

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: P964513

Luminaire Tested: **NAV-SB3C-727-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964513
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3C-727-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21930.9 lumens
Efficiency: N/A
Efficacy: 147.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

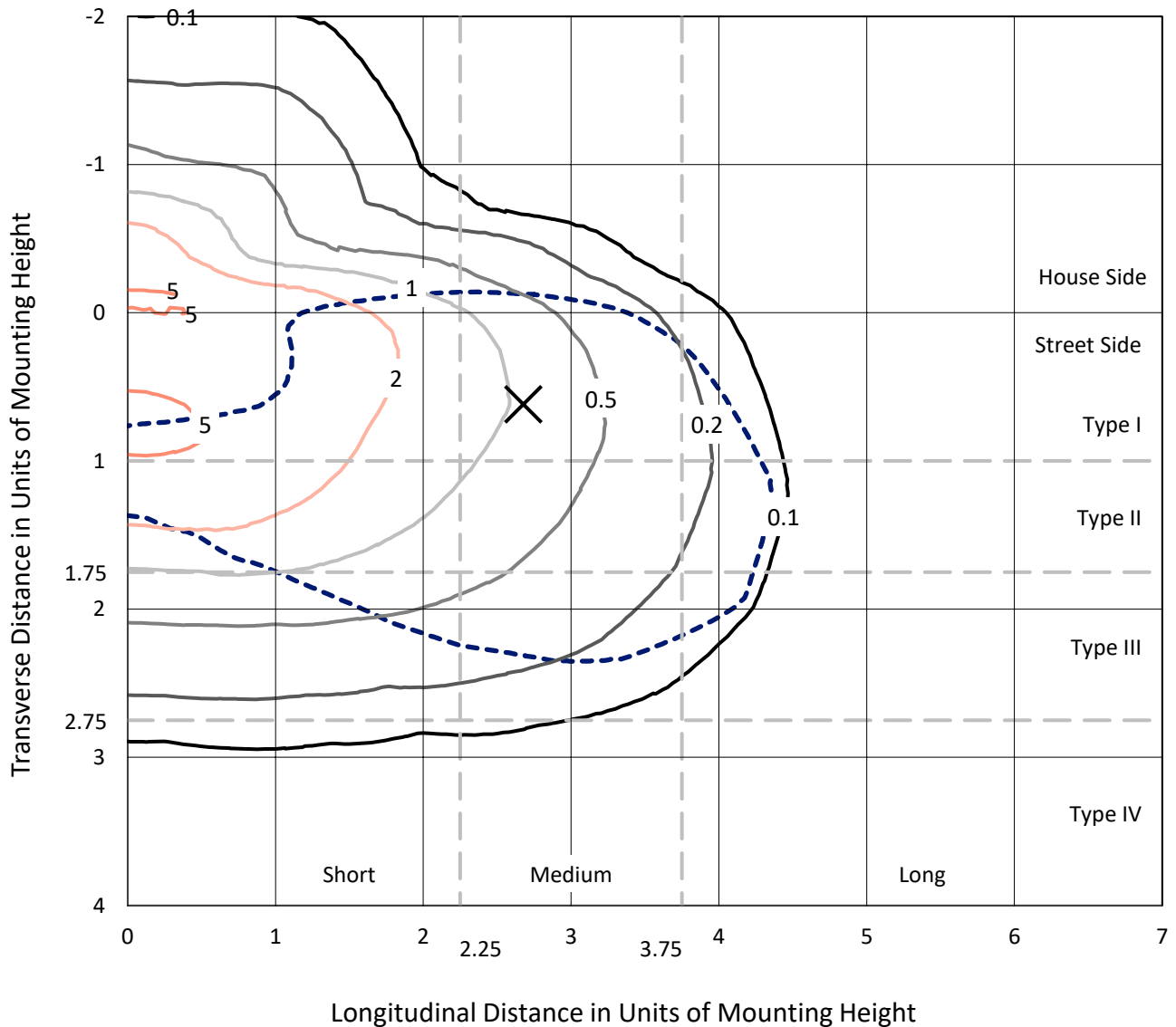
Input Watts (W): 149.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

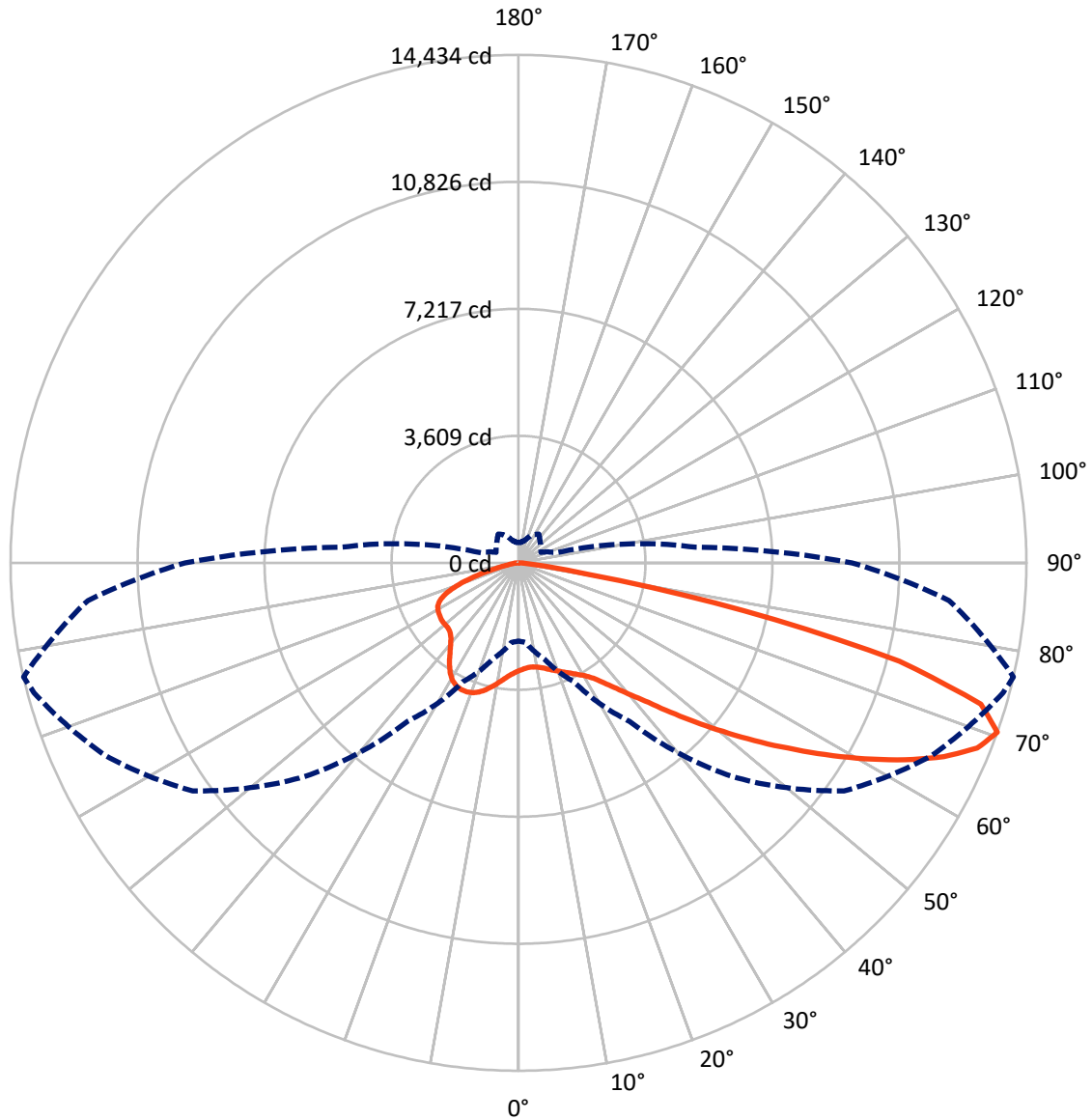
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4802.5 | 0.0 | 4802.5 |
| | % Fixture | 21.9 | 0.0 | 21.9 |
| Street Side | Lumens | 17128.4 | 0.0 | 17128.4 |
| | % Fixture | 78.1 | 0.0 | 78.1 |
| Total | Lumens | 21930.9 | 0.0 | 21930.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 291.8 | 1.3 |
| 10°-20° | 842.2 | 3.8 |
| 20°-30° | 1440.2 | 6.6 |
| 30°-40° | 2316.0 | 10.6 |
| 40°-50° | 3615.9 | 16.5 |
| 50°-60° | 4830.0 | 22.0 |
| 60°-70° | 5148.0 | 23.5 |
| 70°-80° | 3169.1 | 14.5 |
| 80°-90° | 277.7 | 1.3 |
| 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° | 21930.9 | 100.0 |
| 0°-180° | 21930.9 | 100.0 |

Coefficient of Utilization

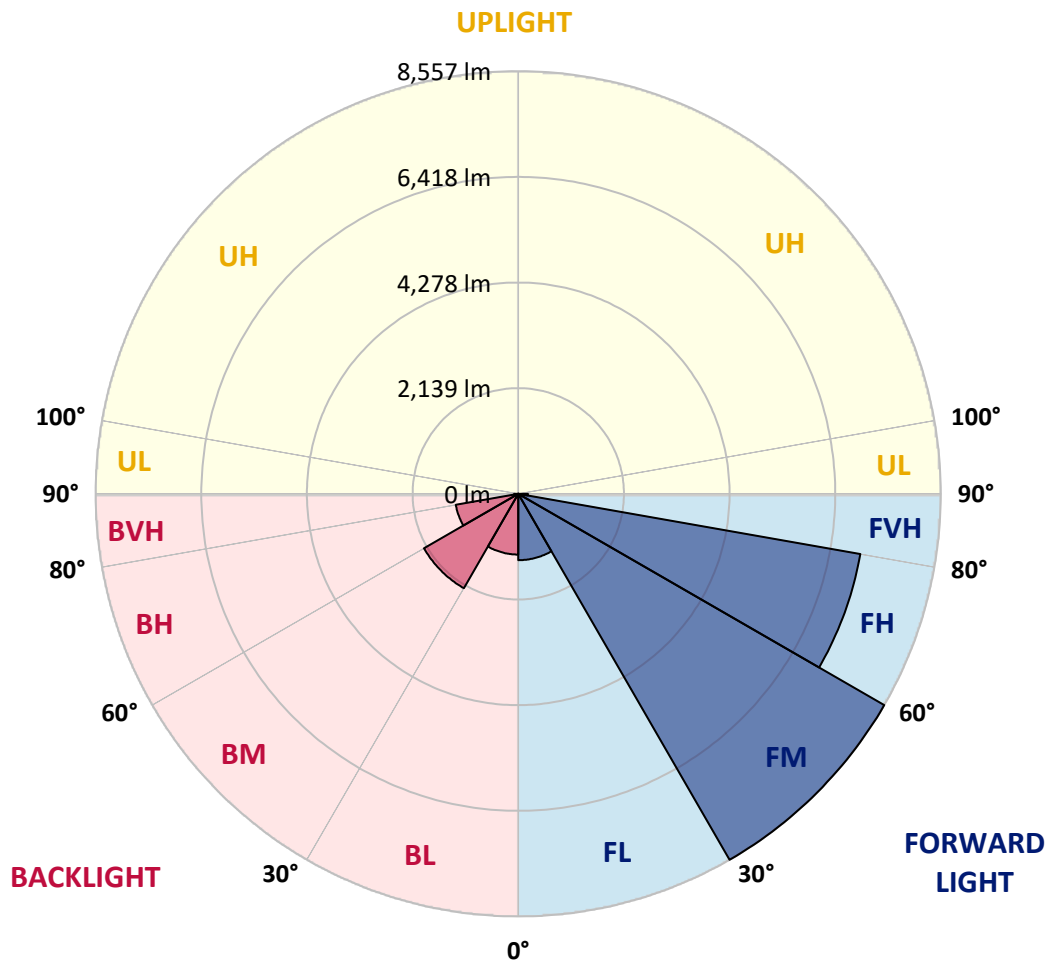


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1343.6 | 6.1 | | | |
| FM (30°-60°) | 8557.0 | 39.0 | | | |
| FH (60°-80°) | 7033.6 | 32.1 | | | G3/7500 |
| FVH (80°-90°) | 194.2 | 0.9 | | | G2/225 |
| BL (0°-30°) | 1230.6 | 5.6 | B3/2500 | | |
| BM (30°-60°) | 2204.9 | 10.1 | B2/2500 | | |
| BH (60°-80°) | 1283.5 | 5.9 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 83.5 | 0.4 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3
 Type III Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 |
| 2.5° | 2820.3 | 2819.2 | 2833.8 | 2838.3 | 2865.3 | 2884.4 | 2920.3 | 2958.5 | 3007.9 | 3013.5 | 3043.8 |
| 5° | 2657.4 | 2657.4 | 2674.3 | 2692.3 | 2727.1 | 2765.2 | 2820.3 | 2886.6 | 2972.0 | 2985.4 | 3060.6 |
| 7.5° | 2519.3 | 2528.3 | 2542.9 | 2577.7 | 2618.2 | 2673.2 | 2757.5 | 2851.8 | 2964.1 | 2985.4 | 3106.8 |
| 10° | 2408.1 | 2418.2 | 2436.2 | 2464.3 | 2524.9 | 2601.3 | 2711.3 | 2832.7 | 2983.2 | 3016.9 | 3174.1 |
| 12.5° | 2373.3 | 2383.4 | 2393.5 | 2414.9 | 2471.0 | 2560.9 | 2692.3 | 2841.7 | 3029.3 | 3062.9 | 3266.3 |
| 15° | 2454.2 | 2466.6 | 2458.7 | 2453.0 | 2482.2 | 2564.2 | 2701.3 | 2874.2 | 3086.5 | 3134.9 | 3379.6 |
| 17.5° | 2640.6 | 2645.1 | 2627.2 | 2574.4 | 2569.9 | 2613.6 | 2743.9 | 2919.2 | 3158.4 | 3211.2 | 3494.2 |
| 20° | 2941.6 | 2933.8 | 2896.6 | 2792.2 | 2732.8 | 2723.7 | 2816.9 | 2986.5 | 3232.5 | 3288.7 | 3617.7 |
| 22.5° | 3350.4 | 3341.5 | 3267.4 | 3102.3 | 2969.7 | 2882.1 | 2922.6 | 3074.2 | 3315.7 | 3378.5 | 3738.0 |
| 25° | 3860.4 | 3848.1 | 3739.1 | 3514.4 | 3308.9 | 3092.1 | 3066.3 | 3189.8 | 3417.9 | 3476.3 | 3863.7 |
| 27.5° | 4455.7 | 4445.5 | 4327.7 | 4031.1 | 3734.6 | 3379.6 | 3244.8 | 3325.7 | 3524.6 | 3590.8 | 4005.3 |
| 30° | 5095.9 | 5125.1 | 4916.2 | 4597.2 | 4222.1 | 3754.8 | 3485.2 | 3493.1 | 3662.7 | 3722.3 | 4177.2 |
| 32.5° | 5848.4 | 5899.0 | 5647.3 | 5243.1 | 4730.9 | 4162.5 | 3788.5 | 3726.7 | 3863.7 | 3913.1 | 4393.9 |
| 35° | 6594.2 | 6651.5 | 6442.6 | 5995.5 | 5405.8 | 4643.2 | 4105.2 | 3995.1 | 4131.1 | 4185.0 | 4681.5 |
| 37.5° | 7239.0 | 7315.3 | 7207.5 | 6818.9 | 6128.1 | 5222.8 | 4518.6 | 4310.7 | 4460.2 | 4527.5 | 5067.8 |
| 40° | 7747.8 | 7864.5 | 7856.7 | 7614.1 | 6979.5 | 5925.9 | 5043.1 | 4700.5 | 4869.1 | 4942.0 | 5536.2 |
| 42.5° | 8161.0 | 8262.1 | 8349.8 | 8337.5 | 7867.9 | 6724.5 | 5659.7 | 5207.1 | 5335.1 | 5419.4 | 6063.0 |
| 45° | 8446.4 | 8554.2 | 8742.8 | 8946.2 | 8722.6 | 7579.3 | 6366.2 | 5808.0 | 5924.8 | 6051.7 | 6690.8 |
| 47.5° | 8701.3 | 8823.7 | 9068.6 | 9390.9 | 9448.2 | 8437.4 | 7140.0 | 6507.7 | 6614.4 | 6745.8 | 7321.0 |
| 50° | 8723.8 | 8829.3 | 9209.0 | 9666.2 | 9963.8 | 9261.8 | 7971.2 | 7292.9 | 7392.8 | 7533.2 | 7995.9 |
| 52.5° | 8181.2 | 8347.5 | 9010.2 | 9658.3 | 10200.8 | 9951.4 | 8796.8 | 8109.4 | 8221.7 | 8390.2 | 8694.6 |
| 55° | 6350.5 | 6594.2 | 8427.2 | 9357.2 | 10116.5 | 10397.3 | 9581.9 | 8977.7 | 9121.4 | 9297.8 | 9397.7 |
| 57.5° | 5469.9 | 5576.6 | 6689.7 | 8809.2 | 9732.4 | 10513.0 | 10244.6 | 9854.9 | 10086.2 | 10279.4 | 10141.2 |
| 60° | 4916.2 | 5004.9 | 5663.1 | 7956.7 | 9226.9 | 10329.9 | 10756.8 | 10672.5 | 11072.4 | 11302.7 | 10901.7 |
| 62.5° | 4323.1 | 4407.4 | 5006.0 | 6643.6 | 8580.1 | 10025.5 | 11080.2 | 11427.3 | 12083.2 | 12334.8 | 11618.3 |
| 65° | 3734.6 | 3806.4 | 4380.4 | 5582.3 | 7757.8 | 9721.2 | 11247.6 | 12079.8 | 13018.8 | 13279.4 | 12213.5 |
| 67.5° | 3078.7 | 3138.1 | 3680.7 | 4709.6 | 6758.2 | 9304.4 | 11330.7 | 12593.2 | 13833.2 | 14056.6 | 12507.8 |
| 70° | 2221.7 | 2267.7 | 2828.2 | 3724.4 | 5503.6 | 8587.9 | 11297.0 | 12957.1 | 14255.5 | 14434.0 | 12285.4 |
| 72.5° | 1050.2 | 1091.7 | 1749.9 | 2418.2 | 3887.3 | 7192.9 | 10615.2 | 12668.4 | 13826.4 | 13737.7 | 10924.1 |
| 75° | 560.5 | 596.4 | 1005.2 | 1326.5 | 2053.2 | 4930.8 | 8686.8 | 10912.9 | 11610.4 | 11179.1 | 8073.5 |
| 77.5° | 379.7 | 407.7 | 622.3 | 796.3 | 937.9 | 2340.7 | 5583.4 | 7555.7 | 7269.3 | 6557.1 | 4043.5 |
| 80° | 301.0 | 330.3 | 509.9 | 539.2 | 453.8 | 845.7 | 2307.1 | 3497.6 | 2512.6 | 2009.4 | 1150.2 |
| 82.5° | 231.3 | 263.9 | 429.1 | 390.8 | 247.1 | 347.1 | 671.7 | 1106.4 | 643.6 | 489.7 | 278.6 |
| 85° | 141.6 | 176.3 | 336.9 | 249.4 | 139.3 | 158.4 | 228.0 | 307.7 | 196.6 | 164.0 | 99.9 |
| 87.5° | 71.9 | 101.1 | 170.8 | 91.0 | 62.9 | 37.1 | 60.7 | 60.7 | 51.7 | 44.9 | 25.8 |
| 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° | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 | 3059.5 |
| 2.5° | 3070.8 | 3093.2 | 3131.5 | 3167.4 | 3195.4 | 3222.4 | 3249.4 | 3264.0 | 3268.5 | 3286.5 | 3296.5 |
| 5° | 3106.8 | 3148.3 | 3222.4 | 3292.1 | 3335.9 | 3362.8 | 3381.9 | 3393.2 | 3395.4 | 3401.1 | 3410.0 |
| 7.5° | 3173.0 | 3239.3 | 3342.6 | 3412.2 | 3444.8 | 3442.6 | 3434.7 | 3406.6 | 3395.4 | 3385.3 | 3387.5 |
| 10° | 3266.3 | 3353.8 | 3480.8 | 3529.1 | 3508.9 | 3455.0 | 3385.3 | 3303.3 | 3265.1 | 3228.0 | 3216.8 |
| 12.5° | 3381.9 | 3493.1 | 3617.7 | 3615.6 | 3515.5 | 3377.4 | 3215.7 | 3089.9 | 3010.1 | 2952.8 | 2939.4 |
| 15° | 3522.3 | 3650.3 | 3745.9 | 3669.5 | 3450.5 | 3202.2 | 2965.2 | 2801.2 | 2729.4 | 2666.4 | 2659.7 |
| 17.5° | 3667.2 | 3804.2 | 3848.1 | 3652.6 | 3286.5 | 2942.8 | 2674.3 | 2545.2 | 2474.4 | 2440.7 | 2450.8 |
| 20° | 3808.7 | 3944.6 | 3908.7 | 3556.0 | 3037.1 | 2648.5 | 2409.3 | 2338.4 | 2323.9 | 2331.8 | 2328.4 |
| 22.5° | 3958.1 | 4079.4 | 3921.0 | 3369.6 | 2719.2 | 2347.5 | 2216.0 | 2218.3 | 2250.9 | 2274.5 | 2280.1 |
| 25° | 4110.9 | 4192.9 | 3888.4 | 3100.0 | 2377.8 | 2126.2 | 2093.7 | 2129.5 | 2193.6 | 2239.6 | 2252.0 |
| 27.5° | 4258.0 | 4293.9 | 3817.7 | 2766.4 | 2084.6 | 1967.8 | 1973.4 | 2047.5 | 2144.2 | 2208.2 | 2223.9 |
| 30° | 4424.2 | 4383.8 | 3681.8 | 2391.2 | 1881.4 | 1831.9 | 1879.1 | 1965.5 | 2062.2 | 2119.5 | 2132.9 |
| 32.5° | 4611.8 | 4461.3 | 3466.1 | 2044.2 | 1737.6 | 1722.9 | 1800.5 | 1856.6 | 1899.3 | 1916.1 | 1925.2 |
| 35° | 4845.4 | 4570.3 | 3189.8 | 1800.5 | 1608.4 | 1643.2 | 1717.4 | 1689.3 | 1672.4 | 1663.5 | 1672.4 |
| 37.5° | 5148.7 | 4717.4 | 2866.4 | 1642.0 | 1504.0 | 1586.0 | 1616.2 | 1528.7 | 1462.4 | 1429.8 | 1437.7 |
| 40° | 5513.7 | 4933.0 | 2555.2 | 1519.7 | 1437.7 | 1536.5 | 1483.7 | 1378.1 | 1294.0 | 1247.8 | 1251.2 |
| 42.5° | 5919.2 | 5158.8 | 2293.5 | 1427.6 | 1400.7 | 1496.1 | 1386.0 | 1260.2 | 1124.3 | 1109.7 | 1124.3 |
| 45° | 6344.9 | 5391.3 | 2115.0 | 1356.8 | 1382.6 | 1461.2 | 1329.8 | 1126.6 | 1029.9 | 1089.5 | 1120.9 |
| 47.5° | 6770.5 | 5604.7 | 2007.2 | 1304.0 | 1373.7 | 1422.0 | 1280.4 | 1052.5 | 983.9 | 1070.4 | 1110.8 |
| 50° | 7244.6 | 5795.7 | 1958.9 | 1265.9 | 1363.6 | 1406.2 | 1206.3 | 1033.3 | 935.6 | 992.9 | 1035.6 |
| 52.5° | 7715.2 | 5943.9 | 1922.9 | 1227.6 | 1348.9 | 1393.9 | 1170.3 | 1010.9 | 877.2 | 880.6 | 904.2 |
| 55° | 8184.6 | 6040.5 | 1883.5 | 1177.1 | 1316.4 | 1366.9 | 1167.0 | 986.2 | 833.4 | 817.6 | 828.9 |
| 57.5° | 8685.6 | 6095.6 | 1835.3 | 1120.9 | 1260.2 | 1298.4 | 1163.6 | 967.1 | 819.9 | 794.1 | 797.4 |
| 60° | 9195.5 | 6176.4 | 1772.4 | 1052.5 | 1185.0 | 1216.4 | 1155.8 | 960.3 | 812.1 | 768.2 | 771.6 |
| 62.5° | 9652.6 | 6204.5 | 1697.1 | 987.3 | 1088.3 | 1135.5 | 1138.9 | 954.7 | 790.7 | 715.4 | 715.4 |
| 65° | 9952.5 | 6083.2 | 1565.7 | 913.2 | 983.9 | 1052.5 | 1106.4 | 935.6 | 752.6 | 677.3 | 677.3 |
| 67.5° | 9940.2 | 5737.2 | 1360.2 | 817.6 | 882.8 | 960.3 | 1059.1 | 903.0 | 706.5 | 630.1 | 633.4 |
| 70° | 9477.5 | 5054.4 | 1099.6 | 706.5 | 771.6 | 861.5 | 998.6 | 854.7 | 651.5 | 578.4 | 585.2 |
| 72.5° | 8128.5 | 3955.9 | 798.6 | 576.2 | 642.5 | 759.3 | 919.9 | 796.3 | 595.3 | 532.4 | 529.0 |
| 75° | 5806.8 | 2503.6 | 541.4 | 442.5 | 499.8 | 643.6 | 822.2 | 727.9 | 543.7 | 534.6 | 504.3 |
| 77.5° | 2966.4 | 1196.2 | 358.3 | 323.5 | 348.2 | 507.7 | 690.7 | 650.4 | 551.4 | 441.4 | 393.1 |
| 80° | 964.8 | 441.4 | 225.8 | 220.2 | 231.3 | 338.0 | 534.6 | 533.5 | 417.8 | 299.9 | 265.1 |
| 82.5° | 307.7 | 189.8 | 147.1 | 141.6 | 135.9 | 212.3 | 372.9 | 422.3 | 281.9 | 189.8 | 188.7 |
| 85° | 122.4 | 113.5 | 86.5 | 79.7 | 57.3 | 99.9 | 195.5 | 280.7 | 210.0 | 137.0 | 140.4 |
| 87.5° | 44.9 | 44.9 | 23.6 | 16.8 | 12.4 | 33.7 | 52.8 | 84.3 | 120.1 | 70.7 | 69.6 |
| 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)