

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: P968920

Luminaire Tested: **NAV-SB5C-827-U-T4W**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P968920  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5C-827-U-T4W  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33652.8 lumens  
Efficiency: N/A  
Efficacy: 134.9 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

Input Watts (W): 249.5  
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



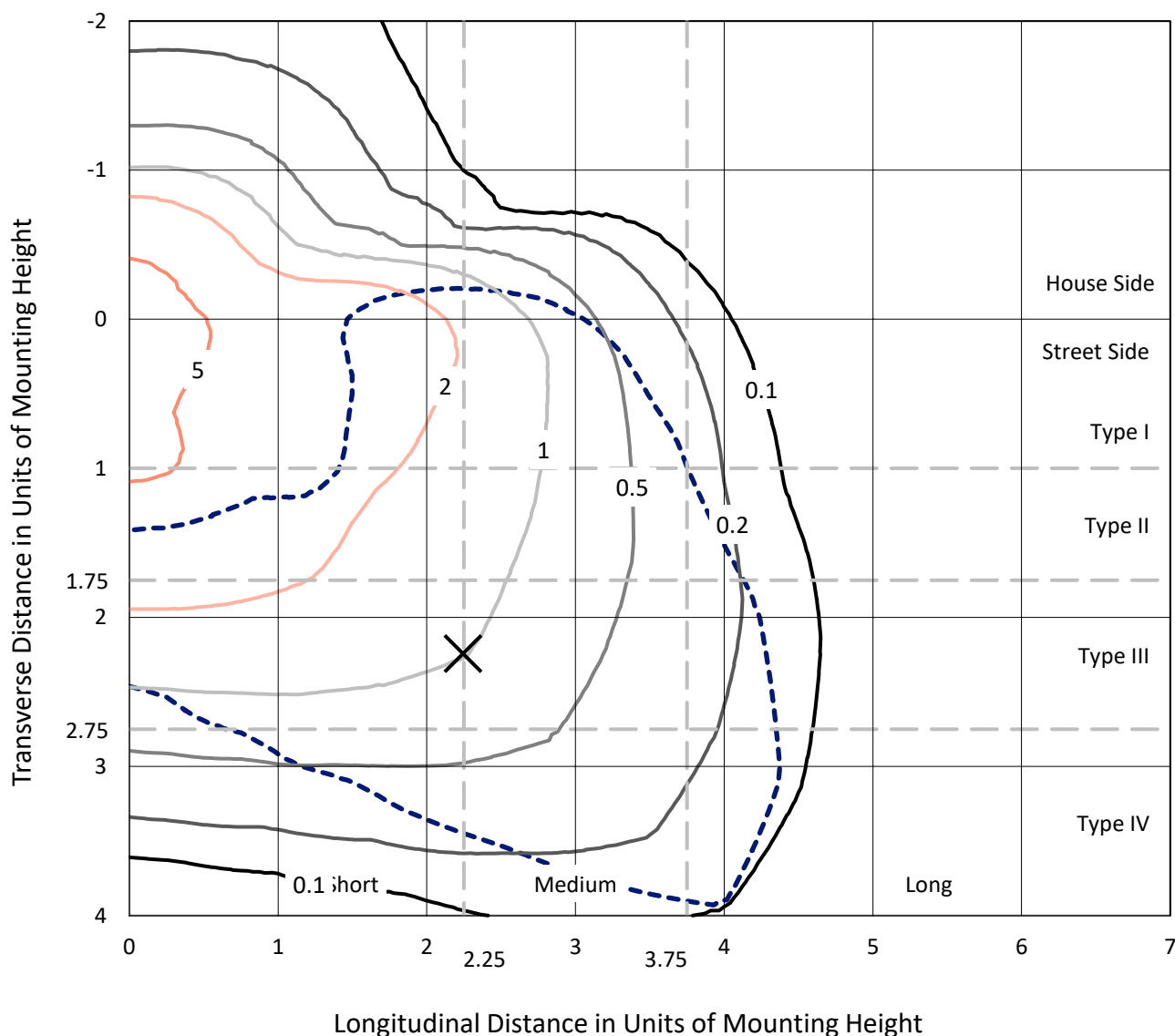
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

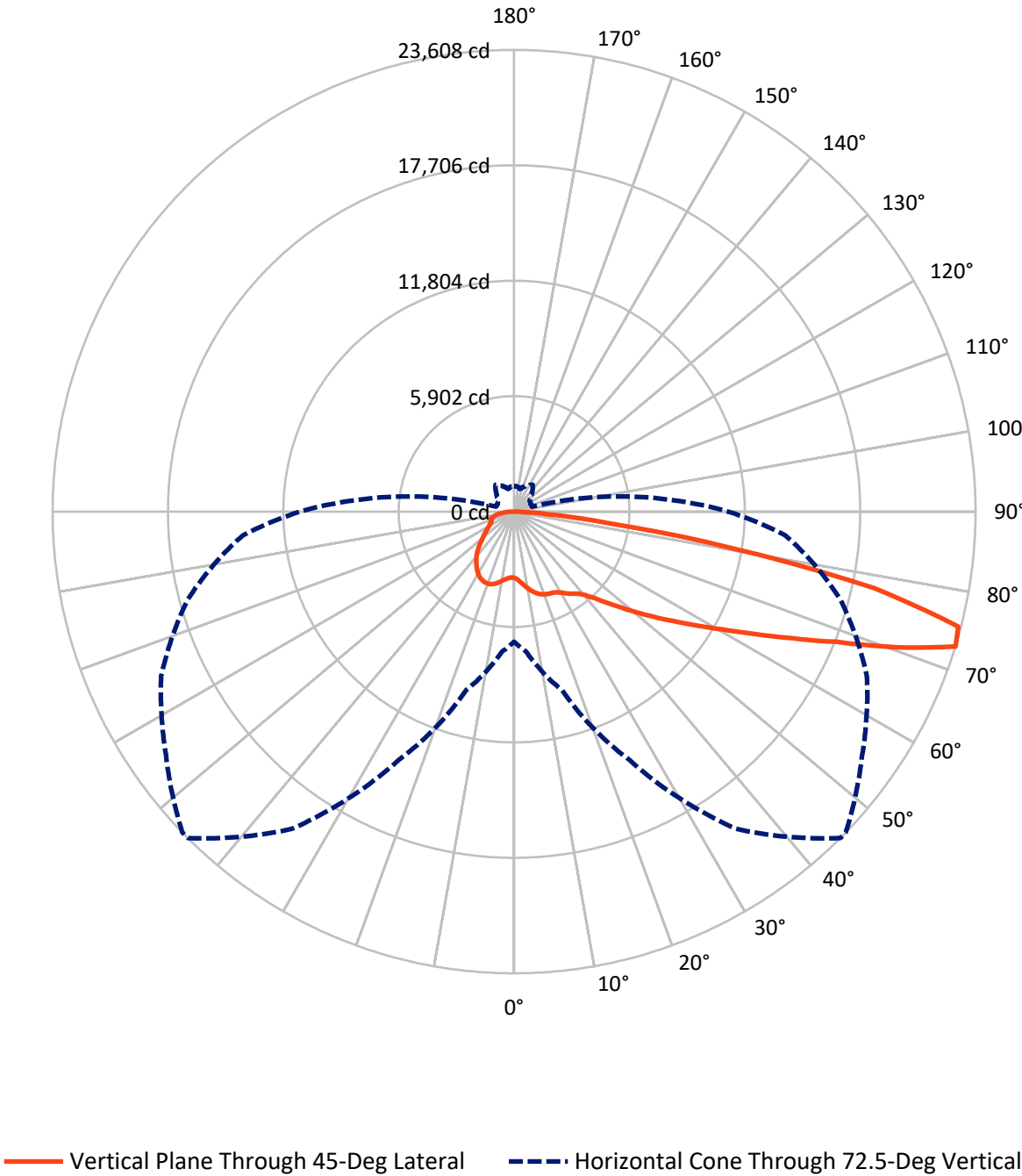


Based on 25 foot mounting height. Maximum calculated value = 6.7 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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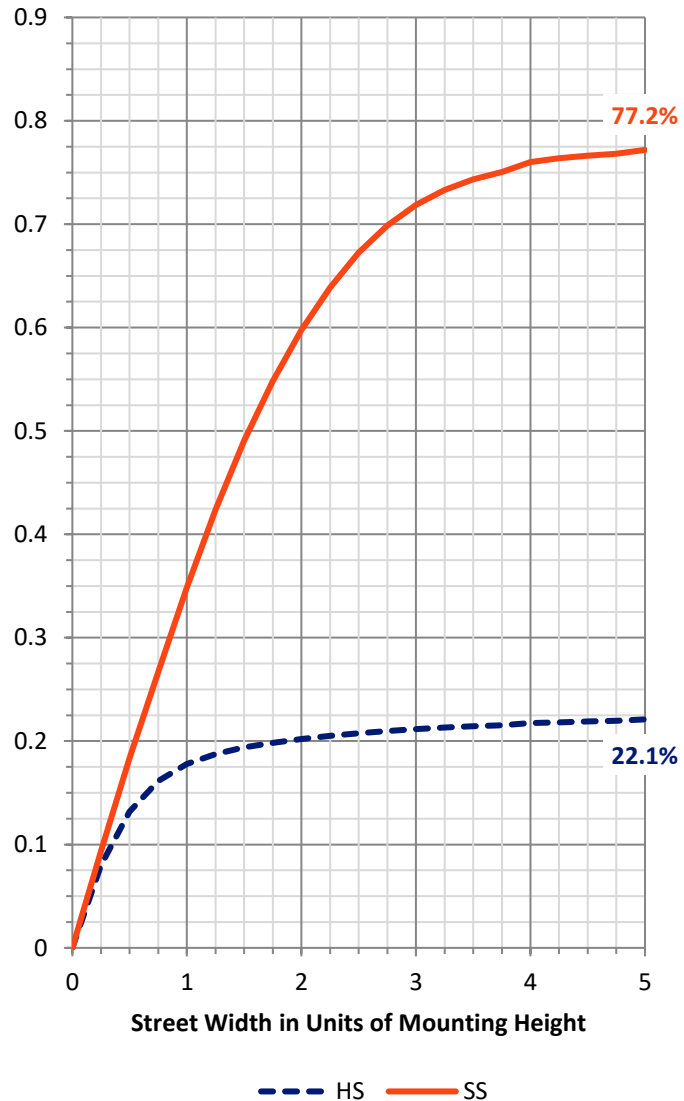
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7607.7   | 0.0    | 7607.7  |
|                    | % Fixture | 22.6     | 0.0    | 22.6    |
| <b>Street Side</b> | Lumens    | 26045.1  | 0.0    | 26045.1 |
|                    | % Fixture | 77.4     | 0.0    | 77.4    |
| <b>Total</b>       | Lumens    | 33652.8  | 0.0    | 33652.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 345.5   | 1.0       |
| 10°-20°   | 1152.1  | 3.4       |
| 20°-30°   | 2004.1  | 6.0       |
| 30°-40°   | 2872.9  | 8.5       |
| 40°-50°   | 4045.3  | 12.0      |
| 50°-60°   | 6196.2  | 18.4      |
| 60°-70°   | 8976.1  | 26.7      |
| 70°-80°   | 7167.9  | 21.3      |
| 80°-90°   | 892.7   | 2.7       |
| 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°    | 33652.8 | 100.0     |
| 0°-180°   | 33652.8 | 100.0     |

**Coefficient of Utilization**



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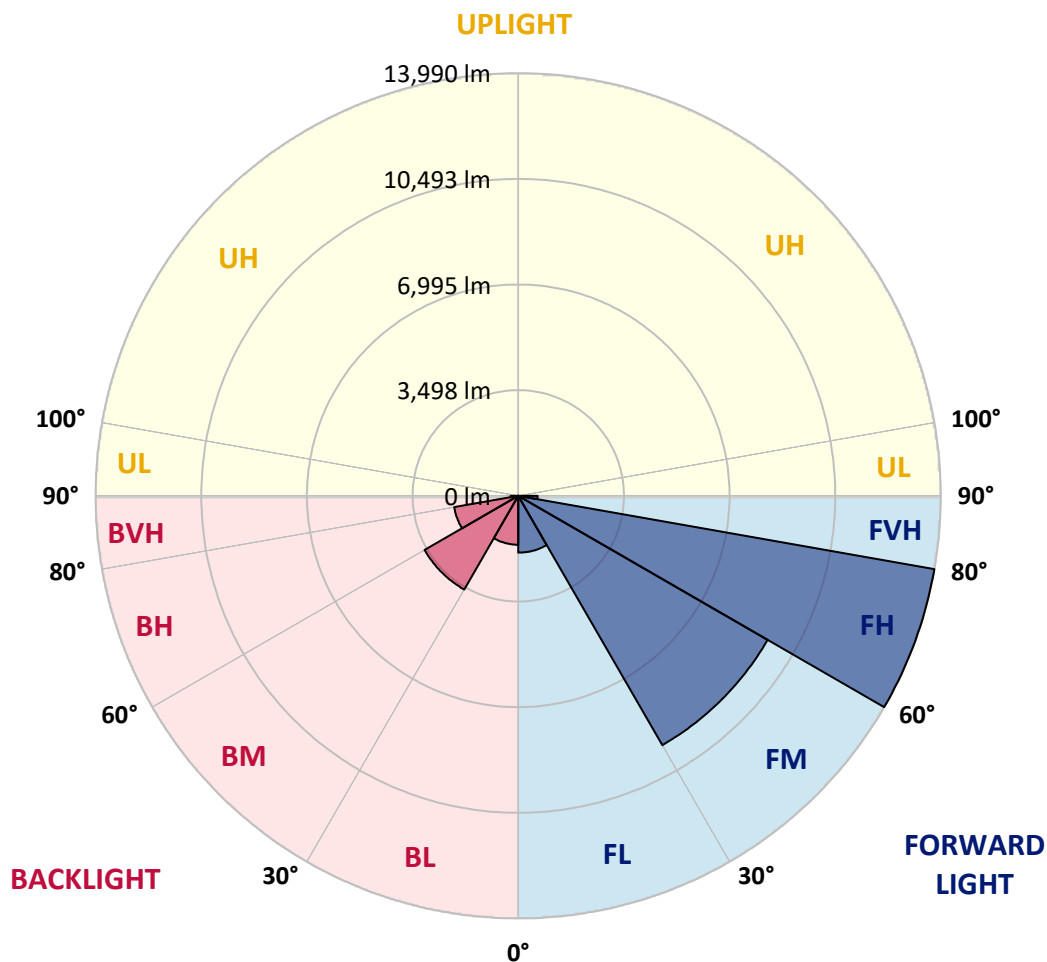
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1881.9  | 5.6       |                         |      |         |
| FM   | (30°-60°)   | 9532.2  | 28.3      |                         |      |         |
| FH   | (60°-80°)   | 13990.5 | 41.6      |                         |      | G5      |
| FVH  | (80°-90°)   | 640.5   | 1.9       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1619.7  | 4.8       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3582.2  | 10.6      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2153.6  | 6.4       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 252.3   | 0.7       |                         |      | G3/500  |
| 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 Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 46°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3394.9  | 3394.9  | 3394.9  | 3394.9  | 3394.9  | 3394.9  | 3394.9  | 3394.9  | 3394.9  | 3394.9  | 3394.9  |
| 2.5°  | 3527.8  | 3550.9  | 3529.7  | 3510.1  | 3501.3  | 3478.2  | 3476.5  | 3462.2  | 3453.4  | 3428.6  | 3421.6  |
| 5°    | 3774.3  | 3804.4  | 3768.9  | 3730.0  | 3694.5  | 3637.8  | 3630.7  | 3590.0  | 3543.8  | 3490.6  | 3460.5  |
| 7.5°  | 4052.6  | 4079.2  | 4038.4  | 3980.0  | 3917.9  | 3824.0  | 3822.1  | 3747.7  | 3675.0  | 3584.6  | 3533.2  |
| 10°   | 4295.5  | 4330.9  | 4276.0  | 4196.2  | 4118.2  | 4011.8  | 3999.4  | 3914.4  | 3822.1  | 3705.2  | 3627.2  |
| 12.5° | 4510.0  | 4534.8  | 4481.6  | 4384.1  | 4293.7  | 4187.3  | 4171.4  | 4077.4  | 3974.6  | 3841.7  | 3742.4  |
| 15°   | 4680.2  | 4712.1  | 4641.2  | 4536.5  | 4440.9  | 4336.3  | 4322.1  | 4237.0  | 4134.1  | 3994.1  | 3866.5  |
| 17.5° | 4791.9  | 4818.4  | 4745.8  | 4628.8  | 4536.5  | 4449.7  | 4439.1  | 4368.1  | 4277.7  | 4136.0  | 3999.4  |
| 20°   | 4834.4  | 4862.8  | 4786.5  | 4667.7  | 4582.7  | 4515.3  | 4510.0  | 4458.5  | 4396.5  | 4267.2  | 4128.8  |
| 22.5° | 4877.0  | 4903.6  | 4804.3  | 4680.2  | 4605.7  | 4563.2  | 4561.5  | 4527.7  | 4502.9  | 4396.5  | 4261.8  |
| 25°   | 5048.9  | 5056.0  | 4923.1  | 4744.0  | 4637.6  | 4600.4  | 4598.7  | 4596.9  | 4607.5  | 4524.1  | 4405.4  |
| 27.5° | 5197.9  | 5196.0  | 5082.7  | 4914.2  | 4749.3  | 4671.3  | 4669.6  | 4687.3  | 4720.9  | 4651.9  | 4554.3  |
| 30°   | 5415.9  | 5396.4  | 5261.6  | 5086.2  | 4935.5  | 4814.9  | 4804.3  | 4788.3  | 4814.9  | 4760.0  | 4703.2  |
| 32.5° | 5878.6  | 5816.6  | 5598.5  | 5286.5  | 5089.7  | 4997.5  | 4983.3  | 4884.0  | 4894.7  | 4861.1  | 4832.7  |
| 35°   | 6541.7  | 6460.1  | 6169.4  | 5665.9  | 5281.2  | 5150.0  | 5142.9  | 5017.1  | 4995.7  | 4965.6  | 4976.3  |
| 37.5° | 7330.5  | 7229.5  | 6890.9  | 6215.4  | 5611.0  | 5327.2  | 5316.7  | 5203.2  | 5116.3  | 5084.4  | 5144.7  |
| 40°   | 8122.9  | 7995.3  | 7715.3  | 6885.5  | 6096.7  | 5623.4  | 5589.6  | 5417.6  | 5318.4  | 5265.2  | 5392.8  |
| 42.5° | 8892.4  | 8786.0  | 8546.7  | 7637.2  | 6695.9  | 6055.9  | 5981.4  | 5687.1  | 5612.7  | 5563.1  | 5793.5  |
| 45°   | 9573.1  | 9477.4  | 9301.9  | 8440.3  | 7397.9  | 6644.5  | 6571.8  | 6091.4  | 6068.3  | 6068.3  | 6401.5  |
| 47.5° | 10126.3 | 10105.0 | 9918.8  | 9259.3  | 8225.8  | 7314.6  | 7188.7  | 6653.3  | 6715.4  | 6811.1  | 7264.9  |
| 50°   | 10739.6 | 10681.1 | 10482.6 | 10065.9 | 9199.1  | 8082.2  | 7979.4  | 7342.9  | 7575.2  | 7837.6  | 8513.0  |
| 52.5° | 11303.4 | 11335.3 | 11113.7 | 10906.3 | 10298.2 | 8938.4  | 8757.6  | 8156.6  | 8658.4  | 9092.7  | 9975.5  |
| 55°   | 11883.0 | 11884.9 | 11822.8 | 11794.5 | 11450.5 | 9885.1  | 9686.6  | 9135.2  | 9933.0  | 10471.9 | 11681.0 |
| 57.5° | 12427.3 | 12430.9 | 12523.0 | 12773.0 | 12787.2 | 10977.1 | 10752.0 | 10337.2 | 11349.5 | 11899.0 | 13439.6 |
| 60°   | 12913.1 | 12937.9 | 13189.6 | 13774.7 | 13962.6 | 12228.8 | 12016.1 | 11757.3 | 12813.8 | 13366.9 | 15288.6 |
| 62.5° | 13076.1 | 13166.6 | 13726.8 | 14558.3 | 15123.8 | 13764.0 | 13554.8 | 13400.6 | 14352.6 | 14866.7 | 16834.5 |
| 65°   | 12799.6 | 13007.0 | 14090.3 | 15205.3 | 16318.6 | 15588.2 | 15380.8 | 15212.4 | 15951.7 | 16435.7 | 18103.9 |
| 67.5° | 12120.6 | 12388.4 | 14068.9 | 15884.3 | 17768.8 | 17782.9 | 17589.7 | 17194.4 | 17666.0 | 17852.1 | 18516.9 |
| 70°   | 10331.9 | 10732.6 | 12829.7 | 16137.8 | 19433.5 | 20784.3 | 20598.2 | 19580.6 | 19376.7 | 18476.1 | 17354.0 |
| 72.5° | 6656.9  | 7195.8  | 9447.2  | 14051.2 | 19803.9 | 23608.4 | 23597.8 | 21734.5 | 19917.4 | 17263.6 | 13918.3 |
| 75°   | 2428.7  | 2758.5  | 4389.5  | 8819.7  | 16623.6 | 23464.8 | 23533.9 | 21365.8 | 18181.9 | 13335.0 | 8670.8  |
| 77.5° | 884.7   | 967.9   | 1432.4  | 3389.6  | 10223.8 | 18827.1 | 18970.7 | 17080.9 | 12941.4 | 6692.3  | 3435.7  |
| 80°   | 464.4   | 510.6   | 733.9   | 1315.4  | 4380.5  | 11181.0 | 11406.2 | 10151.1 | 6082.5  | 2015.7  | 1030.0  |
| 82.5° | 257.1   | 278.3   | 411.3   | 714.4   | 1973.1  | 4781.2  | 4916.0  | 4010.1  | 2139.8  | 854.4   | 425.5   |
| 85°   | 138.3   | 147.2   | 193.2   | 390.0   | 964.4   | 1657.5  | 1694.8  | 1198.4  | 852.7   | 501.7   | 205.6   |
| 87.5° | 40.8    | 49.6    | 63.9    | 124.1   | 377.6   | 372.3   | 381.2   | 237.6   | 336.8   | 253.5   | 67.3    |
| 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°    | 3394.9  | 3394.9  | 3394.9 | 3394.9 | 3394.9 | 3394.9 | 3394.9 | 3394.9 | 3394.9 | 3394.9 | 3394.9 |
| 2.5°  | 3410.9  | 3405.6  | 3386.1 | 3377.2 | 3366.5 | 3364.8 | 3373.7 | 3375.4 | 3377.2 | 3378.9 | 3386.1 |
| 5°    | 3442.8  | 3425.0  | 3407.3 | 3396.6 | 3400.2 | 3402.0 | 3419.7 | 3432.1 | 3441.0 | 3448.1 | 3451.7 |
| 7.5°  | 3504.8  | 3490.6  | 3460.5 | 3458.8 | 3464.1 | 3480.0 | 3503.0 | 3531.4 | 3547.4 | 3559.8 | 3563.3 |
| 10°   | 3597.0  | 3570.4  | 3534.9 | 3540.2 | 3550.9 | 3574.0 | 3621.8 | 3644.9 | 3671.4 | 3694.5 | 3689.2 |
| 12.5° | 3690.9  | 3668.0  | 3627.2 | 3630.7 | 3648.4 | 3689.2 | 3735.3 | 3763.7 | 3781.4 | 3799.1 | 3806.2 |
| 15°   | 3813.3  | 3772.5  | 3728.2 | 3728.2 | 3760.1 | 3804.4 | 3825.7 | 3848.8 | 3859.4 | 3878.9 | 3886.0 |
| 17.5° | 3939.2  | 3886.0  | 3827.5 | 3824.0 | 3862.9 | 3884.2 | 3896.6 | 3900.1 | 3903.7 | 3924.9 | 3932.1 |
| 20°   | 4065.0  | 4006.5  | 3923.2 | 3916.1 | 3924.9 | 3921.4 | 3919.7 | 3916.1 | 3921.4 | 3948.0 | 3958.7 |
| 22.5° | 4189.2  | 4121.7  | 4006.5 | 3974.6 | 3949.8 | 3916.1 | 3914.4 | 3912.5 | 3916.1 | 3942.7 | 3960.4 |
| 25°   | 4334.5  | 4252.9  | 4098.7 | 4002.9 | 3919.7 | 3873.6 | 3878.9 | 3880.6 | 3884.2 | 3905.5 | 3933.8 |
| 27.5° | 4492.3  | 4401.9  | 4183.8 | 3994.1 | 3843.4 | 3811.6 | 3802.6 | 3808.0 | 3820.4 | 3854.1 | 3887.7 |
| 30°   | 4650.0  | 4543.7  | 4261.8 | 3958.7 | 3747.7 | 3703.4 | 3675.0 | 3687.4 | 3726.4 | 3760.1 | 3797.3 |
| 32.5° | 4793.6  | 4687.3  | 4323.9 | 3880.6 | 3625.4 | 3556.2 | 3519.0 | 3534.9 | 3574.0 | 3586.4 | 3630.7 |
| 35°   | 4962.0  | 4841.5  | 4350.4 | 3756.5 | 3492.4 | 3386.1 | 3336.4 | 3313.3 | 3332.9 | 3320.5 | 3359.4 |
| 37.5° | 5150.0  | 5024.1  | 4346.9 | 3593.4 | 3336.4 | 3214.1 | 3144.9 | 3058.1 | 3017.3 | 2974.8 | 3001.3 |
| 40°   | 5428.3  | 5247.5  | 4304.4 | 3396.6 | 3143.2 | 3031.4 | 2907.4 | 2760.2 | 2668.1 | 2584.7 | 2590.1 |
| 42.5° | 5807.6  | 5557.8  | 4226.4 | 3180.4 | 2925.1 | 2820.5 | 2652.1 | 2480.2 | 2334.7 | 2196.5 | 2184.1 |
| 45°   | 6373.2  | 5963.7  | 4128.8 | 2950.0 | 2689.3 | 2586.5 | 2403.9 | 2210.7 | 2045.8 | 1868.6 | 1847.3 |
| 47.5° | 7188.7  | 6509.7  | 4036.7 | 2687.5 | 2441.1 | 2347.1 | 2182.3 | 2003.3 | 1808.3 | 1636.3 | 1616.8 |
| 50°   | 8309.2  | 7293.3  | 3951.6 | 2432.3 | 2196.5 | 2125.5 | 1994.4 | 1811.8 | 1615.0 | 1476.7 | 1467.9 |
| 52.5° | 9734.4  | 8358.8  | 3916.1 | 2185.8 | 1967.8 | 1941.2 | 1836.6 | 1666.4 | 1480.3 | 1363.2 | 1354.4 |
| 55°   | 11370.7 | 9633.4  | 3916.1 | 1950.1 | 1767.5 | 1776.3 | 1703.7 | 1545.9 | 1384.6 | 1279.9 | 1269.4 |
| 57.5° | 13040.8 | 10924.0 | 3845.2 | 1732.0 | 1597.3 | 1634.6 | 1588.4 | 1450.2 | 1304.8 | 1196.7 | 1179.0 |
| 60°   | 14579.5 | 12005.4 | 3558.0 | 1533.5 | 1446.6 | 1505.1 | 1475.0 | 1356.2 | 1179.0 | 1088.6 | 1074.3 |
| 62.5° | 15761.9 | 12615.3 | 3004.9 | 1375.7 | 1322.6 | 1389.9 | 1373.9 | 1232.0 | 1155.9 | 1118.7 | 1106.2 |
| 65°   | 16354.1 | 12516.0 | 2297.5 | 1235.6 | 1217.9 | 1322.6 | 1288.8 | 1283.5 | 1223.2 | 1180.7 | 1166.6 |
| 67.5° | 15990.6 | 11661.5 | 1666.4 | 1132.8 | 1157.6 | 1260.4 | 1389.9 | 1411.1 | 1299.5 | 1216.2 | 1201.9 |
| 70°   | 14396.9 | 10115.6 | 1241.0 | 1035.4 | 1081.4 | 1262.2 | 1584.9 | 1476.7 | 1274.7 | 1177.1 | 1161.2 |
| 72.5° | 10952.3 | 7543.3  | 962.7  | 932.4  | 982.2  | 1271.1 | 1671.8 | 1446.6 | 1203.8 | 1301.2 | 1290.6 |
| 75°   | 6263.3  | 4141.3  | 773.0  | 806.7  | 858.0  | 1187.8 | 1627.4 | 1368.6 | 1148.8 | 1194.8 | 1194.8 |
| 77.5° | 2387.9  | 1591.9  | 638.2  | 682.5  | 689.6  | 1037.1 | 1556.6 | 1363.2 | 1093.8 | 1067.2 | 973.2  |
| 80°   | 827.9   | 622.3   | 528.3  | 542.4  | 533.6  | 921.9  | 1492.7 | 1186.0 | 895.2  | 801.3  | 774.7  |
| 82.5° | 338.6   | 310.3   | 418.4  | 400.7  | 379.4  | 716.2  | 1205.5 | 969.8  | 732.2  | 647.1  | 640.0  |
| 85°   | 147.2   | 196.8   | 276.5  | 242.8  | 219.9  | 496.4  | 966.2  | 820.8  | 618.7  | 533.6  | 531.9  |
| 87.5° | 30.1    | 74.4    | 117.1  | 109.9  | 113.5  | 331.5  | 686.0  | 583.2  | 437.9  | 328.0  | 257.1  |
| 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)