

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: P966802

Luminaire Tested: **NAV-SB4C-827-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966802
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-827-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20444.6 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 200.7
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



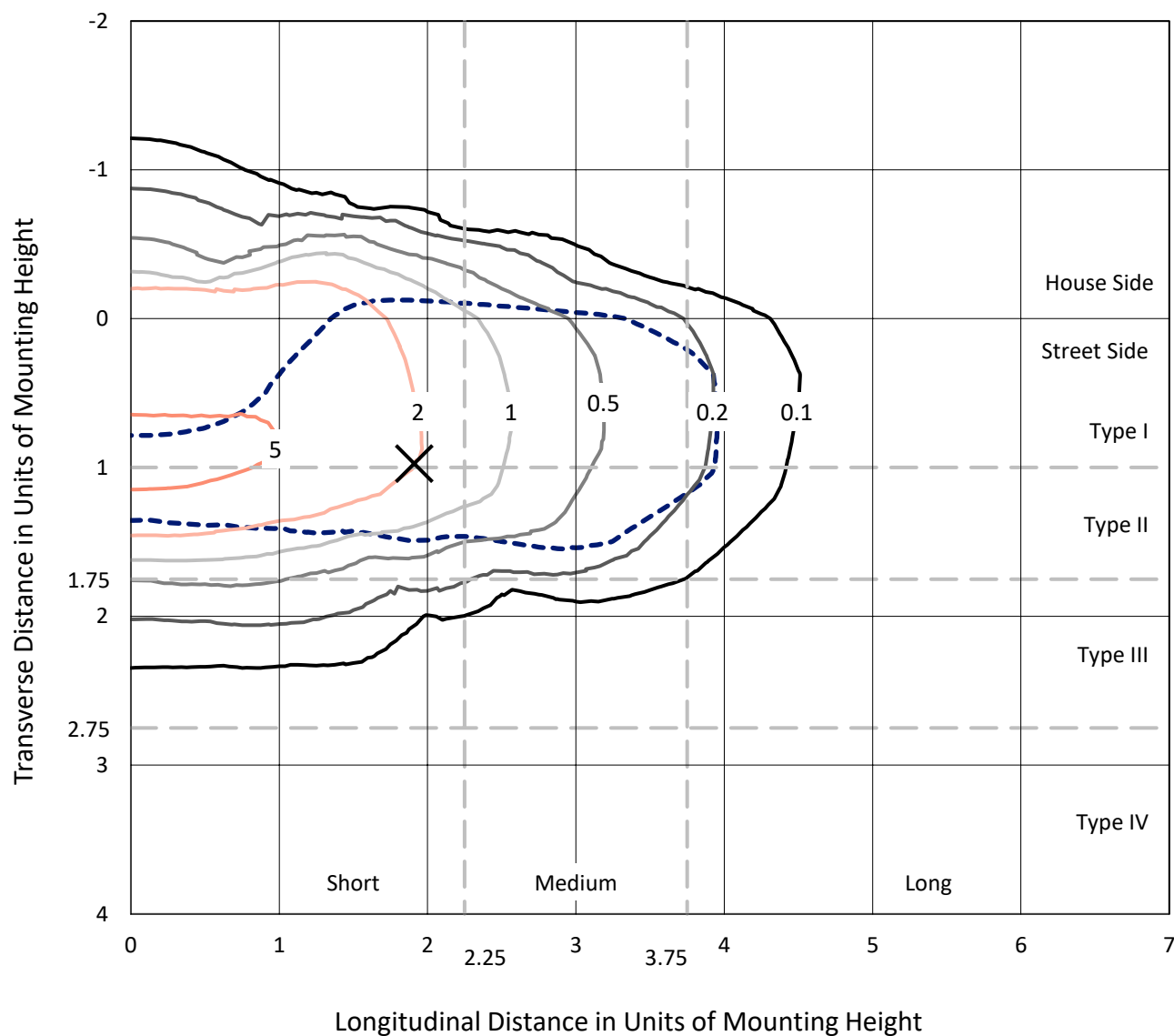
REPORT NUMBER: P966802

CATALOG NUMBER: NAV-SB4C-827-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

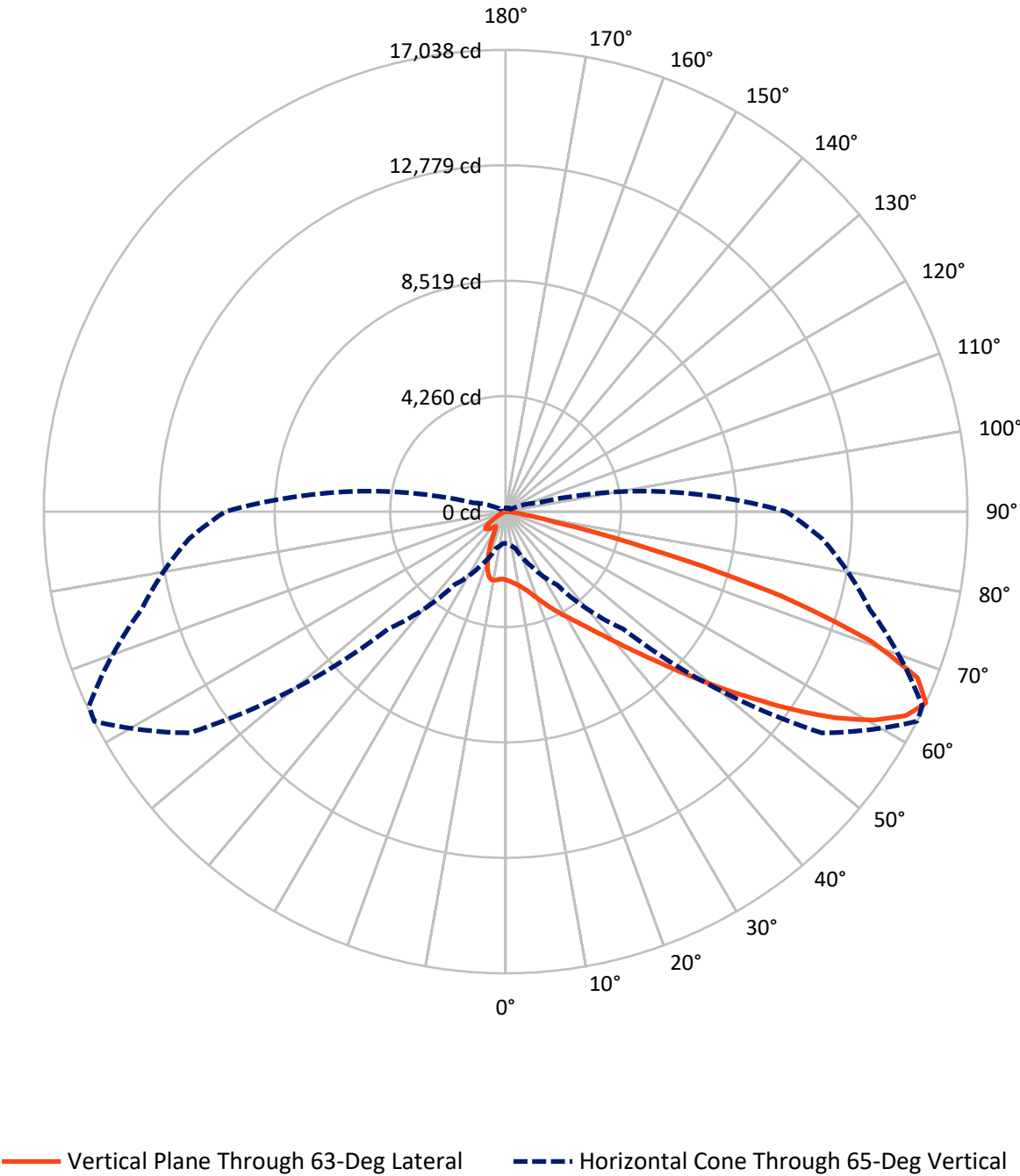


Based on 25 foot mounting height. Maximum calculated value = 6.9 fc

Type II - Short - N/A

REPORT NUMBER: P966802
CATALOG NUMBER: NAV-SB4C-827-U-T2U-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P966802

CATALOG NUMBER: NAV-SB4C-827-U-T2U-HSS

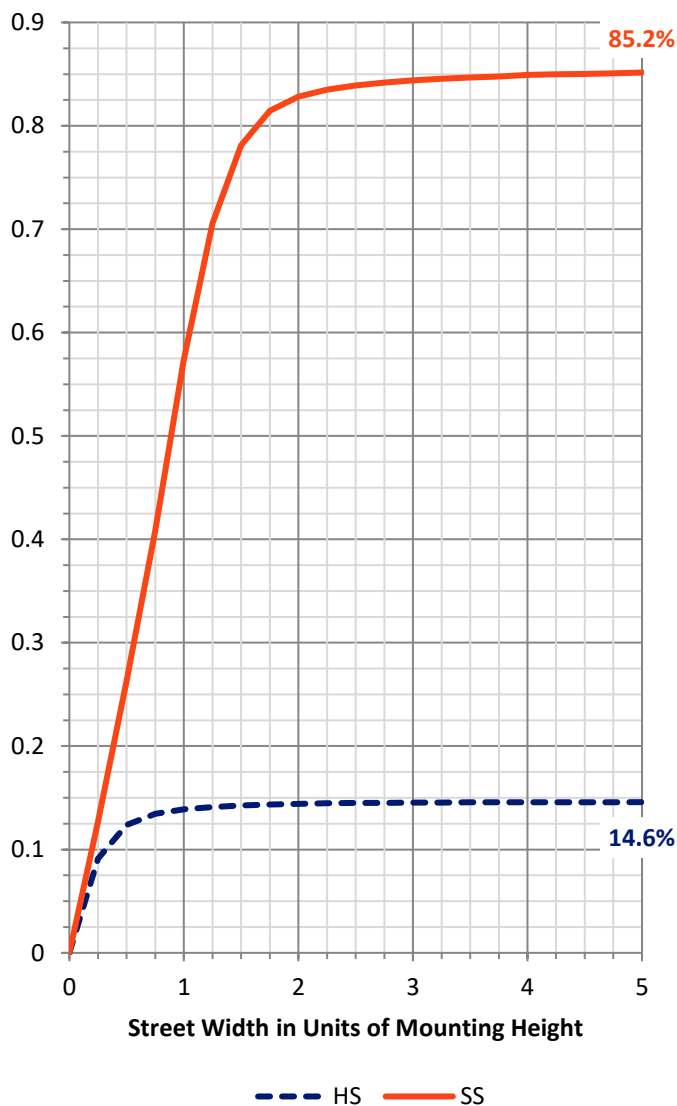
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3005.2	0.0	3005.2
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	17439.4	0.0	17439.4
	% Fixture	85.3	0.0	85.3
Total	Lumens	20444.6	0.0	20444.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.7	1.2
10°-20°	659.6	3.2
20°-30°	1148.6	5.6
30°-40°	2070.2	10.1
40°-50°	4105.9	20.1
50°-60°	5592.9	27.4
60°-70°	4464.2	21.8
70°-80°	2020.2	9.9
80°-90°	145.2	0.7
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°	20444.6	100.0
0°-180°	20444.6	100.0

Coefficient of Utilization



REPORT NUMBER: P966802

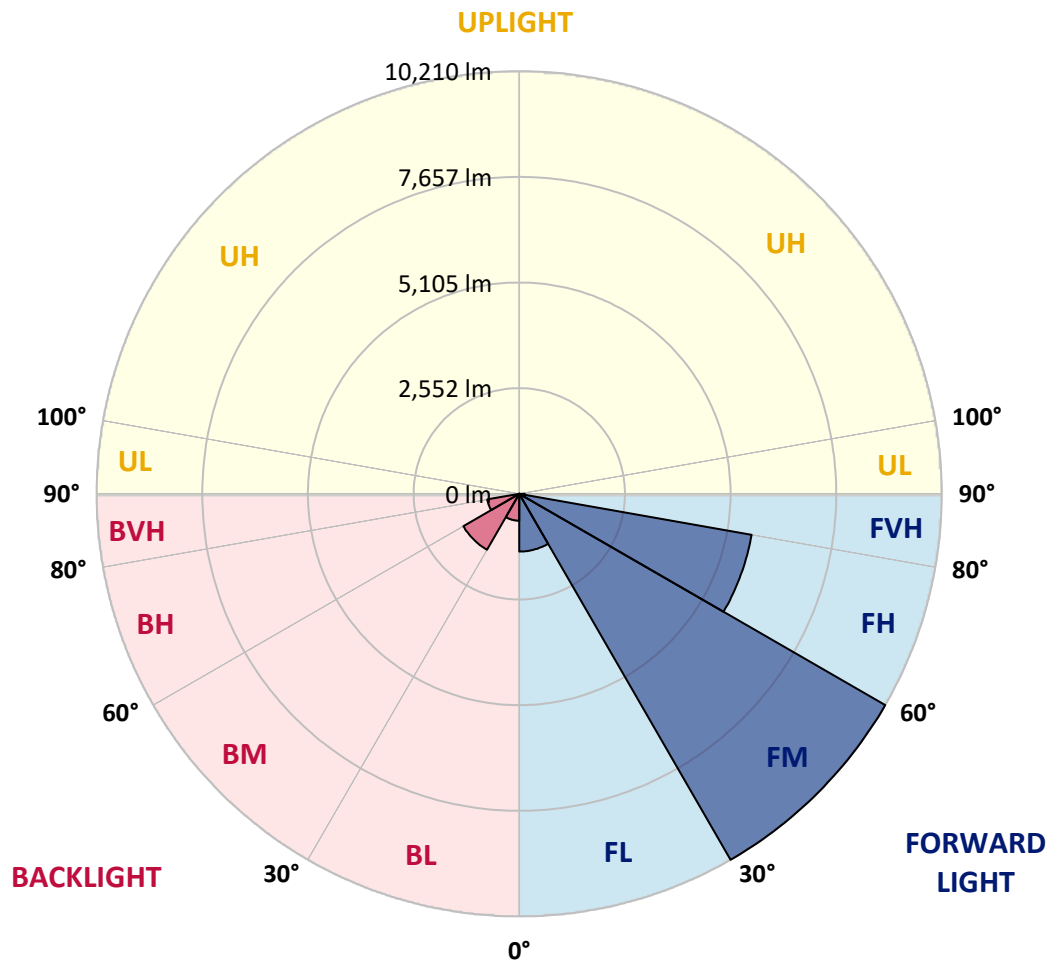
CATALOG NUMBER: NAV-SB4C-827-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1395.6	6.8			
FM	(30°-60°)	10209.5	49.9			
FH	(60°-80°)	5699.9	27.9			G3/7500
FVH	(80°-90°)	134.4	0.7			G2/225
BL	(0°-30°)	650.4	3.2	B2/1000		
BM	(30°-60°)	1559.5	7.6	B2/2500		
BH	(60°-80°)	784.5	3.8	B2/1000		G2/1000
BVH	(80°-90°)	10.8	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short



REPORT NUMBER: P966802

CATALOG NUMBER: NAV-SB4C-827-U-T2U-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2
2.5°	2582.3	2575.3	2585.2	2581.0	2578.1	2572.4	2569.7	2566.9	2561.3	2557.0	2540.2
5°	2589.4	2585.2	2595.0	2603.4	2611.9	2620.3	2624.5	2630.1	2624.5	2613.2	2596.4
7.5°	2530.3	2527.4	2548.6	2573.9	2611.9	2644.2	2679.4	2699.0	2700.5	2696.3	2678.0
10°	2526.1	2519.0	2540.2	2571.1	2620.3	2678.0	2739.8	2782.1	2787.7	2805.9	2786.3
12.5°	2592.2	2585.2	2614.7	2648.4	2699.0	2759.5	2835.5	2894.6	2903.0	2928.3	2914.3
15°	2703.3	2693.4	2727.2	2770.8	2835.5	2904.4	2984.6	3038.0	3045.1	3076.0	3050.7
17.5°	2832.7	2822.8	2862.2	2908.6	2979.0	3073.2	3166.0	3225.1	3233.6	3253.2	3206.8
20°	2998.6	2986.0	3017.0	3059.1	3133.6	3246.2	3357.3	3441.7	3440.3	3440.3	3364.4
22.5°	3191.3	3171.7	3198.4	3232.1	3302.4	3438.9	3586.6	3686.4	3686.4	3647.1	3521.9
25°	3398.1	3378.4	3407.9	3438.9	3500.8	3655.5	3828.5	3952.3	3957.8	3890.4	3690.6
27.5°	3656.9	3631.6	3654.1	3690.6	3727.2	3884.7	4090.1	4233.6	4236.3	4132.3	3851.0
30°	4154.8	4083.1	4012.8	3973.3	3990.2	4146.3	4365.8	4524.7	4538.8	4395.3	4025.4
32.5°	5066.2	5052.1	4804.6	4481.1	4312.3	4427.7	4673.8	4865.1	4873.5	4689.3	4251.8
35°	6482.5	6465.7	6067.6	5451.6	4901.7	4804.6	5047.9	5274.3	5268.7	5060.5	4545.8
37.5°	8173.1	8157.7	7633.1	6808.9	5918.6	5374.2	5530.4	5768.1	5803.2	5530.4	4925.5
40°	9617.7	9560.0	9228.1	8433.4	7268.8	6319.4	6216.7	6374.3	6410.9	6087.3	5408.0
42.5°	10711.9	10662.7	10493.8	9997.3	8903.2	7717.4	7025.5	7085.9	7126.7	6738.6	5962.1
45°	11278.7	11267.4	11335.0	11288.5	10568.5	9433.4	8181.6	7929.8	7945.3	7460.1	6590.9
47.5°	11358.8	11353.2	11661.2	12097.3	12000.2	11368.7	9665.4	8981.9	8927.0	8274.4	7274.4
50°	10886.3	10875.0	11465.8	12283.0	12956.6	12994.6	11350.4	10167.6	10046.6	9117.0	7987.5
52.5°	9377.1	9374.3	10344.8	11704.9	13292.8	14418.0	13015.8	11470.0	11267.4	10008.6	8741.4
55°	7215.3	7267.4	8379.9	9987.5	12679.6	15103.0	14510.8	12915.8	12605.0	10906.0	9436.2
57.5°	5111.2	5187.1	6287.0	7718.9	10778.0	14697.9	15522.1	14364.6	14029.8	11800.5	10140.8
60°	2745.5	2813.0	3914.3	5623.2	8018.5	13187.3	16055.2	15621.9	15305.5	12650.0	10776.5
62.5°	1635.8	1658.2	2114.0	3630.1	5423.5	10074.7	15828.8	16579.8	16319.5	13363.1	11329.3
65°	1174.4	1178.6	1407.9	2216.7	3292.6	6121.1	14240.7	17038.3	16958.1	13900.4	11738.6
67.5°	988.8	985.9	1081.6	1472.6	2243.3	3066.2	10914.4	16390.0	16730.3	14240.7	11970.7
70°	848.1	852.3	964.8	1078.8	1686.4	1735.6	5426.2	14270.4	14996.1	14330.8	11956.6
72.5°	631.5	645.5	749.7	983.2	1272.8	1194.1	1873.5	10581.1	11893.4	13502.3	11336.4
75°	445.9	452.8	527.5	827.0	949.4	869.2	956.4	5469.9	7152.0	10351.8	9278.7
77.5°	343.2	355.9	399.4	578.1	935.3	610.4	585.1	1893.2	2908.6	6253.3	6361.6
80°	185.6	208.2	288.3	417.7	656.8	431.8	289.8	753.9	985.9	2924.1	2452.9
82.5°	95.6	106.9	201.1	300.9	374.1	376.9	143.5	313.6	406.5	902.9	336.2
85°	37.9	46.4	135.0	165.9	192.7	185.6	64.7	126.6	146.3	250.4	102.7
87.5°	8.4	14.0	49.2	37.9	36.6	39.4	15.5	29.5	28.1	29.5	18.2
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: P966802

CATALOG NUMBER: NAV-SB4C-827-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2	2523.2
2.5°	2538.7	2533.1	2517.6	2500.8	2481.0	2469.8	2462.8	2461.3	2451.5	2444.5	2451.5
5°	2581.0	2575.3	2545.8	2510.6	2472.6	2443.1	2415.0	2389.7	2353.1	2346.0	2343.3
7.5°	2665.3	2649.8	2602.1	2554.2	2482.4	2396.7	2292.6	2173.0	2066.2	2033.8	2018.3
10°	2769.3	2748.3	2687.9	2603.4	2444.5	2211.0	1959.3	1725.8	1540.2	1488.1	1468.4
12.5°	2887.5	2869.3	2789.1	2632.9	2285.5	1862.2	1476.8	1187.1	1007.1	962.1	949.4
15°	3028.2	3001.5	2890.4	2587.9	2001.4	1414.9	1014.1	842.4	777.8	769.4	761.0
17.5°	3177.3	3133.6	2980.4	2426.2	1618.9	1005.6	783.4	734.2	706.0	697.6	693.4
20°	3313.7	3257.4	3033.8	2181.5	1209.6	783.4	701.8	669.5	644.2	634.4	628.7
22.5°	3450.2	3370.0	3033.8	1848.2	907.2	694.8	644.2	614.6	585.1	572.5	565.4
25°	3592.2	3485.3	2980.4	1476.8	730.0	637.1	589.3	557.0	531.7	516.2	510.6
27.5°	3730.1	3582.4	2858.0	1125.2	649.8	586.5	538.6	507.8	483.8	472.6	472.6
30°	3860.9	3678.0	2686.4	853.7	597.8	537.3	492.3	465.6	441.7	430.4	431.8
32.5°	4038.1	3799.0	2503.6	700.5	552.8	490.9	450.1	424.8	403.6	395.2	395.2
35°	4284.2	3977.6	2346.0	687.8	514.8	452.8	412.2	388.2	367.1	360.1	360.1
37.5°	4633.0	4265.9	2263.1	772.1	483.8	419.1	381.2	355.9	336.2	330.6	329.1
40°	5063.4	4656.9	2308.1	856.6	462.8	389.6	353.0	327.7	310.9	303.8	302.4
42.5°	5574.0	5139.3	2557.0	921.3	448.6	364.3	326.3	298.2	286.9	284.1	284.1
45°	6160.5	5669.6	2938.2	990.1	426.2	340.4	299.6	278.5	270.1	268.7	267.2
47.5°	6827.1	6251.9	3379.8	1075.9	403.6	317.9	278.5	264.4	257.4	254.6	254.6
50°	7488.2	6838.4	3834.1	1123.8	385.4	296.7	261.6	250.4	244.8	243.3	243.3
52.5°	8180.2	7441.8	4201.2	1078.8	369.9	279.9	247.5	239.1	233.5	232.1	232.1
55°	8839.8	7929.8	4264.5	915.6	339.0	263.0	232.1	227.9	220.8	220.8	219.5
57.5°	9408.1	8174.6	3817.2	672.3	308.0	237.7	216.6	212.4	206.7	205.3	204.0
60°	9929.9	8104.3	2946.6	452.8	274.3	212.4	196.9	194.1	188.5	181.4	180.0
62.5°	10223.9	7794.8	2015.6	295.4	240.5	185.6	174.5	173.0	160.3	146.3	143.5
65°	10335.0	7159.1	1257.4	215.1	201.1	159.0	150.5	147.7	129.4	113.9	112.5
67.5°	10237.9	6112.6	634.4	170.1	159.0	132.2	123.8	123.8	111.1	97.1	95.6
70°	9849.7	4582.4	267.2	136.4	122.4	101.3	101.3	106.9	94.2	78.7	77.4
72.5°	9007.2	3083.0	142.1	104.0	91.4	71.8	83.0	87.2	74.5	59.0	59.0
75°	7160.4	1880.5	98.5	77.4	57.7	50.6	63.2	66.1	50.6	39.4	37.9
77.5°	4897.4	1080.1	66.1	49.2	36.6	29.5	43.6	40.8	26.8	18.2	19.7
80°	2150.6	450.1	37.9	22.5	14.0	11.3	15.5	11.3	8.4	5.6	5.6
82.5°	251.7	105.5	14.0	8.4	5.6	2.8	1.4	0.0	0.0	0.0	0.0
85°	52.1	12.6	7.1	2.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.8	2.8	1.4	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)