

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: P965038

Luminaire Tested: **NAV-SB3D-727-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-727-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22765.2 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

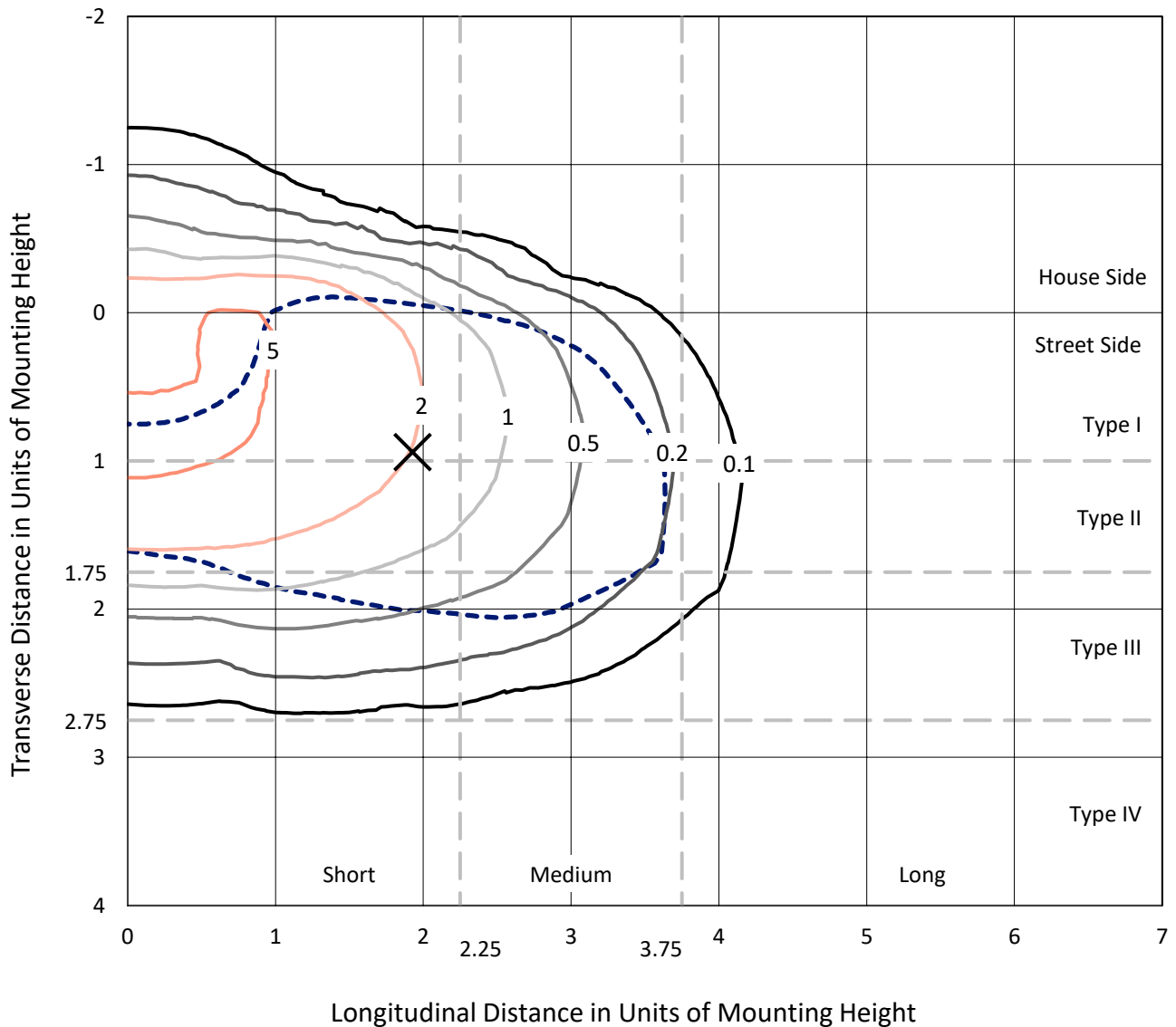
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

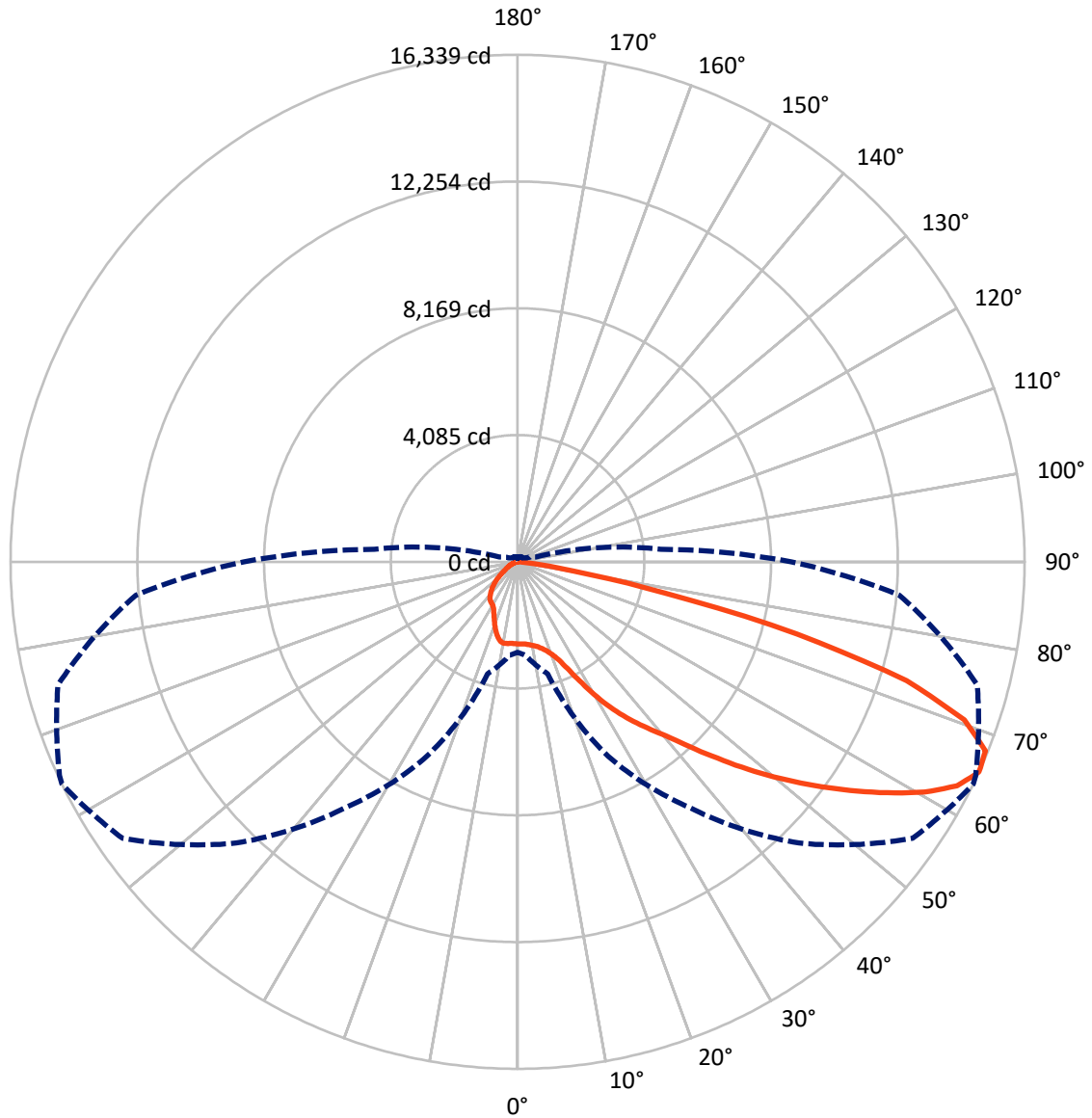
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3044.4 | 0.0 | 3044.4 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 19720.8 | 0.0 | 19720.8 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 22765.2 | 0.0 | 22765.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 244.3 | 1.1 |
| 10°-20° | 662.6 | 2.9 |
| 20°-30° | 1255.5 | 5.5 |
| 30°-40° | 2540.6 | 11.2 |
| 40°-50° | 4328.0 | 19.0 |
| 50°-60° | 5885.7 | 25.9 |
| 60°-70° | 5527.0 | 24.3 |
| 70°-80° | 2214.3 | 9.7 |
| 80°-90° | 107.3 | 0.5 |
| 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° | 22765.2 | 100.0 |
| 0°-180° | 22765.2 | 100.0 |

Coefficient of Utilization



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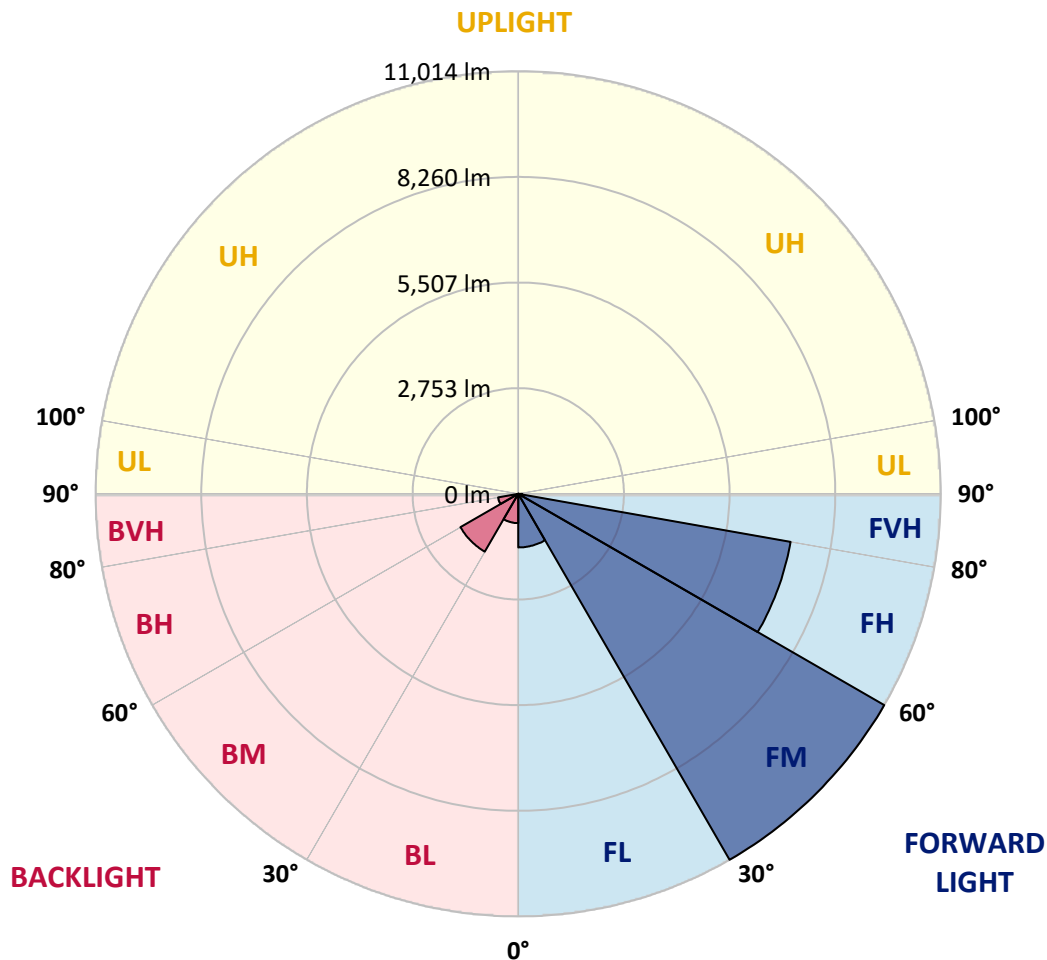
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1398.0 | 6.1 | | | |
| FM (30°-60°) | 11013.8 | 48.4 | | | |
| FH (60°-80°) | 7207.0 | 31.7 | | | G3/7500 |
| FVH (80°-90°) | 102.0 | 0.4 | | | G2/225 |
| BL (0°-30°) | 764.4 | 3.4 | B2/1000 | | |
| BM (30°-60°) | 1740.5 | 7.6 | B2/2500 | | |
| BH (60°-80°) | 534.3 | 2.3 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 5.2 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 |
| 2.5° | 2638.7 | 2657.0 | 2652.4 | 2647.9 | 2646.3 | 2649.3 | 2650.9 | 2649.3 | 2649.3 | 2649.3 | 2650.9 |
| 5° | 2588.3 | 2603.6 | 2603.6 | 2614.3 | 2629.5 | 2647.9 | 2661.6 | 2664.6 | 2667.7 | 2672.3 | 2670.7 |
| 7.5° | 2492.2 | 2504.4 | 2513.5 | 2548.7 | 2586.8 | 2635.6 | 2676.8 | 2698.2 | 2701.3 | 2718.0 | 2724.1 |
| 10° | 2426.6 | 2441.9 | 2457.0 | 2493.7 | 2548.7 | 2621.8 | 2692.1 | 2744.0 | 2751.6 | 2791.3 | 2809.6 |
| 12.5° | 2423.5 | 2438.8 | 2458.6 | 2498.2 | 2562.4 | 2640.2 | 2725.7 | 2800.4 | 2814.1 | 2872.2 | 2910.3 |
| 15° | 2455.6 | 2473.8 | 2492.2 | 2541.0 | 2609.6 | 2704.3 | 2795.9 | 2889.0 | 2902.7 | 2985.1 | 3026.3 |
| 17.5° | 2521.2 | 2545.6 | 2559.3 | 2608.1 | 2681.4 | 2786.7 | 2907.3 | 3014.1 | 3026.3 | 3122.5 | 3174.3 |
| 20° | 2650.9 | 2679.9 | 2684.5 | 2724.1 | 2795.9 | 2908.8 | 3052.2 | 3185.0 | 3200.3 | 3310.1 | 3368.2 |
| 22.5° | 2919.5 | 2960.7 | 2924.0 | 2943.9 | 3008.0 | 3120.9 | 3276.6 | 3444.5 | 3465.8 | 3591.0 | 3642.8 |
| 25° | 3392.5 | 3450.6 | 3356.0 | 3322.4 | 3349.9 | 3467.4 | 3627.7 | 3874.8 | 3899.3 | 4000.0 | 4025.9 |
| 27.5° | 4322.0 | 4247.2 | 4103.8 | 3963.4 | 3881.0 | 3948.1 | 4167.9 | 4430.4 | 4460.9 | 4558.6 | 4528.0 |
| 30° | 5343.0 | 5277.3 | 5083.5 | 4772.2 | 4576.8 | 4566.2 | 4769.1 | 5062.2 | 5097.2 | 5190.4 | 5097.2 |
| 32.5° | 6365.5 | 6302.9 | 6092.3 | 5709.2 | 5370.5 | 5202.6 | 5343.0 | 5668.0 | 5686.4 | 5745.8 | 5608.5 |
| 35° | 7371.2 | 7307.1 | 7096.5 | 6704.3 | 6287.7 | 5906.2 | 5878.7 | 6244.9 | 6251.1 | 6313.6 | 6109.1 |
| 37.5° | 8383.1 | 8329.7 | 8105.3 | 7720.7 | 7310.2 | 6783.7 | 6528.7 | 6791.2 | 6798.9 | 6859.9 | 6647.8 |
| 40° | 9104.9 | 9127.8 | 8973.7 | 8676.0 | 8323.5 | 7748.2 | 7258.2 | 7372.7 | 7326.9 | 7429.2 | 7302.5 |
| 42.5° | 9724.5 | 9770.3 | 9636.0 | 9486.4 | 9281.9 | 8775.2 | 8161.8 | 8141.9 | 8068.7 | 8123.6 | 7992.3 |
| 45° | 10260.1 | 10298.3 | 10177.7 | 10142.7 | 10138.1 | 9782.5 | 9149.2 | 9030.1 | 8927.9 | 8917.2 | 8760.0 |
| 47.5° | 10457.0 | 10530.3 | 10582.2 | 10699.7 | 10928.7 | 10779.1 | 10170.2 | 9985.4 | 9871.1 | 9787.1 | 9538.3 |
| 50° | 10531.8 | 10609.7 | 10786.7 | 11128.5 | 11670.3 | 11734.4 | 11186.5 | 10979.0 | 10838.6 | 10685.9 | 10319.7 |
| 52.5° | 10431.1 | 10570.0 | 10808.0 | 11383.4 | 12169.3 | 12500.5 | 12161.7 | 11980.1 | 11819.9 | 11571.1 | 11027.8 |
| 55° | 9837.4 | 9976.3 | 10463.1 | 11380.4 | 12418.1 | 13037.7 | 13083.5 | 13002.6 | 12822.5 | 12430.3 | 11600.1 |
| 57.5° | 8586.0 | 8792.0 | 9562.7 | 10992.7 | 12413.6 | 13500.2 | 13986.9 | 14045.0 | 13843.5 | 13282.0 | 12050.3 |
| 60° | 6852.3 | 7131.6 | 8071.7 | 10133.5 | 12030.5 | 13750.5 | 14779.1 | 15069.0 | 14855.3 | 14121.3 | 12415.1 |
| 62.5° | 4781.3 | 5104.9 | 5994.6 | 8787.4 | 11154.5 | 13570.4 | 15357.5 | 15893.1 | 15731.4 | 14872.1 | 12555.4 |
| 65° | 2916.4 | 3020.2 | 3737.5 | 6914.9 | 9664.9 | 12816.4 | 15536.0 | 16338.7 | 16285.3 | 15331.5 | 12347.9 |
| 67.5° | 1942.8 | 2029.7 | 2235.7 | 4741.6 | 7502.5 | 11310.2 | 15108.7 | 16260.9 | 16276.2 | 15256.7 | 11587.9 |
| 70° | 1170.6 | 1245.3 | 1379.6 | 2757.8 | 4862.3 | 8952.2 | 13785.5 | 15268.9 | 15357.5 | 14257.1 | 10147.2 |
| 72.5° | 482.3 | 532.6 | 654.7 | 1249.9 | 2518.1 | 5681.8 | 10977.4 | 13109.4 | 13315.5 | 11987.8 | 7787.8 |
| 75° | 273.2 | 299.1 | 384.6 | 627.2 | 1092.8 | 2647.9 | 6649.4 | 9306.4 | 9610.0 | 8262.4 | 4685.2 |
| 77.5° | 181.6 | 193.8 | 248.8 | 405.9 | 615.0 | 903.4 | 2841.6 | 4848.6 | 5428.4 | 4512.8 | 2028.3 |
| 80° | 122.1 | 132.7 | 171.0 | 271.6 | 399.9 | 387.7 | 905.0 | 1796.2 | 2209.8 | 1550.5 | 494.5 |
| 82.5° | 82.4 | 83.9 | 122.1 | 178.6 | 253.4 | 187.7 | 267.1 | 558.5 | 702.0 | 448.6 | 187.7 |
| 85° | 47.4 | 45.8 | 90.0 | 103.7 | 113.0 | 77.8 | 80.9 | 167.9 | 219.8 | 189.2 | 106.8 |
| 87.5° | 6.1 | 9.1 | 35.1 | 27.5 | 15.3 | 16.8 | 16.8 | 29.0 | 42.7 | 45.8 | 22.9 |
| 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° | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 | 2647.9 |
| 2.5° | 2650.9 | 2649.3 | 2644.8 | 2640.2 | 2629.5 | 2623.4 | 2626.5 | 2623.4 | 2621.8 | 2623.4 | 2629.5 |
| 5° | 2670.7 | 2666.1 | 2653.9 | 2638.7 | 2617.3 | 2591.4 | 2574.6 | 2550.2 | 2527.2 | 2513.5 | 2516.6 |
| 7.5° | 2724.1 | 2719.5 | 2702.8 | 2660.1 | 2591.4 | 2483.1 | 2383.8 | 2296.8 | 2231.2 | 2193.1 | 2194.5 |
| 10° | 2809.6 | 2801.9 | 2776.0 | 2681.4 | 2501.3 | 2264.7 | 2067.9 | 1904.7 | 1797.7 | 1747.4 | 1742.8 |
| 12.5° | 2910.3 | 2901.2 | 2855.3 | 2661.6 | 2330.4 | 1961.0 | 1689.4 | 1507.8 | 1408.7 | 1364.4 | 1359.8 |
| 15° | 3029.4 | 3017.2 | 2927.1 | 2566.9 | 2081.7 | 1625.3 | 1376.6 | 1240.8 | 1176.6 | 1136.9 | 1138.5 |
| 17.5° | 3177.4 | 3156.1 | 2980.5 | 2425.0 | 1811.5 | 1368.9 | 1184.3 | 1082.0 | 1025.5 | 987.4 | 984.3 |
| 20° | 3369.7 | 3334.6 | 3023.2 | 2255.6 | 1562.7 | 1207.1 | 1054.5 | 969.1 | 926.4 | 892.8 | 886.7 |
| 22.5° | 3638.3 | 3587.9 | 3075.1 | 2072.4 | 1387.2 | 1095.7 | 958.4 | 895.8 | 860.7 | 822.6 | 816.5 |
| 25° | 3971.0 | 3911.5 | 3139.3 | 1903.1 | 1266.7 | 999.6 | 888.2 | 836.3 | 795.1 | 750.8 | 746.3 |
| 27.5° | 4436.5 | 4329.6 | 3215.5 | 1764.2 | 1162.9 | 917.2 | 824.1 | 766.1 | 718.8 | 682.1 | 674.6 |
| 30° | 4955.4 | 4779.9 | 3282.7 | 1680.3 | 1068.3 | 840.9 | 740.2 | 682.1 | 638.0 | 612.0 | 607.4 |
| 32.5° | 5446.7 | 5208.6 | 3326.9 | 1643.7 | 982.9 | 753.9 | 648.6 | 586.0 | 552.5 | 544.8 | 549.4 |
| 35° | 5910.7 | 5596.3 | 3322.4 | 1608.5 | 906.5 | 667.0 | 558.5 | 494.5 | 468.5 | 473.1 | 473.1 |
| 37.5° | 6444.9 | 6009.9 | 3290.4 | 1553.6 | 844.0 | 587.5 | 480.7 | 424.2 | 401.4 | 402.9 | 409.0 |
| 40° | 7065.9 | 6487.5 | 3270.5 | 1449.9 | 775.3 | 514.3 | 416.7 | 370.8 | 354.0 | 348.0 | 346.4 |
| 42.5° | 7728.3 | 6950.0 | 3273.5 | 1332.3 | 689.8 | 448.6 | 372.4 | 334.3 | 319.0 | 314.4 | 312.8 |
| 45° | 8393.7 | 7391.1 | 3278.2 | 1210.2 | 599.7 | 398.3 | 340.3 | 308.3 | 299.1 | 293.0 | 293.0 |
| 47.5° | 9019.4 | 7766.4 | 3192.7 | 1079.0 | 511.3 | 360.2 | 314.4 | 293.0 | 285.4 | 277.8 | 277.8 |
| 50° | 9602.4 | 8016.7 | 2986.6 | 926.4 | 441.1 | 329.6 | 294.6 | 279.3 | 271.6 | 264.0 | 264.0 |
| 52.5° | 10055.7 | 8056.4 | 2646.3 | 769.2 | 392.2 | 306.8 | 282.3 | 268.5 | 259.4 | 251.8 | 250.3 |
| 55° | 10257.1 | 7807.6 | 2162.5 | 622.7 | 354.0 | 286.9 | 270.1 | 256.4 | 245.7 | 238.1 | 236.6 |
| 57.5° | 10205.2 | 7284.3 | 1686.3 | 500.6 | 317.4 | 267.1 | 254.8 | 245.7 | 233.5 | 221.3 | 219.8 |
| 60° | 9950.4 | 6583.7 | 1271.3 | 416.7 | 283.8 | 245.7 | 238.1 | 230.4 | 213.6 | 195.4 | 192.3 |
| 62.5° | 9509.3 | 5703.1 | 906.5 | 344.9 | 247.2 | 221.3 | 218.2 | 212.2 | 187.7 | 154.2 | 151.1 |
| 65° | 8834.8 | 4633.3 | 610.5 | 286.9 | 212.2 | 193.8 | 195.4 | 184.7 | 152.6 | 114.5 | 111.4 |
| 67.5° | 7848.8 | 3388.0 | 390.7 | 235.0 | 177.0 | 161.7 | 163.3 | 157.2 | 129.8 | 97.7 | 93.1 |
| 70° | 6592.9 | 2243.4 | 254.8 | 178.6 | 142.0 | 125.2 | 134.3 | 135.8 | 109.9 | 79.3 | 76.3 |
| 72.5° | 4833.3 | 1324.7 | 178.6 | 132.7 | 103.7 | 87.0 | 109.9 | 113.0 | 88.6 | 59.6 | 56.5 |
| 75° | 2754.7 | 628.7 | 134.3 | 96.1 | 64.1 | 61.1 | 85.5 | 85.5 | 61.1 | 39.7 | 36.6 |
| 77.5° | 1156.8 | 262.5 | 94.6 | 62.5 | 36.6 | 35.1 | 58.0 | 53.4 | 30.5 | 18.3 | 18.3 |
| 80° | 334.3 | 117.5 | 50.3 | 30.5 | 15.3 | 13.7 | 22.9 | 16.8 | 7.6 | 3.1 | 3.1 |
| 82.5° | 131.2 | 51.9 | 19.9 | 12.2 | 6.1 | 6.1 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 77.8 | 21.3 | 9.1 | 4.6 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 19.9 | 4.6 | 3.1 | 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)