

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: P198736

Luminaire Tested: **XNV-AF-01-LED-U-SL4-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198736
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: XNV-AF-01-LED-U-SL4-1200
Description: XNV ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1200mA LIGHTSQUARE 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: 6474.3 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

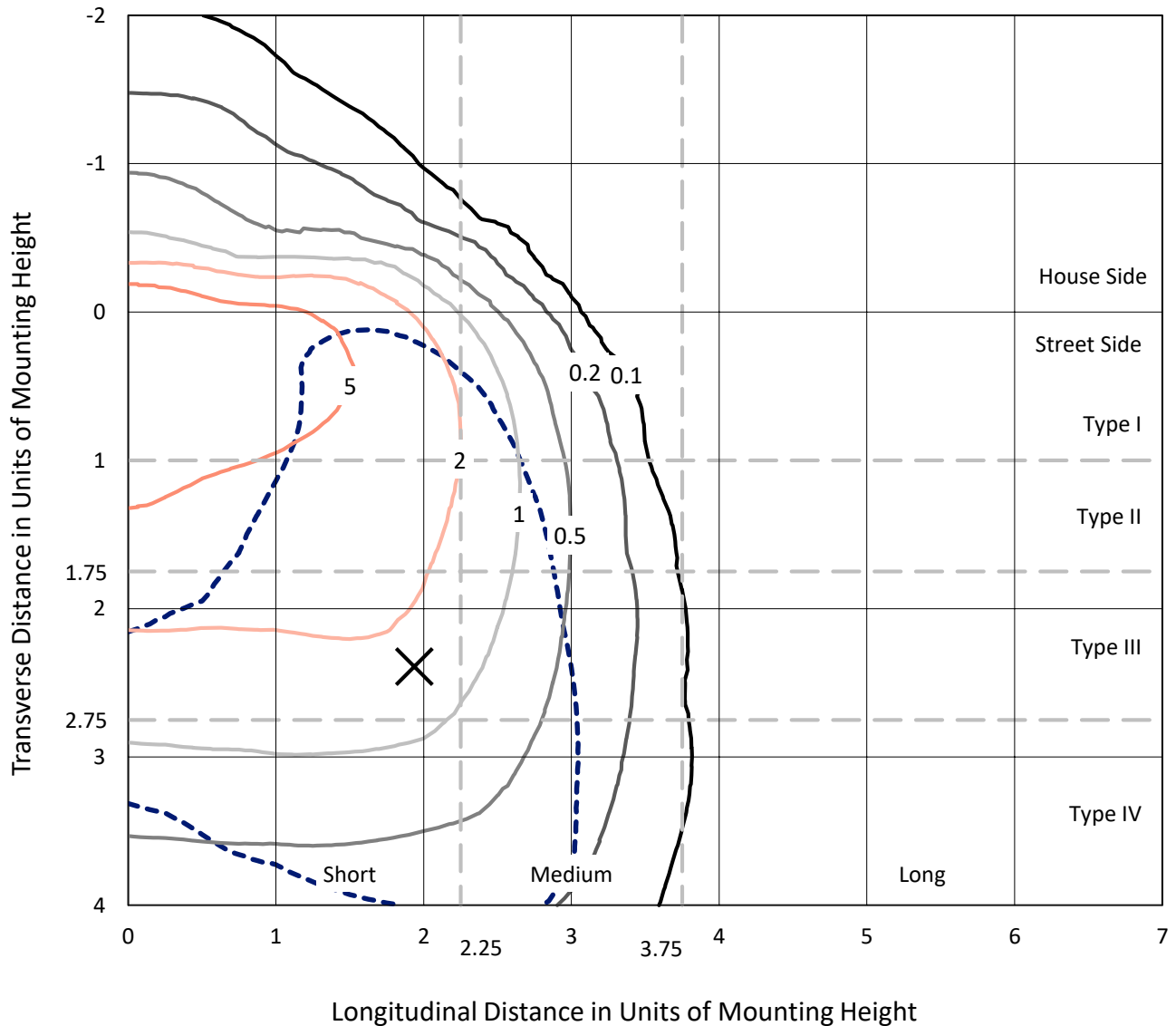
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

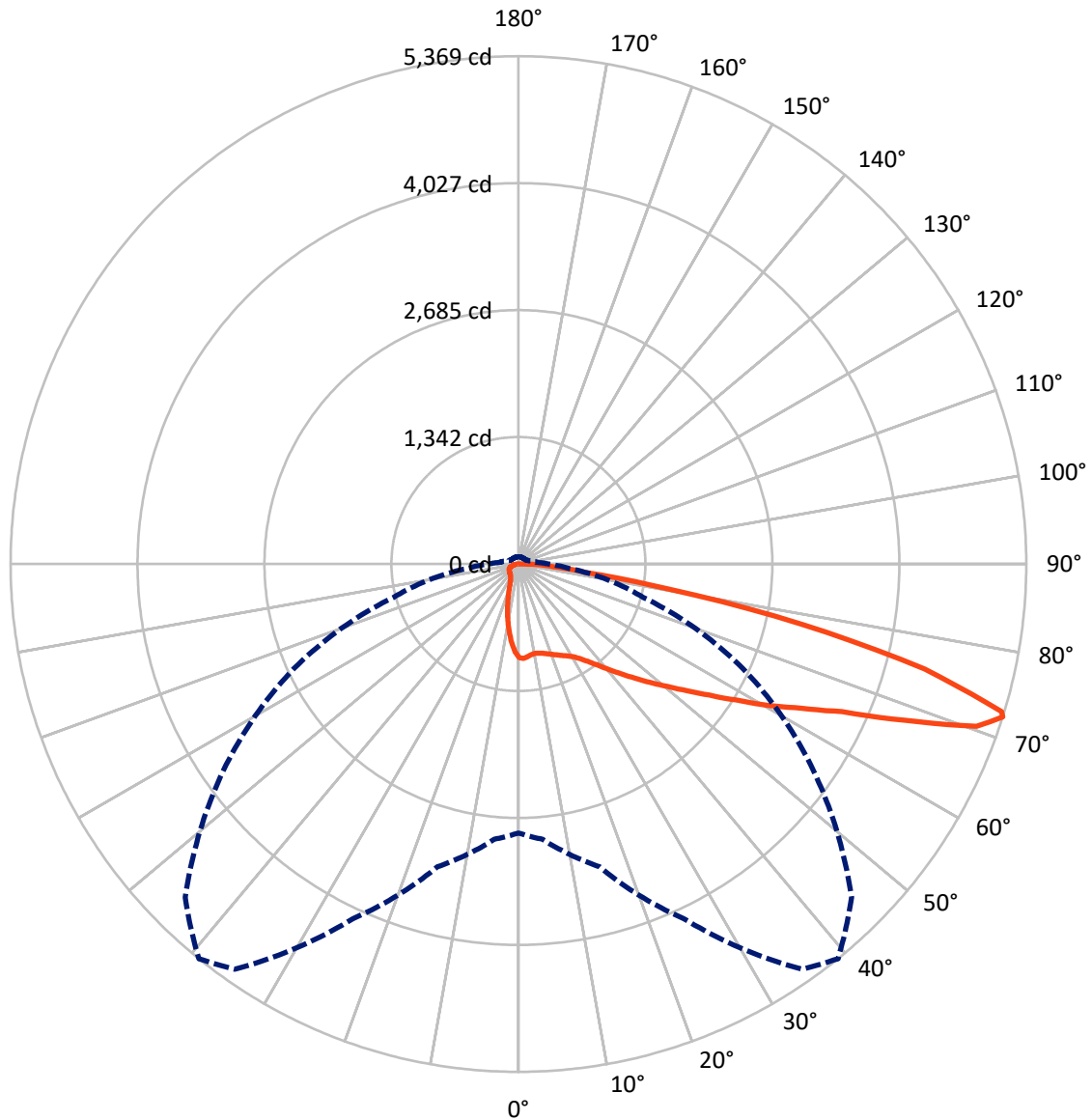
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.9 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 | 742.4 | 0.0 | 742.4 |
| | % Fixture | 11.5 | 0.0 | 11.5 |
| Street Side | Lumens | 5731.9 | 0.0 | 5731.9 |
| | % Fixture | 88.5 | 0.0 | 88.5 |
| Total | Lumens | 6474.3 | 0.0 | 6474.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 85.0 | 1.3 |
| 10°-20° | 213.5 | 3.3 |
| 20°-30° | 332.7 | 5.1 |
| 30°-40° | 512.3 | 7.9 |
| 40°-50° | 835.2 | 12.9 |
| 50°-60° | 1297.7 | 20.0 |
| 60°-70° | 1737.0 | 26.8 |
| 70°-80° | 1249.1 | 19.3 |
| 80°-90° | 211.8 | 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° | 6474.3 | 100.0 |
| 0°-180° | 6474.3 | 100.0 |

Coefficient of Utilization



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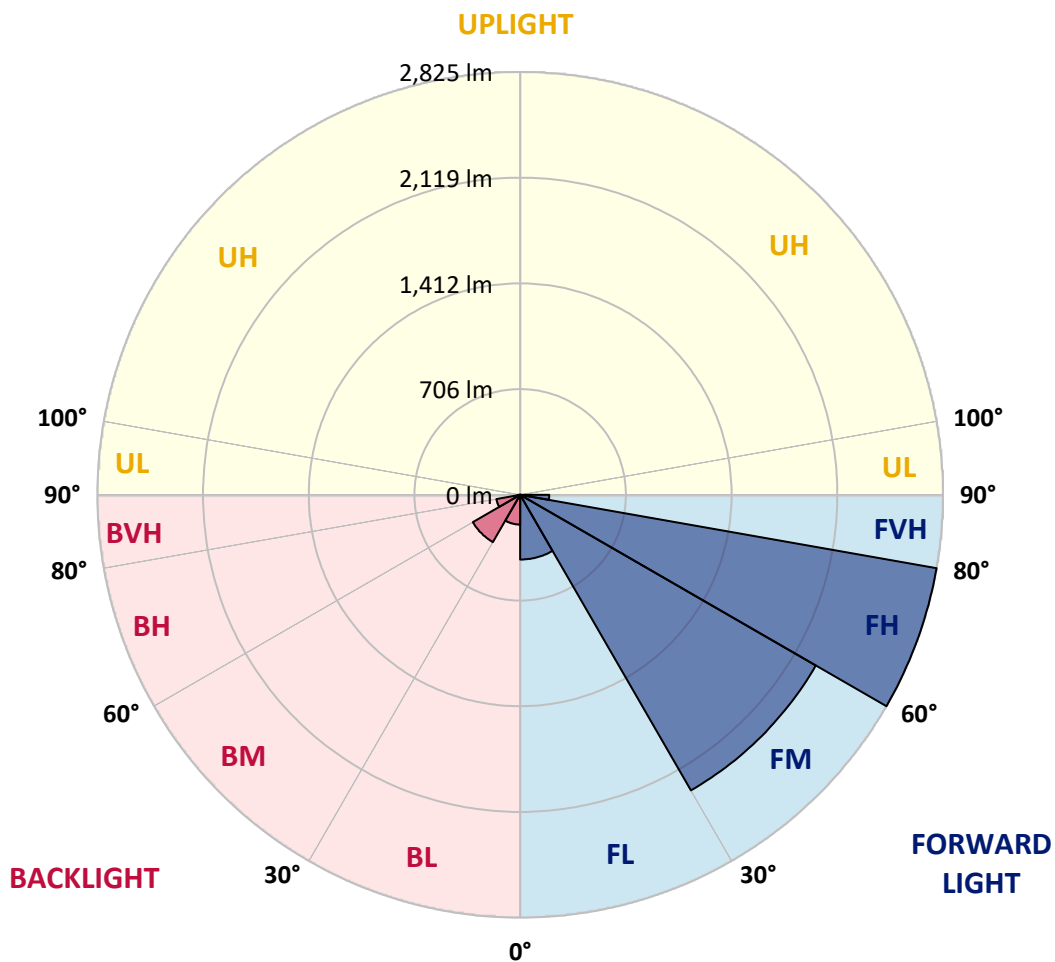
CATALOG NUMBER: XNV-AF-01-LED-U-SL4-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 432.5 | 6.7 | | | |
| FM | (30°-60°) | 2280.4 | 35.2 | | | |
| FH | (60°-80°) | 2824.8 | 43.6 | | | G2/5000 |
| FVH | (80°-90°) | 194.3 | 3.0 | | | G2/225 |
| BL | (0°-30°) | 198.7 | 3.1 | B1/500 | | |
| BM | (30°-60°) | 364.8 | 5.6 | B1/1000 | | |
| BH | (60°-80°) | 161.3 | 2.5 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 17.5 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 |
| 2.5° | 1010.1 | 1010.5 | 1009.1 | 1005.3 | 1001.8 | 1000.0 | 997.0 | 991.8 | 984.8 | 980.1 | 976.1 |
| 5° | 1000.4 | 1001.8 | 1000.9 | 994.4 | 988.3 | 984.8 | 980.1 | 972.6 | 963.5 | 959.6 | 950.5 |
| 7.5° | 993.1 | 994.0 | 991.3 | 984.0 | 972.2 | 967.9 | 959.2 | 949.6 | 941.3 | 935.7 | 924.8 |
| 10° | 987.9 | 988.8 | 986.5 | 979.2 | 966.2 | 961.0 | 950.5 | 940.1 | 929.1 | 922.2 | 910.1 |
| 12.5° | 980.5 | 982.2 | 982.2 | 978.8 | 970.1 | 966.6 | 956.2 | 944.8 | 934.9 | 927.4 | 912.3 |
| 15° | 979.2 | 981.3 | 985.3 | 984.8 | 982.2 | 979.6 | 971.4 | 960.0 | 951.3 | 942.6 | 923.9 |
| 17.5° | 990.0 | 994.8 | 1002.6 | 1005.3 | 1003.5 | 997.9 | 988.3 | 977.8 | 968.3 | 960.0 | 937.0 |
| 20° | 1017.4 | 1020.0 | 1031.7 | 1037.0 | 1028.3 | 1020.0 | 1007.4 | 994.0 | 985.3 | 978.8 | 949.2 |
| 22.5° | 1058.8 | 1062.2 | 1071.7 | 1072.2 | 1053.9 | 1043.9 | 1027.9 | 1011.3 | 1003.1 | 1000.4 | 965.7 |
| 25° | 1124.7 | 1123.9 | 1126.5 | 1115.6 | 1082.6 | 1070.9 | 1051.3 | 1032.2 | 1026.5 | 1031.7 | 990.0 |
| 27.5° | 1203.9 | 1201.7 | 1193.5 | 1165.1 | 1115.2 | 1100.0 | 1076.6 | 1059.6 | 1059.6 | 1071.7 | 1023.1 |
| 30° | 1295.2 | 1293.0 | 1266.0 | 1218.6 | 1153.9 | 1136.5 | 1111.7 | 1093.9 | 1103.0 | 1126.5 | 1067.9 |
| 32.5° | 1391.6 | 1383.7 | 1346.0 | 1282.6 | 1209.1 | 1190.0 | 1166.1 | 1147.8 | 1165.1 | 1205.1 | 1132.2 |
| 35° | 1482.5 | 1478.1 | 1431.6 | 1356.4 | 1280.3 | 1264.3 | 1247.8 | 1225.2 | 1253.0 | 1315.1 | 1223.0 |
| 37.5° | 1576.4 | 1572.9 | 1515.9 | 1435.9 | 1367.3 | 1356.4 | 1342.5 | 1326.9 | 1371.7 | 1453.3 | 1346.0 |
| 40° | 1681.1 | 1674.2 | 1602.5 | 1522.5 | 1468.5 | 1463.3 | 1456.0 | 1451.6 | 1523.8 | 1645.4 | 1501.6 |
| 42.5° | 1799.7 | 1786.3 | 1693.7 | 1617.6 | 1578.9 | 1583.3 | 1579.3 | 1596.7 | 1707.1 | 1867.1 | 1686.7 |
| 45° | 1935.3 | 1908.4 | 1784.5 | 1718.9 | 1701.1 | 1718.5 | 1726.7 | 1771.0 | 1924.0 | 2123.0 | 1893.6 |
| 47.5° | 2062.3 | 2027.5 | 1884.1 | 1828.8 | 1838.9 | 1868.8 | 1892.3 | 1970.5 | 2161.7 | 2376.0 | 2104.8 |
| 50° | 2179.1 | 2140.0 | 1990.5 | 1942.7 | 1991.4 | 2033.9 | 2082.6 | 2193.0 | 2414.7 | 2636.3 | 2298.7 |
| 52.5° | 2265.6 | 2237.4 | 2096.9 | 2067.0 | 2166.5 | 2223.0 | 2300.8 | 2440.4 | 2670.2 | 2884.5 | 2471.7 |
| 55° | 2332.5 | 2317.3 | 2200.9 | 2209.6 | 2364.8 | 2445.6 | 2539.9 | 2700.2 | 2940.6 | 3107.0 | 2610.7 |
| 57.5° | 2409.9 | 2398.6 | 2319.5 | 2381.6 | 2610.7 | 2712.4 | 2823.7 | 3001.8 | 3197.8 | 3303.0 | 2719.8 |
| 60° | 2491.6 | 2491.6 | 2451.6 | 2589.0 | 2918.4 | 3034.9 | 3145.7 | 3284.4 | 3454.3 | 3479.5 | 2764.1 |
| 62.5° | 2553.3 | 2569.4 | 2583.8 | 2809.7 | 3210.4 | 3355.2 | 3476.9 | 3609.9 | 3719.9 | 3566.4 | 2659.8 |
| 65° | 2642.9 | 2677.2 | 2758.0 | 3064.9 | 3572.0 | 3761.5 | 3925.8 | 4037.5 | 3935.0 | 3497.3 | 2319.5 |
| 67.5° | 2796.7 | 2847.6 | 3019.6 | 3444.7 | 4125.8 | 4409.5 | 4569.0 | 4376.1 | 3892.8 | 3062.2 | 1776.7 |
| 70° | 2935.4 | 3007.1 | 3301.3 | 3926.7 | 4845.4 | 5140.1 | 5066.7 | 4297.4 | 3390.4 | 2244.8 | 1093.0 |
| 72° | 2843.2 | 2921.4 | 3314.4 | 4136.6 | 5230.0 | 5369.2 | 4981.9 | 3808.4 | 2619.8 | 1369.9 | 538.9 |
| 72.5° | 2782.8 | 2864.1 | 3272.2 | 4131.4 | 5240.5 | 5340.0 | 4864.1 | 3614.2 | 2378.2 | 1198.7 | 435.9 |
| 75° | 2324.8 | 2394.2 | 2813.6 | 3661.6 | 4618.1 | 4435.6 | 3795.9 | 2339.1 | 1093.0 | 387.2 | 224.2 |
| 77.5° | 1518.1 | 1571.2 | 1940.1 | 2536.8 | 3234.8 | 3059.2 | 2310.3 | 1095.2 | 409.8 | 235.1 | 168.6 |
| 80° | 762.7 | 800.6 | 1038.3 | 1333.8 | 1745.9 | 1606.3 | 1066.5 | 529.8 | 274.3 | 169.9 | 132.6 |
| 82.5° | 530.7 | 565.4 | 714.9 | 681.1 | 729.7 | 706.2 | 501.6 | 442.0 | 205.1 | 107.3 | 69.6 |
| 85° | 445.1 | 481.1 | 591.5 | 485.5 | 397.2 | 362.0 | 359.5 | 417.7 | 135.6 | 53.0 | 58.7 |
| 87.5° | 388.1 | 442.8 | 488.0 | 354.7 | 272.5 | 240.3 | 264.6 | 382.9 | 43.1 | 29.2 | 17.8 |
| 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: XNV-AF-01-LED-U-SL4-1200

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 | 988.8 |
| 2.5° | 969.7 | 968.3 | 961.8 | 951.8 | 944.4 | 939.6 | 930.5 | 930.1 | 930.9 | 923.1 | 926.2 |
| 5° | 942.2 | 937.0 | 920.0 | 897.0 | 878.3 | 860.5 | 841.0 | 834.4 | 828.8 | 817.0 | 818.4 |
| 7.5° | 913.6 | 904.4 | 874.8 | 837.1 | 801.0 | 767.9 | 735.4 | 719.2 | 707.1 | 691.9 | 691.9 |
| 10° | 896.6 | 882.3 | 837.1 | 781.8 | 724.5 | 676.3 | 627.6 | 598.4 | 577.1 | 557.6 | 556.3 |
| 12.5° | 895.7 | 874.0 | 811.0 | 734.9 | 656.2 | 588.5 | 522.0 | 477.2 | 445.5 | 422.5 | 420.2 |
| 15° | 902.7 | 872.3 | 789.2 | 691.0 | 592.0 | 503.7 | 421.6 | 364.7 | 324.2 | 298.6 | 295.9 |
| 17.5° | 908.8 | 870.1 | 765.8 | 645.0 | 529.4 | 422.0 | 330.7 | 271.6 | 233.3 | 212.6 | 210.3 |
| 20° | 914.4 | 865.3 | 735.8 | 596.3 | 460.2 | 345.6 | 258.6 | 210.8 | 185.6 | 173.8 | 172.6 |
| 22.5° | 922.7 | 860.9 | 704.5 | 541.6 | 392.4 | 281.2 | 213.4 | 179.0 | 165.6 | 159.9 | 159.1 |
| 25° | 936.1 | 861.4 | 674.1 | 485.5 | 330.3 | 234.3 | 184.7 | 163.4 | 156.0 | 152.1 | 152.1 |
| 27.5° | 955.7 | 866.6 | 644.0 | 428.5 | 277.7 | 202.1 | 167.8 | 155.2 | 150.4 | 147.3 | 146.5 |
| 30° | 984.4 | 876.2 | 612.3 | 374.6 | 236.0 | 179.9 | 157.7 | 150.0 | 146.1 | 143.4 | 143.0 |
| 32.5° | 1026.1 | 893.1 | 578.9 | 325.5 | 204.3 | 164.3 | 150.4 | 145.6 | 142.6 | 140.3 | 139.9 |
| 35° | 1088.2 | 923.1 | 546.3 | 283.8 | 181.7 | 153.0 | 144.3 | 140.3 | 138.6 | 137.8 | 137.4 |
| 37.5° | 1179.6 | 971.4 | 515.5 | 251.2 | 166.8 | 145.6 | 138.2 | 136.1 | 135.1 | 135.1 | 135.1 |
| 40° | 1294.2 | 1034.8 | 487.6 | 228.2 | 158.7 | 139.9 | 133.9 | 132.2 | 132.2 | 132.6 | 132.6 |
| 42.5° | 1433.8 | 1114.3 | 463.7 | 212.6 | 153.9 | 136.1 | 130.8 | 129.9 | 129.5 | 129.5 | 129.9 |
| 45° | 1595.9 | 1208.2 | 449.0 | 200.4 | 150.4 | 133.9 | 128.7 | 128.2 | 126.4 | 125.6 | 125.6 |
| 47.5° | 1758.9 | 1308.6 | 448.1 | 193.4 | 146.1 | 131.2 | 126.4 | 126.4 | 123.0 | 121.2 | 121.7 |
| 50° | 1911.0 | 1398.6 | 457.7 | 191.7 | 143.4 | 127.4 | 124.3 | 124.7 | 120.0 | 117.7 | 117.3 |
| 52.5° | 2033.5 | 1467.2 | 469.3 | 193.8 | 143.4 | 123.9 | 120.4 | 122.5 | 117.3 | 114.8 | 114.3 |
| 55° | 2128.2 | 1515.1 | 473.7 | 198.7 | 145.2 | 120.8 | 116.9 | 120.4 | 116.5 | 113.0 | 113.0 |
| 57.5° | 2196.1 | 1530.2 | 455.0 | 200.8 | 147.8 | 120.4 | 113.4 | 120.0 | 117.7 | 113.4 | 113.4 |
| 60° | 2171.3 | 1442.1 | 385.4 | 192.5 | 147.3 | 119.5 | 110.8 | 120.8 | 122.1 | 117.3 | 117.3 |
| 62.5° | 1977.9 | 1206.5 | 309.4 | 173.8 | 139.9 | 116.5 | 107.8 | 120.0 | 125.2 | 123.5 | 122.5 |
| 65° | 1610.2 | 884.9 | 239.9 | 151.7 | 127.4 | 110.0 | 101.3 | 112.1 | 118.3 | 120.0 | 120.4 |
| 67.5° | 1134.8 | 560.2 | 186.5 | 129.1 | 111.7 | 100.4 | 93.9 | 99.1 | 101.3 | 102.1 | 103.8 |
| 70° | 620.6 | 303.4 | 148.2 | 108.6 | 95.6 | 90.8 | 86.0 | 86.4 | 85.6 | 84.7 | 85.6 |
| 72° | 311.6 | 198.1 | 125.2 | 94.3 | 84.7 | 81.7 | 79.5 | 78.3 | 78.3 | 76.9 | 77.3 |
| 72.5° | 268.1 | 184.2 | 120.8 | 90.8 | 82.1 | 79.5 | 77.7 | 76.5 | 76.1 | 75.2 | 75.6 |
| 75° | 178.6 | 146.1 | 100.9 | 76.1 | 70.0 | 68.2 | 69.2 | 67.8 | 68.2 | 67.4 | 67.8 |
| 77.5° | 144.3 | 125.6 | 85.6 | 64.3 | 59.9 | 57.4 | 59.1 | 59.5 | 60.5 | 59.5 | 59.1 |
| 80° | 120.8 | 106.9 | 71.7 | 53.0 | 50.0 | 47.8 | 48.7 | 51.8 | 52.2 | 49.5 | 49.1 |
| 82.5° | 78.3 | 86.0 | 56.5 | 41.3 | 38.3 | 37.3 | 39.6 | 42.6 | 43.5 | 40.0 | 39.1 |
| 85° | 65.7 | 69.2 | 40.8 | 28.2 | 25.2 | 24.3 | 28.6 | 31.7 | 33.9 | 30.4 | 29.6 |
| 87.5° | 18.2 | 33.9 | 19.9 | 13.5 | 11.3 | 11.3 | 13.9 | 16.5 | 19.5 | 19.9 | 19.9 |
| 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)