

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: LUMARK

Report Number: P965219

Luminaire Tested: **NAV-SB3D-827-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965219
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-827-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23041 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

Input Watts (W): 218.1
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: 24 FT

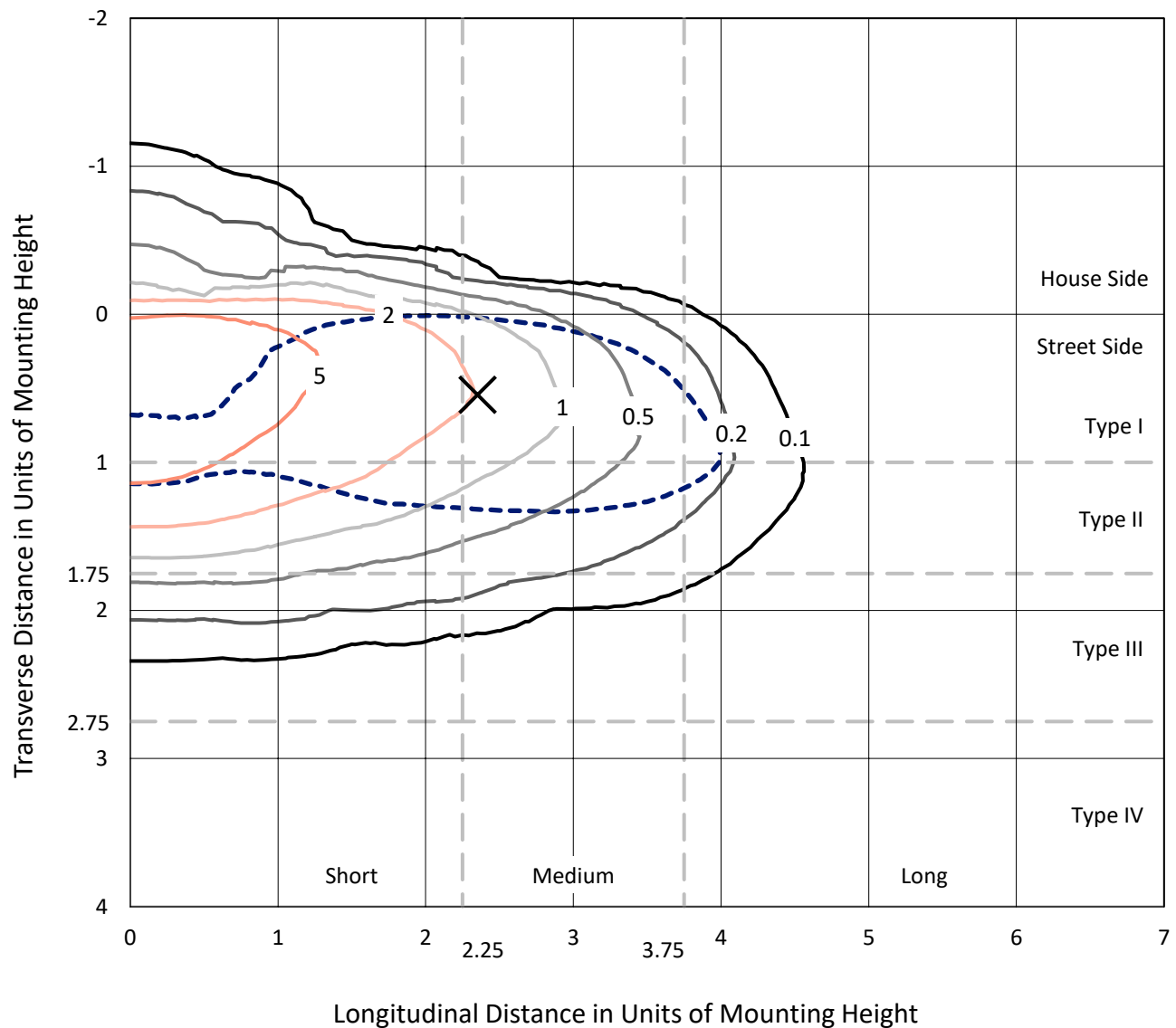


REPORT NUMBER: P965219

CATALOG NUMBER: NAV-SB3D-827-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

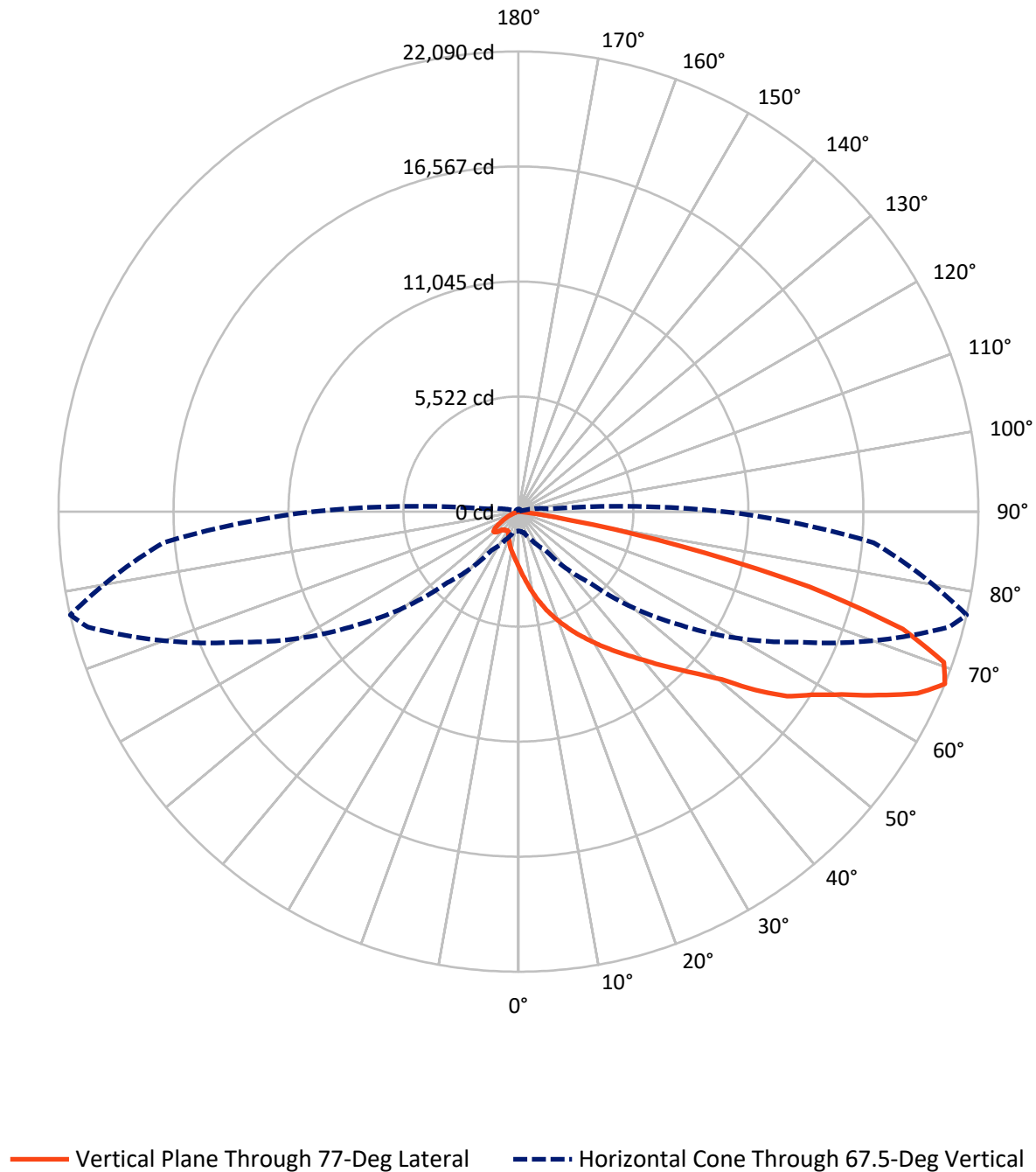
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.9 fc
Type II - Medium - N/A

REPORT NUMBER: P965219
CATALOG NUMBER: NAV-SB3D-827-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P965219

CATALOG NUMBER: NAV-SB3D-827-U-T2R-HSS

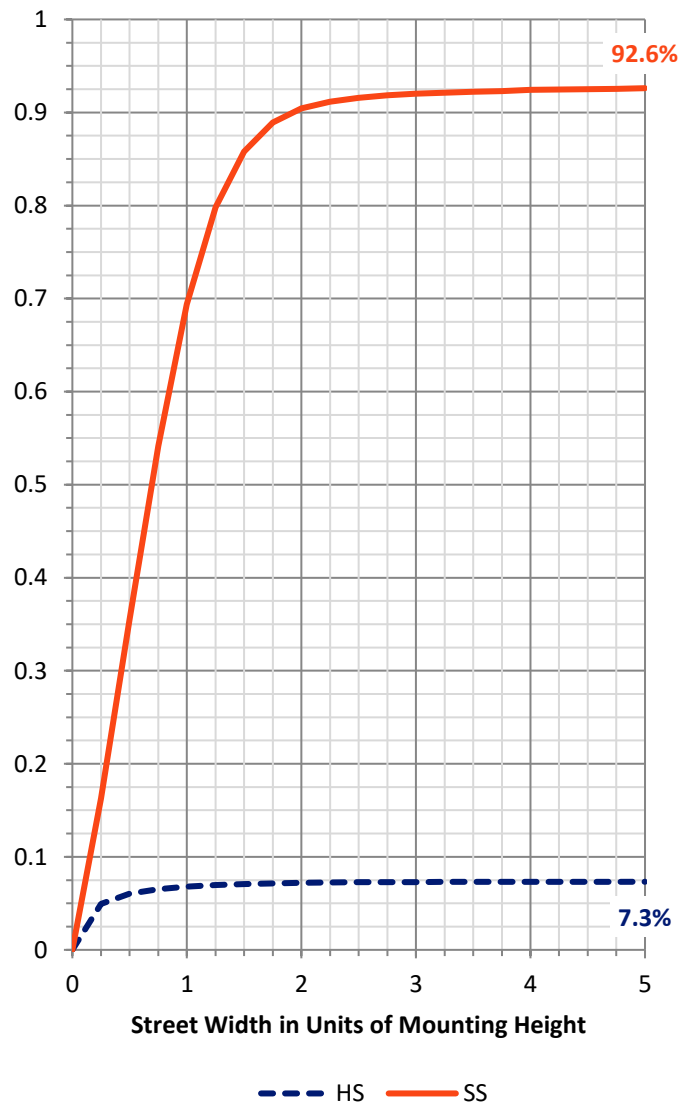
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1695.1	0.0	1695.1
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	21345.8	0.0	21345.8
	% Fixture	92.6	0.0	92.6
Total	Lumens	23041.0	0.0	23041.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.2	1.2
10°-20°	949.7	4.1
20°-30°	1832.6	8.0
30°-40°	3181.5	13.8
40°-50°	4619.3	20.0
50°-60°	5304.7	23.0
60°-70°	4605.5	20.0
70°-80°	2169.2	9.4
80°-90°	107.3	0.5
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°	23041.0	100.0
0°-180°	23041.0	100.0

Coefficient of Utilization



REPORT NUMBER: P965219

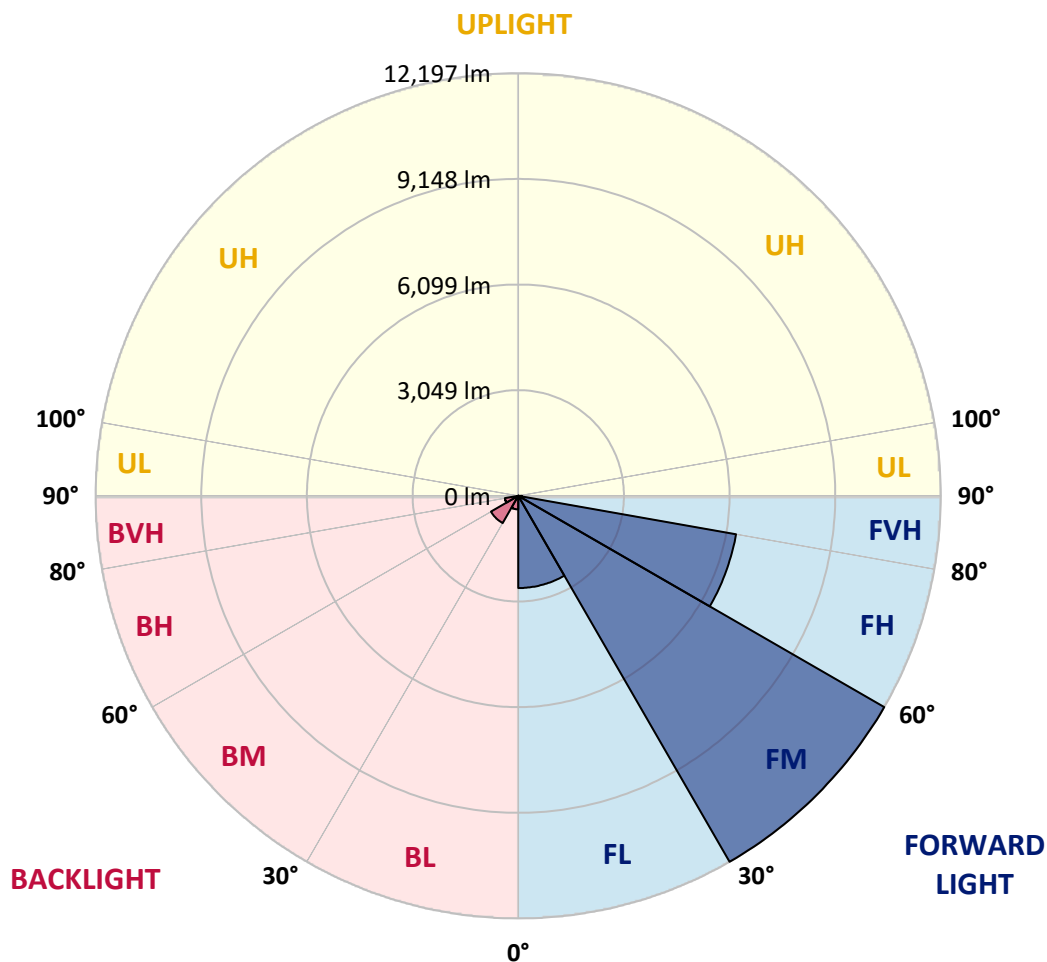
CATALOG NUMBER: NAV-SB3D-827-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2661.0	11.5			
FM	(30°-60°)	12197.3	52.9			
FH	(60°-80°)	6382.3	27.7			G3/7500
FVH	(80°-90°)	105.3	0.5			G2/225
BL	(0°-30°)	392.5	1.7	B1/500		
BM	(30°-60°)	908.3	3.9	B1/1000		
BH	(60°-80°)	392.4	1.7	B1/500		G1/500
BVH	(80°-90°)	2.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type II Medium



REPORT NUMBER: P965219

CATALOG NUMBER: NAV-SB3D-827-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0
2.5°	3678.5	3701.5	3668.6	3605.5	3511.1	3449.6	3299.4	3157.7	3000.4	2950.3	2792.9
5°	4484.1	4504.1	4467.0	4398.3	4272.3	4152.2	3954.7	3658.5	3350.9	3252.1	2973.1
7.5°	5080.7	5092.2	5077.8	5014.9	4894.7	4758.8	4538.4	4187.9	3731.5	3622.8	3194.9
10°	5510.0	5547.1	5542.9	5518.5	5438.4	5328.3	5093.6	4694.4	4157.8	4017.6	3445.3
12.5°	5794.6	5836.1	5860.4	5914.9	5910.6	5840.4	5634.4	5212.3	4582.8	4418.3	3727.2
15°	5877.7	5922.0	6015.0	6140.9	6252.5	6288.3	6143.7	5720.2	5050.7	4840.4	4016.3
17.5°	5830.4	5899.1	6010.7	6209.6	6454.2	6616.0	6600.2	6211.0	5475.7	5235.2	4299.5
20°	5934.9	6000.7	6088.0	6255.4	6540.1	6833.4	6950.7	6680.3	5897.6	5645.9	4597.1
22.5°	6513.0	6501.5	6510.1	6537.2	6707.5	6998.0	7239.8	7106.7	6315.4	6058.0	4911.9
25°	7428.6	7377.1	7289.8	7142.5	7099.6	7239.8	7491.6	7484.4	6756.2	6480.0	5233.8
27.5°	8478.8	8470.2	8265.6	7910.8	7710.5	7656.1	7776.3	7852.1	7192.5	6897.8	5557.1
30°	9484.6	9507.6	9231.5	8836.5	8468.8	8255.7	8146.9	8201.2	7636.0	7348.5	5890.6
32.5°	10360.3	10384.6	10084.2	9622.0	9167.0	8909.5	8680.5	8546.0	8119.6	7806.4	6256.8
35°	11100.0	11124.3	10779.5	10268.8	9783.7	9550.4	9291.5	8923.8	8606.2	8314.3	6664.6
37.5°	11761.1	11753.9	11291.7	10776.6	10300.2	10115.6	9979.7	9388.8	9106.9	8825.0	7116.7
40°	12151.7	12181.7	11786.8	11218.7	10756.7	10622.2	10613.6	9965.4	9684.9	9411.7	7611.8
42.5°	12266.1	12319.1	12032.9	11566.4	11147.2	11001.3	11225.9	10589.2	10357.4	10091.3	8171.2
45°	12060.0	12111.6	11981.3	11658.0	11413.4	11318.9	11752.4	11235.9	11075.6	10812.4	8802.2
47.5°	11459.1	11523.6	11555.0	11486.4	11483.5	11579.3	12224.6	11917.0	11928.4	11659.5	9533.3
50°	10295.9	10404.7	10693.6	10936.9	11313.2	11785.3	12683.9	12655.3	12889.9	12658.1	10486.2
52.5°	8181.2	8335.7	9331.6	9996.9	10842.4	11746.7	13189.0	13840.0	14576.8	14237.8	11829.7
55°	6574.5	6574.5	7384.3	8629.1	9923.9	11492.1	13409.3	14609.7	15725.8	15645.6	12775.5
57.5°	5359.7	5424.1	5940.6	7040.9	8594.7	10885.4	13545.2	15093.3	16651.4	16592.8	13699.7
60°	3308.0	3446.8	4422.6	5508.6	7082.3	9805.2	13459.4	15582.7	17774.6	17821.8	14812.9
62.5°	1862.8	1914.4	2349.3	3963.3	5507.1	8352.9	12802.7	15855.9	19211.2	19411.4	15960.4
65°	1286.3	1312.0	1479.4	2466.7	3817.3	6650.3	11519.3	15685.7	20650.5	21055.3	16933.3
67.5°	934.3	947.2	1051.6	1506.6	2264.9	4821.7	9507.6	14827.2	21413.1	22089.9	17119.3
70°	718.2	726.8	802.7	990.1	1337.8	2976.0	6904.9	13120.3	20860.8	21669.2	16166.4
72.5°	583.7	592.3	651.0	732.6	887.0	1759.8	4185.1	10655.1	18422.7	19295.5	13762.7
75°	492.2	503.7	556.6	609.5	695.4	1130.3	1963.1	7420.1	13854.3	14426.6	9570.5
77.5°	273.3	251.8	452.1	505.0	586.6	715.3	918.6	4366.7	7759.1	7917.9	4246.6
80°	170.3	176.0	359.2	406.3	450.7	360.6	420.7	1681.2	2689.9	2555.4	822.7
82.5°	10.0	22.9	276.1	293.4	309.0	154.6	158.8	570.9	648.1	595.2	146.0
85°	0.0	0.0	125.9	101.6	107.3	44.4	45.8	133.0	87.2	94.4	28.6
87.5°	0.0	0.0	0.0	2.9	0.0	4.3	8.6	11.5	4.3	5.7	10.0
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: P965219

CATALOG NUMBER: NAV-SB3D-827-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0	2657.0
2.5°	2692.8	2592.5	2389.4	2190.5	2028.9	1878.6	1771.3	1669.7	1618.2	1615.4	1612.5
5°	2774.3	2563.9	2157.6	1798.5	1509.5	1277.7	1127.5	1020.2	965.8	947.2	944.3
7.5°	2888.8	2572.5	1954.5	1455.1	1114.6	915.7	829.8	795.5	784.0	771.2	768.3
10°	3033.3	2592.5	1772.7	1171.8	878.5	778.4	744.0	729.7	721.1	712.6	709.7
12.5°	3194.9	2611.2	1592.4	972.9	772.6	721.1	696.8	679.6	668.2	658.2	655.3
15°	3352.4	2622.7	1405.1	834.1	718.2	676.8	651.0	632.4	616.6	605.3	603.8
17.5°	3508.3	2638.4	1229.1	751.1	673.9	632.4	606.7	583.7	570.9	558.0	556.6
20°	3681.4	2635.5	1063.0	692.5	629.6	588.0	560.9	539.4	526.5	512.2	510.8
22.5°	3841.7	2621.2	917.2	642.5	583.7	543.7	513.6	492.2	479.3	467.9	466.5
25°	4026.2	2609.8	795.5	596.7	540.8	500.8	467.9	447.8	433.6	423.5	422.1
27.5°	4203.6	2592.5	706.8	555.1	499.4	460.7	429.3	406.3	393.5	386.3	386.3
30°	4378.2	2588.3	673.9	515.1	462.2	423.5	392.1	370.5	360.6	357.7	356.3
32.5°	4588.5	2599.7	688.2	500.8	427.8	389.2	359.2	343.4	333.3	333.3	333.3
35°	4813.2	2596.8	709.7	513.6	404.9	354.9	331.9	322.0	311.9	311.9	311.9
37.5°	5095.0	2601.1	726.8	535.2	396.4	326.3	313.3	300.4	294.8	294.8	294.8
40°	5515.6	2742.8	718.2	553.7	393.5	306.2	280.4	276.1	271.8	271.8	271.8
42.5°	6030.8	3050.4	729.7	555.1	392.1	291.9	257.6	266.1	256.1	254.7	253.3
45°	6594.4	3386.7	802.7	525.1	390.6	284.7	246.1	256.1	240.4	240.4	240.4
47.5°	7153.9	3720.0	877.1	482.2	386.3	283.3	236.1	230.3	226.0	227.4	227.4
50°	7925.1	3991.9	905.7	423.5	376.3	280.4	217.5	218.9	216.1	218.9	218.9
52.5°	8765.0	4049.2	871.4	357.7	347.7	271.8	204.6	210.3	208.9	211.8	211.8
55°	9288.7	3987.6	719.7	297.6	303.3	237.5	191.7	203.2	203.2	203.2	203.2
57.5°	9829.4	3725.8	510.8	241.8	251.8	194.5	180.3	196.0	194.5	193.1	193.1
60°	10218.6	3302.2	336.2	198.8	200.3	160.2	167.4	184.6	183.2	176.0	176.0
62.5°	10509.1	2834.3	216.1	168.8	153.1	144.5	153.1	167.4	161.6	146.0	143.1
65°	10476.2	2186.2	165.9	144.5	125.9	125.9	133.0	146.0	128.7	103.0	100.1
67.5°	9865.2	1479.4	137.4	121.7	105.9	104.4	110.2	121.7	110.2	87.2	84.5
70°	8773.6	967.2	110.2	94.4	84.5	77.3	88.7	104.4	93.0	70.1	67.2
72.5°	7121.0	589.5	83.0	68.7	61.5	50.1	70.1	85.9	74.4	51.6	48.7
75°	4607.2	300.4	57.2	44.4	32.9	30.0	51.6	64.4	51.6	31.5	27.2
77.5°	1762.7	125.9	31.5	20.0	17.2	14.3	28.6	38.6	21.4	7.2	5.7
80°	339.1	52.9	15.8	10.0	8.6	5.7	4.3	2.9	0.0	0.0	0.0
82.5°	58.6	17.2	5.7	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	20.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)