

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: P194558

Luminaire Tested: **GLEON-AF-10-LED-E1-SL4-7060-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194558  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-10-LED-E1-SL4-7060-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 47818 lumens  
Efficiency: N/A  
Efficacy: 85.7 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5

Input Watts (W): 558  
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: 25 FT

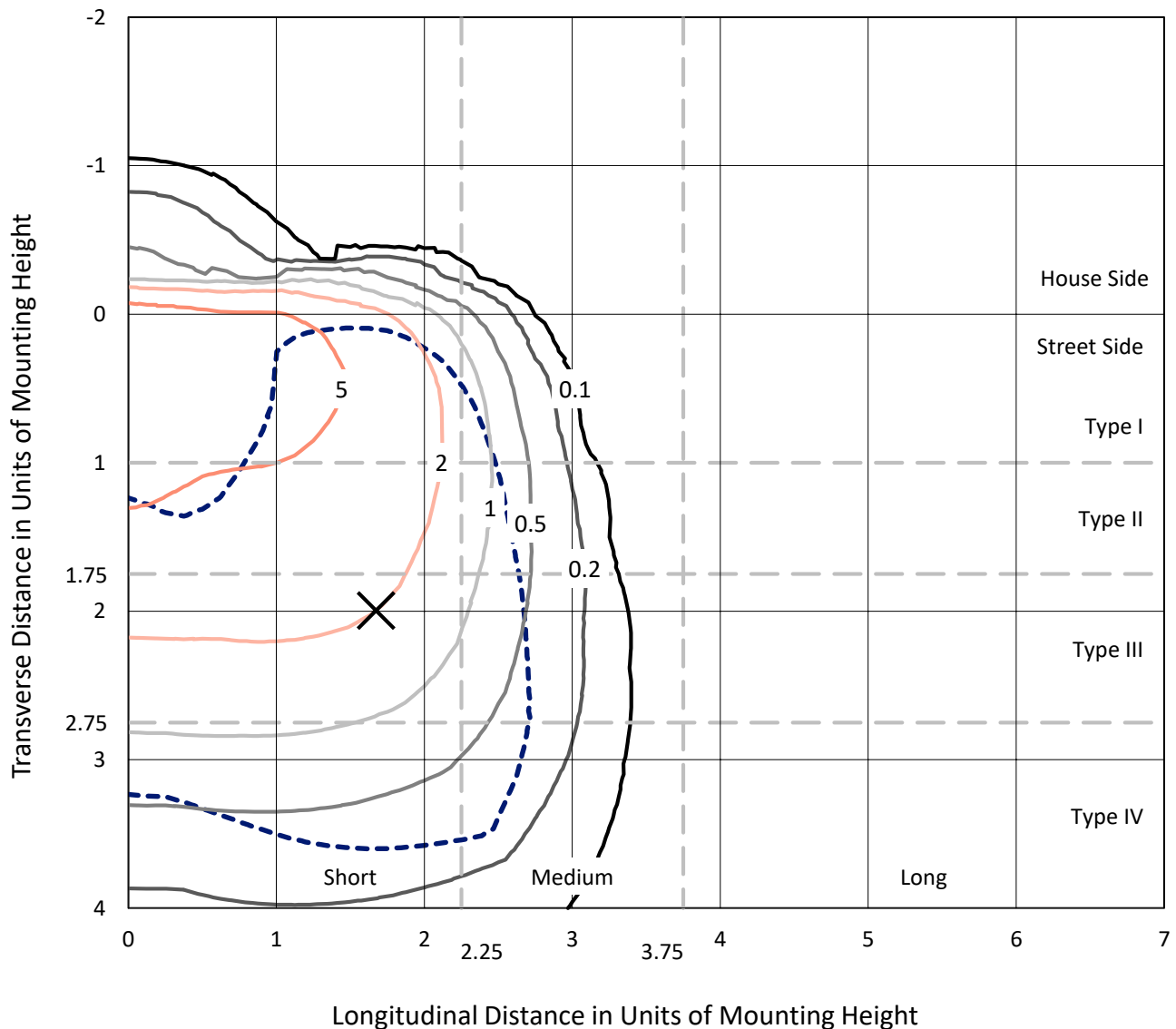


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

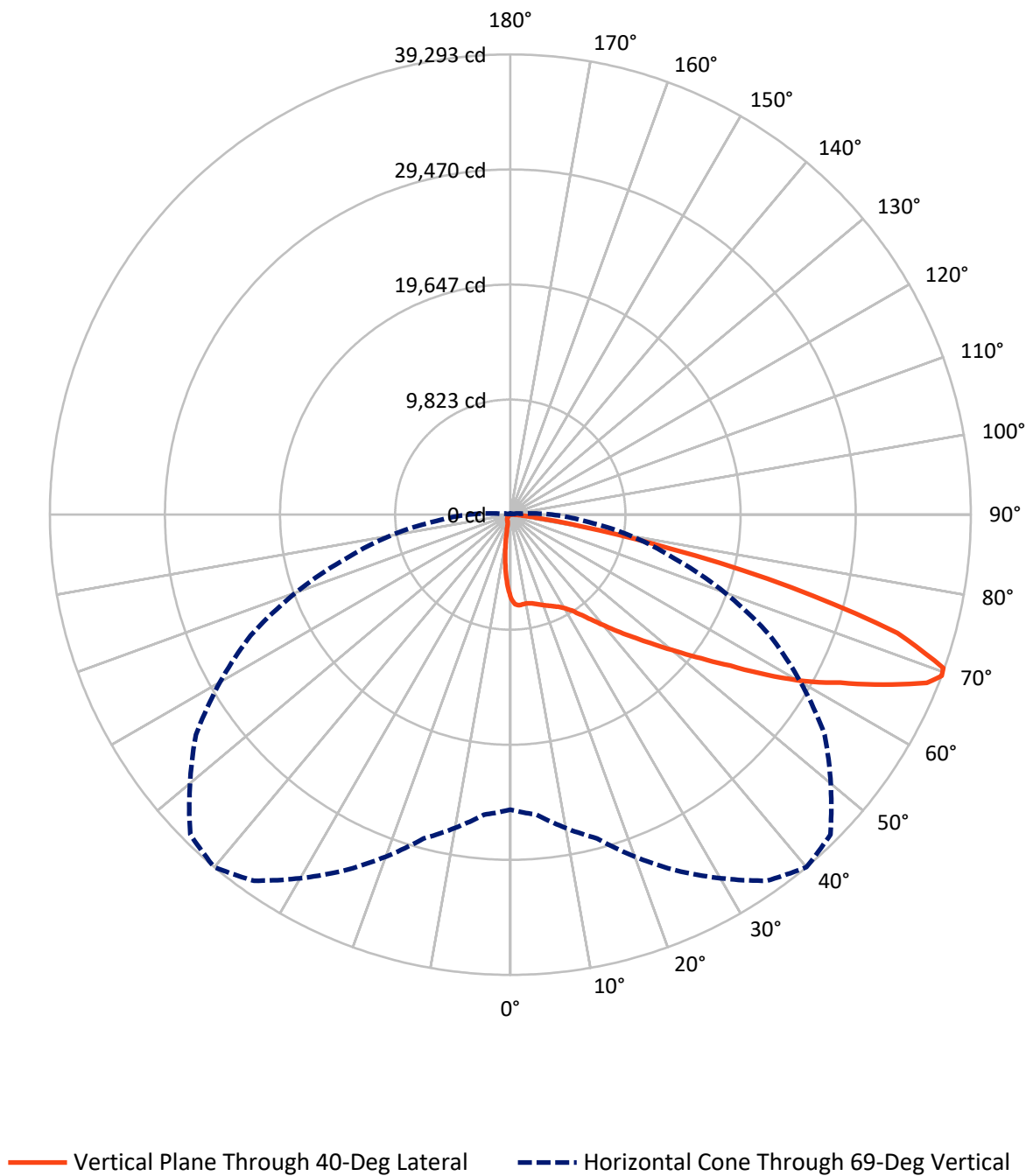


Based on 30 foot mounting height. Maximum calculated value = 8.7 fc  
 Type IV - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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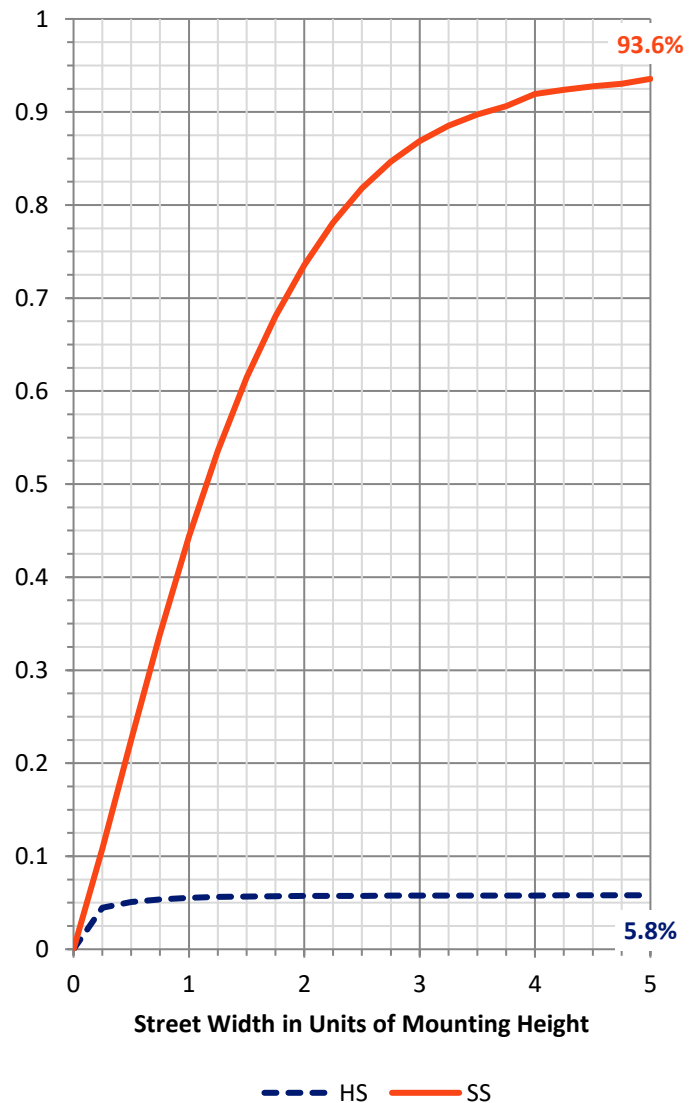
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2797.6   | 0.0    | 2797.6  |
|                    | % Fixture | 5.9      | 0.0    | 5.9     |
| <b>Street Side</b> | Lumens    | 45020.4  | 0.0    | 45020.4 |
|                    | % Fixture | 94.1     | 0.0    | 94.1    |
| <b>Total</b>       | Lumens    | 47818.0  | 0.0    | 47818.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 579.2   | 1.2       |
| 10°-20°   | 1424.5  | 3.0       |
| 20°-30°   | 2399.4  | 5.0       |
| 30°-40°   | 3927.8  | 8.2       |
| 40°-50°   | 6800.9  | 14.2      |
| 50°-60°   | 10712.1 | 22.4      |
| 60°-70°   | 13989.5 | 29.3      |
| 70°-80°   | 7205.2  | 15.1      |
| 80°-90°   | 779.4   | 1.6       |
| 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°    | 47818.0 | 100.0     |
| 0°-180°   | 47818.0 | 100.0     |

**Coefficient of Utilization**



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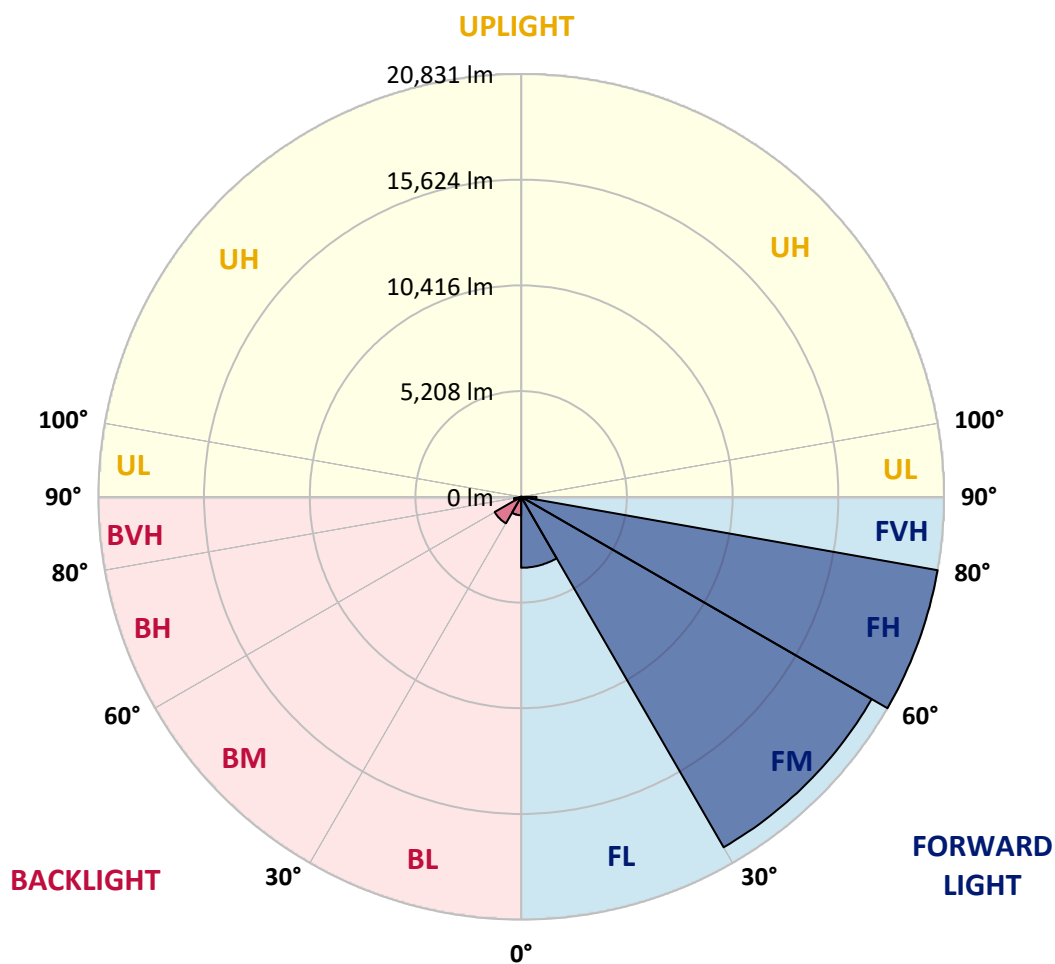
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|---------|-----------|-------------------------|------|--------|
|      |             |         |           | B                       | U    | G      |
| FL   | (0°-30°)    | 3496.9  | 7.3       |                         |      |        |
| FM   | (30°-60°)   | 19937.1 | 41.7      |                         |      |        |
| FH   | (60°-80°)   | 20831.5 | 43.6      |                         |      | G5     |
| FVH  | (80°-90°)   | 754.9   | 1.6       |                         |      | G5     |
| BL   | (0°-30°)    | 906.2   | 1.9       | B2/1000                 |      |        |
| BM   | (30°-60°)   | 1503.7  | 3.1       | B2/2500                 |      |        |
| BH   | (60°-80°)   | 363.3   | 0.8       | B1/500                  |      | G1/500 |
| BVH  | (80°-90°)   | 24.5    | 0.1       |                         |      | G1/100 |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |        |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |        |

**BUG Rating: B2-U0-G5**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 40°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7144.3  | 7144.3  | 7144.3  | 7144.3  | 7144.3  | 7144.3  | 7144.3  | 7144.3  | 7144.3  | 7144.3  | 7144.3  |
| 2.5°  | 7844.4  | 7801.8  | 7776.1  | 7742.0  | 7699.3  | 7662.3  | 7648.1  | 7542.7  | 7443.1  | 7306.5  | 7149.9  |
| 5°    | 7989.6  | 7975.4  | 7929.8  | 7884.3  | 7833.1  | 7776.1  | 7744.8  | 7619.6  | 7477.3  | 7278.0  | 7004.8  |
| 7.5°  | 8003.8  | 7986.8  | 7929.8  | 7867.2  | 7796.1  | 7727.8  | 7673.7  | 7548.4  | 7417.5  | 7215.4  | 6882.4  |
| 10°   | 7981.1  | 7961.1  | 7918.5  | 7850.1  | 7761.9  | 7696.4  | 7642.4  | 7522.8  | 7411.8  | 7229.6  | 6859.6  |
| 12.5° | 7955.5  | 7935.5  | 7915.6  | 7881.5  | 7804.6  | 7759.1  | 7713.5  | 7599.7  | 7500.0  | 7346.3  | 6942.2  |
| 15°   | 7981.1  | 7969.7  | 7992.5  | 7978.2  | 7935.5  | 7895.7  | 7850.1  | 7747.7  | 7656.6  | 7528.5  | 7093.0  |
| 17.5° | 8089.2  | 8089.2  | 8160.4  | 8168.9  | 8129.1  | 8072.2  | 8006.7  | 7904.2  | 7827.4  | 7719.2  | 7272.3  |
| 20°   | 8342.6  | 8334.0  | 8425.1  | 8442.2  | 8345.4  | 8257.2  | 8160.4  | 8035.2  | 7975.4  | 7907.1  | 7448.8  |
| 22.5° | 8778.0  | 8738.2  | 8792.3  | 8775.2  | 8584.5  | 8447.9  | 8328.3  | 8174.6  | 8143.3  | 8112.0  | 7645.2  |
| 25°   | 9344.5  | 9321.7  | 9358.7  | 9190.8  | 8854.9  | 8669.9  | 8527.6  | 8353.9  | 8353.9  | 8385.2  | 7867.2  |
| 27.5° | 10167.0 | 10081.7 | 9956.4  | 9660.4  | 9156.6  | 8920.4  | 8766.7  | 8581.6  | 8630.0  | 8746.7  | 8160.4  |
| 30°   | 11009.6 | 10915.6 | 10628.1 | 10172.7 | 9523.8  | 9276.1  | 9096.8  | 8903.3  | 9017.1  | 9230.6  | 8553.2  |
| 32.5° | 11840.7 | 11735.4 | 11328.3 | 10753.4 | 10050.3 | 9802.7  | 9629.1  | 9415.6  | 9606.3  | 9965.0  | 9128.1  |
| 35°   | 12646.2 | 12552.3 | 12082.6 | 11405.2 | 10750.5 | 10545.6 | 10386.2 | 10201.2 | 10446.0 | 10946.9 | 9939.3  |
| 37.5° | 13551.3 | 13448.8 | 12876.7 | 12142.4 | 11601.6 | 11453.6 | 11336.9 | 11151.9 | 11578.8 | 12313.2 | 11069.3 |
| 40°   | 14664.2 | 14490.6 | 13719.2 | 12987.7 | 12586.4 | 12515.3 | 12435.6 | 12409.9 | 13073.1 | 14089.3 | 12575.0 |
| 42.5° | 15939.4 | 15654.7 | 14601.6 | 13878.6 | 13668.0 | 13719.2 | 13699.3 | 13813.2 | 14943.2 | 16298.0 | 14408.1 |
| 45°   | 17214.5 | 16847.3 | 15583.6 | 14829.3 | 14857.8 | 15037.1 | 15148.1 | 15603.5 | 17285.7 | 18831.2 | 16380.6 |
| 47.5° | 18296.1 | 17934.6 | 16525.7 | 15856.8 | 16198.4 | 16551.3 | 16853.0 | 17715.5 | 19693.7 | 21324.6 | 17914.7 |
| 50°   | 19221.2 | 18879.6 | 17524.8 | 16986.8 | 17755.3 | 18324.6 | 18814.2 | 20092.2 | 22283.8 | 23223.1 | 18990.6 |
| 52.5° | 19978.3 | 19750.6 | 18560.8 | 18281.9 | 19534.3 | 20368.2 | 21085.5 | 22616.8 | 24577.9 | 24765.8 | 19827.4 |
| 55°   | 20715.5 | 20553.3 | 19673.7 | 19821.7 | 21623.5 | 22759.1 | 23667.1 | 25295.2 | 26553.3 | 26052.3 | 20630.1 |
| 57.5° | 21563.7 | 21415.7 | 20943.2 | 21774.3 | 24370.2 | 25799.0 | 26789.5 | 27669.0 | 28292.4 | 27367.3 | 21387.2 |
| 60°   | 22429.0 | 22343.6 | 22355.0 | 23943.2 | 27523.9 | 28895.8 | 29442.3 | 29670.0 | 30000.2 | 28605.5 | 21429.9 |
| 62.5° | 23254.4 | 23416.6 | 23968.8 | 26356.9 | 30543.8 | 31597.0 | 31873.1 | 32097.9 | 31710.8 | 28801.9 | 19799.0 |
| 65°   | 24651.9 | 24916.7 | 26234.5 | 29587.5 | 33865.5 | 34992.6 | 35277.2 | 34505.9 | 31981.2 | 26263.0 | 16104.5 |
| 67.5° | 25335.1 | 25818.9 | 28170.0 | 32598.9 | 37087.5 | 38339.9 | 38234.6 | 34662.4 | 28699.4 | 20026.7 | 10335.0 |
| 69°   | 25192.7 | 25707.9 | 28616.9 | 33521.1 | 38157.7 | 39293.4 | 38624.5 | 32746.9 | 24449.9 | 14507.7 | 6344.4  |
| 70°   | 24629.2 | 25150.1 | 28386.3 | 33486.9 | 38294.3 | 39193.8 | 37901.6 | 30381.6 | 20672.8 | 10608.2 | 3967.8  |
| 72.5° | 20567.5 | 21017.2 | 25201.3 | 30267.7 | 35277.2 | 34545.7 | 31708.0 | 21048.5 | 10073.1 | 2889.0  | 893.7   |
| 75°   | 12660.4 | 12910.9 | 18082.7 | 22801.8 | 26644.4 | 24765.8 | 21125.4 | 10471.6 | 3002.9  | 816.9   | 495.3   |
| 77.5° | 6688.8  | 6802.7  | 9899.5  | 13440.3 | 16890.0 | 13975.4 | 10827.4 | 4084.5  | 1383.3  | 512.3   | 358.6   |
| 80°   | 3953.5  | 4038.9  | 5331.2  | 6145.2  | 7309.3  | 6105.3  | 4329.2  | 2507.6  | 990.5   | 321.6   | 318.8   |
| 82.5° | 2262.8  | 2316.9  | 3865.3  | 3415.6  | 2880.5  | 2459.2  | 2154.7  | 2376.7  | 594.9   | 216.3   | 330.2   |
| 85°   | 831.1   | 842.5   | 2174.6  | 2598.7  | 1713.5  | 1019.0  | 1070.2  | 1969.7  | 159.4   | 136.6   | 259.0   |
| 87.5° | 387.1   | 378.6   | 1118.6  | 1591.1  | 1001.9  | 646.1   | 834.0   | 432.6   | 62.6    | 88.2    | 71.2    |
| 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°    | 7144.3  | 7144.3 | 7144.3 | 7144.3 | 7144.3 | 7144.3 | 7144.3 | 7144.3 | 7144.3 | 7144.3 | 7144.3 |
| 2.5°  | 7058.9  | 6953.6 | 6762.8 | 6566.5 | 6367.2 | 6213.5 | 6062.7 | 5943.1 | 5903.3 | 5829.3 | 5834.9 |
| 5°    | 6842.5  | 6649.0 | 6250.5 | 5846.3 | 5425.1 | 5077.8 | 4750.5 | 4485.8 | 4357.7 | 4226.8 | 4226.8 |
| 7.5°  | 6654.7  | 6372.9 | 5749.6 | 5092.1 | 4411.8 | 3839.7 | 3324.5 | 2937.4 | 2723.9 | 2553.1 | 2550.3 |
| 10°   | 6583.5  | 6202.1 | 5331.2 | 4389.0 | 3441.2 | 2661.3 | 2049.3 | 1656.6 | 1454.5 | 1323.5 | 1317.8 |
| 12.5° | 6614.8  | 6142.4 | 5009.5 | 3740.1 | 2550.3 | 1710.6 | 1186.9 | 933.6  | 848.2  | 808.4  | 808.4  |
| 15°   | 6705.9  | 6125.3 | 4687.9 | 3105.3 | 1801.7 | 1070.2 | 788.4  | 720.1  | 714.4  | 714.4  | 714.4  |
| 17.5° | 6816.9  | 6131.0 | 4357.7 | 2487.7 | 1226.8 | 765.7  | 680.3  | 671.7  | 677.4  | 677.4  | 677.4  |
| 20°   | 6930.8  | 6133.8 | 4001.9 | 1915.6 | 865.3  | 666.0  | 640.4  | 637.6  | 643.3  | 643.3  | 646.1  |
| 22.5° | 7070.3  | 6148.0 | 3646.1 | 1431.7 | 714.4  | 629.0  | 609.1  | 609.1  | 612.0  | 612.0  | 609.1  |
| 25°   | 7229.6  | 6176.5 | 3276.1 | 1061.7 | 651.8  | 603.4  | 586.3  | 583.5  | 586.3  | 583.5  | 580.6  |
| 27.5° | 7428.9  | 6216.4 | 2863.4 | 831.1  | 623.3  | 577.8  | 563.6  | 563.6  | 560.7  | 557.9  | 555.0  |
| 30°   | 7679.4  | 6261.9 | 2399.4 | 705.9  | 594.9  | 555.0  | 540.8  | 538.0  | 535.1  | 529.4  | 529.4  |
| 32.5° | 8060.8  | 6361.5 | 1941.2 | 640.4  | 563.6  | 523.7  | 512.3  | 512.3  | 506.6  | 501.0  | 498.1  |
| 35°   | 8647.1  | 6557.9 | 1531.3 | 600.6  | 529.4  | 489.6  | 475.3  | 475.3  | 469.6  | 466.8  | 463.9  |
| 37.5° | 9458.3  | 6856.8 | 1189.8 | 563.6  | 495.3  | 452.6  | 438.3  | 435.5  | 429.8  | 424.1  | 421.3  |
| 40°   | 10537.1 | 7226.8 | 936.4  | 529.4  | 461.1  | 415.6  | 404.2  | 398.5  | 387.1  | 378.6  | 378.6  |
| 42.5° | 11891.9 | 7648.1 | 760.0  | 492.4  | 421.3  | 381.4  | 372.9  | 364.3  | 344.4  | 335.9  | 333.0  |
| 45°   | 13309.4 | 8026.6 | 643.3  | 449.7  | 381.4  | 347.3  | 341.6  | 327.3  | 301.7  | 293.2  | 293.2  |
| 47.5° | 14331.2 | 8114.8 | 566.4  | 409.9  | 344.4  | 310.2  | 307.4  | 281.8  | 259.0  | 253.3  | 250.5  |
| 50°   | 14968.8 | 7941.2 | 503.8  | 370.0  | 310.2  | 276.1  | 267.6  | 236.2  | 222.0  | 216.3  | 213.5  |
| 52.5° | 15398.6 | 7631.0 | 452.6  | 335.9  | 278.9  | 244.8  | 224.9  | 202.1  | 190.7  | 185.0  | 185.0  |
| 55°   | 15743.0 | 7192.6 | 401.3  | 304.6  | 253.3  | 219.2  | 190.7  | 173.6  | 162.2  | 156.5  | 156.5  |
| 57.5° | 15839.8 | 6597.8 | 350.1  | 278.9  | 227.7  | 193.5  | 162.2  | 150.9  | 136.6  | 133.8  | 133.8  |
| 60°   | 15136.7 | 5524.7 | 310.2  | 247.6  | 204.9  | 167.9  | 142.3  | 128.1  | 113.9  | 111.0  | 108.2  |
| 62.5° | 13283.8 | 4275.2 | 273.2  | 219.2  | 179.3  | 145.2  | 122.4  | 105.3  | 93.9   | 93.9   | 93.9   |
| 65°   | 10132.9 | 2866.2 | 239.1  | 190.7  | 156.5  | 122.4  | 105.3  | 85.4   | 79.7   | 79.7   | 82.5   |
| 67.5° | 6065.5  | 1559.8 | 204.9  | 162.2  | 133.8  | 102.5  | 88.2   | 74.0   | 71.2   | 74.0   | 74.0   |
| 69°   | 3555.0  | 916.5  | 185.0  | 145.2  | 116.7  | 91.1   | 76.9   | 65.5   | 71.2   | 74.0   | 74.0   |
| 70°   | 2194.5  | 617.7  | 170.8  | 130.9  | 105.3  | 82.5   | 71.2   | 62.6   | 68.3   | 71.2   | 71.2   |
| 72.5° | 612.0   | 318.8  | 136.6  | 102.5  | 85.4   | 68.3   | 56.9   | 56.9   | 65.5   | 68.3   | 68.3   |
| 75°   | 398.5   | 236.2  | 105.3  | 76.9   | 65.5   | 54.1   | 48.4   | 54.1   | 62.6   | 65.5   | 65.5   |
| 77.5° | 330.2   | 193.5  | 85.4   | 62.6   | 54.1   | 51.2   | 45.5   | 48.4   | 56.9   | 59.8   | 59.8   |
| 80°   | 301.7   | 136.6  | 68.3   | 56.9   | 48.4   | 45.5   | 42.7   | 39.8   | 51.2   | 54.1   | 54.1   |
| 82.5° | 287.5   | 108.2  | 59.8   | 51.2   | 45.5   | 39.8   | 37.0   | 39.8   | 45.5   | 48.4   | 51.2   |
| 85°   | 179.3   | 71.2   | 54.1   | 48.4   | 39.8   | 37.0   | 37.0   | 37.0   | 42.7   | 45.5   | 45.5   |
| 87.5° | 65.5    | 56.9   | 48.4   | 39.8   | 34.2   | 34.2   | 34.2   | 34.2   | 37.0   | 42.7   | 42.7   |
| 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)