

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: P322833

Luminaire Tested: **GAN-SA9A-730-U-T4W-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P322833  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA9A-730-U-T4W-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27499 lumens  
Efficiency: N/A  
Efficacy: 94.8 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G5

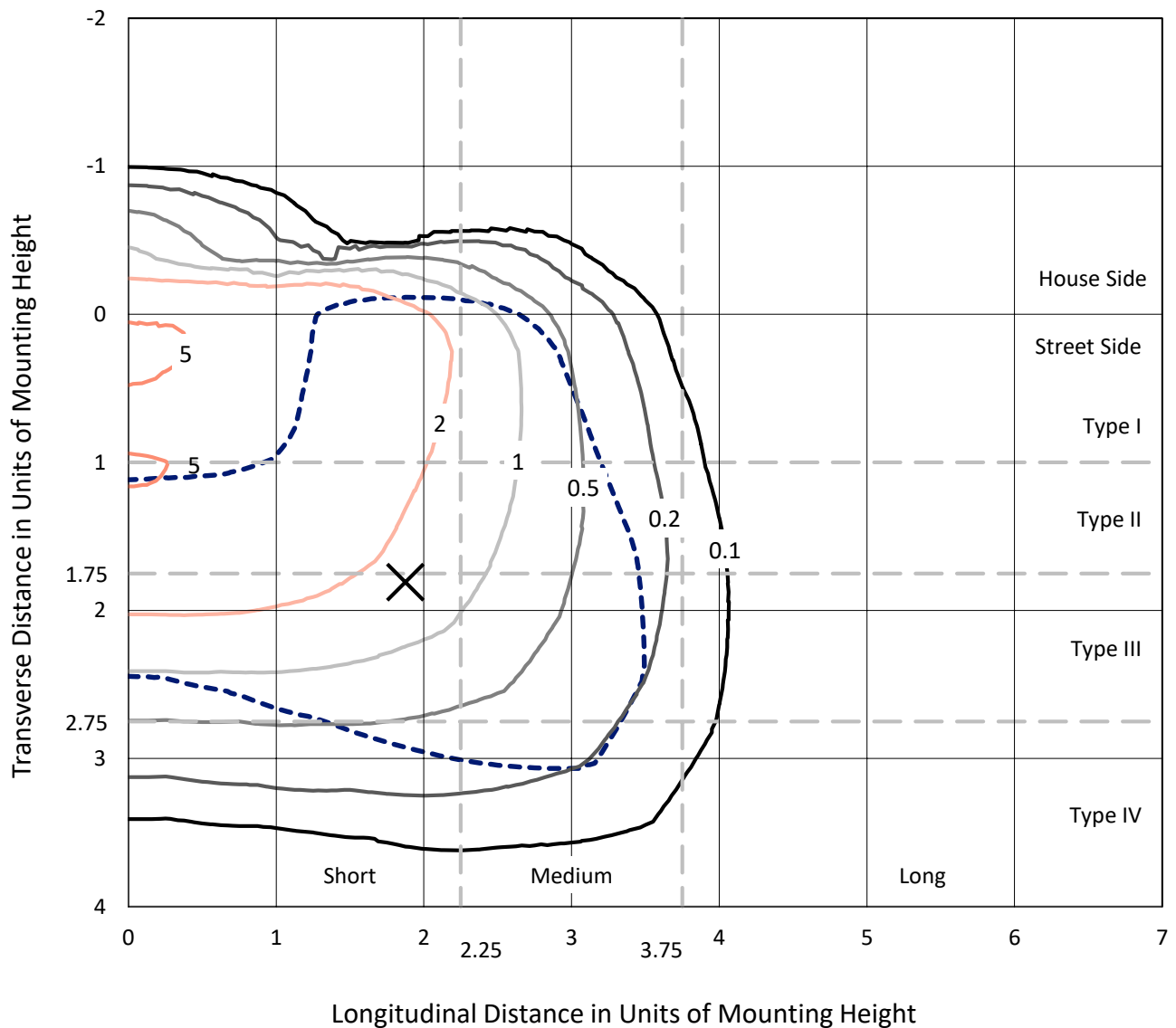
Input Watts (W): 290  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

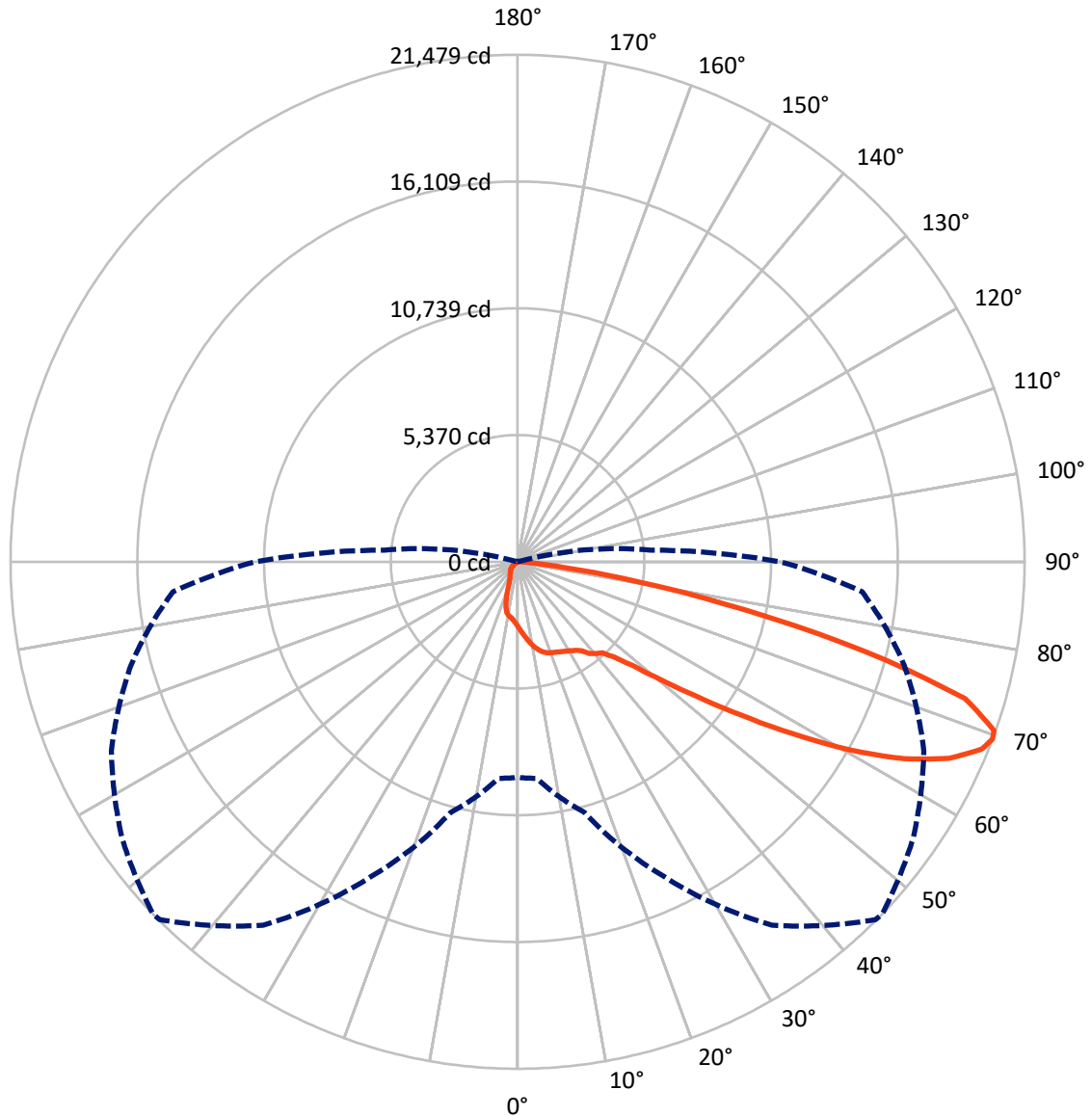
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2822.1   | 0.0    | 2822.1  |
|                    | % Fixture | 10.3     | 0.0    | 10.3    |
| <b>Street Side</b> | Lumens    | 24676.9  | 0.0    | 24676.9 |
|                    | % Fixture | 89.7     | 0.0    | 89.7    |
| <b>Total</b>       | Lumens    | 27499.0  | 0.0    | 27499.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 274.2   | 1.0       |
| 10°-20°   | 832.0   | 3.0       |
| 20°-30°   | 1308.5  | 4.8       |
| 30°-40°   | 1876.3  | 6.8       |
| 40°-50°   | 3243.0  | 11.8      |
| 50°-60°   | 6406.9  | 23.3      |
| 60°-70°   | 8954.2  | 32.6      |
| 70°-80°   | 4325.8  | 15.7      |
| 80°-90°   | 278.0   | 1.0       |
| 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°    | 27499.0 | 100.0     |
| 0°-180°   | 27499.0 | 100.0     |

**Coefficient of Utilization**

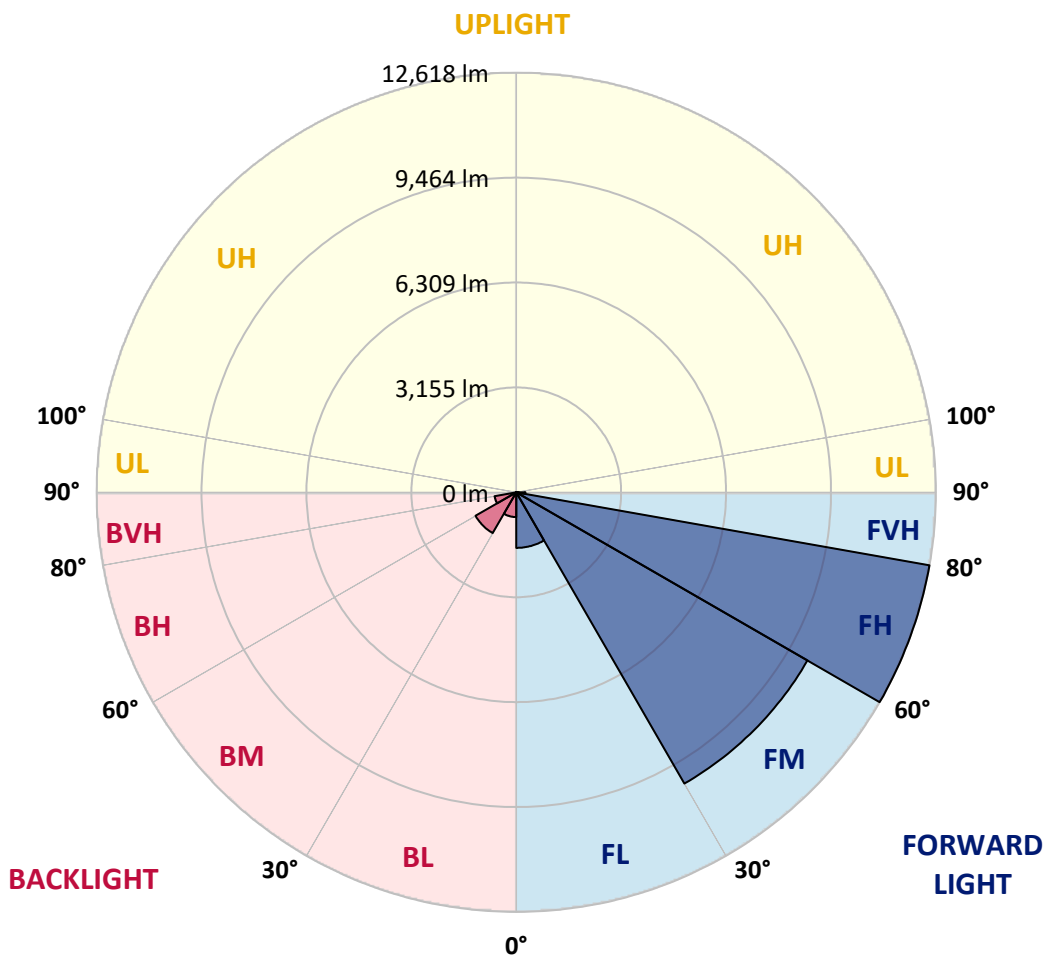


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 1670.9  | 6.1       |                         |      |         |
| FM (30°-60°)   | 10112.0 | 36.8      |                         |      |         |
| FH (60°-80°)   | 12618.3 | 45.9      |                         |      | G5      |
| FVH (80°-90°)  | 275.7   | 1.0       |                         |      | G3/500  |
| BL (0°-30°)    | 743.8   | 2.7       | B2/1000                 |      |         |
| BM (30°-60°)   | 1414.2  | 5.1       | B2/2500                 |      |         |
| BH (60°-80°)   | 661.7   | 2.4       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 2.3     | 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-G5**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 46°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2755.3  | 2755.3  | 2755.3  | 2755.3  | 2755.3  | 2755.3  | 2755.3  | 2755.3  | 2755.3  | 2755.3  | 2755.3  |
| 2.5°  | 3060.9  | 3057.0  | 3038.9  | 3031.2  | 2987.4  | 2961.6  | 2951.3  | 2919.0  | 2872.6  | 2826.2  | 2774.6  |
| 5°    | 3409.0  | 3407.7  | 3374.2  | 3341.9  | 3259.4  | 3182.1  | 3167.9  | 3093.1  | 2988.7  | 2890.7  | 2792.7  |
| 7.5°  | 3764.8  | 3748.1  | 3714.6  | 3652.7  | 3532.8  | 3409.0  | 3397.4  | 3291.7  | 3143.4  | 3001.6  | 2861.0  |
| 10°   | 4066.5  | 4056.2  | 4012.4  | 3918.3  | 3777.7  | 3637.2  | 3623.0  | 3492.8  | 3325.2  | 3151.1  | 2971.9  |
| 12.5° | 4301.2  | 4293.5  | 4235.4  | 4118.1  | 3968.6  | 3822.9  | 3803.5  | 3687.5  | 3508.3  | 3313.6  | 3102.1  |
| 15°   | 4444.3  | 4440.5  | 4369.5  | 4244.5  | 4097.5  | 3971.1  | 3954.4  | 3852.5  | 3686.2  | 3482.5  | 3244.0  |
| 17.5° | 4477.8  | 4479.1  | 4405.6  | 4279.3  | 4158.1  | 4067.8  | 4054.9  | 3977.6  | 3838.3  | 3635.9  | 3385.8  |
| 20°   | 4403.1  | 4418.5  | 4352.8  | 4243.2  | 4168.4  | 4120.7  | 4110.4  | 4064.0  | 3946.6  | 3755.8  | 3499.2  |
| 22.5° | 4297.3  | 4305.1  | 4259.9  | 4186.5  | 4155.5  | 4164.5  | 4159.4  | 4133.6  | 4034.3  | 3859.0  | 3611.4  |
| 25°   | 4232.9  | 4232.9  | 4205.8  | 4143.9  | 4164.5  | 4220.0  | 4221.3  | 4216.1  | 4137.5  | 3985.3  | 3748.1  |
| 27.5° | 4230.3  | 4222.6  | 4191.6  | 4145.2  | 4201.9  | 4287.0  | 4292.2  | 4327.0  | 4278.0  | 4138.7  | 3918.3  |
| 30°   | 4333.4  | 4324.4  | 4258.7  | 4198.1  | 4270.3  | 4361.8  | 4374.7  | 4450.8  | 4426.3  | 4305.1  | 4107.8  |
| 32.5° | 4574.5  | 4542.3  | 4396.6  | 4297.3  | 4351.5  | 4461.1  | 4477.8  | 4599.0  | 4637.7  | 4510.1  | 4290.9  |
| 35°   | 4904.6  | 4802.8  | 4592.6  | 4485.6  | 4490.7  | 4605.5  | 4621.0  | 4798.9  | 4913.6  | 4698.3  | 4432.7  |
| 37.5° | 5359.7  | 5309.5  | 4967.8  | 4681.6  | 4704.8  | 4878.8  | 4923.9  | 5117.3  | 5085.1  | 4801.5  | 4593.9  |
| 40°   | 6357.7  | 6279.0  | 5915.4  | 5230.8  | 4909.8  | 5100.6  | 5114.8  | 5217.9  | 5220.5  | 5034.8  | 4929.1  |
| 42.5° | 7716.6  | 7684.4  | 7301.5  | 6227.5  | 5313.3  | 5248.9  | 5274.6  | 5448.7  | 5643.4  | 5527.4  | 5522.2  |
| 45°   | 9221.3  | 9204.5  | 8798.4  | 7550.3  | 6129.5  | 5734.9  | 5767.2  | 6000.5  | 6373.2  | 6398.9  | 6562.7  |
| 47.5° | 10432.0 | 10424.2 | 10190.9 | 9026.6  | 7378.8  | 6558.8  | 6569.1  | 6816.7  | 7471.7  | 7795.3  | 8057.0  |
| 50°   | 11535.6 | 11573.0 | 11388.6 | 10624.1 | 9080.7  | 7849.4  | 7824.9  | 7990.0  | 9042.1  | 9572.0  | 9896.9  |
| 52.5° | 13069.9 | 13122.8 | 12605.8 | 12114.5 | 10866.5 | 9450.8  | 9431.4  | 9604.2  | 10929.6 | 11326.8 | 11384.8 |
| 55°   | 14425.0 | 14334.8 | 13926.0 | 13784.2 | 13044.1 | 11428.6 | 11423.5 | 11575.6 | 12755.3 | 12924.2 | 13031.3 |
| 57.5° | 15023.3 | 14988.5 | 15185.7 | 15510.6 | 15325.0 | 13766.2 | 13754.6 | 13638.5 | 14388.9 | 14407.0 | 14735.7 |
| 60°   | 15401.0 | 15443.6 | 16048.3 | 17050.1 | 17513.0 | 16281.7 | 16206.9 | 15499.0 | 15949.0 | 15909.0 | 16261.0 |
| 62.5° | 15117.4 | 15201.2 | 16289.4 | 17959.1 | 19150.4 | 18477.4 | 18371.7 | 17203.5 | 17282.2 | 17144.2 | 17471.7 |
| 65°   | 13611.5 | 13741.7 | 15524.8 | 17787.6 | 19962.7 | 20193.5 | 20086.5 | 18708.2 | 18340.7 | 18113.8 | 17932.0 |
| 67.5° | 11052.1 | 11129.5 | 12991.3 | 16295.8 | 19596.5 | 21217.2 | 21195.3 | 20027.2 | 19140.1 | 17950.0 | 16539.5 |
| 69°   | 9133.6  | 9209.7  | 11001.8 | 14725.4 | 18790.7 | 21436.4 | 21478.9 | 20450.1 | 18988.0 | 16954.7 | 14654.5 |
| 70°   | 7736.0  | 7817.2  | 9486.9  | 13379.4 | 17855.9 | 21334.5 | 21410.6 | 20410.1 | 18552.2 | 15802.0 | 13000.3 |
| 72.5° | 4057.5  | 4127.1  | 5840.7  | 9217.4  | 14556.5 | 19590.1 | 19820.9 | 18685.0 | 15726.0 | 11476.3 | 7687.0  |
| 75°   | 1275.1  | 1315.1  | 2280.8  | 4818.2  | 9966.5  | 15232.1 | 15285.0 | 14657.1 | 11166.9 | 6312.6  | 3201.4  |
| 77.5° | 486.1   | 474.5   | 759.4   | 1775.4  | 5038.7  | 9591.3  | 9914.9  | 9159.4  | 5860.0  | 2231.8  | 738.8   |
| 80°   | 261.7   | 263.0   | 394.5   | 734.9   | 2155.8  | 4929.1  | 5202.4  | 4439.2  | 2082.3  | 696.2   | 170.2   |
| 82.5° | 113.5   | 118.6   | 221.8   | 389.4   | 990.2   | 1818.0  | 1954.6  | 1627.1  | 795.5   | 468.0   | 63.2    |
| 85°   | 24.5    | 27.1    | 107.0   | 211.5   | 403.6   | 510.6   | 535.1   | 527.3   | 506.7   | 363.6   | 24.5    |
| 87.5° | 0.0     | 0.0     | 47.7    | 76.1    | 101.9   | 116.0   | 101.9   | 132.8   | 279.8   | 245.0   | 12.9    |
| 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°    | 2755.3  | 2755.3 | 2755.3 | 2755.3 | 2755.3 | 2755.3 | 2755.3 | 2755.3 | 2755.3 | 2755.3 | 2755.3 |
| 2.5°  | 2757.9  | 2734.7 | 2694.7 | 2650.9 | 2619.9 | 2587.7 | 2561.9 | 2550.3 | 2537.4 | 2528.4 | 2540.0 |
| 5°    | 2752.7  | 2707.6 | 2630.2 | 2555.5 | 2501.3 | 2457.5 | 2421.4 | 2407.2 | 2393.0 | 2382.7 | 2381.4 |
| 7.5°  | 2797.8  | 2734.7 | 2616.0 | 2506.5 | 2422.7 | 2363.3 | 2314.3 | 2293.7 | 2277.0 | 2269.2 | 2262.8 |
| 10°   | 2884.2  | 2803.0 | 2644.4 | 2501.3 | 2393.0 | 2292.4 | 2186.7 | 2105.5 | 2052.6 | 2028.1 | 2019.1 |
| 12.5° | 2996.4  | 2894.5 | 2698.6 | 2528.4 | 2371.1 | 2177.7 | 1953.3 | 1759.9 | 1634.9 | 1593.6 | 1569.1 |
| 15°   | 3127.9  | 3001.6 | 2769.5 | 2563.2 | 2291.1 | 1937.9 | 1557.5 | 1304.8 | 1188.8 | 1165.6 | 1139.8 |
| 17.5° | 3254.3  | 3115.0 | 2854.6 | 2569.6 | 2115.8 | 1548.5 | 1141.1 | 969.6  | 924.4  | 939.9  | 943.8  |
| 20°   | 3365.1  | 3227.2 | 2938.4 | 2512.9 | 1797.3 | 1161.7 | 883.2  | 840.6  | 857.4  | 887.1  | 892.2  |
| 22.5° | 3477.3  | 3335.5 | 3015.7 | 2363.3 | 1389.9 | 881.9  | 795.5  | 805.8  | 822.6  | 852.2  | 857.4  |
| 25°   | 3614.0  | 3467.0 | 3087.9 | 2088.7 | 1043.1 | 750.4  | 755.5  | 771.0  | 787.8  | 814.9  | 817.4  |
| 27.5° | 3771.3  | 3633.3 | 3135.6 | 1731.6 | 773.6  | 689.8  | 706.6  | 729.8  | 746.5  | 772.3  | 777.5  |
| 30°   | 3980.2  | 3852.5 | 3151.1 | 1361.5 | 648.5  | 635.6  | 643.4  | 671.7  | 696.2  | 719.4  | 723.3  |
| 32.5° | 4176.1  | 4069.1 | 3099.5 | 1027.6 | 600.8  | 585.4  | 585.4  | 602.1  | 630.5  | 652.4  | 657.6  |
| 35°   | 4356.6  | 4287.0 | 2934.5 | 751.7  | 564.7  | 538.9  | 526.0  | 526.0  | 544.1  | 562.1  | 567.3  |
| 37.5° | 4595.2  | 4592.6 | 2667.6 | 599.5  | 529.9  | 500.3  | 473.2  | 452.6  | 446.1  | 450.0  | 452.6  |
| 40°   | 5003.9  | 5007.8 | 2319.5 | 537.7  | 500.3  | 460.3  | 419.0  | 381.6  | 346.8  | 335.2  | 333.9  |
| 42.5° | 5642.1  | 5584.1 | 1954.6 | 508.0  | 474.5  | 419.0  | 357.1  | 306.9  | 252.7  | 235.9  | 234.7  |
| 45°   | 6655.5  | 6311.3 | 1567.8 | 480.9  | 447.4  | 372.6  | 295.3  | 226.9  | 183.1  | 170.2  | 170.2  |
| 47.5° | 8131.8  | 7266.7 | 1214.5 | 451.3  | 411.3  | 319.8  | 223.1  | 163.7  | 134.1  | 127.6  | 128.9  |
| 50°   | 9658.4  | 8202.7 | 930.9  | 413.9  | 367.5  | 264.3  | 165.0  | 118.6  | 101.9  | 101.9  | 103.1  |
| 52.5° | 11012.2 | 8888.6 | 725.9  | 373.9  | 313.3  | 207.6  | 125.1  | 92.8   | 85.1   | 83.8   | 85.1   |
| 55°   | 12279.6 | 9330.9 | 555.7  | 327.5  | 248.8  | 154.7  | 95.4   | 76.1   | 70.9   | 68.3   | 67.0   |
| 57.5° | 13501.9 | 9550.1 | 416.5  | 264.3  | 180.5  | 112.2  | 76.1   | 64.5   | 59.3   | 55.4   | 54.2   |
| 60°   | 14315.4 | 9372.1 | 286.2  | 194.7  | 125.1  | 81.2   | 63.2   | 55.4   | 49.0   | 45.1   | 43.8   |
| 62.5° | 14774.4 | 8886.1 | 184.4  | 140.5  | 89.0   | 60.6   | 50.3   | 46.4   | 37.4   | 33.5   | 33.5   |
| 65°   | 14588.8 | 8084.1 | 128.9  | 100.6  | 64.5   | 45.1   | 37.4   | 37.4   | 27.1   | 21.9   | 20.6   |
| 67.5° | 12928.1 | 6829.6 | 98.0   | 74.8   | 46.4   | 33.5   | 28.4   | 32.2   | 16.8   | 10.3   | 10.3   |
| 69°   | 11123.0 | 5660.2 | 83.8   | 61.9   | 38.7   | 27.1   | 24.5   | 29.7   | 11.6   | 7.7    | 6.4    |
| 70°   | 9667.4  | 4882.7 | 76.1   | 54.2   | 32.2   | 23.2   | 21.9   | 28.4   | 11.6   | 6.4    | 5.2    |
| 72.5° | 5783.9  | 2723.1 | 58.0   | 38.7   | 20.6   | 18.1   | 18.1   | 32.2   | 11.6   | 6.4    | 5.2    |
| 75°   | 2337.6  | 959.3  | 42.5   | 27.1   | 15.5   | 15.5   | 21.9   | 41.3   | 10.3   | 5.2    | 3.9    |
| 77.5° | 529.9   | 210.2  | 24.5   | 16.8   | 10.3   | 15.5   | 25.8   | 32.2   | 6.4    | 2.6    | 0.0    |
| 80°   | 128.9   | 51.6   | 15.5   | 10.3   | 6.4    | 11.6   | 19.3   | 18.1   | 1.3    | 0.0    | 0.0    |
| 82.5° | 42.5    | 18.1   | 6.4    | 5.2    | 1.3    | 3.9    | 9.0    | 5.2    | 0.0    | 0.0    | 0.0    |
| 85°   | 18.1    | 10.3   | 2.6    | 1.3    | 0.0    | 0.0    | 1.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 11.6    | 3.9    | 0.0    | 0.0    | 0.0    | 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)