

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: P967205

Luminaire Tested: **NVN-SB4D-735-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967205
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-SB4D-735-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31947.2 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

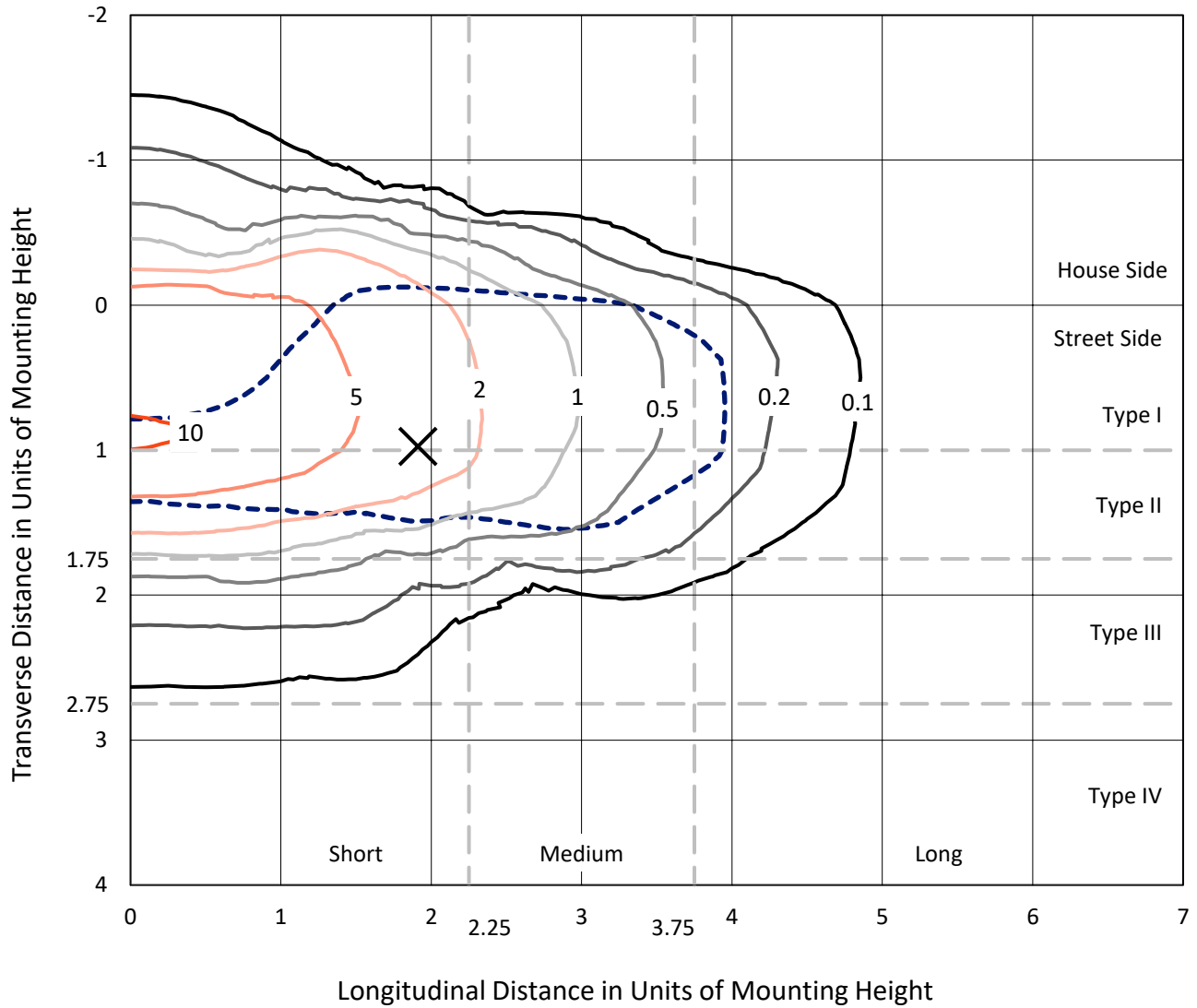
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

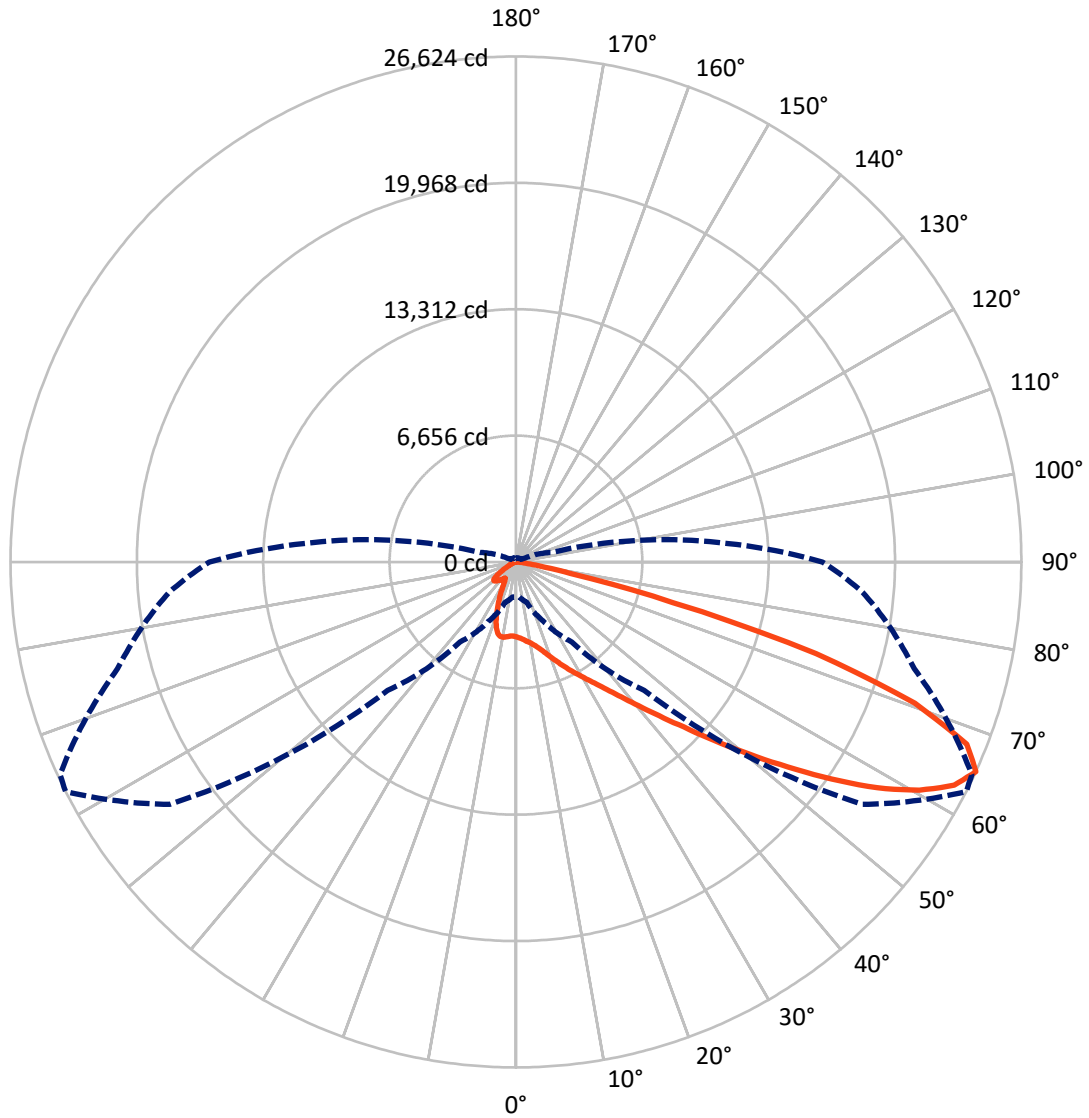
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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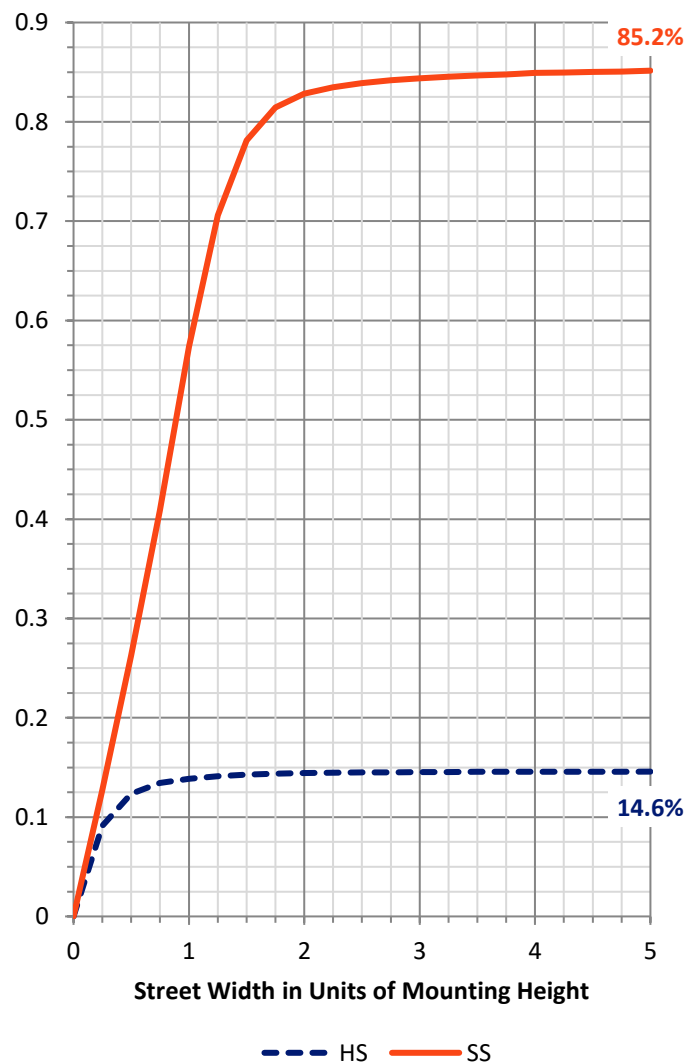
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4696.0 | 0.0 | 4696.0 |
| | % Fixture | 14.7 | 0.0 | 14.7 |
| Street Side | Lumens | 27251.2 | 0.0 | 27251.2 |
| | % Fixture | 85.3 | 0.0 | 85.3 |
| Total | Lumens | 31947.2 | 0.0 | 31947.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 371.5 | 1.2 |
| 10°-20° | 1030.8 | 3.2 |
| 20°-30° | 1794.8 | 5.6 |
| 30°-40° | 3235.0 | 10.1 |
| 40°-50° | 6416.0 | 20.1 |
| 50°-60° | 8739.6 | 27.4 |
| 60°-70° | 6975.9 | 21.8 |
| 70°-80° | 3156.8 | 9.9 |
| 80°-90° | 226.9 | 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° | 31947.2 | 100.0 |
| 0°-180° | 31947.2 | 100.0 |



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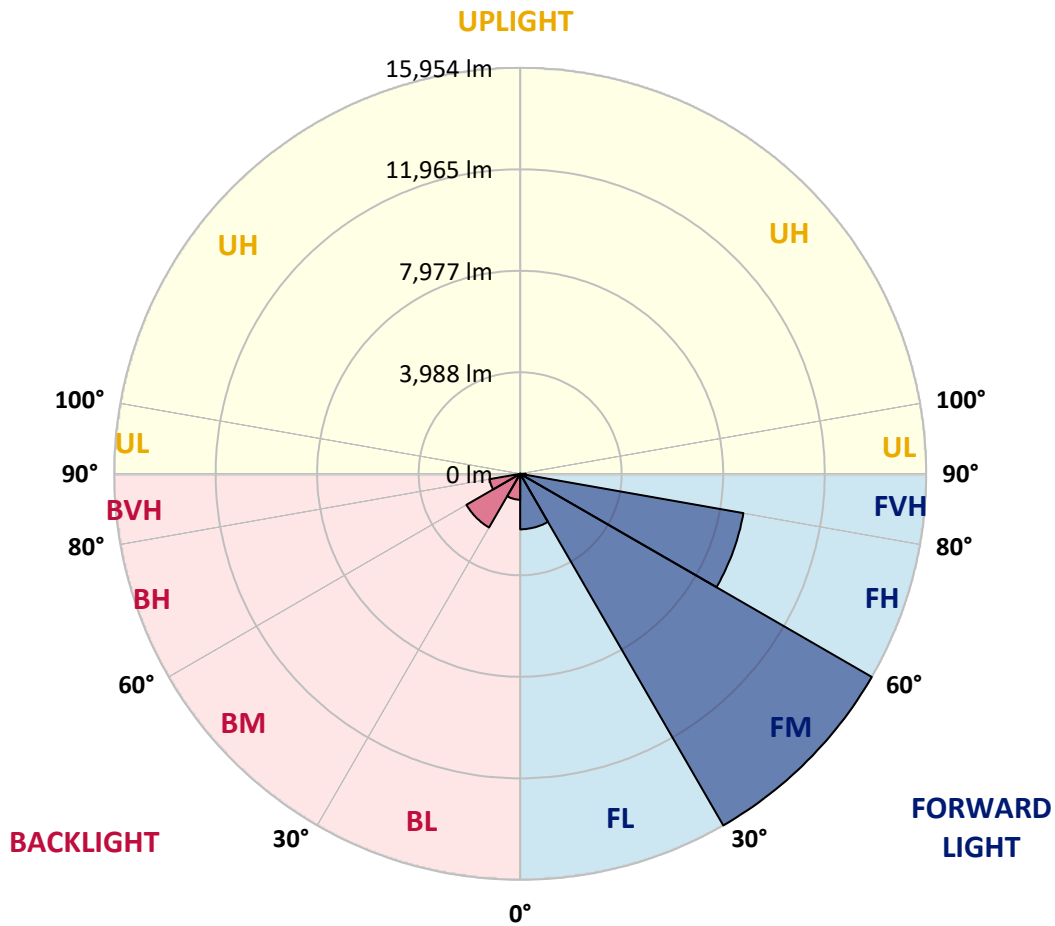
CATALOG NUMBER: NVN-SB4D-735-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2180.8 | 6.8 | | | |
| FM (30°-60°) | 15953.6 | 49.9 | | | |
| FH (60°-80°) | 8906.7 | 27.9 | | | G4/12000 |
| FVH (80°-90°) | 210.1 | 0.7 | | | G2/225 |
| BL (0°-30°) | 1016.3 | 3.2 | B3/2500 | | |
| BM (30°-60°) | 2436.9 | 7.6 | B2/2500 | | |
| BH (60°-80°) | 1225.9 | 3.8 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 16.8 | 0.1 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 63° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 |
| 2.5° | 4035.2 | 4024.3 | 4039.6 | 4033.0 | 4028.6 | 4019.8 | 4015.4 | 4011.0 | 4002.2 | 3995.7 | 3969.3 |
| 5° | 4046.2 | 4039.6 | 4055.0 | 4068.1 | 4081.3 | 4094.6 | 4101.1 | 4109.9 | 4101.1 | 4083.5 | 4057.2 |
| 7.5° | 3953.8 | 3949.5 | 3982.4 | 4022.0 | 4081.3 | 4131.9 | 4186.8 | 4217.6 | 4219.8 | 4213.3 | 4184.7 |
| 10° | 3947.3 | 3936.3 | 3969.3 | 4017.6 | 4094.6 | 4184.7 | 4281.3 | 4347.3 | 4356.0 | 4384.6 | 4353.9 |
| 12.5° | 4050.6 | 4039.6 | 4085.8 | 4138.5 | 4217.6 | 4312.1 | 4430.8 | 4523.1 | 4536.3 | 4575.9 | 4553.9 |
| 15° | 4224.2 | 4208.9 | 4261.5 | 4329.7 | 4430.8 | 4538.5 | 4663.8 | 4747.3 | 4758.3 | 4806.6 | 4767.1 |
| 17.5° | 4426.4 | 4411.0 | 4472.6 | 4545.1 | 4654.9 | 4802.2 | 4947.3 | 5039.6 | 5052.7 | 5083.6 | 5011.0 |
| 20° | 4685.8 | 4666.0 | 4714.3 | 4780.3 | 4896.7 | 5072.5 | 5246.2 | 5378.1 | 5375.8 | 5375.8 | 5257.2 |
| 22.5° | 4986.8 | 4956.1 | 4997.8 | 5050.6 | 5160.5 | 5373.7 | 5604.4 | 5760.5 | 5760.5 | 5698.9 | 5503.3 |
| 25° | 5309.9 | 5279.2 | 5325.3 | 5373.7 | 5470.3 | 5712.1 | 5982.5 | 6175.8 | 6184.6 | 6079.2 | 5767.1 |
| 27.5° | 5714.4 | 5674.8 | 5710.0 | 5767.1 | 5824.3 | 6070.4 | 6391.3 | 6615.5 | 6619.9 | 6457.2 | 6017.7 |
| 30° | 6492.3 | 6380.3 | 6270.3 | 6208.8 | 6235.2 | 6479.1 | 6822.0 | 7070.3 | 7092.4 | 6868.2 | 6290.1 |
| 32.5° | 7916.6 | 7894.6 | 7507.7 | 7002.3 | 6738.6 | 6918.7 | 7303.3 | 7602.2 | 7615.4 | 7327.5 | 6644.0 |
| 35° | 10129.8 | 10103.4 | 9481.4 | 8518.8 | 7659.4 | 7507.7 | 7888.0 | 8241.8 | 8233.0 | 7907.8 | 7103.4 |
| 37.5° | 12771.5 | 12747.3 | 11927.5 | 10639.6 | 9248.5 | 8397.8 | 8641.8 | 9013.2 | 9068.2 | 8641.8 | 7696.7 |
| 40° | 15028.7 | 14938.6 | 14419.9 | 13178.1 | 11358.3 | 9874.8 | 9714.3 | 9960.5 | 10017.6 | 9512.2 | 8450.6 |
| 42.5° | 16738.6 | 16661.7 | 16397.9 | 15622.1 | 13912.2 | 12059.4 | 10978.1 | 11072.7 | 11136.3 | 10529.7 | 9316.5 |
| 45° | 17624.4 | 17606.7 | 17712.2 | 17639.7 | 16514.4 | 14740.7 | 12784.7 | 12391.3 | 12415.5 | 11657.2 | 10299.0 |
| 47.5° | 17749.6 | 17740.8 | 18222.1 | 18903.5 | 18751.8 | 17765.0 | 15103.4 | 14035.3 | 13949.5 | 12929.8 | 11367.1 |
| 50° | 17011.1 | 16993.6 | 17916.6 | 19193.5 | 20246.3 | 20305.7 | 17736.4 | 15888.0 | 15699.0 | 14246.3 | 12481.4 |
| 52.5° | 14652.9 | 14648.5 | 16165.0 | 18290.2 | 20771.6 | 22529.8 | 20338.7 | 17923.3 | 17606.7 | 15639.7 | 13659.5 |
| 55° | 11274.8 | 11356.2 | 13094.6 | 15606.8 | 19813.4 | 23600.2 | 22674.9 | 20182.6 | 19696.8 | 17041.9 | 14745.1 |
| 57.5° | 7986.9 | 8105.6 | 9824.2 | 12061.6 | 16841.9 | 22967.2 | 24255.1 | 22446.4 | 21923.2 | 18439.8 | 15846.3 |
| 60° | 4290.1 | 4395.6 | 6116.5 | 8786.9 | 12529.8 | 20606.8 | 25088.1 | 24411.2 | 23916.6 | 19767.2 | 16839.7 |
| 62.5° | 2556.0 | 2591.2 | 3303.4 | 5672.6 | 8474.8 | 15743.0 | 24734.3 | 25907.9 | 25501.3 | 20881.5 | 17703.4 |
| 65° | 1835.2 | 1841.8 | 2200.1 | 3463.8 | 5145.1 | 9564.9 | 22253.0 | 26624.4 | 26499.1 | 21721.1 | 18343.0 |
| 67.5° | 1545.1 | 1540.7 | 1690.1 | 2301.1 | 3505.5 | 4791.3 | 17055.1 | 25611.2 | 26143.0 | 22253.0 | 18705.6 |
| 70° | 1325.3 | 1331.9 | 1507.7 | 1685.7 | 2635.2 | 2712.1 | 8479.2 | 22299.1 | 23433.1 | 22393.6 | 18683.7 |
| 72.5° | 986.9 | 1008.8 | 1171.5 | 1536.3 | 1989.0 | 1865.9 | 2927.5 | 16534.2 | 18584.8 | 21099.1 | 17714.5 |
| 75° | 696.7 | 707.7 | 824.2 | 1292.3 | 1483.5 | 1358.2 | 1494.6 | 8547.3 | 11175.9 | 16175.9 | 14499.0 |
| 77.5° | 536.3 | 556.1 | 624.2 | 903.3 | 1461.5 | 953.9 | 914.3 | 2958.3 | 4545.1 | 9771.5 | 9940.8 |
| 80° | 290.1 | 325.2 | 450.6 | 652.7 | 1026.3 | 674.8 | 452.7 | 1178.0 | 1540.7 | 4569.2 | 3833.0 |
| 82.5° | 149.4 | 167.1 | 314.3 | 470.4 | 584.7 | 589.0 | 224.2 | 490.2 | 635.2 | 1411.0 | 525.3 |
| 85° | 59.3 | 72.6 | 210.9 | 259.3 | 301.1 | 290.1 | 101.1 | 197.8 | 228.6 | 391.2 | 160.4 |
| 87.5° | 13.2 | 21.9 | 76.9 | 59.3 | 57.1 | 61.5 | 24.2 | 46.1 | 44.0 | 46.1 | 28.6 |
| 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° | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 | 3942.9 |
| 2.5° | 3967.1 | 3958.2 | 3934.1 | 3907.7 | 3877.0 | 3859.3 | 3848.4 | 3846.2 | 3830.8 | 3819.8 | 3830.8 |
| 5° | 4033.0 | 4024.3 | 3978.0 | 3923.1 | 3863.7 | 3817.6 | 3773.6 | 3734.1 | 3677.0 | 3665.9 | 3661.6 |
| 7.5° | 4164.9 | 4140.7 | 4066.0 | 3991.2 | 3879.1 | 3745.0 | 3582.5 | 3395.6 | 3228.6 | 3178.0 | 3153.8 |
| 10° | 4327.5 | 4294.5 | 4200.0 | 4068.1 | 3819.8 | 3455.0 | 3061.6 | 2696.8 | 2406.6 | 2325.3 | 2294.6 |
| 12.5° | 4512.2 | 4483.6 | 4358.3 | 4114.3 | 3571.4 | 2909.9 | 2307.7 | 1854.9 | 1573.7 | 1503.3 | 1483.5 |
| 15° | 4731.9 | 4690.2 | 4516.6 | 4044.0 | 3127.5 | 2211.0 | 1584.6 | 1316.5 | 1215.4 | 1202.2 | 1189.0 |
| 17.5° | 4964.9 | 4896.7 | 4657.2 | 3791.3 | 2529.7 | 1571.4 | 1224.2 | 1147.3 | 1103.3 | 1090.1 | 1083.5 |
| 20° | 5178.1 | 5090.2 | 4740.7 | 3408.8 | 1890.1 | 1224.2 | 1096.8 | 1046.1 | 1006.7 | 991.2 | 982.5 |
| 22.5° | 5391.3 | 5265.9 | 4740.7 | 2887.9 | 1417.6 | 1085.7 | 1006.7 | 960.4 | 914.3 | 894.5 | 883.6 |
| 25° | 5613.2 | 5446.2 | 4657.2 | 2307.7 | 1140.6 | 995.6 | 920.9 | 870.3 | 830.8 | 806.6 | 797.8 |
| 27.5° | 5828.7 | 5597.8 | 4465.9 | 1758.3 | 1015.4 | 916.5 | 841.7 | 793.5 | 756.0 | 738.5 | 738.5 |
| 30° | 6033.0 | 5747.3 | 4197.8 | 1334.0 | 934.1 | 839.6 | 769.3 | 727.4 | 690.1 | 672.5 | 674.8 |
| 32.5° | 6309.9 | 5936.3 | 3912.1 | 1094.5 | 863.8 | 767.0 | 703.3 | 663.8 | 630.8 | 617.6 | 617.6 |
| 35° | 6694.6 | 6215.4 | 3665.9 | 1074.7 | 804.4 | 707.7 | 644.0 | 606.6 | 573.6 | 562.6 | 562.6 |
| 37.5° | 7239.6 | 6666.0 | 3536.2 | 1206.6 | 756.0 | 655.0 | 595.6 | 556.1 | 525.3 | 516.5 | 514.2 |
| 40° | 7912.2 | 7277.0 | 3606.7 | 1338.4 | 723.0 | 608.7 | 551.7 | 512.1 | 485.7 | 474.8 | 472.5 |
| 42.5° | 8709.9 | 8030.9 | 3995.7 | 1439.6 | 701.1 | 569.3 | 509.9 | 466.0 | 448.3 | 443.9 | 443.9 |
| 45° | 9626.5 | 8859.4 | 4591.3 | 1547.2 | 665.9 | 531.9 | 468.1 | 435.2 | 422.0 | 419.7 | 417.6 |
| 47.5° | 10668.2 | 9769.3 | 5281.3 | 1681.3 | 630.8 | 496.7 | 435.2 | 413.2 | 402.2 | 397.8 | 397.8 |
| 50° | 11701.2 | 10685.8 | 5991.2 | 1756.0 | 602.2 | 463.7 | 408.8 | 391.2 | 382.4 | 380.2 | 380.2 |
| 52.5° | 12782.5 | 11628.6 | 6564.9 | 1685.7 | 578.0 | 437.4 | 386.8 | 373.6 | 364.8 | 362.6 | 362.6 |
| 55° | 13813.3 | 12391.3 | 6663.8 | 1430.8 | 529.7 | 411.0 | 362.6 | 356.1 | 345.0 | 345.0 | 342.9 |
| 57.5° | 14701.2 | 12773.8 | 5964.9 | 1050.5 | 481.3 | 371.5 | 338.5 | 331.9 | 323.1 | 320.9 | 318.7 |
| 60° | 15516.7 | 12663.9 | 4604.4 | 707.7 | 428.6 | 331.9 | 307.7 | 303.3 | 294.5 | 283.5 | 281.4 |
| 62.5° | 15976.0 | 12180.3 | 3149.5 | 461.6 | 375.9 | 290.1 | 272.5 | 270.3 | 250.5 | 228.6 | 224.2 |
| 65° | 16149.6 | 11186.8 | 1964.8 | 336.3 | 314.3 | 248.4 | 235.1 | 230.7 | 202.2 | 178.0 | 175.8 |
| 67.5° | 15997.9 | 9551.8 | 991.2 | 265.9 | 248.4 | 206.6 | 193.4 | 193.4 | 173.6 | 151.7 | 149.4 |
| 70° | 15391.3 | 7160.4 | 417.6 | 213.2 | 191.2 | 158.3 | 158.3 | 167.1 | 147.3 | 123.1 | 120.8 |
| 72.5° | 14074.8 | 4817.6 | 222.0 | 162.7 | 142.9 | 112.1 | 129.7 | 136.2 | 116.4 | 92.4 | 92.4 |
| 75° | 11189.1 | 2938.5 | 153.9 | 120.8 | 90.1 | 79.1 | 98.9 | 103.3 | 79.1 | 61.5 | 59.3 |
| 77.5° | 7652.9 | 1688.0 | 103.3 | 76.9 | 57.1 | 46.1 | 68.2 | 63.8 | 41.7 | 28.6 | 30.7 |
| 80° | 3360.5 | 703.3 | 59.3 | 35.2 | 21.9 | 17.6 | 24.2 | 17.6 | 13.2 | 8.8 | 8.8 |
| 82.5° | 393.4 | 164.8 | 21.9 | 13.2 | 8.8 | 4.4 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 81.3 | 19.8 | 11.0 | 4.4 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 15.4 | 4.4 | 2.2 | 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)