

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: P299010

Luminaire Tested: **GLNA-AF-06-LED-E1-T2-7060-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299010  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)  
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-T2-7060-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(6) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22936.1 lumens  
Efficiency: N/A  
Efficacy: 118.8 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 193  
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

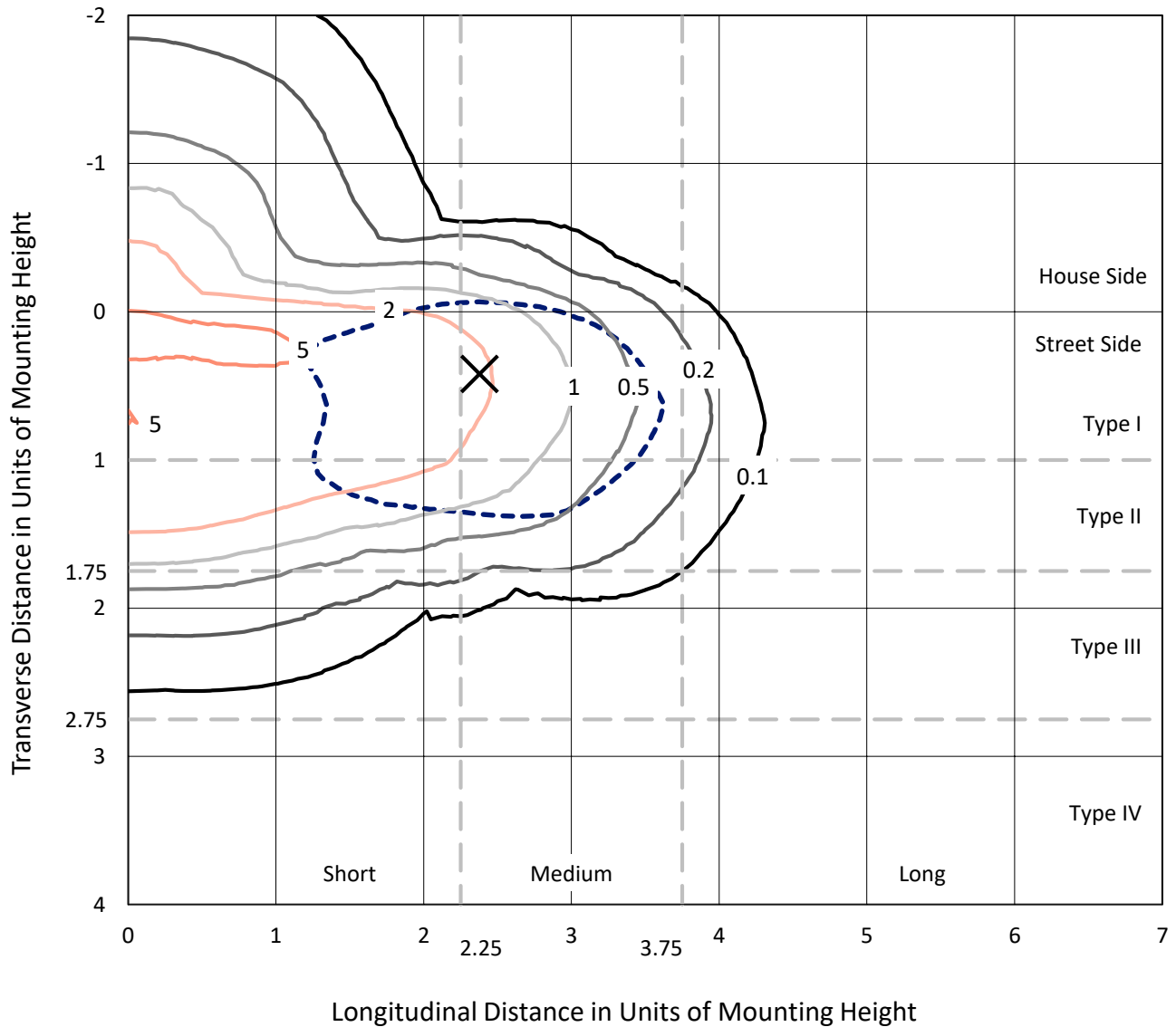


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

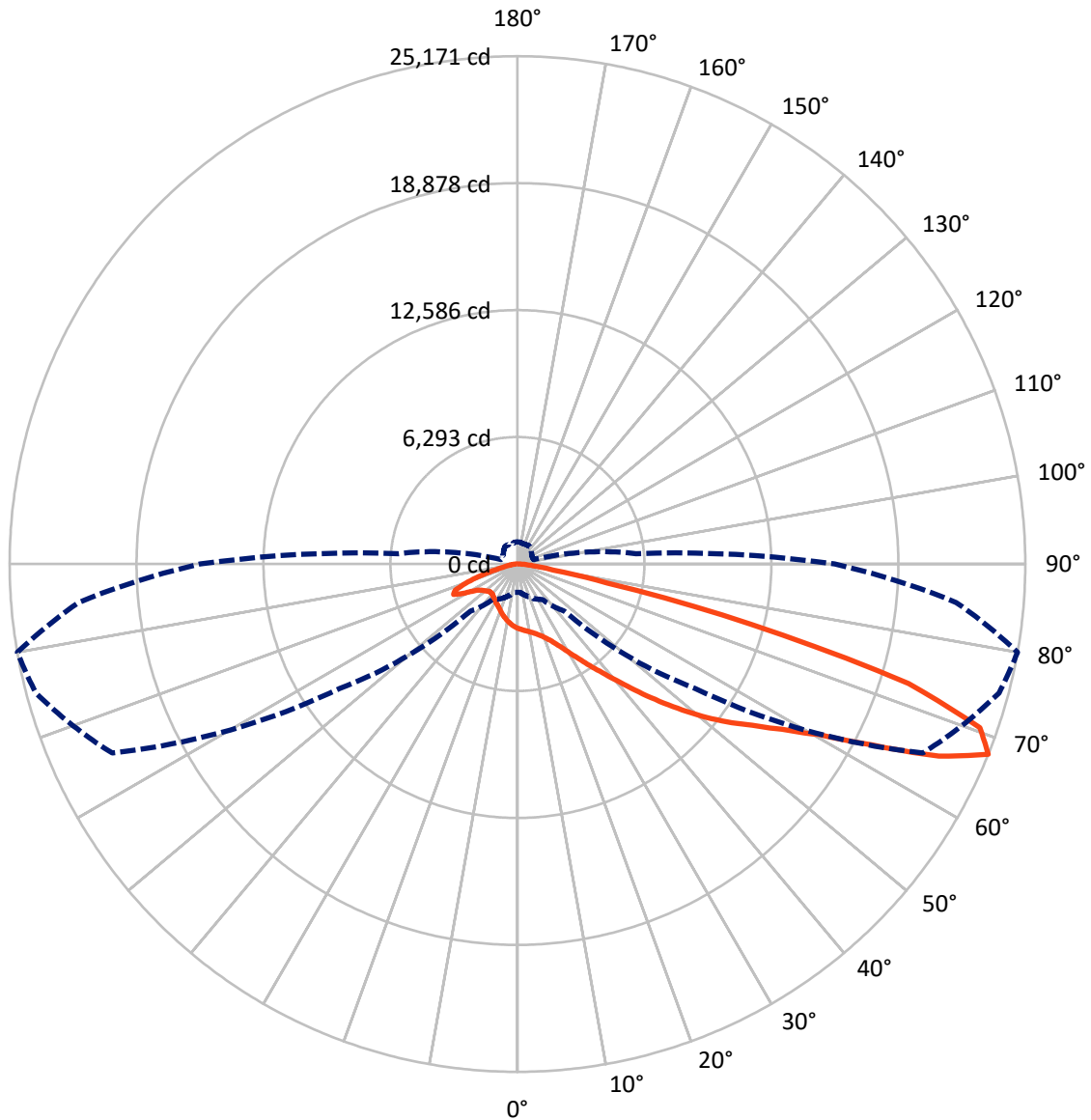


Based on 25 foot mounting height. Maximum calculated value = 6.2 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4224.0   | 0.0    | 4224.0  |
|                    | % Fixture | 18.4     | 0.0    | 18.4    |
| <b>Street Side</b> | Lumens    | 18712.2  | 0.0    | 18712.2 |
|                    | % Fixture | 81.6     | 0.0    | 81.6    |
| <b>Total</b>       | Lumens    | 22936.1  | 0.0    | 22936.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 293.9   | 1.3       |
| 10°-20°   | 846.8   | 3.7       |
| 20°-30°   | 1401.6  | 6.1       |
| 30°-40°   | 2292.6  | 10.0      |
| 40°-50°   | 3701.6  | 16.1      |
| 50°-60°   | 5344.1  | 23.3      |
| 60°-70°   | 5897.5  | 25.7      |
| 70°-80°   | 2718.4  | 11.9      |
| 80°-90°   | 439.7   | 1.9       |
| 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°    | 22936.1 | 100.0     |
| 0°-180°   | 22936.1 | 100.0     |



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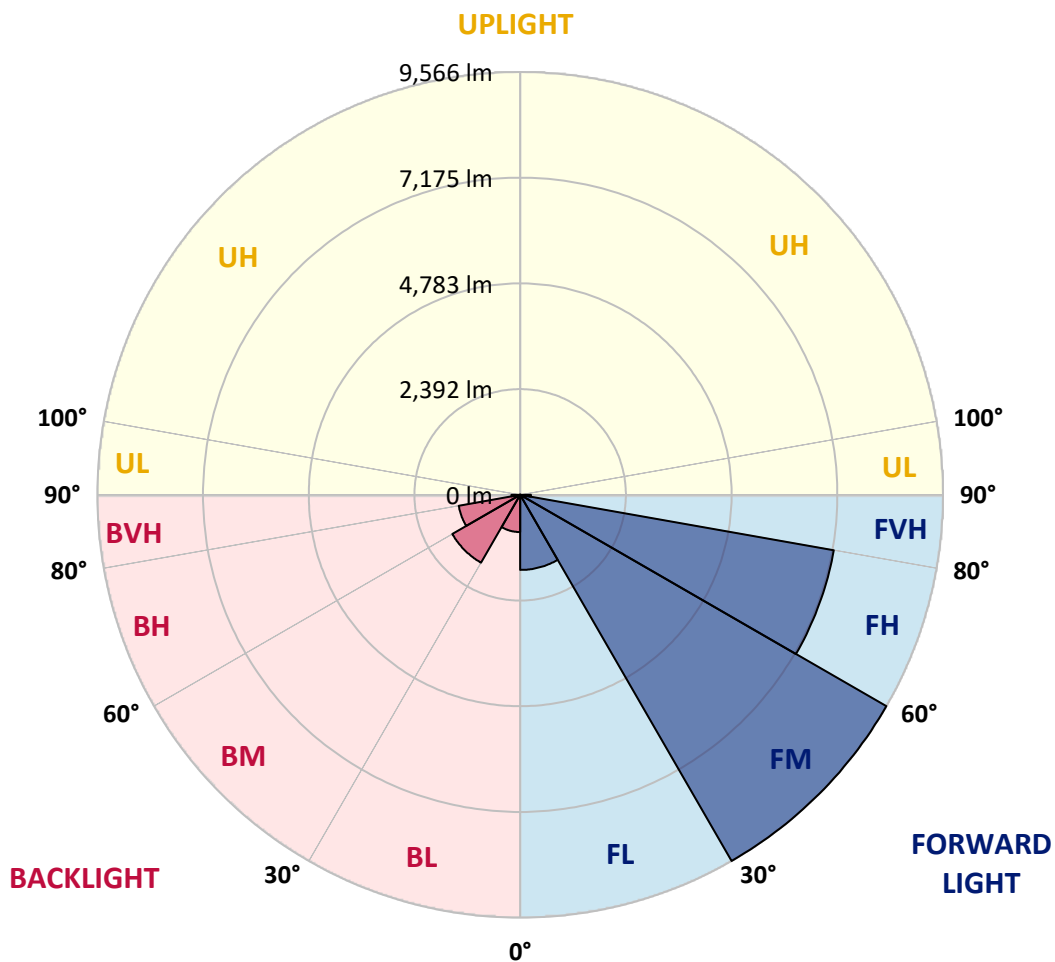
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1699.5 | 7.4       |                         |      |         |
| FM (30°-60°)   | 9566.1 | 41.7      |                         |      |         |
| FH (60°-80°)   | 7204.8 | 31.4      |                         |      | G3/7500 |
| FVH (80°-90°)  | 241.7  | 1.1       |                         |      | G3/500  |
| BL (0°-30°)    | 842.7  | 3.7       | B2/1000                 |      |         |
| BM (30°-60°)   | 1772.2 | 7.7       | B2/2500                 |      |         |
| BH (60°-80°)   | 1411.1 | 6.2       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 198.0  | 0.9       |                         |      | G2/225  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 45°     | 55°     | 65°     | 75°     | 80°     | 85°     |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3186.5 | 3186.5 | 3186.5 | 3186.5 | 3186.5  | 3186.5  | 3186.5  | 3186.5  | 3186.5  | 3186.5  | 3186.5  |
| 2.5°  | 3485.7 | 3465.4 | 3468.8 | 3463.1 | 3446.2  | 3416.8  | 3385.2  | 3327.6  | 3267.8  | 3236.2  | 3211.3  |
| 5°    | 3777.0 | 3771.4 | 3763.5 | 3745.4 | 3702.5  | 3641.5  | 3565.9  | 3464.3  | 3354.7  | 3297.2  | 3241.8  |
| 7.5°  | 3995.0 | 3991.6 | 3981.4 | 3970.1 | 3928.4  | 3855.0  | 3740.9  | 3596.4  | 3437.2  | 3358.1  | 3272.3  |
| 10°   | 4013.0 | 4018.7 | 4026.6 | 4057.1 | 4062.7  | 4023.2  | 3906.9  | 3731.9  | 3523.0  | 3421.4  | 3311.8  |
| 12.5° | 3859.5 | 3871.9 | 3902.4 | 3980.3 | 4062.7  | 4111.3  | 4051.4  | 3874.2  | 3623.5  | 3500.4  | 3361.5  |
| 15°   | 3656.2 | 3663.0 | 3700.3 | 3807.5 | 3955.5  | 4105.6  | 4162.1  | 4031.1  | 3753.3  | 3602.0  | 3436.0  |
| 17.5° | 3569.3 | 3572.7 | 3598.6 | 3669.8 | 3807.5  | 4022.1  | 4224.2  | 4201.6  | 3912.5  | 3728.5  | 3527.5  |
| 20°   | 3525.2 | 3533.1 | 3570.4 | 3640.4 | 3727.4  | 3914.8  | 4233.2  | 4385.7  | 4102.2  | 3886.6  | 3642.7  |
| 22.5° | 3650.6 | 3647.2 | 3660.7 | 3695.7 | 3769.1  | 3882.1  | 4226.4  | 4575.4  | 4343.9  | 4089.8  | 3792.9  |
| 25°   | 3943.0 | 3955.5 | 3931.7 | 3892.2 | 3915.9  | 3995.0  | 4262.6  | 4780.9  | 4646.5  | 4350.7  | 3989.3  |
| 27.5° | 4359.7 | 4347.3 | 4312.3 | 4219.7 | 4171.1  | 4205.0  | 4382.3  | 5002.2  | 5022.5  | 4693.9  | 4249.0  |
| 30°   | 4775.2 | 4765.1 | 4731.2 | 4618.3 | 4518.9  | 4490.7  | 4614.9  | 5256.2  | 5470.8  | 5106.1  | 4567.5  |
| 32.5° | 5206.6 | 5195.3 | 5163.7 | 5050.7 | 4931.0  | 4865.6  | 4945.7  | 5549.8  | 5999.2  | 5598.4  | 4942.3  |
| 35°   | 5738.4 | 5716.9 | 5650.3 | 5493.4 | 5375.9  | 5325.1  | 5362.4  | 5919.1  | 6609.0  | 6181.0  | 5397.4  |
| 37.5° | 6238.6 | 6271.4 | 6203.6 | 5986.8 | 5834.4  | 5816.3  | 5858.1  | 6369.6  | 7266.2  | 6832.6  | 5920.2  |
| 40°   | 6741.1 | 6746.7 | 6685.8 | 6508.5 | 6351.5  | 6322.2  | 6427.2  | 6916.1  | 8041.9  | 7611.7  | 6555.9  |
| 42.5° | 7260.5 | 7271.8 | 7169.0 | 7005.3 | 6890.1  | 6895.8  | 7015.5  | 7556.3  | 8931.7  | 8529.7  | 7287.6  |
| 45°   | 7875.9 | 7892.8 | 7779.9 | 7565.4 | 7460.4  | 7671.5  | 7621.8  | 8274.5  | 9907.3  | 9573.0  | 8127.7  |
| 47.5° | 8519.5 | 8545.5 | 8459.7 | 8258.7 | 8127.7  | 8417.9  | 8228.2  | 9070.6  | 10957.4 | 10692.0 | 9050.2  |
| 50°   | 8870.7 | 8908.0 | 8991.5 | 8976.8 | 8948.6  | 8900.0  | 8904.6  | 9924.2  | 12040.2 | 11857.3 | 9998.7  |
| 52.5° | 8682.1 | 8681.0 | 8985.9 | 9356.2 | 9751.4  | 9780.8  | 9728.9  | 10824.1 | 13052.0 | 12996.6 | 10891.9 |
| 55°   | 7819.4 | 7878.2 | 8340.0 | 9057.0 | 10136.5 | 10810.6 | 10964.2 | 11855.1 | 14045.6 | 14110.0 | 11798.6 |
| 57.5° | 6383.1 | 6431.7 | 7055.0 | 8054.3 | 9617.1  | 11422.6 | 12721.1 | 13353.5 | 15156.7 | 15457.1 | 13005.7 |
| 60°   | 4329.2 | 4387.9 | 5048.5 | 6248.8 | 8219.2  | 11081.6 | 14393.4 | 16027.3 | 16486.9 | 17170.0 | 14699.4 |
| 62.5° | 2544.0 | 2597.1 | 3135.7 | 3941.9 | 5787.0  | 9497.4  | 15127.4 | 19831.5 | 18599.5 | 19754.7 | 17282.9 |
| 65°   | 1751.3 | 1787.5 | 2049.4 | 2453.7 | 3325.4  | 6396.7  | 14217.3 | 22457.9 | 21850.4 | 22957.0 | 20278.6 |
| 67.5° | 1409.2 | 1404.7 | 1612.4 | 1888.0 | 2140.9  | 3298.3  | 10750.7 | 22160.9 | 24709.4 | 25171.3 | 21833.5 |
| 70°   | 1160.8 | 1156.3 | 1297.4 | 1525.5 | 1710.7  | 1857.5  | 5855.8  | 18701.2 | 24126.8 | 24314.2 | 20401.7 |
| 72.5° | 971.1  | 975.6  | 1065.9 | 1235.3 | 1403.5  | 1399.0  | 2573.4  | 13155.9 | 18980.1 | 20276.3 | 16263.3 |
| 75°   | 819.8  | 822.0  | 881.9  | 1001.6 | 1139.3  | 1126.9  | 1395.6  | 7127.3  | 11033.0 | 11935.2 | 9015.2  |
| 77.5° | 697.8  | 700.1  | 738.5  | 805.1  | 903.3   | 898.8   | 1018.5  | 3079.2  | 4602.5  | 4546.0  | 3083.7  |
| 80°   | 622.2  | 622.2  | 640.2  | 652.7  | 706.9   | 686.5   | 755.4   | 1479.2  | 1945.5  | 1796.5  | 1230.8  |
| 82.5° | 487.8  | 490.1  | 600.7  | 596.2  | 556.7   | 530.7   | 530.7   | 871.7   | 1030.9  | 953.0   | 720.4   |
| 85°   | 274.4  | 273.3  | 387.3  | 467.5  | 490.1   | 373.8   | 370.4   | 487.8   | 561.2   | 494.6   | 348.9   |
| 87.5° | 117.4  | 119.7  | 179.5  | 207.8  | 277.8   | 232.6   | 229.2   | 251.8   | 285.7   | 247.3   | 161.5   |
| 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°    | 3186.5  | 3186.5 | 3186.5 | 3186.5 | 3186.5 | 3186.5 | 3186.5 | 3186.5 | 3186.5 | 3186.5 | 3186.5 |
| 2.5°  | 3187.6  | 3158.3 | 3093.9 | 3013.7 | 2941.5 | 2894.0 | 2851.1 | 2789.0 | 2792.4 | 2749.5 | 2717.9 |
| 5°    | 3185.4  | 3124.4 | 2975.3 | 2798.1 | 2627.6 | 2504.5 | 2411.9 | 2328.3 | 2308.0 | 2268.5 | 2244.8 |
| 7.5°  | 3187.6  | 3088.3 | 2837.6 | 2554.2 | 2343.0 | 2187.2 | 2108.1 | 2064.1 | 2053.9 | 2040.4 | 2041.5 |
| 10°   | 3195.5  | 3055.5 | 2686.3 | 2326.1 | 2104.8 | 2002.0 | 1982.8 | 1996.4 | 2012.2 | 2016.7 | 2017.8 |
| 12.5° | 3213.6  | 3026.2 | 2520.3 | 2122.8 | 1955.7 | 1924.1 | 1956.8 | 2003.1 | 2033.6 | 2048.3 | 2047.2 |
| 15°   | 3254.2  | 3003.6 | 2361.1 | 1963.6 | 1873.3 | 1890.2 | 1951.2 | 2016.7 | 2060.7 | 2081.0 | 2082.2 |
| 17.5° | 3298.3  | 2970.8 | 2197.3 | 1841.7 | 1812.3 | 1855.2 | 1930.9 | 2007.6 | 2061.8 | 2084.4 | 2088.9 |
| 20°   | 3355.9  | 2930.2 | 2025.7 | 1750.2 | 1754.7 | 1803.3 | 1874.4 | 1951.2 | 2011.0 | 2030.2 | 2039.3 |
| 22.5° | 3431.5  | 2886.1 | 1875.5 | 1675.7 | 1689.2 | 1726.5 | 1781.8 | 1848.4 | 1900.4 | 1909.4 | 1917.3 |
| 25°   | 3533.1  | 2838.7 | 1755.8 | 1607.9 | 1613.6 | 1635.0 | 1672.3 | 1711.8 | 1747.9 | 1737.8 | 1745.7 |
| 27.5° | 3669.8  | 2798.1 | 1666.6 | 1545.8 | 1535.7 | 1540.2 | 1559.4 | 1571.8 | 1591.0 | 1562.8 | 1566.1 |
| 30°   | 3830.1  | 2754.0 | 1597.8 | 1491.6 | 1463.4 | 1455.5 | 1460.0 | 1466.8 | 1481.5 | 1443.1 | 1437.4 |
| 32.5° | 4016.4  | 2701.0 | 1533.4 | 1444.2 | 1404.7 | 1388.9 | 1391.1 | 1409.2 | 1465.7 | 1441.9 | 1429.5 |
| 35°   | 4233.2  | 2641.1 | 1465.7 | 1392.3 | 1365.2 | 1342.6 | 1340.3 | 1396.8 | 1565.0 | 1550.3 | 1539.0 |
| 37.5° | 4487.3  | 2581.3 | 1397.9 | 1333.5 | 1335.8 | 1311.0 | 1303.1 | 1367.4 | 1584.2 | 1526.6 | 1518.7 |
| 40°   | 4810.2  | 2549.6 | 1340.3 | 1271.4 | 1299.7 | 1296.3 | 1280.5 | 1313.2 | 1457.7 | 1352.7 | 1339.2 |
| 42.5° | 5209.9  | 2554.2 | 1297.4 | 1204.8 | 1256.8 | 1292.9 | 1268.0 | 1269.2 | 1321.1 | 1242.1 | 1229.7 |
| 45°   | 5703.4  | 2607.2 | 1266.9 | 1151.7 | 1208.2 | 1289.5 | 1263.5 | 1245.5 | 1250.0 | 1208.2 | 1201.4 |
| 47.5° | 6279.3  | 2716.8 | 1245.5 | 1107.7 | 1161.9 | 1277.1 | 1262.4 | 1238.7 | 1228.5 | 1205.9 | 1200.3 |
| 50°   | 6919.5  | 2876.0 | 1229.7 | 1065.9 | 1120.1 | 1256.8 | 1263.5 | 1231.9 | 1220.6 | 1211.6 | 1208.2 |
| 52.5° | 7548.4  | 3057.8 | 1205.9 | 1029.8 | 1087.4 | 1231.9 | 1266.9 | 1225.1 | 1212.7 | 1205.9 | 1202.6 |
| 55°   | 8249.7  | 3284.7 | 1169.8 | 999.3  | 1060.3 | 1200.3 | 1266.9 | 1215.0 | 1201.4 | 1202.6 | 1201.4 |
| 57.5° | 9197.0  | 3651.7 | 1126.9 | 973.3  | 1027.5 | 1161.9 | 1245.5 | 1203.7 | 1186.7 | 1187.9 | 1189.0 |
| 60°   | 10677.3 | 4298.7 | 1075.0 | 947.4  | 986.9  | 1116.7 | 1216.1 | 1178.8 | 1161.9 | 1166.4 | 1167.6 |
| 62.5° | 12854.4 | 5248.3 | 1007.2 | 909.0  | 944.0  | 1068.2 | 1175.5 | 1147.2 | 1130.3 | 1141.6 | 1141.6 |
| 65°   | 15117.2 | 6086.2 | 923.7  | 860.4  | 898.8  | 1015.1 | 1124.6 | 1107.7 | 1090.8 | 1116.7 | 1115.6 |
| 67.5° | 15725.8 | 5898.7 | 840.1  | 807.4  | 853.6  | 956.4  | 1063.7 | 1054.6 | 1045.6 | 1090.8 | 1088.5 |
| 70°   | 13970.0 | 4735.7 | 763.3  | 753.2  | 804.0  | 893.2  | 998.2  | 998.2  | 992.5  | 1026.4 | 1018.5 |
| 72.5° | 10643.5 | 3358.1 | 689.9  | 695.6  | 747.5  | 824.3  | 927.0  | 934.9  | 925.9  | 942.8  | 936.1  |
| 75°   | 5697.7  | 1921.8 | 616.5  | 632.3  | 677.5  | 754.3  | 848.0  | 855.9  | 850.3  | 849.1  | 852.5  |
| 77.5° | 1893.6  | 939.5  | 539.7  | 564.6  | 604.1  | 682.0  | 765.6  | 778.0  | 764.4  | 762.2  | 761.1  |
| 80°   | 843.5   | 590.6  | 455.1  | 487.8  | 522.8  | 599.6  | 678.6  | 688.8  | 674.1  | 694.4  | 668.5  |
| 82.5° | 542.0   | 388.4  | 364.7  | 400.9  | 434.7  | 517.2  | 591.7  | 593.9  | 580.4  | 674.1  | 574.7  |
| 85°   | 263.1   | 240.5  | 274.4  | 307.1  | 336.5  | 406.5  | 490.1  | 491.2  | 457.3  | 416.7  | 402.0  |
| 87.5° | 131.0   | 140.0  | 182.9  | 212.3  | 227.0  | 278.9  | 356.8  | 350.0  | 335.4  | 304.9  | 281.2  |
| 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)