

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: LUMARK

Report Number: P884679

Luminaire Tested: **NAV-SB5C-835-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884679  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5C-835-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

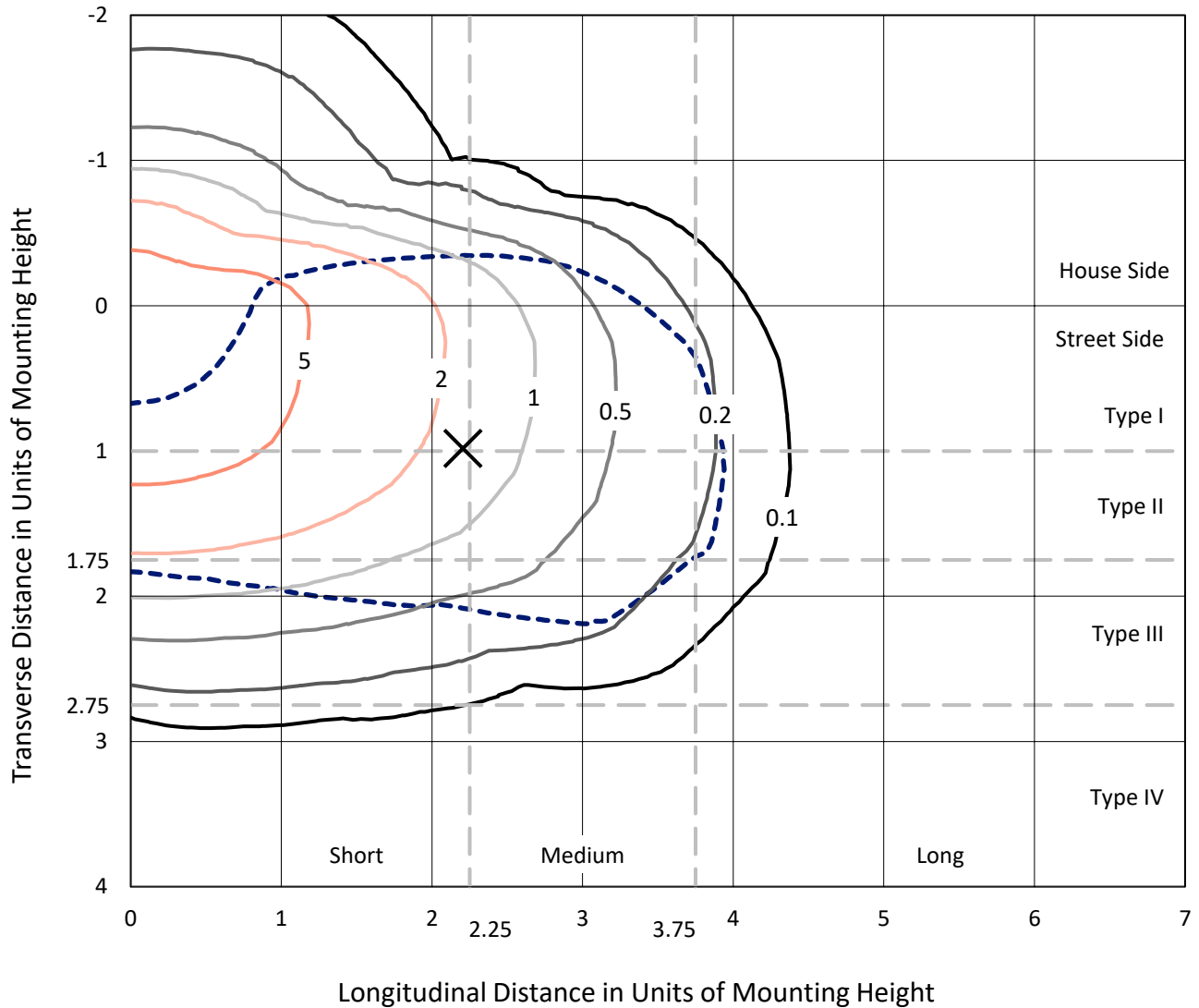
Lumens per Lamp: N/A  
Luminaire Lumens: 32086 lumens  
Efficiency: N/A  
Efficacy: 128.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 249.5  
Input Voltage (V): 120.0  
Input Current (Ain): 2.116  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 7.885  
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

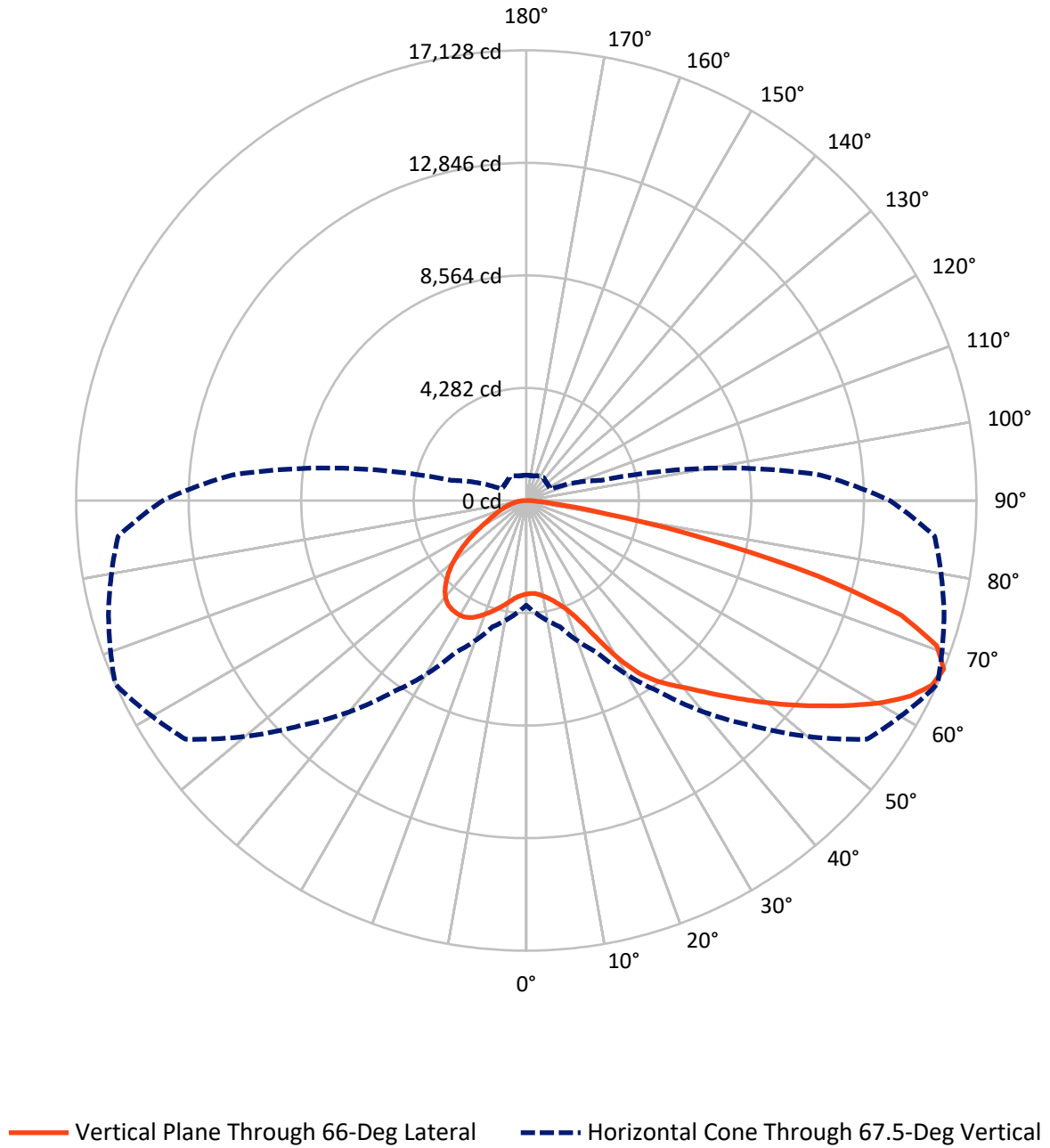
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7978.1   | 0.0    | 7978.1  |
|                    | % Fixture | 24.9     | 0.0    | 24.9    |
| <b>Street Side</b> | Lumens    | 24107.9  | 0.0    | 24107.9 |
|                    | % Fixture | 75.1     | 0.0    | 75.1    |
| <b>Total</b>       | Lumens    | 32086.0  | 0.0    | 32086.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 352.8   | 1.1       |
| 10°-20°   | 1165.7  | 3.6       |
| 20°-30°   | 2246.9  | 7.0       |
| 30°-40°   | 3939.6  | 12.3      |
| 40°-50°   | 5856.9  | 18.3      |
| 50°-60°   | 7424.2  | 23.1      |
| 60°-70°   | 7264.4  | 22.6      |
| 70°-80°   | 3465.2  | 10.8      |
| 80°-90°   | 370.3   | 1.2       |
| 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°    | 32086.0 | 100.0     |
| 0°-180°   | 32086.0 | 100.0     |

**Coefficient of Utilization**



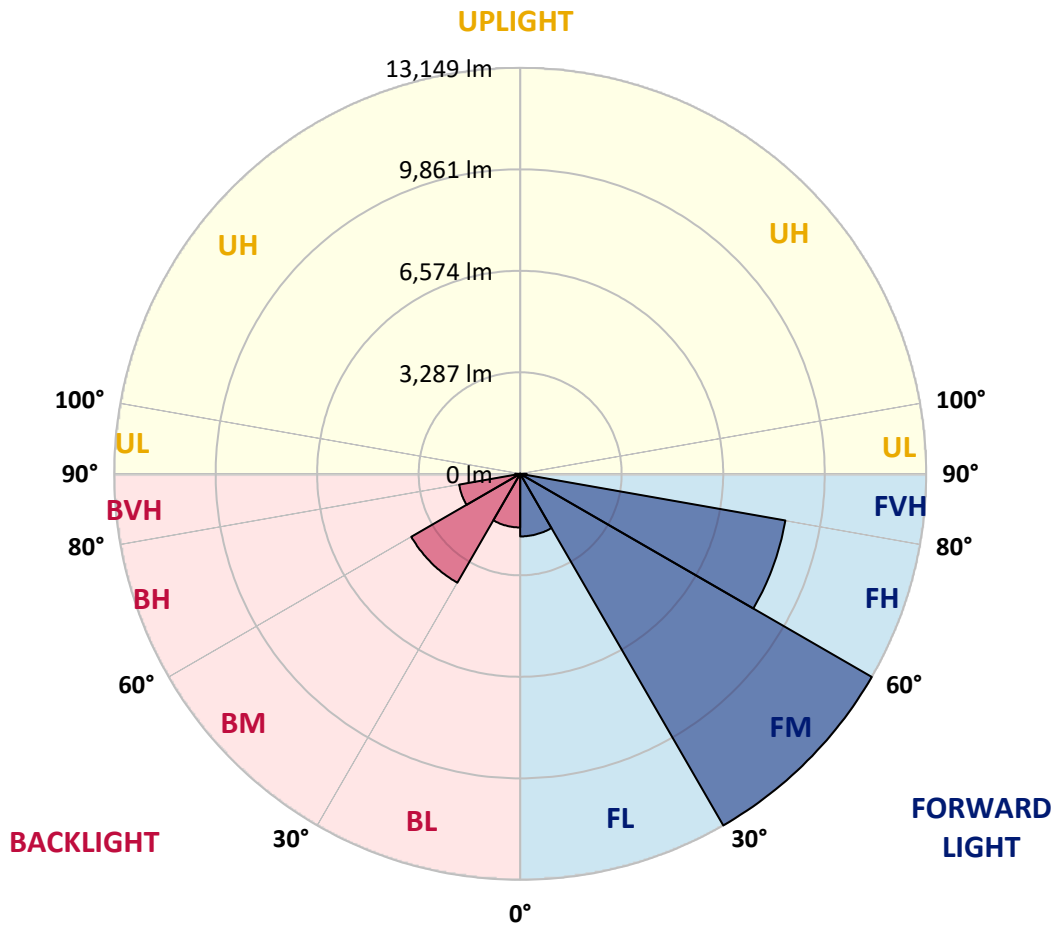
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 2027.5  | 6.3       |                         |      |          |
| FM (30°-60°)   | 13148.6 | 41.0      |                         |      |          |
| FH (60°-80°)   | 8721.8  | 27.2      |                         |      | G4/12000 |
| FVH (80°-90°)  | 210.0   | 0.7       |                         |      | G2/225   |
| BL (0°-30°)    | 1737.9  | 5.4       | B3/2500                 |      |          |
| BM (30°-60°)   | 4072.1  | 12.7      | B3/5000                 |      |          |
| BH (60°-80°)   | 2007.7  | 6.3       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 160.4   | 0.5       |                         |      | G2/225   |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 66°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3558.8  | 3558.8  | 3558.8  | 3558.8  | 3558.8  | 3558.8  | 3558.8  | 3558.8  | 3558.8  | 3558.8  | 3558.8  |
| 2.5°  | 3521.7  | 3541.9  | 3536.8  | 3528.4  | 3526.7  | 3530.1  | 3535.2  | 3540.2  | 3538.5  | 3547.0  | 3560.4  |
| 5°    | 3511.6  | 3531.8  | 3530.1  | 3530.1  | 3536.8  | 3550.3  | 3558.8  | 3567.2  | 3558.8  | 3568.9  | 3587.4  |
| 7.5°  | 3518.3  | 3533.5  | 3540.2  | 3547.0  | 3563.8  | 3589.1  | 3609.3  | 3627.9  | 3617.8  | 3629.6  | 3653.2  |
| 10°   | 3604.3  | 3616.1  | 3622.8  | 3622.8  | 3634.6  | 3663.3  | 3683.5  | 3717.2  | 3708.8  | 3727.3  | 3757.7  |
| 12.5° | 3761.1  | 3772.9  | 3772.9  | 3766.1  | 3774.5  | 3793.1  | 3799.8  | 3836.9  | 3821.7  | 3852.1  | 3882.4  |
| 15°   | 3953.2  | 3976.8  | 3958.3  | 3946.5  | 3949.9  | 3968.4  | 3966.7  | 3995.4  | 3980.2  | 4005.5  | 4032.5  |
| 17.5° | 4165.7  | 4196.0  | 4165.7  | 4164.0  | 4157.2  | 4177.5  | 4179.1  | 4204.4  | 4177.5  | 4196.0  | 4214.5  |
| 20°   | 4416.8  | 4459.0  | 4433.7  | 4442.1  | 4427.0  | 4435.4  | 4443.8  | 4480.9  | 4438.8  | 4452.2  | 4447.2  |
| 22.5° | 4770.9  | 4821.4  | 4794.5  | 4826.5  | 4816.4  | 4809.6  | 4808.0  | 4873.7  | 4808.0  | 4813.0  | 4764.1  |
| 25°   | 5286.7  | 5347.4  | 5300.2  | 5344.0  | 5344.0  | 5366.0  | 5391.2  | 5475.5  | 5366.0  | 5333.9  | 5207.5  |
| 27.5° | 6048.7  | 6109.4  | 6016.7  | 6043.7  | 6035.2  | 6089.2  | 6062.2  | 6271.2  | 6153.2  | 6101.0  | 5846.4  |
| 30°   | 6965.8  | 7073.7  | 6898.4  | 6891.6  | 6883.2  | 6969.2  | 7007.9  | 7146.2  | 7026.5  | 6974.2  | 6667.4  |
| 32.5° | 7957.1  | 8070.0  | 7861.0  | 7800.3  | 7768.2  | 7820.5  | 7788.5  | 7899.7  | 7817.1  | 7736.2  | 7356.9  |
| 35°   | 9005.6  | 9116.9  | 8918.0  | 8800.0  | 8671.8  | 8562.3  | 8447.6  | 8476.3  | 8398.7  | 8275.7  | 7882.9  |
| 37.5° | 9996.9  | 10200.9 | 9990.2  | 9863.7  | 9627.7  | 9413.6  | 9093.3  | 8960.1  | 8887.6  | 8774.7  | 8378.5  |
| 40°   | 11006.7 | 11123.0 | 10962.9 | 10855.0 | 10598.7 | 10263.3 | 9750.8  | 9469.2  | 9371.5  | 9261.9  | 8926.4  |
| 42.5° | 11750.2 | 11861.4 | 11775.4 | 11701.3 | 11500.6 | 11111.2 | 10448.7 | 10096.4 | 9954.8  | 9831.7  | 9546.8  |
| 45°   | 12340.2 | 12422.8 | 12368.8 | 12395.8 | 12309.8 | 11932.2 | 11171.9 | 10769.0 | 10622.3 | 10472.3 | 10248.1 |
| 47.5° | 12577.9 | 12665.5 | 12751.5 | 12911.7 | 13058.3 | 12780.2 | 11949.1 | 11497.3 | 11342.2 | 11188.8 | 10967.9 |
| 50°   | 12550.9 | 12640.3 | 12889.8 | 13230.3 | 13685.5 | 13592.7 | 12768.4 | 12272.8 | 12129.5 | 11954.1 | 11750.2 |
| 52.5° | 12335.1 | 12436.3 | 12756.6 | 13323.0 | 14047.9 | 14201.3 | 13602.9 | 13073.5 | 12938.7 | 12729.6 | 12525.6 |
| 55°   | 11768.7 | 11829.4 | 12309.8 | 13112.3 | 14133.9 | 14626.2 | 14420.5 | 13926.5 | 13791.7 | 13500.0 | 13277.5 |
| 57.5° | 10718.4 | 10806.1 | 11505.7 | 12544.2 | 13918.1 | 14914.4 | 15138.6 | 14823.4 | 14693.6 | 14273.8 | 14041.2 |
| 60°   | 9347.9  | 9487.8  | 10288.5 | 11590.0 | 13368.5 | 14912.7 | 15791.1 | 15705.1 | 15597.2 | 15035.8 | 14793.1 |
| 62.5° | 7796.9  | 7958.7  | 8729.2  | 10241.3 | 12407.6 | 14489.6 | 16199.0 | 16443.5 | 16387.8 | 15738.8 | 15428.6 |
| 65°   | 5988.0  | 6099.3  | 6866.3  | 8496.5  | 10912.3 | 13580.9 | 16246.2 | 16947.5 | 16957.6 | 16273.2 | 15760.7 |
| 67.5° | 3987.0  | 4307.3  | 4973.2  | 6375.8  | 8909.5  | 12095.7 | 15831.5 | 17030.1 | 17127.9 | 16457.0 | 15593.8 |
| 70°   | 1945.4  | 2366.9  | 3019.3  | 4143.7  | 6375.8  | 9818.2  | 14747.5 | 16352.4 | 16569.9 | 15920.9 | 14599.2 |
| 72.5° | 807.5   | 944.1   | 1299.8  | 2044.9  | 3659.9  | 6625.3  | 12569.5 | 14514.9 | 14917.8 | 14106.9 | 12274.4 |
| 75°   | 544.5   | 590.0   | 743.4   | 1048.6  | 1667.3  | 3267.1  | 9064.6  | 10823.0 | 11472.0 | 10654.4 | 8708.9  |
| 77.5° | 419.8   | 448.4   | 541.1   | 733.3   | 991.3   | 1235.7  | 4851.8  | 6522.4  | 6857.9  | 6348.8  | 4531.5  |
| 80°   | 330.4   | 352.3   | 404.6   | 534.4   | 703.0   | 660.8   | 1653.8  | 2955.2  | 3149.1  | 2641.7  | 1456.5  |
| 82.5° | 286.6   | 295.0   | 290.0   | 362.5   | 467.0   | 386.1   | 542.8   | 1090.7  | 1203.7  | 873.3   | 475.4   |
| 85°   | 207.4   | 231.0   | 241.1   | 224.2   | 247.8   | 195.6   | 222.5   | 386.1   | 424.8   | 379.3   | 268.0   |
| 87.5° | 84.3    | 124.8   | 153.4   | 145.0   | 91.0    | 55.6    | 69.1    | 112.9   | 129.8   | 141.6   | 87.7    |
| 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°    | 3558.8  | 3558.8  | 3558.8 | 3558.8 | 3558.8 | 3558.8 | 3558.8 | 3558.8 | 3558.8 | 3558.8 | 3558.8 |
| 2.5°  | 3562.1  | 3573.9  | 3582.4 | 3592.5 | 3599.2 | 3609.3 | 3629.6 | 3641.4 | 3643.1 | 3651.5 | 3649.8 |
| 5°    | 3594.2  | 3611.0  | 3629.6 | 3656.5 | 3686.9 | 3712.2 | 3750.9 | 3777.9 | 3788.0 | 3796.5 | 3794.8 |
| 7.5°  | 3663.3  | 3686.9  | 3720.6 | 3767.8 | 3811.6 | 3845.4 | 3892.6 | 3924.6 | 3956.6 | 3968.4 | 3970.1 |
| 10°   | 3766.1  | 3799.8  | 3848.7 | 3912.8 | 3960.0 | 4003.8 | 4052.7 | 4079.7 | 4111.7 | 4125.2 | 4131.9 |
| 12.5° | 3894.2  | 3929.6  | 3993.7 | 4083.1 | 4126.9 | 4157.2 | 4174.1 | 4167.3 | 4174.1 | 4185.9 | 4189.3 |
| 15°   | 4040.9  | 4079.7  | 4152.2 | 4248.3 | 4278.6 | 4251.6 | 4214.5 | 4180.8 | 4175.8 | 4179.1 | 4190.9 |
| 17.5° | 4214.5  | 4243.2  | 4327.5 | 4408.4 | 4386.5 | 4275.2 | 4194.3 | 4140.4 | 4113.4 | 4105.0 | 4116.8 |
| 20°   | 4457.3  | 4457.3  | 4526.4 | 4577.0 | 4430.3 | 4241.5 | 4115.1 | 4027.4 | 3971.8 | 3948.2 | 3943.1 |
| 22.5° | 4752.3  | 4725.3  | 4769.2 | 4733.8 | 4421.9 | 4147.1 | 3971.8 | 3820.1 | 3735.8 | 3702.1 | 3697.0 |
| 25°   | 5126.6  | 5094.5  | 5082.7 | 4863.6 | 4361.2 | 3997.1 | 3712.2 | 3528.4 | 3454.2 | 3435.7 | 3439.1 |
| 27.5° | 5691.3  | 5610.4  | 5457.0 | 4934.4 | 4249.9 | 3761.1 | 3408.7 | 3238.5 | 3196.3 | 3198.0 | 3203.1 |
| 30°   | 6443.2  | 6281.4  | 5905.4 | 4946.2 | 4067.9 | 3427.3 | 3098.5 | 2977.2 | 2956.9 | 2965.4 | 2994.0 |
| 32.5° | 7139.4  | 6986.0  | 6364.0 | 4892.2 | 3788.0 | 3100.2 | 2820.4 | 2739.5 | 2709.1 | 2719.2 | 2732.7 |
| 35°   | 7685.6  | 7643.5  | 6788.8 | 4816.4 | 3444.1 | 2793.4 | 2570.9 | 2501.8 | 2442.8 | 2429.3 | 2439.4 |
| 37.5° | 8201.5  | 8184.6  | 7107.4 | 4710.2 | 3103.6 | 2575.9 | 2370.3 | 2279.2 | 2193.2 | 2146.0 | 2147.7 |
| 40°   | 8767.9  | 8751.1  | 7316.4 | 4546.7 | 2801.8 | 2387.1 | 2189.9 | 2070.2 | 1964.0 | 1878.0 | 1886.4 |
| 42.5° | 9405.2  | 9305.7  | 7415.9 | 4312.3 | 2545.6 | 2227.0 | 2043.2 | 1881.4 | 1741.4 | 1662.2 | 1667.3 |
| 45°   | 10101.4 | 9877.2  | 7414.2 | 4013.9 | 2329.8 | 2080.3 | 1886.4 | 1657.2 | 1527.4 | 1453.2 | 1449.8 |
| 47.5° | 10839.8 | 10423.4 | 7323.2 | 3683.5 | 2120.8 | 1918.5 | 1643.7 | 1468.3 | 1382.4 | 1336.9 | 1326.7 |
| 50°   | 11601.8 | 10934.2 | 7168.1 | 3304.2 | 1906.7 | 1734.7 | 1491.9 | 1372.3 | 1306.5 | 1264.4 | 1249.2 |
| 52.5° | 12318.3 | 11397.8 | 6981.0 | 2874.3 | 1689.2 | 1556.0 | 1424.5 | 1331.8 | 1262.7 | 1215.5 | 1195.2 |
| 55°   | 12984.2 | 11797.4 | 6716.3 | 2434.3 | 1512.2 | 1436.3 | 1392.5 | 1314.9 | 1235.7 | 1180.1 | 1158.2 |
| 57.5° | 13575.9 | 12057.0 | 6259.4 | 2021.3 | 1385.7 | 1353.7 | 1358.8 | 1286.3 | 1195.2 | 1148.0 | 1117.7 |
| 60°   | 14068.1 | 12247.5 | 5583.4 | 1638.6 | 1282.9 | 1272.8 | 1306.5 | 1232.3 | 1126.1 | 1072.2 | 1048.6 |
| 62.5° | 14363.2 | 12244.1 | 4754.0 | 1341.9 | 1195.2 | 1198.6 | 1237.4 | 1164.9 | 1057.0 | 1006.4 | 991.3  |
| 65°   | 14337.9 | 11944.0 | 3843.7 | 1148.0 | 1111.0 | 1114.3 | 1164.9 | 1090.7 | 999.7  | 969.3  | 967.7  |
| 67.5° | 13830.4 | 11212.4 | 2948.5 | 1021.6 | 1018.2 | 1033.4 | 1092.4 | 1040.1 | 964.3  | 960.9  | 966.0  |
| 70°   | 12456.5 | 9693.5  | 2124.1 | 920.5  | 922.1  | 944.1  | 1021.6 | 1008.1 | 945.7  | 952.5  | 950.8  |
| 72.5° | 9988.5  | 7390.6  | 1426.2 | 814.3  | 815.9  | 851.3  | 954.2  | 982.8  | 927.2  | 1016.5 | 1030.0 |
| 75°   | 6652.2  | 4609.0  | 917.1  | 701.3  | 703.0  | 748.5  | 895.2  | 933.9  | 876.6  | 1013.2 | 1021.6 |
| 77.5° | 3196.3  | 2071.9  | 664.2  | 590.0  | 590.0  | 632.2  | 773.8  | 836.2  | 746.8  | 787.3  | 721.5  |
| 80°   | 1104.2  | 778.8   | 522.6  | 475.4  | 465.3  | 493.9  | 652.4  | 724.9  | 644.0  | 593.4  | 556.3  |
| 82.5° | 434.9   | 404.6   | 419.8  | 369.2  | 335.5  | 354.0  | 507.4  | 598.5  | 473.7  | 428.2  | 426.5  |
| 85°   | 249.5   | 263.0   | 296.7  | 244.4  | 193.9  | 217.5  | 372.6  | 429.9  | 357.4  | 315.2  | 322.0  |
| 87.5° | 67.4    | 92.7    | 136.6  | 126.4  | 87.7   | 92.7   | 177.0  | 237.7  | 205.7  | 158.5  | 163.5  |
| 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)