

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: P962987

Luminaire Tested: **NAV-SB2D-735-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962987
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-SB2D-735-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 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: 17660.8 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 147.6
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

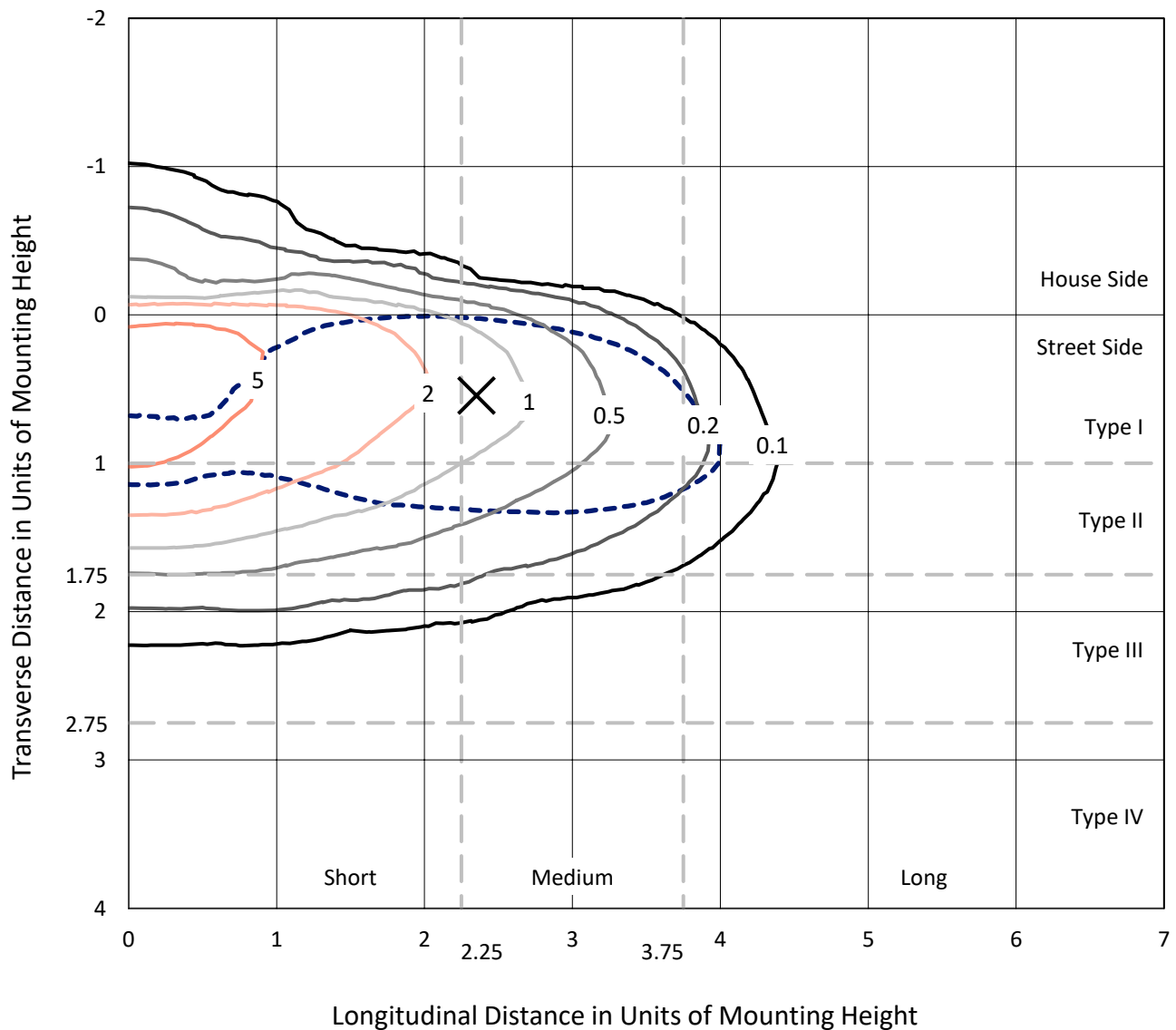


REPORT NUMBER: P962987

CATALOG NUMBER: NAV-SB2D-735-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

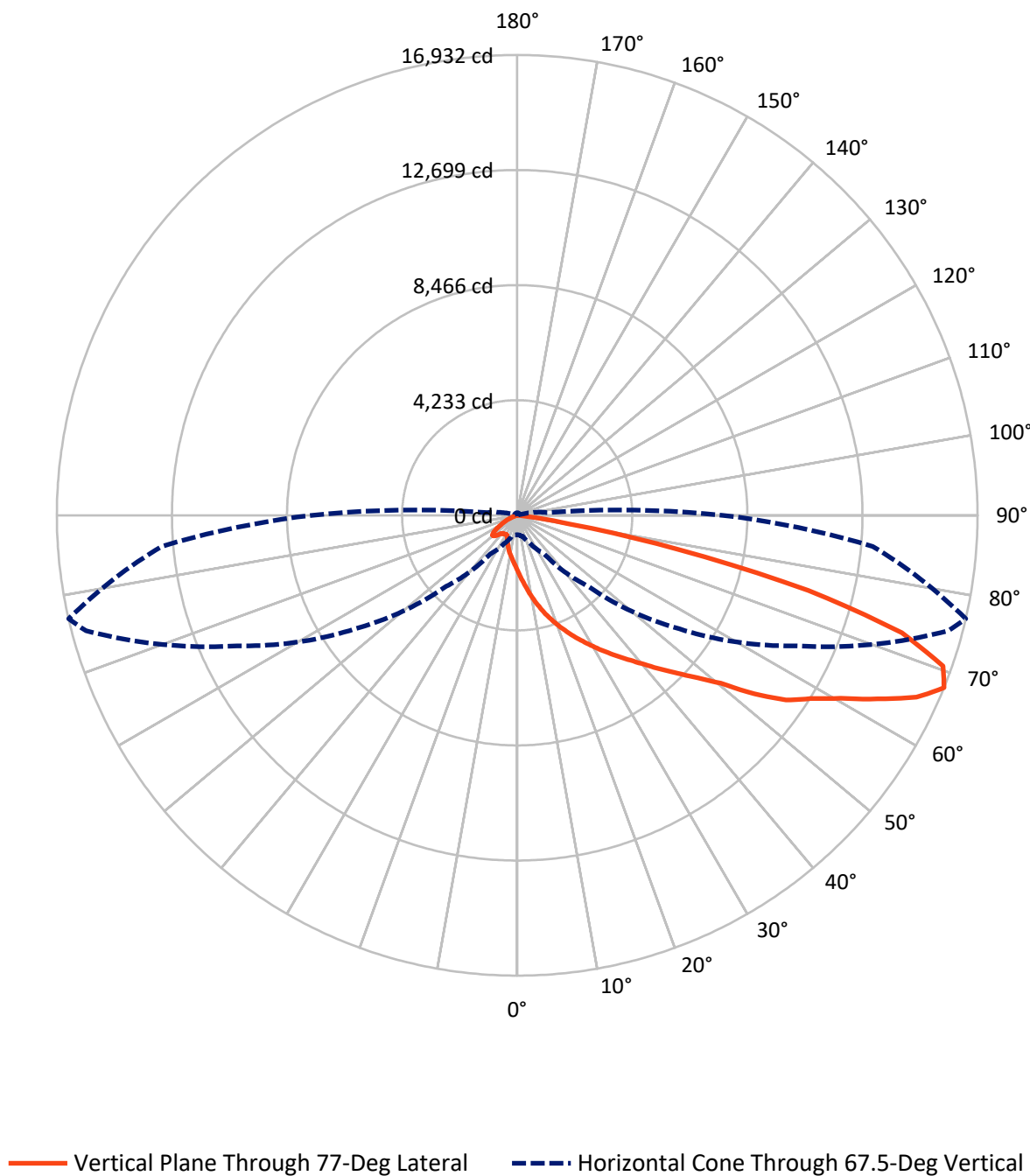
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 fc
Type II - Medium - N/A

REPORT NUMBER: P962987
CATALOG NUMBER: NAV-SB2D-735-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P962987

CATALOG NUMBER: NAV-SB2D-735-U-T2R-HSS

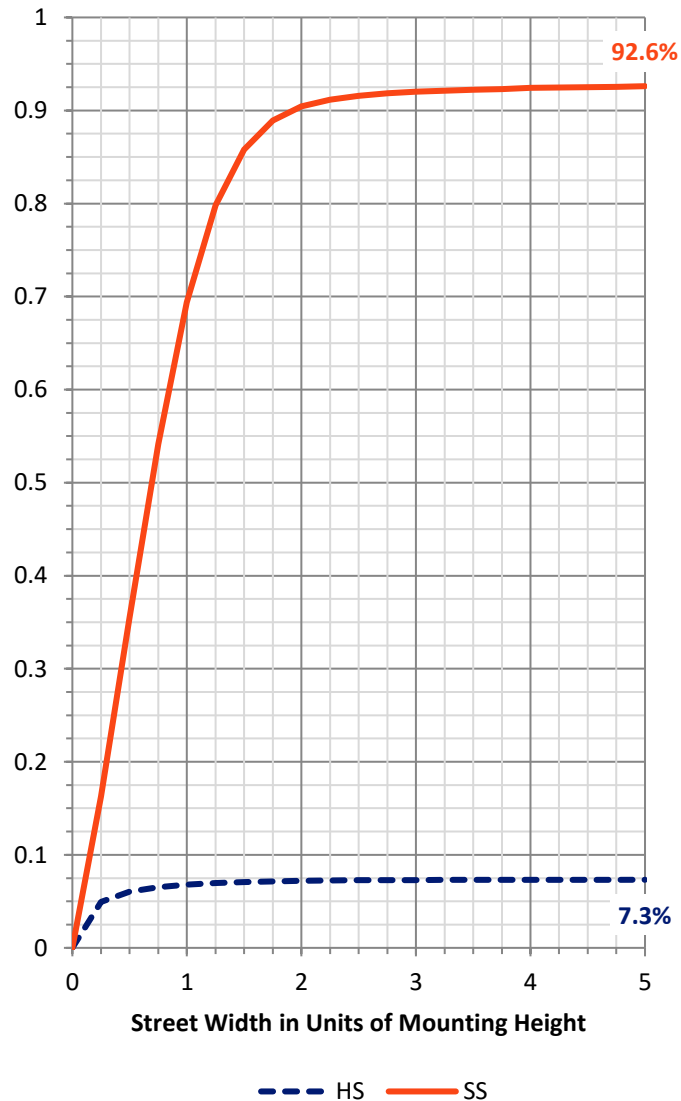
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1299.3	0.0	1299.3
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	16361.4	0.0	16361.4
	% Fixture	92.6	0.0	92.6
Total	Lumens	17660.8	0.0	17660.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.9	1.2
10°-20°	727.9	4.1
20°-30°	1404.7	8.0
30°-40°	2438.6	13.8
40°-50°	3540.7	20.0
50°-60°	4066.0	23.0
60°-70°	3530.1	20.0
70°-80°	1662.7	9.4
80°-90°	82.2	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°	17660.8	100.0
0°-180°	17660.8	100.0

Coefficient of Utilization



REPORT NUMBER: P962987

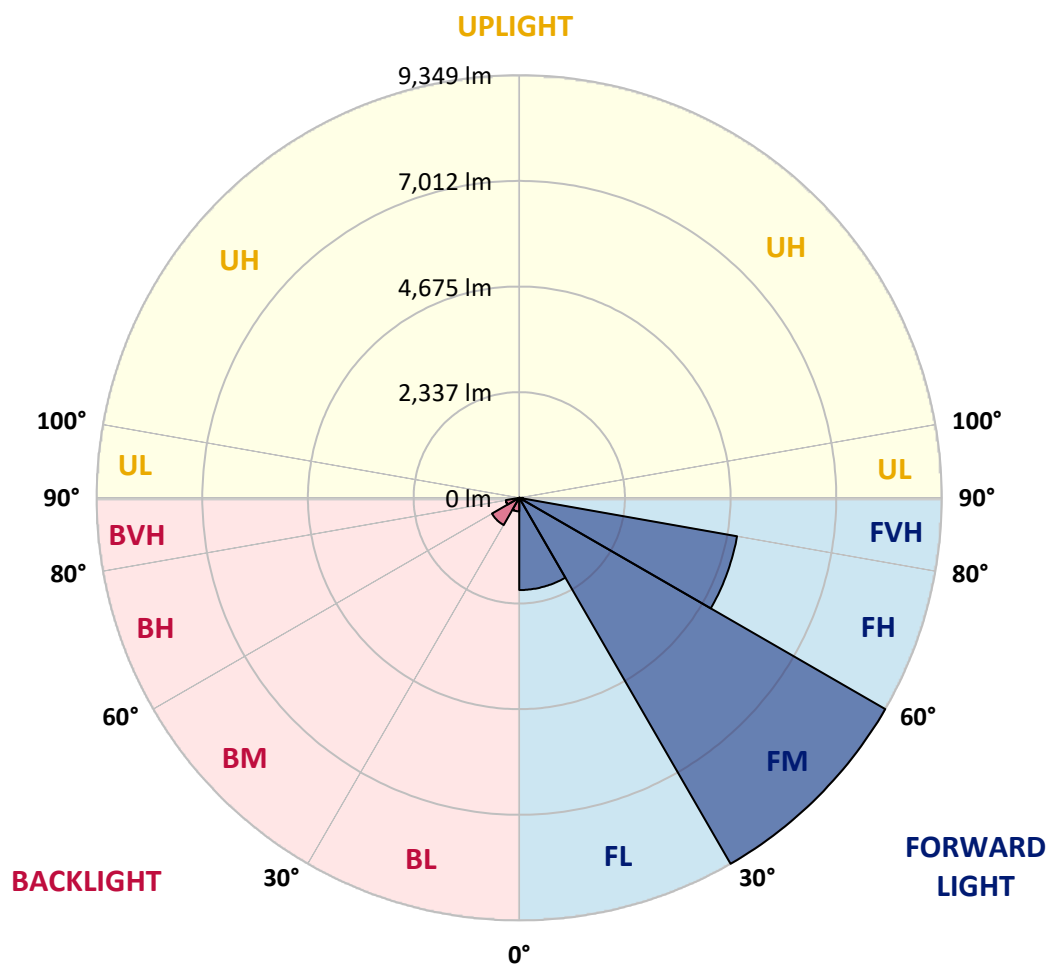
CATALOG NUMBER: NAV-SB2D-735-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2039.6	11.5			
FM	(30°-60°)	9349.1	52.9			
FH	(60°-80°)	4892.0	27.7			G2/5000
FVH	(80°-90°)	80.7	0.5			G1/100
BL	(0°-30°)	300.8	1.7	B1/500		
BM	(30°-60°)	696.2	3.9	B1/1000		
BH	(60°-80°)	300.8	1.7	B1/500		G1/500
BVH	(80°-90°)	1.5	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-G2

Type II Medium



REPORT NUMBER: P962987

CATALOG NUMBER: NAV-SB2D-735-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6
2.5°	2819.6	2837.1	2811.9	2763.6	2691.2	2644.1	2529.0	2420.4	2299.8	2261.4	2140.7
5°	3437.0	3452.4	3423.8	3371.2	3274.7	3182.6	3031.2	2804.2	2568.4	2492.8	2278.9
7.5°	3894.3	3903.1	3892.1	3843.9	3751.8	3647.6	3478.6	3210.0	2860.2	2776.8	2448.9
10°	4223.3	4251.8	4248.5	4229.9	4168.5	4084.0	3904.2	3598.3	3186.9	3079.5	2640.8
12.5°	4441.5	4473.4	4492.1	4533.7	4530.4	4476.7	4318.7	3995.2	3512.7	3386.6	2856.9
15°	4505.2	4539.2	4610.4	4707.0	4792.5	4820.0	4709.2	4384.5	3871.3	3710.1	3078.4
17.5°	4469.0	4521.6	4607.2	4759.6	4947.2	5071.1	5059.0	4760.7	4197.0	4012.8	3295.6
20°	4549.1	4599.5	4666.4	4794.7	5013.0	5237.8	5327.7	5120.4	4520.6	4327.5	3523.6
22.5°	4992.2	4983.3	4989.9	5010.7	5141.3	5363.9	5549.2	5447.3	4840.8	4643.4	3764.9
25°	5694.0	5654.5	5587.6	5474.6	5441.7	5549.2	5742.3	5736.7	5178.5	4966.8	4011.6
27.5°	6498.9	6492.3	6335.5	6063.6	5910.0	5868.3	5960.5	6018.6	5513.1	5287.2	4259.5
30°	7269.9	7287.4	7075.8	6773.1	6491.3	6327.8	6244.5	6286.2	5853.1	5632.6	4515.0
32.5°	7941.1	7959.7	7729.4	7375.2	7026.5	6829.1	6653.6	6550.5	6223.7	5983.5	4795.8
35°	8508.1	8526.8	8262.4	7870.9	7499.1	7320.3	7121.9	6840.0	6596.6	6372.8	5108.4
37.5°	9014.8	9009.2	8655.0	8260.3	7895.1	7753.6	7649.4	7196.4	6980.4	6764.4	5454.9
40°	9314.2	9337.1	9034.5	8599.1	8244.9	8141.8	8135.2	7638.4	7423.5	7214.0	5834.4
42.5°	9401.9	9442.5	9223.2	8865.6	8544.3	8432.4	8604.6	8116.6	7938.9	7735.0	6263.2
45°	9244.0	9283.4	9183.6	8935.7	8748.3	8675.9	9008.2	8612.3	8489.5	8287.6	6746.8
47.5°	8783.3	8832.7	8856.8	8804.2	8802.0	8875.5	9370.0	9134.3	9143.1	8936.9	7307.2
50°	7891.8	7975.1	8196.6	8383.1	8671.5	9033.4	9722.1	9700.2	9880.1	9702.3	8037.6
52.5°	6270.8	6389.3	7152.6	7662.5	8310.7	9003.8	10109.3	10608.2	11173.0	10913.1	9067.4
55°	5039.3	5039.3	5659.9	6614.1	7606.6	8808.5	10278.1	11198.2	12053.7	11992.3	9792.3
57.5°	4108.2	4157.5	4553.5	5396.8	6587.8	8343.6	10382.3	11569.0	12763.2	12718.3	10500.7
60°	2535.5	2641.9	3389.9	4222.3	5428.6	7515.6	10316.5	11944.0	13624.1	13660.3	11354.0
62.5°	1427.9	1467.4	1800.7	3037.8	4221.2	6402.5	9813.1	12153.4	14725.1	14878.7	12233.5
65°	985.9	1005.6	1134.0	1890.7	2926.0	5097.4	8829.5	12022.9	15828.5	16138.8	12979.3
67.5°	716.2	726.0	806.1	1154.8	1736.0	3695.8	7287.4	11365.0	16413.0	16931.8	13121.8
70°	550.5	557.1	615.2	758.9	1025.4	2281.1	5292.6	10056.6	15989.7	16609.3	12391.4
72.5°	447.4	454.1	499.0	561.5	680.0	1348.9	3207.8	8167.0	14120.9	14789.9	10549.0
75°	377.3	386.0	426.6	467.2	533.0	866.3	1504.7	5687.4	10619.2	11057.9	7335.7
77.5°	209.5	193.0	346.6	387.1	449.7	548.4	704.1	3347.0	5947.4	6069.0	3255.0
80°	130.5	134.9	275.3	311.5	345.4	276.3	322.5	1288.6	2061.8	1958.7	630.6
82.5°	7.7	17.5	211.7	224.8	236.9	118.5	121.8	437.6	496.8	456.2	111.8
85°	0.0	0.0	96.6	77.9	82.2	34.0	35.1	102.0	66.9	72.4	21.9
87.5°	0.0	0.0	0.0	2.2	0.0	3.3	6.6	8.8	3.3	4.4	7.7
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: P962987

CATALOG NUMBER: NAV-SB2D-735-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6	2036.6
2.5°	2063.9	1987.2	1831.5	1679.1	1555.1	1439.9	1357.7	1279.8	1240.4	1238.2	1235.9
5°	2126.5	1965.2	1653.8	1378.5	1157.0	979.4	864.2	782.0	740.3	726.0	723.9
7.5°	2214.2	1971.8	1498.0	1115.3	854.3	701.9	636.1	609.8	601.0	591.1	589.0
10°	2325.0	1987.2	1358.8	898.2	673.3	596.6	570.3	559.3	552.7	546.1	544.0
12.5°	2448.9	2001.4	1220.6	745.8	592.2	552.7	534.1	520.9	512.2	504.5	502.2
15°	2569.6	2010.2	1077.0	639.4	550.5	518.8	499.0	484.7	472.6	463.9	462.8
17.5°	2689.1	2022.3	942.1	575.7	516.5	484.7	465.0	447.4	437.6	427.7	426.6
20°	2821.7	2020.1	814.9	530.7	482.6	450.7	429.9	413.5	403.5	392.6	391.5
22.5°	2944.6	2009.1	702.9	492.4	447.4	416.8	393.7	377.3	367.4	358.6	357.5
25°	3086.1	2000.4	609.8	457.4	414.5	383.9	358.6	343.3	332.3	324.6	323.5
27.5°	3222.1	1987.2	541.7	425.5	382.7	353.1	329.0	311.5	301.6	296.1	296.1
30°	3355.8	1983.9	516.5	394.8	354.2	324.6	300.5	284.0	276.3	274.2	273.1
32.5°	3517.1	1992.7	527.5	383.9	327.9	298.3	275.3	263.2	255.5	255.5	255.5
35°	3689.3	1990.4	544.0	393.7	310.4	271.9	254.4	246.7	239.0	239.0	239.0
37.5°	3905.2	1993.7	557.1	410.2	303.8	250.0	240.2	230.3	225.9	225.9	225.9
40°	4227.7	2102.4	550.5	424.5	301.6	234.7	214.9	211.7	208.4	208.4	208.4
42.5°	4622.5	2338.1	559.3	425.5	300.5	223.8	197.4	204.0	196.3	195.2	194.1
45°	5054.6	2595.8	615.2	402.5	299.4	218.2	188.6	196.3	184.2	184.2	184.2
47.5°	5483.4	2851.3	672.3	369.6	296.1	217.1	180.9	176.6	173.2	174.4	174.4
50°	6074.6	3059.7	694.2	324.6	288.4	214.9	166.7	167.8	165.6	167.8	167.8
52.5°	6718.3	3103.6	667.9	274.2	266.5	208.4	156.8	161.2	160.1	162.4	162.4
55°	7119.6	3056.4	551.7	228.1	232.5	182.0	147.0	155.7	155.7	155.7	155.7
57.5°	7534.3	2855.8	391.5	185.3	193.0	149.1	138.2	150.3	149.1	148.0	148.0
60°	7832.5	2531.1	257.7	152.4	153.5	122.8	128.3	141.4	140.4	134.9	134.9
62.5°	8055.2	2172.5	165.6	129.5	117.4	110.8	117.4	128.3	123.9	111.8	109.7
65°	8030.0	1675.8	127.2	110.8	96.6	96.6	102.0	111.8	98.7	78.9	76.8
67.5°	7561.6	1134.0	105.3	93.2	81.2	80.1	84.5	93.2	84.5	66.9	64.7
70°	6724.9	741.4	84.5	72.4	64.7	59.2	68.0	80.1	71.2	53.7	51.6
72.5°	5458.2	451.8	63.7	52.7	47.2	38.3	53.7	65.8	57.0	39.5	37.3
75°	3531.3	230.3	43.9	34.0	25.2	23.1	39.5	49.3	39.5	24.1	20.8
77.5°	1351.2	96.6	24.1	15.4	13.1	11.0	21.9	29.6	16.4	5.4	4.4
80°	259.9	40.6	12.1	7.7	6.6	4.4	3.3	2.2	0.0	0.0	0.0
82.5°	45.0	13.1	4.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	15.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.4	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)