

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: P961003

Luminaire Tested: **NAV-SB1D-827-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961003
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-827-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 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: 7682.4 lumens
Efficiency: N/A
Efficacy: 96.5 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

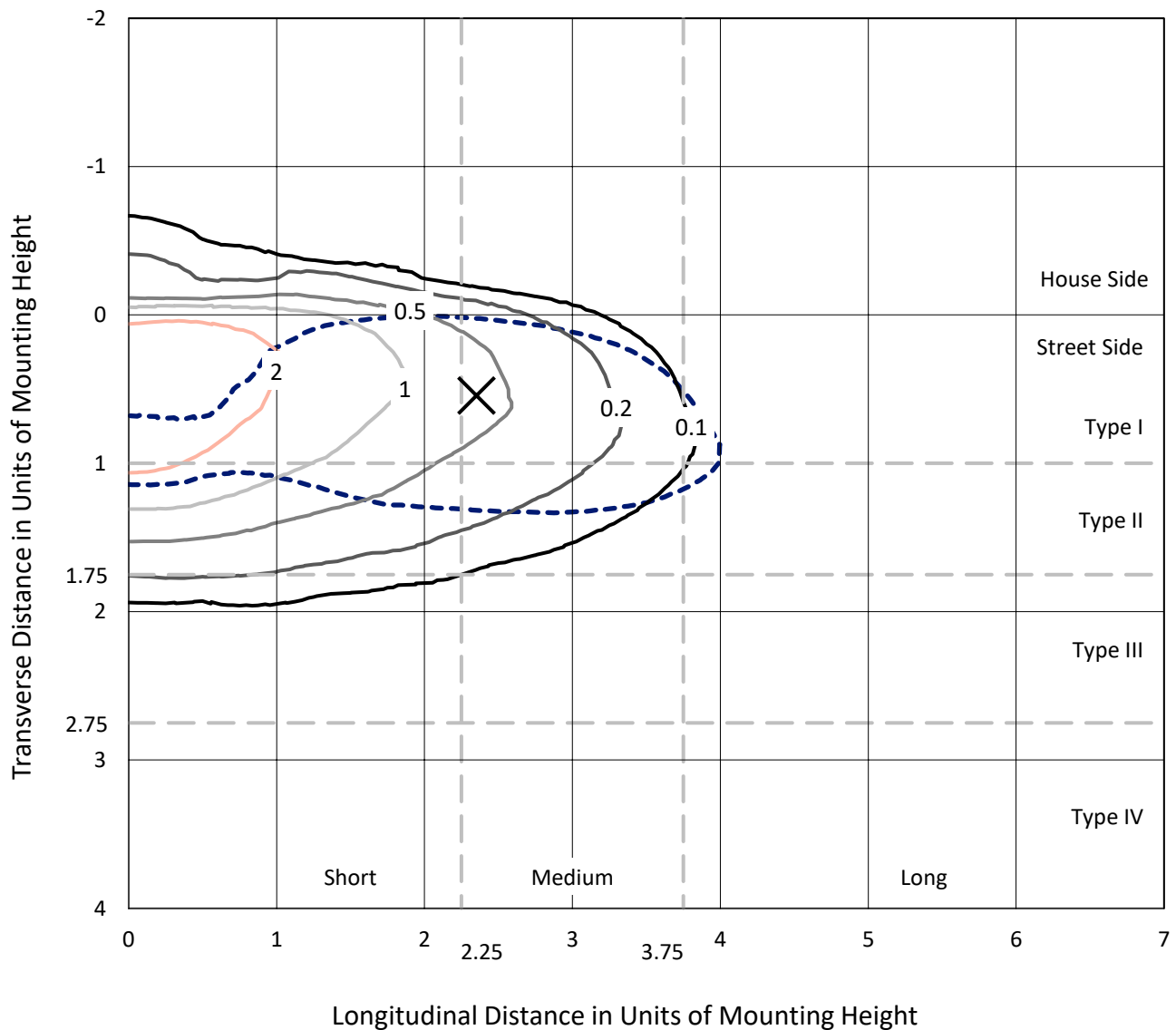
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P961003
CATALOG NUMBER: NAV-SB1D-827-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

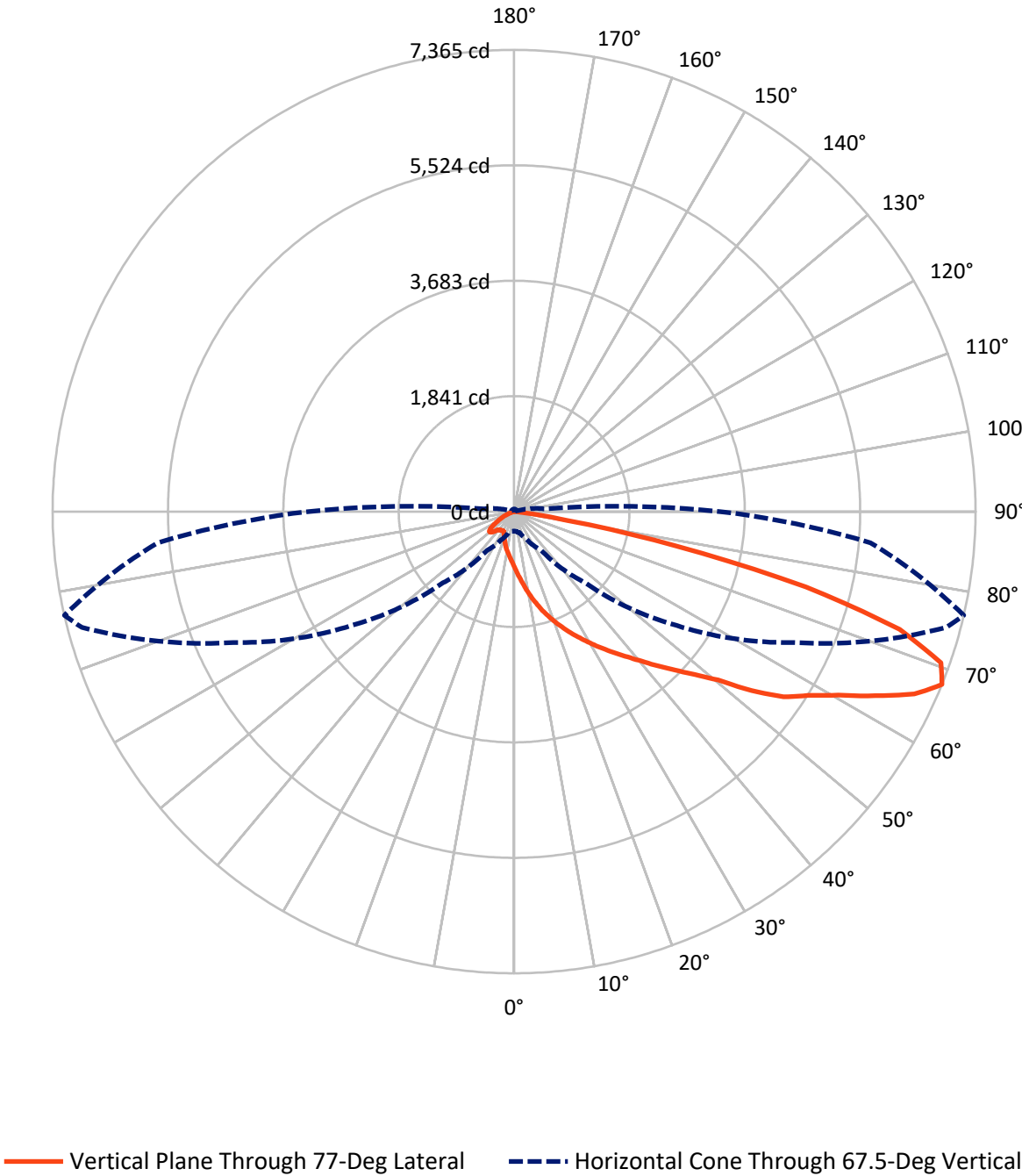
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 fc
Type II - Medium - N/A

REPORT NUMBER: P961003
CATALOG NUMBER: NAV-SB1D-827-U-T2R-HSS

Luminous Intensity Polar Plot



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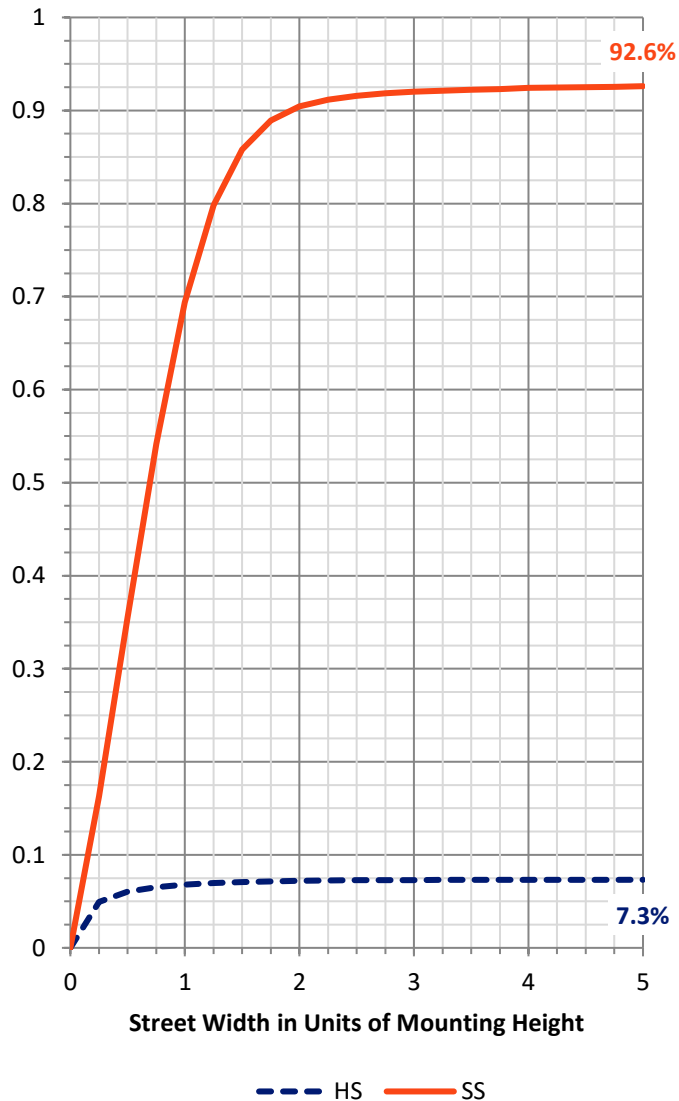
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	565.2	0.0	565.2
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	7117.2	0.0	7117.2
	% Fixture	92.6	0.0	92.6
Total	Lumens	7682.4	0.0	7682.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	1.2
10°-20°	316.6	4.1
20°-30°	611.0	8.0
30°-40°	1060.8	13.8
40°-50°	1540.2	20.0
50°-60°	1768.7	23.0
60°-70°	1535.6	20.0
70°-80°	723.3	9.4
80°-90°	35.8	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°	7682.4	100.0
0°-180°	7682.4	100.0

Coefficient of Utilization



REPORT NUMBER: P961003

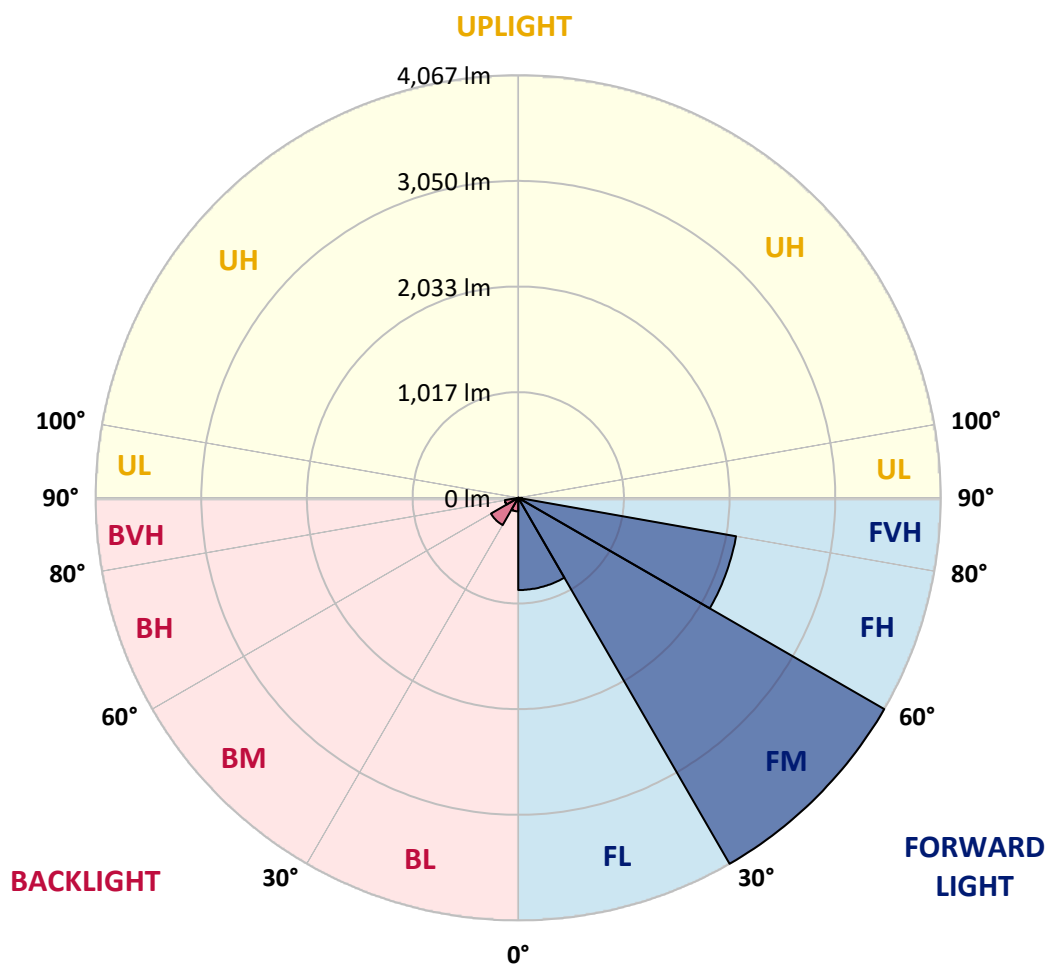
CATALOG NUMBER: NAV-SB1D-827-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	887.2	11.5			
FM	(30°-60°)	4066.8	52.9			
FH	(60°-80°)	2128.0	27.7			G2/5000
FVH	(80°-90°)	35.1	0.5			G1/100
BL	(0°-30°)	130.8	1.7	B1/500		
BM	(30°-60°)	302.8	3.9	B1/1000		
BH	(60°-80°)	130.9	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: P961003

CATALOG NUMBER: NAV-SB1D-827-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9
2.5°	1226.5	1234.1	1223.1	1202.2	1170.7	1150.2	1100.1	1052.9	1000.4	983.7	931.2
5°	1495.1	1501.7	1489.3	1466.5	1424.4	1384.4	1318.6	1219.9	1117.2	1084.3	991.3
7.5°	1694.0	1697.8	1693.1	1672.1	1632.0	1586.7	1513.2	1396.4	1244.1	1207.9	1065.3
10°	1837.1	1849.5	1848.1	1840.0	1813.3	1776.5	1698.3	1565.2	1386.3	1339.6	1148.7
12.5°	1932.0	1945.9	1954.1	1972.1	1970.7	1947.3	1878.6	1737.9	1528.0	1473.1	1242.7
15°	1959.7	1974.6	2005.5	2047.5	2084.7	2096.6	2048.5	1907.2	1684.0	1613.9	1339.1
17.5°	1944.0	1966.9	2004.1	2070.4	2152.0	2205.9	2200.7	2070.9	1825.7	1745.6	1433.6
20°	1978.9	2000.8	2029.9	2085.7	2180.6	2278.4	2317.5	2227.3	1966.5	1882.4	1532.8
22.5°	2171.6	2167.8	2170.6	2179.7	2236.4	2333.3	2413.9	2369.5	2105.8	2019.9	1637.7
25°	2476.9	2459.7	2430.6	2381.5	2367.1	2413.9	2497.8	2495.5	2252.6	2160.6	1745.1
27.5°	2827.1	2824.2	2755.9	2637.6	2570.8	2552.8	2592.8	2618.1	2398.2	2299.9	1852.9
30°	3162.4	3170.0	3078.0	2946.3	2823.7	2752.6	2716.4	2734.5	2546.0	2450.2	1964.0
32.5°	3454.4	3462.4	3362.3	3208.1	3056.4	2970.7	2894.3	2849.4	2707.3	2602.8	2086.2
35°	3701.0	3709.1	3594.2	3423.8	3262.1	3184.4	3098.0	2975.4	2869.5	2772.2	2222.1
37.5°	3921.3	3919.0	3764.9	3593.1	3434.4	3372.8	3327.5	3130.5	3036.5	2942.5	2372.9
40°	4051.6	4061.7	3930.0	3740.6	3586.5	3541.7	3538.8	3322.6	3229.2	3138.0	2537.9
42.5°	4089.7	4107.5	4012.1	3856.5	3716.8	3668.1	3743.0	3530.7	3453.4	3364.7	2724.4
45°	4021.1	4038.3	3994.8	3887.0	3805.4	3773.9	3918.6	3746.3	3692.9	3605.1	2934.9
47.5°	3820.7	3842.2	3852.7	3829.8	3828.9	3860.8	4075.9	3973.4	3977.2	3887.5	3178.6
50°	3432.9	3469.1	3565.5	3646.6	3772.1	3929.5	4229.0	4219.5	4297.8	4220.5	3496.4
52.5°	2727.8	2779.3	3111.4	3333.2	3615.1	3916.6	4397.5	4614.5	4860.2	4747.2	3944.3
55°	2192.1	2192.1	2462.0	2877.1	3308.8	3831.7	4470.9	4871.2	5243.3	5216.6	4259.6
57.5°	1787.1	1808.5	1980.7	2347.6	2865.7	3629.4	4516.3	5032.4	5552.0	5532.4	4567.8
60°	1102.9	1149.2	1474.6	1836.7	2361.4	3269.2	4487.7	5195.6	5926.4	5942.2	4939.0
62.5°	621.2	638.3	783.3	1321.4	1836.2	2785.0	4268.7	5286.7	6405.4	6472.2	5321.6
65°	428.9	437.5	493.2	822.5	1272.7	2217.4	3840.8	5230.0	6885.3	7020.3	5645.9
67.5°	311.5	315.8	350.7	502.4	755.2	1607.7	3170.0	4943.7	7139.6	7365.2	5707.9
70°	239.4	242.3	267.6	330.2	446.1	992.3	2302.3	4374.6	6955.4	7225.0	5390.3
72.5°	194.6	197.5	217.1	244.3	295.8	586.8	1395.4	3552.6	6142.5	6433.5	4588.8
75°	164.1	167.9	185.5	203.3	231.9	376.9	654.6	2474.0	4619.4	4810.1	3191.0
77.5°	91.1	83.9	150.8	168.4	195.6	238.5	306.3	1456.0	2587.1	2640.0	1415.9
80°	56.8	58.6	119.7	135.5	150.3	120.2	140.2	560.6	896.9	852.0	274.3
82.5°	3.4	7.6	92.0	97.8	103.0	51.6	53.0	190.3	216.1	198.4	48.7
85°	0.0	0.0	42.0	33.8	35.8	14.8	15.3	44.4	29.1	31.5	9.5
87.5°	0.0	0.0	0.0	0.9	0.0	1.4	2.9	3.8	1.4	1.9	3.4
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: P961003

CATALOG NUMBER: NAV-SB1D-827-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9	885.9
2.5°	897.8	864.4	796.7	730.4	676.5	626.4	590.6	556.7	539.6	538.6	537.6
5°	925.0	854.8	719.4	599.6	503.3	426.0	376.0	340.1	322.1	315.8	314.9
7.5°	963.2	857.7	651.7	485.1	371.7	305.3	276.6	265.3	261.4	257.2	256.1
10°	1011.4	864.4	591.1	390.7	292.9	259.5	248.0	243.3	240.5	237.6	236.6
12.5°	1065.3	870.6	530.9	324.4	257.6	240.5	232.4	226.6	222.8	219.5	218.5
15°	1117.8	874.4	468.4	278.1	239.4	225.6	217.1	210.8	205.6	201.8	201.3
17.5°	1169.7	879.7	409.8	250.4	224.7	210.8	202.2	194.6	190.3	186.0	185.5
20°	1227.4	878.7	354.4	230.9	209.9	196.1	187.0	179.9	175.6	170.8	170.4
22.5°	1280.9	873.9	305.8	214.2	194.6	181.3	171.3	164.1	159.8	156.0	155.5
25°	1342.4	870.1	265.3	199.0	180.3	167.0	156.0	149.3	144.5	141.2	140.7
27.5°	1401.6	864.4	235.6	185.1	166.5	153.6	143.1	135.5	131.2	128.8	128.8
30°	1459.8	862.9	224.7	171.8	154.1	141.2	130.7	123.5	120.2	119.3	118.8
32.5°	1529.9	866.8	229.5	167.0	142.7	129.8	119.7	114.5	111.1	111.1	111.1
35°	1604.8	865.8	236.6	171.3	135.0	118.3	110.7	107.3	104.0	104.0	104.0
37.5°	1698.8	867.3	242.3	178.5	132.1	108.8	104.4	100.1	98.3	98.3	98.3
40°	1839.1	914.5	239.4	184.6	131.2	102.1	93.5	92.0	90.6	90.6	90.6
42.5°	2010.7	1017.1	243.3	185.1	130.7	97.3	85.9	88.8	85.4	84.9	84.5
45°	2198.7	1129.1	267.6	175.1	130.3	94.9	82.1	85.4	80.2	80.2	80.2
47.5°	2385.3	1240.4	292.4	160.7	128.8	94.5	78.7	76.8	75.3	75.8	75.8
50°	2642.4	1331.0	302.0	141.2	125.5	93.5	72.5	73.0	72.1	73.0	73.0
52.5°	2922.5	1350.0	290.5	119.3	115.9	90.6	68.3	70.1	69.7	70.6	70.6
55°	3097.0	1329.5	240.0	99.2	101.2	79.2	64.0	67.8	67.8	67.8	67.8
57.5°	3277.3	1242.3	170.4	80.7	83.9	64.9	60.1	65.4	64.9	64.4	64.4
60°	3407.1	1101.1	112.1	66.3	66.8	53.4	55.9	61.5	61.1	58.6	58.6
62.5°	3504.0	945.0	72.1	56.3	51.0	48.2	51.0	55.9	53.9	48.7	47.7
65°	3493.0	729.0	55.4	48.2	42.0	42.0	44.4	48.7	42.9	34.3	33.4
67.5°	3289.3	493.2	45.8	40.6	35.3	34.8	36.7	40.6	36.7	29.1	28.2
70°	2925.4	322.5	36.7	31.5	28.2	25.7	29.6	34.8	31.1	23.4	22.4
72.5°	2374.3	196.6	27.7	22.9	20.5	16.7	23.4	28.6	24.8	17.2	16.2
75°	1536.2	100.1	19.1	14.8	11.0	10.0	17.2	21.4	17.2	10.5	9.0
77.5°	587.7	42.0	10.5	6.7	5.7	4.8	9.5	12.9	7.2	2.4	1.9
80°	113.1	17.6	5.2	3.4	2.9	1.9	1.4	0.9	0.0	0.0	0.0
82.5°	19.6	5.7	1.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	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)