

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: P271164

Luminaire Tested: **NVN-AF-06-LED-U-SL4-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271164
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24284)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-06-LED-U-SL4-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24122.9 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

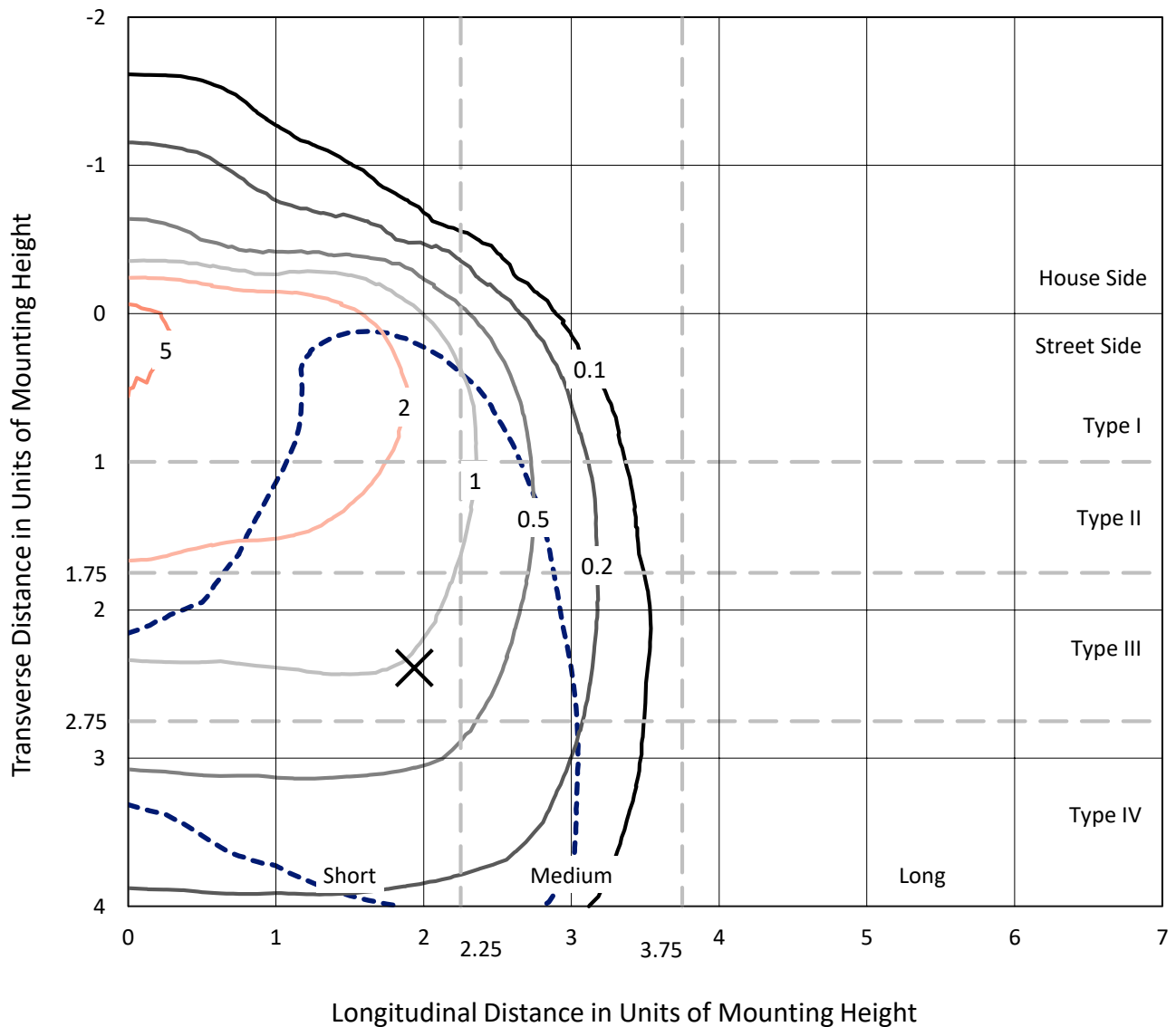
Input Watts (W): 249
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

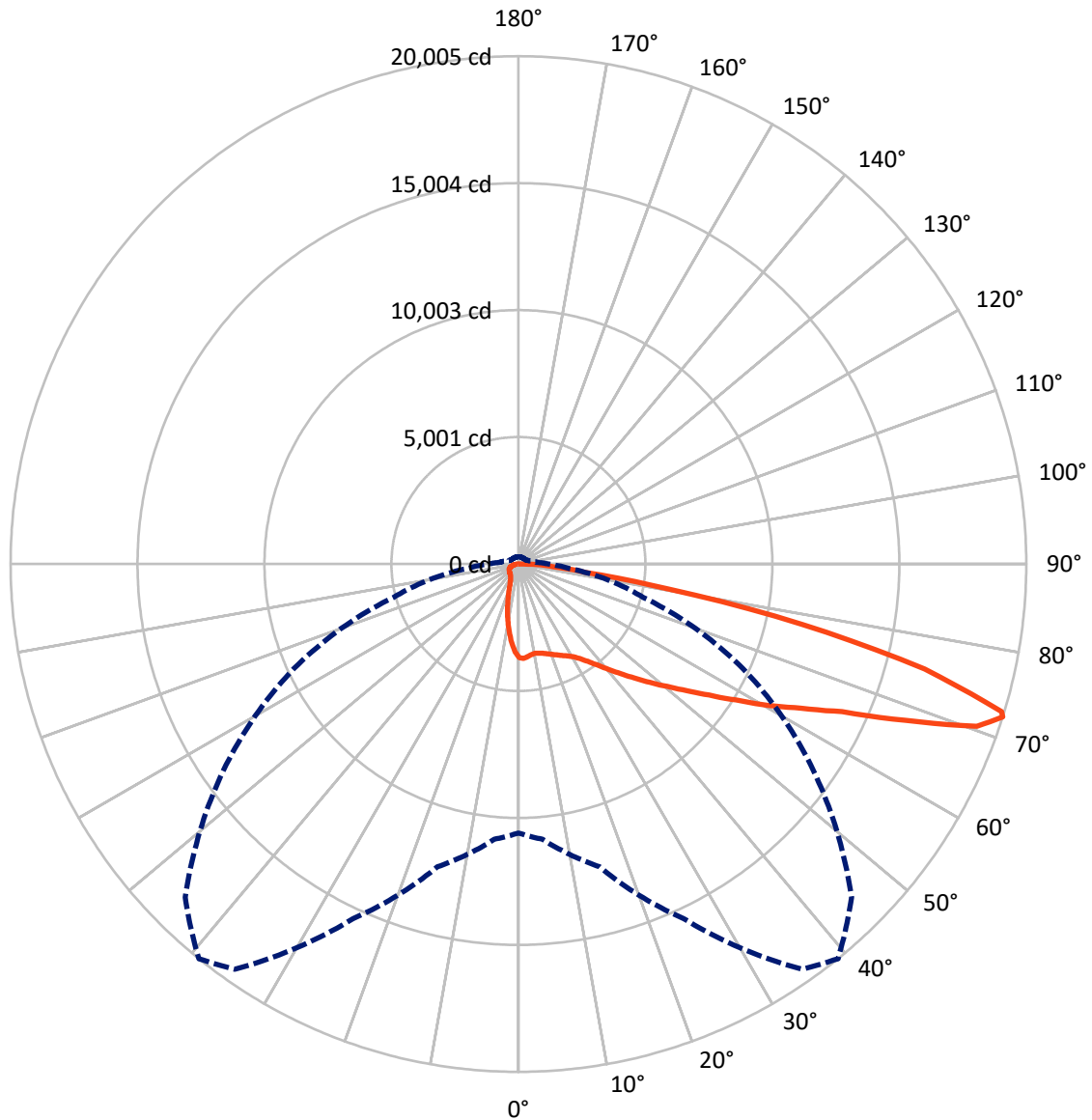
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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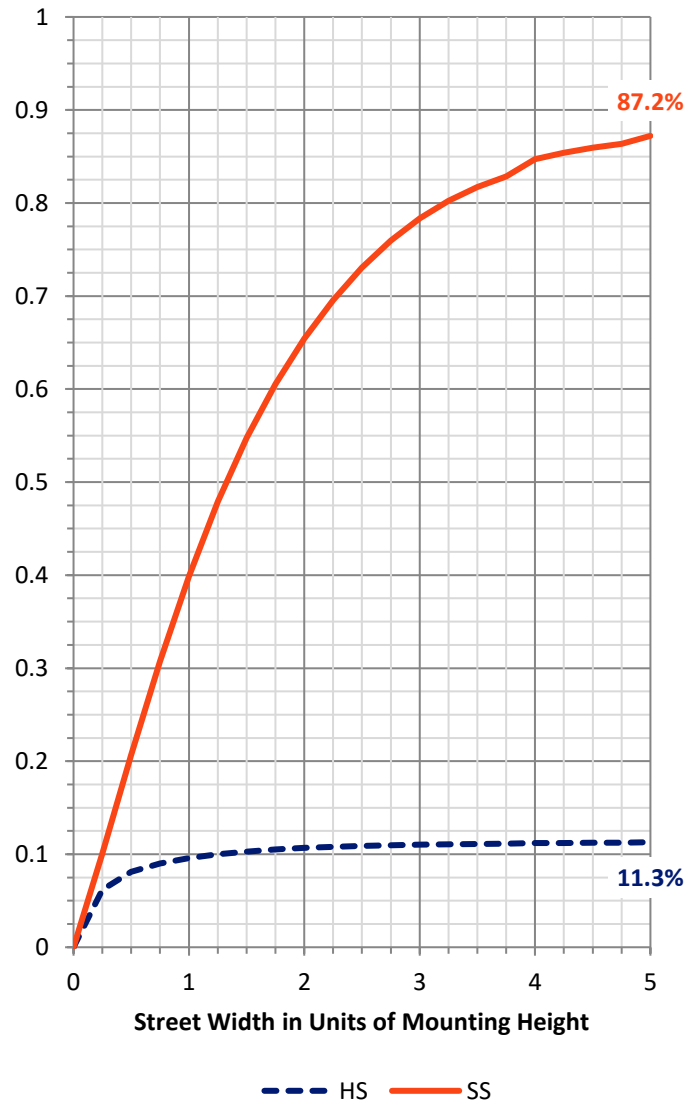
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2766.0 | 0.0 | 2766.0 |
| | % Fixture | 11.5 | 0.0 | 11.5 |
| Street Side | Lumens | 21356.8 | 0.0 | 21356.8 |
| | % Fixture | 88.5 | 0.0 | 88.5 |
| Total | Lumens | 24122.9 | 0.0 | 24122.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 316.6 | 1.3 |
| 10°-20° | 795.5 | 3.3 |
| 20°-30° | 1239.7 | 5.1 |
| 30°-40° | 1908.8 | 7.9 |
| 40°-50° | 3111.8 | 12.9 |
| 50°-60° | 4835.3 | 20.0 |
| 60°-70° | 6471.9 | 26.8 |
| 70°-80° | 4654.2 | 19.3 |
| 80°-90° | 789.0 | 3.3 |
| 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° | 24122.9 | 100.0 |
| 0°-180° | 24122.9 | 100.0 |

Coefficient of Utilization



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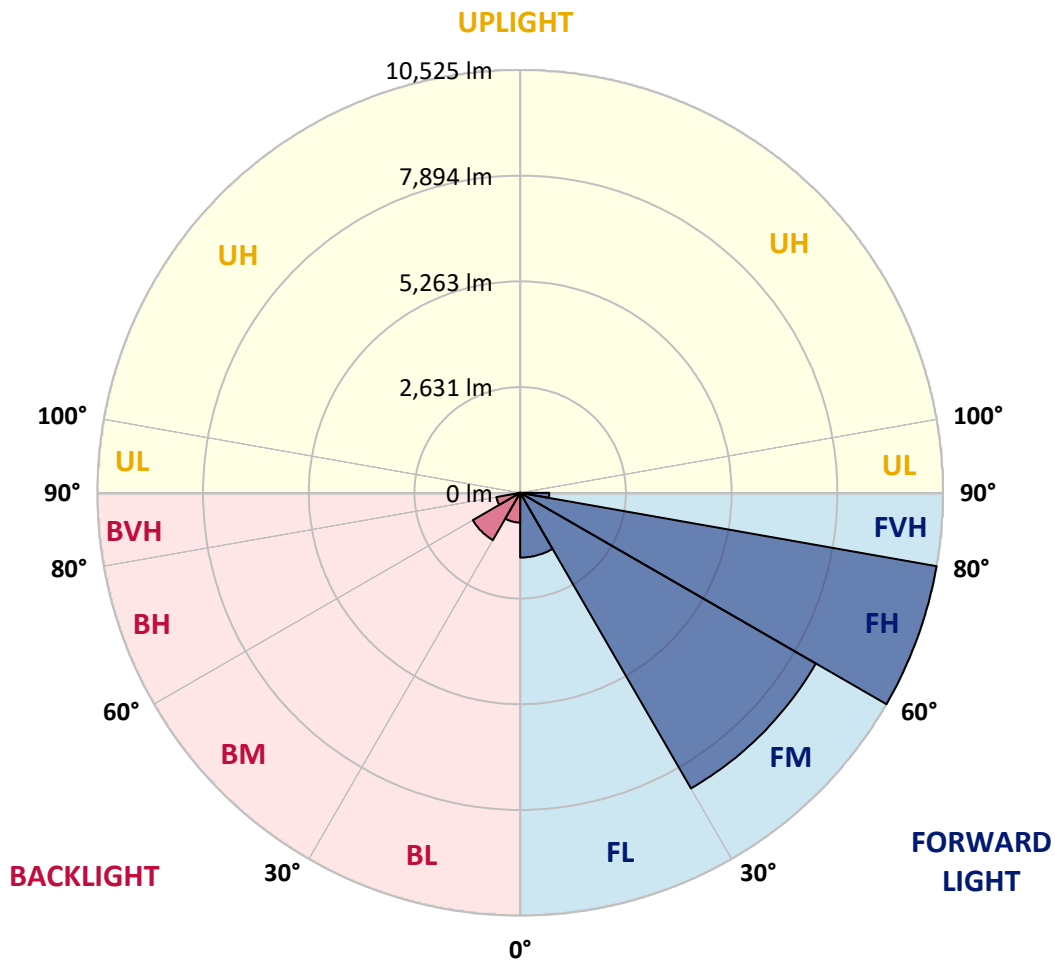
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1611.4 | 6.7 | | | |
| FM | (30°-60°) | 8496.5 | 35.2 | | | |
| FH | (60°-80°) | 10525.2 | 43.6 | | | G4/12000 |
| FVH | (80°-90°) | 723.8 | 3.0 | | | G4/750 |
| BL | (0°-30°) | 740.5 | 3.1 | B2/1000 | | |
| BM | (30°-60°) | 1359.4 | 5.6 | B2/2500 | | |
| BH | (60°-80°) | 601.0 | 2.5 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 65.2 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 |
| 2.5° | 3763.3 | 3764.9 | 3760.0 | 3745.6 | 3732.5 | 3726.1 | 3714.8 | 3695.4 | 3669.4 | 3651.6 | 3637.1 |
| 5° | 3727.6 | 3732.5 | 3729.4 | 3705.1 | 3682.4 | 3669.4 | 3651.6 | 3624.1 | 3590.0 | 3575.6 | 3541.5 |
| 7.5° | 3700.2 | 3703.4 | 3693.7 | 3666.3 | 3622.4 | 3606.2 | 3573.8 | 3538.2 | 3507.5 | 3486.4 | 3446.0 |
| 10° | 3680.7 | 3683.9 | 3676.0 | 3648.3 | 3599.8 | 3580.4 | 3541.5 | 3502.6 | 3462.2 | 3436.2 | 3390.9 |
| 12.5° | 3653.2 | 3659.8 | 3659.8 | 3646.8 | 3614.4 | 3601.5 | 3562.6 | 3520.5 | 3483.2 | 3455.7 | 3398.9 |
| 15° | 3648.3 | 3656.6 | 3671.1 | 3669.4 | 3659.8 | 3650.1 | 3619.2 | 3577.1 | 3544.7 | 3512.4 | 3442.8 |
| 17.5° | 3688.9 | 3706.6 | 3735.8 | 3745.6 | 3739.0 | 3717.9 | 3682.4 | 3643.5 | 3608.0 | 3577.1 | 3491.4 |
| 20° | 3790.8 | 3800.5 | 3844.2 | 3863.7 | 3831.4 | 3800.5 | 3753.6 | 3703.4 | 3671.1 | 3646.8 | 3536.6 |
| 22.5° | 3944.6 | 3957.7 | 3993.2 | 3994.9 | 3926.9 | 3889.7 | 3829.7 | 3768.2 | 3737.4 | 3727.6 | 3598.3 |
| 25° | 4190.9 | 4187.5 | 4197.3 | 4156.8 | 4033.7 | 3990.0 | 3917.1 | 3846.0 | 3824.9 | 3844.2 | 3688.9 |
| 27.5° | 4485.5 | 4477.4 | 4446.7 | 4341.5 | 4155.2 | 4098.5 | 4011.1 | 3948.0 | 3948.0 | 3993.2 | 3811.9 |
| 30° | 4825.6 | 4817.5 | 4717.1 | 4540.7 | 4299.4 | 4234.6 | 4142.3 | 4075.9 | 4109.8 | 4197.3 | 3978.8 |
| 32.5° | 5185.1 | 5156.0 | 5015.1 | 4778.7 | 4505.0 | 4433.8 | 4344.7 | 4276.7 | 4341.5 | 4490.4 | 4218.4 |
| 35° | 5523.6 | 5507.4 | 5334.0 | 5054.0 | 4770.5 | 4710.6 | 4649.1 | 4564.8 | 4668.5 | 4900.2 | 4556.8 |
| 37.5° | 5873.4 | 5860.5 | 5648.3 | 5350.2 | 5094.5 | 5054.0 | 5002.1 | 4943.8 | 5110.6 | 5415.1 | 5015.1 |
| 40° | 6263.6 | 6237.7 | 5970.5 | 5672.5 | 5471.8 | 5452.4 | 5424.8 | 5408.5 | 5677.4 | 6130.8 | 5594.9 |
| 42.5° | 6705.7 | 6655.5 | 6310.6 | 6027.2 | 5883.1 | 5899.3 | 5884.6 | 5949.5 | 6360.8 | 6956.7 | 6284.6 |
| 45° | 7211.0 | 7110.5 | 6649.1 | 6404.5 | 6338.1 | 6402.8 | 6433.7 | 6598.8 | 7168.8 | 7910.5 | 7055.5 |
| 47.5° | 7683.7 | 7554.1 | 7019.9 | 6814.2 | 6851.5 | 6963.1 | 7050.5 | 7342.0 | 8054.7 | 8852.9 | 7842.5 |
| 50° | 8119.4 | 7973.6 | 7416.5 | 7238.5 | 7419.8 | 7578.6 | 7759.9 | 8171.2 | 8997.1 | 9822.8 | 8564.7 |
| 52.5° | 8441.6 | 8336.4 | 7813.3 | 7701.6 | 8072.3 | 8282.9 | 8572.7 | 9092.6 | 9949.2 | 10747.5 | 9209.2 |
| 55° | 8691.0 | 8634.2 | 8200.3 | 8232.6 | 8810.8 | 9112.0 | 9463.5 | 10060.9 | 10956.4 | 11576.6 | 9727.3 |
| 57.5° | 8979.2 | 8937.1 | 8642.5 | 8873.9 | 9727.3 | 10106.3 | 10520.8 | 11184.7 | 11915.1 | 12307.0 | 10133.8 |
| 60° | 9283.7 | 9283.7 | 9134.7 | 9646.4 | 10873.9 | 11307.9 | 11720.7 | 12237.3 | 12870.5 | 12964.3 | 10299.0 |
| 62.5° | 9513.6 | 9573.5 | 9627.0 | 10468.9 | 11962.0 | 12501.4 | 12954.6 | 13450.2 | 13859.9 | 13288.3 | 9910.3 |
| 65° | 9847.2 | 9975.0 | 10276.3 | 11419.6 | 13309.4 | 14015.4 | 14627.6 | 15043.6 | 14661.4 | 13030.9 | 8642.5 |
| 67.5° | 10420.3 | 10609.9 | 11251.1 | 12834.9 | 15372.3 | 16429.8 | 17024.0 | 16305.1 | 14504.5 | 11409.8 | 6619.9 |
| 70° | 10937.0 | 11204.2 | 12300.5 | 14630.8 | 18054.0 | 19152.0 | 18878.2 | 16012.0 | 12632.4 | 8363.8 | 4072.6 |
| 72° | 10593.7 | 10885.2 | 12349.1 | 15412.8 | 19487.1 | 20005.3 | 18562.4 | 14190.3 | 9761.3 | 5104.2 | 2008.0 |
| 72.5° | 10368.6 | 10671.4 | 12191.9 | 15393.4 | 19526.0 | 19896.7 | 18123.7 | 13466.4 | 8861.1 | 4466.2 | 1624.1 |
| 75° | 8661.8 | 8920.9 | 10483.6 | 13642.9 | 17207.0 | 16526.9 | 14143.3 | 8715.3 | 4072.6 | 1442.9 | 835.6 |
| 77.5° | 5656.4 | 5854.0 | 7228.8 | 9452.1 | 12052.6 | 11398.6 | 8608.4 | 4080.7 | 1526.9 | 876.0 | 628.4 |
| 80° | 2842.0 | 2982.8 | 3868.6 | 4969.8 | 6504.8 | 5985.0 | 3973.8 | 1973.9 | 1021.8 | 633.1 | 493.9 |
| 82.5° | 1977.2 | 2106.7 | 2663.8 | 2537.5 | 2718.9 | 2631.4 | 1868.7 | 1646.9 | 764.3 | 399.9 | 259.2 |
| 85° | 1658.2 | 1792.6 | 2203.9 | 1808.7 | 1480.0 | 1349.0 | 1339.3 | 1556.1 | 505.2 | 197.5 | 218.6 |
| 87.5° | 1446.1 | 1650.0 | 1818.4 | 1321.3 | 1015.4 | 895.5 | 986.2 | 1426.7 | 160.3 | 108.4 | 66.4 |
| 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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CATALOG NUMBER: NVN-AF-06-LED-U-SL4-7027-800

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 | 3683.9 |
| 2.5° | 3612.8 | 3608.0 | 3583.6 | 3546.4 | 3518.8 | 3501.1 | 3467.0 | 3465.4 | 3468.6 | 3439.5 | 3450.7 |
| 5° | 3510.8 | 3491.4 | 3428.1 | 3342.4 | 3272.6 | 3206.3 | 3133.4 | 3109.2 | 3088.1 | 3044.4 | 3049.1 |
| 7.5° | 3403.9 | 3369.8 | 3259.7 | 3118.8 | 2984.3 | 2861.5 | 2739.9 | 2680.1 | 2634.6 | 2578.0 | 2578.0 |
| 10° | 3340.6 | 3287.3 | 3118.8 | 2913.3 | 2699.4 | 2519.7 | 2338.3 | 2229.9 | 2150.5 | 2077.6 | 2072.7 |
| 12.5° | 3337.5 | 3256.4 | 3021.7 | 2738.4 | 2445.1 | 2192.7 | 1944.8 | 1778.0 | 1659.8 | 1574.0 | 1565.8 |
| 15° | 3363.3 | 3250.0 | 2940.7 | 2574.7 | 2205.6 | 1876.7 | 1570.7 | 1358.6 | 1208.0 | 1112.6 | 1102.8 |
| 17.5° | 3386.0 | 3242.0 | 2853.2 | 2403.1 | 1972.4 | 1572.4 | 1232.4 | 1012.1 | 869.6 | 791.9 | 783.7 |
| 20° | 3407.1 | 3224.0 | 2741.5 | 2221.8 | 1714.9 | 1287.5 | 963.5 | 785.4 | 691.4 | 647.8 | 642.8 |
| 22.5° | 3437.9 | 3207.8 | 2624.9 | 2017.8 | 1462.4 | 1047.8 | 795.1 | 667.3 | 617.0 | 595.9 | 592.7 |
| 25° | 3488.1 | 3209.6 | 2511.7 | 1808.7 | 1230.7 | 872.9 | 688.2 | 609.0 | 581.4 | 566.8 | 566.8 |
| 27.5° | 3560.9 | 3229.0 | 2399.8 | 1596.6 | 1034.8 | 753.0 | 625.1 | 578.1 | 560.4 | 549.0 | 545.7 |
| 30° | 3667.8 | 3264.6 | 2281.7 | 1395.8 | 879.4 | 670.5 | 587.9 | 558.7 | 544.2 | 534.4 | 532.8 |
| 32.5° | 3823.2 | 3327.7 | 2157.0 | 1212.9 | 761.0 | 612.1 | 560.4 | 542.4 | 531.2 | 523.1 | 521.5 |
| 35° | 4054.8 | 3439.5 | 2035.5 | 1057.5 | 677.0 | 570.1 | 537.6 | 523.1 | 516.5 | 513.3 | 511.8 |
| 37.5° | 4394.9 | 3619.2 | 1920.5 | 935.9 | 621.8 | 542.4 | 515.0 | 506.9 | 503.6 | 503.6 | 503.6 |
| 40° | 4822.5 | 3855.6 | 1816.9 | 850.2 | 591.1 | 521.5 | 498.7 | 492.4 | 492.4 | 493.9 | 493.9 |
| 42.5° | 5342.2 | 4152.0 | 1727.8 | 791.9 | 573.3 | 506.9 | 487.4 | 484.1 | 482.6 | 482.6 | 484.1 |
| 45° | 5946.2 | 4501.8 | 1672.7 | 746.5 | 560.4 | 498.7 | 479.3 | 477.7 | 471.3 | 467.9 | 467.9 |
| 47.5° | 6553.5 | 4875.8 | 1669.5 | 720.6 | 544.2 | 489.0 | 471.3 | 471.3 | 458.2 | 451.8 | 453.5 |
| 50° | 7120.2 | 5211.0 | 1705.2 | 714.2 | 534.4 | 474.5 | 463.2 | 464.8 | 446.9 | 438.8 | 437.2 |
| 52.5° | 7576.8 | 5466.8 | 1748.9 | 722.2 | 534.4 | 461.5 | 448.6 | 456.7 | 437.2 | 427.6 | 425.8 |
| 55° | 7929.9 | 5644.9 | 1765.1 | 740.1 | 540.9 | 450.2 | 435.6 | 448.6 | 434.1 | 421.0 | 421.0 |
| 57.5° | 8182.5 | 5701.7 | 1695.5 | 748.1 | 550.7 | 448.6 | 422.7 | 446.9 | 438.8 | 422.7 | 422.7 |
| 60° | 8090.2 | 5372.9 | 1436.4 | 717.3 | 549.0 | 445.3 | 413.0 | 450.2 | 455.0 | 437.2 | 437.2 |
| 62.5° | 7369.6 | 4495.3 | 1153.0 | 647.8 | 521.5 | 434.1 | 401.6 | 446.9 | 466.4 | 459.9 | 456.7 |
| 65° | 5999.6 | 3297.0 | 893.9 | 565.2 | 474.5 | 409.6 | 377.3 | 417.8 | 440.4 | 446.9 | 448.6 |
| 67.5° | 4228.1 | 2087.3 | 694.7 | 481.0 | 416.2 | 374.1 | 349.8 | 369.3 | 377.3 | 380.5 | 387.0 |
| 70° | 2312.3 | 1130.2 | 552.2 | 404.9 | 356.3 | 338.4 | 320.6 | 322.2 | 319.0 | 315.8 | 319.0 |
| 72° | 1161.1 | 738.4 | 466.4 | 351.3 | 315.8 | 304.4 | 296.4 | 291.5 | 291.5 | 286.6 | 288.3 |
| 72.5° | 999.2 | 686.7 | 450.2 | 338.4 | 306.1 | 296.4 | 289.9 | 285.0 | 283.3 | 280.1 | 281.8 |
| 75° | 665.6 | 544.2 | 375.8 | 283.3 | 260.7 | 254.2 | 257.5 | 252.7 | 254.2 | 250.9 | 252.7 |
| 77.5° | 537.6 | 467.9 | 319.0 | 239.7 | 223.5 | 213.7 | 220.3 | 221.8 | 225.0 | 221.8 | 220.3 |
| 80° | 450.2 | 398.4 | 267.2 | 197.5 | 186.2 | 178.1 | 181.4 | 192.6 | 194.4 | 184.6 | 183.0 |
| 82.5° | 291.5 | 320.6 | 210.6 | 153.8 | 142.6 | 139.2 | 147.3 | 158.7 | 162.0 | 148.9 | 145.7 |
| 85° | 244.5 | 257.5 | 152.3 | 105.2 | 94.0 | 90.6 | 106.9 | 118.1 | 126.3 | 113.4 | 110.1 |
| 87.5° | 68.0 | 126.3 | 74.5 | 50.1 | 42.1 | 42.1 | 51.8 | 61.5 | 72.9 | 74.5 | 74.5 |
| 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)