

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: P969473

Luminaire Tested: **NAV-SB5D-830-U-T3R**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P969473  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5D-830-U-T3R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 48602.4 lumens  
Efficiency: N/A  
Efficacy: 133.2 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B4 - U0 - G5

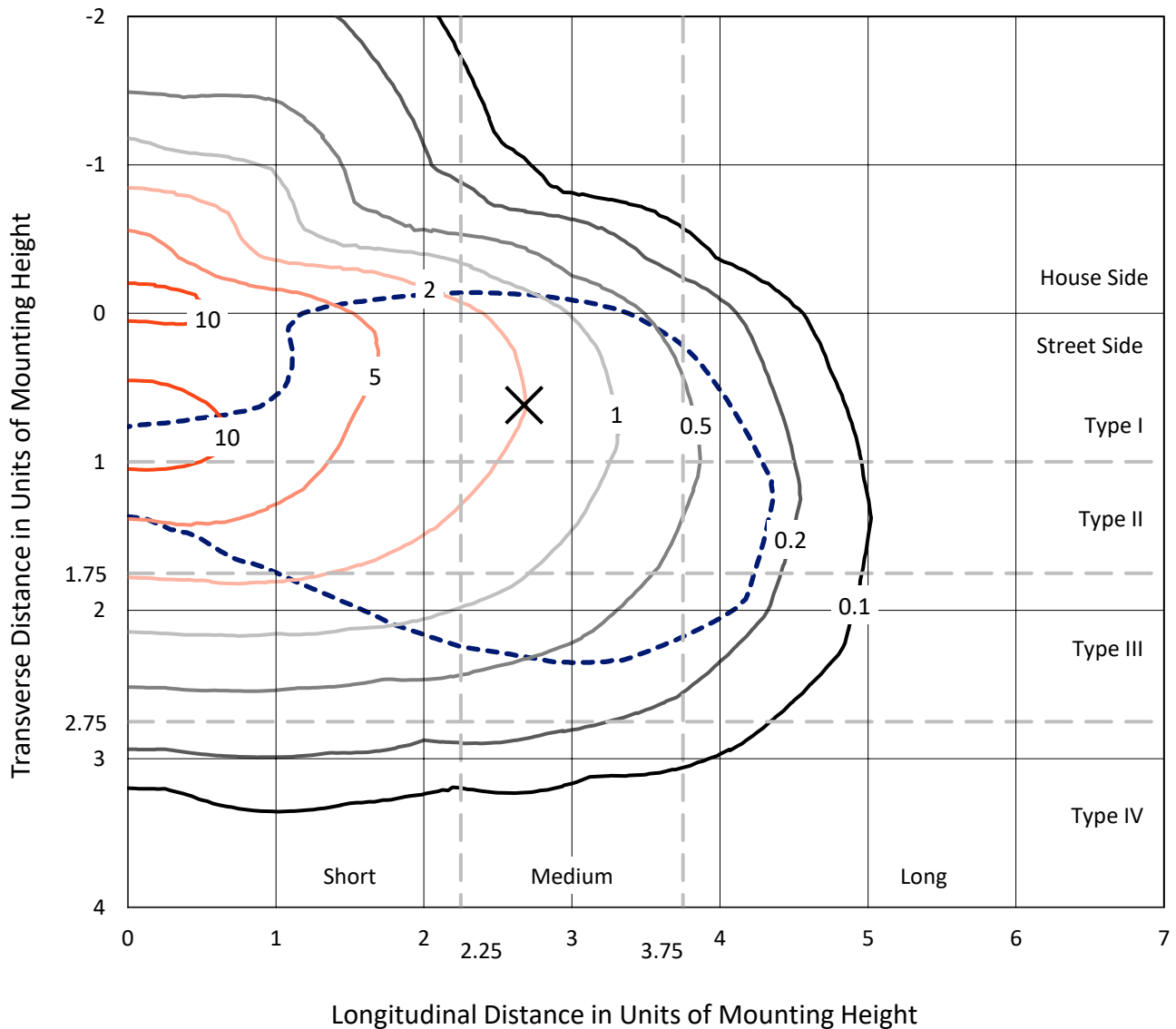
Input Watts (W): 364.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P969473  
CATALOG NUMBER: NAV-SB5D-830-U-T3R

## Iso-Footcandle Lines of Horizontal Illumination

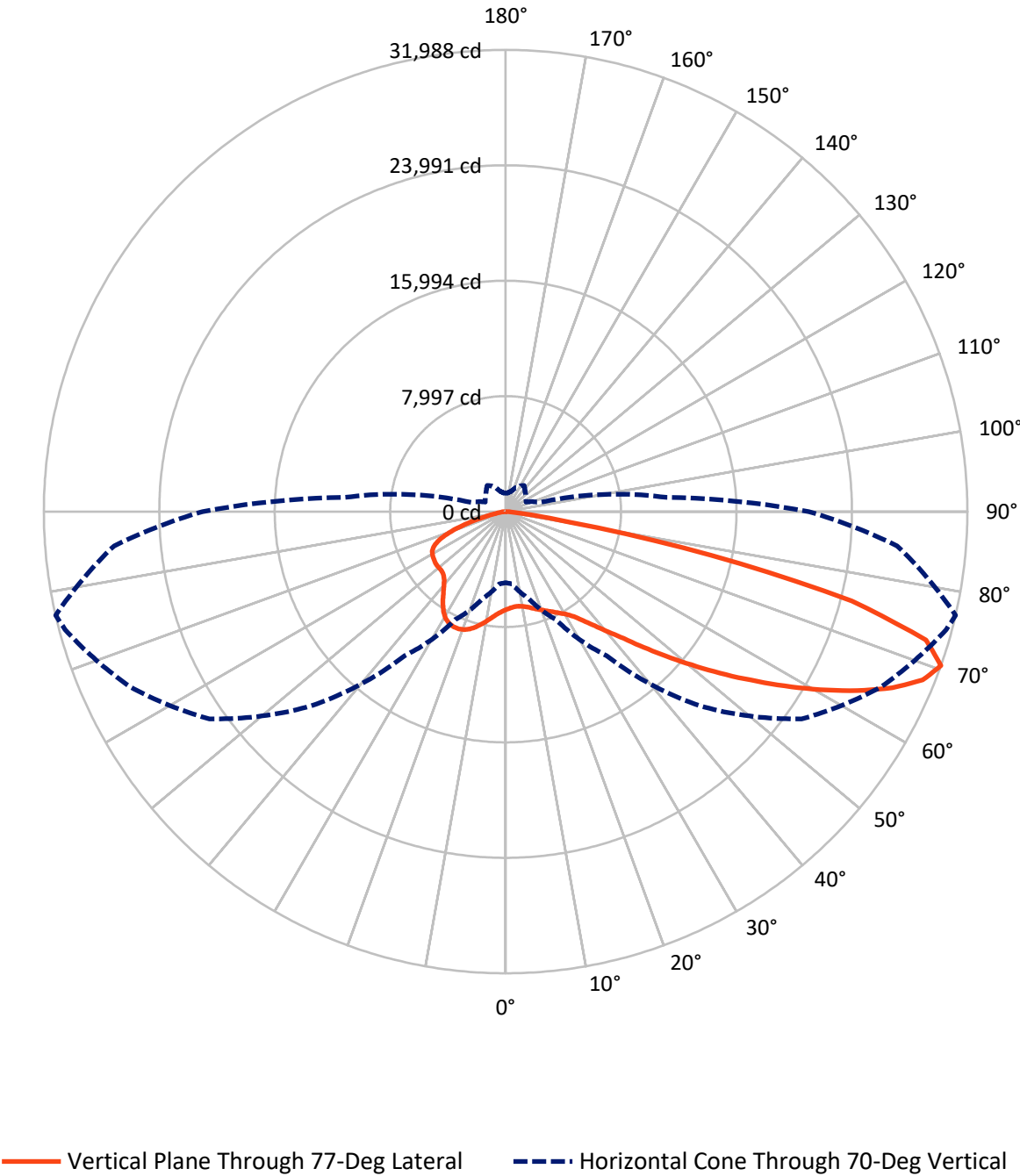
× Max cd  
- - - 1/2 Max cd



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

REPORT NUMBER: P969473  
CATALOG NUMBER: NAV-SB5D-830-U-T3R

Luminous Intensity Polar Plot



REPORT NUMBER: P969473

CATALOG NUMBER: NAV-SB5D-830-U-T3R

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10643.2  | 0.0    | 10643.2 |
|                    | % Fixture | 21.9     | 0.0    | 21.9    |
| <b>Street Side</b> | Lumens    | 37959.2  | 0.0    | 37959.2 |
|                    | % Fixture | 78.1     | 0.0    | 78.1    |
| <b>Total</b>       | Lumens    | 48602.4  | 0.0    | 48602.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 646.7   | 1.3       |
| 10°-20°   | 1866.4  | 3.8       |
| 20°-30°   | 3191.8  | 6.6       |
| 30°-40°   | 5132.7  | 10.6      |
| 40°-50°   | 8013.4  | 16.5      |
| 50°-60°   | 10704.0 | 22.0      |
| 60°-70°   | 11408.9 | 23.5      |
| 70°-80°   | 7023.2  | 14.5      |
| 80°-90°   | 615.4   | 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°    | 48602.4 | 100.0     |
| 0°-180°   | 48602.4 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P969473

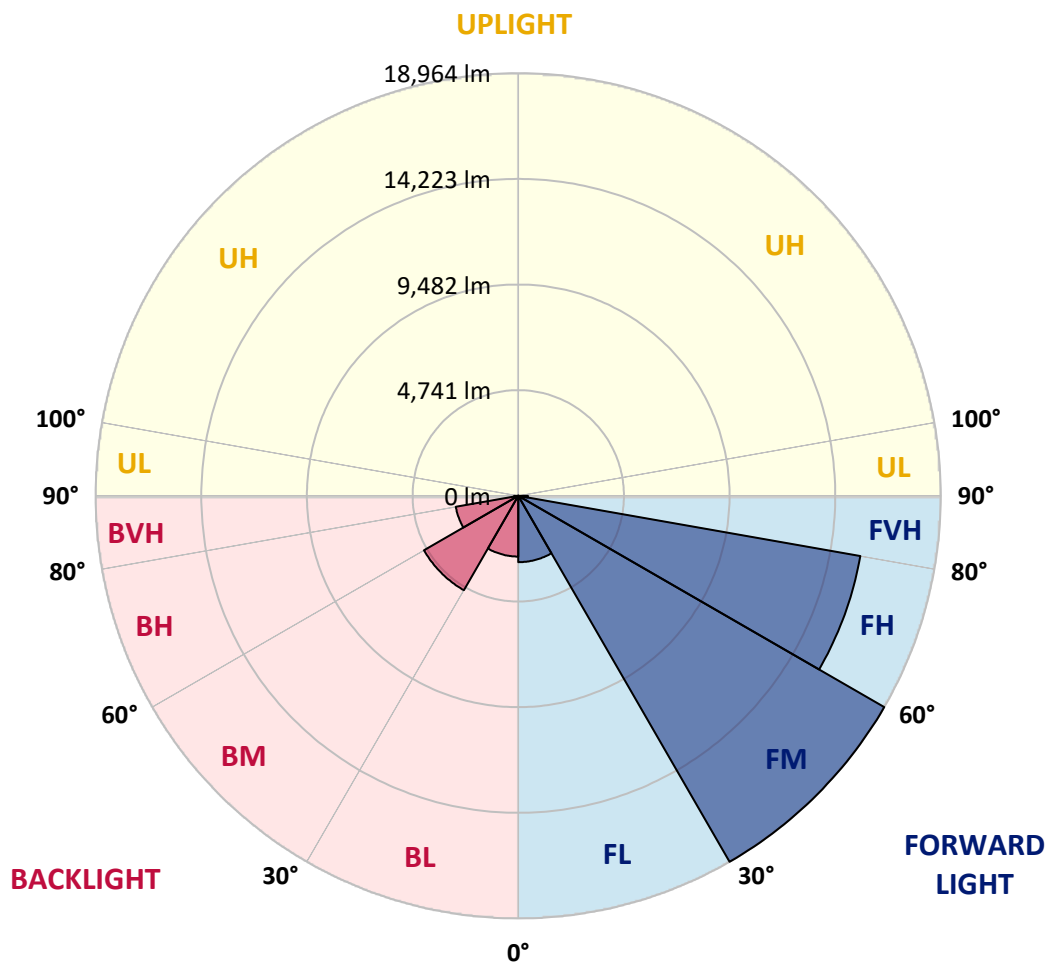
CATALOG NUMBER: NAV-SB5D-830-U-T3R

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2977.7  | 6.1       |                         |      |         |
| FM   | (30°-60°)   | 18963.6 | 39.0      |                         |      |         |
| FH   | (60°-80°)   | 15587.6 | 32.1      |                         |      | G5      |
| FVH  | (80°-90°)   | 430.3   | 0.9       |                         |      | G3/500  |
| BL   | (0°-30°)    | 2727.1  | 5.6       | B4/5000                 |      |         |
| BM   | (30°-60°)   | 4886.5  | 10.1      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2844.5  | 5.9       | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 185.1   | 0.4       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G5**

Type III Medium



REPORT NUMBER: P969473

CATALOG NUMBER: NAV-SB5D-830-U-T3R

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 77°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6780.5  | 6780.5  | 6780.5  | 6780.5  | 6780.5  | 6780.5  | 6780.5  | 6780.5  | 6780.5  | 6780.5  | 6780.5  |
| 2.5°  | 6250.2  | 6247.8  | 6280.2  | 6290.1  | 6349.9  | 6392.2  | 6471.8  | 6556.4  | 6666.0  | 6678.4  | 6745.6  |
| 5°    | 5889.3  | 5889.3  | 5926.7  | 5966.5  | 6043.7  | 6128.3  | 6250.2  | 6397.1  | 6586.3  | 6616.2  | 6782.9  |
| 7.5°  | 5583.2  | 5603.1  | 5635.4  | 5712.6  | 5802.2  | 5924.2  | 6110.9  | 6319.9  | 6568.9  | 6616.2  | 6885.0  |
| 10°   | 5336.8  | 5359.2  | 5399.0  | 5461.2  | 5595.7  | 5764.9  | 6008.9  | 6277.7  | 6611.2  | 6685.9  | 7034.4  |
| 12.5° | 5259.6  | 5282.0  | 5304.4  | 5351.7  | 5476.2  | 5675.3  | 5966.5  | 6297.6  | 6713.2  | 6788.0  | 7238.4  |
| 15°   | 5438.9  | 5466.2  | 5448.8  | 5436.3  | 5501.1  | 5682.8  | 5986.4  | 6369.8  | 6840.2  | 6947.2  | 7489.9  |
| 17.5° | 5852.0  | 5862.0  | 5822.1  | 5705.2  | 5695.2  | 5792.3  | 6081.0  | 6469.3  | 6999.5  | 7116.5  | 7743.8  |
| 20°   | 6519.1  | 6501.7  | 6419.6  | 6188.0  | 6056.1  | 6036.2  | 6242.9  | 6618.7  | 7163.8  | 7288.3  | 8017.6  |
| 22.5° | 7425.2  | 7405.2  | 7241.0  | 6875.1  | 6581.3  | 6387.2  | 6476.8  | 6812.9  | 7348.0  | 7487.4  | 8283.9  |
| 25°   | 8555.3  | 8527.9  | 8286.4  | 7788.6  | 7333.1  | 6852.6  | 6795.4  | 7069.2  | 7574.5  | 7704.0  | 8562.7  |
| 27.5° | 9874.5  | 9852.1  | 9590.7  | 8933.6  | 8276.5  | 7489.9  | 7191.2  | 7370.4  | 7811.0  | 7957.9  | 8876.4  |
| 30°   | 11293.3 | 11358.0 | 10895.0 | 10188.2 | 9356.8  | 8321.3  | 7723.9  | 7741.3  | 8117.2  | 8249.1  | 9257.2  |
| 32.5° | 12961.1 | 13073.1 | 12515.6 | 11619.4 | 10484.3 | 9224.8  | 8396.0  | 8259.0  | 8562.7  | 8672.2  | 9737.6  |
| 35°   | 14613.8 | 14740.8 | 14277.8 | 13287.2 | 11980.3 | 10290.2 | 9097.9  | 8853.9  | 9155.1  | 9274.6  | 10374.8 |
| 37.5° | 16042.7 | 16211.9 | 15973.0 | 15111.7 | 13580.8 | 11574.6 | 10013.9 | 9553.4  | 9884.5  | 10033.8 | 11231.1 |
| 40°   | 17170.3 | 17429.1 | 17411.7 | 16874.1 | 15467.7 | 13132.8 | 11176.4 | 10417.2 | 10790.5 | 10952.3 | 12269.0 |
| 42.5° | 18086.2 | 18310.3 | 18504.4 | 18477.1 | 17436.6 | 14902.6 | 12542.9 | 11539.8 | 11823.5 | 12010.2 | 13436.5 |
| 45°   | 18718.6 | 18957.5 | 19375.7 | 19826.2 | 19330.9 | 16796.9 | 14108.6 | 12871.4 | 13130.4 | 13411.6 | 14828.0 |
| 47.5° | 19283.5 | 19554.8 | 20097.5 | 20811.9 | 20938.8 | 18698.6 | 15823.6 | 14422.3 | 14658.7 | 14949.9 | 16224.4 |
| 50°   | 19333.3 | 19567.4 | 20408.7 | 21421.8 | 22081.4 | 20525.6 | 17665.6 | 16162.1 | 16383.7 | 16694.8 | 17720.4 |
| 52.5° | 18131.0 | 18499.5 | 19968.0 | 21404.4 | 22606.6 | 22054.0 | 19495.1 | 17971.7 | 18220.7 | 18594.0 | 19268.6 |
| 55°   | 14073.8 | 14613.8 | 18676.2 | 20737.2 | 22419.9 | 23042.2 | 21235.0 | 19895.9 | 20214.5 | 20605.3 | 20826.9 |
| 57.5° | 12122.3 | 12358.7 | 14825.5 | 19522.6 | 21568.6 | 23298.6 | 22703.6 | 21839.9 | 22352.7 | 22780.8 | 22474.7 |
| 60°   | 10895.0 | 11091.7 | 12550.4 | 17633.3 | 20448.4 | 22892.9 | 23838.7 | 23652.1 | 24538.2 | 25048.4 | 24159.9 |
| 62.5° | 9580.8  | 9767.4  | 11094.2 | 14723.4 | 19014.7 | 22218.3 | 24555.6 | 25324.8 | 26778.4 | 27336.0 | 25747.9 |
| 65°   | 8276.5  | 8435.8  | 9707.8  | 12371.1 | 17192.6 | 21543.8 | 24926.5 | 26771.0 | 28851.9 | 29429.4 | 27067.2 |
| 67.5° | 6822.8  | 6954.7  | 8156.9  | 10437.1 | 14977.3 | 20620.2 | 25110.7 | 27908.5 | 30656.5 | 31151.9 | 27719.3 |
| 70°   | 4923.6  | 5025.6  | 6267.7  | 8254.0  | 12196.9 | 19032.1 | 25036.0 | 28715.0 | 31592.4 | 31988.2 | 27226.5 |
| 72.5° | 2327.4  | 2419.5  | 3878.1  | 5359.2  | 8615.0  | 15940.6 | 23525.1 | 28075.3 | 30641.6 | 30445.0 | 24209.6 |
| 75°   | 1242.1  | 1321.7  | 2227.8  | 2939.7  | 4550.2  | 10927.4 | 19251.2 | 24184.7 | 25730.5 | 24774.7 | 17892.1 |
| 77.5° | 841.3   | 903.5   | 1379.0  | 1764.8  | 2078.5  | 5187.4  | 12373.6 | 16744.6 | 16109.8 | 14531.7 | 8961.0  |
| 80°   | 667.1   | 731.8   | 1130.1  | 1194.8  | 1005.6  | 1874.3  | 5112.7  | 7751.3  | 5568.2  | 4453.1  | 2548.9  |
| 82.5° | 512.8   | 585.0   | 950.9   | 866.2   | 547.7   | 769.2   | 1488.5  | 2451.8  | 1426.3  | 1085.3  | 617.4   |
| 85°   | 313.6   | 390.8   | 746.7   | 552.6   | 308.6   | 351.0   | 505.3   | 682.0   | 435.6   | 363.5   | 221.5   |
| 87.5° | 159.3   | 224.1   | 378.3   | 201.6   | 139.4   | 82.1    | 134.4   | 134.4   | 114.5   | 99.5    | 57.3    |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |

REPORT NUMBER: P969473

CATALOG NUMBER: NAV-SB5D-830-U-T3R

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 6780.5  | 6780.5  | 6780.5 | 6780.5 | 6780.5 | 6780.5 | 6780.5 | 6780.5 | 6780.5 | 6780.5 | 6780.5 |
| 2.5°  | 6805.4  | 6855.2  | 6939.8 | 7019.4 | 7081.6 | 7141.4 | 7201.1 | 7233.5 | 7243.5 | 7283.3 | 7305.7 |
| 5°    | 6885.0  | 6977.2  | 7141.4 | 7295.7 | 7392.8 | 7452.6 | 7494.9 | 7519.8 | 7524.7 | 7537.2 | 7557.1 |
| 7.5°  | 7031.9  | 7178.8  | 7407.8 | 7562.0 | 7634.3 | 7629.3 | 7611.9 | 7549.6 | 7524.7 | 7502.4 | 7507.3 |
| 10°   | 7238.4  | 7432.7  | 7713.9 | 7821.0 | 7776.2 | 7656.6 | 7502.4 | 7320.7 | 7236.0 | 7153.9 | 7129.0 |
| 12.5° | 7494.9  | 7741.3  | 8017.6 | 8012.6 | 7791.1 | 7485.0 | 7126.5 | 6847.7 | 6671.0 | 6544.0 | 6514.2 |
| 15°   | 7806.0  | 8089.8  | 8301.4 | 8132.1 | 7646.7 | 7096.6 | 6571.4 | 6208.0 | 6048.6 | 5909.2 | 5894.4 |
| 17.5° | 8127.1  | 8430.8  | 8527.9 | 8094.7 | 7283.3 | 6521.6 | 5926.7 | 5640.5 | 5483.6 | 5408.9 | 5431.4 |
| 20°   | 8440.8  | 8741.9  | 8662.3 | 7880.7 | 6730.7 | 5869.5 | 5339.2 | 5182.4 | 5150.1 | 5167.5 | 5160.1 |
| 22.5° | 8771.8  | 9040.6  | 8689.6 | 7467.5 | 6026.3 | 5202.4 | 4911.1 | 4916.1 | 4988.3 | 5040.5 | 5053.0 |
| 25°   | 9110.3  | 9292.0  | 8617.5 | 6870.1 | 5269.5 | 4712.0 | 4639.8 | 4719.4 | 4861.4 | 4963.4 | 4990.7 |
| 27.5° | 9436.5  | 9516.1  | 8460.7 | 6130.8 | 4619.9 | 4361.0 | 4373.5 | 4537.8 | 4751.8 | 4893.7 | 4928.5 |
| 30°   | 9804.8  | 9715.2  | 8159.5 | 5299.5 | 4169.4 | 4059.8 | 4164.4 | 4356.0 | 4570.1 | 4697.1 | 4726.9 |
| 32.5° | 10220.5 | 9886.9  | 7681.6 | 4530.3 | 3850.7 | 3818.3 | 3990.1 | 4114.6 | 4209.2 | 4246.5 | 4266.5 |
| 35°   | 10738.2 | 10128.4 | 7069.2 | 3990.1 | 3564.4 | 3641.6 | 3805.9 | 3743.7 | 3706.4 | 3686.4 | 3706.4 |
| 37.5° | 11410.3 | 10454.5 | 6352.3 | 3639.2 | 3333.0 | 3514.7 | 3581.9 | 3387.7 | 3240.8 | 3168.7 | 3186.1 |
| 40°   | 12219.3 | 10932.4 | 5662.8 | 3367.8 | 3186.1 | 3405.2 | 3288.2 | 3054.2 | 2867.5 | 2765.4 | 2772.9 |
| 42.5° | 13117.8 | 11432.7 | 5082.9 | 3163.8 | 3104.0 | 3315.6 | 3071.6 | 2792.8 | 2491.7 | 2459.3 | 2491.7 |
| 45°   | 14061.3 | 11948.0 | 4687.1 | 3006.9 | 3064.1 | 3238.4 | 2947.2 | 2496.6 | 2282.6 | 2414.5 | 2484.2 |
| 47.5° | 15004.7 | 12420.9 | 4448.1 | 2889.9 | 3044.2 | 3151.3 | 2837.6 | 2332.4 | 2180.5 | 2372.2 | 2461.7 |
| 50°   | 16055.1 | 12844.1 | 4341.1 | 2805.3 | 3021.8 | 3116.4 | 2673.4 | 2290.1 | 2073.5 | 2200.5 | 2295.0 |
| 52.5° | 17098.0 | 13172.7 | 4261.4 | 2720.7 | 2989.5 | 3089.0 | 2593.7 | 2240.2 | 1944.0 | 1951.5 | 2003.8 |
| 55°   | 18138.5 | 13386.7 | 4174.3 | 2608.6 | 2917.3 | 3029.3 | 2586.3 | 2185.5 | 1846.9 | 1812.1 | 1837.0 |
| 57.5° | 19248.7 | 13508.7 | 4067.3 | 2484.2 | 2792.8 | 2877.5 | 2578.8 | 2143.2 | 1817.1 | 1759.8 | 1767.3 |
| 60°   | 20378.7 | 13688.0 | 3927.9 | 2332.4 | 2626.0 | 2695.7 | 2561.4 | 2128.2 | 1799.7 | 1702.6 | 1710.0 |
| 62.5° | 21391.9 | 13750.2 | 3761.1 | 2188.0 | 2412.0 | 2516.6 | 2524.1 | 2115.8 | 1752.3 | 1585.6 | 1585.6 |
| 65°   | 22056.5 | 13481.3 | 3469.9 | 2023.7 | 2180.5 | 2332.4 | 2451.8 | 2073.5 | 1667.8 | 1501.0 | 1501.0 |
| 67.5° | 22029.1 | 12714.6 | 3014.4 | 1812.1 | 1956.5 | 2128.2 | 2347.2 | 2001.3 | 1565.7 | 1396.5 | 1403.8 |
| 70°   | 21003.6 | 11201.2 | 2436.9 | 1565.7 | 1710.0 | 1909.2 | 2212.9 | 1894.3 | 1443.7 | 1282.0 | 1296.8 |
| 72.5° | 18014.1 | 8766.8  | 1769.8 | 1276.9 | 1423.8 | 1682.6 | 2038.6 | 1764.8 | 1319.3 | 1179.9 | 1172.4 |
| 75°   | 12869.0 | 5548.3  | 1199.8 | 980.7  | 1107.7 | 1426.3 | 1822.0 | 1612.9 | 1204.8 | 1184.8 | 1117.7 |
| 77.5° | 6573.8  | 2651.0  | 794.1  | 716.9  | 771.6  | 1125.1 | 1530.8 | 1441.3 | 1222.2 | 978.3  | 871.2  |
| 80°   | 2138.1  | 978.3   | 500.3  | 487.9  | 512.8  | 749.3  | 1184.8 | 1182.3 | 926.0  | 664.6  | 587.4  |
| 82.5° | 682.0   | 420.7   | 326.1  | 313.6  | 301.1  | 470.5  | 826.4  | 935.9  | 624.7  | 420.7  | 418.2  |
| 85°   | 271.3   | 251.4   | 191.7  | 176.7  | 127.0  | 221.5  | 433.2  | 622.3  | 465.5  | 303.7  | 311.2  |
| 87.5° | 99.5    | 99.5    | 52.3   | 37.3   | 27.4   | 74.7   | 117.0  | 186.7  | 266.3  | 156.8  | 154.4  |
| 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)