

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: P884464

Luminaire Tested: **NAV-SB5B-750-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884464
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-750-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 5000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30537 lumens
Efficiency: N/A
Efficacy: 167.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

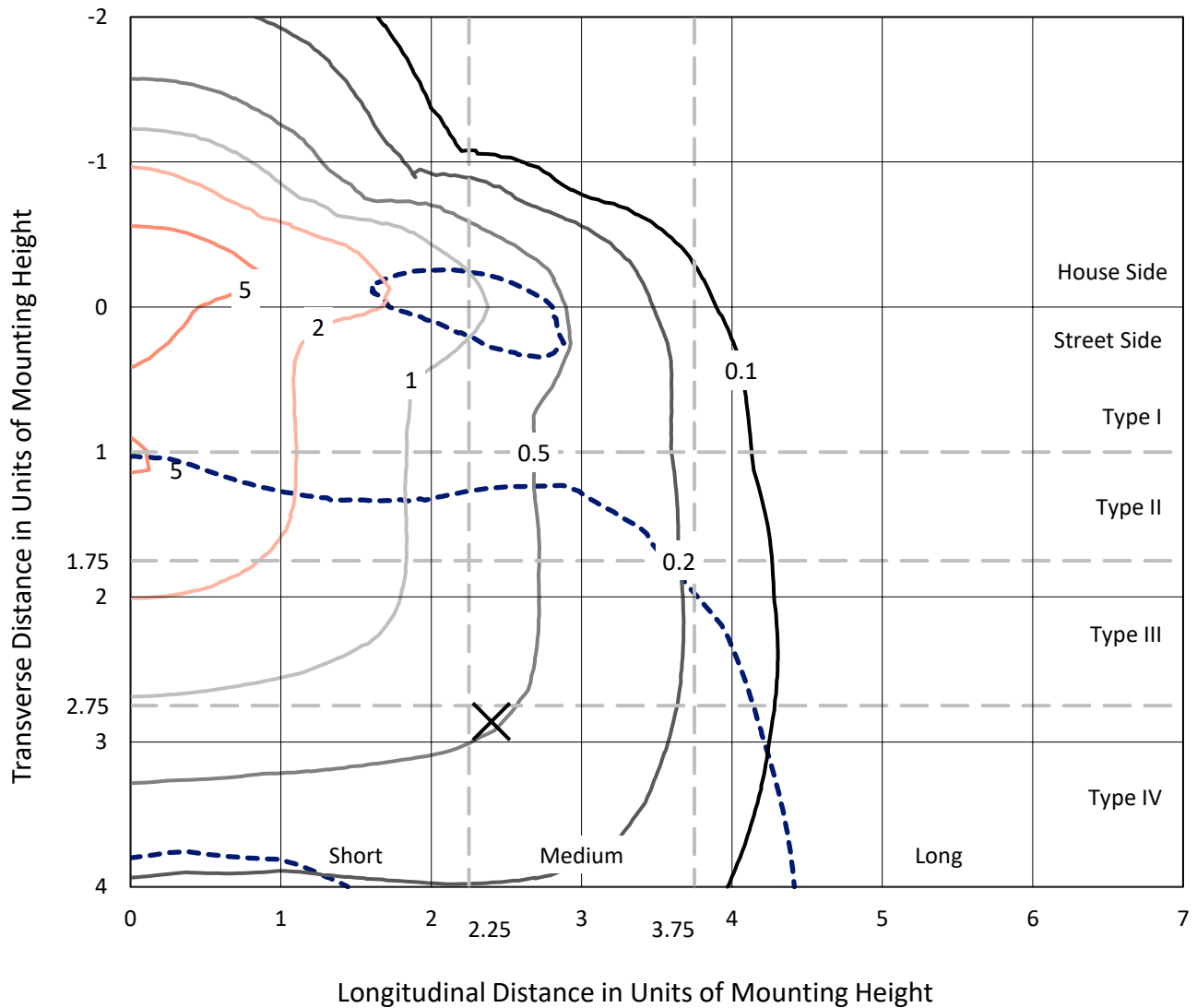
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884464
 CATALOG NUMBER: NAV-SB5B-750-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

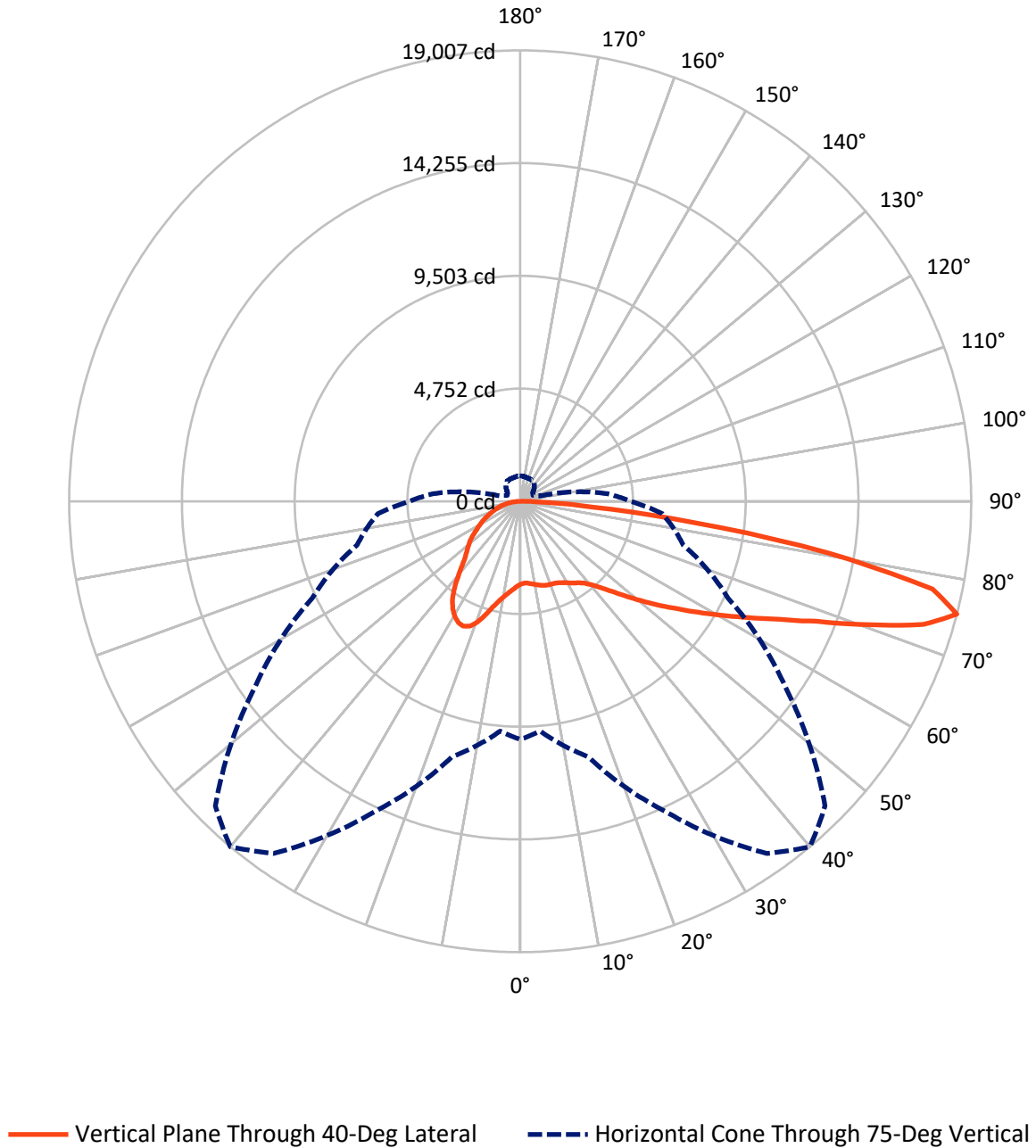
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Medium - N/A

REPORT NUMBER: P884464
CATALOG NUMBER: NAV-SB5B-750-U-SL4

Luminous Intensity Polar Plot



REPORT NUMBER: P884464

CATALOG NUMBER: NAV-SB5B-750-U-SL4

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9461.4 | 0.0 | 9461.4 |
| | % Fixture | 31.0 | 0.0 | 31.0 |
| Street Side | Lumens | 21075.6 | 0.0 | 21075.6 |
| | % Fixture | 69.0 | 0.0 | 69.0 |
| Total | Lumens | 30537.0 | 0.0 | 30537.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 348.6 | 1.1 |
| 10°-20° | 1170.3 | 3.8 |
| 20°-30° | 2136.8 | 7.0 |
| 30°-40° | 3030.6 | 9.9 |
| 40°-50° | 4092.3 | 13.4 |
| 50°-60° | 5505.2 | 18.0 |
| 60°-70° | 6987.4 | 22.9 |
| 70°-80° | 6341.5 | 20.8 |
| 80°-90° | 924.4 | 3.0 |
| 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° | 30537.0 | 100.0 |
| 0°-180° | 30537.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P884464

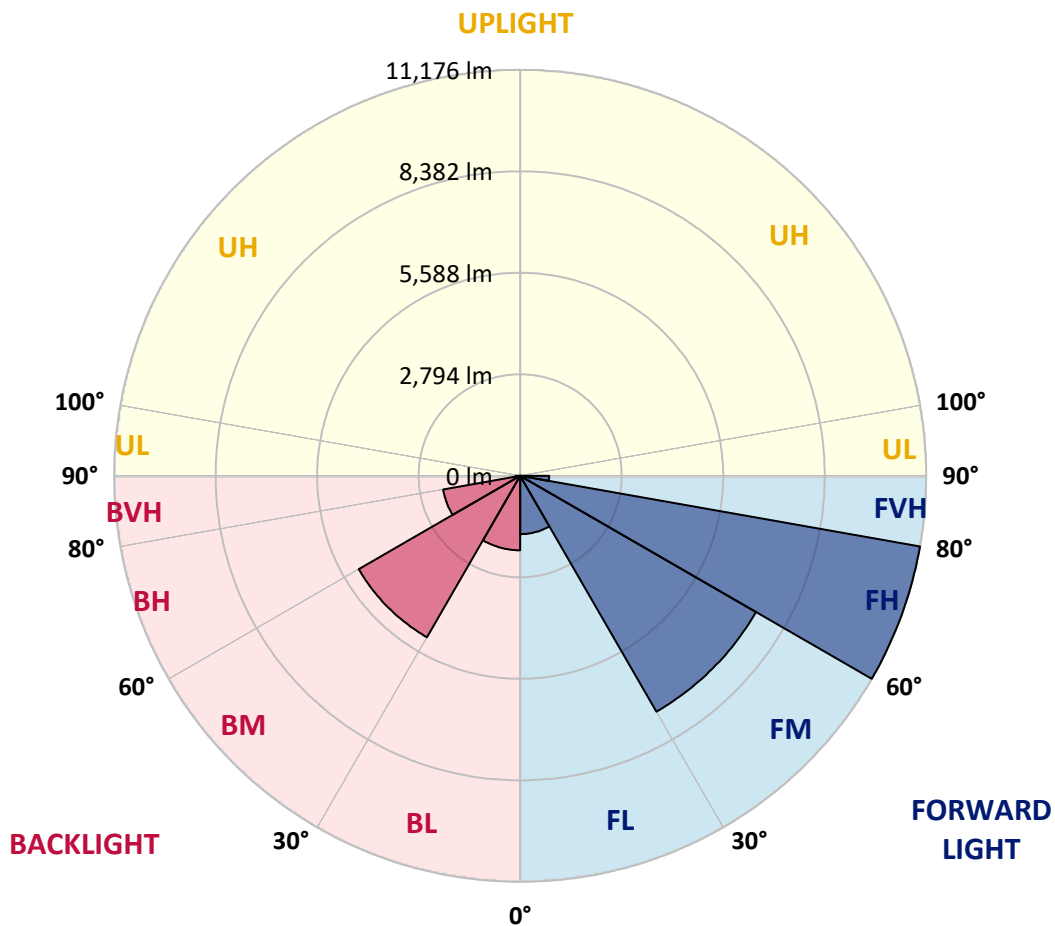
CATALOG NUMBER: NAV-SB5B-750-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1606.3 | 5.3 | | | |
| FM (30°-60°) | 7496.2 | 24.5 | | | |
| FH (60°-80°) | 11176.1 | 36.6 | | | G4/12000 |
| FVH (80°-90°) | 797.1 | 2.6 | | | G5 |
| BL (0°-30°) | 2049.4 | 6.7 | B3/2500 | | |
| BM (30°-60°) | 5131.9 | 16.8 | B4/8500 | | |
| BH (60°-80°) | 2152.7 | 7.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 127.3 | 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 IV Medium



REPORT NUMBER: P884464

CATALOG NUMBER: NAV-SB5B-750-U-SL4

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|
| 0° | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 |
| 2.5° | 3438.5 | 3457.9 | 3453.1 | 3446.6 | 3446.6 | 3448.2 | 3446.6 | 3457.9 | 3469.3 | 3480.6 | 3498.4 |
| 5° | 3474.1 | 3493.6 | 3483.8 | 3475.8 | 3469.3 | 3467.7 | 3462.8 | 3461.2 | 3467.7 | 3482.2 | 3506.5 |
| 7.5° | 3543.8 | 3563.2 | 3548.6 | 3534.1 | 3521.1 | 3514.6 | 3508.1 | 3498.4 | 3493.6 | 3501.7 | 3535.7 |
| 10° | 3621.5 | 3641.0 | 3623.1 | 3597.2 | 3576.2 | 3568.1 | 3561.6 | 3551.9 | 3545.4 | 3550.3 | 3587.5 |
| 12.5° | 3699.3 | 3718.7 | 3694.4 | 3658.8 | 3631.2 | 3626.4 | 3618.3 | 3615.0 | 3613.4 | 3611.8 | 3649.1 |
| 15° | 3772.1 | 3788.3 | 3757.6 | 3715.5 | 3686.3 | 3678.2 | 3670.1 | 3675.0 | 3683.1 | 3692.8 | 3734.9 |
| 17.5° | 3828.8 | 3845.0 | 3799.7 | 3744.6 | 3717.1 | 3713.8 | 3709.0 | 3725.2 | 3747.8 | 3772.1 | 3824.0 |
| 20° | 3880.7 | 3896.9 | 3838.5 | 3764.0 | 3731.7 | 3731.7 | 3733.3 | 3767.3 | 3799.7 | 3835.3 | 3906.6 |
| 22.5° | 3953.5 | 3966.5 | 3895.2 | 3793.2 | 3746.2 | 3749.5 | 3762.4 | 3796.4 | 3836.9 | 3885.5 | 3984.3 |
| 25° | 4062.1 | 4071.8 | 3984.3 | 3848.3 | 3794.8 | 3804.5 | 3815.9 | 3832.1 | 3870.9 | 3927.6 | 4060.4 |
| 27.5° | 4237.0 | 4245.1 | 4130.1 | 3945.4 | 3864.5 | 3880.7 | 3896.9 | 3885.5 | 3903.3 | 3951.9 | 4122.0 |
| 30° | 4483.2 | 4488.0 | 4342.3 | 4097.7 | 3982.7 | 3990.8 | 3994.0 | 3947.1 | 3913.1 | 3951.9 | 4165.7 |
| 32.5° | 4774.7 | 4773.1 | 4599.8 | 4282.3 | 4117.1 | 4109.0 | 4081.5 | 3989.2 | 3909.8 | 3943.8 | 4204.6 |
| 35° | 5226.6 | 5208.8 | 4985.3 | 4541.5 | 4269.4 | 4219.2 | 4154.4 | 4036.1 | 3926.0 | 3935.7 | 4238.6 |
| 37.5° | 5974.9 | 5919.8 | 5610.4 | 4965.8 | 4496.1 | 4368.2 | 4272.6 | 4112.3 | 3961.6 | 3932.5 | 4279.1 |
| 40° | 6818.7 | 6749.0 | 6408.9 | 5547.3 | 4836.2 | 4630.6 | 4476.7 | 4220.8 | 4019.9 | 3947.1 | 4339.0 |
| 42.5° | 7819.6 | 7720.8 | 7354.8 | 6232.4 | 5267.1 | 4969.1 | 4737.5 | 4358.5 | 4105.8 | 3994.0 | 4420.0 |
| 45° | 9048.9 | 8917.7 | 8399.5 | 7004.9 | 5809.7 | 5412.8 | 5103.5 | 4567.4 | 4237.0 | 4084.7 | 4541.5 |
| 47.5° | 10291.2 | 10323.6 | 9586.7 | 7889.3 | 6460.7 | 5960.3 | 5561.8 | 4881.6 | 4428.1 | 4230.5 | 4737.5 |
| 50° | 11611.2 | 11633.9 | 10767.4 | 8869.2 | 7199.3 | 6579.0 | 6076.9 | 5233.1 | 4693.7 | 4437.8 | 5030.6 |
| 52.5° | 12641.3 | 12644.5 | 11839.6 | 9894.4 | 7968.6 | 7259.2 | 6632.4 | 5634.7 | 5001.5 | 4713.2 | 5420.9 |
| 55° | 13285.9 | 13277.8 | 12591.1 | 10864.6 | 8853.0 | 7973.5 | 7247.9 | 6091.5 | 5377.2 | 5037.1 | 5911.7 |
| 57.5° | 13754.0 | 13729.7 | 13109.4 | 11698.7 | 9795.6 | 8817.3 | 7944.3 | 6609.8 | 5821.0 | 5422.6 | 6557.9 |
| 60° | 13932.2 | 13917.6 | 13460.8 | 12419.4 | 10786.8 | 9750.2 | 8747.7 | 7189.6 | 6324.7 | 5877.7 | 7388.8 |
| 62.5° | 14000.2 | 14027.7 | 13805.8 | 13117.5 | 11847.7 | 10783.6 | 9630.4 | 7882.8 | 6891.6 | 6392.7 | 8265.0 |
| 65° | 14239.9 | 14290.1 | 14244.7 | 14031.0 | 13046.2 | 11993.4 | 10801.4 | 8707.2 | 7510.3 | 6945.0 | 9180.1 |
| 67.5° | 14714.4 | 14764.7 | 14784.1 | 15124.2 | 14510.4 | 13501.3 | 12262.3 | 9734.0 | 8234.3 | 7518.4 | 9868.5 |
| 70° | 14703.1 | 14688.5 | 15031.9 | 15994.0 | 16343.8 | 15589.0 | 14231.8 | 10997.4 | 9097.5 | 7994.5 | 9955.9 |
| 72.5° | 13383.1 | 13266.5 | 14077.9 | 15984.2 | 17869.5 | 17769.1 | 16637.0 | 12626.7 | 9842.6 | 8052.9 | 8639.2 |
| 75° | 10040.2 | 9729.2 | 11162.6 | 14405.1 | 18123.8 | 19006.5 | 18165.9 | 13637.4 | 9666.0 | 7115.1 | 6012.1 |
| 77.5° | 4293.7 | 3981.1 | 5670.4 | 10663.7 | 16220.7 | 17767.5 | 16763.3 | 11897.9 | 7716.0 | 4705.1 | 2952.6 |
| 80° | 1124.0 | 1122.4 | 1713.6 | 4834.6 | 11031.4 | 13120.7 | 11510.8 | 7683.6 | 4408.7 | 1681.2 | 814.7 |
| 82.5° | 464.8 | 453.5 | 630.0 | 1880.4 | 5390.2 | 7362.9 | 6008.9 | 3427.2 | 1592.1 | 455.1 | 270.5 |
| 85° | 173.3 | 171.7 | 306.1 | 649.5 | 1901.5 | 3036.8 | 2197.9 | 876.2 | 396.8 | 221.9 | 121.5 |
| 87.5° | 48.6 | 47.0 | 66.4 | 225.1 | 463.2 | 702.9 | 375.8 | 144.1 | 111.8 | 87.5 | 35.6 |
| 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: P884464

CATALOG NUMBER: NAV-SB5B-750-U-SL4

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 | 3491.9 |
| 2.5° | 3503.3 | 3511.4 | 3526.0 | 3537.3 | 3551.9 | 3568.1 | 3590.7 | 3605.3 | 3619.9 | 3629.6 | 3623.1 |
| 5° | 3517.9 | 3535.7 | 3572.9 | 3610.2 | 3653.9 | 3694.4 | 3741.4 | 3775.4 | 3802.9 | 3811.0 | 3814.3 |
| 7.5° | 3550.3 | 3579.4 | 3642.6 | 3705.7 | 3775.4 | 3841.8 | 3909.8 | 3968.1 | 4015.1 | 4032.9 | 4034.5 |
| 10° | 3606.9 | 3645.8 | 3734.9 | 3824.0 | 3916.3 | 4018.3 | 4105.8 | 4190.0 | 4256.4 | 4284.0 | 4285.6 |
| 12.5° | 3678.2 | 3726.8 | 3843.4 | 3966.5 | 4094.5 | 4235.4 | 4348.7 | 4452.4 | 4535.0 | 4572.2 | 4572.2 |
| 15° | 3770.5 | 3833.7 | 3982.7 | 4147.9 | 4335.8 | 4531.8 | 4675.9 | 4790.9 | 4883.2 | 4928.6 | 4925.3 |
| 17.5° | 3870.9 | 3955.2 | 4143.0 | 4392.5 | 4661.3 | 4918.9 | 5087.3 | 5171.5 | 5267.1 | 5310.8 | 5309.2 |
| 20° | 3968.1 | 4071.8 | 4340.6 | 4703.4 | 5061.4 | 5335.1 | 5471.1 | 5493.8 | 5500.3 | 5505.2 | 5518.1 |
| 22.5° | 4068.5 | 4207.8 | 4588.4 | 5095.4 | 5479.2 | 5668.7 | 5688.2 | 5591.0 | 5455.0 | 5391.8 | 5409.6 |
| 25° | 4178.7 | 4363.3 | 4912.4 | 5527.8 | 5838.8 | 5861.5 | 5712.5 | 5476.0 | 5218.5 | 5100.3 | 5118.1 |
| 27.5° | 4285.6 | 4543.1 | 5301.1 | 5940.8 | 6097.9 | 5898.7 | 5578.0 | 5242.8 | 4931.8 | 4807.1 | 4821.7 |
| 30° | 4392.5 | 4748.8 | 5730.3 | 6302.0 | 6216.2 | 5806.4 | 5365.9 | 4991.7 | 4679.1 | 4548.0 | 4562.5 |
| 32.5° | 4501.0 | 4988.5 | 6224.3 | 6562.8 | 6195.1 | 5610.4 | 5101.9 | 4709.9 | 4434.6 | 4296.9 | 4314.7 |
| 35° | 4624.1 | 5283.3 | 6692.4 | 6705.3 | 6054.2 | 5322.1 | 4753.6 | 4373.0 | 4133.3 | 4023.2 | 4047.5 |
| 37.5° | 4784.4 | 5657.4 | 7105.4 | 6740.9 | 5808.0 | 4899.4 | 4321.2 | 3974.6 | 3777.0 | 3726.8 | 3762.4 |
| 40° | 4983.6 | 6107.7 | 7421.2 | 6684.3 | 5443.6 | 4386.0 | 3848.3 | 3571.3 | 3459.6 | 3470.9 | 3509.8 |
| 42.5° | 5242.8 | 6611.4 | 7643.1 | 6538.5 | 4936.7 | 3856.4 | 3433.6 | 3310.5 | 3364.0 | 3409.3 | 3451.5 |
| 45° | 5579.7 | 7134.5 | 7780.8 | 6290.7 | 4363.3 | 3407.7 | 3189.1 | 3218.2 | 3258.7 | 3263.6 | 3296.0 |
| 47.5° | 6010.5 | 7664.1 | 7871.5 | 5916.5 | 3778.6 | 3091.9 | 3033.6 | 3040.1 | 3032.0 | 2998.0 | 3023.9 |
| 50° | 6548.2 | 8179.2 | 7952.4 | 5420.9 | 3281.4 | 2894.3 | 2816.6 | 2793.9 | 2682.1 | 2572.0 | 2586.6 |
| 52.5° | 7160.4 | 8652.1 | 7986.5 | 4805.5 | 2894.3 | 2729.1 | 2602.8 | 2460.2 | 2251.3 | 2217.3 | 2228.6 |
| 55° | 7840.7 | 9089.4 | 7899.0 | 4049.1 | 2568.8 | 2516.9 | 2325.8 | 2154.1 | 2131.4 | 2102.3 | 2107.2 |
| 57.5° | 8653.7 | 9560.7 | 7720.8 | 3205.3 | 2235.1 | 2269.1 | 2082.9 | 2102.3 | 2061.8 | 2016.5 | 2008.4 |
| 60° | 9542.9 | 10048.3 | 7408.2 | 2435.9 | 1890.1 | 1959.8 | 2019.7 | 2018.1 | 2006.7 | 1969.5 | 1956.5 |
| 62.5° | 10343.0 | 10368.9 | 6792.8 | 1865.8 | 1587.2 | 1720.1 | 1883.6 | 1882.0 | 1872.3 | 1851.3 | 1843.2 |
| 65° | 10819.2 | 10320.4 | 5765.9 | 1469.0 | 1337.8 | 1522.5 | 1699.0 | 1712.0 | 1713.6 | 1712.0 | 1712.0 |
| 67.5° | 10735.0 | 9751.9 | 4356.8 | 1169.4 | 1132.1 | 1321.6 | 1516.0 | 1533.8 | 1546.8 | 1550.0 | 1553.2 |
| 70° | 9782.6 | 8503.1 | 2840.9 | 932.9 | 949.1 | 1145.1 | 1342.7 | 1360.5 | 1371.8 | 1384.8 | 1391.3 |
| 72.5° | 7625.3 | 6251.8 | 1626.1 | 754.8 | 788.8 | 992.8 | 1171.0 | 1192.1 | 1198.5 | 1222.8 | 1232.5 |
| 75° | 4646.8 | 3676.6 | 877.8 | 594.4 | 647.9 | 848.7 | 1000.9 | 1025.2 | 1036.6 | 1065.7 | 1069.0 |
| 77.5° | 2209.2 | 1592.1 | 500.5 | 463.2 | 521.5 | 693.2 | 845.5 | 873.0 | 842.2 | 858.4 | 845.5 |
| 80° | 746.7 | 591.2 | 315.8 | 353.1 | 398.4 | 541.0 | 677.0 | 704.5 | 639.8 | 636.5 | 630.0 |
| 82.5° | 260.8 | 239.7 | 200.8 | 234.8 | 257.5 | 387.1 | 511.8 | 547.4 | 476.2 | 474.6 | 451.9 |
| 85° | 102.0 | 97.2 | 111.8 | 128.0 | 153.9 | 238.1 | 336.9 | 354.7 | 293.2 | 236.5 | 233.2 |
| 87.5° | 21.1 | 22.7 | 27.5 | 29.2 | 47.0 | 82.6 | 121.5 | 149.0 | 118.2 | 100.4 | 92.3 |
| 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)