

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: P301835

Luminaire Tested: **GLNA-AF-06-LED-E1-SL4-7060-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301835  
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: GLNA-AF-06-LED-E1-SL4-7060-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(6) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

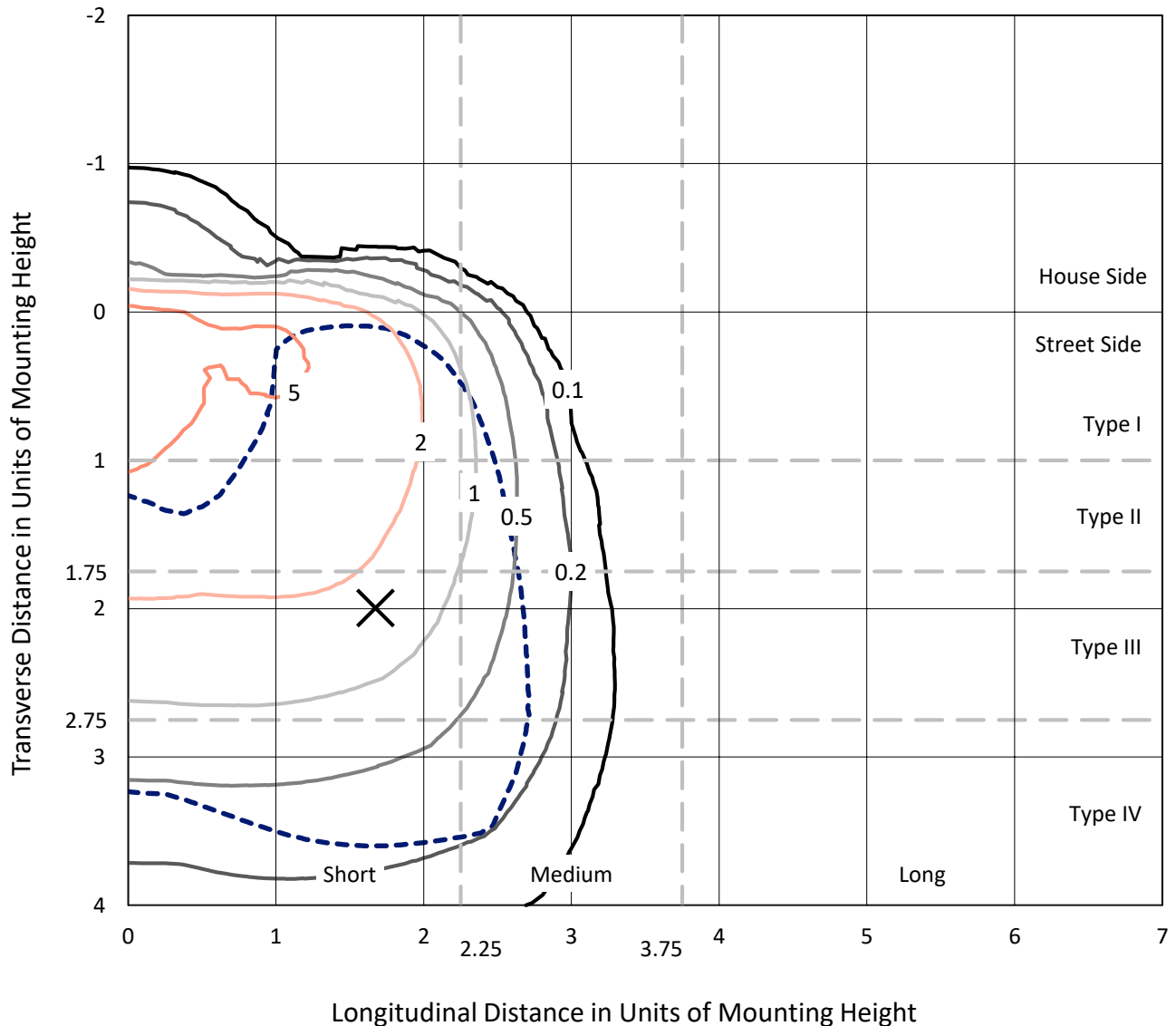
Lumens per Lamp: N/A  
Luminaire Lumens: 26253.4 lumens  
Efficiency: N/A  
Efficacy: 78.8 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G4  
  
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (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

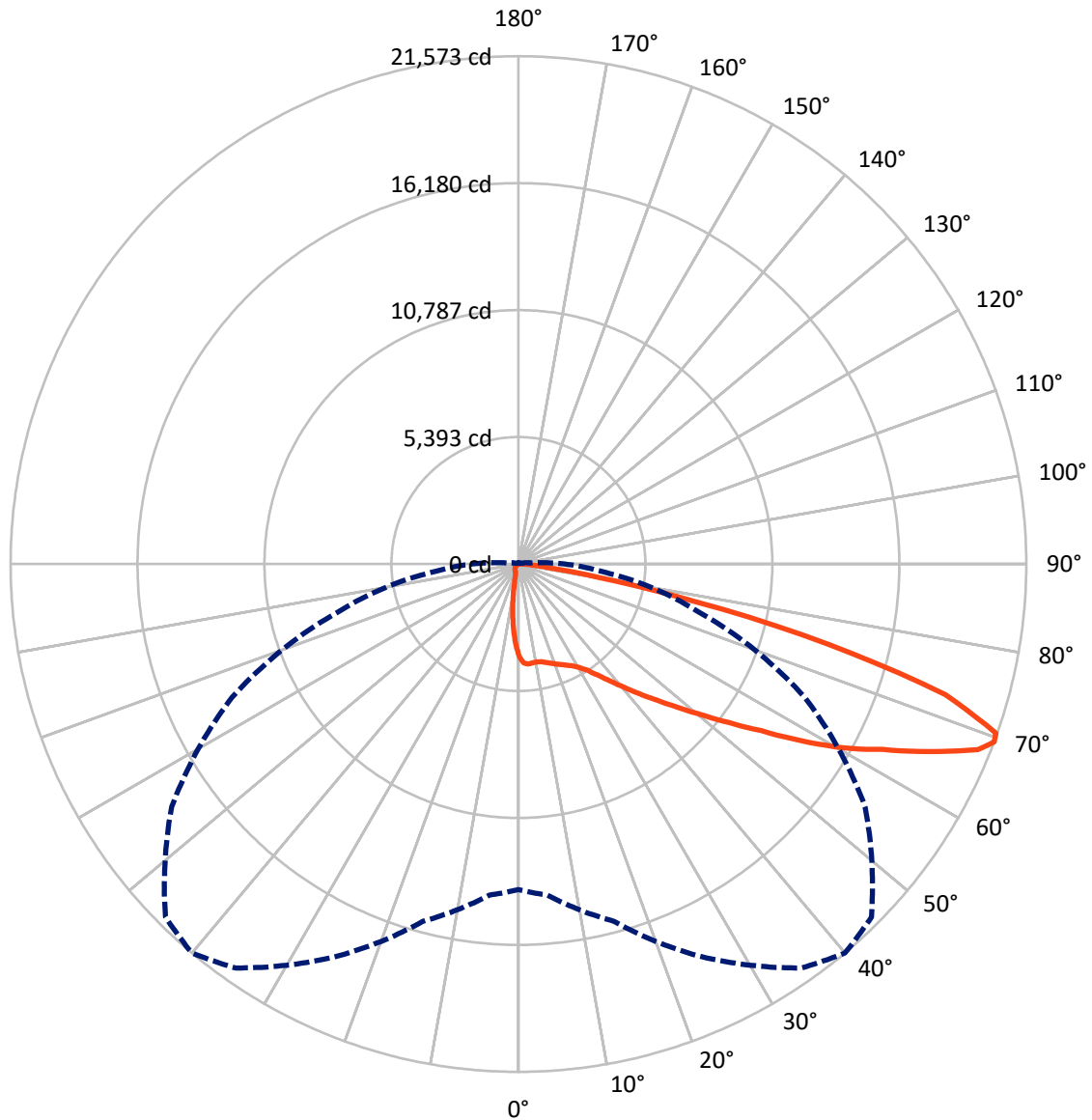
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1536.0   | 0.0    | 1536.0  |
|                    | % Fixture | 5.9      | 0.0    | 5.9     |
| <b>Street Side</b> | Lumens    | 24717.5  | 0.0    | 24717.5 |
|                    | % Fixture | 94.1     | 0.0    | 94.1    |
| <b>Total</b>       | Lumens    | 26253.4  | 0.0    | 26253.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 318.0   | 1.2       |
| 10°-20°   | 782.1   | 3.0       |
| 20°-30°   | 1317.3  | 5.0       |
| 30°-40°   | 2156.5  | 8.2       |
| 40°-50°   | 3733.9  | 14.2      |
| 50°-60°   | 5881.2  | 22.4      |
| 60°-70°   | 7680.7  | 29.3      |
| 70°-80°   | 3955.9  | 15.1      |
| 80°-90°   | 427.9   | 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°    | 26253.4 | 100.0     |
| 0°-180°   | 26253.4 | 100.0     |

**Coefficient of Utilization**



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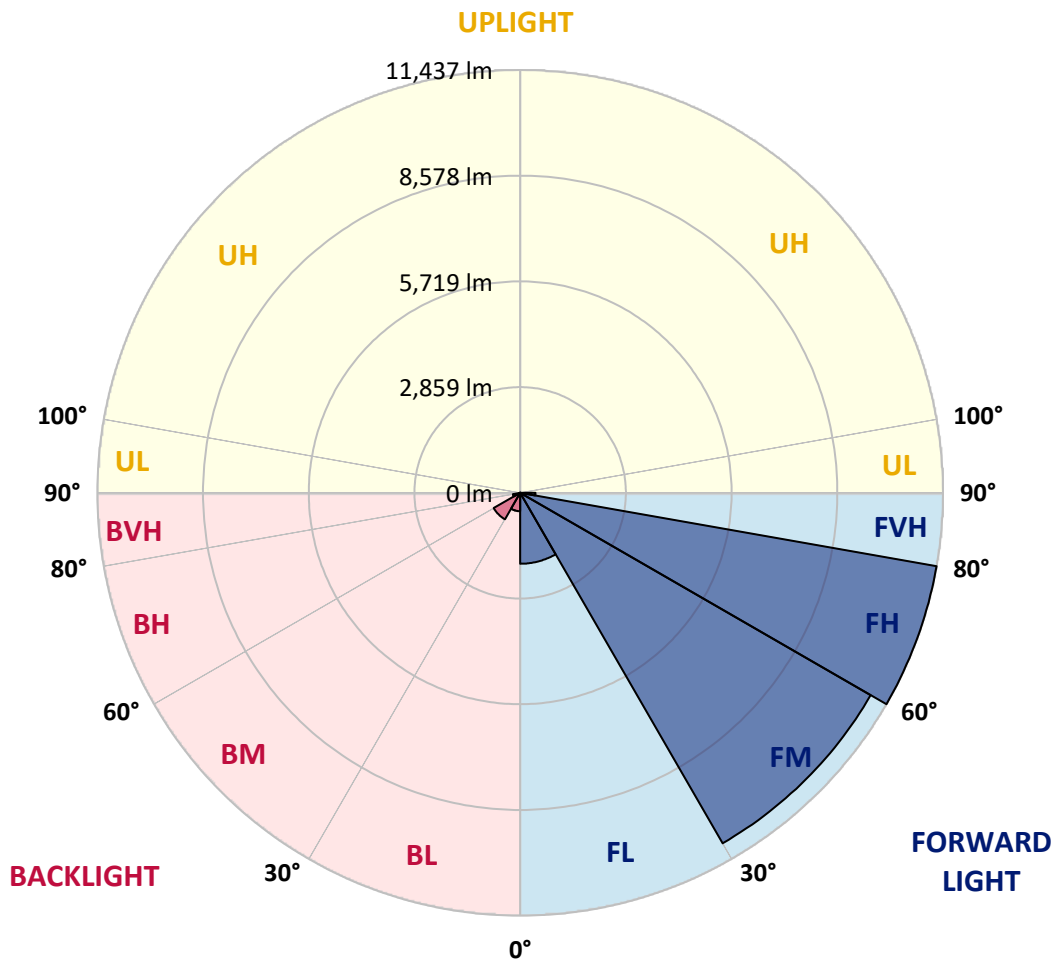
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1919.9  | 7.3       |                         |      |          |
| FM   | (30°-60°)   | 10946.0 | 41.7      |                         |      |          |
| FH   | (60°-80°)   | 11437.1 | 43.6      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 414.5   | 1.6       |                         |      | G3/500   |
| BL   | (0°-30°)    | 497.5   | 1.9       | B1/500                  |      |          |
| BM   | (30°-60°)   | 825.5   | 3.1       | B1/1000                 |      |          |
| BH   | (60°-80°)   | 199.4   | 0.8       | B1/500                  |      | G1/500   |
| BVH  | (80°-90°)   | 13.4    | 0.1       |                         |      | G1/100   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B1-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 40°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3922.4  | 3922.4  | 3922.4  | 3922.4  | 3922.4  | 3922.4  | 3922.4  | 3922.4  | 3922.4  | 3922.4  | 3922.4  |
| 2.5°  | 4306.8  | 4283.4  | 4269.3  | 4250.6  | 4227.1  | 4206.8  | 4199.0  | 4141.2  | 4086.5  | 4011.5  | 3925.5  |
| 5°    | 4386.5  | 4378.7  | 4353.7  | 4328.7  | 4300.6  | 4269.3  | 4252.1  | 4183.4  | 4105.2  | 3995.8  | 3845.8  |
| 7.5°  | 4394.3  | 4385.0  | 4353.7  | 4319.3  | 4280.3  | 4242.8  | 4213.1  | 4144.3  | 4072.4  | 3961.5  | 3778.6  |
| 10°   | 4381.8  | 4370.9  | 4347.5  | 4310.0  | 4261.5  | 4225.6  | 4195.9  | 4130.2  | 4069.3  | 3969.3  | 3766.1  |
| 12.5° | 4367.8  | 4356.8  | 4345.9  | 4327.1  | 4284.9  | 4259.9  | 4234.9  | 4172.4  | 4117.7  | 4033.4  | 3811.4  |
| 15°   | 4381.8  | 4375.6  | 4388.1  | 4380.3  | 4356.8  | 4335.0  | 4310.0  | 4253.7  | 4203.7  | 4133.4  | 3894.3  |
| 17.5° | 4441.2  | 4441.2  | 4480.3  | 4485.0  | 4463.1  | 4431.8  | 4395.9  | 4339.6  | 4297.4  | 4238.1  | 3992.7  |
| 20°   | 4580.3  | 4575.6  | 4625.6  | 4635.0  | 4581.9  | 4533.4  | 4480.3  | 4411.5  | 4378.7  | 4341.2  | 4089.6  |
| 22.5° | 4819.4  | 4797.5  | 4827.2  | 4817.8  | 4713.1  | 4638.1  | 4572.5  | 4488.1  | 4470.9  | 4453.7  | 4197.4  |
| 25°   | 5130.4  | 5117.9  | 5138.2  | 5046.0  | 4861.6  | 4760.0  | 4681.9  | 4586.6  | 4586.6  | 4603.7  | 4319.3  |
| 27.5° | 5582.0  | 5535.1  | 5466.4  | 5303.8  | 5027.2  | 4897.5  | 4813.1  | 4711.6  | 4738.1  | 4802.2  | 4480.3  |
| 30°   | 6044.6  | 5993.0  | 5835.2  | 5585.1  | 5228.8  | 5092.9  | 4994.4  | 4888.2  | 4950.7  | 5067.9  | 4695.9  |
| 32.5° | 6500.9  | 6443.0  | 6219.6  | 5903.9  | 5517.9  | 5382.0  | 5286.6  | 5169.4  | 5274.1  | 5471.0  | 5011.6  |
| 35°   | 6943.1  | 6891.5  | 6633.7  | 6261.8  | 5902.4  | 5789.8  | 5702.3  | 5600.7  | 5735.1  | 6010.2  | 5457.0  |
| 37.5° | 7440.1  | 7383.8  | 7069.7  | 6666.5  | 6369.6  | 6288.3  | 6224.3  | 6122.7  | 6357.1  | 6760.3  | 6077.4  |
| 40°   | 8051.1  | 7955.8  | 7532.3  | 7130.6  | 6910.3  | 6871.2  | 6827.5  | 6813.4  | 7177.5  | 7735.4  | 6904.0  |
| 42.5° | 8751.2  | 8594.9  | 8016.7  | 7619.8  | 7504.1  | 7532.3  | 7521.3  | 7583.8  | 8204.2  | 8948.1  | 7910.4  |
| 45°   | 9451.3  | 9249.7  | 8555.8  | 8141.7  | 8157.3  | 8255.8  | 8316.7  | 8566.8  | 9490.3  | 10338.9 | 8993.4  |
| 47.5° | 10045.1 | 9846.6  | 9073.1  | 8705.9  | 8893.4  | 9087.2  | 9252.8  | 9726.3  | 10812.4 | 11707.8 | 9835.7  |
| 50°   | 10553.0 | 10365.4 | 9621.6  | 9326.2  | 9748.2  | 10060.7 | 10329.5 | 11031.2 | 12234.4 | 12750.1 | 10426.4 |
| 52.5° | 10968.7 | 10843.6 | 10190.4 | 10037.3 | 10724.9 | 11182.7 | 11576.5 | 12417.3 | 13494.0 | 13597.1 | 10885.8 |
| 55°   | 11373.4 | 11284.3 | 10801.4 | 10882.7 | 11871.9 | 12495.4 | 12993.9 | 13887.8 | 14578.5 | 14303.5 | 11326.5 |
| 57.5° | 11839.1 | 11757.8 | 11498.4 | 11954.7 | 13379.9 | 14164.4 | 14708.2 | 15191.1 | 15533.3 | 15025.4 | 11742.2 |
| 60°   | 12314.1 | 12267.3 | 12273.5 | 13145.5 | 15111.4 | 15864.6 | 16164.7 | 16289.7 | 16471.0 | 15705.2 | 11765.6 |
| 62.5° | 12767.3 | 12856.4 | 13159.6 | 14470.7 | 16769.4 | 17347.6 | 17499.2 | 17622.7 | 17410.1 | 15813.1 | 10870.2 |
| 65°   | 13534.6 | 13680.0 | 14403.5 | 16244.4 | 18593.1 | 19211.9 | 19368.2 | 18944.7 | 17558.6 | 14419.1 | 8841.8  |
| 67.5° | 13909.7 | 14175.3 | 15466.1 | 17897.7 | 20362.1 | 21049.7 | 20991.9 | 19030.7 | 15756.8 | 10995.2 | 5674.2  |
| 69°   | 13831.5 | 14114.4 | 15711.5 | 18404.0 | 20949.7 | 21573.2 | 21206.0 | 17979.0 | 13423.7 | 7965.1  | 3483.3  |
| 70°   | 13522.1 | 13808.1 | 15584.9 | 18385.3 | 21024.7 | 21518.5 | 20809.0 | 16680.4 | 11350.0 | 5824.2  | 2178.4  |
| 72.5° | 11292.1 | 11539.0 | 13836.2 | 16617.8 | 19368.2 | 18966.6 | 17408.6 | 11556.2 | 5530.4  | 1586.1  | 490.7   |
| 75°   | 6950.9  | 7088.4  | 9927.9  | 12518.9 | 14628.5 | 13597.1 | 11598.4 | 5749.2  | 1648.7  | 448.5   | 271.9   |
| 77.5° | 3672.4  | 3734.9  | 5435.1  | 7379.1  | 9273.1  | 7672.9  | 5944.5  | 2242.5  | 759.5   | 281.3   | 196.9   |
| 80°   | 2170.6  | 2217.5  | 2927.0  | 3373.9  | 4013.0  | 3352.0  | 2376.9  | 1376.7  | 543.8   | 176.6   | 175.0   |
| 82.5° | 1242.4  | 1272.0  | 2122.2  | 1875.3  | 1581.5  | 1350.2  | 1183.0  | 1304.9  | 326.6   | 118.8   | 181.3   |
| 85°   | 456.3   | 462.6   | 1193.9  | 1426.8  | 940.8   | 559.4   | 587.6   | 1081.4  | 87.5    | 75.0    | 142.2   |
| 87.5° | 212.5   | 207.8   | 614.1   | 873.6   | 550.1   | 354.7   | 457.9   | 237.5   | 34.4    | 48.4    | 39.1    |
| 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°    | 3922.4 | 3922.4 | 3922.4 | 3922.4 | 3922.4 | 3922.4 | 3922.4 | 3922.4 | 3922.4 | 3922.4 | 3922.4 |
| 2.5°  | 3875.5 | 3817.7 | 3713.0 | 3605.2 | 3495.8 | 3411.4 | 3328.6 | 3262.9 | 3241.1 | 3200.4 | 3203.6 |
| 5°    | 3756.8 | 3650.5 | 3431.7 | 3209.8 | 2978.5 | 2787.9 | 2608.2 | 2462.8 | 2392.5 | 2320.6 | 2320.6 |
| 7.5°  | 3653.6 | 3498.9 | 3156.7 | 2795.7 | 2422.2 | 2108.1 | 1825.2 | 1612.7 | 1495.5 | 1401.7 | 1400.2 |
| 10°   | 3614.5 | 3405.1 | 2927.0 | 2409.7 | 1889.3 | 1461.1 | 1125.2 | 909.5  | 798.5  | 726.7  | 723.5  |
| 12.5° | 3631.7 | 3372.3 | 2750.4 | 2053.4 | 1400.2 | 939.2  | 651.6  | 512.6  | 465.7  | 443.8  | 443.8  |
| 15°   | 3681.7 | 3362.9 | 2573.8 | 1704.9 | 989.2  | 587.6  | 432.9  | 395.4  | 392.2  | 392.2  | 392.2  |
| 17.5° | 3742.7 | 3366.1 | 2392.5 | 1365.8 | 673.5  | 420.4  | 373.5  | 368.8  | 371.9  | 371.9  | 371.9  |
| 20°   | 3805.2 | 3367.6 | 2197.2 | 1051.7 | 475.1  | 365.7  | 351.6  | 350.0  | 353.2  | 353.2  | 354.7  |
| 22.5° | 3881.8 | 3375.5 | 2001.8 | 786.0  | 392.2  | 345.4  | 334.4  | 334.4  | 336.0  | 336.0  | 334.4  |
| 25°   | 3969.3 | 3391.1 | 1798.7 | 582.9  | 357.9  | 331.3  | 321.9  | 320.4  | 321.9  | 320.4  | 318.8  |
| 27.5° | 4078.7 | 3413.0 | 1572.1 | 456.3  | 342.2  | 317.2  | 309.4  | 309.4  | 307.9  | 306.3  | 304.7  |
| 30°   | 4216.2 | 3438.0 | 1317.4 | 387.6  | 326.6  | 304.7  | 296.9  | 295.4  | 293.8  | 290.7  | 290.7  |
| 32.5° | 4425.6 | 3492.7 | 1065.8 | 351.6  | 309.4  | 287.5  | 281.3  | 281.3  | 278.2  | 275.0  | 273.5  |
| 35°   | 4747.5 | 3600.5 | 840.7  | 329.7  | 290.7  | 268.8  | 261.0  | 261.0  | 257.8  | 256.3  | 254.7  |
| 37.5° | 5192.9 | 3764.6 | 653.2  | 309.4  | 271.9  | 248.5  | 240.7  | 239.1  | 236.0  | 232.8  | 231.3  |
| 40°   | 5785.1 | 3967.7 | 514.1  | 290.7  | 253.2  | 228.2  | 221.9  | 218.8  | 212.5  | 207.8  | 207.8  |
| 42.5° | 6529.0 | 4199.0 | 417.2  | 270.3  | 231.3  | 209.4  | 204.7  | 200.0  | 189.1  | 184.4  | 182.8  |
| 45°   | 7307.2 | 4406.8 | 353.2  | 246.9  | 209.4  | 190.7  | 187.5  | 179.7  | 165.6  | 161.0  | 161.0  |
| 47.5° | 7868.2 | 4455.3 | 311.0  | 225.0  | 189.1  | 170.3  | 168.8  | 154.7  | 142.2  | 139.1  | 137.5  |
| 50°   | 8218.3 | 4360.0 | 276.6  | 203.2  | 170.3  | 151.6  | 146.9  | 129.7  | 121.9  | 118.8  | 117.2  |
| 52.5° | 8454.3 | 4189.6 | 248.5  | 184.4  | 153.1  | 134.4  | 123.5  | 111.0  | 104.7  | 101.6  | 101.6  |
| 55°   | 8643.3 | 3949.0 | 220.3  | 167.2  | 139.1  | 120.3  | 104.7  | 95.3   | 89.1   | 85.9   | 85.9   |
| 57.5° | 8696.5 | 3622.4 | 192.2  | 153.1  | 125.0  | 106.3  | 89.1   | 82.8   | 75.0   | 73.4   | 73.4   |
| 60°   | 8310.5 | 3033.2 | 170.3  | 136.0  | 112.5  | 92.2   | 78.1   | 70.3   | 62.5   | 60.9   | 59.4   |
| 62.5° | 7293.2 | 2347.2 | 150.0  | 120.3  | 98.5   | 79.7   | 67.2   | 57.8   | 51.6   | 51.6   | 51.6   |
| 65°   | 5563.2 | 1573.6 | 131.3  | 104.7  | 85.9   | 67.2   | 57.8   | 46.9   | 43.8   | 43.8   | 45.3   |
| 67.5° | 3330.1 | 856.4  | 112.5  | 89.1   | 73.4   | 56.3   | 48.4   | 40.6   | 39.1   | 40.6   | 40.6   |
| 69°   | 1951.8 | 503.2  | 101.6  | 79.7   | 64.1   | 50.0   | 42.2   | 35.9   | 39.1   | 40.6   | 40.6   |
| 70°   | 1204.8 | 339.1  | 93.8   | 71.9   | 57.8   | 45.3   | 39.1   | 34.4   | 37.5   | 39.1   | 39.1   |
| 72.5° | 336.0  | 175.0  | 75.0   | 56.3   | 46.9   | 37.5   | 31.3   | 31.3   | 35.9   | 37.5   | 37.5   |
| 75°   | 218.8  | 129.7  | 57.8   | 42.2   | 35.9   | 29.7   | 26.6   | 29.7   | 34.4   | 35.9   | 35.9   |
| 77.5° | 181.3  | 106.3  | 46.9   | 34.4   | 29.7   | 28.1   | 25.0   | 26.6   | 31.3   | 32.8   | 32.8   |
| 80°   | 165.6  | 75.0   | 37.5   | 31.3   | 26.6   | 25.0   | 23.4   | 21.9   | 28.1   | 29.7   | 29.7   |
| 82.5° | 157.8  | 59.4   | 32.8   | 28.1   | 25.0   | 21.9   | 20.3   | 21.9   | 25.0   | 26.6   | 28.1   |
| 85°   | 98.5   | 39.1   | 29.7   | 26.6   | 21.9   | 20.3   | 20.3   | 20.3   | 23.4   | 25.0   | 25.0   |
| 87.5° | 35.9   | 31.3   | 26.6   | 21.9   | 18.8   | 18.8   | 18.8   | 18.8   | 20.3   | 23.4   | 23.4   |
| 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)