

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: P196211

Luminaire Tested: **NVN-AF-05-LED-U-SLL-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196211  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24264)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-AF-05-LED-U-SLL-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR LEFT OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21949.5 lumens  
Efficiency: N/A  
Efficacy: 104.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G4

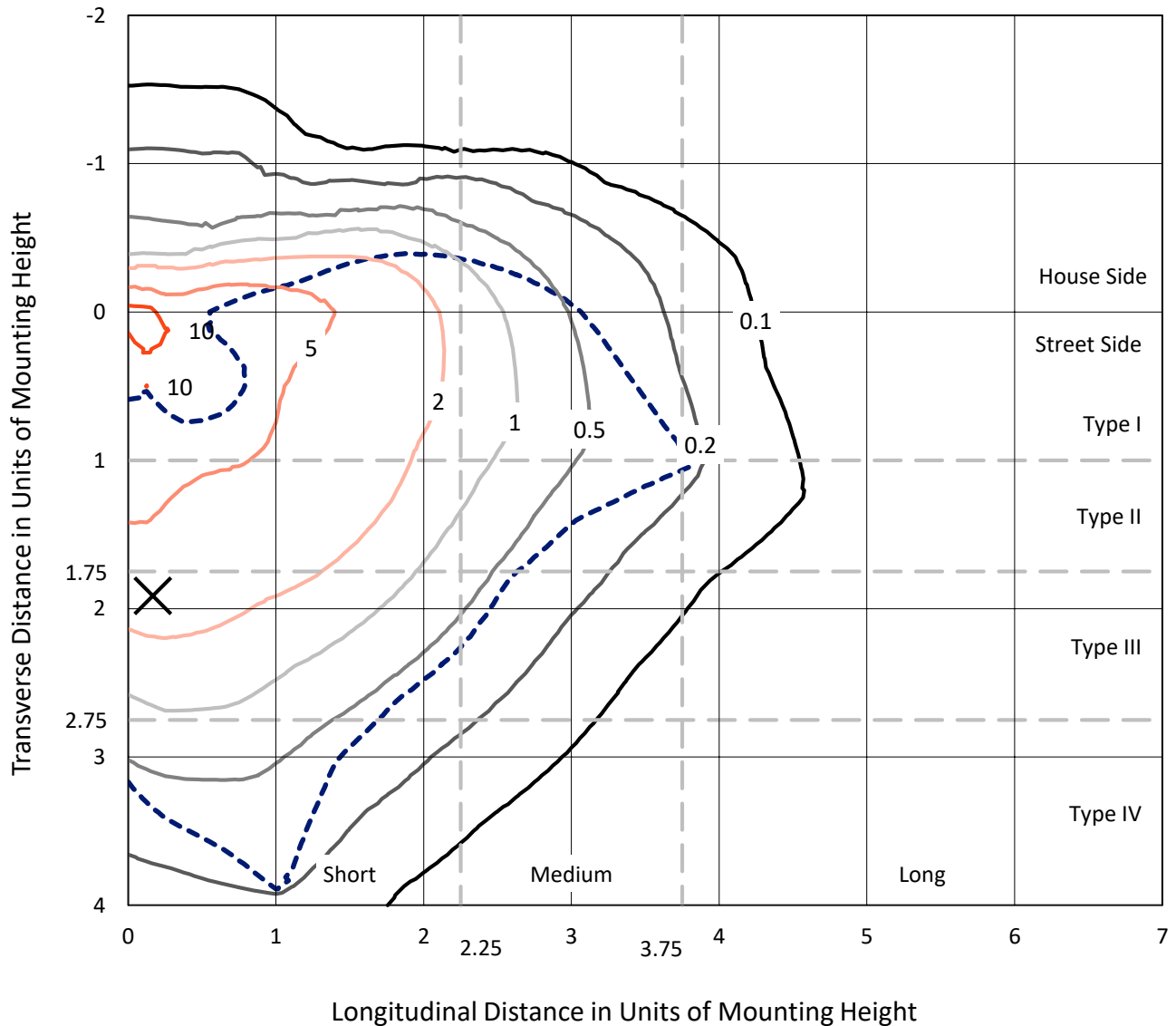
Input Watts (W): 210  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P196211  
 CATALOG NUMBER: NVN-AF-05-LED-U-SLL-800

### Iso-Footcandle Lines of Horizontal Illumination

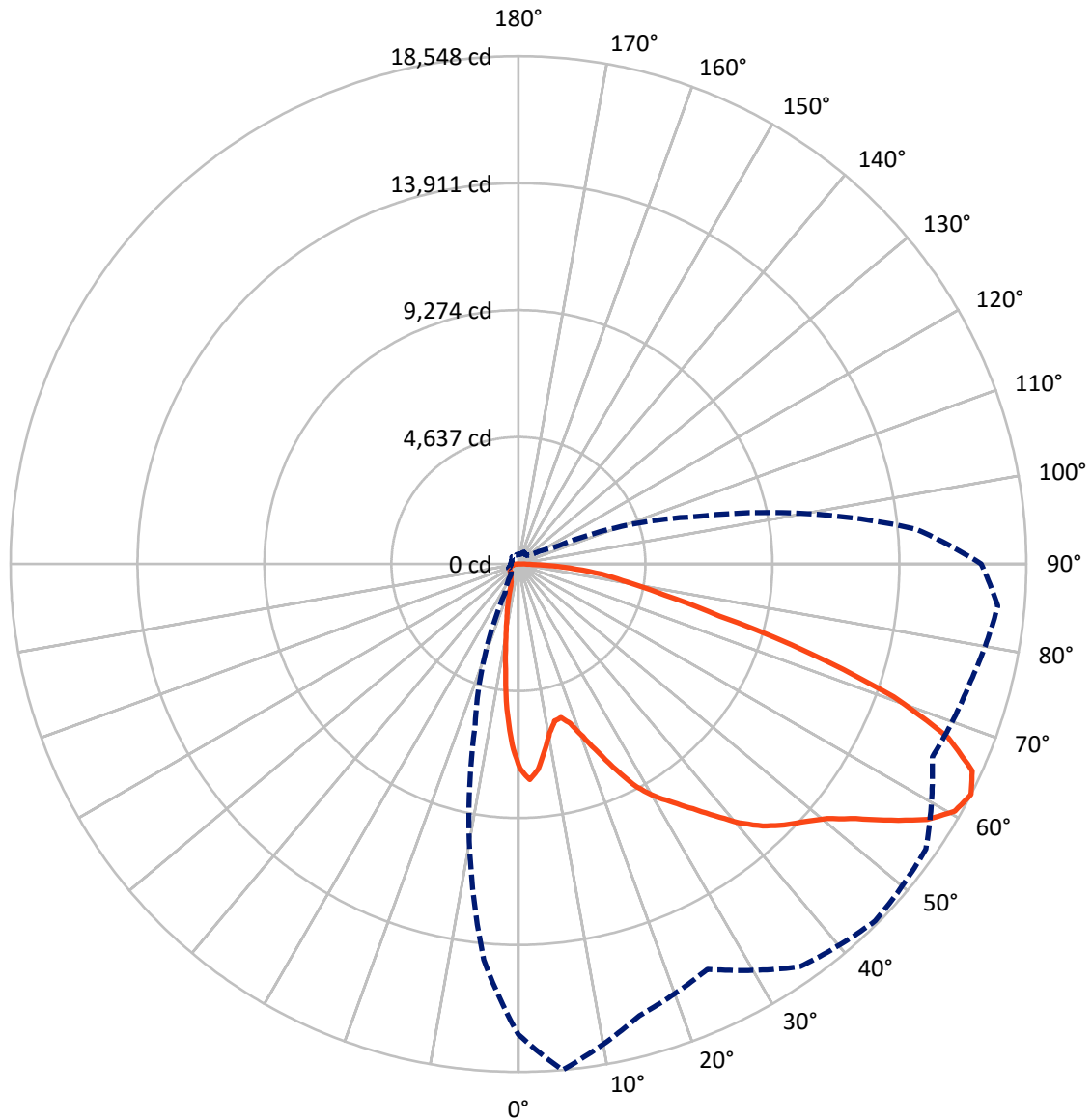
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.7 fc  
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P196211  
CATALOG NUMBER: NVN-AF-05-LED-U-SLL-800

### Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral      - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P196211

CATALOG NUMBER: NVN-AF-05-LED-U-SLL-800

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3888.4	0.0	3888.4
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	18061.1	0.0	18061.1
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	21949.5	0.0	21949.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	544.2	2.5
10°-20°	994.0	4.5
20°-30°	1429.6	6.5
30°-40°	2189.6	10.0
40°-50°	3201.2	14.6
50°-60°	4657.8	21.2
60°-70°	5396.7	24.6
70°-80°	2813.2	12.8
80°-90°	723.1	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°	21949.5	100.0
0°-180°	21949.5	100.0



REPORT NUMBER: P196211

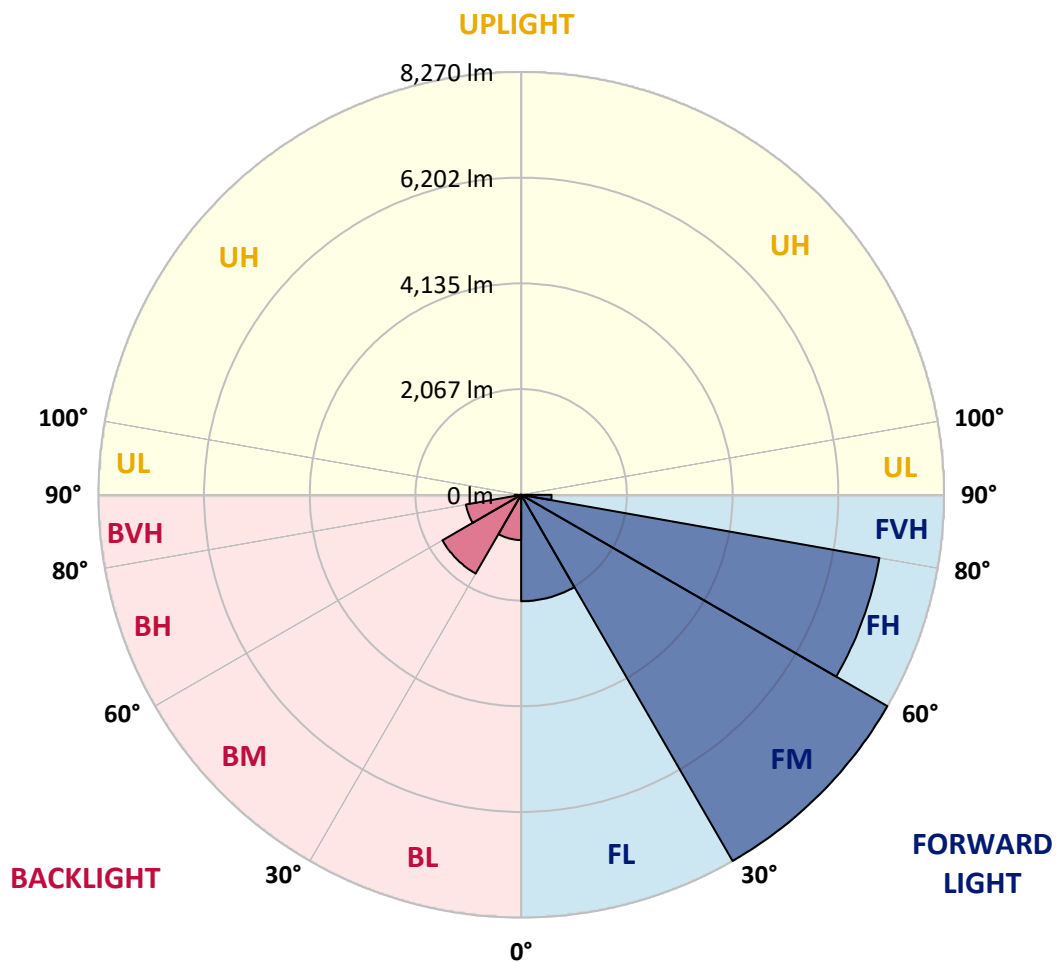
CATALOG NUMBER: NVN-AF-05-LED-U-SLL-800

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2083.1	9.5			
FM	(30°-60°)	8269.5	37.7			
FH	(60°-80°)	7113.5	32.4			G3/7500
FVH	(80°-90°)	594.9	2.7			G4/750
BL	(0°-30°)	884.7	4.0	B2/1000		
BM	(30°-60°)	1779.1	8.1	B2/2500		
BH	(60°-80°)	1096.4	5.0	B3/2500		G3/2500
BVH	(80°-90°)	128.2	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type IV Short





REPORT NUMBER: P196211

CATALOG NUMBER: NVN-AF-05-LED-U-SLL-800

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0
2.5°	7724.9	7888.8	8076.6	8321.7	8488.9	8555.7	8611.3	8517.5	8426.8	8256.4	8196.0
5°	7215.7	7530.8	8048.0	8539.7	8972.6	9220.9	9297.3	9123.8	8815.1	8369.5	8133.9
7.5°	6459.7	6875.0	7602.4	8326.5	8947.1	9360.9	9391.2	9047.4	8439.4	7709.0	7327.1
10°	5799.2	6268.7	7110.6	7920.6	8578.0	9001.3	8918.5	8436.3	7702.6	6871.9	6440.6
12.5°	5415.7	5885.1	6743.0	7565.7	8184.8	8345.5	8176.9	7771.1	7075.5	6243.3	5808.8
15°	5334.6	5818.3	6612.5	7306.3	7689.9	7586.4	7419.4	7214.1	6719.2	6038.0	5617.8
17.5°	5579.6	6120.7	6785.9	7166.3	7150.4	6902.2	6762.1	6801.9	6717.5	6260.8	5821.5
20°	6084.1	6723.9	7226.7	7128.1	6720.7	6372.2	6291.0	6602.9	6992.8	6819.4	6337.2
22.5°	6747.8	7476.6	7828.3	7237.9	6496.4	6120.7	6104.8	6591.8	7494.1	7664.5	7077.2
25°	7497.3	8347.2	8434.7	7432.0	6472.4	6098.4	6084.1	6763.6	8097.3	8501.5	7906.3
27.5°	8414.0	9225.7	8940.8	7691.5	6577.5	6163.7	6173.2	7056.5	8726.0	9329.1	8840.5
30°	9104.7	9849.5	9252.7	7946.1	6746.2	6278.3	6302.2	7373.2	9064.9	9903.6	9586.9
32.5°	9750.9	10382.6	9551.9	8197.5	6992.8	6448.6	6531.3	7767.9	9472.3	10397.0	10291.9
35°	10465.4	10979.4	9884.5	8466.6	7346.1	6747.8	6867.1	8143.5	9876.6	10890.3	10990.6
37.5°	11275.5	11662.2	10245.8	8846.9	7855.4	7301.6	7368.4	8527.0	10158.2	11436.2	11740.1
40°	12118.9	12427.6	10640.4	9354.6	8595.4	8049.6	8081.4	9018.7	10379.5	12001.2	12467.4
42.5°	12843.0	13083.3	11036.7	9984.8	9445.3	8811.9	8838.9	9548.7	10591.1	12488.1	13049.9
45°	13422.3	13599.0	11410.7	10648.4	10352.4	9763.6	9757.2	10088.2	10874.4	12898.7	13497.1
47.5°	13961.8	14055.8	11827.7	11294.5	11293.0	10988.9	10761.4	10724.8	11251.5	13244.0	13887.0
50°	14579.3	14614.3	12378.3	11947.0	12441.9	12394.3	11974.0	11533.3	11740.1	13632.4	14296.0
52.5°	15438.7	15440.2	13061.0	12583.6	13710.4	13861.5	13372.9	12448.3	12462.6	14388.3	15002.6
55°	16449.3	16519.2	13950.7	13345.9	15037.6	15295.5	14835.5	13535.3	13500.3	15607.4	16148.5
57.5°	17230.7	17601.5	14986.7	14299.2	16277.4	16613.1	16242.3	14662.1	14775.0	16864.6	17093.8
60°	17450.3	18317.6	16019.5	15368.6	17326.1	17830.6	17453.5	15879.5	16022.8	17681.0	17365.9
62.5°	17187.7	18548.3	17071.5	16326.7	17948.4	18432.2	18161.7	16676.9	17039.7	17576.0	16906.0
65°	16409.5	18214.2	17985.0	16734.1	17590.4	17762.2	17690.6	16718.2	17591.9	16583.0	15634.5
67.5°	14592.0	16925.1	17577.6	15863.6	15917.7	15733.1	15639.2	15581.9	16971.3	14980.3	13629.2
70°	11867.5	14542.7	15634.5	13275.9	12874.9	12696.6	12387.8	13151.8	15254.0	12763.5	11216.6
72.5°	9141.3	11125.8	12823.9	10064.3	9230.4	9290.8	8940.8	10056.4	12636.1	9867.0	8563.6
75°	6491.5	7586.4	10236.3	7231.5	6127.1	6123.9	6096.9	7237.9	9970.5	7082.0	6265.6
77.5°	4678.9	5461.8	8019.3	4839.6	4347.8	4403.5	4314.4	4919.2	7772.7	5094.2	4642.3
80°	3731.9	4043.9	5183.4	3227.5	3237.0	3367.6	3348.4	3364.3	5113.3	3689.0	3471.0
82.5°	2681.6	3069.9	3962.7	2473.1	2140.5	2278.9	2306.0	2495.4	3607.8	2608.4	2288.5
85°	1375.1	1871.6	3646.0	2142.1	1338.4	1109.3	1276.3	1968.7	3133.6	1562.8	1115.6
87.5°	267.4	518.8	2672.0	1190.4	601.6	303.9	501.3	833.9	1822.2	283.3	138.4
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: P196211

CATALOG NUMBER: NVN-AF-05-LED-U-SLL-800

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0
2.5°	8092.6	7888.8	7697.8	7500.5	7347.8	7161.6	6978.5	6819.4	6665.0	6563.2	6595.0
5°	7895.2	7398.7	6953.1	6539.3	6297.4	6006.2	5746.7	5528.7	5360.1	5251.8	5317.0
7.5°	6996.1	6324.4	5737.2	5191.3	4847.6	4470.4	4168.0	3954.7	3824.3	3751.1	3857.6
10°	6076.1	5321.8	4662.9	4094.8	3755.9	3436.0	3162.2	2936.3	2761.1	2678.4	2721.4
12.5°	5417.3	4578.6	3887.9	3506.0	3214.7	2928.3	2645.0	2380.8	2158.0	2056.1	2035.5
15°	5170.6	4179.2	3474.1	3047.7	2758.0	2446.1	2140.5	1857.3	1645.5	1558.1	1538.9
17.5°	5278.8	4093.2	3229.0	2724.5	2304.4	1925.7	1581.9	1314.5	1158.6	1109.3	1114.0
20°	5659.2	4125.0	3031.7	2392.0	1873.1	1424.4	1080.6	896.0	829.1	818.1	830.7
22.5°	6181.2	4255.6	2888.5	2105.5	1492.8	1036.0	803.7	716.2	698.7	697.0	709.8
25°	6870.3	4510.2	2793.0	1850.8	1179.3	821.2	700.2	650.9	636.6	639.8	652.5
27.5°	7682.0	4833.2	2731.0	1631.2	969.1	732.0	654.1	611.1	596.8	600.0	609.6
30°	8423.6	5116.5	2638.6	1465.7	870.5	700.2	628.6	585.6	566.5	566.5	573.0
32.5°	9087.2	5361.6	2530.4	1341.6	779.8	628.6	569.8	536.3	522.0	526.8	530.0
35°	9676.0	5490.5	2446.1	1268.4	706.7	579.3	520.4	485.4	466.3	469.4	474.2
37.5°	10255.3	5539.9	2390.3	1228.6	654.1	549.0	494.9	466.3	445.6	442.4	440.8
40°	10805.9	5528.7	2337.9	1217.4	619.1	526.8	479.0	453.6	432.9	428.1	426.5
42.5°	11281.8	5492.1	2288.5	1187.2	595.2	510.9	466.3	444.1	423.3	417.0	413.8
45°	11716.3	5469.8	2234.4	1131.5	607.9	504.5	459.9	436.1	417.0	409.0	405.8
47.5°	12198.5	5549.4	2173.9	1071.0	604.8	506.1	459.9	432.9	413.8	405.8	402.6
50°	12773.0	5818.3	2099.1	988.3	576.1	541.1	458.4	428.1	410.6	405.8	399.5
52.5°	13584.6	6254.4	1995.7	881.7	553.8	577.7	456.7	420.1	405.8	397.8	389.9
55°	14697.0	6690.5	1862.0	768.6	518.8	552.2	459.9	410.6	394.7	386.7	377.2
57.5°	15609.0	7021.5	1693.3	674.7	487.0	522.0	455.1	399.5	382.0	374.0	366.0
60°	15550.1	7053.3	1532.6	614.3	467.9	469.4	466.3	391.5	370.8	364.5	358.0
62.5°	14587.3	6660.2	1382.9	584.1	453.6	428.1	475.9	382.0	359.7	353.3	348.5
65°	12984.6	5745.1	1303.4	584.1	440.8	405.8	415.3	369.2	348.5	342.2	339.0
67.5°	10952.3	4616.8	1228.6	596.8	423.3	389.9	377.2	356.5	337.4	331.0	327.9
70°	8778.5	3633.3	1176.1	590.4	407.4	372.4	356.5	339.0	319.9	318.2	315.1
72.5°	6886.2	2918.7	1152.3	590.4	383.5	351.7	335.8	323.0	303.9	302.4	297.6
75°	5517.6	2191.5	1053.5	579.3	359.7	324.7	310.4	299.2	280.1	281.7	278.5
77.5°	4273.1	1550.1	880.0	522.0	329.4	294.4	283.3	275.3	253.1	254.6	254.6
80°	3342.1	1008.9	682.7	432.9	294.4	259.4	251.4	245.1	221.2	224.4	224.4
82.5°	2290.1	600.0	494.9	348.5	253.1	221.2	219.6	210.1	184.6	186.2	189.3
85°	1250.9	394.7	329.4	257.8	199.0	179.8	176.7	171.9	148.0	148.0	149.6
87.5°	230.8	211.6	194.2	170.3	133.7	128.9	124.1	128.9	111.4	108.2	108.2
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: P196211

CATALOG NUMBER: NVN-AF-05-LED-U-SLL-800

**CANDELA DISTRIBUTION (continued):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0
2.5°	6520.2	6410.3	6334.0	6267.1	6106.4	6117.6	6139.9	6171.7	6071.4	6123.9	6189.2
5°	5251.8	5161.1	5092.7	4986.1	4761.6	4682.0	4631.1	4608.8	4459.2	4491.1	4561.1
7.5°	3872.0	3870.4	3846.5	3727.2	3456.7	3292.7	3184.4	3151.1	3058.7	3093.8	3200.4
10°	2726.2	2754.8	2743.7	2637.1	2395.1	2277.4	2253.5	2320.4	2321.9	2390.3	2573.3
12.5°	1970.2	1954.3	1940.0	1852.5	1671.0	1652.0	1706.1	1798.3	1820.6	1893.8	2084.8
15°	1470.5	1432.3	1424.4	1355.9	1236.5	1254.0	1293.8	1341.6	1343.1	1394.1	1551.7
17.5°	1102.8	1102.8	1115.6	1071.0	985.1	977.1	956.5	943.8	924.6	945.3	1031.2
20°	856.2	896.0	927.8	902.3	824.4	786.1	746.3	721.0	706.7	708.2	733.7
22.5°	733.7	765.5	806.9	794.1	728.9	679.5	654.1	636.6	625.4	625.4	639.8
25°	671.6	692.2	730.5	724.1	668.4	628.6	607.9	590.4	577.7	576.1	590.4
27.5°	622.3	634.9	660.4	657.2	600.0	574.5	561.8	550.7	542.7	541.1	555.5
30°	577.7	584.1	596.8	592.0	549.0	523.5	518.8	514.0	509.2	510.9	531.5
32.5°	537.9	542.7	550.7	544.3	502.9	480.6	472.7	466.3	461.6	466.3	490.2
35°	493.4	507.7	517.2	514.0	469.4	442.4	424.9	409.0	402.6	407.4	434.4
37.5°	455.1	479.0	491.7	488.6	442.4	410.6	388.3	385.1	385.1	391.5	418.6
40°	440.8	458.4	469.4	464.7	418.6	386.7	374.0	369.2	370.8	377.2	405.8
42.5°	428.1	444.1	447.2	437.6	391.5	370.8	362.8	356.5	359.7	367.6	396.3
45°	417.0	429.7	428.1	413.8	369.2	354.9	354.9	350.2	351.7	358.0	388.3
47.5°	409.0	415.3	412.1	397.8	353.3	342.2	347.0	347.0	350.2	354.9	385.1
50°	396.3	401.0	397.8	385.1	340.5	331.0	335.8	342.2	345.3	350.2	377.2
52.5°	383.5	386.7	385.1	372.4	327.9	321.5	321.5	327.9	334.2	340.5	364.5
55°	370.8	374.0	375.6	366.0	318.2	311.9	310.4	310.4	316.7	326.2	351.7
57.5°	361.3	361.3	364.5	358.0	308.7	300.7	292.9	294.4	302.4	310.4	335.8
60°	350.2	351.7	356.5	350.2	296.0	283.3	276.9	284.9	288.1	296.0	323.0
62.5°	340.5	340.5	343.7	339.0	284.9	272.1	267.4	275.3	275.3	283.3	310.4
65°	332.7	331.0	331.0	329.4	273.7	261.0	257.8	261.0	262.6	270.6	297.6
67.5°	326.2	318.2	318.2	321.5	262.6	249.9	248.3	248.3	249.9	259.4	283.3
70°	311.9	305.6	303.9	315.1	251.4	235.6	235.6	232.3	235.6	240.3	265.8
72.5°	296.0	291.2	289.6	305.6	240.3	219.6	216.5	214.8	216.5	221.2	245.1
75°	275.3	272.1	275.3	299.2	229.1	202.1	197.3	195.8	195.8	197.3	222.8
77.5°	251.4	248.3	272.1	278.5	222.8	181.5	176.7	173.5	170.3	170.3	199.0
80°	222.8	221.2	262.6	235.6	213.3	159.2	151.2	146.4	143.2	141.7	170.3
82.5°	194.2	191.0	224.4	184.6	176.7	130.5	119.4	109.8	105.1	105.1	130.5
85°	159.2	157.5	176.7	135.2	122.5	95.4	79.6	71.6	65.3	65.3	84.4
87.5°	116.2	113.0	109.8	81.1	62.1	43.0	30.3	28.6	25.5	23.8	35.0
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: P196211

CATALOG NUMBER: NVN-AF-05-LED-U-SLL-800

**CANDELA DISTRIBUTION (continued):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0	7483.0
2.5°	6286.2	6418.3	6668.2	6873.5	7147.3	7366.8	7616.7	7724.9
5°	4690.0	4898.5	5280.5	5606.7	6058.6	6477.2	6954.6	7215.7
7.5°	3364.3	3673.1	3962.7	4370.1	4935.1	5496.8	6114.4	6459.7
10°	2783.4	3066.7	3315.0	3604.7	4040.7	4672.5	5409.4	5799.2
12.5°	2306.0	2611.6	2874.2	3184.4	3550.6	4121.9	4962.1	5415.7
15°	1768.1	2100.7	2415.8	2789.8	3238.6	3891.1	4828.4	5334.6
17.5°	1211.1	1567.6	1955.9	2412.6	2953.8	3794.0	4955.8	5579.6
20°	822.8	1083.8	1505.5	2046.6	2697.5	3747.9	5235.9	6084.1
22.5°	676.4	794.1	1110.8	1702.8	2487.4	3798.8	5691.0	6747.8
25°	620.6	684.4	864.2	1400.5	2326.7	3934.1	6306.9	7497.3
27.5°	585.6	639.8	757.5	1184.1	2178.7	4118.7	7056.5	8414.0
30°	565.0	615.9	714.5	1072.7	2043.4	4277.8	7701.1	9104.7
32.5°	518.8	557.0	638.2	1008.9	1946.4	4406.8	8269.2	9750.9
35°	463.1	509.2	576.1	967.6	1943.2	4467.2	8803.9	10465.4
37.5°	442.4	487.0	536.3	945.3	1962.2	4518.2	9458.0	11275.5
40°	429.7	469.4	509.2	942.1	1978.2	4558.0	10097.8	12118.9
42.5°	418.6	458.4	504.5	919.8	1971.8	4612.1	10664.4	12843.0
45°	415.3	455.1	515.7	886.5	1970.2	4696.4	11114.7	13422.3
47.5°	412.1	472.7	512.5	849.9	1963.9	4874.7	11622.4	13961.8
50°	409.0	504.5	490.2	798.9	1916.1	5178.6	12305.1	14579.3
52.5°	407.4	509.2	466.3	728.9	1830.2	5629.0	13304.5	15438.7
55°	401.0	483.8	424.9	636.6	1706.1	6114.4	14375.6	16449.3
57.5°	386.7	431.3	401.0	545.8	1527.8	6453.4	15166.6	17230.7
60°	421.8	370.8	385.1	499.7	1314.5	6513.8	15201.6	17450.3
62.5°	402.6	337.4	369.2	483.8	1164.9	6119.1	14506.1	17187.7
65°	321.5	319.9	354.9	499.7	1142.6	5235.9	13331.6	16409.5
67.5°	292.9	307.2	340.5	518.8	1157.0	4125.0	11603.2	14592.0
70°	273.7	291.2	321.5	536.3	1182.4	3249.7	9341.8	11867.5
72.5°	254.6	268.9	302.4	553.8	1164.9	2563.8	7476.6	9141.3
75°	230.8	243.5	275.3	507.7	999.4	1884.3	5940.9	6491.5
77.5°	203.7	214.8	241.9	401.0	751.2	1311.3	4449.7	4678.9
80°	175.0	179.8	200.5	292.9	490.2	784.6	3386.6	3731.9
82.5°	138.4	140.0	152.8	214.8	305.6	501.3	2349.0	2681.6
85°	89.1	92.3	98.7	151.2	205.3	321.5	1199.9	1375.1
87.5°	30.3	35.0	35.0	73.2	100.2	178.2	367.6	267.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)