

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: P198605

Luminaire Tested: **XNV2-AF-02-LED-U-T2R-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198605  
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-7030-800  
Description: XNV2 ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9038 lumens  
Efficiency: N/A  
Efficacy: 106.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 85  
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

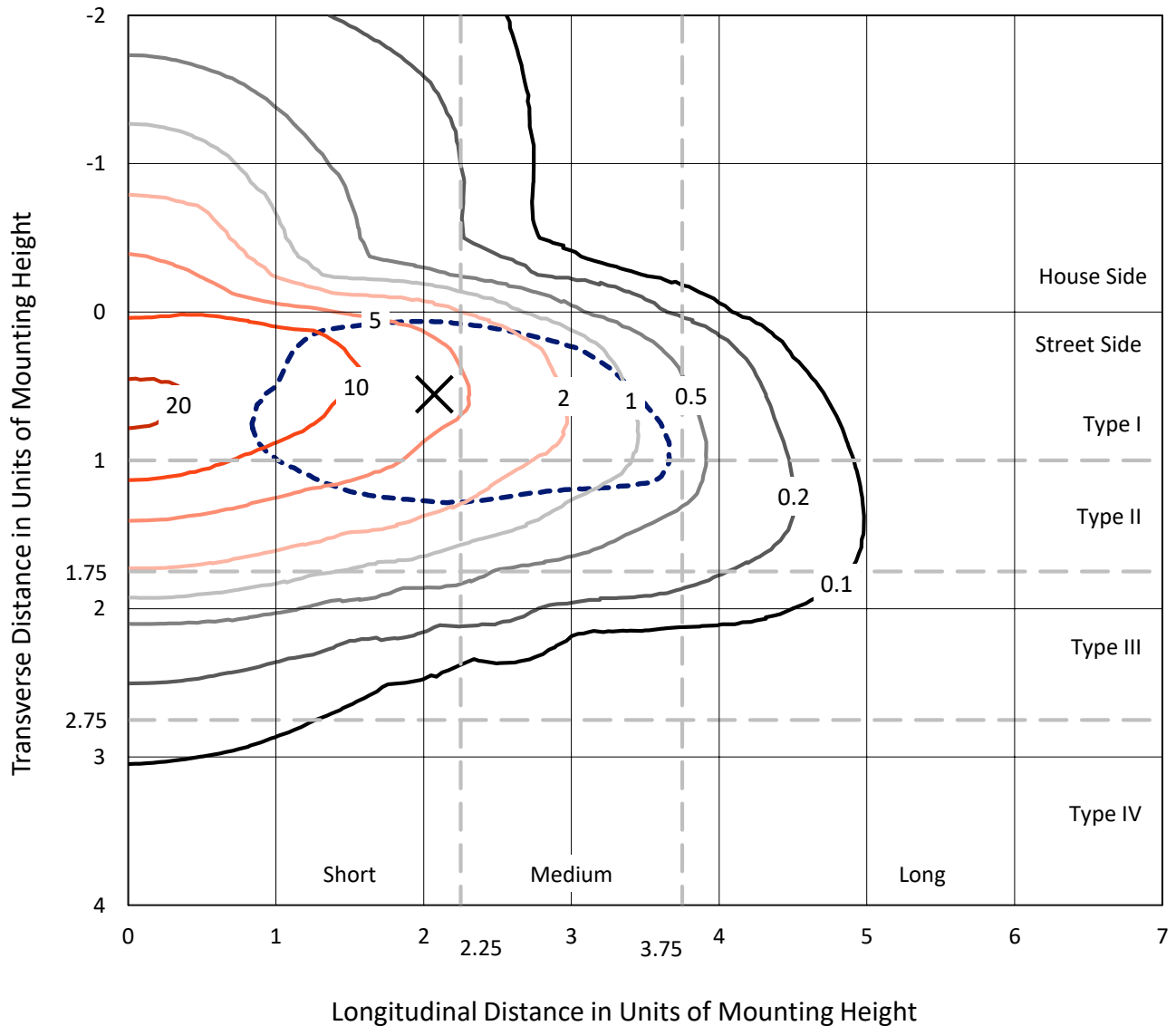


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

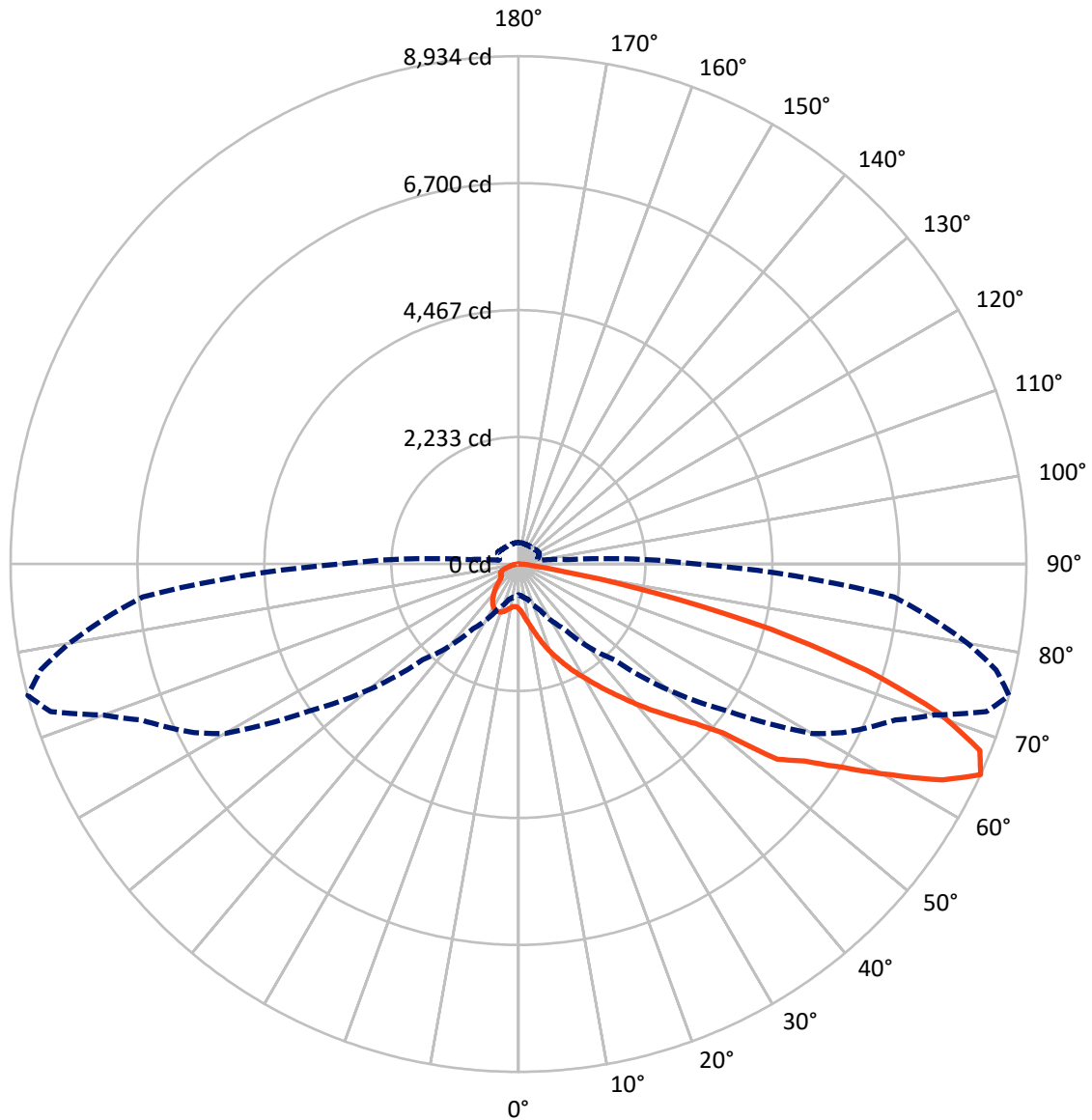


Based on 10 foot mounting height. Maximum calculated value = 22.5 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1358.1	0.0	1358.1
	% Fixture	15.0	0.0	15.0
<b>Street Side</b>	Lumens	7679.9	0.0	7679.9
	% Fixture	85.0	0.0	85.0
<b>Total</b>	Lumens	9038.0	0.0	9038.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.4	1.0
10°-20°	353.1	3.9
20°-30°	712.6	7.9
30°-40°	1210.2	13.4
40°-50°	1687.9	18.7
50°-60°	2068.8	22.9
60°-70°	1946.4	21.5
70°-80°	853.5	9.4
80°-90°	112.9	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°	9038.0	100.0
0°-180°	9038.0	100.0

**Coefficient of Utilization**



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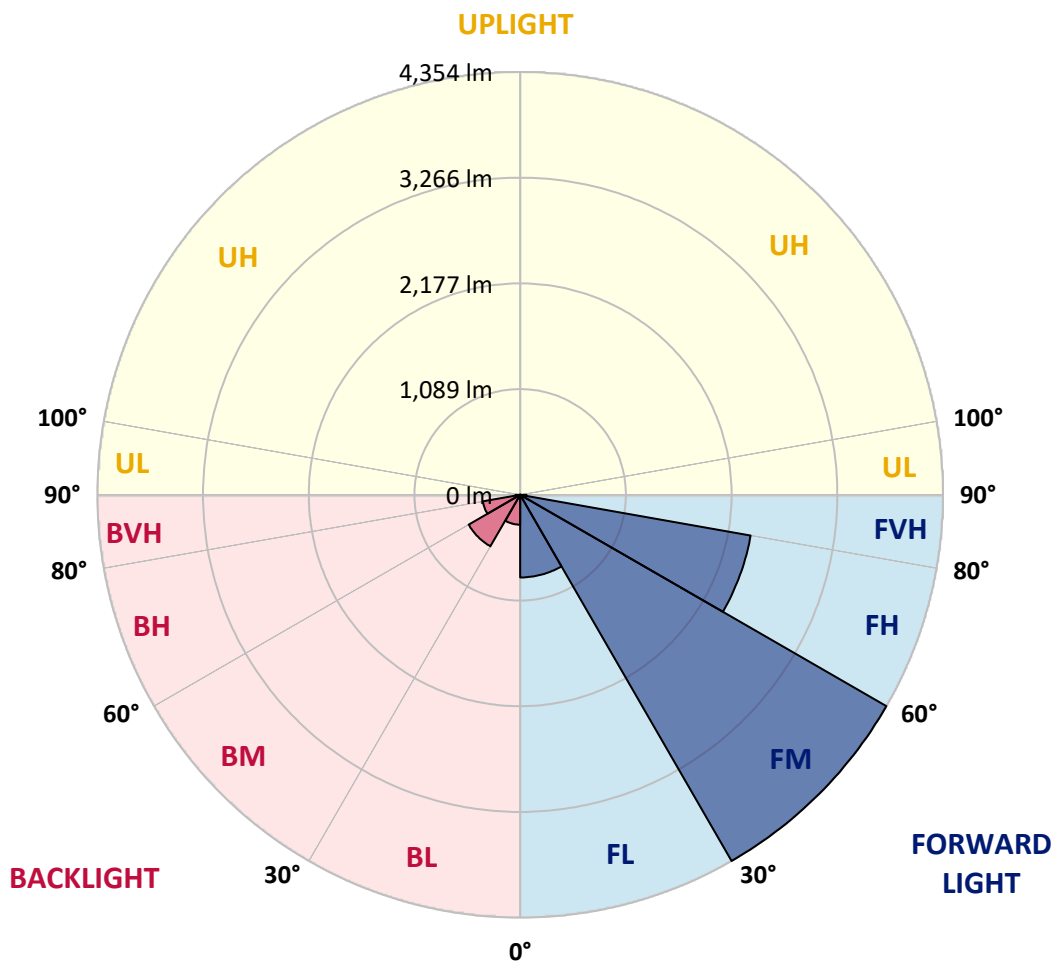
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	850.7	9.4			
FM (30°-60°)	4354.1	48.2			
FH (60°-80°)	2409.6	26.7			G2/5000
FVH (80°-90°)	65.5	0.7			G1/100
BL (0°-30°)	307.4	3.4	B1/500		
BM (30°-60°)	612.8	6.8	B1/1000		
BH (60°-80°)	390.3	4.3	B1/500		G1/500
BVH (80°-90°)	47.5	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57.5°	60°	62.5°	65°
0°	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1
2.5°	986.0	974.5	975.7	959.6	936.0	910.2	888.9	877.4	867.6	864.7	848.6
5°	1289.6	1275.2	1270.1	1233.3	1178.1	1112.5	1047.6	1022.3	1001.6	988.9	957.9
7.5°	1538.0	1530.5	1523.6	1489.7	1435.1	1351.1	1246.5	1209.1	1174.6	1136.7	1099.3
10°	1707.0	1704.2	1701.3	1677.7	1632.3	1559.3	1446.6	1405.8	1362.6	1314.3	1265.5
12.5°	1834.7	1834.7	1837.0	1817.4	1789.8	1733.5	1631.1	1593.2	1549.5	1498.9	1443.1
15°	1920.3	1922.6	1934.7	1940.5	1926.1	1889.9	1800.2	1766.8	1725.4	1675.4	1620.2
17.5°	1977.3	1981.9	1999.7	2018.7	2037.1	2024.4	1957.7	1926.7	1889.3	1843.3	1791.6
20°	2109.5	2103.8	2104.3	2098.6	2125.6	2135.4	2098.6	2072.7	2042.8	2000.8	1953.7
22.5°	2387.2	2376.3	2348.1	2276.2	2243.5	2240.0	2218.2	2204.4	2181.4	2154.9	2107.8
25°	2749.4	2736.8	2681.0	2562.6	2464.8	2374.6	2334.3	2325.7	2310.7	2292.9	2259.0
27.5°	3123.7	3109.9	3038.1	2888.6	2760.9	2578.7	2453.3	2441.8	2428.0	2420.6	2404.5
30°	3453.2	3438.2	3367.5	3215.7	3061.6	2844.3	2613.7	2573.5	2549.9	2552.2	2543.0
32.5°	3742.4	3729.2	3649.8	3495.1	3338.8	3127.8	2821.9	2759.2	2706.3	2686.8	2693.7
35°	3985.0	3972.9	3886.1	3730.3	3572.8	3397.4	3089.8	2995.5	2909.3	2855.2	2848.9
37.5°	4127.6	4120.7	4059.8	3927.5	3771.1	3642.3	3389.9	3285.3	3158.2	3079.5	3045.0
40°	4119.5	4127.0	4116.7	4056.9	3935.6	3841.8	3702.7	3599.2	3475.0	3357.7	3287.6
42.5°	4002.3	4012.6	4059.2	4090.2	4057.5	4000.5	3975.8	3898.8	3787.2	3663.0	3565.9
45°	3841.3	3850.5	3910.8	4023.0	4116.7	4132.8	4215.0	4176.5	4082.2	3976.4	3869.4
47.5°	3594.6	3612.4	3682.6	3860.8	4083.9	4239.1	4415.6	4433.5	4378.9	4291.5	4191.4
50°	3237.6	3261.1	3359.5	3613.0	3959.7	4348.4	4714.0	4781.9	4760.0	4671.5	4570.3
52.5°	2871.9	2895.5	3026.6	3296.2	3759.6	4393.2	5007.8	5181.5	5306.8	5398.2	5416.1
55°	2491.3	2517.7	2661.5	2971.9	3492.8	4336.3	5217.7	5414.9	5542.0	5637.4	5675.9
57.5°	2061.8	2091.7	2230.8	2544.7	3115.7	4107.5	5451.1	5730.6	5919.7	6066.9	6149.7
60°	1569.0	1606.4	1750.7	2067.0	2620.1	3669.4	5555.2	5968.6	6269.3	6490.1	6621.2
62.5°	994.7	1032.6	1182.7	1511.0	2056.0	3070.8	5260.8	5864.0	6376.8	6703.4	6943.7
65°	542.8	559.4	642.8	890.0	1386.2	2382.6	4514.5	5225.8	5964.6	6427.4	6796.5
67.5°	407.1	409.4	418.0	478.4	738.2	1608.7	3529.6	4181.1	5001.5	5597.2	6038.2
70°	356.5	356.5	357.6	358.2	400.7	871.6	2391.2	2990.9	3743.0	4345.5	4893.4
72.5°	319.7	316.2	315.1	308.2	313.9	446.7	1301.7	1840.4	2474.6	3150.7	3661.9
75°	276.0	275.4	275.4	268.5	272.0	314.5	564.6	883.1	1374.7	2004.3	2507.4
77.5°	238.6	234.6	235.2	231.1	242.1	240.9	267.9	363.9	598.5	1052.7	1470.2
80°	196.6	193.8	195.5	193.2	210.4	178.2	180.5	222.5	297.3	461.7	650.8
82.5°	145.5	146.6	157.5	156.4	177.1	120.2	132.2	166.2	200.1	230.0	250.1
85°	85.1	86.8	113.3	119.0	129.9	63.2	81.1	98.9	111.5	123.6	128.8
87.5°	9.2	12.1	63.2	65.0	58.1	19.0	32.8	41.4	44.3	47.1	41.4
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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**CANDELA DISTRIBUTION (continued):**

	67.5°	70°	72.5°	75°	77.5°	80°	85°	90°	95°	100°	102.5°
0°	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1
2.5°	843.5	836.0	827.9	823.3	815.3	808.4	795.7	785.4	773.9	765.8	762.4
5°	942.3	924.5	905.6	891.8	874.5	859.6	830.8	796.3	785.4	762.4	756.6
7.5°	1071.1	1038.9	1006.7	980.3	950.4	925.7	877.4	815.3	807.2	770.4	762.4
10°	1222.4	1175.2	1127.5	1086.7	1043.0	1005.0	933.7	846.3	837.7	790.6	782.5
12.5°	1391.4	1333.9	1272.4	1211.4	1159.7	1106.2	1009.0	894.6	880.8	825.1	814.1
15°	1565.6	1503.5	1432.2	1358.6	1294.8	1224.1	1101.6	957.9	932.6	867.0	852.1
17.5°	1737.5	1670.2	1595.5	1513.3	1438.5	1354.0	1201.7	1028.6	984.9	908.4	889.5
20°	1903.7	1835.3	1756.5	1676.0	1582.8	1486.3	1304.0	1098.2	1031.5	942.9	918.2
22.5°	2054.9	1996.2	1917.5	1824.9	1730.6	1621.9	1408.1	1167.7	1072.3	969.4	937.8
25°	2214.1	2160.7	2082.5	1993.4	1883.5	1762.8	1515.6	1233.9	1105.1	983.7	944.6
27.5°	2375.1	2329.1	2255.5	2161.8	2044.0	1910.0	1624.8	1294.8	1131.5	988.3	941.2
30°	2547.0	2511.4	2443.6	2338.9	2219.9	2071.6	1743.8	1354.6	1148.2	982.0	925.7
32.5°	2709.8	2708.6	2648.2	2539.6	2411.4	2248.1	1869.2	1415.0	1156.8	964.2	898.7
35°	2878.8	2902.4	2856.9	2753.5	2618.3	2437.2	2007.7	1479.4	1157.4	932.6	863.6
37.5°	3070.8	3112.8	3092.7	2994.4	2852.3	2652.8	2170.5	1551.8	1153.9	888.9	812.4
40°	3289.3	3346.8	3346.2	3263.4	3111.7	2894.3	2359.6	1632.9	1145.9	834.3	752.0
42.5°	3539.4	3607.8	3626.8	3545.2	3391.7	3158.2	2576.4	1722.0	1133.2	780.2	688.2
45°	3825.7	3886.1	3921.8	3845.9	3691.8	3445.7	2825.3	1823.2	1117.7	710.6	615.2
47.5°	4132.2	4202.3	4255.8	4190.8	4026.4	3773.4	3120.3	1953.7	1112.0	631.3	536.4
50°	4512.2	4584.7	4700.2	4670.9	4580.7	4377.1	3744.1	2261.9	1114.3	556.0	470.3
52.5°	5455.2	5621.3	5767.4	5702.4	5487.9	5138.9	4251.2	2433.2	1066.0	494.5	424.3
55°	5739.8	5928.4	6144.0	6116.9	5911.1	5559.2	4652.0	2576.4	1019.4	449.6	394.4
57.5°	6237.7	6460.2	6761.5	6755.7	6503.3	6107.2	5167.7	2747.7	999.3	423.7	379.5
60°	6764.9	7048.4	7464.6	7529.6	7255.3	6843.1	5777.1	2958.1	1002.1	409.4	370.8
62.5°	7150.1	7565.8	8171.2	8365.6	8042.5	7588.2	6409.6	3168.6	984.9	392.7	360.5
65°	7173.7	7772.2	8631.2	8933.6	8606.5	8022.9	6632.7	3127.2	881.4	370.3	343.8
67.5°	6598.7	7378.4	8421.9	8753.7	8419.1	7755.0	6241.7	2733.9	716.4	331.2	315.1
70°	5496.0	6401.0	7484.2	7853.9	7577.3	6905.2	5432.2	2183.7	535.3	279.4	272.0
72.5°	4247.2	5091.2	6075.0	6417.1	6205.5	5614.4	4284.6	1591.5	382.3	226.5	220.8
75°	3036.3	3755.0	4469.1	4599.6	4390.9	3848.2	2779.9	994.1	267.9	185.7	177.7
77.5°	1880.1	2347.5	2604.0	2436.1	2169.9	1803.6	1131.5	491.0	178.2	151.2	143.2
80°	834.3	979.1	914.2	814.7	643.4	529.0	345.5	217.9	115.0	116.7	112.1
82.5°	280.6	296.7	288.6	286.9	258.7	226.5	146.6	94.3	64.4	74.7	73.0
85°	136.8	143.2	143.7	148.9	129.4	100.6	39.7	37.4	27.6	40.2	42.0
87.5°	41.4	42.0	37.9	41.4	33.3	23.0	7.5	10.3	5.2	9.8	9.8
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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**CANDELA DISTRIBUTION (continued):**

	105°	107.5°	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°
0°	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1	783.1
2.5°	756.1	753.8	749.7	745.1	744.0	738.2	736.5	733.6	731.9	729.0	726.7
5°	749.2	745.1	740.5	735.4	735.4	727.3	723.9	720.4	720.4	715.2	712.9
7.5°	756.1	750.9	745.7	741.1	742.8	733.6	730.2	726.7	726.2	721.0	718.7
10°	775.6	770.4	764.1	759.5	757.8	750.3	746.3	741.1	737.7	734.2	730.8
12.5°	805.5	798.6	790.6	780.8	776.8	770.4	764.1	757.2	749.2	745.7	740.5
15°	841.2	829.7	818.7	806.7	795.7	789.4	780.8	769.9	758.9	754.3	747.4
17.5°	870.5	858.4	842.9	828.5	809.0	803.8	791.7	778.5	760.7	758.9	748.6
20°	895.2	876.8	857.8	840.6	810.7	807.8	792.9	777.3	752.0	752.0	739.4
22.5°	909.0	883.7	861.3	838.3	800.9	798.6	781.4	763.0	731.9	733.1	717.5
25°	911.3	880.8	852.7	825.1	781.9	777.9	756.1	735.9	702.0	699.7	683.6
27.5°	902.1	866.5	833.7	800.3	753.8	745.1	721.0	696.8	663.5	657.7	640.5
30°	880.8	838.9	802.1	763.5	714.7	700.9	675.6	650.8	616.9	609.5	593.4
32.5°	846.9	799.2	758.4	719.8	665.8	648.5	623.3	598.5	565.8	560.0	545.1
35°	802.1	748.6	705.5	664.6	610.6	592.8	568.6	546.8	516.9	514.6	504.2
37.5°	745.7	689.9	643.9	604.9	553.7	544.5	519.8	503.7	478.9	481.2	476.1
40°	681.9	625.0	581.3	546.8	502.5	494.5	479.5	467.4	446.2	452.5	453.1
42.5°	617.5	560.6	520.9	489.9	451.9	446.7	436.4	429.5	413.4	426.0	431.2
45°	544.5	491.6	457.7	434.1	405.9	405.9	400.7	400.2	389.2	407.1	412.2
47.5°	473.8	432.4	408.8	394.4	374.9	384.1	382.3	386.9	378.9	397.3	401.9
50°	420.3	391.5	377.2	370.3	356.5	370.8	374.3	380.6	373.7	389.8	393.3
52.5°	386.4	367.4	359.3	357.6	347.8	365.7	371.4	377.2	369.1	384.1	383.5
55°	367.4	354.7	351.9	355.3	347.8	365.1	370.8	374.9	368.0	378.3	377.7
57.5°	360.5	353.6	355.3	360.5	355.3	369.7	372.6	377.2	370.3	374.9	377.2
60°	359.9	359.9	366.8	373.7	370.3	380.6	382.3	381.8	375.4	376.0	377.2
62.5°	356.5	365.1	376.6	387.5	386.4	399.0	400.2	392.7	387.5	381.8	380.0
65°	345.5	359.9	376.6	391.5	393.8	413.4	415.7	408.2	404.8	395.0	387.5
67.5°	321.4	339.8	359.3	377.7	381.8	408.2	413.4	416.3	418.0	411.7	401.9
70°	280.6	299.6	319.7	340.9	346.7	376.0	386.9	400.2	410.5	419.7	416.3
72.5°	228.3	245.5	262.8	282.3	290.9	321.4	335.8	358.8	374.9	398.4	408.2
75°	181.1	191.5	201.8	213.9	220.8	250.7	268.5	296.1	317.9	350.7	372.6
77.5°	142.6	147.8	152.9	158.1	161.0	177.7	192.0	219.6	244.9	286.3	318.5
80°	109.8	112.7	113.3	115.0	113.8	121.9	127.1	143.7	165.6	206.4	244.4
82.5°	70.7	73.0	74.2	77.0	71.3	81.6	85.1	86.8	98.3	128.2	155.2
85°	39.7	40.2	40.8	42.0	33.9	44.3	44.8	42.0	40.8	52.9	59.8
87.5°	9.8	9.2	9.8	9.8	4.0	9.2	9.2	6.3	4.6	8.6	6.9
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: P198605

CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7030-800

**CANDELA DISTRIBUTION (continued):**

	135°	145°	155°	165°	175°	180°
0°	783.1	783.1	783.1	783.1	783.1	783.1
2.5°	721.6	720.4	721.0	718.1	717.0	717.5
5°	710.1	707.8	707.8	706.0	703.7	703.7
7.5°	715.2	710.6	708.9	705.5	702.0	702.6
10°	723.3	715.2	709.5	704.3	700.3	700.3
12.5°	728.5	714.1	705.5	698.6	694.0	694.0
15°	729.6	707.8	695.1	687.6	683.0	683.0
17.5°	722.7	695.1	679.0	669.2	664.1	665.2
20°	705.5	671.5	652.6	642.2	637.0	637.6
22.5°	678.4	639.3	617.5	605.4	600.3	600.3
25°	641.6	599.1	575.5	565.8	561.2	561.2
27.5°	599.7	556.0	535.3	527.8	524.9	524.9
30°	552.5	516.3	501.4	496.2	491.6	491.6
32.5°	512.9	487.0	481.8	474.9	462.8	462.3
35°	481.2	478.4	474.3	453.6	436.4	434.1
37.5°	464.0	481.2	455.9	420.3	406.5	405.9
40°	454.8	470.9	427.2	409.9	408.2	408.2
42.5°	432.9	444.4	425.5	415.7	415.7	416.3
45°	409.9	419.7	429.5	420.9	423.7	424.3
47.5°	393.8	413.4	429.5	422.0	427.8	431.2
50°	378.9	407.6	420.9	420.9	427.2	427.8
52.5°	375.4	399.6	412.8	419.1	419.7	416.8
55°	376.0	393.3	406.5	414.5	411.1	411.1
57.5°	375.4	389.8	401.3	404.2	405.9	405.9
60°	376.0	385.2	394.4	393.3	399.0	399.0
62.5°	377.7	378.9	383.5	382.3	391.0	391.0
65°	381.8	370.8	368.0	369.1	379.5	378.9
67.5°	389.2	359.9	350.7	351.3	366.2	363.9
70°	400.2	345.0	331.2	327.7	353.0	349.0
72.5°	403.6	327.7	305.9	302.4	317.4	305.9
75°	387.5	313.9	278.9	267.4	261.0	257.6
77.5°	345.5	305.3	250.7	226.5	216.8	214.5
80°	286.3	287.5	213.9	185.1	215.0	214.5
82.5°	216.2	248.4	171.3	160.4	155.8	129.9
85°	104.6	186.9	131.7	110.4	66.1	62.7
87.5°	9.2	78.2	75.9	49.4	22.4	21.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)