

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: P966273

Luminaire Tested: **NAV-SB4B-827-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966273
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-SB4B-827-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 450mA 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: 17031.4 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 147
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

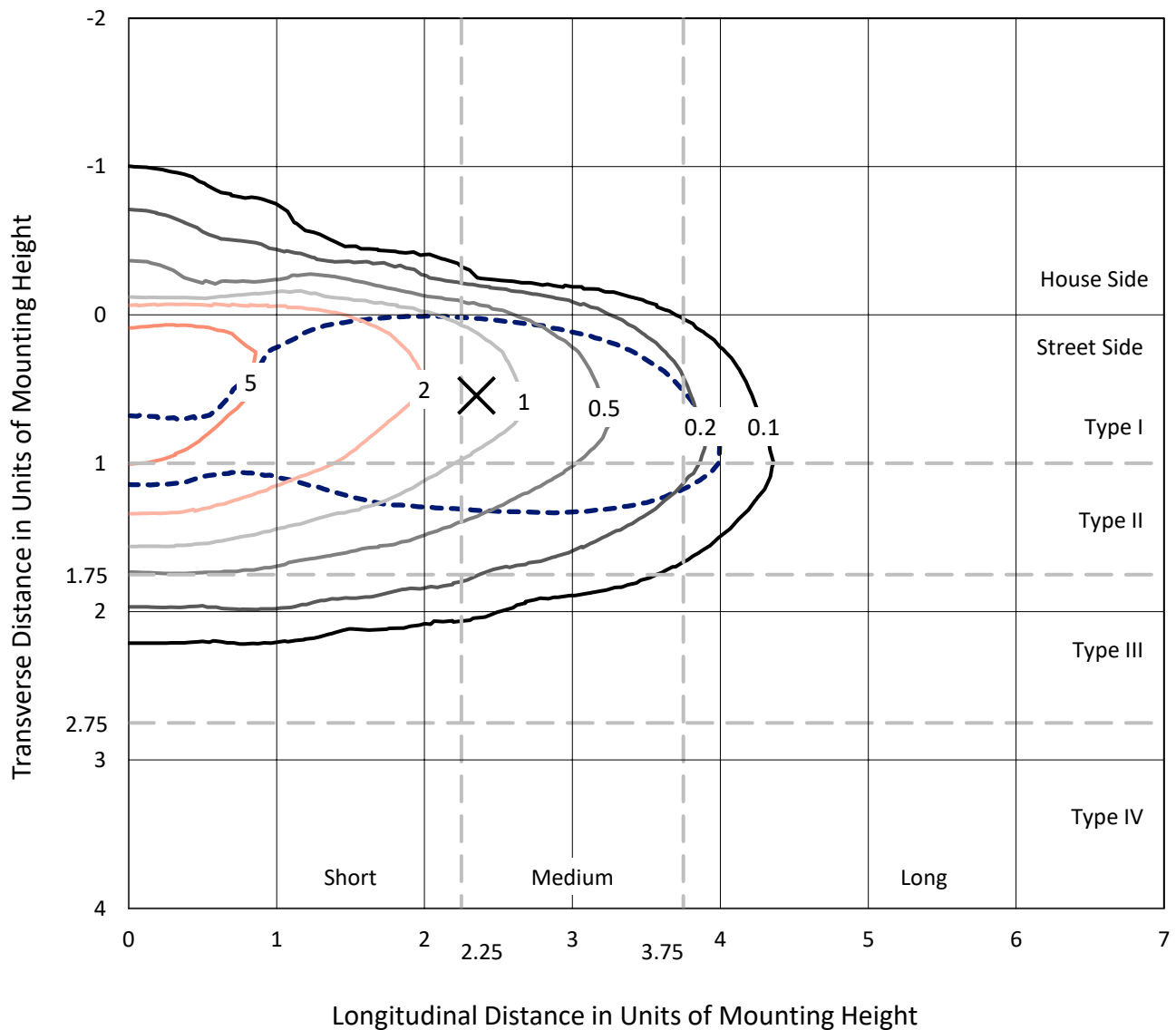


REPORT NUMBER: P966273

CATALOG NUMBER: NAV-SB4B-827-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

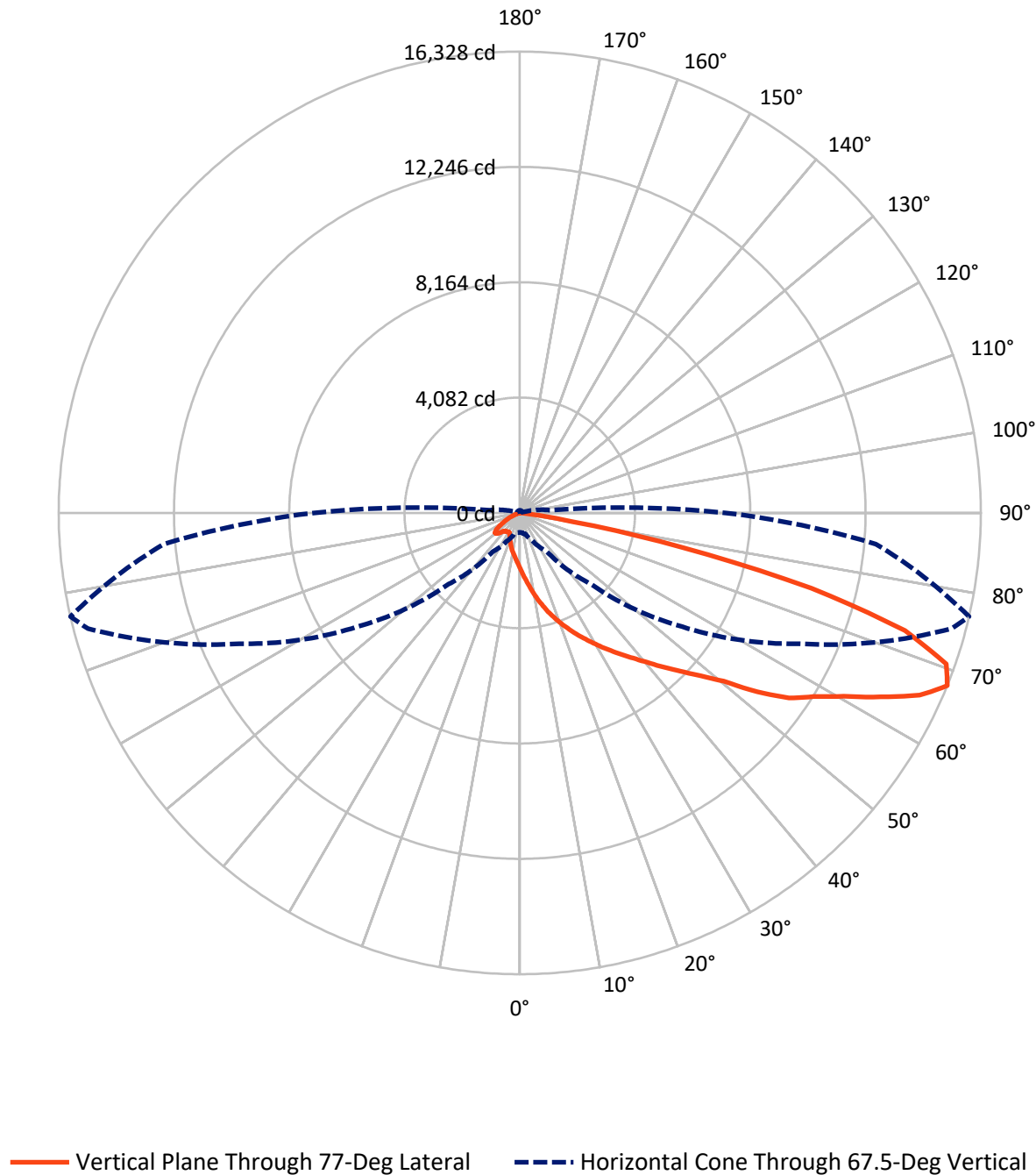
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
Type II - Medium - N/A

REPORT NUMBER: P966273
CATALOG NUMBER: NAV-SB4B-827-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P966273

CATALOG NUMBER: NAV-SB4B-827-U-T2R-HSS

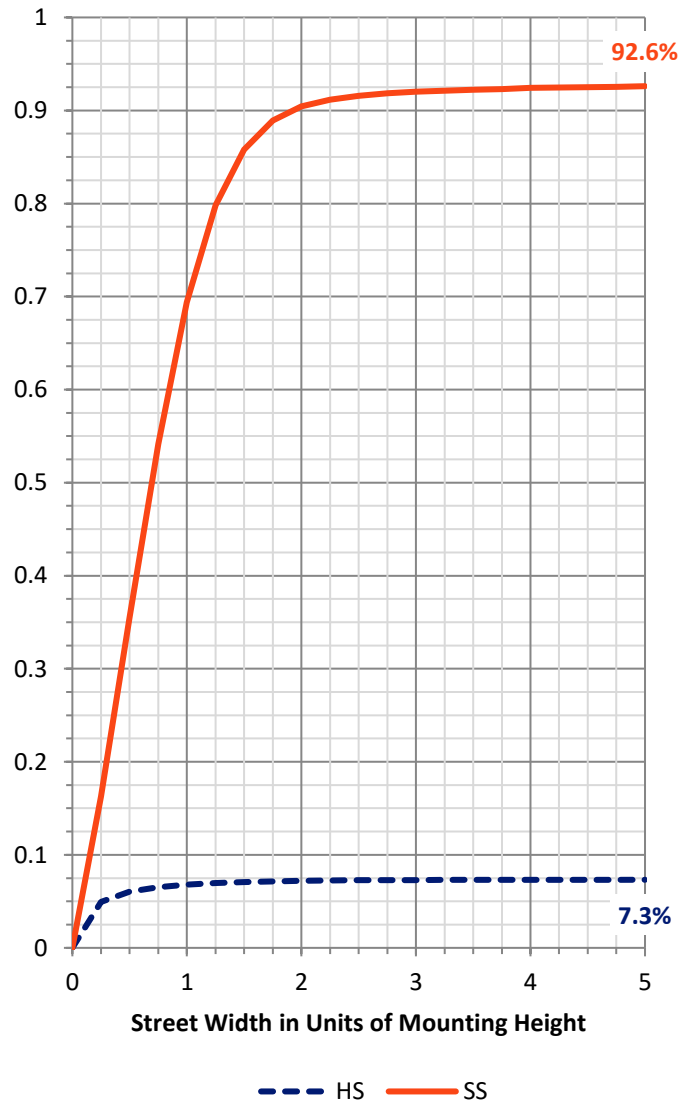
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1253.0	0.0	1253.0
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	15778.4	0.0	15778.4
	% Fixture	92.6	0.0	92.6
Total	Lumens	17031.4	0.0	17031.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.5	1.2
10°-20°	702.0	4.1
20°-30°	1354.6	8.0
30°-40°	2351.7	13.8
40°-50°	3414.5	20.0
50°-60°	3921.1	23.0
60°-70°	3404.3	20.0
70°-80°	1603.5	9.4
80°-90°	79.3	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°	17031.4	100.0
0°-180°	17031.4	100.0

Coefficient of Utilization



REPORT NUMBER: P966273

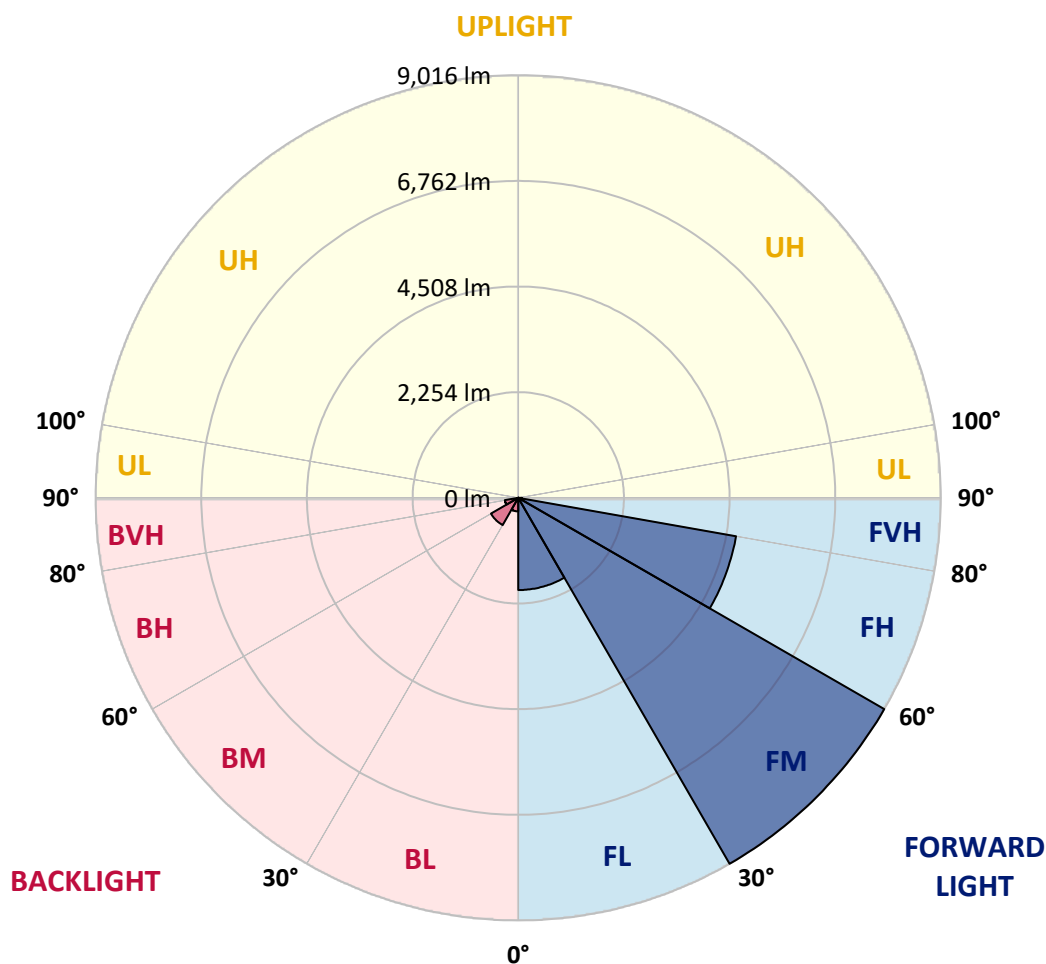
CATALOG NUMBER: NAV-SB4B-827-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1966.9	11.5			
FM	(30°-60°)	9016.0	52.9			
FH	(60°-80°)	4717.7	27.7			G2/5000
FVH	(80°-90°)	77.8	0.5			G1/100
BL	(0°-30°)	290.1	1.7	B1/500		
BM	(30°-60°)	671.4	3.9	B1/1000		
BH	(60°-80°)	290.1	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: P966273

CATALOG NUMBER: NAV-SB4B-827-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0
2.5°	2719.1	2736.0	2711.7	2665.2	2595.4	2549.9	2438.9	2334.1	2217.8	2180.8	2064.5
5°	3314.5	3329.3	3301.8	3251.1	3158.0	3069.2	2923.2	2704.3	2476.9	2403.9	2197.7
7.5°	3755.6	3764.0	3753.4	3706.9	3618.0	3517.6	3354.7	3095.6	2758.3	2677.8	2361.6
10°	4072.8	4100.3	4097.1	4079.2	4019.9	3938.6	3765.0	3470.0	3073.4	2969.7	2546.7
12.5°	4283.3	4313.9	4332.0	4372.1	4369.0	4317.1	4164.9	3852.9	3387.5	3265.9	2755.1
15°	4344.7	4377.5	4446.1	4539.2	4621.7	4648.2	4541.4	4228.3	3733.4	3577.9	2968.7
17.5°	4309.7	4360.5	4443.0	4590.1	4770.9	4890.4	4878.7	4591.1	4047.4	3869.8	3178.1
20°	4386.9	4435.6	4500.1	4623.9	4834.3	5051.1	5137.8	4937.9	4359.4	4173.3	3398.1
22.5°	4814.2	4805.7	4812.1	4832.2	4958.0	5172.8	5351.5	5253.1	4668.3	4477.9	3630.8
25°	5491.1	5453.0	5388.5	5279.6	5247.8	5351.5	5537.7	5532.3	4994.0	4789.9	3868.8
27.5°	6267.4	6261.0	6109.8	5847.5	5699.4	5659.2	5748.1	5804.2	5316.6	5098.8	4107.7
30°	7010.9	7027.8	6823.6	6531.8	6260.0	6102.3	6022.0	6062.2	5644.5	5431.9	4354.2
32.5°	7658.1	7676.1	7454.0	7112.4	6776.1	6585.7	6416.5	6317.1	6001.9	5770.2	4624.9
35°	8204.9	8222.9	7967.9	7590.4	7231.9	7059.5	6868.1	6596.3	6361.5	6145.7	4926.4
37.5°	8693.5	8688.2	8346.6	7965.9	7613.7	7477.3	7376.8	6940.0	6731.7	6523.3	5260.5
40°	8982.3	9004.4	8712.5	8292.7	7951.0	7851.6	7845.4	7366.2	7158.9	6956.9	5626.4
42.5°	9066.8	9106.0	8894.4	8549.6	8239.8	8131.9	8298.0	7827.3	7656.0	7459.2	6040.0
45°	8914.5	8952.7	8856.4	8617.4	8436.5	8366.7	8687.2	8305.4	8186.9	7992.3	6506.4
47.5°	8470.4	8518.0	8541.2	8490.5	8488.3	8559.2	9036.2	8808.7	8817.3	8618.4	7046.8
50°	7610.5	7690.9	7904.5	8084.3	8362.5	8711.5	9375.7	9354.5	9528.0	9356.6	7751.2
52.5°	6047.4	6161.6	6897.7	7389.4	8014.5	8683.0	9749.0	10230.2	10774.9	10524.2	8744.3
55°	4859.7	4859.7	5458.3	6378.4	7335.5	8494.7	9911.9	10799.2	11624.1	11564.9	9443.3
57.5°	3961.8	4009.4	4391.2	5204.4	6353.1	8046.2	10012.3	11156.7	12308.4	12265.0	10126.6
60°	2445.1	2547.7	3269.0	4071.8	5235.2	7247.8	9948.9	11518.3	13138.7	13173.5	10949.4
62.5°	1377.0	1415.1	1736.6	2929.6	4070.7	6174.3	9463.4	11720.4	14200.5	14348.6	11797.5
65°	950.8	969.9	1093.6	1823.3	2821.7	4915.7	8514.8	11594.5	15264.4	15563.7	12516.8
67.5°	690.6	700.2	777.4	1113.7	1674.2	3564.1	7027.8	10959.9	15828.2	16328.4	12654.2
70°	530.9	537.3	593.3	731.8	988.8	2199.9	5104.0	9698.2	15419.9	16017.4	11949.9
72.5°	431.5	437.9	481.2	541.5	655.7	1300.8	3093.4	7876.0	13617.7	14262.9	10173.1
75°	363.8	372.3	411.4	450.6	514.0	835.5	1451.0	5484.8	10240.8	10663.8	7074.3
77.5°	202.0	186.1	334.3	373.3	433.6	528.8	679.0	3227.8	5735.4	5852.7	3139.0
80°	125.9	130.1	265.5	300.3	333.1	266.5	311.0	1242.7	1988.3	1888.9	608.1
82.5°	7.4	16.9	204.1	216.8	228.5	114.2	117.4	422.0	479.1	439.9	107.8
85°	0.0	0.0	93.1	75.1	79.3	32.8	33.8	98.4	64.5	69.8	21.1
87.5°	0.0	0.0	0.0	2.2	0.0	3.2	6.4	8.5	3.2	4.2	7.4
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: P966273

CATALOG NUMBER: NAV-SB4B-827-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0	1964.0
2.5°	1990.4	1916.3	1766.2	1619.2	1499.7	1388.7	1309.3	1234.2	1196.2	1194.0	1191.9
5°	2050.7	1895.2	1594.9	1329.4	1115.8	944.4	833.4	754.1	713.9	700.2	698.0
7.5°	2135.3	1901.6	1444.7	1075.5	823.9	676.9	613.4	588.0	579.5	570.0	568.0
10°	2242.1	1916.3	1310.4	866.2	649.3	575.3	549.9	539.4	533.0	526.6	524.6
12.5°	2361.6	1930.2	1177.1	719.1	571.1	533.0	515.1	502.4	493.9	486.5	484.4
15°	2477.9	1938.6	1038.5	616.5	530.9	500.2	481.2	467.5	455.8	447.4	446.3
17.5°	2593.2	1950.3	908.5	555.2	498.2	467.5	448.4	431.5	422.0	412.5	411.4
20°	2721.2	1948.1	785.8	511.9	465.4	434.7	414.6	398.7	389.2	378.6	377.6
22.5°	2839.7	1937.6	677.9	474.9	431.5	401.9	379.7	363.8	354.3	345.8	344.8
25°	2976.1	1929.0	588.0	441.1	399.7	370.1	345.8	331.1	320.4	313.0	312.0
27.5°	3107.3	1916.3	522.4	410.3	369.1	340.5	317.2	300.3	290.8	285.6	285.6
30°	3236.2	1913.2	498.2	380.8	341.6	313.0	289.8	273.9	266.5	264.4	263.3
32.5°	3391.7	1921.7	508.7	370.1	316.2	287.7	265.5	253.8	246.4	246.4	246.4
35°	3557.8	1919.5	524.6	379.7	299.3	262.3	245.4	238.0	230.5	230.5	230.5
37.5°	3766.2	1922.7	537.3	395.5	292.9	241.2	231.6	222.1	217.9	217.9	217.9
40°	4077.0	2027.4	530.9	409.3	290.8	226.3	207.3	204.1	200.9	200.9	200.9
42.5°	4457.8	2254.8	539.4	410.3	289.8	215.8	190.3	196.7	189.3	188.3	187.2
45°	4874.5	2503.4	593.3	388.2	288.7	210.4	181.9	189.3	177.6	177.6	177.6
47.5°	5288.0	2749.8	648.3	356.4	285.6	209.4	174.5	170.3	167.1	168.2	168.2
50°	5858.1	2950.7	669.4	313.0	278.2	207.3	160.7	161.8	159.7	161.8	161.8
52.5°	6478.9	2993.0	644.1	264.4	257.0	200.9	151.2	155.5	154.4	156.5	156.5
55°	6866.0	2947.6	532.0	220.0	224.2	175.6	141.8	150.2	150.2	150.2	150.2
57.5°	7265.7	2754.0	377.6	178.8	186.1	143.8	133.2	144.9	143.8	142.8	142.8
60°	7553.4	2440.9	248.6	147.0	148.1	118.5	123.7	136.4	135.4	130.1	130.1
62.5°	7768.1	2095.1	159.7	124.8	113.2	106.8	113.2	123.7	119.5	107.8	105.8
65°	7743.8	1616.0	122.7	106.8	93.1	93.1	98.4	107.8	95.2	76.2	74.0
67.5°	7292.2	1093.6	101.6	89.9	78.3	77.2	81.4	89.9	81.4	64.5	62.4
70°	6485.3	714.9	81.4	69.8	62.4	57.1	65.6	77.2	68.8	51.9	49.7
72.5°	5263.7	435.7	61.3	50.7	45.5	37.0	51.9	63.4	55.0	38.0	36.0
75°	3405.5	222.1	42.3	32.8	24.3	22.2	38.0	47.6	38.0	23.3	20.1
77.5°	1303.0	93.1	23.3	14.8	12.7	10.6	21.1	28.6	15.9	5.3	4.2
80°	250.6	39.2	11.6	7.4	6.4	4.2	3.2	2.2	0.0	0.0	0.0
82.5°	43.4	12.7	4.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	14.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.3	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)