

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: P453389

Luminaire Tested: **GALN-SA4B-830-U-SL3**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453389  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4B-830-U-SL3  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17729 lumens  
Efficiency: N/A  
Efficacy: 108.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3

Input Watts (W): 164  
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: 24 FT

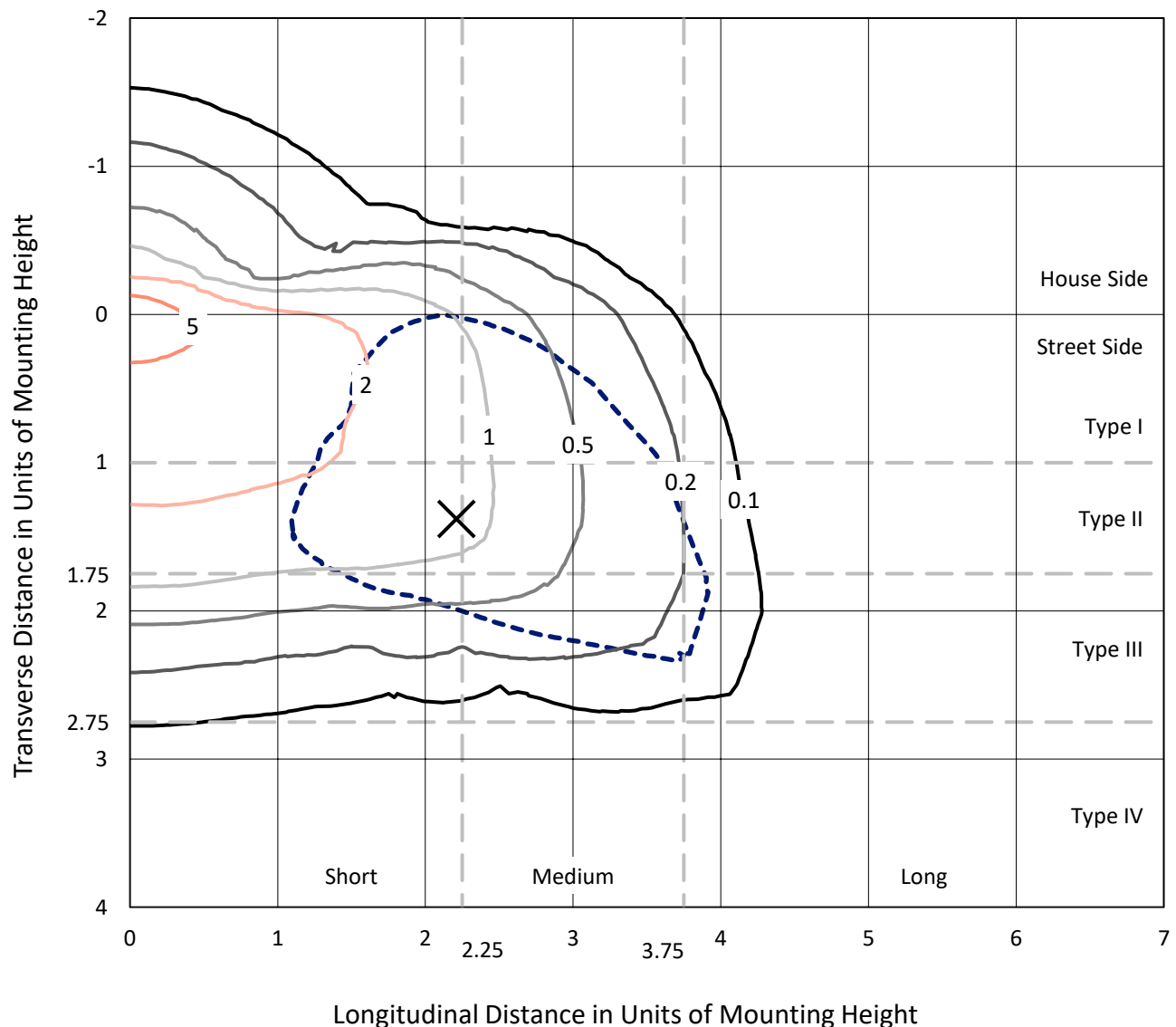


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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

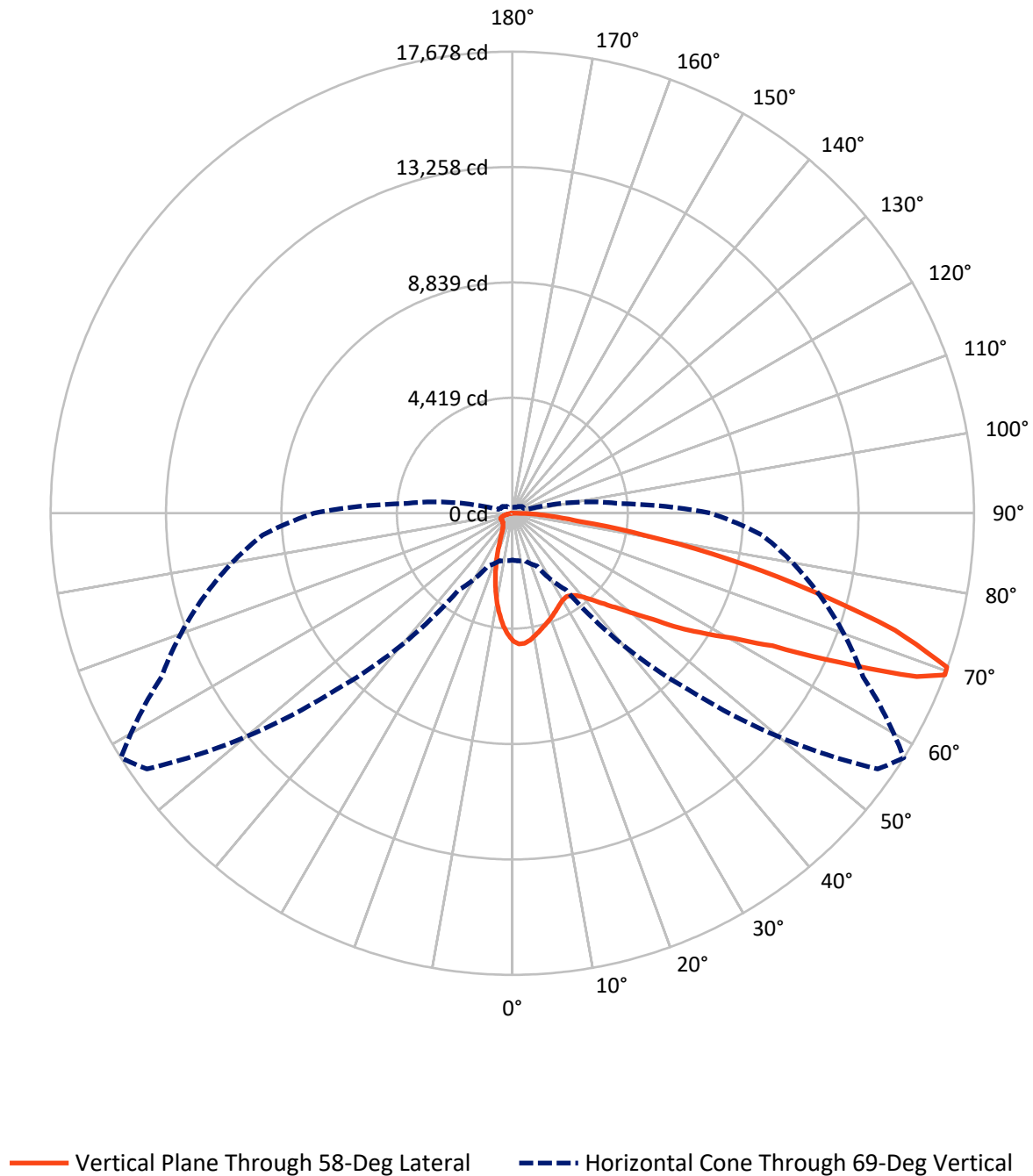


Based on 25 foot mounting height. Maximum calculated value = 7.8 fc  
 Type III - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2598.2   | 0.0    | 2598.2  |
|                    | % Fixture | 14.7     | 0.0    | 14.7    |
| <b>Street Side</b> | Lumens    | 15130.8  | 0.0    | 15130.8 |
|                    | % Fixture | 85.3     | 0.0    | 85.3    |
| <b>Total</b>       | Lumens    | 17729.0  | 0.0    | 17729.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 416.1   | 2.3       |
| 10°-20°   | 913.6   | 5.2       |
| 20°-30°   | 1180.4  | 6.7       |
| 30°-40°   | 1533.1  | 8.6       |
| 40°-50°   | 2228.9  | 12.6      |
| 50°-60°   | 3556.6  | 20.1      |
| 60°-70°   | 4751.2  | 26.8      |
| 70°-80°   | 2738.9  | 15.4      |
| 80°-90°   | 410.2   | 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°    | 17729.0 | 100.0     |
| 0°-180°   | 17729.0 | 100.0     |

**Coefficient of Utilization**



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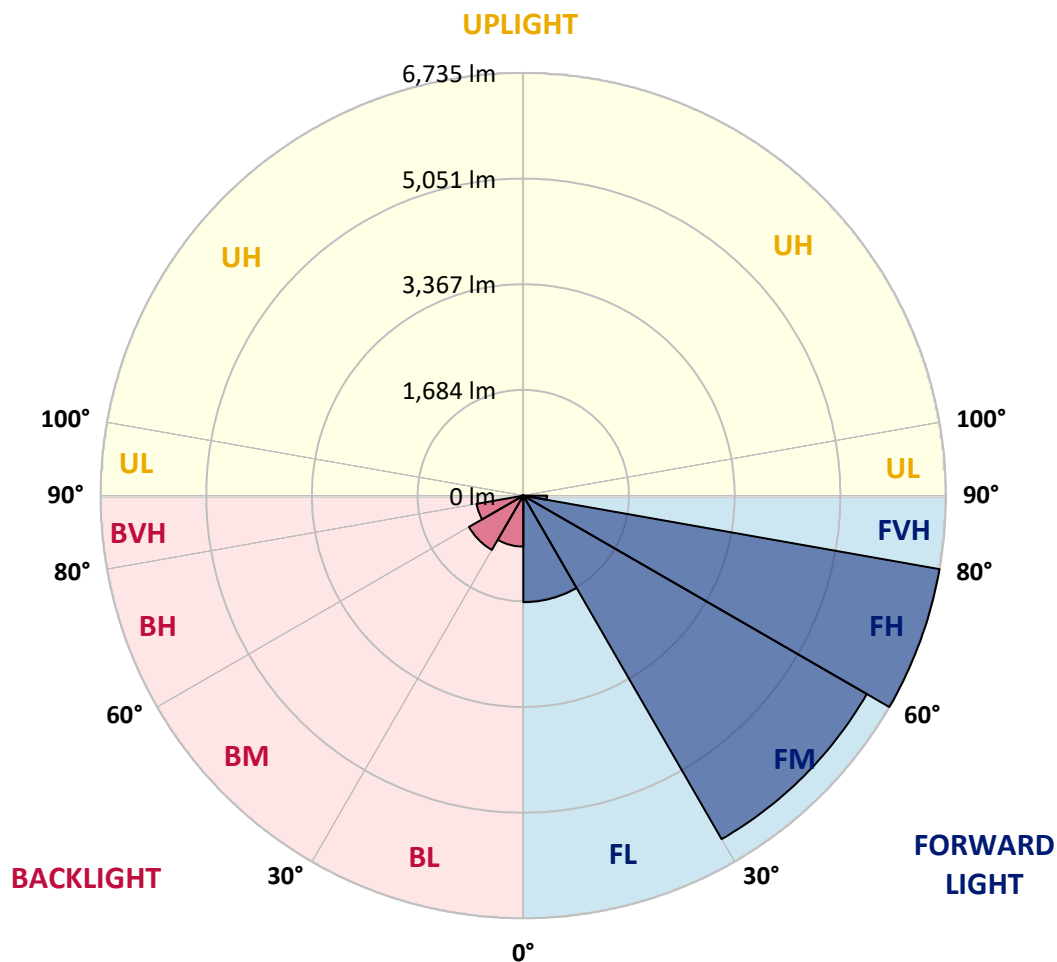
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1698.0 | 9.6       |                         |      |         |
| FM   | (30°-60°)   | 6319.5 | 35.6      |                         |      |         |
| FH   | (60°-80°)   | 6734.6 | 38.0      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 378.8  | 2.1       |                         |      | G3/500  |
| BL   | (0°-30°)    | 812.1  | 4.6       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 999.2  | 5.6       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 755.5  | 4.3       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 31.4   | 0.2       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 58°     | 65°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0°    | 4899.3 | 4899.3 | 4899.3 | 4899.3 | 4899.3 | 4899.3  | 4899.3  | 4899.3  | 4899.3  | 4899.3  | 4899.3  |
| 2.5°  | 5081.2 | 5095.0 | 5091.1 | 5086.1 | 5078.2 | 5056.5  | 5020.9  | 5014.9  | 4992.2  | 4943.8  | 4883.4  |
| 5°    | 5003.1 | 5014.9 | 5015.9 | 5022.9 | 5032.7 | 5028.8  | 5003.1  | 5000.1  | 4966.5  | 4901.2  | 4800.4  |
| 7.5°  | 4735.1 | 4750.9 | 4785.6 | 4824.1 | 4858.7 | 4891.3  | 4899.3  | 4904.2  | 4883.4  | 4808.3  | 4673.8  |
| 10°   | 4433.6 | 4449.4 | 4465.2 | 4522.5 | 4607.6 | 4688.7  | 4755.9  | 4764.8  | 4769.7  | 4700.5  | 4536.4  |
| 12.5° | 4099.4 | 4132.0 | 4165.6 | 4250.6 | 4364.3 | 4491.9  | 4610.5  | 4629.3  | 4662.9  | 4610.5  | 4417.7  |
| 15°   | 3815.6 | 3849.2 | 3897.7 | 3973.8 | 4111.2 | 4295.1  | 4462.2  | 4492.9  | 4559.1  | 4532.4  | 4307.0  |
| 17.5° | 3618.8 | 3630.7 | 3664.3 | 3751.3 | 3899.6 | 4093.4  | 4316.9  | 4378.2  | 4484.0  | 4477.1  | 4212.1  |
| 20°   | 3463.6 | 3478.4 | 3499.2 | 3552.6 | 3706.8 | 3911.5  | 4181.4  | 4260.5  | 4403.9  | 4427.6  | 4118.1  |
| 22.5° | 3398.3 | 3409.2 | 3406.2 | 3434.9 | 3539.7 | 3745.4  | 4044.0  | 4137.9  | 4332.7  | 4394.0  | 4031.1  |
| 25°   | 3402.3 | 3412.2 | 3397.3 | 3390.4 | 3452.7 | 3599.1  | 3900.6  | 4020.3  | 4275.4  | 4371.3  | 3952.0  |
| 27.5° | 3468.5 | 3475.5 | 3447.8 | 3420.1 | 3425.0 | 3508.1  | 3782.0  | 3914.5  | 4226.9  | 4381.2  | 3885.8  |
| 30°   | 3557.5 | 3570.4 | 3552.6 | 3519.0 | 3482.4 | 3486.3  | 3705.8  | 3836.4  | 4204.2  | 4415.8  | 3854.1  |
| 32.5° | 3672.2 | 3684.1 | 3676.2 | 3649.5 | 3602.0 | 3549.6  | 3687.0  | 3807.7  | 4206.1  | 4486.0  | 3847.2  |
| 35°   | 3792.8 | 3816.6 | 3829.4 | 3827.5 | 3788.9 | 3697.9  | 3761.2  | 3861.1  | 4253.6  | 4603.6  | 3887.8  |
| 37.5° | 3929.3 | 3949.1 | 4004.4 | 4040.0 | 4004.4 | 3898.6  | 3928.3  | 3997.5  | 4358.4  | 4773.7  | 3976.8  |
| 40°   | 4061.8 | 4091.4 | 4172.5 | 4283.3 | 4269.4 | 4176.5  | 4183.4  | 4228.9  | 4543.3  | 5026.8  | 4150.8  |
| 42.5° | 4200.2 | 4235.8 | 4377.2 | 4541.3 | 4574.0 | 4501.8  | 4520.6  | 4561.1  | 4806.3  | 5377.8  | 4449.4  |
| 45°   | 4378.2 | 4420.7 | 4594.7 | 4799.4 | 4927.9 | 4883.4  | 4936.8  | 4956.6  | 5158.3  | 5834.6  | 4842.9  |
| 47.5° | 4607.6 | 4657.0 | 4871.6 | 5126.7 | 5308.6 | 5349.1  | 5442.1  | 5430.2  | 5594.3  | 6375.5  | 5353.1  |
| 50°   | 4994.2 | 5021.9 | 5224.6 | 5484.6 | 5734.8 | 5917.7  | 6018.5  | 6037.3  | 6135.2  | 6901.5  | 5923.6  |
| 52.5° | 5453.9 | 5478.7 | 5625.0 | 5852.4 | 6165.8 | 6553.4  | 6802.6  | 6741.3  | 6765.0  | 7542.2  | 6591.0  |
| 55°   | 5971.1 | 6012.6 | 6105.5 | 6256.8 | 6663.2 | 7233.7  | 7734.0  | 7748.8  | 7485.8  | 8155.2  | 7230.7  |
| 57.5° | 6371.5 | 6441.7 | 6600.9 | 6816.4 | 7331.6 | 7990.1  | 8662.4  | 8672.3  | 8336.2  | 8809.8  | 7936.7  |
| 60°   | 6169.8 | 6252.9 | 6616.7 | 7141.7 | 8208.6 | 9310.1  | 9771.8  | 9715.5  | 9163.7  | 9555.3  | 8797.9  |
| 62.5° | 5299.7 | 5314.5 | 5843.5 | 6664.2 | 8478.5 | 11076.0 | 11423.0 | 11184.7 | 10268.2 | 10500.5 | 9672.9  |
| 65°   | 3430.0 | 3526.9 | 3946.1 | 5096.0 | 7591.6 | 12055.8 | 14316.1 | 13765.4 | 11816.6 | 11573.3 | 10405.6 |
| 67.5° | 2165.4 | 2140.6 | 2314.7 | 2909.9 | 5221.6 | 11192.7 | 16785.0 | 16698.0 | 13841.5 | 12250.6 | 10230.6 |
| 69°   | 1795.6 | 1823.3 | 1882.6 | 2230.6 | 3593.1 | 9556.3  | 17076.7 | 17677.9 | 14823.3 | 12197.2 | 9594.8  |
| 70°   | 1628.5 | 1641.3 | 1703.6 | 1977.5 | 2772.5 | 8003.9  | 16598.2 | 17651.2 | 15209.0 | 11973.8 | 9134.1  |
| 72.5° | 1292.3 | 1291.3 | 1398.1 | 1645.3 | 2072.4 | 4569.0  | 13628.9 | 15324.6 | 14777.9 | 10933.6 | 7547.1  |
| 75°   | 981.8  | 997.6  | 1115.3 | 1392.2 | 1909.3 | 2496.6  | 9510.8  | 11801.7 | 11802.7 | 8635.7  | 4709.4  |
| 77.5° | 707.9  | 717.8  | 855.3  | 1168.7 | 1798.5 | 2024.0  | 6334.9  | 8464.7  | 7957.5  | 3957.0  | 1480.2  |
| 80°   | 463.7  | 469.7  | 574.5  | 925.5  | 1621.6 | 1909.3  | 3756.3  | 5181.1  | 3753.3  | 1050.1  | 489.4   |
| 82.5° | 254.1  | 283.8  | 351.0  | 599.2  | 1301.2 | 1763.9  | 2283.0  | 2622.2  | 1408.0  | 467.7   | 255.1   |
| 85°   | 127.5  | 135.5  | 197.8  | 350.0  | 850.3  | 1459.4  | 1589.9  | 1503.9  | 726.7   | 232.4   | 132.5   |
| 87.5° | 37.6   | 47.5   | 82.1   | 135.5  | 345.1  | 760.3   | 884.9   | 794.0   | 279.8   | 84.0    | 27.7    |
| 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°    | 4899.3 | 4899.3 | 4899.3 | 4899.3 | 4899.3 | 4899.3 | 4899.3 | 4899.3 | 4899.3 | 4899.3 | 4899.3 |
| 2.5°  | 4858.7 | 4840.9 | 4761.8 | 4690.6 | 4625.4 | 4556.2 | 4497.8 | 4446.4 | 4451.4 | 4452.3 | 4399.9 |
| 5°    | 4748.0 | 4707.4 | 4557.2 | 4416.7 | 4298.1 | 4147.8 | 4019.3 | 3936.2 | 3894.7 | 3839.3 | 3859.1 |
| 7.5°  | 4597.7 | 4519.6 | 4311.0 | 4077.6 | 3859.1 | 3664.3 | 3452.7 | 3307.4 | 3214.4 | 3124.5 | 3136.3 |
| 10°   | 4442.5 | 4316.9 | 4013.3 | 3704.8 | 3422.1 | 3110.6 | 2840.7 | 2609.3 | 2437.3 | 2373.0 | 2330.5 |
| 12.5° | 4283.3 | 4118.1 | 3732.5 | 3322.2 | 2931.6 | 2558.9 | 2176.2 | 1928.1 | 1738.2 | 1637.4 | 1650.2 |
| 15°   | 4137.9 | 3937.2 | 3439.9 | 2939.6 | 2432.3 | 1988.4 | 1606.7 | 1370.4 | 1237.9 | 1210.2 | 1226.1 |
| 17.5° | 4003.4 | 3740.4 | 3166.0 | 2567.8 | 1975.5 | 1491.0 | 1207.3 | 1073.8 | 1020.4 | 1005.6 | 1004.6 |
| 20°   | 3865.0 | 3573.3 | 2858.5 | 2170.3 | 1539.5 | 1155.8 | 990.7  | 928.4  | 918.5  | 924.5  | 925.5  |
| 22.5° | 3724.6 | 3366.7 | 2542.1 | 1775.8 | 1226.1 | 945.2  | 866.1  | 849.3  | 857.2  | 871.1  | 873.1  |
| 25°   | 3595.1 | 3184.8 | 2237.5 | 1429.7 | 978.9  | 830.6  | 792.0  | 792.0  | 809.8  | 830.6  | 831.5  |
| 27.5° | 3488.3 | 3008.8 | 1934.0 | 1135.1 | 819.7  | 747.5  | 734.6  | 741.6  | 766.3  | 782.1  | 783.1  |
| 30°   | 3400.3 | 2844.6 | 1647.3 | 909.7  | 720.8  | 681.2  | 678.3  | 690.1  | 707.9  | 722.8  | 723.8  |
| 32.5° | 3334.1 | 2700.3 | 1379.3 | 764.3  | 652.6  | 630.8  | 629.8  | 638.7  | 648.6  | 652.6  | 656.5  |
| 35°   | 3308.4 | 2580.6 | 1134.1 | 672.4  | 607.1  | 593.3  | 593.3  | 592.3  | 596.2  | 598.2  | 600.2  |
| 37.5° | 3329.1 | 2488.7 | 944.3  | 613.0  | 573.5  | 563.6  | 557.7  | 551.7  | 549.7  | 549.7  | 550.7  |
| 40°   | 3417.1 | 2440.2 | 802.9  | 574.5  | 549.7  | 534.9  | 524.0  | 517.1  | 510.2  | 512.2  | 514.2  |
| 42.5° | 3604.0 | 2449.1 | 707.0  | 548.8  | 529.0  | 508.2  | 492.4  | 484.5  | 479.5  | 485.5  | 484.5  |
| 45°   | 3901.6 | 2538.1 | 645.7  | 531.0  | 508.2  | 481.5  | 466.7  | 458.8  | 458.8  | 467.7  | 470.6  |
| 47.5° | 4317.9 | 2708.2 | 613.0  | 517.1  | 492.4  | 460.8  | 445.9  | 440.0  | 442.0  | 456.8  | 457.8  |
| 50°   | 4826.1 | 3003.8 | 607.1  | 510.2  | 484.5  | 445.9  | 429.1  | 423.2  | 428.1  | 443.9  | 445.9  |
| 52.5° | 5386.7 | 3384.5 | 635.8  | 511.2  | 477.6  | 437.0  | 415.3  | 406.4  | 411.3  | 424.2  | 428.1  |
| 55°   | 6051.2 | 3861.1 | 709.9  | 515.1  | 467.7  | 432.1  | 405.4  | 385.6  | 391.5  | 400.4  | 401.4  |
| 57.5° | 6729.4 | 4462.2 | 840.4  | 516.1  | 459.8  | 423.2  | 388.6  | 362.9  | 362.9  | 368.8  | 371.8  |
| 60°   | 7558.0 | 5116.8 | 1012.5 | 517.1  | 460.8  | 410.3  | 365.8  | 337.2  | 333.2  | 336.2  | 337.2  |
| 62.5° | 8380.6 | 5664.6 | 1041.2 | 514.2  | 470.6  | 397.5  | 341.1  | 311.5  | 304.5  | 303.5  | 301.6  |
| 65°   | 8743.5 | 5562.7 | 853.3  | 500.3  | 481.5  | 389.6  | 321.3  | 286.7  | 274.9  | 270.9  | 270.9  |
| 67.5° | 8152.2 | 4705.5 | 641.7  | 481.5  | 474.6  | 381.7  | 302.6  | 266.0  | 252.1  | 244.2  | 244.2  |
| 69°   | 7596.6 | 4185.4 | 576.4  | 468.7  | 456.8  | 368.8  | 290.7  | 255.1  | 238.3  | 229.4  | 226.4  |
| 70°   | 7167.5 | 3827.5 | 548.8  | 457.8  | 440.0  | 354.0  | 281.8  | 247.2  | 228.4  | 218.5  | 216.5  |
| 72.5° | 5719.9 | 3002.8 | 480.5  | 416.3  | 374.7  | 297.6  | 250.2  | 222.5  | 204.7  | 193.8  | 190.8  |
| 75°   | 3296.5 | 1627.5 | 398.5  | 361.9  | 301.6  | 231.4  | 211.6  | 193.8  | 180.0  | 170.1  | 167.1  |
| 77.5° | 1014.5 | 628.8  | 288.7  | 285.7  | 221.5  | 179.0  | 169.1  | 162.2  | 152.3  | 141.4  | 139.4  |
| 80°   | 427.1  | 320.4  | 195.8  | 192.8  | 147.3  | 124.6  | 121.6  | 120.6  | 116.7  | 107.8  | 104.8  |
| 82.5° | 234.3  | 180.9  | 136.4  | 118.7  | 89.0   | 72.2   | 75.1   | 76.1   | 73.2   | 64.3   | 58.3   |
| 85°   | 114.7  | 98.9   | 66.2   | 53.4   | 40.5   | 25.7   | 24.7   | 29.7   | 27.7   | 19.8   | 21.8   |
| 87.5° | 22.7   | 27.7   | 17.8   | 7.9    | 4.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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)