

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: P965006

Luminaire Tested: **NAV-SB3D-722-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965006
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-722-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25615.8 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

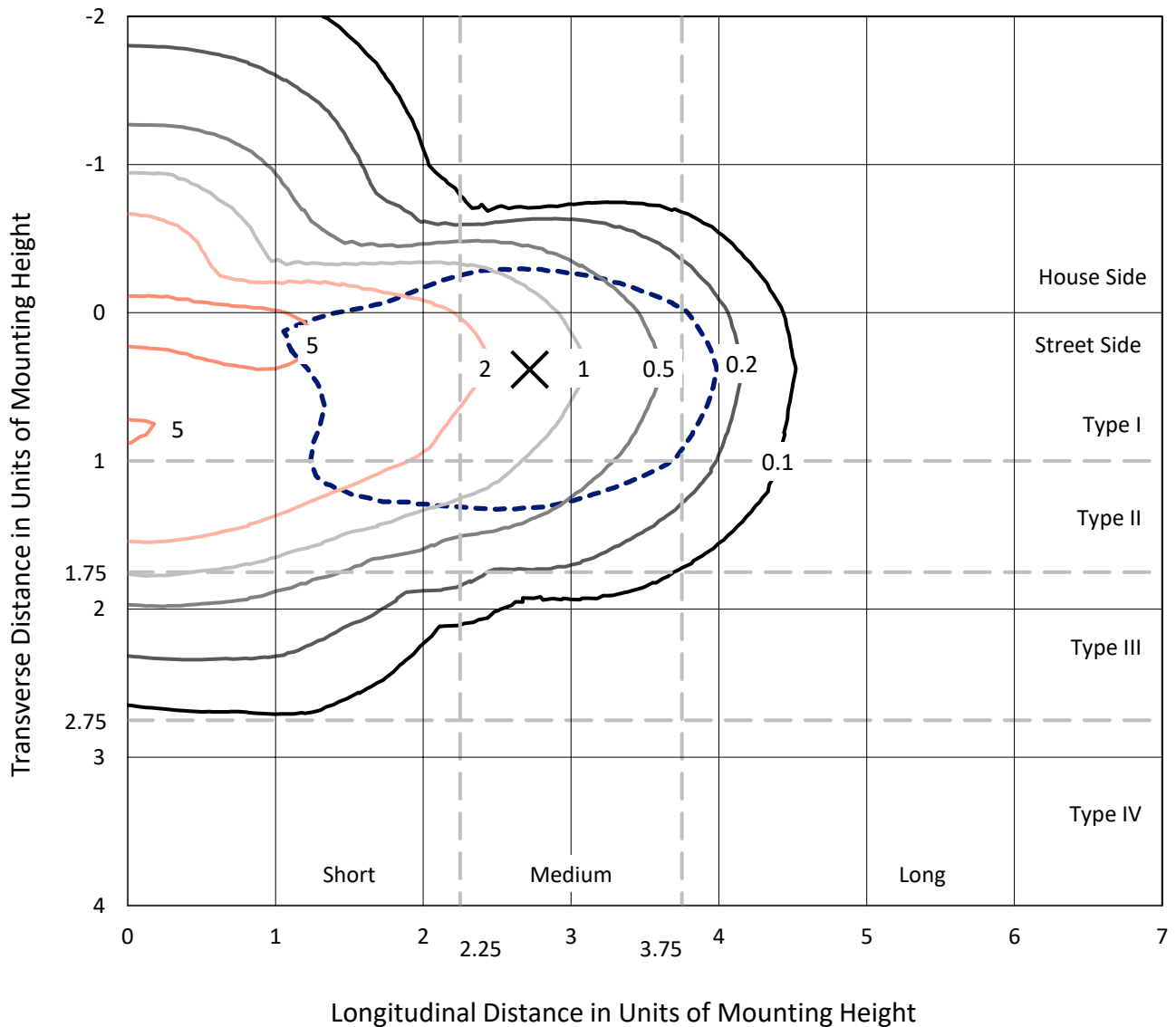
Input Watts (W): 218.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

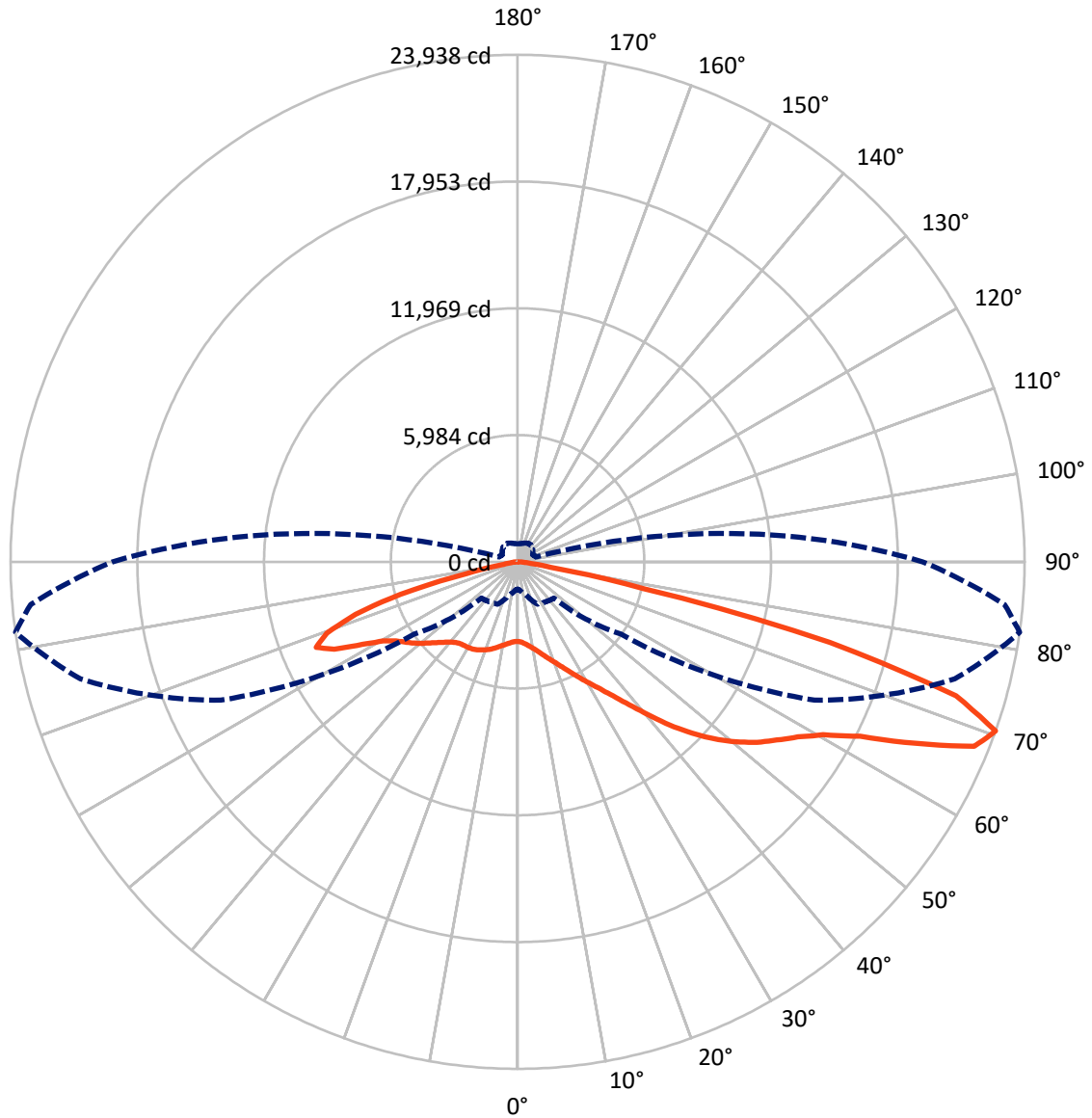
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6314.9 | 0.0 | 6314.9 |
| | % Fixture | 24.7 | 0.0 | 24.7 |
| Street Side | Lumens | 19300.9 | 0.0 | 19300.9 |
| | % Fixture | 75.3 | 0.0 | 75.3 |
| Total | Lumens | 25615.8 | 0.0 | 25615.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 354.6 | 1.4 |
| 10°-20° | 1018.8 | 4.0 |
| 20°-30° | 1704.3 | 6.7 |
| 30°-40° | 2662.6 | 10.4 |
| 40°-50° | 4240.4 | 16.6 |
| 50°-60° | 5901.1 | 23.0 |
| 60°-70° | 6172.8 | 24.1 |
| 70°-80° | 3226.2 | 12.6 |
| 80°-90° | 335.0 | 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° | 25615.8 | 100.0 |
| 0°-180° | 25615.8 | 100.0 |

Coefficient of Utilization

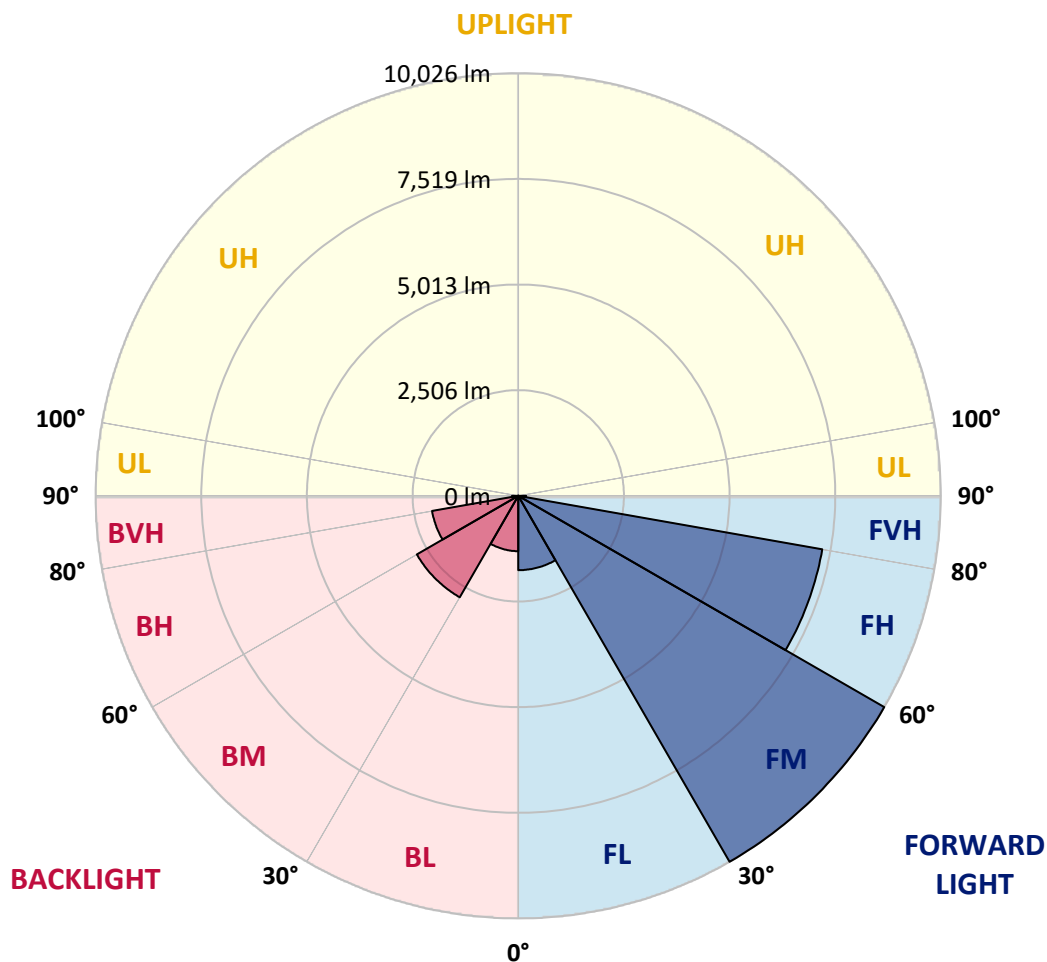


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1763.9 | 6.9 | | | |
| FM (30°-60°) | 10025.8 | 39.1 | | | |
| FH (60°-80°) | 7323.6 | 28.6 | | | G3/7500 |
| FVH (80°-90°) | 187.5 | 0.7 | | | G2/225 |
| BL (0°-30°) | 1313.7 | 5.1 | B3/2500 | | |
| BM (30°-60°) | 2778.3 | 10.8 | B3/5000 | | |
| BH (60°-80°) | 2075.4 | 8.1 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 147.5 | 0.6 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 |
| 2.5° | 3845.3 | 3867.0 | 3860.3 | 3853.5 | 3853.5 | 3844.0 | 3842.6 | 3829.0 | 3818.1 | 3800.5 | 3796.4 |
| 5° | 3894.3 | 3917.3 | 3914.6 | 3920.1 | 3937.7 | 3941.8 | 3945.8 | 3937.7 | 3916.0 | 3894.3 | 3884.7 |
| 7.5° | 3850.7 | 3876.6 | 3884.7 | 3917.3 | 3971.7 | 4020.7 | 4057.4 | 4072.3 | 4051.9 | 4020.7 | 4005.7 |
| 10° | 3703.9 | 3732.4 | 3761.0 | 3838.5 | 3935.0 | 4050.6 | 4148.4 | 4206.9 | 4202.8 | 4172.9 | 4147.0 |
| 12.5° | 3406.3 | 3436.2 | 3497.3 | 3648.2 | 3824.9 | 4028.8 | 4210.9 | 4333.3 | 4375.4 | 4353.7 | 4308.8 |
| 15° | 3168.4 | 3194.2 | 3240.4 | 3395.4 | 3625.1 | 3935.0 | 4234.1 | 4471.9 | 4579.3 | 4567.1 | 4512.7 |
| 17.5° | 3161.6 | 3172.5 | 3201.0 | 3274.5 | 3451.1 | 3788.2 | 4209.6 | 4607.9 | 4813.1 | 4811.8 | 4743.8 |
| 20° | 3281.2 | 3285.3 | 3301.6 | 3316.6 | 3417.1 | 3676.8 | 4147.0 | 4720.6 | 5075.4 | 5075.4 | 5002.0 |
| 22.5° | 3447.1 | 3444.3 | 3460.6 | 3447.1 | 3496.0 | 3667.2 | 4107.7 | 4819.9 | 5367.6 | 5389.4 | 5297.0 |
| 25° | 3695.7 | 3682.2 | 3678.1 | 3646.8 | 3656.4 | 3755.6 | 4151.1 | 4932.7 | 5714.3 | 5759.2 | 5643.5 |
| 27.5° | 4027.4 | 4005.7 | 3990.7 | 3918.7 | 3894.3 | 3937.7 | 4284.3 | 5068.6 | 6100.3 | 6177.8 | 6031.0 |
| 30° | 4459.7 | 4420.3 | 4398.5 | 4273.4 | 4185.1 | 4191.9 | 4485.5 | 5249.4 | 6504.0 | 6629.1 | 6442.8 |
| 32.5° | 5049.6 | 4988.5 | 4929.9 | 4724.7 | 4563.0 | 4510.0 | 4745.1 | 5499.5 | 6941.7 | 7141.5 | 6902.2 |
| 35° | 5710.2 | 5661.3 | 5598.8 | 5282.0 | 5033.3 | 4911.0 | 5095.8 | 5848.9 | 7454.1 | 7770.8 | 7459.5 |
| 37.5° | 6346.3 | 6304.2 | 6334.1 | 5907.3 | 5586.5 | 5408.4 | 5555.2 | 6317.8 | 8086.1 | 8553.7 | 8158.2 |
| 40° | 7004.2 | 6971.5 | 6975.6 | 6567.9 | 6194.1 | 5994.3 | 6112.5 | 6906.3 | 8810.6 | 9484.8 | 8998.2 |
| 42.5° | 7719.2 | 7694.7 | 7613.1 | 7251.6 | 6831.5 | 6645.4 | 6754.1 | 7585.9 | 9588.2 | 10545.0 | 9919.7 |
| 45° | 8519.7 | 8504.8 | 8428.7 | 8014.1 | 7532.9 | 7323.6 | 7470.4 | 8336.2 | 10369.7 | 11542.7 | 10845.4 |
| 47.5° | 9211.6 | 9223.9 | 9214.3 | 8865.0 | 8366.2 | 8059.0 | 8234.3 | 9119.2 | 11096.9 | 12480.6 | 11733.0 |
| 50° | 9544.6 | 9608.5 | 9702.2 | 9593.6 | 9283.6 | 8971.0 | 9005.0 | 9875.0 | 11790.1 | 13360.1 | 12583.9 |
| 52.5° | 9370.7 | 9491.6 | 9747.1 | 9921.1 | 10040.7 | 9975.5 | 9884.4 | 10625.3 | 12442.5 | 14153.8 | 13388.6 |
| 55° | 8722.2 | 8892.2 | 9316.2 | 9736.3 | 10346.6 | 10820.9 | 10940.5 | 11457.0 | 13078.7 | 14852.5 | 14149.7 |
| 57.5° | 7541.1 | 7817.1 | 8197.6 | 9047.2 | 10074.7 | 11230.1 | 12172.1 | 12611.1 | 13752.8 | 15598.7 | 14946.2 |
| 60° | 5515.8 | 5885.5 | 6358.6 | 7622.6 | 9123.2 | 11011.3 | 13220.0 | 14383.5 | 14711.1 | 16565.1 | 15983.3 |
| 62.5° | 3530.0 | 3758.3 | 4193.3 | 5384.0 | 7108.9 | 9889.8 | 13540.8 | 16599.1 | 16335.4 | 18150.0 | 17538.4 |
| 65° | 2416.7 | 2563.5 | 2961.8 | 3630.6 | 4595.6 | 7361.7 | 12681.7 | 18260.1 | 18915.2 | 20661.8 | 20197.0 |
| 67.5° | 1756.1 | 1867.7 | 2207.4 | 2793.2 | 2994.4 | 4356.4 | 9840.9 | 18184.0 | 21423.0 | 23249.9 | 22526.7 |
| 70° | 1280.4 | 1359.3 | 1644.7 | 2207.4 | 2303.9 | 2423.5 | 5961.6 | 15457.3 | 21368.7 | 23937.6 | 23071.8 |
| 72.5° | 948.7 | 1003.2 | 1194.7 | 1712.7 | 1864.9 | 1636.5 | 2950.9 | 11234.2 | 18362.1 | 21651.4 | 20956.8 |
| 75° | 686.4 | 727.2 | 868.6 | 1310.4 | 1492.4 | 1246.4 | 1472.1 | 6565.1 | 12808.2 | 15230.4 | 15352.7 |
| 77.5° | 524.7 | 556.0 | 648.3 | 959.6 | 1194.7 | 935.2 | 913.4 | 3020.3 | 6073.1 | 6103.1 | 6445.5 |
| 80° | 421.4 | 441.8 | 492.0 | 675.6 | 916.1 | 700.0 | 595.3 | 1219.2 | 1919.2 | 1624.3 | 1704.5 |
| 82.5° | 309.9 | 343.9 | 415.9 | 474.4 | 655.2 | 482.6 | 363.0 | 615.7 | 729.9 | 628.0 | 633.4 |
| 85° | 176.7 | 199.8 | 251.4 | 339.8 | 418.6 | 295.0 | 208.0 | 273.2 | 339.8 | 278.6 | 248.8 |
| 87.5° | 62.5 | 81.6 | 88.4 | 133.2 | 182.1 | 122.3 | 80.2 | 78.8 | 111.4 | 82.9 | 69.3 |
| 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° | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 | 3755.6 |
| 2.5° | 3782.8 | 3776.0 | 3748.8 | 3712.1 | 3674.0 | 3637.3 | 3625.1 | 3599.3 | 3581.7 | 3572.1 | 3583.0 |
| 5° | 3858.9 | 3837.2 | 3773.2 | 3691.7 | 3606.1 | 3513.6 | 3448.4 | 3388.5 | 3345.1 | 3304.3 | 3320.6 |
| 7.5° | 3967.7 | 3929.5 | 3819.5 | 3676.8 | 3524.6 | 3370.9 | 3256.7 | 3169.7 | 3111.3 | 3073.3 | 3081.5 |
| 10° | 4094.1 | 4035.6 | 3867.0 | 3653.6 | 3418.5 | 3198.3 | 3063.7 | 2989.0 | 2952.3 | 2931.9 | 2937.3 |
| 12.5° | 4239.5 | 4156.6 | 3916.0 | 3600.6 | 3256.7 | 3005.3 | 2912.8 | 2891.1 | 2892.4 | 2893.9 | 2896.5 |
| 15° | 4418.9 | 4303.4 | 3955.4 | 3485.1 | 3046.1 | 2857.1 | 2840.8 | 2876.1 | 2912.8 | 2930.6 | 2929.1 |
| 17.5° | 4621.4 | 4458.3 | 3962.2 | 3294.8 | 2839.5 | 2762.0 | 2813.6 | 2889.8 | 2945.4 | 2969.9 | 2975.4 |
| 20° | 4838.9 | 4616.0 | 3913.2 | 3025.7 | 2669.5 | 2684.5 | 2776.9 | 2874.8 | 2936.0 | 2967.3 | 2975.4 |
| 22.5° | 5087.7 | 4784.5 | 3796.4 | 2743.0 | 2530.9 | 2600.2 | 2709.0 | 2804.1 | 2868.1 | 2899.3 | 2907.4 |
| 25° | 5371.7 | 4973.5 | 3612.9 | 2505.1 | 2411.3 | 2505.1 | 2613.9 | 2692.7 | 2744.3 | 2772.8 | 2781.0 |
| 27.5° | 5687.1 | 5170.6 | 3368.3 | 2316.2 | 2306.7 | 2407.2 | 2496.9 | 2558.1 | 2585.3 | 2607.0 | 2615.2 |
| 30° | 6003.7 | 5350.0 | 3071.9 | 2173.4 | 2215.5 | 2310.8 | 2374.6 | 2401.8 | 2410.0 | 2414.0 | 2423.5 |
| 32.5° | 6346.3 | 5505.0 | 2760.6 | 2055.2 | 2128.6 | 2217.0 | 2255.0 | 2267.2 | 2229.2 | 2203.3 | 2211.5 |
| 35° | 6760.9 | 5670.8 | 2456.1 | 1961.4 | 2042.9 | 2119.1 | 2131.3 | 2120.4 | 2075.5 | 2022.5 | 2025.3 |
| 37.5° | 7273.3 | 5877.3 | 2212.9 | 1894.8 | 1962.8 | 2013.0 | 1998.1 | 1995.4 | 1999.5 | 1936.9 | 1941.0 |
| 40° | 7901.3 | 6146.5 | 2034.8 | 1843.2 | 1897.5 | 1908.3 | 1866.2 | 1889.4 | 1909.8 | 1814.6 | 1817.3 |
| 42.5° | 8598.6 | 6471.3 | 1922.0 | 1807.8 | 1843.2 | 1817.3 | 1752.0 | 1777.9 | 1775.2 | 1650.1 | 1648.7 |
| 45° | 9309.5 | 6824.8 | 1882.5 | 1782.0 | 1792.8 | 1741.2 | 1669.1 | 1676.0 | 1618.9 | 1506.0 | 1510.1 |
| 47.5° | 10016.3 | 7204.0 | 1907.0 | 1760.2 | 1730.3 | 1671.9 | 1616.1 | 1586.2 | 1501.9 | 1417.7 | 1417.7 |
| 50° | 10709.5 | 7602.2 | 1996.7 | 1716.8 | 1644.7 | 1610.7 | 1569.9 | 1516.9 | 1427.2 | 1355.2 | 1349.7 |
| 52.5° | 11352.4 | 8003.2 | 2097.4 | 1644.7 | 1537.3 | 1557.7 | 1531.9 | 1470.7 | 1382.3 | 1308.9 | 1310.4 |
| 55° | 11961.3 | 8404.2 | 2136.7 | 1545.5 | 1436.7 | 1511.5 | 1496.5 | 1383.7 | 1277.7 | 1217.9 | 1212.5 |
| 57.5° | 12624.6 | 8886.8 | 2093.3 | 1419.0 | 1355.2 | 1458.5 | 1401.4 | 1276.3 | 1215.1 | 1170.3 | 1166.2 |
| 60° | 13543.5 | 9643.8 | 1999.5 | 1262.7 | 1277.7 | 1379.6 | 1281.8 | 1230.1 | 1163.5 | 1113.3 | 1110.5 |
| 62.5° | 15070.0 | 11056.1 | 1848.6 | 1107.8 | 1186.6 | 1262.7 | 1224.7 | 1173.0 | 1105.1 | 1056.2 | 1056.2 |
| 65° | 17326.3 | 13018.8 | 1564.5 | 986.8 | 1084.7 | 1148.5 | 1163.5 | 1111.8 | 1041.2 | 989.5 | 992.2 |
| 67.5° | 19229.2 | 14250.4 | 1183.9 | 886.2 | 980.0 | 1056.2 | 1098.3 | 1048.0 | 973.2 | 922.9 | 924.2 |
| 70° | 19124.6 | 13356.0 | 903.9 | 787.0 | 887.5 | 965.0 | 1019.5 | 980.0 | 899.8 | 852.3 | 856.3 |
| 72.5° | 16986.5 | 11173.0 | 731.2 | 686.4 | 793.8 | 869.9 | 935.2 | 905.3 | 823.7 | 777.5 | 777.5 |
| 75° | 12479.3 | 7931.1 | 584.5 | 584.5 | 676.9 | 770.7 | 842.8 | 823.7 | 749.0 | 716.4 | 706.8 |
| 77.5° | 5260.3 | 3327.5 | 458.1 | 485.2 | 562.7 | 661.9 | 751.6 | 758.5 | 693.2 | 734.0 | 666.0 |
| 80° | 1398.6 | 917.5 | 349.3 | 381.9 | 441.8 | 546.4 | 653.8 | 651.1 | 580.4 | 542.3 | 504.3 |
| 82.5° | 532.8 | 361.5 | 248.8 | 269.2 | 319.4 | 418.6 | 517.8 | 534.2 | 463.5 | 401.0 | 401.0 |
| 85° | 205.2 | 155.0 | 153.5 | 161.7 | 186.2 | 277.3 | 391.4 | 405.1 | 349.3 | 296.3 | 305.9 |
| 87.5° | 53.0 | 46.2 | 57.1 | 54.3 | 85.6 | 148.1 | 224.3 | 232.5 | 213.4 | 123.7 | 176.7 |
| 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)