

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: P321673

Luminaire Tested: **GAN-SA9A-760-U-T3R-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P321673  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA9A-760-U-T3R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32042 lumens  
Efficiency: N/A  
Efficacy: 110.5 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - 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

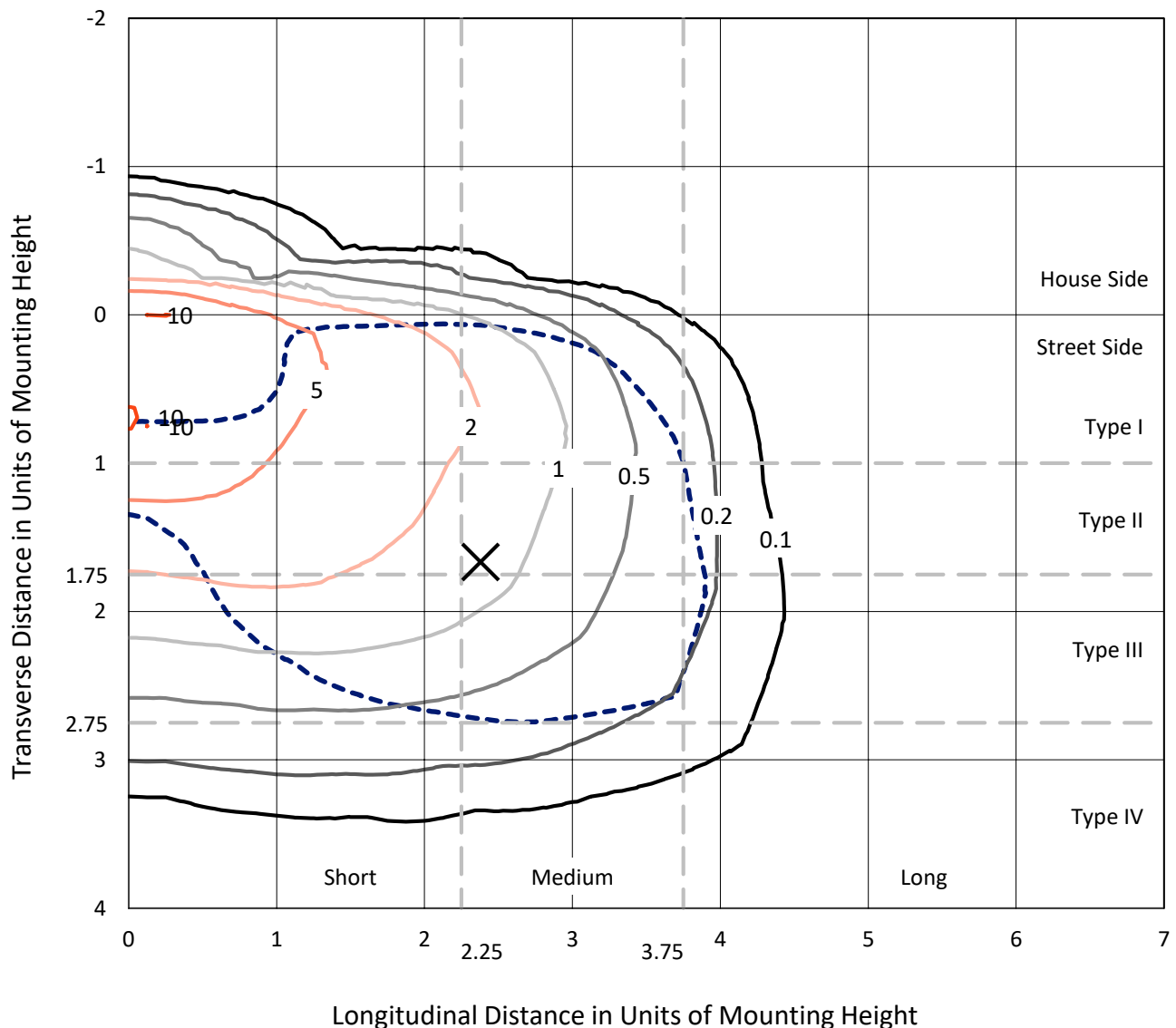


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## Iso-Footcandle Lines of Horizontal Illumination

✗ Max cd

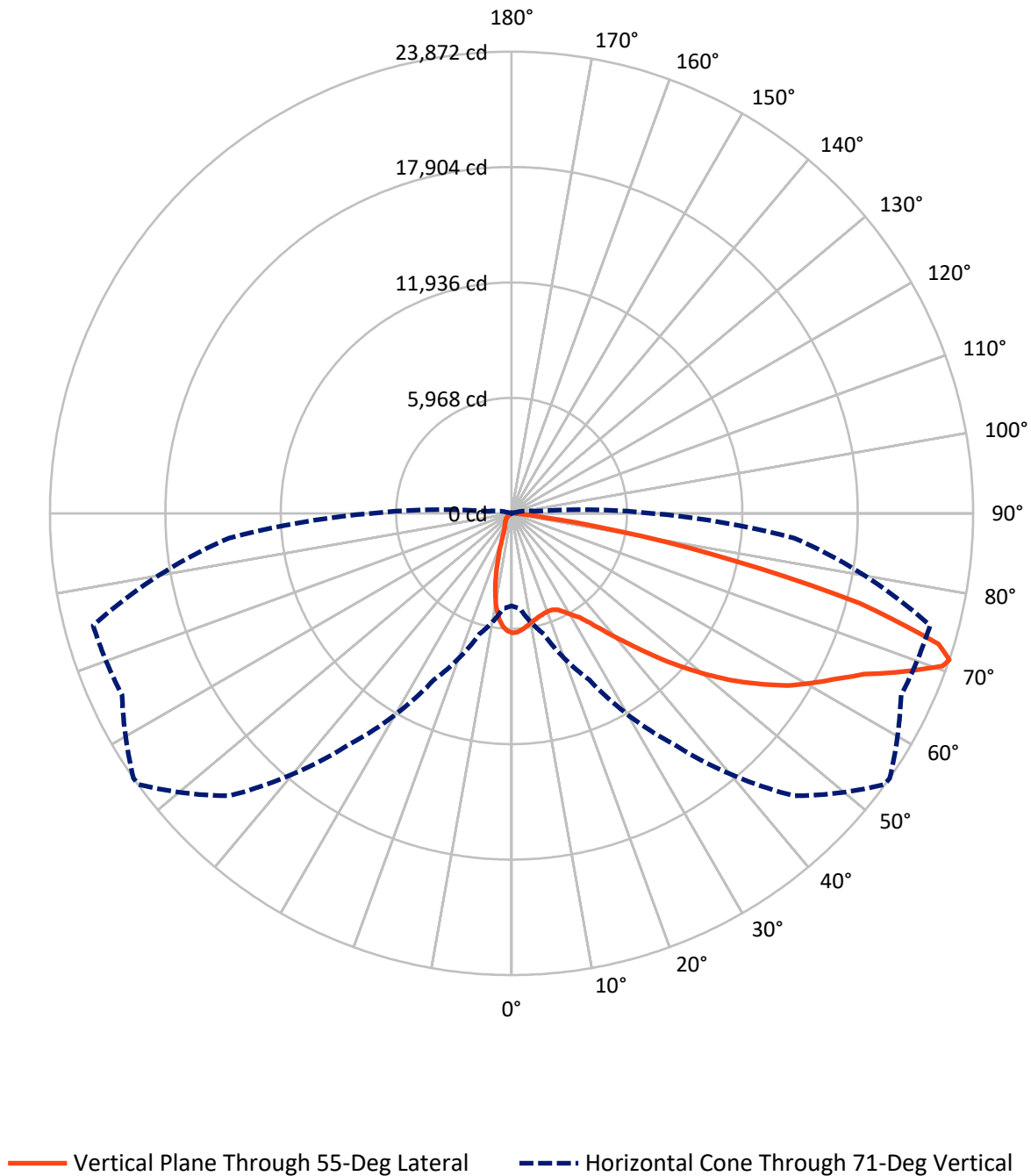
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.1 fc  
Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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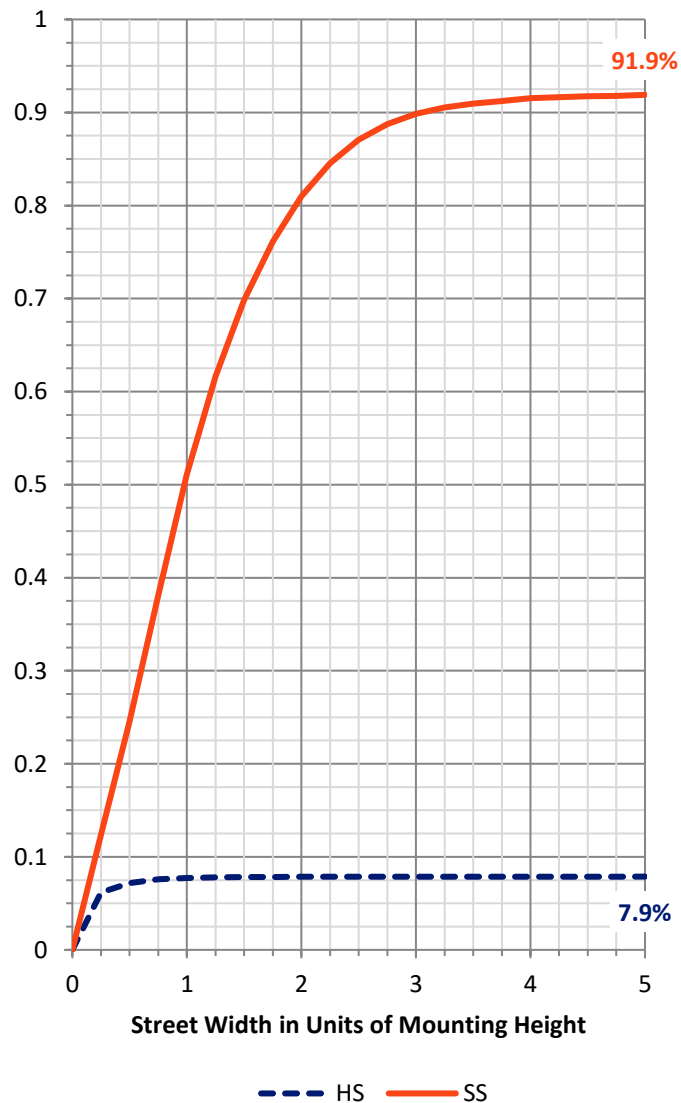
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2536.9   | 0.0    | 2536.9  |
|                    | % Fixture | 7.9      | 0.0    | 7.9     |
| <b>Street Side</b> | Lumens    | 29505.2  | 0.0    | 29505.2 |
|                    | % Fixture | 92.1     | 0.0    | 92.1    |
| <b>Total</b>       | Lumens    | 32042.0  | 0.0    | 32042.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 526.9   | 1.6       |
| 10°-20°   | 1189.5  | 3.7       |
| 20°-30°   | 1911.5  | 6.0       |
| 30°-40°   | 3247.8  | 10.1      |
| 40°-50°   | 5040.9  | 15.7      |
| 50°-60°   | 6777.4  | 21.2      |
| 60°-70°   | 8291.0  | 25.9      |
| 70°-80°   | 4847.5  | 15.1      |
| 80°-90°   | 209.5   | 0.7       |
| 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°    | 32042.0 | 100.0     |
| 0°-180°   | 32042.0 | 100.0     |

**Coefficient of Utilization**



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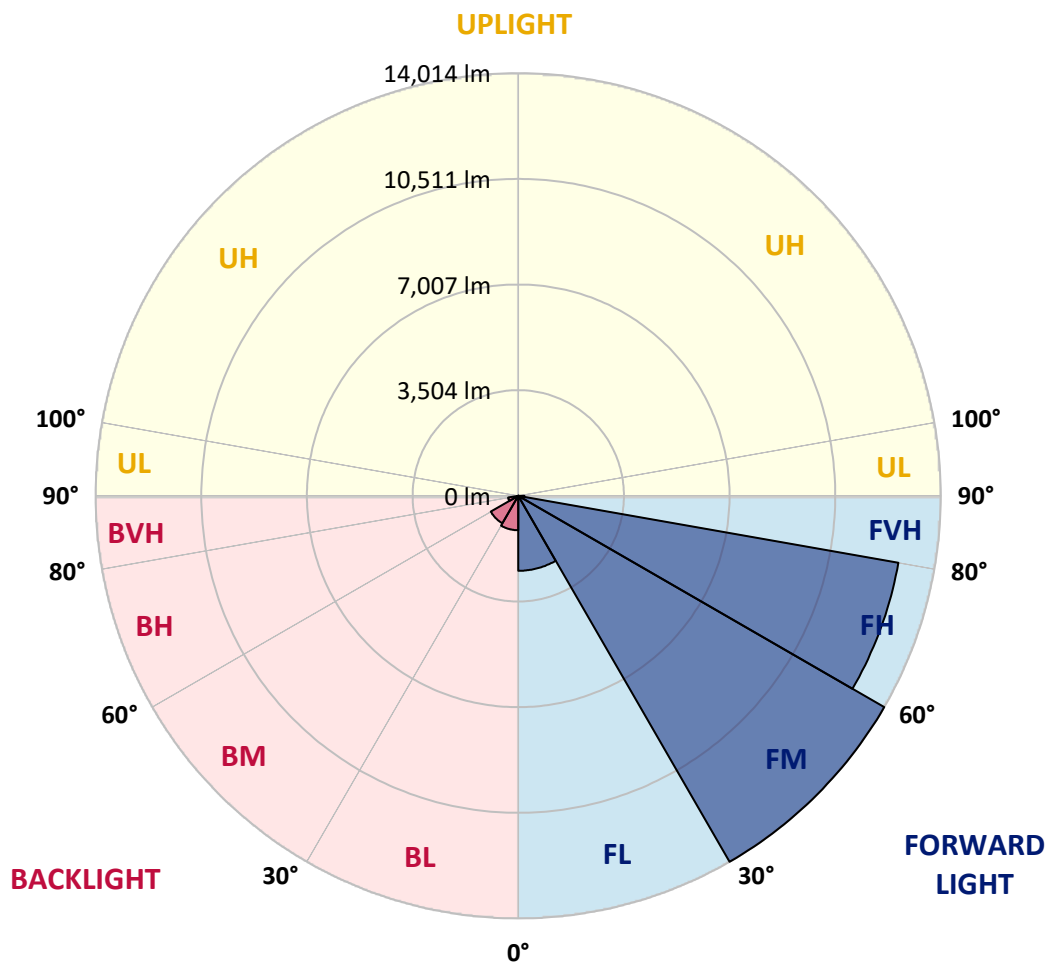
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|---------|-----------|-------------------------|------|--------|
|      |             |         |           | B                       | U    | G      |
| FL   | (0°-30°)    | 2486.0  | 7.8       |                         |      |        |
| FM   | (30°-60°)   | 14014.2 | 43.7      |                         |      |        |
| FH   | (60°-80°)   | 12798.7 | 39.9      |                         |      | G5     |
| FVH  | (80°-90°)   | 206.2   | 0.6       |                         |      | G2/225 |
| BL   | (0°-30°)    | 1141.8  | 3.6       | B3/2500                 |      |        |
| BM   | (30°-60°)   | 1051.8  | 3.3       | B2/2500                 |      |        |
| BH   | (60°-80°)   | 339.9   | 1.1       | B1/500                  |      | G1/500 |
| BVH  | (80°-90°)   | 3.3     | 0.0       |                         |      | G0/10  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |        |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |        |

**BUG Rating: B3-U0-G5**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 54°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6179.4  | 6179.4  | 6179.4  | 6179.4  | 6179.4  | 6179.4  | 6179.4  | 6179.4  | 6179.4  | 6179.4  | 6179.4  |
| 2.5°  | 5998.1  | 6005.3  | 6031.2  | 6042.7  | 6070.1  | 6116.1  | 6139.1  | 6140.6  | 6178.0  | 6192.4  | 6203.9  |
| 5°    | 5573.7  | 5616.9  | 5660.0  | 5706.1  | 5789.5  | 5900.3  | 6009.6  | 6019.7  | 6140.6  | 6229.8  | 6277.2  |
| 7.5°  | 5208.3  | 5247.1  | 5298.9  | 5372.3  | 5490.3  | 5664.3  | 5847.1  | 5868.6  | 6097.4  | 6300.3  | 6406.7  |
| 10°   | 4832.7  | 4864.4  | 4939.2  | 5047.1  | 5209.7  | 5442.8  | 5688.8  | 5724.8  | 6058.6  | 6395.2  | 6582.3  |
| 12.5° | 4431.3  | 4450.0  | 4540.7  | 4696.1  | 4934.9  | 5231.3  | 5555.0  | 5602.5  | 6034.1  | 6504.6  | 6789.4  |
| 15°   | 4126.3  | 4135.0  | 4221.3  | 4382.4  | 4655.8  | 5041.4  | 5451.4  | 5509.0  | 6039.9  | 6635.5  | 7015.3  |
| 17.5° | 4048.6  | 4052.9  | 4099.0  | 4209.8  | 4451.5  | 4871.6  | 5369.4  | 5439.9  | 6057.1  | 6763.5  | 7242.6  |
| 20°   | 4363.7  | 4333.5  | 4286.0  | 4268.8  | 4372.3  | 4769.4  | 5320.5  | 5399.6  | 6080.1  | 6877.2  | 7447.0  |
| 22.5° | 5228.4  | 5139.2  | 4942.1  | 4678.8  | 4519.1  | 4776.6  | 5333.4  | 5412.6  | 6153.5  | 7016.8  | 7682.9  |
| 25°   | 6511.8  | 6388.0  | 6052.8  | 5534.9  | 5037.1  | 4983.8  | 5441.3  | 5521.9  | 6296.0  | 7183.7  | 7908.8  |
| 27.5° | 7972.1  | 7849.8  | 7439.8  | 6700.2  | 5851.4  | 5393.9  | 5688.8  | 5763.6  | 6507.4  | 7331.9  | 8081.4  |
| 30°   | 9370.6  | 9336.0  | 8852.6  | 8012.4  | 6875.8  | 6058.6  | 6008.2  | 6071.5  | 6664.3  | 7421.1  | 8218.1  |
| 32.5° | 10556.1 | 10501.4 | 10112.9 | 9295.7  | 8048.3  | 6857.1  | 6383.7  | 6402.4  | 6782.2  | 7536.2  | 8396.5  |
| 35°   | 11655.3 | 11587.7 | 11246.7 | 10474.1 | 9251.1  | 7832.5  | 6962.1  | 6934.8  | 7039.8  | 7767.8  | 8655.5  |
| 37.5° | 12614.9 | 12676.8 | 12298.4 | 11563.2 | 10330.2 | 8846.8  | 7741.9  | 7659.9  | 7442.6  | 8144.7  | 9031.0  |
| 40°   | 13417.7 | 13417.7 | 13220.6 | 12607.7 | 11495.6 | 9895.7  | 8623.8  | 8515.9  | 8048.3  | 8726.0  | 9507.2  |
| 42.5° | 13706.9 | 13768.8 | 13842.2 | 13495.4 | 12538.7 | 10986.3 | 9606.5  | 9494.3  | 8901.5  | 9550.4  | 10108.6 |
| 45°   | 13724.2 | 13822.0 | 14197.5 | 14196.1 | 13481.1 | 12069.6 | 10714.3 | 10661.1 | 9995.0  | 10609.3 | 10853.9 |
| 47.5° | 13481.1 | 13603.3 | 14222.0 | 14573.1 | 14227.8 | 13078.2 | 11925.8 | 11859.6 | 11279.8 | 11907.1 | 11633.7 |
| 50°   | 13105.5 | 13240.8 | 13960.2 | 14721.3 | 14735.6 | 13955.8 | 13201.9 | 13102.7 | 12694.1 | 13390.4 | 12439.4 |
| 52.5° | 12433.6 | 12695.5 | 13725.6 | 14755.8 | 15069.4 | 14714.1 | 14416.2 | 14373.1 | 14276.7 | 14819.1 | 13081.1 |
| 55°   | 10996.3 | 11287.0 | 13137.2 | 14767.3 | 15378.8 | 15386.0 | 15554.3 | 15565.8 | 15760.0 | 16154.2 | 13558.7 |
| 57.5° | 10317.2 | 10481.3 | 12109.9 | 14822.0 | 15837.7 | 16148.5 | 16713.9 | 16803.1 | 17103.8 | 17421.8 | 14104.0 |
| 60°   | 9889.9  | 10084.2 | 11603.5 | 14747.1 | 16558.5 | 17148.4 | 17788.7 | 17818.9 | 18141.2 | 18729.6 | 14842.1 |
| 62.5° | 9549.0  | 9740.3  | 11284.1 | 14459.4 | 17368.5 | 18351.2 | 18838.9 | 18841.8 | 19083.5 | 20287.8 | 15680.9 |
| 65°   | 8707.3  | 8868.4  | 10638.1 | 14135.7 | 17903.8 | 19541.1 | 20059.0 | 20040.3 | 20237.4 | 21930.8 | 16654.9 |
| 67.5° | 7490.1  | 7613.8  | 9318.8  | 12908.4 | 17702.3 | 20623.0 | 21900.6 | 21838.7 | 21599.9 | 23350.8 | 17037.6 |
| 70°   | 5791.0  | 5835.6  | 7344.8  | 10757.5 | 15814.7 | 21038.8 | 23680.3 | 23648.7 | 22435.8 | 23096.2 | 15634.9 |
| 71°   | 4786.7  | 4933.5  | 6472.9  | 9494.3  | 14550.0 | 20654.6 | 23853.0 | 23871.7 | 22225.8 | 22402.7 | 14669.5 |
| 72.5° | 2779.7  | 2904.8  | 4691.8  | 7291.6  | 12353.1 | 19051.9 | 22958.1 | 23093.3 | 21244.5 | 20377.0 | 12530.0 |
| 75°   | 595.6   | 637.4   | 1739.4  | 3529.2  | 6795.2  | 13353.0 | 18121.0 | 18603.0 | 17315.3 | 13862.3 | 7552.0  |
| 77.5° | 414.4   | 447.5   | 745.3   | 1601.3  | 2245.9  | 6598.1  | 11256.7 | 11800.6 | 10344.6 | 5209.7  | 2417.1  |
| 80°   | 328.0   | 365.4   | 581.3   | 791.3   | 607.2   | 2127.9  | 5273.0  | 5605.4  | 3450.1  | 1162.5  | 407.2   |
| 82.5° | 182.7   | 217.3   | 453.2   | 427.3   | 233.1   | 404.3   | 1476.2  | 1668.9  | 690.6   | 234.5   | 96.4    |
| 85°   | 53.2    | 64.7    | 292.1   | 310.8   | 99.3    | 77.7    | 251.8   | 312.2   | 130.9   | 61.9    | 43.2    |
| 87.5° | 0.0     | 0.0     | 141.0   | 119.4   | 28.8    | 11.5    | 23.0    | 25.9    | 25.9    | 25.9    | 28.8    |
| 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°    | 6179.4 | 6179.4 | 6179.4 | 6179.4 | 6179.4 | 6179.4 | 6179.4 | 6179.4 | 6179.4 | 6179.4 | 6179.4 |
| 2.5°  | 6203.9 | 6213.9 | 6178.0 | 6130.5 | 6080.1 | 6018.3 | 5953.5 | 5903.2 | 5901.7 | 5877.3 | 5852.8 |
| 5°    | 6280.1 | 6274.4 | 6175.1 | 6024.0 | 5845.6 | 5660.0 | 5483.1 | 5283.1 | 5216.9 | 5134.9 | 5107.5 |
| 7.5°  | 6421.1 | 6380.8 | 6170.8 | 5839.9 | 5448.5 | 5060.1 | 4658.7 | 4254.4 | 4081.7 | 3926.3 | 3899.0 |
| 10°   | 6598.1 | 6521.8 | 6143.4 | 5563.6 | 4845.7 | 4129.2 | 3523.5 | 2973.9 | 2732.2 | 2546.6 | 2537.9 |
| 12.5° | 6782.2 | 6665.7 | 6067.2 | 5146.4 | 4055.8 | 3048.7 | 2350.9 | 1809.9 | 1608.5 | 1479.0 | 1490.5 |
| 15°   | 6975.0 | 6801.0 | 5903.2 | 4583.8 | 3156.6 | 2068.9 | 1444.5 | 1126.5 | 1046.0 | 1012.9 | 1021.5 |
| 17.5° | 7172.1 | 6894.5 | 5674.4 | 3906.2 | 2268.9 | 1335.2 | 999.9  | 910.7  | 910.7  | 917.9  | 920.8  |
| 20°   | 7343.4 | 6944.8 | 5337.7 | 3146.5 | 1538.0 | 972.6  | 874.8  | 861.8  | 869.0  | 880.5  | 882.0  |
| 22.5° | 7513.1 | 6947.7 | 4898.9 | 2376.8 | 1076.2 | 851.7  | 833.0  | 827.3  | 831.6  | 844.5  | 846.0  |
| 25°   | 7651.3 | 6913.2 | 4349.3 | 1690.5 | 858.9  | 802.8  | 794.2  | 791.3  | 794.2  | 810.0  | 810.0  |
| 27.5° | 7707.4 | 6788.0 | 3678.9 | 1188.4 | 769.7  | 748.1  | 745.3  | 748.1  | 752.5  | 764.0  | 765.4  |
| 30°   | 7713.1 | 6569.3 | 2948.0 | 860.4  | 697.8  | 674.8  | 680.5  | 690.6  | 686.3  | 683.4  | 686.3  |
| 32.5° | 7727.5 | 6316.1 | 2235.8 | 707.9  | 637.4  | 601.4  | 594.2  | 594.2  | 576.9  | 566.9  | 561.1  |
| 35°   | 7775.0 | 6018.3 | 1621.5 | 635.9  | 575.5  | 533.8  | 506.4  | 474.8  | 441.7  | 424.4  | 420.1  |
| 37.5° | 7849.8 | 5706.1 | 1161.1 | 588.4  | 520.8  | 473.3  | 421.6  | 365.4  | 318.0  | 305.0  | 305.0  |
| 40°   | 7986.5 | 5383.8 | 858.9  | 551.0  | 477.7  | 418.7  | 341.0  | 267.6  | 224.4  | 217.3  | 217.3  |
| 42.5° | 8202.3 | 5044.2 | 684.8  | 517.9  | 440.3  | 362.6  | 260.4  | 194.2  | 162.6  | 158.3  | 156.8  |
| 45°   | 8426.7 | 4670.2 | 598.5  | 486.3  | 400.0  | 297.8  | 192.8  | 143.9  | 125.2  | 120.9  | 120.9  |
| 47.5° | 8651.2 | 4271.6 | 556.8  | 456.1  | 361.1  | 231.6  | 143.9  | 113.7  | 105.0  | 105.0  | 106.5  |
| 50°   | 8841.1 | 3855.8 | 526.6  | 423.0  | 310.8  | 175.5  | 113.7  | 96.4   | 93.5   | 99.3   | 100.7  |
| 52.5° | 8888.6 | 3447.2 | 489.2  | 381.3  | 248.9  | 133.8  | 93.5   | 84.9   | 84.9   | 84.9   | 84.9   |
| 55°   | 8859.8 | 3130.7 | 440.3  | 329.5  | 184.2  | 106.5  | 80.6   | 74.8   | 73.4   | 73.4   | 73.4   |
| 57.5° | 8957.6 | 2943.7 | 352.5  | 256.1  | 132.4  | 86.3   | 70.5   | 66.2   | 63.3   | 61.9   | 61.9   |
| 60°   | 9154.7 | 2821.4 | 251.8  | 184.2  | 99.3   | 71.9   | 60.4   | 56.1   | 51.8   | 48.9   | 48.9   |
| 62.5° | 9416.6 | 2714.9 | 187.0  | 136.7  | 76.3   | 57.5   | 50.4   | 46.0   | 40.3   | 37.4   | 37.4   |
| 65°   | 9618.0 | 2525.0 | 142.4  | 102.2  | 57.5   | 46.0   | 38.8   | 37.4   | 28.8   | 25.9   | 24.5   |
| 67.5° | 9310.1 | 2107.8 | 115.1  | 74.8   | 43.2   | 36.0   | 30.2   | 28.8   | 17.3   | 14.4   | 14.4   |
| 70°   | 7985.0 | 1467.5 | 92.1   | 54.7   | 31.7   | 28.8   | 24.5   | 18.7   | 12.9   | 11.5   | 11.5   |
| 71°   | 7241.2 | 1225.8 | 83.4   | 46.0   | 27.3   | 27.3   | 23.0   | 15.8   | 11.5   | 10.1   | 10.1   |
| 72.5° | 6015.4 | 870.4  | 70.5   | 36.0   | 24.5   | 28.8   | 24.5   | 14.4   | 11.5   | 10.1   | 8.6    |
| 75°   | 3491.8 | 364.0  | 48.9   | 24.5   | 18.7   | 34.5   | 31.7   | 12.9   | 8.6    | 7.2    | 7.2    |
| 77.5° | 1050.3 | 133.8  | 27.3   | 15.8   | 14.4   | 30.2   | 36.0   | 11.5   | 4.3    | 1.4    | 1.4    |
| 80°   | 191.4  | 57.5   | 17.3   | 10.1   | 10.1   | 18.7   | 27.3   | 5.8    | 0.0    | 0.0    | 0.0    |
| 82.5° | 67.6   | 28.8   | 10.1   | 5.8    | 4.3    | 8.6    | 12.9   | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 38.8   | 20.1   | 5.8    | 2.9    | 0.0    | 1.4    | 2.9    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 25.9   | 5.8    | 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)