

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: P969266

Luminaire Tested: **NAV-SB5D-730-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969266
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-730-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 53586 lumens
Efficiency: N/A
Efficacy: 146.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

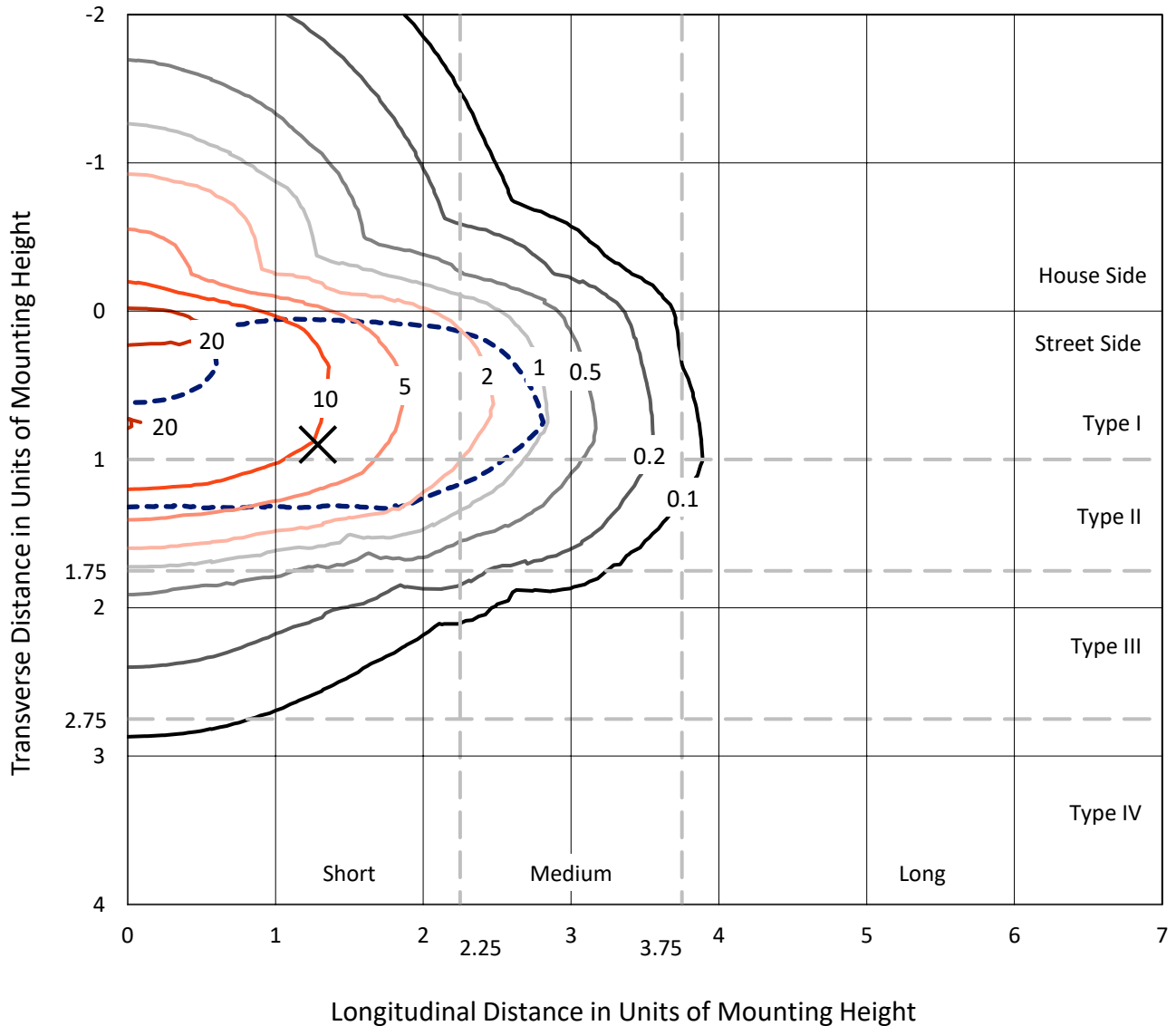
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

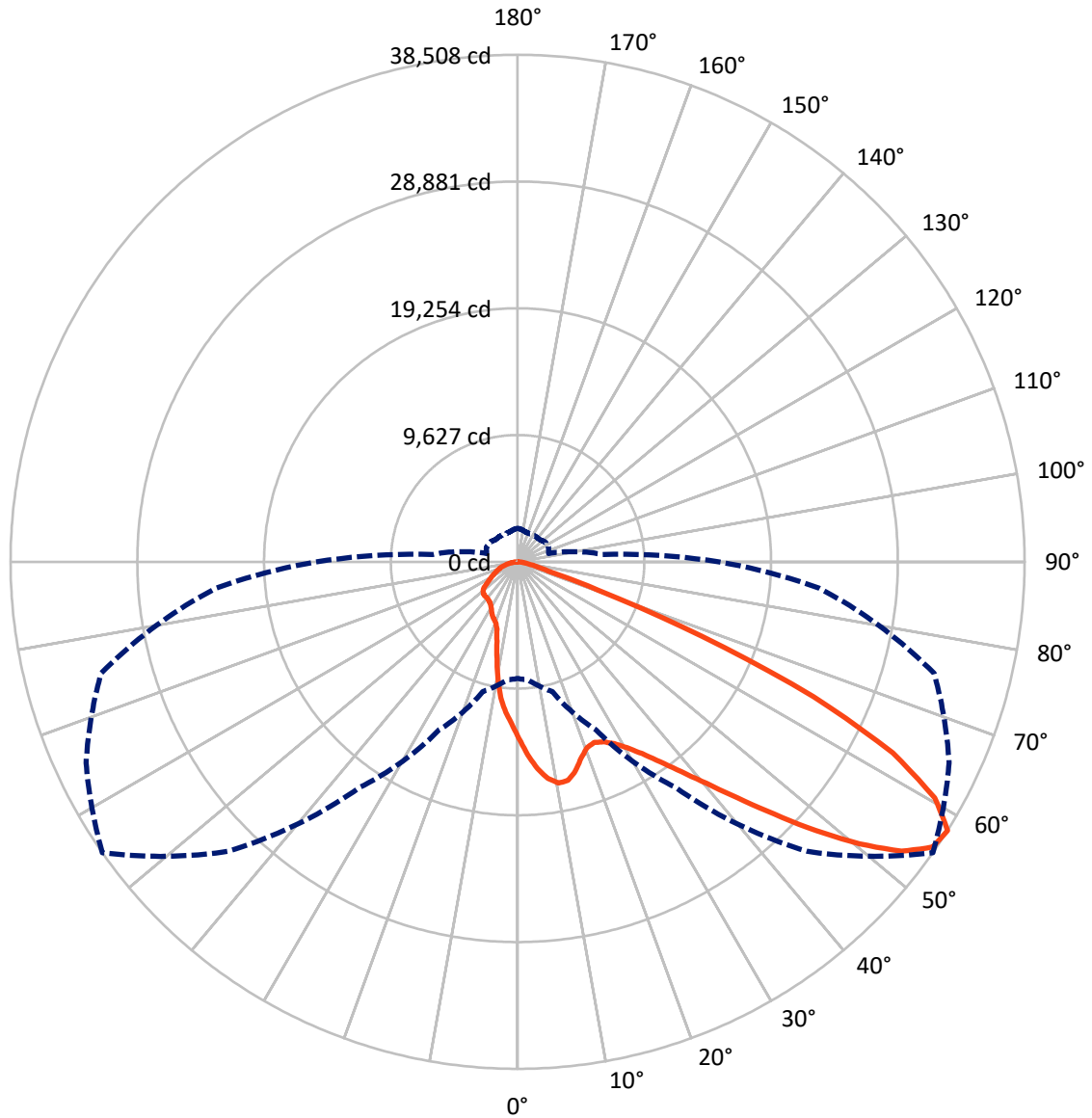
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 26 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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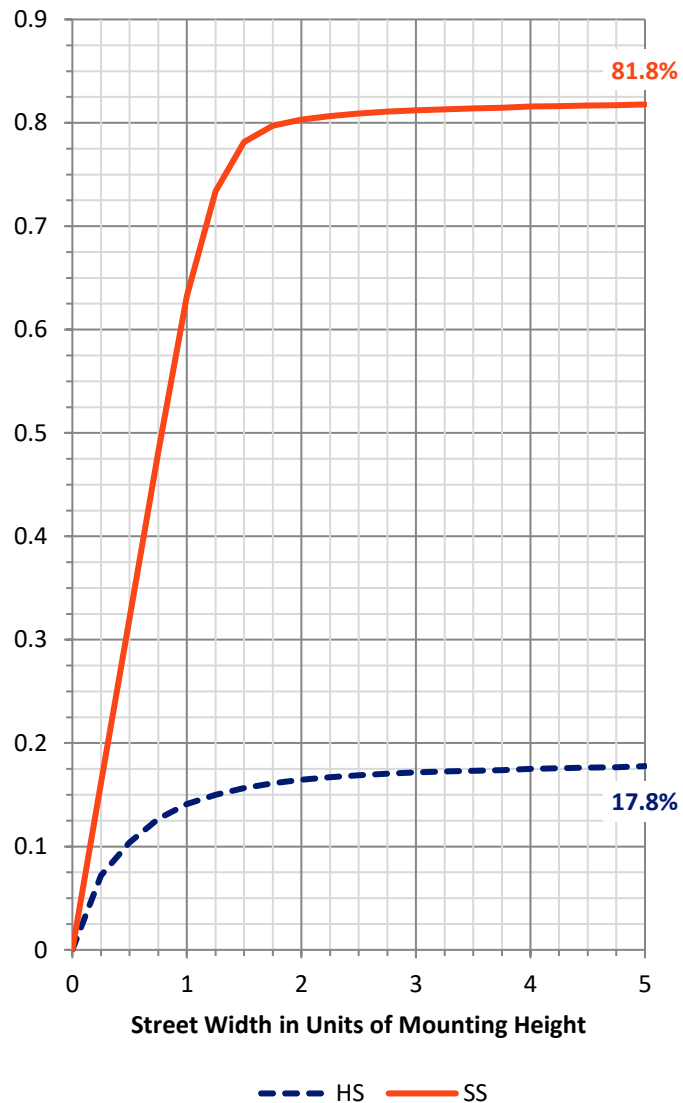
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9696.1 | 0.0 | 9696.1 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| Street Side | Lumens | 43889.9 | 0.0 | 43889.9 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| Total | Lumens | 53586.0 | 0.0 | 53586.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1245.9 | 2.3 |
| 10°-20° | 3144.8 | 5.9 |
| 20°-30° | 5018.2 | 9.4 |
| 30°-40° | 7945.1 | 14.8 |
| 40°-50° | 12160.7 | 22.7 |
| 50°-60° | 13025.3 | 24.3 |
| 60°-70° | 8194.3 | 15.3 |
| 70°-80° | 2423.2 | 4.5 |
| 80°-90° | 428.5 | 0.8 |
| 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° | 53586.0 | 100.0 |
| 0°-180° | 53586.0 | 100.0 |

Coefficient of Utilization

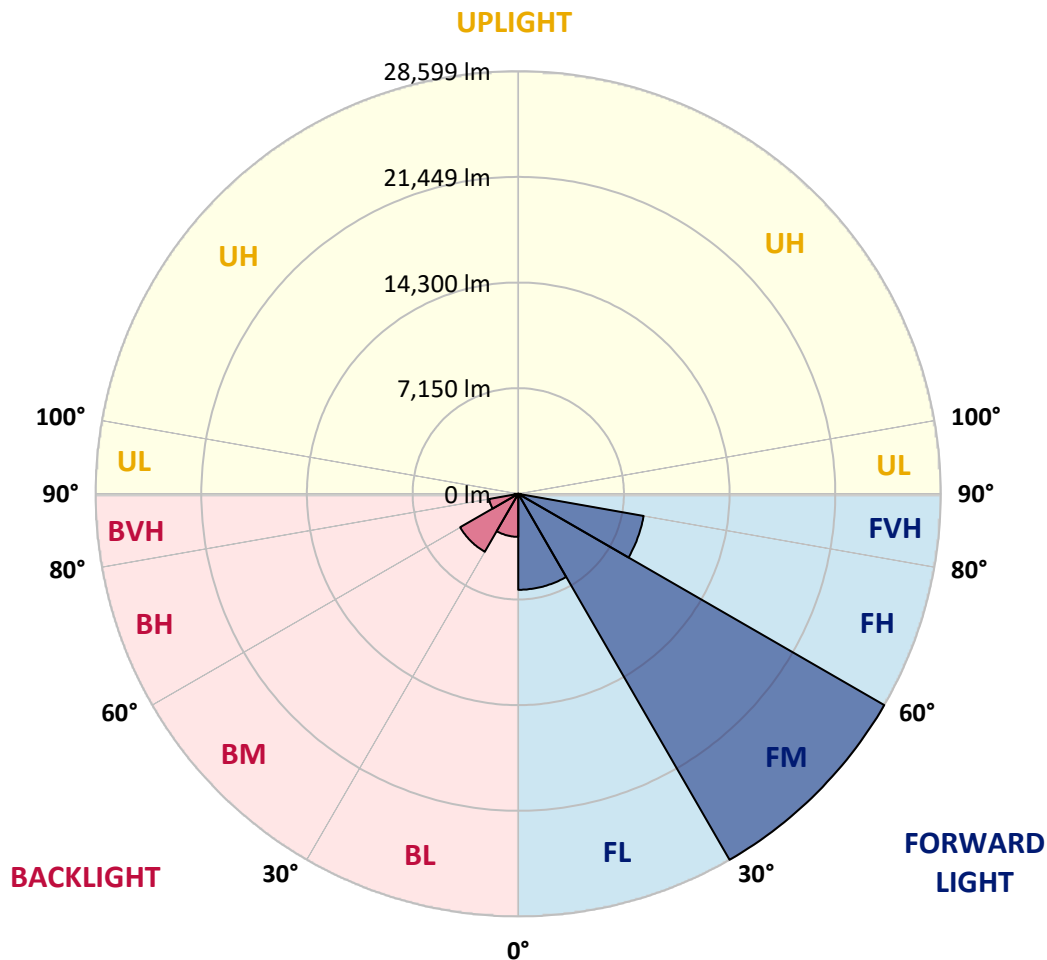


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 6494.6 | 12.1 | | | |
| FM (30°-60°) | 28599.2 | 53.4 | | | |
| FH (60°-80°) | 8615.0 | 16.1 | | | G4/12000 |
| FVH (80°-90°) | 181.0 | 0.3 | | | G2/225 |
| BL (0°-30°) | 2914.3 | 5.4 | B4/5000 | | |
| BM (30°-60°) | 4531.9 | 8.5 | B3/5000 | | |
| BH (60°-80°) | 2002.5 | 3.7 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 247.4 | 0.5 | | | G3/500 |
| 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° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 |
| 2.5° | 15404.8 | 15393.8 | 15454.6 | 15246.9 | 15105.6 | 14914.5 | 14662.4 | 14341.1 | 13994.7 | 13629.1 | 13471.3 |
| 5° | 16792.7 | 16695.7 | 16759.4 | 16604.3 | 16449.1 | 16161.1 | 15787.0 | 15263.5 | 14623.6 | 13895.1 | 13507.2 |
| 7.5° | 16573.8 | 16507.3 | 16670.7 | 16809.3 | 16925.6 | 16889.5 | 16615.4 | 16066.9 | 15241.3 | 14183.1 | 13620.8 |
| 10° | 14809.2 | 14734.4 | 14964.4 | 15443.6 | 16147.2 | 16759.4 | 17091.8 | 16751.1 | 15872.9 | 14498.9 | 13731.6 |
| 12.5° | 13252.4 | 13216.4 | 13368.8 | 13756.5 | 14537.8 | 15712.3 | 17030.9 | 17349.5 | 16529.5 | 14873.0 | 13881.2 |
| 15° | 12587.5 | 12543.2 | 12640.2 | 12836.9 | 13335.5 | 14429.7 | 16476.9 | 17759.5 | 17174.9 | 15305.1 | 14119.5 |
| 17.5° | 12440.7 | 12390.9 | 12432.4 | 12534.9 | 12856.3 | 13690.1 | 15640.3 | 17961.6 | 17848.0 | 15787.0 | 14318.9 |
| 20° | 12712.3 | 12670.6 | 12676.2 | 12670.6 | 12895.0 | 13557.1 | 15058.5 | 17884.1 | 18435.3 | 16230.3 | 14512.8 |
| 22.5° | 13368.8 | 13299.5 | 13302.2 | 13155.5 | 13277.3 | 13789.8 | 14906.2 | 17676.3 | 18958.9 | 16618.1 | 14659.7 |
| 25° | 14438.0 | 14313.3 | 14338.3 | 13964.3 | 13931.1 | 14310.5 | 15144.4 | 17515.6 | 19479.7 | 16928.4 | 14687.3 |
| 27.5° | 15900.6 | 15759.4 | 15684.6 | 15127.8 | 14861.9 | 15050.2 | 15629.2 | 17571.1 | 19972.7 | 17197.0 | 14618.0 |
| 30° | 17728.9 | 17557.2 | 17404.8 | 16615.4 | 16133.3 | 16064.1 | 16382.7 | 17936.7 | 20554.5 | 17479.6 | 14498.9 |
| 32.5° | 19970.0 | 19770.5 | 19493.6 | 18446.4 | 17767.8 | 17404.8 | 17357.8 | 18587.7 | 21235.9 | 17839.7 | 14438.0 |
| 35° | 22637.6 | 22377.3 | 21983.9 | 20629.3 | 19770.5 | 19028.1 | 18643.1 | 19526.8 | 22169.5 | 18382.7 | 14507.2 |
| 37.5° | 25385.7 | 25092.0 | 24731.9 | 23119.7 | 22064.3 | 20970.1 | 20210.9 | 20801.0 | 23413.3 | 19119.5 | 14690.1 |
| 40° | 27920.3 | 27590.6 | 27255.5 | 25820.6 | 24687.5 | 23369.0 | 22130.7 | 22413.3 | 24934.1 | 20000.5 | 15000.4 |
| 42.5° | 29416.2 | 29172.4 | 29045.0 | 28269.4 | 27393.9 | 26056.0 | 24518.6 | 24324.7 | 26643.2 | 21014.3 | 15354.9 |
| 45° | 29349.7 | 29250.0 | 29643.3 | 29964.6 | 29756.9 | 29014.6 | 27316.5 | 26438.3 | 28358.0 | 21892.5 | 15681.8 |
| 47.5° | 27781.8 | 27848.3 | 28726.4 | 30532.6 | 31327.6 | 31715.4 | 30502.1 | 28513.1 | 29848.3 | 22549.0 | 15828.7 |
| 50° | 23515.8 | 23571.2 | 25604.5 | 29499.3 | 31732.1 | 33917.7 | 33662.8 | 30538.1 | 31003.5 | 22950.7 | 15795.4 |
| 52.5° | 20139.0 | 20175.0 | 21047.6 | 26435.6 | 30396.8 | 35025.8 | 36510.5 | 32446.8 | 31848.4 | 23061.5 | 15609.8 |
| 55° | 15169.3 | 15294.0 | 16271.9 | 20740.1 | 26923.1 | 34147.6 | 38244.7 | 34413.6 | 32383.0 | 23072.5 | 15415.9 |
| 57.5° | 8861.7 | 8997.4 | 10205.2 | 14077.9 | 20925.7 | 31086.6 | 38507.8 | 36158.7 | 32745.9 | 22983.9 | 15299.6 |
| 60° | 4340.8 | 4399.0 | 4925.3 | 7399.1 | 12903.3 | 25189.0 | 36391.4 | 37003.6 | 32948.1 | 22936.8 | 15294.0 |
| 62.5° | 2925.2 | 2916.9 | 2939.1 | 3651.0 | 6357.5 | 16183.2 | 31981.3 | 35524.3 | 32840.1 | 22756.7 | 15238.6 |
| 65° | 2515.2 | 2484.8 | 2401.7 | 2562.4 | 3293.7 | 7401.8 | 24709.7 | 31108.7 | 32017.4 | 22305.2 | 14859.1 |
| 67.5° | 2174.5 | 2177.3 | 2180.1 | 2130.3 | 2351.9 | 3415.6 | 15100.1 | 24504.8 | 29064.4 | 20166.7 | 13396.4 |
| 70° | 1800.6 | 1825.5 | 1836.6 | 1836.6 | 1917.0 | 2241.1 | 6446.1 | 16795.4 | 22925.8 | 15812.0 | 10789.8 |
| 72.5° | 1639.9 | 1587.3 | 1592.8 | 1565.2 | 1565.2 | 1706.4 | 2595.6 | 9521.0 | 14443.6 | 8894.9 | 6584.6 |
| 75° | 1337.9 | 1371.2 | 1376.8 | 1357.4 | 1293.7 | 1302.0 | 1540.2 | 3994.5 | 6180.2 | 3689.8 | 3254.9 |
| 77.5° | 1155.2 | 1155.2 | 1166.2 | 1152.4 | 1102.5 | 975.1 | 1027.8 | 1548.5 | 2102.6 | 1512.5 | 1626.1 |
| 80° | 928.0 | 925.3 | 972.3 | 1000.0 | 922.5 | 720.3 | 656.5 | 856.0 | 933.6 | 664.8 | 844.9 |
| 82.5° | 451.5 | 479.2 | 667.6 | 761.8 | 700.9 | 520.8 | 401.7 | 531.9 | 498.7 | 293.7 | 379.6 |
| 85° | 263.1 | 249.3 | 299.2 | 423.8 | 401.7 | 288.1 | 193.9 | 277.1 | 260.3 | 149.5 | 152.3 |
| 87.5° | 83.1 | 77.6 | 61.0 | 144.0 | 116.3 | 80.4 | 52.6 | 80.4 | 72.1 | 33.2 | 33.2 |
| 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° | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 | 13426.9 |
| 2.5° | 13274.6 | 12947.7 | 12623.6 | 12327.2 | 12147.1 | 12030.7 | 11914.4 | 11784.2 | 11734.3 | 11659.6 |
| 5° | 13141.6 | 12510.0 | 11947.6 | 11462.9 | 11022.4 | 10676.2 | 10327.1 | 10044.6 | 9917.1 | 10003.0 |
| 7.5° | 13064.0 | 12149.8 | 11282.8 | 10393.6 | 9537.6 | 8853.4 | 8257.8 | 7839.5 | 7651.1 | 7698.3 |
| 10° | 12994.7 | 11742.6 | 10421.3 | 9016.8 | 7786.9 | 6939.2 | 6329.8 | 6011.2 | 5892.1 | 5917.0 |
| 12.5° | 12931.1 | 11285.6 | 9382.4 | 7534.8 | 6227.3 | 5667.7 | 5493.2 | 5495.9 | 5518.1 | 5534.8 |
| 15° | 12919.9 | 10734.3 | 8221.8 | 6238.4 | 5385.1 | 5349.2 | 5537.6 | 5656.7 | 5720.3 | 5739.8 |
| 17.5° | 12903.3 | 10075.0 | 7039.0 | 5354.7 | 5180.1 | 5424.0 | 5598.4 | 5676.0 | 5725.9 | 5728.6 |
| 20° | 12836.9 | 9238.4 | 5947.5 | 4933.6 | 5135.9 | 5346.4 | 5454.4 | 5515.3 | 5556.9 | 5570.8 |
| 22.5° | 12631.9 | 8307.6 | 5097.1 | 4745.2 | 4958.5 | 5127.6 | 5255.0 | 5324.3 | 5349.2 | 5365.8 |
| 25° | 12263.4 | 7266.1 | 4509.8 | 4565.2 | 4712.0 | 4925.3 | 5027.8 | 5041.7 | 5033.4 | 5058.3 |
| 27.5° | 11781.5 | 6149.7 | 4144.2 | 4321.4 | 4509.8 | 4692.7 | 4748.0 | 4739.7 | 4723.1 | 4750.8 |
| 30° | 11199.7 | 5146.9 | 3911.4 | 4047.2 | 4304.8 | 4471.0 | 4520.9 | 4501.5 | 4468.3 | 4498.7 |
| 32.5° | 10584.8 | 4326.9 | 3720.3 | 3856.0 | 4135.9 | 4299.3 | 4349.2 | 4329.7 | 4304.8 | 4329.7 |
| 35° | 10011.3 | 3753.6 | 3543.0 | 3728.6 | 4002.8 | 4163.5 | 4227.2 | 4230.0 | 4230.0 | 4260.5 |
| 37.5° | 9484.9 | 3418.4 | 3396.2 | 3648.3 | 3911.4 | 4055.5 | 4146.9 | 4152.5 | 4033.4 | 4041.7 |
| 40° | 8997.4 | 3277.1 | 3329.7 | 3595.7 | 3822.8 | 3961.3 | 3966.9 | 3656.6 | 3437.7 | 3432.2 |
| 42.5° | 8598.5 | 3249.4 | 3349.1 | 3590.1 | 3759.1 | 3764.6 | 3374.0 | 3133.0 | 3072.1 | 3074.9 |
| 45° | 8224.6 | 3241.0 | 3393.5 | 3590.1 | 3664.9 | 3252.1 | 2989.0 | 2925.2 | 2930.8 | 2953.0 |
| 47.5° | 7806.3 | 3207.8 | 3401.8 | 3540.2 | 3393.5 | 2892.0 | 2814.4 | 2786.8 | 2775.7 | 2781.2 |
| 50° | 7349.2 | 3088.7 | 3296.5 | 3440.5 | 2928.0 | 2737.0 | 2640.0 | 2631.7 | 2645.5 | 2653.8 |
| 52.5° | 6867.2 | 2894.8 | 3116.4 | 3260.4 | 2714.7 | 2601.1 | 2493.1 | 2512.5 | 2573.5 | 2592.8 |
| 55° | 6551.4 | 2667.7 | 2878.2 | 2900.3 | 2565.2 | 2473.7 | 2382.3 | 2426.7 | 2540.3 | 2576.2 |
| 57.5° | 6468.3 | 2426.7 | 2606.7 | 2581.8 | 2374.0 | 2362.9 | 2307.6 | 2346.3 | 2490.3 | 2543.0 |
| 60° | 6443.4 | 2210.6 | 2340.8 | 2321.4 | 2188.4 | 2241.1 | 2227.2 | 2246.6 | 2296.4 | 2313.1 |
| 62.5° | 6249.4 | 2038.8 | 2102.6 | 2074.8 | 2022.2 | 2113.7 | 2146.9 | 2105.4 | 2144.1 | 2163.5 |
| 65° | 5756.4 | 1900.4 | 1869.8 | 1850.4 | 1872.6 | 1955.7 | 2022.2 | 1939.1 | 1975.1 | 2030.5 |
| 67.5° | 4941.9 | 1712.0 | 1628.8 | 1651.0 | 1720.3 | 1764.5 | 1850.4 | 1756.2 | 1786.8 | 1881.0 |
| 70° | 3997.3 | 1473.7 | 1398.9 | 1462.7 | 1529.1 | 1620.5 | 1634.4 | 1570.7 | 1642.7 | 1747.9 |
| 72.5° | 2828.3 | 1232.7 | 1180.1 | 1310.3 | 1332.4 | 1451.6 | 1421.1 | 1390.6 | 1490.4 | 1526.3 |
| 75° | 1961.2 | 994.5 | 964.0 | 1063.7 | 1144.1 | 1246.6 | 1224.4 | 1260.4 | 1471.0 | 1487.6 |
| 77.5° | 1241.1 | 772.8 | 753.5 | 817.2 | 928.0 | 1041.6 | 1077.6 | 1487.6 | 2512.5 | 2612.2 |
| 80° | 720.3 | 576.2 | 554.0 | 603.9 | 700.9 | 806.2 | 1038.8 | 1825.5 | 1656.5 | 1637.1 |
| 82.5° | 401.7 | 396.2 | 368.4 | 382.3 | 468.1 | 581.7 | 1468.2 | 1285.4 | 1044.4 | 1077.6 |
| 85° | 188.4 | 232.7 | 199.5 | 191.2 | 263.1 | 681.4 | 980.6 | 734.1 | 487.6 | 476.4 |
| 87.5° | 49.8 | 44.3 | 44.3 | 49.8 | 110.8 | 587.2 | 390.6 | 313.0 | 185.6 | 180.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)