

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: P198929

Luminaire Tested: **XNV2-AF-02-LED-U-T2R-7050-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198929  
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-7050-1200  
Description: XNV2 ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 5000K, 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: 13863 lumens  
Efficiency: N/A  
Efficacy: 108.3 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

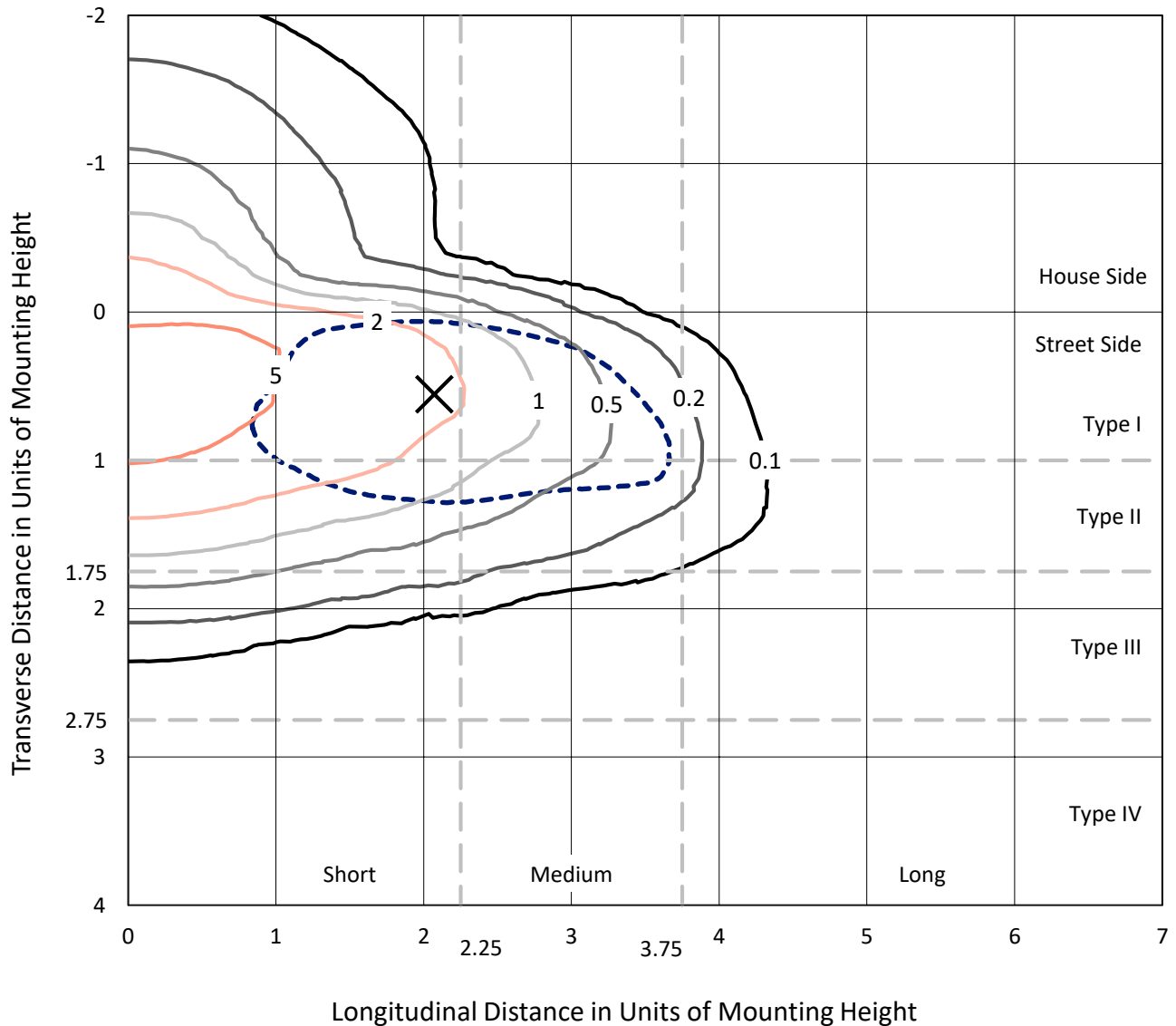


REPORT NUMBER: P198929

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7050-1200

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

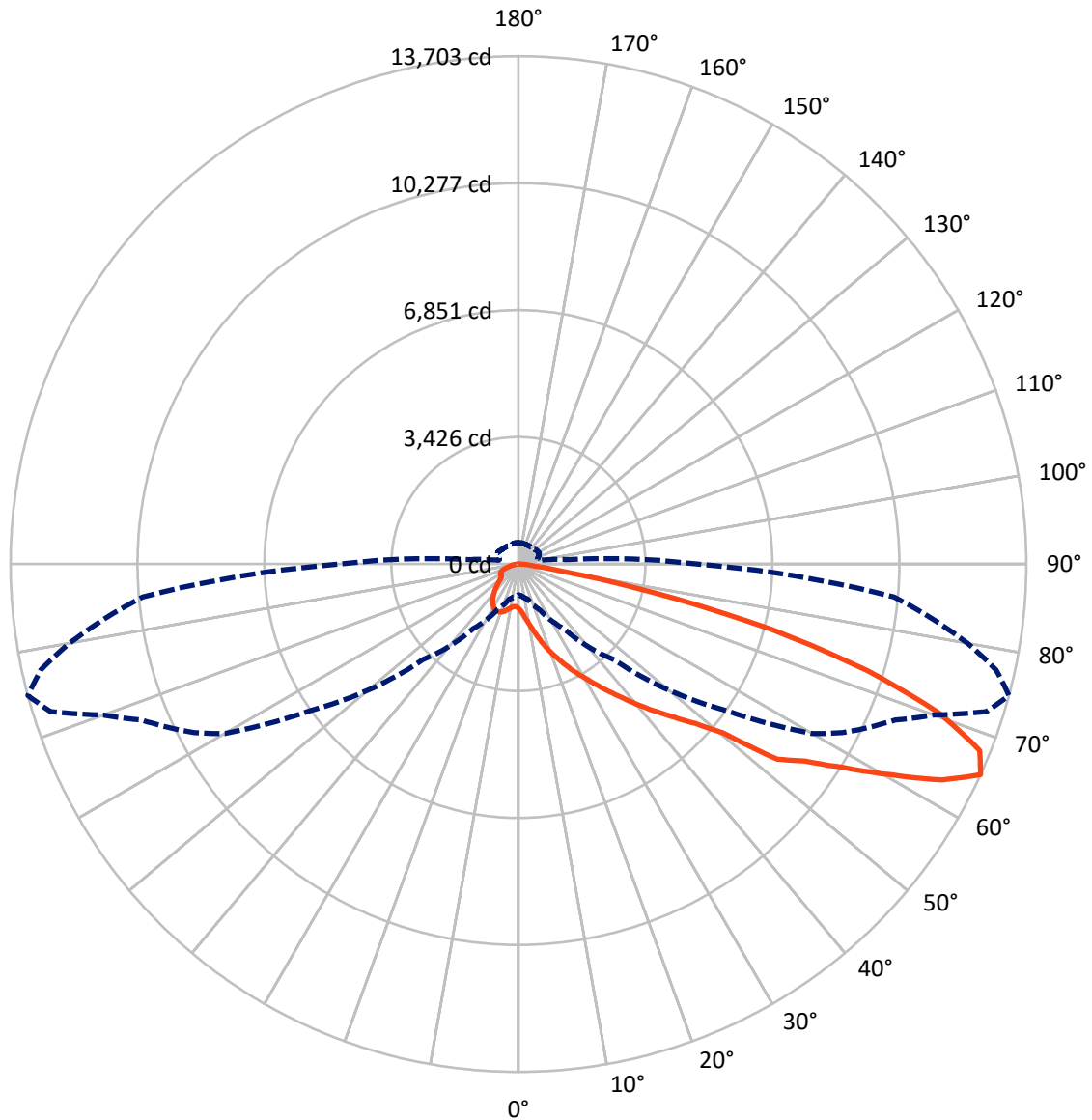


Based on 20 foot mounting height. Maximum calculated value = 8.6 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P198929

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7050-1200

### Luminous Intensity Polar Plot



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



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CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7050-1200

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2083.1	0.0	2083.1
	% Fixture	15.0	0.0	15.0
<b>Street Side</b>	Lumens	11779.9	0.0	11779.9
	% Fixture	85.0	0.0	85.0
<b>Total</b>	Lumens	13863.0	0.0	13863.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.8	1.0
10°-20°	541.6	3.9
20°-30°	1093.0	7.9
30°-40°	1856.3	13.4
40°-50°	2589.1	18.7
50°-60°	3173.2	22.9
60°-70°	2985.6	21.5
70°-80°	1309.1	9.4
80°-90°	173.2	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°	13863.0	100.0
0°-180°	13863.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P198929

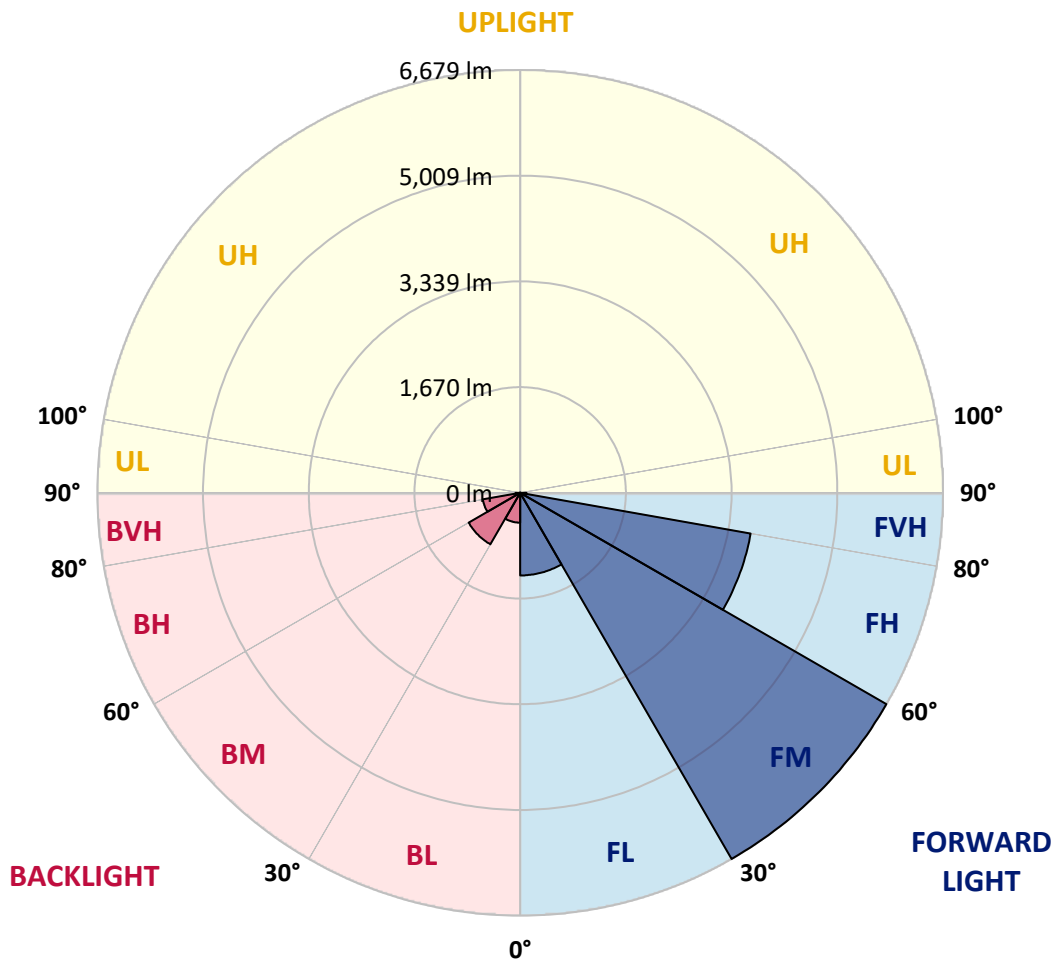
CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7050-1200

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1304.9	9.4			
FM	(30°-60°)	6678.6	48.2			
FH	(60°-80°)	3696.0	26.7			G2/5000
FVH	(80°-90°)	100.4	0.7			G2/225
BL	(0°-30°)	471.6	3.4	B1/500		
BM	(30°-60°)	940.0	6.8	B1/1000		
BH	(60°-80°)	598.7	4.3	B2/1000		G2/1000
BVH	(80°-90°)	72.8	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: P198929

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7050-1200

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57.5°	60°	62.5°	65°
0°	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1
2.5°	1512.5	1494.8	1496.6	1471.9	1435.7	1396.0	1363.4	1345.8	1330.8	1326.4	1301.7
5°	1978.1	1956.0	1948.1	1891.7	1807.0	1706.5	1606.8	1568.0	1536.3	1516.9	1469.2
7.5°	2359.1	2347.6	2337.0	2285.0	2201.2	2072.5	1912.0	1854.6	1801.7	1743.5	1686.2
10°	2618.4	2613.9	2609.5	2573.4	2503.7	2391.7	2218.9	2156.2	2090.1	2016.0	1941.1
12.5°	2814.1	2814.1	2817.7	2787.7	2745.3	2658.9	2501.9	2443.7	2376.7	2299.1	2213.6
15°	2945.5	2949.1	2967.6	2976.4	2954.4	2898.8	2761.2	2710.1	2646.6	2569.8	2485.2
17.5°	3032.8	3039.9	3067.2	3096.3	3124.6	3105.2	3002.9	2955.2	2897.9	2827.4	2748.0
20°	3235.7	3226.9	3227.7	3218.9	3260.4	3275.4	3218.9	3179.2	3133.4	3069.0	2996.7
22.5°	3661.6	3644.9	3601.7	3491.4	3441.2	3435.9	3402.4	3381.2	3345.9	3305.4	3233.0
25°	4217.2	4197.8	4112.3	3930.6	3780.7	3642.2	3580.5	3567.3	3544.3	3517.0	3465.0
27.5°	4791.3	4770.2	4659.9	4430.7	4234.9	3955.3	3763.1	3745.4	3724.3	3712.8	3688.1
30°	5296.7	5273.7	5165.3	4932.5	4696.1	4362.7	4009.1	3947.4	3911.2	3914.7	3900.6
32.5°	5740.3	5720.0	5598.3	5361.1	5121.2	4797.5	4328.4	4232.2	4151.1	4121.1	4131.7
35°	6112.4	6093.9	5960.7	5721.7	5480.1	5211.1	4739.3	4594.7	4462.4	4379.5	4369.8
37.5°	6331.1	6320.6	6227.1	6024.2	5784.4	5586.8	5199.7	5039.2	4844.3	4723.4	4670.5
40°	6318.8	6330.3	6314.4	6222.7	6036.6	5892.8	5679.4	5520.7	5330.2	5150.3	5042.7
42.5°	6138.9	6154.8	6226.2	6273.8	6223.5	6136.2	6098.3	5980.1	5809.1	5618.6	5469.5
45°	5892.0	5906.1	5998.7	6170.6	6314.4	6339.1	6465.2	6406.1	6261.5	6099.2	5935.2
47.5°	5513.6	5541.0	5648.6	5921.9	6264.1	6502.2	6773.0	6800.3	6716.5	6582.5	6429.0
50°	4966.0	5002.1	5152.9	5541.8	6073.6	6669.8	7230.7	7334.7	7301.2	7165.4	7010.2
52.5°	4405.1	4441.2	4642.3	5055.9	5766.7	6738.6	7681.3	7947.7	8139.9	8280.1	8307.5
55°	3821.3	3861.8	4082.3	4558.5	5357.5	6651.3	8003.2	8305.7	8500.6	8647.0	8706.1
57.5°	3162.5	3208.3	3421.8	3903.3	4779.0	6300.3	8361.3	8789.9	9080.0	9305.8	9432.8
60°	2406.7	2464.0	2685.4	3170.4	4018.8	5628.3	8520.9	9155.0	9616.2	9954.9	10155.9
62.5°	1525.7	1583.9	1814.1	2317.6	3153.7	4710.2	8069.4	8994.5	9781.1	10282.0	10650.7
65°	832.5	858.1	986.0	1365.2	2126.3	3654.6	6924.7	8015.6	9148.8	9858.7	10424.9
67.5°	624.4	627.9	641.1	733.7	1132.4	2467.5	5414.0	6413.2	7671.6	8585.3	9261.7
70°	546.8	546.8	548.5	549.4	614.7	1337.0	3667.8	4587.6	5741.2	6665.4	7505.8
72.5°	490.3	485.0	483.3	472.7	481.5	685.2	1996.6	2823.0	3795.7	4832.8	5616.8
75°	423.3	422.4	422.4	411.8	417.1	482.4	866.0	1354.6	2108.6	3074.3	3846.0
77.5°	366.0	359.8	360.7	354.5	371.3	369.5	411.0	558.2	918.1	1614.8	2255.0
80°	301.6	297.2	299.8	296.3	322.8	273.4	276.9	341.3	455.9	708.2	998.3
82.5°	223.1	224.9	241.6	239.9	271.6	184.3	202.8	254.9	306.9	352.8	383.6
85°	130.5	133.2	173.7	182.6	199.3	97.0	124.3	151.7	171.1	189.6	197.5
87.5°	14.1	18.5	97.0	99.7	89.1	29.1	50.3	63.5	67.9	72.3	63.5
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: P198929

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7050-1200

**CANDELA DISTRIBUTION (continued):**

	67.5°	70°	72.5°	75°	77.5°	80°	85°	90°	95°	100°	102.5°
0°	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1
2.5°	1293.7	1282.3	1269.9	1262.9	1250.5	1239.9	1220.5	1204.7	1187.0	1174.7	1169.4
5°	1445.4	1418.1	1389.0	1367.8	1341.4	1318.4	1274.3	1221.4	1204.7	1169.4	1160.6
7.5°	1643.0	1593.6	1544.2	1503.6	1457.8	1419.9	1345.8	1250.5	1238.2	1181.7	1169.4
10°	1874.9	1802.6	1729.4	1666.8	1599.8	1541.6	1432.2	1298.2	1284.9	1212.6	1200.3
12.5°	2134.2	2046.0	1951.6	1858.2	1778.8	1696.8	1547.7	1372.2	1351.1	1265.5	1248.8
15°	2401.4	2306.2	2196.8	2083.9	1986.0	1877.6	1689.7	1469.2	1430.4	1329.9	1307.0
17.5°	2665.1	2561.9	2447.3	2321.2	2206.5	2076.9	1843.2	1577.7	1510.7	1393.4	1364.3
20°	2920.0	2815.0	2694.2	2570.7	2427.9	2279.7	2000.1	1684.4	1582.1	1446.3	1408.4
22.5°	3151.9	3061.9	2941.1	2799.1	2654.5	2487.8	2159.8	1791.1	1644.7	1486.9	1438.4
25°	3396.2	3314.2	3194.2	3057.5	2889.1	2703.9	2324.7	1892.6	1695.0	1508.9	1449.0
27.5°	3643.1	3572.6	3459.7	3315.9	3135.1	2929.7	2492.2	1986.0	1735.6	1516.0	1443.7
30°	3906.8	3852.1	3748.1	3587.6	3405.0	3177.5	2674.8	2077.8	1761.1	1506.3	1419.9
32.5°	4156.4	4154.6	4062.0	3895.3	3698.7	3448.2	2867.0	2170.3	1774.4	1478.9	1378.4
35°	4415.7	4451.8	4382.1	4223.4	4016.2	3738.4	3079.6	2269.1	1775.3	1430.4	1324.6
37.5°	4710.2	4774.6	4743.7	4592.9	4375.1	4069.1	3329.2	2380.2	1770.0	1363.4	1246.1
40°	5045.3	5133.5	5132.6	5005.6	4772.8	4439.5	3619.3	2504.6	1757.6	1279.6	1153.5
42.5°	5429.0	5533.9	5563.0	5437.8	5202.3	4844.3	3951.8	2641.3	1738.2	1196.7	1055.6
45°	5868.1	5960.7	6015.4	5899.0	5662.7	5285.2	4333.6	2796.5	1714.4	1090.0	943.6
47.5°	6338.2	6445.8	6527.8	6428.1	6175.9	5787.9	4786.1	2996.7	1705.6	968.3	822.8
50°	6921.1	7032.2	7209.5	7164.5	7026.1	6713.9	5742.9	3469.4	1709.1	852.8	721.4
52.5°	8367.4	8622.3	8846.3	8746.7	8417.7	7882.4	6520.7	3732.2	1635.0	758.4	650.8
55°	8804.0	9093.2	9424.0	9382.5	9066.8	8527.1	7135.4	3951.8	1563.6	689.6	605.0
57.5°	9567.7	9909.0	10371.1	10362.3	9975.1	9367.5	7926.5	4214.6	1532.7	650.0	582.1
60°	10376.4	10811.2	11449.7	11549.3	11128.7	10496.3	8861.3	4537.4	1537.1	627.9	568.8
62.5°	10967.3	11604.9	12533.5	12831.6	12336.0	11639.3	9831.4	4860.1	1510.7	602.3	552.9
65°	11003.4	11921.5	13239.0	13702.9	13201.1	12306.0	10173.6	4796.6	1351.9	567.9	527.4
67.5°	10121.5	11317.4	12918.0	13426.9	12913.6	11895.0	9573.9	4193.4	1098.8	508.0	483.3
70°	8430.1	9818.2	11479.7	12046.7	11622.5	10591.6	8332.2	3349.4	821.0	428.6	417.1
72.5°	6514.6	7809.2	9318.1	9842.9	9518.3	8611.7	6571.9	2441.1	586.5	347.5	338.6
75°	4657.3	5759.7	6855.0	7055.2	6735.0	5902.5	4264.0	1524.8	411.0	284.9	272.5
77.5°	2883.8	3600.8	3994.1	3736.6	3328.3	2766.5	1735.6	753.1	273.4	231.9	219.6
80°	1279.6	1501.9	1402.2	1249.6	986.8	811.3	530.0	334.2	176.4	179.0	172.0
82.5°	430.4	455.1	442.7	440.1	396.9	347.5	224.9	144.6	98.8	114.6	112.0
85°	209.9	219.6	220.5	228.4	198.4	154.3	60.9	57.3	42.3	61.7	64.4
87.5°	63.5	64.4	58.2	63.5	51.2	35.3	11.5	15.9	7.9	15.0	15.0
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: P198929

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7050-1200

**CANDELA DISTRIBUTION (continued):**

	105°	107.5°	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°
0°	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1
2.5°	1159.7	1156.2	1150.0	1142.9	1141.2	1132.4	1129.7	1125.3	1122.7	1118.2	1114.7
5°	1149.1	1142.9	1135.9	1127.9	1127.9	1115.6	1110.3	1105.0	1105.0	1097.1	1093.6
7.5°	1159.7	1151.8	1143.8	1136.8	1139.4	1125.3	1120.0	1114.7	1113.8	1105.9	1102.4
10°	1189.7	1181.7	1172.0	1165.0	1162.3	1150.9	1144.7	1136.8	1131.5	1126.2	1120.9
12.5°	1235.5	1225.0	1212.6	1197.6	1191.4	1181.7	1172.0	1161.5	1149.1	1143.8	1135.9
15°	1290.2	1272.6	1255.8	1237.3	1220.5	1210.8	1197.6	1180.9	1164.1	1157.0	1146.5
17.5°	1335.2	1316.7	1292.9	1270.8	1240.8	1232.9	1214.4	1194.1	1166.8	1164.1	1148.2
20°	1373.1	1344.9	1315.8	1289.3	1243.5	1239.1	1216.1	1192.3	1153.5	1153.5	1134.1
22.5°	1394.3	1355.5	1321.1	1285.8	1228.5	1225.0	1198.5	1170.3	1122.7	1124.4	1100.6
25°	1397.8	1351.1	1307.9	1265.5	1199.4	1193.2	1159.7	1128.8	1076.8	1073.3	1048.6
27.5°	1383.7	1329.0	1278.8	1227.6	1156.2	1142.9	1105.9	1068.9	1017.7	1008.9	982.4
30°	1351.1	1286.7	1230.2	1171.2	1096.2	1075.0	1036.2	998.3	946.3	934.8	910.1
32.5°	1299.0	1225.8	1163.2	1104.1	1021.2	994.8	956.0	918.1	867.8	859.0	836.0
35°	1230.2	1148.2	1082.1	1019.5	936.6	909.2	872.2	838.7	792.8	789.3	773.4
37.5°	1143.8	1058.3	987.7	927.8	849.3	835.2	797.2	772.5	734.6	738.1	730.2
40°	1045.9	958.6	891.6	838.7	770.8	758.4	735.5	717.0	684.4	694.1	694.9
42.5°	947.2	859.8	799.0	751.4	693.2	685.2	669.4	658.8	634.1	653.5	661.4
45°	835.2	754.0	702.0	665.8	622.6	622.6	614.7	613.8	597.0	624.4	632.3
47.5°	726.7	663.2	627.0	605.0	575.0	589.1	586.5	593.5	581.2	609.4	616.4
50°	644.7	600.6	578.5	567.9	546.8	568.8	574.1	583.8	573.2	597.9	603.2
52.5°	592.6	563.5	551.2	548.5	533.5	560.9	569.7	578.5	566.2	589.1	588.2
55°	563.5	544.1	539.7	545.0	533.5	560.0	568.8	575.0	564.4	580.3	579.4
57.5°	552.9	542.4	545.0	552.9	545.0	567.1	571.5	578.5	567.9	575.0	578.5
60°	552.1	552.1	562.7	573.2	567.9	583.8	586.5	585.6	575.9	576.8	578.5
62.5°	546.8	560.0	577.6	594.4	592.6	612.0	613.8	602.3	594.4	585.6	582.9
65°	530.0	552.1	577.6	600.6	604.1	634.1	637.6	626.1	620.9	605.9	594.4
67.5°	493.0	521.2	551.2	579.4	585.6	626.1	634.1	638.5	641.1	631.4	616.4
70°	430.4	459.5	490.3	523.0	531.8	576.8	593.5	613.8	629.7	643.8	638.5
72.5°	350.1	376.6	403.0	433.0	446.2	493.0	515.0	550.3	575.0	611.2	626.1
75°	277.8	293.7	309.5	328.1	338.6	384.5	411.8	454.2	487.7	538.0	571.5
77.5°	218.7	226.6	234.6	242.5	246.9	272.5	294.6	336.9	375.7	439.2	488.6
80°	168.4	172.9	173.7	176.4	174.6	187.0	194.9	220.5	254.0	316.6	374.8
82.5°	108.5	112.0	113.8	118.2	109.4	125.2	130.5	133.2	150.8	196.7	238.1
85°	60.9	61.7	62.6	64.4	52.0	67.9	68.8	64.4	62.6	81.1	91.7
87.5°	15.0	14.1	15.0	15.0	6.2	14.1	14.1	9.7	7.1	13.2	10.6
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: P198929

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7050-1200

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	1201.1	1201.1	1201.1	1201.1	1201.1	1201.1
2.5°	1106.8	1105.0	1105.9	1101.5	1099.7	1100.6
5°	1089.1	1085.6	1085.6	1083.0	1079.4	1079.4
7.5°	1097.1	1090.0	1087.4	1082.1	1076.8	1077.7
10°	1109.4	1097.1	1088.3	1080.3	1074.2	1074.2
12.5°	1117.4	1095.3	1082.1	1071.5	1064.5	1064.5
15°	1119.1	1085.6	1066.2	1054.7	1047.7	1047.7
17.5°	1108.5	1066.2	1041.5	1026.5	1018.6	1020.4
20°	1082.1	1030.1	1001.0	985.1	977.1	978.0
22.5°	1040.6	980.7	947.2	928.6	920.7	920.7
25°	984.2	918.9	882.8	867.8	860.7	860.7
27.5°	919.8	852.8	821.0	809.6	805.2	805.2
30°	847.5	791.9	769.0	761.1	754.0	754.0
32.5°	786.7	747.0	739.0	728.4	709.9	709.0
35°	738.1	733.7	727.6	695.8	669.4	665.8
37.5°	711.7	738.1	699.3	644.7	623.5	622.6
40°	697.6	722.3	655.2	628.8	626.1	626.1
42.5°	664.1	681.7	652.6	637.6	637.6	638.5
45°	628.8	643.8	658.8	645.5	650.0	650.8
47.5°	604.1	634.1	658.8	647.3	656.1	661.4
50°	581.2	625.3	645.5	645.5	655.2	656.1
52.5°	575.9	612.9	633.2	642.9	643.8	639.4
55°	576.8	603.2	623.5	635.8	630.6	630.6
57.5°	575.9	597.9	615.6	620.0	622.6	622.6
60°	576.8	590.9	605.0	603.2	612.0	612.0
62.5°	579.4	581.2	588.2	586.5	599.7	599.7
65°	585.6	568.8	564.4	566.2	582.1	581.2
67.5°	597.0	552.1	538.0	538.8	561.8	558.2
70°	613.8	529.1	508.0	502.7	541.5	535.3
72.5°	619.1	502.7	469.2	463.9	486.8	469.2
75°	594.4	481.5	427.7	410.1	400.4	395.1
77.5°	530.0	468.3	384.5	347.5	332.5	328.9
80°	439.2	440.9	328.1	284.0	329.8	328.9
82.5°	331.6	381.0	262.8	246.0	239.0	199.3
85°	160.5	286.6	202.0	169.3	101.4	96.1
87.5°	14.1	119.9	116.4	75.8	34.4	32.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)