

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: P198769

Luminaire Tested: **XNV2-AF-02-LED-U-T2R-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198769  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24459)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: XNV2-AF-02-LED-U-T2R-1200  
Description: XNV2 ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14181.2 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

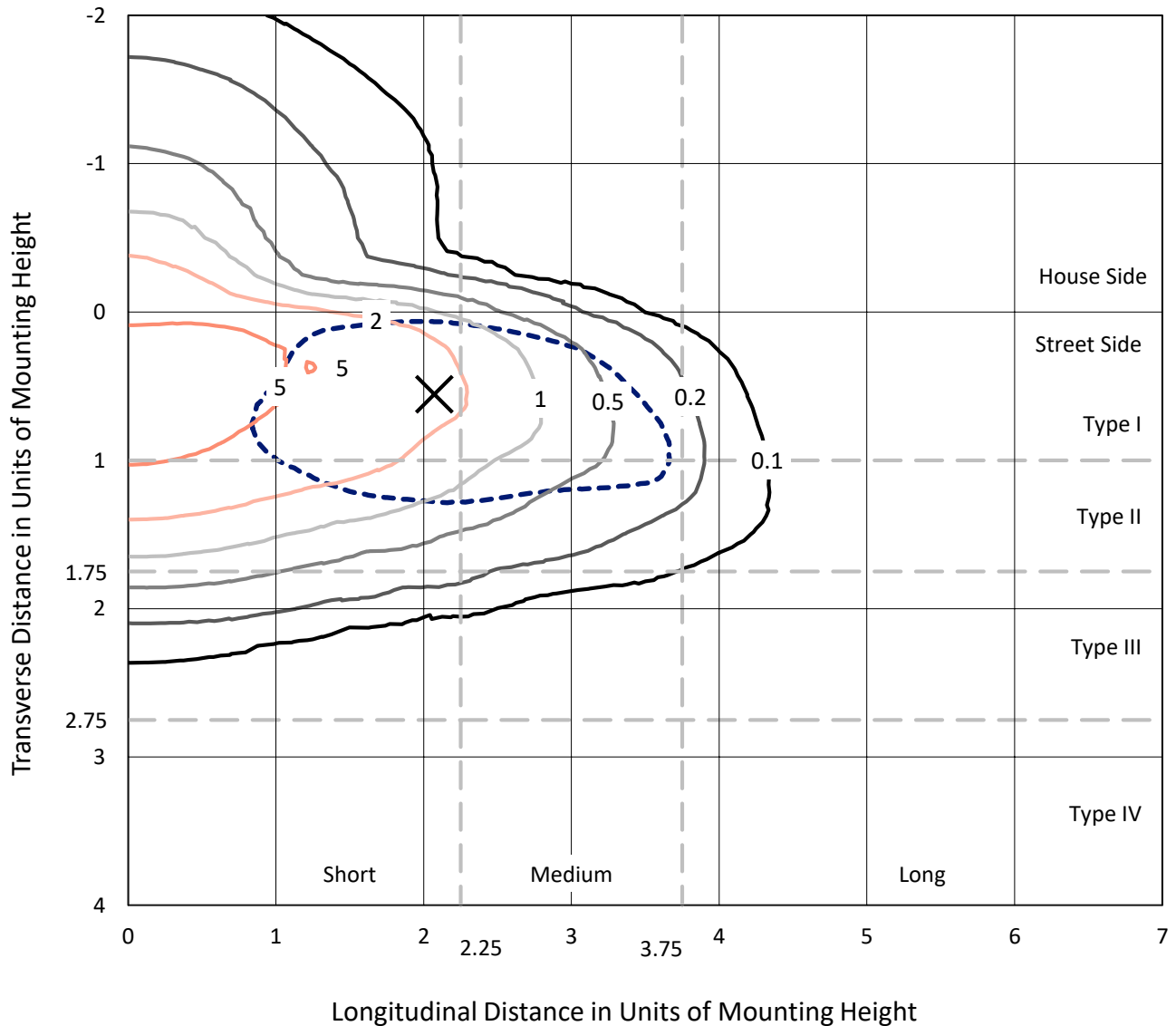
Input Watts (W): 128  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P198769  
 CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-1200

### Iso-Footcandle Lines of Horizontal Illumination

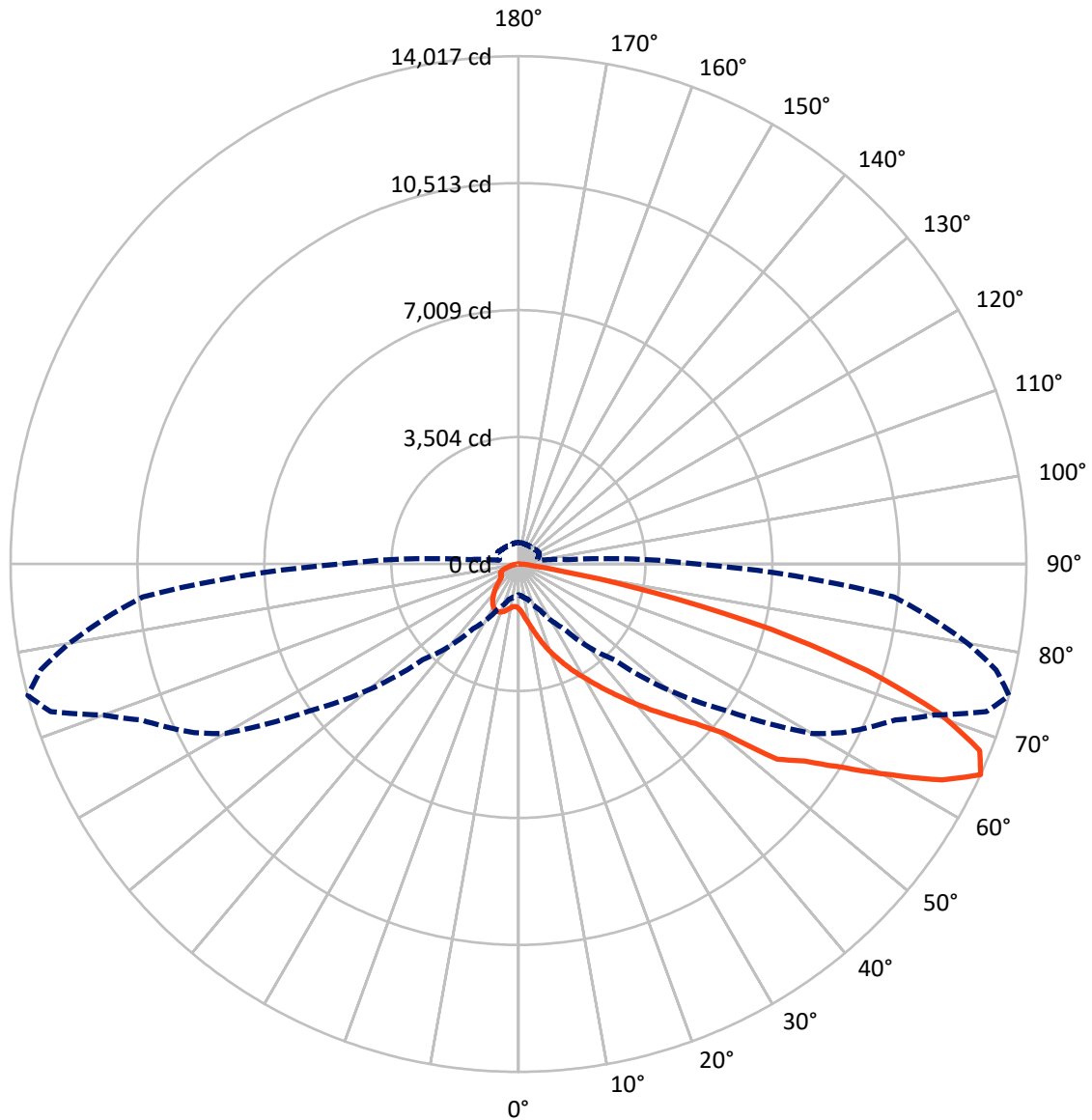
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.8 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P198769  
CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-1200

### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical



REPORT NUMBER: P198769

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-1200

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2130.9	0.0	2130.9
	% Fixture	15.0	0.0	15.0
<b>Street Side</b>	Lumens	12050.2	0.0	12050.2
	% Fixture	85.0	0.0	85.0
<b>Total</b>	Lumens	14181.2	0.0	14181.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.1	1.0
10°-20°	554.1	3.9
20°-30°	1118.1	7.9
30°-40°	1898.9	13.4
40°-50°	2648.5	18.7
50°-60°	3246.1	22.9
60°-70°	3054.1	21.5
70°-80°	1339.2	9.4
80°-90°	177.2	1.2
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°	14181.2	100.0
0°-180°	14181.2	100.0



REPORT NUMBER: P198769

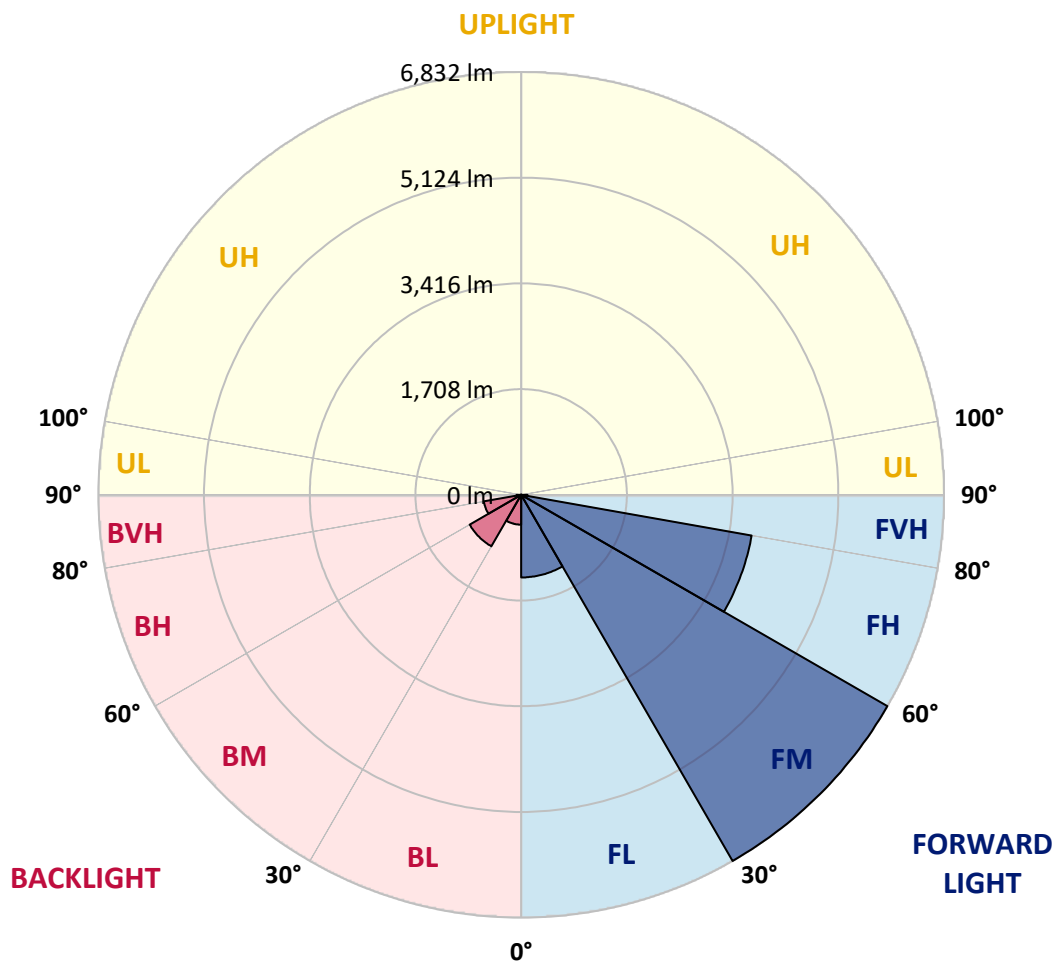
CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-1200

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1334.8	9.4			
FM	(30°-60°)	6831.8	48.2			
FH	(60°-80°)	3780.8	26.7			G2/5000
FVH	(80°-90°)	102.7	0.7			G2/225
BL	(0°-30°)	482.4	3.4	B1/500		
BM	(30°-60°)	961.6	6.8	B1/1000		
BH	(60°-80°)	612.5	4.3	B2/1000		G2/1000
BVH	(80°-90°)	74.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





REPORT NUMBER: P198769

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-1200

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57.5°	60°	62.5°	65°
0°	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7
2.5°	1547.2	1529.1	1530.9	1505.7	1468.7	1428.0	1394.7	1376.7	1361.3	1356.8	1331.6
5°	2023.5	2000.9	1992.8	1935.1	1848.5	1745.7	1643.7	1604.0	1571.6	1551.7	1502.9
7.5°	2413.2	2401.5	2390.6	2337.4	2251.7	2120.1	1955.9	1897.2	1843.1	1783.5	1724.9
10°	2678.5	2673.9	2669.4	2632.5	2561.2	2446.6	2269.8	2205.7	2138.1	2062.3	1985.6
12.5°	2878.7	2878.7	2882.4	2851.7	2808.3	2719.9	2559.3	2499.8	2431.2	2351.9	2264.4
15°	3013.1	3016.8	3035.7	3044.7	3022.2	2965.3	2824.6	2772.3	2707.3	2628.8	2542.2
17.5°	3102.4	3109.7	3137.6	3167.4	3196.3	3176.5	3071.8	3023.0	2964.4	2892.3	2811.1
20°	3310.0	3301.0	3301.8	3292.8	3335.2	3350.6	3292.8	3252.2	3205.3	3139.4	3065.5
22.5°	3745.6	3728.6	3684.4	3571.5	3520.2	3514.8	3480.5	3458.8	3422.7	3381.3	3307.2
25°	4314.0	4294.1	4206.7	4020.8	3867.5	3725.8	3662.7	3649.2	3625.6	3597.7	3544.5
27.5°	4901.3	4879.7	4766.8	4532.4	4332.1	4046.1	3849.5	3831.4	3809.8	3798.0	3772.7
30°	5418.3	5394.7	5283.8	5045.7	4803.9	4462.8	4101.1	4038.0	4001.0	4004.5	3990.1
32.5°	5872.0	5851.3	5726.8	5484.1	5238.7	4907.6	4427.7	4329.3	4246.4	4215.7	4226.5
35°	6252.7	6233.8	6097.5	5853.0	5605.9	5330.7	4848.1	4700.2	4564.8	4480.0	4470.1
37.5°	6476.4	6465.7	6370.0	6162.5	5917.2	5715.0	5319.0	5154.9	4955.5	4831.8	4777.7
40°	6463.8	6475.6	6459.3	6365.5	6175.1	6028.0	5809.7	5647.4	5452.5	5268.5	5158.4
42.5°	6279.8	6296.1	6369.1	6417.8	6366.3	6277.0	6238.3	6117.3	5942.4	5747.6	5595.0
45°	6027.2	6041.6	6136.4	6312.2	6459.3	6484.6	6613.6	6553.1	6405.2	6239.2	6071.4
47.5°	5640.1	5668.2	5778.2	6057.8	6407.9	6651.4	6928.4	6956.4	6870.6	6733.6	6576.6
50°	5080.0	5116.9	5271.2	5669.0	6213.0	6822.9	7396.7	7503.0	7468.8	7329.9	7171.1
52.5°	4506.2	4543.1	4748.8	5171.9	5899.1	6893.3	7857.6	8130.1	8326.7	8470.1	8498.2
55°	3909.0	3950.4	4176.0	4663.1	5480.5	6804.0	8186.9	8496.3	8695.7	8845.5	8905.9
57.5°	3235.1	3281.9	3500.3	3992.9	4888.7	6444.9	8553.2	8991.6	9288.4	9519.4	9649.3
60°	2461.9	2520.6	2747.0	3243.2	4111.0	5757.5	8716.5	9365.1	9836.9	10183.4	10389.0
62.5°	1560.7	1620.3	1855.7	2370.8	3226.1	4818.3	8254.6	9200.9	10005.6	10518.0	10895.1
65°	851.6	877.8	1008.6	1396.5	2175.1	3738.5	7083.6	8199.6	9358.8	10085.0	10664.2
67.5°	638.7	642.3	655.8	750.5	1158.4	2524.1	5538.3	6560.4	7847.7	8782.3	9474.3
70°	559.3	559.3	561.1	562.0	628.8	1367.7	3752.0	4692.9	5873.0	6818.4	7678.1
72.5°	501.6	496.1	494.4	483.5	492.6	700.9	2042.4	2887.8	3882.8	4943.7	5745.7
75°	433.0	432.1	432.1	421.3	426.7	493.5	885.9	1385.7	2157.0	3144.9	3934.3
77.5°	374.4	368.1	369.0	362.6	379.8	378.0	420.4	571.0	939.2	1651.9	2306.8
80°	308.5	304.0	306.7	303.1	330.2	279.7	283.3	349.1	466.4	724.5	1021.2
82.5°	228.2	230.1	247.1	245.4	277.8	188.5	207.5	260.8	313.9	360.9	392.4
85°	133.5	136.3	177.7	186.8	203.9	99.2	127.2	155.2	175.0	194.0	202.0
87.5°	14.4	18.9	99.2	102.0	91.1	29.8	51.5	65.0	69.5	74.0	65.0
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: P198769

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-1200

**CANDELA DISTRIBUTION (continued):**

	67.5°	70°	72.5°	75°	77.5°	80°	85°	90°	95°	100°	102.5°
0°	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7
2.5°	1323.4	1311.7	1299.0	1291.9	1279.2	1268.4	1248.5	1232.3	1214.2	1201.7	1196.2
5°	1478.6	1450.6	1420.9	1399.2	1372.2	1348.7	1303.5	1249.4	1232.3	1196.2	1187.2
7.5°	1680.7	1630.2	1579.6	1538.1	1491.3	1452.5	1376.7	1279.2	1266.6	1208.8	1196.2
10°	1917.9	1844.0	1769.1	1705.1	1636.5	1577.0	1465.1	1328.0	1314.4	1240.4	1227.8
12.5°	2183.2	2093.0	1996.4	1900.8	1819.6	1735.7	1583.2	1403.7	1382.1	1294.5	1277.5
15°	2456.5	2359.1	2247.2	2131.7	2031.6	1920.7	1728.5	1502.9	1463.2	1360.4	1337.0
17.5°	2726.3	2620.7	2503.5	2374.5	2257.1	2124.6	1885.5	1613.9	1545.4	1425.4	1395.6
20°	2987.0	2879.6	2756.0	2629.7	2483.6	2332.0	2046.0	1723.1	1618.4	1479.5	1440.7
22.5°	3224.2	3132.2	3008.6	2863.3	2715.4	2544.9	2209.4	1832.2	1682.4	1521.0	1471.4
25°	3474.1	3390.3	3267.5	3127.7	2955.4	2766.0	2378.1	1936.0	1733.9	1543.5	1482.3
27.5°	3726.7	3654.6	3539.1	3392.0	3207.1	2996.9	2549.4	2031.6	1775.4	1550.8	1476.8
30°	3996.5	3940.5	3834.1	3669.9	3483.1	3250.4	2736.2	2125.5	1801.5	1540.9	1452.5
32.5°	4251.8	4250.0	4155.2	3984.7	3783.6	3527.3	2932.8	2220.1	1815.1	1512.8	1410.0
35°	4517.0	4554.0	4482.7	4320.3	4108.4	3824.2	3150.3	2321.2	1816.0	1463.2	1355.0
37.5°	4818.3	4884.2	4852.6	4698.3	4475.5	4162.5	3405.6	2434.8	1810.6	1394.7	1274.7
40°	5161.1	5251.3	5250.4	5120.5	4882.3	4541.4	3702.4	2562.1	1797.9	1309.0	1180.0
42.5°	5553.6	5660.9	5690.7	5562.6	5321.7	4955.5	4042.5	2701.9	1778.1	1224.2	1079.8
45°	6002.8	6097.5	6153.5	6034.4	5792.7	5406.5	4433.1	2860.7	1753.7	1115.0	965.3
47.5°	6483.7	6593.7	6677.6	6575.6	6317.6	5920.7	4895.9	3065.5	1744.7	990.5	841.7
50°	7079.9	7193.6	7375.0	7328.9	7187.4	6868.0	5874.7	3549.0	1748.3	872.4	738.0
52.5°	8559.4	8820.2	9049.3	8947.4	8610.9	8063.3	6670.4	3817.9	1672.5	775.8	665.7
55°	9006.1	9301.9	9640.3	9597.8	9274.9	8722.8	7299.2	4042.5	1599.5	705.4	618.9
57.5°	9787.3	10136.4	10609.1	10600.1	10204.0	9582.5	8108.4	4311.3	1567.9	664.9	595.5
60°	10614.5	11059.3	11712.5	11814.4	11384.1	10737.2	9064.7	4641.5	1572.4	642.3	581.9
62.5°	11219.0	11871.2	12821.2	13126.1	12619.1	11906.4	10057.0	4971.6	1545.4	616.1	565.6
65°	11255.9	12195.1	13542.8	14017.4	13504.1	12588.4	10407.1	4906.7	1382.9	580.9	539.5
67.5°	10353.8	11577.1	13214.5	13735.1	13210.0	12168.0	9793.6	4289.6	1124.0	519.7	494.4
70°	8623.6	10043.5	11743.2	12323.2	11889.2	10834.7	8523.4	3426.3	839.8	438.4	426.7
72.5°	6664.1	7988.4	9532.0	10068.8	9736.8	8809.3	6722.7	2497.1	600.0	355.5	346.4
75°	4764.2	5891.9	7012.3	7217.1	6889.6	6038.0	4361.9	1559.8	420.4	291.4	278.8
77.5°	2950.0	3683.4	4085.8	3822.4	3404.7	2830.0	1775.4	770.4	279.7	237.2	224.6
80°	1309.0	1536.4	1434.4	1278.3	1009.4	829.9	542.2	341.9	180.4	183.1	175.9
82.5°	440.3	465.5	452.9	450.2	406.0	355.5	230.1	147.9	101.1	117.2	114.6
85°	214.7	224.6	225.6	233.6	203.0	157.8	62.3	58.6	43.3	63.1	65.9
87.5°	65.0	65.9	59.5	65.0	52.4	36.1	11.8	16.3	8.1	15.3	15.3
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: P198769

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-1200

**CANDELA DISTRIBUTION (continued):**

	105°	107.5°	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°
0°	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7
2.5°	1186.3	1182.7	1176.4	1169.1	1167.4	1158.4	1155.6	1151.1	1148.5	1143.9	1140.3
5°	1175.5	1169.1	1162.0	1153.8	1153.8	1141.2	1135.8	1130.4	1130.4	1122.3	1118.7
7.5°	1186.3	1178.2	1170.1	1162.9	1165.6	1151.1	1145.7	1140.3	1139.4	1131.3	1127.7
10°	1217.0	1208.8	1198.9	1191.7	1189.0	1177.3	1171.0	1162.9	1157.5	1152.0	1146.6
12.5°	1263.9	1253.1	1240.4	1225.1	1218.7	1208.8	1198.9	1188.2	1175.5	1170.1	1162.0
15°	1319.8	1301.8	1284.6	1265.7	1248.5	1238.6	1225.1	1208.0	1190.8	1183.6	1172.8
17.5°	1365.8	1346.9	1322.6	1300.0	1269.3	1261.2	1242.3	1221.5	1193.6	1190.8	1174.6
20°	1404.6	1375.8	1346.0	1318.9	1272.0	1267.5	1244.0	1219.7	1180.0	1180.0	1160.1
22.5°	1426.3	1386.6	1351.4	1315.3	1256.7	1253.1	1226.0	1197.2	1148.5	1150.2	1125.9
25°	1429.9	1382.1	1337.9	1294.5	1226.9	1220.6	1186.3	1154.7	1101.5	1097.9	1072.7
27.5°	1415.5	1359.5	1308.1	1255.8	1182.7	1169.1	1131.3	1093.4	1041.1	1032.1	1004.9
30°	1382.1	1316.2	1258.4	1198.1	1121.4	1099.7	1060.0	1021.2	968.0	956.3	931.0
32.5°	1328.8	1253.9	1189.9	1129.4	1044.6	1017.6	977.9	939.2	887.7	878.7	855.2
35°	1258.4	1174.6	1106.9	1042.9	958.1	930.1	892.2	857.9	811.0	807.4	791.2
37.5°	1170.1	1082.6	1010.4	949.1	868.8	854.4	815.5	790.2	751.5	755.0	747.0
40°	1069.9	980.6	912.1	857.9	788.5	775.8	752.4	733.5	700.1	710.0	710.8
42.5°	968.9	879.5	817.3	768.6	709.1	700.9	684.8	673.9	648.7	668.5	676.6
45°	854.4	771.3	718.1	681.1	636.9	636.9	628.8	627.9	610.7	638.7	646.8
47.5°	743.4	678.4	641.4	618.9	588.2	602.6	600.0	607.1	594.5	623.4	630.5
50°	659.5	614.4	591.8	580.9	559.3	581.9	587.3	597.2	586.4	611.6	617.0
52.5°	606.2	576.4	563.9	561.1	545.7	573.8	582.8	591.8	579.2	602.6	601.7
55°	576.4	556.6	552.1	557.5	545.7	572.9	581.9	588.2	577.4	593.6	592.7
57.5°	565.6	554.8	557.5	565.6	557.5	580.1	584.6	591.8	580.9	588.2	591.8
60°	564.8	564.8	575.6	586.4	580.9	597.2	600.0	599.0	589.1	590.0	591.8
62.5°	559.3	572.9	590.9	608.0	606.2	626.0	627.9	616.1	608.0	599.0	596.3
65°	542.2	564.8	590.9	614.4	618.0	648.7	652.2	640.5	635.2	619.8	608.0
67.5°	504.3	533.2	563.9	592.7	599.0	640.5	648.7	653.2	655.8	645.9	630.5
70°	440.3	470.0	501.6	535.0	544.0	590.0	607.1	627.9	644.2	658.6	653.2
72.5°	358.1	385.2	412.2	442.9	456.4	504.3	526.8	562.9	588.2	625.2	640.5
75°	284.2	300.4	316.6	335.6	346.4	393.3	421.3	464.6	498.9	550.3	584.6
77.5°	223.7	231.8	240.0	248.1	252.6	278.8	301.4	344.6	384.3	449.3	499.8
80°	172.3	176.9	177.7	180.4	178.6	191.3	199.4	225.6	259.8	323.9	383.4
82.5°	111.0	114.6	116.4	120.9	111.9	128.1	133.5	136.3	154.3	201.2	243.6
85°	62.3	63.1	64.0	65.9	53.2	69.5	70.4	65.9	64.0	83.0	93.8
87.5°	15.3	14.4	15.3	15.3	6.3	14.4	14.4	9.9	7.3	13.5	10.8
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: P198769

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-1200

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	1228.7	1228.7	1228.7	1228.7	1228.7	1228.7
2.5°	1132.2	1130.4	1131.3	1126.8	1124.9	1125.9
5°	1114.1	1110.5	1110.5	1107.9	1104.2	1104.2
7.5°	1122.3	1115.0	1112.4	1106.9	1101.5	1102.4
10°	1134.9	1122.3	1113.3	1105.1	1098.9	1098.9
12.5°	1143.0	1120.4	1106.9	1096.1	1088.9	1088.9
15°	1144.8	1110.5	1090.7	1078.9	1071.7	1071.7
17.5°	1133.9	1090.7	1065.4	1050.1	1042.0	1043.8
20°	1106.9	1053.7	1024.0	1007.7	999.5	1000.4
22.5°	1064.5	1003.2	968.9	949.9	941.8	941.8
25°	1006.8	940.0	903.1	887.7	880.5	880.5
27.5°	940.9	872.4	839.8	828.2	823.7	823.7
30°	867.0	810.1	786.6	778.6	771.3	771.3
32.5°	804.8	764.1	756.0	745.1	726.2	725.3
35°	755.0	750.5	744.3	711.8	684.8	681.1
37.5°	728.0	755.0	715.3	659.5	637.8	636.9
40°	713.6	738.9	670.2	643.2	640.5	640.5
42.5°	679.3	697.3	667.6	652.2	652.2	653.2
45°	643.2	658.6	673.9	660.3	664.9	665.7
47.5°	618.0	648.7	673.9	662.2	671.2	676.6
50°	594.5	639.7	660.3	660.3	670.2	671.2
52.5°	589.1	627.0	647.7	657.7	658.6	654.1
55°	590.0	617.0	637.8	650.4	645.1	645.1
57.5°	589.1	611.6	629.7	634.2	636.9	636.9
60°	590.0	604.5	618.9	617.0	626.0	626.0
62.5°	592.7	594.5	601.7	600.0	613.5	613.5
65°	599.0	581.9	577.4	579.2	595.5	594.5
67.5°	610.7	564.8	550.3	551.2	574.7	571.0
70°	627.9	541.2	519.7	514.2	553.9	547.6
72.5°	633.3	514.2	480.0	474.5	498.0	480.0
75°	608.0	492.6	437.5	419.5	409.6	404.2
77.5°	542.2	479.0	393.3	355.5	340.1	336.4
80°	449.3	451.0	335.6	290.5	337.4	336.4
82.5°	339.2	389.7	268.8	251.6	244.5	203.9
85°	164.2	293.2	206.6	173.2	103.7	98.3
87.5°	14.4	122.7	119.1	77.5	35.2	33.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)