

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: P454578

Luminaire Tested: **GALN-SA5D-722-U-SL3**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454578  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA5D-722-U-SL3  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2200K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28227 lumens  
Efficiency: N/A  
Efficacy: 91.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

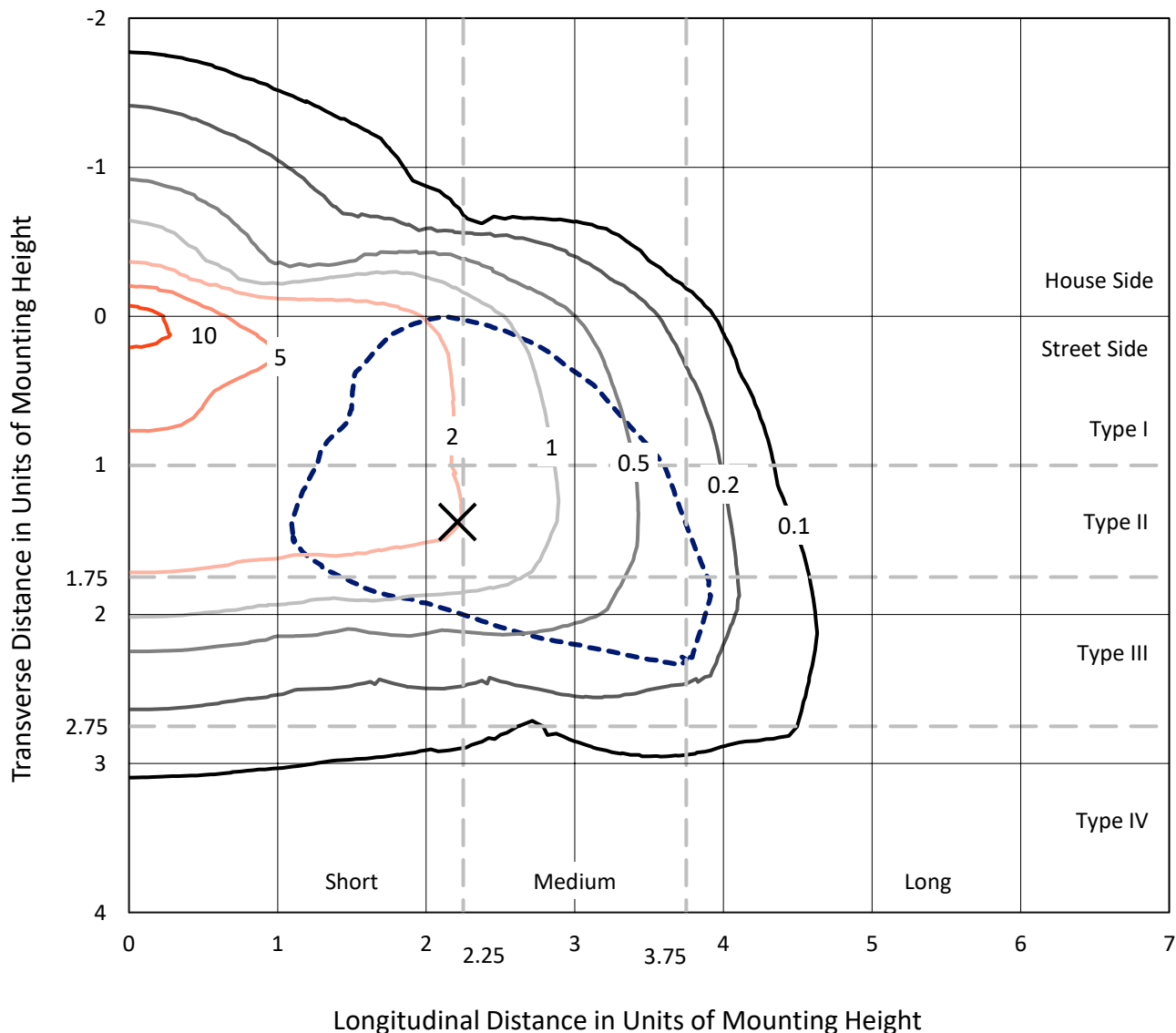
Input Watts (W): 309  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

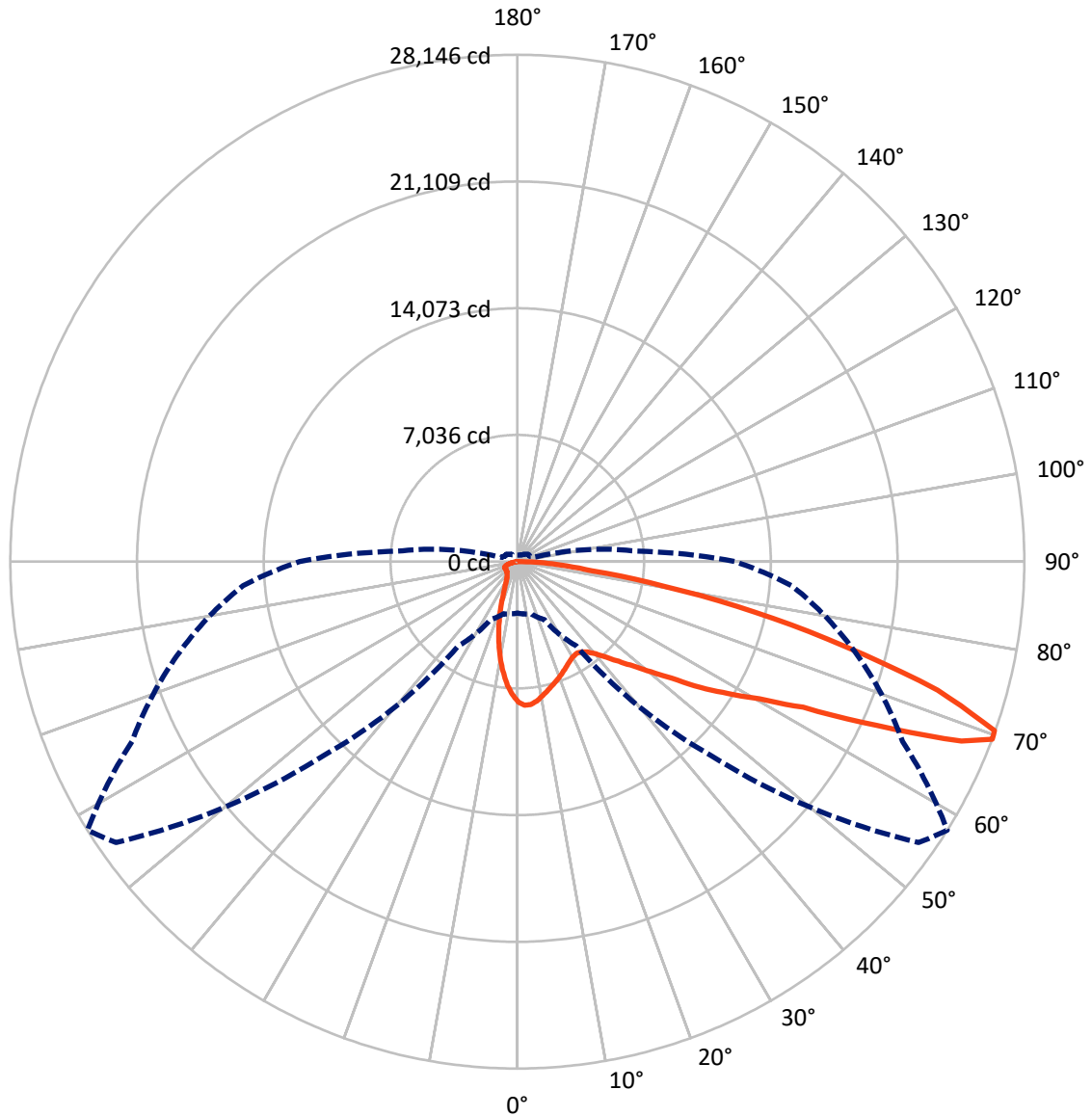
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4136.7   | 0.0    | 4136.7  |
|                    | % Fixture | 14.7     | 0.0    | 14.7    |
| <b>Street Side</b> | Lumens    | 24090.3  | 0.0    | 24090.3 |
|                    | % Fixture | 85.3     | 0.0    | 85.3    |
| <b>Total</b>       | Lumens    | 28227.0  | 0.0    | 28227.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 662.4   | 2.3       |
| 10°-20°   | 1454.6  | 5.2       |
| 20°-30°   | 1879.4  | 6.7       |
| 30°-40°   | 2440.9  | 8.6       |
| 40°-50°   | 3548.7  | 12.6      |
| 50°-60°   | 5662.6  | 20.1      |
| 60°-70°   | 7564.6  | 26.8      |
| 70°-80°   | 4360.7  | 15.4      |
| 80°-90°   | 653.1   | 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°    | 28227.0 | 100.0     |
| 0°-180°   | 28227.0 | 100.0     |

**Coefficient of Utilization**



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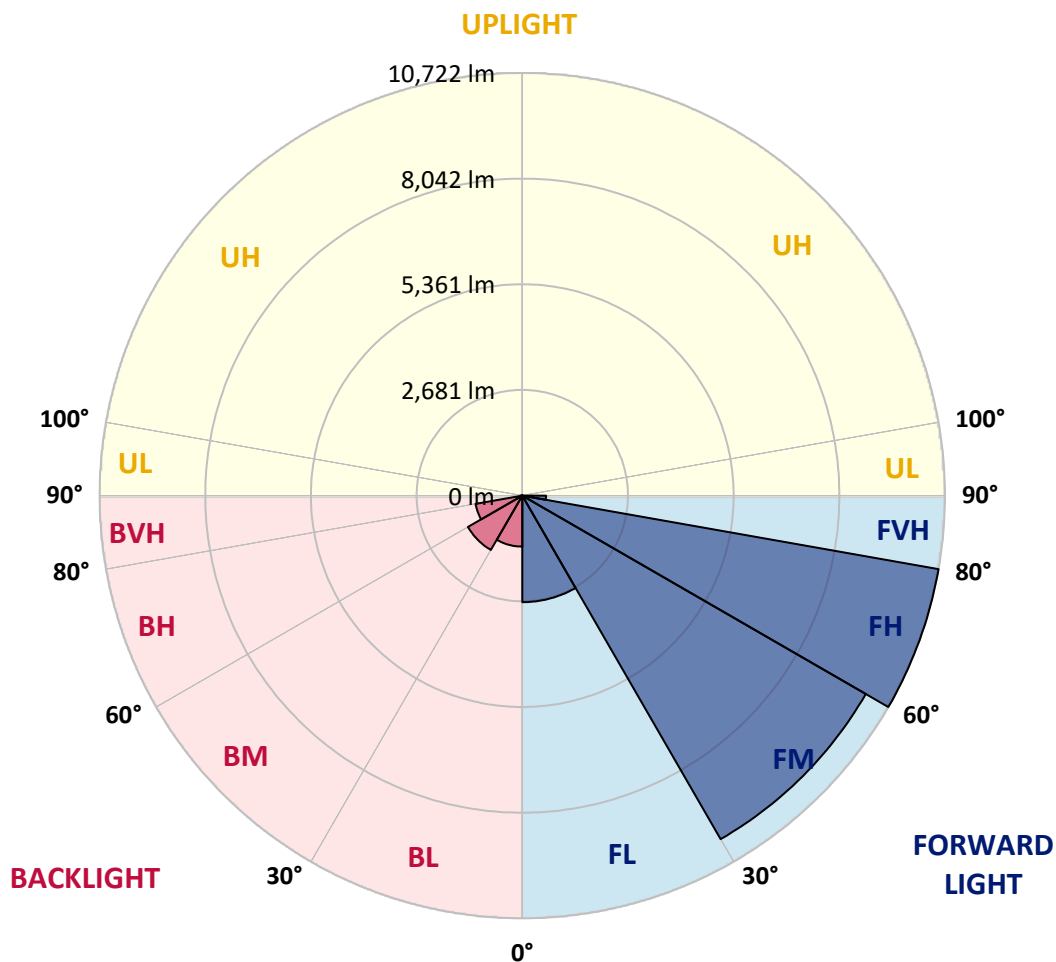
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 2703.4  | 9.6       |                         |      |          |
| FM   | (30°-60°)   | 10061.5 | 35.6      |                         |      |          |
| FH   | (60°-80°)   | 10722.4 | 38.0      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 603.1   | 2.1       |                         |      | G4/750   |
| BL   | (0°-30°)    | 1293.0  | 4.6       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 1590.8  | 5.6       | B2/2500                 |      |          |
| BH   | (60°-80°)   | 1202.9  | 4.3       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 50.0    | 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-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 58°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7800.3  | 7800.3  | 7800.3  | 7800.3  | 7800.3  | 7800.3  | 7800.3  | 7800.3  | 7800.3  | 7800.3  | 7800.3  |
| 2.5°  | 8089.9  | 8112.0  | 8105.7  | 8097.8  | 8085.2  | 8050.6  | 7993.9  | 7984.5  | 7948.3  | 7871.1  | 7775.1  |
| 5°    | 7965.6  | 7984.5  | 7986.0  | 7997.1  | 8012.8  | 8006.5  | 7965.6  | 7960.9  | 7907.3  | 7803.4  | 7642.9  |
| 7.5°  | 7539.0  | 7564.2  | 7619.3  | 7680.6  | 7735.7  | 7787.7  | 7800.3  | 7808.2  | 7775.1  | 7655.5  | 7441.4  |
| 10°   | 7058.8  | 7084.0  | 7109.2  | 7200.5  | 7335.9  | 7465.0  | 7572.0  | 7586.2  | 7594.1  | 7483.9  | 7222.5  |
| 12.5° | 6526.7  | 6578.7  | 6632.2  | 6767.6  | 6948.6  | 7151.7  | 7340.6  | 7370.5  | 7424.1  | 7340.6  | 7033.6  |
| 15°   | 6074.9  | 6128.5  | 6205.6  | 6326.8  | 6545.6  | 6838.4  | 7104.5  | 7153.3  | 7258.8  | 7216.3  | 6857.3  |
| 17.5° | 5761.7  | 5780.6  | 5834.1  | 5972.6  | 6208.7  | 6517.3  | 6873.1  | 6970.7  | 7139.1  | 7128.1  | 6706.2  |
| 20°   | 5514.5  | 5538.1  | 5571.2  | 5656.2  | 5901.8  | 6227.6  | 6657.4  | 6783.3  | 7011.6  | 7049.4  | 6556.7  |
| 22.5° | 5410.6  | 5427.9  | 5423.2  | 5468.9  | 5635.7  | 5963.2  | 6438.6  | 6588.1  | 6898.3  | 6995.9  | 6418.1  |
| 25°   | 5416.9  | 5432.7  | 5409.0  | 5398.0  | 5497.2  | 5730.2  | 6210.3  | 6400.8  | 6807.0  | 6959.7  | 6292.2  |
| 27.5° | 5522.4  | 5533.4  | 5489.3  | 5445.2  | 5453.1  | 5585.4  | 6021.4  | 6232.4  | 6729.8  | 6975.4  | 6186.7  |
| 30°   | 5664.1  | 5684.5  | 5656.2  | 5602.7  | 5544.4  | 5550.7  | 5900.2  | 6108.0  | 6693.6  | 7030.5  | 6136.3  |
| 32.5° | 5846.7  | 5865.6  | 5853.0  | 5810.5  | 5734.9  | 5651.5  | 5870.3  | 6062.3  | 6696.8  | 7142.3  | 6125.3  |
| 35°   | 6038.7  | 6076.5  | 6097.0  | 6093.8  | 6032.4  | 5887.6  | 5988.4  | 6147.4  | 6772.3  | 7329.6  | 6189.9  |
| 37.5° | 6256.0  | 6287.5  | 6375.6  | 6432.3  | 6375.6  | 6207.2  | 6254.4  | 6364.6  | 6939.2  | 7600.4  | 6331.5  |
| 40°   | 6466.9  | 6514.1  | 6643.2  | 6819.5  | 6797.5  | 6649.5  | 6660.6  | 6733.0  | 7233.6  | 8003.4  | 6608.6  |
| 42.5° | 6687.3  | 6744.0  | 6969.1  | 7230.4  | 7282.4  | 7167.5  | 7197.4  | 7261.9  | 7652.3  | 8562.2  | 7084.0  |
| 45°   | 6970.7  | 7038.4  | 7315.4  | 7641.3  | 7845.9  | 7775.1  | 7860.1  | 7891.6  | 8212.7  | 9289.5  | 7710.6  |
| 47.5° | 7335.9  | 7414.6  | 7756.2  | 8162.4  | 8452.0  | 8516.6  | 8664.5  | 8645.6  | 8907.0  | 10150.6 | 8522.9  |
| 50°   | 7951.4  | 7995.5  | 8318.2  | 8732.2  | 9130.5  | 9421.7  | 9582.3  | 9612.2  | 9768.1  | 10988.1 | 9431.2  |
| 52.5° | 8683.4  | 8722.8  | 8955.8  | 9317.8  | 9816.9  | 10434.0 | 10830.7 | 10733.1 | 10770.9 | 12008.2 | 10493.8 |
| 55°   | 9506.8  | 9572.9  | 9720.8  | 9961.7  | 10608.7 | 11517.0 | 12313.6 | 12337.2 | 11918.5 | 12984.2 | 11512.3 |
| 57.5° | 10144.3 | 10256.1 | 10509.5 | 10852.7 | 11672.9 | 12721.3 | 13791.8 | 13807.5 | 13272.3 | 14026.4 | 12636.3 |
| 60°   | 9823.2  | 9955.4  | 10534.7 | 11370.6 | 13069.2 | 14822.9 | 15558.1 | 15468.3 | 14589.9 | 15213.3 | 14007.5 |
| 62.5° | 8437.9  | 8461.5  | 9303.7  | 10610.3 | 13499.0 | 17634.5 | 18187.0 | 17807.6 | 16348.3 | 16718.3 | 15400.7 |
| 65°   | 5461.0  | 5615.3  | 6282.7  | 8113.6  | 12086.9 | 19194.5 | 22793.2 | 21916.4 | 18813.6 | 18426.3 | 16567.2 |
| 67.5° | 3447.6  | 3408.2  | 3685.3  | 4632.9  | 8313.5  | 17820.2 | 26724.1 | 26585.5 | 22037.6 | 19504.7 | 16288.5 |
| 69°   | 2858.8  | 2902.9  | 2997.3  | 3551.5  | 5720.7  | 15214.9 | 27188.5 | 28145.6 | 23600.8 | 19419.7 | 15276.3 |
| 70°   | 2592.8  | 2613.2  | 2712.4  | 3148.5  | 4414.1  | 12743.4 | 26426.5 | 28103.1 | 24214.7 | 19063.9 | 14542.7 |
| 72.5° | 2057.5  | 2055.9  | 2226.0  | 2619.5  | 3299.6  | 7274.5  | 21699.1 | 24398.9 | 23528.4 | 17407.8 | 12016.1 |
| 75°   | 1563.2  | 1588.4  | 1775.7  | 2216.5  | 3039.8  | 3974.9  | 15142.5 | 18790.0 | 18791.5 | 13749.3 | 7498.0  |
| 77.5° | 1127.1  | 1142.9  | 1361.7  | 1860.7  | 2863.5  | 3222.4  | 10086.1 | 13476.9 | 12669.4 | 6300.1  | 2356.6  |
| 80°   | 738.3   | 747.8   | 914.6   | 1473.5  | 2581.7  | 3039.8  | 5980.5  | 8248.9  | 5975.8  | 1671.8  | 779.2   |
| 82.5° | 404.6   | 451.8   | 558.9   | 954.0   | 2071.7  | 2808.4  | 3634.9  | 4174.8  | 2241.7  | 744.6   | 406.2   |
| 85°   | 203.1   | 215.7   | 314.8   | 557.3   | 1353.8  | 2323.6  | 2531.4  | 2394.4  | 1157.1  | 369.9   | 210.9   |
| 87.5° | 59.8    | 75.6    | 130.7   | 215.7   | 549.4   | 1210.6  | 1408.9  | 1264.1  | 445.5   | 133.8   | 44.1    |
| 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°    | 7800.3  | 7800.3 | 7800.3 | 7800.3 | 7800.3 | 7800.3 | 7800.3 | 7800.3 | 7800.3 | 7800.3 | 7800.3 |
| 2.5°  | 7735.7  | 7707.4 | 7581.5 | 7468.1 | 7364.2 | 7254.0 | 7161.2 | 7079.3 | 7087.2 | 7088.7 | 7005.3 |
| 5°    | 7559.4  | 7494.9 | 7255.6 | 7032.1 | 6843.2 | 6603.9 | 6399.2 | 6267.0 | 6200.9 | 6112.7 | 6144.2 |
| 7.5°  | 7320.2  | 7195.8 | 6863.6 | 6492.1 | 6144.2 | 5834.1 | 5497.2 | 5265.8 | 5117.8 | 4974.6 | 4993.4 |
| 10°   | 7073.0  | 6873.1 | 6389.8 | 5898.6 | 5448.4 | 4952.5 | 4522.8 | 4154.4 | 3880.5 | 3778.1 | 3710.5 |
| 12.5° | 6819.5  | 6556.7 | 5942.7 | 5289.4 | 4667.6 | 4074.1 | 3464.9 | 3069.7 | 2767.5 | 2606.9 | 2627.4 |
| 15°   | 6588.1  | 6268.6 | 5476.7 | 4680.2 | 3872.6 | 3165.8 | 2558.1 | 2181.9 | 1970.9 | 1926.9 | 1952.0 |
| 17.5° | 6374.0  | 5955.3 | 5040.7 | 4088.3 | 3145.3 | 2373.9 | 1922.1 | 1709.6 | 1624.6 | 1601.0 | 1599.4 |
| 20°   | 6153.6  | 5689.3 | 4551.1 | 3455.4 | 2451.1 | 1840.3 | 1577.4 | 1478.2 | 1462.5 | 1471.9 | 1473.5 |
| 22.5° | 5930.1  | 5360.2 | 4047.3 | 2827.3 | 1952.0 | 1505.0 | 1379.0 | 1352.3 | 1364.9 | 1386.9 | 1390.0 |
| 25°   | 5723.9  | 5070.6 | 3562.5 | 2276.3 | 1558.5 | 1322.3 | 1261.0 | 1261.0 | 1289.3 | 1322.3 | 1323.9 |
| 27.5° | 5553.9  | 4790.4 | 3079.2 | 1807.2 | 1305.0 | 1190.1 | 1169.6 | 1180.7 | 1220.0 | 1245.2 | 1246.8 |
| 30°   | 5413.8  | 4529.0 | 2622.7 | 1448.3 | 1147.6 | 1084.6 | 1079.9 | 1098.8 | 1127.1 | 1150.8 | 1152.3 |
| 32.5° | 5308.3  | 4299.2 | 2196.0 | 1216.9 | 1039.0 | 1004.4 | 1002.8 | 1017.0 | 1032.7 | 1039.0 | 1045.3 |
| 35°   | 5267.4  | 4108.7 | 1805.6 | 1070.5 | 966.6  | 944.5  | 944.5  | 943.0  | 949.3  | 952.4  | 955.6  |
| 37.5° | 5300.4  | 3962.3 | 1503.4 | 976.0  | 913.1  | 897.3  | 887.9  | 878.4  | 875.3  | 875.3  | 876.8  |
| 40°   | 5440.5  | 3885.2 | 1278.3 | 914.6  | 875.3  | 851.7  | 834.3  | 823.3  | 812.3  | 815.4  | 818.6  |
| 42.5° | 5738.1  | 3899.4 | 1125.6 | 873.7  | 842.2  | 809.2  | 784.0  | 771.4  | 763.5  | 772.9  | 771.4  |
| 45°   | 6211.9  | 4041.0 | 1028.0 | 845.4  | 809.2  | 766.6  | 743.0  | 730.4  | 730.4  | 744.6  | 749.3  |
| 47.5° | 6874.6  | 4311.8 | 976.0  | 823.3  | 784.0  | 733.6  | 710.0  | 700.5  | 703.7  | 727.3  | 728.9  |
| 50°   | 7683.8  | 4782.5 | 966.6  | 812.3  | 771.4  | 710.0  | 683.2  | 673.8  | 681.6  | 706.8  | 710.0  |
| 52.5° | 8576.4  | 5388.6 | 1012.2 | 813.9  | 760.4  | 695.8  | 661.2  | 647.0  | 654.9  | 675.3  | 681.6  |
| 55°   | 9634.3  | 6147.4 | 1130.3 | 820.2  | 744.6  | 687.9  | 645.4  | 613.9  | 623.4  | 637.6  | 639.1  |
| 57.5° | 10714.2 | 7104.5 | 1338.1 | 821.7  | 732.0  | 673.8  | 618.7  | 577.7  | 577.7  | 587.2  | 591.9  |
| 60°   | 12033.4 | 8146.6 | 1612.0 | 823.3  | 733.6  | 653.3  | 582.5  | 536.8  | 530.5  | 535.2  | 536.8  |
| 62.5° | 13343.1 | 9018.7 | 1657.7 | 818.6  | 749.3  | 632.8  | 543.1  | 495.9  | 484.9  | 483.3  | 480.1  |
| 65°   | 13920.9 | 8856.6 | 1358.6 | 796.6  | 766.6  | 620.2  | 511.6  | 456.5  | 437.6  | 431.3  | 431.3  |
| 67.5° | 12979.5 | 7491.7 | 1021.7 | 766.6  | 755.6  | 607.7  | 481.7  | 423.5  | 401.4  | 388.8  | 388.8  |
| 69°   | 12094.8 | 6663.7 | 917.8  | 746.2  | 727.3  | 587.2  | 462.8  | 406.2  | 379.4  | 365.2  | 360.5  |
| 70°   | 11411.6 | 6093.8 | 873.7  | 728.9  | 700.5  | 563.6  | 448.7  | 393.6  | 363.6  | 347.9  | 344.8  |
| 72.5° | 9106.9  | 4780.9 | 765.1  | 662.7  | 596.6  | 473.8  | 398.3  | 354.2  | 325.9  | 308.5  | 303.8  |
| 75°   | 5248.5  | 2591.2 | 634.4  | 576.2  | 480.1  | 368.4  | 336.9  | 308.5  | 286.5  | 270.8  | 266.0  |
| 77.5° | 1615.2  | 1001.2 | 459.7  | 455.0  | 352.6  | 284.9  | 269.2  | 258.2  | 242.4  | 225.1  | 222.0  |
| 80°   | 680.1   | 510.0  | 311.7  | 307.0  | 234.6  | 198.4  | 193.6  | 192.1  | 185.8  | 171.6  | 166.9  |
| 82.5° | 373.1   | 288.1  | 217.2  | 188.9  | 141.7  | 114.9  | 119.6  | 121.2  | 116.5  | 102.3  | 92.9   |
| 85°   | 182.6   | 157.4  | 105.5  | 85.0   | 64.5   | 40.9   | 39.4   | 47.2   | 44.1   | 31.5   | 34.6   |
| 87.5° | 36.2    | 44.1   | 28.3   | 12.6   | 6.3    | 0.0    | 0.0    | 0.0    | 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)