

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: P529750

Luminaire Tested: **GALN-SA4D-830-U-T2R-GRSWH**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P529750  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4D-830-U-T2R-GRSWH  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH WHITE GLARE REDUCTION SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21370 lumens  
Efficiency: N/A  
Efficacy: 87.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G2

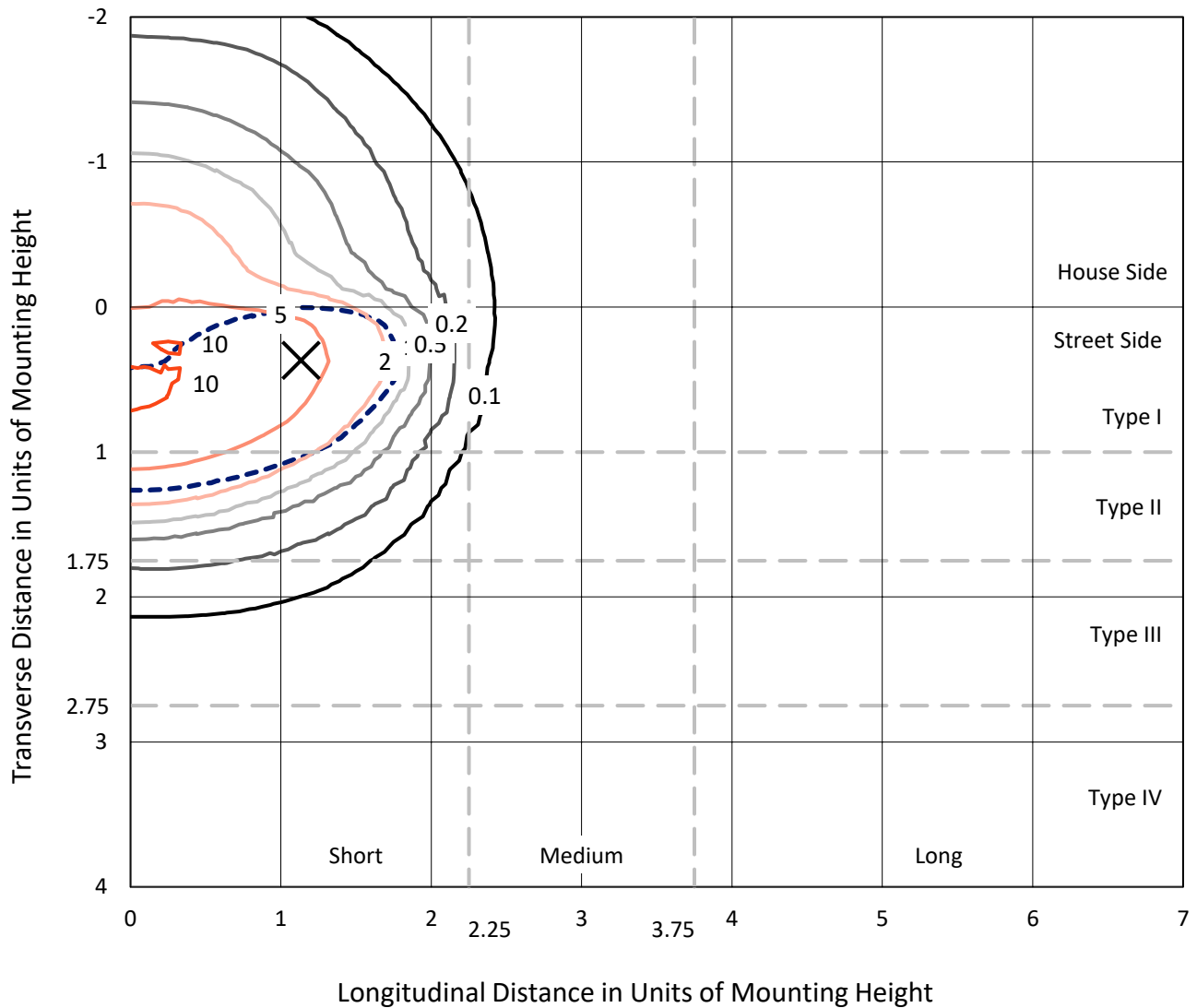
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

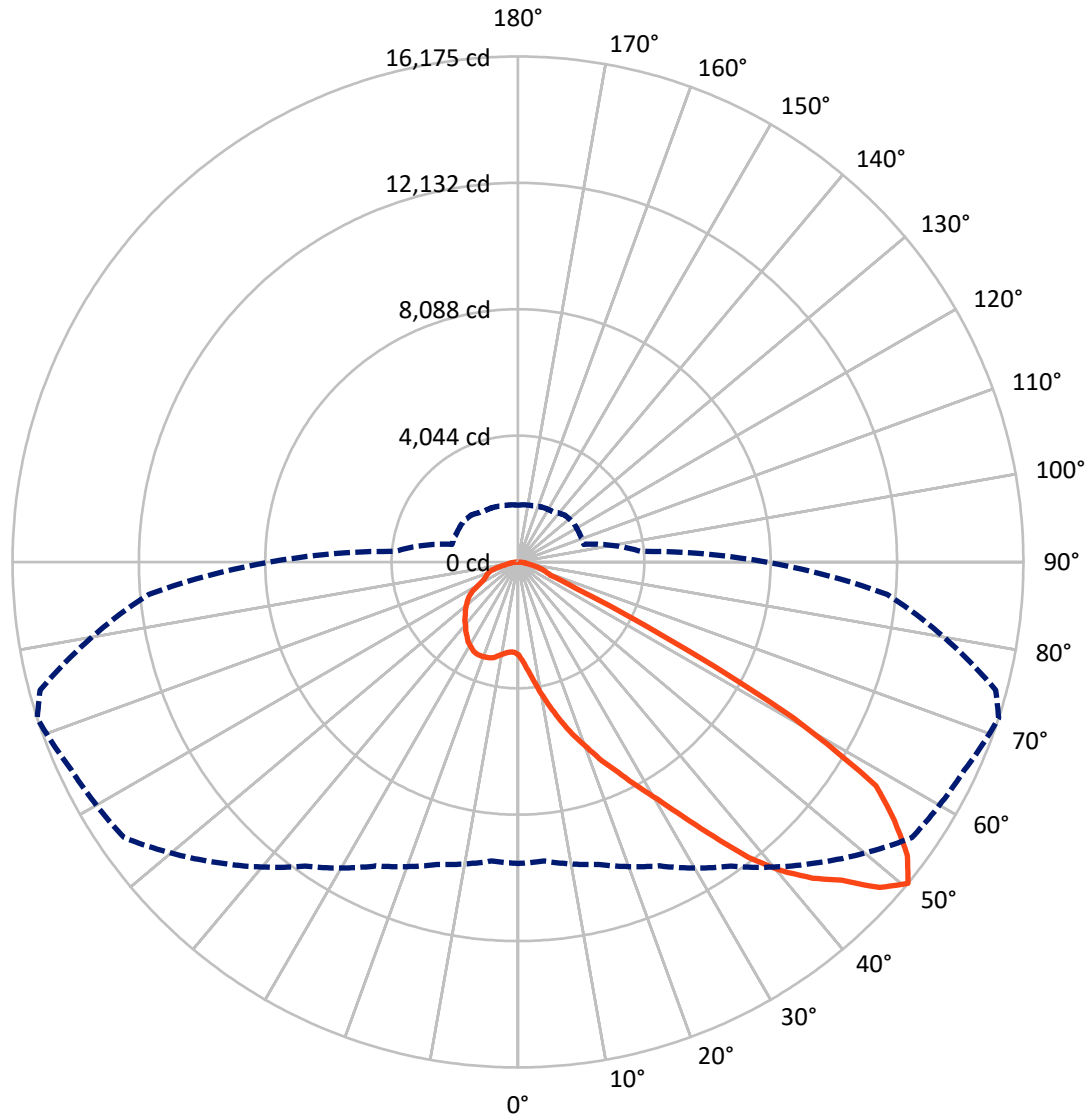
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral    - - - Horizontal Cone Through 50-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4896.0   | 0.0    | 4896.0  |
|                    | % Fixture | 22.9     | 0.0    | 22.9    |
| <b>Street Side</b> | Lumens    | 16474.0  | 0.0    | 16474.0 |
|                    | % Fixture | 77.1     | 0.0    | 77.1    |
| <b>Total</b>       | Lumens    | 21370.0  | 0.0    | 21370.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 349.9   | 1.6       |
| 10°-20°   | 1308.1  | 6.1       |
| 20°-30°   | 2536.4  | 11.9      |
| 30°-40°   | 4201.9  | 19.7      |
| 40°-50°   | 5879.3  | 27.5      |
| 50°-60°   | 4960.0  | 23.2      |
| 60°-70°   | 1511.8  | 7.1       |
| 70°-80°   | 530.4   | 2.5       |
| 80°-90°   | 92.2    | 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°    | 21370.0 | 100.0     |
| 0°-180°   | 21370.0 | 100.0     |

**Coefficient of Utilization**



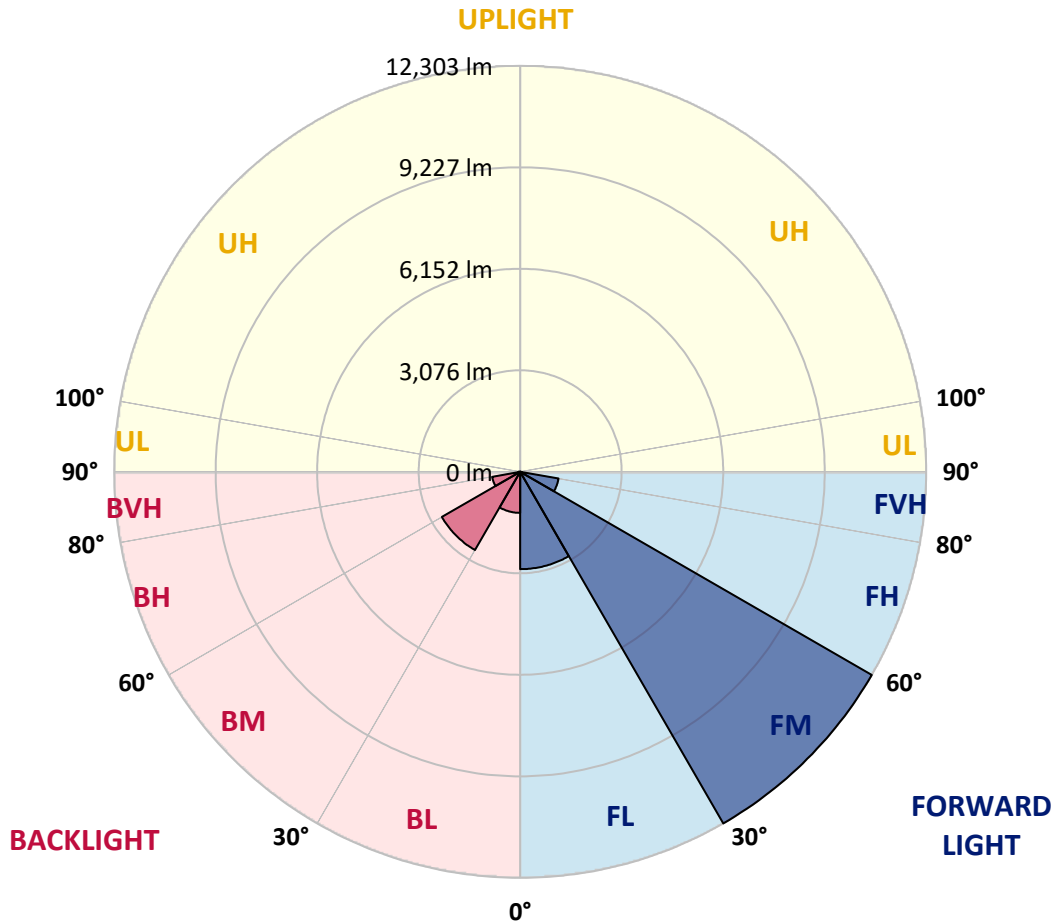
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2949.8  | 13.8      |                         |      |         |
| FM (30°-60°)   | 12303.3 | 57.6      |                         |      |         |
| FH (60°-80°)   | 1179.6  | 5.5       |                         |      | G1/1800 |
| FVH (80°-90°)  | 41.3    | 0.2       |                         |      | G1/100  |
| BL (0°-30°)    | 1244.6  | 5.8       | B3/2500                 |      |         |
| BM (30°-60°)   | 2737.9  | 12.8      | B3/5000                 |      |         |
| BH (60°-80°)   | 862.6   | 4.0       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 50.9    | 0.2       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 72°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2974.9  | 2974.9  | 2974.9  | 2974.9  | 2974.9  | 2974.9  | 2974.9  | 2974.9  | 2974.9  | 2974.9  | 2974.9  |
| 2.5°  | 3826.4  | 3802.6  | 3731.2  | 3707.4  | 3622.8  | 3469.4  | 3416.5  | 3260.5  | 3194.4  | 3133.5  | 3062.1  |
| 5°    | 4839.1  | 4728.1  | 4720.2  | 4585.3  | 4389.6  | 4275.9  | 3937.4  | 3710.0  | 3501.1  | 3395.3  | 3199.7  |
| 7.5°  | 5484.4  | 5487.0  | 5487.0  | 5375.9  | 5219.9  | 4931.7  | 4627.6  | 4217.7  | 3903.1  | 3747.0  | 3413.8  |
| 10°   | 6097.9  | 6045.0  | 6015.9  | 6005.3  | 5899.5  | 5619.2  | 5294.0  | 4786.3  | 4355.2  | 4172.8  | 3575.2  |
| 12.5° | 6531.5  | 6486.6  | 6552.7  | 6518.3  | 6441.6  | 6259.2  | 5952.4  | 5373.3  | 4833.9  | 4587.9  | 3834.3  |
| 15°   | 6737.8  | 6769.5  | 6822.4  | 6917.6  | 6883.2  | 6814.5  | 6476.0  | 5976.2  | 5349.5  | 5071.9  | 4064.4  |
| 17.5° | 7055.1  | 6967.8  | 7031.3  | 7150.3  | 7245.5  | 7213.8  | 7020.7  | 6412.5  | 5859.9  | 5518.7  | 4373.7  |
| 20°   | 7277.2  | 7227.0  | 7258.7  | 7396.2  | 7467.6  | 7647.4  | 7547.0  | 6983.7  | 6349.1  | 5989.4  | 4738.7  |
| 22.5° | 7911.9  | 7837.8  | 7734.7  | 7755.9  | 7782.3  | 7909.2  | 7933.0  | 7610.4  | 6917.6  | 6536.8  | 5085.1  |
| 25°   | 8694.6  | 8625.8  | 8504.2  | 8379.9  | 8303.2  | 8279.4  | 8361.4  | 8102.3  | 7462.3  | 7068.3  | 5457.9  |
| 27.5° | 9556.7  | 9440.3  | 9363.6  | 9107.1  | 8900.9  | 8869.1  | 8829.5  | 8689.3  | 8107.6  | 7681.8  | 5878.4  |
| 30°   | 10394.9 | 10302.4 | 10199.2 | 9789.4  | 9575.2  | 9540.8  | 9345.1  | 9384.8  | 8808.3  | 8335.0  | 6354.4  |
| 32.5° | 11029.6 | 11037.5 | 10802.1 | 10492.8 | 10291.8 | 10109.3 | 10037.9 | 10151.6 | 9707.4  | 9326.6  | 6885.9  |
| 35°   | 11542.6 | 11566.4 | 11341.6 | 11061.3 | 10844.5 | 10971.4 | 10939.6 | 10992.5 | 10781.0 | 10315.6 | 7504.6  |
| 37.5° | 12042.3 | 11923.3 | 11682.7 | 11547.8 | 11434.1 | 11643.0 | 11912.8 | 11957.7 | 11997.4 | 11450.0 | 8223.9  |
| 40°   | 12124.3 | 12134.9 | 11994.7 | 12089.9 | 11947.1 | 12261.8 | 12888.5 | 12830.4 | 12991.7 | 12513.0 | 9004.0  |
| 42.5° | 12008.0 | 12031.8 | 12087.3 | 12222.2 | 12565.9 | 12944.1 | 13874.9 | 13636.9 | 13832.6 | 13406.8 | 9762.9  |
| 45°   | 11817.6 | 11719.7 | 11788.5 | 12301.5 | 12896.5 | 13737.4 | 14776.6 | 14591.5 | 14528.0 | 14171.0 | 10667.3 |
| 47.5° | 10907.9 | 11008.4 | 11222.6 | 11854.6 | 12748.4 | 13874.9 | 15416.5 | 15374.2 | 15564.6 | 15313.4 | 11489.7 |
| 50°   | 9646.6  | 9606.9  | 10019.4 | 10730.7 | 11883.7 | 13605.1 | 15382.1 | 15765.6 | 16175.4 | 15826.4 | 11857.2 |
| 52.5° | 7224.3  | 7435.9  | 7790.2  | 8673.4  | 10318.2 | 12134.9 | 14631.2 | 15271.1 | 15604.3 | 15530.2 | 11561.1 |
| 55°   | 4566.8  | 4630.2  | 4844.4  | 5894.2  | 7375.1  | 9739.1  | 12542.1 | 14025.6 | 14620.6 | 14898.2 | 11288.7 |
| 57.5° | 2218.6  | 2099.6  | 2361.4  | 3204.9  | 4260.0  | 6550.0  | 9673.0  | 12216.9 | 13510.0 | 14012.4 | 10696.4 |
| 60°   | 1158.2  | 1203.2  | 1306.3  | 1607.8  | 2202.7  | 3400.6  | 6029.1  | 8141.9  | 10117.3 | 10889.4 | 8107.6  |
| 62.5° | 959.9   | 975.8   | 1044.5  | 1195.2  | 1465.0  | 1956.8  | 3078.0  | 3969.2  | 5159.1  | 5854.6  | 4611.7  |
| 65°   | 814.5   | 822.4   | 896.4   | 996.9   | 1168.8  | 1377.7  | 1584.0  | 1658.0  | 2007.1  | 2059.9  | 1639.5  |
| 67.5° | 679.6   | 687.5   | 766.9   | 862.1   | 973.1   | 1028.6  | 1081.5  | 1076.2  | 1115.9  | 1100.0  | 1097.4  |
| 70°   | 523.6   | 531.5   | 613.5   | 714.0   | 769.5   | 737.8   | 901.7   | 938.7   | 954.6   | 967.8   | 989.0   |
| 72.5° | 378.1   | 394.0   | 457.5   | 528.9   | 499.8   | 573.8   | 743.1   | 798.6   | 819.7   | 827.7   | 854.1   |
| 75°   | 275.0   | 280.3   | 296.2   | 275.0   | 317.3   | 399.3   | 523.6   | 592.3   | 618.8   | 626.7   | 666.4   |
| 77.5° | 121.6   | 124.3   | 126.9   | 158.7   | 203.6   | 248.6   | 312.0   | 367.6   | 404.6   | 415.2   | 425.7   |
| 80°   | 63.5    | 66.1    | 82.0    | 108.4   | 145.4   | 182.5   | 227.4   | 259.1   | 282.9   | 285.6   | 296.2   |
| 82.5° | 39.7    | 42.3    | 58.2    | 76.7    | 103.1   | 134.9   | 166.6   | 193.0   | 211.5   | 214.2   | 216.8   |
| 85°   | 18.5    | 23.8    | 34.4    | 47.6    | 68.8    | 87.3    | 89.9    | 76.7    | 82.0    | 84.6    | 79.3    |
| 87.5° | 5.3     | 7.9     | 10.6    | 7.9     | 10.6    | 10.6    | 13.2    | 15.9    | 15.9    | 15.9    | 18.5    |
| 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°    | 2974.9 | 2974.9 | 2974.9 | 2974.9 | 2974.9 | 2974.9 | 2974.9 | 2974.9 | 2974.9 | 2974.9 | 2974.9 |
| 2.5°  | 3022.5 | 2998.7 | 2906.1 | 2871.8 | 2781.8 | 2797.7 | 2750.1 | 2747.5 | 2736.9 | 2734.3 | 2731.6 |
| 5°    | 3096.5 | 3022.5 | 2911.4 | 2826.8 | 2776.6 | 2771.3 | 2736.9 | 2736.9 | 2747.5 | 2755.4 | 2736.9 |
| 7.5°  | 3218.2 | 3133.5 | 2945.8 | 2866.5 | 2821.5 | 2813.6 | 2789.8 | 2771.3 | 2795.1 | 2787.1 | 2766.0 |
| 10°   | 3358.3 | 3210.2 | 3011.9 | 2943.2 | 2869.1 | 2850.6 | 2850.6 | 2858.5 | 2818.9 | 2832.1 | 2810.9 |
| 12.5° | 3514.3 | 3316.0 | 3096.5 | 3017.2 | 2929.9 | 2919.4 | 2914.1 | 2855.9 | 2877.0 | 2866.5 | 2813.6 |
| 15°   | 3712.7 | 3437.6 | 3204.9 | 3070.1 | 2996.0 | 2948.4 | 2879.7 | 2869.1 | 2855.9 | 2829.4 | 2805.6 |
| 17.5° | 3926.8 | 3569.9 | 3255.2 | 3085.9 | 2974.9 | 2940.5 | 2887.6 | 2832.1 | 2792.4 | 2797.7 | 2779.2 |
| 20°   | 4109.3 | 3691.5 | 3273.7 | 3101.8 | 2959.0 | 2892.9 | 2810.9 | 2776.6 | 2734.3 | 2731.6 | 2729.0 |
| 22.5° | 4326.1 | 3855.5 | 3300.1 | 3059.5 | 2911.4 | 2842.7 | 2787.1 | 2726.3 | 2697.2 | 2660.2 | 2678.7 |
| 25°   | 4585.3 | 3918.9 | 3305.4 | 3035.7 | 2877.0 | 2755.4 | 2726.3 | 2660.2 | 2649.6 | 2596.7 | 2607.3 |
| 27.5° | 4773.0 | 3953.3 | 3263.1 | 2961.7 | 2797.7 | 2705.2 | 2652.3 | 2604.7 | 2586.2 | 2546.5 | 2535.9 |
| 30°   | 5024.3 | 4006.2 | 3173.2 | 2869.1 | 2718.4 | 2615.3 | 2583.5 | 2572.9 | 2520.1 | 2477.7 | 2472.5 |
| 32.5° | 5309.8 | 4040.6 | 3115.0 | 2773.9 | 2636.4 | 2557.1 | 2572.9 | 2522.7 | 2456.6 | 2419.6 | 2409.0 |
| 35°   | 5537.3 | 4053.8 | 2969.6 | 2665.5 | 2580.9 | 2530.6 | 2512.1 | 2501.5 | 2406.4 | 2372.0 | 2345.5 |
| 37.5° | 5883.7 | 4024.7 | 2848.0 | 2588.8 | 2520.1 | 2501.5 | 2485.7 | 2414.3 | 2305.9 | 2255.6 | 2218.6 |
| 40°   | 6288.2 | 4016.8 | 2691.9 | 2480.4 | 2461.9 | 2483.0 | 2435.4 | 2324.4 | 2173.7 | 2118.1 | 2091.7 |
| 42.5° | 6677.0 | 4072.3 | 2594.1 | 2422.2 | 2398.4 | 2406.4 | 2340.2 | 2173.7 | 2099.6 | 2067.9 | 2025.6 |
| 45°   | 7327.5 | 4188.6 | 2432.8 | 2332.3 | 2321.7 | 2316.4 | 2237.1 | 2062.6 | 2020.3 | 1980.6 | 1972.7 |
| 47.5° | 7914.5 | 4112.0 | 2329.7 | 2239.8 | 2250.3 | 2221.2 | 2052.0 | 1996.5 | 1948.9 | 1909.2 | 1896.0 |
| 50°   | 7948.9 | 3929.5 | 2184.2 | 2168.4 | 2171.0 | 2120.8 | 1959.5 | 1922.4 | 1861.6 | 1835.2 | 1816.7 |
| 52.5° | 7769.1 | 3630.7 | 2049.4 | 2054.7 | 2062.6 | 1980.6 | 1845.8 | 1819.3 | 1769.1 | 1732.0 | 1721.5 |
| 55°   | 7264.0 | 3165.3 | 1917.1 | 1938.3 | 1959.5 | 1803.4 | 1761.1 | 1695.0 | 1655.4 | 1602.5 | 1605.1 |
| 57.5° | 6399.3 | 2549.1 | 1732.0 | 1766.4 | 1811.4 | 1639.5 | 1607.8 | 1525.8 | 1467.6 | 1425.3 | 1420.0 |
| 60°   | 4289.1 | 1814.0 | 1454.4 | 1467.6 | 1568.1 | 1499.3 | 1496.7 | 1414.7 | 1335.4 | 1298.4 | 1277.2 |
| 62.5° | 2530.6 | 1385.6 | 1256.1 | 1242.8 | 1240.2 | 1279.9 | 1346.0 | 1316.9 | 1213.8 | 1142.4 | 1163.5 |
| 65°   | 1324.8 | 1197.9 | 1168.8 | 1123.8 | 1097.4 | 1086.8 | 1137.1 | 1150.3 | 1081.5 | 1004.9 | 999.6  |
| 67.5° | 1113.3 | 1113.3 | 1089.5 | 1073.6 | 1036.6 | 991.6  | 959.9  | 917.6  | 907.0  | 885.9  | 859.4  |
| 70°   | 1012.8 | 1039.2 | 1031.3 | 994.3  | 962.5  | 912.3  | 830.3  | 761.6  | 695.5  | 671.7  | 687.5  |
| 72.5° | 883.2  | 909.7  | 909.7  | 891.1  | 848.8  | 772.1  | 692.8  | 613.5  | 558.0  | 515.6  | 510.4  |
| 75°   | 679.6  | 692.8  | 724.6  | 703.4  | 647.9  | 600.3  | 518.3  | 436.3  | 383.4  | 343.8  | 335.8  |
| 77.5° | 433.7  | 454.8  | 454.8  | 452.2  | 412.5  | 367.6  | 314.7  | 256.5  | 216.8  | 187.7  | 179.8  |
| 80°   | 288.2  | 301.5  | 312.0  | 301.5  | 275.0  | 240.6  | 201.0  | 161.3  | 132.2  | 108.4  | 103.1  |
| 82.5° | 211.5  | 227.4  | 235.3  | 224.8  | 198.3  | 171.9  | 142.8  | 113.7  | 84.6   | 66.1   | 60.8   |
| 85°   | 82.0   | 84.6   | 95.2   | 113.7  | 111.1  | 108.4  | 87.3   | 63.5   | 47.6   | 34.4   | 31.7   |
| 87.5° | 21.2   | 18.5   | 21.2   | 21.2   | 18.5   | 15.9   | 15.9   | 15.9   | 15.9   | 7.9    | 10.6   |
| 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)