

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: P197017

Luminaire Tested: **NVN-AF-01-LED-U-SL2-8030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197017
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-01-LED-U-SL2-8030-600-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2679 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 34
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

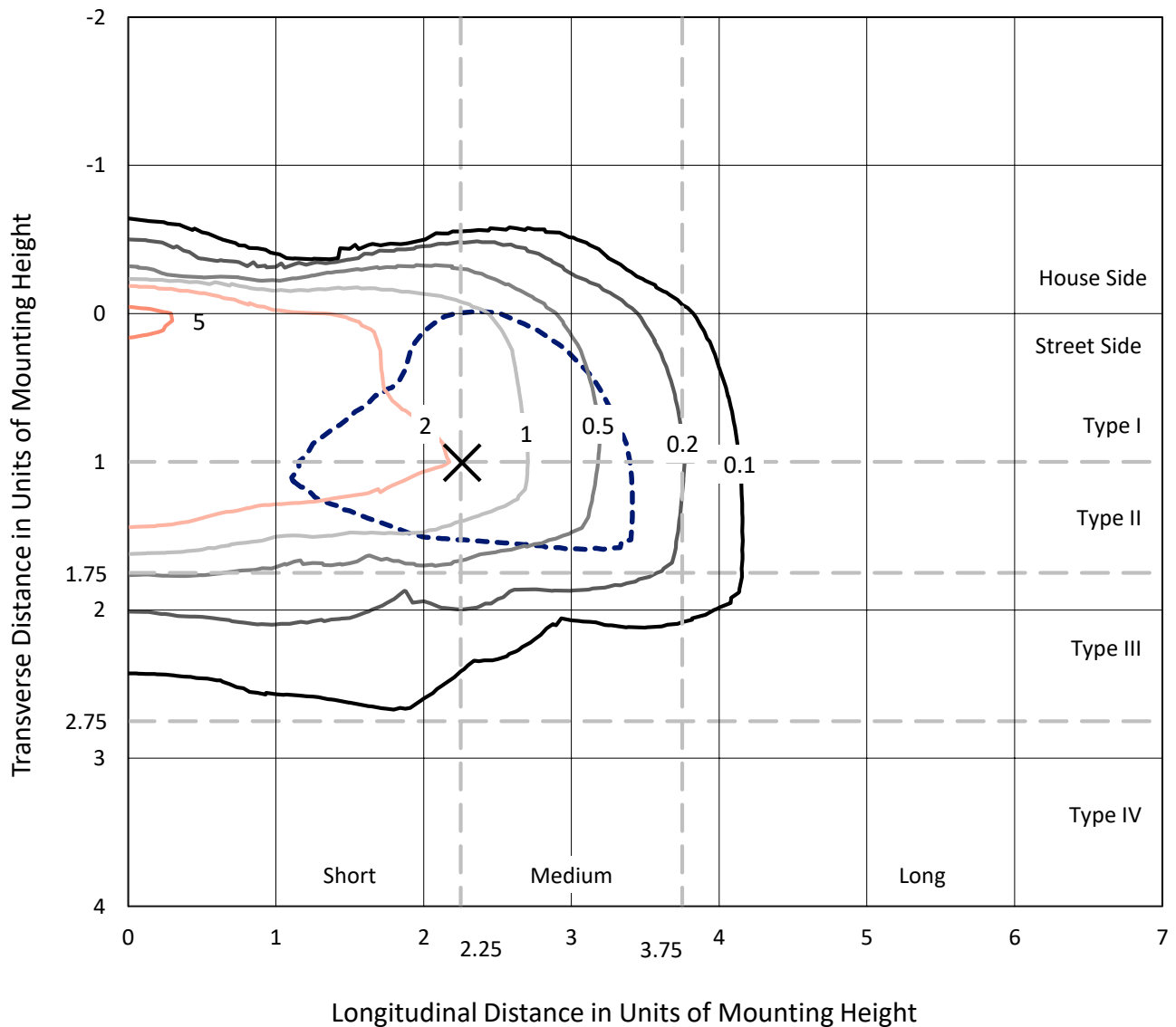


REPORT NUMBER: P197017

CATALOG NUMBER: NVN-AF-01-LED-U-SL2-8030-600-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

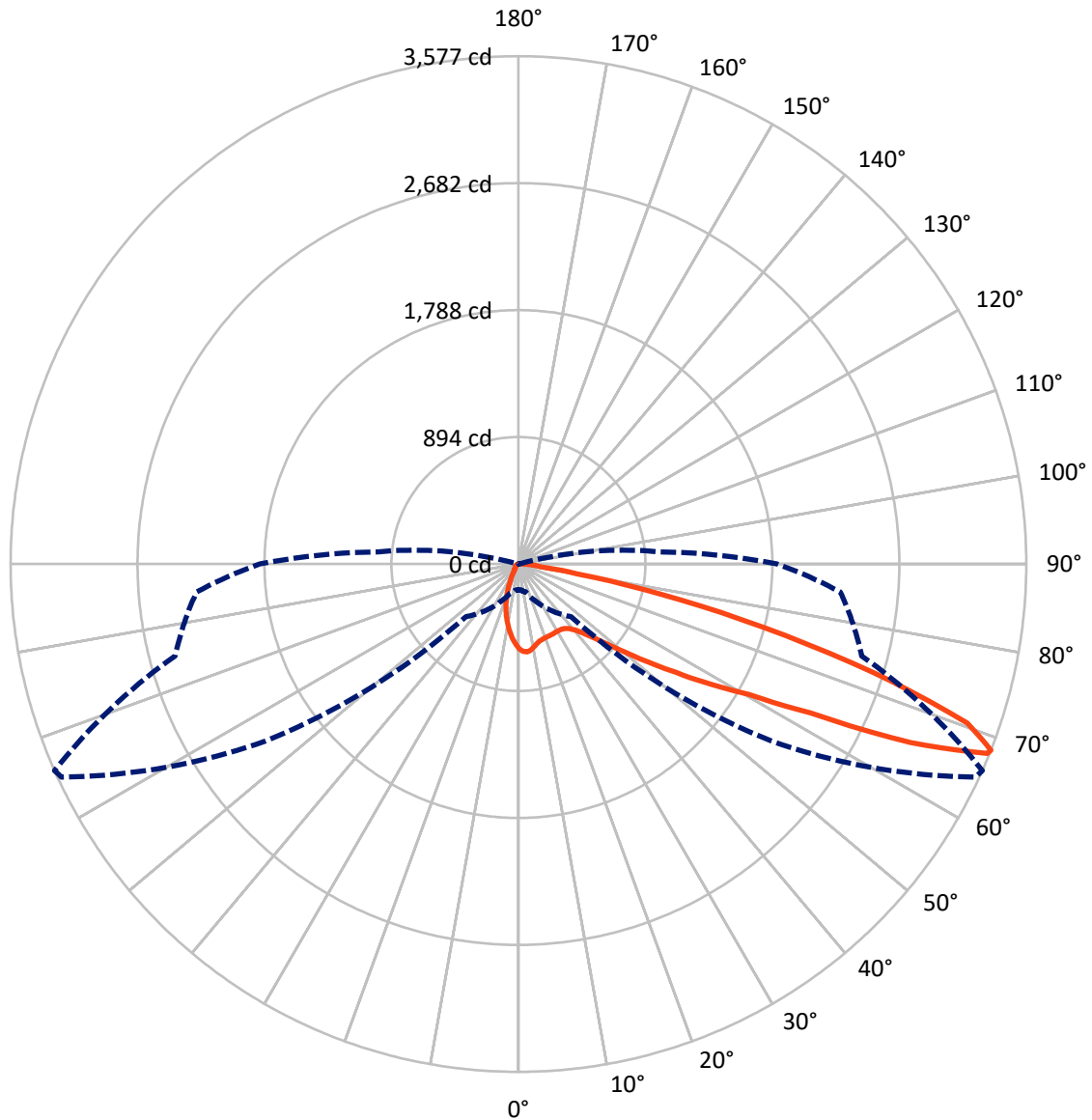


Based on 10 foot mounting height. Maximum calculated value = 6 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P197017

CATALOG NUMBER: NVN-AF-01-LED-U-SL2-8030-600-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P197017

CATALOG NUMBER: NVN-AF-01-LED-U-SL2-8030-600-HSS

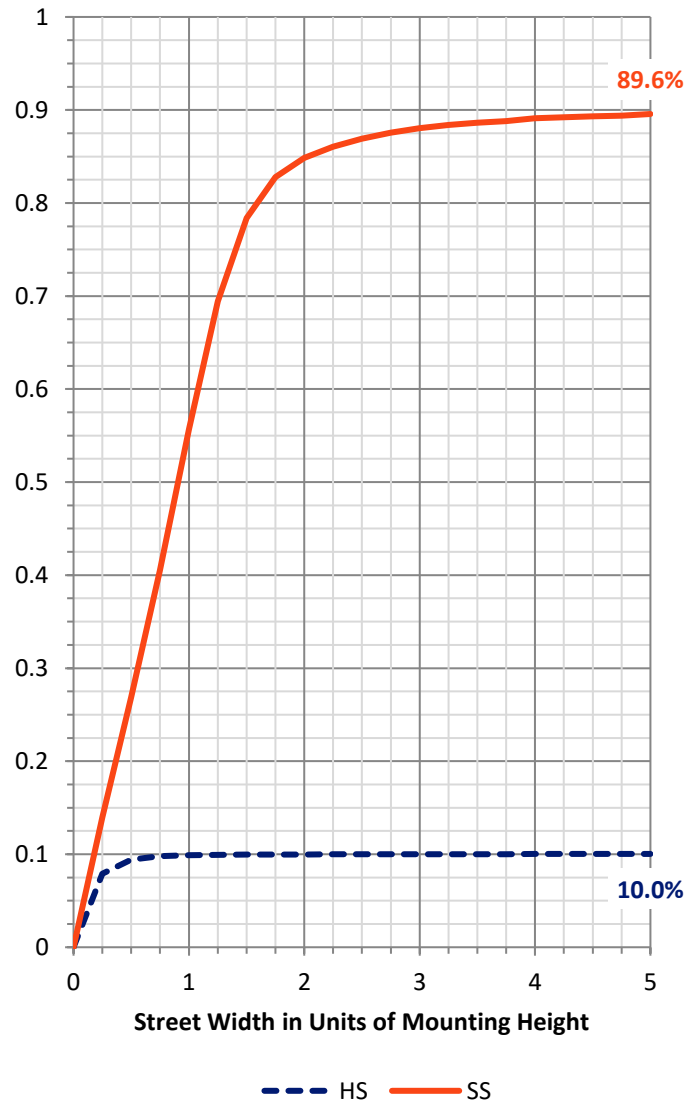
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 271.4 | 0.0 | 271.4 |
| | % Fixture | 10.1 | 0.0 | 10.1 |
| Street Side | Lumens | 2407.6 | 0.0 | 2407.6 |
| | % Fixture | 89.9 | 0.0 | 89.9 |
| Total | Lumens | 2679.0 | 0.0 | 2679.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 48.9 | 1.8 |
| 10°-20° | 105.3 | 3.9 |
| 20°-30° | 152.6 | 5.7 |
| 30°-40° | 233.5 | 8.7 |
| 40°-50° | 399.4 | 14.9 |
| 50°-60° | 624.9 | 23.3 |
| 60°-70° | 719.5 | 26.9 |
| 70°-80° | 360.1 | 13.4 |
| 80°-90° | 34.9 | 1.3 |
| 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° | 2679.0 | 100.0 |
| 0°-180° | 2679.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P197017

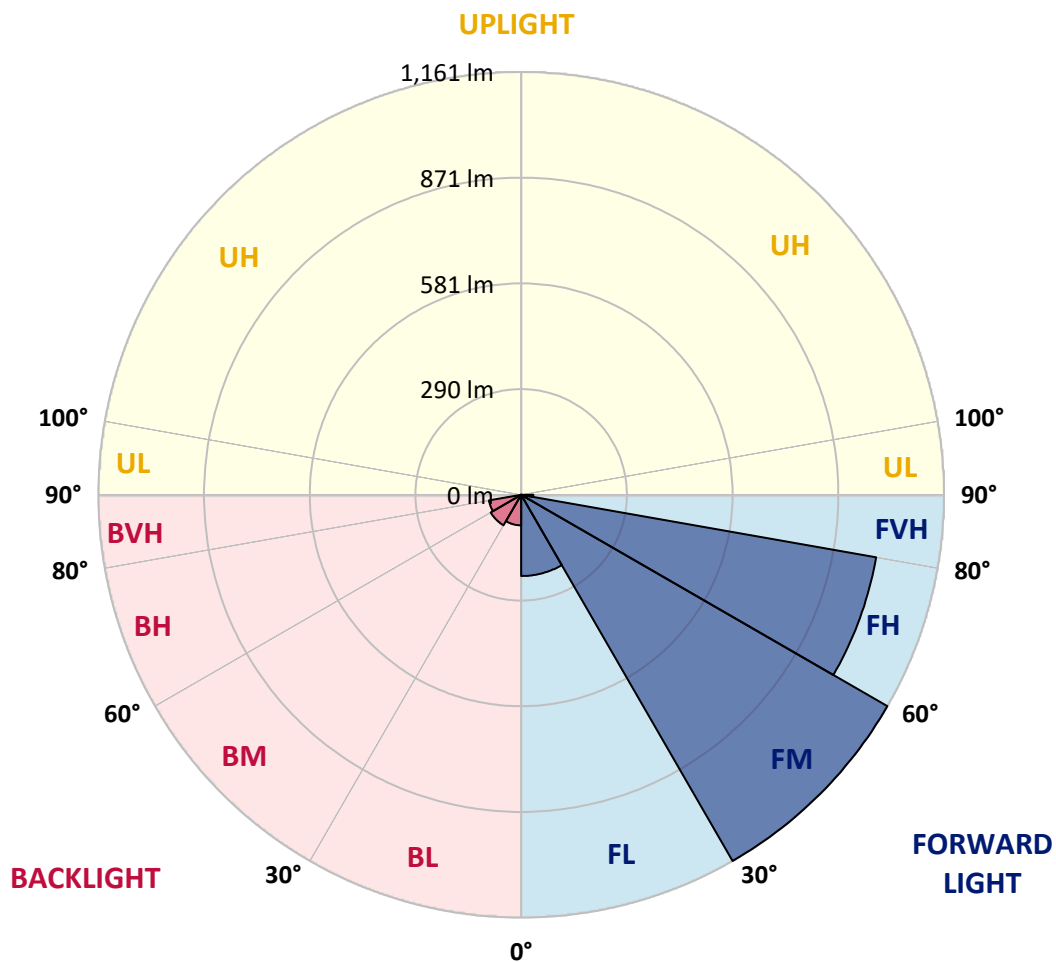
CATALOG NUMBER: NVN-AF-01-LED-U-SL2-8030-600-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 223.0 | 8.3 | | | |
| FM (30°-60°) | 1161.2 | 43.3 | | | |
| FH (60°-80°) | 989.9 | 36.9 | | | G1/1800 |
| FVH (80°-90°) | 33.5 | 1.3 | | | G1/100 |
| BL (0°-30°) | 83.8 | 3.1 | B0/110 | | |
| BM (30°-60°) | 96.6 | 3.6 | B0/220 | | |
| BH (60°-80°) | 89.7 | 3.3 | B0/110 | | G0/110 |
| BVH (80°-90°) | 1.3 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1

Type II Medium





REPORT NUMBER: P197017

CATALOG NUMBER: NVN-AF-01-LED-U-SL2-8030-600-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 |
| 2.5° | 627.8 | 628.2 | 628.0 | 628.6 | 628.2 | 625.0 | 621.7 | 614.5 | 615.2 | 605.9 | 595.6 |
| 5° | 583.6 | 587.2 | 590.8 | 594.3 | 603.0 | 610.5 | 619.6 | 621.7 | 621.7 | 613.7 | 598.5 |
| 7.5° | 538.6 | 538.8 | 542.8 | 547.6 | 559.2 | 573.1 | 594.1 | 613.0 | 613.5 | 615.6 | 599.0 |
| 10° | 504.7 | 505.8 | 508.5 | 513.8 | 525.4 | 539.0 | 562.6 | 592.2 | 594.5 | 610.1 | 594.8 |
| 12.5° | 478.5 | 479.7 | 482.7 | 488.8 | 499.3 | 513.4 | 538.2 | 572.0 | 575.2 | 604.8 | 593.5 |
| 15° | 458.3 | 459.9 | 462.3 | 468.4 | 479.7 | 494.6 | 521.8 | 558.6 | 562.4 | 602.7 | 597.5 |
| 17.5° | 449.9 | 449.9 | 449.6 | 453.8 | 465.2 | 480.3 | 508.7 | 551.4 | 556.3 | 604.4 | 604.2 |
| 20° | 453.4 | 452.8 | 448.4 | 447.3 | 454.3 | 469.4 | 498.4 | 546.8 | 552.3 | 607.6 | 612.4 |
| 22.5° | 472.4 | 471.1 | 461.2 | 453.0 | 450.9 | 461.0 | 491.5 | 543.6 | 550.2 | 614.1 | 623.4 |
| 25° | 512.5 | 508.7 | 495.1 | 476.6 | 459.9 | 458.9 | 486.7 | 542.0 | 548.9 | 621.7 | 635.3 |
| 27.5° | 564.7 | 563.6 | 541.8 | 516.9 | 485.0 | 465.8 | 485.2 | 540.7 | 547.6 | 627.1 | 645.0 |
| 30° | 629.5 | 629.9 | 604.6 | 572.2 | 523.9 | 485.4 | 489.8 | 540.1 | 547.2 | 627.6 | 649.2 |
| 32.5° | 696.3 | 696.8 | 675.7 | 641.0 | 577.1 | 519.0 | 502.8 | 543.0 | 549.5 | 625.9 | 649.0 |
| 35° | 760.7 | 761.3 | 748.7 | 720.7 | 648.2 | 565.7 | 527.5 | 553.1 | 557.7 | 626.9 | 648.6 |
| 37.5° | 842.1 | 844.6 | 829.0 | 803.0 | 737.3 | 634.3 | 567.6 | 573.5 | 577.3 | 635.6 | 651.7 |
| 40° | 980.9 | 977.5 | 932.9 | 888.8 | 834.1 | 717.8 | 625.7 | 608.6 | 609.9 | 657.8 | 663.7 |
| 42.5° | 1142.6 | 1138.4 | 1062.1 | 985.9 | 933.6 | 818.5 | 699.9 | 662.5 | 662.3 | 695.3 | 689.8 |
| 45° | 1281.8 | 1279.3 | 1199.0 | 1097.4 | 1043.8 | 929.8 | 791.4 | 740.1 | 737.6 | 760.1 | 737.3 |
| 47.5° | 1380.7 | 1378.6 | 1317.8 | 1216.0 | 1171.2 | 1052.2 | 905.6 | 845.9 | 840.6 | 844.8 | 814.5 |
| 50° | 1390.4 | 1388.0 | 1366.8 | 1301.4 | 1320.1 | 1231.8 | 1046.7 | 984.5 | 977.7 | 971.2 | 931.2 |
| 52.5° | 1299.9 | 1299.7 | 1310.9 | 1306.6 | 1424.4 | 1462.9 | 1219.8 | 1155.9 | 1147.9 | 1131.3 | 1091.5 |
| 55° | 1115.1 | 1114.0 | 1156.3 | 1217.7 | 1422.1 | 1701.4 | 1483.7 | 1359.9 | 1349.3 | 1316.1 | 1264.0 |
| 57.5° | 814.7 | 809.3 | 897.6 | 1027.8 | 1322.2 | 1805.7 | 1902.9 | 1613.3 | 1595.8 | 1490.5 | 1410.1 |
| 60° | 449.9 | 452.0 | 565.5 | 719.7 | 1085.6 | 1785.1 | 2288.6 | 1908.8 | 1862.9 | 1640.8 | 1559.9 |
| 62.5° | 252.2 | 257.4 | 342.0 | 467.7 | 692.1 | 1617.9 | 2495.5 | 2417.3 | 2306.9 | 1816.2 | 1749.1 |
| 65° | 190.7 | 193.9 | 236.4 | 360.9 | 436.4 | 1130.6 | 2528.5 | 3128.3 | 3033.1 | 2082.1 | 2050.5 |
| 67.5° | 179.6 | 182.1 | 202.9 | 299.3 | 397.5 | 586.3 | 2280.0 | 3549.0 | 3560.9 | 2444.6 | 2284.0 |
| 68° | 180.9 | 184.0 | 204.8 | 287.9 | 396.9 | 524.5 | 2174.0 | 3551.1 | 3576.5 | 2503.1 | 2276.0 |
| 70° | 166.1 | 167.0 | 216.6 | 282.4 | 384.7 | 413.3 | 1572.7 | 3307.7 | 3353.4 | 2572.7 | 2066.1 |
| 72.5° | 63.5 | 63.7 | 97.2 | 244.6 | 403.0 | 415.6 | 792.2 | 2614.3 | 2616.7 | 2238.9 | 1610.8 |
| 75° | 33.0 | 27.8 | 30.5 | 76.6 | 384.9 | 405.1 | 397.5 | 1785.1 | 1774.0 | 1514.2 | 987.0 |
| 77.5° | 22.7 | 19.3 | 20.4 | 26.5 | 160.0 | 404.8 | 287.1 | 1026.5 | 1024.2 | 644.2 | 281.6 |
| 80° | 12.8 | 11.1 | 12.2 | 22.3 | 56.2 | 380.0 | 267.5 | 441.2 | 415.8 | 113.1 | 45.6 |
| 82.5° | 6.5 | 5.5 | 6.5 | 18.7 | 34.9 | 239.1 | 260.2 | 173.1 | 154.2 | 26.9 | 29.7 |
| 85° | 1.7 | 1.7 | 3.2 | 13.0 | 21.7 | 78.4 | 233.2 | 124.9 | 112.3 | 11.8 | 21.0 |
| 87.5° | 0.4 | 0.2 | 1.3 | 4.8 | 7.8 | 17.0 | 129.3 | 69.6 | 59.9 | 6.1 | 12.2 |
| 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: P197017

CATALOG NUMBER: NVN-AF-01-LED-U-SL2-8030-600-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 | 596.9 |
| 2.5° | 591.4 | 585.5 | 573.9 | 560.9 | 551.6 | 541.5 | 535.7 | 528.5 | 523.0 | 518.2 | 521.8 |
| 5° | 589.3 | 577.9 | 552.3 | 523.5 | 499.3 | 476.1 | 458.9 | 442.5 | 430.1 | 422.3 | 425.5 |
| 7.5° | 583.8 | 567.0 | 525.4 | 480.3 | 440.8 | 403.6 | 373.3 | 346.2 | 325.1 | 313.8 | 317.4 |
| 10° | 574.6 | 550.8 | 494.9 | 432.4 | 377.1 | 324.5 | 279.5 | 239.1 | 208.6 | 194.3 | 197.7 |
| 12.5° | 567.8 | 536.5 | 463.3 | 386.1 | 313.4 | 238.7 | 179.0 | 132.7 | 108.9 | 94.6 | 95.9 |
| 15° | 564.9 | 525.4 | 433.9 | 337.3 | 243.7 | 153.3 | 96.7 | 70.0 | 61.8 | 58.9 | 59.1 |
| 17.5° | 565.3 | 516.5 | 405.9 | 286.7 | 173.5 | 88.1 | 59.3 | 53.4 | 52.2 | 51.5 | 51.5 |
| 20° | 566.4 | 507.7 | 376.9 | 233.9 | 111.0 | 56.8 | 49.4 | 47.5 | 46.9 | 46.1 | 46.3 |
| 22.5° | 569.5 | 501.0 | 347.6 | 180.9 | 68.4 | 46.3 | 43.7 | 42.1 | 41.0 | 39.7 | 40.0 |
| 25° | 574.4 | 495.9 | 318.8 | 130.2 | 48.2 | 40.4 | 38.1 | 35.8 | 33.9 | 32.4 | 32.6 |
| 27.5° | 577.3 | 488.8 | 288.1 | 88.8 | 40.0 | 35.3 | 32.2 | 29.0 | 26.9 | 25.7 | 25.4 |
| 30° | 575.2 | 477.2 | 253.2 | 58.3 | 35.3 | 30.5 | 26.7 | 23.1 | 21.0 | 20.0 | 20.0 |
| 32.5° | 569.5 | 462.3 | 214.7 | 42.5 | 31.3 | 26.3 | 21.7 | 18.5 | 17.0 | 16.4 | 16.6 |
| 35° | 563.0 | 446.7 | 173.7 | 36.0 | 28.2 | 22.3 | 17.7 | 15.1 | 14.5 | 14.3 | 14.3 |
| 37.5° | 559.4 | 433.2 | 134.4 | 32.6 | 25.2 | 18.5 | 14.5 | 13.0 | 12.4 | 12.4 | 12.4 |
| 40° | 563.4 | 422.9 | 99.5 | 30.1 | 22.3 | 15.4 | 12.2 | 11.1 | 10.9 | 10.9 | 10.9 |
| 42.5° | 580.5 | 419.4 | 72.8 | 28.0 | 19.3 | 12.8 | 10.5 | 9.7 | 9.5 | 9.7 | 9.7 |
| 45° | 613.7 | 427.1 | 55.1 | 25.9 | 16.6 | 10.5 | 9.0 | 8.4 | 8.4 | 8.6 | 8.6 |
| 47.5° | 670.0 | 447.1 | 45.2 | 23.8 | 13.9 | 8.8 | 7.8 | 7.4 | 7.4 | 7.6 | 7.6 |
| 50° | 757.5 | 484.1 | 40.6 | 21.5 | 11.6 | 7.6 | 6.5 | 6.3 | 6.3 | 6.5 | 6.7 |
| 52.5° | 890.4 | 554.6 | 38.3 | 19.1 | 9.5 | 6.3 | 5.5 | 5.3 | 5.5 | 5.7 | 5.7 |
| 55° | 1038.3 | 644.8 | 35.5 | 16.8 | 8.0 | 5.3 | 4.4 | 4.4 | 4.6 | 5.0 | 5.0 |
| 57.5° | 1176.0 | 731.9 | 33.0 | 13.9 | 6.9 | 4.2 | 3.6 | 3.6 | 4.0 | 4.4 | 4.4 |
| 60° | 1321.6 | 817.3 | 29.7 | 11.1 | 5.9 | 3.4 | 2.9 | 2.9 | 3.6 | 4.0 | 4.2 |
| 62.5° | 1501.4 | 916.5 | 25.2 | 8.8 | 4.6 | 2.5 | 2.1 | 2.7 | 3.4 | 4.0 | 4.0 |
| 65° | 1761.3 | 1040.0 | 19.8 | 6.9 | 3.6 | 1.9 | 1.7 | 2.5 | 3.2 | 3.8 | 4.0 |
| 67.5° | 1855.8 | 1024.2 | 14.9 | 5.7 | 2.7 | 1.5 | 1.5 | 2.3 | 3.2 | 3.8 | 3.8 |
| 68° | 1821.3 | 989.7 | 14.3 | 5.5 | 2.5 | 1.5 | 1.5 | 2.3 | 3.2 | 3.8 | 3.8 |
| 70° | 1587.0 | 809.1 | 11.8 | 4.2 | 2.1 | 1.3 | 1.3 | 2.1 | 3.2 | 3.6 | 3.8 |
| 72.5° | 1188.2 | 537.5 | 10.1 | 2.7 | 1.9 | 1.3 | 1.1 | 2.1 | 2.9 | 3.6 | 3.6 |
| 75° | 681.6 | 223.1 | 8.6 | 2.1 | 1.7 | 1.1 | 1.1 | 1.9 | 2.9 | 3.6 | 3.6 |
| 77.5° | 192.6 | 52.2 | 6.9 | 1.7 | 1.5 | 1.1 | 0.8 | 1.9 | 2.7 | 3.4 | 3.4 |
| 80° | 35.3 | 15.6 | 5.5 | 1.5 | 1.3 | 1.1 | 0.8 | 1.9 | 2.7 | 3.4 | 3.4 |
| 82.5° | 23.3 | 7.4 | 4.0 | 1.5 | 1.3 | 1.1 | 0.8 | 1.7 | 2.5 | 3.2 | 3.2 |
| 85° | 17.5 | 5.3 | 2.5 | 1.5 | 1.3 | 1.1 | 0.8 | 1.7 | 2.5 | 3.2 | 3.2 |
| 87.5° | 9.7 | 2.3 | 1.9 | 1.7 | 1.5 | 1.1 | 0.8 | 1.5 | 2.3 | 2.9 | 2.9 |
| 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)