

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: P969242

Luminaire Tested: **NAV-SB5D-727-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969242
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-727-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48443.5 lumens
Efficiency: N/A
Efficacy: 132.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

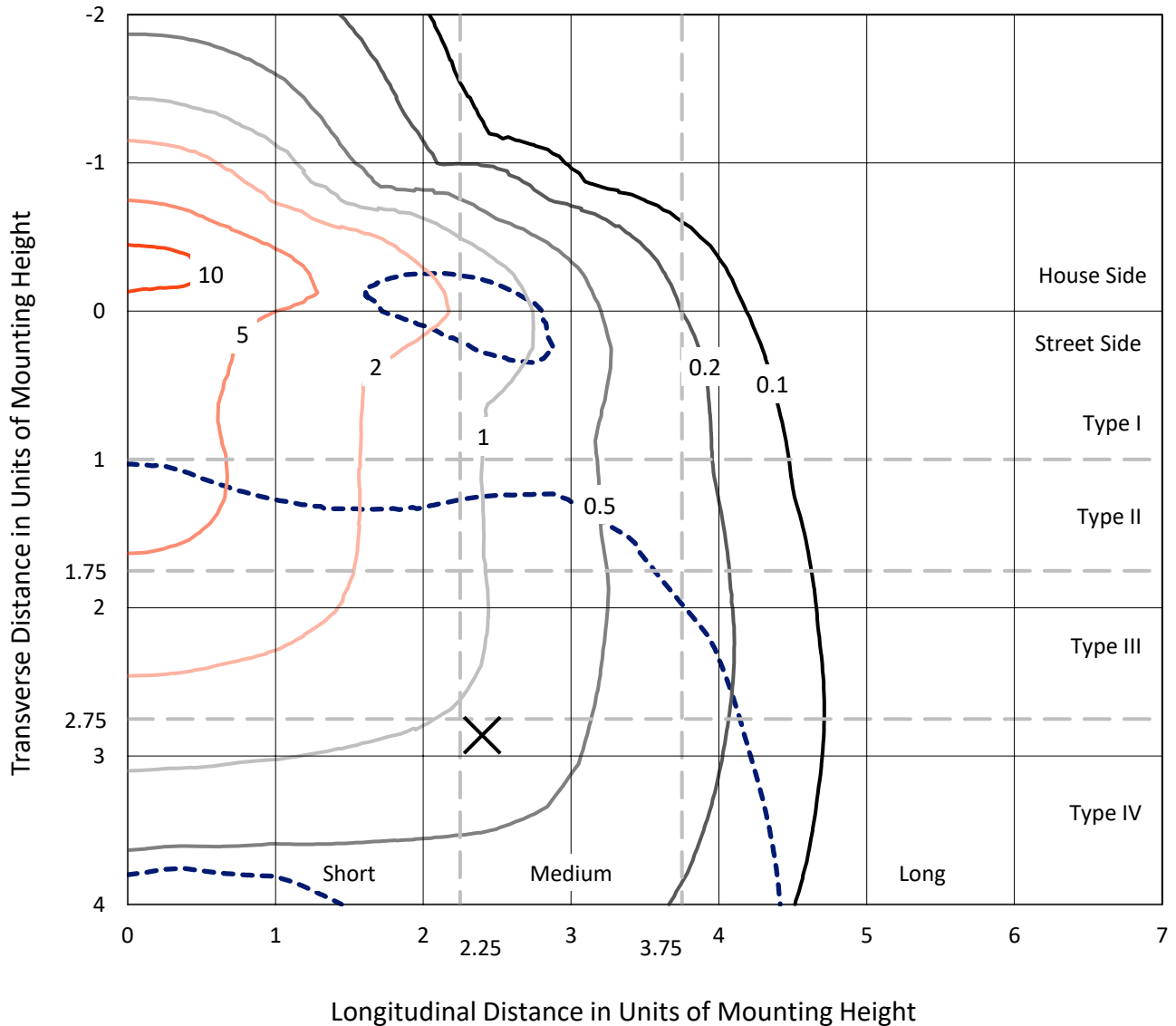
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

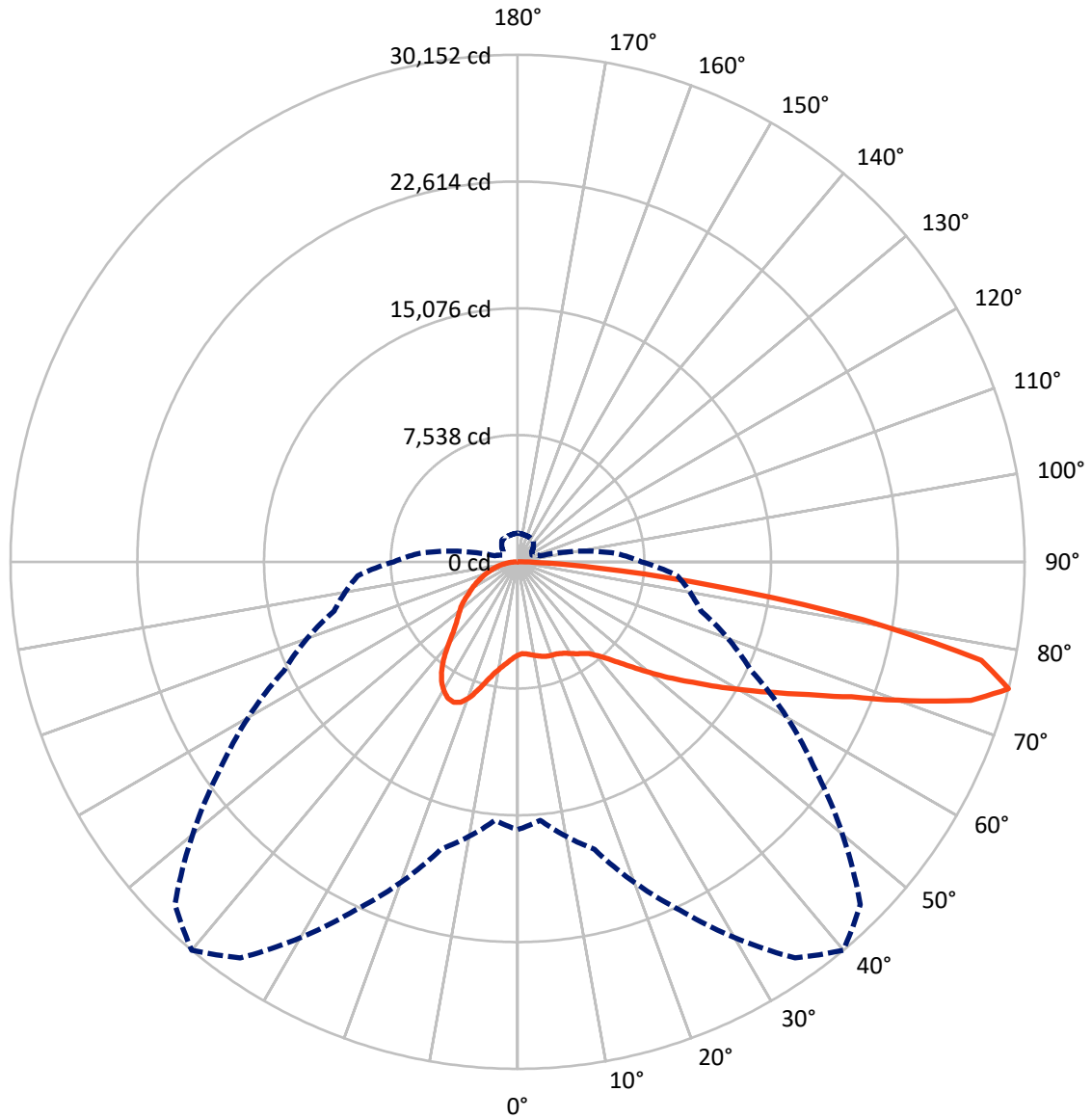
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 15009.4 | 0.0 | 15009.4 |
| | % Fixture | 31.0 | 0.0 | 31.0 |
| Street Side | Lumens | 33434.1 | 0.0 | 33434.1 |
| | % Fixture | 69.0 | 0.0 | 69.0 |
| Total | Lumens | 48443.5 | 0.0 | 48443.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 553.0 | 1.1 |
| 10°-20° | 1856.5 | 3.8 |
| 20°-30° | 3389.9 | 7.0 |
| 30°-40° | 4807.8 | 9.9 |
| 40°-50° | 6491.9 | 13.4 |
| 50°-60° | 8733.4 | 18.0 |
| 60°-70° | 11084.7 | 22.9 |
| 70°-80° | 10060.0 | 20.8 |
| 80°-90° | 1466.4 | 3.0 |
| 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° | 48443.5 | 100.0 |
| 0°-180° | 48443.5 | 100.0 |

Coefficient of Utilization

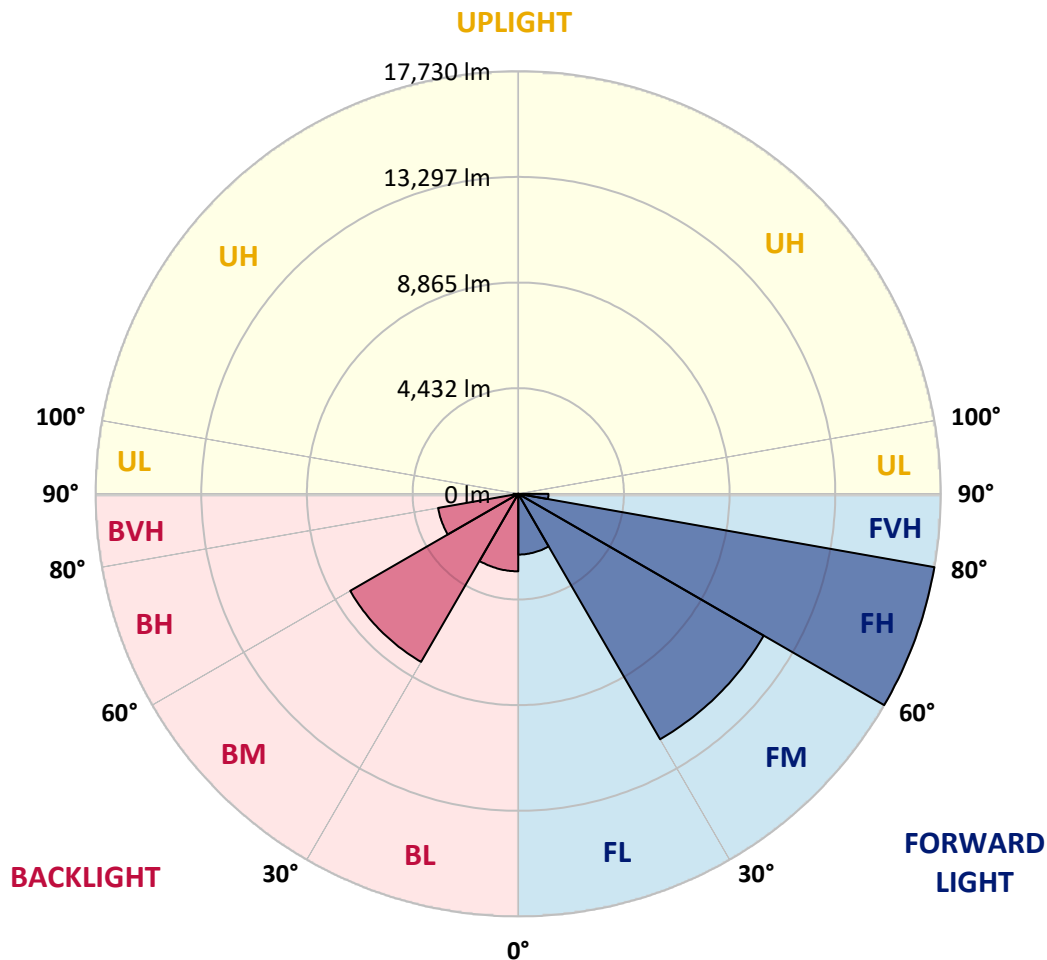


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2548.2 | 5.3 | | | |
| FM (30°-60°) | 11891.8 | 24.5 | | | |
| FH (60°-80°) | 17729.6 | 36.6 | | | G5 |
| FVH (80°-90°) | 1264.5 | 2.6 | | | G5 |
| BL (0°-30°) | 3251.2 | 6.7 | B4/5000 | | |
| BM (30°-60°) | 8141.3 | 16.8 | B4/8500 | | |
| BH (60°-80°) | 3415.1 | 7.0 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 201.9 | 0.4 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5
 Type IV Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 |
| 2.5° | 5454.8 | 5485.6 | 5477.9 | 5467.7 | 5467.7 | 5470.2 | 5467.7 | 5485.6 | 5503.6 | 5521.6 | 5549.9 |
| 5° | 5511.3 | 5542.2 | 5526.7 | 5513.9 | 5503.6 | 5501.1 | 5493.4 | 5490.7 | 5501.1 | 5524.1 | 5562.7 |
| 7.5° | 5621.8 | 5652.7 | 5629.5 | 5606.3 | 5585.8 | 5575.6 | 5565.2 | 5549.9 | 5542.2 | 5555.0 | 5609.0 |
| 10° | 5745.1 | 5776.0 | 5747.7 | 5706.6 | 5673.2 | 5660.4 | 5650.1 | 5634.6 | 5624.4 | 5632.1 | 5691.2 |
| 12.5° | 5868.4 | 5899.3 | 5860.7 | 5804.3 | 5760.5 | 5752.8 | 5740.0 | 5734.9 | 5732.3 | 5729.7 | 5788.8 |
| 15° | 5984.1 | 6009.8 | 5961.0 | 5894.2 | 5847.9 | 5835.0 | 5822.2 | 5829.9 | 5842.8 | 5858.2 | 5925.0 |
| 17.5° | 6074.0 | 6099.7 | 6027.7 | 5940.4 | 5896.7 | 5891.6 | 5883.9 | 5909.5 | 5945.5 | 5984.1 | 6066.3 |
| 20° | 6156.3 | 6182.0 | 6089.4 | 5971.2 | 5919.9 | 5919.9 | 5922.4 | 5976.4 | 6027.7 | 6084.3 | 6197.4 |
| 22.5° | 6271.9 | 6292.4 | 6179.3 | 6017.5 | 5943.0 | 5948.1 | 5968.7 | 6022.6 | 6086.9 | 6163.9 | 6320.7 |
| 25° | 6444.0 | 6459.4 | 6320.7 | 6104.8 | 6020.0 | 6035.5 | 6053.4 | 6079.2 | 6140.8 | 6230.8 | 6441.4 |
| 27.5° | 6721.5 | 6734.4 | 6551.9 | 6259.1 | 6130.5 | 6156.3 | 6182.0 | 6163.9 | 6192.2 | 6269.3 | 6539.1 |
| 30° | 7112.1 | 7119.8 | 6888.5 | 6500.5 | 6318.1 | 6330.9 | 6336.1 | 6261.6 | 6207.6 | 6269.3 | 6608.5 |
| 32.5° | 7574.5 | 7572.0 | 7297.1 | 6793.4 | 6531.4 | 6518.5 | 6474.8 | 6328.3 | 6202.5 | 6256.4 | 6670.1 |
| 35° | 8291.4 | 8263.1 | 7908.6 | 7204.5 | 6772.9 | 6693.2 | 6590.4 | 6402.9 | 6228.2 | 6243.6 | 6724.1 |
| 37.5° | 9478.5 | 9391.0 | 8900.4 | 7877.7 | 7132.6 | 6929.6 | 6778.0 | 6523.6 | 6284.7 | 6238.5 | 6788.3 |
| 40° | 10817.1 | 10706.6 | 10167.1 | 8800.1 | 7672.1 | 7345.9 | 7101.8 | 6695.8 | 6377.2 | 6261.6 | 6883.4 |
| 42.5° | 12405.0 | 12248.2 | 11667.6 | 9886.9 | 8355.6 | 7882.9 | 7515.4 | 6914.2 | 6513.4 | 6336.1 | 7011.8 |
| 45° | 14355.1 | 14147.0 | 13324.8 | 11112.5 | 9216.4 | 8586.8 | 8096.2 | 7245.6 | 6721.5 | 6479.9 | 7204.5 |
| 47.5° | 16325.9 | 16377.2 | 15208.1 | 12515.5 | 10249.3 | 9455.3 | 8823.3 | 7744.1 | 7024.7 | 6711.2 | 7515.4 |
| 50° | 18419.9 | 18455.8 | 17081.2 | 14070.0 | 11420.9 | 10436.9 | 9640.3 | 8301.7 | 7446.1 | 7040.1 | 7980.4 |
| 52.5° | 20054.0 | 20059.1 | 18782.2 | 15696.3 | 12641.3 | 11516.0 | 10521.6 | 8938.9 | 7934.2 | 7476.9 | 8599.8 |
| 55° | 21076.7 | 21063.7 | 19974.4 | 17235.4 | 14044.2 | 12649.0 | 11497.9 | 9663.4 | 8530.4 | 7990.8 | 9378.2 |
| 57.5° | 21819.2 | 21780.6 | 20796.5 | 18558.6 | 15539.6 | 13987.7 | 12602.8 | 10485.6 | 9234.3 | 8602.3 | 10403.4 |
| 60° | 22101.8 | 22078.7 | 21354.1 | 19702.0 | 17112.1 | 15467.7 | 13877.3 | 11405.5 | 10033.4 | 9324.3 | 11721.5 |
| 62.5° | 22209.7 | 22253.4 | 21901.4 | 20809.4 | 18795.0 | 17106.9 | 15277.5 | 12505.2 | 10932.8 | 10141.3 | 13111.6 |
| 65° | 22590.0 | 22669.6 | 22597.7 | 22258.6 | 20696.4 | 19026.3 | 17135.2 | 13813.0 | 11914.2 | 11017.5 | 14563.2 |
| 67.5° | 23342.8 | 23422.5 | 23453.3 | 23992.9 | 23019.0 | 21418.4 | 19452.8 | 15441.9 | 13062.7 | 11927.1 | 15655.2 |
| 70° | 23324.8 | 23301.7 | 23846.4 | 25372.6 | 25927.6 | 24730.3 | 22577.2 | 17446.1 | 14432.2 | 12682.4 | 15794.0 |
| 72.5° | 21230.8 | 21045.8 | 22333.0 | 25357.2 | 28348.0 | 28188.6 | 26392.7 | 20030.9 | 15614.1 | 12775.0 | 13705.1 |
| 75° | 15927.6 | 15434.2 | 17708.2 | 22852.1 | 28751.4 | 30151.7 | 28818.2 | 21634.2 | 15334.1 | 11287.3 | 9537.5 |
| 77.5° | 6811.4 | 6315.5 | 8995.4 | 16916.8 | 25732.3 | 28186.1 | 26593.1 | 18874.7 | 12240.6 | 7464.0 | 4683.9 |
| 80° | 1783.2 | 1780.6 | 2718.4 | 7669.6 | 17500.0 | 20814.6 | 18260.6 | 12189.1 | 6993.9 | 2667.0 | 1292.4 |
| 82.5° | 737.4 | 719.4 | 999.5 | 2983.1 | 8550.9 | 11680.4 | 9532.4 | 5436.8 | 2525.7 | 722.0 | 429.1 |
| 85° | 274.9 | 272.3 | 485.6 | 1030.3 | 3016.5 | 4817.6 | 3486.6 | 1390.0 | 629.5 | 352.0 | 192.7 |
| 87.5° | 77.1 | 74.5 | 105.4 | 357.1 | 734.8 | 1115.1 | 596.1 | 228.7 | 177.3 | 138.8 | 56.5 |
| 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° | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 | 5539.6 |
| 2.5° | 5557.5 | 5570.5 | 5593.5 | 5611.6 | 5634.6 | 5660.4 | 5696.3 | 5719.4 | 5742.6 | 5757.9 | 5747.7 |
| 5° | 5580.7 | 5609.0 | 5668.0 | 5727.2 | 5796.5 | 5860.7 | 5935.3 | 5989.2 | 6032.9 | 6045.8 | 6050.9 |
| 7.5° | 5632.1 | 5678.3 | 5778.5 | 5878.8 | 5989.2 | 6094.5 | 6202.5 | 6294.9 | 6369.5 | 6397.7 | 6400.3 |
| 10° | 5722.0 | 5783.7 | 5925.0 | 6066.3 | 6212.7 | 6374.7 | 6513.4 | 6647.0 | 6752.3 | 6796.1 | 6798.6 |
| 12.5° | 5835.0 | 5912.1 | 6097.1 | 6292.4 | 6495.4 | 6719.0 | 6898.8 | 7063.3 | 7194.3 | 7253.4 | 7253.4 |
| 15° | 5981.5 | 6081.7 | 6318.1 | 6580.2 | 6878.3 | 7189.1 | 7417.8 | 7600.3 | 7746.6 | 7818.6 | 7813.5 |
| 17.5° | 6140.8 | 6274.4 | 6572.5 | 6968.2 | 7394.7 | 7803.2 | 8070.4 | 8204.0 | 8355.6 | 8425.0 | 8422.4 |
| 20° | 6294.9 | 6459.4 | 6886.0 | 7461.5 | 8029.3 | 8463.5 | 8679.4 | 8715.4 | 8725.6 | 8733.3 | 8753.9 |
| 22.5° | 6454.3 | 6675.2 | 7279.0 | 8083.3 | 8692.2 | 8992.8 | 9023.7 | 8869.5 | 8653.7 | 8553.4 | 8581.7 |
| 25° | 6629.0 | 6921.9 | 7793.0 | 8769.3 | 9262.6 | 9298.6 | 9062.2 | 8687.1 | 8278.5 | 8090.9 | 8119.2 |
| 27.5° | 6798.6 | 7207.1 | 8409.6 | 9424.5 | 9673.7 | 9357.6 | 8848.9 | 8317.1 | 7823.7 | 7625.9 | 7649.1 |
| 30° | 6968.2 | 7533.4 | 9090.4 | 9997.4 | 9861.3 | 9211.3 | 8512.3 | 7918.8 | 7422.9 | 7214.8 | 7237.9 |
| 32.5° | 7140.4 | 7913.7 | 9874.1 | 10411.1 | 9827.9 | 8900.4 | 8093.5 | 7471.7 | 7035.0 | 6816.6 | 6844.8 |
| 35° | 7335.6 | 8381.3 | 10616.6 | 10637.2 | 9604.4 | 8443.0 | 7541.1 | 6937.3 | 6557.0 | 6382.4 | 6420.9 |
| 37.5° | 7589.9 | 8974.8 | 11271.8 | 10693.7 | 9213.8 | 7772.4 | 6855.1 | 6305.3 | 5991.8 | 5912.1 | 5968.7 |
| 40° | 7906.0 | 9689.1 | 11772.9 | 10603.8 | 8635.7 | 6957.9 | 6104.8 | 5665.5 | 5488.2 | 5506.2 | 5567.8 |
| 42.5° | 8317.1 | 10488.2 | 12124.9 | 10372.6 | 7831.5 | 6117.7 | 5447.1 | 5251.8 | 5336.6 | 5408.5 | 5475.3 |
| 45° | 8851.5 | 11318.2 | 12343.3 | 9979.5 | 6921.9 | 5406.0 | 5059.1 | 5105.3 | 5169.6 | 5177.3 | 5228.7 |
| 47.5° | 9535.0 | 12158.3 | 12487.2 | 9385.9 | 5994.4 | 4904.9 | 4812.5 | 4822.7 | 4809.9 | 4755.9 | 4797.0 |
| 50° | 10388.0 | 12975.4 | 12615.7 | 8599.8 | 5205.6 | 4591.5 | 4468.2 | 4432.2 | 4254.9 | 4080.2 | 4103.3 |
| 52.5° | 11359.3 | 13725.7 | 12669.6 | 7623.3 | 4591.5 | 4329.4 | 4129.0 | 3902.9 | 3571.4 | 3517.5 | 3535.4 |
| 55° | 12438.4 | 14419.4 | 12530.8 | 6423.5 | 4075.0 | 3992.8 | 3689.6 | 3417.2 | 3381.3 | 3335.0 | 3342.7 |
| 57.5° | 13728.2 | 15167.0 | 12248.2 | 5084.8 | 3545.8 | 3599.7 | 3304.2 | 3335.0 | 3270.8 | 3198.9 | 3186.0 |
| 60° | 15138.8 | 15940.4 | 11752.3 | 3864.4 | 2998.4 | 3108.9 | 3204.0 | 3201.5 | 3183.4 | 3124.4 | 3103.8 |
| 62.5° | 16408.1 | 16449.2 | 10776.0 | 2959.9 | 2518.0 | 2728.7 | 2988.2 | 2985.6 | 2970.2 | 2936.8 | 2923.9 |
| 65° | 17163.4 | 16372.1 | 9147.0 | 2330.4 | 2122.3 | 2415.2 | 2695.2 | 2715.8 | 2718.4 | 2715.8 | 2715.8 |
| 67.5° | 17029.9 | 15470.2 | 6911.7 | 1855.0 | 1796.0 | 2096.6 | 2405.0 | 2433.2 | 2453.7 | 2458.9 | 2464.0 |
| 70° | 15519.0 | 13489.2 | 4506.7 | 1480.0 | 1505.6 | 1816.5 | 2130.1 | 2158.2 | 2176.3 | 2196.8 | 2207.1 |
| 72.5° | 12096.6 | 9917.8 | 2579.6 | 1197.3 | 1251.3 | 1575.0 | 1857.7 | 1891.0 | 1901.4 | 1939.9 | 1955.3 |
| 75° | 7371.6 | 5832.5 | 1392.6 | 943.0 | 1027.8 | 1346.3 | 1587.8 | 1626.4 | 1644.4 | 1690.6 | 1695.8 |
| 77.5° | 3504.7 | 2525.7 | 794.0 | 734.8 | 827.4 | 1099.7 | 1341.2 | 1384.9 | 1336.1 | 1361.8 | 1341.2 |
| 80° | 1184.5 | 937.9 | 501.0 | 560.2 | 632.1 | 858.1 | 1074.0 | 1117.7 | 1015.0 | 1009.7 | 999.5 |
| 82.5° | 413.7 | 380.3 | 318.6 | 372.6 | 408.6 | 614.1 | 811.9 | 868.5 | 755.4 | 752.9 | 716.9 |
| 85° | 161.8 | 154.2 | 177.3 | 203.0 | 244.1 | 377.7 | 534.4 | 562.7 | 465.0 | 375.2 | 370.0 |
| 87.5° | 33.4 | 36.0 | 43.7 | 46.2 | 74.5 | 131.0 | 192.7 | 236.4 | 187.6 | 159.3 | 146.5 |
| 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)