

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: P197070

Luminaire Tested: **NVN-AF-06-LED-U-SL3-8030-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197070  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-AF-06-LED-U-SL3-8030-600-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16440 lumens  
Efficiency: N/A  
Efficacy: 85.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G3

Input Watts (W): 193  
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: 28.75 FT

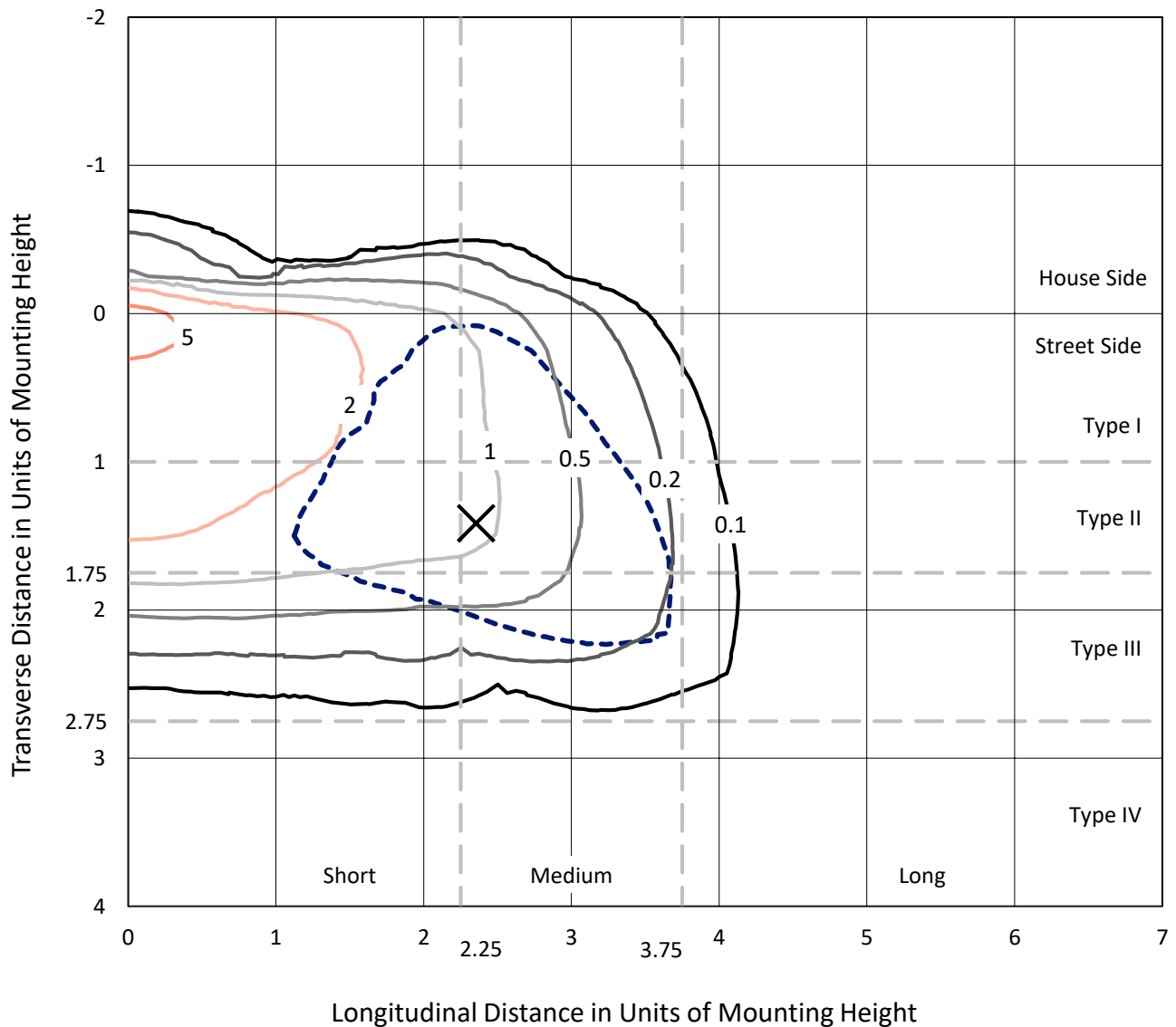


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

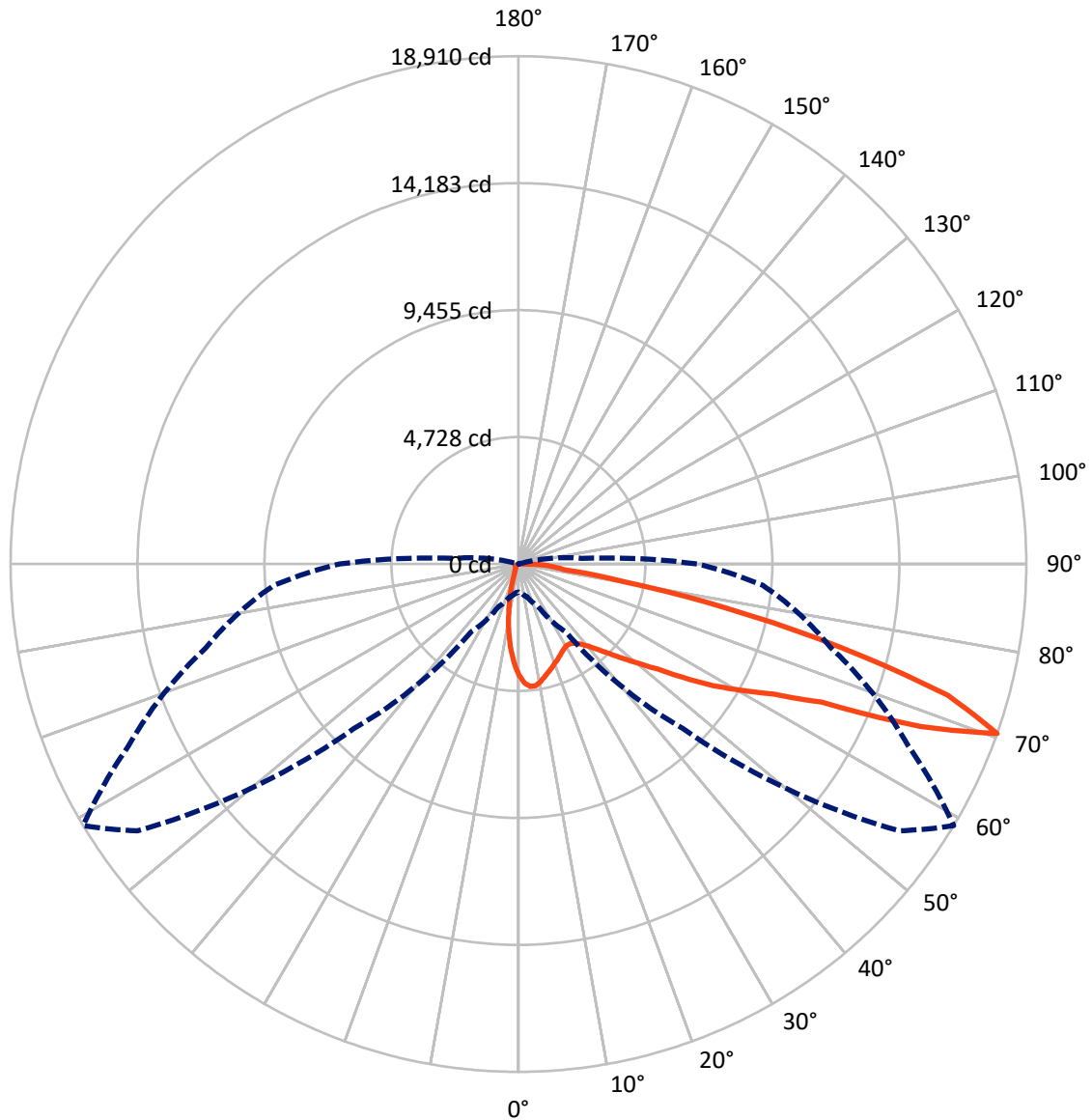


Based on 25 foot mounting height. Maximum calculated value = 7.1 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical



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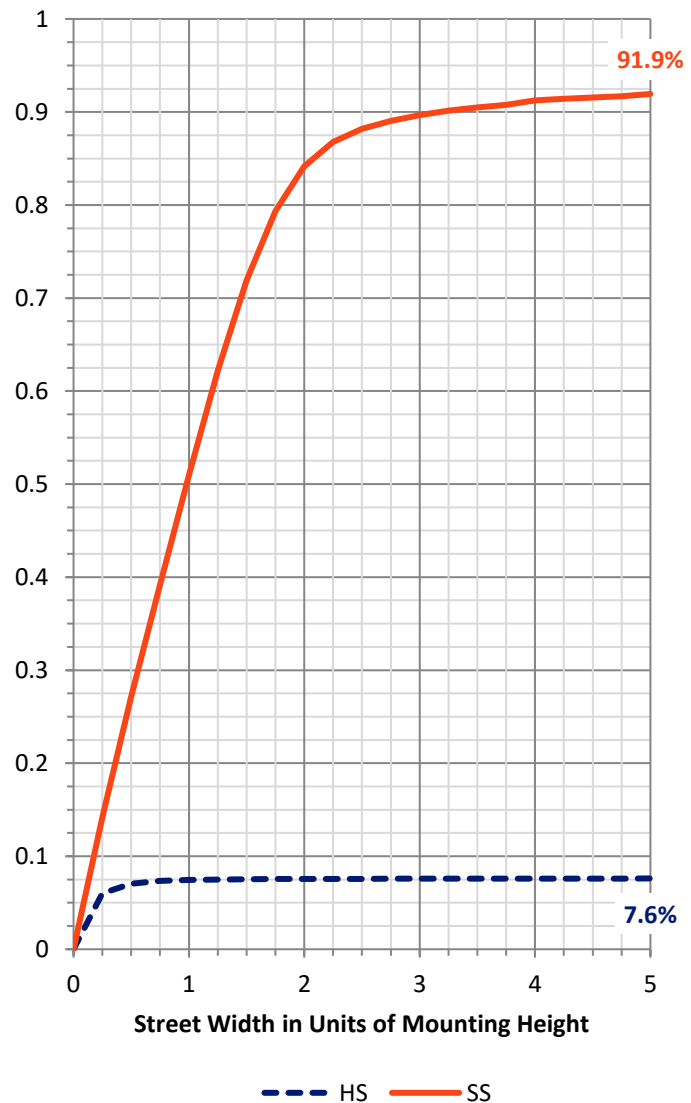
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1263.8   | 0.0    | 1263.8  |
|                    | % Fixture | 7.7      | 0.0    | 7.7     |
| <b>Street Side</b> | Lumens    | 15176.2  | 0.0    | 15176.2 |
|                    | % Fixture | 92.3     | 0.0    | 92.3    |
| <b>Total</b>       | Lumens    | 16440.0  | 0.0    | 16440.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 341.8   | 2.1       |
| 10°-20°   | 717.0   | 4.4       |
| 20°-30°   | 970.6   | 5.9       |
| 30°-40°   | 1400.7  | 8.5       |
| 40°-50°   | 2326.2  | 14.1      |
| 50°-60°   | 3558.2  | 21.6      |
| 60°-70°   | 4425.5  | 26.9      |
| 70°-80°   | 2446.4  | 14.9      |
| 80°-90°   | 253.7   | 1.5       |
| 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°    | 16440.0 | 100.0     |
| 0°-180°   | 16440.0 | 100.0     |

**Coefficient of Utilization**



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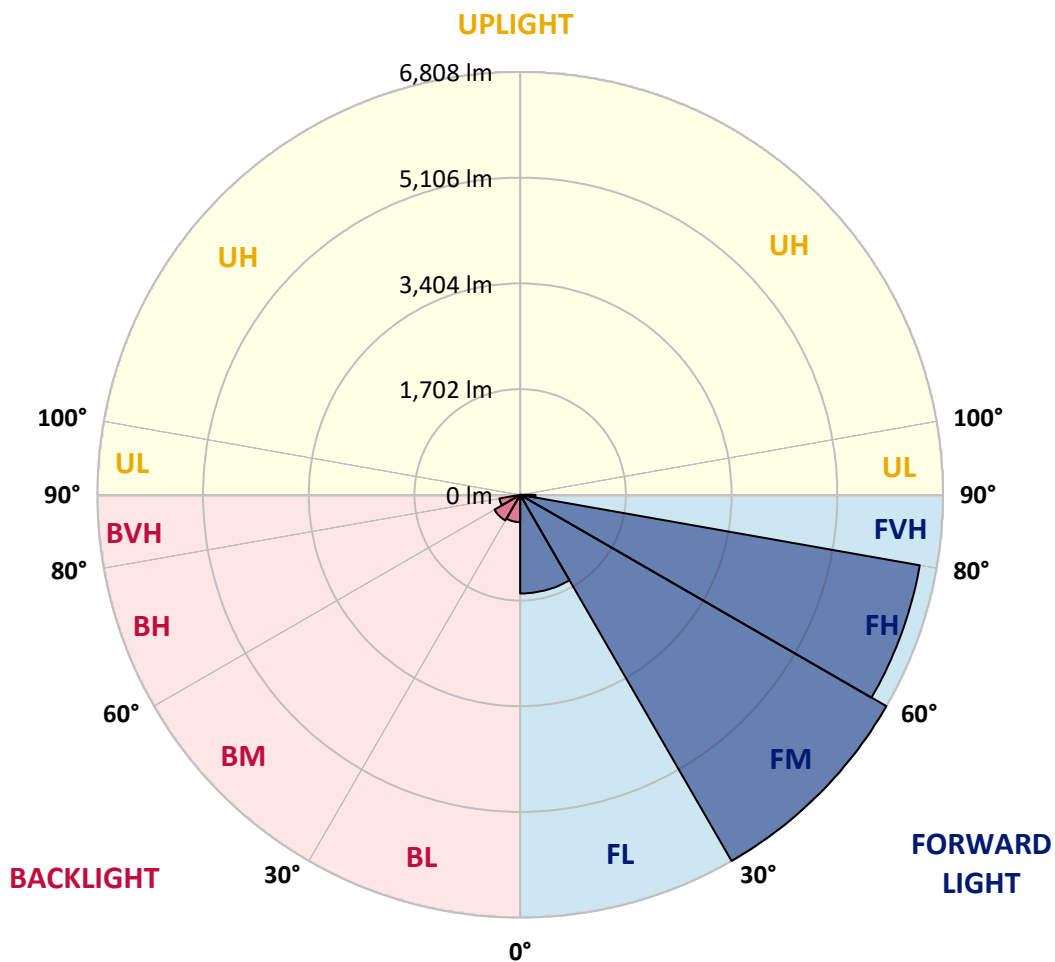
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1589.0 | 9.7       |                         |      |         |
| FM   | (30°-60°)   | 6808.0 | 41.4      |                         |      |         |
| FH   | (60°-80°)   | 6532.9 | 39.7      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 246.3  | 1.5       |                         |      | G3/500  |
| BL   | (0°-30°)    | 440.4  | 2.7       | B1/500                  |      |         |
| BM   | (30°-60°)   | 477.0  | 2.9       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 339.0  | 2.1       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 7.3    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 59°     | 65°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0°    | 4157.1 | 4157.1 | 4157.1 | 4157.1 | 4157.1 | 4157.1  | 4157.1  | 4157.1  | 4157.1  | 4157.1  | 4157.1  |
| 2.5°  | 4699.0 | 4691.6 | 4660.6 | 4654.4 | 4619.7 | 4550.2  | 4469.6  | 4437.4  | 4371.6  | 4267.5  | 4152.1  |
| 5°    | 4777.2 | 4780.9 | 4783.4 | 4769.7 | 4764.8 | 4707.7  | 4618.4  | 4580.0  | 4491.9  | 4320.8  | 4110.0  |
| 7.5°  | 4484.5 | 4494.4 | 4525.4 | 4539.1 | 4598.6 | 4620.9  | 4602.3  | 4577.5  | 4508.1  | 4305.9  | 4009.5  |
| 10°   | 4175.7 | 4194.3 | 4227.8 | 4250.1 | 4323.3 | 4382.8  | 4458.4  | 4464.6  | 4449.8  | 4256.3  | 3896.6  |
| 12.5° | 3910.3 | 3927.7 | 3964.9 | 4009.5 | 4083.9 | 4160.8  | 4273.7  | 4313.3  | 4363.0  | 4224.1  | 3816.0  |
| 15°   | 3682.1 | 3687.1 | 3723.0 | 3778.8 | 3876.8 | 3982.2  | 4116.2  | 4174.4  | 4271.2  | 4211.7  | 3754.0  |
| 17.5° | 3482.4 | 3483.7 | 3507.2 | 3558.1 | 3677.1 | 3816.0  | 3972.3  | 4049.2  | 4172.0  | 4194.3  | 3699.5  |
| 20°   | 3351.0 | 3349.7 | 3351.0 | 3378.3 | 3483.7 | 3648.6  | 3838.4  | 3919.0  | 4076.5  | 4173.2  | 3643.6  |
| 22.5° | 3306.3 | 3300.1 | 3271.6 | 3261.7 | 3328.6 | 3473.7  | 3700.7  | 3806.1  | 3990.9  | 4167.0  | 3602.7  |
| 25°   | 3360.9 | 3357.2 | 3296.4 | 3239.4 | 3245.6 | 3336.1  | 3560.6  | 3689.5  | 3923.9  | 4189.3  | 3592.8  |
| 27.5° | 3537.0 | 3529.6 | 3436.5 | 3324.9 | 3254.2 | 3270.4  | 3456.4  | 3591.6  | 3870.6  | 4243.9  | 3606.4  |
| 30°   | 3767.7 | 3768.9 | 3669.7 | 3534.5 | 3368.3 | 3276.6  | 3400.6  | 3528.3  | 3834.6  | 4325.7  | 3636.2  |
| 32.5° | 4024.4 | 4023.1 | 3952.5 | 3796.2 | 3584.1 | 3390.7  | 3425.4  | 3533.3  | 3839.6  | 4446.0  | 3693.3  |
| 35°   | 4289.8 | 4276.1 | 4252.6 | 4114.9 | 3866.9 | 3590.3  | 3538.2  | 3617.6  | 3891.7  | 4604.8  | 3790.0  |
| 37.5° | 4596.1 | 4591.1 | 4614.7 | 4469.6 | 4216.6 | 3884.2  | 3736.7  | 3790.0  | 4023.1  | 4839.2  | 3946.3  |
| 40°   | 5083.5 | 5056.2 | 5067.4 | 4870.2 | 4611.0 | 4279.9  | 4014.5  | 4028.1  | 4232.7  | 5149.2  | 4193.0  |
| 42.5° | 6012.4 | 5902.0 | 5694.9 | 5325.3 | 5045.1 | 4718.9  | 4377.8  | 4354.3  | 4529.1  | 5525.0  | 4518.0  |
| 45°   | 7122.4 | 6995.9 | 6473.7 | 5827.6 | 5479.1 | 5190.2  | 4826.8  | 4763.5  | 4893.8  | 5972.7  | 4937.2  |
| 47.5° | 8048.8 | 7912.4 | 7220.3 | 6352.2 | 5920.6 | 5676.3  | 5324.1  | 5249.7  | 5330.3  | 6492.3  | 5440.7  |
| 50°   | 8365.0 | 8289.4 | 7681.7 | 6788.7 | 6365.8 | 6222.0  | 5947.9  | 5823.9  | 5843.7  | 7052.9  | 6028.5  |
| 52.5° | 8219.9 | 8193.9 | 7787.1 | 7087.6 | 6777.6 | 6824.7  | 6631.2  | 6501.0  | 6478.7  | 7665.6  | 6678.4  |
| 55°   | 7913.6 | 7901.2 | 7702.8 | 7253.8 | 7141.0 | 7376.6  | 7589.9  | 7477.0  | 7266.2  | 8316.6  | 7215.4  |
| 57.5° | 7475.8 | 7522.9 | 7665.6 | 7573.8 | 7587.4 | 7959.5  | 8480.4  | 8538.6  | 8223.6  | 8835.0  | 7613.5  |
| 60°   | 6306.3 | 6432.8 | 7086.4 | 7917.3 | 8553.5 | 8929.3  | 9434.1  | 9543.2  | 9034.7  | 9189.7  | 8073.6  |
| 62.5° | 4661.8 | 4842.9 | 5774.3 | 7300.9 | 9085.6 | 10773.4 | 10702.8 | 10654.4 | 9808.6  | 9664.7  | 8910.7  |
| 65°   | 2738.3 | 2950.4 | 3737.9 | 5704.8 | 8283.2 | 11959.1 | 13071.5 | 12401.8 | 10988.0 | 10651.9 | 10243.9 |
| 67.5° | 1364.2 | 1365.4 | 1721.4 | 3011.2 | 6121.5 | 11131.9 | 16529.1 | 16142.2 | 13495.6 | 12106.6 | 10769.7 |
| 70°   | 1049.2 | 1077.7 | 1273.7 | 1749.9 | 3095.5 | 8670.1  | 17321.6 | 18910.3 | 16015.7 | 12042.2 | 9137.6  |
| 72.5° | 889.2  | 907.8  | 1133.5 | 1522.9 | 2314.2 | 4759.8  | 14995.0 | 16715.2 | 15282.7 | 10174.4 | 6735.4  |
| 75°   | 639.9  | 654.8  | 1003.3 | 1381.6 | 2130.6 | 2361.3  | 10286.1 | 12396.8 | 11466.7 | 7157.1  | 3706.9  |
| 77.5° | 158.7  | 157.5  | 349.7  | 1121.1 | 1906.2 | 1966.9  | 5902.0  | 7949.6  | 6579.2  | 2930.5  | 952.5   |
| 80°   | 70.7   | 68.2   | 79.4   | 235.6  | 1773.5 | 1856.5  | 2595.7  | 4014.5  | 2523.8  | 475.0   | 291.4   |
| 82.5° | 49.6   | 47.1   | 49.6   | 86.8   | 592.8  | 1722.6  | 1568.8  | 1740.0  | 923.9   | 162.5   | 124.0   |
| 85°   | 16.1   | 14.9   | 27.3   | 73.2   | 166.2  | 993.4   | 1530.4  | 1299.7  | 687.1   | 69.5    | 83.1    |
| 87.5° | 2.5    | 2.5    | 9.9    | 39.7   | 48.4   | 331.1   | 897.9   | 900.4   | 308.8   | 40.9    | 37.2    |
| 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°    | 4157.1 | 4157.1 | 4157.1 | 4157.1 | 4157.1 | 4157.1 | 4157.1 | 4157.1 | 4157.1 | 4157.1 | 4157.1 |
| 2.5°  | 4093.8 | 4020.7 | 3917.7 | 3814.8 | 3721.8 | 3626.3 | 3549.4 | 3513.4 | 3497.3 | 3475.0 | 3426.6 |
| 5°    | 3999.6 | 3866.9 | 3641.2 | 3419.2 | 3212.1 | 3013.6 | 2843.7 | 2747.0 | 2642.8 | 2637.9 | 2587.0 |
| 7.5°  | 3848.3 | 3659.8 | 3303.8 | 2959.1 | 2642.8 | 2340.2 | 2079.8 | 1911.1 | 1795.8 | 1723.9 | 1674.2 |
| 10°   | 3679.6 | 3437.8 | 2966.5 | 2481.6 | 2051.3 | 1647.0 | 1312.1 | 1093.8 | 961.1  | 894.2  | 855.7  |
| 12.5° | 3545.7 | 3241.8 | 2634.1 | 2024.0 | 1484.5 | 1020.7 | 709.4  | 550.6  | 479.9  | 452.7  | 440.3  |
| 15°   | 3430.3 | 3062.0 | 2322.9 | 1614.7 | 990.9  | 586.6  | 410.5  | 358.4  | 347.3  | 347.3  | 346.0  |
| 17.5° | 3313.8 | 2888.4 | 2020.3 | 1212.9 | 623.8  | 384.5  | 323.7  | 316.2  | 317.5  | 321.2  | 321.2  |
| 20°   | 3203.4 | 2723.4 | 1728.8 | 864.4  | 409.3  | 307.6  | 293.9  | 291.4  | 295.2  | 300.1  | 298.9  |
| 22.5° | 3114.1 | 2578.3 | 1456.0 | 594.0  | 315.0  | 279.0  | 270.4  | 266.6  | 269.1  | 272.8  | 271.6  |
| 25°   | 3050.8 | 2454.3 | 1205.5 | 414.2  | 274.1  | 254.2  | 244.3  | 239.4  | 236.9  | 239.4  | 238.1  |
| 27.5° | 3012.4 | 2350.1 | 969.8  | 311.3  | 245.6  | 229.4  | 217.0  | 207.1  | 200.9  | 200.9  | 198.4  |
| 30°   | 2987.6 | 2252.2 | 760.2  | 258.0  | 222.0  | 204.6  | 187.3  | 173.6  | 163.7  | 161.2  | 160.0  |
| 32.5° | 2986.4 | 2167.8 | 568.0  | 228.2  | 199.7  | 179.8  | 158.7  | 141.4  | 130.2  | 127.7  | 126.5  |
| 35°   | 3017.4 | 2099.6 | 417.9  | 205.9  | 179.8  | 156.3  | 132.7  | 114.1  | 104.2  | 104.2  | 102.9  |
| 37.5° | 3098.0 | 2059.9 | 316.2  | 188.5  | 163.7  | 136.4  | 111.6  | 94.3   | 85.6   | 88.1   | 88.1   |
| 40°   | 3248.0 | 2052.5 | 258.0  | 174.9  | 150.1  | 119.1  | 90.5   | 76.9   | 73.2   | 76.9   | 76.9   |
| 42.5° | 3477.5 | 2092.2 | 229.4  | 164.9  | 137.7  | 101.7  | 75.7   | 65.7   | 64.5   | 68.2   | 68.2   |
| 45°   | 3776.3 | 2170.3 | 213.3  | 156.3  | 124.0  | 84.3   | 63.2   | 57.0   | 55.8   | 60.8   | 60.8   |
| 47.5° | 4138.5 | 2275.7 | 198.4  | 146.3  | 110.4  | 69.5   | 53.3   | 48.4   | 48.4   | 53.3   | 54.6   |
| 50°   | 4567.6 | 2418.4 | 183.5  | 136.4  | 99.2   | 58.3   | 44.6   | 40.9   | 42.2   | 47.1   | 48.4   |
| 52.5° | 5061.2 | 2593.2 | 169.9  | 127.7  | 86.8   | 47.1   | 37.2   | 34.7   | 36.0   | 40.9   | 42.2   |
| 55°   | 5486.6 | 2745.8 | 153.8  | 119.1  | 70.7   | 38.4   | 31.0   | 29.8   | 31.0   | 37.2   | 37.2   |
| 57.5° | 5857.4 | 2892.1 | 138.9  | 105.4  | 55.8   | 31.0   | 24.8   | 24.8   | 27.3   | 33.5   | 34.7   |
| 60°   | 6349.7 | 3122.8 | 126.5  | 89.3   | 42.2   | 23.6   | 19.8   | 21.1   | 24.8   | 29.8   | 31.0   |
| 62.5° | 7221.6 | 3514.7 | 110.4  | 74.4   | 31.0   | 18.6   | 16.1   | 17.4   | 22.3   | 28.5   | 29.8   |
| 65°   | 8312.9 | 3885.5 | 91.8   | 62.0   | 23.6   | 13.6   | 12.4   | 16.1   | 22.3   | 28.5   | 29.8   |
| 67.5° | 8201.3 | 3379.5 | 71.9   | 49.6   | 17.4   | 11.2   | 9.9    | 14.9   | 21.1   | 28.5   | 29.8   |
| 70°   | 6651.1 | 2368.7 | 53.3   | 33.5   | 13.6   | 9.9    | 9.9    | 14.9   | 21.1   | 27.3   | 28.5   |
| 72.5° | 4613.5 | 1318.3 | 40.9   | 22.3   | 12.4   | 9.9    | 8.7    | 13.6   | 19.8   | 27.3   | 28.5   |
| 75°   | 2195.1 | 404.3  | 32.2   | 16.1   | 11.2   | 8.7    | 7.4    | 13.6   | 19.8   | 27.3   | 28.5   |
| 77.5° | 421.7  | 102.9  | 26.0   | 13.6   | 9.9    | 8.7    | 7.4    | 12.4   | 19.8   | 26.0   | 27.3   |
| 80°   | 142.6  | 45.9   | 21.1   | 12.4   | 9.9    | 8.7    | 7.4    | 12.4   | 18.6   | 24.8   | 26.0   |
| 82.5° | 78.1   | 26.0   | 18.6   | 11.2   | 9.9    | 7.4    | 6.2    | 11.2   | 17.4   | 24.8   | 26.0   |
| 85°   | 60.8   | 18.6   | 14.9   | 11.2   | 9.9    | 7.4    | 6.2    | 11.2   | 17.4   | 23.6   | 24.8   |
| 87.5° | 31.0   | 13.6   | 12.4   | 11.2   | 9.9    | 7.4    | 6.2    | 9.9    | 16.1   | 22.3   | 24.8   |
| 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)