

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: P453470

Luminaire Tested: **GALN-SA4C-730-U-AFL-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453470  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4C-730-U-AFL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20752 lumens  
Efficiency: N/A  
Efficacy: 97.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

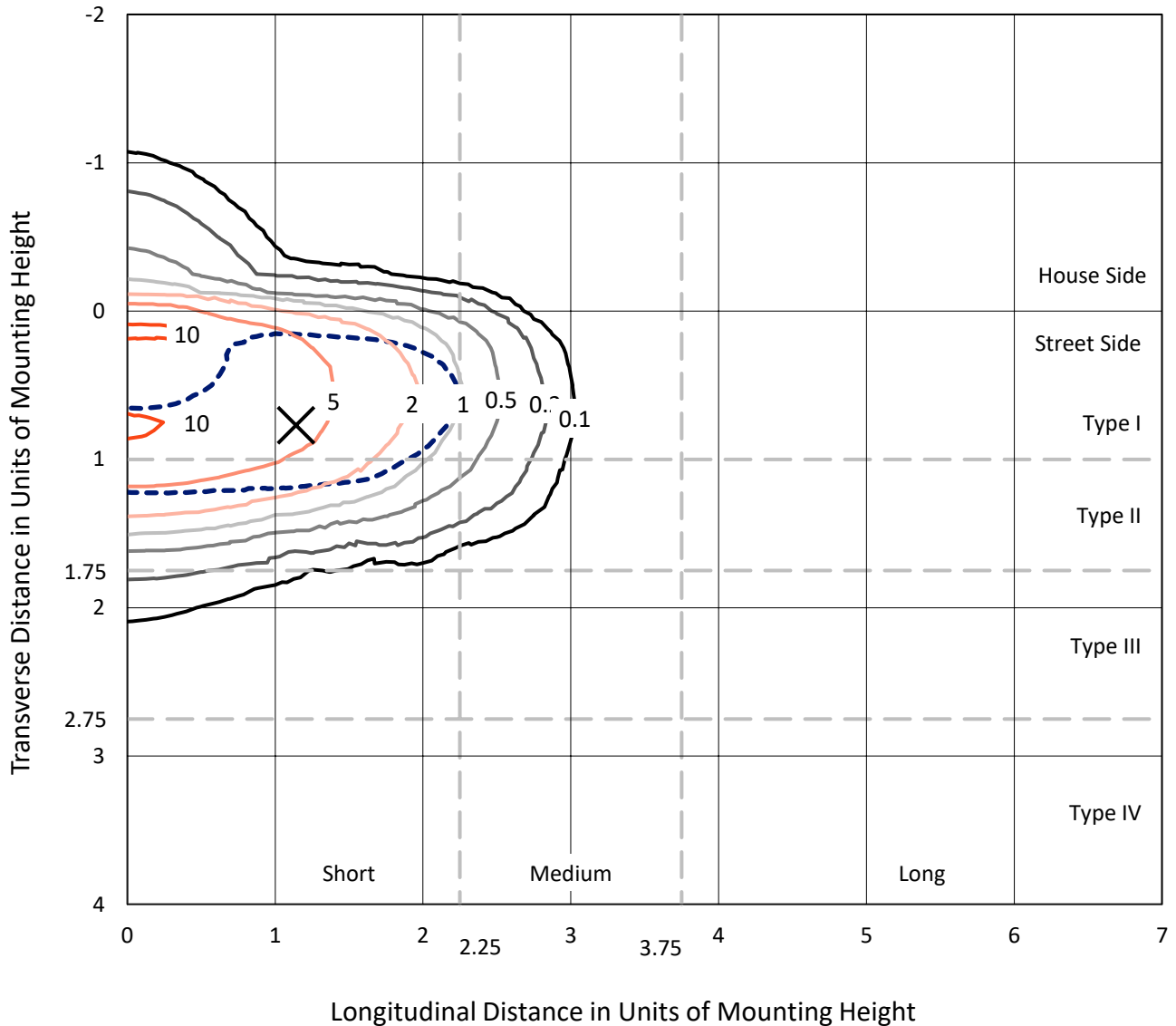
Input Watts (W): 213  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

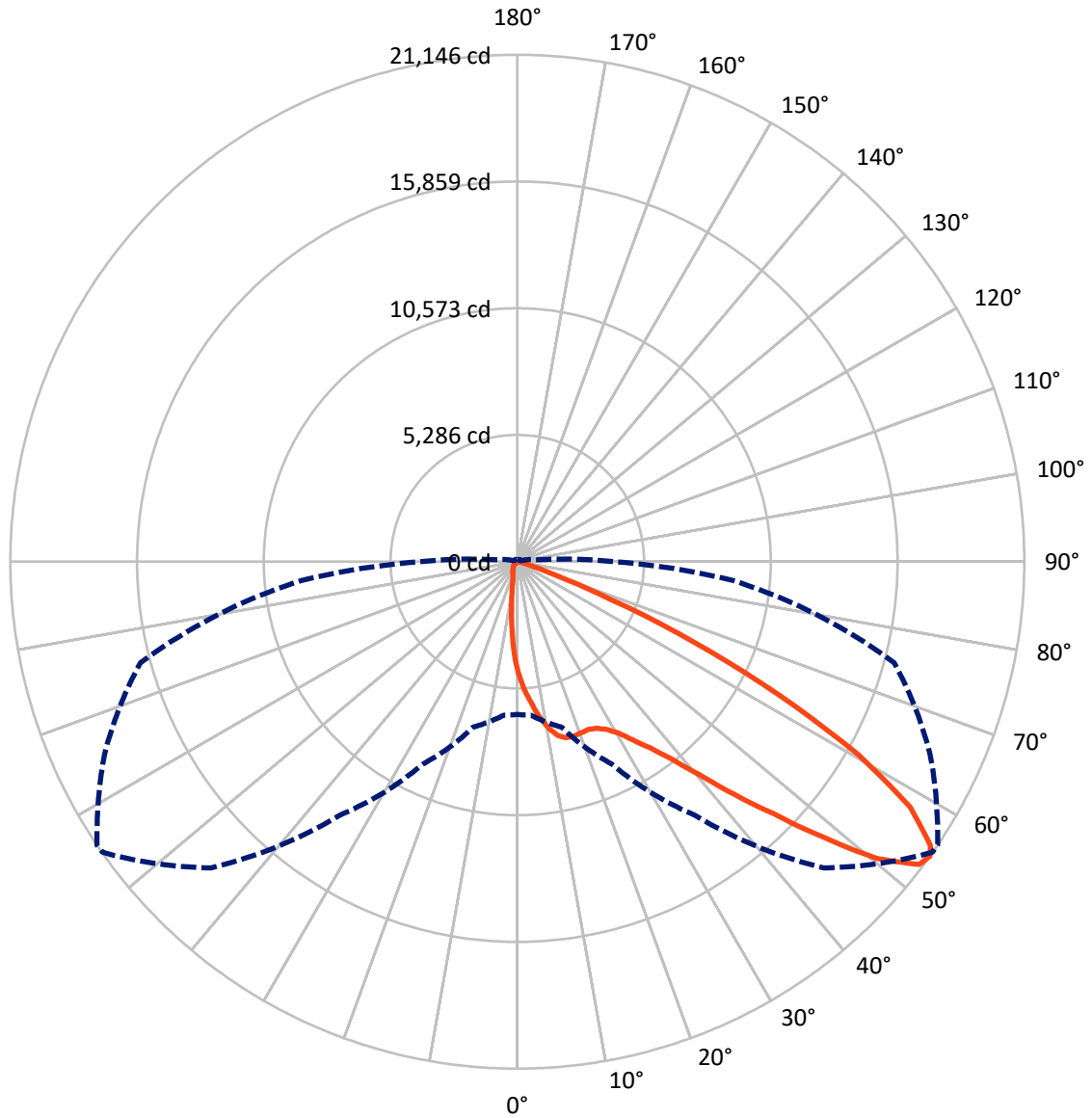
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.1 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral    - - - Horizontal Cone Through 54-Deg Vertical

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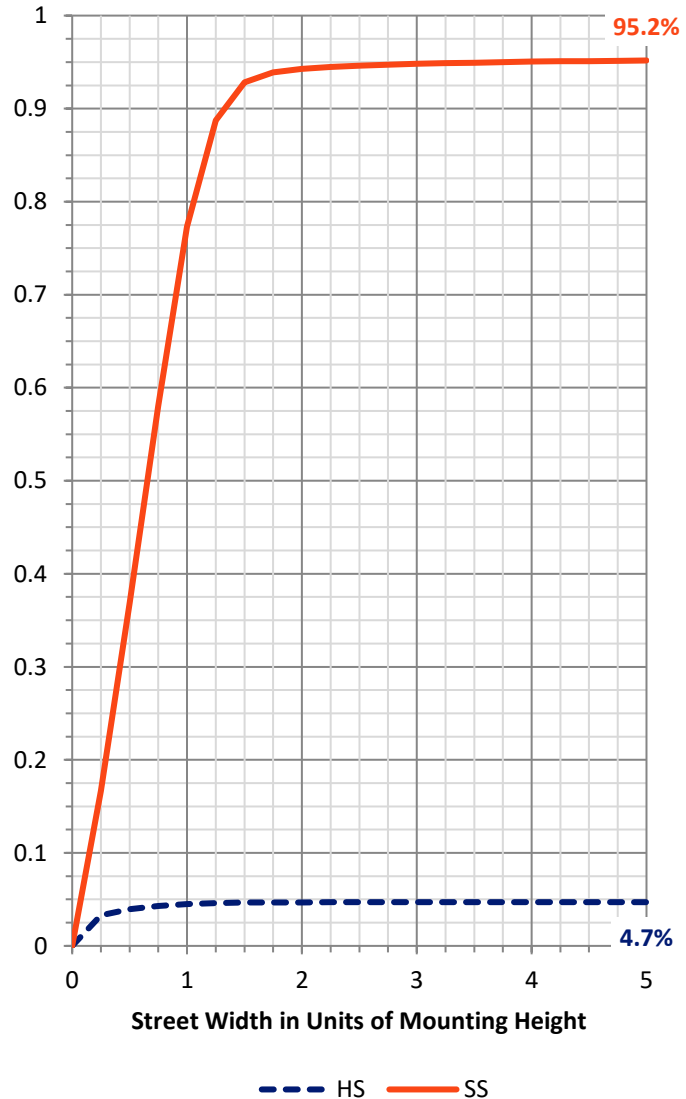
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 981.3    | 0.0    | 981.3   |
|                    | % Fixture | 4.7      | 0.0    | 4.7     |
| <b>Street Side</b> | Lumens    | 19770.7  | 0.0    | 19770.7 |
|                    | % Fixture | 95.3     | 0.0    | 95.3    |
| <b>Total</b>       | Lumens    | 20752.0  | 0.0    | 20752.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 407.4   | 2.0       |
| 10°-20°   | 1101.4  | 5.3       |
| 20°-30°   | 1907.5  | 9.2       |
| 30°-40°   | 3292.6  | 15.9      |
| 40°-50°   | 5604.1  | 27.0      |
| 50°-60°   | 5546.0  | 26.7      |
| 60°-70°   | 2531.3  | 12.2      |
| 70°-80°   | 325.1   | 1.6       |
| 80°-90°   | 36.6    | 0.2       |
| 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°    | 20752.0 | 100.0     |
| 0°-180°   | 20752.0 | 100.0     |

**Coefficient of Utilization**



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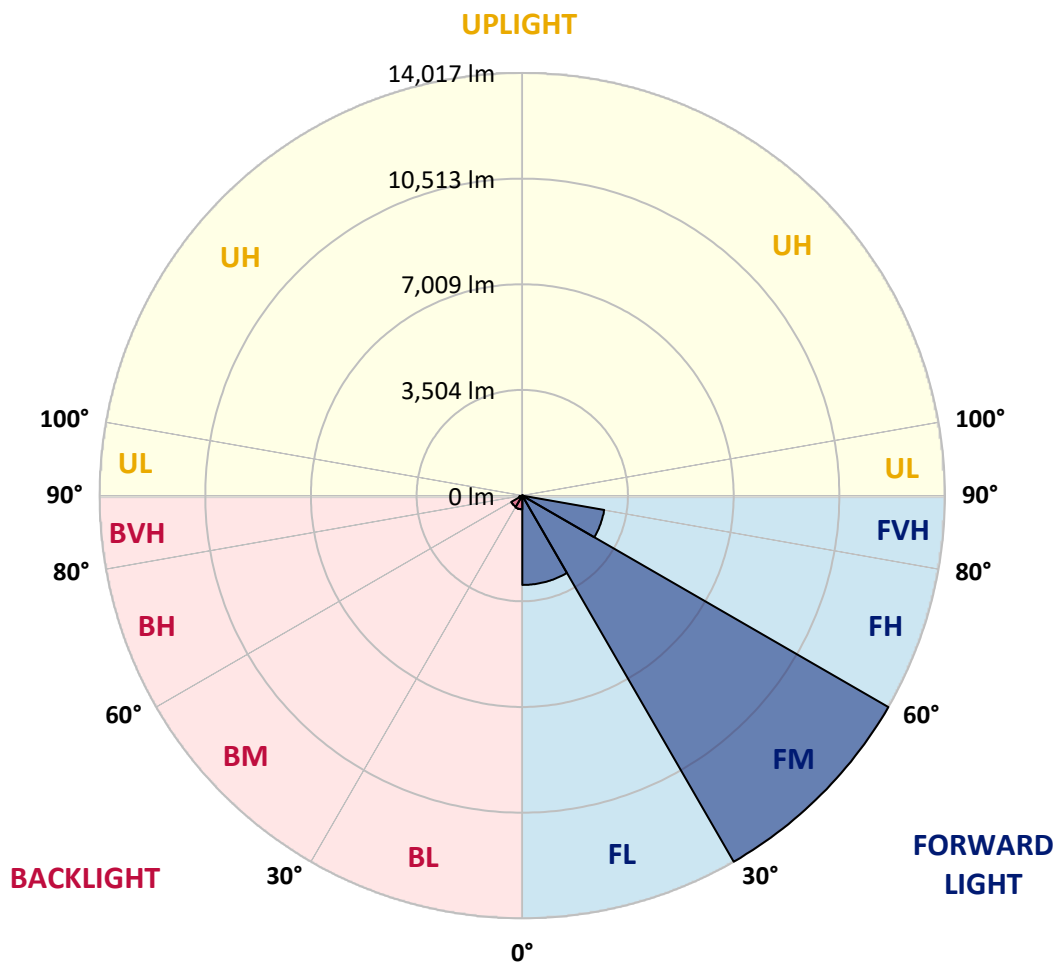
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2962.4  | 14.3      |                         |      |         |
| FM   | (30°-60°)   | 14017.4 | 67.5      |                         |      |         |
| FH   | (60°-80°)   | 2758.1  | 13.3      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 32.7    | 0.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 453.8   | 2.2       | B1/500                  |      |         |
| BM   | (30°-60°)   | 425.3   | 2.0       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 98.3    | 0.5       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 3.9     | 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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 56°     | 65°     | 75°     | 85°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 4610.5  | 4610.5  | 4610.5  | 4610.5  | 4610.5  | 4610.5  | 4610.5  | 4610.5  | 4610.5  | 4610.5  | 4610.5 |
| 2.5°  | 5859.4  | 5818.8  | 5762.8  | 5719.4  | 5617.2  | 5470.2  | 5314.7  | 5314.7  | 5164.9  | 4956.3  | 4743.5 |
| 5°    | 6758.2  | 6731.6  | 6677.0  | 6565.0  | 6450.2  | 6244.4  | 5932.2  | 5877.6  | 5610.2  | 5232.1  | 4834.5 |
| 7.5°  | 7123.7  | 7136.3  | 7139.1  | 7109.7  | 7055.1  | 6852.0  | 6542.6  | 6504.8  | 6077.8  | 5571.0  | 4953.5 |
| 10°   | 6773.6  | 6835.2  | 6895.4  | 7017.3  | 7189.5  | 7238.5  | 7063.5  | 7024.3  | 6604.2  | 5914.0  | 5082.3 |
| 12.5° | 6252.8  | 6286.4  | 6320.0  | 6511.8  | 6857.6  | 7253.9  | 7437.3  | 7435.9  | 7080.3  | 6255.6  | 5246.1 |
| 15°   | 6010.6  | 6040.0  | 6042.8  | 6128.2  | 6427.8  | 7004.7  | 7596.9  | 7617.9  | 7545.1  | 6677.0  | 5422.6 |
| 17.5° | 6061.0  | 6084.8  | 6065.2  | 6086.2  | 6243.0  | 6730.2  | 7578.7  | 7648.7  | 7921.7  | 7081.7  | 5582.2 |
| 20°   | 6390.0  | 6436.2  | 6360.6  | 6301.8  | 6349.4  | 6657.4  | 7517.1  | 7615.1  | 8187.7  | 7476.5  | 5727.8 |
| 22.5° | 6980.9  | 7006.1  | 6910.8  | 6749.8  | 6665.8  | 6810.0  | 7500.3  | 7596.9  | 8414.5  | 7799.9  | 5811.8 |
| 25°   | 7637.5  | 7629.1  | 7524.1  | 7343.5  | 7167.1  | 7118.1  | 7610.9  | 7697.7  | 8602.2  | 8091.1  | 5837.0 |
| 27.5° | 8294.1  | 8319.3  | 8142.9  | 7918.9  | 7707.5  | 7580.1  | 7858.7  | 7923.1  | 8813.6  | 8422.9  | 5867.8 |
| 30°   | 9057.2  | 9016.6  | 8843.0  | 8586.8  | 8344.5  | 8166.7  | 8257.7  | 8275.9  | 9104.8  | 8862.6  | 5949.0 |
| 32.5° | 10049.8 | 9937.8  | 9743.2  | 9295.2  | 9121.6  | 8820.6  | 8843.0  | 8865.4  | 9459.0  | 9298.0  | 6047.0 |
| 35°   | 11396.7 | 11391.1 | 11010.3 | 10406.9 | 9984.0  | 9610.2  | 9512.2  | 9530.4  | 9995.2  | 9944.8  | 6264.0 |
| 37.5° | 13018.0 | 13040.4 | 12606.4 | 11998.8 | 11220.3 | 10626.7 | 10425.1 | 10427.9 | 10810.1 | 10838.1 | 6594.4 |
| 40°   | 14338.3 | 14397.1 | 14138.1 | 13727.9 | 12959.2 | 12031.0 | 11692.2 | 11661.4 | 11955.4 | 11920.4 | 7066.3 |
| 42.5° | 14906.8 | 14961.4 | 15058.0 | 15200.8 | 14778.0 | 14012.1 | 13212.7 | 13254.7 | 13344.3 | 13099.2 | 7595.5 |
| 45°   | 14628.1 | 14715.0 | 15094.4 | 15976.4 | 16374.1 | 16116.4 | 15163.0 | 15016.0 | 14636.5 | 14380.3 | 8127.5 |
| 47.5° | 13467.5 | 13678.9 | 14313.1 | 15781.8 | 17173.5 | 18044.4 | 17363.9 | 17169.3 | 15930.2 | 15315.6 | 8466.3 |
| 50°   | 11559.1 | 11571.7 | 12455.2 | 14332.7 | 16759.1 | 19261.0 | 19611.1 | 19465.5 | 17135.7 | 15840.6 | 8637.2 |
| 52.5° | 8379.5  | 8655.4  | 9464.6  | 11639.0 | 14964.2 | 19076.2 | 21043.4 | 20983.2 | 18379.0 | 16109.4 | 8883.6 |
| 54°   | 6370.4  | 6423.6  | 7143.3  | 9300.8  | 12901.8 | 18061.2 | 21131.6 | 21145.6 | 18996.4 | 16271.9 | 9029.2 |
| 55°   | 5222.3  | 5094.9  | 5851.0  | 7923.1  | 11494.7 | 17163.7 | 20843.1 | 20910.4 | 19273.6 | 16355.9 | 9137.0 |
| 57.5° | 2475.4  | 2476.8  | 3055.0  | 4179.3  | 7199.3  | 13327.5 | 19080.4 | 19318.4 | 19304.4 | 16500.1 | 9468.8 |
| 60°   | 1253.1  | 1261.5  | 1388.9  | 1929.3  | 3556.2  | 8859.8  | 15776.2 | 16343.3 | 17819.0 | 16521.1 | 9578.0 |
| 62.5° | 876.5   | 866.7   | 845.7   | 928.3   | 1496.7  | 4502.7  | 11745.4 | 12238.2 | 15139.2 | 15721.6 | 9230.8 |
| 65°   | 750.4   | 729.4   | 670.6   | 658.0   | 756.0   | 1793.5  | 7315.5  | 8119.1  | 11559.1 | 13613.1 | 8242.3 |
| 67.5° | 641.2   | 632.8   | 579.6   | 547.4   | 534.8   | 781.3   | 3774.6  | 4197.5  | 7900.7  | 9785.2  | 6243.0 |
| 70°   | 544.6   | 540.4   | 508.2   | 467.6   | 432.6   | 467.6   | 1400.1  | 1734.7  | 4403.3  | 5268.5  | 2945.8 |
| 72.5° | 442.4   | 446.6   | 452.2   | 400.4   | 364.0   | 331.8   | 597.8   | 695.8   | 1842.5  | 1883.1  | 1030.5 |
| 75°   | 387.8   | 383.6   | 383.6   | 348.6   | 303.8   | 246.4   | 329.0   | 354.2   | 564.2   | 523.6   | 239.4  |
| 77.5° | 273.0   | 263.2   | 308.0   | 287.0   | 253.4   | 175.0   | 187.6   | 198.8   | 233.8   | 200.2   | 112.0  |
| 80°   | 189.0   | 189.0   | 197.4   | 257.6   | 228.2   | 127.4   | 114.8   | 123.2   | 138.6   | 119.0   | 64.4   |
| 82.5° | 106.4   | 109.2   | 128.8   | 137.2   | 133.0   | 85.4    | 75.6    | 77.0    | 92.4    | 81.2    | 40.6   |
| 85°   | 12.6    | 21.0    | 74.2    | 72.8    | 54.6    | 37.8    | 42.0    | 43.4    | 57.4    | 50.4    | 23.8   |
| 87.5° | 1.4     | 2.8     | 15.4    | 19.6    | 14.0    | 15.4    | 15.4    | 15.4    | 19.6    | 22.4    | 16.8   |
| 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°    | 4610.5 | 4610.5 | 4610.5 | 4610.5 | 4610.5 | 4610.5 | 4610.5 | 4610.5 | 4610.5 | 4610.5 | 4610.5 |
| 2.5°  | 4628.7 | 4522.3 | 4268.9 | 3974.9 | 3787.2 | 3482.0 | 3224.4 | 3038.2 | 2992.0 | 2902.4 | 2929.0 |
| 5°    | 4623.1 | 4401.9 | 3885.3 | 3339.2 | 2756.8 | 2322.8 | 1999.3 | 1744.5 | 1632.5 | 1558.3 | 1506.5 |
| 7.5°  | 4625.9 | 4280.1 | 3451.2 | 2581.8 | 1885.9 | 1460.3 | 1160.7 | 1005.3 | 901.7  | 858.3  | 863.9  |
| 10°   | 4634.3 | 4142.9 | 2947.2 | 1912.5 | 1272.7 | 943.7  | 760.2  | 686.0  | 651.0  | 645.4  | 644.0  |
| 12.5° | 4653.9 | 3993.1 | 2465.6 | 1419.7 | 890.5  | 686.0  | 616.0  | 590.8  | 579.6  | 579.6  | 575.4  |
| 15°   | 4674.9 | 3827.8 | 2065.1 | 1055.7 | 686.0  | 589.4  | 557.2  | 544.6  | 537.6  | 537.6  | 536.2  |
| 17.5° | 4674.9 | 3637.4 | 1691.3 | 819.1  | 590.8  | 541.8  | 516.6  | 499.8  | 494.2  | 494.2  | 492.8  |
| 20°   | 4645.5 | 3416.2 | 1359.5 | 659.4  | 536.2  | 497.0  | 471.8  | 453.6  | 446.6  | 443.8  | 442.4  |
| 22.5° | 4543.3 | 3120.8 | 1082.3 | 567.0  | 491.4  | 457.8  | 425.6  | 404.6  | 399.0  | 396.2  | 397.6  |
| 25°   | 4361.3 | 2787.6 | 856.9  | 498.4  | 450.8  | 410.2  | 382.2  | 366.8  | 361.2  | 361.2  | 362.6  |
| 27.5° | 4173.7 | 2439.0 | 679.0  | 446.6  | 401.8  | 365.4  | 343.0  | 333.2  | 331.8  | 336.0  | 337.4  |
| 30°   | 4000.1 | 2088.9 | 550.2  | 404.6  | 358.4  | 327.6  | 312.2  | 309.4  | 309.4  | 310.8  | 312.2  |
| 32.5° | 3806.8 | 1782.3 | 460.6  | 368.2  | 323.4  | 296.8  | 288.4  | 288.4  | 291.2  | 291.2  | 294.0  |
| 35°   | 3685.0 | 1519.1 | 404.6  | 333.2  | 296.8  | 274.4  | 268.8  | 270.2  | 274.4  | 280.0  | 282.8  |
| 37.5° | 3619.2 | 1309.1 | 368.2  | 305.2  | 271.6  | 256.2  | 250.6  | 253.4  | 263.2  | 273.0  | 274.4  |
| 40°   | 3624.8 | 1150.9 | 338.8  | 281.4  | 252.0  | 235.2  | 231.0  | 239.4  | 249.2  | 259.0  | 260.4  |
| 42.5° | 3686.4 | 1033.3 | 310.8  | 253.4  | 235.2  | 211.4  | 210.0  | 218.4  | 222.6  | 232.4  | 233.8  |
| 45°   | 3759.2 | 947.9  | 281.4  | 224.0  | 204.4  | 183.4  | 184.8  | 191.8  | 197.4  | 212.8  | 215.6  |
| 47.5° | 3781.6 | 889.1  | 247.8  | 190.4  | 168.0  | 161.0  | 162.4  | 166.6  | 177.8  | 191.8  | 193.2  |
| 50°   | 3806.8 | 852.7  | 215.6  | 161.0  | 142.8  | 141.4  | 142.8  | 145.6  | 152.6  | 158.2  | 156.8  |
| 52.5° | 3914.7 | 851.3  | 189.0  | 140.0  | 121.8  | 124.6  | 126.0  | 124.6  | 119.0  | 110.6  | 107.8  |
| 54°   | 4015.5 | 855.5  | 176.4  | 130.2  | 112.0  | 116.2  | 114.8  | 107.8  | 93.8   | 85.4   | 81.2   |
| 55°   | 4096.7 | 859.7  | 169.4  | 123.2  | 106.4  | 107.8  | 109.2  | 95.2   | 77.0   | 68.6   | 65.8   |
| 57.5° | 4256.3 | 849.9  | 152.6  | 107.8  | 93.8   | 88.2   | 86.8   | 63.0   | 42.0   | 36.4   | 33.6   |
| 60°   | 4176.5 | 767.2  | 138.6  | 92.4   | 79.8   | 71.4   | 58.8   | 35.0   | 21.0   | 15.4   | 15.4   |
| 62.5° | 3862.8 | 651.0  | 123.2  | 75.6   | 65.8   | 54.6   | 30.8   | 19.6   | 9.8    | 5.6    | 4.2    |
| 65°   | 3455.4 | 547.4  | 110.6  | 60.2   | 51.8   | 35.0   | 16.8   | 12.6   | 4.2    | 0.0    | 0.0    |
| 67.5° | 2569.2 | 406.0  | 93.8   | 47.6   | 39.2   | 22.4   | 11.2   | 7.0    | 1.4    | 0.0    | 0.0    |
| 70°   | 1190.1 | 247.8  | 79.8   | 36.4   | 28.0   | 16.8   | 8.4    | 4.2    | 0.0    | 0.0    | 0.0    |
| 72.5° | 341.6  | 155.4  | 65.8   | 26.6   | 19.6   | 14.0   | 7.0    | 2.8    | 1.4    | 0.0    | 0.0    |
| 75°   | 119.0  | 124.6  | 49.0   | 19.6   | 15.4   | 9.8    | 5.6    | 2.8    | 1.4    | 0.0    | 0.0    |
| 77.5° | 71.4   | 100.8  | 30.8   | 16.8   | 12.6   | 8.4    | 5.6    | 2.8    | 1.4    | 1.4    | 0.0    |
| 80°   | 40.6   | 67.2   | 19.6   | 14.0   | 11.2   | 7.0    | 4.2    | 2.8    | 1.4    | 1.4    | 0.0    |
| 82.5° | 22.4   | 32.2   | 15.4   | 12.6   | 9.8    | 7.0    | 4.2    | 2.8    | 1.4    | 1.4    | 1.4    |
| 85°   | 18.2   | 16.8   | 12.6   | 11.2   | 8.4    | 5.6    | 4.2    | 1.4    | 0.0    | 0.0    | 0.0    |
| 87.5° | 14.0   | 11.2   | 11.2   | 11.2   | 8.4    | 5.6    | 4.2    | 1.4    | 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)