

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: P197034

Luminaire Tested: **NVN-AF-06-LED-U-SL2-8030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197034  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)  
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-SL2-8030-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23977 lumens  
Efficiency: N/A  
Efficacy: 72.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B2 - U0 - G4

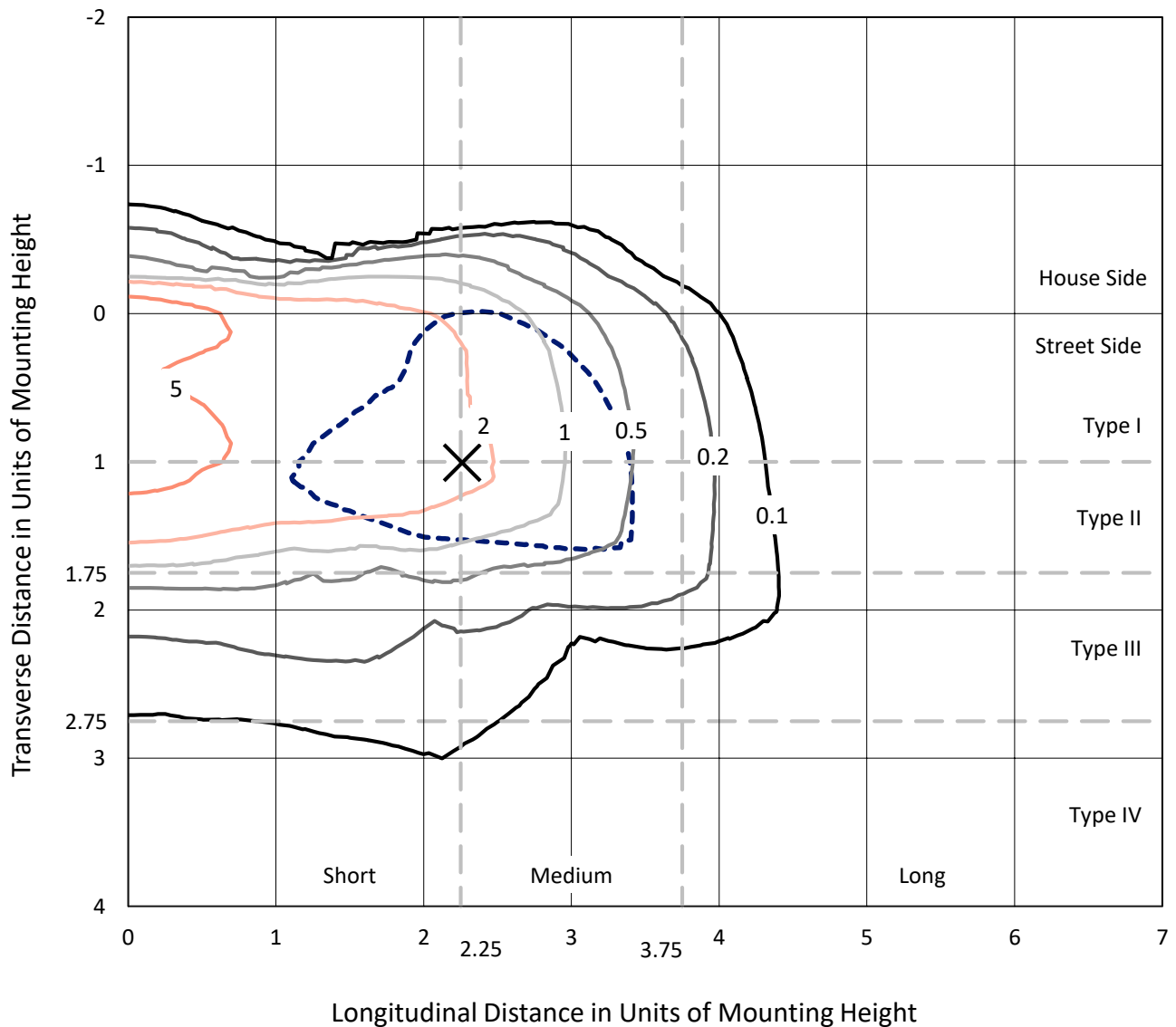
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

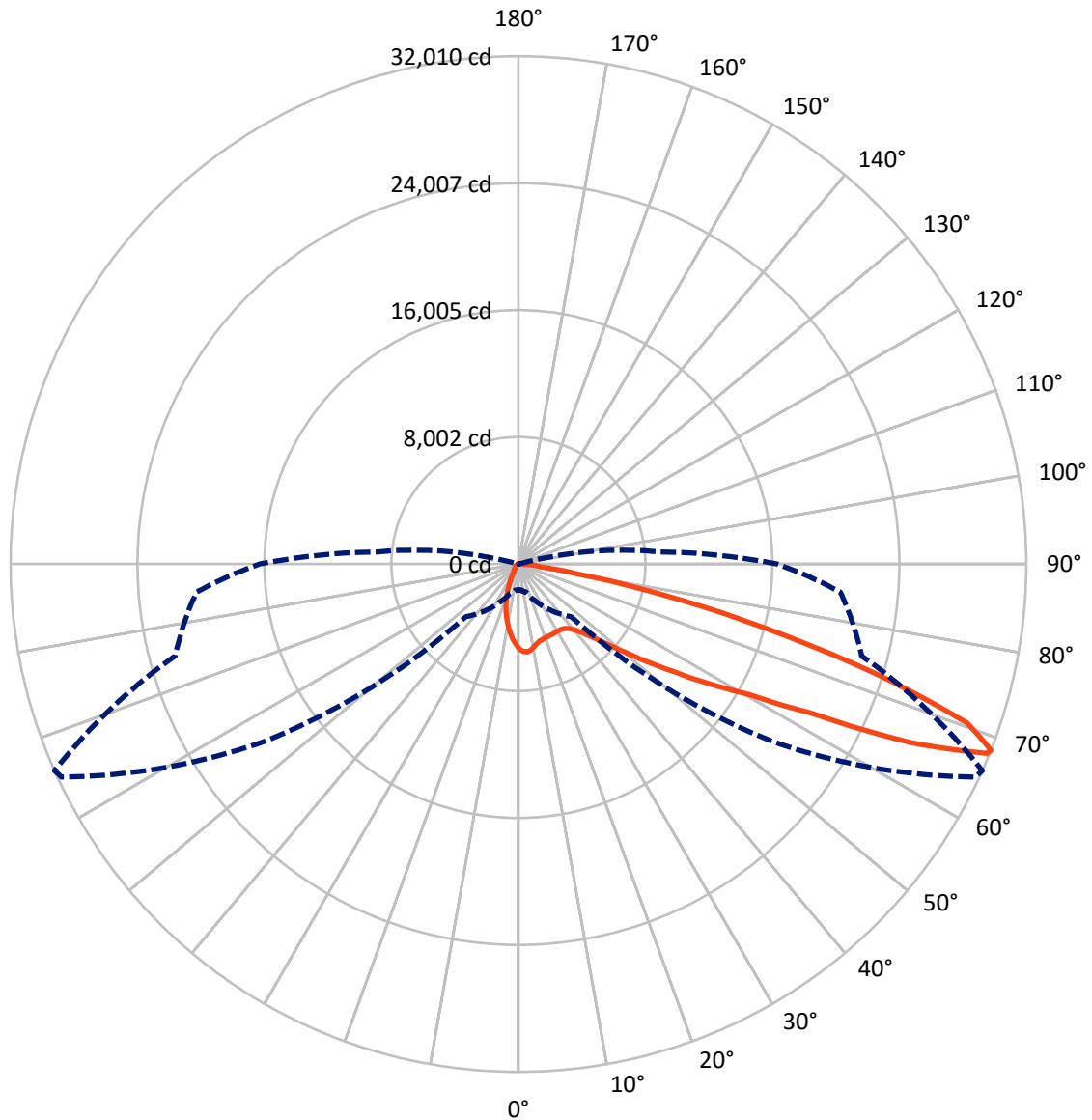
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2428.6   | 0.0    | 2428.6  |
|                    | % Fixture | 10.1     | 0.0    | 10.1    |
| <b>Street Side</b> | Lumens    | 21548.4  | 0.0    | 21548.4 |
|                    | % Fixture | 89.9     | 0.0    | 89.9    |
| <b>Total</b>       | Lumens    | 23977.0  | 0.0    | 23977.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 437.9   | 1.8       |
| 10°-20°   | 942.2   | 3.9       |
| 20°-30°   | 1365.4  | 5.7       |
| 30°-40°   | 2090.1  | 8.7       |
| 40°-50°   | 3575.0  | 14.9      |
| 50°-60°   | 5592.4  | 23.3      |
| 60°-70°   | 6439.4  | 26.9      |
| 70°-80°   | 3222.4  | 13.4      |
| 80°-90°   | 312.1   | 1.3       |
| 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°    | 23977.0 | 100.0     |
| 0°-180°   | 23977.0 | 100.0     |



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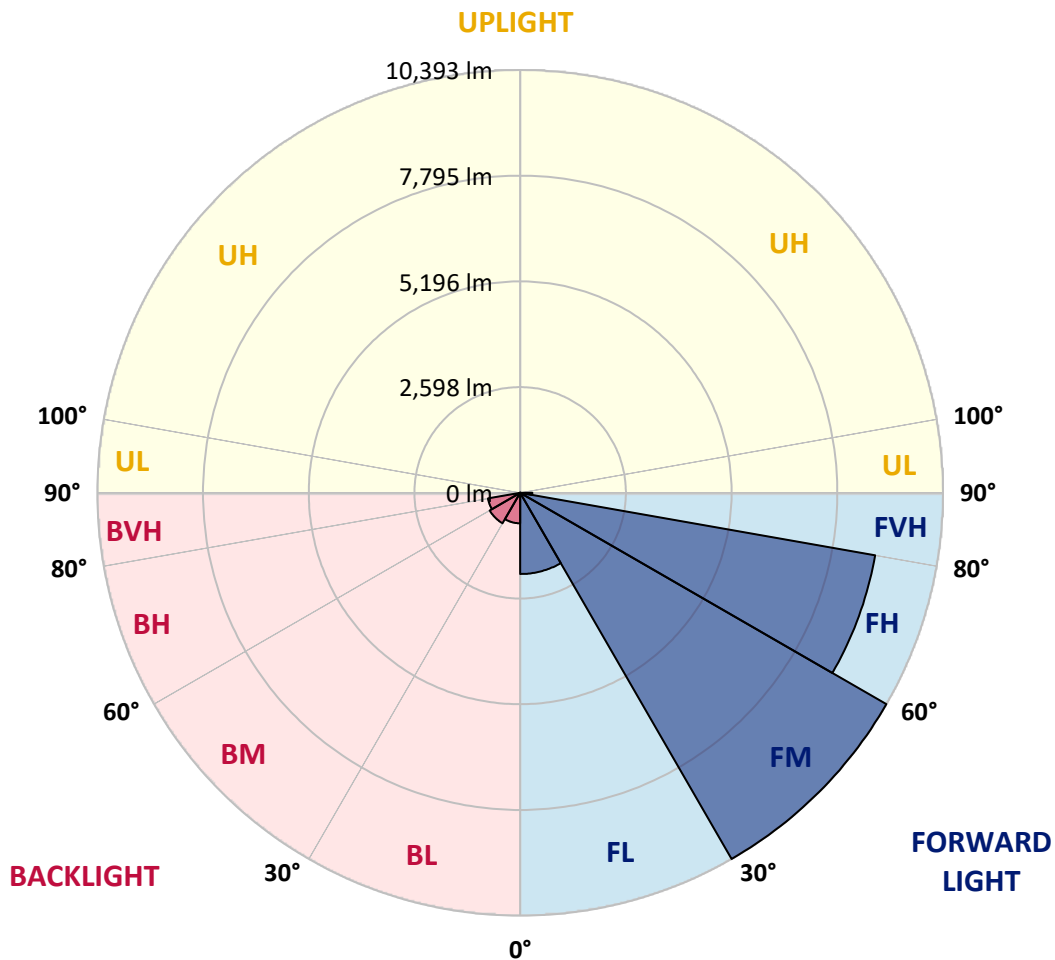
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1996.0  | 8.3       |                         |      |          |
| FM   | (30°-60°)   | 10392.7 | 43.3      |                         |      |          |
| FH   | (60°-80°)   | 8859.4  | 36.9      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 300.3   | 1.3       |                         |      | G3/500   |
| BL   | (0°-30°)    | 749.6   | 3.1       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 864.8   | 3.6       | B1/1000                 |      |          |
| BH   | (60°-80°)   | 802.4   | 3.3       | B2/1000                 |      | G2/1000  |
| BVH  | (80°-90°)   | 11.8    | 0.0       |                         |      | G1/100   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

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

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 66°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5341.8  | 5341.8  | 5341.8  | 5341.8  | 5341.8  | 5341.8  | 5341.8  | 5341.8  | 5341.8  | 5341.8  | 5341.8  |
| 2.5°  | 5618.5  | 5622.3  | 5620.4  | 5626.1  | 5622.3  | 5594.1  | 5564.0  | 5500.0  | 5505.6  | 5422.8  | 5330.6  |
| 5°    | 5223.3  | 5255.3  | 5287.3  | 5319.3  | 5396.4  | 5464.2  | 5545.1  | 5564.0  | 5564.0  | 5492.4  | 5356.9  |
| 7.5°  | 4820.5  | 4822.3  | 4858.1  | 4901.4  | 5004.9  | 5129.2  | 5317.4  | 5486.8  | 5490.5  | 5509.4  | 5360.7  |
| 10°   | 4517.4  | 4526.8  | 4551.3  | 4598.4  | 4701.9  | 4824.2  | 5035.0  | 5300.4  | 5321.1  | 5460.4  | 5323.0  |
| 12.5° | 4282.1  | 4293.4  | 4319.8  | 4374.4  | 4468.5  | 4594.6  | 4816.7  | 5119.7  | 5148.0  | 5413.4  | 5311.7  |
| 15°   | 4101.4  | 4116.5  | 4137.2  | 4191.8  | 4293.4  | 4427.1  | 4669.9  | 4999.3  | 5033.2  | 5394.6  | 5347.5  |
| 17.5° | 4026.2  | 4026.2  | 4024.3  | 4061.9  | 4163.6  | 4299.1  | 4553.2  | 4935.3  | 4978.6  | 5409.6  | 5407.7  |
| 20°   | 4058.1  | 4052.5  | 4013.0  | 4003.6  | 4065.7  | 4201.2  | 4461.0  | 4893.9  | 4942.8  | 5437.8  | 5481.1  |
| 22.5° | 4227.6  | 4216.3  | 4127.8  | 4054.4  | 4035.6  | 4125.9  | 4398.8  | 4865.6  | 4924.0  | 5496.2  | 5579.0  |
| 25°   | 4587.1  | 4553.2  | 4430.8  | 4265.2  | 4116.5  | 4107.1  | 4355.5  | 4850.6  | 4912.7  | 5564.0  | 5686.3  |
| 27.5° | 5053.9  | 5044.5  | 4848.7  | 4626.6  | 4340.5  | 4169.2  | 4342.4  | 4839.3  | 4901.4  | 5612.9  | 5772.9  |
| 30°   | 5633.6  | 5637.4  | 5411.5  | 5121.6  | 4688.7  | 4344.3  | 4383.8  | 4833.6  | 4897.6  | 5616.7  | 5810.5  |
| 32.5° | 6232.2  | 6235.9  | 6047.7  | 5737.1  | 5164.9  | 4645.4  | 4500.5  | 4860.0  | 4918.3  | 5601.6  | 5808.6  |
| 35°   | 6808.1  | 6813.8  | 6700.8  | 6450.5  | 5801.1  | 5063.3  | 4720.7  | 4950.3  | 4991.7  | 5611.0  | 5804.9  |
| 37.5° | 7536.6  | 7559.1  | 7419.9  | 7186.5  | 6599.2  | 5676.9  | 5080.2  | 5132.9  | 5166.8  | 5688.2  | 5833.1  |
| 40°   | 8778.9  | 8748.7  | 8349.7  | 7954.4  | 7465.0  | 6424.1  | 5599.7  | 5447.3  | 5458.5  | 5887.7  | 5940.4  |
| 42.5° | 10226.3 | 10188.7 | 9505.4  | 8824.0  | 8355.3  | 7325.7  | 6264.2  | 5929.1  | 5927.2  | 6222.7  | 6173.8  |
| 45°   | 11472.4 | 11449.8 | 10730.8 | 9821.6  | 9341.6  | 8321.5  | 7082.9  | 6623.7  | 6601.1  | 6802.5  | 6599.2  |
| 47.5° | 12357.0 | 12338.2 | 11794.2 | 10883.2 | 10482.3 | 9416.9  | 8105.0  | 7570.4  | 7523.4  | 7561.0  | 7290.0  |
| 50°   | 12443.6 | 12422.9 | 12232.8 | 11647.4 | 11814.9 | 11024.4 | 9368.0  | 8810.9  | 8750.6  | 8692.3  | 8334.6  |
| 52.5° | 11634.2 | 11632.4 | 11732.1 | 11694.5 | 12748.5 | 13093.0 | 10917.1 | 10344.9 | 10273.4 | 10124.7 | 9768.9  |
| 55°   | 9979.7  | 9970.3  | 10348.7 | 10898.3 | 12727.8 | 15227.5 | 13279.3 | 12170.7 | 12076.6 | 11779.2 | 11312.4 |
| 57.5° | 7291.9  | 7242.9  | 8033.5  | 9198.6  | 11833.8 | 16161.1 | 17030.7 | 14438.8 | 14282.6 | 13339.6 | 12620.5 |
| 60°   | 4026.2  | 4045.0  | 5061.4  | 6441.1  | 9716.2  | 15976.6 | 20482.7 | 17083.4 | 16673.0 | 14685.4 | 13960.7 |
| 62.5° | 2256.8  | 2303.9  | 3060.6  | 4186.1  | 6194.5  | 14480.2 | 22334.9 | 21634.7 | 20646.5 | 16255.2 | 15654.7 |
| 65°   | 1707.2  | 1735.4  | 2115.7  | 3230.0  | 3905.7  | 10119.0 | 22630.4 | 27998.6 | 27145.9 | 18634.4 | 18352.0 |
| 67.5° | 1607.4  | 1630.0  | 1816.4  | 2678.5  | 3557.5  | 5247.7  | 20405.6 | 31763.1 | 31870.4 | 21879.4 | 20441.3 |
| 68°   | 1618.7  | 1647.0  | 1833.3  | 2576.8  | 3551.8  | 4694.4  | 19456.9 | 31781.9 | 32009.7 | 22402.6 | 20369.8 |
| 70°   | 1487.0  | 1494.5  | 1938.7  | 2527.9  | 3442.7  | 3698.6  | 14075.5 | 29604.2 | 30012.6 | 23025.7 | 18491.3 |
| 72.5° | 568.4   | 570.3   | 869.6   | 2189.1  | 3606.4  | 3719.3  | 7090.5  | 23398.4 | 23419.1 | 20038.5 | 14416.2 |
| 75°   | 295.5   | 248.5   | 272.9   | 685.1   | 3444.5  | 3625.2  | 3557.5  | 15976.6 | 15876.8 | 13552.3 | 8833.4  |
| 77.5° | 203.3   | 173.2   | 182.6   | 237.2   | 1432.4  | 3623.3  | 2569.3  | 9187.3  | 9166.6  | 5765.4  | 2520.3  |
| 80°   | 114.8   | 99.8    | 109.2   | 199.5   | 502.6   | 3401.2  | 2394.2  | 3949.0  | 3721.2  | 1012.7  | 408.5   |
| 82.5° | 58.4    | 48.9    | 58.4    | 167.5   | 312.5   | 2140.1  | 2328.4  | 1549.1  | 1379.7  | 240.9   | 265.4   |
| 85°   | 15.1    | 15.1    | 28.2    | 116.7   | 193.9   | 702.1   | 2087.4  | 1118.1  | 1005.1  | 105.4   | 188.2   |
| 87.5° | 3.8     | 1.9     | 11.3    | 43.3    | 69.6    | 152.5   | 1157.6  | 623.0   | 536.4   | 54.6    | 109.2   |
| 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°    | 5341.8  | 5341.8 | 5341.8 | 5341.8 | 5341.8 | 5341.8 | 5341.8 | 5341.8 | 5341.8 | 5341.8 | 5341.8 |
| 2.5°  | 5292.9  | 5240.2 | 5136.7 | 5020.0 | 4937.2 | 4846.8 | 4794.1 | 4730.1 | 4681.2 | 4637.9 | 4669.9 |
| 5°    | 5274.1  | 5172.4 | 4942.8 | 4684.9 | 4468.5 | 4261.4 | 4107.1 | 3960.3 | 3849.2 | 3779.6 | 3807.8 |
| 7.5°  | 5225.1  | 5074.6 | 4701.9 | 4299.1 | 3945.2 | 3612.1 | 3341.0 | 3098.2 | 2910.0 | 2808.3 | 2840.3 |
| 10°   | 5142.3  | 4929.6 | 4429.0 | 3869.9 | 3374.9 | 2904.3 | 2501.5 | 2140.1 | 1867.2 | 1739.2 | 1769.3 |
| 12.5° | 5082.1  | 4801.6 | 4146.6 | 3455.8 | 2804.6 | 2136.4 | 1601.8 | 1187.7 | 975.0  | 847.0  | 858.3  |
| 15°   | 5055.7  | 4701.9 | 3883.1 | 3019.1 | 2181.5 | 1372.2 | 865.8  | 626.8  | 553.4  | 527.0  | 528.9  |
| 17.5° | 5059.5  | 4622.8 | 3632.8 | 2565.5 | 1552.9 | 788.7  | 530.8  | 478.1  | 466.8  | 461.2  | 461.2  |
| 20°   | 5068.9  | 4543.8 | 3373.0 | 2093.1 | 993.8  | 508.2  | 442.3  | 425.4  | 419.7  | 412.2  | 414.1  |
| 22.5° | 5097.2  | 4483.5 | 3111.4 | 1618.7 | 611.7  | 414.1  | 391.5  | 376.5  | 367.0  | 355.7  | 357.6  |
| 25°   | 5140.4  | 4438.4 | 2853.5 | 1165.1 | 431.0  | 361.4  | 340.7  | 320.0  | 303.0  | 289.9  | 291.8  |
| 27.5° | 5166.8  | 4374.4 | 2578.7 | 794.3  | 357.6  | 316.2  | 288.0  | 259.8  | 240.9  | 229.6  | 227.8  |
| 30°   | 5148.0  | 4270.8 | 2266.2 | 521.4  | 316.2  | 272.9  | 239.0  | 207.0  | 188.2  | 178.8  | 178.8  |
| 32.5° | 5097.2  | 4137.2 | 1921.8 | 380.2  | 280.5  | 235.3  | 193.9  | 165.6  | 152.5  | 146.8  | 148.7  |
| 35°   | 5038.8  | 3997.9 | 1554.7 | 321.9  | 252.2  | 199.5  | 158.1  | 135.5  | 129.9  | 128.0  | 128.0  |
| 37.5° | 5006.8  | 3877.5 | 1202.8 | 291.8  | 225.9  | 165.6  | 129.9  | 116.7  | 111.1  | 111.1  | 111.1  |
| 40°   | 5042.6  | 3785.2 | 890.3  | 269.2  | 199.5  | 137.4  | 109.2  | 99.8   | 97.9   | 97.9   | 97.9   |
| 42.5° | 5195.0  | 3753.2 | 651.3  | 250.3  | 173.2  | 114.8  | 94.1   | 86.6   | 84.7   | 86.6   | 86.6   |
| 45°   | 5492.4  | 3822.9 | 493.2  | 231.5  | 148.7  | 94.1   | 80.9   | 75.3   | 75.3   | 77.2   | 77.2   |
| 47.5° | 5996.9  | 4001.7 | 404.7  | 212.7  | 124.2  | 79.1   | 69.6   | 65.9   | 65.9   | 67.8   | 67.8   |
| 50°   | 6779.9  | 4333.0 | 363.3  | 192.0  | 103.5  | 67.8   | 58.4   | 56.5   | 56.5   | 58.4   | 60.2   |
| 52.5° | 7969.5  | 4963.5 | 342.6  | 171.3  | 84.7   | 56.5   | 48.9   | 47.1   | 48.9   | 50.8   | 50.8   |
| 55°   | 9292.7  | 5771.0 | 318.1  | 150.6  | 71.5   | 47.1   | 39.5   | 39.5   | 41.4   | 45.2   | 45.2   |
| 57.5° | 10525.6 | 6550.3 | 295.5  | 124.2  | 62.1   | 37.6   | 32.0   | 32.0   | 35.8   | 39.5   | 39.5   |
| 60°   | 11828.1 | 7314.5 | 265.4  | 99.8   | 52.7   | 30.1   | 26.4   | 26.4   | 32.0   | 35.8   | 37.6   |
| 62.5° | 13437.4 | 8202.9 | 225.9  | 79.1   | 41.4   | 22.6   | 18.8   | 24.5   | 30.1   | 35.8   | 35.8   |
| 65°   | 15763.9 | 9307.8 | 176.9  | 62.1   | 32.0   | 16.9   | 15.1   | 22.6   | 28.2   | 33.9   | 35.8   |
| 67.5° | 16609.0 | 9166.6 | 133.6  | 50.8   | 24.5   | 13.2   | 13.2   | 20.7   | 28.2   | 33.9   | 33.9   |
| 68°   | 16300.4 | 8857.9 | 128.0  | 48.9   | 22.6   | 13.2   | 13.2   | 20.7   | 28.2   | 33.9   | 33.9   |
| 70°   | 14203.5 | 7241.0 | 105.4  | 37.6   | 18.8   | 11.3   | 11.3   | 18.8   | 28.2   | 32.0   | 33.9   |
| 72.5° | 10634.8 | 4811.1 | 90.3   | 24.5   | 16.9   | 11.3   | 9.4    | 18.8   | 26.4   | 32.0   | 32.0   |
| 75°   | 6100.4  | 1997.1 | 77.2   | 18.8   | 15.1   | 9.4    | 9.4    | 16.9   | 26.4   | 32.0   | 32.0   |
| 77.5° | 1724.1  | 466.8  | 62.1   | 15.1   | 13.2   | 9.4    | 7.5    | 16.9   | 24.5   | 30.1   | 30.1   |
| 80°   | 316.2   | 139.3  | 48.9   | 13.2   | 11.3   | 9.4    | 7.5    | 16.9   | 24.5   | 30.1   | 30.1   |
| 82.5° | 208.9   | 65.9   | 35.8   | 13.2   | 11.3   | 9.4    | 7.5    | 15.1   | 22.6   | 28.2   | 28.2   |
| 85°   | 156.2   | 47.1   | 22.6   | 13.2   | 11.3   | 9.4    | 7.5    | 15.1   | 22.6   | 28.2   | 28.2   |
| 87.5° | 86.6    | 20.7   | 16.9   | 15.1   | 13.2   | 9.4    | 7.5    | 13.2   | 20.7   | 26.4   | 26.4   |
| 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)