

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: P453851

Luminaire Tested: **GALN-SA4D-830-U-SL2**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453851  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4D-830-U-SL2  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24274 lumens  
Efficiency: N/A  
Efficacy: 99.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G4

Input Watts (W): 245  
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

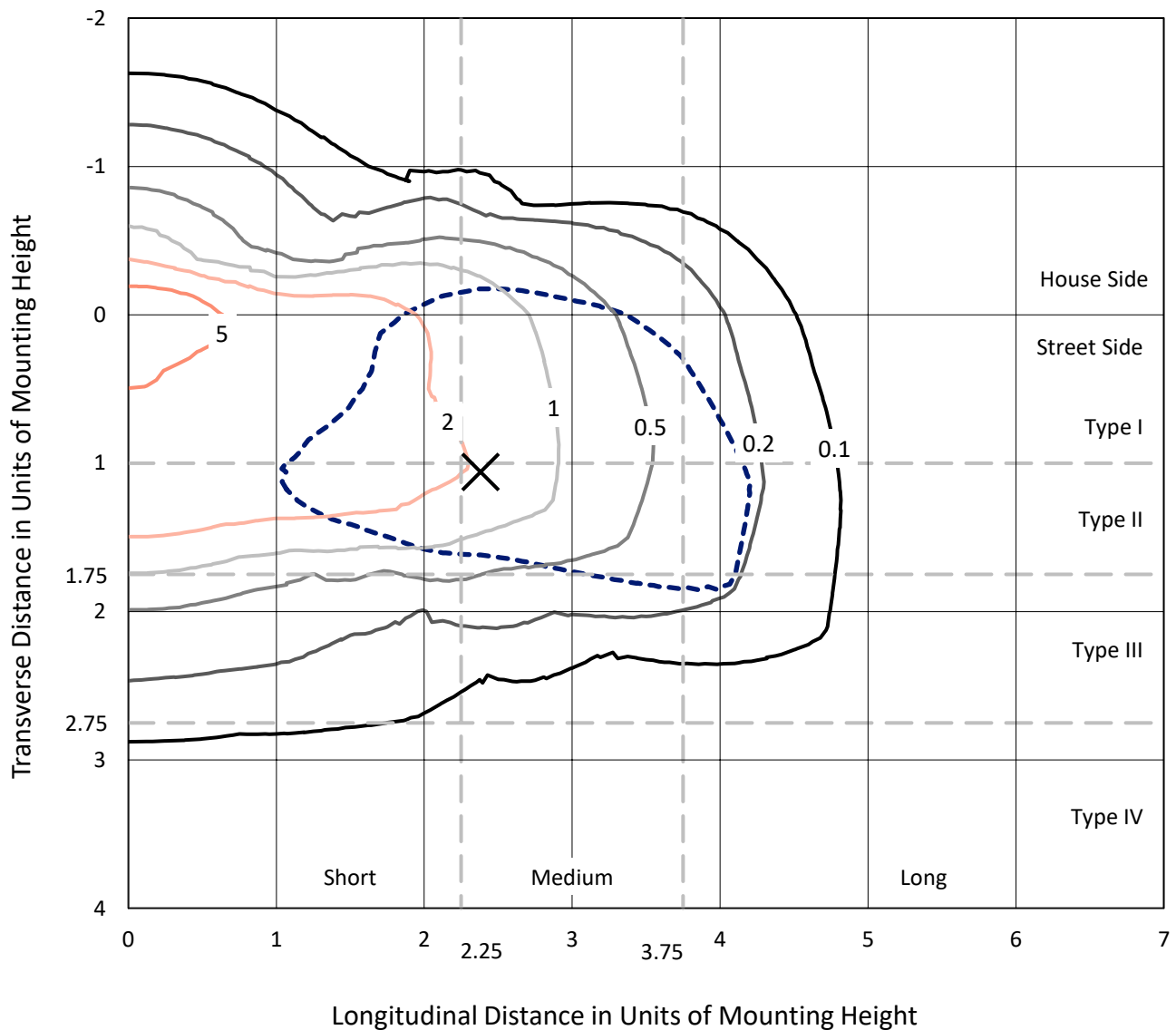


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

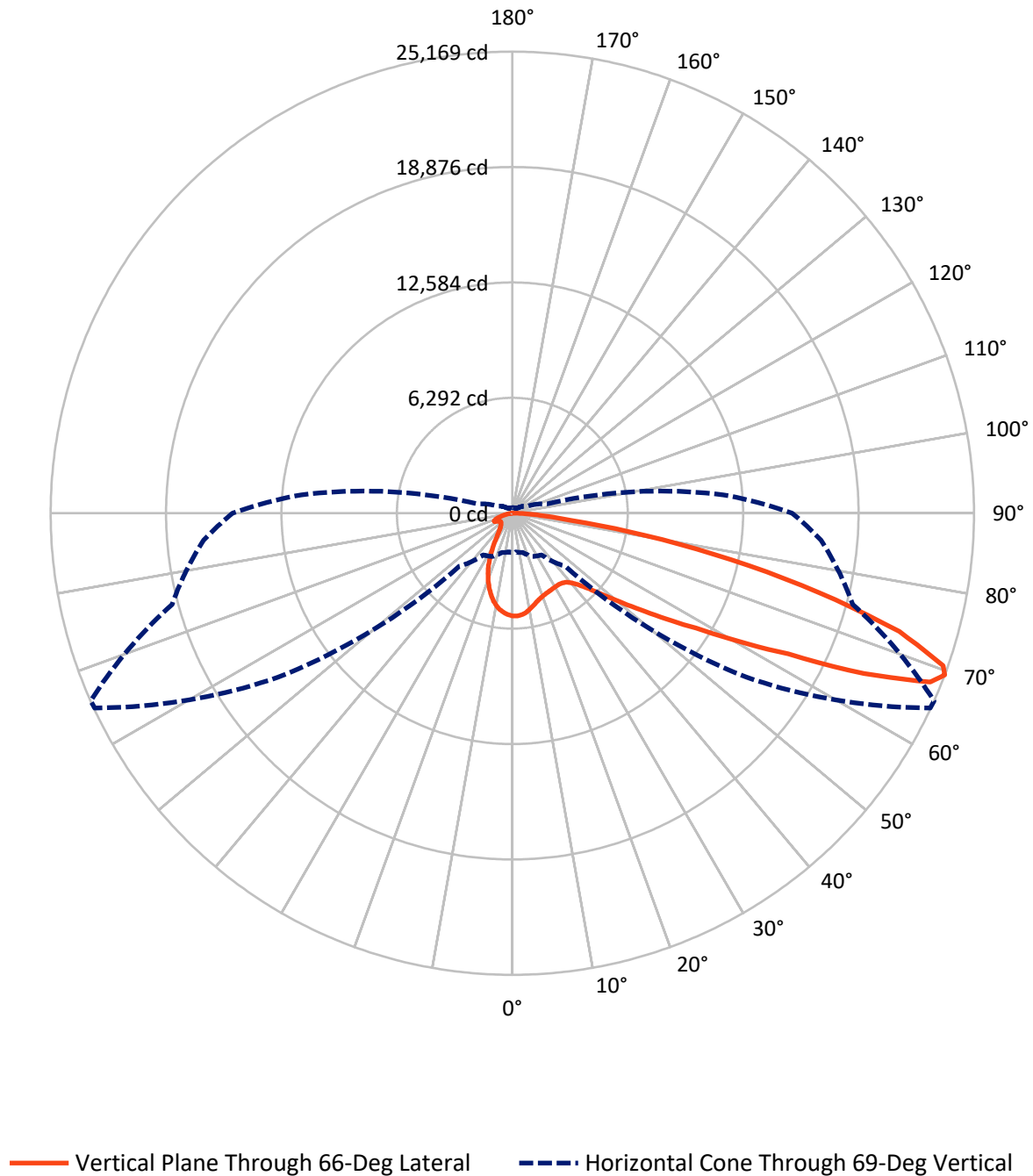


Based on 25 foot mounting height. Maximum calculated value = 9 fc  
 Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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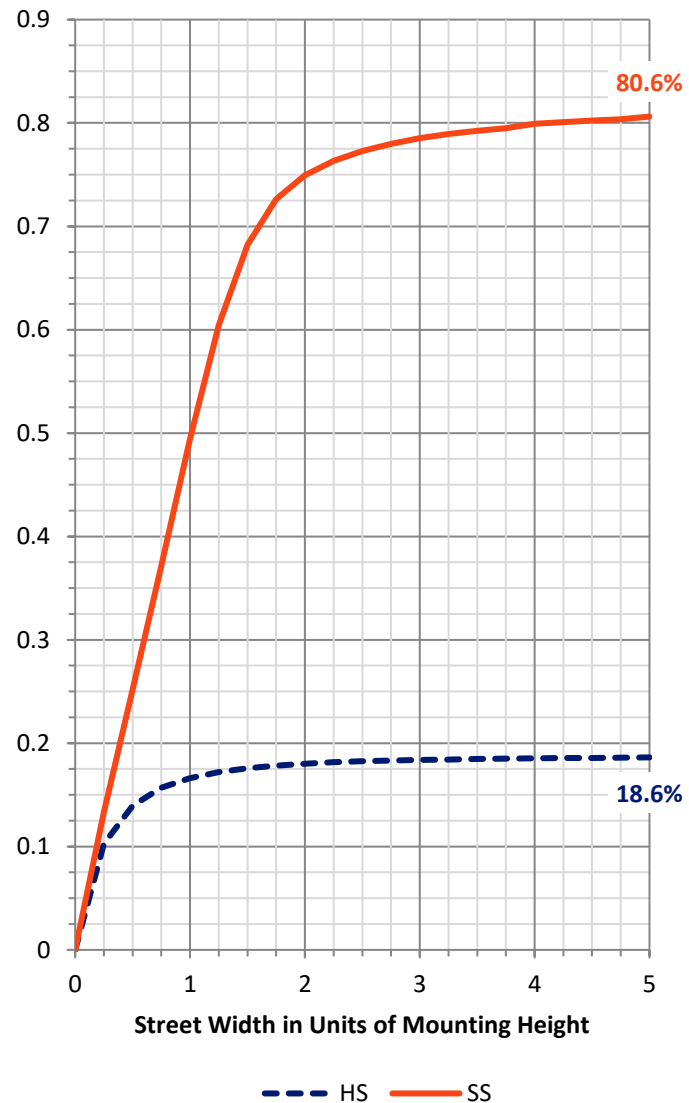
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4565.0   | 0.0    | 4565.0  |
|                    | % Fixture | 18.8     | 0.0    | 18.8    |
| <b>Street Side</b> | Lumens    | 19709.0  | 0.0    | 19709.0 |
|                    | % Fixture | 81.2     | 0.0    | 81.2    |
| <b>Total</b>       | Lumens    | 24274.0  | 0.0    | 24274.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 486.8   | 2.0       |
| 10°-20°   | 1154.6  | 4.8       |
| 20°-30°   | 1571.8  | 6.5       |
| 30°-40°   | 2112.2  | 8.7       |
| 40°-50°   | 3153.9  | 13.0      |
| 50°-60°   | 5016.8  | 20.7      |
| 60°-70°   | 6170.4  | 25.4      |
| 70°-80°   | 4014.7  | 16.5      |
| 80°-90°   | 592.9   | 2.4       |
| 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°    | 24274.0 | 100.0     |
| 0°-180°   | 24274.0 | 100.0     |

**Coefficient of Utilization**



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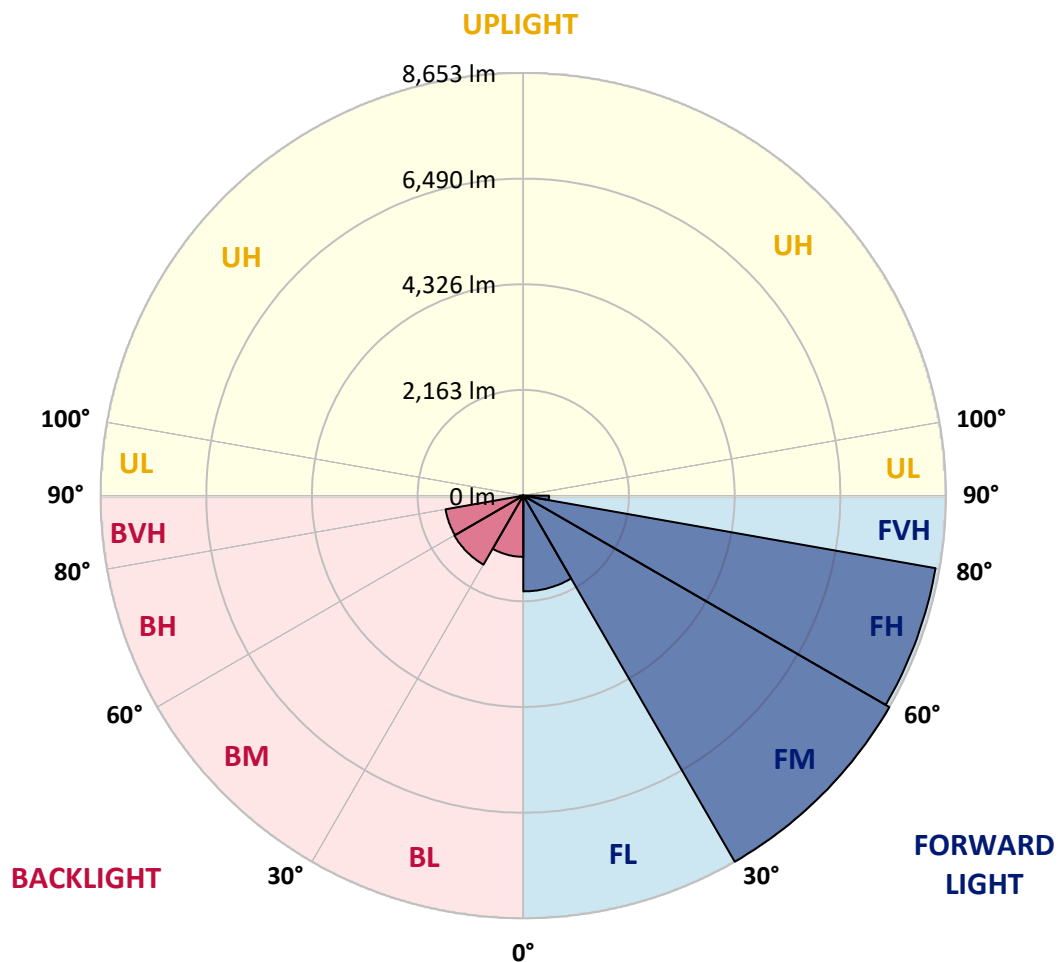
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1960.1 | 8.1       |                         |      |          |
| FM   | (30°-60°)   | 8653.0 | 35.6      |                         |      |          |
| FH   | (60°-80°)   | 8568.8 | 35.3      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 527.1  | 2.2       |                         |      | G4/750   |
| BL   | (0°-30°)    | 1253.1 | 5.2       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 1629.9 | 6.7       | B2/2500                 |      |          |
| BH   | (60°-80°)   | 1616.2 | 6.7       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 65.8   | 0.3       |                         |      | G1/100   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 45°     | 55°     | 65°     | 66°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5605.5 | 5605.5 | 5605.5 | 5605.5 | 5605.5  | 5605.5  | 5605.5  | 5605.5  | 5605.5  | 5605.5  | 5605.5  |
| 2.5°  | 5409.3 | 5430.8 | 5455.0 | 5481.9 | 5533.0  | 5561.2  | 5581.3  | 5604.2  | 5606.9  | 5619.0  | 5609.6  |
| 5°    | 5010.0 | 5035.6 | 5071.9 | 5123.0 | 5199.6  | 5319.2  | 5442.9  | 5543.7  | 5555.8  | 5612.3  | 5628.4  |
| 7.5°  | 4676.7 | 4691.4 | 4721.0 | 4803.0 | 4911.9  | 5045.0  | 5225.1  | 5429.4  | 5459.0  | 5593.4  | 5640.5  |
| 10°   | 4405.1 | 4419.9 | 4454.9 | 4539.5 | 4647.1  | 4813.8  | 5011.4  | 5280.2  | 5304.4  | 5535.6  | 5643.2  |
| 12.5° | 4202.1 | 4215.6 | 4253.2 | 4336.6 | 4460.2  | 4616.2  | 4833.9  | 5118.9  | 5153.9  | 5459.0  | 5617.6  |
| 15°   | 4047.6 | 4073.1 | 4104.0 | 4172.6 | 4303.0  | 4453.5  | 4664.6  | 4971.1  | 4999.3  | 5378.4  | 5600.2  |
| 17.5° | 3981.7 | 3993.8 | 4015.3 | 4078.5 | 4173.9  | 4321.8  | 4534.2  | 4855.4  | 4889.1  | 5321.9  | 5596.1  |
| 20°   | 3984.4 | 3996.5 | 4000.5 | 4035.5 | 4104.0  | 4231.7  | 4441.4  | 4764.0  | 4804.4  | 5272.2  | 5602.9  |
| 22.5° | 4075.8 | 4077.1 | 4062.3 | 4050.2 | 4077.1  | 4183.3  | 4375.5  | 4695.5  | 4742.5  | 5250.7  | 5608.2  |
| 25°   | 4216.9 | 4241.1 | 4219.6 | 4163.2 | 4113.4  | 4164.5  | 4350.0  | 4657.8  | 4702.2  | 5219.7  | 5601.5  |
| 27.5° | 4445.4 | 4449.5 | 4432.0 | 4355.4 | 4226.3  | 4188.7  | 4339.3  | 4629.6  | 4667.3  | 5196.9  | 5567.9  |
| 30°   | 4751.9 | 4739.8 | 4723.7 | 4639.0 | 4436.0  | 4281.5  | 4362.1  | 4604.1  | 4643.1  | 5163.3  | 5527.6  |
| 32.5° | 5062.5 | 5100.1 | 5085.3 | 4985.8 | 4722.4  | 4461.6  | 4436.0  | 4601.4  | 4633.6  | 5137.7  | 5483.2  |
| 35°   | 5391.8 | 5409.3 | 5479.2 | 5428.1 | 5157.9  | 4753.3  | 4574.5  | 4643.1  | 4668.6  | 5139.1  | 5452.3  |
| 37.5° | 5649.9 | 5697.0 | 5860.9 | 5905.3 | 5651.2  | 5139.1  | 4799.0  | 4761.3  | 4772.1  | 5205.0  | 5464.4  |
| 40°   | 5961.8 | 6042.4 | 6253.5 | 6434.9 | 6268.3  | 5640.5  | 5180.8  | 4980.5  | 4993.9  | 5363.6  | 5543.7  |
| 42.5° | 6357.0 | 6413.4 | 6697.1 | 6943.1 | 6916.2  | 6303.2  | 5643.2  | 5339.4  | 5346.1  | 5679.5  | 5765.5  |
| 45°   | 6819.4 | 6900.1 | 7218.6 | 7588.3 | 7651.5  | 7053.3  | 6311.3  | 5882.5  | 5878.4  | 6170.1  | 6179.5  |
| 47.5° | 7410.9 | 7460.6 | 7776.5 | 8179.8 | 8435.2  | 7995.6  | 7121.9  | 6662.1  | 6619.1  | 6885.3  | 6808.6  |
| 50°   | 7955.3 | 8033.3 | 8272.5 | 8713.5 | 9349.3  | 9099.3  | 8187.9  | 7673.0  | 7572.2  | 7820.9  | 7691.8  |
| 52.5° | 8183.8 | 8265.8 | 8467.5 | 9014.6 | 10133.0 | 10526.9 | 9541.5  | 8878.8  | 8710.8  | 8901.7  | 8854.6  |
| 55°   | 7787.3 | 7893.5 | 8081.7 | 8747.1 | 10477.1 | 12173.6 | 11367.0 | 10272.8 | 10150.5 | 10068.5 | 10081.9 |
| 57.5° | 6721.3 | 6822.1 | 7076.2 | 7810.1 | 10065.8 | 13368.6 | 13973.5 | 12064.7 | 11802.6 | 11424.8 | 11489.3 |
| 60°   | 5116.2 | 5179.4 | 5311.1 | 6124.4 | 8846.5  | 13679.1 | 16933.6 | 14329.8 | 14163.1 | 12775.8 | 12821.5 |
| 62.5° | 3633.5 | 3704.8 | 3796.2 | 4202.1 | 6476.6  | 12804.0 | 19251.1 | 17492.8 | 16897.3 | 14175.2 | 14130.8 |
| 65°   | 2950.6 | 2902.2 | 3012.5 | 3202.0 | 3800.2  | 9923.3  | 19772.6 | 21883.1 | 21063.1 | 16018.1 | 15402.5 |
| 67.5° | 2426.4 | 2375.3 | 2484.2 | 2821.6 | 2890.1  | 5760.1  | 17893.4 | 24732.9 | 24568.9 | 18022.4 | 16694.3 |
| 69°   | 2148.1 | 2121.2 | 2216.7 | 2601.1 | 2774.5  | 4090.6  | 15588.0 | 25129.5 | 25168.5 | 19204.0 | 16893.2 |
| 70°   | 1935.7 | 1946.5 | 2039.2 | 2489.6 | 2722.1  | 3372.7  | 13322.9 | 24582.4 | 24913.1 | 19794.1 | 16678.2 |
| 72.5° | 1424.9 | 1447.8 | 1576.8 | 2062.1 | 2672.4  | 2861.9  | 7928.4  | 21471.8 | 22056.5 | 19829.1 | 15257.3 |
| 75°   | 996.1  | 985.3  | 1099.6 | 1552.6 | 2524.5  | 2836.4  | 4656.5  | 16605.6 | 17268.3 | 17139.2 | 12820.2 |
| 77.5° | 652.0  | 669.4  | 760.8  | 1096.9 | 2123.9  | 2814.9  | 3035.3  | 11781.0 | 12211.2 | 11462.5 | 7582.9  |
| 80°   | 459.7  | 458.4  | 509.5  | 748.7  | 1575.5  | 2704.6  | 2485.5  | 7425.7  | 7316.8  | 4504.6  | 2248.9  |
| 82.5° | 263.5  | 282.3  | 341.4  | 526.9  | 1053.9  | 2380.7  | 2286.6  | 3551.5  | 3242.3  | 1283.8  | 759.5   |
| 85°   | 146.5  | 153.2  | 203.0  | 318.6  | 615.7   | 1793.2  | 1996.2  | 1615.8  | 1524.4  | 536.4   | 326.7   |
| 87.5° | 47.0   | 51.1   | 84.7   | 161.3  | 279.6   | 846.9   | 1130.5  | 746.1   | 688.3   | 193.6   | 131.7   |
| 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°    | 5605.5  | 5605.5  | 5605.5 | 5605.5 | 5605.5 | 5605.5 | 5605.5 | 5605.5 | 5605.5 | 5605.5 | 5605.5 |
| 2.5°  | 5613.6  | 5629.7  | 5586.7 | 5545.0 | 5507.4 | 5455.0 | 5407.9 | 5369.0 | 5342.1 | 5338.0 | 5324.6 |
| 5°    | 5632.4  | 5633.8  | 5551.8 | 5441.5 | 5334.0 | 5215.7 | 5093.4 | 5006.0 | 4924.0 | 4878.3 | 4855.4 |
| 7.5°  | 5645.9  | 5633.8  | 5485.9 | 5307.1 | 5100.1 | 4885.0 | 4669.9 | 4497.9 | 4364.8 | 4312.4 | 4332.5 |
| 10°   | 5640.5  | 5602.9  | 5386.4 | 5100.1 | 4799.0 | 4477.7 | 4168.5 | 3926.6 | 3704.8 | 3590.5 | 3593.2 |
| 12.5° | 5610.9  | 5549.1  | 5238.6 | 4867.5 | 4425.3 | 3995.1 | 3521.9 | 3195.3 | 2938.5 | 2786.6 | 2739.6 |
| 15°   | 5585.4  | 5477.8  | 5065.2 | 4551.6 | 4001.8 | 3387.5 | 2810.8 | 2407.6 | 2192.5 | 2072.8 | 2071.5 |
| 17.5° | 5558.5  | 5409.3  | 4875.6 | 4216.9 | 3515.2 | 2724.8 | 2119.9 | 1812.1 | 1711.2 | 1723.3 | 1703.2 |
| 20°   | 5530.3  | 5328.6  | 4678.0 | 3844.6 | 2922.4 | 2032.5 | 1587.6 | 1462.5 | 1490.8 | 1545.9 | 1554.0 |
| 22.5° | 5498.0  | 5242.6  | 4465.6 | 3434.6 | 2298.7 | 1529.8 | 1287.8 | 1269.0 | 1341.6 | 1427.6 | 1439.7 |
| 25°   | 5448.3  | 5135.1  | 4198.1 | 3005.8 | 1773.1 | 1232.7 | 1127.8 | 1141.3 | 1212.5 | 1285.1 | 1293.2 |
| 27.5° | 5378.4  | 5002.0  | 3927.9 | 2470.7 | 1332.2 | 1057.9 | 1031.0 | 1048.5 | 1083.5 | 1127.8 | 1138.6 |
| 30°   | 5284.3  | 4851.4  | 3617.4 | 2008.3 | 1067.3 | 970.6  | 959.8  | 969.2  | 989.4  | 1008.2 | 1013.6 |
| 32.5° | 5190.2  | 4706.2  | 3304.2 | 1537.8 | 951.7  | 912.7  | 902.0  | 902.0  | 902.0  | 904.7  | 906.0  |
| 35°   | 5102.8  | 4569.1  | 2968.1 | 1197.7 | 891.2  | 867.0  | 852.3  | 836.1  | 833.4  | 824.0  | 824.0  |
| 37.5° | 5054.4  | 4444.1  | 2610.5 | 1002.8 | 846.9  | 829.4  | 809.2  | 782.4  | 767.6  | 768.9  | 766.2  |
| 40°   | 5063.8  | 4362.1  | 2285.2 | 892.6  | 810.6  | 791.8  | 760.8  | 729.9  | 720.5  | 720.5  | 717.8  |
| 42.5° | 5170.0  | 4335.2  | 1973.4 | 834.8  | 775.6  | 754.1  | 715.1  | 686.9  | 681.5  | 680.2  | 682.9  |
| 45°   | 5414.7  | 4401.1  | 1693.8 | 797.1  | 746.1  | 713.8  | 674.8  | 649.3  | 643.9  | 643.9  | 642.6  |
| 47.5° | 5891.9  | 4614.8  | 1493.5 | 772.9  | 724.6  | 682.9  | 642.6  | 617.0  | 607.6  | 604.9  | 604.9  |
| 50°   | 6633.9  | 5078.6  | 1344.3 | 751.4  | 697.7  | 654.7  | 613.0  | 583.4  | 568.6  | 567.3  | 565.9  |
| 52.5° | 7664.9  | 5801.8  | 1286.5 | 735.3  | 668.1  | 625.1  | 579.4  | 551.1  | 532.3  | 528.3  | 525.6  |
| 55°   | 8870.7  | 6811.3  | 1365.8 | 723.2  | 637.2  | 591.5  | 544.4  | 514.8  | 497.4  | 489.3  | 488.0  |
| 57.5° | 10267.4 | 8023.9  | 1666.9 | 707.1  | 608.9  | 555.2  | 509.5  | 479.9  | 461.1  | 451.7  | 449.0  |
| 60°   | 11521.6 | 9270.0  | 2192.5 | 697.7  | 584.8  | 516.2  | 469.1  | 442.3  | 424.8  | 415.4  | 414.0  |
| 62.5° | 12899.5 | 10458.3 | 2820.2 | 723.2  | 574.0  | 478.6  | 431.5  | 407.3  | 392.5  | 383.1  | 383.1  |
| 65°   | 14371.4 | 11648.0 | 3235.6 | 809.2  | 590.1  | 449.0  | 391.2  | 371.0  | 357.6  | 350.9  | 349.5  |
| 67.5° | 15363.5 | 12059.3 | 2665.7 | 898.0  | 630.5  | 416.7  | 352.2  | 336.1  | 328.0  | 321.3  | 321.3  |
| 69°   | 15255.9 | 11539.1 | 1966.6 | 920.8  | 642.6  | 400.6  | 330.7  | 318.6  | 307.8  | 305.1  | 302.5  |
| 70°   | 14915.8 | 10946.3 | 1648.1 | 906.0  | 633.1  | 385.8  | 317.2  | 302.5  | 293.0  | 290.4  | 289.0  |
| 72.5° | 13285.3 | 9493.1  | 1227.3 | 787.7  | 539.0  | 334.7  | 280.9  | 267.5  | 259.4  | 255.4  | 255.4  |
| 75°   | 11037.7 | 7759.0  | 958.5  | 626.4  | 422.1  | 282.3  | 240.6  | 229.9  | 223.1  | 220.5  | 219.1  |
| 77.5° | 6186.3  | 4332.5  | 688.3  | 490.7  | 319.9  | 228.5  | 201.6  | 192.2  | 185.5  | 182.8  | 182.8  |
| 80°   | 1723.3  | 1238.1  | 404.6  | 324.0  | 217.8  | 173.4  | 160.0  | 153.2  | 143.8  | 137.1  | 141.1  |
| 82.5° | 649.3   | 536.4   | 231.2  | 194.9  | 138.5  | 115.6  | 111.6  | 106.2  | 102.2  | 92.8   | 92.8   |
| 85°   | 315.9   | 260.8   | 147.9  | 103.5  | 76.6   | 60.5   | 57.8   | 55.1   | 52.4   | 45.7   | 47.0   |
| 87.5° | 108.9   | 115.6   | 64.5   | 37.6   | 22.9   | 14.8   | 12.1   | 6.7    | 6.7    | 6.7    | 6.7    |
| 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)