

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: P522909

Luminaire Tested: **GALN-SA9A-830-U-T4W**

Issue Date: 5/13/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522909  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2011-042-41)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/13/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA9A-830-U-T4W  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32968 lumens  
Efficiency: N/A  
Efficacy: 120.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

Input Watts (W): 274  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: 24 FT

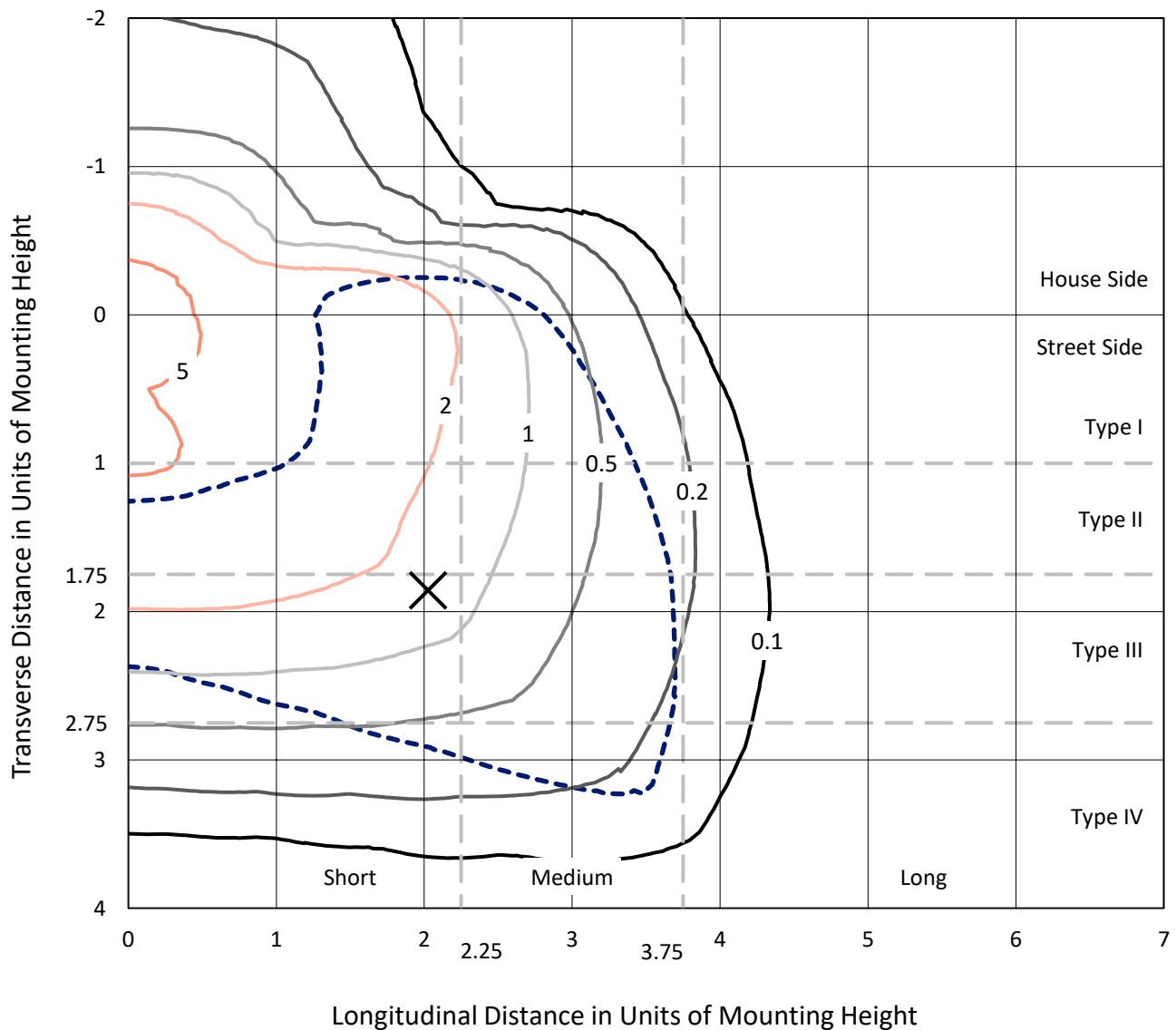


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

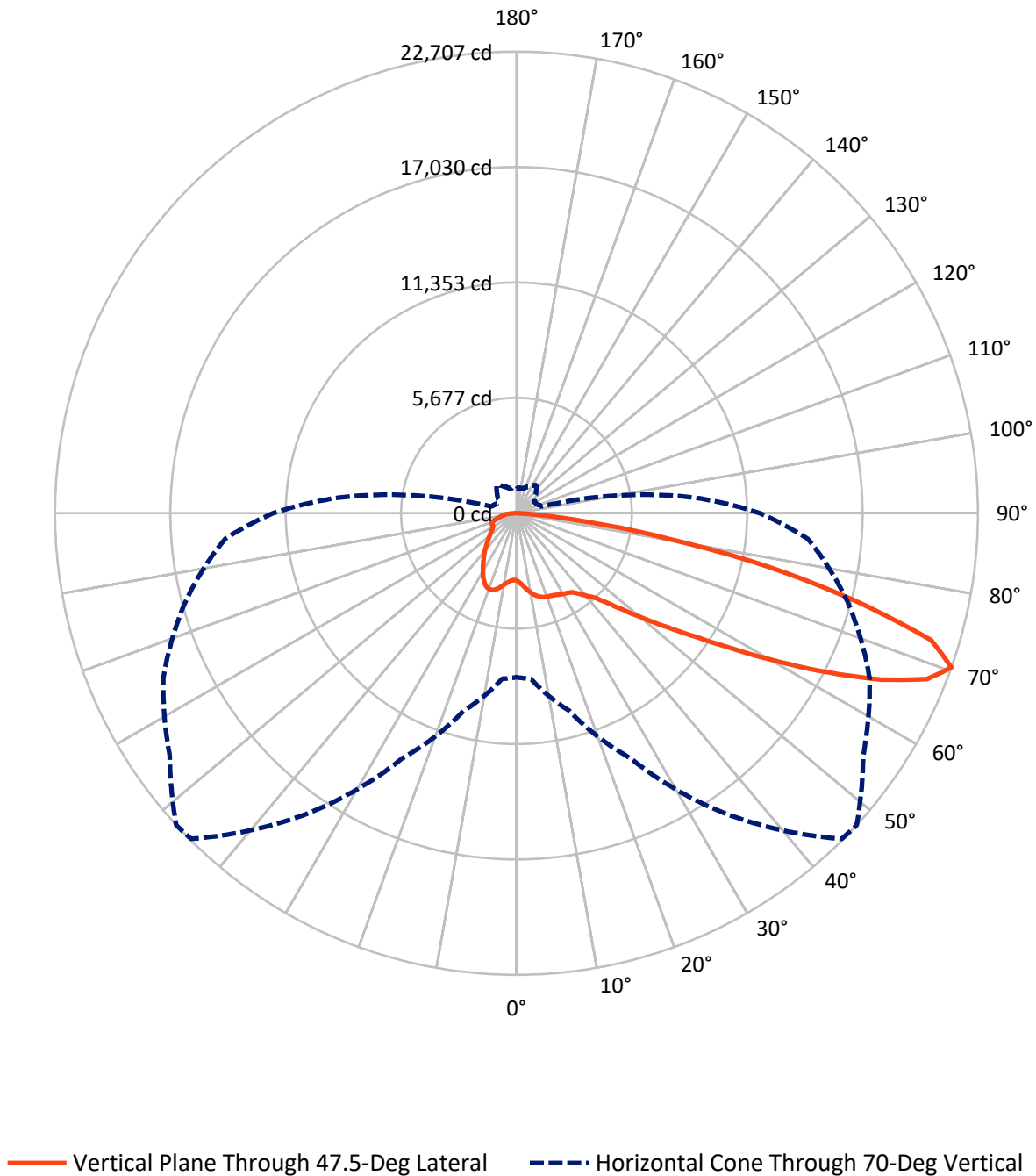


Based on 25 foot mounting height. Maximum calculated value = 6.7 fc  
Type IV - Short - N/A

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## Luminous Intensity Polar Plot



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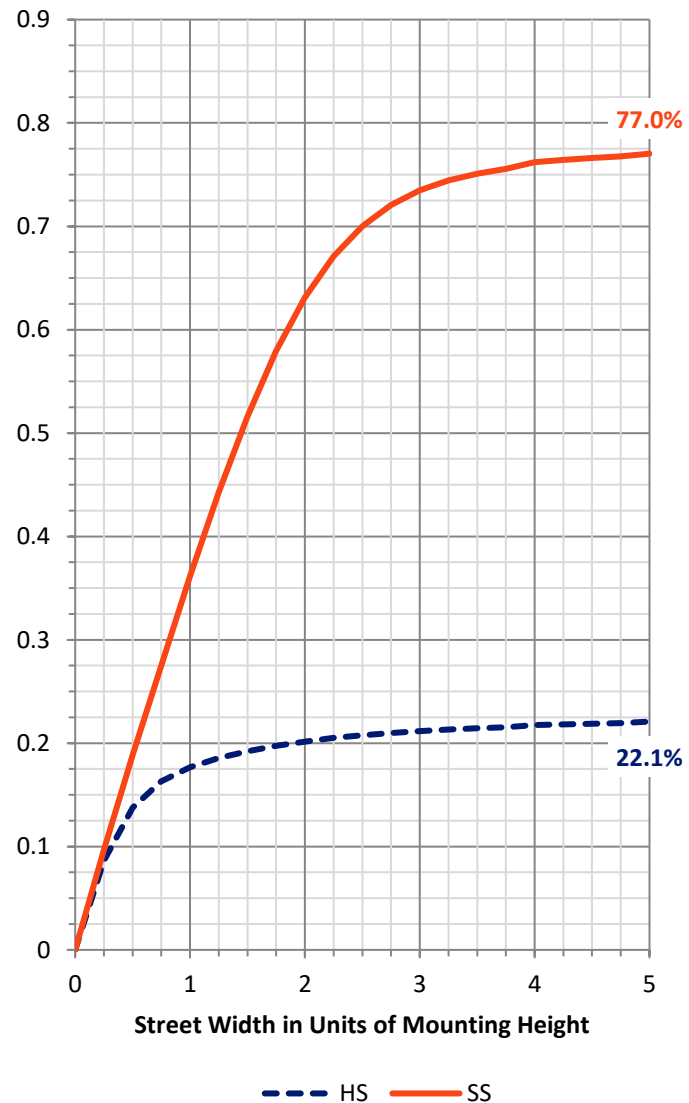
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7464.6   | 0.0    | 7464.6  |
|                    | % Fixture | 22.6     | 0.0    | 22.6    |
| <b>Street Side</b> | Lumens    | 25503.4  | 0.0    | 25503.4 |
|                    | % Fixture | 77.4     | 0.0    | 77.4    |
| <b>Total</b>       | Lumens    | 32968.0  | 0.0    | 32968.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 341.1   | 1.0       |
| 10°-20°   | 1140.5  | 3.5       |
| 20°-30°   | 1896.6  | 5.8       |
| 30°-40°   | 2688.2  | 8.2       |
| 40°-50°   | 3968.3  | 12.0      |
| 50°-60°   | 6873.3  | 20.8      |
| 60°-70°   | 9708.8  | 29.4      |
| 70°-80°   | 5581.1  | 16.9      |
| 80°-90°   | 770.1   | 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°    | 32968.0 | 100.0     |
| 0°-180°   | 32968.0 | 100.0     |

**Coefficient of Utilization**



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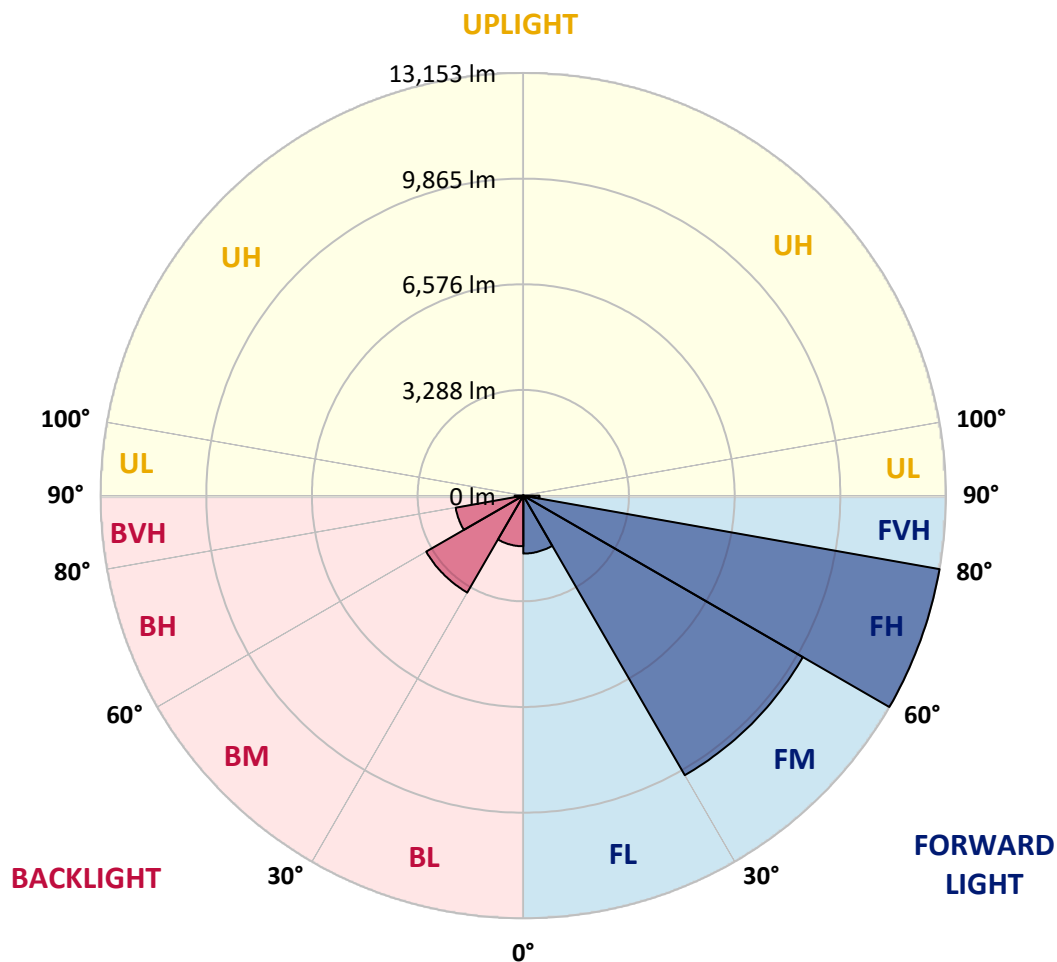
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1802.8  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 10044.7 | 30.5      |                         |      |         |
| FH   | (60°-80°)   | 13152.9 | 39.9      |                         |      | G5      |
| FVH  | (80°-90°)   | 503.0   | 1.5       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1575.4  | 4.8       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3485.1  | 10.6      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2137.0  | 6.5       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 267.0   | 0.8       |                         |      | 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°     | 47.5°   | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3309.6  | 3309.6  | 3309.6  | 3309.6  | 3309.6  | 3309.6  | 3309.6  | 3309.6  | 3309.6  | 3309.6  | 3309.6  |
| 2.5°  | 3523.1  | 3510.7  | 3508.9  | 3482.5  | 3468.4  | 3441.9  | 3431.3  | 3406.6  | 3376.6  | 3346.6  | 3318.4  |
| 5°    | 3800.0  | 3800.0  | 3787.7  | 3750.6  | 3692.4  | 3632.4  | 3606.0  | 3558.3  | 3473.7  | 3404.9  | 3346.6  |
| 7.5°  | 4084.1  | 4087.6  | 4062.9  | 4008.2  | 3925.3  | 3828.3  | 3803.6  | 3733.0  | 3613.0  | 3512.5  | 3426.0  |
| 10°   | 4329.3  | 4329.3  | 4295.8  | 4221.7  | 4117.6  | 4011.7  | 3987.0  | 3907.6  | 3773.6  | 3648.3  | 3535.4  |
| 12.5° | 4516.3  | 4516.3  | 4472.2  | 4375.2  | 4262.2  | 4167.0  | 4138.8  | 4062.9  | 3937.6  | 3798.3  | 3655.4  |
| 15°   | 4638.0  | 4629.2  | 4579.8  | 4470.4  | 4361.0  | 4278.1  | 4258.7  | 4195.2  | 4080.5  | 3939.4  | 3778.9  |
| 17.5° | 4643.3  | 4639.8  | 4592.1  | 4500.4  | 4405.1  | 4348.7  | 4336.3  | 4294.0  | 4204.0  | 4069.9  | 3900.6  |
| 20°   | 4541.0  | 4548.0  | 4516.3  | 4451.0  | 4405.1  | 4380.4  | 4375.2  | 4361.0  | 4297.5  | 4172.3  | 4002.9  |
| 22.5° | 4431.6  | 4444.0  | 4414.0  | 4378.7  | 4375.2  | 4399.9  | 4403.4  | 4406.9  | 4366.3  | 4244.6  | 4089.4  |
| 25°   | 4405.1  | 4414.0  | 4384.0  | 4352.2  | 4371.6  | 4436.9  | 4451.0  | 4465.1  | 4433.4  | 4331.0  | 4191.7  |
| 27.5° | 4539.2  | 4532.2  | 4473.9  | 4405.1  | 4417.5  | 4505.7  | 4525.1  | 4541.0  | 4525.1  | 4436.9  | 4318.7  |
| 30°   | 4918.5  | 4895.6  | 4779.1  | 4578.0  | 4514.5  | 4576.3  | 4595.7  | 4639.8  | 4639.8  | 4574.5  | 4456.3  |
| 32.5° | 5553.6  | 5509.5  | 5296.1  | 4900.9  | 4680.4  | 4643.3  | 4662.7  | 4735.0  | 4772.1  | 4720.9  | 4592.1  |
| 35°   | 6324.6  | 6278.7  | 5973.5  | 5442.5  | 4983.8  | 4777.4  | 4772.1  | 4853.2  | 4952.0  | 4837.4  | 4669.8  |
| 37.5° | 7099.0  | 7051.4  | 6684.5  | 6088.2  | 5426.6  | 5059.7  | 5027.9  | 5056.1  | 5098.5  | 4888.5  | 4777.4  |
| 40°   | 7873.5  | 7817.1  | 7496.0  | 6809.7  | 5968.2  | 5433.7  | 5350.7  | 5223.7  | 5206.1  | 5056.1  | 4985.6  |
| 42.5° | 8640.9  | 8589.8  | 8427.5  | 7619.5  | 6617.4  | 5798.8  | 5671.8  | 5453.1  | 5520.1  | 5430.1  | 5368.4  |
| 45°   | 9415.4  | 9418.9  | 9246.0  | 8528.0  | 7400.7  | 6472.8  | 6301.6  | 5959.4  | 6118.2  | 6084.6  | 6119.9  |
| 47.5° | 10101.7 | 10092.8 | 10031.1 | 9410.1  | 8372.8  | 7340.7  | 7120.2  | 6723.3  | 6995.0  | 7118.4  | 7388.4  |
| 50°   | 10766.8 | 10761.5 | 10765.0 | 10410.4 | 9501.8  | 8372.8  | 8129.3  | 7713.0  | 8325.1  | 8753.8  | 9237.2  |
| 52.5° | 11719.4 | 11749.4 | 11535.9 | 11442.4 | 10874.4 | 9591.8  | 9323.7  | 8893.2  | 9897.0  | 10572.7 | 11516.5 |
| 55°   | 12675.6 | 12650.9 | 12483.3 | 12580.3 | 12310.4 | 11034.9 | 10754.4 | 10412.2 | 11647.1 | 12386.3 | 13804.7 |
| 57.5° | 13238.4 | 13247.2 | 13418.3 | 13892.9 | 14083.4 | 12834.4 | 12580.3 | 12315.7 | 13614.1 | 14138.1 | 15840.5 |
| 60°   | 13744.7 | 13785.3 | 14277.5 | 15173.7 | 15690.6 | 15044.9 | 14819.1 | 14561.5 | 15418.9 | 15627.1 | 17608.2 |
| 62.5° | 13903.5 | 14028.7 | 14887.9 | 16228.6 | 17257.2 | 17539.4 | 17258.9 | 16690.9 | 17137.2 | 17056.0 | 18806.1 |
| 65°   | 13111.3 | 13282.5 | 14822.6 | 16623.8 | 18656.1 | 19906.9 | 19728.8 | 18673.8 | 18601.5 | 18112.8 | 19001.9 |
| 67.5° | 11026.1 | 11197.2 | 13174.9 | 15794.7 | 19234.8 | 21956.9 | 21778.7 | 20120.4 | 19490.6 | 18211.6 | 17520.0 |
| 70°   | 8067.6  | 8175.2  | 10066.4 | 13298.3 | 18072.2 | 22644.9 | 22706.7 | 20826.1 | 19173.0 | 16869.0 | 14385.1 |
| 72.5° | 4648.6  | 4886.8  | 6211.7  | 9355.4  | 14764.4 | 20905.5 | 21334.2 | 19358.3 | 17165.4 | 14072.8 | 10057.6 |
| 75°   | 1998.8  | 2004.1  | 2872.1  | 5160.2  | 9999.3  | 16803.8 | 17218.3 | 16046.9 | 13480.1 | 9731.2  | 5370.1  |
| 77.5° | 950.9   | 968.5   | 1263.1  | 2304.0  | 5504.2  | 11610.0 | 12728.5 | 11336.6 | 8621.5  | 4675.1  | 2028.8  |
| 80°   | 617.5   | 629.8   | 772.7   | 1143.2  | 2699.2  | 6732.1  | 7511.9  | 6539.8  | 3803.6  | 1670.7  | 875.0   |
| 82.5° | 374.0   | 377.5   | 516.9   | 698.6   | 1485.4  | 3048.5  | 3593.6  | 2838.6  | 1623.0  | 1000.3  | 515.1   |
| 85°   | 227.6   | 229.3   | 314.0   | 432.2   | 901.5   | 1053.2  | 1081.4  | 1072.6  | 952.7   | 654.5   | 275.2   |
| 87.5° | 109.4   | 112.9   | 162.3   | 204.6   | 354.6   | 326.4   | 308.7   | 358.1   | 449.9   | 352.8   | 118.2   |
| 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°    | 3309.6  | 3309.6  | 3309.6 | 3309.6 | 3309.6 | 3309.6 | 3309.6 | 3309.6 | 3309.6 | 3309.6 | 3309.6 |
| 2.5°  | 3306.1  | 3300.8  | 3288.4 | 3283.1 | 3279.6 | 3281.4 | 3279.6 | 3279.6 | 3281.4 | 3281.4 | 3281.4 |
| 5°    | 3321.9  | 3313.1  | 3293.7 | 3293.7 | 3304.3 | 3329.0 | 3351.9 | 3369.6 | 3389.0 | 3387.2 | 3387.2 |
| 7.5°  | 3390.7  | 3374.9  | 3351.9 | 3359.0 | 3385.4 | 3424.3 | 3464.8 | 3503.6 | 3542.5 | 3546.0 | 3544.2 |
| 10°   | 3491.3  | 3475.4  | 3450.7 | 3459.5 | 3501.9 | 3560.1 | 3611.3 | 3667.7 | 3710.1 | 3722.4 | 3718.9 |
| 12.5° | 3606.0  | 3574.2  | 3553.0 | 3577.7 | 3644.8 | 3722.4 | 3771.8 | 3814.1 | 3844.1 | 3861.8 | 3854.7 |
| 15°   | 3722.4  | 3692.4  | 3667.7 | 3718.9 | 3800.0 | 3872.4 | 3897.1 | 3904.1 | 3909.4 | 3927.1 | 3923.5 |
| 17.5° | 3835.3  | 3794.7  | 3785.9 | 3853.0 | 3930.6 | 3962.3 | 3948.2 | 3918.2 | 3895.3 | 3909.4 | 3907.6 |
| 20°   | 3935.9  | 3904.1  | 3900.6 | 3967.6 | 3997.6 | 3967.6 | 3907.6 | 3854.7 | 3814.1 | 3817.7 | 3815.9 |
| 22.5° | 4031.1  | 4006.4  | 4010.0 | 4038.2 | 3990.6 | 3888.2 | 3789.4 | 3717.1 | 3673.0 | 3681.8 | 3687.1 |
| 25°   | 4137.0  | 4112.3  | 4121.1 | 4075.2 | 3918.2 | 3740.0 | 3597.2 | 3535.4 | 3517.8 | 3535.4 | 3547.8 |
| 27.5° | 4274.6  | 4258.7  | 4253.4 | 4077.0 | 3789.4 | 3521.3 | 3359.0 | 3336.1 | 3351.9 | 3390.7 | 3410.1 |
| 30°   | 4422.8  | 4422.8  | 4394.6 | 4047.0 | 3613.0 | 3258.4 | 3117.3 | 3120.8 | 3175.5 | 3230.2 | 3249.6 |
| 32.5° | 4565.7  | 4595.7  | 4507.5 | 3965.9 | 3385.4 | 3002.6 | 2895.0 | 2898.5 | 2946.2 | 3013.2 | 3030.9 |
| 35°   | 4683.9  | 4770.3  | 4604.5 | 3817.7 | 3117.3 | 2787.4 | 2706.2 | 2658.6 | 2660.4 | 2711.5 | 2725.6 |
| 37.5° | 4846.2  | 5006.7  | 4660.9 | 3597.2 | 2831.5 | 2603.9 | 2512.2 | 2429.3 | 2374.6 | 2353.4 | 2353.4 |
| 40°   | 5128.5  | 5364.9  | 4675.1 | 3270.8 | 2561.6 | 2429.3 | 2298.7 | 2199.9 | 2094.1 | 1998.8 | 1981.2 |
| 42.5° | 5606.5  | 5904.7  | 4646.8 | 2895.0 | 2318.1 | 2237.0 | 2110.0 | 1988.2 | 1841.8 | 1707.7 | 1697.1 |
| 45°   | 6453.3  | 6606.8  | 4571.0 | 2505.1 | 2101.1 | 2051.7 | 1928.2 | 1795.9 | 1640.7 | 1520.7 | 1511.9 |
| 47.5° | 7810.0  | 7593.0  | 4470.4 | 2159.3 | 1903.5 | 1889.4 | 1794.2 | 1640.7 | 1485.4 | 1402.5 | 1393.7 |
| 50°   | 9791.2  | 9145.5  | 4456.3 | 1908.8 | 1744.8 | 1751.8 | 1674.2 | 1533.1 | 1397.2 | 1328.4 | 1317.8 |
| 52.5° | 12176.3 | 11020.8 | 4549.8 | 1732.4 | 1605.4 | 1631.9 | 1593.0 | 1462.5 | 1342.5 | 1284.3 | 1273.7 |
| 55°   | 14490.9 | 12707.3 | 4606.3 | 1594.8 | 1474.8 | 1524.2 | 1529.5 | 1420.2 | 1310.8 | 1252.6 | 1245.5 |
| 57.5° | 16369.8 | 13977.6 | 4355.7 | 1469.6 | 1361.9 | 1437.8 | 1476.6 | 1395.5 | 1294.9 | 1250.8 | 1243.7 |
| 60°   | 17677.0 | 14577.4 | 3643.0 | 1358.4 | 1279.0 | 1369.0 | 1457.2 | 1397.2 | 1333.7 | 1339.0 | 1342.5 |
| 62.5° | 18093.4 | 14311.0 | 2732.7 | 1275.5 | 1222.6 | 1346.1 | 1489.0 | 1469.6 | 1404.3 | 1444.9 | 1451.9 |
| 65°   | 17403.6 | 13210.1 | 1981.2 | 1210.2 | 1173.2 | 1361.9 | 1584.2 | 1522.5 | 1379.6 | 1409.6 | 1409.6 |
| 67.5° | 15094.3 | 11380.7 | 1541.9 | 1150.2 | 1116.7 | 1391.9 | 1679.5 | 1517.2 | 1321.4 | 1356.6 | 1324.9 |
| 70°   | 11973.4 | 8803.2  | 1284.3 | 1083.2 | 1056.7 | 1347.8 | 1688.3 | 1462.5 | 1252.6 | 1259.6 | 1199.6 |
| 72.5° | 7945.8  | 5788.3  | 1104.4 | 1019.7 | 965.0  | 1212.0 | 1616.0 | 1391.9 | 1185.5 | 1144.9 | 1085.0 |
| 75°   | 3893.5  | 2886.2  | 963.2  | 940.3  | 845.0  | 1055.0 | 1517.2 | 1324.9 | 1113.2 | 1049.7 | 1016.2 |
| 77.5° | 1508.4  | 1227.9  | 822.1  | 839.7  | 735.7  | 929.7  | 1386.6 | 1229.6 | 1017.9 | 931.5  | 905.0  |
| 80°   | 732.1   | 696.8   | 673.9  | 700.4  | 605.1  | 792.1  | 1266.7 | 1146.7 | 929.7  | 834.5  | 795.6  |
| 82.5° | 455.2   | 430.5   | 516.9  | 545.1  | 465.7  | 723.3  | 1201.4 | 1076.1 | 818.6  | 691.6  | 659.8  |
| 85°   | 231.1   | 247.0   | 345.8  | 372.2  | 333.4  | 575.1  | 989.7  | 808.0  | 591.0  | 490.4  | 494.0  |
| 87.5° | 88.2    | 118.2   | 181.7  | 195.8  | 178.2  | 303.4  | 545.1  | 471.0  | 379.3  | 257.6  | 238.2  |
| 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)