

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: P271168

Luminaire Tested: **NVN-AF-06-LED-U-SL4-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P271168  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24285)  
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-SL4-7027-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1050mA 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: 25494.9 lumens  
Efficiency: N/A  
Efficacy: 76.6 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 - G4

Input Watts (W): 333  
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

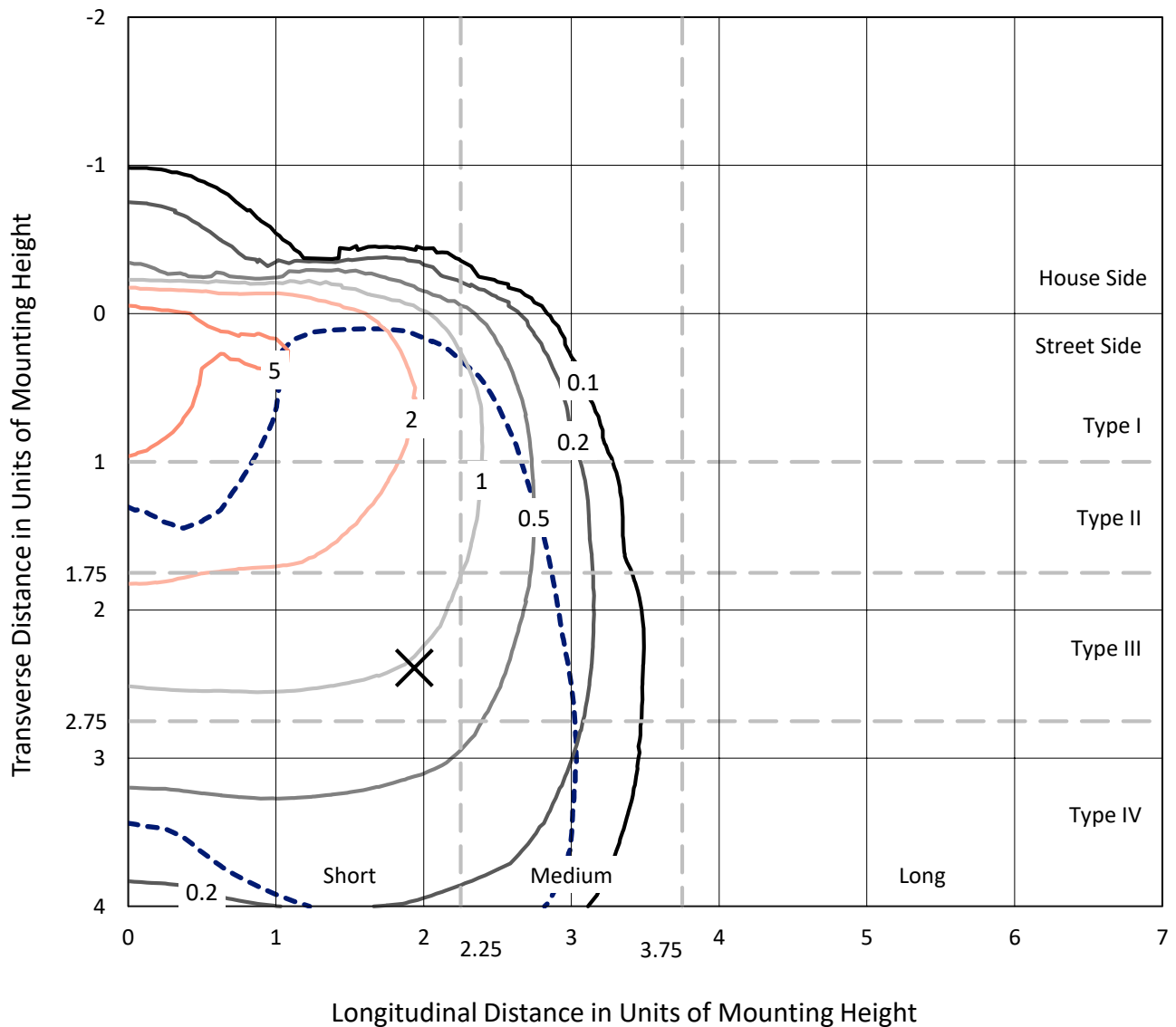


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### Iso-Footcandle Lines of Horizontal Illumination

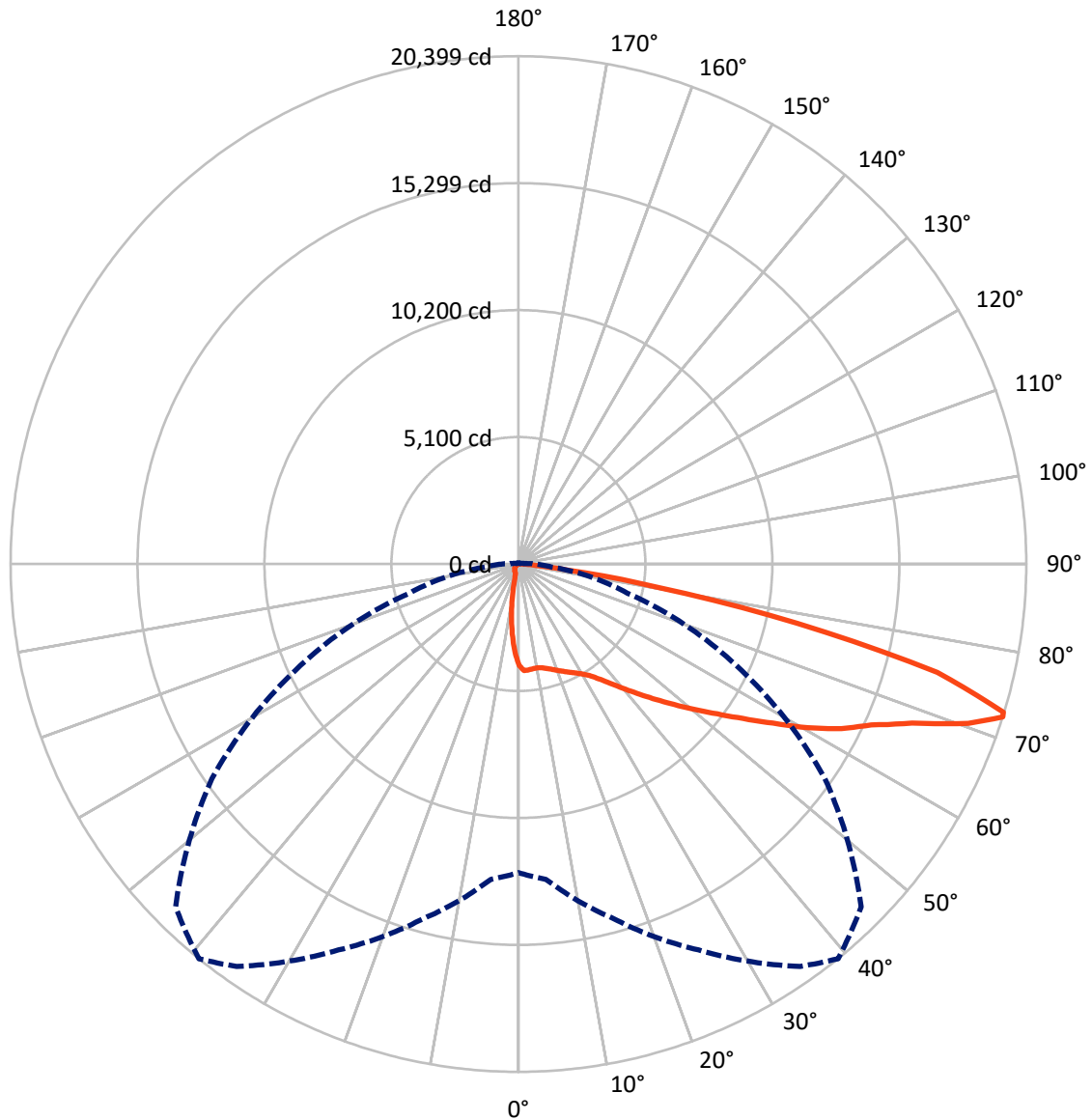
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 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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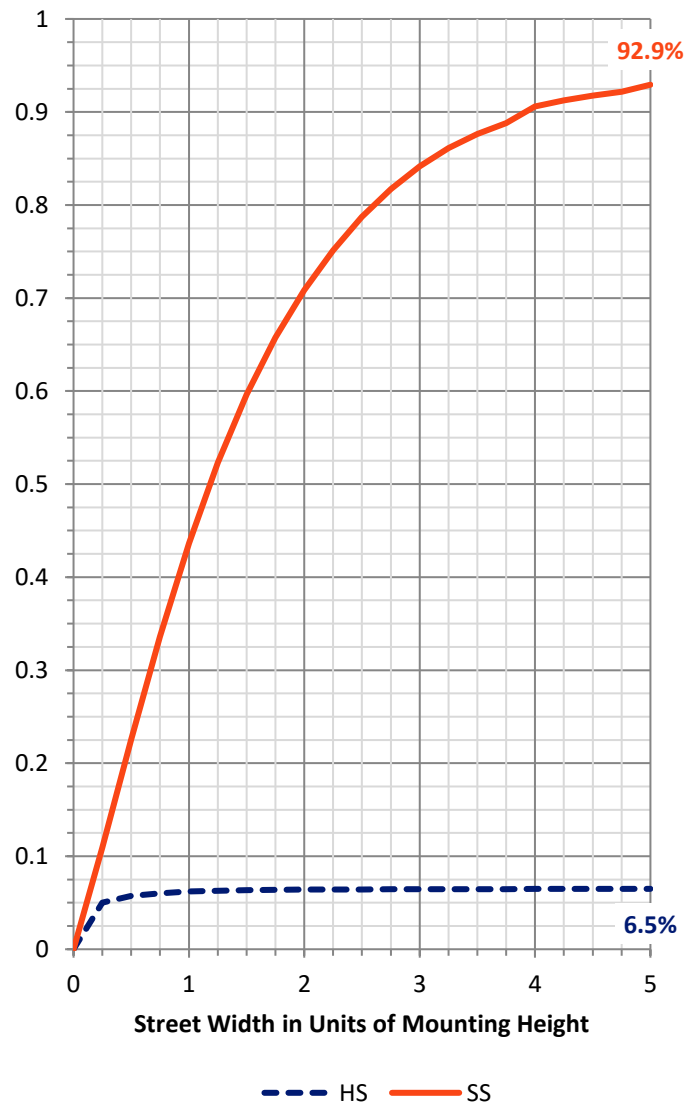
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1670.9   | 0.0    | 1670.9  |
|                    | % Fixture | 6.6      | 0.0    | 6.6     |
| <b>Street Side</b> | Lumens    | 23824.1  | 0.0    | 23824.1 |
|                    | % Fixture | 93.4     | 0.0    | 93.4    |
| <b>Total</b>       | Lumens    | 25494.9  | 0.0    | 25494.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 331.9   | 1.3       |
| 10°-20°   | 803.6   | 3.2       |
| 20°-30°   | 1334.6  | 5.2       |
| 30°-40°   | 2127.0  | 8.3       |
| 40°-50°   | 3510.9  | 13.8      |
| 50°-60°   | 5302.1  | 20.8      |
| 60°-70°   | 6906.8  | 27.1      |
| 70°-80°   | 4667.0  | 18.3      |
| 80°-90°   | 511.1   | 2.0       |
| 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°    | 25494.9 | 100.0     |
| 0°-180°   | 25494.9 | 100.0     |

**Coefficient of Utilization**



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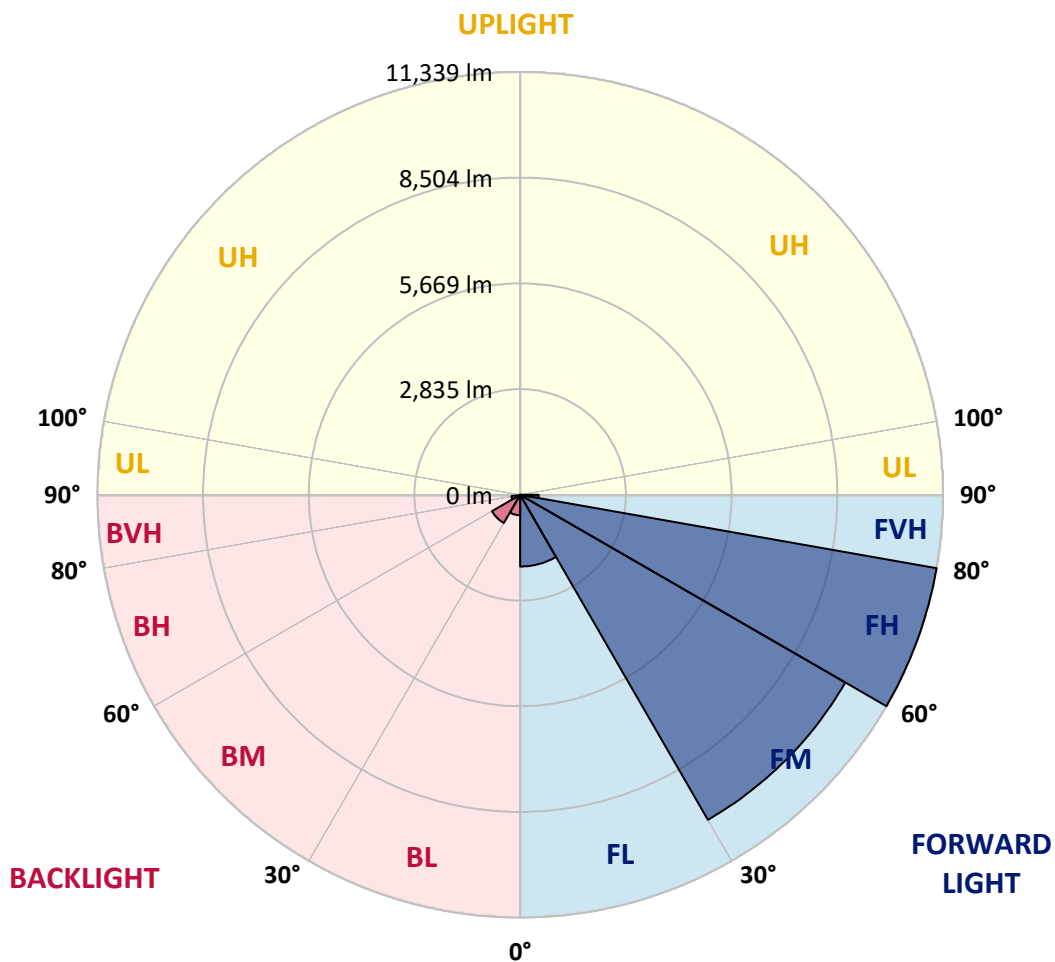
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1922.9  | 7.5       |                         |      |          |
| FM   | (30°-60°)   | 10065.7 | 39.5      |                         |      |          |
| FH   | (60°-80°)   | 11339.0 | 44.5      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 496.4   | 1.9       |                         |      | G3/500   |
| BL   | (0°-30°)    | 547.1   | 2.1       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 874.2   | 3.4       | B1/1000                 |      |          |
| BH   | (60°-80°)   | 234.8   | 0.9       | B1/500                  |      | G1/500   |
| BVH  | (80°-90°)   | 14.7    | 0.1       |                         |      | 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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 39°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4080.6  | 4080.6  | 4080.6  | 4080.6  | 4080.6  | 4080.6  | 4080.6  | 4080.6  | 4080.6  | 4080.6  | 4080.6  |
| 2.5°  | 4345.2  | 4353.1  | 4343.1  | 4325.2  | 4299.1  | 4283.1  | 4261.0  | 4213.0  | 4152.8  | 4100.7  | 4040.5  |
| 5°    | 4379.2  | 4383.3  | 4371.2  | 4337.1  | 4297.1  | 4275.0  | 4246.9  | 4194.8  | 4132.7  | 4060.6  | 3952.4  |
| 7.5°  | 4389.3  | 4387.3  | 4373.3  | 4331.2  | 4269.0  | 4241.0  | 4192.8  | 4128.7  | 4064.7  | 3998.4  | 3876.1  |
| 10°   | 4385.3  | 4385.3  | 4375.3  | 4335.2  | 4265.1  | 4238.9  | 4184.8  | 4116.8  | 4036.5  | 3970.4  | 3840.2  |
| 12.5° | 4371.2  | 4379.2  | 4373.3  | 4351.2  | 4299.1  | 4279.0  | 4230.9  | 4162.8  | 4086.7  | 4018.5  | 3880.1  |
| 15°   | 4389.3  | 4401.3  | 4413.4  | 4405.3  | 4375.3  | 4357.1  | 4313.1  | 4243.0  | 4180.8  | 4108.7  | 3960.4  |
| 17.5° | 4461.4  | 4487.6  | 4515.6  | 4517.5  | 4485.4  | 4453.3  | 4403.3  | 4331.2  | 4271.0  | 4204.8  | 4044.6  |
| 20°   | 4597.7  | 4617.7  | 4669.8  | 4679.9  | 4615.9  | 4569.7  | 4499.5  | 4415.3  | 4355.3  | 4299.1  | 4122.7  |
| 22.5° | 4800.2  | 4822.2  | 4864.3  | 4850.3  | 4742.1  | 4688.0  | 4599.7  | 4503.6  | 4441.4  | 4409.3  | 4213.0  |
| 25°   | 5106.9  | 5112.9  | 5122.9  | 5060.7  | 4882.3  | 4822.2  | 4713.9  | 4605.7  | 4555.7  | 4551.6  | 4341.1  |
| 27.5° | 5467.5  | 5475.6  | 5431.5  | 5293.3  | 5038.7  | 4960.5  | 4838.2  | 4740.0  | 4716.0  | 4746.0  | 4503.6  |
| 30°   | 5880.5  | 5882.5  | 5760.2  | 5535.7  | 5219.1  | 5132.8  | 5006.7  | 4898.4  | 4920.3  | 4994.5  | 4712.0  |
| 32.5° | 6303.3  | 6283.3  | 6114.9  | 5822.4  | 5465.6  | 5361.4  | 5253.1  | 5145.0  | 5209.0  | 5359.4  | 5016.7  |
| 35°   | 6690.1  | 6682.1  | 6483.7  | 6143.0  | 5786.3  | 5694.0  | 5615.8  | 5501.6  | 5605.9  | 5850.4  | 5431.5  |
| 37.5° | 7076.9  | 7071.0  | 6844.5  | 6489.7  | 6181.1  | 6114.9  | 6056.8  | 5968.6  | 6138.9  | 6497.7  | 5986.7  |
| 40°   | 7503.9  | 7493.8  | 7215.2  | 6874.5  | 6640.0  | 6604.0  | 6569.9  | 6531.8  | 6822.4  | 7321.5  | 6678.1  |
| 42.5° | 8030.9  | 7986.9  | 7608.0  | 7293.3  | 7145.1  | 7155.1  | 7157.2  | 7195.2  | 7650.1  | 8301.5  | 7493.8  |
| 45°   | 8636.2  | 8538.1  | 8002.9  | 7742.4  | 7700.4  | 7760.4  | 7820.6  | 7978.8  | 8614.2  | 9430.0  | 8395.7  |
| 47.5° | 9223.4  | 9065.2  | 8457.9  | 8225.4  | 8311.6  | 8435.9  | 8580.2  | 8888.8  | 9696.6  | 10610.4 | 9213.5  |
| 50°   | 9728.6  | 9566.2  | 8908.9  | 8716.4  | 8991.0  | 9175.4  | 9431.9  | 9899.0  | 10838.9 | 11608.5 | 9728.6  |
| 52.5° | 10125.4 | 9997.1  | 9385.9  | 9257.7  | 9744.6  | 9997.1  | 10399.9 | 11013.3 | 11917.3 | 12265.9 | 10089.4 |
| 55°   | 10418.1 | 10354.0 | 9842.8  | 9860.9  | 10582.5 | 10947.1 | 11448.2 | 12141.8 | 12827.2 | 12777.0 | 10360.0 |
| 57.5° | 10748.7 | 10698.6 | 10321.9 | 10572.3 | 11590.6 | 12061.5 | 12640.7 | 13197.9 | 13488.5 | 13187.8 | 10624.4 |
| 60°   | 11087.5 | 11103.5 | 10903.1 | 11434.2 | 12837.1 | 13358.2 | 13863.4 | 14001.6 | 14055.7 | 13604.8 | 10903.1 |
| 62.5° | 11343.9 | 11412.2 | 11430.2 | 12364.1 | 14115.8 | 14560.7 | 14779.3 | 14681.1 | 14669.1 | 14163.9 | 10881.0 |
| 65°   | 11638.6 | 11817.1 | 12113.6 | 13384.3 | 15278.4 | 15571.0 | 15727.3 | 15869.5 | 15569.0 | 14330.3 | 9810.7  |
| 67.5° | 12147.7 | 12428.3 | 13095.8 | 14634.9 | 16621.2 | 17054.1 | 17497.0 | 17346.7 | 15703.2 | 12640.7 | 7473.8  |
| 70°   | 12833.1 | 13175.9 | 14354.3 | 16268.5 | 18443.0 | 19168.6 | 19539.4 | 17228.5 | 13332.3 | 8734.5  | 3942.3  |
| 72°   | 12400.3 | 12710.8 | 14743.3 | 17102.2 | 19733.7 | 20399.3 | 19471.2 | 15027.7 | 9664.4  | 4527.5  | 1320.8  |
| 72.5° | 11979.3 | 12300.0 | 14618.9 | 17092.2 | 19862.1 | 20371.1 | 19028.3 | 14160.0 | 8552.1  | 3523.4  | 910.0   |
| 75°   | 8311.6  | 8716.4  | 12532.6 | 15364.5 | 17936.0 | 17376.8 | 14558.8 | 8574.1  | 3098.6  | 605.3   | 300.7   |
| 77.5° | 4297.1  | 4609.7  | 7602.0  | 10856.9 | 12500.5 | 11448.2 | 8604.1  | 3719.9  | 857.8   | 320.6   | 198.4   |
| 80°   | 2663.7  | 2818.0  | 3555.5  | 5349.2  | 6493.8  | 5680.1  | 3796.1  | 1503.1  | 549.1   | 190.4   | 158.3   |
| 82.5° | 1378.9  | 1497.1  | 2238.8  | 2158.5  | 2399.1  | 1994.1  | 1400.9  | 1258.6  | 338.8   | 118.2   | 162.4   |
| 85°   | 452.9   | 481.0   | 1374.9  | 1435.0  | 1026.1  | 689.4   | 621.3   | 1200.6  | 98.3    | 76.1    | 138.2   |
| 87.5° | 60.1    | 70.2    | 483.0   | 821.7   | 505.0   | 312.7   | 372.7   | 422.9   | 34.0    | 42.1    | 38.1    |
| 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°    | 4080.6 | 4080.6 | 4080.6 | 4080.6 | 4080.6 | 4080.6 | 4080.6 | 4080.6 | 4080.6 | 4080.6 | 4080.6 |
| 2.5°  | 4000.4 | 3974.5 | 3892.3 | 3810.0 | 3715.8 | 3629.7 | 3561.5 | 3517.5 | 3537.4 | 3471.3 | 3481.4 |
| 5°    | 3886.2 | 3820.1 | 3639.8 | 3445.3 | 3234.8 | 3038.4 | 2882.1 | 2765.8 | 2743.9 | 2643.6 | 2647.7 |
| 7.5°  | 3775.9 | 3667.8 | 3375.1 | 3054.4 | 2705.8 | 2423.1 | 2166.6 | 1942.1 | 1861.9 | 1779.7 | 1731.7 |
| 10°   | 3715.8 | 3567.6 | 3152.7 | 2685.8 | 2194.6 | 1779.7 | 1419.1 | 1136.4 | 1018.1 | 932.0  | 890.0  |
| 12.5° | 3734.0 | 3537.4 | 2986.3 | 2351.0 | 1705.6 | 1178.4 | 801.6  | 595.2  | 523.2  | 483.0  | 468.9  |
| 15°   | 3794.0 | 3543.5 | 2835.9 | 2024.3 | 1240.6 | 713.6  | 471.0  | 402.9  | 396.8  | 394.9  | 392.7  |
| 17.5° | 3850.1 | 3549.6 | 2677.7 | 1683.6 | 829.8  | 454.9  | 378.7  | 372.7  | 372.7  | 372.7  | 372.7  |
| 20°   | 3908.3 | 3551.4 | 2503.2 | 1326.7 | 545.1  | 372.7  | 356.7  | 352.8  | 356.7  | 356.7  | 356.7  |
| 22.5° | 3976.3 | 3565.6 | 2335.0 | 980.1  | 402.9  | 350.8  | 340.6  | 338.8  | 340.6  | 340.6  | 338.8  |
| 25°   | 4060.6 | 3595.6 | 2152.6 | 701.4  | 364.8  | 336.8  | 326.8  | 324.6  | 326.8  | 324.6  | 324.6  |
| 27.5° | 4172.8 | 3635.7 | 1940.1 | 503.1  | 348.7  | 322.8  | 312.7  | 312.7  | 312.7  | 310.6  | 310.6  |
| 30°   | 4317.2 | 3683.8 | 1655.4 | 396.8  | 332.7  | 308.7  | 300.7  | 300.7  | 298.6  | 296.6  | 296.6  |
| 32.5° | 4523.5 | 3761.9 | 1344.9 | 358.8  | 314.6  | 290.6  | 282.5  | 284.7  | 282.5  | 280.6  | 278.6  |
| 35°   | 4816.3 | 3884.2 | 1038.3 | 338.8  | 296.6  | 272.5  | 264.6  | 264.6  | 264.6  | 260.6  | 260.6  |
| 37.5° | 5231.1 | 4070.6 | 777.7  | 318.7  | 278.6  | 254.5  | 244.5  | 244.5  | 242.5  | 238.5  | 240.4  |
| 40°   | 5744.1 | 4305.0 | 563.1  | 300.7  | 260.6  | 234.5  | 226.6  | 222.5  | 218.5  | 214.4  | 214.4  |
| 42.5° | 6361.4 | 4533.6 | 422.9  | 282.5  | 242.5  | 218.5  | 208.4  | 204.5  | 196.4  | 192.3  | 190.4  |
| 45°   | 7053.0 | 4776.1 | 350.8  | 260.6  | 222.5  | 200.4  | 192.3  | 184.4  | 174.5  | 168.3  | 166.4  |
| 47.5° | 7636.1 | 4924.4 | 312.7  | 238.5  | 202.4  | 182.4  | 174.5  | 162.4  | 150.3  | 146.3  | 146.3  |
| 50°   | 7986.9 | 4862.3 | 280.6  | 216.4  | 182.4  | 164.3  | 154.2  | 138.2  | 130.3  | 126.2  | 124.2  |
| 52.5° | 8183.3 | 4678.0 | 254.5  | 198.4  | 164.3  | 144.3  | 130.3  | 116.2  | 112.3  | 108.2  | 108.2  |
| 55°   | 8317.5 | 4411.3 | 226.6  | 180.4  | 148.3  | 126.2  | 110.2  | 100.3  | 96.2   | 94.2   | 92.2   |
| 57.5° | 8445.9 | 4086.7 | 200.4  | 164.3  | 132.3  | 112.3  | 94.2   | 90.2   | 82.1   | 80.2   | 80.2   |
| 60°   | 8484.0 | 3639.8 | 176.3  | 146.3  | 118.2  | 98.3   | 82.1   | 76.1   | 68.1   | 66.1   | 66.1   |
| 62.5° | 7998.9 | 2896.1 | 156.3  | 124.2  | 104.3  | 84.3   | 72.1   | 64.0   | 56.1   | 56.1   | 56.1   |
| 65°   | 6684.2 | 1966.2 | 134.2  | 108.2  | 92.2   | 72.1   | 62.2   | 52.1   | 48.1   | 48.1   | 48.1   |
| 67.5° | 4655.8 | 1096.3 | 114.3  | 92.2   | 78.2   | 60.1   | 52.1   | 44.0   | 42.1   | 44.0   | 44.0   |
| 70°   | 2098.4 | 434.9  | 96.2   | 76.1   | 64.0   | 50.1   | 44.0   | 38.1   | 42.1   | 42.1   | 42.1   |
| 72°   | 629.4  | 232.5  | 80.2   | 62.2   | 52.1   | 44.0   | 38.1   | 36.1   | 40.1   | 42.1   | 42.1   |
| 72.5° | 466.9  | 208.4  | 76.1   | 60.1   | 52.1   | 42.1   | 36.1   | 36.1   | 40.1   | 42.1   | 42.1   |
| 75°   | 240.4  | 142.3  | 58.1   | 44.0   | 38.1   | 34.0   | 30.1   | 34.0   | 40.1   | 40.1   | 40.1   |
| 77.5° | 188.5  | 116.2  | 48.1   | 34.0   | 32.1   | 30.1   | 28.0   | 32.1   | 36.1   | 36.1   | 36.1   |
| 80°   | 176.3  | 76.1   | 38.1   | 32.1   | 28.0   | 26.1   | 26.1   | 28.0   | 32.1   | 34.0   | 34.0   |
| 82.5° | 178.4  | 62.2   | 34.0   | 30.1   | 26.1   | 24.1   | 24.1   | 26.1   | 30.1   | 32.1   | 32.1   |
| 85°   | 114.3  | 42.1   | 30.1   | 26.1   | 24.1   | 22.1   | 22.1   | 24.1   | 28.0   | 30.1   | 30.1   |
| 87.5° | 38.1   | 32.1   | 26.1   | 24.1   | 20.0   | 20.0   | 20.0   | 20.0   | 24.1   | 26.1   | 28.0   |
| 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)