

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: P964987

Luminaire Tested: **NAV-SB3D-722-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964987
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-722-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22042.6 lumens
Efficiency: N/A
Efficacy: 101.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

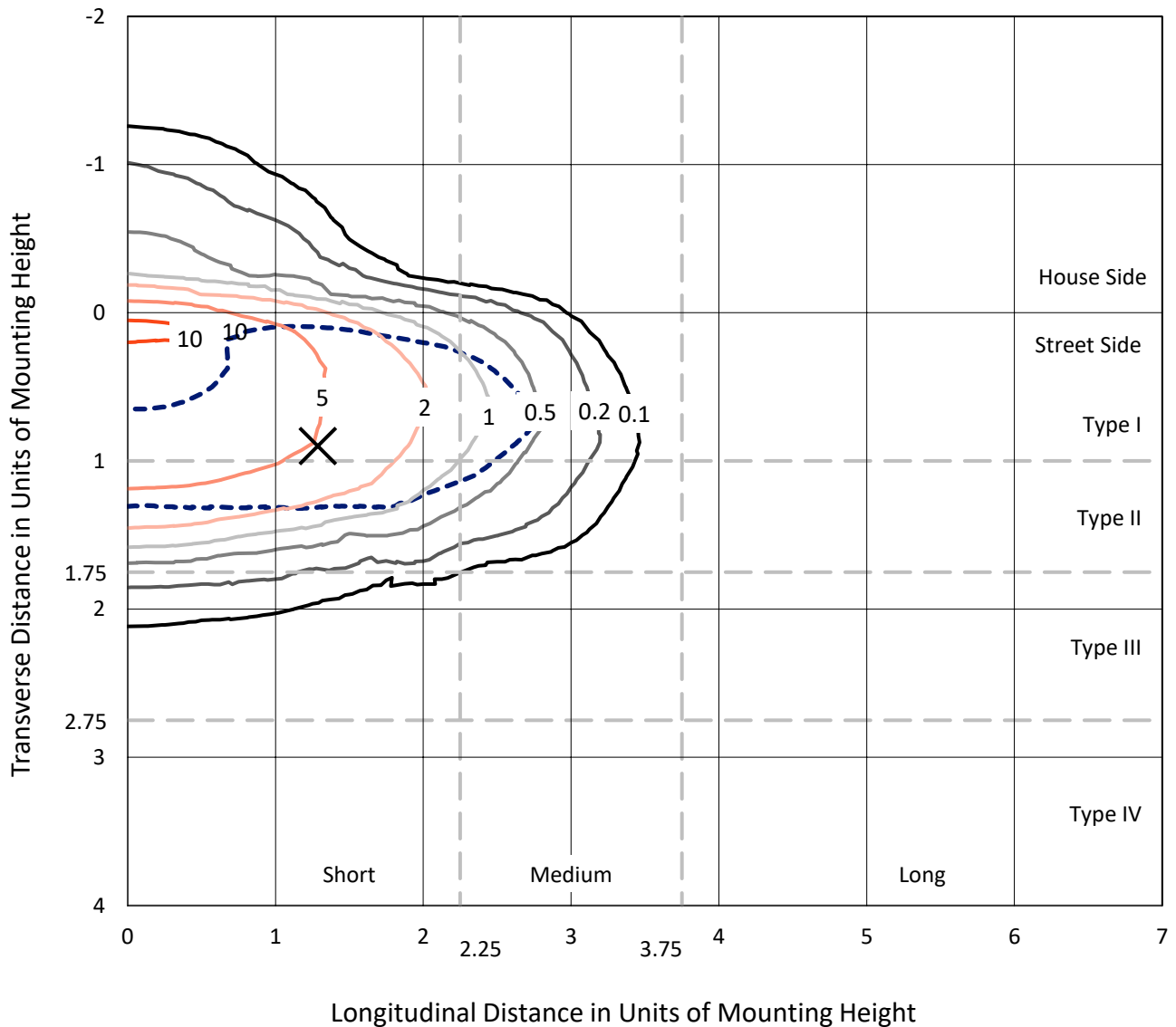
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

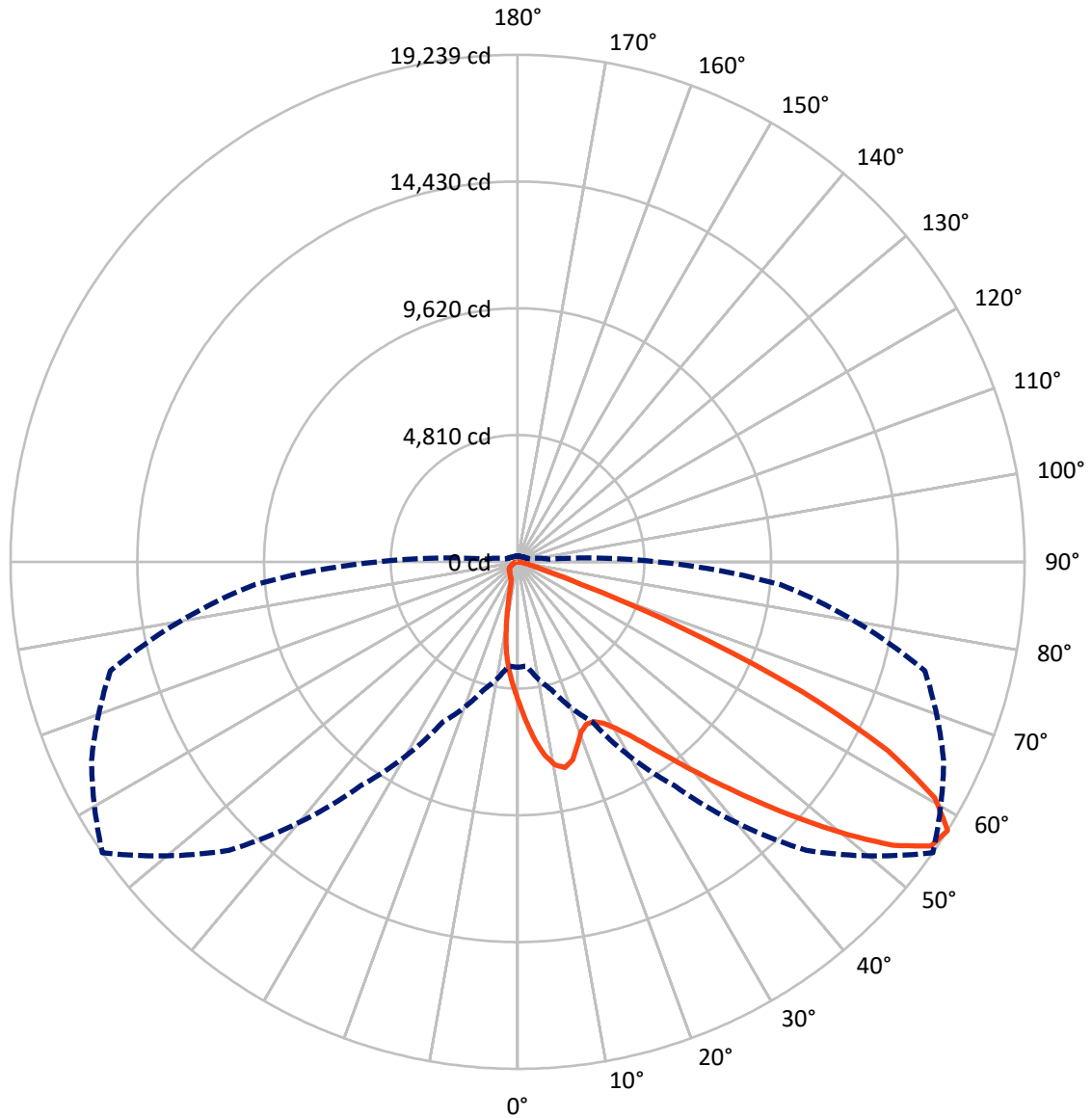
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.2 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1721.4 | 0.0 | 1721.4 |
| | % Fixture | 7.8 | 0.0 | 7.8 |
| Street Side | Lumens | 20321.2 | 0.0 | 20321.2 |
| | % Fixture | 92.2 | 0.0 | 92.2 |
| Total | Lumens | 22042.6 | 0.0 | 22042.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 494.2 | 2.2 |
| 10°-20° | 1193.8 | 5.4 |
| 20°-30° | 1910.1 | 8.7 |
| 30°-40° | 3232.9 | 14.7 |
| 40°-50° | 5307.8 | 24.1 |
| 50°-60° | 5833.6 | 26.5 |
| 60°-70° | 3346.2 | 15.2 |
| 70°-80° | 683.7 | 3.1 |
| 80°-90° | 40.3 | 0.2 |
| 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° | 22042.6 | 100.0 |
| 0°-180° | 22042.6 | 100.0 |

Coefficient of Utilization

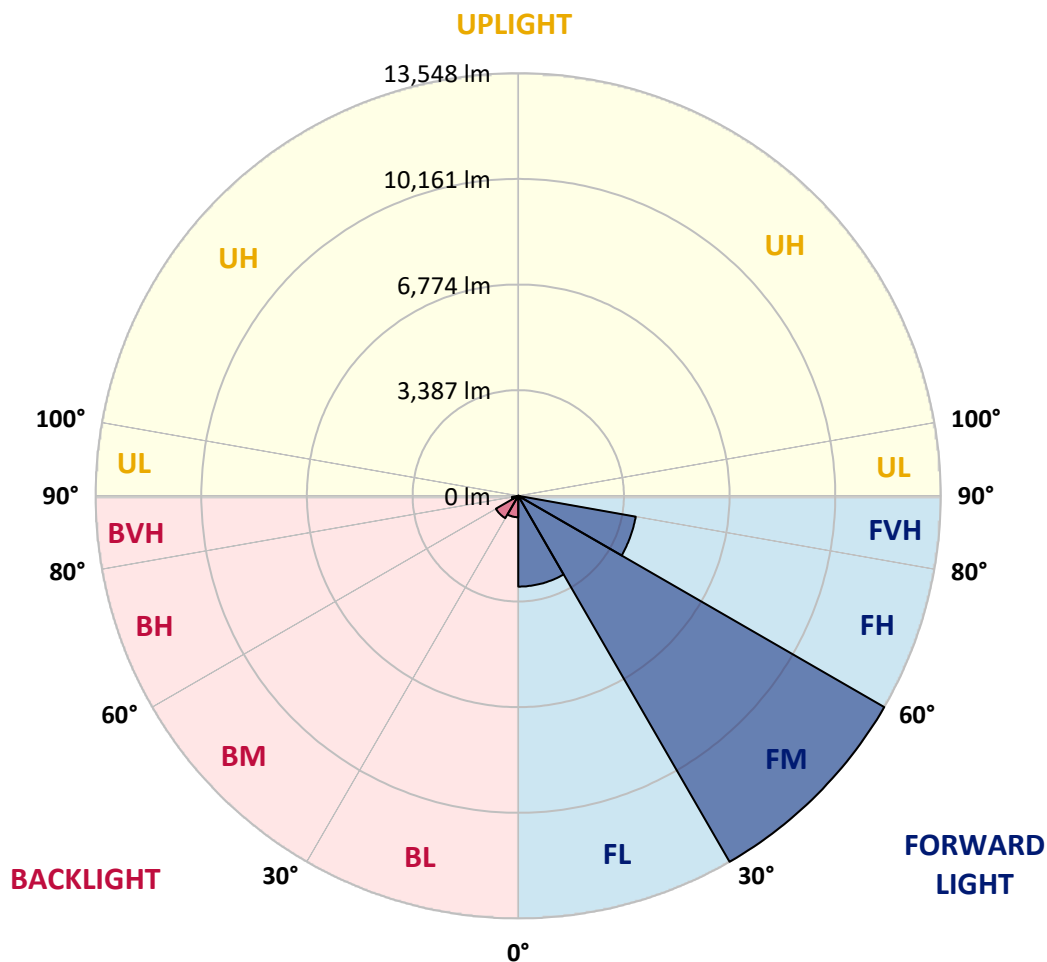


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2910.9 | 13.2 | | | |
| FM (30°-60°) | 13547.6 | 61.5 | | | |
| FH (60°-80°) | 3825.2 | 17.4 | | | G2/5000 |
| FVH (80°-90°) | 37.6 | 0.2 | | | G1/100 |
| BL (0°-30°) | 687.2 | 3.1 | B2/1000 | | |
| BM (30°-60°) | 826.7 | 3.8 | B1/1000 | | |
| BH (60°-80°) | 204.7 | 0.9 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.7 | 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-G2
 Type II Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0° | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 |
| 2.5° | 6590.7 | 6507.8 | 6495.6 | 6479.2 | 6321.6 | 6203.4 | 6032.1 | 5844.5 | 5633.8 | 5419.1 | 5324.0 |
| 5° | 7614.2 | 7548.9 | 7536.7 | 7460.6 | 7281.2 | 7080.1 | 6775.6 | 6391.0 | 5998.1 | 5536.0 | 5337.6 |
| 7.5° | 7812.7 | 7800.5 | 7856.1 | 7853.4 | 7828.9 | 7670.0 | 7413.0 | 6955.0 | 6365.1 | 5680.0 | 5372.8 |
| 10° | 6927.8 | 6959.0 | 7124.9 | 7270.3 | 7663.1 | 7891.5 | 7835.7 | 7457.9 | 6743.0 | 5844.5 | 5412.3 |
| 12.5° | 6121.8 | 6085.1 | 6203.4 | 6367.8 | 6824.6 | 7504.1 | 8011.1 | 7877.8 | 7175.2 | 6030.8 | 5470.7 |
| 15° | 5616.2 | 5601.2 | 5667.8 | 5744.0 | 6091.9 | 6776.9 | 7807.2 | 8219.1 | 7591.0 | 6251.0 | 5559.1 |
| 17.5° | 5454.4 | 5442.2 | 5462.6 | 5481.6 | 5707.3 | 6237.3 | 7322.0 | 8428.4 | 7989.4 | 6502.4 | 5657.0 |
| 20° | 5586.2 | 5570.0 | 5567.3 | 5552.3 | 5646.1 | 6007.6 | 6883.0 | 8443.3 | 8346.8 | 6730.8 | 5741.2 |
| 22.5° | 5970.9 | 5951.9 | 5885.3 | 5825.5 | 5833.7 | 6038.9 | 6687.2 | 8293.8 | 8615.9 | 6944.2 | 5794.2 |
| 25° | 6668.2 | 6637.0 | 6498.3 | 6297.2 | 6169.4 | 6256.4 | 6717.1 | 8096.7 | 8872.8 | 7111.3 | 5768.4 |
| 27.5° | 7540.8 | 7500.0 | 7322.0 | 7023.0 | 6730.8 | 6624.7 | 6933.2 | 7960.8 | 9086.2 | 7239.1 | 5712.7 |
| 30° | 8395.8 | 8342.8 | 8167.4 | 7934.9 | 7508.2 | 7173.9 | 7323.3 | 8020.6 | 9340.4 | 7372.3 | 5639.3 |
| 32.5° | 9318.6 | 9268.4 | 9035.9 | 8747.8 | 8394.3 | 7944.5 | 7857.5 | 8312.9 | 9651.6 | 7558.5 | 5587.7 |
| 35° | 10486.2 | 10407.3 | 10077.1 | 9684.3 | 9309.2 | 8853.7 | 8580.6 | 8817.0 | 10066.2 | 7842.6 | 5616.2 |
| 37.5° | 11815.5 | 11709.5 | 11353.3 | 10811.0 | 10321.8 | 9812.0 | 9461.4 | 9510.3 | 10673.7 | 8223.2 | 5704.5 |
| 40° | 13068.6 | 12972.2 | 12643.2 | 12132.2 | 11517.8 | 10899.3 | 10525.6 | 10416.9 | 11512.4 | 8686.6 | 5859.5 |
| 42.5° | 13820.3 | 13733.3 | 13594.7 | 13378.5 | 12860.7 | 12230.0 | 11758.4 | 11523.3 | 12504.6 | 9241.2 | 6048.4 |
| 45° | 13862.4 | 13786.4 | 13972.5 | 14223.9 | 14122.0 | 13702.0 | 13127.1 | 12696.3 | 13500.9 | 9761.7 | 6244.1 |
| 47.5° | 13188.3 | 13136.6 | 13702.0 | 14580.1 | 15017.7 | 15194.4 | 14664.4 | 13771.4 | 14323.1 | 10135.5 | 6324.4 |
| 50° | 11350.6 | 11331.6 | 12495.1 | 14107.1 | 15358.9 | 16502.0 | 16285.8 | 14771.7 | 14960.7 | 10328.5 | 6248.2 |
| 52.5° | 9841.9 | 9772.6 | 10450.8 | 12592.9 | 14862.8 | 17189.8 | 17870.7 | 15753.0 | 15406.5 | 10365.2 | 6070.2 |
| 55° | 7464.7 | 7403.6 | 8254.4 | 10059.3 | 13263.0 | 16945.1 | 19030.0 | 16765.6 | 15725.9 | 10271.4 | 5750.8 |
| 57.5° | 4004.2 | 3966.1 | 5041.3 | 6695.4 | 10368.0 | 15477.1 | 19239.4 | 17836.7 | 15995.0 | 10022.7 | 5303.6 |
| 60° | 1559.0 | 1552.2 | 1954.5 | 3248.4 | 6301.2 | 12591.6 | 18183.3 | 18479.6 | 16163.5 | 9716.9 | 4929.8 |
| 62.5° | 943.3 | 963.7 | 1028.9 | 1458.4 | 2783.6 | 7822.2 | 15749.0 | 17748.4 | 16276.4 | 9436.9 | 4621.2 |
| 65° | 780.1 | 781.6 | 789.7 | 1001.7 | 1333.3 | 3272.9 | 11856.3 | 15342.6 | 15997.7 | 8938.1 | 4183.6 |
| 67.5° | 668.7 | 680.9 | 712.2 | 795.1 | 940.5 | 1435.3 | 6825.9 | 11884.8 | 14302.7 | 7777.3 | 3501.3 |
| 70° | 527.4 | 543.7 | 583.1 | 653.7 | 725.8 | 898.4 | 2522.6 | 7907.8 | 10926.6 | 5862.2 | 2647.7 |
| 72.5° | 444.4 | 443.1 | 463.5 | 531.5 | 576.3 | 632.0 | 970.5 | 4431.0 | 6350.2 | 2798.6 | 1310.3 |
| 75° | 343.9 | 357.4 | 383.2 | 444.4 | 471.6 | 458.1 | 526.0 | 1618.8 | 2275.3 | 848.2 | 445.8 |
| 77.5° | 269.2 | 280.0 | 303.1 | 363.0 | 390.1 | 324.8 | 303.1 | 579.0 | 731.2 | 304.4 | 201.2 |
| 80° | 121.0 | 130.5 | 206.6 | 267.7 | 318.1 | 224.3 | 164.5 | 296.3 | 324.8 | 138.7 | 102.0 |
| 82.5° | 21.7 | 36.7 | 121.0 | 141.3 | 163.1 | 145.4 | 85.6 | 153.5 | 159.0 | 55.8 | 35.4 |
| 85° | 1.3 | 2.8 | 42.1 | 51.7 | 65.3 | 47.6 | 25.8 | 61.2 | 53.0 | 19.1 | 13.6 |
| 87.5° | 0.0 | 0.0 | 0.0 | 1.3 | 1.3 | 6.8 | 8.2 | 10.9 | 8.2 | 6.8 | 5.4 |
| 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):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 | 5311.8 |
| 2.5° | 5226.1 | 5033.1 | 4845.5 | 4691.9 | 4602.2 | 4450.0 | 4349.4 | 4333.1 | 4291.0 | 4327.7 |
| 5° | 5125.5 | 4780.3 | 4431.0 | 4118.3 | 3861.5 | 3529.8 | 3282.5 | 3177.8 | 3086.7 | 3117.9 |
| 7.5° | 5078.0 | 4533.0 | 3989.2 | 3455.1 | 2906.0 | 2375.8 | 1981.7 | 1817.2 | 1692.2 | 1709.9 |
| 10° | 5014.1 | 4276.0 | 3423.8 | 2608.3 | 1873.0 | 1349.7 | 1077.9 | 977.2 | 921.6 | 922.9 |
| 12.5° | 4965.1 | 3968.8 | 2767.3 | 1768.3 | 1140.3 | 861.7 | 777.5 | 753.0 | 736.7 | 738.0 |
| 15° | 4940.7 | 3607.3 | 2119.0 | 1178.4 | 815.5 | 729.9 | 709.5 | 698.6 | 687.8 | 686.4 |
| 17.5° | 4899.9 | 3205.0 | 1550.8 | 860.4 | 713.6 | 683.7 | 666.0 | 653.7 | 640.2 | 637.4 |
| 20° | 4838.7 | 2748.3 | 1133.5 | 727.1 | 668.7 | 645.6 | 621.2 | 604.9 | 588.6 | 585.8 |
| 22.5° | 4726.0 | 2265.8 | 871.2 | 672.8 | 636.1 | 610.3 | 580.4 | 561.4 | 545.0 | 542.3 |
| 25° | 4516.6 | 1813.1 | 734.0 | 638.8 | 607.5 | 576.3 | 543.7 | 517.8 | 502.9 | 500.2 |
| 27.5° | 4251.6 | 1424.4 | 666.0 | 607.5 | 570.8 | 542.3 | 505.6 | 481.1 | 467.6 | 464.8 |
| 30° | 3939.0 | 1096.9 | 626.6 | 572.3 | 527.4 | 502.9 | 470.3 | 449.9 | 441.8 | 441.8 |
| 32.5° | 3601.8 | 876.7 | 610.3 | 536.9 | 489.3 | 462.2 | 436.3 | 428.1 | 425.5 | 424.0 |
| 35° | 3285.1 | 761.2 | 602.1 | 508.3 | 455.3 | 429.5 | 418.6 | 419.9 | 425.5 | 425.5 |
| 37.5° | 3003.9 | 724.5 | 598.1 | 487.9 | 425.5 | 402.3 | 409.1 | 421.4 | 415.9 | 415.9 |
| 40° | 2749.7 | 728.6 | 595.3 | 473.0 | 401.0 | 387.3 | 401.0 | 391.4 | 377.8 | 376.5 |
| 42.5° | 2555.3 | 762.5 | 589.9 | 460.7 | 386.0 | 376.5 | 371.0 | 356.1 | 354.8 | 357.4 |
| 45° | 2414.0 | 792.4 | 588.6 | 455.3 | 369.7 | 352.0 | 345.2 | 330.3 | 357.4 | 364.3 |
| 47.5° | 2246.7 | 792.4 | 588.6 | 436.3 | 342.6 | 335.7 | 324.8 | 308.5 | 335.7 | 342.6 |
| 50° | 2030.6 | 742.1 | 565.4 | 414.5 | 320.7 | 316.7 | 297.7 | 277.3 | 271.8 | 275.9 |
| 52.5° | 1757.5 | 651.1 | 507.0 | 384.7 | 299.0 | 290.9 | 267.7 | 252.8 | 248.8 | 248.8 |
| 55° | 1446.2 | 545.0 | 428.1 | 341.1 | 275.9 | 261.0 | 244.7 | 237.9 | 233.8 | 231.0 |
| 57.5° | 1175.7 | 447.2 | 343.9 | 303.1 | 254.2 | 235.1 | 229.7 | 221.5 | 214.7 | 210.6 |
| 60° | 965.0 | 352.0 | 284.0 | 269.2 | 232.5 | 214.7 | 213.4 | 202.5 | 184.8 | 182.1 |
| 62.5° | 744.9 | 258.2 | 239.2 | 233.8 | 210.6 | 195.8 | 193.0 | 171.3 | 144.1 | 138.7 |
| 65° | 526.0 | 201.2 | 193.0 | 205.2 | 187.6 | 173.9 | 167.2 | 134.6 | 106.0 | 102.0 |
| 67.5° | 369.7 | 168.5 | 152.2 | 179.4 | 163.1 | 145.4 | 141.3 | 114.2 | 88.4 | 85.6 |
| 70° | 263.7 | 137.2 | 125.0 | 153.5 | 130.5 | 127.7 | 119.6 | 95.1 | 72.1 | 69.3 |
| 72.5° | 186.2 | 104.7 | 96.5 | 133.2 | 89.7 | 110.1 | 97.9 | 73.4 | 54.3 | 51.7 |
| 75° | 137.2 | 74.7 | 68.0 | 77.5 | 65.3 | 82.9 | 69.3 | 48.9 | 34.0 | 32.6 |
| 77.5° | 100.6 | 47.6 | 40.8 | 38.0 | 38.0 | 51.7 | 38.0 | 20.4 | 15.0 | 13.6 |
| 80° | 70.7 | 21.7 | 19.1 | 16.3 | 15.0 | 12.2 | 5.4 | 2.8 | 1.3 | 1.3 |
| 82.5° | 42.1 | 9.5 | 9.5 | 6.8 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 9.5 | 4.1 | 4.1 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 1.3 | 1.3 | 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 |

(END OF REPORT)