

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: P302862

Luminaire Tested: **GLNA-AF-07-LED-E1-T4W-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302862  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
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-T4W-7050-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33661.9 lumens  
Efficiency: N/A  
Efficacy: 114.1 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G5

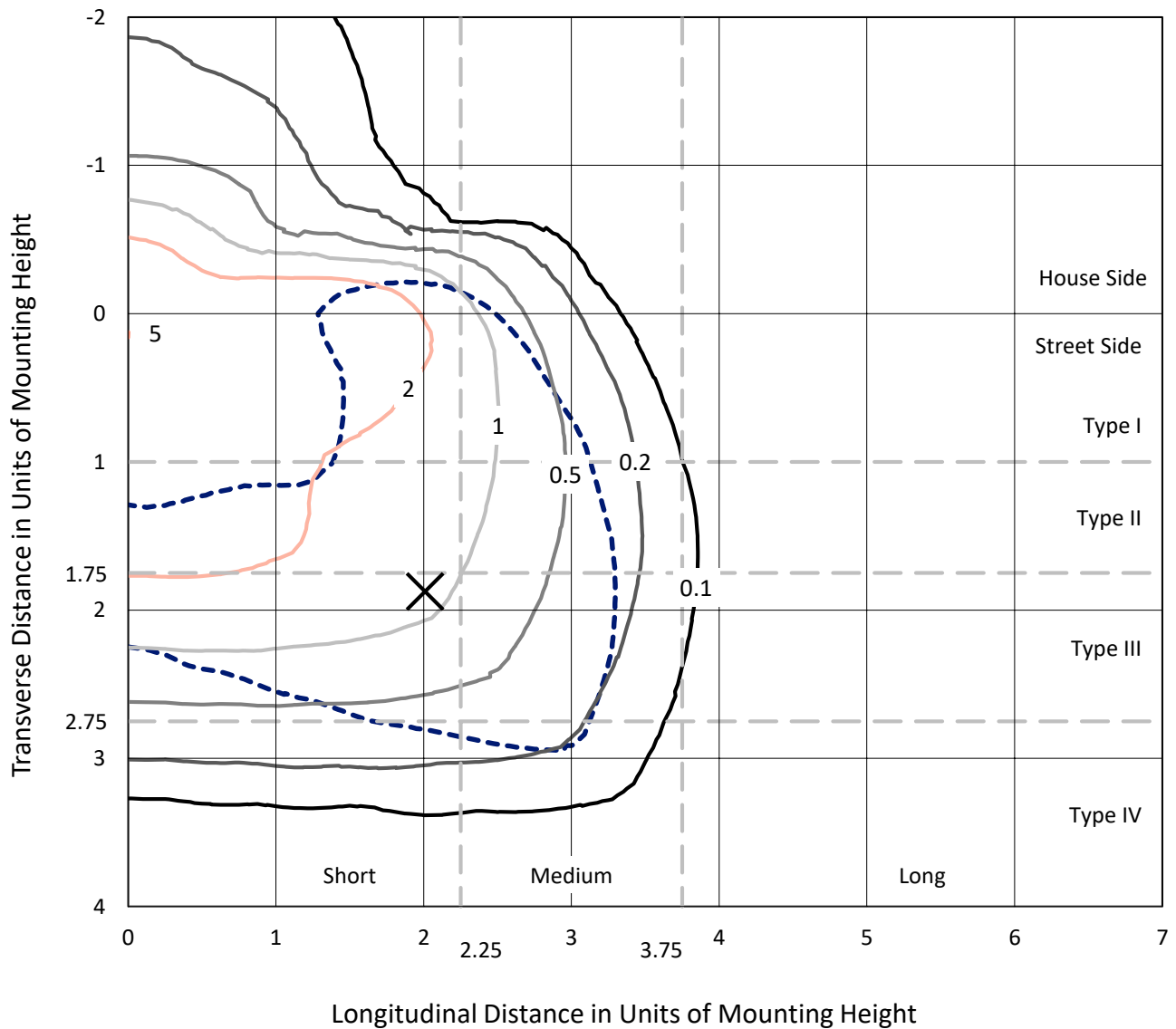
Input Watts (W): 295  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

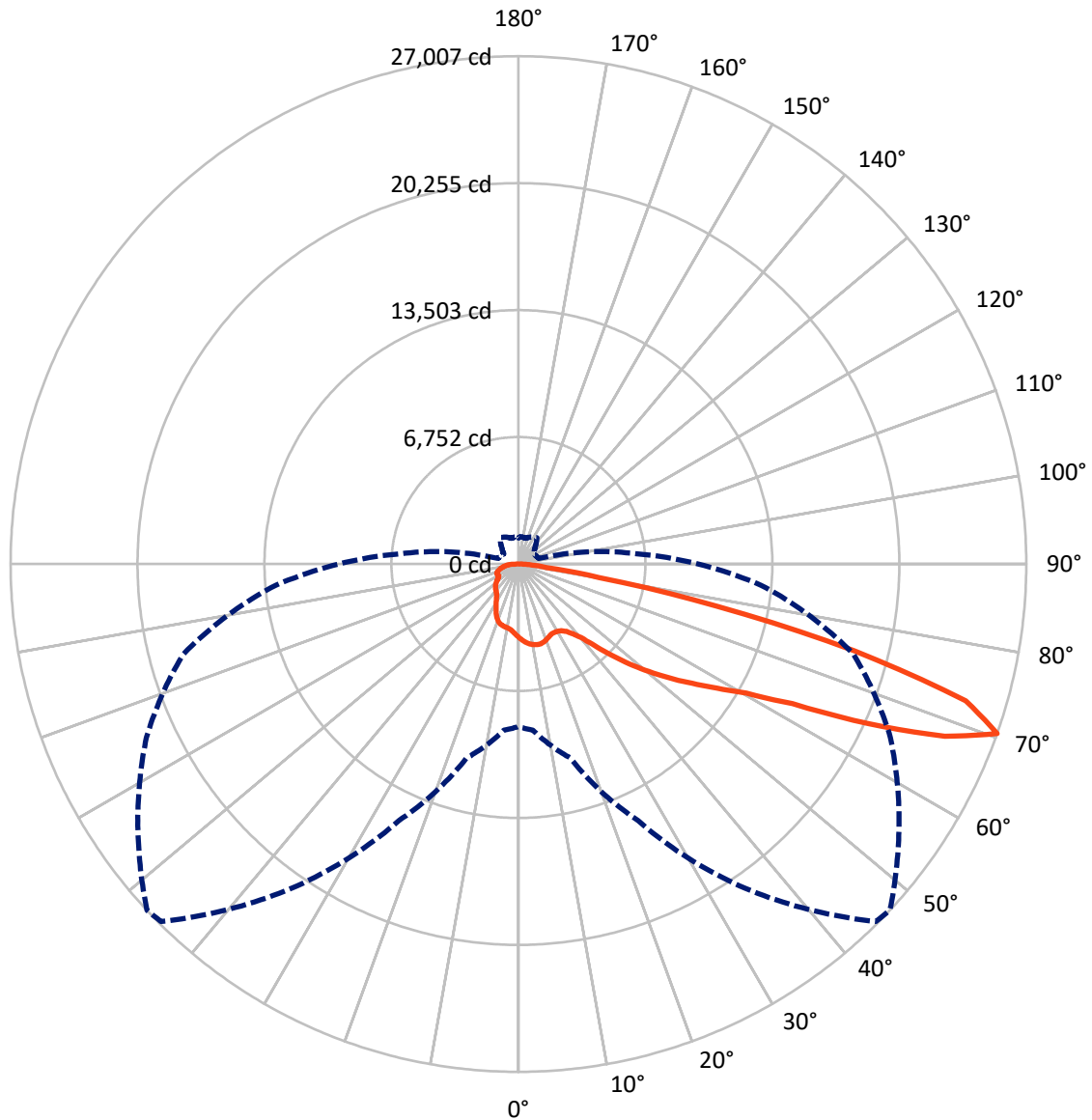
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7022.5   | 0.0    | 7022.5  |
|                    | % Fixture | 20.9     | 0.0    | 20.9    |
| <b>Street Side</b> | Lumens    | 26639.4  | 0.0    | 26639.4 |
|                    | % Fixture | 79.1     | 0.0    | 79.1    |
| <b>Total</b>       | Lumens    | 33661.9  | 0.0    | 33661.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 374.2   | 1.1       |
| 10°-20°   | 1097.9  | 3.3       |
| 20°-30°   | 1621.4  | 4.8       |
| 30°-40°   | 2356.6  | 7.0       |
| 40°-50°   | 4241.1  | 12.6      |
| 50°-60°   | 7347.2  | 21.8      |
| 60°-70°   | 10486.6 | 31.2      |
| 70°-80°   | 5383.2  | 16.0      |
| 80°-90°   | 753.7   | 2.2       |
| 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°    | 33661.9 | 100.0     |
| 0°-180°   | 33661.9 | 100.0     |



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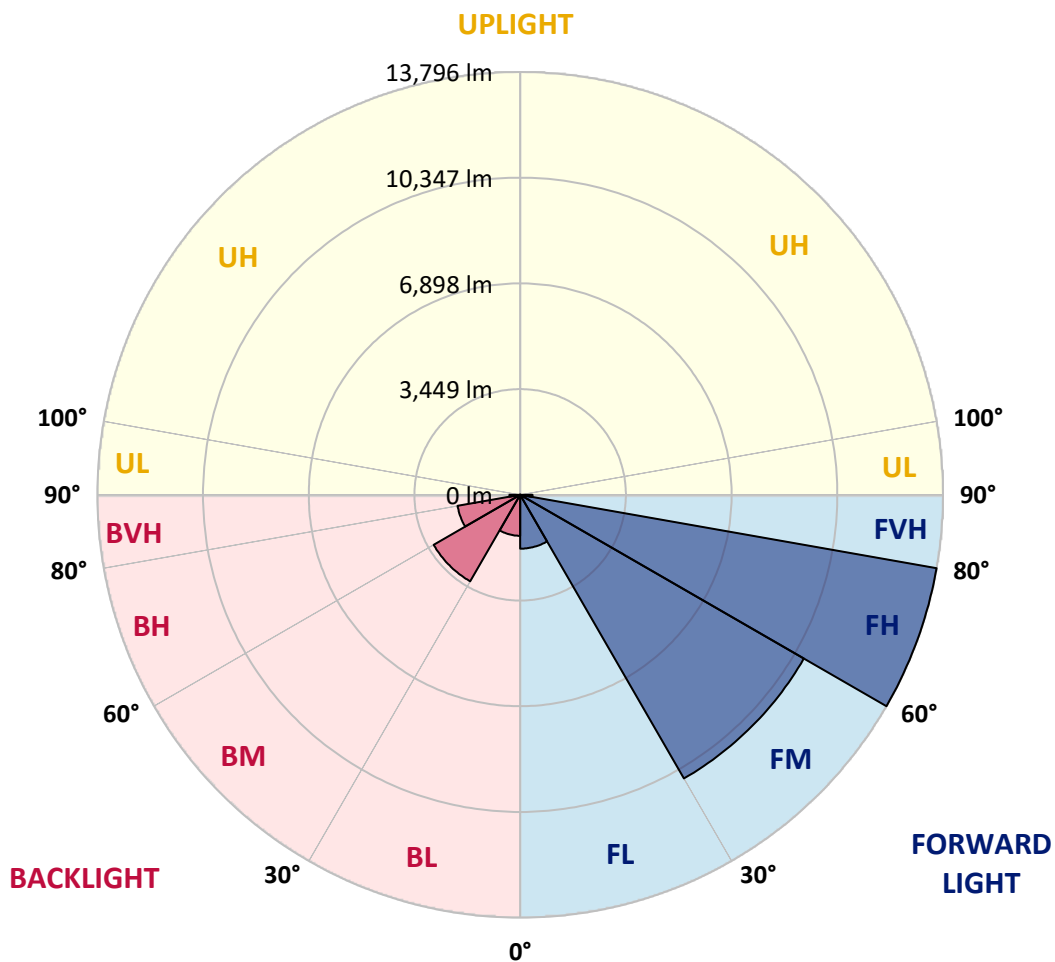
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 1756.4  | 5.2       |                         |      |         |
| FM (30°-60°)   | 10685.2 | 31.7      |                         |      |         |
| FH (60°-80°)   | 13795.6 | 41.0      |                         |      | G5      |
| FVH (80°-90°)  | 402.2   | 1.2       |                         |      | G3/500  |
| BL (0°-30°)    | 1337.1  | 4.0       | B3/2500                 |      |         |
| BM (30°-60°)   | 3259.7  | 9.7       | B3/5000                 |      |         |
| BH (60°-80°)   | 2074.3  | 6.2       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 351.5   | 1.0       |                         |      | G3/500  |
| 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°     | 45°     | 47°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3905.7  | 3905.7  | 3905.7  | 3905.7  | 3905.7  | 3905.7  | 3905.7  | 3905.7  | 3905.7  | 3905.7  | 3905.7  |
| 2.5°  | 4135.3  | 4127.1  | 4123.8  | 4117.3  | 4109.2  | 4067.8  | 4059.7  | 4030.3  | 3989.5  | 3946.5  | 3902.5  |
| 5°    | 4407.2  | 4405.6  | 4387.1  | 4354.5  | 4302.2  | 4212.0  | 4190.7  | 4118.9  | 4022.1  | 3928.6  | 3835.6  |
| 7.5°  | 4646.0  | 4631.3  | 4597.0  | 4531.2  | 4439.9  | 4316.9  | 4287.6  | 4187.5  | 4054.8  | 3927.0  | 3800.8  |
| 10°   | 4821.1  | 4813.0  | 4737.9  | 4647.6  | 4528.0  | 4392.0  | 4357.7  | 4246.2  | 4100.5  | 3938.4  | 3781.2  |
| 12.5° | 4921.2  | 4904.9  | 4817.9  | 4710.2  | 4567.7  | 4435.0  | 4400.1  | 4287.6  | 4123.8  | 3938.4  | 3753.4  |
| 15°   | 4914.7  | 4903.3  | 4816.2  | 4698.2  | 4554.6  | 4438.2  | 4407.2  | 4294.1  | 4118.9  | 3922.1  | 3717.6  |
| 17.5° | 4783.6  | 4788.5  | 4715.1  | 4598.7  | 4480.6  | 4392.0  | 4364.2  | 4259.8  | 4085.8  | 3889.4  | 3675.1  |
| 20°   | 4554.6  | 4577.5  | 4528.0  | 4425.2  | 4359.4  | 4299.0  | 4281.0  | 4192.4  | 4035.2  | 3842.1  | 3628.9  |
| 22.5° | 4325.1  | 4346.3  | 4326.7  | 4239.7  | 4229.9  | 4194.0  | 4184.2  | 4120.6  | 3991.1  | 3812.7  | 3601.2  |
| 25°   | 4156.5  | 4176.1  | 4172.8  | 4097.2  | 4127.1  | 4125.5  | 4117.3  | 4085.8  | 3981.3  | 3812.7  | 3606.1  |
| 27.5° | 4110.8  | 4117.3  | 4110.8  | 4041.7  | 4082.5  | 4115.7  | 4109.2  | 4103.7  | 4010.7  | 3860.1  | 3668.6  |
| 30°   | 4268.0  | 4258.2  | 4207.1  | 4067.8  | 4105.9  | 4151.6  | 4145.1  | 4148.3  | 4098.8  | 3984.6  | 3807.8  |
| 32.5° | 4895.1  | 4850.5  | 4690.0  | 4299.0  | 4198.9  | 4223.4  | 4226.6  | 4281.0  | 4289.2  | 4176.1  | 4023.8  |
| 35°   | 5833.3  | 5784.4  | 5576.1  | 4917.9  | 4488.8  | 4404.0  | 4404.0  | 4485.5  | 4534.5  | 4451.3  | 4359.4  |
| 37.5° | 6827.6  | 6773.2  | 6662.2  | 5776.2  | 5098.0  | 4716.7  | 4708.5  | 4765.6  | 4835.8  | 4855.9  | 4878.8  |
| 40°   | 7957.2  | 7900.1  | 7931.1  | 6738.9  | 5948.1  | 5258.4  | 5142.0  | 5101.2  | 5291.1  | 5417.2  | 5601.1  |
| 42.5° | 9194.1  | 9167.4  | 9178.8  | 7811.5  | 6915.7  | 6069.4  | 5904.0  | 5692.5  | 5922.0  | 6146.1  | 6531.1  |
| 45°   | 10338.4 | 10361.3 | 10349.9 | 8959.7  | 7993.7  | 7058.2  | 6883.0  | 6473.5  | 6698.1  | 7082.7  | 7710.3  |
| 47.5° | 11340.8 | 11245.7 | 11393.1 | 10213.9 | 9200.6  | 8165.6  | 7949.1  | 7400.8  | 7628.2  | 8103.0  | 9164.2  |
| 50°   | 12557.5 | 12544.5 | 12328.6 | 11888.0 | 10659.3 | 9277.3  | 8993.9  | 8358.6  | 8712.2  | 9372.5  | 10997.1 |
| 52.5° | 13836.8 | 13599.1 | 13401.1 | 13189.6 | 12207.3 | 10417.3 | 10069.8 | 9313.2  | 9986.5  | 10816.5 | 13230.9 |
| 55°   | 14098.4 | 13992.4 | 14237.7 | 14593.4 | 13699.2 | 11601.4 | 11196.7 | 10510.3 | 11421.3 | 12467.8 | 15806.8 |
| 57.5° | 14658.6 | 14657.0 | 15165.0 | 15798.6 | 15235.2 | 12857.2 | 12449.3 | 11956.5 | 13034.0 | 14358.9 | 18541.5 |
| 60°   | 15037.2 | 15143.2 | 16086.9 | 17316.7 | 16743.4 | 14308.4 | 13933.1 | 13625.2 | 14868.6 | 16473.1 | 21089.7 |
| 62.5° | 15235.2 | 15379.3 | 16666.7 | 17932.4 | 18875.5 | 16723.8 | 16349.1 | 15905.2 | 17295.5 | 18792.3 | 22580.0 |
| 65°   | 14411.7 | 14694.5 | 16576.4 | 18464.8 | 20742.7 | 20639.3 | 20470.7 | 19691.3 | 20329.9 | 20624.7 | 22041.5 |
| 67.5° | 12131.7 | 12421.6 | 14612.9 | 17968.3 | 22075.8 | 24416.2 | 24452.1 | 23120.6 | 22197.1 | 20781.9 | 18531.7 |
| 70°   | 8643.6  | 8871.0  | 10684.4 | 15064.9 | 21060.3 | 26883.9 | 27006.8 | 24700.6 | 21825.1 | 18430.0 | 12947.5 |
| 72.5° | 4103.7  | 4243.0  | 5959.5  | 9804.9  | 16712.4 | 24632.1 | 24869.8 | 22683.3 | 18557.8 | 13644.8 | 7063.1  |
| 75°   | 1508.2  | 1550.7  | 2014.1  | 4171.2  | 9693.4  | 18165.2 | 18445.3 | 16260.4 | 12301.9 | 6793.3  | 2690.7  |
| 77.5° | 904.0   | 931.7   | 1130.2  | 1760.6  | 3812.7  | 10383.0 | 10796.9 | 8843.3  | 5376.4  | 2528.6  | 1323.3  |
| 80°   | 632.0   | 651.6   | 810.4   | 1095.4  | 1801.4  | 3956.9  | 4325.1  | 3609.3  | 2141.9  | 1600.2  | 962.7   |
| 82.5° | 427.5   | 437.3   | 570.0   | 740.2   | 1197.1  | 1413.1  | 1524.5  | 1605.0  | 1444.6  | 1190.6  | 610.8   |
| 85°   | 280.1   | 289.9   | 386.7   | 487.9   | 761.5   | 730.5   | 746.8   | 944.8   | 1054.6  | 808.8   | 338.8   |
| 87.5° | 160.5   | 167.0   | 232.8   | 260.5   | 373.7   | 309.5   | 312.7   | 497.7   | 675.0   | 545.5   | 206.1   |
| 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°    | 3905.7  | 3905.7  | 3905.7 | 3905.7 | 3905.7 | 3905.7 | 3905.7 | 3905.7 | 3905.7 | 3905.7 | 3905.7 |
| 2.5°  | 3891.1  | 3869.8  | 3822.5 | 3792.6 | 3764.9 | 3758.3 | 3746.9 | 3745.3 | 3743.7 | 3743.7 | 3738.8 |
| 5°    | 3804.0  | 3768.1  | 3694.7 | 3653.4 | 3619.1 | 3615.8 | 3614.2 | 3622.4 | 3625.6 | 3628.9 | 3624.0 |
| 7.5°  | 3748.6  | 3699.6  | 3607.7 | 3548.9 | 3508.2 | 3497.8 | 3514.7 | 3552.2 | 3576.7 | 3586.5 | 3581.6 |
| 10°   | 3714.3  | 3653.4  | 3547.3 | 3483.1 | 3448.9 | 3444.0 | 3465.2 | 3509.8 | 3560.4 | 3579.9 | 3578.3 |
| 12.5° | 3675.1  | 3606.1  | 3492.9 | 3426.0 | 3406.4 | 3416.2 | 3444.0 | 3484.8 | 3537.5 | 3568.5 | 3570.2 |
| 15°   | 3635.4  | 3555.5  | 3439.1 | 3380.3 | 3372.2 | 3385.2 | 3411.3 | 3442.3 | 3483.1 | 3514.7 | 3517.9 |
| 17.5° | 3588.1  | 3504.3  | 3388.5 | 3327.6 | 3321.0 | 3327.6 | 3329.2 | 3345.5 | 3372.2 | 3401.5 | 3409.7 |
| 20°   | 3537.5  | 3452.1  | 3330.8 | 3270.5 | 3241.1 | 3215.0 | 3185.1 | 3188.3 | 3196.5 | 3226.4 | 3232.9 |
| 22.5° | 3501.1  | 3416.2  | 3286.8 | 3203.0 | 3124.7 | 3045.8 | 2987.1 | 2978.9 | 2982.2 | 3006.7 | 3014.8 |
| 25°   | 3504.3  | 3414.6  | 3275.4 | 3131.2 | 2959.4 | 2833.2 | 2754.3 | 2741.3 | 2739.6 | 2757.6 | 2769.5 |
| 27.5° | 3568.5  | 3478.2  | 3317.8 | 3057.3 | 2779.3 | 2592.2 | 2509.0 | 2499.2 | 2486.2 | 2491.1 | 2504.1 |
| 30°   | 3711.0  | 3627.3  | 3421.1 | 2982.2 | 2584.1 | 2356.7 | 2269.7 | 2259.9 | 2242.0 | 2233.8 | 2243.6 |
| 32.5° | 3943.3  | 3874.7  | 3571.8 | 2909.9 | 2389.3 | 2154.9 | 2066.8 | 2045.6 | 2034.2 | 2024.4 | 2032.6 |
| 35°   | 4330.0  | 4300.6  | 3773.0 | 2831.5 | 2217.5 | 1999.4 | 1919.4 | 1886.8 | 1870.5 | 1888.4 | 1901.5 |
| 37.5° | 4935.9  | 4952.2  | 4036.8 | 2708.6 | 2084.8 | 1896.6 | 1829.1 | 1791.6 | 1767.1 | 1781.8 | 1796.5 |
| 40°   | 5794.2  | 5805.6  | 4328.4 | 2535.1 | 1970.0 | 1835.7 | 1763.9 | 1729.6 | 1694.8 | 1668.7 | 1667.1 |
| 42.5° | 6920.6  | 6804.7  | 4615.0 | 2346.9 | 1837.3 | 1798.1 | 1718.2 | 1675.2 | 1623.0 | 1550.7 | 1536.0 |
| 45°   | 8256.9  | 7849.6  | 4832.5 | 2130.5 | 1688.3 | 1752.4 | 1667.1 | 1608.3 | 1526.2 | 1447.9 | 1439.7 |
| 47.5° | 9796.7  | 8971.1  | 4939.2 | 1906.4 | 1549.0 | 1685.0 | 1605.0 | 1511.5 | 1408.2 | 1369.0 | 1364.1 |
| 50°   | 11676.4 | 10302.5 | 4989.7 | 1688.3 | 1428.3 | 1596.9 | 1514.8 | 1404.9 | 1318.4 | 1310.3 | 1305.4 |
| 52.5° | 13817.2 | 11904.3 | 5006.6 | 1509.9 | 1328.2 | 1482.1 | 1441.3 | 1334.7 | 1265.7 | 1272.7 | 1272.7 |
| 55°   | 16057.5 | 13558.3 | 4783.6 | 1380.4 | 1236.3 | 1364.1 | 1391.8 | 1307.0 | 1249.3 | 1276.0 | 1285.8 |
| 57.5° | 18114.0 | 15024.1 | 4082.5 | 1280.9 | 1149.8 | 1274.4 | 1373.9 | 1333.1 | 1293.9 | 1400.0 | 1406.5 |
| 60°   | 19693.0 | 15890.0 | 3049.1 | 1190.6 | 1085.6 | 1242.8 | 1421.8 | 1433.2 | 1443.0 | 1696.4 | 1731.2 |
| 62.5° | 20023.7 | 15602.3 | 2096.2 | 1120.4 | 1056.3 | 1269.5 | 1508.2 | 1509.9 | 1498.4 | 1675.2 | 1696.4 |
| 65°   | 18505.6 | 13779.1 | 1524.5 | 1080.7 | 1031.8 | 1316.8 | 1582.2 | 1547.4 | 1472.3 | 1606.7 | 1567.0 |
| 67.5° | 14696.2 | 10381.4 | 1269.5 | 1051.4 | 995.9  | 1313.5 | 1660.5 | 1582.2 | 1457.7 | 1574.0 | 1509.9 |
| 70°   | 9539.5  | 6277.1  | 1130.2 | 1026.9 | 952.9  | 1251.0 | 1706.2 | 1578.9 | 1414.7 | 1464.2 | 1388.6 |
| 72.5° | 4654.1  | 2807.1  | 1036.7 | 991.0  | 908.9  | 1164.5 | 1704.6 | 1549.0 | 1370.6 | 1367.4 | 1326.6 |
| 75°   | 1821.0  | 1285.8  | 951.3  | 936.6  | 833.8  | 1066.0 | 1658.9 | 1506.6 | 1318.4 | 1265.7 | 1251.0 |
| 77.5° | 1066.0  | 917.0   | 843.6  | 856.6  | 743.5  | 967.6  | 1592.0 | 1433.2 | 1246.1 | 1184.1 | 1167.8 |
| 80°   | 776.1   | 686.4   | 719.0  | 740.2  | 635.3  | 869.7  | 1501.7 | 1342.9 | 1166.1 | 1197.1 | 1174.3 |
| 82.5° | 497.7   | 442.2   | 583.1  | 604.3  | 529.2  | 769.6  | 1403.3 | 1247.7 | 1053.0 | 956.2  | 933.3  |
| 85°   | 254.0   | 280.1   | 434.0  | 460.1  | 407.9  | 632.0  | 1284.1 | 1122.1 | 925.2  | 795.7  | 808.8  |
| 87.5° | 142.5   | 191.5   | 276.8  | 309.5  | 288.3  | 486.2  | 1041.6 | 925.2  | 754.9  | 614.1  | 540.6  |
| 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)