

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: P522647

Luminaire Tested: **GALN-SA1D-827-U-T4W**

Issue Date: 5/13/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522647  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2011-042-41)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/13/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA1D-827-U-T4W  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(1) 80 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5758 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

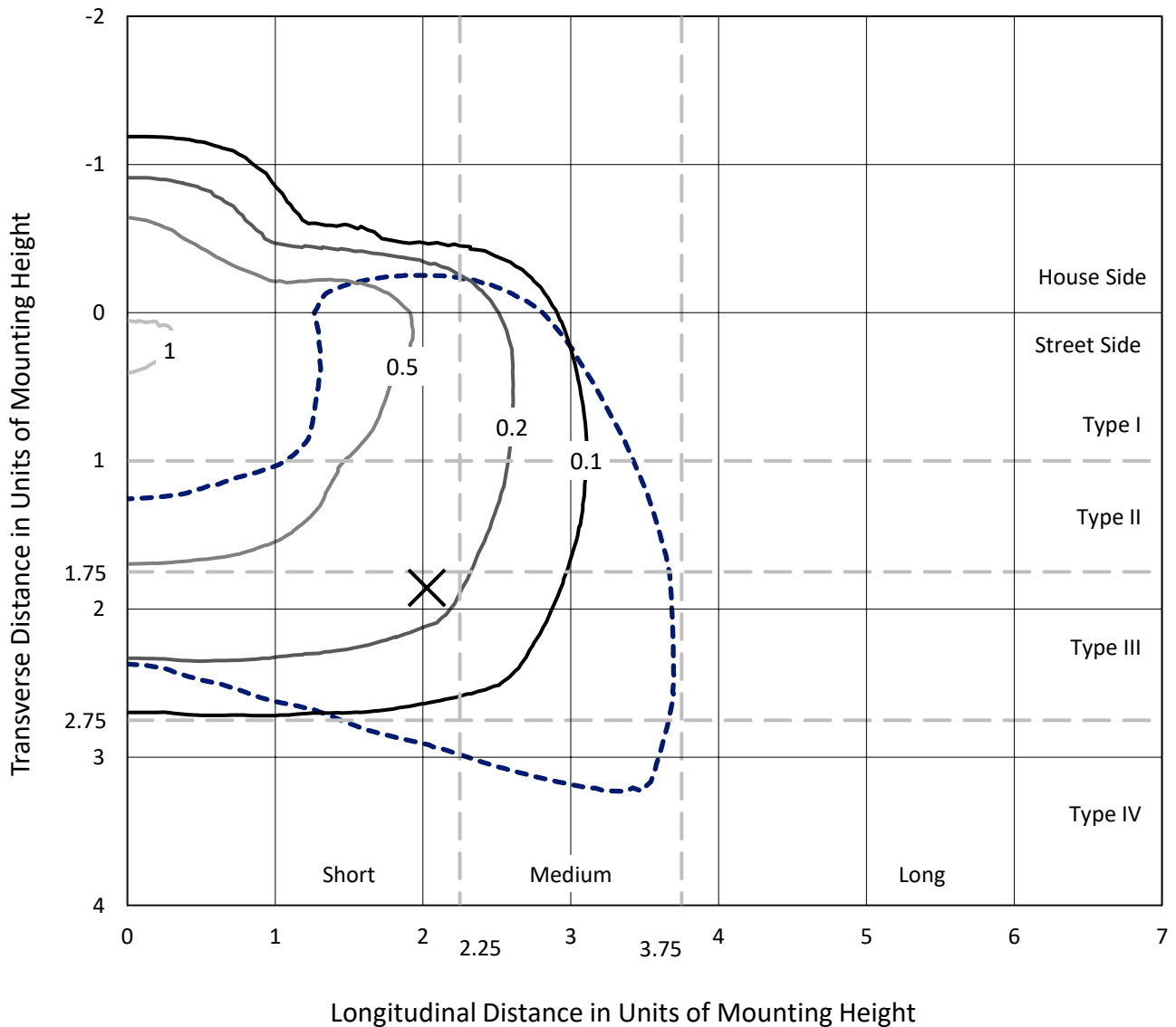
Input Watts (W): 65  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

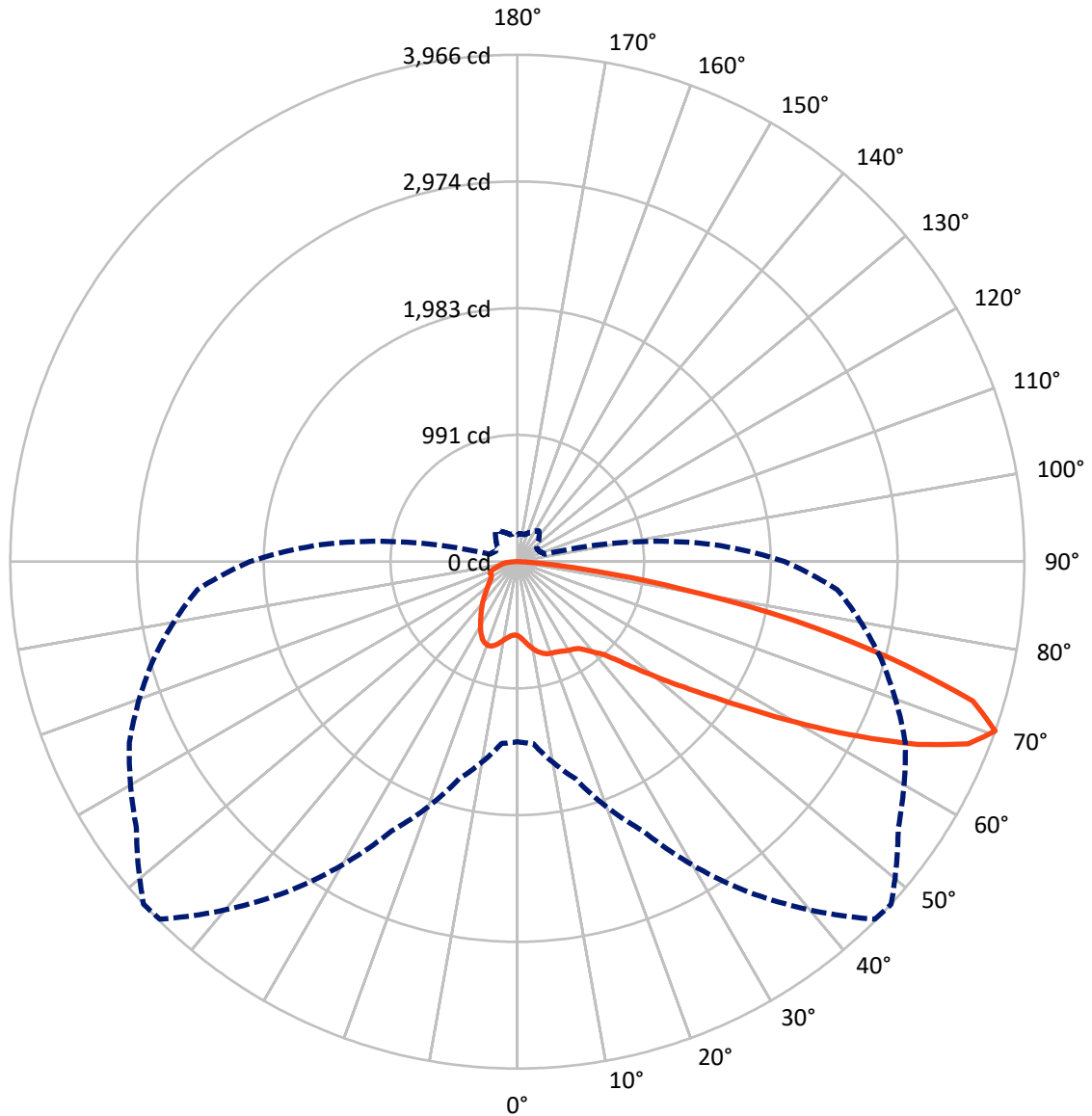
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1303.7   | 0.0    | 1303.7 |
|                    | % Fixture | 22.6     | 0.0    | 22.6   |
| <b>Street Side</b> | Lumens    | 4454.3   | 0.0    | 4454.3 |
|                    | % Fixture | 77.4     | 0.0    | 77.4   |
| <b>Total</b>       | Lumens    | 5758.0   | 0.0    | 5758.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 59.6   | 1.0       |
| 10°-20°   | 199.2  | 3.5       |
| 20°-30°   | 331.3  | 5.8       |
| 30°-40°   | 469.5  | 8.2       |
| 40°-50°   | 693.1  | 12.0      |
| 50°-60°   | 1200.4 | 20.8      |
| 60°-70°   | 1695.7 | 29.4      |
| 70°-80°   | 974.8  | 16.9      |
| 80°-90°   | 134.5  | 2.3       |
| 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°    | 5758.0 | 100.0     |
| 0°-180°   | 5758.0 | 100.0     |

**Coefficient of Utilization**



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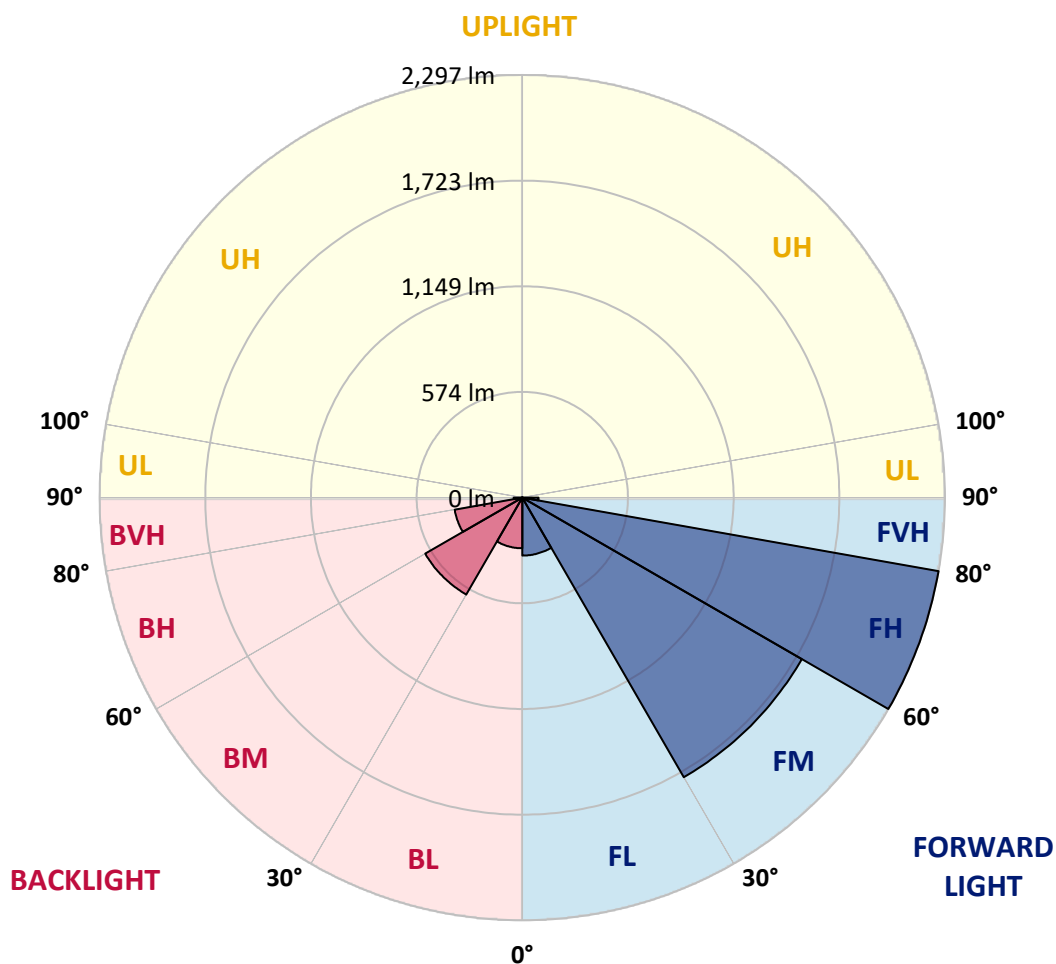
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 314.9  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 1754.4 | 30.5      |                         |      |         |
| FH   | (60°-80°)   | 2297.2 | 39.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 87.9   | 1.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 275.2  | 4.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 608.7  | 10.6      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 373.2  | 6.5       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 46.6   | 0.8       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 47.5°  | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 578.0  | 578.0  | 578.0  | 578.0  | 578.0  | 578.0  | 578.0  | 578.0  | 578.0  | 578.0  | 578.0  |
| 2.5°  | 615.3  | 613.2  | 612.9  | 608.2  | 605.8  | 601.1  | 599.3  | 595.0  | 589.7  | 584.5  | 579.6  |
| 5°    | 663.7  | 663.7  | 661.5  | 655.1  | 644.9  | 634.4  | 629.8  | 621.5  | 606.7  | 594.7  | 584.5  |
| 7.5°  | 713.3  | 713.9  | 709.6  | 700.0  | 685.6  | 668.6  | 664.3  | 652.0  | 631.0  | 613.5  | 598.4  |
| 10°   | 756.1  | 756.1  | 750.3  | 737.3  | 719.2  | 700.7  | 696.4  | 682.5  | 659.1  | 637.2  | 617.5  |
| 12.5° | 788.8  | 788.8  | 781.1  | 764.1  | 744.4  | 727.8  | 722.9  | 709.6  | 687.7  | 663.4  | 638.4  |
| 15°   | 810.0  | 808.5  | 799.9  | 780.8  | 761.7  | 747.2  | 743.8  | 732.7  | 712.7  | 688.0  | 660.0  |
| 17.5° | 811.0  | 810.4  | 802.0  | 786.0  | 769.4  | 759.5  | 757.4  | 750.0  | 734.3  | 710.8  | 681.3  |
| 20°   | 793.1  | 794.3  | 788.8  | 777.4  | 769.4  | 765.1  | 764.1  | 761.7  | 750.6  | 728.7  | 699.1  |
| 22.5° | 774.0  | 776.2  | 770.9  | 764.8  | 764.1  | 768.5  | 769.1  | 769.7  | 762.6  | 741.3  | 714.2  |
| 25°   | 769.4  | 770.9  | 765.7  | 760.1  | 763.5  | 774.9  | 777.4  | 779.9  | 774.3  | 756.4  | 732.1  |
| 27.5° | 792.8  | 791.6  | 781.4  | 769.4  | 771.5  | 786.9  | 790.3  | 793.1  | 790.3  | 774.9  | 754.3  |
| 30°   | 859.0  | 855.0  | 834.7  | 799.6  | 788.5  | 799.3  | 802.7  | 810.4  | 810.4  | 799.0  | 778.3  |
| 32.5° | 970.0  | 962.3  | 925.0  | 856.0  | 817.4  | 811.0  | 814.4  | 827.0  | 833.5  | 824.5  | 802.0  |
| 35°   | 1104.6 | 1096.6 | 1043.3 | 950.6  | 870.4  | 834.4  | 833.5  | 847.6  | 864.9  | 844.9  | 815.6  |
| 37.5° | 1239.9 | 1231.6 | 1167.5 | 1063.3 | 947.8  | 883.7  | 878.1  | 883.1  | 890.5  | 853.8  | 834.4  |
| 40°   | 1375.1 | 1365.3 | 1309.2 | 1189.3 | 1042.4 | 949.0  | 934.5  | 912.3  | 909.3  | 883.1  | 870.7  |
| 42.5° | 1509.2 | 1500.2 | 1471.9 | 1330.8 | 1155.8 | 1012.8 | 990.6  | 952.4  | 964.1  | 948.4  | 937.6  |
| 45°   | 1644.4 | 1645.1 | 1614.9 | 1489.5 | 1292.6 | 1130.5 | 1100.6 | 1040.8 | 1068.6 | 1062.7 | 1068.9 |
| 47.5° | 1764.3 | 1762.8 | 1752.0 | 1643.5 | 1462.3 | 1282.1 | 1243.6 | 1174.2 | 1221.7 | 1243.3 | 1290.4 |
| 50°   | 1880.5 | 1879.5 | 1880.2 | 1818.2 | 1659.5 | 1462.3 | 1419.8 | 1347.1 | 1454.0 | 1528.9 | 1613.3 |
| 52.5° | 2046.8 | 2052.1 | 2014.8 | 1998.5 | 1899.3 | 1675.3 | 1628.4 | 1553.2 | 1728.6 | 1846.6 | 2011.4 |
| 55°   | 2213.8 | 2209.5 | 2180.3 | 2197.2 | 2150.1 | 1927.3 | 1878.3 | 1818.5 | 2034.2 | 2163.3 | 2411.0 |
| 57.5° | 2312.1 | 2313.7 | 2343.6 | 2426.4 | 2459.7 | 2241.6 | 2197.2 | 2151.0 | 2377.8 | 2469.3 | 2766.6 |
| 60°   | 2400.6 | 2407.7 | 2493.6 | 2650.1 | 2740.4 | 2627.7 | 2588.2 | 2543.2 | 2693.0 | 2729.3 | 3075.3 |
| 62.5° | 2428.3 | 2450.2 | 2600.2 | 2834.4 | 3014.0 | 3063.3 | 3014.3 | 2915.1 | 2993.1 | 2978.9 | 3284.6 |
| 65°   | 2290.0 | 2319.8 | 2588.8 | 2903.4 | 3258.4 | 3476.8 | 3445.7 | 3261.5 | 3248.8 | 3163.5 | 3318.8 |
| 67.5° | 1925.8 | 1955.6 | 2301.0 | 2758.6 | 3359.4 | 3834.9 | 3803.7 | 3514.1 | 3404.1 | 3180.7 | 3059.9 |
| 70°   | 1409.0 | 1427.8 | 1758.1 | 2322.6 | 3156.4 | 3955.0 | 3965.8 | 3637.4 | 3348.7 | 2946.2 | 2512.4 |
| 72.5° | 811.9  | 853.5  | 1084.9 | 1634.0 | 2578.7 | 3651.2 | 3726.1 | 3381.0 | 2998.0 | 2457.9 | 1756.6 |
| 75°   | 349.1  | 350.0  | 501.6  | 901.3  | 1746.4 | 2934.8 | 3007.3 | 2802.7 | 2354.3 | 1699.6 | 937.9  |
| 77.5° | 166.1  | 169.2  | 220.6  | 402.4  | 961.3  | 2027.7 | 2223.1 | 1980.0 | 1505.8 | 816.5  | 354.3  |
| 80°   | 107.8  | 110.0  | 135.0  | 199.7  | 471.4  | 1175.8 | 1312.0 | 1142.2 | 664.3  | 291.8  | 152.8  |
| 82.5° | 65.3   | 65.9   | 90.3   | 122.0  | 259.4  | 532.4  | 627.6  | 495.8  | 283.5  | 174.7  | 90.0   |
| 85°   | 39.7   | 40.1   | 54.8   | 75.5   | 157.4  | 183.9  | 188.9  | 187.3  | 166.4  | 114.3  | 48.1   |
| 87.5° | 19.1   | 19.7   | 28.3   | 35.7   | 61.9   | 57.0   | 53.9   | 62.5   | 78.6   | 61.6   | 20.6   |
| 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°    | 578.0  | 578.0  | 578.0 | 578.0 | 578.0 | 578.0 | 578.0 | 578.0 | 578.0 | 578.0 | 578.0 |
| 2.5°  | 577.4  | 576.5  | 574.3 | 573.4 | 572.8 | 573.1 | 572.8 | 572.8 | 573.1 | 573.1 | 573.1 |
| 5°    | 580.2  | 578.7  | 575.3 | 575.3 | 577.1 | 581.4 | 585.4 | 588.5 | 591.9 | 591.6 | 591.6 |
| 7.5°  | 592.2  | 589.4  | 585.4 | 586.7 | 591.3 | 598.1 | 605.1 | 611.9 | 618.7 | 619.3 | 619.0 |
| 10°   | 609.8  | 607.0  | 602.7 | 604.2 | 611.6 | 621.8 | 630.7 | 640.6 | 648.0 | 650.1 | 649.5 |
| 12.5° | 629.8  | 624.3  | 620.6 | 624.9 | 636.6 | 650.1 | 658.8 | 666.2 | 671.4 | 674.5 | 673.2 |
| 15°   | 650.1  | 644.9  | 640.6 | 649.5 | 663.7 | 676.3 | 680.6 | 681.9 | 682.8 | 685.9 | 685.3 |
| 17.5° | 669.9  | 662.8  | 661.2 | 672.9 | 686.5 | 692.0 | 689.6 | 684.3 | 680.3 | 682.8 | 682.5 |
| 20°   | 687.4  | 681.9  | 681.3 | 693.0 | 698.2 | 693.0 | 682.5 | 673.2 | 666.2 | 666.8 | 666.5 |
| 22.5° | 704.1  | 699.7  | 700.4 | 705.3 | 697.0 | 679.1 | 661.8 | 649.2 | 641.5 | 643.0 | 644.0 |
| 25°   | 722.5  | 718.2  | 719.8 | 711.8 | 684.3 | 653.2 | 628.3 | 617.5 | 614.4 | 617.5 | 619.6 |
| 27.5° | 746.6  | 743.8  | 742.9 | 712.1 | 661.8 | 615.0 | 586.7 | 582.7 | 585.4 | 592.2 | 595.6 |
| 30°   | 772.5  | 772.5  | 767.5 | 706.8 | 631.0 | 569.1 | 544.4 | 545.1 | 554.6 | 564.2 | 567.6 |
| 32.5° | 797.4  | 802.7  | 787.2 | 692.7 | 591.3 | 524.4 | 505.6 | 506.2 | 514.6 | 526.3 | 529.4 |
| 35°   | 818.1  | 833.2  | 804.2 | 666.8 | 544.4 | 486.8 | 472.7 | 464.3 | 464.6 | 473.6 | 476.0 |
| 37.5° | 846.4  | 874.4  | 814.1 | 628.3 | 494.5 | 454.8 | 438.8 | 424.3 | 414.7 | 411.0 | 411.0 |
| 40°   | 895.7  | 937.0  | 816.5 | 571.3 | 447.4 | 424.3 | 401.5 | 384.2 | 365.7 | 349.1 | 346.0 |
| 42.5° | 979.2  | 1031.3 | 811.6 | 505.6 | 404.9 | 390.7 | 368.5 | 347.3 | 321.7 | 298.3 | 296.4 |
| 45°   | 1127.1 | 1153.9 | 798.3 | 437.5 | 367.0 | 358.3 | 336.8 | 313.7 | 286.6 | 265.6 | 264.1 |
| 47.5° | 1364.0 | 1326.2 | 780.8 | 377.1 | 332.5 | 330.0 | 313.4 | 286.6 | 259.4 | 245.0 | 243.4 |
| 50°   | 1710.1 | 1597.3 | 778.3 | 333.4 | 304.7 | 306.0 | 292.4 | 267.8 | 244.0 | 232.0 | 230.2 |
| 52.5° | 2126.6 | 1924.8 | 794.6 | 302.6 | 280.4 | 285.0 | 278.2 | 255.4 | 234.5 | 224.3 | 222.5 |
| 55°   | 2530.9 | 2219.4 | 804.5 | 278.5 | 257.6 | 266.2 | 267.1 | 248.0 | 228.9 | 218.8 | 217.5 |
| 57.5° | 2859.0 | 2441.2 | 760.7 | 256.7 | 237.9 | 251.1 | 257.9 | 243.7 | 226.2 | 218.5 | 217.2 |
| 60°   | 3087.4 | 2546.0 | 636.3 | 237.3 | 223.4 | 239.1 | 254.5 | 244.0 | 232.9 | 233.9 | 234.5 |
| 62.5° | 3160.1 | 2499.5 | 477.3 | 222.8 | 213.5 | 235.1 | 260.1 | 256.7 | 245.3 | 252.4 | 253.6 |
| 65°   | 3039.6 | 2307.2 | 346.0 | 211.4 | 204.9 | 237.9 | 276.7 | 265.9 | 241.0 | 246.2 | 246.2 |
| 67.5° | 2636.3 | 1987.7 | 269.3 | 200.9 | 195.0 | 243.1 | 293.3 | 265.0 | 230.8 | 236.9 | 231.4 |
| 70°   | 2091.2 | 1537.5 | 224.3 | 189.2 | 184.6 | 235.4 | 294.9 | 255.4 | 218.8 | 220.0 | 209.5 |
| 72.5° | 1387.8 | 1010.9 | 192.9 | 178.1 | 168.5 | 211.7 | 282.2 | 243.1 | 207.1 | 200.0 | 189.5 |
| 75°   | 680.0  | 504.1  | 168.2 | 164.2 | 147.6 | 184.3 | 265.0 | 231.4 | 194.4 | 183.3 | 177.5 |
| 77.5° | 263.4  | 214.5  | 143.6 | 146.7 | 128.5 | 162.4 | 242.2 | 214.8 | 177.8 | 162.7 | 158.1 |
| 80°   | 127.9  | 121.7  | 117.7 | 122.3 | 105.7 | 138.3 | 221.2 | 200.3 | 162.4 | 145.7 | 139.0 |
| 82.5° | 79.5   | 75.2   | 90.3  | 95.2  | 81.3  | 126.3 | 209.8 | 188.0 | 143.0 | 120.8 | 115.2 |
| 85°   | 40.4   | 43.1   | 60.4  | 65.0  | 58.2  | 100.4 | 172.9 | 141.1 | 103.2 | 85.7  | 86.3  |
| 87.5° | 15.4   | 20.6   | 31.7  | 34.2  | 31.1  | 53.0  | 95.2  | 82.3  | 66.2  | 45.0  | 41.6  |
| 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)