

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: P965026

Luminaire Tested: **NAV-SB3D-727-U-SL4**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965026  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-727-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28773.8 lumens  
Efficiency: N/A  
Efficacy: 131.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G5

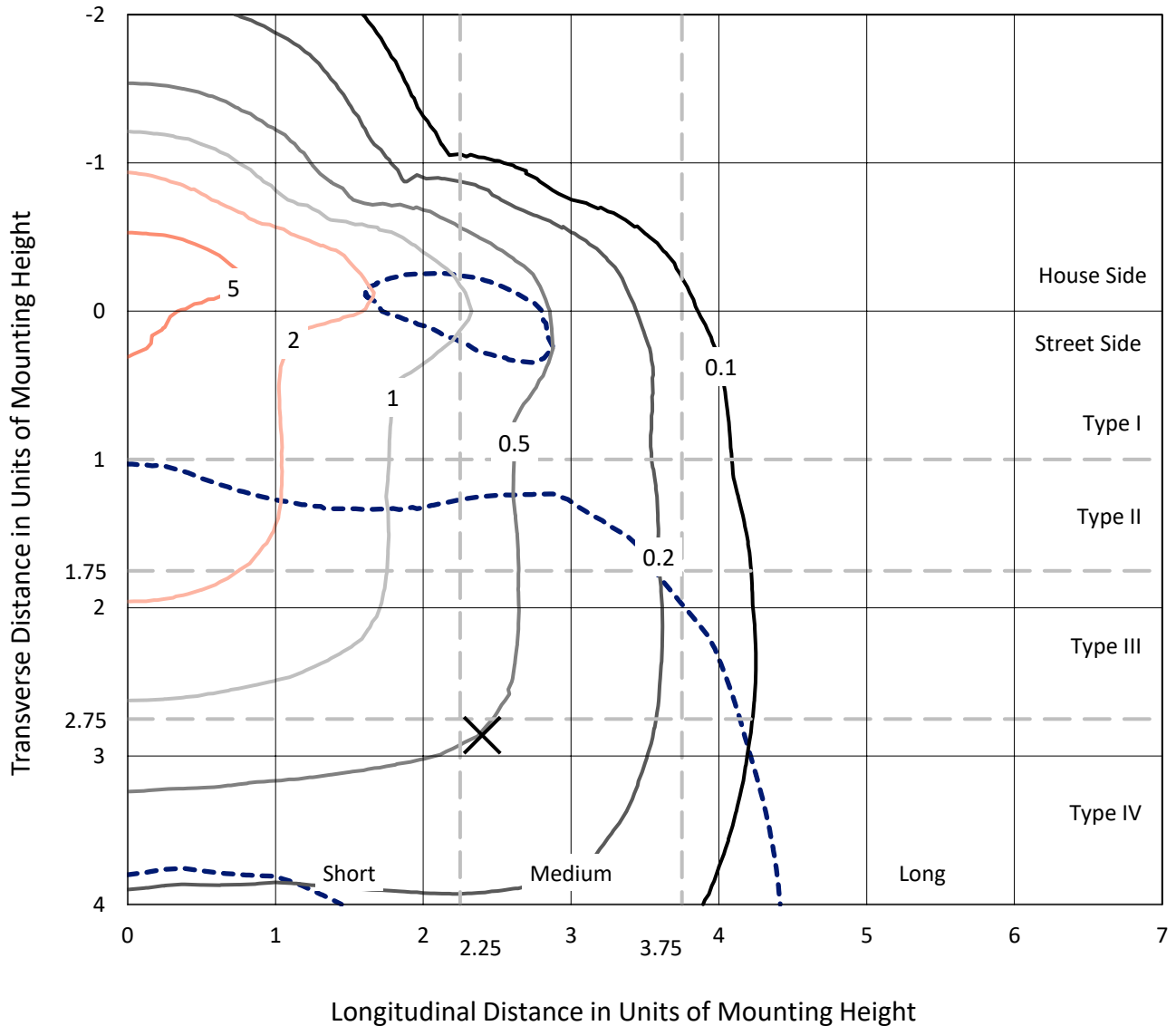
Input Watts (W): 218.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

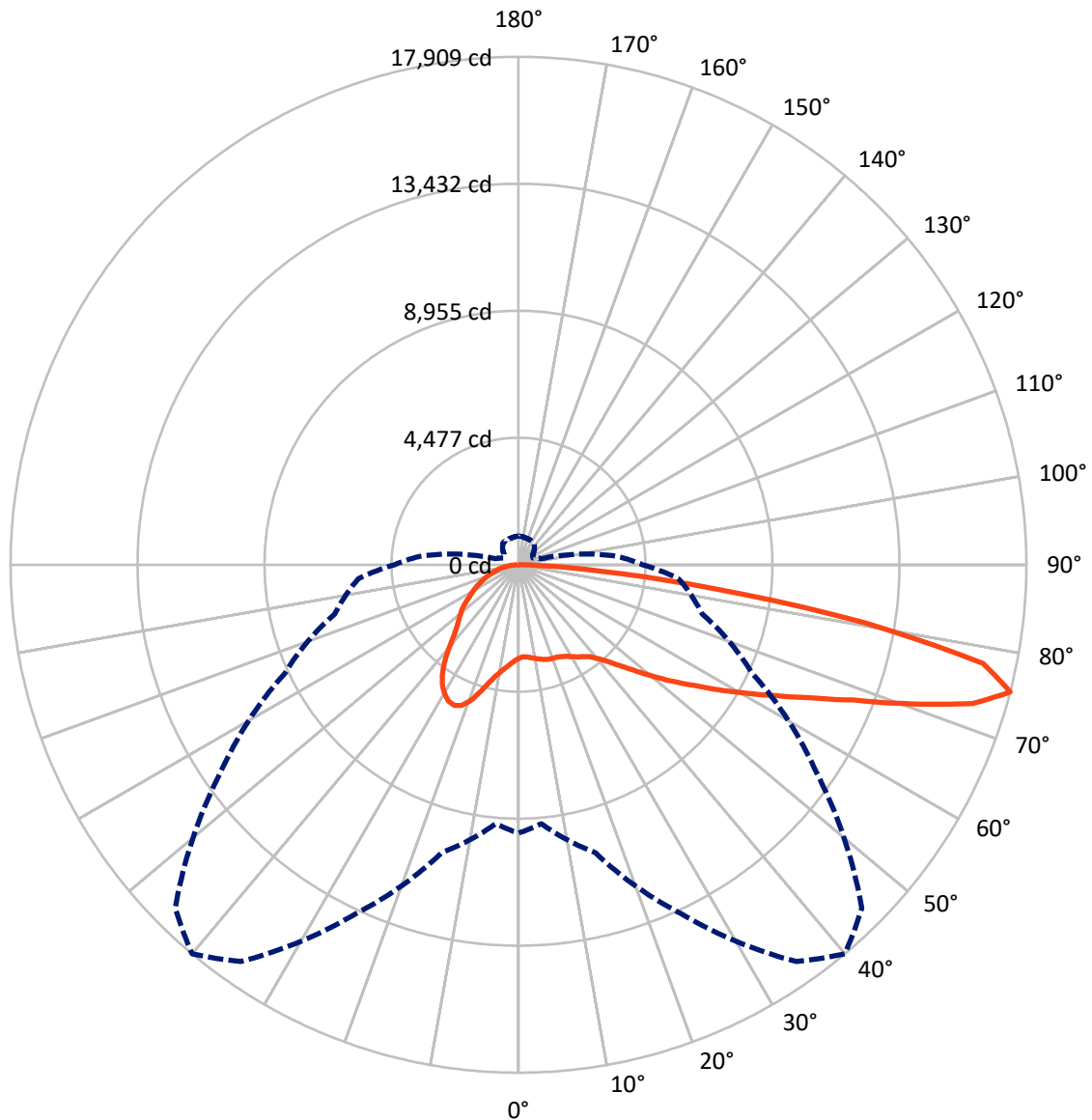
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 8915.1   | 0.0    | 8915.1  |
|                    | % Fixture | 31.0     | 0.0    | 31.0    |
| <b>Street Side</b> | Lumens    | 19858.7  | 0.0    | 19858.7 |
|                    | % Fixture | 69.0     | 0.0    | 69.0    |
| <b>Total</b>       | Lumens    | 28773.8  | 0.0    | 28773.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 328.4   | 1.1       |
| 10°-20°   | 1102.7  | 3.8       |
| 20°-30°   | 2013.5  | 7.0       |
| 30°-40°   | 2855.6  | 9.9       |
| 40°-50°   | 3856.0  | 13.4      |
| 50°-60°   | 5187.3  | 18.0      |
| 60°-70°   | 6583.9  | 22.9      |
| 70°-80°   | 5975.3  | 20.8      |
| 80°-90°   | 871.0   | 3.0       |
| 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°    | 28773.8 | 100.0     |
| 0°-180°   | 28773.8 | 100.0     |

**Coefficient of Utilization**

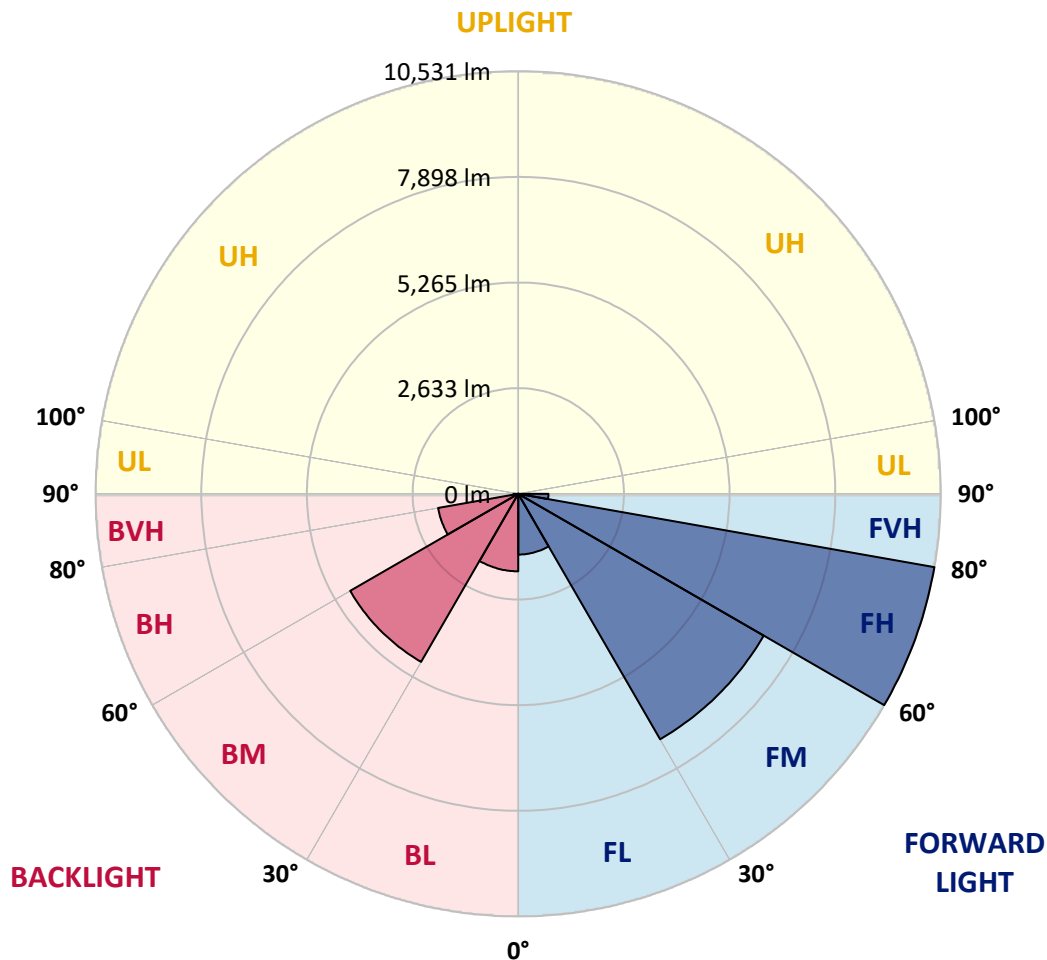


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 1513.5  | 5.3       |                         |      |          |
| FM (30°-60°)   | 7063.3  | 24.5      |                         |      |          |
| FH (60°-80°)   | 10530.8 | 36.6      |                         |      | G4/12000 |
| FVH (80°-90°)  | 751.1   | 2.6       |                         |      | G5       |
| BL (0°-30°)    | 1931.1  | 6.7       | B3/2500                 |      |          |
| BM (30°-60°)   | 4835.6  | 16.8      | B3/5000                 |      |          |
| BH (60°-80°)   | 2028.4  | 7.0       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 119.9   | 0.4       |                         |      | G2/225   |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G5**  
 Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 40°     | 45°     | 55°     | 65°    | 75°    | 85°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|
| 0°    | 3290.4  | 3290.4  | 3290.4  | 3290.4  | 3290.4  | 3290.4  | 3290.4  | 3290.4  | 3290.4 | 3290.4 | 3290.4 |
| 2.5°  | 3239.9  | 3258.3  | 3253.7  | 3247.6  | 3247.6  | 3249.1  | 3247.6  | 3258.3  | 3268.9 | 3279.6 | 3296.4 |
| 5°    | 3273.5  | 3291.9  | 3282.7  | 3275.1  | 3268.9  | 3267.4  | 3262.9  | 3261.3  | 3267.4 | 3281.1 | 3304.1 |
| 7.5°  | 3339.1  | 3357.5  | 3343.8  | 3330.0  | 3317.8  | 3311.7  | 3305.6  | 3296.4  | 3291.9 | 3299.5 | 3331.6 |
| 10°   | 3412.4  | 3430.7  | 3414.0  | 3389.5  | 3369.7  | 3362.0  | 3356.0  | 3346.8  | 3340.7 | 3345.3 | 3380.3 |
| 12.5° | 3485.6  | 3504.0  | 3481.1  | 3447.5  | 3421.6  | 3416.9  | 3409.4  | 3406.3  | 3404.7 | 3403.2 | 3438.4 |
| 15°   | 3554.4  | 3569.6  | 3540.7  | 3500.9  | 3473.4  | 3465.8  | 3458.1  | 3462.8  | 3470.4 | 3479.6 | 3519.2 |
| 17.5° | 3607.8  | 3623.1  | 3580.3  | 3528.4  | 3502.4  | 3499.5  | 3494.8  | 3510.1  | 3531.4 | 3554.4 | 3603.2 |
| 20°   | 3656.6  | 3671.9  | 3616.9  | 3546.7  | 3516.2  | 3516.2  | 3517.7  | 3549.8  | 3580.3 | 3613.8 | 3681.0 |
| 22.5° | 3725.3  | 3737.5  | 3670.3  | 3574.2  | 3529.9  | 3533.0  | 3545.2  | 3577.2  | 3615.4 | 3661.2 | 3754.3 |
| 25°   | 3827.6  | 3836.7  | 3754.3  | 3626.0  | 3575.7  | 3584.8  | 3595.6  | 3610.8  | 3647.5 | 3700.9 | 3826.0 |
| 27.5° | 3992.4  | 4000.0  | 3891.6  | 3717.7  | 3641.3  | 3656.6  | 3671.9  | 3661.2  | 3678.0 | 3723.7 | 3884.0 |
| 30°   | 4224.3  | 4228.8  | 4091.5  | 3861.1  | 3752.7  | 3760.4  | 3763.4  | 3719.2  | 3687.1 | 3723.7 | 3925.2 |
| 32.5° | 4499.0  | 4497.5  | 4334.2  | 4035.1  | 3879.4  | 3871.7  | 3845.8  | 3758.9  | 3684.1 | 3716.1 | 3961.8 |
| 35°   | 4924.8  | 4908.0  | 4697.4  | 4279.3  | 4022.8  | 3975.6  | 3914.5  | 3803.1  | 3699.3 | 3708.4 | 3993.9 |
| 37.5° | 5629.9  | 5577.9  | 5286.5  | 4679.1  | 4236.5  | 4116.0  | 4025.9  | 3874.8  | 3732.9 | 3705.5 | 4032.0 |
| 40°   | 6425.0  | 6359.4  | 6038.9  | 5227.0  | 4557.0  | 4363.2  | 4218.2  | 3977.1  | 3787.9 | 3719.2 | 4088.5 |
| 42.5° | 7368.1  | 7275.0  | 6930.1  | 5872.5  | 4962.9  | 4682.1  | 4463.9  | 4106.8  | 3868.8 | 3763.4 | 4164.8 |
| 45°   | 8526.5  | 8402.8  | 7914.4  | 6600.5  | 5474.2  | 5100.3  | 4808.8  | 4303.7  | 3992.4 | 3848.9 | 4279.3 |
| 47.5° | 9697.0  | 9727.6  | 9033.1  | 7433.7  | 6087.7  | 5616.2  | 5240.7  | 4599.7  | 4172.5 | 3986.2 | 4463.9 |
| 50°   | 10940.7 | 10962.2 | 10145.7 | 8357.0  | 6783.7  | 6199.1  | 5726.1  | 4930.9  | 4422.7 | 4181.6 | 4740.1 |
| 52.5° | 11911.4 | 11914.5 | 11156.0 | 9323.1  | 7508.5  | 6840.1  | 6249.4  | 5309.4  | 4712.6 | 4441.0 | 5108.0 |
| 55°   | 12518.8 | 12511.2 | 11864.1 | 10237.2 | 8341.8  | 7513.1  | 6829.4  | 5739.8  | 5066.8 | 4746.3 | 5570.4 |
| 57.5° | 12959.8 | 12936.9 | 12352.5 | 11023.2 | 9230.0  | 8308.2  | 7485.7  | 6228.1  | 5484.9 | 5109.4 | 6179.3 |
| 60°   | 13127.7 | 13114.0 | 12683.7 | 11702.3 | 10164.0 | 9187.3  | 8242.6  | 6774.4  | 5959.6 | 5538.3 | 6962.2 |
| 62.5° | 13191.9 | 13217.8 | 13008.7 | 12360.1 | 11163.6 | 10160.9 | 9074.3  | 7427.7  | 6493.7 | 6023.6 | 7787.8 |
| 65°   | 13417.7 | 13465.0 | 13422.3 | 13220.8 | 12292.9 | 11300.9 | 10177.7 | 8204.4  | 7076.6 | 6544.0 | 8650.1 |
| 67.5° | 13864.9 | 13912.1 | 13930.5 | 14251.0 | 13672.6 | 12721.8 | 11554.3 | 9172.0  | 7758.8 | 7084.3 | 9298.7 |
| 70°   | 13854.1 | 13840.4 | 14164.0 | 15070.5 | 15400.1 | 14689.0 | 13410.1 | 10362.3 | 8572.3 | 7532.9 | 9381.1 |
| 72.5° | 12610.4 | 12500.5 | 13265.0 | 15061.4 | 16837.7 | 16743.1 | 15676.4 | 11897.7 | 9274.3 | 7587.9 | 8140.3 |
| 75°   | 9460.4  | 9167.4  | 10518.0 | 13573.4 | 17077.3 | 17909.1 | 17117.0 | 12849.9 | 9107.9 | 6704.2 | 5665.0 |
| 77.5° | 4045.8  | 3751.2  | 5342.9  | 10048.0 | 15284.1 | 16741.5 | 15795.4 | 11210.9 | 7270.4 | 4433.4 | 2782.2 |
| 80°   | 1059.1  | 1057.6  | 1614.7  | 4555.5  | 10394.4 | 12363.1 | 10846.1 | 7239.9  | 4154.1 | 1584.1 | 767.6  |
| 82.5° | 438.0   | 427.3   | 593.7   | 1771.8  | 5079.0  | 6937.7  | 5661.9  | 3229.3  | 1500.2 | 428.9  | 254.8  |
| 85°   | 163.3   | 161.7   | 288.4   | 611.9   | 1791.7  | 2861.5  | 2070.9  | 825.6   | 373.9  | 209.1  | 114.5  |
| 87.5° | 45.8    | 44.3    | 62.5    | 212.2   | 436.4   | 662.4   | 354.0   | 135.8   | 105.3  | 82.4   | 33.6   |
| 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°    | 3290.4  | 3290.4 | 3290.4 | 3290.4 | 3290.4 | 3290.4 | 3290.4 | 3290.4 | 3290.4 | 3290.4 | 3290.4 |
| 2.5°  | 3301.0  | 3308.6 | 3322.3 | 3333.1 | 3346.8 | 3362.0 | 3383.4 | 3397.2 | 3410.9 | 3420.0 | 3414.0 |
| 5°    | 3314.7  | 3331.6 | 3366.6 | 3401.8 | 3443.0 | 3481.1 | 3525.4 | 3557.4 | 3583.3 | 3591.0 | 3594.1 |
| 7.5°  | 3345.3  | 3372.8 | 3432.2 | 3491.8 | 3557.4 | 3620.0 | 3684.1 | 3739.0 | 3783.3 | 3800.1 | 3801.6 |
| 10°   | 3398.7  | 3435.3 | 3519.2 | 3603.2 | 3690.2 | 3786.3 | 3868.8 | 3948.1 | 4010.6 | 4036.6 | 4038.1 |
| 12.5° | 3465.8  | 3511.6 | 3621.5 | 3737.5 | 3858.0 | 3990.8 | 4097.6 | 4195.3 | 4273.1 | 4308.3 | 4308.3 |
| 15°   | 3552.9  | 3612.3 | 3752.7 | 3908.4 | 4085.4 | 4270.0 | 4406.0 | 4514.3 | 4601.2 | 4644.0 | 4640.9 |
| 17.5° | 3647.5  | 3726.8 | 3903.8 | 4138.8 | 4392.2 | 4634.8 | 4793.5 | 4873.0 | 4962.9 | 5004.2 | 5002.6 |
| 20°   | 3739.0  | 3836.7 | 4090.1 | 4431.9 | 4769.1 | 5027.0 | 5155.2 | 5176.7 | 5182.7 | 5187.3 | 5199.5 |
| 22.5° | 3833.6  | 3964.9 | 4323.6 | 4801.2 | 5162.9 | 5341.5 | 5359.7 | 5268.2 | 5140.0 | 5080.5 | 5097.2 |
| 25°   | 3937.4  | 4111.4 | 4628.7 | 5208.6 | 5501.7 | 5523.0 | 5382.7 | 5159.8 | 4917.1 | 4805.7 | 4822.5 |
| 27.5° | 4038.1  | 4280.8 | 4995.0 | 5597.8 | 5745.8 | 5558.2 | 5256.0 | 4940.1 | 4647.0 | 4529.6 | 4543.3 |
| 30°   | 4138.8  | 4474.6 | 5399.4 | 5938.1 | 5857.3 | 5471.1 | 5056.0 | 4703.5 | 4408.9 | 4285.3 | 4299.1 |
| 32.5° | 4241.1  | 4700.4 | 5864.8 | 6183.8 | 5837.4 | 5286.5 | 4807.2 | 4437.9 | 4178.5 | 4048.9 | 4065.6 |
| 35°   | 4357.1  | 4978.2 | 6305.9 | 6318.2 | 5704.6 | 5014.8 | 4479.1 | 4120.5 | 3894.7 | 3790.9 | 3813.8 |
| 37.5° | 4508.2  | 5330.7 | 6695.1 | 6351.7 | 5472.7 | 4616.5 | 4071.7 | 3745.1 | 3558.9 | 3511.6 | 3545.2 |
| 40°   | 4695.8  | 5755.0 | 6992.7 | 6298.3 | 5129.3 | 4132.7 | 3626.0 | 3365.1 | 3259.8 | 3270.5 | 3307.1 |
| 42.5° | 4940.1  | 6229.6 | 7201.8 | 6161.0 | 4651.7 | 3633.7 | 3235.4 | 3119.4 | 3169.7 | 3212.5 | 3252.1 |
| 45°   | 5257.5  | 6722.6 | 7331.5 | 5927.5 | 4111.4 | 3210.9 | 3004.9 | 3032.4 | 3070.6 | 3075.1 | 3105.6 |
| 47.5° | 5663.4  | 7221.6 | 7417.0 | 5575.0 | 3560.4 | 2913.4 | 2858.4 | 2864.6 | 2856.9 | 2824.9 | 2849.3 |
| 50°   | 6170.1  | 7707.0 | 7493.3 | 5108.0 | 3091.9 | 2727.2 | 2653.9 | 2632.6 | 2527.2 | 2423.5 | 2437.2 |
| 52.5° | 6747.0  | 8152.5 | 7525.3 | 4528.0 | 2727.2 | 2571.5 | 2452.5 | 2318.1 | 2121.3 | 2089.3 | 2099.9 |
| 55°   | 7388.0  | 8564.6 | 7442.9 | 3815.4 | 2420.4 | 2371.6 | 2191.6 | 2029.7 | 2008.4 | 1980.9 | 1985.5 |
| 57.5° | 8154.1  | 9008.7 | 7275.0 | 3020.2 | 2106.1 | 2138.1 | 1962.6 | 1980.9 | 1942.8 | 1900.0 | 1892.4 |
| 60°   | 8991.9  | 9468.0 | 6980.5 | 2295.3 | 1780.9 | 1846.6 | 1903.1 | 1901.6 | 1890.8 | 1855.8 | 1843.6 |
| 62.5° | 9745.8  | 9770.2 | 6400.6 | 1758.1 | 1495.6 | 1620.7 | 1774.9 | 1773.4 | 1764.2 | 1744.3 | 1736.8 |
| 65°   | 10194.5 | 9724.5 | 5433.0 | 1384.2 | 1260.5 | 1434.6 | 1600.9 | 1613.1 | 1614.7 | 1613.1 | 1613.1 |
| 67.5° | 10115.1 | 9188.8 | 4105.2 | 1101.9 | 1066.7 | 1245.3 | 1428.4 | 1445.2 | 1457.4 | 1460.5 | 1463.6 |
| 70°   | 9217.8  | 8012.1 | 2676.8 | 879.0  | 894.3  | 1079.0 | 1265.2 | 1282.0 | 1292.6 | 1304.8 | 1311.0 |
| 72.5° | 7184.9  | 5890.9 | 1532.3 | 711.1  | 743.2  | 935.5  | 1103.4 | 1123.2 | 1129.3 | 1152.2 | 1161.4 |
| 75°   | 4378.5  | 3464.3 | 827.2  | 560.1  | 610.5  | 799.7  | 943.1  | 966.1  | 976.7  | 1004.2 | 1007.3 |
| 77.5° | 2081.7  | 1500.2 | 471.6  | 436.4  | 491.4  | 653.1  | 796.6  | 822.6  | 793.6  | 808.8  | 796.6  |
| 80°   | 703.6   | 557.0  | 297.6  | 332.7  | 375.5  | 509.7  | 638.0  | 663.9  | 602.8  | 599.7  | 593.7  |
| 82.5° | 245.7   | 225.9  | 189.2  | 221.3  | 242.6  | 364.7  | 482.3  | 515.8  | 448.6  | 447.1  | 425.8  |
| 85°   | 96.1    | 91.5   | 105.3  | 120.5  | 144.9  | 224.4  | 317.4  | 334.3  | 276.2  | 222.8  | 219.8  |
| 87.5° | 19.9    | 21.3   | 25.9   | 27.5   | 44.3   | 77.8   | 114.5  | 140.4  | 111.4  | 94.6   | 87.0   |
| 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)