

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: P963110

Luminaire Tested: **NAV-SB2D-827-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963110
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-827-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13245.1 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 147.6
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

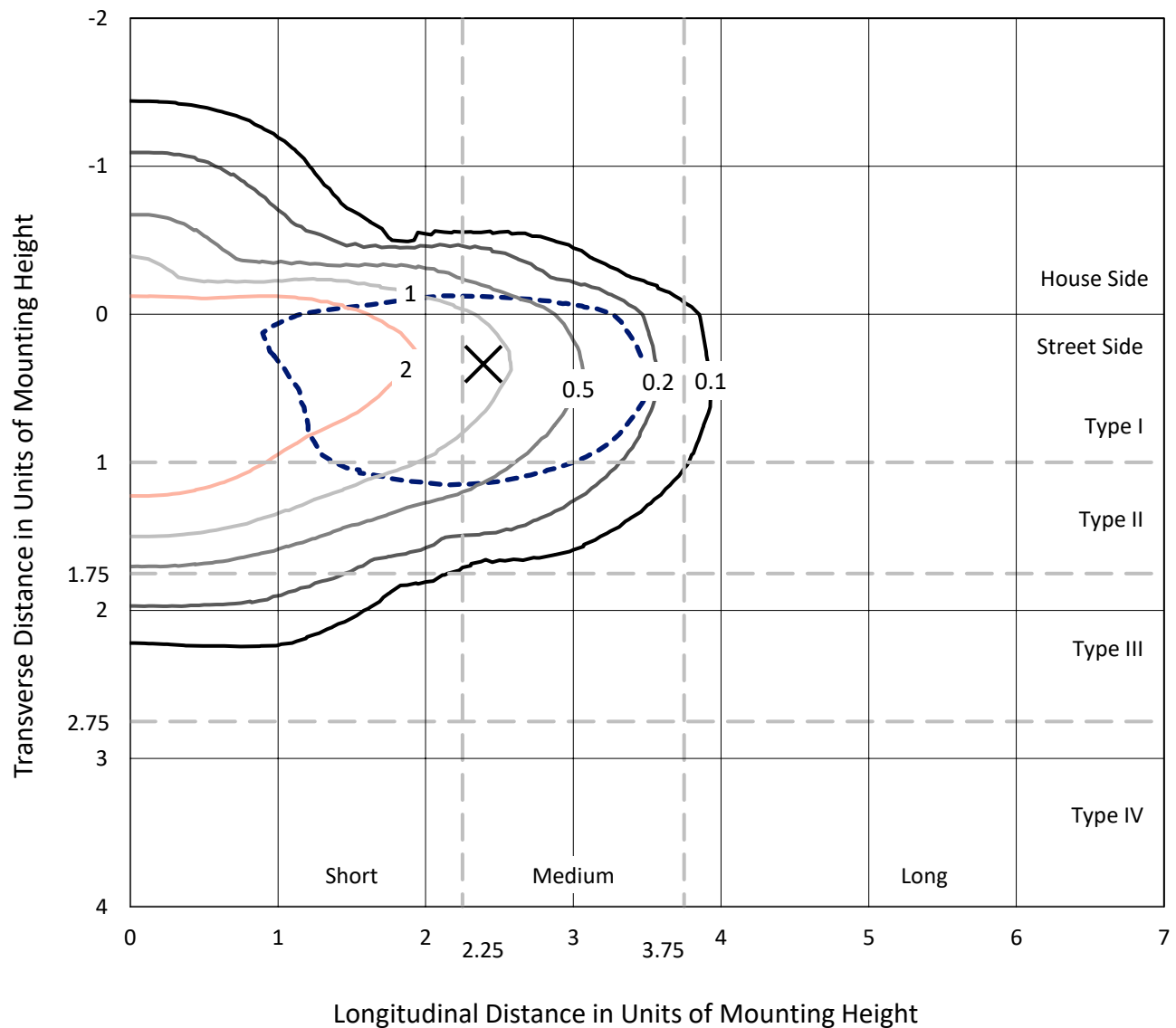


REPORT NUMBER: P963110

CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

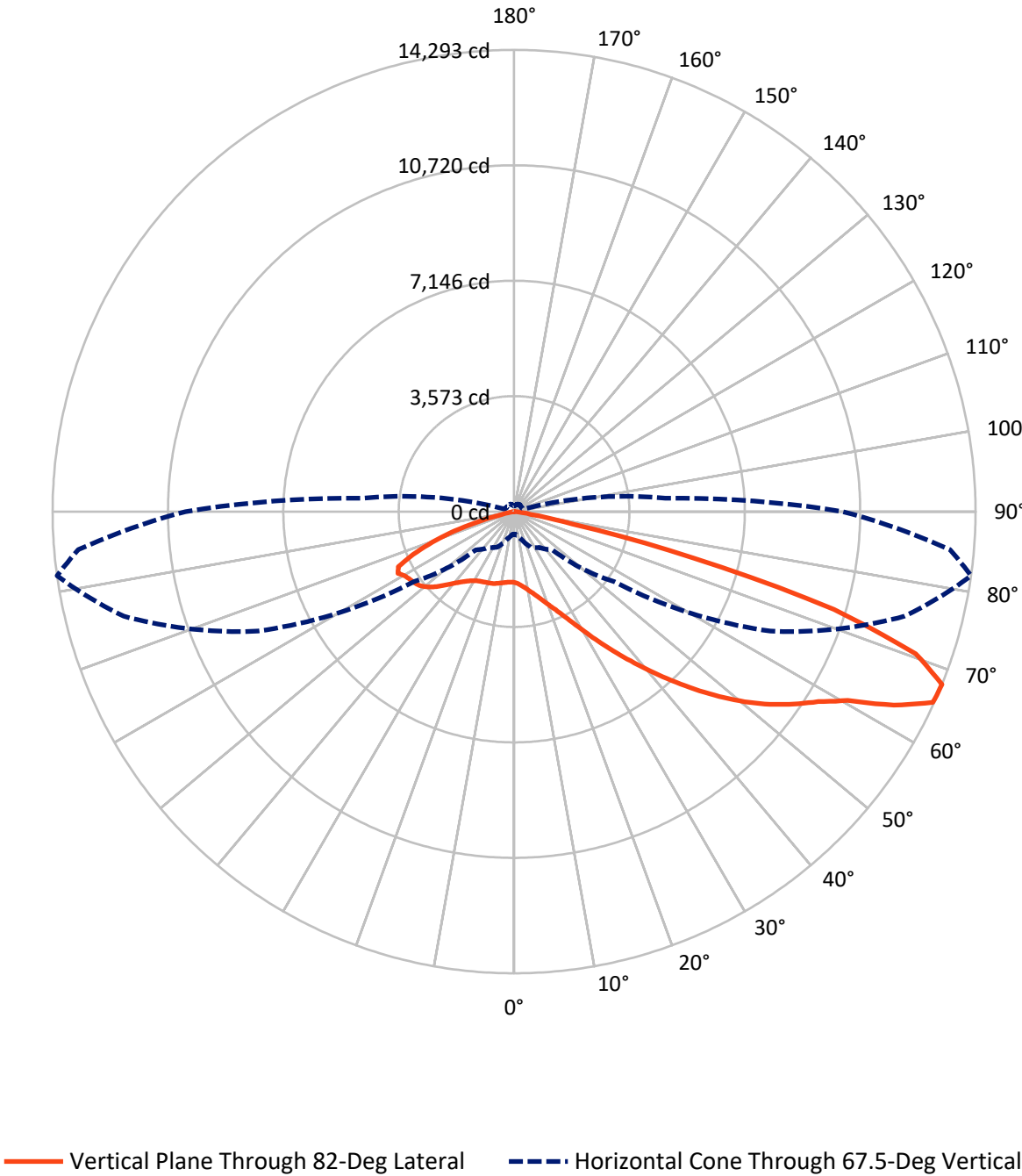
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
Type II - Medium - N/A

REPORT NUMBER: P963110
CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P963110

CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

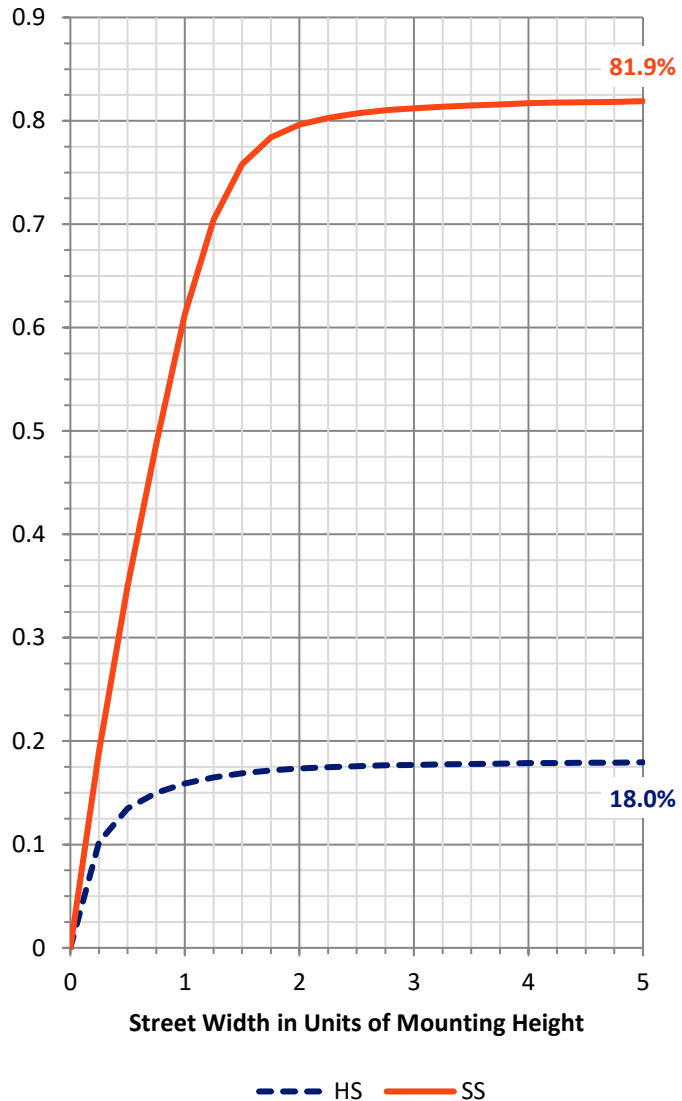
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2399.2	0.0	2399.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	10845.8	0.0	10845.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	13245.1	0.0	13245.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.5	1.5
10°-20°	508.0	3.8
20°-30°	813.7	6.1
30°-40°	1438.8	10.9
40°-50°	2520.9	19.0
50°-60°	3362.2	25.4
60°-70°	3130.0	23.6
70°-80°	1201.3	9.1
80°-90°	74.6	0.6
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°	13245.1	100.0
0°-180°	13245.1	100.0

Coefficient of Utilization



REPORT NUMBER: P963110

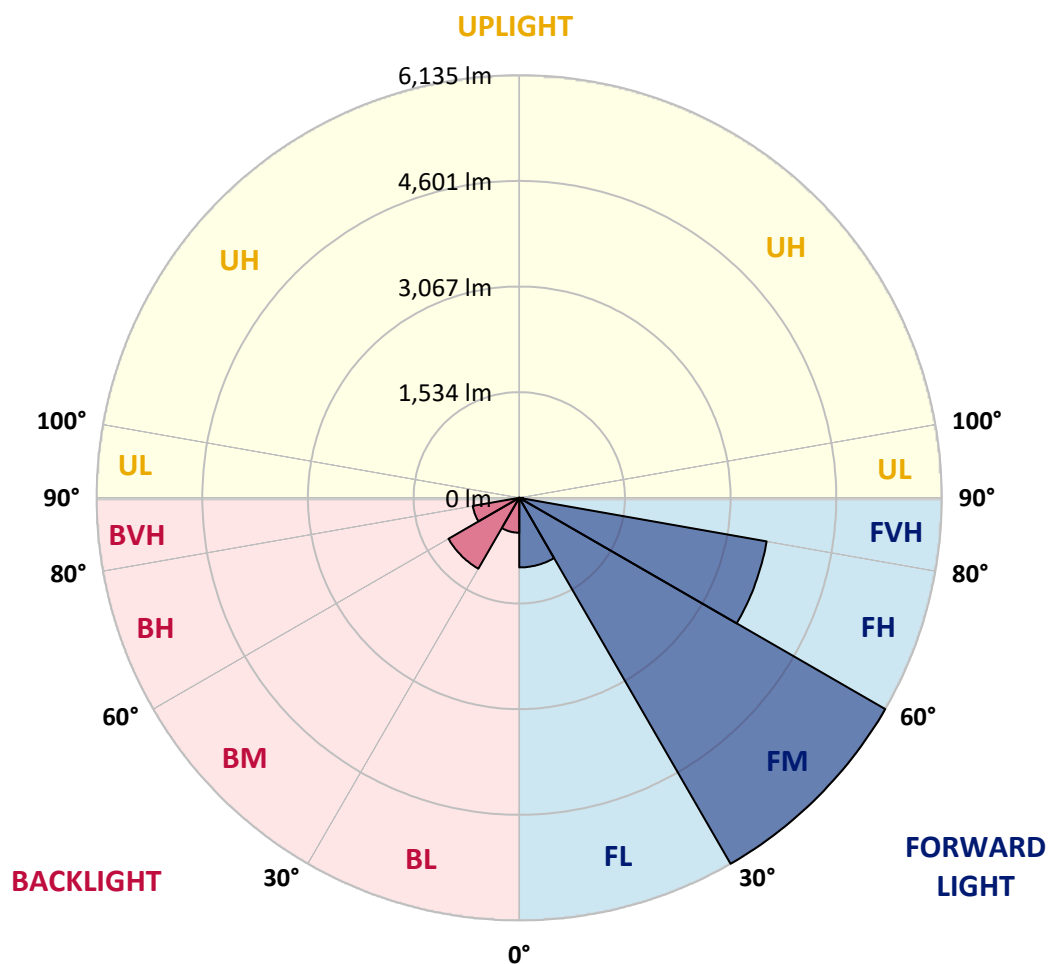
CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1010.4	7.6			
FM	(30°-60°)	6134.6	46.3			
FH	(60°-80°)	3646.6	27.5			G2/5000
FVH	(80°-90°)	54.2	0.4			G1/100
BL	(0°-30°)	506.7	3.8	B2/1000		
BM	(30°-60°)	1187.4	9.0	B2/2500		
BH	(60°-80°)	684.8	5.2	B2/1000		G2/1000
BVH	(80°-90°)	20.4	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



REPORT NUMBER: P963110

CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2
2.5°	2319.2	2332.5	2324.9	2321.1	2314.4	2304.9	2297.2	2273.4	2248.6	2232.4	2226.7
5°	2365.9	2379.2	2378.3	2382.1	2386.9	2389.8	2387.8	2361.1	2325.8	2298.2	2282.0
7.5°	2325.8	2341.1	2353.5	2372.6	2406.0	2441.2	2458.4	2452.7	2416.4	2378.3	2358.3
10°	2212.4	2228.6	2258.2	2303.0	2373.5	2449.9	2513.7	2543.2	2520.4	2478.4	2450.8
12.5°	2004.5	2020.7	2078.9	2176.2	2294.4	2426.9	2549.0	2628.1	2633.8	2591.9	2559.5
15°	1770.9	1787.1	1849.1	1971.1	2151.4	2364.0	2568.0	2717.8	2768.3	2732.1	2693.0
17.5°	1625.9	1640.2	1686.9	1785.1	1973.0	2238.1	2561.4	2813.1	2928.5	2899.9	2853.2
20°	1582.1	1594.4	1616.3	1685.0	1841.4	2107.5	2517.5	2902.8	3101.1	3084.9	3032.5
22.5°	1628.7	1640.2	1646.9	1677.4	1775.6	2021.6	2462.3	2994.3	3301.4	3303.3	3239.4
25°	1736.6	1747.9	1740.3	1759.4	1802.4	1995.0	2441.2	3102.1	3553.2	3574.2	3501.6
27.5°	1913.9	1914.8	1896.8	1895.7	1902.5	2035.0	2463.2	3217.5	3870.7	3909.8	3820.2
30°	2269.6	2255.3	2185.7	2110.4	2076.0	2155.2	2524.2	3353.8	4245.4	4315.0	4202.6
32.5°	2817.9	2796.9	2669.2	2488.9	2307.7	2348.8	2633.8	3509.3	4653.6	4779.5	4642.1
35°	3412.9	3407.2	3273.7	3005.8	2689.2	2624.3	2812.2	3713.4	5099.0	5299.2	5136.2
37.5°	3966.0	3963.2	3886.9	3571.3	3186.0	3008.7	3098.3	3980.4	5575.8	5865.7	5673.1
40°	4471.5	4480.1	4403.8	4121.5	3733.4	3501.6	3487.4	4310.3	6105.9	6482.6	6253.7
42.5°	4908.2	4917.7	4840.6	4631.7	4274.0	4047.1	3965.1	4714.7	6623.8	7145.4	6874.6
45°	5204.8	5263.9	5252.5	5085.6	4829.1	4593.5	4539.2	5222.0	7214.1	7848.2	7530.7
47.5°	5288.7	5343.1	5428.9	5451.8	5295.4	5063.7	5128.5	5833.3	7811.0	8552.0	8190.6
50°	5081.7	5132.4	5310.6	5548.1	5656.8	5585.3	5701.7	6488.4	8422.3	9253.8	8838.1
52.5°	4673.7	4725.1	4950.2	5325.9	5769.3	5994.4	6276.7	7134.0	9014.5	9918.5	9451.2
55°	4083.4	4137.7	4426.7	4851.9	5554.8	6163.2	6756.3	7778.6	9557.1	10516.4	10004.3
57.5°	3280.4	3320.5	3620.8	4215.9	5015.0	5995.3	7110.1	8482.4	10068.2	11103.8	10552.7
60°	2137.9	2173.3	2522.3	3186.0	4120.5	5434.7	7180.6	9267.2	10747.2	11867.7	11291.7
62.5°	1421.9	1445.7	1652.6	2139.9	2901.9	4358.0	6767.8	9893.7	11742.7	13197.0	12559.0
65°	975.5	999.4	1206.3	1545.8	1874.8	2882.8	5580.5	9810.8	12644.9	14252.6	13498.3
67.5°	696.2	716.2	891.6	1212.1	1357.0	1674.5	3783.0	8750.3	12515.1	14292.7	13548.9
70°	498.8	510.1	655.2	944.0	1078.5	1006.0	2103.7	6692.4	10958.0	13198.0	12517.1
72.5°	349.0	352.8	454.9	719.0	868.7	734.3	1001.3	4461.9	8287.8	10359.1	9704.0
75°	236.5	241.3	306.1	527.4	697.1	560.7	530.2	2392.7	4865.4	5734.1	5140.0
77.5°	144.9	146.9	197.4	360.5	521.6	427.2	341.4	1013.7	1882.4	1848.1	1575.3
80°	82.0	82.0	125.9	224.1	355.7	275.6	239.3	431.0	596.0	523.6	461.6
82.5°	45.8	46.7	91.5	139.2	235.5	163.1	131.6	199.3	257.5	228.0	198.3
85°	19.1	21.0	56.3	65.8	112.5	81.1	53.4	83.9	95.3	84.9	62.0
87.5°	1.9	2.9	17.1	12.4	13.3	16.2	7.6	16.2	13.3	13.3	9.5
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: P963110

CATALOG NUMBER: NAV-SB2D-827-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2	2194.2
2.5°	2208.6	2194.2	2158.0	2116.0	2060.8	2034.0	1997.8	1973.0	1952.0	1954.0	1934.9
5°	2251.5	2215.2	2134.2	2033.1	1907.2	1817.5	1722.2	1656.4	1603.0	1591.6	1565.8
7.5°	2310.6	2253.4	2111.3	1929.2	1716.5	1555.3	1411.3	1318.9	1253.1	1232.0	1211.0
10°	2386.9	2303.9	2081.8	1798.5	1492.4	1287.4	1132.9	1060.5	1015.6	1000.3	988.9
12.5°	2475.6	2362.1	2042.6	1639.3	1261.7	1064.3	966.0	929.8	915.4	910.7	907.8
15°	2587.1	2434.6	1983.5	1450.5	1066.1	927.8	885.9	881.1	883.0	881.1	880.2
17.5°	2719.7	2513.7	1887.2	1255.9	934.5	858.2	843.0	846.9	851.6	850.6	848.7
20°	2864.7	2591.9	1764.1	1083.3	844.9	808.6	800.1	803.9	807.7	805.8	804.8
22.5°	3029.6	2675.9	1627.8	948.8	784.8	762.9	753.4	754.3	754.3	750.5	748.6
25°	3227.0	2768.3	1484.8	853.5	739.0	721.9	710.4	706.6	700.9	689.4	687.6
27.5°	3462.6	2866.5	1347.5	786.7	702.8	686.6	673.2	663.7	649.4	630.4	628.4
30°	3727.6	2985.7	1231.1	744.8	674.2	657.9	642.8	628.4	607.4	583.6	581.7
32.5°	4039.5	3113.5	1146.3	717.1	648.4	631.3	613.2	596.0	573.1	549.3	550.2
35°	4411.4	3268.0	1096.6	698.0	628.4	605.6	585.5	566.4	549.3	528.3	526.4
37.5°	4814.7	3432.0	1081.4	688.5	615.1	579.8	556.9	543.6	541.6	529.2	528.3
40°	5256.3	3626.6	1092.9	682.8	600.8	555.0	530.2	527.4	532.1	510.1	511.2
42.5°	5723.6	3857.4	1111.9	676.1	580.8	530.2	506.4	506.4	502.6	472.0	472.0
45°	6229.0	4123.4	1131.0	659.9	556.9	505.4	487.3	480.6	464.4	434.8	433.9
47.5°	6738.2	4394.3	1145.3	630.4	528.3	484.4	468.2	452.9	429.2	402.4	401.5
50°	7221.6	4637.4	1130.1	586.5	495.9	464.4	447.2	426.3	400.5	382.4	379.6
52.5°	7653.7	4848.1	1065.2	534.9	461.6	443.4	428.1	406.2	385.3	366.2	364.3
55°	8029.4	5018.8	950.8	486.4	431.0	425.3	410.1	382.4	353.8	337.5	335.7
57.5°	8389.8	5148.6	807.7	446.3	403.3	405.3	382.4	357.6	330.9	313.8	311.8
60°	8869.5	5322.1	662.8	409.1	373.8	379.6	354.8	336.6	303.3	281.4	278.5
62.5°	9636.2	5592.0	526.4	363.4	339.5	341.4	330.9	308.9	269.0	243.1	241.3
65°	10244.7	5492.8	414.8	313.8	300.4	303.3	303.3	279.4	236.5	206.9	204.1
67.5°	10176.0	4703.2	330.9	265.1	263.2	265.1	271.8	251.7	209.8	185.9	182.1
70°	9374.0	3741.0	265.1	220.3	228.9	224.1	243.1	229.8	188.8	165.0	162.2
72.5°	7648.9	2694.9	202.1	182.1	175.5	183.1	219.4	206.9	157.3	130.7	127.8
75°	4469.6	1438.1	150.7	144.0	126.8	152.6	194.5	176.4	120.1	96.4	93.5
77.5°	1455.2	501.6	110.6	105.9	94.4	123.0	165.9	148.7	98.2	76.3	73.4
80°	390.0	151.6	75.3	69.6	61.0	91.5	131.6	118.3	70.5	49.6	48.6
82.5°	156.4	63.9	43.9	39.1	33.4	62.9	103.9	95.3	52.5	31.5	31.5
85°	50.5	21.0	16.2	12.4	15.3	39.1	62.0	64.9	37.2	16.2	12.4
87.5°	6.7	2.9	2.9	3.8	2.9	6.7	19.1	18.1	10.5	1.9	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)