.0   | 94.0   | 88.0   | 37.0   |
| 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°    | 2756.0 | 2756.0 | 2756.0 | 2756.0 | 2756.0 | 2756.0 | 2756.0 | 2756.0 | 2756.0 | 2756.0 | 2756.0 |
| 2.5°  | 2765.0 | 2784.0 | 2797.0 | 2811.0 | 2824.0 | 2828.0 | 2825.0 | 2834.0 | 2835.0 | 2836.0 | 2837.0 |
| 5°    | 2781.0 | 2807.0 | 2832.0 | 2846.0 | 2852.0 | 2847.0 | 2830.0 | 2821.0 | 2813.0 | 2807.0 | 2809.0 |
| 7.5°  | 2803.0 | 2840.0 | 2863.0 | 2869.0 | 2853.0 | 2830.0 | 2788.0 | 2755.0 | 2734.0 | 2720.0 | 2719.0 |
| 10°   | 2837.0 | 2873.0 | 2892.0 | 2875.0 | 2831.0 | 2775.0 | 2709.0 | 2647.0 | 2600.0 | 2586.0 | 2585.0 |
| 12.5° | 2880.0 | 2921.0 | 2920.0 | 2870.0 | 2793.0 | 2693.0 | 2586.0 | 2514.0 | 2450.0 | 2418.0 | 2431.0 |
| 15°   | 2936.0 | 2967.0 | 2938.0 | 2848.0 | 2726.0 | 2589.0 | 2457.0 | 2359.0 | 2287.0 | 2253.0 | 2255.0 |
| 17.5° | 3001.0 | 3028.0 | 2951.0 | 2809.0 | 2632.0 | 2456.0 | 2303.0 | 2210.0 | 2153.0 | 2128.0 | 2126.0 |
| 20°   | 3082.0 | 3090.0 | 2951.0 | 2741.0 | 2511.0 | 2301.0 | 2155.0 | 2090.0 | 2058.0 | 2045.0 | 2049.0 |
| 22.5° | 3169.0 | 3153.0 | 2935.0 | 2645.0 | 2352.0 | 2139.0 | 2041.0 | 2012.0 | 1996.0 | 1994.0 | 1996.0 |
| 25°   | 3267.0 | 3222.0 | 2902.0 | 2515.0 | 2186.0 | 1999.0 | 1942.0 | 1947.0 | 1950.0 | 1950.0 | 1957.0 |
| 27.5° | 3387.0 | 3297.0 | 2847.0 | 2351.0 | 1992.0 | 1869.0 | 1853.0 | 1888.0 | 1904.0 | 1907.0 | 1912.0 |
| 30°   | 3545.0 | 3379.0 | 2756.0 | 2146.0 | 1827.0 | 1752.0 | 1780.0 | 1827.0 | 1845.0 | 1856.0 | 1854.0 |
| 32.5° | 3733.0 | 3469.0 | 2633.0 | 1941.0 | 1694.0 | 1670.0 | 1704.0 | 1752.0 | 1772.0 | 1778.0 | 1770.0 |
| 35°   | 3954.0 | 3571.0 | 2471.0 | 1749.0 | 1578.0 | 1592.0 | 1632.0 | 1647.0 | 1665.0 | 1665.0 | 1669.0 |
| 37.5° | 4192.0 | 3653.0 | 2273.0 | 1573.0 | 1488.0 | 1539.0 | 1568.0 | 1554.0 | 1546.0 | 1536.0 | 1541.0 |
| 40°   | 4434.0 | 3714.0 | 2016.0 | 1399.0 | 1398.0 | 1484.0 | 1492.0 | 1452.0 | 1420.0 | 1410.0 | 1405.0 |
| 42.5° | 4645.1 | 3752.0 | 1784.0 | 1264.0 | 1313.0 | 1430.0 | 1436.0 | 1372.0 | 1321.0 | 1291.0 | 1281.0 |
| 45°   | 4894.1 | 3796.0 | 1557.0 | 1152.0 | 1234.0 | 1387.0 | 1402.0 | 1316.0 | 1241.0 | 1178.0 | 1162.0 |
| 47.5° | 5235.1 | 3896.0 | 1378.0 | 1065.0 | 1177.0 | 1360.0 | 1381.0 | 1270.0 | 1171.0 | 1089.0 | 1076.0 |
| 50°   | 5620.1 | 4033.0 | 1239.0 | 1006.0 | 1133.0 | 1336.0 | 1362.0 | 1223.0 | 1106.0 | 1015.0 | 1005.0 |
| 52.5° | 5973.1 | 4107.0 | 1119.0 | 953.0  | 1090.0 | 1292.0 | 1337.0 | 1189.0 | 1042.0 | 941.0  | 932.0  |
| 55°   | 6166.1 | 3987.0 | 1001.0 | 901.0  | 1031.0 | 1235.0 | 1302.0 | 1142.0 | 980.0  | 902.0  | 889.0  |
| 57.5° | 6192.1 | 3739.0 | 894.0  | 845.0  | 969.0  | 1165.0 | 1237.0 | 1085.0 | 940.0  | 875.0  | 864.0  |
| 60°   | 5991.1 | 3369.0 | 811.0  | 799.0  | 906.0  | 1086.0 | 1164.0 | 1035.0 | 899.0  | 845.0  | 834.0  |
| 62.5° | 5491.1 | 2967.0 | 753.0  | 757.0  | 842.0  | 1003.0 | 1110.0 | 987.0  | 860.0  | 812.0  | 802.0  |
| 65°   | 4631.1 | 2449.0 | 697.0  | 714.0  | 785.0  | 938.0  | 1061.0 | 947.0  | 821.0  | 787.0  | 778.0  |
| 67.5° | 3217.0 | 1768.0 | 651.0  | 669.0  | 731.0  | 872.0  | 1004.0 | 904.0  | 777.0  | 759.0  | 745.0  |
| 70°   | 1781.0 | 1088.0 | 597.0  | 618.0  | 675.0  | 798.0  | 940.0  | 839.0  | 713.0  | 705.0  | 685.0  |
| 72.5° | 936.0  | 693.0  | 536.0  | 559.0  | 599.0  | 703.0  | 842.0  | 768.0  | 650.0  | 616.0  | 590.0  |
| 74°   | 731.0  | 568.0  | 495.0  | 519.0  | 546.0  | 647.0  | 784.0  | 717.0  | 605.0  | 565.0  | 545.0  |
| 75°   | 637.0  | 506.0  | 460.0  | 491.0  | 515.0  | 609.0  | 739.0  | 681.0  | 580.0  | 542.0  | 524.0  |
| 77.5° | 450.0  | 379.0  | 376.0  | 413.0  | 426.0  | 534.0  | 666.0  | 620.0  | 517.0  | 477.0  | 460.0  |
| 80°   | 316.0  | 284.0  | 298.0  | 321.0  | 339.0  | 472.0  | 618.0  | 536.0  | 424.0  | 377.0  | 371.0  |
| 82.5° | 206.0  | 186.0  | 213.0  | 234.0  | 240.0  | 348.0  | 499.0  | 407.0  | 309.0  | 251.0  | 233.0  |
| 85°   | 95.0   | 93.0   | 122.0  | 119.0  | 118.0  | 170.0  | 296.0  | 238.0  | 178.0  | 133.0  | 125.0  |
| 87.5° | 24.0   | 23.0   | 30.0   | 25.0   | 30.0   | 26.0   | 27.0   | 7.0    | 1.0    | 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)