

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: STREETWORKS

Report Number: P197103

Luminaire Tested: **NVN-AF-03-LED-U-SL3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197103
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-03-LED-U-SL3-8030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14761 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

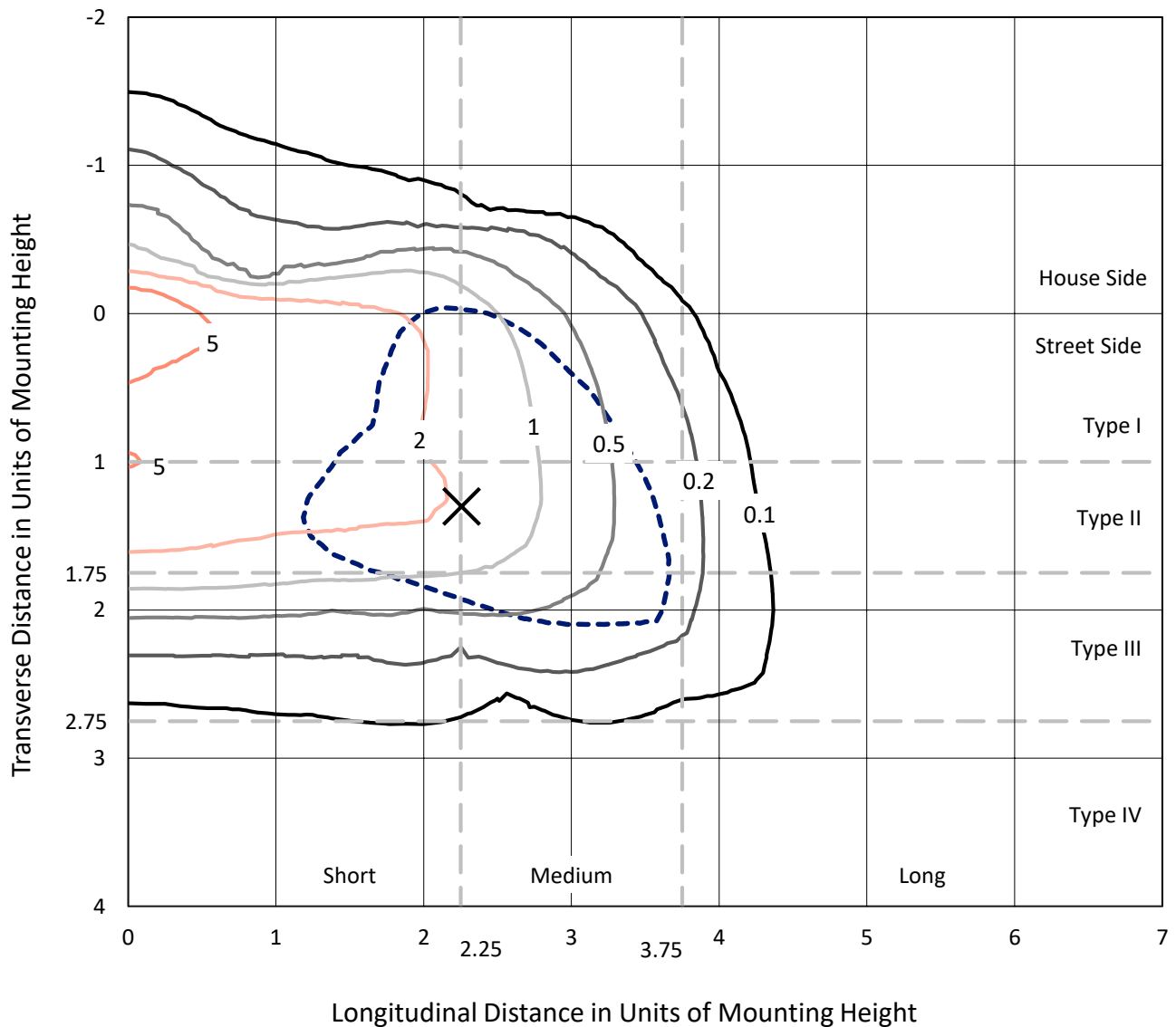
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P197103
 CATALOG NUMBER: NVN-AF-03-LED-U-SL3-8030

Iso-Footcandle Lines of Horizontal Illumination

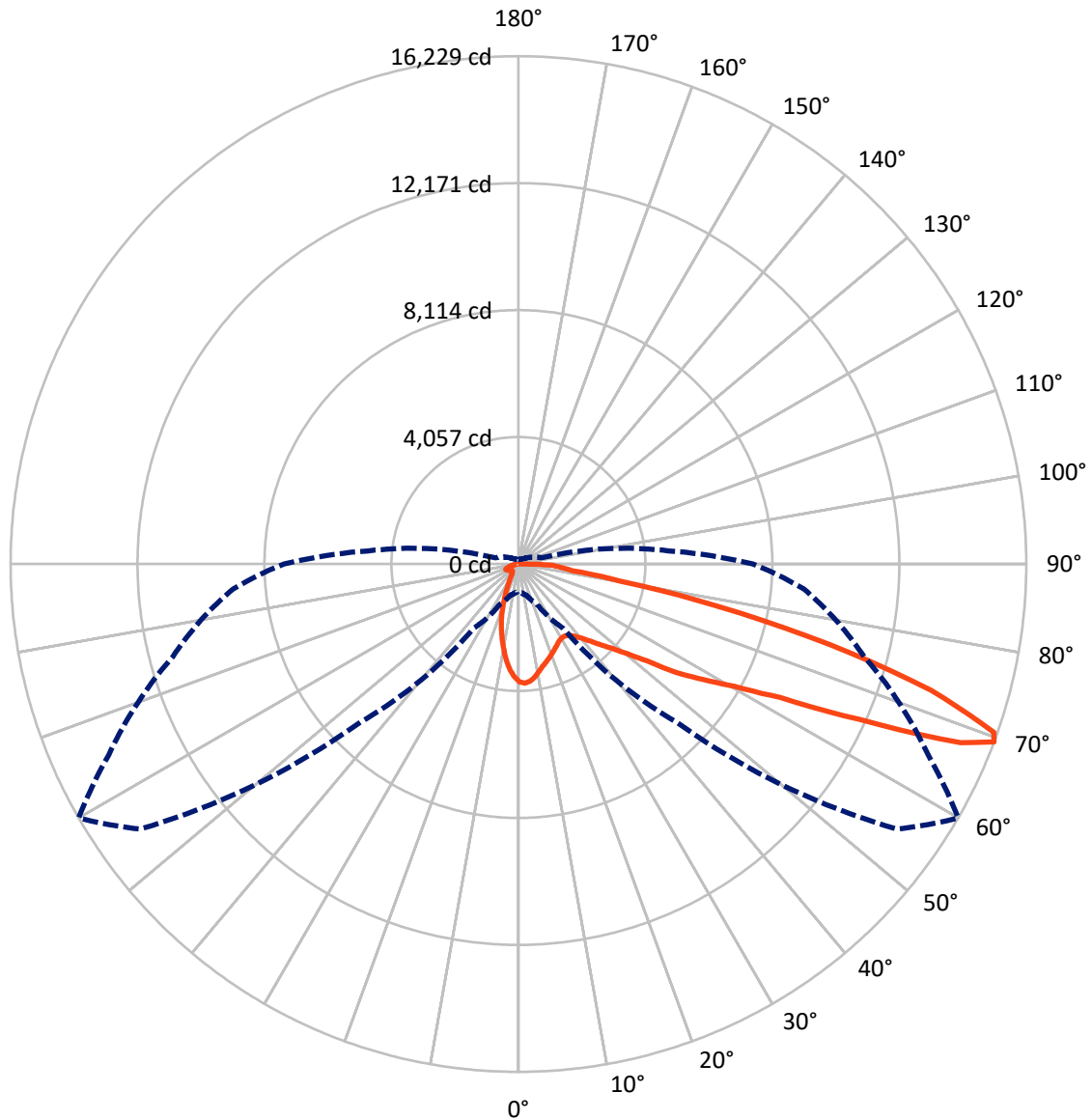
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9.4 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P197103
CATALOG NUMBER: NVN-AF-03-LED-U-SL3-8030

Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P197103

CATALOG NUMBER: NVN-AF-03-LED-U-SL3-8030

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2105.4 | 0.0 | 2105.4 |
| | % Fixture | 14.3 | 0.0 | 14.3 |
| Street Side | Lumens | 12655.6 | 0.0 | 12655.6 |
| | % Fixture | 85.7 | 0.0 | 85.7 |
| Total | Lumens | 14761.0 | 0.0 | 14761.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 319.5 | 2.2 |
| 10°-20° | 684.1 | 4.6 |
| 20°-30° | 872.7 | 5.9 |
| 30°-40° | 1200.9 | 8.1 |
| 40°-50° | 1945.3 | 13.2 |
| 50°-60° | 3053.0 | 20.7 |
| 60°-70° | 4070.3 | 27.6 |
| 70°-80° | 2264.0 | 15.3 |
| 80°-90° | 351.1 | 2.4 |
| 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° | 14761.0 | 100.0 |
| 0°-180° | 14761.0 | 100.0 |



REPORT NUMBER: P197103

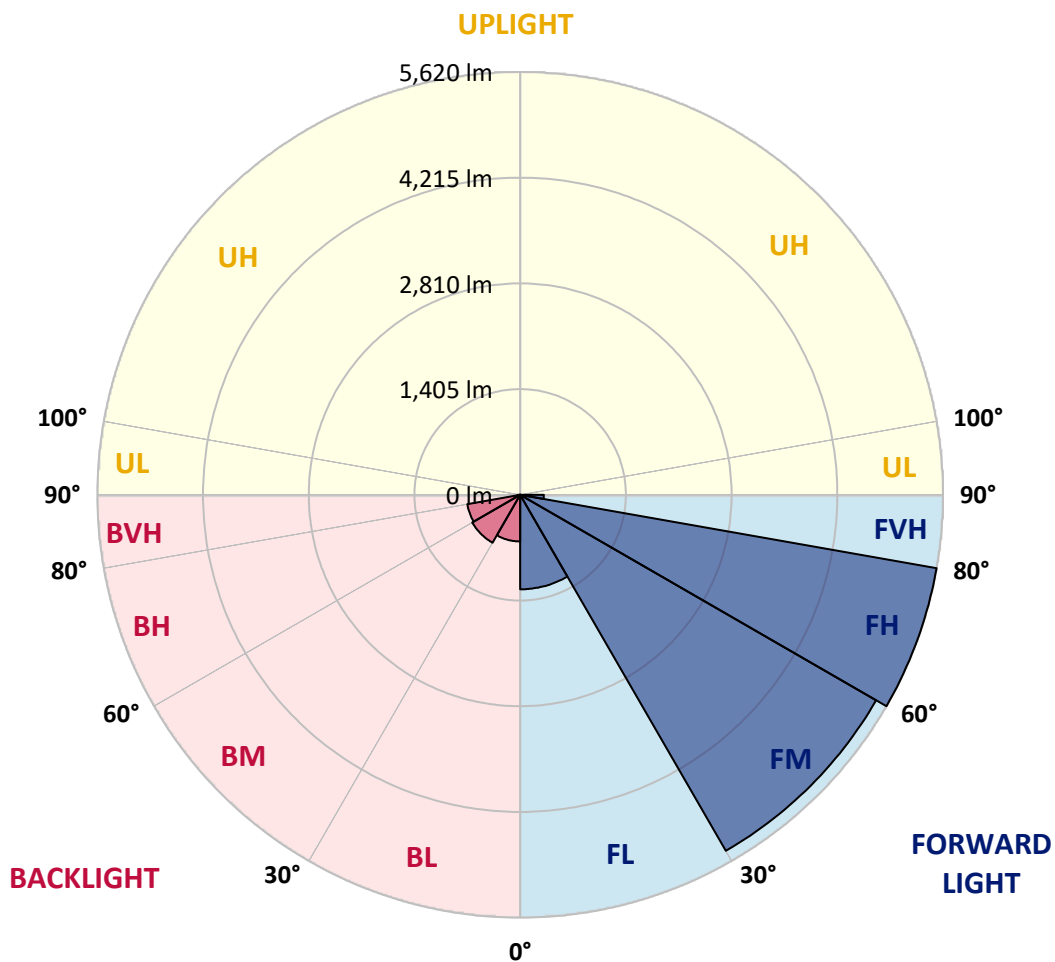
CATALOG NUMBER: NVN-AF-03-LED-U-SL3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1255.9 | 8.5 | | | |
| FM | (30°-60°) | 5463.8 | 37.0 | | | |
| FH | (60°-80°) | 5620.4 | 38.1 | | | G3/7500 |
| FVH | (80°-90°) | 315.6 | 2.1 | | | G3/500 |
| BL | (0°-30°) | 620.5 | 4.2 | B2/1000 | | |
| BM | (30°-60°) | 735.5 | 5.0 | B1/1000 | | |
| BH | (60°-80°) | 713.8 | 4.8 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 35.6 | 0.2 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type III Medium





REPORT NUMBER: P197103
 CATALOG NUMBER: NVN-AF-03-LED-U-SL3-8030

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 60° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| 0° | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 |
| 2.5° | 3866.7 | 3877.1 | 3877.1 | 3868.5 | 3863.8 | 3836.4 | 3820.3 | 3808.9 | 3789.0 | 3752.1 | 3719.0 |
| 5° | 3728.5 | 3748.3 | 3756.9 | 3760.6 | 3785.2 | 3776.7 | 3777.7 | 3770.1 | 3753.1 | 3713.3 | 3659.4 |
| 7.5° | 3474.8 | 3478.6 | 3493.7 | 3519.3 | 3578.9 | 3620.5 | 3654.6 | 3661.2 | 3657.5 | 3628.1 | 3552.4 |
| 10° | 3224.9 | 3231.5 | 3249.5 | 3293.0 | 3349.8 | 3409.5 | 3483.3 | 3513.6 | 3536.3 | 3526.8 | 3431.2 |
| 12.5° | 3017.6 | 3018.5 | 3038.4 | 3088.6 | 3152.0 | 3226.8 | 3327.1 | 3374.4 | 3428.4 | 3450.2 | 3343.2 |
| 15° | 2817.9 | 2831.1 | 2850.1 | 2910.6 | 2989.2 | 3083.9 | 3199.3 | 3264.6 | 3335.6 | 3398.1 | 3275.1 |
| 17.5° | 2666.4 | 2676.8 | 2688.2 | 2738.4 | 2829.2 | 2947.6 | 3090.5 | 3160.5 | 3254.2 | 3349.8 | 3205.0 |
| 20° | 2583.1 | 2586.9 | 2578.4 | 2603.0 | 2679.7 | 2807.5 | 2973.1 | 3057.4 | 3169.0 | 3303.5 | 3133.1 |
| 22.5° | 2566.1 | 2566.1 | 2534.9 | 2530.1 | 2564.2 | 2672.1 | 2852.0 | 2955.1 | 3091.4 | 3271.3 | 3068.7 |
| 25° | 2645.6 | 2639.9 | 2581.2 | 2527.3 | 2515.0 | 2569.9 | 2736.5 | 2863.3 | 3025.2 | 3270.3 | 3020.4 |
| 27.5° | 2796.1 | 2788.5 | 2715.6 | 2624.8 | 2546.2 | 2522.6 | 2647.5 | 2777.2 | 2973.1 | 3302.5 | 2995.8 |
| 30° | 2983.5 | 2980.7 | 2906.9 | 2793.3 | 2663.6 | 2541.5 | 2612.5 | 2732.7 | 2938.1 | 3362.1 | 2994.9 |
| 32.5° | 3188.9 | 3175.7 | 3130.2 | 3016.6 | 2848.2 | 2646.5 | 2633.3 | 2734.6 | 2928.6 | 3449.2 | 3016.6 |
| 35° | 3407.6 | 3398.1 | 3386.8 | 3272.2 | 3082.9 | 2832.1 | 2725.1 | 2799.9 | 2975.0 | 3570.4 | 3078.2 |
| 37.5° | 3685.9 | 3675.4 | 3694.4 | 3569.4 | 3362.1 | 3075.3 | 2880.3 | 2930.5 | 3069.7 | 3746.4 | 3192.7 |
| 40° | 4180.9 | 4150.6 | 4097.6 | 3905.5 | 3687.8 | 3373.5 | 3104.7 | 3112.3 | 3231.5 | 3982.1 | 3376.3 |
| 42.5° | 4994.0 | 4896.5 | 4634.3 | 4281.2 | 4031.3 | 3719.9 | 3397.2 | 3361.2 | 3454.9 | 4293.5 | 3643.3 |
| 45° | 5809.0 | 5699.2 | 5256.2 | 4691.1 | 4387.3 | 4091.9 | 3758.7 | 3672.6 | 3733.2 | 4656.1 | 3986.9 |
| 47.5° | 6335.2 | 6281.3 | 5781.5 | 5100.9 | 4760.2 | 4497.1 | 4172.4 | 4030.4 | 4073.9 | 5066.9 | 4410.9 |
| 50° | 6489.5 | 6443.2 | 6050.3 | 5421.8 | 5112.3 | 4986.4 | 4684.5 | 4496.1 | 4503.7 | 5546.8 | 4919.2 |
| 52.5° | 6374.1 | 6355.1 | 6094.8 | 5620.6 | 5436.0 | 5502.3 | 5393.4 | 5131.2 | 5068.8 | 6073.1 | 5470.1 |
| 55° | 6219.8 | 6226.4 | 6126.1 | 5820.3 | 5765.4 | 5983.1 | 6321.0 | 6110.0 | 5844.9 | 6621.1 | 6043.7 |
| 57.5° | 5734.2 | 5738.9 | 6002.1 | 6200.8 | 6393.9 | 6657.1 | 7043.3 | 6954.3 | 6645.7 | 7212.7 | 6686.4 |
| 60° | 4617.3 | 4654.2 | 5240.1 | 6122.3 | 7112.4 | 7985.1 | 8079.7 | 7926.4 | 7497.6 | 7894.2 | 7522.2 |
| 62.5° | 3298.7 | 3331.9 | 4010.5 | 5314.9 | 7028.1 | 9488.2 | 9993.7 | 9384.1 | 8653.3 | 8913.6 | 8697.8 |
| 65° | 1733.1 | 1727.5 | 2252.8 | 3672.6 | 5919.7 | 9836.5 | 13009.4 | 11971.9 | 10600.4 | 10315.5 | 9833.7 |
| 67.5° | 968.3 | 999.6 | 1203.1 | 1852.4 | 3858.1 | 8657.1 | 14935.6 | 15241.3 | 13307.5 | 11427.7 | 9784.5 |
| 69° | 895.4 | 905.8 | 1042.1 | 1432.1 | 2515.0 | 7142.7 | 14769.9 | 16228.6 | 14449.1 | 11432.4 | 9154.1 |
| 70° | 869.9 | 881.2 | 1005.2 | 1319.5 | 2112.7 | 5852.5 | 14167.0 | 16113.1 | 14726.4 | 11178.7 | 8580.5 |
| 72.5° | 780.0 | 795.1 | 915.3 | 1186.0 | 1780.5 | 3016.6 | 11411.6 | 13791.2 | 13339.7 | 9770.3 | 6653.3 |
| 75° | 665.4 | 691.0 | 872.7 | 1177.5 | 1686.7 | 1917.7 | 7610.2 | 10274.8 | 9928.3 | 6987.4 | 3774.8 |
| 77.5° | 275.4 | 278.3 | 381.5 | 862.3 | 1770.0 | 1835.4 | 4090.0 | 6508.5 | 5761.6 | 3064.0 | 1136.8 |
| 80° | 192.1 | 188.4 | 190.3 | 251.8 | 1428.3 | 1847.7 | 2098.5 | 3310.1 | 2572.7 | 808.4 | 532.0 |
| 82.5° | 161.9 | 160.0 | 167.5 | 158.1 | 483.7 | 2096.6 | 1754.9 | 1725.6 | 1211.6 | 435.4 | 253.7 |
| 85° | 107.0 | 104.1 | 137.2 | 143.9 | 230.0 | 1665.0 | 1887.4 | 1356.4 | 903.0 | 232.9 | 107.9 |
| 87.5° | 52.1 | 53.0 | 78.6 | 97.5 | 122.1 | 527.2 | 1807.9 | 1072.4 | 697.6 | 101.3 | 43.5 |
| 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: P197103

CATALOG NUMBER: NVN-AF-03-LED-U-SL3-8030

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 | 3766.3 |
| 2.5° | 3705.7 | 3677.3 | 3651.8 | 3619.6 | 3595.0 | 3574.2 | 3545.8 | 3544.8 | 3540.1 | 3546.7 | 3548.6 |
| 5° | 3623.4 | 3576.1 | 3504.1 | 3423.7 | 3366.9 | 3292.1 | 3219.2 | 3194.6 | 3167.2 | 3164.3 | 3172.8 |
| 7.5° | 3499.4 | 3425.6 | 3302.5 | 3179.5 | 3056.4 | 2930.5 | 2811.2 | 2750.7 | 2692.0 | 2674.0 | 2682.5 |
| 10° | 3361.2 | 3267.5 | 3079.1 | 2878.5 | 2705.2 | 2517.8 | 2336.1 | 2218.7 | 2111.7 | 2066.3 | 2077.7 |
| 12.5° | 3253.3 | 3134.0 | 2869.0 | 2608.7 | 2349.3 | 2080.5 | 1841.0 | 1609.1 | 1434.0 | 1355.5 | 1360.2 |
| 15° | 3160.5 | 3008.1 | 2672.1 | 2325.7 | 2001.0 | 1632.8 | 1300.6 | 1031.7 | 878.4 | 821.6 | 819.7 |
| 17.5° | 3060.2 | 2875.6 | 2466.7 | 2062.5 | 1641.3 | 1186.0 | 870.8 | 711.8 | 651.2 | 632.3 | 632.3 |
| 20° | 2953.2 | 2739.3 | 2251.8 | 1775.7 | 1262.7 | 828.2 | 655.0 | 593.5 | 570.8 | 565.1 | 564.1 |
| 22.5° | 2853.8 | 2605.8 | 2036.0 | 1470.0 | 913.4 | 628.5 | 557.5 | 533.9 | 530.1 | 534.8 | 534.8 |
| 25° | 2775.3 | 2488.5 | 1817.4 | 1148.2 | 664.5 | 526.3 | 496.0 | 493.2 | 507.3 | 524.4 | 527.2 |
| 27.5° | 2716.6 | 2383.4 | 1601.6 | 838.6 | 522.5 | 458.1 | 447.7 | 460.0 | 493.2 | 527.2 | 533.9 |
| 30° | 2675.9 | 2293.5 | 1343.2 | 603.0 | 435.4 | 401.3 | 406.1 | 427.8 | 478.0 | 530.1 | 544.3 |
| 32.5° | 2657.9 | 2220.6 | 1082.9 | 462.9 | 372.0 | 353.1 | 365.4 | 393.8 | 445.8 | 497.9 | 514.9 |
| 35° | 2674.9 | 2167.6 | 842.4 | 384.3 | 325.6 | 311.4 | 325.6 | 355.0 | 389.0 | 414.6 | 425.0 |
| 37.5° | 2736.5 | 2148.7 | 634.2 | 340.8 | 295.3 | 281.1 | 292.5 | 312.4 | 327.5 | 337.0 | 341.7 |
| 40° | 2866.1 | 2168.5 | 496.9 | 318.0 | 278.3 | 262.2 | 265.0 | 274.5 | 284.9 | 292.5 | 293.4 |
| 42.5° | 3072.5 | 2233.9 | 442.0 | 309.5 | 267.9 | 247.0 | 242.3 | 248.9 | 260.3 | 270.7 | 272.6 |
| 45° | 3347.0 | 2342.7 | 436.4 | 312.4 | 263.1 | 234.7 | 225.3 | 231.9 | 247.0 | 264.1 | 266.9 |
| 47.5° | 3702.0 | 2515.0 | 462.9 | 327.5 | 266.0 | 228.1 | 213.9 | 220.5 | 240.4 | 263.1 | 266.9 |
| 50° | 4122.2 | 2753.5 | 512.1 | 350.2 | 279.2 | 228.1 | 209.2 | 214.9 | 235.7 | 261.2 | 265.0 |
| 52.5° | 4617.3 | 3085.7 | 563.2 | 372.9 | 298.2 | 236.6 | 211.1 | 210.1 | 229.1 | 252.7 | 257.5 |
| 55° | 5163.4 | 3498.4 | 612.4 | 392.8 | 308.6 | 248.0 | 215.8 | 204.5 | 219.6 | 238.5 | 242.3 |
| 57.5° | 5806.1 | 4063.5 | 698.6 | 411.7 | 314.3 | 256.5 | 221.5 | 198.8 | 207.3 | 220.5 | 223.4 |
| 60° | 6677.9 | 4893.7 | 866.1 | 443.9 | 324.7 | 260.3 | 222.4 | 193.1 | 192.1 | 201.6 | 202.6 |
| 62.5° | 7814.7 | 5865.8 | 1026.1 | 481.8 | 345.5 | 261.2 | 218.7 | 189.3 | 179.8 | 182.7 | 182.7 |
| 65° | 8623.1 | 6223.6 | 979.7 | 514.0 | 364.4 | 260.3 | 214.9 | 186.5 | 170.4 | 165.6 | 165.6 |
| 67.5° | 8163.0 | 5497.6 | 832.0 | 522.5 | 366.3 | 249.9 | 206.3 | 179.8 | 161.9 | 150.5 | 150.5 |
| 69° | 7487.2 | 4818.9 | 763.9 | 507.3 | 351.2 | 237.6 | 196.9 | 173.2 | 156.2 | 142.9 | 142.9 |
| 70° | 6936.3 | 4304.9 | 722.2 | 489.4 | 333.2 | 227.2 | 188.4 | 166.6 | 150.5 | 139.1 | 138.2 |
| 72.5° | 5178.6 | 2872.8 | 617.1 | 422.2 | 273.6 | 192.1 | 164.7 | 148.6 | 135.4 | 127.8 | 127.8 |
| 75° | 2732.7 | 1439.7 | 505.5 | 344.5 | 211.1 | 153.3 | 135.4 | 124.9 | 117.4 | 116.4 | 115.5 |
| 77.5° | 895.4 | 651.2 | 363.5 | 259.4 | 155.2 | 119.3 | 107.9 | 101.3 | 100.3 | 104.1 | 104.1 |
| 80° | 483.7 | 389.0 | 233.8 | 175.1 | 107.9 | 89.0 | 83.3 | 82.3 | 85.2 | 90.9 | 90.9 |
| 82.5° | 234.7 | 192.1 | 139.1 | 107.9 | 73.8 | 65.3 | 65.3 | 66.3 | 70.0 | 76.7 | 76.7 |
| 85° | 101.3 | 90.9 | 80.5 | 60.6 | 45.4 | 40.7 | 46.4 | 51.1 | 54.0 | 58.7 | 60.6 |
| 87.5° | 48.3 | 42.6 | 36.9 | 23.7 | 19.9 | 20.8 | 24.6 | 30.3 | 36.0 | 39.8 | 40.7 |
| 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)