

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: P885334

Luminaire Tested: **NAV-SB6C-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P885334
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-SB6C-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(6) 80 CRI, 2700K, 615mA 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: 36611 lumens
Efficiency: N/A
Efficacy: 121.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

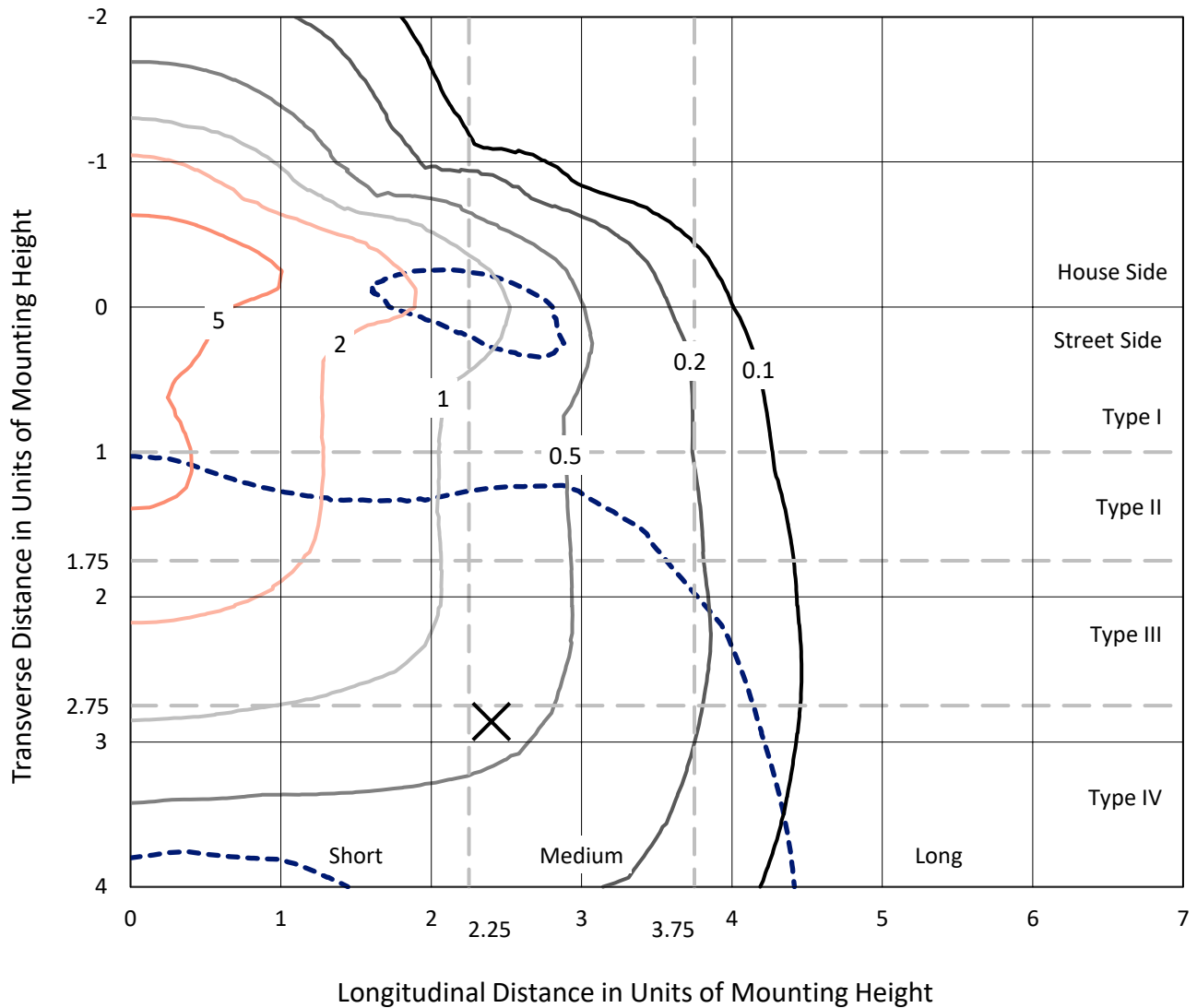
Input Watts (W): 300.9
Input Voltage (V): 120.0
Input Current (Ain): 2.518
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.297
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

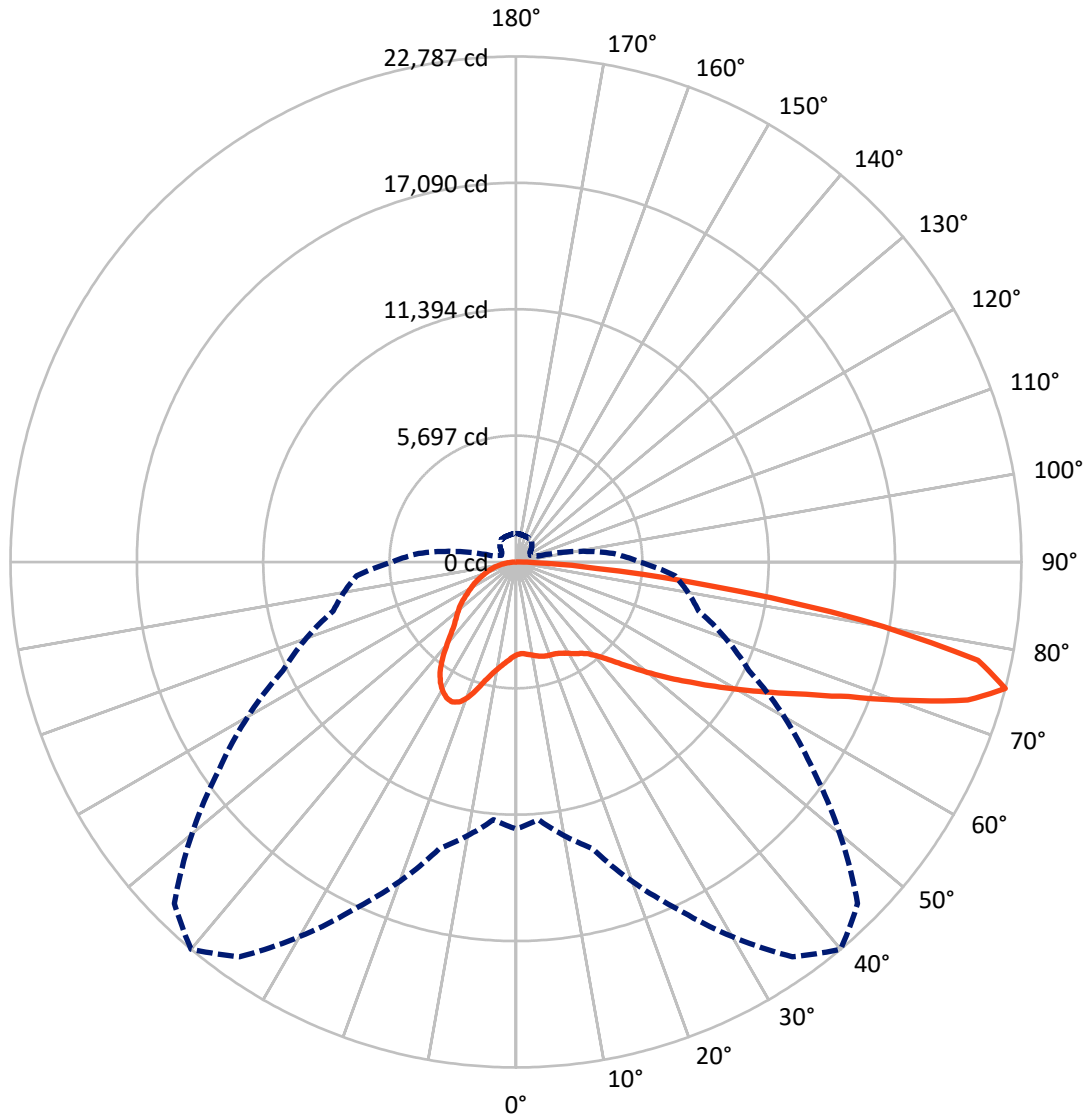
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 11343.3 | 0.0 | 11343.3 |
| | % Fixture | 31.0 | 0.0 | 31.0 |
| Street Side | Lumens | 25267.7 | 0.0 | 25267.7 |
| | % Fixture | 69.0 | 0.0 | 69.0 |
| Total | Lumens | 36611.0 | 0.0 | 36611.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 417.9 | 1.1 |
| 10°-20° | 1403.1 | 3.8 |
| 20°-30° | 2561.9 | 7.0 |
| 30°-40° | 3633.4 | 9.9 |
| 40°-50° | 4906.2 | 13.4 |
| 50°-60° | 6600.2 | 18.0 |
| 60°-70° | 8377.2 | 22.9 |
| 70°-80° | 7602.8 | 20.8 |
| 80°-90° | 1108.3 | 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° | 36611.0 | 100.0 |
| 0°-180° | 36611.0 | 100.0 |



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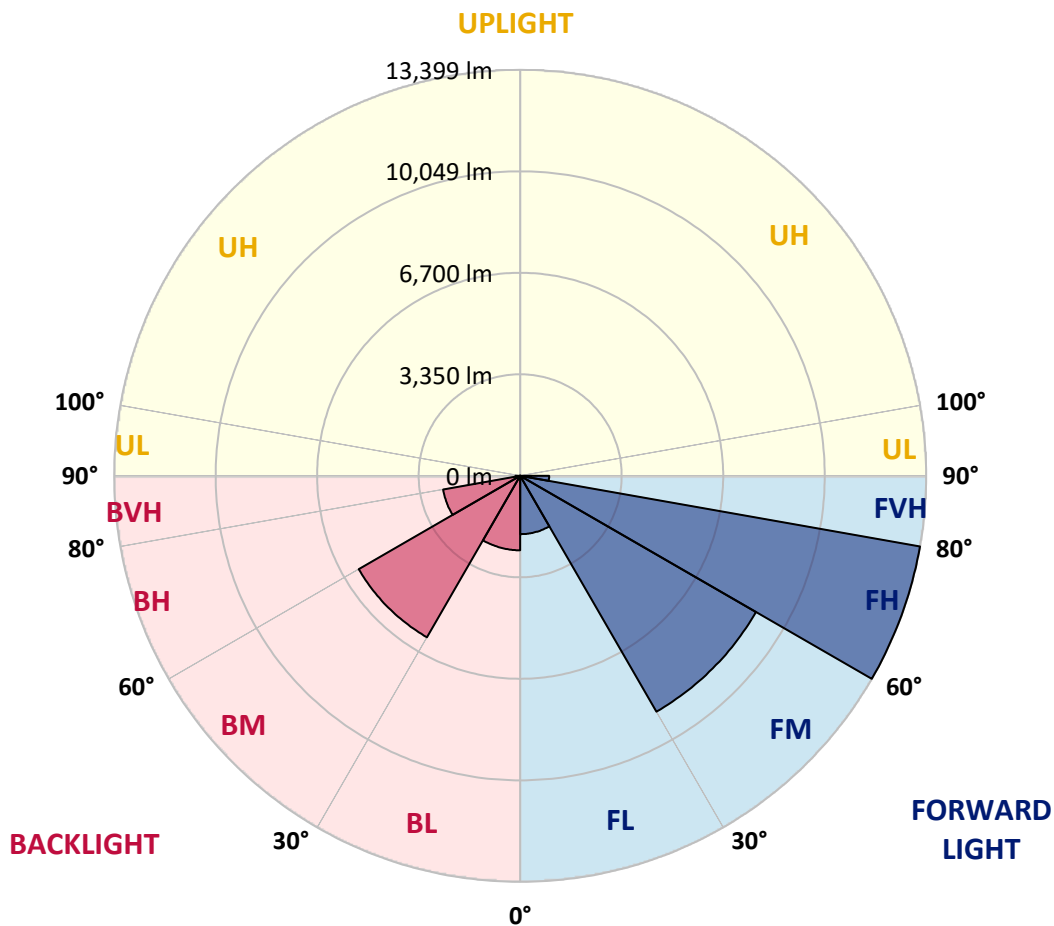
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1925.8 | 5.3 | | | |
| FM (30°-60°) | 8987.2 | 24.5 | | | |
| FH (60°-80°) | 13399.1 | 36.6 | | | G5 |
| FVH (80°-90°) | 955.7 | 2.6 | | | G5 |
| BL (0°-30°) | 2457.1 | 6.7 | B3/2500 | | |
| BM (30°-60°) | 6152.7 | 16.8 | B4/8500 | | |
| BH (60°-80°) | 2580.9 | 7.0 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 152.6 | 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



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|
| 0° | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 |
| 2.5° | 4122.4 | 4145.7 | 4139.9 | 4132.1 | 4132.1 | 4134.1 | 4132.1 | 4145.7 | 4159.3 | 4172.9 | 4194.3 |
| 5° | 4165.2 | 4188.5 | 4176.8 | 4167.1 | 4159.3 | 4157.4 | 4151.6 | 4149.6 | 4157.4 | 4174.9 | 4204.0 |
| 7.5° | 4248.7 | 4272.0 | 4254.5 | 4237.0 | 4221.5 | 4213.7 | 4205.9 | 4194.3 | 4188.5 | 4198.2 | 4238.9 |
| 10° | 4341.9 | 4365.2 | 4343.8 | 4312.7 | 4287.5 | 4277.8 | 4270.0 | 4258.4 | 4250.6 | 4256.4 | 4301.1 |
| 12.5° | 4435.1 | 4458.4 | 4429.2 | 4386.5 | 4353.5 | 4347.7 | 4338.0 | 4334.1 | 4332.2 | 4330.2 | 4374.9 |
| 15° | 4522.4 | 4541.9 | 4505.0 | 4454.5 | 4419.5 | 4409.8 | 4400.1 | 4405.9 | 4415.6 | 4427.3 | 4477.8 |
| 17.5° | 4590.4 | 4609.8 | 4555.5 | 4489.4 | 4456.4 | 4452.5 | 4446.7 | 4466.1 | 4493.3 | 4522.4 | 4584.6 |
| 20° | 4652.5 | 4672.0 | 4602.1 | 4512.7 | 4473.9 | 4473.9 | 4475.8 | 4516.6 | 4555.5 | 4598.2 | 4683.6 |
| 22.5° | 4739.9 | 4755.5 | 4670.0 | 4547.7 | 4491.4 | 4495.3 | 4510.8 | 4551.6 | 4600.1 | 4658.4 | 4776.8 |
| 25° | 4870.0 | 4881.7 | 4776.8 | 4613.7 | 4549.6 | 4561.3 | 4574.9 | 4594.3 | 4640.9 | 4708.9 | 4868.1 |
| 27.5° | 5079.7 | 5089.5 | 4951.6 | 4730.2 | 4633.1 | 4652.5 | 4672.0 | 4658.4 | 4679.7 | 4738.0 | 4941.9 |
| 30° | 5374.9 | 5380.7 | 5206.0 | 4912.7 | 4774.9 | 4784.6 | 4788.5 | 4732.2 | 4691.4 | 4738.0 | 4994.3 |
| 32.5° | 5724.4 | 5722.5 | 5514.7 | 5134.1 | 4936.1 | 4926.3 | 4893.3 | 4782.6 | 4687.5 | 4728.3 | 5040.9 |
| 35° | 6266.2 | 6244.8 | 5976.9 | 5444.8 | 5118.6 | 5058.4 | 4980.7 | 4839.0 | 4706.9 | 4718.6 | 5081.7 |
| 37.5° | 7163.3 | 7097.3 | 6726.4 | 5953.6 | 5390.4 | 5237.0 | 5122.5 | 4930.2 | 4749.6 | 4714.7 | 5130.2 |
| 40° | 8175.0 | 8091.5 | 7683.7 | 6650.7 | 5798.2 | 5551.6 | 5367.1 | 5060.3 | 4819.5 | 4732.2 | 5202.1 |
| 42.5° | 9375.0 | 9256.6 | 8817.7 | 7472.0 | 6314.7 | 5957.4 | 5679.8 | 5225.4 | 4922.5 | 4788.5 | 5299.2 |
| 45° | 10848.8 | 10691.5 | 10070.2 | 8398.3 | 6965.2 | 6489.5 | 6118.6 | 5475.9 | 5079.7 | 4897.2 | 5444.8 |
| 47.5° | 12338.2 | 12377.0 | 11493.5 | 9458.5 | 7745.8 | 7145.8 | 6668.1 | 5852.6 | 5308.9 | 5072.0 | 5679.8 |
| 50° | 13920.8 | 13947.9 | 12909.1 | 10633.3 | 8631.3 | 7887.6 | 7285.6 | 6273.9 | 5627.3 | 5320.5 | 6031.2 |
| 52.5° | 15155.7 | 15159.6 | 14194.5 | 11862.4 | 9553.6 | 8703.1 | 7951.7 | 6755.5 | 5996.3 | 5650.6 | 6499.2 |
| 55° | 15928.6 | 15918.9 | 15095.5 | 13025.6 | 10613.9 | 9559.5 | 8689.5 | 7303.1 | 6446.8 | 6039.0 | 7087.6 |
| 57.5° | 16489.7 | 16460.6 | 15716.9 | 14025.6 | 11744.0 | 10571.1 | 9524.5 | 7924.5 | 6978.8 | 6501.1 | 7862.3 |
| 60° | 16703.3 | 16685.9 | 16138.3 | 14889.7 | 12932.4 | 11689.6 | 10487.7 | 8619.6 | 7582.7 | 7046.8 | 8858.5 |
| 62.5° | 16784.9 | 16817.9 | 16551.9 | 15726.6 | 14204.3 | 12928.5 | 11545.9 | 9450.7 | 8262.4 | 7664.3 | 9909.0 |
| 65° | 17072.3 | 17132.5 | 17078.1 | 16821.8 | 15641.2 | 14379.0 | 12949.9 | 10439.1 | 9004.1 | 8326.4 | 11006.1 |
| 67.5° | 17641.2 | 17701.4 | 17724.7 | 18132.5 | 17396.6 | 16186.8 | 14701.4 | 11670.2 | 9872.1 | 9013.8 | 11831.4 |
| 70° | 17627.6 | 17610.2 | 18021.8 | 19175.3 | 19594.7 | 18689.8 | 17062.6 | 13184.8 | 10907.1 | 9584.7 | 11936.2 |
| 72.5° | 16045.1 | 15905.3 | 16878.1 | 19163.6 | 21423.9 | 21303.5 | 19946.1 | 15138.3 | 11800.3 | 9654.6 | 10357.6 |
| 75° | 12037.2 | 11664.4 | 13382.9 | 17270.4 | 21728.7 | 22787.0 | 21779.2 | 16349.9 | 11588.7 | 8530.3 | 7208.0 |
| 77.5° | 5147.7 | 4772.9 | 6798.2 | 12784.8 | 19447.1 | 21301.5 | 20097.6 | 14264.4 | 9250.7 | 5640.9 | 3539.9 |
| 80° | 1347.6 | 1345.7 | 2054.4 | 5796.3 | 13225.6 | 15730.5 | 13800.4 | 9211.9 | 5285.6 | 2015.6 | 976.7 |
| 82.5° | 557.3 | 543.7 | 755.4 | 2254.4 | 6462.3 | 8827.4 | 7204.1 | 4108.8 | 1908.8 | 545.6 | 324.3 |
| 85° | 207.8 | 205.8 | 367.0 | 778.7 | 2279.7 | 3640.9 | 2635.0 | 1050.5 | 475.7 | 266.0 | 145.6 |
| 87.5° | 58.3 | 56.3 | 79.6 | 269.9 | 555.4 | 842.7 | 450.5 | 172.8 | 134.0 | 104.9 | 42.7 |
| 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° | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 | 4186.5 |
| 2.5° | 4200.1 | 4209.8 | 4227.3 | 4240.9 | 4258.4 | 4277.8 | 4305.0 | 4322.4 | 4339.9 | 4351.6 | 4343.8 |
| 5° | 4217.6 | 4238.9 | 4283.6 | 4328.3 | 4380.7 | 4429.2 | 4485.6 | 4526.3 | 4559.3 | 4569.1 | 4572.9 |
| 7.5° | 4256.4 | 4291.4 | 4367.1 | 4442.8 | 4526.3 | 4605.9 | 4687.5 | 4757.4 | 4813.7 | 4835.1 | 4837.0 |
| 10° | 4324.4 | 4371.0 | 4477.8 | 4584.6 | 4695.3 | 4817.6 | 4922.5 | 5023.4 | 5103.0 | 5136.1 | 5138.0 |
| 12.5° | 4409.8 | 4468.1 | 4607.9 | 4755.5 | 4908.9 | 5077.8 | 5213.7 | 5338.0 | 5437.0 | 5481.7 | 5481.7 |
| 15° | 4520.5 | 4596.2 | 4774.9 | 4972.9 | 5198.2 | 5433.2 | 5606.0 | 5743.8 | 5854.5 | 5908.9 | 5905.0 |
| 17.5° | 4640.9 | 4741.9 | 4967.1 | 5266.2 | 5588.5 | 5897.2 | 6099.2 | 6200.2 | 6314.7 | 6367.2 | 6365.2 |
| 20° | 4757.4 | 4881.7 | 5204.0 | 5639.0 | 6068.1 | 6396.3 | 6559.4 | 6586.6 | 6594.3 | 6600.2 | 6615.7 |
| 22.5° | 4877.8 | 5044.8 | 5501.1 | 6108.9 | 6569.1 | 6796.3 | 6819.6 | 6703.1 | 6540.0 | 6464.2 | 6485.6 |
| 25° | 5009.8 | 5231.2 | 5889.5 | 6627.4 | 7000.2 | 7027.4 | 6848.7 | 6565.2 | 6256.5 | 6114.7 | 6136.1 |
| 27.5° | 5138.0 | 5446.7 | 6355.5 | 7122.5 | 7310.9 | 7072.0 | 6687.6 | 6285.6 | 5912.8 | 5763.3 | 5780.7 |
| 30° | 5266.2 | 5693.4 | 6870.1 | 7555.5 | 7452.6 | 6961.3 | 6433.2 | 5984.6 | 5609.9 | 5452.6 | 5470.0 |
| 32.5° | 5396.3 | 5980.7 | 7462.3 | 7868.2 | 7427.4 | 6726.4 | 6116.7 | 5646.7 | 5316.6 | 5151.6 | 5173.0 |
| 35° | 5543.8 | 6334.1 | 8023.5 | 8039.0 | 7258.4 | 6380.7 | 5699.2 | 5242.9 | 4955.5 | 4823.4 | 4852.6 |
| 37.5° | 5736.1 | 6782.7 | 8518.7 | 8081.8 | 6963.3 | 5873.9 | 5180.7 | 4765.2 | 4528.3 | 4468.1 | 4510.8 |
| 40° | 5974.9 | 7322.5 | 8897.3 | 8013.8 | 6526.4 | 5258.4 | 4613.7 | 4281.7 | 4147.7 | 4161.3 | 4207.9 |
| 42.5° | 6285.6 | 7926.4 | 9163.3 | 7839.0 | 5918.6 | 4623.4 | 4116.6 | 3969.0 | 4033.1 | 4087.5 | 4138.0 |
| 45° | 6689.5 | 8553.6 | 9328.4 | 7541.9 | 5231.2 | 4085.5 | 3823.4 | 3858.4 | 3906.9 | 3912.7 | 3951.6 |
| 47.5° | 7206.0 | 9188.6 | 9437.1 | 7093.4 | 4530.2 | 3706.9 | 3637.0 | 3644.8 | 3635.0 | 3594.3 | 3625.3 |
| 50° | 7850.7 | 9806.1 | 9534.2 | 6499.2 | 3934.1 | 3470.0 | 3376.8 | 3349.6 | 3215.6 | 3083.6 | 3101.1 |
| 52.5° | 8584.7 | 10373.1 | 9575.0 | 5761.3 | 3470.0 | 3271.9 | 3120.5 | 2949.6 | 2699.1 | 2658.3 | 2671.9 |
| 55° | 9400.2 | 10897.4 | 9470.1 | 4854.5 | 3079.7 | 3017.6 | 2788.4 | 2582.6 | 2555.4 | 2520.5 | 2526.3 |
| 57.5° | 10375.0 | 11462.4 | 9256.6 | 3842.8 | 2679.7 | 2720.5 | 2497.2 | 2520.5 | 2471.9 | 2417.5 | 2407.8 |
| 60° | 11441.1 | 12046.9 | 8881.8 | 2920.5 | 2266.1 | 2349.6 | 2421.4 | 2419.5 | 2405.9 | 2361.2 | 2345.7 |
| 62.5° | 12400.3 | 12431.4 | 8143.9 | 2237.0 | 1903.0 | 2062.2 | 2258.3 | 2256.4 | 2244.7 | 2219.5 | 2209.8 |
| 65° | 12971.2 | 12373.1 | 6912.8 | 1761.2 | 1603.9 | 1825.3 | 2036.9 | 2052.5 | 2054.4 | 2052.5 | 2052.5 |
| 67.5° | 12870.2 | 11691.6 | 5223.4 | 1402.0 | 1357.3 | 1584.5 | 1817.5 | 1838.9 | 1854.4 | 1858.3 | 1862.2 |
| 70° | 11728.5 | 10194.4 | 3405.9 | 1118.5 | 1137.9 | 1372.9 | 1609.8 | 1631.1 | 1644.7 | 1660.2 | 1668.0 |
| 72.5° | 9142.0 | 7495.3 | 1949.6 | 904.9 | 945.7 | 1190.3 | 1403.9 | 1429.2 | 1436.9 | 1466.1 | 1477.7 |
| 75° | 5571.0 | 4407.9 | 1052.5 | 712.6 | 776.7 | 1017.5 | 1200.0 | 1229.2 | 1242.8 | 1277.7 | 1281.6 |
| 77.5° | 2648.6 | 1908.8 | 600.0 | 555.4 | 625.3 | 831.1 | 1013.6 | 1046.6 | 1009.7 | 1029.2 | 1013.6 |
| 80° | 895.2 | 708.8 | 378.7 | 423.3 | 477.7 | 648.6 | 811.7 | 844.7 | 767.0 | 763.1 | 755.4 |
| 82.5° | 312.6 | 287.4 | 240.8 | 281.6 | 308.7 | 464.1 | 613.6 | 656.3 | 570.9 | 568.9 | 541.8 |
| 85° | 122.3 | 116.5 | 134.0 | 153.4 | 184.5 | 285.4 | 403.9 | 425.3 | 351.5 | 283.5 | 279.6 |
| 87.5° | 25.2 | 27.2 | 33.0 | 35.0 | 56.3 | 99.0 | 145.6 | 178.6 | 141.8 | 120.4 | 110.7 |
| 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)