

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: P965074

Luminaire Tested: **NAV-SB3D-730-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965074
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-730-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30931.4 lumens
Efficiency: N/A
Efficacy: 141.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

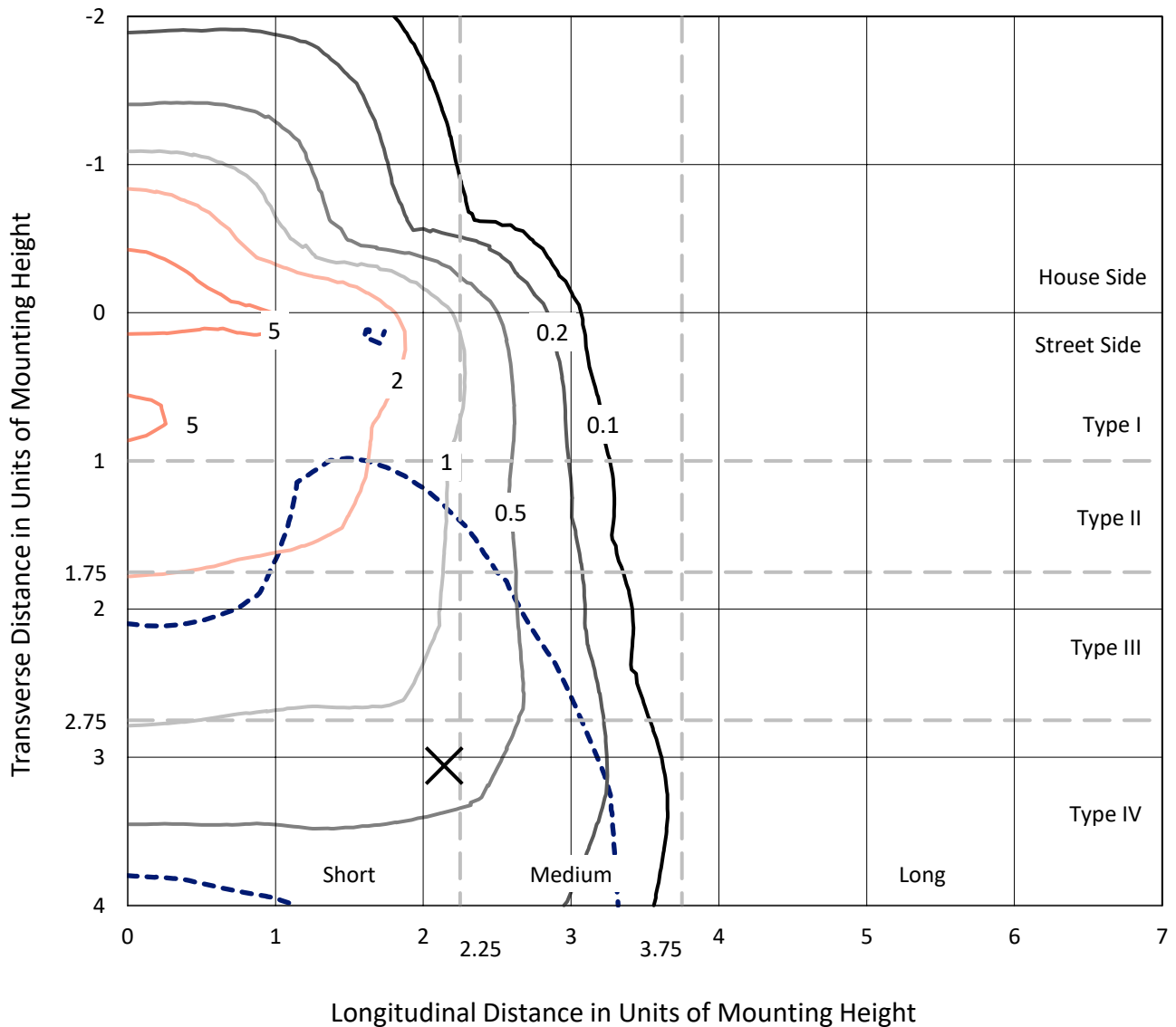
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

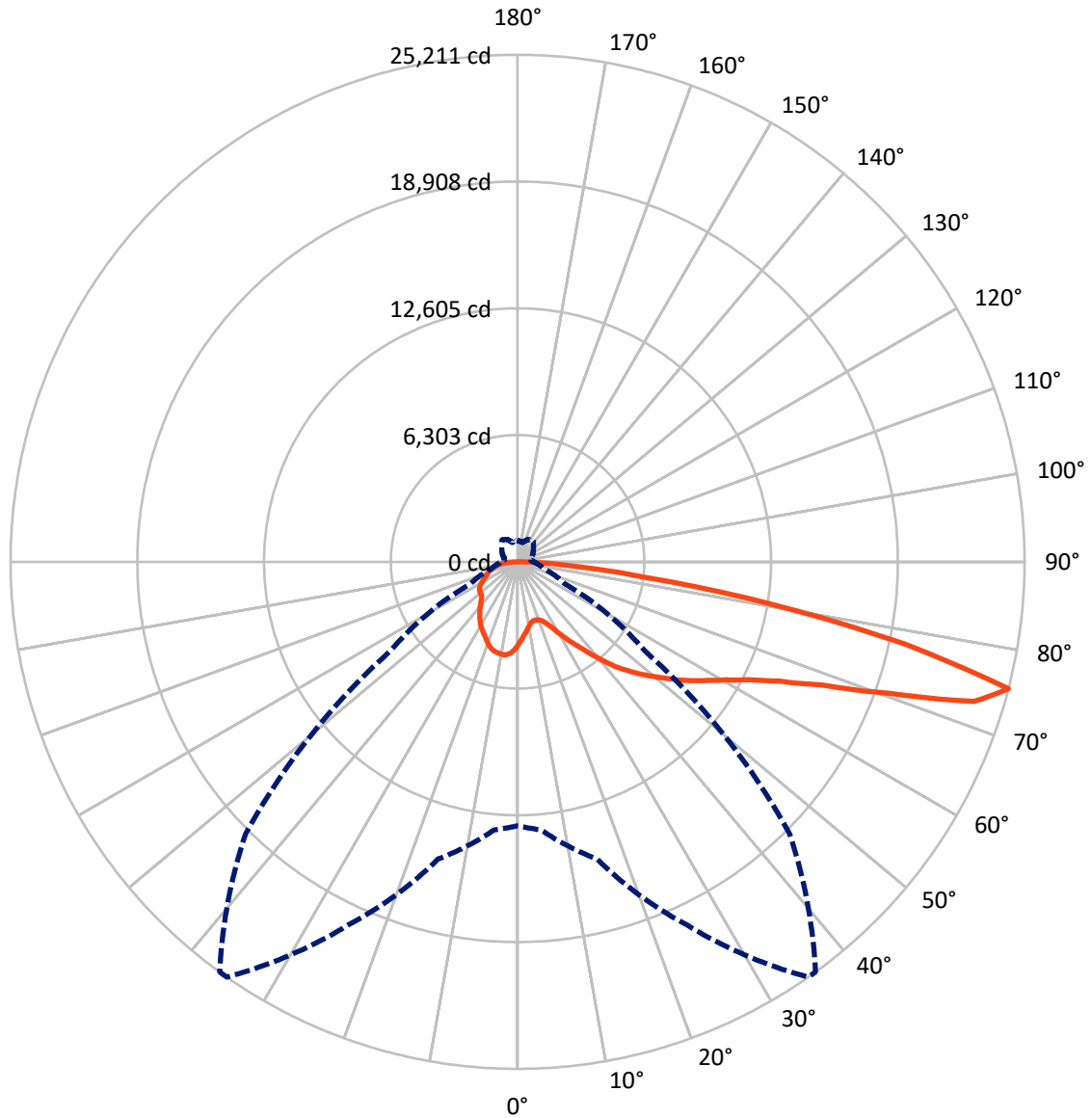
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7360.9 | 0.0 | 7360.9 |
| | % Fixture | 23.8 | 0.0 | 23.8 |
| Street Side | Lumens | 23570.5 | 0.0 | 23570.5 |
| | % Fixture | 76.2 | 0.0 | 76.2 |
| Total | Lumens | 30931.4 | 0.0 | 30931.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 390.3 | 1.3 |
| 10°-20° | 1125.7 | 3.6 |
| 20°-30° | 1890.3 | 6.1 |
| 30°-40° | 2937.8 | 9.5 |
| 40°-50° | 4360.4 | 14.1 |
| 50°-60° | 6019.8 | 19.5 |
| 60°-70° | 7303.4 | 23.6 |
| 70°-80° | 6035.7 | 19.5 |
| 80°-90° | 868.1 | 2.8 |
| 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° | 30931.4 | 100.0 |
| 0°-180° | 30931.4 | 100.0 |

Coefficient of Utilization

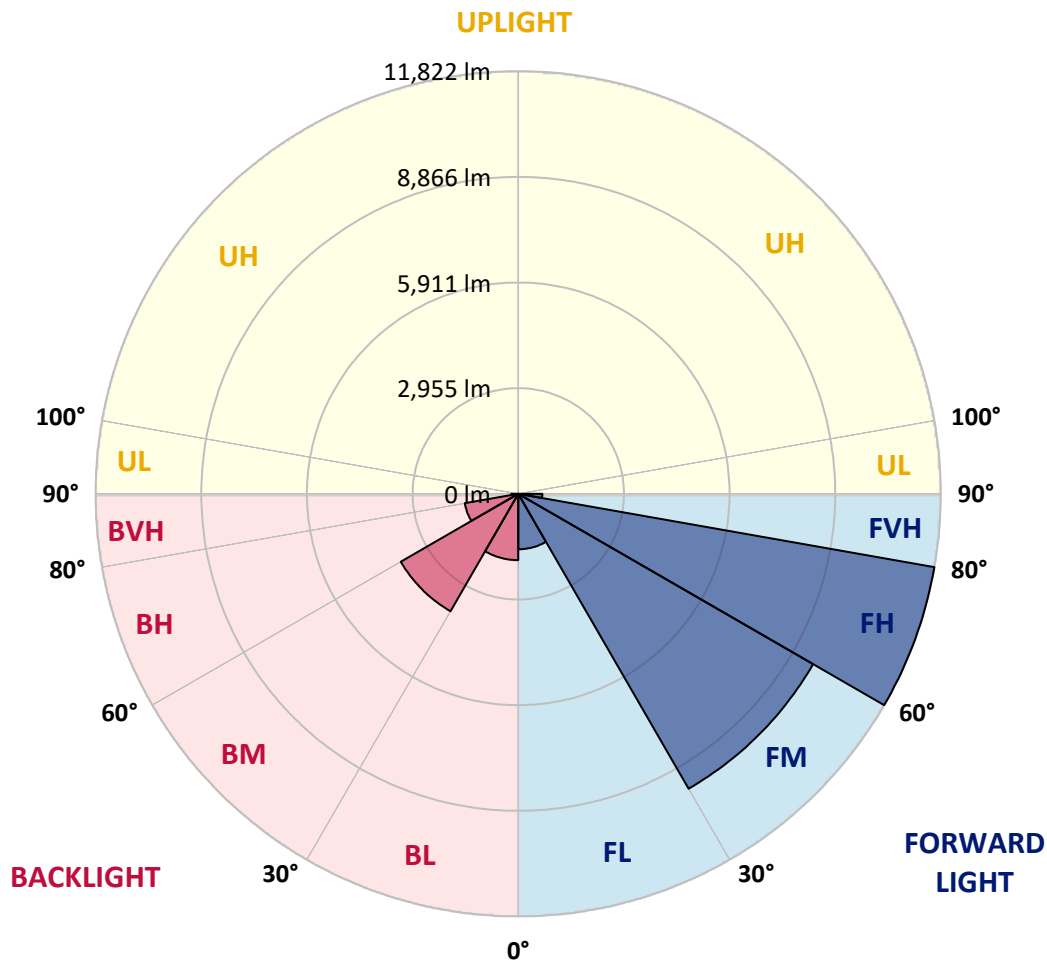


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1551.2 | 5.0 | | | |
| FM (30°-60°) | 9525.2 | 30.8 | | | |
| FH (60°-80°) | 11821.5 | 38.2 | | | G4/12000 |
| FVH (80°-90°) | 672.6 | 2.2 | | | G4/750 |
| BL (0°-30°) | 1855.0 | 6.0 | B3/2500 | | |
| BM (30°-60°) | 3792.8 | 12.3 | B3/5000 | | |
| BH (60°-80°) | 1517.6 | 4.9 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 195.5 | 0.6 | | | 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 IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 |
| 2.5° | 3800.8 | 3824.2 | 3834.2 | 3829.2 | 3854.3 | 3850.9 | 3886.1 | 3929.5 | 3989.7 | 4048.2 | 4133.5 |
| 5° | 3508.2 | 3533.3 | 3555.0 | 3575.0 | 3623.5 | 3638.5 | 3693.8 | 3777.3 | 3887.7 | 3999.8 | 4140.2 |
| 7.5° | 3235.6 | 3257.3 | 3290.8 | 3327.6 | 3409.5 | 3424.5 | 3516.5 | 3647.0 | 3800.8 | 3964.6 | 4158.6 |
| 10° | 3013.2 | 3034.9 | 3070.1 | 3111.9 | 3213.9 | 3232.2 | 3349.3 | 3523.2 | 3723.8 | 3931.2 | 4178.7 |
| 12.5° | 2917.9 | 2924.5 | 2944.6 | 2986.4 | 3075.1 | 3086.8 | 3215.5 | 3414.5 | 3648.6 | 3906.1 | 4208.8 |
| 15° | 2912.8 | 2926.3 | 2927.9 | 2949.6 | 3023.2 | 3028.3 | 3147.0 | 3344.3 | 3601.7 | 3901.2 | 4254.0 |
| 17.5° | 2963.1 | 2973.0 | 2958.0 | 2971.4 | 3033.3 | 3041.6 | 3135.3 | 3310.9 | 3586.8 | 3922.9 | 4330.8 |
| 20° | 3096.8 | 3105.1 | 3060.0 | 3041.6 | 3086.8 | 3093.4 | 3185.4 | 3332.6 | 3601.7 | 3968.0 | 4436.2 |
| 22.5° | 3381.1 | 3386.1 | 3275.7 | 3200.5 | 3203.8 | 3207.1 | 3287.4 | 3421.2 | 3660.3 | 4049.9 | 4570.0 |
| 25° | 3824.2 | 3820.8 | 3645.3 | 3499.8 | 3416.2 | 3397.8 | 3451.3 | 3565.0 | 3759.0 | 4158.6 | 4742.2 |
| 27.5° | 4342.5 | 4317.5 | 4141.9 | 3924.5 | 3742.3 | 3715.5 | 3703.8 | 3752.3 | 3899.4 | 4302.4 | 4952.9 |
| 30° | 4927.8 | 4904.4 | 4715.4 | 4431.2 | 4178.7 | 4135.2 | 4024.9 | 3999.8 | 4108.4 | 4498.0 | 5245.5 |
| 32.5° | 5569.8 | 5554.9 | 5329.1 | 4984.7 | 4646.8 | 4596.7 | 4411.1 | 4344.3 | 4429.5 | 4794.0 | 5653.5 |
| 35° | 6108.3 | 6095.0 | 5907.7 | 5553.1 | 5140.2 | 5078.3 | 4889.4 | 4814.1 | 4857.6 | 5173.6 | 6186.9 |
| 37.5° | 6595.0 | 6588.2 | 6427.7 | 6148.5 | 5722.1 | 5646.8 | 5434.4 | 5409.3 | 5401.0 | 5673.6 | 6834.0 |
| 40° | 7046.4 | 7029.7 | 6862.5 | 6715.3 | 6399.3 | 6330.7 | 6143.4 | 6121.7 | 6058.2 | 6288.9 | 7566.4 |
| 42.5° | 7546.4 | 7502.9 | 7260.4 | 7191.9 | 7106.6 | 7049.7 | 6937.7 | 6941.1 | 6800.6 | 6982.8 | 8342.3 |
| 45° | 7954.4 | 7929.3 | 7680.1 | 7640.0 | 7732.0 | 7708.5 | 7805.6 | 7830.6 | 7558.0 | 7710.3 | 9148.2 |
| 47.5° | 8392.5 | 8369.0 | 8158.4 | 8129.9 | 8379.1 | 8385.7 | 8728.6 | 8736.9 | 8297.2 | 8466.0 | 9955.9 |
| 50° | 8932.6 | 8899.2 | 8690.2 | 8725.2 | 9004.4 | 9029.5 | 9656.6 | 9599.7 | 8977.7 | 9233.5 | 10756.9 |
| 52.5° | 9288.8 | 9308.8 | 9263.6 | 9320.5 | 9701.7 | 9725.2 | 10569.6 | 10424.1 | 9651.6 | 9991.0 | 11542.7 |
| 55° | 9551.3 | 9591.4 | 9731.9 | 9862.2 | 10437.5 | 10460.9 | 11430.7 | 11208.4 | 10210.1 | 10693.3 | 12281.9 |
| 57.5° | 9889.0 | 9832.2 | 10094.7 | 10348.9 | 11136.4 | 11198.3 | 12268.4 | 11964.1 | 10705.0 | 11298.7 | 12788.5 |
| 60° | 10373.9 | 10333.8 | 10537.8 | 10914.1 | 11919.0 | 12017.6 | 13154.7 | 12644.7 | 11067.8 | 11778.6 | 12887.2 |
| 62.5° | 11357.2 | 11256.9 | 11288.6 | 11621.3 | 12905.6 | 13035.9 | 14154.6 | 13238.3 | 11248.5 | 11965.8 | 12358.7 |
| 65° | 12827.0 | 12654.8 | 12494.2 | 12725.0 | 14295.2 | 14423.9 | 15283.4 | 13704.9 | 11181.6 | 11603.0 | 10955.8 |
| 67.5° | 14678.0 | 14507.4 | 14310.1 | 14527.5 | 16341.8 | 16443.8 | 16676.2 | 13967.4 | 10654.9 | 10205.1 | 8476.0 |
| 70° | 16204.7 | 16141.2 | 16376.9 | 17271.6 | 19610.8 | 19614.2 | 18462.1 | 13750.0 | 9211.8 | 7235.4 | 4904.4 |
| 72.5° | 16002.4 | 15963.9 | 17206.3 | 19972.0 | 23731.0 | 23642.3 | 20152.6 | 12104.6 | 6205.3 | 3264.0 | 1837.7 |
| 75° | 13128.0 | 13377.1 | 15301.7 | 19923.5 | 25210.8 | 25199.1 | 19117.6 | 7695.2 | 2566.7 | 1352.8 | 949.8 |
| 77.5° | 7039.7 | 7434.3 | 9934.2 | 14709.8 | 19681.0 | 19977.0 | 13440.6 | 2692.2 | 1102.0 | 866.1 | 657.1 |
| 80° | 2295.9 | 2640.3 | 3959.6 | 7489.5 | 12788.5 | 12733.4 | 5760.5 | 1056.8 | 754.1 | 613.7 | 454.8 |
| 82.5° | 974.9 | 1015.0 | 1769.2 | 3536.6 | 6563.2 | 6461.2 | 1834.3 | 607.0 | 530.0 | 419.7 | 281.0 |
| 85° | 381.2 | 426.4 | 780.8 | 1635.4 | 2842.6 | 2780.7 | 662.2 | 300.9 | 339.5 | 274.2 | 167.2 |
| 87.5° | 125.5 | 152.2 | 279.2 | 560.2 | 884.6 | 852.8 | 162.2 | 103.6 | 147.2 | 125.5 | 60.2 |
| 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° | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 | 4121.8 |
| 2.5° | 4156.9 | 4183.6 | 4215.4 | 4262.3 | 4302.4 | 4335.9 | 4371.0 | 4392.7 | 4401.0 | 4426.2 | 4424.5 |
| 5° | 4187.0 | 4245.5 | 4324.2 | 4401.0 | 4476.3 | 4521.5 | 4561.6 | 4581.6 | 4600.1 | 4613.4 | 4616.8 |
| 7.5° | 4237.2 | 4312.5 | 4436.2 | 4536.5 | 4600.1 | 4636.8 | 4663.5 | 4656.9 | 4663.5 | 4666.9 | 4672.0 |
| 10° | 4280.7 | 4386.0 | 4533.2 | 4628.5 | 4677.0 | 4678.6 | 4672.0 | 4648.6 | 4636.8 | 4638.5 | 4641.8 |
| 12.5° | 4332.5 | 4449.5 | 4608.4 | 4688.7 | 4702.1 | 4665.3 | 4636.8 | 4596.7 | 4581.6 | 4575.0 | 4571.6 |
| 15° | 4402.8 | 4536.5 | 4690.3 | 4720.4 | 4687.0 | 4640.2 | 4591.7 | 4526.5 | 4493.1 | 4466.2 | 4474.6 |
| 17.5° | 4488.1 | 4635.2 | 4753.8 | 4732.1 | 4660.3 | 4583.3 | 4504.8 | 4406.1 | 4337.5 | 4309.1 | 4310.7 |
| 20° | 4606.8 | 4738.9 | 4802.4 | 4707.1 | 4598.4 | 4481.3 | 4347.5 | 4227.2 | 4163.7 | 4135.2 | 4131.9 |
| 22.5° | 4750.6 | 4877.7 | 4849.2 | 4663.5 | 4509.8 | 4322.5 | 4155.2 | 4066.7 | 4034.9 | 4014.8 | 4018.1 |
| 25° | 4922.8 | 5031.4 | 4882.7 | 4600.1 | 4364.2 | 4111.8 | 3983.0 | 3954.7 | 3939.6 | 3924.5 | 3924.5 |
| 27.5° | 5146.8 | 5205.4 | 4907.7 | 4506.4 | 4136.9 | 3887.7 | 3840.9 | 3845.9 | 3840.9 | 3815.9 | 3820.8 |
| 30° | 5442.9 | 5431.1 | 4931.2 | 4354.2 | 3876.0 | 3685.4 | 3688.8 | 3710.5 | 3713.8 | 3697.1 | 3705.5 |
| 32.5° | 5832.5 | 5713.7 | 4942.9 | 4156.9 | 3626.9 | 3508.2 | 3511.4 | 3534.9 | 3551.6 | 3523.2 | 3536.6 |
| 35° | 6304.0 | 6043.1 | 4924.4 | 3909.5 | 3434.6 | 3339.2 | 3314.1 | 3320.9 | 3325.9 | 3299.2 | 3317.5 |
| 37.5° | 6854.1 | 6412.6 | 4842.5 | 3635.3 | 3275.7 | 3173.7 | 3120.2 | 3075.1 | 3048.4 | 3023.2 | 3039.9 |
| 40° | 7457.7 | 6815.6 | 4692.0 | 3367.6 | 3098.5 | 2998.1 | 2917.9 | 2832.6 | 2742.3 | 2708.9 | 2723.9 |
| 42.5° | 8089.8 | 7230.4 | 4509.8 | 3111.9 | 2894.5 | 2812.5 | 2727.2 | 2603.5 | 2468.1 | 2399.5 | 2407.9 |
| 45° | 8745.3 | 7655.0 | 4330.8 | 2859.3 | 2685.5 | 2650.3 | 2551.6 | 2402.9 | 2255.7 | 2168.8 | 2162.0 |
| 47.5° | 9387.4 | 8056.4 | 4068.3 | 2605.2 | 2489.8 | 2528.3 | 2451.4 | 2314.2 | 2150.3 | 2013.3 | 1998.2 |
| 50° | 10001.0 | 8432.6 | 3638.5 | 2347.7 | 2331.0 | 2491.5 | 2417.9 | 2220.6 | 2033.3 | 1857.7 | 1842.7 |
| 52.5° | 10609.7 | 8736.9 | 3088.4 | 2113.5 | 2245.7 | 2481.4 | 2374.4 | 2157.0 | 1928.0 | 1744.0 | 1723.9 |
| 55° | 11126.4 | 8894.1 | 2558.4 | 1913.0 | 2122.0 | 2396.1 | 2322.6 | 2081.8 | 1779.2 | 1583.5 | 1566.8 |
| 57.5° | 11420.8 | 8767.0 | 2116.9 | 1715.6 | 1951.4 | 2255.7 | 2234.0 | 1921.3 | 1601.9 | 1451.4 | 1431.3 |
| 60° | 11293.7 | 8252.0 | 1755.7 | 1543.3 | 1789.1 | 2103.5 | 2080.1 | 1762.4 | 1466.5 | 1324.3 | 1304.3 |
| 62.5° | 10593.0 | 7270.4 | 1469.8 | 1392.9 | 1642.0 | 1948.0 | 1926.3 | 1640.4 | 1362.8 | 1225.7 | 1204.0 |
| 65° | 9181.7 | 5914.4 | 1247.4 | 1267.5 | 1493.2 | 1760.7 | 1792.5 | 1538.3 | 1280.8 | 1147.1 | 1125.3 |
| 67.5° | 7002.9 | 4284.0 | 1073.5 | 1158.8 | 1347.8 | 1576.9 | 1668.8 | 1464.8 | 1212.3 | 1085.2 | 1065.2 |
| 70° | 3991.3 | 2432.9 | 926.4 | 1053.5 | 1219.0 | 1406.3 | 1573.5 | 1406.3 | 1138.8 | 1033.4 | 1020.0 |
| 72.5° | 1513.3 | 1116.9 | 800.9 | 948.1 | 1095.2 | 1262.5 | 1468.1 | 1314.3 | 1053.5 | 974.9 | 961.4 |
| 75° | 807.6 | 680.6 | 673.8 | 824.4 | 953.1 | 1122.0 | 1336.1 | 1224.1 | 989.9 | 1030.0 | 1063.4 |
| 77.5° | 550.1 | 481.5 | 563.5 | 705.6 | 797.7 | 966.5 | 1195.6 | 1086.9 | 857.8 | 854.4 | 787.6 |
| 80° | 381.2 | 341.1 | 458.2 | 568.6 | 617.0 | 812.6 | 1043.4 | 933.1 | 698.9 | 652.1 | 623.7 |
| 82.5° | 229.1 | 222.4 | 342.8 | 424.8 | 436.4 | 627.1 | 864.5 | 782.6 | 571.8 | 498.3 | 501.6 |
| 85° | 125.5 | 132.1 | 219.0 | 249.2 | 254.2 | 438.1 | 677.2 | 605.4 | 439.7 | 369.5 | 372.9 |
| 87.5° | 35.2 | 45.1 | 80.3 | 98.6 | 122.1 | 227.4 | 403.0 | 359.5 | 220.7 | 153.9 | 153.9 |
| 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)