

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: P961051

Luminaire Tested: **NAV-SB1D-835-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961051
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-835-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9843.1 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G1

Input Watts (W): 79.6
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

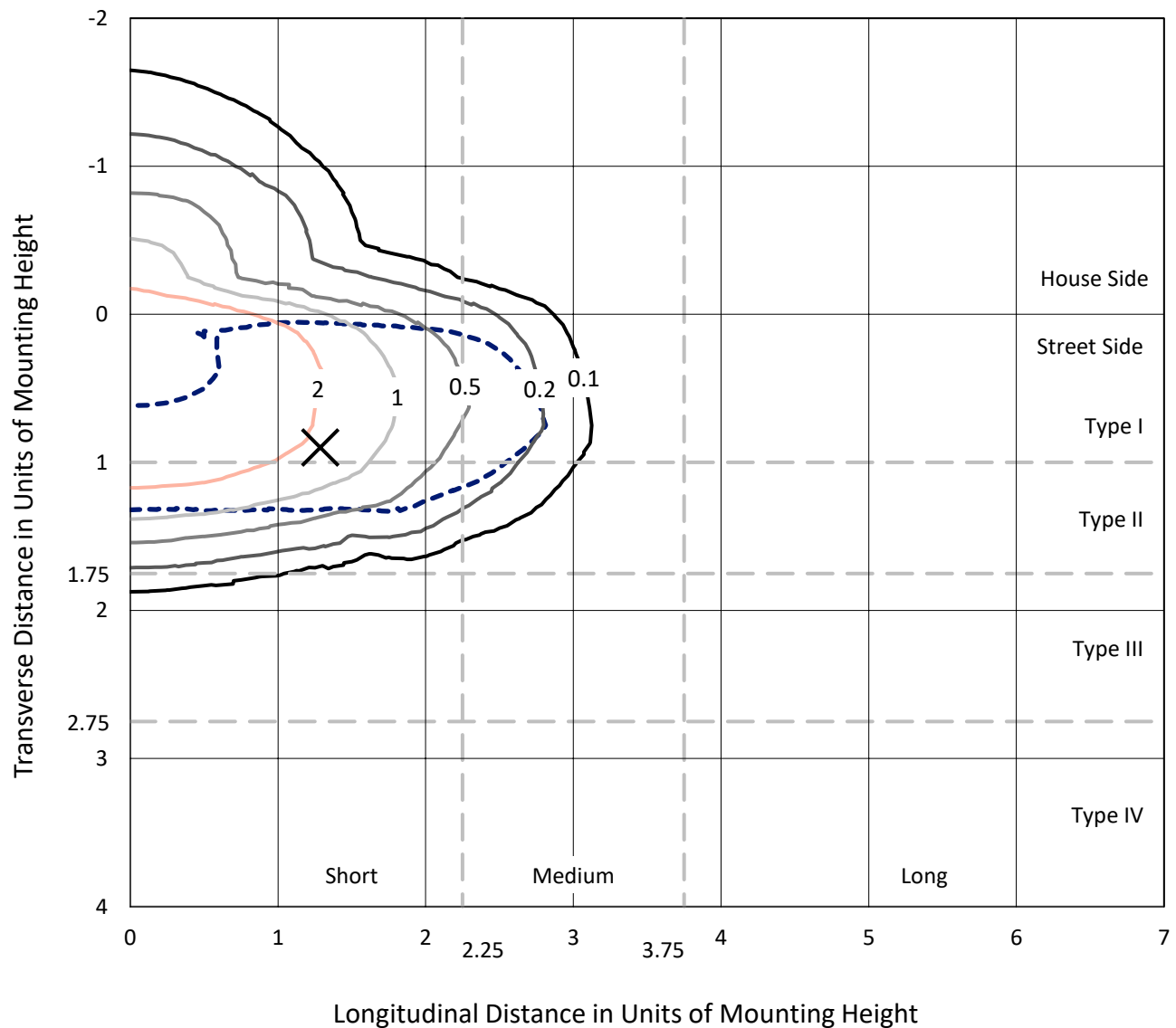


REPORT NUMBER: P961051

CATALOG NUMBER: NAV-SB1D-835-U-AFL

Iso-Footcandle Lines of Horizontal Illumination

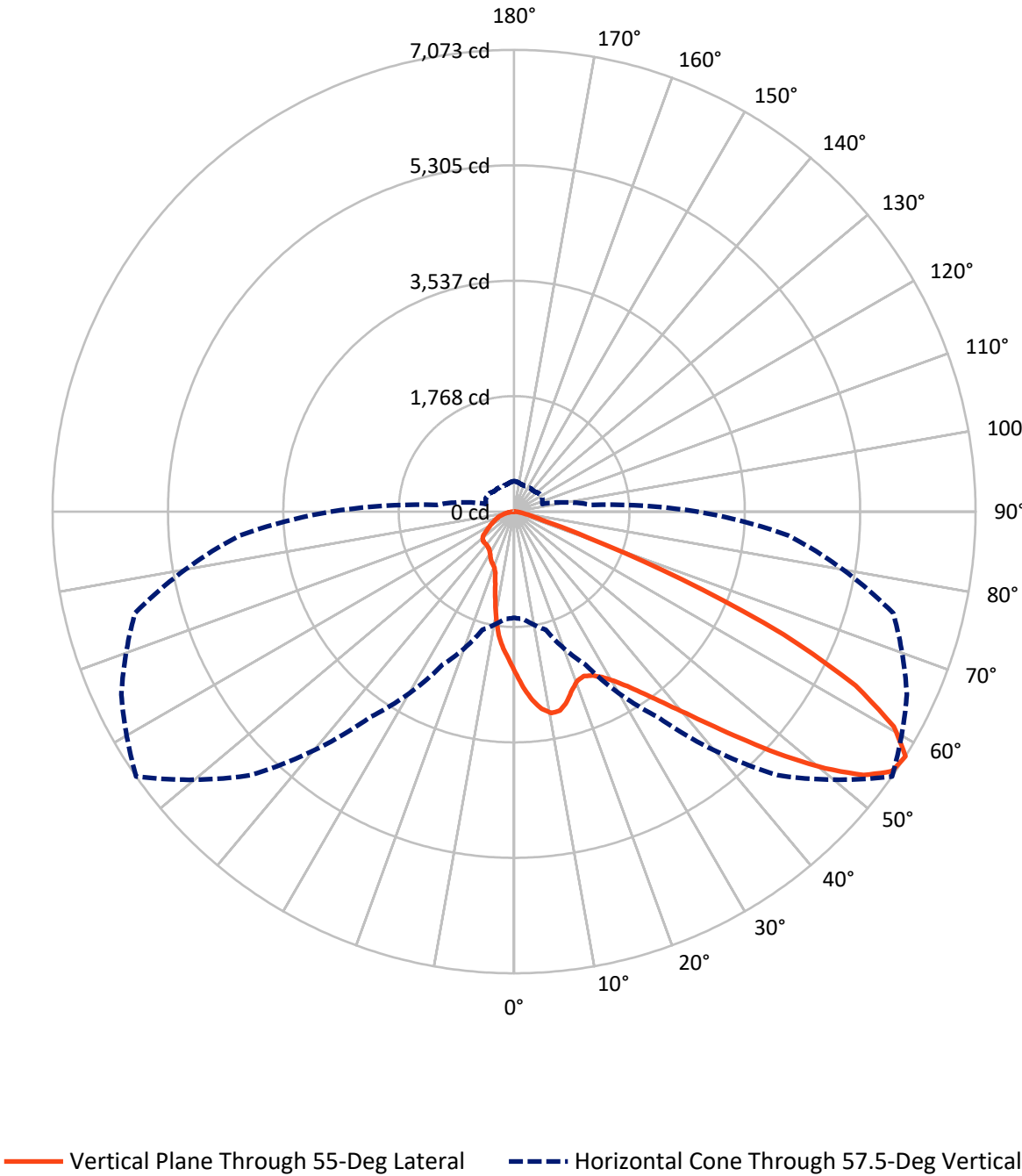
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
Type II - Short - N/A

REPORT NUMBER: P961051
CATALOG NUMBER: NAV-SB1D-835-U-AFL

Luminous Intensity Polar Plot



REPORT NUMBER: P961051

CATALOG NUMBER: NAV-SB1D-835-U-AFL

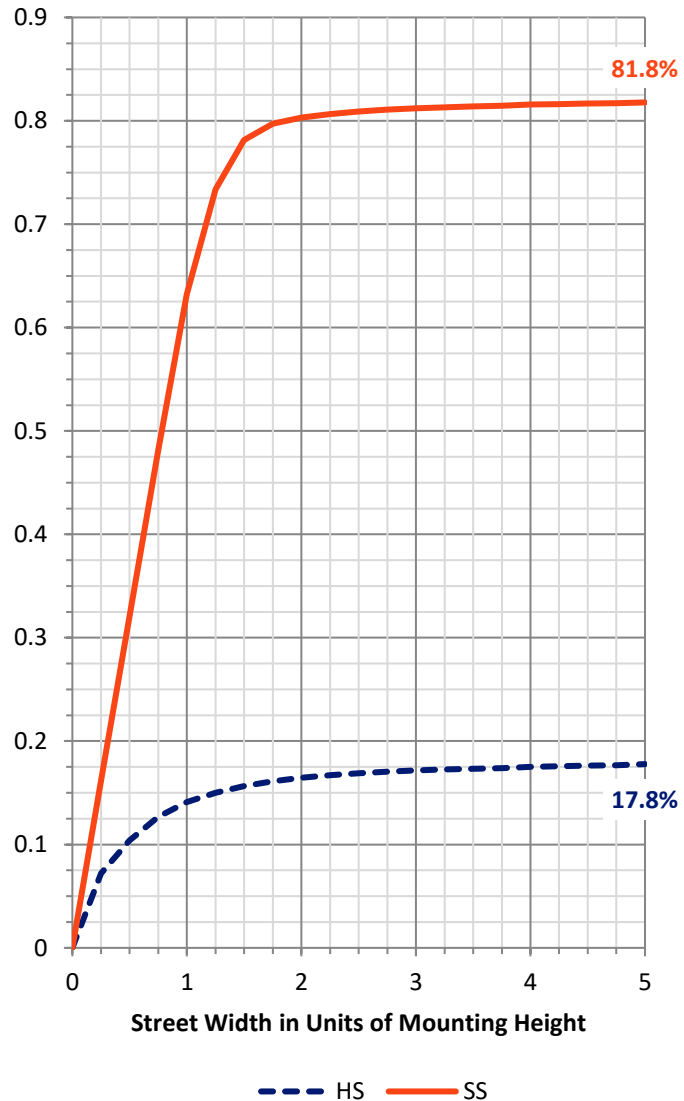
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1781.1	0.0	1781.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	8062.0	0.0	8062.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	9843.1	0.0	9843.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.9	2.3
10°-20°	577.7	5.9
20°-30°	921.8	9.4
30°-40°	1459.4	14.8
40°-50°	2233.8	22.7
50°-60°	2392.6	24.3
60°-70°	1505.2	15.3
70°-80°	445.1	4.5
80°-90°	78.7	0.8
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°	9843.1	100.0
0°-180°	9843.1	100.0

Coefficient of Utilization



REPORT NUMBER: P961051

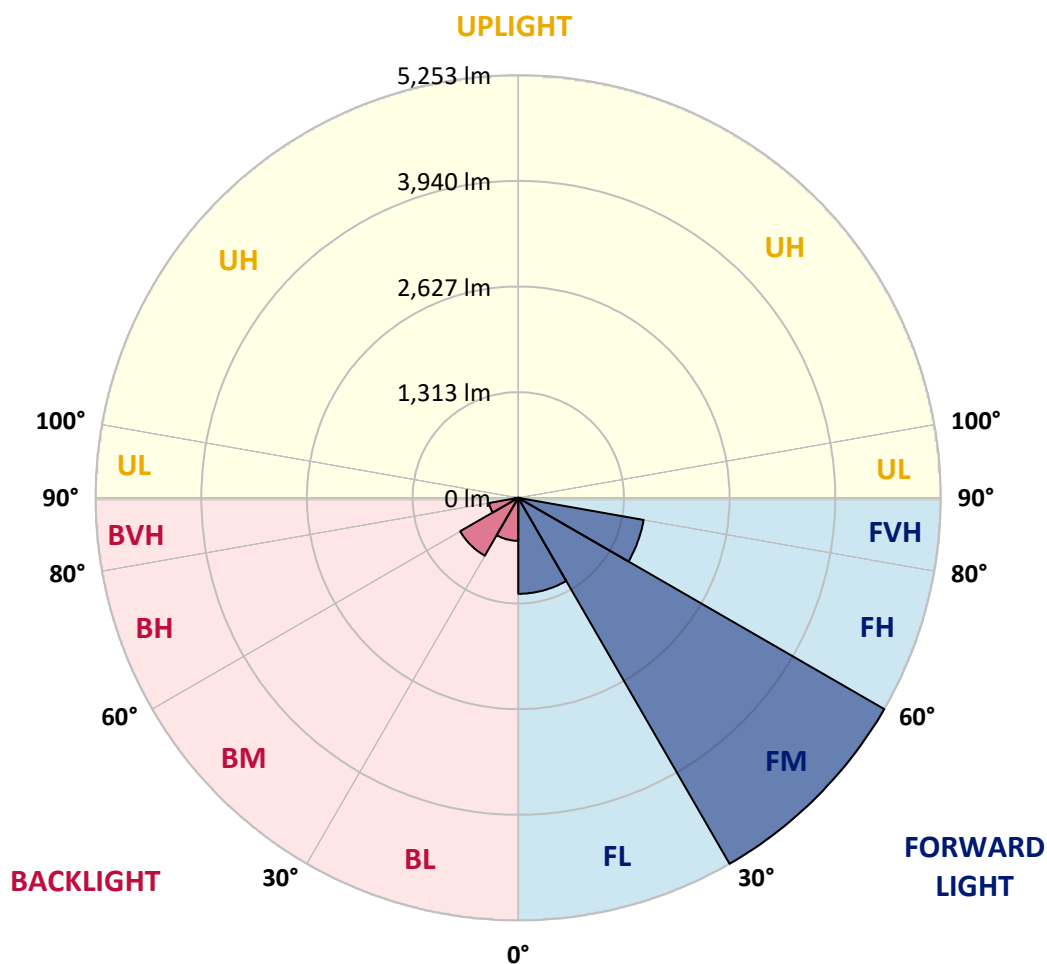
CATALOG NUMBER: NAV-SB1D-835-U-AFL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1193.0	12.1			
FM	(30°-60°)	5253.3	53.4			
FH	(60°-80°)	1582.5	16.1			G1/1800
FVH	(80°-90°)	33.2	0.3			G1/100
BL	(0°-30°)	535.3	5.4	B2/1000		
BM	(30°-60°)	832.5	8.5	B1/1000		
BH	(60°-80°)	367.8	3.7	B1/500		G1/500
BVH	(80°-90°)	45.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type II Short



REPORT NUMBER: P961051

CATALOG NUMBER: NAV-SB1D-835-U-AFL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4
2.5°	2829.7	2827.7	2838.8	2800.7	2774.7	2739.6	2693.3	2634.2	2570.7	2503.5	2474.5
5°	3084.6	3066.8	3078.5	3050.0	3021.5	2968.6	2899.9	2803.7	2686.2	2552.4	2481.1
7.5°	3044.4	3032.2	3062.2	3087.6	3109.0	3102.4	3052.0	2951.3	2799.7	2605.2	2502.0
10°	2720.2	2706.5	2748.7	2836.8	2966.0	3078.5	3139.6	3076.9	2915.6	2663.3	2522.3
12.5°	2434.3	2427.7	2455.7	2526.9	2670.4	2886.2	3128.4	3186.8	3036.3	2731.9	2549.8
15°	2312.2	2304.0	2321.8	2358.0	2449.5	2650.5	3026.6	3262.2	3154.8	2811.4	2593.6
17.5°	2285.2	2276.0	2283.7	2302.5	2361.5	2514.7	2872.9	3299.4	3278.5	2899.9	2630.3
20°	2335.1	2327.5	2328.5	2327.5	2368.7	2490.2	2766.1	3285.1	3386.3	2981.3	2665.8
22.5°	2455.7	2443.0	2443.5	2416.4	2438.9	2533.0	2738.1	3246.9	3482.5	3052.6	2692.8
25°	2652.1	2629.2	2633.7	2565.1	2559.0	2628.7	2781.8	3217.4	3578.2	3109.5	2697.9
27.5°	2920.7	2894.8	2881.1	2778.8	2730.0	2764.5	2870.9	3227.6	3668.8	3158.8	2685.2
30°	3256.6	3225.1	3197.1	3052.0	2963.5	2950.8	3009.3	3294.8	3775.6	3210.8	2663.3
32.5°	3668.3	3631.6	3580.7	3388.3	3263.7	3197.1	3188.4	3414.4	3900.7	3276.9	2652.1
35°	4158.2	4110.5	4038.2	3789.3	3631.6	3495.2	3424.5	3586.8	4072.2	3376.7	2664.8
37.5°	4663.0	4609.1	4542.9	4246.8	4053.0	3852.0	3712.6	3820.9	4300.7	3512.1	2698.4
40°	5128.6	5068.1	5006.5	4742.9	4534.8	4292.6	4065.2	4117.0	4580.1	3673.8	2755.4
42.5°	5403.4	5358.6	5335.2	5192.8	5031.9	4786.1	4503.7	4468.2	4894.1	3860.0	2820.5
45°	5391.2	5372.8	5445.1	5504.1	5466.0	5329.6	5017.7	4856.3	5209.0	4021.4	2880.6
47.5°	5103.2	5115.4	5276.7	5608.5	5754.5	5825.7	5602.9	5237.5	5482.7	4141.9	2907.5
50°	4319.6	4329.7	4703.2	5418.7	5828.8	6230.3	6183.4	5609.5	5695.0	4215.7	2901.4
52.5°	3699.3	3705.9	3866.2	4855.8	5583.5	6433.8	6706.6	5960.1	5850.2	4236.1	2867.3
55°	2786.5	2809.3	2988.9	3809.7	4945.4	6272.5	7025.0	6321.4	5948.4	4238.2	2831.7
57.5°	1627.8	1652.7	1874.6	2586.0	3843.7	5710.2	7073.4	6641.9	6015.0	4221.9	2810.3
60°	797.3	808.0	904.8	1359.1	2370.2	4626.8	6684.6	6797.1	6052.1	4213.2	2809.3
62.5°	537.3	535.8	539.9	670.7	1167.8	2972.6	5874.6	6525.4	6032.3	4180.2	2799.2
65°	462.1	456.4	441.2	470.7	605.1	1359.7	4538.9	5714.3	5881.1	4097.2	2729.5
67.5°	399.4	400.0	400.5	391.3	432.0	627.4	2773.6	4501.2	5338.8	3704.3	2460.7
70°	330.8	335.3	337.3	337.3	352.1	411.6	1184.1	3085.1	4211.2	2904.4	1981.9
72.5°	301.2	291.6	292.5	287.5	287.5	313.4	476.8	1748.9	2653.1	1633.8	1209.5
75°	245.8	251.8	252.9	249.4	237.6	239.1	282.9	733.8	1135.2	677.7	597.9
77.5°	212.2	212.2	214.2	211.7	202.5	179.1	188.8	284.4	386.2	277.9	298.7
80°	170.5	169.9	178.6	183.7	169.4	132.3	120.6	157.2	171.5	122.1	155.2
82.5°	82.9	88.0	122.6	139.9	128.7	95.6	73.8	97.7	91.6	53.9	69.7
85°	48.4	45.8	54.9	77.9	73.8	52.9	35.7	50.8	47.9	27.5	28.0
87.5°	15.3	14.2	11.2	26.4	21.4	14.8	9.6	14.8	13.2	6.1	6.1
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: P961051

CATALOG NUMBER: NAV-SB1D-835-U-AFL

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4	2466.4
2.5°	2438.4	2378.3	2318.8	2264.3	2231.2	2209.9	2188.5	2164.6	2155.5	2141.7
5°	2414.0	2297.9	2194.6	2105.6	2024.7	1961.0	1897.0	1845.1	1821.6	1837.4
7.5°	2399.7	2231.7	2072.5	1909.2	1751.9	1626.3	1516.9	1440.0	1405.4	1414.1
10°	2387.0	2157.0	1914.3	1656.3	1430.4	1274.7	1162.7	1104.2	1082.3	1086.9
12.5°	2375.2	2073.1	1723.4	1384.1	1143.9	1041.1	1009.0	1009.5	1013.6	1016.7
15°	2373.3	1971.8	1510.2	1145.9	989.2	982.6	1017.2	1039.0	1050.7	1054.3
17.5°	2370.2	1850.6	1292.9	983.6	951.5	996.3	1028.4	1042.6	1051.8	1052.3
20°	2358.0	1697.0	1092.4	906.2	943.4	982.1	1001.9	1013.1	1020.7	1023.3
22.5°	2320.3	1526.0	936.2	871.7	910.8	941.9	965.2	978.0	982.6	985.6
25°	2252.6	1334.7	828.4	838.6	865.5	904.8	923.5	926.1	924.6	929.2
27.5°	2164.1	1129.7	761.3	793.8	828.4	862.0	872.2	870.6	867.6	872.7
30°	2057.3	945.5	718.5	743.4	790.8	821.2	830.5	826.9	820.7	826.4
32.5°	1944.3	794.8	683.4	708.3	759.7	789.8	798.9	795.3	790.8	795.3
35°	1839.0	689.5	650.8	684.9	735.2	764.8	776.5	776.9	776.9	782.6
37.5°	1742.3	627.9	623.8	670.1	718.5	745.0	761.8	762.7	740.9	742.4
40°	1652.7	602.0	611.6	660.5	702.2	727.6	728.7	671.7	631.5	630.5
42.5°	1579.4	596.9	615.2	659.5	690.5	691.5	619.8	575.5	564.3	564.8
45°	1510.7	595.3	623.3	659.5	673.2	597.4	549.0	537.3	538.3	542.4
47.5°	1433.9	589.3	624.8	650.3	623.3	531.3	517.0	511.9	509.8	510.9
50°	1349.9	567.3	605.6	632.0	537.8	502.8	484.9	483.4	486.0	487.5
52.5°	1261.5	531.8	572.5	598.9	498.7	477.8	458.0	461.6	472.7	476.3
55°	1203.5	490.1	528.7	532.8	471.2	454.4	437.6	445.8	466.6	473.2
57.5°	1188.2	445.8	478.8	474.3	436.0	434.1	423.8	431.0	457.5	467.1
60°	1183.6	406.1	430.0	426.4	402.0	411.6	409.1	412.7	421.8	424.9
62.5°	1147.9	374.5	386.2	381.1	371.5	388.3	394.3	386.7	393.8	397.4
65°	1057.4	349.1	343.5	339.9	344.0	359.3	371.5	356.2	362.8	373.0
67.5°	907.7	314.5	299.2	303.3	316.0	324.1	339.9	322.6	328.2	345.5
70°	734.2	270.7	257.0	268.7	280.8	297.7	300.2	288.5	301.8	321.0
72.5°	519.6	226.4	216.8	240.7	244.8	266.6	261.1	255.4	273.8	280.3
75°	360.3	182.7	177.1	195.4	210.1	229.0	224.9	231.5	270.2	273.3
77.5°	228.0	142.0	138.4	150.1	170.5	191.4	197.9	273.3	461.6	479.8
80°	132.3	105.9	101.8	110.9	128.7	148.1	190.9	335.3	304.3	300.7
82.5°	73.8	72.8	67.6	70.2	86.0	106.9	269.7	236.1	191.9	197.9
85°	34.6	42.7	36.6	35.2	48.4	125.2	180.1	134.9	89.6	87.5
87.5°	9.1	8.1	8.1	9.1	20.4	107.8	71.8	57.5	34.1	33.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)