

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: P964497

Luminaire Tested: **NAV-SB3C-727-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964497
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3C-727-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20878.2 lumens
Efficiency: N/A
Efficacy: 140.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

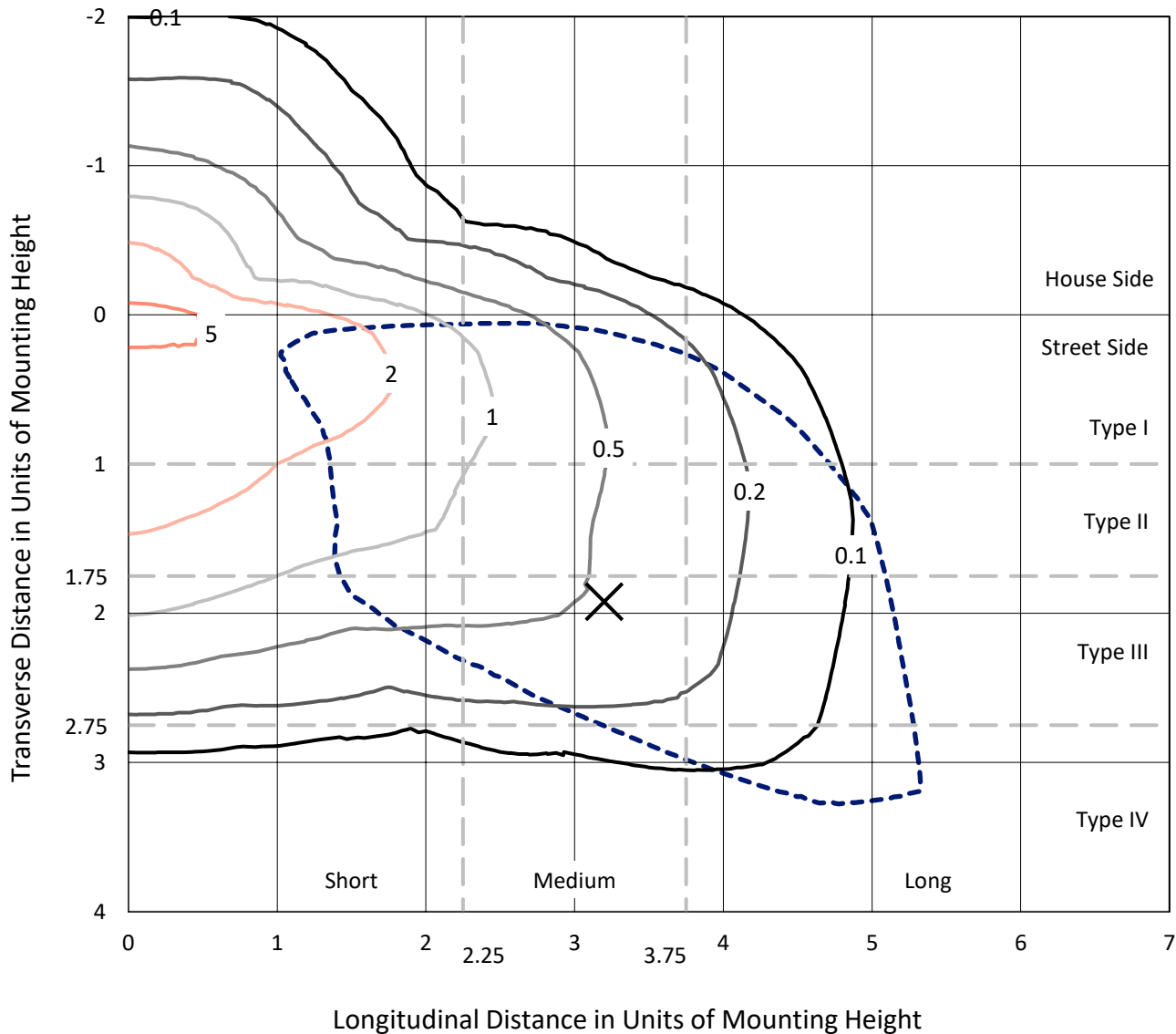
Input Watts (W): 149.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

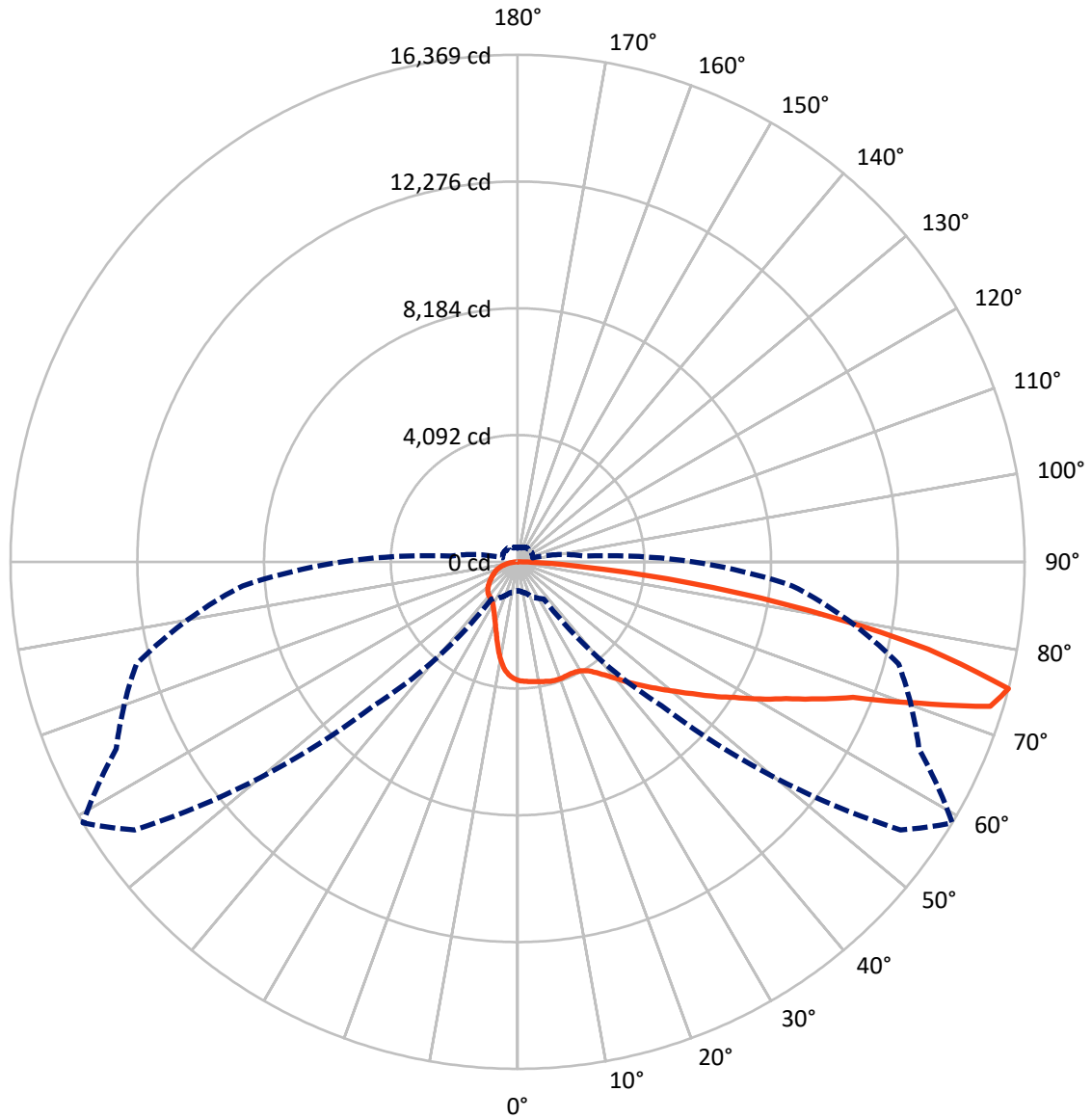
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3915.8 | 0.0 | 3915.8 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| Street Side | Lumens | 16962.4 | 0.0 | 16962.4 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| Total | Lumens | 20878.2 | 0.0 | 20878.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 343.6 | 1.6 |
| 10°-20° | 878.3 | 4.2 |
| 20°-30° | 1334.1 | 6.4 |
| 30°-40° | 1983.1 | 9.5 |
| 40°-50° | 2949.1 | 14.1 |
| 50°-60° | 4003.1 | 19.2 |
| 60°-70° | 4887.2 | 23.4 |
| 70°-80° | 3835.4 | 18.4 |
| 80°-90° | 664.4 | 3.2 |
| 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° | 20878.2 | 100.0 |
| 0°-180° | 20878.2 | 100.0 |

Coefficient of Utilization

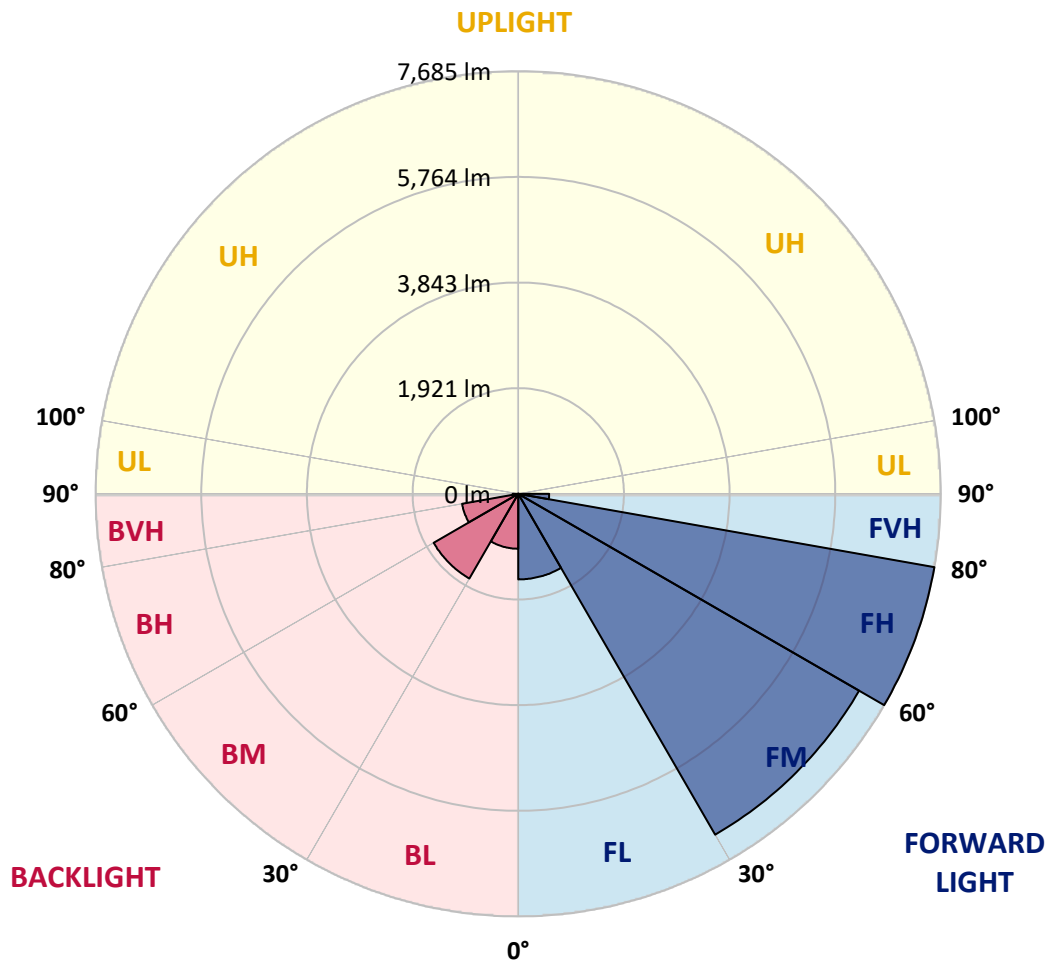


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1556.7 | 7.5 | | | |
| FM (30°-60°) | 7157.9 | 34.3 | | | |
| FH (60°-80°) | 7685.1 | 36.8 | | | G4/12000 |
| FVH (80°-90°) | 562.7 | 2.7 | | | G4/750 |
| BL (0°-30°) | 999.3 | 4.8 | B2/1000 | | |
| BM (30°-60°) | 1777.4 | 8.5 | B2/2500 | | |
| BH (60°-80°) | 1037.5 | 5.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 101.7 | 0.5 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4
 Type IV Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0° | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 |
| 2.5° | 3864.8 | 3851.2 | 3864.8 | 3859.1 | 3856.9 | 3852.4 | 3853.5 | 3861.4 | 3856.9 | 3862.5 | 3843.3 |
| 5° | 3838.9 | 3831.0 | 3844.5 | 3841.2 | 3855.7 | 3858.0 | 3872.6 | 3881.6 | 3887.2 | 3888.3 | 3873.7 |
| 7.5° | 3796.2 | 3788.4 | 3807.5 | 3823.1 | 3854.6 | 3863.6 | 3894.0 | 3908.5 | 3916.4 | 3929.8 | 3908.5 |
| 10° | 3640.1 | 3636.7 | 3683.8 | 3743.4 | 3817.5 | 3863.6 | 3909.7 | 3934.4 | 3946.8 | 3982.6 | 3957.9 |
| 12.5° | 3363.8 | 3368.3 | 3430.1 | 3544.7 | 3692.9 | 3841.2 | 3927.6 | 3963.6 | 3982.6 | 4027.5 | 4016.4 |
| 15° | 3099.9 | 3098.8 | 3166.1 | 3288.5 | 3496.4 | 3742.3 | 3936.6 | 3998.4 | 4030.9 | 4097.2 | 4088.2 |
| 17.5° | 2947.1 | 2942.7 | 2989.8 | 3083.0 | 3276.2 | 3590.7 | 3914.2 | 4017.5 | 4087.1 | 4170.2 | 4162.3 |
| 20° | 2919.0 | 2910.1 | 2934.8 | 2980.8 | 3117.8 | 3424.4 | 3855.7 | 4017.5 | 4132.0 | 4239.8 | 4235.4 |
| 22.5° | 3021.3 | 3006.6 | 2996.5 | 2991.0 | 3051.5 | 3287.4 | 3789.4 | 4004.0 | 4198.3 | 4339.8 | 4332.0 |
| 25° | 3226.8 | 3204.4 | 3152.7 | 3102.1 | 3084.1 | 3225.7 | 3731.1 | 4000.6 | 4297.1 | 4474.6 | 4445.4 |
| 27.5° | 3559.2 | 3531.1 | 3426.7 | 3305.4 | 3196.5 | 3257.1 | 3705.3 | 4020.9 | 4406.1 | 4617.2 | 4558.8 |
| 30° | 3971.5 | 3941.1 | 3809.7 | 3623.3 | 3427.8 | 3373.9 | 3737.8 | 4080.3 | 4545.4 | 4807.0 | 4692.4 |
| 32.5° | 4341.0 | 4307.3 | 4194.9 | 4005.1 | 3741.1 | 3576.1 | 3841.2 | 4193.8 | 4764.4 | 5071.0 | 4893.6 |
| 35° | 4668.9 | 4629.6 | 4528.4 | 4353.3 | 4125.3 | 3860.3 | 4027.5 | 4394.9 | 5075.5 | 5500.0 | 5166.4 |
| 37.5° | 4990.1 | 4944.1 | 4834.0 | 4648.7 | 4489.2 | 4238.7 | 4284.8 | 4653.2 | 5488.8 | 6021.2 | 5528.1 |
| 40° | 5349.5 | 5283.3 | 5149.6 | 4966.5 | 4811.6 | 4682.4 | 4622.9 | 4969.9 | 5908.8 | 6602.9 | 5979.6 |
| 42.5° | 5697.7 | 5634.8 | 5475.3 | 5319.2 | 5124.9 | 5087.8 | 5014.8 | 5340.6 | 6368.2 | 7242.0 | 6437.8 |
| 45° | 6072.8 | 5997.6 | 5804.4 | 5606.7 | 5484.3 | 5357.4 | 5394.5 | 5711.2 | 6818.6 | 7893.4 | 6918.5 |
| 47.5° | 6424.4 | 6340.1 | 6112.1 | 5892.0 | 5824.6 | 5584.2 | 5742.6 | 6118.8 | 7286.9 | 8553.8 | 7394.8 |
| 50° | 6614.1 | 6531.1 | 6341.3 | 6142.4 | 6089.6 | 5863.9 | 6120.0 | 6567.0 | 7777.7 | 9212.0 | 7851.9 |
| 52.5° | 6772.5 | 6682.7 | 6434.4 | 6324.4 | 6308.7 | 6168.2 | 6585.0 | 7079.2 | 8268.6 | 9793.8 | 8293.3 |
| 55° | 6941.0 | 6841.1 | 6524.3 | 6425.5 | 6497.4 | 6509.7 | 7136.5 | 7659.8 | 8787.4 | 10361.0 | 8709.9 |
| 57.5° | 7135.3 | 7008.4 | 6610.8 | 6510.8 | 6681.6 | 6909.5 | 7769.9 | 8261.8 | 9297.4 | 10886.6 | 9080.6 |
| 60° | 7318.4 | 7190.4 | 6777.0 | 6646.7 | 6880.3 | 7373.4 | 8496.5 | 8990.7 | 9874.6 | 11354.9 | 9431.0 |
| 62.5° | 7354.3 | 7248.7 | 6909.5 | 6908.4 | 7149.9 | 7914.7 | 9356.9 | 9726.4 | 10378.9 | 11817.6 | 9745.5 |
| 65° | 6732.1 | 6665.9 | 6464.8 | 6898.4 | 7536.3 | 8694.3 | 10314.9 | 10667.6 | 11020.3 | 12222.0 | 10021.7 |
| 67.5° | 5123.8 | 5132.8 | 5118.1 | 5954.8 | 7224.0 | 9814.0 | 11702.0 | 11675.1 | 11812.1 | 12675.8 | 10339.6 |
| 70° | 2342.8 | 2395.6 | 2739.3 | 4110.7 | 5787.6 | 9943.1 | 13995.5 | 13646.1 | 12806.0 | 13263.2 | 10614.8 |
| 72.5° | 1265.8 | 1306.3 | 1446.6 | 1991.4 | 3479.5 | 8840.2 | 15709.4 | 15957.6 | 14128.0 | 13658.5 | 10312.6 |
| 75° | 928.9 | 951.3 | 1049.0 | 1265.8 | 1461.2 | 6570.4 | 15095.0 | 16368.6 | 14293.1 | 12736.4 | 8905.4 |
| 77.5° | 695.3 | 705.3 | 785.0 | 1003.0 | 748.0 | 3463.8 | 12061.4 | 13556.3 | 12235.5 | 10464.3 | 6578.2 |
| 80° | 504.3 | 515.5 | 575.0 | 752.5 | 524.5 | 1266.9 | 8282.0 | 9515.3 | 8379.8 | 6670.3 | 3278.5 |
| 82.5° | 348.2 | 352.7 | 378.5 | 512.2 | 366.1 | 491.9 | 4699.2 | 5579.8 | 4677.9 | 2340.6 | 885.0 |
| 85° | 210.0 | 215.7 | 226.8 | 298.8 | 207.8 | 233.6 | 2028.4 | 2098.1 | 1398.3 | 559.3 | 275.2 |
| 87.5° | 86.5 | 92.1 | 101.1 | 125.8 | 82.0 | 65.2 | 334.7 | 420.0 | 261.7 | 164.0 | 85.4 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 | 3832.2 |
| 2.5° | 3837.8 | 3829.9 | 3808.6 | 3779.4 | 3752.4 | 3718.7 | 3704.1 | 3691.7 | 3680.6 | 3659.1 | 3649.1 |
| 5° | 3861.4 | 3840.1 | 3782.8 | 3708.7 | 3624.4 | 3532.3 | 3442.5 | 3380.7 | 3327.9 | 3288.5 | 3256.0 |
| 7.5° | 3897.3 | 3856.9 | 3752.4 | 3600.8 | 3407.6 | 3209.9 | 3031.3 | 2904.4 | 2809.0 | 2774.2 | 2713.5 |
| 10° | 3934.4 | 3886.1 | 3704.1 | 3436.8 | 3103.2 | 2798.9 | 2561.9 | 2431.6 | 2355.2 | 2330.5 | 2292.3 |
| 12.5° | 3978.1 | 3907.4 | 3628.9 | 3208.8 | 2762.9 | 2429.4 | 2222.7 | 2146.4 | 2107.0 | 2093.6 | 2096.9 |
| 15° | 4042.2 | 3925.3 | 3515.4 | 2923.5 | 2438.4 | 2159.8 | 2026.1 | 1973.3 | 1953.1 | 1952.0 | 1956.5 |
| 17.5° | 4090.5 | 3928.7 | 3339.1 | 2618.1 | 2189.0 | 1996.9 | 1886.9 | 1866.6 | 1880.2 | 1900.4 | 1908.2 |
| 20° | 4144.4 | 3898.4 | 3107.7 | 2339.5 | 2013.8 | 1854.3 | 1808.3 | 1821.7 | 1854.3 | 1883.5 | 1893.6 |
| 22.5° | 4182.6 | 3843.3 | 2828.1 | 2122.8 | 1862.1 | 1772.3 | 1770.1 | 1798.2 | 1816.1 | 1830.8 | 1838.5 |
| 25° | 4216.2 | 3750.2 | 2531.5 | 1940.7 | 1737.5 | 1722.9 | 1747.6 | 1738.6 | 1726.3 | 1738.6 | 1746.5 |
| 27.5° | 4240.9 | 3603.1 | 2266.5 | 1781.3 | 1649.9 | 1689.2 | 1674.6 | 1654.4 | 1653.2 | 1660.0 | 1671.3 |
| 30° | 4233.1 | 3406.5 | 2048.6 | 1629.6 | 1588.1 | 1626.3 | 1591.5 | 1588.1 | 1584.8 | 1588.1 | 1600.4 |
| 32.5° | 4233.1 | 3182.9 | 1881.3 | 1525.2 | 1548.8 | 1534.2 | 1530.8 | 1522.9 | 1509.5 | 1508.4 | 1522.9 |
| 35° | 4256.7 | 2959.5 | 1737.5 | 1469.0 | 1516.3 | 1481.4 | 1483.7 | 1464.6 | 1436.5 | 1423.0 | 1436.5 |
| 37.5° | 4305.0 | 2779.8 | 1594.9 | 1442.1 | 1459.0 | 1457.9 | 1448.8 | 1416.2 | 1366.8 | 1324.2 | 1338.8 |
| 40° | 4421.8 | 2727.0 | 1497.1 | 1429.8 | 1432.0 | 1445.5 | 1421.9 | 1359.0 | 1246.7 | 1177.0 | 1186.0 |
| 42.5° | 4604.9 | 2815.7 | 1475.8 | 1399.4 | 1414.0 | 1427.5 | 1381.5 | 1235.4 | 1155.7 | 1114.2 | 1114.2 |
| 45° | 4837.4 | 2970.7 | 1521.8 | 1355.7 | 1371.3 | 1394.9 | 1257.9 | 1188.3 | 1152.3 | 1153.4 | 1159.1 |
| 47.5° | 5131.7 | 3133.5 | 1607.2 | 1317.4 | 1309.5 | 1323.1 | 1175.9 | 1133.2 | 1083.8 | 1096.1 | 1127.6 |
| 50° | 5472.0 | 3298.7 | 1688.1 | 1265.8 | 1241.1 | 1197.3 | 1123.1 | 1082.7 | 1019.8 | 990.6 | 998.5 |
| 52.5° | 5840.3 | 3458.1 | 1720.7 | 1202.8 | 1167.0 | 1116.4 | 1087.2 | 1037.8 | 961.4 | 913.1 | 911.9 |
| 55° | 6189.7 | 3603.1 | 1684.7 | 1127.6 | 1092.9 | 1053.5 | 1049.0 | 1018.6 | 936.7 | 869.3 | 869.3 |
| 57.5° | 6519.8 | 3724.3 | 1594.9 | 1051.2 | 1017.5 | 993.9 | 1024.3 | 1009.7 | 906.4 | 819.9 | 815.4 |
| 60° | 6799.4 | 3807.5 | 1464.6 | 973.7 | 950.2 | 937.8 | 983.9 | 979.4 | 863.7 | 767.1 | 763.7 |
| 62.5° | 7021.9 | 3840.1 | 1320.8 | 899.6 | 894.0 | 871.6 | 927.7 | 927.7 | 809.7 | 715.4 | 712.1 |
| 65° | 7195.9 | 3808.6 | 1174.9 | 826.7 | 837.8 | 804.2 | 859.2 | 852.5 | 752.5 | 669.4 | 664.9 |
| 67.5° | 7349.9 | 3705.3 | 1013.1 | 754.7 | 780.5 | 737.9 | 787.3 | 771.6 | 689.6 | 623.3 | 618.9 |
| 70° | 7418.3 | 3464.9 | 828.9 | 682.9 | 714.3 | 672.8 | 715.4 | 686.2 | 618.9 | 573.9 | 565.0 |
| 72.5° | 6868.0 | 2879.7 | 652.5 | 607.6 | 634.6 | 600.9 | 638.0 | 604.2 | 542.4 | 522.2 | 505.4 |
| 75° | 5682.0 | 2160.9 | 502.0 | 525.6 | 545.8 | 520.0 | 544.7 | 520.0 | 463.8 | 478.5 | 436.9 |
| 77.5° | 4126.4 | 1459.0 | 384.1 | 439.1 | 448.1 | 434.7 | 456.0 | 427.9 | 377.4 | 374.0 | 357.1 |
| 80° | 2051.9 | 854.7 | 301.0 | 347.1 | 343.7 | 334.7 | 359.4 | 345.9 | 303.3 | 321.2 | 317.9 |
| 82.5° | 594.1 | 366.1 | 219.0 | 243.7 | 237.0 | 239.2 | 257.2 | 263.9 | 395.3 | 392.0 | 401.0 |
| 85° | 186.4 | 143.8 | 131.4 | 135.9 | 129.1 | 132.5 | 151.6 | 301.0 | 278.5 | 162.9 | 176.3 |
| 87.5° | 48.3 | 49.4 | 32.6 | 34.8 | 36.0 | 42.6 | 48.3 | 183.1 | 87.6 | 57.3 | 60.7 |
| 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)