

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: P969286

Luminaire Tested: **NAV-SB5D-730-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969286
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-730-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43864.9 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G5

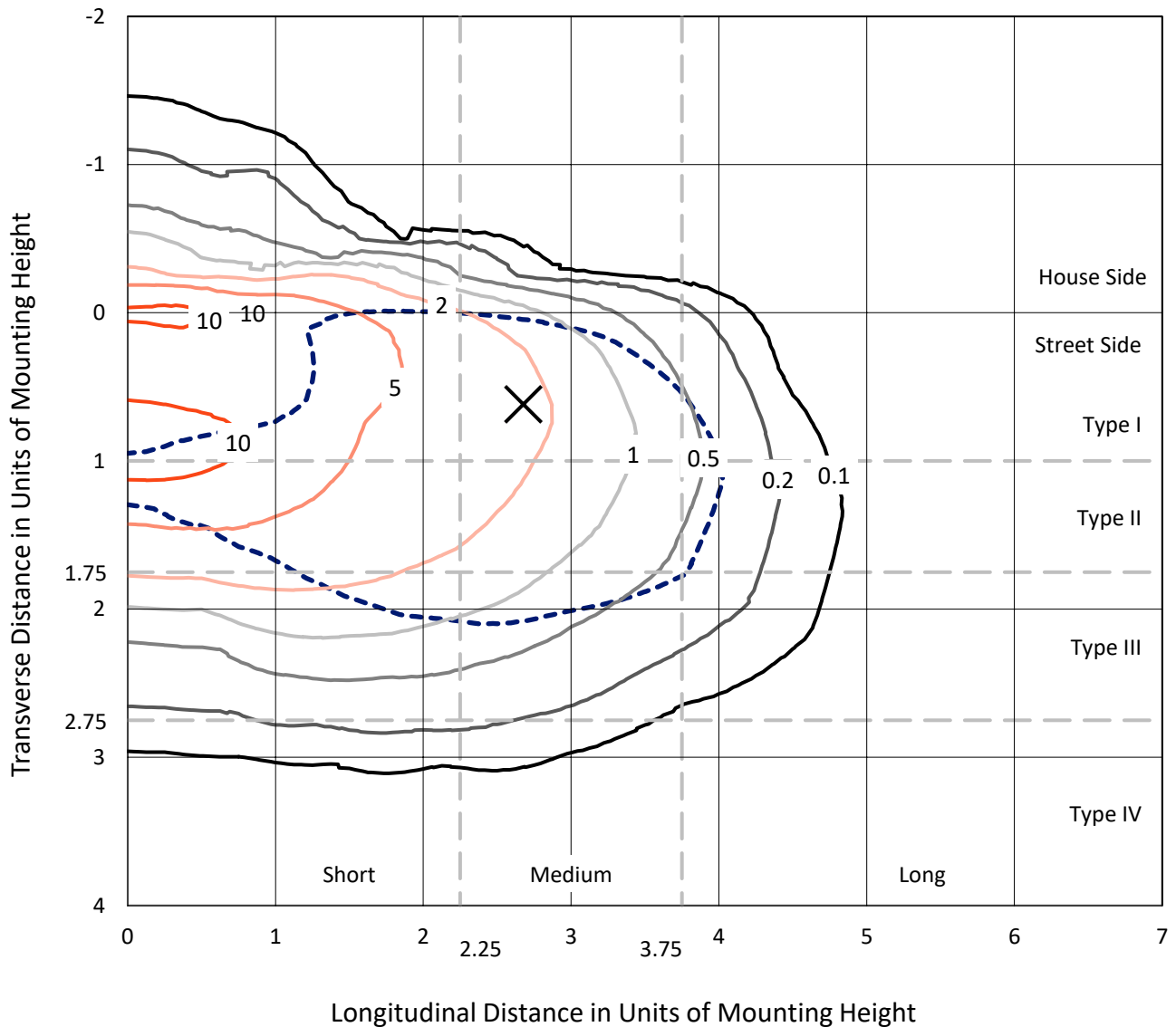
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

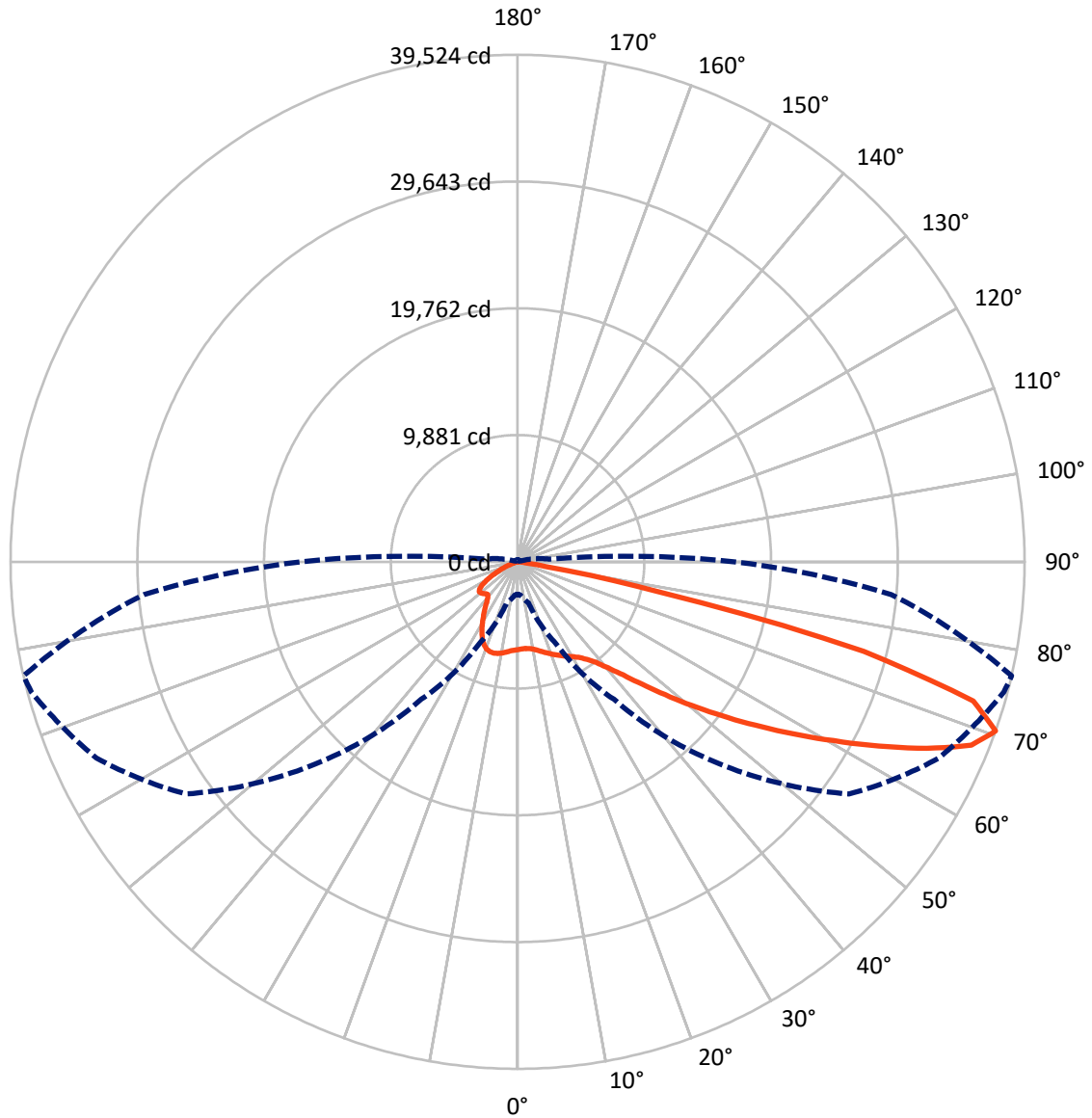
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.9 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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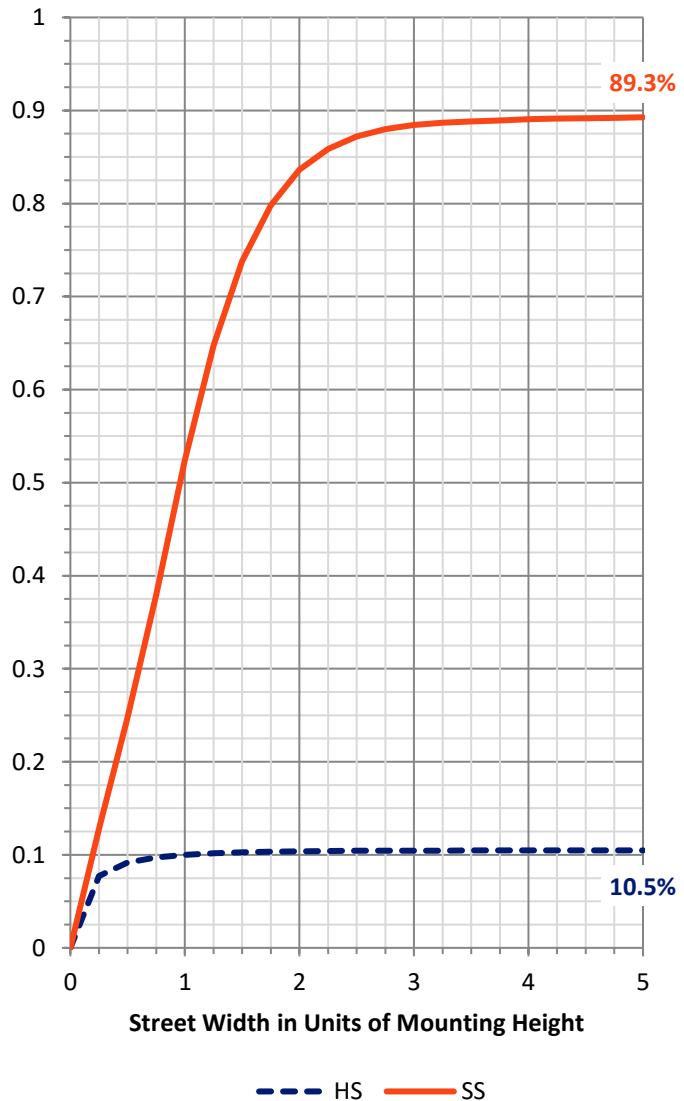
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4624.0 | 0.0 | 4624.0 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| Street Side | Lumens | 39240.9 | 0.0 | 39240.9 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| Total | Lumens | 43864.9 | 0.0 | 43864.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 589.7 | 1.3 |
| 10°-20° | 1399.8 | 3.2 |
| 20°-30° | 2165.2 | 4.9 |
| 30°-40° | 3928.8 | 9.0 |
| 40°-50° | 7416.1 | 16.9 |
| 50°-60° | 10715.6 | 24.4 |
| 60°-70° | 11406.5 | 26.0 |
| 70°-80° | 6044.7 | 13.8 |
| 80°-90° | 198.5 | 0.5 |
| 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° | 43864.9 | 100.0 |
| 0°-180° | 43864.9 | 100.0 |

Coefficient of Utilization

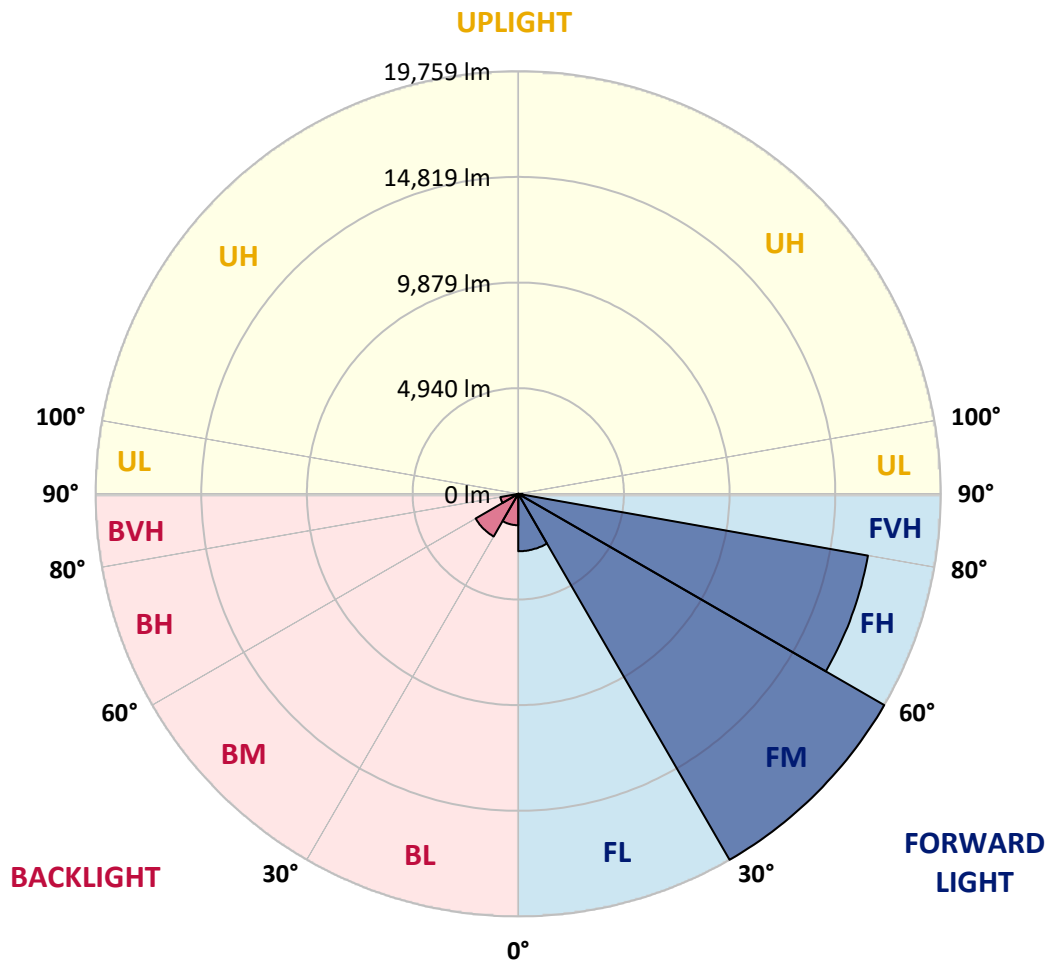


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2685.6 | 6.1 | | | |
| FM (30°-60°) | 19758.7 | 45.0 | | | |
| FH (60°-80°) | 16603.5 | 37.9 | | | G5 |
| FVH (80°-90°) | 193.1 | 0.4 | | | G2/225 |
| BL (0°-30°) | 1469.1 | 3.3 | B3/2500 | | |
| BM (30°-60°) | 2301.8 | 5.2 | B2/2500 | | |
| BH (60°-80°) | 847.7 | 1.9 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 5.3 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5
 Type III Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 |
| 2.5° | 6423.9 | 6482.0 | 6473.7 | 6512.4 | 6526.4 | 6581.7 | 6637.2 | 6711.9 | 6795.0 | 6792.3 | 6847.7 |
| 5° | 6060.9 | 6119.1 | 6133.0 | 6185.6 | 6252.1 | 6338.0 | 6451.6 | 6601.1 | 6756.3 | 6781.2 | 6892.0 |
| 7.5° | 5631.6 | 5692.5 | 5728.5 | 5833.8 | 5955.7 | 6133.0 | 6318.6 | 6537.4 | 6795.0 | 6831.0 | 7044.3 |
| 10° | 5202.2 | 5257.6 | 5304.7 | 5454.3 | 5648.3 | 5911.4 | 6213.3 | 6529.1 | 6875.4 | 6928.0 | 7229.9 |
| 12.5° | 4936.3 | 4989.0 | 5041.6 | 5171.7 | 5412.7 | 5734.1 | 6144.1 | 6567.9 | 7008.3 | 7083.2 | 7482.0 |
| 15° | 4842.1 | 4889.2 | 4930.8 | 5047.1 | 5271.5 | 5637.1 | 6130.2 | 6648.3 | 7177.4 | 7277.0 | 7786.7 |
| 17.5° | 4855.9 | 4880.9 | 4908.6 | 4997.3 | 5216.1 | 5592.8 | 6155.1 | 6786.7 | 7376.7 | 7465.4 | 8091.5 |
| 20° | 4936.3 | 4950.1 | 4952.9 | 5013.9 | 5207.8 | 5587.3 | 6205.0 | 6919.7 | 7565.1 | 7684.2 | 8393.4 |
| 22.5° | 5038.8 | 5044.3 | 5038.8 | 5080.3 | 5260.4 | 5628.8 | 6271.5 | 7080.4 | 7775.6 | 7886.5 | 8698.0 |
| 25° | 5518.0 | 5412.7 | 5279.8 | 5199.4 | 5349.1 | 5709.1 | 6371.2 | 7296.5 | 8005.6 | 8113.6 | 8994.5 |
| 27.5° | 7005.6 | 6703.6 | 6227.2 | 5692.5 | 5531.9 | 5825.5 | 6509.7 | 7515.3 | 8238.2 | 8335.2 | 9313.0 |
| 30° | 9421.1 | 9024.9 | 8216.1 | 7011.1 | 6119.1 | 6069.2 | 6689.8 | 7734.1 | 8484.7 | 8590.0 | 9653.8 |
| 32.5° | 11842.1 | 11745.2 | 10811.7 | 9144.0 | 7440.5 | 6612.2 | 6989.0 | 8030.5 | 8811.6 | 8894.7 | 10113.6 |
| 35° | 14290.9 | 14094.3 | 13329.7 | 11681.5 | 9476.5 | 7717.4 | 7487.5 | 8418.3 | 9241.0 | 9335.2 | 10783.9 |
| 37.5° | 16166.3 | 16047.2 | 15573.4 | 14216.1 | 11892.0 | 9423.8 | 8340.7 | 9019.4 | 9864.3 | 9969.6 | 11642.7 |
| 40° | 17822.8 | 17767.4 | 17606.7 | 16712.0 | 14592.8 | 11656.5 | 9667.6 | 9950.2 | 10728.6 | 10853.2 | 12695.3 |
| 42.5° | 19124.8 | 19254.9 | 19346.4 | 19097.0 | 17376.8 | 14205.1 | 11451.6 | 11257.7 | 11933.6 | 12061.0 | 14036.0 |
| 45° | 20457.2 | 20501.4 | 20869.9 | 21230.0 | 20141.4 | 16869.9 | 13462.7 | 12789.5 | 13432.2 | 13590.1 | 15642.7 |
| 47.5° | 21313.1 | 21490.4 | 22138.6 | 22772.9 | 22465.4 | 19512.5 | 15623.4 | 14598.4 | 15169.0 | 15465.4 | 17443.2 |
| 50° | 21376.8 | 21712.0 | 22603.9 | 23709.2 | 24158.0 | 22027.8 | 17972.4 | 16659.3 | 17266.0 | 17592.9 | 19365.7 |
| 52.5° | 20315.8 | 20836.6 | 22218.9 | 23836.7 | 25072.1 | 24158.0 | 20401.7 | 18720.3 | 19498.7 | 19925.3 | 21360.2 |
| 55° | 15576.2 | 16257.6 | 20770.2 | 23144.1 | 25108.1 | 25772.9 | 22767.4 | 20867.2 | 21986.2 | 22468.2 | 23515.3 |
| 57.5° | 13570.7 | 13914.2 | 16329.7 | 21941.9 | 24440.5 | 26423.9 | 24905.9 | 22911.4 | 24692.6 | 25291.0 | 25551.3 |
| 60° | 11290.9 | 11742.4 | 13695.3 | 19975.1 | 23534.7 | 26487.6 | 26795.1 | 25548.5 | 27626.1 | 28299.2 | 27418.3 |
| 62.5° | 7673.2 | 8163.5 | 10105.3 | 16595.7 | 22296.5 | 26457.2 | 28343.6 | 28263.2 | 30886.5 | 31609.6 | 29000.1 |
| 65° | 4753.4 | 5060.9 | 6340.8 | 13551.3 | 20565.2 | 26490.4 | 29964.1 | 31559.6 | 34326.9 | 35061.0 | 30224.5 |
| 67.5° | 3756.2 | 3897.6 | 4565.1 | 10404.5 | 17581.8 | 25742.5 | 31581.8 | 34659.4 | 37565.2 | 38146.9 | 30598.4 |
| 70° | 2523.5 | 2609.4 | 3321.3 | 6975.1 | 13080.3 | 22291.0 | 31551.3 | 36216.2 | 39232.8 | 39523.7 | 29235.6 |
| 72.5° | 1329.6 | 1396.2 | 1941.9 | 3229.9 | 7900.3 | 15845.0 | 26595.7 | 34354.7 | 37573.5 | 37135.9 | 24989.0 |
| 75° | 664.8 | 775.6 | 1307.5 | 1639.9 | 3374.0 | 8836.6 | 16515.3 | 27085.9 | 29573.5 | 27878.3 | 16033.3 |
| 77.5° | 504.2 | 609.5 | 1080.4 | 1080.4 | 1174.5 | 2975.1 | 6994.5 | 14772.9 | 13626.0 | 11346.3 | 4706.4 |
| 80° | 321.3 | 415.5 | 944.6 | 817.1 | 490.3 | 756.2 | 1822.8 | 4138.5 | 2894.7 | 2202.2 | 856.0 |
| 82.5° | 188.4 | 271.4 | 786.7 | 540.2 | 274.3 | 279.8 | 515.3 | 880.9 | 750.7 | 584.5 | 263.1 |
| 85° | 74.8 | 177.3 | 540.2 | 213.3 | 108.0 | 69.3 | 155.1 | 188.4 | 155.1 | 116.3 | 66.5 |
| 87.5° | 0.0 | 41.5 | 94.2 | 0.0 | 8.3 | 5.5 | 11.1 | 13.8 | 13.8 | 11.1 | 22.1 |
| 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° | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 | 6842.1 |
| 2.5° | 6872.6 | 6878.2 | 6894.8 | 6897.5 | 6858.8 | 6808.9 | 6789.5 | 6781.2 | 6748.0 | 6745.2 | 6750.8 |
| 5° | 6955.8 | 6980.7 | 6955.8 | 6883.7 | 6711.9 | 6470.9 | 6288.1 | 6138.5 | 6002.8 | 5961.2 | 5936.3 |
| 7.5° | 7121.9 | 7146.8 | 7072.1 | 6789.5 | 6357.4 | 5878.2 | 5446.0 | 5141.3 | 4867.0 | 4764.6 | 4723.0 |
| 10° | 7360.1 | 7393.4 | 7157.9 | 6587.3 | 5822.7 | 5052.6 | 4321.3 | 3806.1 | 3404.4 | 3241.0 | 3171.8 |
| 12.5° | 7659.3 | 7673.2 | 7205.0 | 6279.8 | 5127.5 | 4027.7 | 2991.7 | 2440.4 | 2083.1 | 1950.2 | 1908.5 |
| 15° | 7989.0 | 7969.6 | 7210.6 | 5861.6 | 4180.1 | 2847.7 | 1952.9 | 1603.9 | 1459.8 | 1415.5 | 1415.5 |
| 17.5° | 8335.2 | 8254.8 | 7099.8 | 5257.6 | 3141.3 | 1947.4 | 1448.7 | 1365.6 | 1340.7 | 1329.6 | 1326.9 |
| 20° | 8675.9 | 8495.9 | 6897.5 | 4468.2 | 2254.9 | 1454.3 | 1315.8 | 1290.9 | 1277.0 | 1271.5 | 1266.0 |
| 22.5° | 8986.2 | 8678.7 | 6551.3 | 3551.2 | 1637.1 | 1285.4 | 1243.7 | 1221.6 | 1196.7 | 1185.6 | 1182.8 |
| 25° | 9288.1 | 8783.9 | 6063.7 | 2695.3 | 1310.3 | 1202.2 | 1169.0 | 1127.4 | 1094.2 | 1080.4 | 1074.8 |
| 27.5° | 9581.7 | 8850.5 | 5454.3 | 1994.4 | 1169.0 | 1124.6 | 1063.7 | 1005.5 | 980.6 | 975.1 | 969.5 |
| 30° | 9894.7 | 8872.6 | 4761.7 | 1487.6 | 1083.1 | 1027.7 | 939.1 | 872.6 | 858.7 | 861.5 | 861.5 |
| 32.5° | 10277.1 | 8905.8 | 4063.7 | 1218.8 | 1011.1 | 911.3 | 806.1 | 736.9 | 725.8 | 736.9 | 734.1 |
| 35° | 10734.1 | 8972.3 | 3390.6 | 1121.9 | 947.4 | 792.2 | 678.7 | 620.5 | 609.5 | 617.8 | 615.0 |
| 37.5° | 11354.6 | 9080.4 | 2761.8 | 1102.5 | 894.7 | 692.5 | 570.6 | 523.6 | 523.6 | 526.3 | 523.6 |
| 40° | 12180.1 | 9368.5 | 2199.4 | 1088.7 | 867.0 | 617.8 | 482.0 | 462.6 | 470.9 | 476.4 | 476.4 |
| 42.5° | 13185.6 | 9980.6 | 1820.0 | 1072.0 | 836.6 | 584.5 | 437.7 | 429.4 | 443.2 | 448.7 | 448.7 |
| 45° | 14313.1 | 10756.2 | 1686.9 | 1044.4 | 808.8 | 606.7 | 418.3 | 407.2 | 423.8 | 426.6 | 429.4 |
| 47.5° | 15479.2 | 11515.3 | 1670.3 | 1013.8 | 781.2 | 639.9 | 412.8 | 387.9 | 407.2 | 410.0 | 412.8 |
| 50° | 16659.3 | 12011.2 | 1686.9 | 966.8 | 736.9 | 639.9 | 415.5 | 368.4 | 385.1 | 393.4 | 396.2 |
| 52.5° | 17847.7 | 12238.3 | 1675.9 | 864.3 | 659.3 | 601.1 | 415.5 | 351.8 | 368.4 | 373.9 | 373.9 |
| 55° | 19000.0 | 12193.9 | 1507.0 | 712.0 | 559.5 | 531.9 | 404.5 | 337.9 | 349.0 | 351.8 | 351.8 |
| 57.5° | 19911.4 | 11576.2 | 1193.9 | 554.0 | 454.3 | 443.2 | 368.4 | 321.3 | 329.6 | 326.9 | 326.9 |
| 60° | 20387.9 | 10218.8 | 853.2 | 426.6 | 357.3 | 349.0 | 324.1 | 299.2 | 304.7 | 290.9 | 288.1 |
| 62.5° | 20393.4 | 8423.9 | 570.6 | 337.9 | 285.4 | 277.1 | 277.1 | 268.7 | 263.1 | 235.4 | 227.1 |
| 65° | 19958.5 | 6432.2 | 379.5 | 268.7 | 229.9 | 216.1 | 232.7 | 229.9 | 210.5 | 171.8 | 166.3 |
| 67.5° | 18972.3 | 4216.0 | 288.1 | 210.5 | 177.3 | 169.0 | 185.6 | 193.9 | 180.1 | 144.0 | 141.2 |
| 70° | 16944.7 | 2454.3 | 238.2 | 163.4 | 132.9 | 124.6 | 149.5 | 166.3 | 149.5 | 116.3 | 110.8 |
| 72.5° | 14074.9 | 1324.1 | 193.9 | 121.9 | 91.4 | 83.1 | 119.1 | 135.7 | 119.1 | 85.9 | 83.1 |
| 75° | 9133.0 | 709.1 | 149.5 | 80.4 | 47.0 | 52.6 | 88.7 | 99.7 | 83.1 | 55.5 | 49.8 |
| 77.5° | 3066.5 | 313.0 | 94.2 | 38.7 | 22.1 | 22.1 | 52.6 | 61.0 | 38.7 | 19.4 | 16.6 |
| 80° | 684.2 | 130.2 | 38.7 | 16.6 | 8.3 | 8.3 | 11.1 | 11.1 | 5.5 | 0.0 | 0.0 |
| 82.5° | 224.4 | 52.6 | 16.6 | 5.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 85.9 | 19.4 | 5.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 33.2 | 2.8 | 0.0 | 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 | 0.0 |

(END OF REPORT)