

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: STREETWORKS

Report Number: P323778

Luminaire Tested: **GAN-SA4D-727-U-SL4-HSS**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P323778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA4D-727-U-SL4-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 21244 lumens  
Efficiency: N/A  
Efficacy: 82.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4

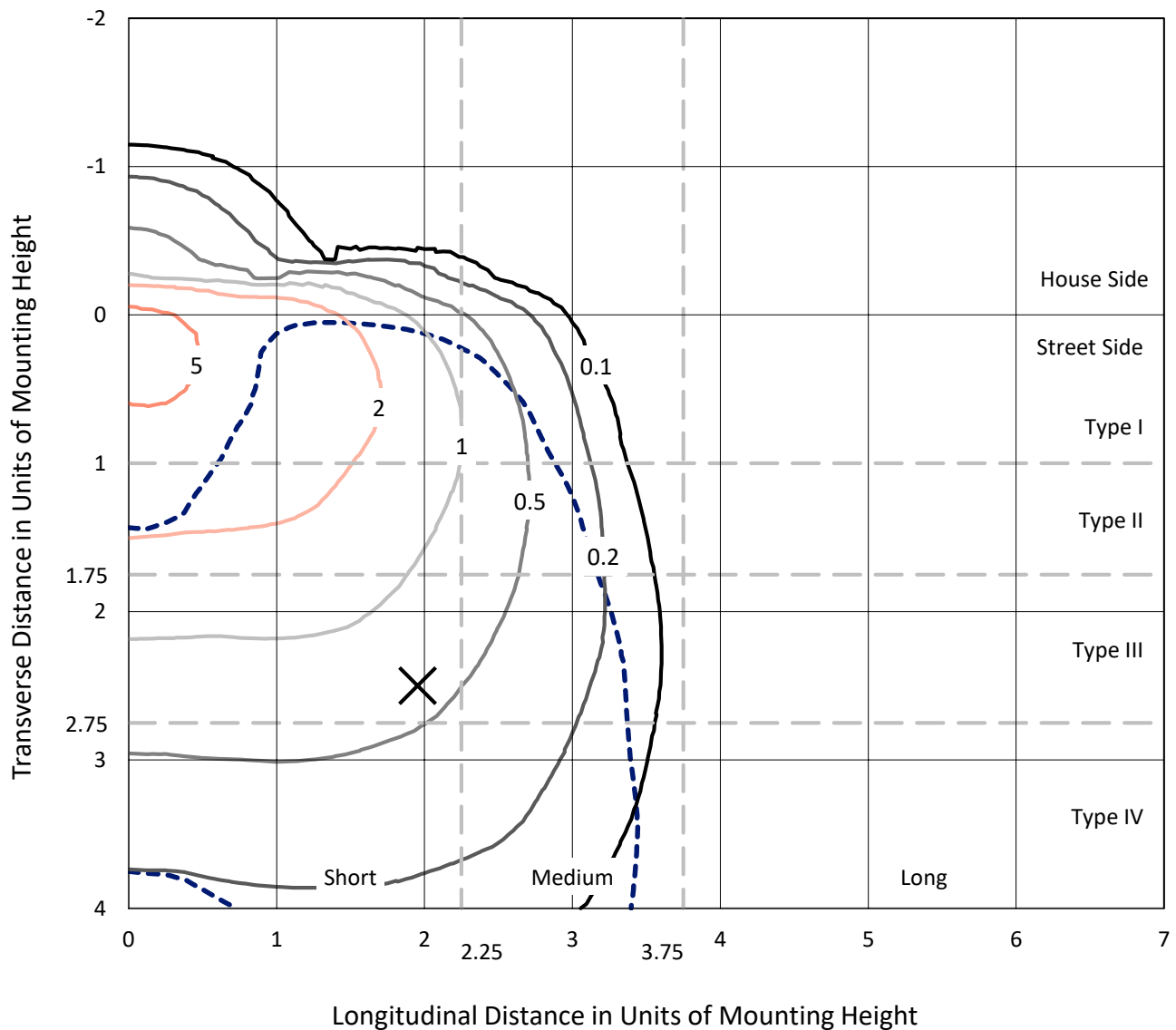
Input Watts (W): 258  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

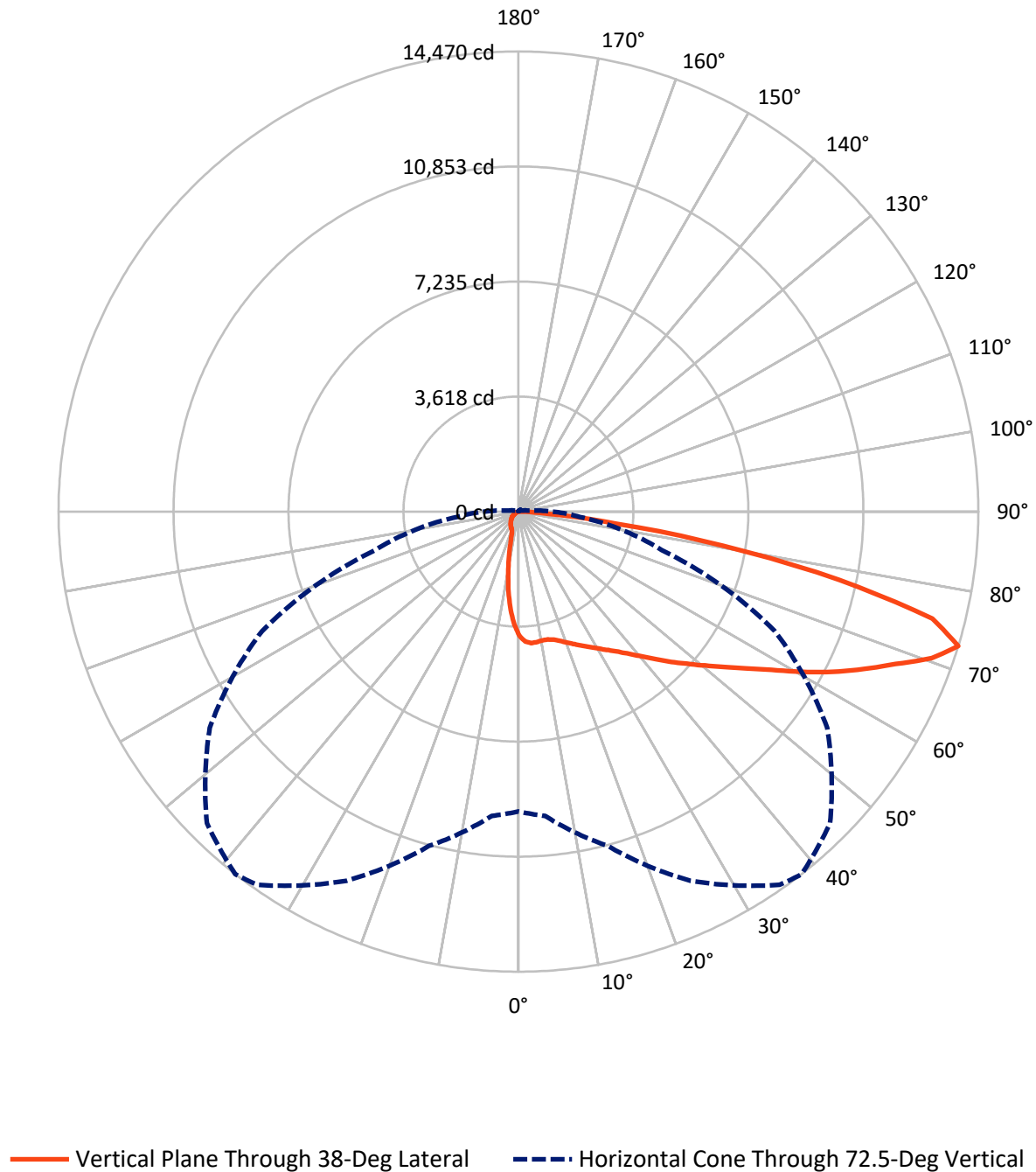
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 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    | 1787.8   | 0.0    | 1787.8  |
|                    | % Fixture | 8.4      | 0.0    | 8.4     |
| <b>Street Side</b> | Lumens    | 19456.2  | 0.0    | 19456.2 |
|                    | % Fixture | 91.6     | 0.0    | 91.6    |
| <b>Total</b>       | Lumens    | 21244.0  | 0.0    | 21244.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 332.9   | 1.6       |
| 10°-20°   | 814.1   | 3.8       |
| 20°-30°   | 1294.8  | 6.1       |
| 30°-40°   | 1946.6  | 9.2       |
| 40°-50°   | 2969.6  | 14.0      |
| 50°-60°   | 4197.0  | 19.8      |
| 60°-70°   | 5264.5  | 24.8      |
| 70°-80°   | 3936.4  | 18.5      |
| 80°-90°   | 488.1   | 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°    | 21244.0 | 100.0     |
| 0°-180°   | 21244.0 | 100.0     |

**Coefficient of Utilization**



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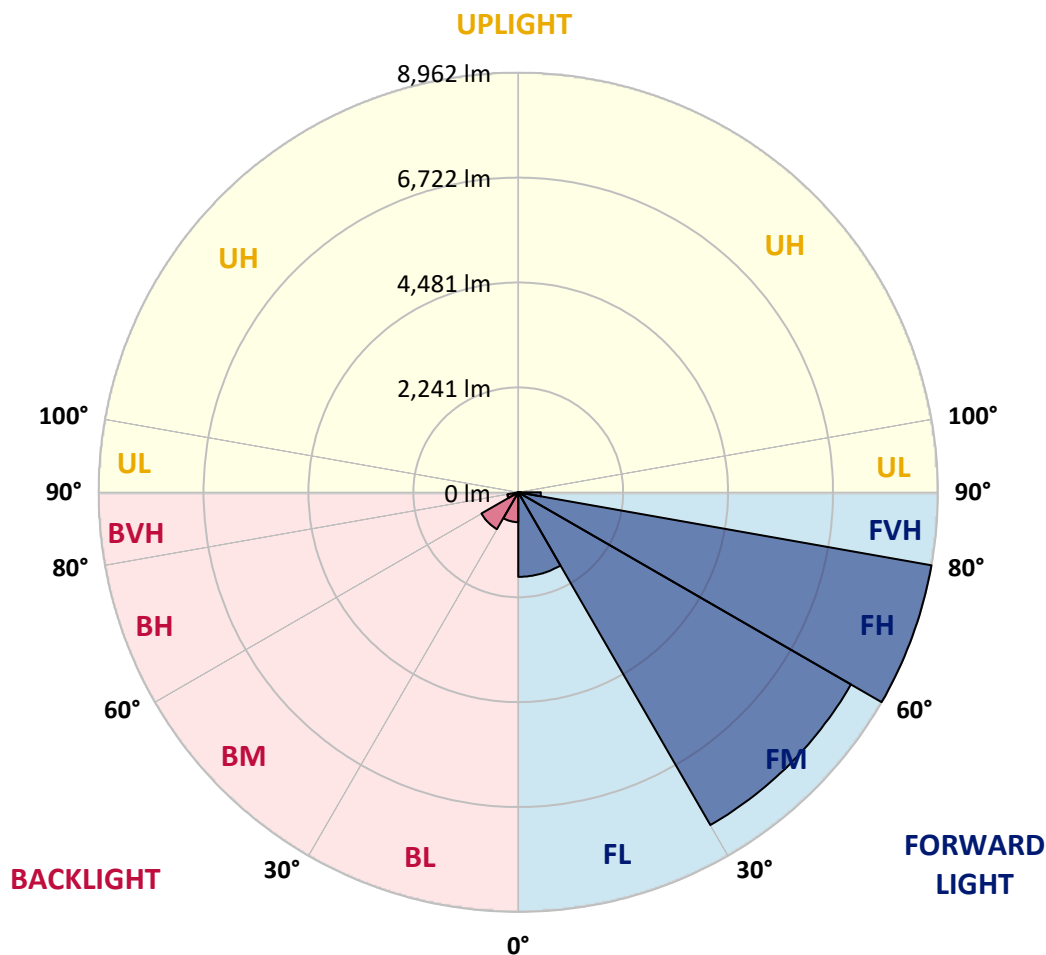
CATALOG NUMBER: GAN-SA4D-727-U-SL4-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1805.2 | 8.5       |                         |      |          |
| FM   | (30°-60°)   | 8205.4 | 38.6      |                         |      |          |
| FH   | (60°-80°)   | 8962.1 | 42.2      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 483.5  | 2.3       |                         |      | G3/500   |
| BL   | (0°-30°)    | 636.6  | 3.0       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 907.8  | 4.3       | B1/1000                 |      |          |
| BH   | (60°-80°)   | 238.8  | 1.1       | B1/500                  |      | G1/500   |
| BVH  | (80°-90°)   | 4.6    | 0.0       |                         |      | G0/10    |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B2-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°     | 25°     | 35°     | 38°     | 45°     | 55°     | 65°     | 75°     | 85°    |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 3906.7 | 3906.7 | 3906.7  | 3906.7  | 3906.7  | 3906.7  | 3906.7  | 3906.7  | 3906.7  | 3906.7  | 3906.7 |
| 2.5°  | 4146.7 | 4147.6 | 4137.9  | 4122.0  | 4101.7  | 4091.1  | 4073.5  | 4045.2  | 4015.2  | 3961.4  | 3903.2 |
| 5°    | 4231.4 | 4231.4 | 4219.0  | 4197.9  | 4165.2  | 4155.5  | 4122.0  | 4077.0  | 4015.2  | 3927.9  | 3829.9 |
| 7.5°  | 4222.6 | 4224.3 | 4207.6  | 4185.5  | 4152.9  | 4144.0  | 4103.4  | 4053.2  | 3976.4  | 3870.5  | 3745.2 |
| 10°   | 4176.7 | 4181.1 | 4167.9  | 4157.3  | 4127.3  | 4117.6  | 4079.6  | 4029.3  | 3952.6  | 3839.6  | 3695.8 |
| 12.5° | 4129.9 | 4134.3 | 4138.7  | 4148.4  | 4129.9  | 4126.4  | 4096.4  | 4054.0  | 3980.8  | 3863.5  | 3701.1 |
| 15°   | 4099.9 | 4108.7 | 4140.5  | 4178.4  | 4182.9  | 4179.3  | 4159.9  | 4120.2  | 4046.1  | 3924.3  | 3739.1 |
| 17.5° | 4099.9 | 4114.0 | 4180.2  | 4252.6  | 4278.1  | 4280.8  | 4264.0  | 4208.4  | 4120.2  | 3989.6  | 3774.4 |
| 20°   | 4134.3 | 4153.7 | 4257.0  | 4359.3  | 4401.7  | 4401.7  | 4369.0  | 4291.4  | 4188.1  | 4048.7  | 3798.2 |
| 22.5° | 4222.6 | 4248.1 | 4377.8  | 4496.1  | 4541.1  | 4531.4  | 4487.2  | 4374.3  | 4258.7  | 4115.8  | 3828.2 |
| 25°   | 4396.4 | 4415.8 | 4550.8  | 4669.9  | 4697.2  | 4675.2  | 4619.6  | 4474.9  | 4348.7  | 4206.7  | 3882.9 |
| 27.5° | 4620.5 | 4623.1 | 4762.5  | 4863.1  | 4846.3  | 4831.3  | 4761.6  | 4601.0  | 4478.4  | 4336.4  | 3977.3 |
| 30°   | 4866.6 | 4866.6 | 4989.2  | 5066.0  | 5014.8  | 5002.5  | 4932.8  | 4753.7  | 4644.3  | 4512.8  | 4111.4 |
| 32.5° | 5104.8 | 5115.4 | 5215.1  | 5263.6  | 5206.3  | 5193.9  | 5126.0  | 4946.9  | 4864.8  | 4781.9  | 4320.5 |
| 35°   | 5335.1 | 5343.0 | 5437.4  | 5463.9  | 5409.2  | 5412.7  | 5364.2  | 5212.5  | 5181.6  | 5171.0  | 4635.5 |
| 37.5° | 5558.3 | 5560.1 | 5656.2  | 5673.0  | 5645.7  | 5675.7  | 5680.1  | 5546.0  | 5603.3  | 5688.9  | 5079.2 |
| 40°   | 5762.1 | 5763.9 | 5859.2  | 5902.4  | 5949.2  | 5988.0  | 6022.4  | 5950.9  | 6140.6  | 6339.1  | 5607.7 |
| 42.5° | 5925.3 | 5943.9 | 6064.7  | 6146.8  | 6270.3  | 6344.4  | 6437.9  | 6434.4  | 6780.3  | 7078.5  | 6246.5 |
| 45°   | 6069.2 | 6100.9 | 6269.4  | 6413.2  | 6625.0  | 6743.2  | 6889.7  | 7004.4  | 7500.2  | 7901.6  | 6893.2 |
| 47.5° | 6258.8 | 6288.8 | 6481.2  | 6716.7  | 6999.1  | 7154.3  | 7397.0  | 7644.9  | 8291.6  | 8709.8  | 7524.9 |
| 50°   | 6526.2 | 6512.9 | 6702.6  | 7040.5  | 7403.1  | 7607.0  | 7952.8  | 8324.2  | 9076.8  | 9413.8  | 7896.3 |
| 52.5° | 6811.1 | 6805.8 | 6946.1  | 7392.6  | 7879.6  | 8117.8  | 8574.8  | 9026.5  | 9827.6  | 9899.1  | 8066.6 |
| 55°   | 7164.1 | 7126.1 | 7244.3  | 7794.0  | 8445.1  | 8701.0  | 9239.2  | 9721.8  | 10425.8 | 10172.6 | 8152.2 |
| 57.5° | 7533.7 | 7471.1 | 7584.0  | 8241.3  | 9083.0  | 9385.6  | 9975.0  | 10399.3 | 10823.7 | 10359.6 | 8151.3 |
| 60°   | 7915.7 | 7841.6 | 7975.7  | 8800.7  | 9875.3  | 10225.5 | 10772.5 | 10857.2 | 11195.2 | 10454.0 | 8091.3 |
| 62.5° | 8235.1 | 8191.0 | 8390.4  | 9398.8  | 10760.2 | 11104.3 | 11375.1 | 11273.7 | 11508.4 | 10527.3 | 7951.0 |
| 65°   | 8573.0 | 8575.7 | 8897.7  | 10096.7 | 11700.7 | 11932.7 | 11955.7 | 11813.6 | 11770.4 | 10512.3 | 7476.4 |
| 67.5° | 9030.1 | 9072.4 | 9609.7  | 11044.3 | 12615.6 | 12794.7 | 12792.9 | 12398.6 | 11961.8 | 9915.9  | 6423.8 |
| 70°   | 9513.5 | 9613.2 | 10430.2 | 12128.6 | 13614.3 | 13796.1 | 13702.6 | 12770.9 | 11263.1 | 8018.1  | 4546.3 |
| 72.5° | 9432.4 | 9605.3 | 10886.4 | 12812.4 | 14331.6 | 14470.1 | 13862.3 | 11856.0 | 8902.1  | 4660.2  | 1935.7 |
| 75°   | 7277.0 | 7477.3 | 9982.0  | 12134.8 | 13579.1 | 13454.7 | 11910.7 | 9225.9  | 4864.8  | 1300.5  | 435.8  |
| 77.5° | 3844.1 | 3950.8 | 6594.1  | 9244.4  | 10588.1 | 10327.9 | 8390.4  | 5118.1  | 1483.1  | 322.0   | 195.9  |
| 80°   | 2013.3 | 2038.0 | 2873.6  | 5245.1  | 6535.0  | 6536.8  | 4972.5  | 2248.0  | 611.4   | 165.0   | 131.5  |
| 82.5° | 1078.1 | 1099.3 | 1518.4  | 2423.6  | 3424.1  | 3103.8  | 1903.9  | 1236.9  | 355.6   | 93.5    | 126.2  |
| 85°   | 259.4  | 263.8  | 861.1   | 1107.3  | 1346.3  | 961.7   | 565.5   | 1038.4  | 96.2    | 54.7    | 102.3  |
| 87.5° | 99.7   | 101.5  | 319.4   | 479.1   | 343.2   | 222.3   | 264.7   | 387.3   | 12.4    | 21.2    | 15.9   |
| 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°    | 3906.7 | 3906.7 | 3906.7 | 3906.7 | 3906.7 | 3906.7 | 3906.7 | 3906.7 | 3906.7 | 3906.7 | 3906.7 |
| 2.5°  | 3867.9 | 3844.9 | 3788.5 | 3717.0 | 3653.5 | 3607.6 | 3538.8 | 3493.8 | 3463.8 | 3462.9 | 3451.4 |
| 5°    | 3769.9 | 3723.2 | 3601.4 | 3456.7 | 3325.3 | 3207.1 | 3067.7 | 2957.4 | 2875.3 | 2862.1 | 2833.9 |
| 7.5°  | 3665.0 | 3588.2 | 3401.2 | 3175.3 | 2954.7 | 2730.6 | 2470.4 | 2308.9 | 2170.4 | 2104.2 | 2097.2 |
| 10°   | 3600.6 | 3492.9 | 3227.4 | 2900.9 | 2555.1 | 2190.7 | 1850.1 | 1614.6 | 1444.3 | 1395.8 | 1359.6 |
| 12.5° | 3587.3 | 3445.3 | 3093.2 | 2643.3 | 2149.2 | 1667.5 | 1290.8 | 1040.2 | 904.3  | 861.1  | 849.6  |
| 15°   | 3600.6 | 3423.2 | 2980.3 | 2388.3 | 1738.1 | 1183.1 | 866.4  | 720.8  | 669.6  | 657.3  | 656.4  |
| 17.5° | 3608.5 | 3396.7 | 2852.4 | 2105.1 | 1339.3 | 845.2  | 663.5  | 621.1  | 613.2  | 612.3  | 614.1  |
| 20°   | 3607.6 | 3356.2 | 2699.8 | 1789.2 | 996.1  | 664.4  | 599.9  | 591.1  | 589.4  | 590.2  | 589.4  |
| 22.5° | 3601.4 | 3308.5 | 2532.1 | 1463.7 | 752.6  | 593.8  | 572.6  | 567.3  | 566.4  | 566.4  | 566.4  |
| 25°   | 3612.9 | 3270.6 | 2347.7 | 1152.2 | 620.2  | 561.1  | 547.9  | 543.5  | 542.6  | 542.6  | 540.8  |
| 27.5° | 3654.4 | 3249.4 | 2145.7 | 886.7  | 560.2  | 532.0  | 521.4  | 520.5  | 517.9  | 517.0  | 518.8  |
| 30°   | 3721.4 | 3249.4 | 1924.2 | 689.9  | 524.1  | 502.0  | 494.1  | 492.3  | 491.4  | 490.5  | 491.4  |
| 32.5° | 3839.6 | 3274.1 | 1682.5 | 573.5  | 489.7  | 468.5  | 463.2  | 465.8  | 463.2  | 463.2  | 463.2  |
| 35°   | 4053.2 | 3348.2 | 1429.3 | 500.2  | 453.5  | 435.8  | 430.5  | 434.1  | 432.3  | 432.3  | 431.4  |
| 37.5° | 4364.6 | 3485.9 | 1174.3 | 456.1  | 421.7  | 403.2  | 396.1  | 401.4  | 399.7  | 399.7  | 398.8  |
| 40°   | 4744.0 | 3686.1 | 931.7  | 422.6  | 390.8  | 371.4  | 365.3  | 367.9  | 363.5  | 363.5  | 365.3  |
| 42.5° | 5212.5 | 3940.2 | 719.9  | 390.0  | 360.0  | 341.4  | 337.9  | 335.3  | 327.3  | 322.9  | 323.8  |
| 45°   | 5733.0 | 4204.9 | 561.1  | 358.2  | 330.9  | 315.9  | 310.6  | 303.5  | 290.3  | 281.4  | 282.3  |
| 47.5° | 6198.0 | 4408.7 | 456.1  | 327.3  | 304.4  | 292.9  | 285.0  | 271.7  | 252.3  | 241.7  | 242.6  |
| 50°   | 6442.4 | 4439.6 | 388.2  | 296.4  | 279.7  | 268.2  | 256.7  | 236.4  | 213.5  | 202.0  | 201.2  |
| 52.5° | 6505.0 | 4294.9 | 337.9  | 268.2  | 255.0  | 241.7  | 226.7  | 199.4  | 173.8  | 161.5  | 159.7  |
| 55°   | 6527.9 | 4074.3 | 292.9  | 241.7  | 228.5  | 213.5  | 194.1  | 163.2  | 139.4  | 127.0  | 126.2  |
| 57.5° | 6452.1 | 3745.2 | 257.6  | 217.9  | 202.0  | 183.5  | 159.7  | 130.6  | 107.6  | 97.9   | 97.9   |
| 60°   | 6283.5 | 3299.7 | 230.3  | 192.3  | 174.7  | 153.5  | 128.8  | 101.5  | 80.3   | 72.3   | 72.3   |
| 62.5° | 5947.4 | 2722.7 | 204.7  | 165.9  | 149.1  | 127.0  | 104.1  | 76.8   | 56.5   | 52.1   | 52.9   |
| 65°   | 5313.0 | 2065.4 | 179.1  | 142.0  | 127.0  | 105.0  | 81.2   | 54.7   | 37.9   | 37.9   | 39.7   |
| 67.5° | 4332.8 | 1434.6 | 152.6  | 120.9  | 109.4  | 85.6   | 61.8   | 37.9   | 26.5   | 30.0   | 33.5   |
| 70°   | 2868.3 | 804.6  | 130.6  | 99.7   | 93.5   | 67.9   | 45.9   | 25.6   | 21.2   | 28.2   | 34.4   |
| 72.5° | 1082.5 | 313.2  | 109.4  | 80.3   | 81.2   | 52.1   | 32.6   | 19.4   | 19.4   | 30.9   | 40.6   |
| 75°   | 301.7  | 153.5  | 78.5   | 59.1   | 63.5   | 37.9   | 23.8   | 16.8   | 18.5   | 35.3   | 47.6   |
| 77.5° | 177.3  | 112.9  | 51.2   | 34.4   | 43.2   | 26.5   | 15.9   | 13.2   | 15.9   | 30.0   | 45.9   |
| 80°   | 142.9  | 60.0   | 30.0   | 17.6   | 23.8   | 15.0   | 10.6   | 7.9    | 4.4    | 11.5   | 23.8   |
| 82.5° | 142.9  | 36.2   | 14.1   | 12.4   | 12.4   | 7.9    | 5.3    | 3.5    | 0.9    | 0.0    | 6.2    |
| 85°   | 96.2   | 15.0   | 8.8    | 7.9    | 6.2    | 2.6    | 1.8    | 0.9    | 0.0    | 0.0    | 0.0    |
| 87.5° | 15.9   | 6.2    | 3.5    | 1.8    | 0.9    | 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)