

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: P194597

Luminaire Tested: **GLEON-AF-09-LED-E1-SL4-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194597  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24294)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-09-LED-E1-SL4-7060  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 5700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 50566 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G5

Input Watts (W): 501  
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

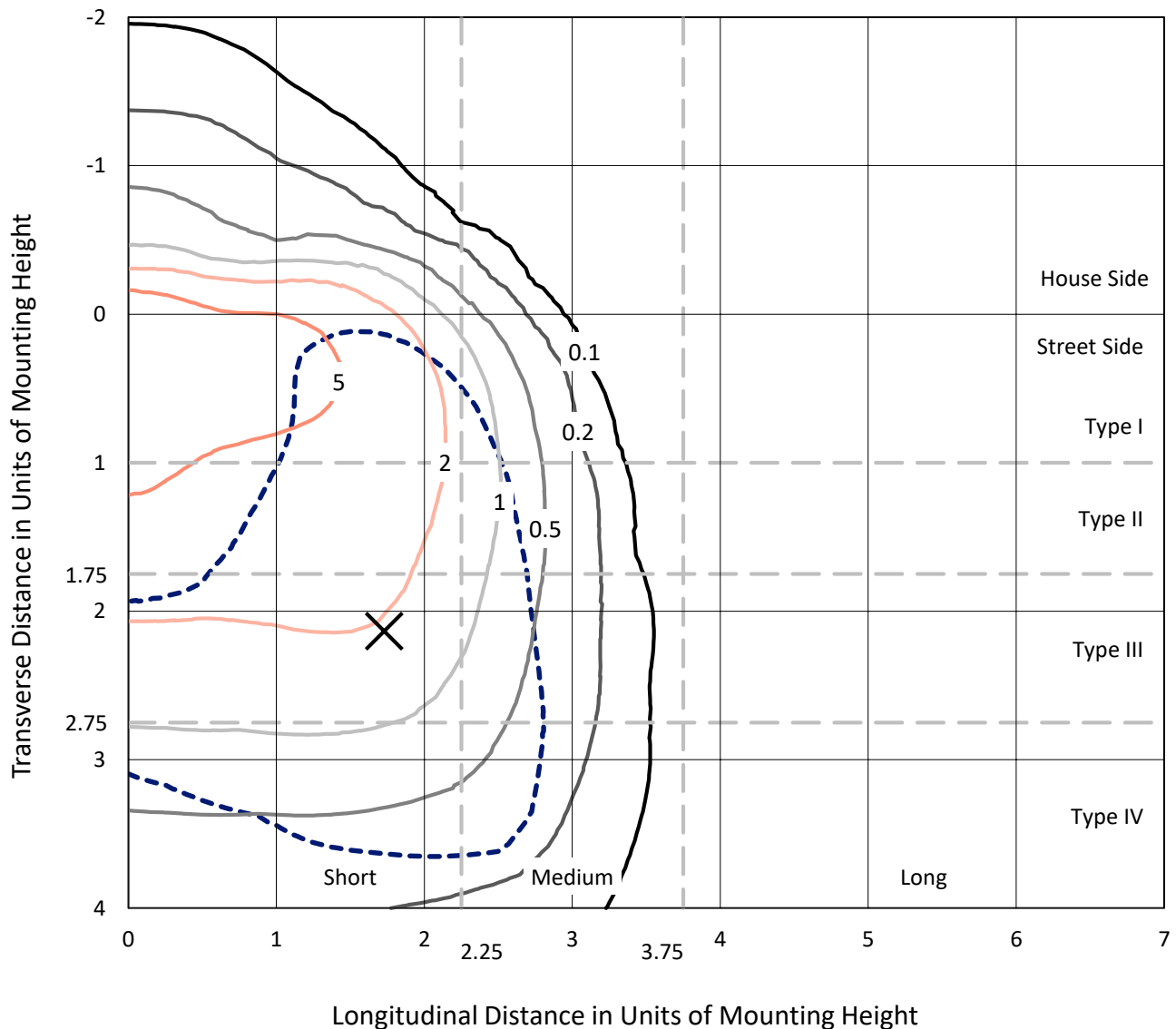


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 --- 1/2 Max cd

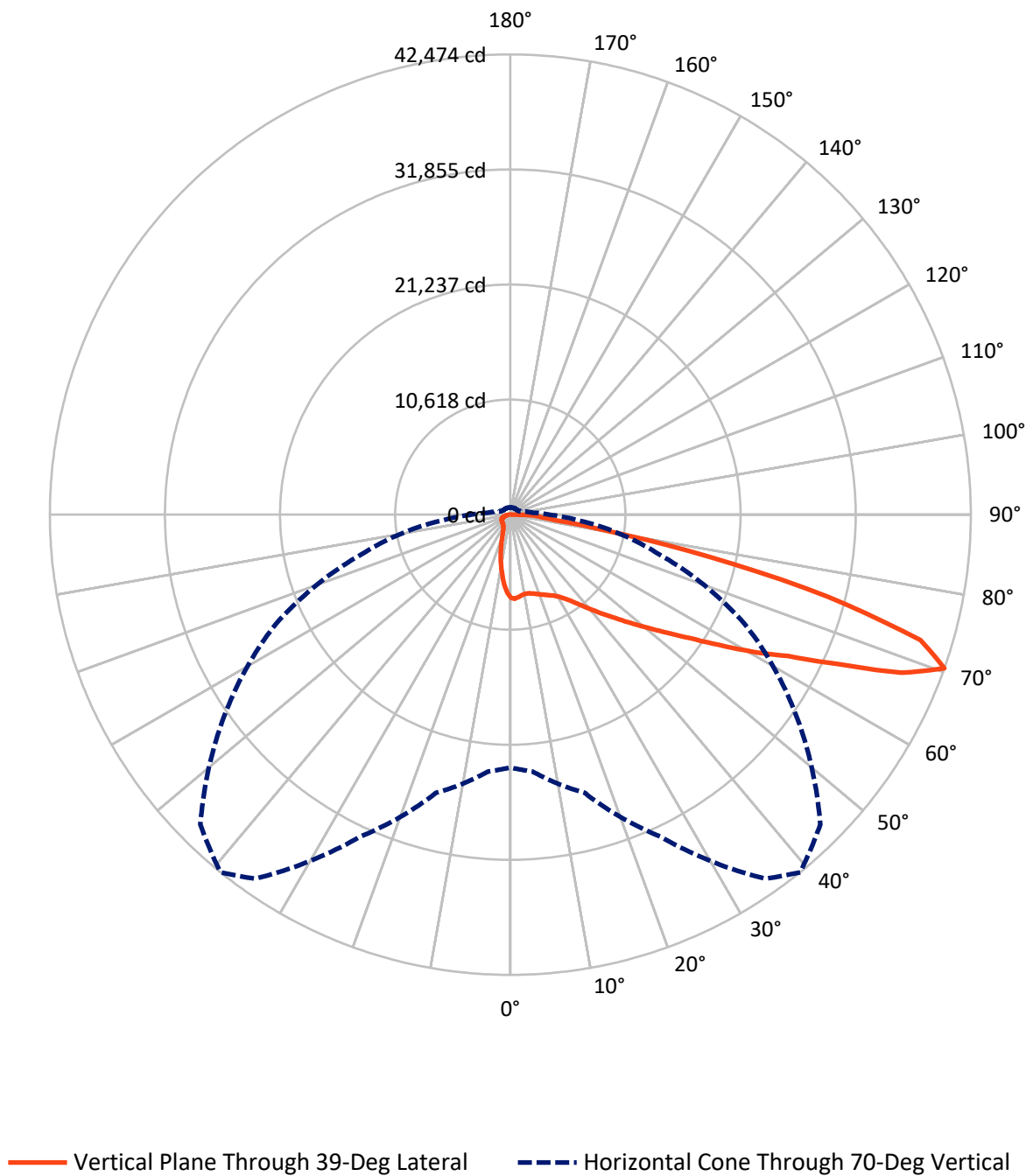


Based on 30 foot mounting height. Maximum calculated value = 8.5 fc  
 Type IV - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5751.1   | 0.0    | 5751.1  |
|                    | % Fixture | 11.4     | 0.0    | 11.4    |
| <b>Street Side</b> | Lumens    | 44814.9  | 0.0    | 44814.9 |
|                    | % Fixture | 88.6     | 0.0    | 88.6    |
| <b>Total</b>       | Lumens    | 50566.0  | 0.0    | 50566.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 658.8   | 1.3       |
| 10°-20°   | 1646.8  | 3.3       |
| 20°-30°   | 2564.1  | 5.1       |
| 30°-40°   | 3994.4  | 7.9       |
| 40°-50°   | 6705.8  | 13.3      |
| 50°-60°   | 10652.8 | 21.1      |
| 60°-70°   | 14209.6 | 28.1      |
| 70°-80°   | 8580.8  | 17.0      |
| 80°-90°   | 1553.0  | 3.1       |
| 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°    | 50566.0 | 100.0     |
| 0°-180°   | 50566.0 | 100.0     |

**Coefficient of Utilization**



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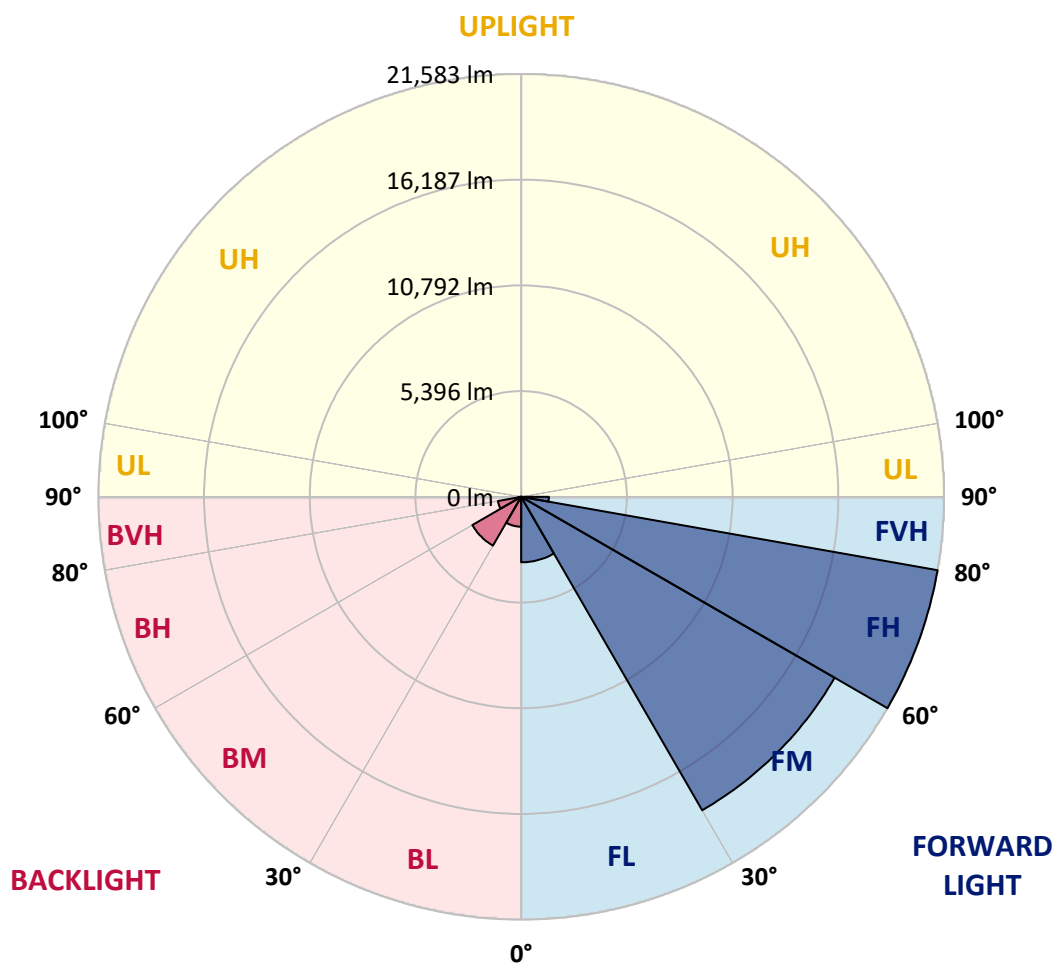
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 3344.0  | 6.6       |                         |      |         |
| FM   | (30°-60°)   | 18474.9 | 36.5      |                         |      |         |
| FH   | (60°-80°)   | 21583.0 | 42.7      |                         |      | G5      |
| FVH  | (80°-90°)   | 1413.0  | 2.8       |                         |      | G5      |
| BL   | (0°-30°)    | 1525.7  | 3.0       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2878.1  | 5.7       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1207.4  | 2.4       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 140.0   | 0.3       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G5**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 39°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7676.7  | 7676.7  | 7676.7  | 7676.7  | 7676.7  | 7676.7  | 7676.7  | 7676.7  | 7676.7  | 7676.7  | 7676.7  |
| 2.5°  | 7825.8  | 7823.2  | 7802.7  | 7787.3  | 7774.4  | 7769.3  | 7779.5  | 7741.0  | 7707.6  | 7666.4  | 7622.7  |
| 5°    | 7766.7  | 7764.1  | 7730.7  | 7699.8  | 7669.0  | 7658.7  | 7656.1  | 7586.7  | 7545.6  | 7483.9  | 7401.6  |
| 7.5°  | 7702.4  | 7689.6  | 7645.9  | 7594.4  | 7540.4  | 7514.7  | 7489.0  | 7399.0  | 7352.8  | 7291.1  | 7195.9  |
| 10°   | 7635.6  | 7620.1  | 7579.0  | 7527.6  | 7476.2  | 7437.6  | 7393.9  | 7306.5  | 7257.6  | 7211.4  | 7100.8  |
| 12.5° | 7566.2  | 7553.3  | 7543.0  | 7519.9  | 7483.9  | 7450.5  | 7417.0  | 7342.5  | 7291.1  | 7237.1  | 7108.5  |
| 15°   | 7555.9  | 7550.7  | 7573.9  | 7589.3  | 7568.7  | 7548.2  | 7512.2  | 7447.9  | 7393.9  | 7339.9  | 7172.8  |
| 17.5° | 7638.1  | 7635.6  | 7694.7  | 7735.8  | 7725.5  | 7689.6  | 7640.7  | 7568.7  | 7525.0  | 7478.7  | 7270.5  |
| 20°   | 7818.1  | 7831.0  | 7902.9  | 7956.9  | 7905.5  | 7854.1  | 7774.4  | 7674.1  | 7651.0  | 7630.4  | 7370.8  |
| 22.5° | 8157.5  | 8170.3  | 8221.7  | 8242.3  | 8108.6  | 8034.1  | 7923.5  | 7795.0  | 7779.5  | 7795.0  | 7491.6  |
| 25°   | 8687.1  | 8674.2  | 8666.5  | 8589.4  | 8345.1  | 8229.4  | 8088.0  | 7954.4  | 7962.1  | 8031.5  | 7661.3  |
| 27.5° | 9388.9  | 9319.5  | 9211.5  | 8980.1  | 8591.9  | 8463.4  | 8291.1  | 8167.7  | 8216.6  | 8350.3  | 7915.8  |
| 30°   | 10116.5 | 10039.4 | 9790.0  | 9412.1  | 8915.9  | 8774.5  | 8581.7  | 8442.8  | 8571.4  | 8782.2  | 8255.2  |
| 32.5° | 10790.1 | 10779.8 | 10414.7 | 9928.8  | 9363.2  | 9239.8  | 9047.0  | 8890.2  | 9098.4  | 9419.8  | 8764.2  |
| 35°   | 11525.3 | 11548.5 | 11111.4 | 10527.8 | 9967.4  | 9838.8  | 9700.0  | 9581.7  | 9859.4  | 10301.6 | 9502.0  |
| 37.5° | 12312.0 | 12358.3 | 11841.6 | 11183.4 | 10656.4 | 10602.4 | 10520.1 | 10468.7 | 10898.0 | 11509.9 | 10533.0 |
| 40°   | 13363.5 | 13317.3 | 12600.0 | 11923.8 | 11502.2 | 11499.6 | 11473.9 | 11535.6 | 12250.3 | 13088.4 | 11857.0 |
| 42.5° | 14489.6 | 14353.3 | 13404.7 | 12718.2 | 12430.3 | 12517.7 | 12569.1 | 12821.1 | 13877.7 | 15006.3 | 13471.5 |
| 45°   | 15703.0 | 15397.1 | 14240.2 | 13558.9 | 13461.2 | 13646.3 | 13821.1 | 14368.8 | 15793.0 | 17189.0 | 15240.3 |
| 47.5° | 16672.3 | 16376.6 | 15104.0 | 14440.7 | 14654.1 | 14934.3 | 15271.1 | 16137.5 | 17937.2 | 19443.7 | 16985.9 |
| 50°   | 17435.8 | 17243.0 | 15975.6 | 15469.1 | 15967.8 | 16399.8 | 16949.9 | 18140.3 | 20168.7 | 21639.3 | 18603.0 |
| 52.5° | 18176.3 | 18032.3 | 16854.8 | 16523.2 | 17510.4 | 18106.8 | 18855.0 | 20289.5 | 22456.8 | 23798.8 | 19963.0 |
| 55°   | 18844.7 | 18741.8 | 17800.9 | 17836.9 | 19325.4 | 20101.9 | 21042.8 | 22737.0 | 24950.6 | 25724.4 | 21114.8 |
| 57.5° | 19598.0 | 19466.8 | 18880.7 | 19484.8 | 21657.2 | 22665.0 | 23888.8 | 25487.9 | 27290.1 | 27436.6 | 21991.5 |
| 60°   | 20356.4 | 20243.3 | 20078.7 | 21387.3 | 24618.9 | 25678.1 | 26837.6 | 28153.9 | 29663.0 | 28765.8 | 21940.0 |
| 62.5° | 21014.5 | 21027.4 | 21317.9 | 23384.9 | 27518.9 | 28745.2 | 30159.2 | 31460.1 | 31809.7 | 28997.2 | 20317.8 |
| 65°   | 22130.3 | 22333.4 | 23199.8 | 26212.9 | 31601.5 | 33241.7 | 34977.1 | 34768.8 | 32403.6 | 26835.0 | 16839.4 |
| 67.5° | 23456.9 | 23814.2 | 25570.2 | 29981.8 | 36761.3 | 38938.8 | 39609.8 | 35517.0 | 30025.5 | 21814.1 | 12003.5 |
| 70°   | 23323.2 | 23814.2 | 26593.4 | 32791.8 | 41013.5 | 42473.8 | 40437.7 | 32143.9 | 23842.5 | 14250.5 | 6375.8  |
| 72.5° | 20711.2 | 21413.0 | 24508.4 | 31503.8 | 39674.1 | 39545.6 | 35105.6 | 23963.3 | 14165.7 | 5722.8  | 2491.2  |
| 75°   | 15785.3 | 16494.9 | 19158.3 | 24888.9 | 31357.2 | 30277.5 | 24909.4 | 13237.6 | 5375.7  | 2272.7  | 1570.8  |
| 77.5° | 9080.4  | 9630.6  | 11687.3 | 15263.4 | 19893.6 | 18785.6 | 13864.9 | 5887.4  | 2617.2  | 1583.7  | 1226.3  |
| 80°   | 5069.8  | 5375.7  | 6625.2  | 7743.5  | 9748.8  | 8936.4  | 6203.6  | 3658.4  | 1953.9  | 1149.2  | 946.1   |
| 82.5° | 4008.0  | 4280.5  | 5357.8  | 4884.7  | 4452.8  | 4108.3  | 3563.3  | 3257.3  | 1560.5  | 725.0   | 565.6   |
| 85°   | 3501.6  | 3761.2  | 4535.1  | 3846.1  | 3041.4  | 2789.4  | 2894.8  | 3205.9  | 1213.5  | 437.1   | 483.3   |
| 87.5° | 3244.5  | 3591.5  | 4041.5  | 2964.2  | 2367.8  | 2097.9  | 2671.2  | 3514.4  | 390.8   | 272.5   | 195.4   |
| 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°    | 7676.7  | 7676.7  | 7676.7 | 7676.7 | 7676.7 | 7676.7 | 7676.7 | 7676.7 | 7676.7 | 7676.7 | 7676.7 |
| 2.5°  | 7584.2  | 7543.0  | 7476.2 | 7417.0 | 7324.5 | 7275.6 | 7221.7 | 7183.1 | 7152.2 | 7126.5 | 7167.7 |
| 5°    | 7350.2  | 7273.1  | 7131.7 | 6980.0 | 6800.0 | 6658.6 | 6540.4 | 6429.8 | 6352.7 | 6301.3 | 6337.3 |
| 7.5°  | 7129.1  | 7003.1  | 6782.0 | 6506.9 | 6198.4 | 5936.2 | 5720.2 | 5530.0 | 5398.9 | 5314.0 | 5347.5 |
| 10°   | 7003.1  | 6846.3  | 6504.4 | 6072.5 | 5617.4 | 5208.6 | 4869.3 | 4576.2 | 4373.1 | 4257.4 | 4275.4 |
| 12.5° | 6972.3  | 6769.2  | 6296.1 | 5702.3 | 5080.1 | 4511.9 | 4033.7 | 3627.5 | 3342.2 | 3193.1 | 3198.2 |
| 15°   | 6995.4  | 6735.8  | 6100.7 | 5347.5 | 4560.8 | 3843.5 | 3247.0 | 2753.4 | 2421.8 | 2252.1 | 2249.5 |
| 17.5° | 7034.0  | 6710.0  | 5895.1 | 4964.4 | 4033.7 | 3200.8 | 2534.9 | 2051.6 | 1758.5 | 1622.2 | 1612.0 |
| 20°   | 7075.1  | 6668.9  | 5663.7 | 4550.5 | 3486.1 | 2604.3 | 1984.7 | 1606.8 | 1421.7 | 1347.2 | 1342.0 |
| 22.5° | 7134.2  | 6632.9  | 5424.6 | 4113.4 | 2948.8 | 2121.0 | 1632.5 | 1378.0 | 1280.3 | 1241.7 | 1236.6 |
| 25°   | 7229.4  | 6614.9  | 5170.1 | 3658.4 | 2465.5 | 1773.9 | 1421.7 | 1264.9 | 1208.3 | 1182.6 | 1180.0 |
| 27.5° | 7388.8  | 6640.6  | 4931.0 | 3216.2 | 2072.1 | 1540.0 | 1303.4 | 1208.3 | 1167.2 | 1144.0 | 1141.5 |
| 30°   | 7594.4  | 6720.3  | 4679.0 | 2797.1 | 1766.2 | 1380.6 | 1231.5 | 1169.8 | 1136.3 | 1113.2 | 1113.2 |
| 32.5° | 7936.4  | 6854.0  | 4414.2 | 2434.6 | 1547.7 | 1270.0 | 1177.5 | 1136.3 | 1108.1 | 1090.1 | 1087.5 |
| 35°   | 8440.3  | 7106.0  | 4167.4 | 2133.8 | 1390.9 | 1190.3 | 1131.2 | 1100.3 | 1079.8 | 1069.5 | 1069.5 |
| 37.5° | 9173.0  | 7504.5  | 3948.9 | 1917.9 | 1295.7 | 1136.3 | 1087.5 | 1064.4 | 1051.5 | 1051.5 | 1051.5 |
| 40°   | 10157.6 | 8054.6  | 3771.5 | 1773.9 | 1241.7 | 1097.8 | 1054.1 | 1036.1 | 1028.4 | 1030.9 | 1030.9 |
| 42.5° | 11373.7 | 8769.3  | 3653.2 | 1673.7 | 1216.0 | 1074.6 | 1030.9 | 1015.5 | 1007.8 | 1005.2 | 1007.8 |
| 45°   | 12759.4 | 9581.7  | 3640.4 | 1599.1 | 1190.3 | 1059.2 | 1015.5 | 1000.1 | 984.7  | 974.4  | 974.4  |
| 47.5° | 14106.5 | 10407.0 | 3745.8 | 1573.4 | 1162.0 | 1041.2 | 1002.7 | 987.2  | 964.1  | 940.9  | 940.9  |
| 50°   | 15296.8 | 11108.9 | 3887.2 | 1583.7 | 1151.8 | 1015.5 | 982.1  | 974.4  | 938.4  | 912.7  | 910.1  |
| 52.5° | 16242.9 | 11648.7 | 4002.9 | 1614.5 | 1162.0 | 997.5  | 956.4  | 958.9  | 920.4  | 892.1  | 889.5  |
| 55°   | 17001.4 | 12003.5 | 3972.0 | 1645.4 | 1185.2 | 987.2  | 933.2  | 938.4  | 907.5  | 879.2  | 879.2  |
| 57.5° | 17333.0 | 11872.4 | 3630.1 | 1619.7 | 1203.2 | 989.8  | 915.2  | 935.8  | 910.1  | 884.4  | 884.4  |
| 60°   | 16620.9 | 10707.8 | 2990.0 | 1506.5 | 1180.0 | 982.1  | 907.5  | 946.1  | 943.5  | 917.8  | 915.2  |
| 62.5° | 14466.4 | 8622.8  | 2319.0 | 1339.4 | 1100.3 | 943.5  | 887.0  | 943.5  | 971.8  | 964.1  | 961.5  |
| 65°   | 11150.0 | 6141.9  | 1771.3 | 1159.5 | 992.4  | 879.2  | 833.0  | 884.4  | 923.0  | 933.2  | 930.7  |
| 67.5° | 7237.1  | 3763.8  | 1365.1 | 989.8  | 871.5  | 804.7  | 763.6  | 786.7  | 794.4  | 794.4  | 789.3  |
| 70°   | 3558.1  | 2025.9  | 1087.5 | 833.0  | 748.1  | 725.0  | 701.9  | 689.0  | 676.1  | 665.9  | 665.9  |
| 72.5° | 1755.9  | 1324.0  | 894.7  | 704.4  | 645.3  | 635.0  | 629.9  | 614.4  | 604.2  | 591.3  | 586.2  |
| 75°   | 1298.3  | 1077.2  | 761.0  | 593.9  | 555.3  | 545.0  | 555.3  | 542.5  | 539.9  | 529.6  | 524.5  |
| 77.5° | 1066.9  | 917.8   | 655.6  | 509.0  | 475.6  | 457.6  | 473.0  | 475.6  | 478.2  | 462.8  | 457.6  |
| 80°   | 866.4   | 776.4   | 547.6  | 421.6  | 390.8  | 377.9  | 388.2  | 408.8  | 413.9  | 390.8  | 380.5  |
| 82.5° | 624.7   | 635.0   | 442.2  | 329.1  | 303.4  | 293.1  | 313.6  | 339.4  | 344.5  | 311.1  | 303.4  |
| 85°   | 524.5   | 529.6   | 339.4  | 234.0  | 208.2  | 192.8  | 226.2  | 251.9  | 269.9  | 236.5  | 228.8  |
| 87.5° | 218.5   | 311.1   | 195.4  | 131.1  | 115.7  | 100.3  | 120.8  | 133.7  | 162.0  | 149.1  | 146.5  |
| 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)