

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: P962438

Luminaire Tested: **NAV-SB2C-730-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962438
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-SB2C-730-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3000K, 615mA 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: 11623.5 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

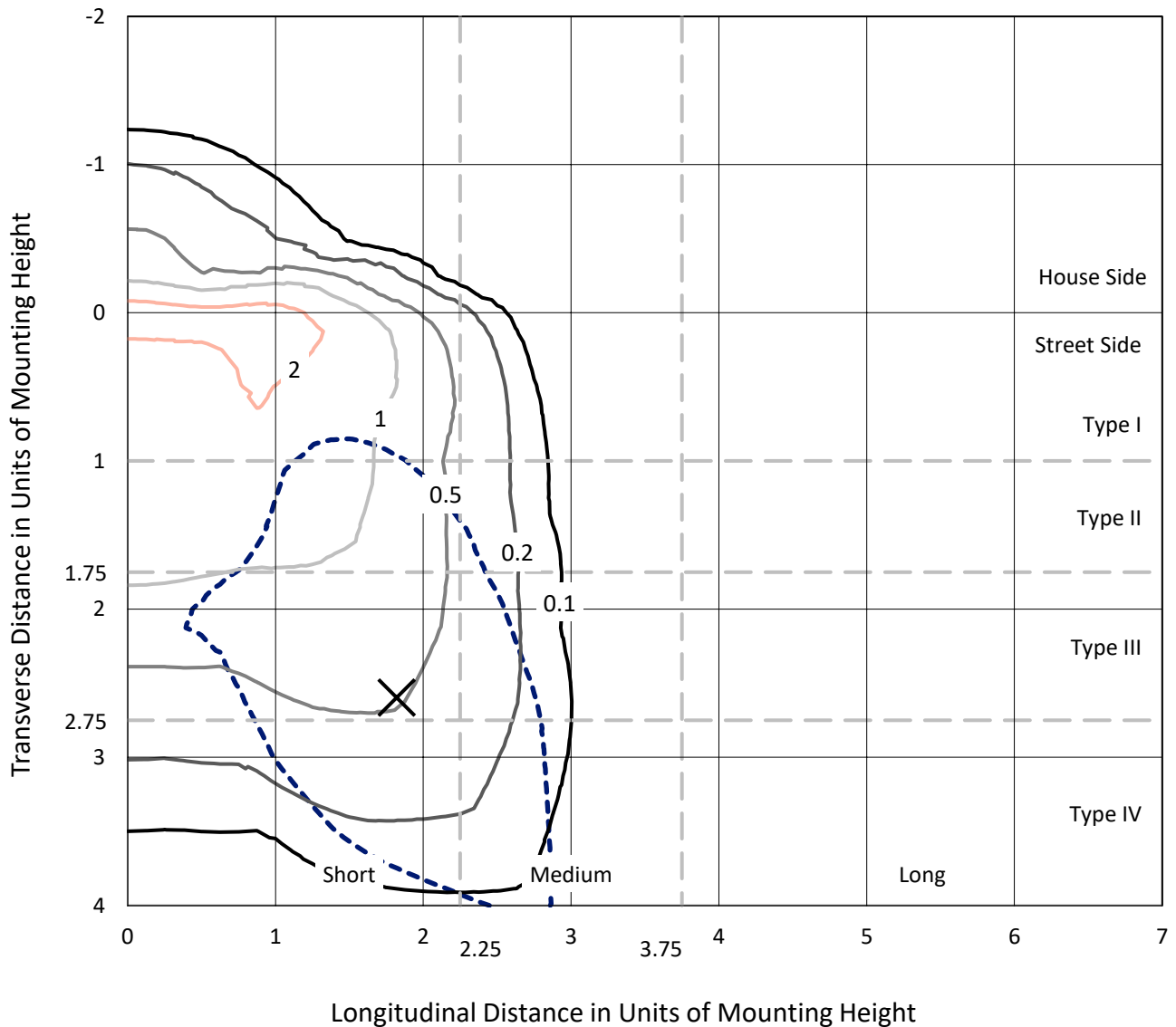
Input Watts (W): 100.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

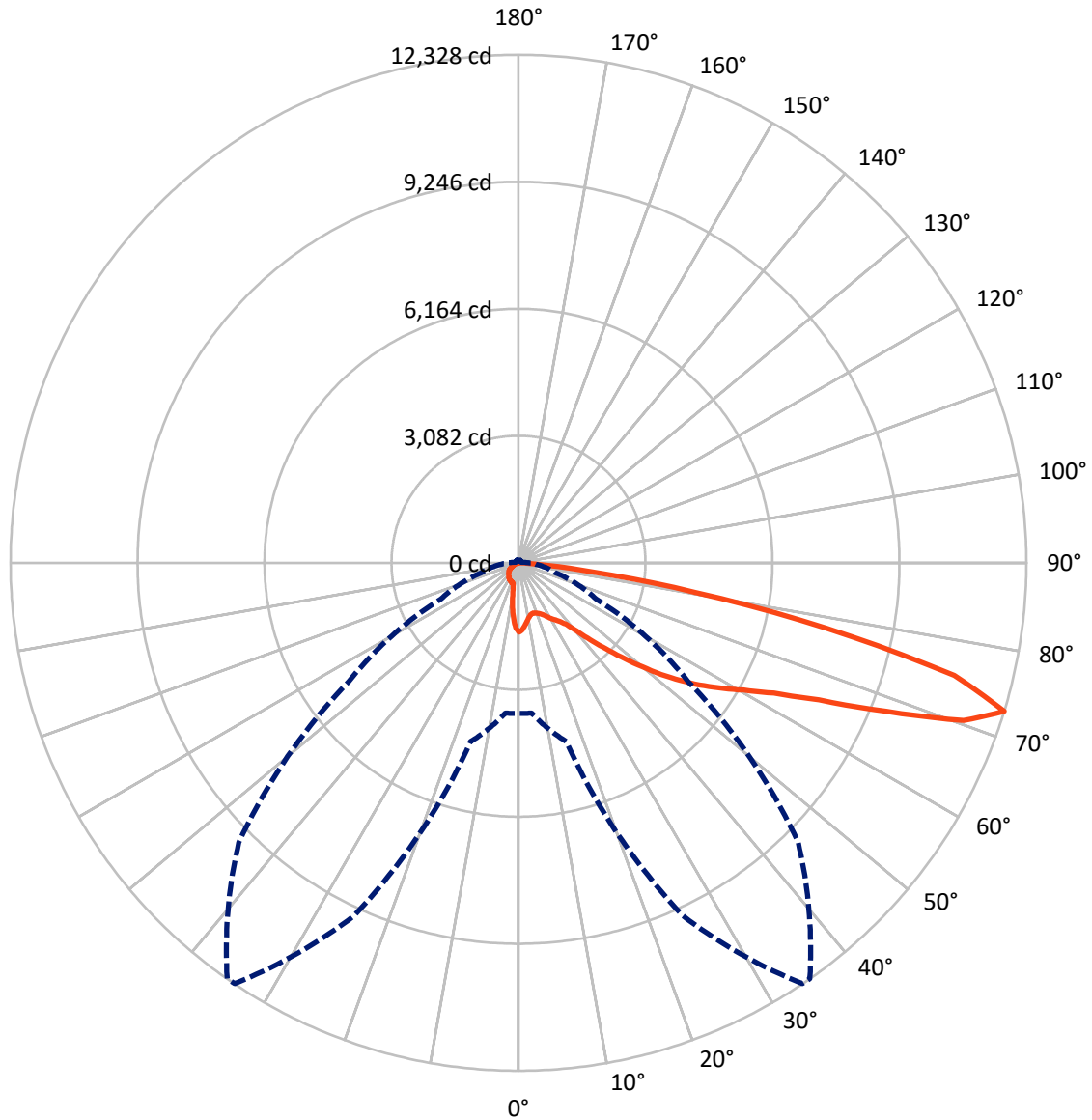
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1308.2 | 0.0 | 1308.2 |
| | % Fixture | 11.3 | 0.0 | 11.3 |
| Street Side | Lumens | 10315.3 | 0.0 | 10315.3 |
| | % Fixture | 88.7 | 0.0 | 88.7 |
| Total | Lumens | 11623.5 | 0.0 | 11623.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 138.4 | 1.2 |
| 10°-20° | 323.8 | 2.8 |
| 20°-30° | 526.1 | 4.5 |
| 30°-40° | 877.8 | 7.6 |
| 40°-50° | 1660.7 | 14.3 |
| 50°-60° | 2638.9 | 22.7 |
| 60°-70° | 3264.5 | 28.1 |
| 70°-80° | 2029.2 | 17.5 |
| 80°-90° | 164.0 | 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° | 11623.5 | 100.0 |
| 0°-180° | 11623.5 | 100.0 |

Coefficient of Utilization



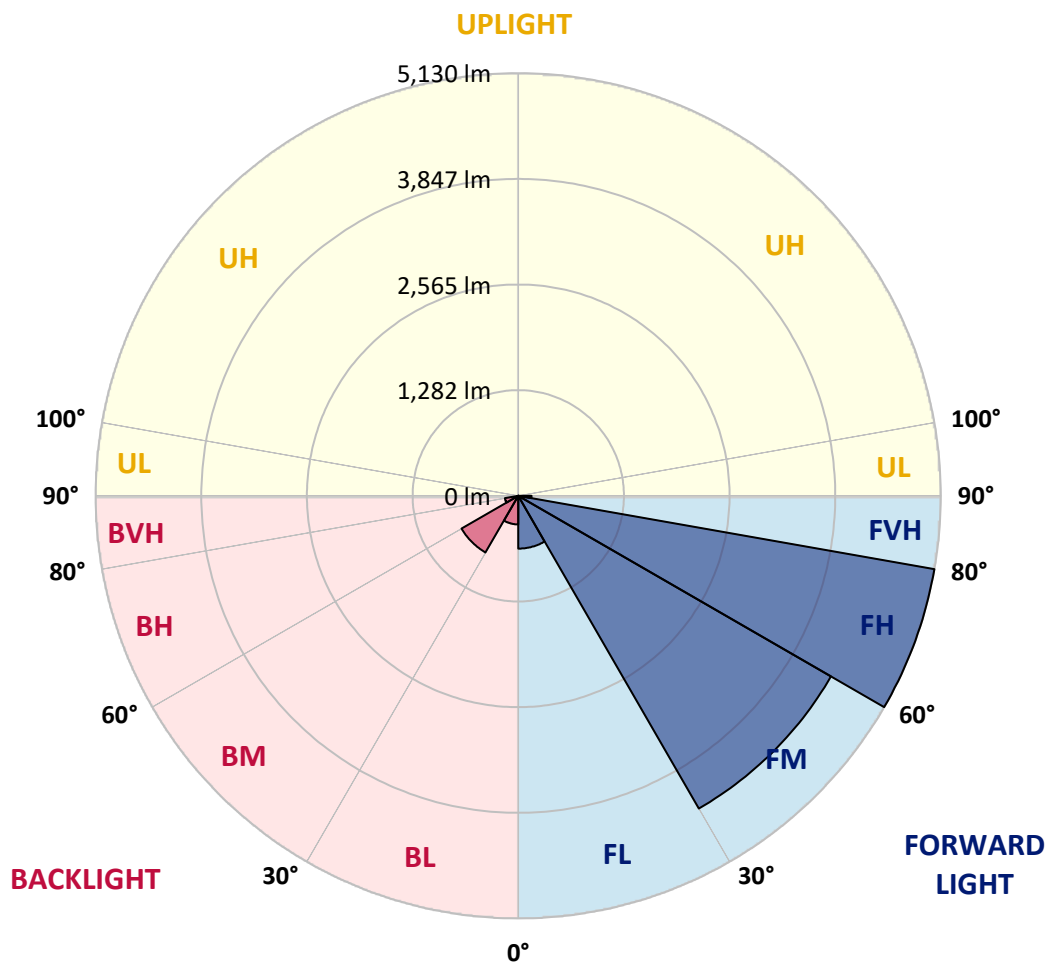
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 640.7 | 5.5 | | | |
| FM (30°-60°) | 4383.2 | 37.7 | | | |
| FH (60°-80°) | 5129.6 | 44.1 | | | G3/7500 |
| FVH (80°-90°) | 161.8 | 1.4 | | | G2/225 |
| BL (0°-30°) | 347.6 | 3.0 | B1/500 | | |
| BM (30°-60°) | 794.2 | 6.8 | B1/1000 | | |
| BH (60°-80°) | 164.1 | 1.4 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.2 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 34° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 |
| 2.5° | 1609.7 | 1623.3 | 1625.9 | 1630.2 | 1630.2 | 1635.3 | 1643.8 | 1655.7 | 1675.3 | 1685.5 | 1692.3 |
| 5° | 1483.7 | 1493.8 | 1506.6 | 1516.9 | 1536.5 | 1539.0 | 1572.2 | 1604.5 | 1649.7 | 1683.8 | 1707.6 |
| 7.5° | 1356.7 | 1368.7 | 1385.7 | 1410.4 | 1435.9 | 1443.6 | 1493.8 | 1548.4 | 1619.9 | 1683.8 | 1723.8 |
| 10° | 1267.3 | 1268.1 | 1283.5 | 1308.2 | 1349.1 | 1358.4 | 1419.7 | 1497.2 | 1586.7 | 1673.5 | 1739.1 |
| 12.5° | 1217.1 | 1223.0 | 1229.8 | 1248.6 | 1287.7 | 1293.8 | 1359.3 | 1450.4 | 1553.5 | 1667.6 | 1757.1 |
| 15° | 1217.1 | 1221.3 | 1225.6 | 1234.9 | 1266.5 | 1271.6 | 1329.5 | 1420.6 | 1536.5 | 1670.1 | 1786.0 |
| 17.5° | 1229.8 | 1236.7 | 1233.3 | 1244.4 | 1277.6 | 1280.9 | 1332.0 | 1412.1 | 1535.6 | 1686.3 | 1830.2 |
| 20° | 1260.5 | 1265.6 | 1258.8 | 1265.6 | 1298.8 | 1305.6 | 1358.4 | 1428.2 | 1550.1 | 1714.4 | 1885.6 |
| 22.5° | 1309.0 | 1311.6 | 1295.4 | 1300.5 | 1334.6 | 1343.2 | 1404.5 | 1474.3 | 1585.0 | 1759.6 | 1959.7 |
| 25° | 1370.3 | 1375.4 | 1350.7 | 1356.7 | 1389.1 | 1399.3 | 1470.1 | 1543.2 | 1640.3 | 1821.7 | 2054.3 |
| 27.5° | 1441.0 | 1443.6 | 1422.3 | 1421.5 | 1463.2 | 1477.6 | 1549.2 | 1628.4 | 1714.4 | 1900.1 | 2173.5 |
| 30° | 1521.9 | 1529.6 | 1509.2 | 1505.8 | 1558.6 | 1570.5 | 1641.2 | 1733.2 | 1823.5 | 2017.6 | 2342.9 |
| 32.5° | 1585.9 | 1591.8 | 1579.8 | 1588.4 | 1642.0 | 1651.4 | 1752.7 | 1881.4 | 1994.6 | 2184.6 | 2573.8 |
| 35° | 1677.8 | 1681.2 | 1653.9 | 1669.3 | 1730.6 | 1754.5 | 1905.3 | 2089.2 | 2210.1 | 2394.1 | 2875.3 |
| 37.5° | 2010.8 | 2010.8 | 1895.0 | 1819.2 | 1878.0 | 1899.2 | 2113.9 | 2350.6 | 2475.9 | 2675.1 | 3255.2 |
| 40° | 2471.6 | 2463.9 | 2294.5 | 2139.5 | 2131.8 | 2173.5 | 2411.1 | 2680.3 | 2819.1 | 3012.4 | 3682.7 |
| 42.5° | 2963.0 | 2951.1 | 2720.2 | 2567.0 | 2541.4 | 2555.9 | 2754.4 | 3086.5 | 3227.9 | 3423.8 | 4142.6 |
| 45° | 3399.1 | 3395.7 | 3184.5 | 2978.3 | 2932.3 | 2978.3 | 3182.7 | 3561.8 | 3663.1 | 3869.2 | 4601.6 |
| 47.5° | 3764.4 | 3764.4 | 3610.3 | 3475.8 | 3451.9 | 3479.2 | 3762.8 | 4088.9 | 4079.6 | 4343.6 | 5048.8 |
| 50° | 4185.2 | 4181.8 | 4035.3 | 3977.4 | 4002.1 | 4040.4 | 4430.5 | 4644.3 | 4510.5 | 4809.5 | 5448.3 |
| 52.5° | 4479.9 | 4500.3 | 4450.0 | 4440.7 | 4566.8 | 4633.2 | 5108.4 | 5187.6 | 4896.3 | 5251.5 | 5747.2 |
| 55° | 4713.3 | 4737.0 | 4795.0 | 4860.5 | 5103.3 | 5190.2 | 5765.1 | 5702.9 | 5219.1 | 5634.7 | 5919.2 |
| 57.5° | 5043.7 | 5009.6 | 5099.1 | 5228.5 | 5621.1 | 5725.9 | 6401.2 | 6189.2 | 5478.9 | 5945.6 | 5937.9 |
| 60° | 5444.8 | 5449.9 | 5465.3 | 5628.8 | 6138.1 | 6272.7 | 7028.1 | 6649.1 | 5645.8 | 6136.4 | 5730.2 |
| 62.5° | 5926.9 | 5934.5 | 5966.0 | 6217.3 | 6832.2 | 6959.1 | 7695.8 | 7025.6 | 5722.5 | 6082.8 | 5193.6 |
| 65° | 5893.6 | 5926.0 | 6277.8 | 7137.2 | 7887.5 | 8012.6 | 8475.1 | 7289.6 | 5606.6 | 5592.2 | 4228.6 |
| 67.5° | 5369.1 | 5421.8 | 6010.4 | 8235.8 | 9478.4 | 9618.1 | 9417.1 | 7341.6 | 5106.8 | 4348.7 | 2758.6 |
| 70° | 4680.9 | 4699.6 | 5407.4 | 9223.8 | 11320.6 | 11462.0 | 10260.2 | 6770.0 | 3875.2 | 2425.6 | 1235.8 |
| 72.5° | 3655.5 | 3659.7 | 4490.1 | 9452.9 | 12320.5 | 12328.2 | 9598.5 | 5025.8 | 2084.0 | 931.7 | 429.3 |
| 75° | 2611.3 | 2585.8 | 3007.4 | 7666.0 | 10839.4 | 10926.3 | 7195.9 | 2357.5 | 796.3 | 440.3 | 213.8 |
| 77.5° | 1400.1 | 1428.2 | 1701.7 | 4546.3 | 7488.0 | 7636.2 | 3926.3 | 679.7 | 405.4 | 299.8 | 141.3 |
| 80° | 432.7 | 456.5 | 697.5 | 2081.6 | 4241.3 | 4330.8 | 1455.5 | 302.4 | 282.8 | 213.8 | 92.9 |
| 82.5° | 136.2 | 141.3 | 325.3 | 874.6 | 1760.4 | 1801.3 | 421.6 | 171.2 | 193.3 | 141.3 | 54.5 |
| 85° | 39.2 | 40.1 | 144.8 | 326.2 | 435.2 | 443.7 | 118.4 | 66.4 | 110.7 | 87.7 | 28.1 |
| 87.5° | 4.3 | 13.6 | 54.5 | 54.5 | 38.3 | 37.5 | 12.8 | 14.5 | 31.5 | 11.1 | 5.1 |
| 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° | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 | 1684.6 |
| 2.5° | 1688.1 | 1688.9 | 1677.8 | 1659.1 | 1638.7 | 1621.7 | 1600.3 | 1583.3 | 1571.3 | 1567.9 | 1573.9 |
| 5° | 1700.0 | 1694.0 | 1662.4 | 1605.5 | 1537.3 | 1478.6 | 1413.0 | 1361.0 | 1327.0 | 1312.4 | 1317.5 |
| 7.5° | 1717.9 | 1700.8 | 1631.8 | 1519.4 | 1389.1 | 1273.3 | 1155.7 | 1064.6 | 1006.7 | 977.7 | 982.0 |
| 10° | 1733.2 | 1699.1 | 1580.8 | 1395.0 | 1195.8 | 1020.3 | 861.9 | 752.0 | 690.7 | 661.7 | 662.7 |
| 12.5° | 1747.6 | 1698.2 | 1514.3 | 1247.7 | 977.7 | 763.1 | 615.8 | 561.3 | 544.3 | 538.2 | 536.6 |
| 15° | 1774.9 | 1700.8 | 1430.8 | 1079.1 | 760.6 | 576.6 | 523.0 | 522.0 | 525.5 | 523.8 | 523.0 |
| 17.5° | 1812.4 | 1703.3 | 1336.3 | 900.3 | 586.8 | 508.5 | 505.9 | 513.5 | 518.6 | 516.1 | 515.3 |
| 20° | 1860.9 | 1713.6 | 1235.8 | 723.0 | 504.2 | 491.4 | 497.4 | 504.2 | 508.5 | 504.2 | 503.4 |
| 22.5° | 1929.0 | 1731.4 | 1126.0 | 580.9 | 477.8 | 481.2 | 486.4 | 493.9 | 498.3 | 492.3 | 491.4 |
| 25° | 2012.5 | 1759.6 | 1017.7 | 505.0 | 465.0 | 469.2 | 476.9 | 485.4 | 490.6 | 484.6 | 483.8 |
| 27.5° | 2120.7 | 1804.7 | 918.1 | 488.0 | 452.2 | 454.8 | 465.9 | 478.7 | 485.4 | 477.8 | 477.8 |
| 30° | 2277.4 | 1878.8 | 832.1 | 495.7 | 444.5 | 438.6 | 454.0 | 471.8 | 479.5 | 472.7 | 471.8 |
| 32.5° | 2485.2 | 1983.6 | 779.3 | 507.6 | 441.2 | 419.8 | 434.4 | 457.4 | 470.2 | 465.9 | 465.9 |
| 35° | 2757.8 | 2142.9 | 758.8 | 521.2 | 438.6 | 400.3 | 410.5 | 435.2 | 457.4 | 461.7 | 461.7 |
| 37.5° | 3088.2 | 2364.3 | 764.9 | 527.2 | 430.9 | 384.1 | 389.2 | 410.5 | 439.5 | 453.0 | 456.5 |
| 40° | 3463.8 | 2622.4 | 798.9 | 521.2 | 422.4 | 370.4 | 371.4 | 387.6 | 413.1 | 433.5 | 440.3 |
| 42.5° | 3851.3 | 2923.8 | 861.9 | 499.1 | 414.8 | 358.5 | 356.0 | 367.1 | 384.1 | 398.6 | 404.6 |
| 45° | 4220.1 | 3233.9 | 924.0 | 468.4 | 405.4 | 346.7 | 340.7 | 344.9 | 348.3 | 354.3 | 357.7 |
| 47.5° | 4542.1 | 3451.9 | 906.2 | 440.3 | 392.7 | 333.0 | 322.8 | 321.1 | 310.9 | 310.1 | 309.1 |
| 50° | 4764.3 | 3499.6 | 804.8 | 412.3 | 373.9 | 317.6 | 301.5 | 291.3 | 273.4 | 264.9 | 265.7 |
| 52.5° | 4835.0 | 3311.4 | 657.5 | 384.1 | 343.3 | 297.2 | 274.3 | 258.1 | 236.0 | 228.3 | 227.4 |
| 55° | 4741.3 | 2942.6 | 525.5 | 350.0 | 300.6 | 270.0 | 244.5 | 223.1 | 205.3 | 195.9 | 195.9 |
| 57.5° | 4512.3 | 2473.3 | 415.6 | 310.1 | 255.5 | 239.3 | 213.8 | 192.5 | 177.1 | 167.8 | 166.0 |
| 60° | 4132.4 | 1964.0 | 328.7 | 262.3 | 218.0 | 206.1 | 179.7 | 166.0 | 152.4 | 141.3 | 138.8 |
| 62.5° | 3555.8 | 1401.9 | 258.1 | 207.8 | 182.2 | 168.6 | 153.3 | 143.1 | 126.9 | 111.5 | 109.1 |
| 65° | 2774.8 | 857.6 | 199.3 | 152.4 | 146.5 | 139.7 | 130.3 | 121.0 | 101.4 | 86.0 | 83.4 |
| 67.5° | 1750.2 | 406.2 | 142.3 | 115.0 | 115.8 | 112.4 | 108.1 | 100.4 | 86.0 | 72.4 | 70.7 |
| 70° | 770.8 | 196.7 | 93.7 | 87.7 | 86.0 | 86.0 | 89.4 | 86.9 | 73.3 | 60.5 | 57.9 |
| 72.5° | 262.3 | 105.6 | 69.8 | 66.4 | 62.2 | 61.3 | 74.9 | 72.4 | 58.7 | 46.8 | 44.3 |
| 75° | 137.1 | 70.7 | 51.1 | 47.7 | 37.5 | 45.1 | 59.7 | 56.2 | 41.7 | 30.6 | 28.1 |
| 77.5° | 89.4 | 50.2 | 35.0 | 30.6 | 21.3 | 29.8 | 44.3 | 39.2 | 24.7 | 15.4 | 13.6 |
| 80° | 56.2 | 33.2 | 20.4 | 14.5 | 10.2 | 16.2 | 23.9 | 17.0 | 9.3 | 3.4 | 2.6 |
| 82.5° | 29.8 | 17.0 | 7.7 | 5.1 | 4.3 | 5.1 | 5.9 | 4.3 | 1.7 | 0.0 | 0.0 |
| 85° | 11.9 | 5.9 | 2.6 | 1.7 | 0.8 | 0.0 | 1.7 | 0.8 | 0.0 | 0.0 | 0.0 |
| 87.5° | 4.3 | 0.8 | 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)