

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: P968443

Luminaire Tested: **NAV-SB5B-835-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968443
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-SB5B-835-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 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: 22897.5 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

Input Watts (W): 182.7
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

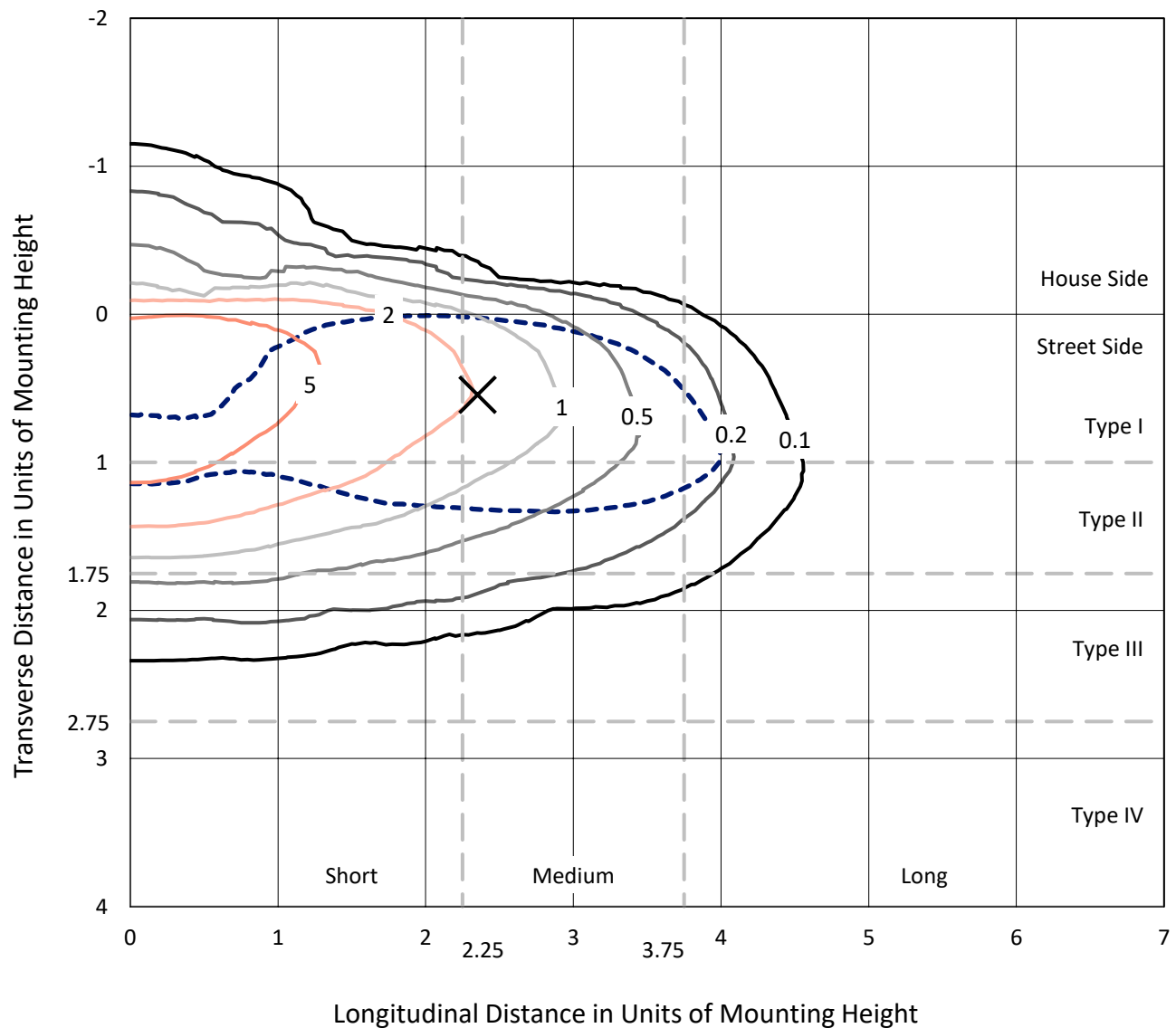


REPORT NUMBER: P968443

CATALOG NUMBER: NAV-SB5B-835-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

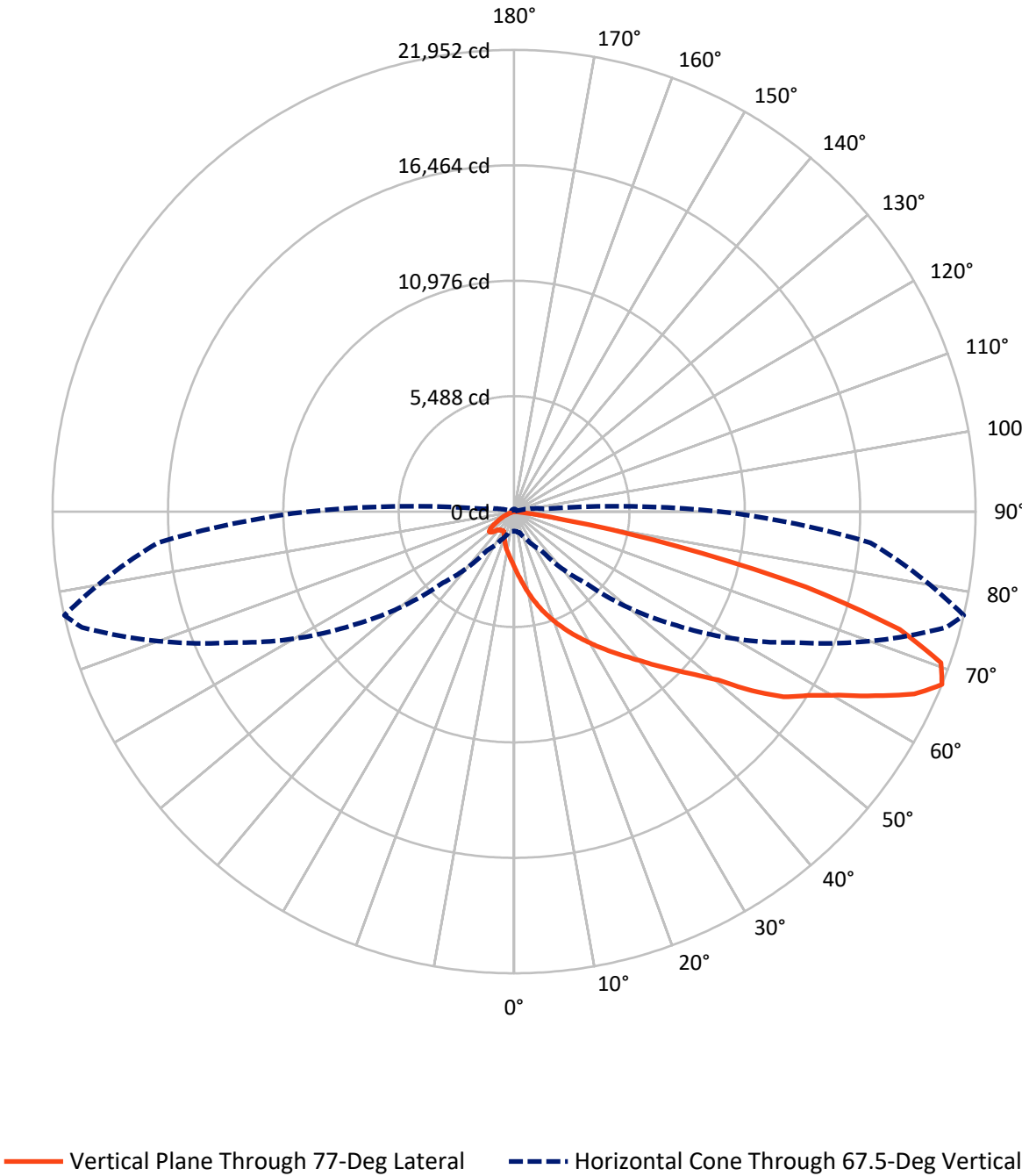
× Max cd
- - - 1/2 Max cd



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

REPORT NUMBER: P968443
CATALOG NUMBER: NAV-SB5B-835-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P968443

CATALOG NUMBER: NAV-SB5B-835-U-T2R-HSS

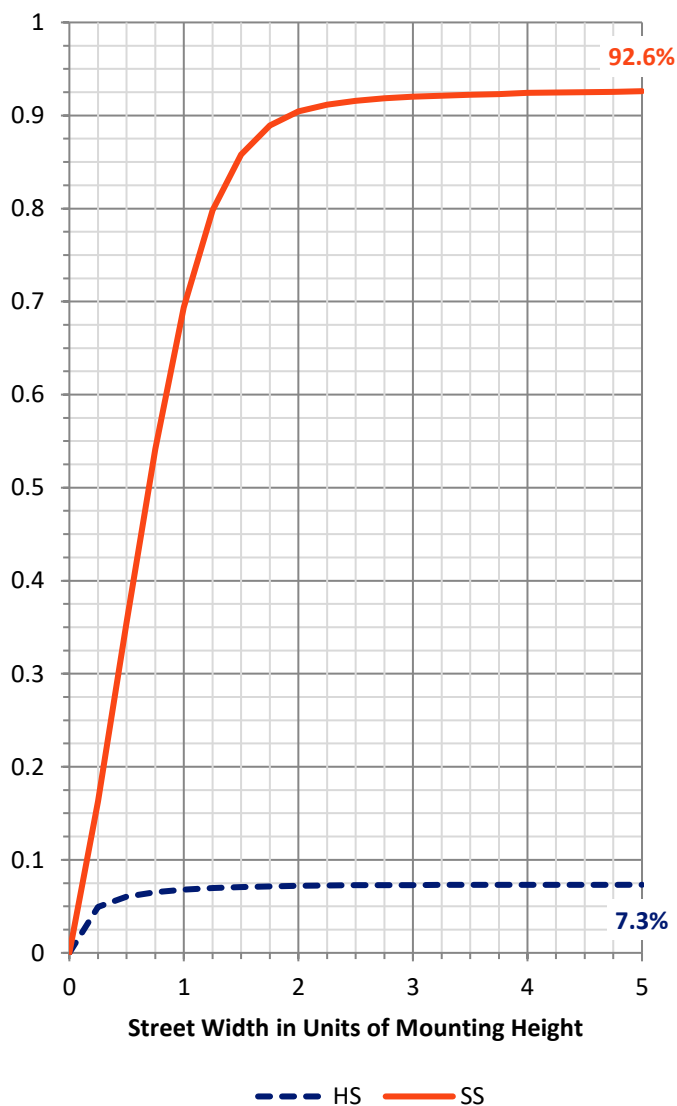
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1684.6	0.0	1684.6
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	21212.9	0.0	21212.9
	% Fixture	92.6	0.0	92.6
Total	Lumens	22897.5	0.0	22897.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.5	1.2
10°-20°	943.7	4.1
20°-30°	1821.2	8.0
30°-40°	3161.7	13.8
40°-50°	4590.6	20.0
50°-60°	5271.7	23.0
60°-70°	4576.8	20.0
70°-80°	2155.7	9.4
80°-90°	106.6	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°	22897.5	100.0
0°-180°	22897.5	100.0

Coefficient of Utilization



REPORT NUMBER: P968443

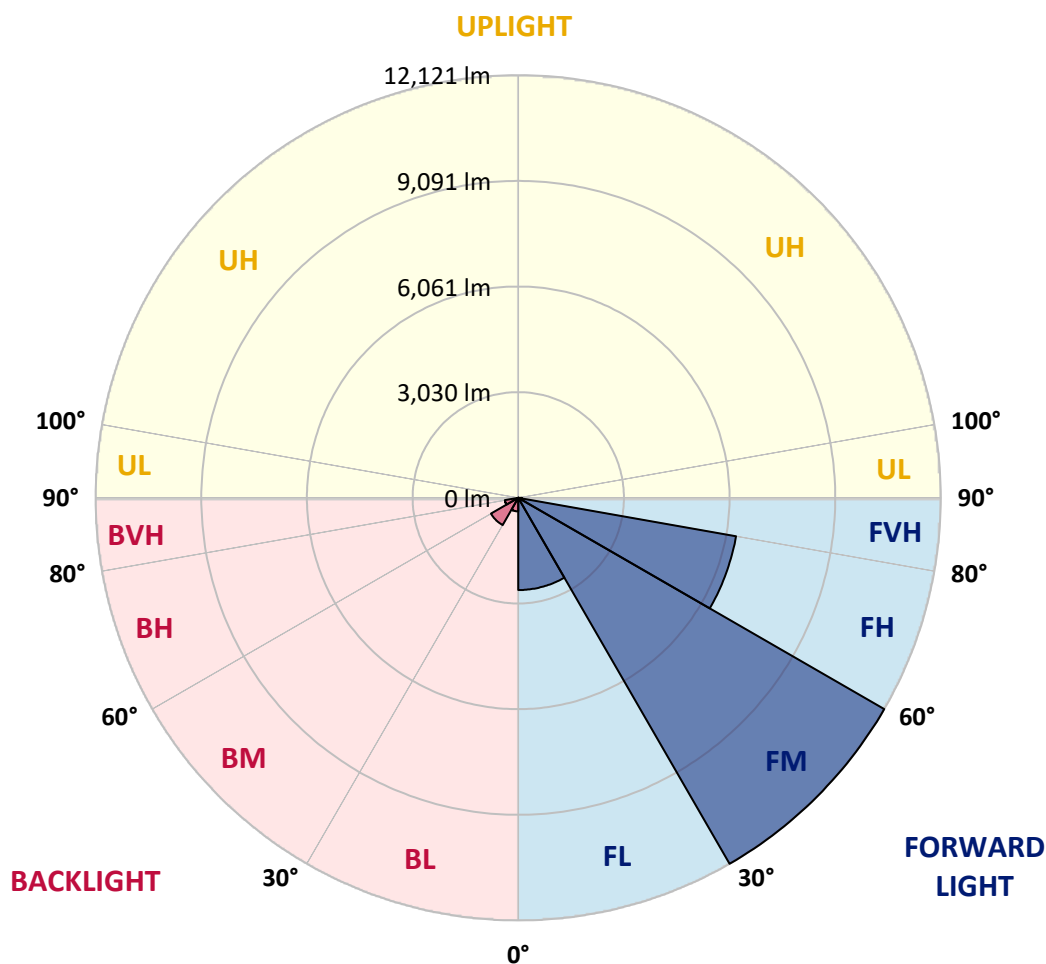
CATALOG NUMBER: NAV-SB5B-835-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2644.4	11.5			
FM	(30°-60°)	12121.3	52.9			
FH	(60°-80°)	6342.5	27.7			G3/7500
FVH	(80°-90°)	104.6	0.5			G2/225
BL	(0°-30°)	390.0	1.7	B1/500		
BM	(30°-60°)	902.6	3.9	B1/1000		
BH	(60°-80°)	390.0	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: P968443

CATALOG NUMBER: NAV-SB5B-835-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4
2.5°	3655.7	3678.4	3645.7	3583.1	3489.3	3428.1	3278.9	3138.0	2981.6	2931.9	2775.5
5°	4456.2	4476.1	4439.1	4370.8	4245.8	4126.2	3930.1	3635.7	3330.0	3231.9	2954.7
7.5°	5049.0	5060.4	5046.2	4983.7	4864.2	4729.1	4510.2	4161.8	3708.2	3600.2	3175.0
10°	5475.7	5512.6	5508.3	5484.2	5404.5	5295.0	5061.9	4665.2	4132.0	3992.6	3423.9
12.5°	5758.6	5799.9	5823.9	5878.1	5873.8	5804.1	5599.4	5179.8	4554.3	4390.7	3703.9
15°	5841.1	5885.1	5977.6	6102.6	6213.5	6249.1	6105.5	5684.6	5019.2	4810.2	3991.1
17.5°	5794.1	5862.4	5973.3	6170.9	6414.0	6574.8	6559.1	6172.3	5441.5	5202.6	4272.7
20°	5898.0	5963.3	6050.1	6216.4	6499.4	6790.8	6907.5	6638.7	5861.0	5610.7	4568.4
22.5°	6472.4	6461.0	6469.5	6496.6	6665.8	6954.4	7194.7	7062.5	6276.2	6020.2	4881.3
25°	7382.4	7331.2	7244.4	7098.0	7055.3	7194.7	7444.9	7437.8	6714.1	6439.7	5201.2
27.5°	8426.0	8417.5	8214.1	7861.5	7662.5	7608.5	7727.9	7803.2	7147.7	6854.9	5522.6
30°	9425.6	9448.3	9174.0	8781.5	8416.1	8204.2	8096.2	8150.2	7588.5	7302.7	5853.9
32.5°	10295.8	10319.9	10021.3	9562.1	9109.9	8853.9	8626.5	8492.8	8069.1	7757.7	6217.9
35°	11030.8	11055.0	10712.4	10204.8	9722.7	9491.0	9233.6	8868.2	8552.6	8262.5	6623.0
37.5°	11687.8	11680.7	11221.4	10709.5	10236.1	10052.6	9917.6	9330.4	9050.2	8770.1	7072.4
40°	12075.9	12105.9	11713.4	11148.9	10689.6	10556.0	10547.5	9903.3	9624.6	9353.0	7564.4
42.5°	12189.7	12242.3	11958.0	11494.5	11077.8	10932.8	11156.0	10523.3	10292.9	10028.5	8120.4
45°	11984.9	12036.2	11906.7	11585.4	11342.2	11248.5	11679.3	11165.9	11006.8	10745.1	8747.3
47.5°	11387.7	11451.7	11483.1	11414.8	11411.9	11507.2	12148.5	11842.7	11854.1	11586.8	9474.0
50°	10231.8	10339.9	10627.1	10868.8	11242.7	11712.0	12604.9	12576.4	12809.6	12579.3	10420.9
52.5°	8130.3	8283.8	9273.5	9934.6	10774.9	11673.5	13106.8	13753.8	14486.0	14149.0	11756.0
55°	6533.5	6533.5	7338.3	8575.4	9862.1	11420.4	13325.8	14518.7	15627.8	15548.1	12695.9
57.5°	5326.3	5390.3	5903.6	6997.1	8541.2	10817.6	13460.8	14999.3	16547.7	16489.5	13614.5
60°	3287.4	3425.2	4395.0	5474.2	7038.3	9744.1	13375.5	15485.6	17663.9	17710.9	14720.6
62.5°	1851.3	1902.5	2334.7	3938.6	5472.8	8300.9	12722.9	15757.2	19091.4	19290.5	15861.0
65°	1278.3	1303.9	1470.3	2451.3	3793.5	6608.9	11447.5	15588.0	20521.8	20924.2	16827.8
67.5°	928.4	941.3	1045.1	1497.2	2250.8	4791.7	9448.3	14734.9	21279.7	21952.3	17012.6
70°	713.8	722.3	797.7	983.9	1329.4	2957.5	6862.0	13038.5	20730.9	21534.2	16065.7
72.5°	580.2	588.7	647.0	728.0	881.6	1748.9	4158.9	10588.7	18308.0	19175.4	13677.0
75°	489.1	500.5	553.1	605.7	691.1	1123.3	1950.8	7373.8	13768.0	14336.8	9510.9
77.5°	271.6	250.2	449.4	501.9	582.9	710.9	912.9	4339.5	7710.8	7868.6	4220.1
80°	169.2	174.9	356.9	403.8	447.9	358.3	418.0	1670.7	2673.1	2539.4	817.5
82.5°	9.9	22.8	274.4	291.5	307.1	153.5	157.8	567.3	644.1	591.5	145.0
85°	0.0	0.0	125.2	101.0	106.6	44.1	45.5	132.2	86.7	93.9	28.4
87.5°	0.0	0.0	0.0	2.9	0.0	4.3	8.5	11.4	4.3	5.6	9.9
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: P968443

CATALOG NUMBER: NAV-SB5B-835-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4	2640.4
2.5°	2676.0	2576.4	2374.5	2176.9	2016.2	1866.9	1760.2	1659.4	1608.1	1605.3	1602.5
5°	2757.0	2547.9	2144.2	1787.3	1500.1	1269.8	1120.4	1013.8	959.8	941.3	938.4
7.5°	2870.7	2556.6	1942.3	1446.1	1107.6	910.0	824.7	790.6	779.2	766.4	763.5
10°	3014.3	2576.4	1761.7	1164.5	873.0	773.5	739.3	725.2	716.6	708.1	705.2
12.5°	3175.0	2594.9	1582.5	966.9	767.8	716.6	692.5	675.4	664.0	654.1	651.2
15°	3331.5	2606.3	1396.3	828.9	713.8	672.5	647.0	628.4	612.8	601.5	600.0
17.5°	3486.4	2622.0	1221.4	746.5	669.7	628.4	602.9	580.2	567.3	554.5	553.1
20°	3658.4	2619.1	1056.5	688.2	625.7	584.4	557.4	536.1	523.3	509.0	507.6
22.5°	3817.7	2604.8	911.4	638.4	580.2	540.3	510.4	489.1	476.3	464.9	463.5
25°	4001.2	2593.5	790.6	593.0	537.5	497.6	464.9	445.1	430.8	420.9	419.4
27.5°	4177.5	2576.4	702.4	551.7	496.2	457.9	426.6	403.8	391.0	383.9	383.9
30°	4350.9	2572.1	669.7	511.9	459.3	420.9	389.6	368.3	358.3	355.5	354.0
32.5°	4559.9	2583.5	683.9	497.6	425.2	386.7	356.9	341.2	331.3	331.3	331.3
35°	4783.2	2580.7	705.2	510.4	402.4	352.6	329.8	319.9	310.0	310.0	310.0
37.5°	5063.3	2584.9	722.3	531.8	393.9	324.2	311.4	298.6	292.9	292.9	292.9
40°	5481.3	2725.7	713.8	550.2	391.0	304.3	278.7	274.4	270.2	270.2	270.2
42.5°	5993.2	3031.4	725.2	551.7	389.6	290.1	255.9	264.4	254.5	253.1	251.6
45°	6553.4	3365.6	797.7	521.8	388.2	283.0	244.6	254.5	238.8	238.8	238.8
47.5°	7109.4	3696.9	871.6	479.2	383.9	281.6	234.6	228.9	224.7	226.1	226.1
50°	7875.8	3967.1	900.1	420.9	373.9	278.7	216.2	217.5	214.7	217.5	217.5
52.5°	8710.3	4023.9	865.9	355.5	345.5	270.2	203.4	209.0	207.6	210.4	210.4
55°	9230.7	3962.8	715.2	295.7	301.5	236.1	190.5	201.9	201.9	201.9	201.9
57.5°	9768.2	3702.5	507.6	240.3	250.2	193.4	179.2	194.7	193.4	192.0	192.0
60°	10155.0	3281.6	334.2	197.6	199.1	159.3	166.4	183.4	182.0	174.9	174.9
62.5°	10443.6	2816.7	214.7	167.8	152.1	143.6	152.1	166.4	160.7	145.0	142.2
65°	10410.9	2172.6	164.9	143.6	125.2	125.2	132.2	145.0	127.9	102.4	99.5
67.5°	9803.8	1470.3	136.5	120.8	105.3	103.8	109.5	120.8	109.5	86.7	83.8
70°	8719.0	961.1	109.5	93.9	83.8	76.8	88.1	103.8	92.5	69.7	66.8
72.5°	7076.7	585.8	82.5	68.3	61.1	49.8	69.7	85.3	73.9	51.1	48.4
75°	4578.5	298.6	56.9	44.1	32.7	29.8	51.1	64.0	51.1	31.3	27.1
77.5°	1751.7	125.2	31.3	19.9	17.0	14.2	28.4	38.4	21.3	7.1	5.6
80°	337.0	52.6	15.7	9.9	8.5	5.6	4.3	2.9	0.0	0.0	0.0
82.5°	58.3	17.0	5.6	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	19.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.1	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)