

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: P961034

Luminaire Tested: **NAV-SB1D-830-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961034
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-SB1D-830-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7937.6 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

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

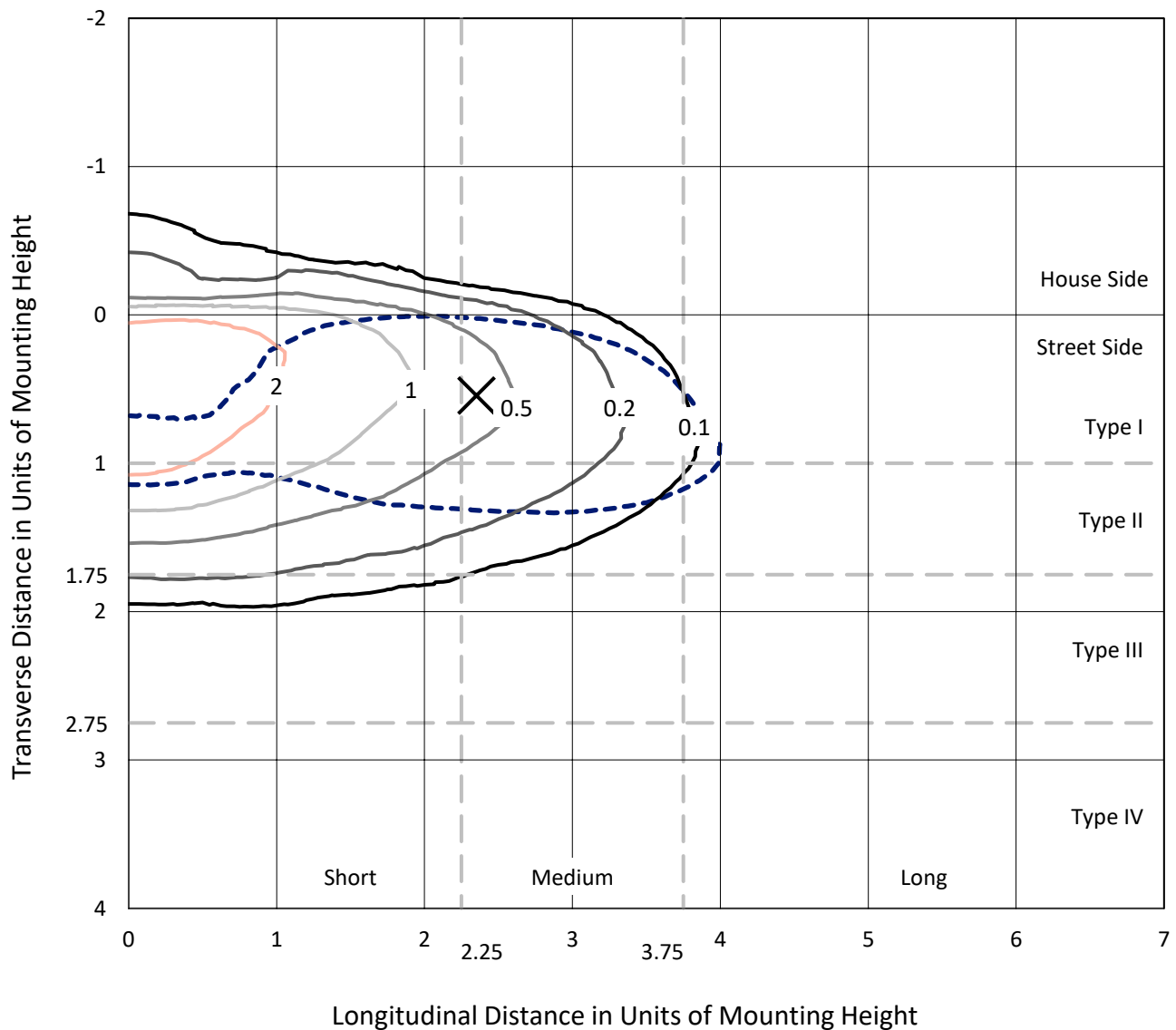


REPORT NUMBER: P961034

CATALOG NUMBER: NAV-SB1D-830-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

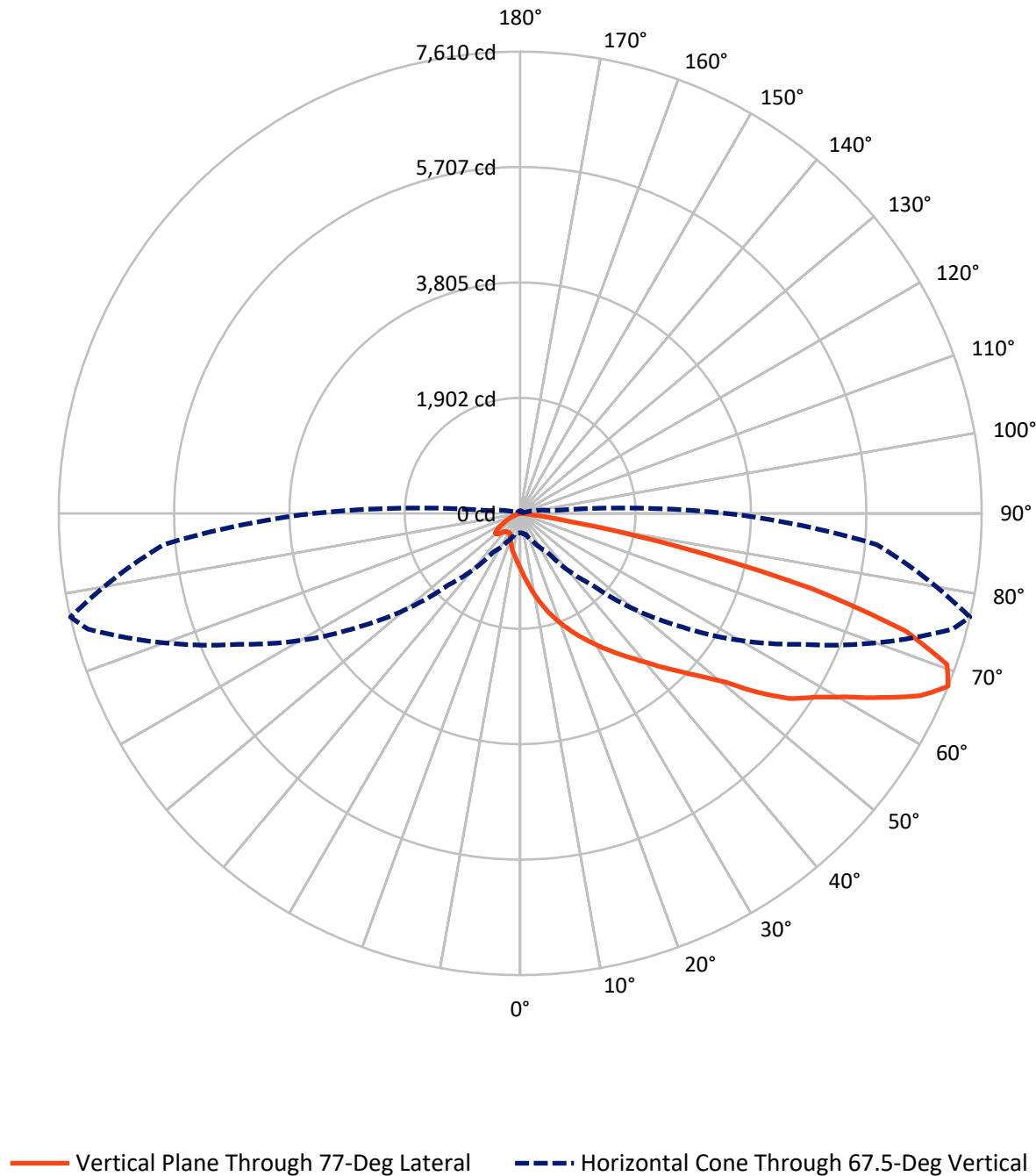
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
Type II - Medium - N/A

REPORT NUMBER: P961034
CATALOG NUMBER: NAV-SB1D-830-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P961034

CATALOG NUMBER: NAV-SB1D-830-U-T2R-HSS

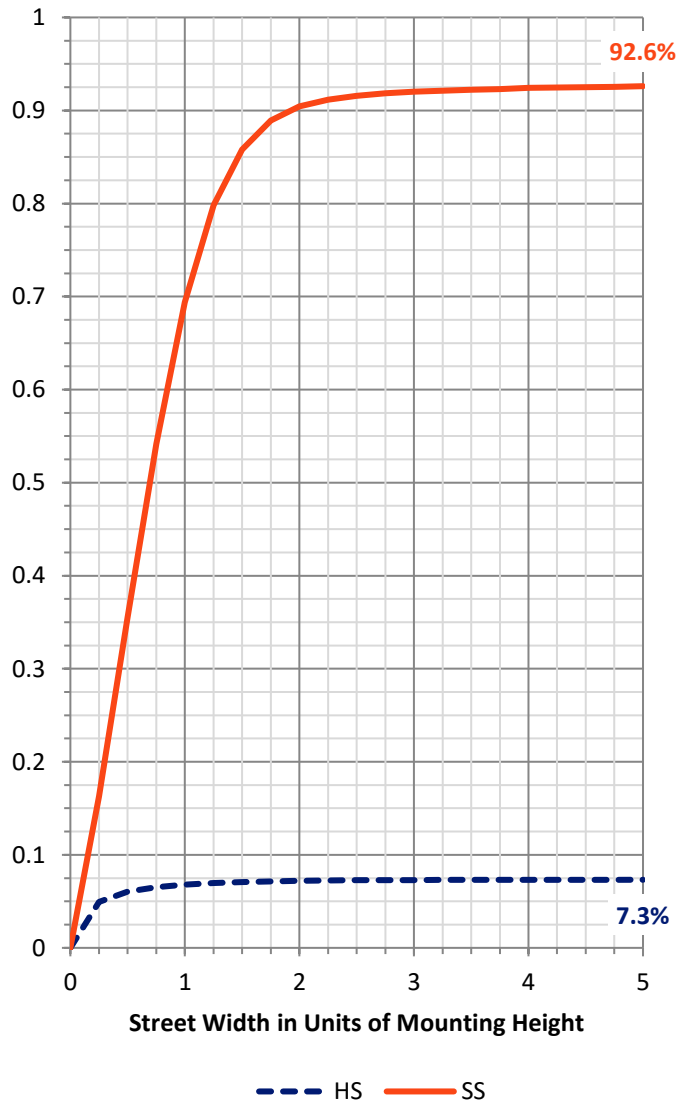
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	584.0	0.0	584.0
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	7353.6	0.0	7353.6
	% Fixture	92.6	0.0	92.6
Total	Lumens	7937.6	0.0	7937.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	1.2
10°-20°	327.2	4.1
20°-30°	631.3	8.0
30°-40°	1096.0	13.8
40°-50°	1591.4	20.0
50°-60°	1827.5	23.0
60°-70°	1586.6	20.0
70°-80°	747.3	9.4
80°-90°	37.0	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°	7937.6	100.0
0°-180°	7937.6	100.0

Coefficient of Utilization



REPORT NUMBER: P961034

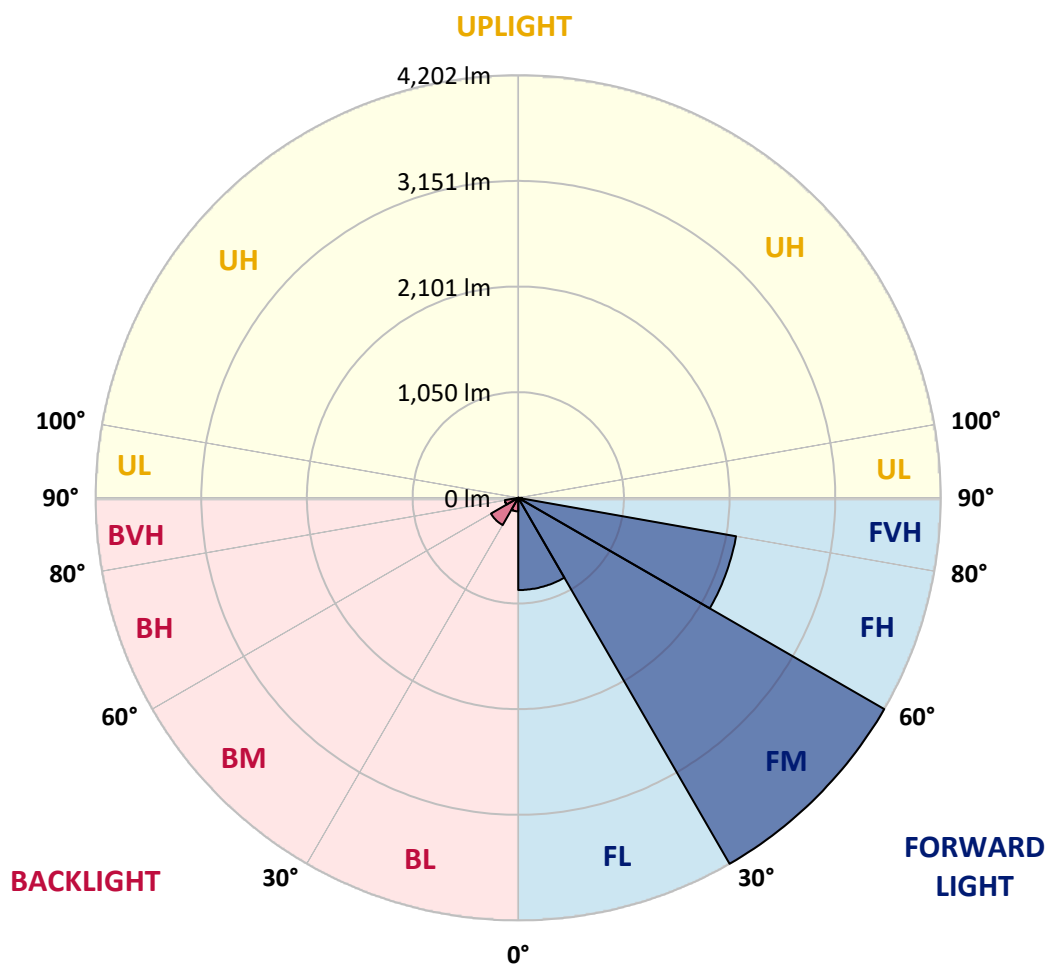
CATALOG NUMBER: NAV-SB1D-830-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	916.7	11.5			
FM	(30°-60°)	4202.0	52.9			
FH	(60°-80°)	2198.7	27.7			G2/5000
FVH	(80°-90°)	36.3	0.5			G1/100
BL	(0°-30°)	135.2	1.7	B1/500		
BM	(30°-60°)	312.9	3.9	B1/1000		
BH	(60°-80°)	135.2	1.7	B1/500		G1/500
BVH	(80°-90°)	0.7	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: P961034

CATALOG NUMBER: NAV-SB1D-830-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3
2.5°	1267.2	1275.1	1263.8	1242.1	1209.6	1188.4	1136.6	1087.8	1033.6	1016.4	962.2
5°	1544.8	1551.6	1538.8	1515.2	1471.8	1430.4	1362.4	1260.3	1154.4	1120.3	1024.3
7.5°	1750.3	1754.3	1749.3	1727.6	1686.2	1639.4	1563.5	1442.7	1285.5	1248.0	1100.6
10°	1898.2	1911.0	1909.5	1901.2	1873.5	1835.6	1754.7	1617.2	1432.3	1384.1	1186.9
12.5°	1996.3	2010.5	2018.9	2037.7	2036.2	2012.1	1941.0	1795.7	1578.8	1522.1	1284.0
15°	2024.9	2040.2	2072.1	2115.5	2154.0	2166.3	2116.5	1970.7	1739.9	1667.5	1383.5
17.5°	2008.6	2032.3	2070.7	2139.2	2223.5	2279.2	2273.8	2139.7	1886.3	1803.5	1481.1
20°	2044.6	2067.2	2097.4	2155.0	2253.1	2354.1	2394.5	2301.3	2031.8	1945.0	1583.7
22.5°	2243.7	2239.7	2242.7	2252.0	2310.8	2410.8	2494.1	2448.2	2175.7	2087.0	1692.2
25°	2559.1	2541.4	2511.4	2460.6	2445.8	2494.1	2580.8	2578.4	2327.5	2232.3	1803.1
27.5°	2920.9	2918.0	2847.6	2725.3	2656.3	2637.5	2678.9	2705.1	2477.8	2376.3	1914.4
30°	3267.5	3275.4	3180.2	3044.1	2917.5	2844.1	2806.6	2825.3	2630.7	2531.5	2029.3
32.5°	3569.2	3577.5	3474.0	3314.7	3158.0	3069.3	2990.4	2944.1	2797.2	2689.3	2155.5
35°	3824.0	3832.4	3713.6	3537.6	3370.5	3290.1	3200.9	3074.3	2964.8	2864.3	2295.9
37.5°	4051.6	4049.2	3890.0	3712.6	3548.4	3484.8	3438.0	3234.4	3137.3	3040.3	2451.7
40°	4186.2	4196.6	4060.5	3864.9	3705.7	3659.4	3656.4	3433.0	3336.5	3242.3	2622.3
42.5°	4225.7	4243.9	4145.3	3984.6	3840.2	3789.9	3867.3	3648.0	3568.1	3476.5	2815.0
45°	4154.7	4172.5	4127.6	4016.2	3931.9	3899.4	4048.7	3870.8	3815.6	3724.8	3032.4
47.5°	3947.7	3969.8	3980.7	3957.0	3956.1	3989.1	4211.4	4105.4	4109.3	4016.7	3284.2
50°	3546.9	3584.4	3684.0	3767.8	3897.4	4060.0	4369.6	4359.7	4440.6	4360.8	3612.5
52.5°	2818.4	2871.6	3214.7	3443.9	3735.2	4046.7	4543.6	4767.9	5021.7	4904.9	4075.3
55°	2264.9	2264.9	2543.8	2972.7	3418.8	3959.0	4619.5	5033.1	5417.5	5389.9	4401.1
57.5°	1846.4	1868.6	2046.5	2425.6	2960.9	3750.0	4666.3	5199.6	5736.4	5716.2	4719.5
60°	1139.6	1187.4	1523.6	1897.7	2439.9	3377.9	4636.8	5368.2	6123.3	6139.6	5103.1
62.5°	641.8	659.5	809.3	1365.3	1897.2	2877.6	4410.5	5462.3	6618.2	6687.2	5498.3
65°	443.1	452.0	509.6	849.7	1315.1	2291.0	3968.4	5403.7	7114.1	7253.6	5833.5
67.5°	321.8	326.3	362.2	519.1	780.2	1661.1	3275.4	5108.0	7376.8	7609.9	5897.5
70°	247.4	250.4	276.5	341.1	460.8	1025.2	2378.7	4519.9	7186.6	7465.1	5569.3
72.5°	201.1	204.1	224.3	252.4	305.6	606.3	1441.8	3670.6	6346.6	6647.3	4741.2
75°	169.5	173.5	191.8	210.0	239.5	389.4	676.3	2556.2	4772.8	4969.9	3297.0
77.5°	94.1	86.7	155.8	174.0	202.1	246.4	316.4	1504.4	2673.0	2727.7	1463.0
80°	58.6	60.6	123.7	140.0	155.3	124.2	144.9	579.1	926.7	880.4	283.4
82.5°	3.5	7.9	95.1	101.1	106.5	53.2	54.7	196.7	223.2	205.0	50.2
85°	0.0	0.0	43.4	35.0	37.0	15.3	15.8	45.8	30.0	32.5	9.8
87.5°	0.0	0.0	0.0	1.0	0.0	1.4	3.0	3.9	1.4	1.9	3.5
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: P961034

CATALOG NUMBER: NAV-SB1D-830-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3	915.3
2.5°	927.6	893.2	823.2	754.6	698.9	647.2	610.2	575.2	557.5	556.5	555.6
5°	955.7	883.2	743.3	619.6	520.0	440.1	388.4	351.5	332.7	326.3	325.3
7.5°	995.2	886.2	673.3	501.3	384.0	315.5	285.9	274.1	270.1	265.7	264.7
10°	1045.0	893.2	610.7	403.6	302.7	268.1	256.4	251.3	248.5	245.5	244.5
12.5°	1100.6	899.5	548.6	335.2	266.2	248.5	240.1	234.1	230.2	226.7	225.7
15°	1154.9	903.5	484.0	287.4	247.4	233.2	224.3	217.8	212.5	208.5	208.0
17.5°	1208.6	908.9	423.4	258.8	232.2	217.8	209.0	201.1	196.7	192.2	191.8
20°	1268.2	907.9	366.2	238.5	216.9	202.5	193.2	185.8	181.4	176.5	176.0
22.5°	1323.5	903.0	315.9	221.3	201.1	187.3	176.9	169.5	165.1	161.1	160.7
25°	1387.0	899.0	274.1	205.5	186.3	172.5	161.1	154.3	149.3	145.9	145.4
27.5°	1448.1	893.2	243.5	191.3	172.0	158.7	147.9	140.0	135.5	133.0	133.0
30°	1508.3	891.6	232.2	177.4	159.2	145.9	135.1	127.6	124.2	123.2	122.7
32.5°	1580.8	895.6	237.1	172.5	147.4	134.1	123.7	118.3	114.8	114.8	114.8
35°	1658.1	894.6	244.5	176.9	139.5	122.3	114.4	110.9	107.4	107.4	107.4
37.5°	1755.2	896.1	250.4	184.3	136.5	112.3	107.9	103.5	101.6	101.6	101.6
40°	1900.1	944.8	247.4	190.8	135.5	105.5	96.7	95.1	93.7	93.7	93.7
42.5°	2077.6	1050.8	251.3	191.3	135.1	100.6	88.8	91.6	88.3	87.7	87.2
45°	2271.8	1166.7	276.5	180.9	134.6	98.1	84.8	88.3	82.8	82.8	82.8
47.5°	2464.5	1281.6	302.2	166.2	133.0	97.6	81.3	79.3	77.9	78.4	78.4
50°	2730.2	1375.2	312.0	145.9	129.7	96.7	74.9	75.4	74.4	75.4	75.4
52.5°	3019.5	1394.9	300.2	123.2	119.8	93.7	70.5	72.5	72.0	73.0	73.0
55°	3199.9	1373.7	247.9	102.5	104.4	81.8	66.0	70.0	70.0	70.0	70.0
57.5°	3386.3	1283.5	176.0	83.3	86.7	67.0	62.1	67.5	67.0	66.5	66.5
60°	3520.4	1137.6	115.8	68.5	69.0	55.2	57.7	63.6	63.1	60.6	60.6
62.5°	3620.4	976.4	74.4	58.1	52.8	49.8	52.8	57.7	55.7	50.2	49.3
65°	3609.0	753.2	57.2	49.8	43.4	43.4	45.8	50.2	44.4	35.5	34.5
67.5°	3398.6	509.6	47.4	41.9	36.5	36.0	37.9	41.9	37.9	30.0	29.1
70°	3022.5	333.2	37.9	32.5	29.1	26.6	30.5	36.0	32.1	24.2	23.2
72.5°	2453.1	203.1	28.6	23.7	21.2	17.2	24.2	29.6	25.6	17.7	16.7
75°	1587.1	103.5	19.7	15.3	11.4	10.4	17.7	22.1	17.7	10.9	9.3
77.5°	607.2	43.4	10.9	6.9	5.9	4.9	9.8	13.3	7.4	2.5	1.9
80°	116.8	18.2	5.4	3.5	3.0	1.9	1.4	1.0	0.0	0.0	0.0
82.5°	20.2	5.9	1.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.5	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)