

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: P195233

Luminaire Tested: **NVN-AF-05-LED-U-SL4-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195233  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24284)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-AF-05-LED-U-SL4-7060  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 5700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28686 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G5

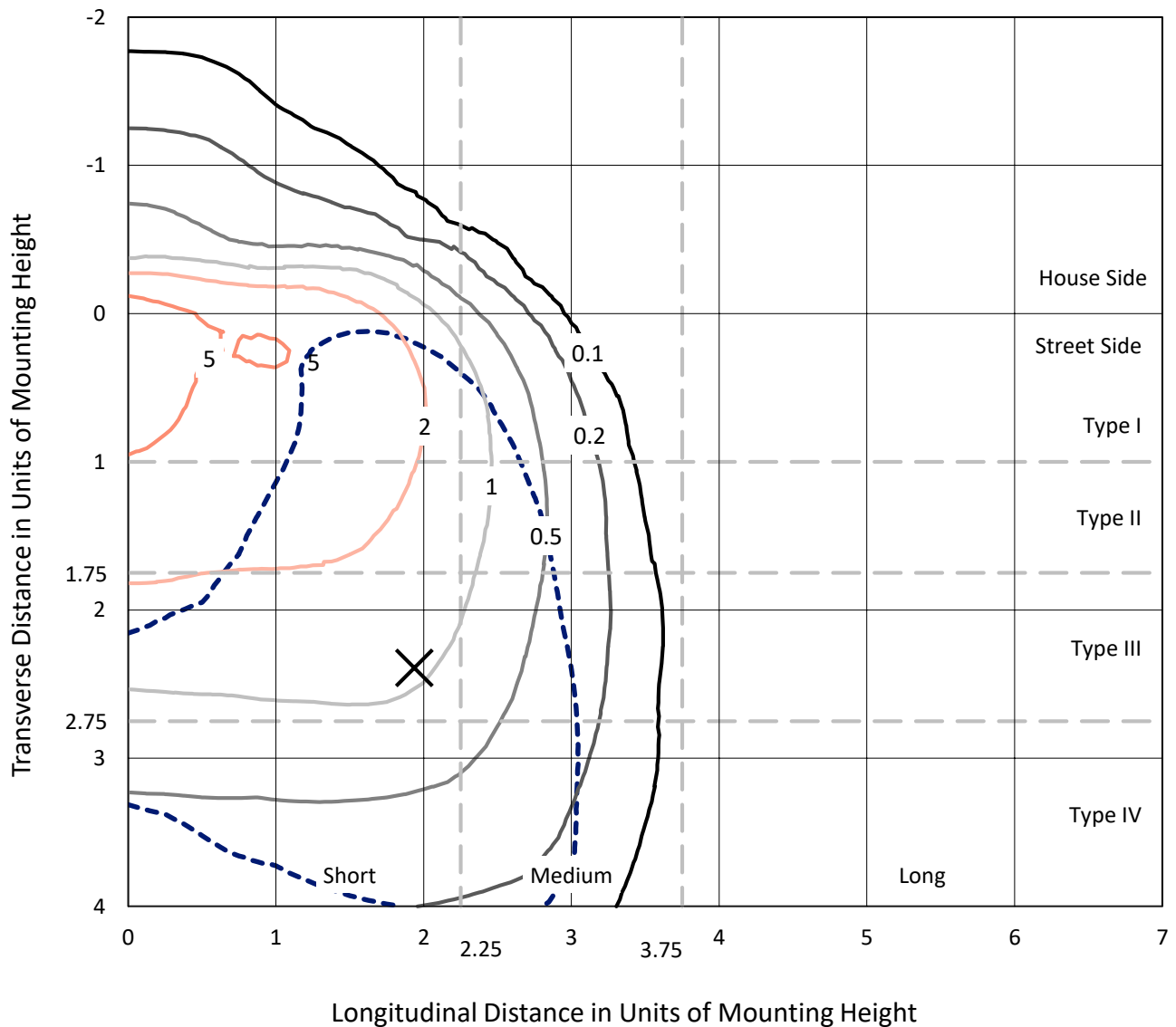
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

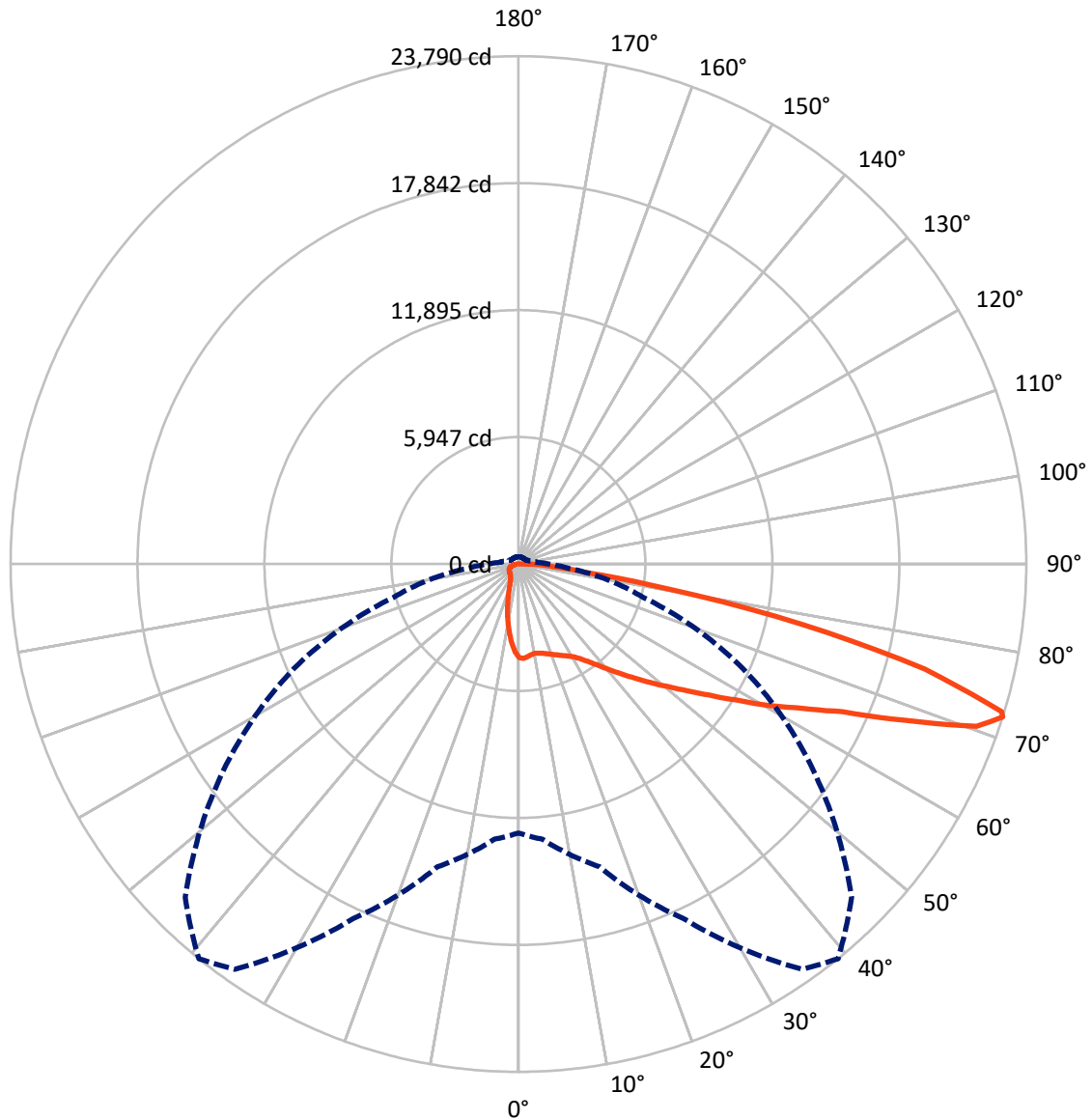
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 72-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3289.2   | 0.0    | 3289.2  |
|                    | % Fixture | 11.5     | 0.0    | 11.5    |
| <b>Street Side</b> | Lumens    | 25396.8  | 0.0    | 25396.8 |
|                    | % Fixture | 88.5     | 0.0    | 88.5    |
| <b>Total</b>       | Lumens    | 28686.0  | 0.0    | 28686.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 376.5   | 1.3       |
| 10°-20°   | 946.0   | 3.3       |
| 20°-30°   | 1474.2  | 5.1       |
| 30°-40°   | 2269.9  | 7.9       |
| 40°-50°   | 3700.4  | 12.9      |
| 50°-60°   | 5750.0  | 20.0      |
| 60°-70°   | 7696.1  | 26.8      |
| 70°-80°   | 5534.7  | 19.3      |
| 80°-90°   | 938.2   | 3.3       |
| 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°    | 28686.0 | 100.0     |
| 0°-180°   | 28686.0 | 100.0     |

**Coefficient of Utilization**



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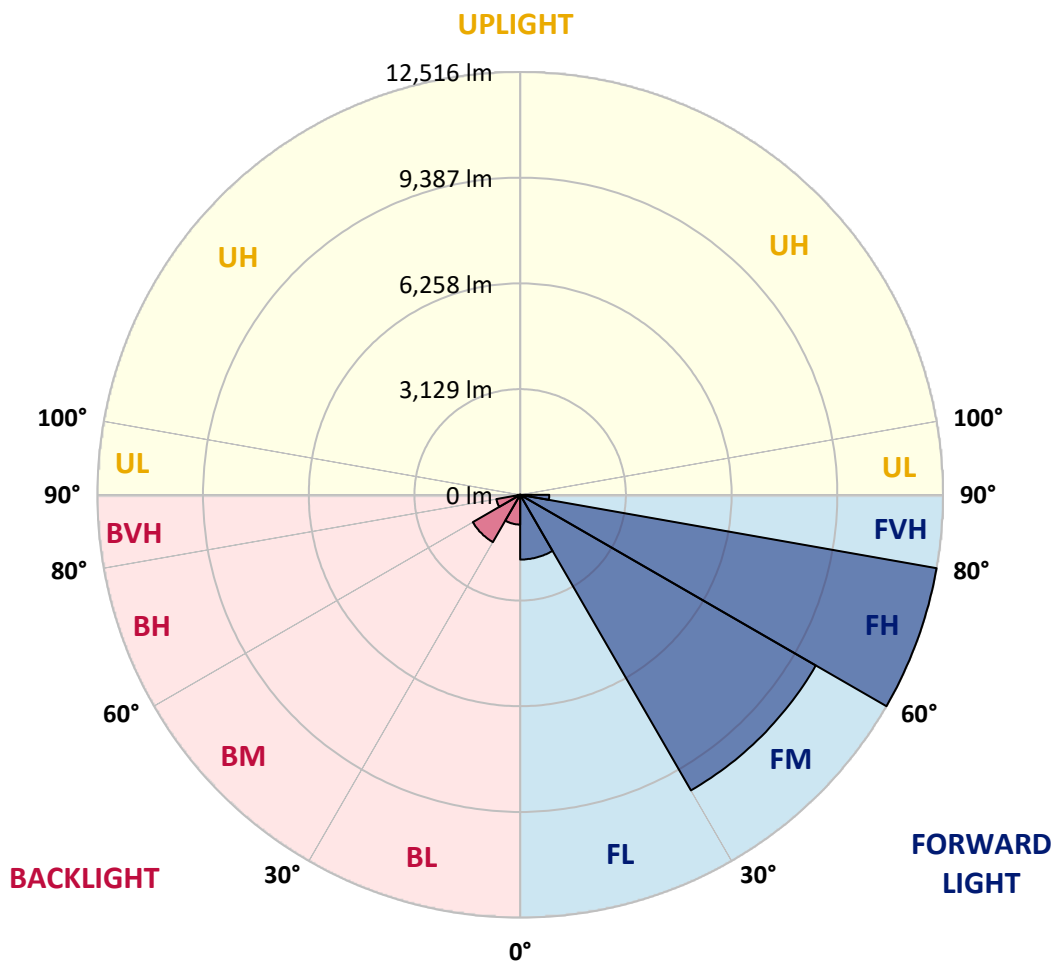
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1916.2  | 6.7       |                         |      |         |
| FM   | (30°-60°)   | 10103.8 | 35.2      |                         |      |         |
| FH   | (60°-80°)   | 12516.2 | 43.6      |                         |      | G5      |
| FVH  | (80°-90°)   | 860.7   | 3.0       |                         |      | G5      |
| BL   | (0°-30°)    | 880.5   | 3.1       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1616.5  | 5.6       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 714.6   | 2.5       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 77.6    | 0.3       |                         |      | G1/100  |
| 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°     | 39°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4380.9  | 4380.9  | 4380.9  | 4380.9  | 4380.9  | 4380.9  | 4380.9  | 4380.9  | 4380.9  | 4380.9  | 4380.9  |
| 2.5°  | 4475.2  | 4477.2  | 4471.4  | 4454.0  | 4438.6  | 4430.9  | 4417.5  | 4394.3  | 4363.5  | 4342.4  | 4325.0  |
| 5°    | 4432.9  | 4438.6  | 4434.8  | 4405.9  | 4378.9  | 4363.5  | 4342.4  | 4309.6  | 4269.2  | 4251.8  | 4211.4  |
| 7.5°  | 4400.1  | 4404.0  | 4392.4  | 4359.7  | 4307.7  | 4288.4  | 4249.9  | 4207.6  | 4171.0  | 4145.9  | 4097.8  |
| 10°   | 4377.0  | 4380.9  | 4371.2  | 4338.5  | 4280.7  | 4257.6  | 4211.4  | 4165.2  | 4117.1  | 4086.2  | 4032.3  |
| 12.5° | 4344.3  | 4352.0  | 4352.0  | 4336.6  | 4298.1  | 4282.7  | 4236.4  | 4186.4  | 4142.1  | 4109.3  | 4042.0  |
| 15°   | 4338.5  | 4348.1  | 4365.5  | 4363.5  | 4352.0  | 4340.4  | 4303.8  | 4253.8  | 4215.3  | 4176.7  | 4093.9  |
| 17.5° | 4386.6  | 4407.8  | 4442.5  | 4454.0  | 4446.3  | 4421.3  | 4378.9  | 4332.7  | 4290.4  | 4253.8  | 4151.7  |
| 20°   | 4508.0  | 4519.5  | 4571.5  | 4594.6  | 4556.1  | 4519.5  | 4463.7  | 4404.0  | 4365.5  | 4336.6  | 4205.6  |
| 22.5° | 4690.9  | 4706.3  | 4748.7  | 4750.6  | 4669.7  | 4625.4  | 4554.2  | 4481.0  | 4444.4  | 4432.9  | 4278.8  |
| 25°   | 4983.6  | 4979.7  | 4991.3  | 4943.2  | 4796.8  | 4744.8  | 4658.2  | 4573.4  | 4548.4  | 4571.5  | 4386.6  |
| 27.5° | 5334.1  | 5324.4  | 5287.9  | 5162.7  | 4941.2  | 4873.8  | 4769.8  | 4694.7  | 4694.7  | 4748.7  | 4533.0  |
| 30°   | 5738.5  | 5728.8  | 5609.4  | 5399.5  | 5112.6  | 5035.6  | 4925.8  | 4846.9  | 4887.3  | 4991.3  | 4731.3  |
| 32.5° | 6166.0  | 6131.3  | 5963.8  | 5682.6  | 5357.2  | 5272.4  | 5166.5  | 5085.7  | 5162.7  | 5339.8  | 5016.3  |
| 35°   | 6568.4  | 6549.2  | 6343.1  | 6010.0  | 5673.0  | 5601.7  | 5528.6  | 5428.4  | 5551.7  | 5827.0  | 5418.8  |
| 37.5° | 6984.4  | 6968.9  | 6716.7  | 6362.4  | 6058.1  | 6010.0  | 5948.4  | 5879.0  | 6077.4  | 6439.4  | 5963.8  |
| 40°   | 7448.4  | 7417.6  | 7099.9  | 6745.6  | 6506.8  | 6483.7  | 6450.9  | 6431.7  | 6751.3  | 7290.5  | 6653.1  |
| 42.5° | 7974.1  | 7914.4  | 7504.3  | 7167.3  | 6995.9  | 7015.2  | 6997.8  | 7074.9  | 7564.0  | 8272.6  | 7473.5  |
| 45°   | 8574.9  | 8455.6  | 7906.7  | 7616.0  | 7537.0  | 7614.0  | 7650.6  | 7847.0  | 8524.9  | 9406.8  | 8390.1  |
| 47.5° | 9137.2  | 8983.2  | 8347.7  | 8103.2  | 8147.5  | 8280.3  | 8384.3  | 8730.9  | 9578.2  | 10527.6 | 9326.0  |
| 50°   | 9655.2  | 9481.9  | 8819.5  | 8607.7  | 8823.4  | 9012.1  | 9227.7  | 9716.9  | 10698.9 | 11681.0 | 10184.8 |
| 52.5° | 10038.4 | 9913.3  | 9291.3  | 9158.4  | 9599.4  | 9849.7  | 10194.4 | 10812.6 | 11831.2 | 12780.6 | 10951.2 |
| 55°   | 10335.0 | 10267.6 | 9751.5  | 9790.0  | 10477.5 | 10835.7 | 11253.5 | 11964.1 | 13029.0 | 13766.5 | 11567.4 |
| 57.5° | 10677.8 | 10627.7 | 10277.2 | 10552.6 | 11567.4 | 12018.0 | 12511.0 | 13300.5 | 14169.0 | 14635.0 | 12050.8 |
| 60°   | 11039.8 | 11039.8 | 10862.6 | 11471.1 | 12930.8 | 13446.9 | 13937.9 | 14552.2 | 15305.1 | 15416.8 | 12247.2 |
| 62.5° | 11313.2 | 11384.5 | 11448.0 | 12449.4 | 14224.8 | 14866.1 | 15405.2 | 15994.5 | 16481.7 | 15801.9 | 11785.0 |
| 65°   | 11709.9 | 11862.0 | 12220.2 | 13579.7 | 15827.0 | 16666.6 | 17394.5 | 17889.3 | 17434.9 | 15495.8 | 10277.2 |
| 67.5° | 12391.6 | 12616.9 | 13379.5 | 15262.7 | 18280.3 | 19537.7 | 20244.4 | 19389.4 | 17248.1 | 13568.2 | 7872.1  |
| 70°   | 13005.9 | 13323.6 | 14627.3 | 17398.3 | 21469.1 | 22774.7 | 22449.3 | 19040.9 | 15022.0 | 9946.0  | 4843.0  |
| 72°   | 12597.6 | 12944.3 | 14685.1 | 18328.4 | 23173.3 | 23789.6 | 22073.8 | 16874.5 | 11607.9 | 6069.7  | 2387.8  |
| 72.5° | 12330.0 | 12690.1 | 14498.3 | 18305.3 | 23219.6 | 23660.5 | 21551.9 | 16013.8 | 10537.2 | 5311.0  | 1931.4  |
| 75°   | 10300.3 | 10608.4 | 12466.7 | 16223.7 | 20462.0 | 19653.2 | 16818.7 | 10363.9 | 4843.0  | 1715.8  | 993.6   |
| 77.5° | 6726.3  | 6961.2  | 8596.1  | 11240.1 | 14332.7 | 13554.7 | 10236.8 | 4852.7  | 1815.9  | 1041.8  | 747.2   |
| 80°   | 3379.5  | 3547.1  | 4600.4  | 5909.8  | 7735.4  | 7117.2  | 4725.6  | 2347.4  | 1215.1  | 752.9   | 587.3   |
| 82.5° | 2351.2  | 2505.3  | 3167.7  | 3017.5  | 3233.2  | 3129.2  | 2222.2  | 1958.4  | 908.9   | 475.6   | 308.1   |
| 85°   | 1971.9  | 2131.7  | 2620.8  | 2151.0  | 1760.0  | 1604.1  | 1592.5  | 1850.6  | 600.8   | 234.9   | 260.0   |
| 87.5° | 1719.6  | 1962.2  | 2162.5  | 1571.3  | 1207.4  | 1064.9  | 1172.7  | 1696.5  | 190.6   | 129.0   | 79.0    |
| 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°    | 4380.9 | 4380.9 | 4380.9 | 4380.9 | 4380.9 | 4380.9 | 4380.9 | 4380.9 | 4380.9 | 4380.9 | 4380.9 |
| 2.5°  | 4296.1 | 4290.4 | 4261.5 | 4217.2 | 4184.5 | 4163.3 | 4122.8 | 4120.9 | 4124.8 | 4090.1 | 4103.6 |
| 5°    | 4174.8 | 4151.7 | 4076.6 | 3974.6 | 3891.8 | 3812.8 | 3726.1 | 3697.3 | 3672.2 | 3620.2 | 3626.0 |
| 7.5°  | 4047.7 | 4007.3 | 3876.3 | 3708.8 | 3549.0 | 3402.6 | 3258.2 | 3187.0 | 3133.0 | 3065.6 | 3065.6 |
| 10°   | 3972.6 | 3909.1 | 3708.8 | 3464.3 | 3210.1 | 2996.3 | 2780.6 | 2651.6 | 2557.3 | 2470.6 | 2464.8 |
| 12.5° | 3968.8 | 3872.5 | 3593.3 | 3256.3 | 2907.7 | 2607.3 | 2312.7 | 2114.4 | 1973.8 | 1871.7 | 1862.1 |
| 15°   | 3999.6 | 3864.8 | 3497.0 | 3061.8 | 2622.7 | 2231.8 | 1867.9 | 1615.6 | 1436.5 | 1322.9 | 1311.4 |
| 17.5° | 4026.5 | 3855.2 | 3393.0 | 2857.7 | 2345.4 | 1869.8 | 1465.4 | 1203.5 | 1034.1 | 941.6  | 932.0  |
| 20°   | 4051.6 | 3834.0 | 3260.1 | 2642.0 | 2039.3 | 1530.9 | 1145.8 | 933.9  | 822.3  | 770.3  | 764.5  |
| 22.5° | 4088.2 | 3814.7 | 3121.5 | 2399.4 | 1738.9 | 1245.9 | 945.5  | 793.4  | 733.7  | 708.6  | 704.8  |
| 25°   | 4147.9 | 3816.7 | 2986.7 | 2151.0 | 1463.5 | 1037.9 | 818.4  | 724.0  | 691.3  | 674.0  | 674.0  |
| 27.5° | 4234.5 | 3839.8 | 2853.8 | 1898.7 | 1230.5 | 895.4  | 743.3  | 687.5  | 666.3  | 652.8  | 648.9  |
| 30°   | 4361.6 | 3882.1 | 2713.2 | 1659.9 | 1045.6 | 797.2  | 699.0  | 664.4  | 647.0  | 635.5  | 633.5  |
| 32.5° | 4546.5 | 3957.2 | 2565.0 | 1442.3 | 905.1  | 727.9  | 666.3  | 645.1  | 631.6  | 622.0  | 620.1  |
| 35°   | 4821.8 | 4090.1 | 2420.5 | 1257.5 | 804.9  | 677.8  | 639.3  | 622.0  | 614.3  | 610.4  | 608.5  |
| 37.5° | 5226.2 | 4303.8 | 2283.8 | 1113.0 | 739.5  | 645.1  | 612.4  | 602.7  | 598.9  | 598.9  | 598.9  |
| 40°   | 5734.6 | 4585.0 | 2160.6 | 1011.0 | 702.9  | 620.1  | 593.1  | 585.4  | 585.4  | 587.3  | 587.3  |
| 42.5° | 6352.7 | 4937.4 | 2054.7 | 941.6  | 681.7  | 602.7  | 579.6  | 575.8  | 573.8  | 573.8  | 575.8  |
| 45°   | 7071.0 | 5353.3 | 1989.2 | 887.7  | 666.3  | 593.1  | 570.0  | 568.1  | 560.4  | 556.5  | 556.5  |
| 47.5° | 7793.1 | 5798.2 | 1985.4 | 856.9  | 647.0  | 581.5  | 560.4  | 560.4  | 545.0  | 537.3  | 539.2  |
| 50°   | 8467.1 | 6196.8 | 2027.7 | 849.2  | 635.5  | 564.2  | 550.7  | 552.7  | 531.5  | 521.9  | 519.9  |
| 52.5° | 9010.1 | 6501.0 | 2079.7 | 858.8  | 635.5  | 548.8  | 533.4  | 543.0  | 519.9  | 508.4  | 506.4  |
| 55°   | 9429.9 | 6712.8 | 2099.0 | 880.0  | 643.2  | 535.3  | 518.0  | 533.4  | 516.1  | 500.7  | 500.7  |
| 57.5° | 9730.3 | 6780.2 | 2016.2 | 889.7  | 654.7  | 533.4  | 502.6  | 531.5  | 521.9  | 502.6  | 502.6  |
| 60°   | 9620.6 | 6389.3 | 1708.1 | 853.1  | 652.8  | 529.6  | 491.0  | 535.3  | 541.1  | 519.9  | 519.9  |
| 62.5° | 8763.7 | 5345.6 | 1371.1 | 770.3  | 620.1  | 516.1  | 477.6  | 531.5  | 554.6  | 546.9  | 543.0  |
| 65°   | 7134.6 | 3920.6 | 1063.0 | 672.1  | 564.2  | 487.2  | 448.7  | 496.8  | 523.8  | 531.5  | 533.4  |
| 67.5° | 5027.9 | 2482.2 | 826.1  | 571.9  | 494.9  | 444.8  | 415.9  | 439.0  | 448.7  | 452.5  | 460.2  |
| 70°   | 2749.8 | 1344.1 | 656.6  | 481.4  | 423.6  | 402.5  | 381.3  | 383.2  | 379.4  | 375.5  | 379.4  |
| 72°   | 1380.7 | 878.1  | 554.6  | 417.9  | 375.5  | 362.0  | 352.4  | 346.6  | 346.6  | 340.8  | 342.8  |
| 72.5° | 1188.1 | 816.5  | 535.3  | 402.5  | 363.9  | 352.4  | 344.7  | 338.9  | 337.0  | 333.1  | 335.1  |
| 75°   | 791.4  | 647.0  | 446.8  | 337.0  | 310.0  | 302.3  | 306.2  | 300.4  | 302.3  | 298.5  | 300.4  |
| 77.5° | 639.3  | 556.5  | 379.4  | 285.0  | 265.7  | 254.2  | 261.9  | 263.8  | 267.7  | 263.8  | 261.9  |
| 80°   | 535.3  | 473.7  | 317.7  | 234.9  | 221.5  | 211.8  | 215.7  | 229.2  | 231.1  | 219.5  | 217.6  |
| 82.5° | 346.6  | 381.3  | 250.3  | 182.9  | 169.5  | 165.6  | 175.2  | 188.7  | 192.6  | 177.2  | 173.3  |
| 85°   | 290.8  | 306.2  | 181.0  | 125.2  | 111.7  | 107.8  | 127.1  | 140.6  | 150.2  | 134.8  | 130.9  |
| 87.5° | 80.9   | 150.2  | 88.6   | 59.7   | 50.1   | 50.1   | 61.6   | 73.2   | 86.7   | 88.6   | 88.6   |
| 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)