

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: P456181

Luminaire Tested: **GALN-SA7B-830-U-T2-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P456181  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA7B-830-U-T2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(7) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23544 lumens  
Efficiency: N/A  
Efficacy: 82.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G4

Input Watts (W): 286  
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

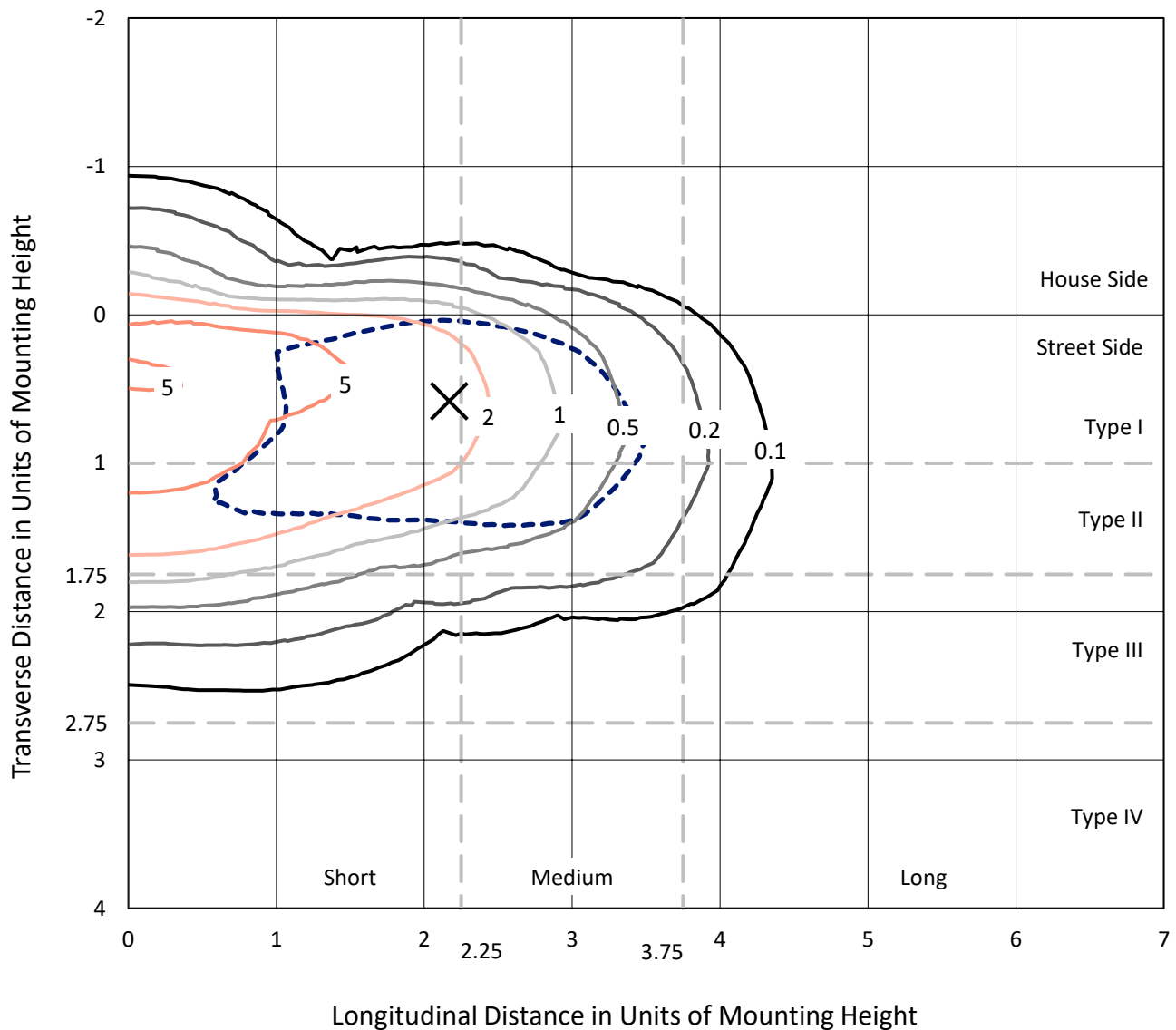


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## Iso-Footcandle Lines of Horizontal Illumination

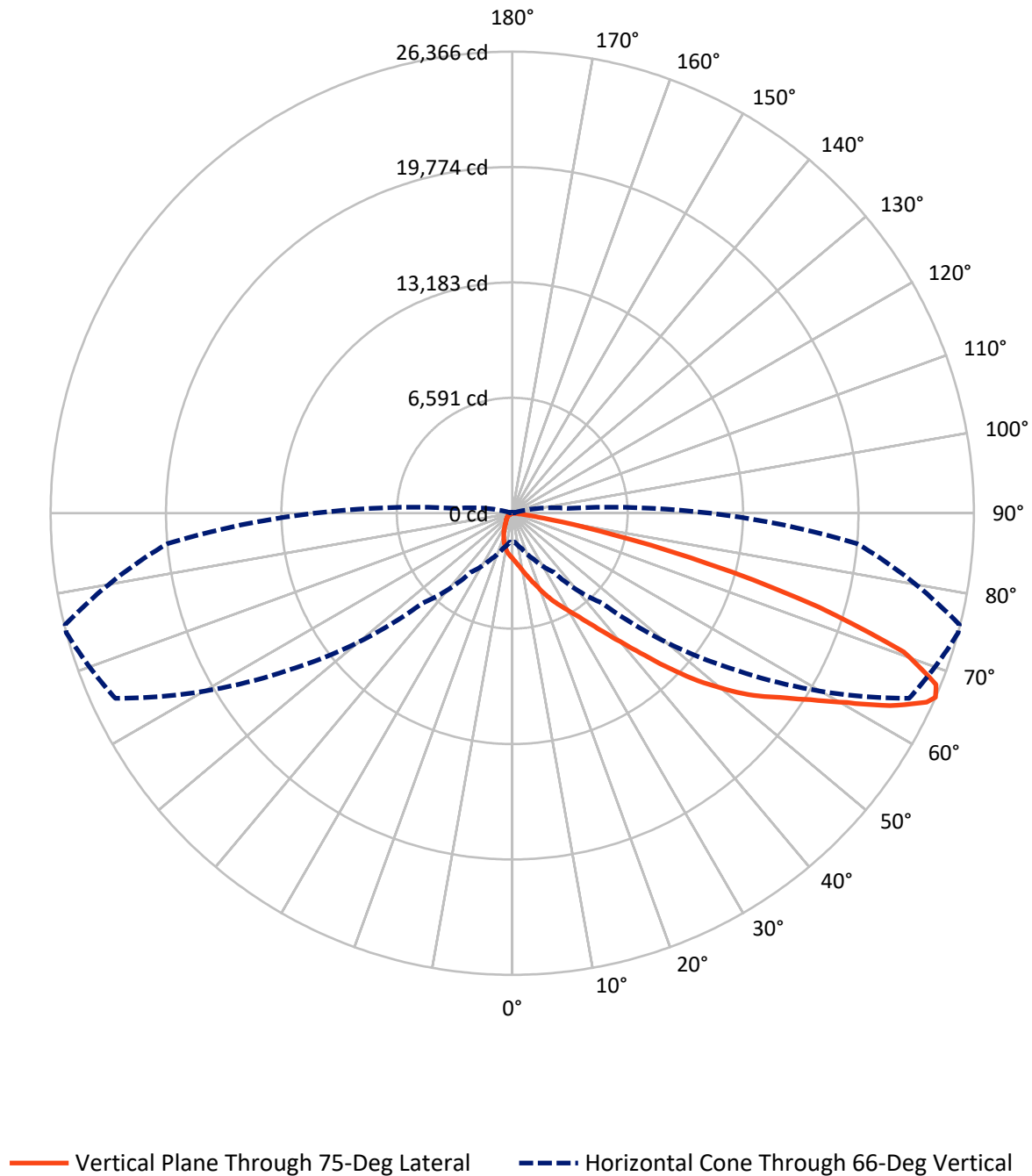
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 fc  
 Type II - 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    | 1453.5   | 0.0    | 1453.5  |
|                    | % Fixture | 6.2      | 0.0    | 6.2     |
| <b>Street Side</b> | Lumens    | 22090.5  | 0.0    | 22090.5 |
|                    | % Fixture | 93.8     | 0.0    | 93.8    |
| <b>Total</b>       | Lumens    | 23544.0  | 0.0    | 23544.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 248.3   | 1.1       |
| 10°-20°   | 730.9   | 3.1       |
| 20°-30°   | 1262.1  | 5.4       |
| 30°-40°   | 2276.5  | 9.7       |
| 40°-50°   | 4112.6  | 17.5      |
| 50°-60°   | 6411.5  | 27.2      |
| 60°-70°   | 6090.7  | 25.9      |
| 70°-80°   | 2282.6  | 9.7       |
| 80°-90°   | 128.8   | 0.5       |
| 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°    | 23544.0 | 100.0     |
| 0°-180°   | 23544.0 | 100.0     |



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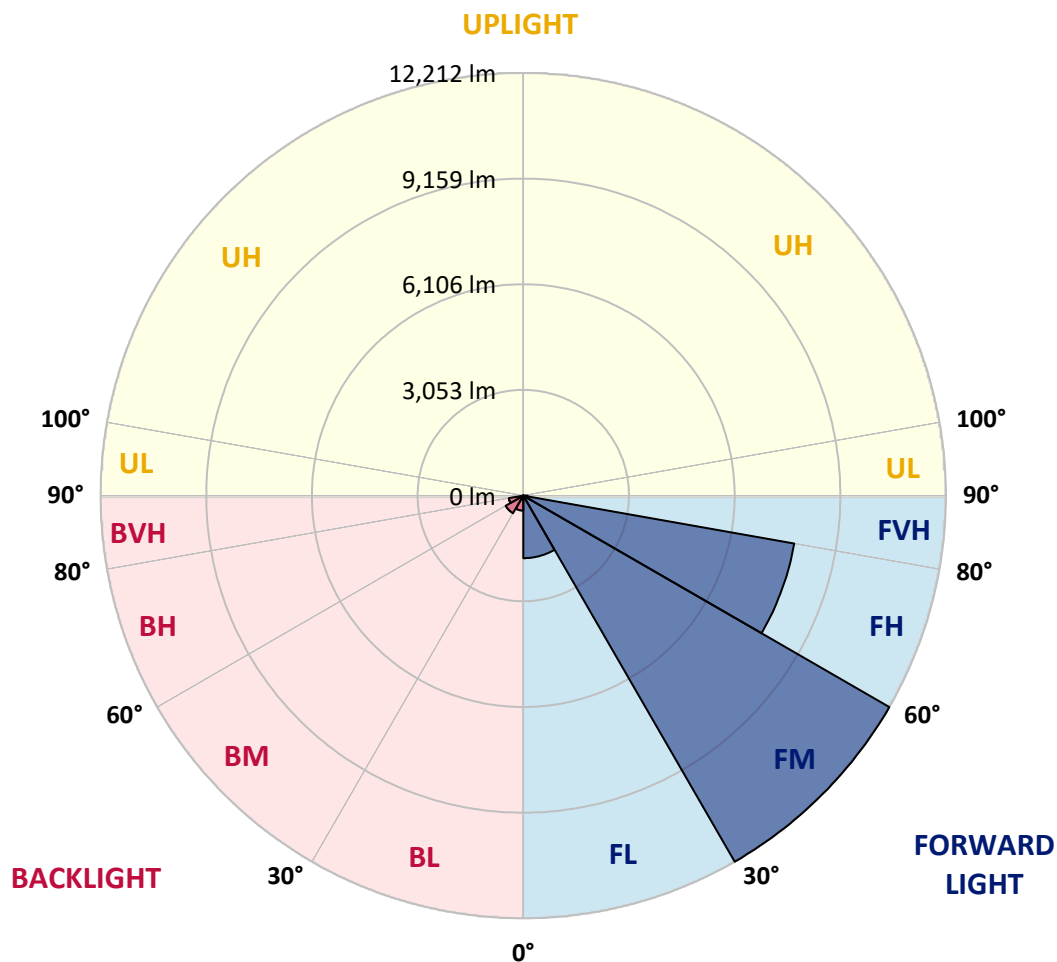
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1807.2  | 7.7       |                         |      |          |
| FM   | (30°-60°)   | 12212.3 | 51.9      |                         |      |          |
| FH   | (60°-80°)   | 7948.9  | 33.8      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 122.1   | 0.5       |                         |      | G2/225   |
| BL   | (0°-30°)    | 434.1   | 1.8       | B1/500                  |      |          |
| BM   | (30°-60°)   | 588.3   | 2.5       | B1/1000                 |      |          |
| BH   | (60°-80°)   | 424.4   | 1.8       | B1/500                  |      | G1/500   |
| BVH  | (80°-90°)   | 6.6     | 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-G4**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2574.8  | 2574.8  | 2574.8  | 2574.8  | 2574.8  | 2574.8  | 2574.8  | 2574.8  | 2574.8  | 2574.8  | 2574.8  |
| 2.5°  | 3076.1  | 3037.8  | 3050.0  | 3032.6  | 2992.6  | 2933.4  | 2881.2  | 2806.3  | 2731.4  | 2719.3  | 2635.7  |
| 5°    | 3481.8  | 3471.3  | 3457.4  | 3406.9  | 3379.1  | 3288.5  | 3180.6  | 3051.8  | 2896.8  | 2869.0  | 2717.5  |
| 7.5°  | 3758.6  | 3753.3  | 3760.3  | 3734.2  | 3709.8  | 3628.0  | 3513.1  | 3337.3  | 3097.0  | 3081.4  | 2828.9  |
| 10°   | 3849.1  | 3863.0  | 3889.1  | 3930.9  | 3969.2  | 3943.1  | 3856.1  | 3636.7  | 3356.4  | 3311.2  | 2956.0  |
| 12.5° | 3796.9  | 3812.5  | 3875.2  | 3986.6  | 4110.2  | 4181.6  | 4146.8  | 3986.6  | 3631.5  | 3594.9  | 3098.8  |
| 15°   | 3662.8  | 3682.0  | 3770.8  | 3943.1  | 4164.2  | 4366.1  | 4453.2  | 4338.3  | 3951.8  | 3892.6  | 3271.1  |
| 17.5° | 3464.4  | 3492.2  | 3619.3  | 3847.4  | 4150.3  | 4498.4  | 4743.9  | 4705.6  | 4293.0  | 4237.3  | 3459.1  |
| 20°   | 3314.6  | 3335.5  | 3443.5  | 3704.6  | 4091.1  | 4571.6  | 5020.7  | 5128.6  | 4714.3  | 4618.6  | 3680.2  |
| 22.5° | 3413.9  | 3420.8  | 3457.4  | 3614.1  | 3984.9  | 4590.7  | 5264.4  | 5569.1  | 5161.7  | 5076.4  | 3910.0  |
| 25°   | 3899.6  | 3829.9  | 3793.4  | 3758.6  | 3962.3  | 4573.3  | 5485.5  | 6028.7  | 5607.4  | 5516.9  | 4138.1  |
| 27.5° | 4665.6  | 4634.2  | 4449.7  | 4202.5  | 4155.5  | 4595.9  | 5631.8  | 6463.9  | 6026.9  | 5929.5  | 4360.9  |
| 30°   | 5499.5  | 5445.5  | 5332.3  | 4970.2  | 4606.4  | 4756.1  | 5738.0  | 6886.9  | 6523.1  | 6394.3  | 4564.6  |
| 32.5° | 6265.4  | 6300.3  | 6131.4  | 5758.8  | 5337.6  | 5097.3  | 5875.5  | 7348.3  | 7092.4  | 6932.2  | 4801.4  |
| 35°   | 7158.5  | 7228.2  | 6968.8  | 6611.9  | 6119.2  | 5713.6  | 6143.6  | 7868.8  | 7814.8  | 7612.9  | 5166.9  |
| 37.5° | 8065.5  | 8107.3  | 7948.9  | 7447.5  | 7003.6  | 6497.0  | 6648.4  | 8511.2  | 8704.4  | 8532.1  | 5603.9  |
| 40°   | 8828.0  | 8885.5  | 8768.8  | 8323.2  | 7849.7  | 7404.0  | 7381.4  | 9211.0  | 9762.9  | 9585.3  | 6255.0  |
| 42.5° | 9411.2  | 9454.7  | 9458.2  | 9143.1  | 8716.6  | 8514.7  | 8316.2  | 10104.1 | 11089.4 | 10884.0 | 7010.5  |
| 45°   | 10147.6 | 10210.3 | 10173.7 | 9959.6  | 9641.0  | 9604.5  | 9501.8  | 11183.4 | 12677.1 | 12417.7 | 7990.7  |
| 47.5° | 11286.2 | 11327.9 | 11237.4 | 10985.0 | 10661.2 | 10718.6 | 10657.7 | 12393.4 | 14296.1 | 14073.3 | 9005.6  |
| 50°   | 12076.5 | 12146.2 | 12275.0 | 12376.0 | 12140.9 | 11928.5 | 11747.5 | 13523.2 | 15833.4 | 15633.1 | 10043.2 |
| 52.5° | 12067.8 | 12182.7 | 12590.1 | 13098.4 | 13612.0 | 13547.6 | 13027.0 | 14771.4 | 17300.9 | 17053.7 | 11018.1 |
| 55°   | 11254.8 | 11477.7 | 12076.5 | 12978.3 | 14400.6 | 15109.1 | 14872.4 | 16216.3 | 18568.3 | 18401.2 | 12147.9 |
| 57.5° | 9576.6  | 9712.4  | 10544.5 | 11804.9 | 13960.2 | 15843.8 | 17010.2 | 18174.8 | 20088.1 | 20009.7 | 13902.7 |
| 60°   | 6441.3  | 6502.2  | 7572.9  | 9130.9  | 11885.0 | 15110.9 | 18577.0 | 20544.2 | 21959.5 | 21921.2 | 15951.7 |
| 62.5° | 3690.7  | 3716.8  | 4493.2  | 5807.6  | 8457.2  | 12806.0 | 18709.3 | 23467.1 | 24203.5 | 24224.4 | 18322.8 |
| 65°   | 1986.3  | 2000.3  | 2627.0  | 3408.7  | 5146.1  | 9127.5  | 16823.9 | 25068.7 | 26017.5 | 26057.6 | 19792.1 |
| 66°   | 1714.8  | 1648.6  | 2090.8  | 2905.5  | 4094.6  | 7264.7  | 15631.4 | 25011.3 | 26365.7 | 26322.2 | 19739.9 |
| 67.5° | 1303.9  | 1363.1  | 1669.5  | 2233.6  | 3034.4  | 5165.2  | 12905.2 | 23898.9 | 26101.1 | 25965.3 | 18937.3 |
| 70°   | 933.1   | 957.5   | 1189.0  | 1592.9  | 2066.4  | 2834.2  | 8246.6  | 19849.6 | 23723.0 | 23540.2 | 16498.4 |
| 72.5° | 602.3   | 628.5   | 842.6   | 1152.5  | 1493.7  | 1547.6  | 4616.8  | 14341.4 | 18289.7 | 18263.6 | 12424.7 |
| 75°   | 430.0   | 454.4   | 557.1   | 825.2   | 1122.9  | 957.5   | 2223.1  | 9665.4  | 11627.4 | 11549.0 | 7686.0  |
| 77.5° | 311.6   | 323.8   | 372.5   | 539.7   | 802.5   | 685.9   | 1030.6  | 5161.7  | 5788.4  | 6061.8  | 3396.5  |
| 80°   | 179.3   | 189.8   | 259.4   | 329.0   | 543.2   | 468.3   | 492.7   | 2071.7  | 2136.1  | 2033.4  | 1061.9  |
| 82.5° | 88.8    | 101.0   | 154.9   | 224.6   | 339.5   | 315.1   | 226.3   | 623.2   | 658.1   | 640.6   | 268.1   |
| 85°   | 20.9    | 26.1    | 87.0    | 148.0   | 165.4   | 141.0   | 109.7   | 182.8   | 226.3   | 221.1   | 102.7   |
| 87.5° | 1.7     | 3.5     | 31.3    | 26.1    | 27.9    | 47.0    | 38.3    | 47.0    | 73.1    | 67.9    | 36.6    |
| 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°    | 2574.8  | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 | 2574.8 |
| 2.5°  | 2597.4  | 2564.3 | 2468.6 | 2374.6 | 2296.2 | 2214.4 | 2139.5 | 2096.0 | 2078.6 | 2059.5 | 2068.2 |
| 5°    | 2634.0  | 2553.9 | 2360.6 | 2193.5 | 2029.9 | 1890.6 | 1779.2 | 1707.8 | 1673.0 | 1667.8 | 1659.1 |
| 7.5°  | 2682.7  | 2545.2 | 2245.7 | 1984.6 | 1770.5 | 1615.5 | 1488.5 | 1385.7 | 1354.4 | 1326.6 | 1303.9 |
| 10°   | 2741.9  | 2529.5 | 2103.0 | 1765.3 | 1537.2 | 1342.2 | 1175.1 | 1053.2 | 990.6  | 973.2  | 985.3  |
| 12.5° | 2804.6  | 2499.9 | 1953.3 | 1563.3 | 1300.4 | 1051.5 | 896.6  | 835.6  | 818.2  | 811.3  | 813.0  |
| 15°   | 2867.2  | 2463.4 | 1796.6 | 1368.3 | 1035.8 | 839.1  | 767.7  | 752.1  | 745.1  | 741.6  | 738.1  |
| 17.5° | 2924.7  | 2404.2 | 1620.8 | 1178.6 | 839.1  | 717.2  | 691.1  | 677.2  | 663.3  | 658.1  | 649.4  |
| 20°   | 2992.6  | 2336.3 | 1462.3 | 966.2  | 710.3  | 649.4  | 618.0  | 591.9  | 571.0  | 557.1  | 555.3  |
| 22.5° | 3057.0  | 2249.2 | 1297.0 | 800.8  | 647.6  | 583.2  | 532.7  | 504.9  | 480.5  | 463.1  | 468.3  |
| 25°   | 3091.8  | 2143.0 | 1149.0 | 698.1  | 590.2  | 517.0  | 461.3  | 426.5  | 400.4  | 391.7  | 390.0  |
| 27.5° | 3091.8  | 2012.5 | 1004.5 | 638.9  | 537.9  | 457.9  | 400.4  | 367.3  | 349.9  | 337.7  | 339.5  |
| 30°   | 3067.4  | 1868.0 | 870.4  | 593.6  | 492.7  | 405.6  | 351.7  | 322.1  | 308.1  | 299.4  | 297.7  |
| 32.5° | 3048.3  | 1730.4 | 755.5  | 550.1  | 445.7  | 360.4  | 313.4  | 290.7  | 276.8  | 268.1  | 268.1  |
| 35°   | 3077.9  | 1612.1 | 666.8  | 506.6  | 402.1  | 325.5  | 283.8  | 262.9  | 248.9  | 242.0  | 240.2  |
| 37.5° | 3156.2  | 1504.1 | 598.9  | 459.6  | 362.1  | 296.0  | 262.9  | 238.5  | 224.6  | 215.9  | 212.4  |
| 40°   | 3349.5  | 1443.2 | 548.4  | 416.1  | 323.8  | 271.6  | 238.5  | 215.9  | 198.5  | 189.8  | 188.0  |
| 42.5° | 3659.3  | 1444.9 | 499.6  | 376.0  | 294.2  | 250.7  | 217.6  | 191.5  | 172.3  | 163.6  | 161.9  |
| 45°   | 4125.9  | 1511.1 | 461.3  | 337.7  | 268.1  | 228.1  | 195.0  | 167.1  | 149.7  | 141.0  | 141.0  |
| 47.5° | 4684.7  | 1639.9 | 428.3  | 304.7  | 243.7  | 207.2  | 172.3  | 144.5  | 127.1  | 120.1  | 120.1  |
| 50°   | 5290.5  | 1807.0 | 395.2  | 269.8  | 222.8  | 184.5  | 148.0  | 125.3  | 111.4  | 106.2  | 106.2  |
| 52.5° | 5908.6  | 2009.0 | 362.1  | 242.0  | 200.2  | 160.2  | 127.1  | 111.4  | 99.2   | 95.7   | 94.0   |
| 55°   | 6719.8  | 2266.6 | 327.3  | 212.4  | 175.8  | 137.5  | 113.2  | 97.5   | 83.6   | 78.3   | 76.6   |
| 57.5° | 7968.0  | 2654.8 | 289.0  | 186.3  | 144.5  | 114.9  | 97.5   | 81.8   | 66.2   | 57.4   | 55.7   |
| 60°   | 9473.9  | 3128.4 | 248.9  | 163.6  | 116.6  | 94.0   | 78.3   | 62.7   | 48.7   | 38.3   | 36.6   |
| 62.5° | 10884.0 | 3429.5 | 210.6  | 137.5  | 92.3   | 71.4   | 55.7   | 47.0   | 34.8   | 24.4   | 22.6   |
| 65°   | 11507.3 | 3328.6 | 174.1  | 111.4  | 73.1   | 50.5   | 36.6   | 33.1   | 20.9   | 10.4   | 8.7    |
| 66°   | 11300.1 | 3178.9 | 160.2  | 101.0  | 66.2   | 43.5   | 31.3   | 27.9   | 15.7   | 5.2    | 5.2    |
| 67.5° | 10689.0 | 2825.5 | 139.3  | 87.0   | 57.4   | 34.8   | 24.4   | 20.9   | 8.7    | 1.7    | 0.0    |
| 70°   | 9158.8  | 2285.8 | 109.7  | 64.4   | 41.8   | 24.4   | 13.9   | 10.4   | 5.2    | 0.0    | 0.0    |
| 72.5° | 7034.9  | 1702.6 | 87.0   | 48.7   | 29.6   | 13.9   | 7.0    | 3.5    | 5.2    | 0.0    | 0.0    |
| 75°   | 4310.4  | 973.2  | 67.9   | 36.6   | 19.1   | 8.7    | 5.2    | 0.0    | 5.2    | 1.7    | 0.0    |
| 77.5° | 1913.2  | 437.0  | 45.3   | 24.4   | 13.9   | 7.0    | 3.5    | 0.0    | 3.5    | 1.7    | 0.0    |
| 80°   | 484.0   | 142.8  | 26.1   | 17.4   | 10.4   | 5.2    | 1.7    | 0.0    | 3.5    | 3.5    | 1.7    |
| 82.5° | 132.3   | 52.2   | 19.1   | 13.9   | 8.7    | 5.2    | 1.7    | 0.0    | 3.5    | 3.5    | 3.5    |
| 85°   | 52.2    | 24.4   | 17.4   | 13.9   | 10.4   | 5.2    | 1.7    | 0.0    | 3.5    | 3.5    | 3.5    |
| 87.5° | 24.4    | 17.4   | 17.4   | 15.7   | 12.2   | 5.2    | 1.7    | 0.0    | 3.5    | 1.7    | 3.5    |
| 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)