

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: P299201

Luminaire Tested: **GLNA-AF-08-LED-E1-SL2-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299201  
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-08-LED-E1-SL2-7050-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Narrow OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37624.2 lumens  
Efficiency: N/A  
Efficacy: 112.6 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

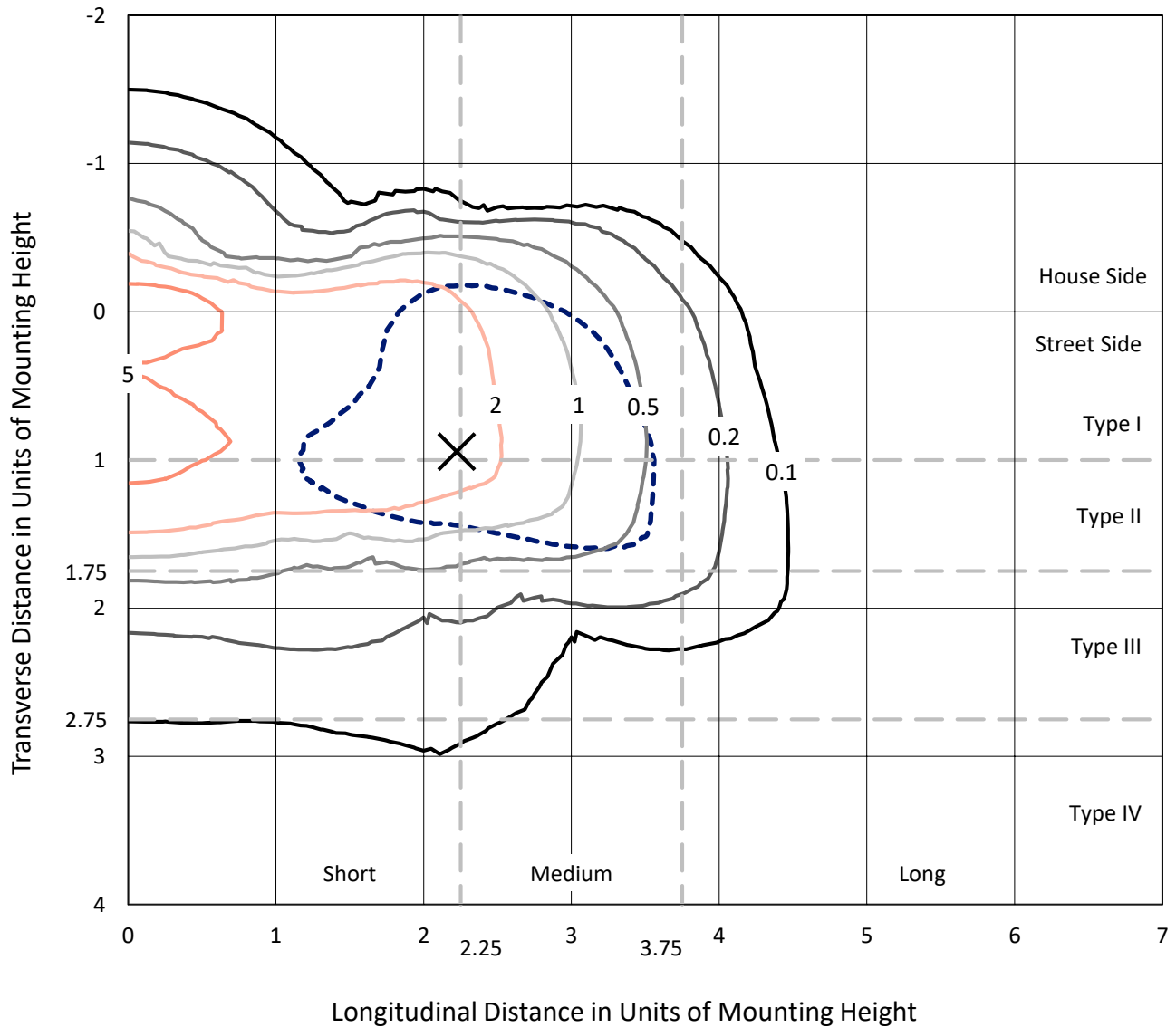
Input Watts (W): 334  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

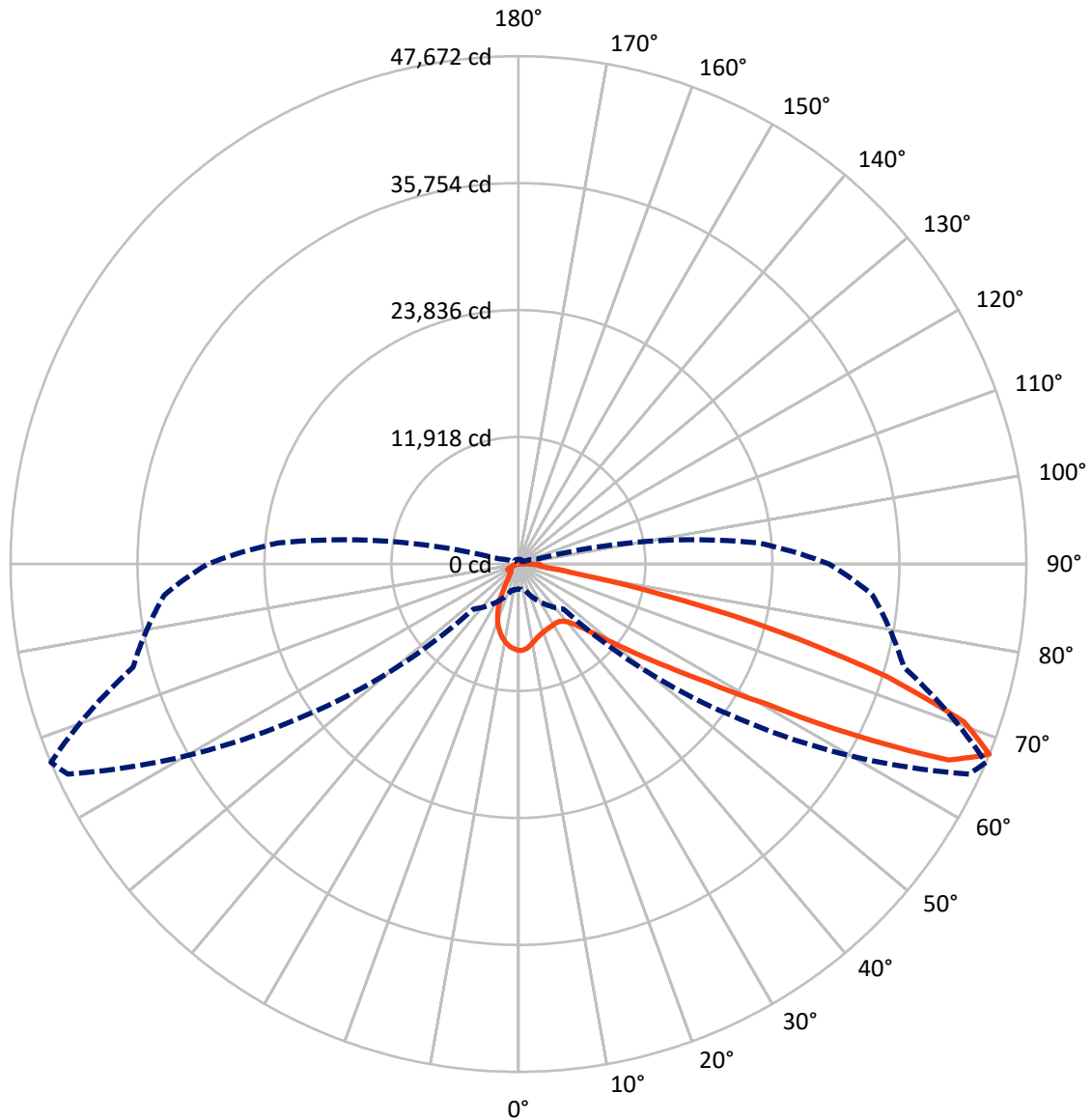
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6233.9   | 0.0    | 6233.9  |
|                    | % Fixture | 16.6     | 0.0    | 16.6    |
| <b>Street Side</b> | Lumens    | 31390.3  | 0.0    | 31390.3 |
|                    | % Fixture | 83.4     | 0.0    | 83.4    |
| <b>Total</b>       | Lumens    | 37624.2  | 0.0    | 37624.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 692.4   | 1.8       |
| 10°-20°   | 1602.0  | 4.3       |
| 20°-30°   | 2171.6  | 5.8       |
| 30°-40°   | 3087.1  | 8.2       |
| 40°-50°   | 5164.9  | 13.7      |
| 50°-60°   | 8170.8  | 21.7      |
| 60°-70°   | 10408.8 | 27.7      |
| 70°-80°   | 5452.1  | 14.5      |
| 80°-90°   | 874.4   | 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°    | 37624.2 | 100.0     |
| 0°-180°   | 37624.2 | 100.0     |

**Coefficient of Utilization**



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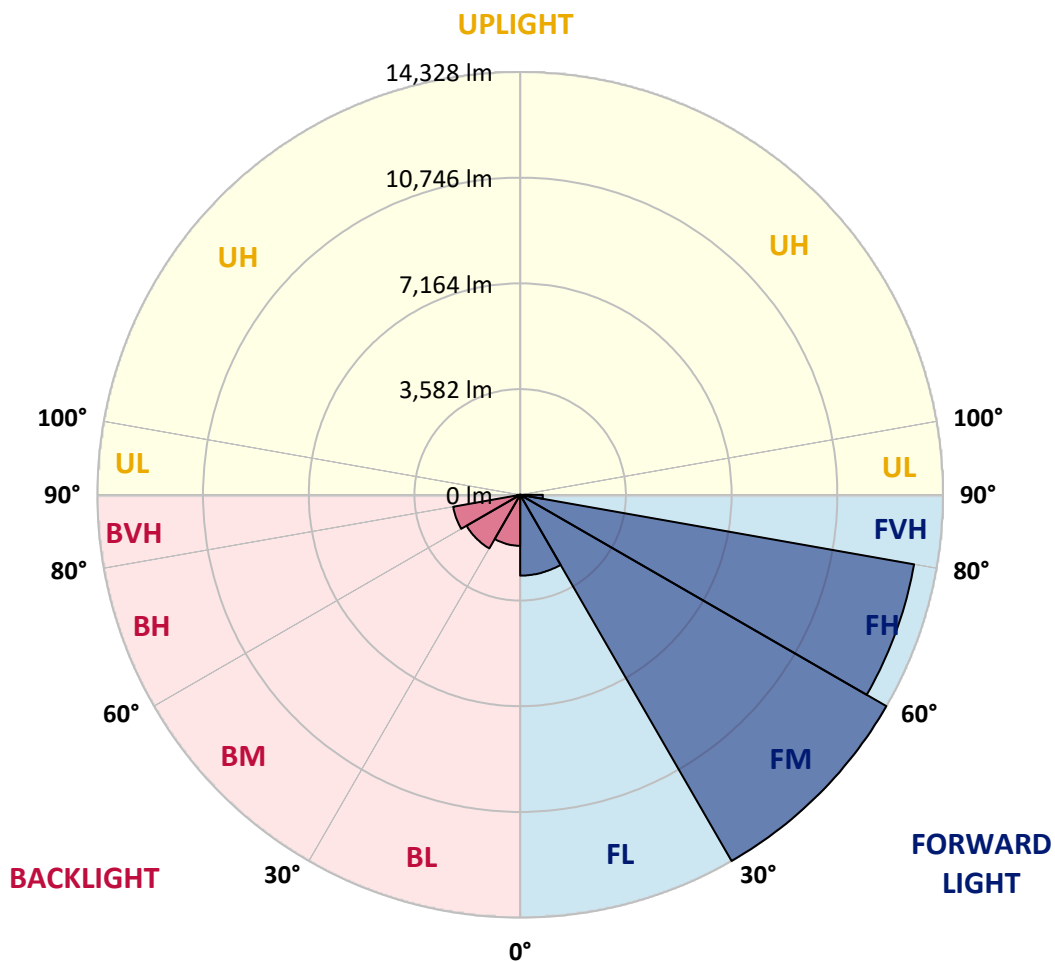
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2738.1  | 7.3       |                         |      |         |
| FM (30°-60°)   | 14328.1 | 38.1      |                         |      |         |
| FH (60°-80°)   | 13555.2 | 36.0      |                         |      | G5      |
| FVH (80°-90°)  | 768.9   | 2.0       |                         |      | G5      |
| BL (0°-30°)    | 1727.9  | 4.6       | B3/2500                 |      |         |
| BM (30°-60°)   | 2094.8  | 5.6       | B2/2500                 |      |         |
| BH (60°-80°)   | 2305.7  | 6.1       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 105.5   | 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 II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 67°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 8115.5  | 8115.5  | 8115.5  | 8115.5  | 8115.5  | 8115.5  | 8115.5  | 8115.5  | 8115.5  | 8115.5  | 8115.5  |
| 2.5°  | 7781.5  | 7794.5  | 7835.3  | 7861.3  | 7978.2  | 8028.2  | 8063.5  | 8098.8  | 8104.3  | 8121.0  | 8104.3  |
| 5°    | 6965.1  | 6992.9  | 7069.0  | 7154.4  | 7380.7  | 7558.8  | 7746.2  | 7941.0  | 7976.3  | 8102.5  | 8137.7  |
| 7.5°  | 6332.4  | 6325.0  | 6388.1  | 6490.1  | 6722.1  | 6968.8  | 7297.2  | 7685.0  | 7761.1  | 8044.9  | 8182.2  |
| 10°   | 5870.4  | 5864.9  | 5931.7  | 6037.4  | 6258.2  | 6492.0  | 6863.1  | 7393.7  | 7501.3  | 7954.0  | 8224.9  |
| 12.5° | 5529.0  | 5530.9  | 5597.7  | 5714.6  | 5939.1  | 6174.7  | 6551.4  | 7111.7  | 7249.0  | 7848.3  | 8269.4  |
| 15°   | 5302.7  | 5317.5  | 5371.3  | 5495.6  | 5714.6  | 5950.2  | 6319.4  | 6900.2  | 7054.2  | 7764.8  | 8319.5  |
| 17.5° | 5226.6  | 5250.7  | 5269.3  | 5360.2  | 5547.6  | 5783.2  | 6145.0  | 6744.3  | 6907.6  | 7707.3  | 8364.1  |
| 20°   | 5297.1  | 5325.0  | 5289.7  | 5321.2  | 5440.0  | 5647.8  | 6007.7  | 6621.9  | 6788.9  | 7642.3  | 8369.6  |
| 22.5° | 5599.5  | 5625.5  | 5521.6  | 5430.7  | 5423.3  | 5549.5  | 5894.6  | 6525.4  | 6697.9  | 7594.1  | 8371.5  |
| 25°   | 6132.0  | 6148.7  | 5974.3  | 5762.8  | 5556.9  | 5514.2  | 5814.8  | 6458.6  | 6642.3  | 7551.4  | 8336.2  |
| 27.5° | 6785.1  | 6798.1  | 6597.7  | 6286.0  | 5872.3  | 5597.7  | 5786.9  | 6419.6  | 6610.7  | 7514.3  | 8276.9  |
| 30°   | 7579.2  | 7640.5  | 7371.4  | 6978.1  | 6375.1  | 5844.5  | 5842.6  | 6399.2  | 6575.5  | 7451.2  | 8160.0  |
| 32.5° | 8391.9  | 8417.9  | 8232.3  | 7833.4  | 7052.3  | 6278.6  | 5998.5  | 6414.1  | 6566.2  | 7375.2  | 8011.5  |
| 35°   | 9215.7  | 9249.1  | 9128.5  | 8807.5  | 7978.2  | 6915.0  | 6302.7  | 6501.3  | 6623.7  | 7349.2  | 7907.6  |
| 37.5° | 10282.5 | 10327.1 | 10160.1 | 9789.0  | 9104.4  | 7777.8  | 6809.3  | 6720.2  | 6800.0  | 7423.4  | 7876.1  |
| 40°   | 11969.1 | 11948.7 | 11460.7 | 10907.8 | 10336.3 | 8881.7  | 7532.9  | 7091.3  | 7137.7  | 7662.7  | 7972.6  |
| 42.5° | 13932.1 | 13882.0 | 13041.5 | 12173.2 | 11690.8 | 10217.6 | 8490.2  | 7735.1  | 7725.8  | 8134.0  | 8312.1  |
| 45°   | 15498.0 | 15457.2 | 14700.2 | 13629.7 | 13243.7 | 11739.0 | 9727.8  | 8694.3  | 8625.7  | 8881.7  | 8939.2  |
| 47.5° | 16345.9 | 16347.8 | 15911.8 | 15037.9 | 15028.6 | 13672.3 | 11317.8 | 10082.2 | 9963.4  | 10084.0 | 10022.8 |
| 50°   | 16049.1 | 16088.0 | 16041.7 | 15763.3 | 16657.6 | 16206.8 | 13394.0 | 12017.3 | 11778.0 | 11896.7 | 11661.1 |
| 52.5° | 14613.0 | 14663.1 | 14937.7 | 15364.4 | 17342.3 | 19270.0 | 16444.3 | 14421.9 | 14143.6 | 14100.9 | 13839.3 |
| 55°   | 12067.4 | 12128.6 | 12689.0 | 13848.6 | 16772.7 | 21327.6 | 21257.1 | 17487.0 | 17043.6 | 16640.9 | 16529.6 |
| 57.5° | 8317.7  | 8419.7  | 9321.5  | 11043.2 | 14930.3 | 21949.2 | 26988.4 | 21856.4 | 20954.7 | 19548.3 | 19574.3 |
| 60°   | 4688.6  | 4807.3  | 5870.4  | 7434.5  | 11212.1 | 21273.8 | 31348.6 | 28474.6 | 26571.0 | 22953.0 | 23145.9 |
| 62.5° | 2981.6  | 3109.6  | 3916.7  | 5165.4  | 6727.6  | 17637.3 | 33135.3 | 37675.4 | 35257.9 | 27149.8 | 27339.1 |
| 65°   | 2413.9  | 2469.5  | 2849.9  | 4263.7  | 4885.2  | 10625.8 | 31779.0 | 45254.7 | 44353.0 | 32476.6 | 31593.5 |
| 67.5° | 2356.3  | 2374.9  | 2571.6  | 3579.0  | 4684.8  | 5972.5  | 25348.3 | 46672.2 | 47672.2 | 37450.9 | 33365.4 |
| 70°   | 2328.5  | 2393.4  | 2898.1  | 3415.8  | 4486.3  | 5037.4  | 15232.7 | 42787.0 | 44365.9 | 38751.6 | 31007.2 |
| 72.5° | 1129.9  | 1126.2  | 1458.3  | 3089.2  | 5054.1  | 5224.8  | 7826.0  | 34619.6 | 36204.1 | 33573.2 | 25480.0 |
| 75°   | 911.0   | 833.1   | 796.0   | 1131.8  | 4859.3  | 5395.5  | 4987.3  | 23821.3 | 24967.9 | 22509.5 | 15663.2 |
| 77.5° | 864.6   | 771.8   | 706.9   | 708.8   | 2053.9  | 5722.0  | 4224.7  | 13184.4 | 13518.3 | 10167.5 | 4291.5  |
| 80°   | 716.2   | 630.8   | 584.4   | 658.7   | 994.5   | 5449.3  | 4568.0  | 5966.9  | 5475.2  | 2497.3  | 1428.6  |
| 82.5° | 497.2   | 452.7   | 439.7   | 552.9   | 796.0   | 3883.3  | 5312.0  | 3206.1  | 2688.5  | 1250.5  | 881.3   |
| 85°   | 317.3   | 270.9   | 300.6   | 402.6   | 619.7   | 1792.3  | 5471.5  | 2499.2  | 1987.1  | 794.1   | 497.2   |
| 87.5° | 146.6   | 118.7   | 148.4   | 222.6   | 404.5   | 617.8   | 5206.2  | 2807.2  | 2046.5  | 419.3   | 313.6   |
| 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°    | 8115.5  | 8115.5  | 8115.5 | 8115.5 | 8115.5 | 8115.5 | 8115.5 | 8115.5 | 8115.5 | 8115.5 | 8115.5 |
| 2.5°  | 8119.2  | 8083.9  | 8056.1 | 8004.1 | 7946.6 | 7890.9 | 7840.9 | 7777.8 | 7759.2 | 7742.5 | 7768.5 |
| 5°    | 8145.1  | 8109.9  | 8007.8 | 7848.3 | 7672.0 | 7506.9 | 7341.8 | 7200.7 | 7113.5 | 7065.3 | 7093.1 |
| 7.5°  | 8184.1  | 8134.0  | 7922.5 | 7629.3 | 7312.1 | 7022.6 | 6723.9 | 6484.6 | 6308.3 | 6224.8 | 6248.9 |
| 10°   | 8219.4  | 8122.9  | 7777.8 | 7338.0 | 6874.2 | 6443.7 | 5972.5 | 5582.9 | 5293.4 | 5141.3 | 5178.4 |
| 12.5° | 8234.2  | 8080.2  | 7575.5 | 6974.4 | 6338.0 | 5707.2 | 5013.2 | 4430.7 | 4015.1 | 3862.9 | 3831.4 |
| 15°   | 8249.0  | 8032.0  | 7352.9 | 6560.6 | 5690.5 | 4798.0 | 3825.8 | 3128.2 | 2783.1 | 2707.0 | 2690.3 |
| 17.5° | 8252.7  | 7948.5  | 7100.6 | 6111.6 | 4931.6 | 3716.3 | 2616.1 | 2172.7 | 2174.5 | 2297.0 | 2311.8 |
| 20°   | 8213.8  | 7824.2  | 6794.4 | 5553.2 | 4022.5 | 2569.7 | 1796.0 | 1719.9 | 2000.1 | 2306.2 | 2343.4 |
| 22.5° | 8124.7  | 7659.0  | 6447.5 | 4901.9 | 2981.6 | 1692.1 | 1389.7 | 1473.2 | 1835.0 | 2209.8 | 2252.4 |
| 25°   | 8011.5  | 7458.6  | 6037.4 | 4146.8 | 1974.1 | 1209.7 | 1165.2 | 1267.2 | 1512.1 | 1762.6 | 1786.7 |
| 27.5° | 7857.6  | 7221.2  | 5577.3 | 3282.2 | 1282.1 | 996.3  | 1026.0 | 1094.7 | 1194.9 | 1306.2 | 1317.3 |
| 30°   | 7659.0  | 6937.3  | 5085.6 | 2393.4 | 968.5  | 896.2  | 938.8  | 975.9  | 1018.6 | 1081.7 | 1087.3 |
| 32.5° | 7430.8  | 6664.5  | 4580.9 | 1653.1 | 859.0  | 844.2  | 877.6  | 896.2  | 929.5  | 968.5  | 972.2  |
| 35°   | 7239.7  | 6404.8  | 4057.7 | 1168.9 | 812.7  | 805.2  | 827.5  | 834.9  | 866.5  | 909.1  | 912.8  |
| 37.5° | 7130.2  | 6193.3  | 3517.8 | 942.5  | 781.1  | 770.0  | 783.0  | 783.0  | 827.5  | 890.6  | 899.9  |
| 40°   | 7137.7  | 6076.4  | 2977.9 | 851.6  | 755.1  | 740.3  | 742.2  | 742.2  | 799.7  | 868.3  | 873.9  |
| 42.5° | 7339.9  | 6106.1  | 2499.2 | 816.4  | 734.7  | 718.0  | 708.8  | 714.3  | 762.6  | 807.1  | 810.8  |
| 45°   | 7814.9  | 6315.7  | 2050.2 | 794.1  | 714.3  | 708.8  | 688.3  | 686.5  | 705.0  | 725.5  | 725.5  |
| 47.5° | 8594.1  | 6729.5  | 1745.9 | 779.3  | 697.6  | 695.8  | 671.6  | 647.5  | 645.7  | 653.1  | 653.1  |
| 50°   | 9861.4  | 7441.9  | 1541.8 | 762.6  | 686.5  | 671.6  | 643.8  | 606.7  | 593.7  | 599.3  | 599.3  |
| 52.5° | 11761.3 | 8712.9  | 1463.9 | 740.3  | 662.4  | 638.3  | 606.7  | 569.6  | 558.5  | 560.3  | 560.3  |
| 55°   | 14253.1 | 10664.7 | 1452.8 | 714.3  | 636.4  | 597.4  | 571.5  | 543.6  | 530.6  | 534.4  | 534.4  |
| 57.5° | 17297.7 | 13364.3 | 1651.3 | 673.5  | 601.1  | 556.6  | 541.8  | 523.2  | 513.9  | 519.5  | 517.7  |
| 60°   | 20999.2 | 16897.0 | 2449.1 | 630.8  | 565.9  | 519.5  | 519.5  | 504.7  | 497.2  | 502.8  | 501.0  |
| 62.5° | 25262.9 | 20954.7 | 3443.6 | 599.3  | 528.8  | 489.8  | 497.2  | 489.8  | 482.4  | 486.1  | 484.3  |
| 65°   | 29044.2 | 23598.6 | 3224.7 | 575.2  | 491.7  | 462.0  | 475.0  | 471.3  | 465.7  | 469.4  | 467.6  |
| 67.5° | 29153.7 | 22619.0 | 1810.9 | 549.2  | 456.4  | 434.2  | 452.7  | 450.9  | 447.1  | 450.9  | 449.0  |
| 70°   | 26018.1 | 19099.3 | 1020.5 | 501.0  | 419.3  | 400.8  | 426.7  | 424.9  | 421.2  | 428.6  | 426.7  |
| 72.5° | 20845.2 | 13859.7 | 745.9  | 441.6  | 382.2  | 365.5  | 395.2  | 393.3  | 393.3  | 404.5  | 398.9  |
| 75°   | 11995.1 | 7132.1  | 595.6  | 378.5  | 343.2  | 330.3  | 356.2  | 358.1  | 361.8  | 376.6  | 365.5  |
| 77.5° | 3419.5  | 2222.8  | 486.1  | 321.0  | 295.0  | 289.4  | 315.4  | 319.1  | 321.0  | 337.7  | 322.8  |
| 80°   | 1270.9  | 1024.2  | 400.8  | 269.0  | 241.2  | 243.1  | 267.2  | 272.7  | 274.6  | 291.3  | 272.7  |
| 82.5° | 810.8   | 675.4   | 324.7  | 207.8  | 189.2  | 187.4  | 217.1  | 224.5  | 224.5  | 226.4  | 215.2  |
| 85°   | 473.1   | 404.5   | 244.9  | 150.3  | 133.6  | 128.0  | 161.4  | 174.4  | 168.8  | 165.1  | 157.7  |
| 87.5° | 317.3   | 278.3   | 150.3  | 83.5   | 72.4   | 68.6   | 94.6   | 103.9  | 100.2  | 94.6   | 89.1   |
| 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)