

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: P969475

Luminaire Tested: **NAV-SB5D-830-U-T4FT-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P969475  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5D-830-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35846.3 lumens  
Efficiency: N/A  
Efficacy: 98.2 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): 364.9  
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



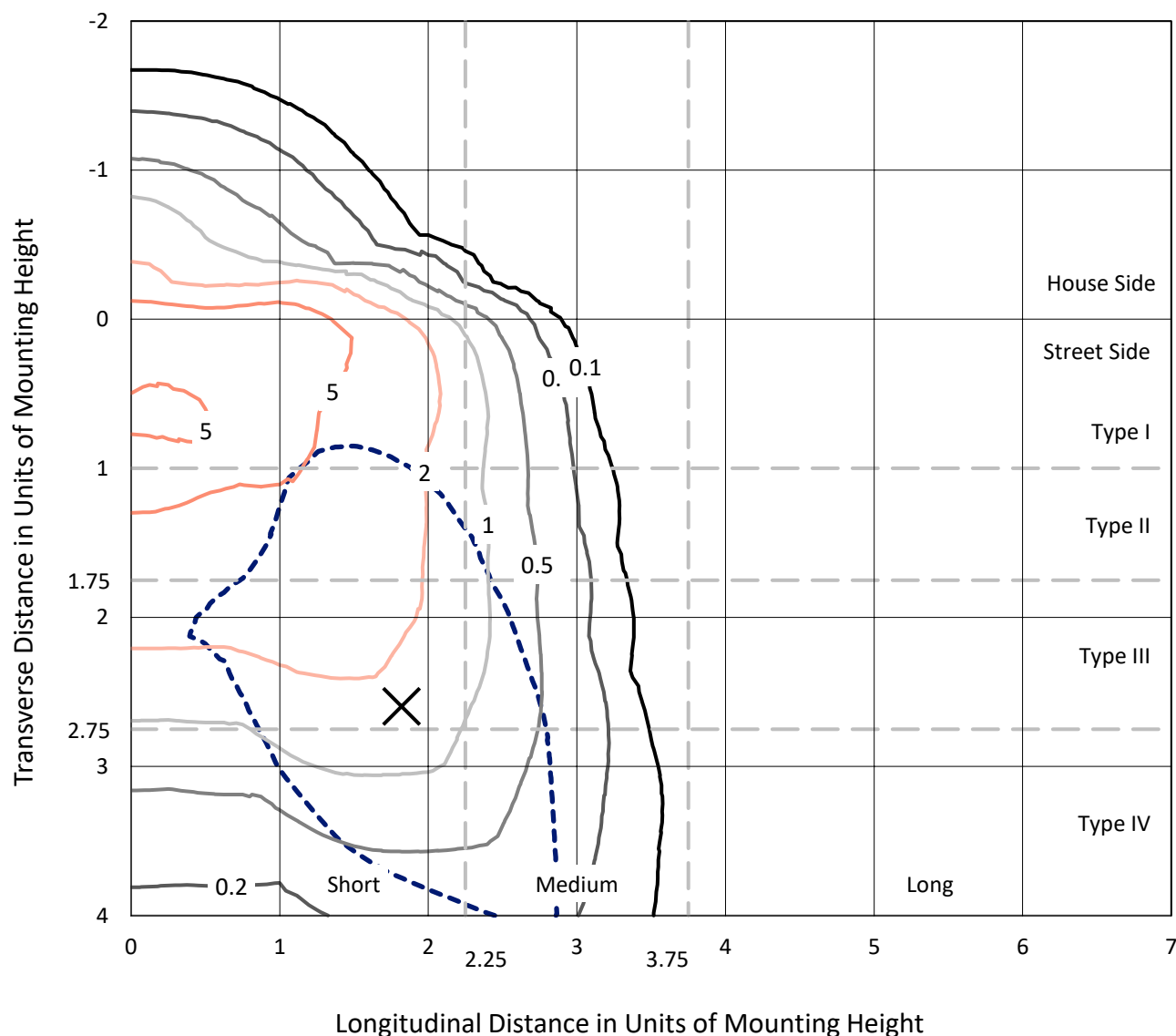
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

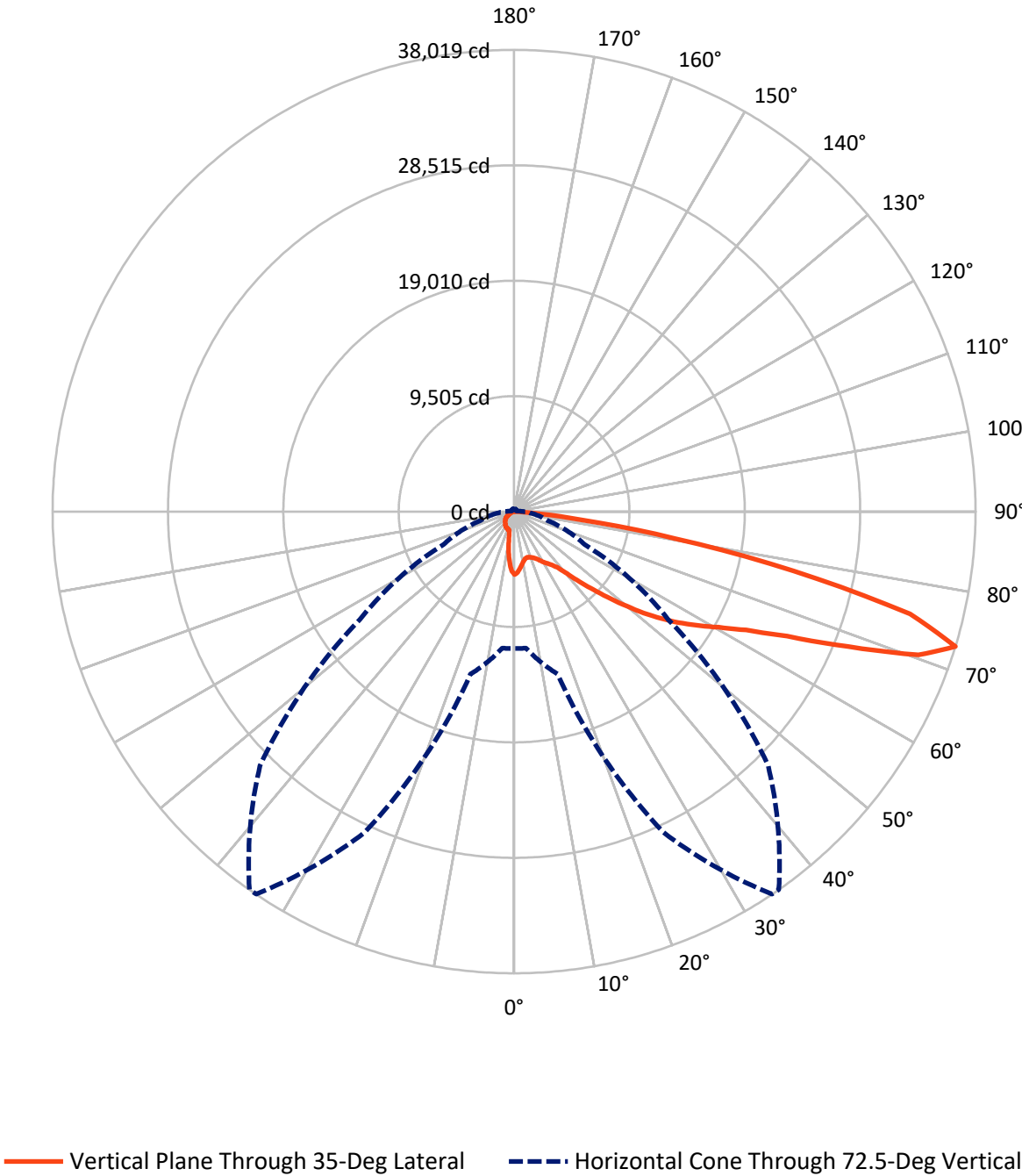


Based on 25 foot mounting height. Maximum calculated value = 8.3 fc

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    | 4034.3   | 0.0    | 4034.3  |
|                    | % Fixture | 11.3     | 0.0    | 11.3    |
| <b>Street Side</b> | Lumens    | 31812.0  | 0.0    | 31812.0 |
|                    | % Fixture | 88.7     | 0.0    | 88.7    |
| <b>Total</b>       | Lumens    | 35846.3  | 0.0    | 35846.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 426.9   | 1.2       |
| 10°-20°   | 998.7   | 2.8       |
| 20°-30°   | 1622.4  | 4.5       |
| 30°-40°   | 2707.0  | 7.6       |
| 40°-50°   | 5121.6  | 14.3      |
| 50°-60°   | 8138.2  | 22.7      |
| 60°-70°   | 10067.6 | 28.1      |
| 70°-80°   | 6258.1  | 17.5      |
| 80°-90°   | 505.8   | 1.4       |
| 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°    | 35846.3 | 100.0     |
| 0°-180°   | 35846.3 | 100.0     |

**Coefficient of Utilization**



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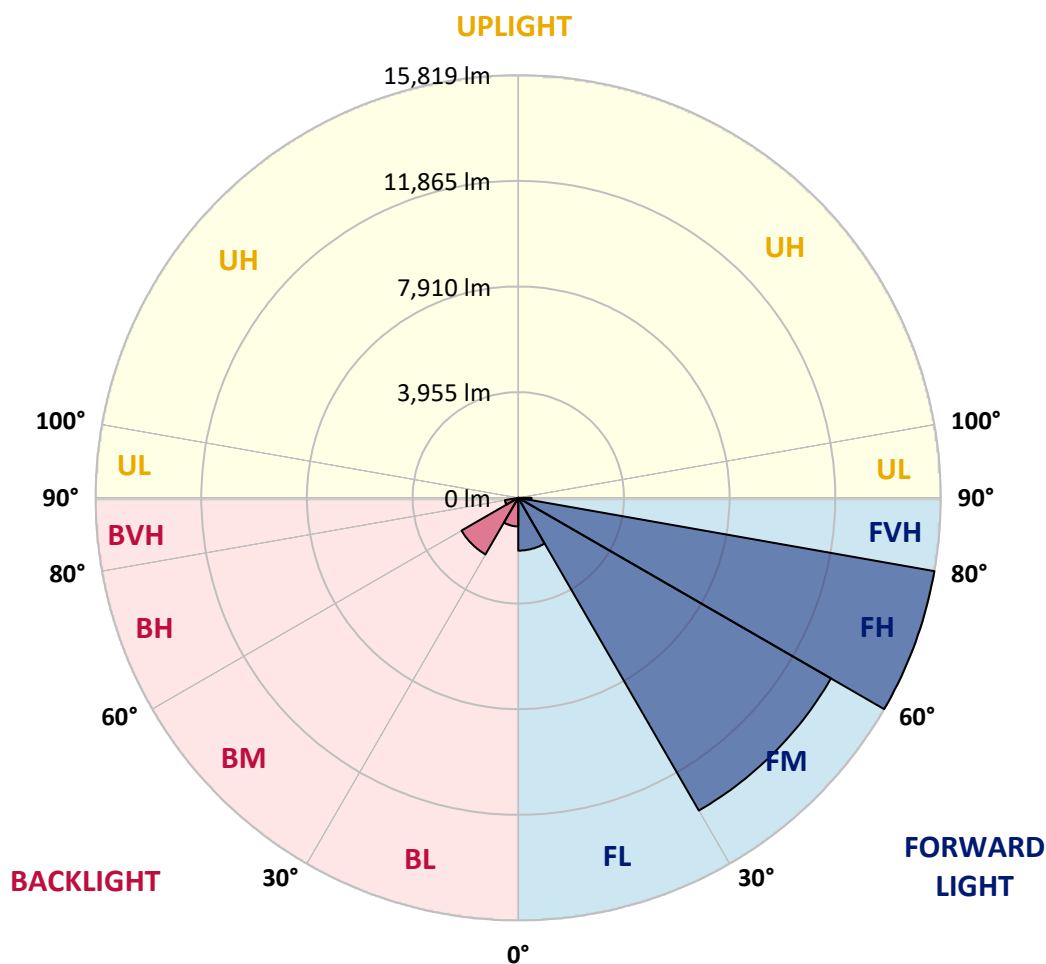
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1976.0  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 13517.6 | 37.7      |                         |      |         |
| FH   | (60°-80°)   | 15819.4 | 44.1      |                         |      | G5      |
| FVH  | (80°-90°)   | 498.9   | 1.4       |                         |      | G3/500  |
| BL   | (0°-30°)    | 1072.0  | 3.0       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2449.2  | 6.8       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 506.2   | 1.4       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 6.9     | 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 IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 34°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5195.3  | 5195.3  | 5195.3  | 5195.3  | 5195.3  | 5195.3  | 5195.3  | 5195.3  | 5195.3  | 5195.3  | 5195.3  |
| 2.5°  | 4964.2  | 5006.2  | 5014.1  | 5027.2  | 5027.2  | 5043.0  | 5069.2  | 5106.0  | 5166.4  | 5198.0  | 5219.0  |
| 5°    | 4575.5  | 4607.0  | 4646.4  | 4677.9  | 4738.3  | 4746.2  | 4848.7  | 4948.4  | 5087.7  | 5192.8  | 5266.2  |
| 7.5°  | 4184.2  | 4220.8  | 4273.4  | 4349.6  | 4428.4  | 4452.0  | 4607.0  | 4775.1  | 4995.7  | 5192.8  | 5316.2  |
| 10°   | 3908.3  | 3911.0  | 3958.2  | 4034.4  | 4160.5  | 4189.4  | 4378.5  | 4617.5  | 4893.2  | 5161.2  | 5363.4  |
| 12.5° | 3753.3  | 3771.7  | 3792.7  | 3850.5  | 3971.4  | 3989.7  | 4191.9  | 4473.0  | 4790.8  | 5142.8  | 5418.6  |
| 15°   | 3753.3  | 3766.5  | 3779.6  | 3808.5  | 3905.7  | 3921.4  | 4100.1  | 4381.1  | 4738.3  | 5150.7  | 5507.9  |
| 17.5° | 3792.7  | 3813.7  | 3803.3  | 3837.4  | 3939.8  | 3950.3  | 4107.9  | 4354.8  | 4735.7  | 5200.5  | 5644.5  |
| 20°   | 3887.3  | 3903.1  | 3882.1  | 3903.1  | 4005.5  | 4026.5  | 4189.4  | 4404.7  | 4780.3  | 5287.3  | 5815.2  |
| 22.5° | 4037.1  | 4044.9  | 3995.0  | 4010.7  | 4115.8  | 4142.1  | 4331.2  | 4546.6  | 4888.0  | 5426.5  | 6043.7  |
| 25°   | 4226.2  | 4241.9  | 4165.7  | 4184.2  | 4283.9  | 4315.5  | 4533.5  | 4759.3  | 5058.8  | 5618.2  | 6335.2  |
| 27.5° | 4444.1  | 4452.0  | 4386.4  | 4383.7  | 4512.5  | 4557.0  | 4777.7  | 5022.0  | 5287.3  | 5859.8  | 6703.0  |
| 30°   | 4693.7  | 4717.3  | 4654.2  | 4643.8  | 4806.6  | 4843.3  | 5061.3  | 5345.1  | 5623.5  | 6222.4  | 7225.6  |
| 32.5° | 4890.7  | 4909.0  | 4872.2  | 4898.6  | 5064.0  | 5092.9  | 5405.4  | 5802.1  | 6151.4  | 6737.1  | 7937.5  |
| 35°   | 5174.3  | 5184.9  | 5100.8  | 5148.1  | 5337.2  | 5410.7  | 5875.6  | 6442.9  | 6815.9  | 7383.3  | 8867.3  |
| 37.5° | 6201.4  | 6201.4  | 5844.1  | 5610.3  | 5791.6  | 5857.3  | 6519.1  | 7249.3  | 7635.4  | 8250.0  | 10038.7 |
| 40°   | 7622.3  | 7598.6  | 7076.0  | 6597.9  | 6574.2  | 6703.0  | 7435.8  | 8265.8  | 8693.9  | 9290.1  | 11357.2 |
| 42.5° | 9137.8  | 9101.0  | 8389.2  | 7916.5  | 7837.7  | 7882.2  | 8494.3  | 9518.7  | 9954.7  | 10558.7 | 12775.6 |
| 45°   | 10482.6 | 10472.1 | 9820.7  | 9185.0  | 9043.3  | 9185.0  | 9815.4  | 10984.3 | 11296.8 | 11932.4 | 14191.3 |
| 47.5° | 11609.4 | 11609.4 | 11134.0 | 10718.9 | 10645.4 | 10729.5 | 11604.1 | 12610.1 | 12581.3 | 13395.4 | 15570.3 |
| 50°   | 12906.9 | 12896.4 | 12444.6 | 12266.1 | 12342.2 | 12460.4 | 13663.4 | 14322.6 | 13910.3 | 14832.2 | 16802.1 |
| 52.5° | 13815.7 | 13878.7 | 13723.7 | 13694.8 | 14083.6 | 14288.5 | 15754.0 | 15998.4 | 15100.1 | 16195.3 | 17724.0 |
| 55°   | 14535.3 | 14608.9 | 14787.5 | 14989.8 | 15738.4 | 16006.2 | 17779.1 | 17587.5 | 16095.6 | 17377.3 | 18254.5 |
| 57.5° | 15554.5 | 15449.4 | 15725.2 | 16124.5 | 17335.3 | 17658.4 | 19741.2 | 19087.2 | 16896.6 | 18336.0 | 18312.3 |
| 60°   | 16791.6 | 16807.3 | 16854.6 | 17358.9 | 18929.6 | 19344.6 | 21674.3 | 20505.5 | 17411.5 | 18924.4 | 17671.5 |
| 62.5° | 18278.2 | 18301.9 | 18399.1 | 19173.9 | 21070.2 | 21461.6 | 23733.6 | 21666.4 | 17647.8 | 18758.8 | 16016.8 |
| 65°   | 18175.8 | 18275.5 | 19360.4 | 22010.5 | 24324.6 | 24710.7 | 26136.9 | 22480.7 | 17290.6 | 17245.9 | 13040.9 |
| 67.5° | 16557.8 | 16720.6 | 18535.6 | 25398.8 | 29231.0 | 29661.8 | 29041.8 | 22640.9 | 15748.8 | 13411.2 | 8507.4  |
| 70°   | 14435.6 | 14493.3 | 16676.0 | 28445.6 | 34912.2 | 35348.3 | 31642.2 | 20878.5 | 11950.9 | 7480.4  | 3811.2  |
| 72.5° | 11273.2 | 11286.3 | 13847.2 | 29152.1 | 37995.8 | 38019.4 | 29601.3 | 15499.3 | 6427.2  | 2873.5  | 1323.8  |
| 75°   | 8053.0  | 7974.2  | 9274.4  | 23641.6 | 33428.2 | 33696.1 | 22191.8 | 7270.3  | 2455.8  | 1357.9  | 659.3   |
| 77.5° | 4318.0  | 4404.7  | 5247.9  | 14020.6 | 23092.7 | 23549.7 | 12108.4 | 2096.0  | 1250.2  | 924.6   | 436.0   |
| 80°   | 1334.2  | 1407.8  | 2151.2  | 6419.3  | 13080.2 | 13356.1 | 4488.8  | 932.4   | 872.0   | 659.3   | 286.3   |
| 82.5° | 420.2   | 436.0   | 1003.4  | 2697.5  | 5429.1  | 5555.2  | 1300.1  | 528.0   | 596.2   | 436.0   | 168.1   |
| 85°   | 120.8   | 123.4   | 446.5   | 1005.9  | 1342.1  | 1368.5  | 365.1   | 204.9   | 341.4   | 270.5   | 86.7    |
| 87.5° | 13.1    | 42.0    | 168.1   | 168.1   | 118.2   | 115.5   | 39.4    | 44.7    | 97.2    | 34.1    | 15.8    |
| 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°    | 5195.3  | 5195.3  | 5195.3 | 5195.3 | 5195.3 | 5195.3 | 5195.3 | 5195.3 | 5195.3 | 5195.3 | 5195.3 |
| 2.5°  | 5205.9  | 5208.4  | 5174.3 | 5116.5 | 5053.5 | 5001.0 | 4935.3 | 4882.8 | 4846.0 | 4835.5 | 4853.9 |
| 5°    | 5242.6  | 5224.2  | 5127.0 | 4951.1 | 4740.9 | 4559.7 | 4357.5 | 4197.3 | 4092.2 | 4047.5 | 4063.3 |
| 7.5°  | 5297.8  | 5245.2  | 5032.4 | 4685.8 | 4283.9 | 3926.7 | 3564.2 | 3283.2 | 3104.6 | 3015.2 | 3028.5 |
| 10°   | 5345.1  | 5240.0  | 4874.9 | 4302.3 | 3687.6 | 3146.6 | 2658.0 | 2319.3 | 2130.2 | 2040.9 | 2043.4 |
| 12.5° | 5389.7  | 5237.3  | 4670.0 | 3848.0 | 3015.2 | 2353.4 | 1899.0 | 1730.9 | 1678.3 | 1660.0 | 1654.8 |
| 15°   | 5473.7  | 5245.2  | 4412.6 | 3327.9 | 2345.5 | 1778.2 | 1612.7 | 1610.1 | 1620.6 | 1615.3 | 1612.7 |
| 17.5° | 5589.3  | 5253.1  | 4121.1 | 2776.3 | 1809.7 | 1568.0 | 1560.2 | 1583.8 | 1599.6 | 1591.7 | 1589.1 |
| 20°   | 5739.1  | 5284.6  | 3811.2 | 2230.0 | 1554.9 | 1515.6 | 1533.9 | 1554.9 | 1568.0 | 1554.9 | 1552.3 |
| 22.5° | 5949.2  | 5339.8  | 3472.3 | 1791.3 | 1473.5 | 1484.0 | 1499.8 | 1523.4 | 1536.6 | 1518.1 | 1515.6 |
| 25°   | 6206.6  | 5426.5  | 3138.8 | 1557.6 | 1434.1 | 1447.2 | 1470.9 | 1497.1 | 1512.9 | 1494.6 | 1491.9 |
| 27.5° | 6540.1  | 5565.6  | 2831.5 | 1505.0 | 1394.7 | 1402.6 | 1436.7 | 1476.1 | 1497.1 | 1473.5 | 1473.5 |
| 30°   | 7023.4  | 5794.2  | 2566.2 | 1528.7 | 1371.0 | 1352.7 | 1399.9 | 1455.1 | 1478.8 | 1457.8 | 1455.1 |
| 32.5° | 7664.3  | 6117.3  | 2403.3 | 1565.4 | 1360.6 | 1294.9 | 1339.6 | 1410.5 | 1449.9 | 1436.7 | 1436.7 |
| 35°   | 8504.8  | 6608.4  | 2340.3 | 1607.4 | 1352.7 | 1234.5 | 1266.0 | 1342.1 | 1410.5 | 1423.6 | 1423.6 |
| 37.5° | 9523.9  | 7291.3  | 2358.6 | 1625.9 | 1329.0 | 1184.6 | 1200.4 | 1266.0 | 1355.3 | 1397.3 | 1407.8 |
| 40°   | 10682.2 | 8087.1  | 2463.7 | 1607.4 | 1302.8 | 1142.6 | 1145.1 | 1195.0 | 1273.9 | 1336.9 | 1357.9 |
| 42.5° | 11877.3 | 9016.9  | 2658.0 | 1539.1 | 1279.1 | 1105.8 | 1097.9 | 1132.0 | 1184.6 | 1229.2 | 1247.6 |
| 45°   | 13014.6 | 9973.0  | 2849.8 | 1444.6 | 1250.2 | 1069.0 | 1050.6 | 1063.7 | 1074.3 | 1092.6 | 1103.1 |
| 47.5° | 14007.4 | 10645.4 | 2794.7 | 1357.9 | 1210.8 | 1026.9 | 995.5  | 990.3  | 958.7  | 956.0  | 953.5  |
| 50°   | 14693.0 | 10792.5 | 2482.1 | 1271.2 | 1153.0 | 979.7  | 929.8  | 898.3  | 843.2  | 816.8  | 819.5  |
| 52.5° | 14911.0 | 10212.1 | 2027.7 | 1184.6 | 1058.5 | 916.7  | 845.7  | 795.8  | 727.5  | 703.9  | 701.3  |
| 55°   | 14622.0 | 9074.7  | 1620.6 | 1079.5 | 927.2  | 832.6  | 753.8  | 688.2  | 633.0  | 604.1  | 604.1  |
| 57.5° | 13915.5 | 7627.5  | 1281.8 | 956.0  | 787.9  | 738.1  | 659.3  | 593.6  | 546.3  | 517.4  | 512.2  |
| 60°   | 12744.0 | 6056.8  | 1013.8 | 808.9  | 672.4  | 635.6  | 554.2  | 512.2  | 470.2  | 436.0  | 428.1  |
| 62.5° | 10965.9 | 4323.3  | 795.8  | 640.8  | 562.1  | 520.1  | 472.7  | 441.3  | 391.3  | 344.1  | 336.2  |
| 65°   | 8557.3  | 2644.9  | 614.6  | 470.2  | 451.7  | 430.7  | 401.9  | 373.0  | 312.5  | 265.3  | 257.4  |
| 67.5° | 5397.5  | 1252.9  | 438.6  | 354.5  | 357.2  | 346.7  | 333.5  | 310.0  | 265.3  | 223.2  | 218.0  |
| 70°   | 2377.1  | 606.7   | 288.9  | 270.5  | 265.3  | 265.3  | 275.8  | 267.9  | 225.9  | 186.4  | 178.6  |
| 72.5° | 808.9   | 325.6   | 215.4  | 204.9  | 191.8  | 189.1  | 231.1  | 223.2  | 181.2  | 144.4  | 136.5  |
| 75°   | 422.9   | 218.0   | 157.5  | 147.1  | 115.5  | 139.2  | 183.9  | 173.3  | 128.7  | 94.5   | 86.7   |
| 77.5° | 275.8   | 155.0   | 107.7  | 94.5   | 65.7   | 91.9   | 136.5  | 120.8  | 76.2   | 47.3   | 42.0   |
| 80°   | 173.3   | 102.4   | 63.0   | 44.7   | 31.5   | 49.9   | 73.5   | 52.5   | 28.9   | 10.5   | 7.9    |
| 82.5° | 91.9    | 52.5    | 23.7   | 15.8   | 13.1   | 15.8   | 18.3   | 13.1   | 5.2    | 0.0    | 0.0    |
| 85°   | 36.8    | 18.3    | 7.9    | 5.2    | 2.7    | 0.0    | 5.2    | 2.7    | 0.0    | 0.0    | 0.0    |
| 87.5° | 13.1    | 2.7     | 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)