

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: P966648

Luminaire Tested: **NAV-SB4C-730-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966648
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-730-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31177.4 lumens
Efficiency: N/A
Efficacy: 155.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

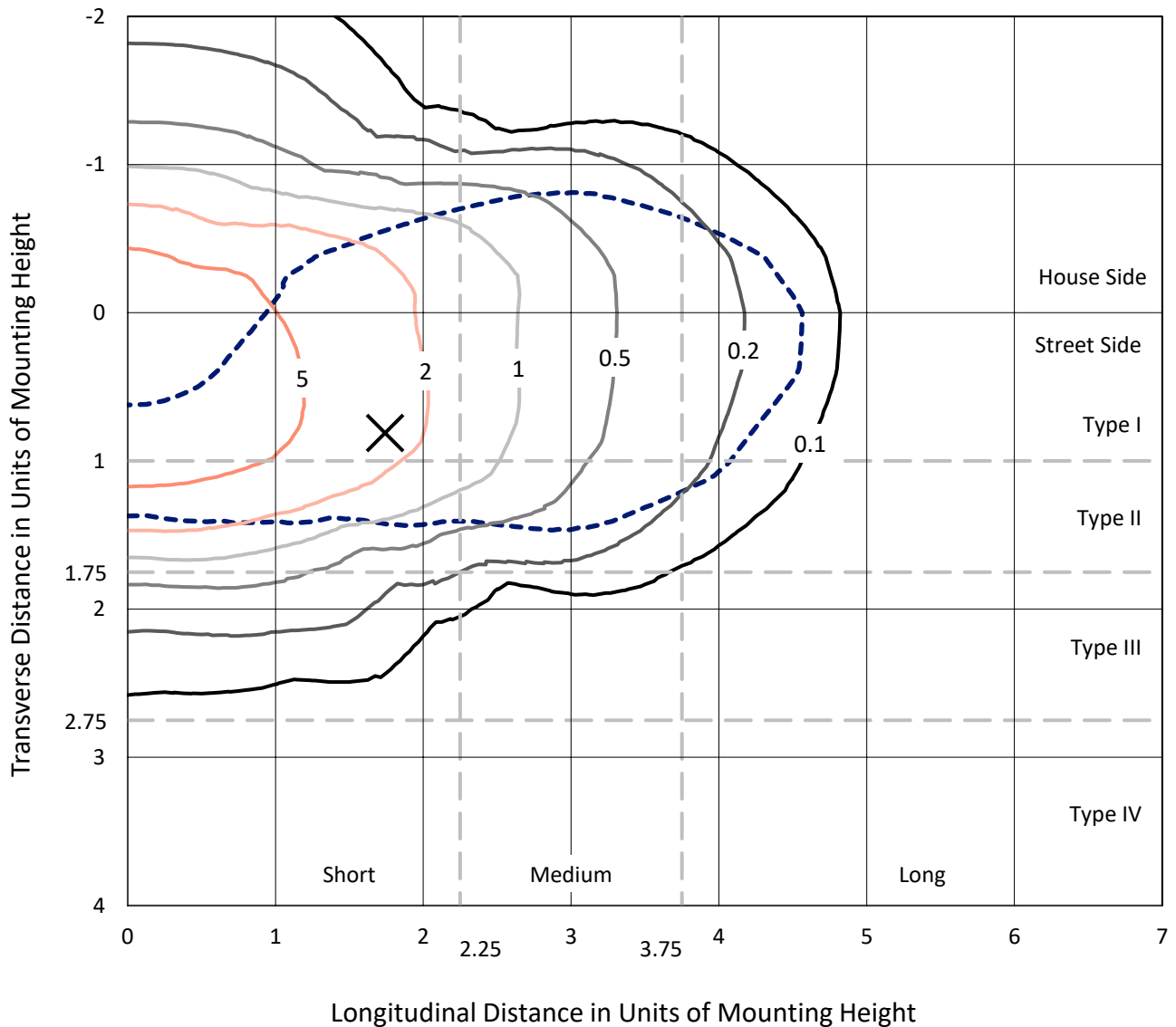
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

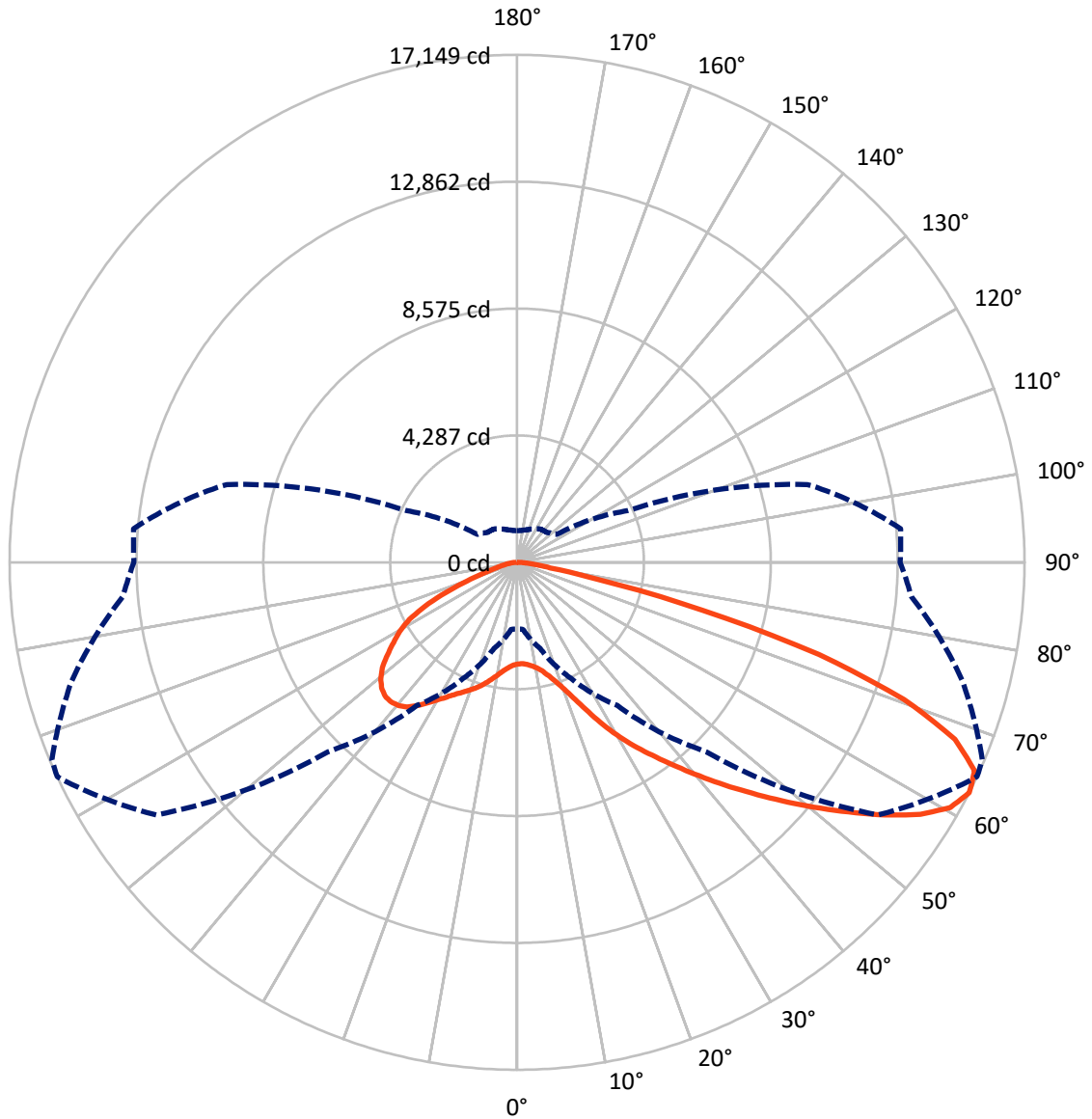
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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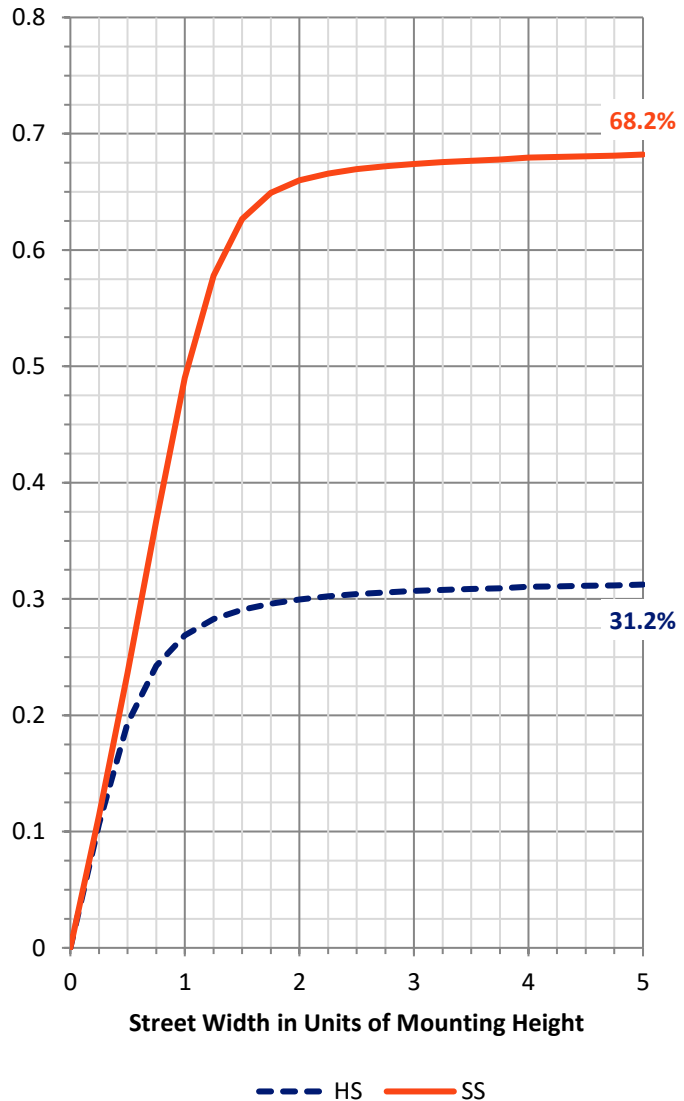
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9838.2 | 0.0 | 9838.2 |
| | % Fixture | 31.6 | 0.0 | 31.6 |
| Street Side | Lumens | 21339.2 | 0.0 | 21339.2 |
| | % Fixture | 68.4 | 0.0 | 68.4 |
| Total | Lumens | 31177.4 | 0.0 | 31177.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 342.5 | 1.1 |
| 10°-20° | 1161.5 | 3.7 |
| 20°-30° | 2355.1 | 7.6 |
| 30°-40° | 4075.5 | 13.1 |
| 40°-50° | 6167.6 | 19.8 |
| 50°-60° | 7231.1 | 23.2 |
| 60°-70° | 6062.4 | 19.4 |
| 70°-80° | 3346.9 | 10.7 |
| 80°-90° | 434.7 | 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° | 31177.4 | 100.0 |
| 0°-180° | 31177.4 | 100.0 |

Coefficient of Utilization

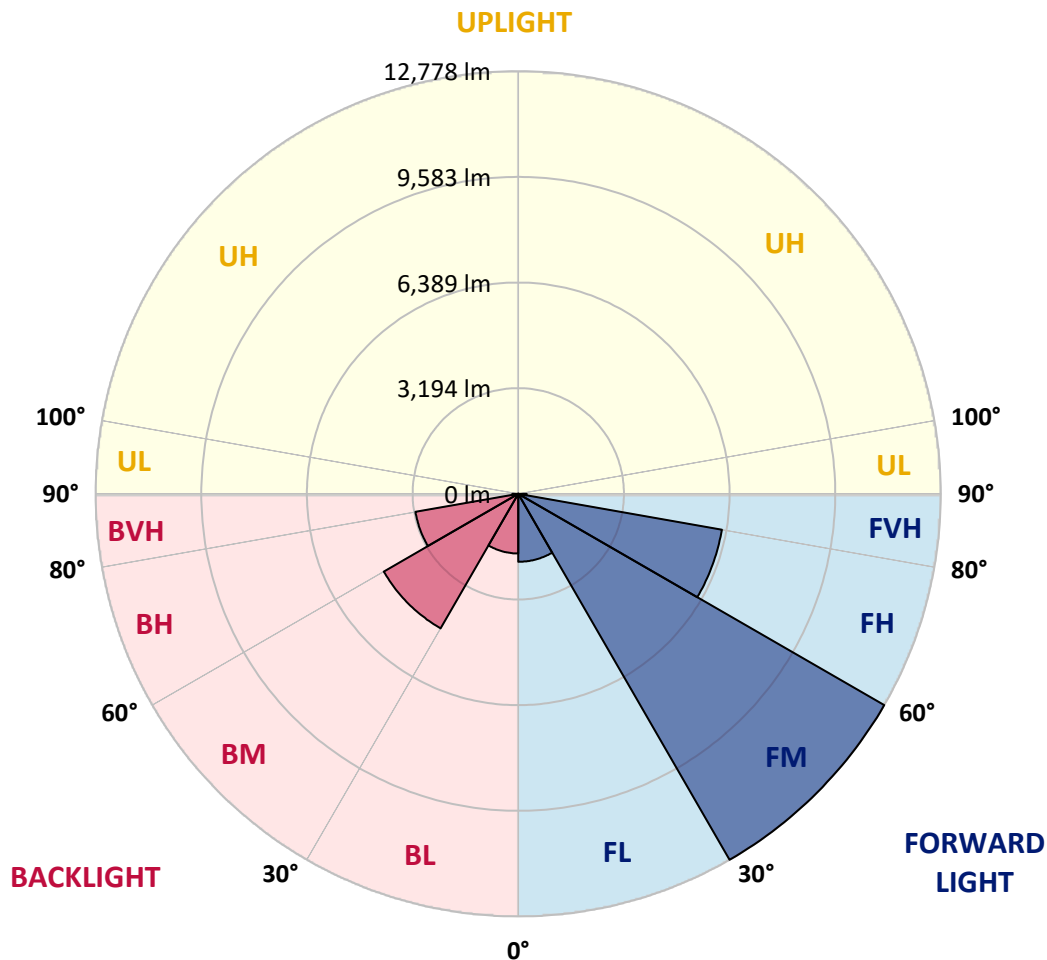


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2055.0 | 6.6 | | | |
| FM (30°-60°) | 12777.5 | 41.0 | | | |
| FH (60°-80°) | 6253.3 | 20.1 | | | G3/7500 |
| FVH (80°-90°) | 253.4 | 0.8 | | | G3/500 |
| BL (0°-30°) | 1804.2 | 5.8 | B3/2500 | | |
| BM (30°-60°) | 4696.6 | 15.1 | B3/5000 | | |
| BH (60°-80°) | 3156.0 | 10.1 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 181.4 | 0.6 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G4
 Type II Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 |
| 2.5° | 3412.9 | 3403.3 | 3411.4 | 3411.4 | 3414.6 | 3412.9 | 3424.3 | 3427.5 | 3432.4 | 3442.1 | 3442.1 |
| 5° | 3379.0 | 3377.4 | 3391.9 | 3404.8 | 3417.9 | 3429.1 | 3443.7 | 3464.7 | 3468.0 | 3479.3 | 3493.8 |
| 7.5° | 3367.6 | 3358.0 | 3380.7 | 3396.7 | 3427.5 | 3455.1 | 3493.8 | 3529.4 | 3544.0 | 3548.9 | 3576.3 |
| 10° | 3455.1 | 3438.9 | 3459.9 | 3469.6 | 3495.5 | 3522.9 | 3568.2 | 3624.9 | 3641.0 | 3660.5 | 3691.2 |
| 12.5° | 3603.8 | 3586.1 | 3616.8 | 3631.4 | 3655.6 | 3679.9 | 3710.6 | 3765.5 | 3773.6 | 3809.3 | 3838.4 |
| 15° | 3807.7 | 3786.7 | 3806.0 | 3823.9 | 3864.2 | 3886.9 | 3917.7 | 3971.1 | 3971.1 | 3998.5 | 4019.5 |
| 17.5° | 4084.2 | 4056.7 | 4071.3 | 4077.8 | 4103.7 | 4137.6 | 4189.4 | 4236.3 | 4260.5 | 4250.9 | 4221.8 |
| 20° | 4496.7 | 4462.7 | 4462.7 | 4430.4 | 4420.7 | 4448.2 | 4516.2 | 4580.8 | 4606.7 | 4556.5 | 4485.4 |
| 22.5° | 5116.2 | 5067.7 | 5040.2 | 4930.2 | 4886.6 | 4889.8 | 4957.7 | 5037.0 | 5058.0 | 4969.0 | 4808.9 |
| 25° | 5904.0 | 5827.9 | 5790.7 | 5629.0 | 5530.3 | 5444.6 | 5498.0 | 5599.9 | 5629.0 | 5519.0 | 5260.2 |
| 27.5° | 6691.7 | 6696.5 | 6661.0 | 6466.8 | 6303.4 | 6146.6 | 6119.0 | 6225.8 | 6256.6 | 6132.1 | 5811.7 |
| 30° | 7796.5 | 7681.7 | 7613.7 | 7380.7 | 7147.8 | 6927.9 | 6814.6 | 6858.3 | 6866.4 | 6717.5 | 6345.6 |
| 32.5° | 8749.2 | 8720.1 | 8574.5 | 8370.7 | 8071.5 | 7726.9 | 7537.6 | 7468.2 | 7455.1 | 7243.3 | 6801.7 |
| 35° | 9834.6 | 9818.4 | 9664.7 | 9422.1 | 9098.5 | 8619.7 | 8278.5 | 8079.6 | 8063.4 | 7765.7 | 7253.0 |
| 37.5° | 10937.7 | 10937.7 | 10787.3 | 10521.9 | 10187.2 | 9588.7 | 9069.4 | 8754.0 | 8702.2 | 8314.1 | 7712.3 |
| 40° | 11817.6 | 11764.2 | 11791.7 | 11680.1 | 11296.7 | 10661.1 | 9947.7 | 9490.0 | 9420.5 | 8954.6 | 8200.8 |
| 42.5° | 12317.4 | 12299.6 | 12464.6 | 12589.2 | 12432.2 | 11924.3 | 10915.0 | 10287.4 | 10190.3 | 9659.8 | 8763.8 |
| 45° | 12429.0 | 12409.7 | 12704.1 | 13160.2 | 13380.1 | 13171.5 | 11966.5 | 11126.9 | 11008.8 | 10397.4 | 9367.1 |
| 47.5° | 12171.9 | 12133.0 | 12565.0 | 13284.7 | 13989.9 | 14357.2 | 13105.1 | 12037.6 | 11866.1 | 11115.6 | 9986.6 |
| 50° | 11398.7 | 11361.5 | 12014.9 | 12970.9 | 14195.3 | 15162.6 | 14341.0 | 13003.3 | 12741.3 | 11885.6 | 10612.5 |
| 52.5° | 9718.0 | 9735.9 | 10759.7 | 12073.2 | 13925.2 | 15664.0 | 15405.2 | 14020.7 | 13705.3 | 12673.3 | 11199.8 |
| 55° | 7570.0 | 7608.8 | 8867.3 | 10313.3 | 12844.8 | 15588.1 | 16131.6 | 15068.8 | 14755.1 | 13414.1 | 11806.3 |
| 57.5° | 5420.3 | 5591.8 | 6770.9 | 8202.5 | 10769.5 | 14383.0 | 16290.0 | 16065.2 | 15761.1 | 14222.9 | 12399.9 |
| 60° | 3513.3 | 3544.0 | 4757.1 | 6199.9 | 8200.8 | 12241.4 | 15968.2 | 16820.7 | 16582.9 | 15047.8 | 12896.6 |
| 62.5° | 2251.6 | 2272.6 | 3011.9 | 4336.6 | 5902.4 | 9056.5 | 14884.4 | 17149.0 | 17076.2 | 15592.9 | 13373.7 |
| 65° | 1654.8 | 1638.6 | 2023.6 | 2866.2 | 3975.9 | 5585.3 | 12780.0 | 16990.5 | 17134.4 | 15934.2 | 13768.3 |
| 67.5° | 1381.4 | 1358.7 | 1548.0 | 1984.7 | 2929.3 | 3172.0 | 9456.0 | 15960.1 | 16487.4 | 15895.4 | 14057.9 |
| 70° | 1258.4 | 1239.0 | 1353.8 | 1473.5 | 2285.5 | 2123.8 | 4766.9 | 13875.1 | 14687.1 | 15453.8 | 14010.9 |
| 72.5° | 1065.9 | 1032.0 | 1188.9 | 1308.6 | 1777.7 | 1628.8 | 1970.2 | 10657.8 | 11647.8 | 14038.5 | 13351.0 |
| 75° | 826.6 | 803.9 | 938.2 | 1151.7 | 1336.1 | 1271.4 | 1245.5 | 6471.7 | 7552.2 | 10856.8 | 11680.1 |
| 77.5° | 655.1 | 624.3 | 747.3 | 897.7 | 1201.8 | 959.2 | 907.4 | 2787.0 | 3857.8 | 6931.0 | 8739.5 |
| 80° | 493.3 | 465.9 | 567.7 | 710.1 | 923.6 | 723.0 | 587.1 | 1137.1 | 1454.2 | 3511.6 | 4394.8 |
| 82.5° | 351.0 | 326.8 | 396.3 | 520.8 | 621.2 | 648.6 | 360.7 | 637.3 | 716.6 | 1353.8 | 981.8 |
| 85° | 224.9 | 210.2 | 265.3 | 326.8 | 394.6 | 417.3 | 220.0 | 333.2 | 365.5 | 558.0 | 409.3 |
| 87.5° | 122.9 | 100.2 | 142.4 | 152.0 | 182.8 | 166.6 | 105.2 | 121.4 | 131.0 | 202.2 | 173.1 |
| 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° | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 | 3435.6 |
| 2.5° | 3448.5 | 3453.4 | 3469.6 | 3474.4 | 3485.7 | 3500.3 | 3510.0 | 3519.7 | 3519.7 | 3529.4 | 3529.4 |
| 5° | 3495.5 | 3506.8 | 3540.8 | 3558.6 | 3587.7 | 3616.8 | 3634.5 | 3655.6 | 3668.6 | 3675.0 | 3678.2 |
| 7.5° | 3586.1 | 3603.8 | 3652.4 | 3683.1 | 3733.3 | 3773.6 | 3801.2 | 3830.3 | 3836.8 | 3854.5 | 3848.1 |
| 10° | 3709.0 | 3730.0 | 3785.0 | 3843.2 | 3903.1 | 3953.2 | 3979.2 | 4000.2 | 4008.3 | 4011.4 | 4003.3 |
| 12.5° | 3849.7 | 3880.4 | 3951.6 | 4022.8 | 4085.9 | 4129.5 | 4136.0 | 4131.2 | 4108.5 | 4089.1 | 4089.1 |
| 15° | 4022.8 | 4050.3 | 4129.5 | 4207.2 | 4268.6 | 4276.7 | 4236.3 | 4210.4 | 4182.9 | 4178.1 | 4178.1 |
| 17.5° | 4229.9 | 4244.4 | 4317.2 | 4393.2 | 4398.1 | 4370.5 | 4310.7 | 4286.4 | 4260.5 | 4242.8 | 4244.4 |
| 20° | 4470.8 | 4466.0 | 4517.8 | 4550.1 | 4516.2 | 4432.0 | 4341.4 | 4301.0 | 4275.1 | 4254.1 | 4255.7 |
| 22.5° | 4758.8 | 4721.6 | 4715.1 | 4707.0 | 4616.4 | 4440.1 | 4317.2 | 4265.4 | 4224.9 | 4195.8 | 4205.6 |
| 25° | 5177.7 | 5035.3 | 4936.7 | 4881.7 | 4677.9 | 4396.4 | 4239.5 | 4124.7 | 4048.6 | 3998.5 | 4017.9 |
| 27.5° | 5701.8 | 5462.3 | 5213.3 | 5079.0 | 4677.9 | 4307.5 | 4051.9 | 3865.9 | 3741.4 | 3689.6 | 3715.4 |
| 30° | 6201.6 | 5950.8 | 5583.7 | 5316.8 | 4666.5 | 4161.9 | 3749.4 | 3490.6 | 3345.0 | 3293.3 | 3324.0 |
| 32.5° | 6628.6 | 6355.2 | 5976.8 | 5577.2 | 4639.0 | 3925.7 | 3374.2 | 3087.8 | 2947.1 | 2885.7 | 2916.4 |
| 35° | 7024.9 | 6733.7 | 6371.4 | 5863.5 | 4566.3 | 3579.6 | 2961.6 | 2743.3 | 2586.4 | 2487.8 | 2520.1 |
| 37.5° | 7430.9 | 7084.7 | 6745.1 | 6122.3 | 4435.3 | 3175.2 | 2644.6 | 2458.7 | 2274.3 | 2141.6 | 2177.2 |
| 40° | 7872.5 | 7458.4 | 7144.6 | 6276.0 | 4220.1 | 2790.3 | 2398.8 | 2229.0 | 2033.2 | 1892.5 | 1920.0 |
| 42.5° | 8388.5 | 7906.4 | 7589.4 | 6355.2 | 3925.7 | 2516.9 | 2238.6 | 2072.0 | 1887.6 | 1772.8 | 1795.5 |
| 45° | 8927.1 | 8399.8 | 7995.4 | 6353.7 | 3597.3 | 2389.1 | 2186.9 | 2021.9 | 1818.1 | 1698.4 | 1717.8 |
| 47.5° | 9491.6 | 8915.8 | 8346.4 | 6250.1 | 3312.7 | 2406.9 | 2157.7 | 1913.6 | 1688.7 | 1572.2 | 1588.4 |
| 50° | 10057.7 | 9480.3 | 8686.1 | 6056.0 | 3191.3 | 2368.1 | 2049.4 | 1761.5 | 1496.2 | 1391.0 | 1397.6 |
| 52.5° | 10619.0 | 10080.4 | 8978.9 | 5779.4 | 3068.4 | 2224.0 | 1910.3 | 1564.1 | 1417.0 | 1344.2 | 1344.2 |
| 55° | 11183.6 | 10674.0 | 9297.5 | 5376.6 | 2761.1 | 2055.8 | 1677.4 | 1489.7 | 1353.8 | 1287.5 | 1281.0 |
| 57.5° | 11749.7 | 11359.9 | 9599.9 | 4973.9 | 2374.5 | 1848.8 | 1549.6 | 1399.1 | 1290.8 | 1234.2 | 1224.5 |
| 60° | 12338.4 | 12144.4 | 9912.2 | 4603.5 | 1992.8 | 1583.5 | 1455.8 | 1326.4 | 1216.4 | 1153.3 | 1148.4 |
| 62.5° | 12945.0 | 13008.1 | 10156.4 | 4126.3 | 1641.7 | 1421.8 | 1371.7 | 1239.0 | 1132.2 | 1072.5 | 1070.8 |
| 65° | 13556.4 | 13841.1 | 10316.5 | 3464.7 | 1331.3 | 1268.1 | 1281.0 | 1143.6 | 1035.2 | 983.5 | 981.8 |
| 67.5° | 14017.5 | 14441.2 | 10271.2 | 2622.1 | 1091.8 | 1122.6 | 1167.9 | 1043.3 | 941.4 | 901.0 | 902.6 |
| 70° | 14069.3 | 14370.1 | 9824.8 | 1795.5 | 913.9 | 980.2 | 1041.7 | 944.6 | 839.5 | 810.4 | 812.0 |
| 72.5° | 13380.1 | 13399.5 | 8581.0 | 1172.7 | 773.2 | 860.5 | 909.1 | 844.4 | 742.4 | 713.3 | 711.8 |
| 75° | 11573.4 | 11081.7 | 6300.3 | 773.2 | 647.0 | 739.2 | 784.5 | 739.2 | 640.5 | 647.0 | 624.3 |
| 77.5° | 8768.6 | 7848.2 | 3825.4 | 549.9 | 540.3 | 621.2 | 682.5 | 650.3 | 566.1 | 635.7 | 559.6 |
| 80° | 4517.8 | 4246.0 | 1706.5 | 410.8 | 427.0 | 496.6 | 561.3 | 519.3 | 448.0 | 427.0 | 389.8 |
| 82.5° | 1035.2 | 1203.5 | 672.9 | 294.4 | 308.9 | 357.5 | 428.7 | 389.8 | 321.8 | 271.7 | 268.5 |
| 85° | 362.3 | 396.3 | 297.7 | 184.4 | 181.1 | 223.2 | 291.2 | 260.5 | 218.3 | 174.7 | 184.4 |
| 87.5° | 114.8 | 150.5 | 111.6 | 74.4 | 77.6 | 100.2 | 134.3 | 122.9 | 101.9 | 66.3 | 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)