

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: P270910

Luminaire Tested: **NVN-AF-03-LED-U-SL2-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270910
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)
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-SL2-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16925.6 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 191
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

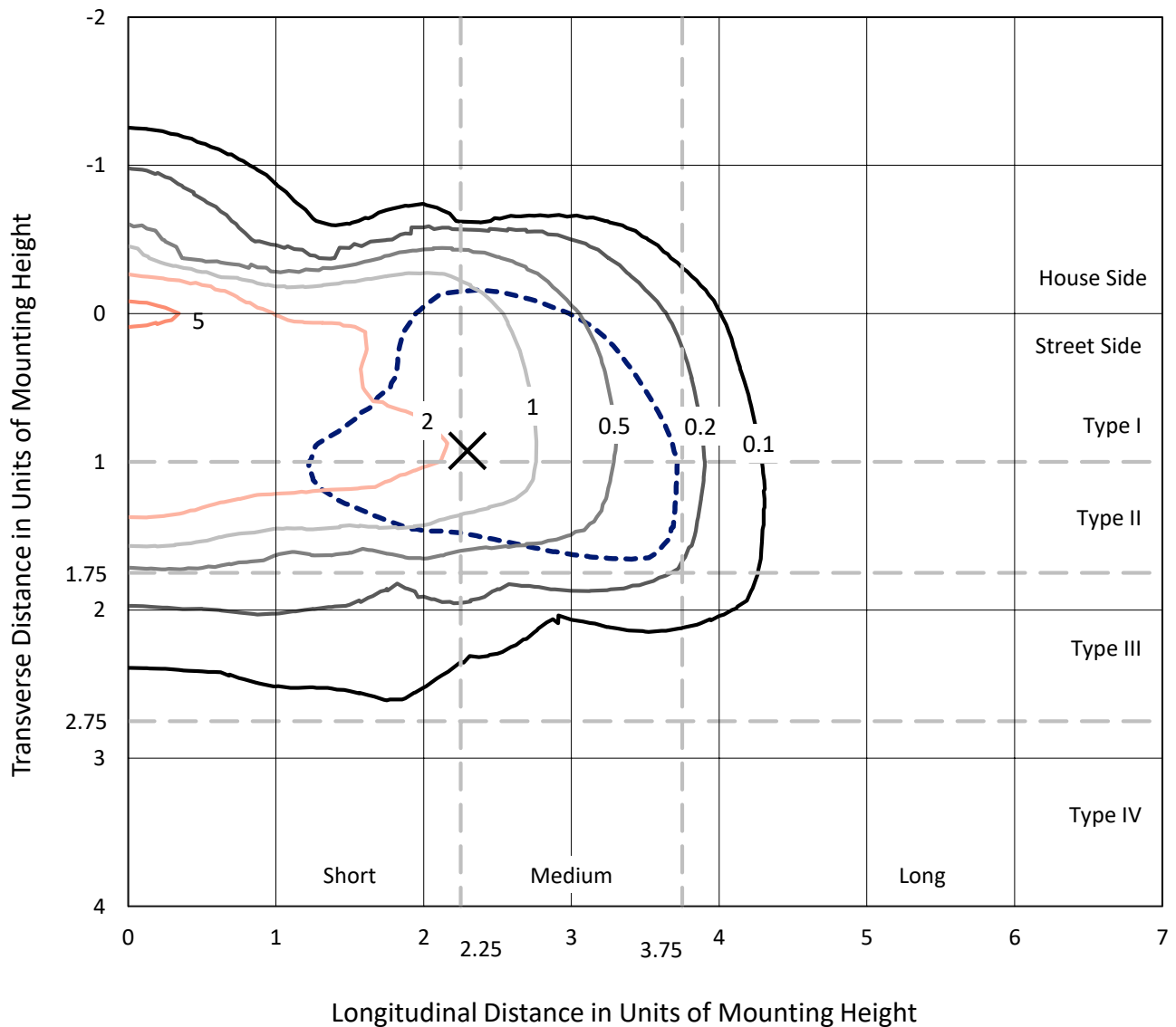


REPORT NUMBER: P270910

CATALOG NUMBER: NVN-AF-03-LED-U-SL2-7027-1200

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

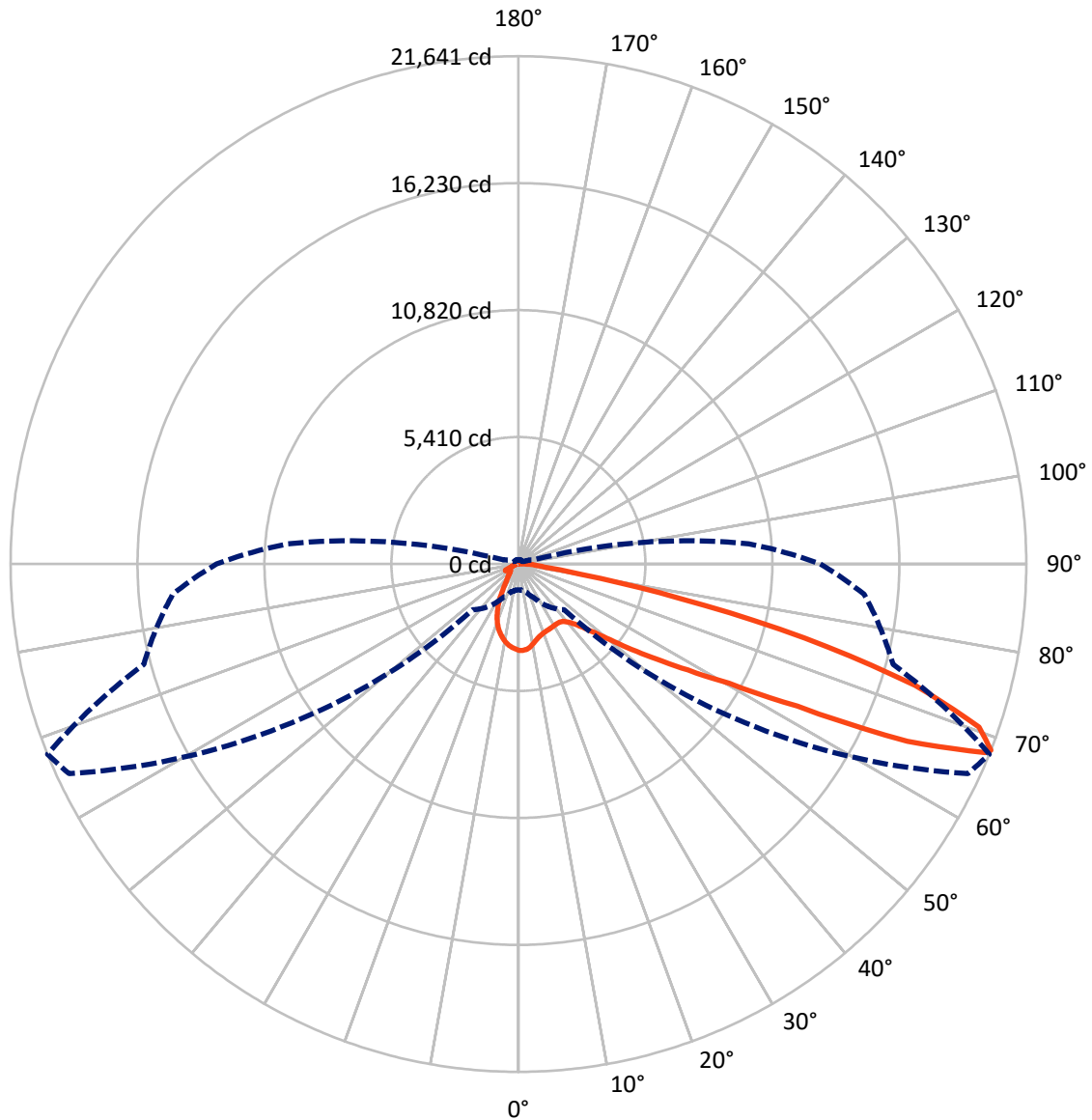


Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P270910

CATALOG NUMBER: NVN-AF-03-LED-U-SL2-7027-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical



REPORT NUMBER: P270910

CATALOG NUMBER: NVN-AF-03-LED-U-SL2-7027-1200

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2769.1 | 0.0 | 2769.1 |
| | % Fixture | 16.4 | 0.0 | 16.4 |
| Street Side | Lumens | 14156.6 | 0.0 | 14156.6 |
| | % Fixture | 83.6 | 0.0 | 83.6 |
| Total | Lumens | 16925.6 | 0.0 | 16925.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 315.6 | 1.9 |
| 10°-20° | 731.9 | 4.3 |
| 20°-30° | 989.9 | 5.8 |
| 30°-40° | 1395.7 | 8.2 |
| 40°-50° | 2295.0 | 13.6 |
| 50°-60° | 3557.5 | 21.0 |
| 60°-70° | 4612.5 | 27.3 |
| 70°-80° | 2646.9 | 15.6 |
| 80°-90° | 380.8 | 2.2 |
| 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° | 16925.6 | 100.0 |
| 0°-180° | 16925.6 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P270910

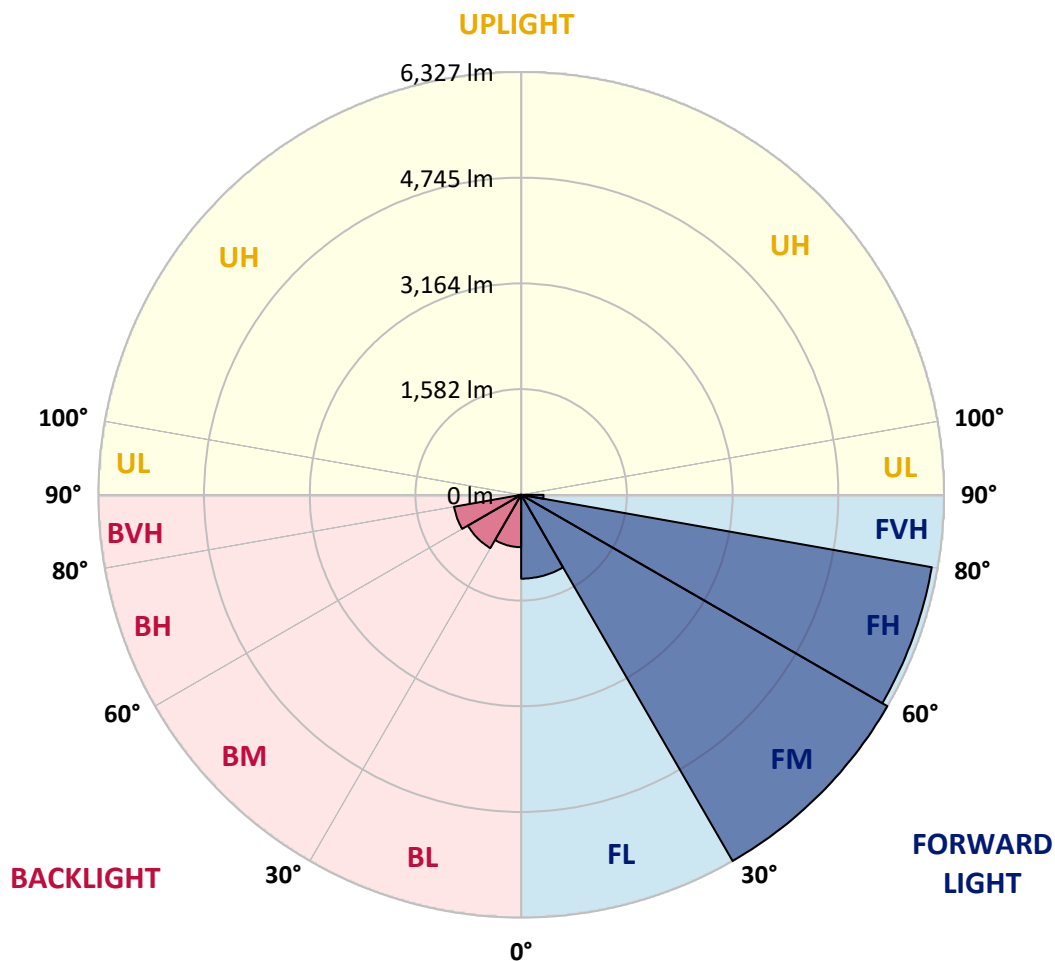
CATALOG NUMBER: NVN-AF-03-LED-U-SL2-7027-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1254.5 | 7.4 | | | |
| FM (30°-60°) | 6327.1 | 37.4 | | | |
| FH (60°-80°) | 6239.6 | 36.9 | | | G3/7500 |
| FVH (80°-90°) | 335.4 | 2.0 | | | G3/500 |
| BL (0°-30°) | 782.8 | 4.6 | B2/1000 | | |
| BM (30°-60°) | 921.0 | 5.4 | B1/1000 | | |
| BH (60°-80°) | 1019.8 | 6.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 45.4 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Medium





REPORT NUMBER: P270910

CATALOG NUMBER: NVN-AF-03-LED-U-SL2-7027-1200

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 68° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0° | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 |
| 2.5° | 3584.4 | 3613.3 | 3613.3 | 3634.3 | 3653.0 | 3668.5 | 3681.8 | 3681.8 | 3681.8 | 3672.9 | 3665.2 |
| 5° | 3207.5 | 3246.1 | 3251.7 | 3304.8 | 3374.5 | 3459.6 | 3554.7 | 3638.7 | 3655.3 | 3686.1 | 3698.3 |
| 7.5° | 2945.5 | 2957.6 | 2978.6 | 3015.2 | 3085.9 | 3190.9 | 3340.1 | 3528.1 | 3573.4 | 3670.7 | 3721.6 |
| 10° | 2759.7 | 2769.7 | 2787.4 | 2823.8 | 2888.0 | 2983.0 | 3130.1 | 3374.5 | 3449.6 | 3622.1 | 3722.7 |
| 12.5° | 2623.7 | 2631.4 | 2648.1 | 2681.3 | 2746.4 | 2831.5 | 2982.0 | 3236.2 | 3329.1 | 3573.4 | 3738.1 |
| 15° | 2517.5 | 2530.7 | 2544.1 | 2576.1 | 2642.5 | 2724.3 | 2876.8 | 3135.5 | 3236.2 | 3534.7 | 3767.0 |
| 17.5° | 2475.5 | 2482.1 | 2484.4 | 2500.9 | 2560.7 | 2643.6 | 2796.2 | 3064.7 | 3168.7 | 3503.7 | 3789.1 |
| 20° | 2502.0 | 2503.1 | 2481.1 | 2470.0 | 2504.3 | 2580.6 | 2728.7 | 3011.7 | 3117.8 | 3476.1 | 3797.9 |
| 22.5° | 2618.1 | 2618.1 | 2560.7 | 2512.0 | 2488.8 | 2536.4 | 2683.3 | 2975.2 | 3090.3 | 3455.2 | 3797.9 |
| 25° | 2839.3 | 2829.3 | 2739.8 | 2643.6 | 2540.8 | 2520.9 | 2654.6 | 2952.0 | 3069.2 | 3444.0 | 3783.5 |
| 27.5° | 3130.1 | 3121.3 | 3007.3 | 2864.8 | 2678.9 | 2554.1 | 2644.7 | 2933.2 | 3048.2 | 3427.5 | 3752.5 |
| 30° | 3483.8 | 3476.1 | 3346.7 | 3159.9 | 2885.7 | 2659.1 | 2667.8 | 2920.0 | 3031.7 | 3399.8 | 3700.6 |
| 32.5° | 3836.5 | 3832.1 | 3729.4 | 3538.1 | 3170.9 | 2837.0 | 2728.7 | 2917.8 | 3022.7 | 3366.7 | 3637.5 |
| 35° | 4191.4 | 4191.4 | 4128.4 | 3967.1 | 3554.7 | 3104.6 | 2855.8 | 2958.7 | 3039.3 | 3349.1 | 3583.3 |
| 37.5° | 4715.6 | 4694.5 | 4577.4 | 4410.4 | 4037.8 | 3451.7 | 3061.6 | 3045.0 | 3103.6 | 3378.9 | 3565.6 |
| 40° | 5527.1 | 5466.2 | 5173.2 | 4892.3 | 4565.1 | 3896.3 | 3362.3 | 3211.9 | 3247.3 | 3480.6 | 3607.8 |
| 42.5° | 6376.2 | 6280.1 | 5892.0 | 5443.0 | 5110.3 | 4444.6 | 3756.9 | 3482.8 | 3481.7 | 3677.3 | 3741.5 |
| 45° | 7104.9 | 7055.1 | 6634.9 | 6065.5 | 5732.8 | 5061.6 | 4255.6 | 3885.2 | 3845.5 | 3982.5 | 3999.1 |
| 47.5° | 7528.2 | 7495.1 | 7241.9 | 6724.4 | 6471.3 | 5790.2 | 4887.9 | 4443.6 | 4368.4 | 4450.2 | 4424.7 |
| 50° | 7411.0 | 7443.1 | 7370.1 | 7106.0 | 7265.1 | 6814.1 | 5694.0 | 5208.6 | 5066.0 | 5147.8 | 5085.9 |
| 52.5° | 6794.2 | 6880.4 | 6945.5 | 6996.4 | 7721.7 | 8183.9 | 6706.7 | 6163.9 | 6045.7 | 6031.2 | 5971.6 |
| 55° | 5682.9 | 5820.1 | 6025.7 | 6399.4 | 7599.0 | 9284.1 | 8475.8 | 7319.3 | 7146.8 | 7056.1 | 7079.5 |
| 57.5° | 3867.6 | 4075.4 | 4518.7 | 5229.7 | 6961.1 | 9752.8 | 11091.7 | 8812.0 | 8520.1 | 8197.2 | 8272.3 |
| 60° | 2130.6 | 2304.2 | 2831.5 | 3547.9 | 5505.0 | 9683.2 | 13410.3 | 11237.6 | 10318.9 | 9463.1 | 9618.0 |
| 62.5° | 1378.7 | 1416.3 | 1808.7 | 2423.5 | 3378.9 | 8548.8 | 14698.2 | 15292.0 | 13345.0 | 11132.6 | 11350.4 |
| 65° | 1107.8 | 1134.4 | 1326.7 | 1954.7 | 2353.9 | 5499.5 | 14755.7 | 19497.9 | 18214.3 | 13401.5 | 13408.0 |
| 67.5° | 1082.4 | 1094.6 | 1206.2 | 1644.1 | 2207.9 | 2994.1 | 12754.7 | 21156.3 | 21453.7 | 16079.2 | 14784.6 |
| 68° | 1097.9 | 1112.3 | 1225.1 | 1593.2 | 2206.9 | 2759.7 | 11788.3 | 21130.9 | 21640.6 | 16527.0 | 14784.6 |
| 70° | 968.6 | 986.2 | 1249.4 | 1648.5 | 2112.9 | 2372.8 | 8072.2 | 20008.7 | 20829.1 | 17556.4 | 14028.3 |
| 72.5° | 506.4 | 492.0 | 618.0 | 1301.4 | 2378.3 | 2472.1 | 4264.4 | 16716.1 | 17673.6 | 16259.5 | 12119.9 |
| 75° | 394.7 | 359.3 | 346.0 | 514.1 | 2091.9 | 2563.9 | 2476.6 | 11881.2 | 12604.3 | 11720.8 | 8100.9 |
| 77.5° | 371.4 | 328.4 | 303.0 | 304.0 | 921.0 | 2667.8 | 2003.4 | 6992.0 | 6992.0 | 5591.2 | 2585.0 |
| 80° | 298.5 | 258.7 | 242.2 | 276.4 | 444.5 | 2458.9 | 2090.7 | 3186.5 | 2717.6 | 1445.1 | 712.0 |
| 82.5° | 196.8 | 175.8 | 176.8 | 224.4 | 337.3 | 1641.8 | 2421.3 | 1573.3 | 1181.9 | 640.1 | 419.0 |
| 85° | 125.0 | 107.3 | 119.5 | 157.1 | 252.1 | 731.8 | 2396.9 | 1093.4 | 782.9 | 359.3 | 208.9 |
| 87.5° | 63.1 | 48.7 | 59.6 | 81.8 | 153.7 | 210.1 | 1973.5 | 976.3 | 580.5 | 149.3 | 113.8 |
| 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: P270910

CATALOG NUMBER: NVN-AF-03-LED-U-SL2-7027-1200

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 | 3683.0 |
| 2.5° | 3665.2 | 3640.9 | 3628.8 | 3608.9 | 3584.4 | 3560.2 | 3543.5 | 3535.8 | 3531.3 | 3533.7 | 3532.6 |
| 5° | 3691.8 | 3659.7 | 3607.8 | 3533.7 | 3457.3 | 3376.5 | 3314.7 | 3267.1 | 3237.3 | 3228.5 | 3226.3 |
| 7.5° | 3711.5 | 3665.2 | 3567.9 | 3433.1 | 3302.4 | 3161.0 | 3040.6 | 2944.4 | 2879.1 | 2849.2 | 2848.2 |
| 10° | 3708.4 | 3648.6 | 3494.9 | 3295.9 | 3104.6 | 2896.8 | 2707.8 | 2546.2 | 2429.0 | 2372.8 | 2370.4 |
| 12.5° | 3711.5 | 3629.8 | 3405.4 | 3135.5 | 2861.5 | 2563.9 | 2283.1 | 2032.1 | 1857.4 | 1774.5 | 1771.2 |
| 15° | 3724.9 | 3609.8 | 3313.6 | 2956.5 | 2577.2 | 2157.1 | 1755.7 | 1440.6 | 1281.4 | 1227.3 | 1227.3 |
| 17.5° | 3723.7 | 3576.7 | 3207.5 | 2748.6 | 2240.1 | 1677.2 | 1198.5 | 1003.9 | 988.5 | 1038.3 | 1045.9 |
| 20° | 3701.6 | 3523.6 | 3070.3 | 2502.0 | 1844.2 | 1160.9 | 812.6 | 784.9 | 908.8 | 1045.9 | 1061.3 |
| 22.5° | 3667.4 | 3455.2 | 2912.2 | 2215.7 | 1383.1 | 756.3 | 626.8 | 668.9 | 837.0 | 1007.2 | 1031.6 |
| 25° | 3619.8 | 3372.1 | 2730.8 | 1882.8 | 919.9 | 544.0 | 523.0 | 574.9 | 693.2 | 807.0 | 824.9 |
| 27.5° | 3550.2 | 3267.1 | 2533.0 | 1522.4 | 587.1 | 447.7 | 455.5 | 492.0 | 542.8 | 591.5 | 601.4 |
| 30° | 3462.8 | 3144.4 | 2317.4 | 1123.3 | 445.6 | 400.3 | 413.5 | 435.6 | 457.7 | 488.7 | 495.3 |
| 32.5° | 3374.5 | 3019.6 | 2093.1 | 771.7 | 389.1 | 374.9 | 388.1 | 400.3 | 419.0 | 440.0 | 444.5 |
| 35° | 3294.9 | 2903.4 | 1861.8 | 538.4 | 364.8 | 358.2 | 364.8 | 372.5 | 391.4 | 412.4 | 414.6 |
| 37.5° | 3237.3 | 2808.3 | 1620.8 | 425.6 | 350.5 | 343.8 | 347.1 | 350.5 | 372.5 | 403.6 | 406.9 |
| 40° | 3229.5 | 2745.3 | 1376.6 | 382.6 | 339.4 | 330.5 | 328.4 | 330.5 | 359.3 | 394.7 | 397.9 |
| 42.5° | 3304.8 | 2748.6 | 1137.8 | 364.8 | 330.5 | 320.6 | 311.8 | 316.3 | 341.6 | 369.3 | 371.4 |
| 45° | 3482.8 | 2826.0 | 931.0 | 357.2 | 322.9 | 315.1 | 301.8 | 304.0 | 316.3 | 330.5 | 332.8 |
| 47.5° | 3796.7 | 2995.2 | 772.8 | 352.8 | 316.3 | 309.6 | 292.9 | 286.4 | 287.5 | 295.3 | 295.3 |
| 50° | 4298.7 | 3278.3 | 676.7 | 348.3 | 310.6 | 298.5 | 279.7 | 266.4 | 263.2 | 267.5 | 268.7 |
| 52.5° | 5047.2 | 3763.5 | 630.3 | 339.4 | 300.8 | 284.1 | 263.2 | 249.9 | 244.3 | 248.8 | 248.8 |
| 55° | 6058.9 | 4538.6 | 608.2 | 327.3 | 288.5 | 266.4 | 247.7 | 236.7 | 232.2 | 235.4 | 235.4 |
| 57.5° | 7212.0 | 5545.9 | 645.7 | 310.6 | 273.1 | 247.7 | 234.4 | 226.6 | 223.4 | 226.6 | 227.8 |
| 60° | 8582.0 | 6863.8 | 904.5 | 289.7 | 256.5 | 231.0 | 223.4 | 218.8 | 216.8 | 220.1 | 220.1 |
| 62.5° | 10402.9 | 8617.4 | 1399.6 | 273.1 | 238.8 | 215.7 | 213.3 | 211.2 | 208.9 | 212.3 | 212.3 |
| 65° | 12368.8 | 10212.7 | 1440.6 | 263.2 | 223.4 | 202.3 | 203.5 | 203.5 | 201.2 | 204.5 | 204.5 |
| 67.5° | 12994.5 | 10074.5 | 804.9 | 250.9 | 204.5 | 189.1 | 193.4 | 193.4 | 192.3 | 195.7 | 194.7 |
| 68° | 12861.8 | 9855.7 | 700.9 | 247.7 | 201.2 | 185.8 | 190.3 | 191.2 | 190.3 | 193.4 | 192.3 |
| 70° | 11873.3 | 8652.7 | 461.0 | 228.9 | 186.8 | 174.7 | 181.3 | 182.4 | 181.3 | 185.8 | 184.6 |
| 72.5° | 9801.4 | 6490.1 | 340.5 | 200.1 | 169.2 | 160.3 | 166.9 | 168.1 | 169.2 | 173.6 | 172.5 |
| 75° | 6224.7 | 3584.4 | 268.7 | 170.3 | 151.5 | 143.6 | 150.3 | 153.7 | 155.9 | 162.6 | 159.2 |
| 77.5° | 1705.0 | 1087.9 | 217.7 | 144.8 | 130.4 | 127.1 | 131.6 | 136.1 | 138.2 | 146.0 | 140.4 |
| 80° | 597.1 | 481.0 | 181.3 | 122.7 | 108.3 | 107.3 | 111.7 | 116.2 | 118.2 | 125.0 | 118.2 |
| 82.5° | 362.6 | 314.0 | 144.8 | 96.2 | 85.1 | 84.0 | 89.6 | 94.1 | 96.2 | 96.2 | 91.7 |
| 85° | 189.1 | 165.8 | 106.1 | 67.5 | 58.6 | 55.2 | 65.2 | 70.7 | 71.9 | 70.7 | 67.5 |
| 87.5° | 106.1 | 94.1 | 56.5 | 32.1 | 26.5 | 27.7 | 34.2 | 42.0 | 45.4 | 44.2 | 42.0 |
| 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)