

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: P299133

Luminaire Tested: **GLNA-AF-07-LED-E1-SL2-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299133  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-07-LED-E1-SL2-8030  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(7) 80 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Narrow OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33542.8 lumens  
Efficiency: N/A  
Efficacy: 85.8 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G5

Input Watts (W): 391  
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



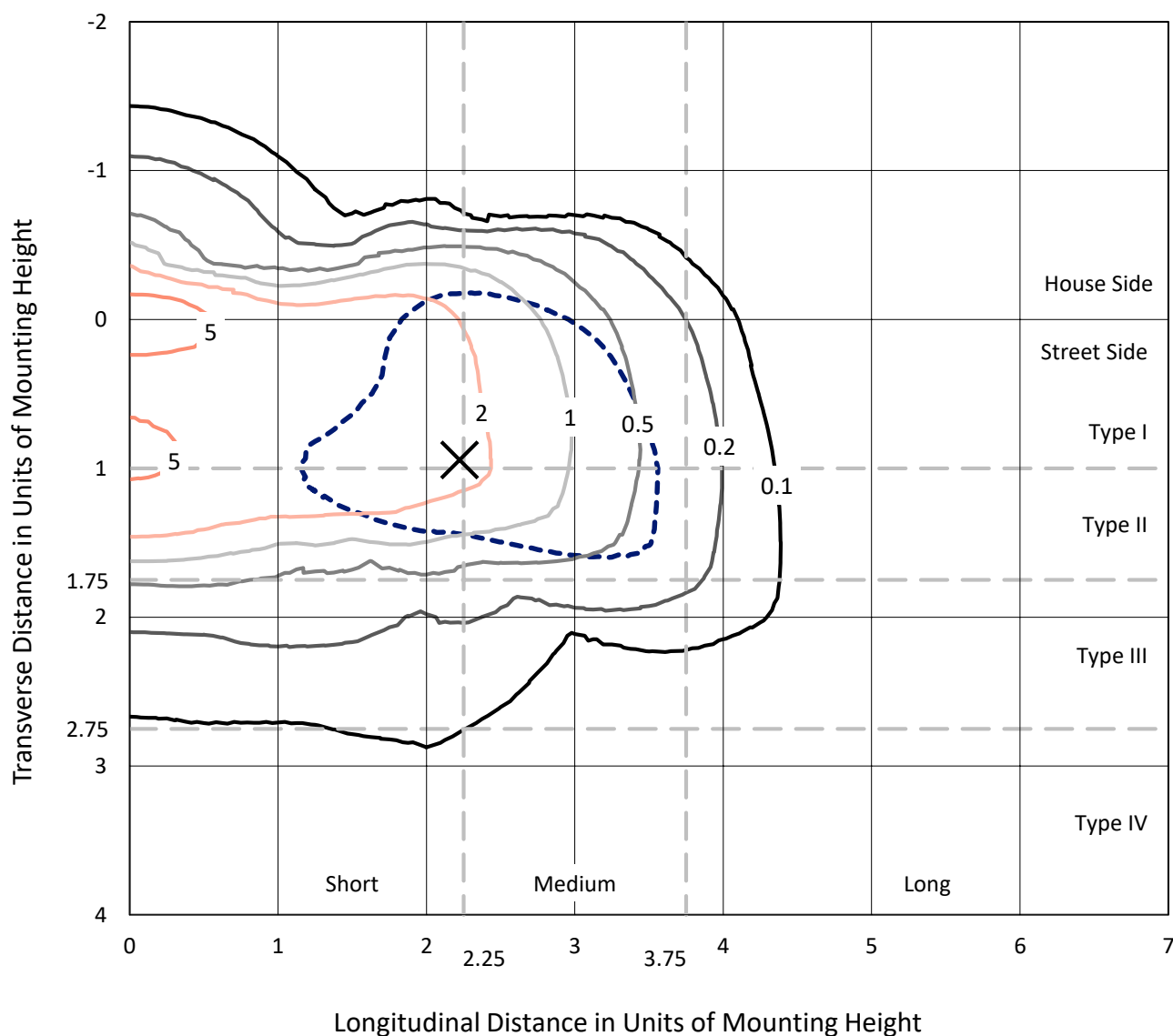
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

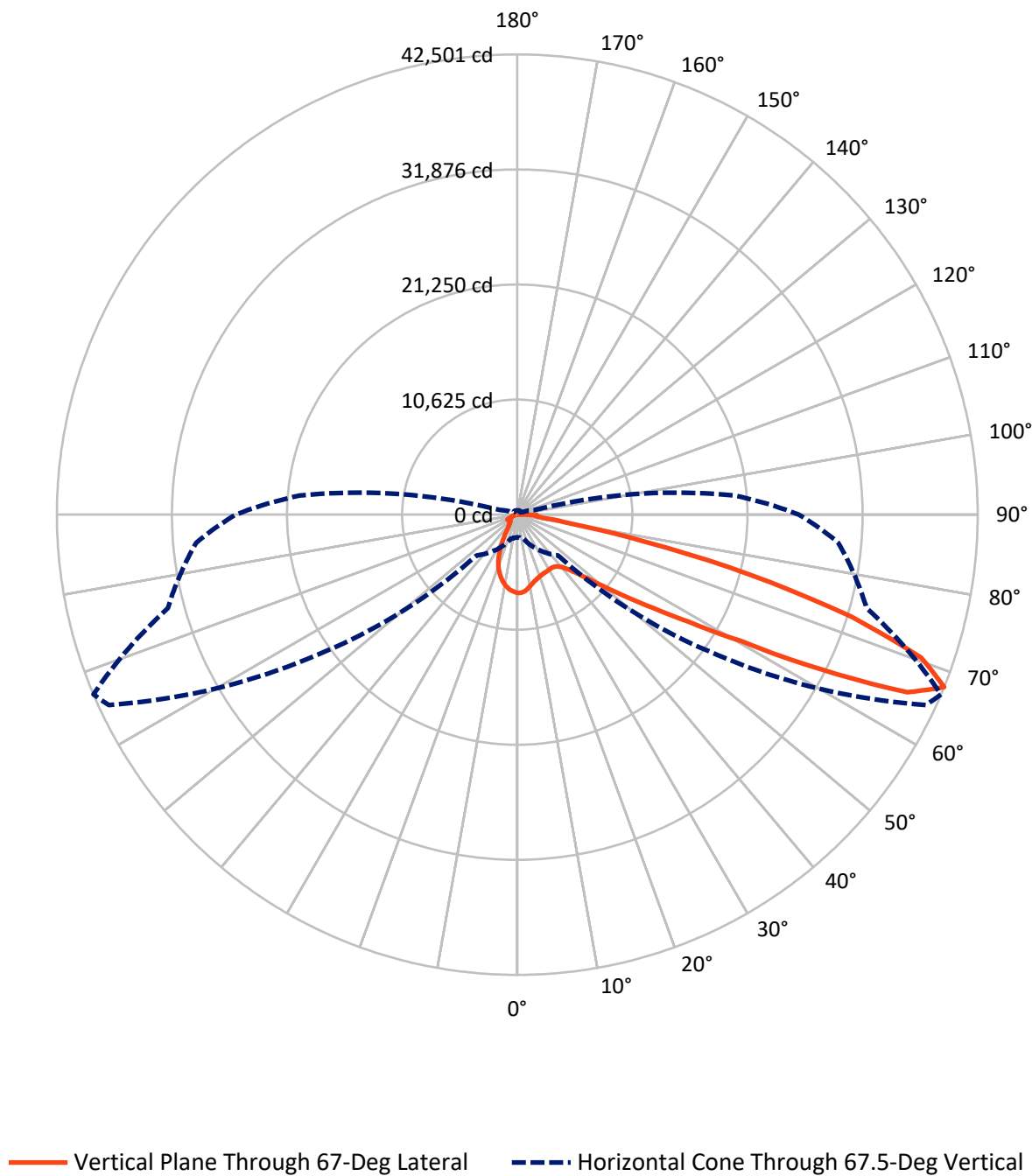


Based on 30 foot mounting height. Maximum calculated value = 8 fc  
Type II - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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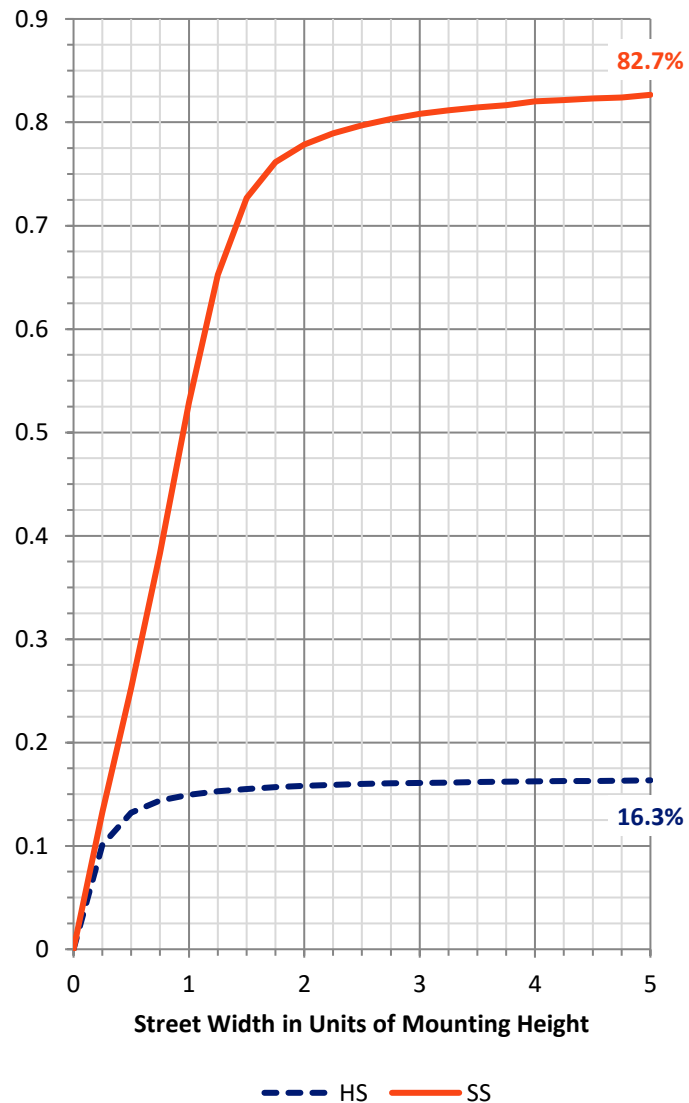
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5557.7   | 0.0    | 5557.7  |
|                    | % Fixture | 16.6     | 0.0    | 16.6    |
| <b>Street Side</b> | Lumens    | 27985.1  | 0.0    | 27985.1 |
|                    | % Fixture | 83.4     | 0.0    | 83.4    |
| <b>Total</b>       | Lumens    | 33542.8  | 0.0    | 33542.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 617.3   | 1.8       |
| 10°-20°   | 1428.2  | 4.3       |
| 20°-30°   | 1936.0  | 5.8       |
| 30°-40°   | 2752.2  | 8.2       |
| 40°-50°   | 4604.6  | 13.7      |
| 50°-60°   | 7284.5  | 21.7      |
| 60°-70°   | 9279.7  | 27.7      |
| 70°-80°   | 4860.7  | 14.5      |
| 80°-90°   | 779.6   | 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°    | 33542.8 | 100.0     |
| 0°-180°   | 33542.8 | 100.0     |

**Coefficient of Utilization**



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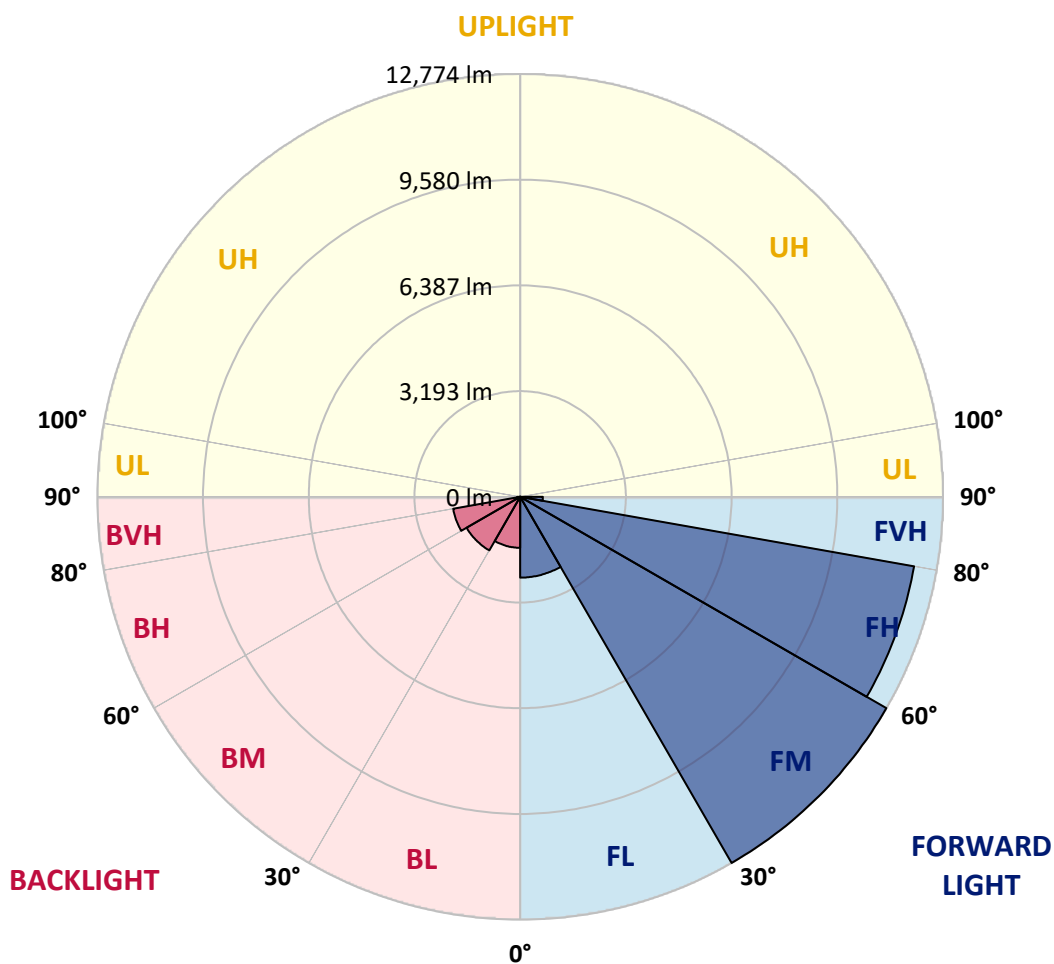
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2441.1  | 7.3       |                         |      |         |
| FM   | (30°-60°)   | 12773.8 | 38.1      |                         |      |         |
| FH   | (60°-80°)   | 12084.8 | 36.0      |                         |      | G5      |
| FVH  | (80°-90°)   | 685.5   | 2.0       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1540.4  | 4.6       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 1867.5  | 5.6       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 2055.6  | 6.1       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 94.1    | 0.3       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

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

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 67°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7235.1  | 7235.1  | 7235.1  | 7235.1  | 7235.1  | 7235.1  | 7235.1  | 7235.1  | 7235.1  | 7235.1  | 7235.1  |
| 2.5°  | 6937.4  | 6948.9  | 6985.3  | 7008.5  | 7112.7  | 7157.4  | 7188.8  | 7220.2  | 7225.2  | 7240.1  | 7225.2  |
| 5°    | 6209.5  | 6234.4  | 6302.2  | 6378.3  | 6580.1  | 6738.9  | 6905.9  | 7079.6  | 7111.0  | 7223.5  | 7255.0  |
| 7.5°  | 5645.5  | 5638.9  | 5695.1  | 5786.1  | 5992.9  | 6212.9  | 6505.6  | 6851.3  | 6919.2  | 7172.2  | 7294.6  |
| 10°   | 5233.6  | 5228.7  | 5288.2  | 5382.5  | 5579.3  | 5787.8  | 6118.6  | 6591.7  | 6687.6  | 7091.2  | 7332.7  |
| 12.5° | 4929.3  | 4930.9  | 4990.5  | 5094.7  | 5294.8  | 5504.9  | 5840.7  | 6340.2  | 6462.6  | 6996.9  | 7372.4  |
| 15°   | 4727.5  | 4740.7  | 4788.7  | 4899.5  | 5094.7  | 5304.7  | 5633.9  | 6151.7  | 6288.9  | 6922.5  | 7417.1  |
| 17.5° | 4659.6  | 4681.1  | 4697.7  | 4778.7  | 4945.8  | 5155.9  | 5478.4  | 6012.7  | 6158.3  | 6871.2  | 7456.8  |
| 20°   | 4722.5  | 4747.3  | 4715.9  | 4744.0  | 4849.9  | 5035.1  | 5356.0  | 5903.5  | 6052.4  | 6813.3  | 7461.7  |
| 22.5° | 4992.1  | 5015.3  | 4922.6  | 4841.6  | 4835.0  | 4947.5  | 5255.1  | 5817.5  | 5971.4  | 6770.3  | 7463.4  |
| 25°   | 5466.9  | 5481.7  | 5326.3  | 5137.7  | 4954.1  | 4916.0  | 5184.0  | 5758.0  | 5921.7  | 6732.3  | 7431.9  |
| 27.5° | 6049.1  | 6060.7  | 5882.0  | 5604.1  | 5235.3  | 4990.5  | 5159.2  | 5723.2  | 5893.6  | 6699.2  | 7379.0  |
| 30°   | 6757.1  | 6811.6  | 6571.8  | 6221.1  | 5683.5  | 5210.5  | 5208.8  | 5705.0  | 5862.2  | 6642.9  | 7274.8  |
| 32.5° | 7481.6  | 7504.7  | 7339.3  | 6983.7  | 6287.3  | 5597.5  | 5347.8  | 5718.3  | 5853.9  | 6575.1  | 7142.5  |
| 35°   | 8216.0  | 8245.8  | 8138.2  | 7852.1  | 7112.7  | 6164.9  | 5619.0  | 5796.0  | 5905.2  | 6552.0  | 7049.8  |
| 37.5° | 9167.1  | 9206.8  | 9057.9  | 8727.1  | 8116.7  | 6934.1  | 6070.6  | 5991.2  | 6062.3  | 6618.1  | 7021.7  |
| 40°   | 10670.7 | 10652.5 | 10217.5 | 9724.5  | 9215.1  | 7918.3  | 6715.7  | 6322.0  | 6363.4  | 6831.5  | 7107.7  |
| 42.5° | 12420.8 | 12376.1 | 11626.8 | 10852.7 | 10422.6 | 9109.2  | 7569.2  | 6896.0  | 6887.7  | 7251.6  | 7410.4  |
| 45°   | 13816.8 | 13780.4 | 13105.6 | 12151.1 | 11807.1 | 10465.6 | 8672.5  | 7751.2  | 7690.0  | 7918.3  | 7969.5  |
| 47.5° | 14572.8 | 14574.4 | 14185.7 | 13406.6 | 13398.3 | 12189.2 | 10090.1 | 8988.5  | 8882.6  | 8990.1  | 8935.5  |
| 50°   | 14308.1 | 14342.8 | 14301.5 | 14053.4 | 14850.6 | 14448.7 | 11941.1 | 10713.7 | 10500.3 | 10606.2 | 10396.1 |
| 52.5° | 13027.8 | 13072.5 | 13317.3 | 13697.7 | 15461.0 | 17179.6 | 14660.4 | 12857.4 | 12609.3 | 12571.3 | 12338.0 |
| 55°   | 10758.4 | 10813.0 | 11312.5 | 12346.3 | 14953.2 | 19014.1 | 18951.2 | 15590.0 | 15194.7 | 14835.8 | 14736.5 |
| 57.5° | 7415.4  | 7506.4  | 8310.3  | 9845.3  | 13310.7 | 19568.2 | 24060.8 | 19485.5 | 18681.6 | 17427.8 | 17450.9 |
| 60°   | 4179.9  | 4285.8  | 5233.6  | 6628.0  | 9995.8  | 18966.1 | 27947.9 | 25385.7 | 23688.6 | 20463.1 | 20635.1 |
| 62.5° | 2658.2  | 2772.3  | 3491.8  | 4605.1  | 5997.8  | 15724.0 | 29540.8 | 33588.5 | 31433.2 | 24204.7 | 24373.4 |
| 65°   | 2152.0  | 2201.6  | 2540.7  | 3801.2  | 4355.3  | 9473.1  | 28331.7 | 40345.5 | 39541.6 | 28953.6 | 28166.3 |
| 67.5° | 2100.7  | 2117.3  | 2292.6  | 3190.8  | 4176.6  | 5324.6  | 22598.5 | 41609.3 | 42500.8 | 33388.3 | 29746.0 |
| 70°   | 2075.9  | 2133.8  | 2583.7  | 3045.2  | 3999.7  | 4490.9  | 13580.3 | 38145.6 | 39553.2 | 34547.9 | 27643.6 |
| 72.5° | 1007.4  | 1004.0  | 1300.1  | 2754.1  | 4505.8  | 4658.0  | 6977.1  | 30864.1 | 32276.8 | 29931.2 | 22716.0 |
| 75°   | 812.2   | 742.7   | 709.6   | 1009.0  | 4332.1  | 4810.2  | 4446.3  | 21237.2 | 22259.4 | 20067.7 | 13964.0 |
| 77.5° | 770.8   | 688.1   | 630.2   | 631.9   | 1831.1  | 5101.3  | 3766.4  | 11754.1 | 12051.9 | 9064.6  | 3826.0  |
| 80°   | 638.5   | 562.4   | 521.0   | 587.2   | 886.6   | 4858.1  | 4072.4  | 5319.6  | 4881.3  | 2226.4  | 1273.7  |
| 82.5° | 443.3   | 403.6   | 392.0   | 492.9   | 709.6   | 3462.1  | 4735.7  | 2858.3  | 2396.8  | 1114.9  | 785.7   |
| 85°   | 282.9   | 241.5   | 268.0   | 358.9   | 552.5   | 1597.9  | 4878.0  | 2228.1  | 1771.6  | 708.0   | 443.3   |
| 87.5° | 130.7   | 105.9   | 132.3   | 198.5   | 360.6   | 550.8   | 4641.4  | 2502.7  | 1824.5  | 373.8   | 279.5   |
| 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°    | 7235.1  | 7235.1  | 7235.1 | 7235.1 | 7235.1 | 7235.1 | 7235.1 | 7235.1 | 7235.1 | 7235.1 | 7235.1 |
| 2.5°  | 7238.4  | 7207.0  | 7182.2 | 7135.9 | 7084.6 | 7035.0 | 6990.3 | 6934.1 | 6917.5 | 6902.6 | 6925.8 |
| 5°    | 7261.6  | 7230.1  | 7139.2 | 6996.9 | 6839.8 | 6692.6 | 6545.3 | 6419.6 | 6341.9 | 6298.9 | 6323.7 |
| 7.5°  | 7296.3  | 7251.6  | 7063.1 | 6801.7 | 6518.9 | 6260.8 | 5994.5 | 5781.1 | 5624.0 | 5549.6 | 5571.1 |
| 10°   | 7327.7  | 7241.7  | 6934.1 | 6542.0 | 6128.5 | 5744.7 | 5324.6 | 4977.2 | 4719.2 | 4583.6 | 4616.6 |
| 12.5° | 7341.0  | 7203.7  | 6753.8 | 6217.8 | 5650.5 | 5088.1 | 4469.4 | 3950.0 | 3579.5 | 3443.9 | 3415.7 |
| 15°   | 7354.2  | 7160.7  | 6555.3 | 5849.0 | 5073.2 | 4277.5 | 3410.8 | 2788.8 | 2481.2 | 2413.4 | 2398.5 |
| 17.5° | 7357.5  | 7086.2  | 6330.3 | 5448.7 | 4396.6 | 3313.2 | 2332.3 | 1937.0 | 1938.6 | 2047.8 | 2061.0 |
| 20°   | 7322.8  | 6975.4  | 6057.4 | 4950.8 | 3586.1 | 2290.9 | 1601.2 | 1533.4 | 1783.1 | 2056.1 | 2089.1 |
| 22.5° | 7243.4  | 6828.2  | 5748.1 | 4370.2 | 2658.2 | 1508.6 | 1238.9 | 1313.4 | 1635.9 | 1970.1 | 2008.1 |
| 25°   | 7142.5  | 6649.5  | 5382.5 | 3696.9 | 1760.0 | 1078.5 | 1038.8 | 1129.8 | 1348.1 | 1571.4 | 1592.9 |
| 27.5° | 7005.2  | 6437.8  | 4972.3 | 2926.1 | 1143.0 | 888.3  | 914.7  | 975.9  | 1065.3 | 1164.5 | 1174.4 |
| 30°   | 6828.2  | 6184.7  | 4533.9 | 2133.8 | 863.4  | 798.9  | 837.0  | 870.1  | 908.1  | 964.3  | 969.3  |
| 32.5° | 6624.7  | 5941.6  | 4084.0 | 1473.8 | 765.9  | 752.6  | 782.4  | 798.9  | 828.7  | 863.4  | 866.8  |
| 35°   | 6454.4  | 5710.0  | 3617.6 | 1042.1 | 724.5  | 717.9  | 737.7  | 744.4  | 772.5  | 810.5  | 813.8  |
| 37.5° | 6356.8  | 5521.4  | 3136.2 | 840.3  | 696.4  | 686.5  | 698.0  | 698.0  | 737.7  | 794.0  | 802.2  |
| 40°   | 6363.4  | 5417.2  | 2654.9 | 759.2  | 673.2  | 660.0  | 661.6  | 661.6  | 712.9  | 774.1  | 779.1  |
| 42.5° | 6543.7  | 5443.7  | 2228.1 | 727.8  | 655.0  | 640.1  | 631.9  | 636.8  | 679.8  | 719.5  | 722.8  |
| 45°   | 6967.1  | 5630.6  | 1827.8 | 708.0  | 636.8  | 631.9  | 613.7  | 612.0  | 628.6  | 646.8  | 646.8  |
| 47.5° | 7661.9  | 5999.5  | 1556.5 | 694.7  | 621.9  | 620.3  | 598.8  | 577.3  | 575.6  | 582.2  | 582.2  |
| 50°   | 8791.6  | 6634.7  | 1374.6 | 679.8  | 612.0  | 598.8  | 574.0  | 540.9  | 529.3  | 534.3  | 534.3  |
| 52.5° | 10485.4 | 7767.7  | 1305.1 | 660.0  | 590.5  | 569.0  | 540.9  | 507.8  | 497.9  | 499.5  | 499.5  |
| 55°   | 12706.9 | 9507.9  | 1295.2 | 636.8  | 567.4  | 532.6  | 509.5  | 484.7  | 473.1  | 476.4  | 476.4  |
| 57.5° | 15421.3 | 11914.6 | 1472.2 | 600.4  | 535.9  | 496.2  | 483.0  | 466.5  | 458.2  | 463.2  | 461.5  |
| 60°   | 18721.3 | 15064.0 | 2183.4 | 562.4  | 504.5  | 463.2  | 463.2  | 449.9  | 443.3  | 448.3  | 446.6  |
| 62.5° | 22522.4 | 18681.6 | 3070.0 | 534.3  | 471.4  | 436.7  | 443.3  | 436.7  | 430.1  | 433.4  | 431.7  |
| 65°   | 25893.5 | 21038.7 | 2874.9 | 512.8  | 438.3  | 411.9  | 423.5  | 420.1  | 415.2  | 418.5  | 416.8  |
| 67.5° | 25991.1 | 20165.3 | 1614.4 | 489.6  | 406.9  | 387.1  | 403.6  | 402.0  | 398.6  | 402.0  | 400.3  |
| 70°   | 23195.7 | 17027.5 | 909.8  | 446.6  | 373.8  | 357.3  | 380.4  | 378.8  | 375.5  | 382.1  | 380.4  |
| 72.5° | 18584.0 | 12356.2 | 665.0  | 393.7  | 340.7  | 325.9  | 352.3  | 350.7  | 350.7  | 360.6  | 355.6  |
| 75°   | 10693.9 | 6358.4  | 531.0  | 337.4  | 306.0  | 294.4  | 317.6  | 319.2  | 322.6  | 335.8  | 325.9  |
| 77.5° | 3048.5  | 1981.6  | 433.4  | 286.2  | 263.0  | 258.0  | 281.2  | 284.5  | 286.2  | 301.0  | 287.8  |
| 80°   | 1133.1  | 913.1   | 357.3  | 239.8  | 215.0  | 216.7  | 238.2  | 243.2  | 244.8  | 259.7  | 243.2  |
| 82.5° | 722.8   | 602.1   | 289.5  | 185.3  | 168.7  | 167.1  | 193.5  | 200.1  | 200.1  | 201.8  | 191.9  |
| 85°   | 421.8   | 360.6   | 218.3  | 134.0  | 119.1  | 114.1  | 143.9  | 155.5  | 150.5  | 147.2  | 140.6  |
| 87.5° | 282.9   | 248.1   | 134.0  | 74.4   | 64.5   | 61.2   | 84.4   | 92.6   | 89.3   | 84.4   | 79.4   |
| 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)