

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: P963112

Luminaire Tested: **NAV-SB2D-827-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963112
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-827-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18474.6 lumens
Efficiency: N/A
Efficacy: 125.2 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



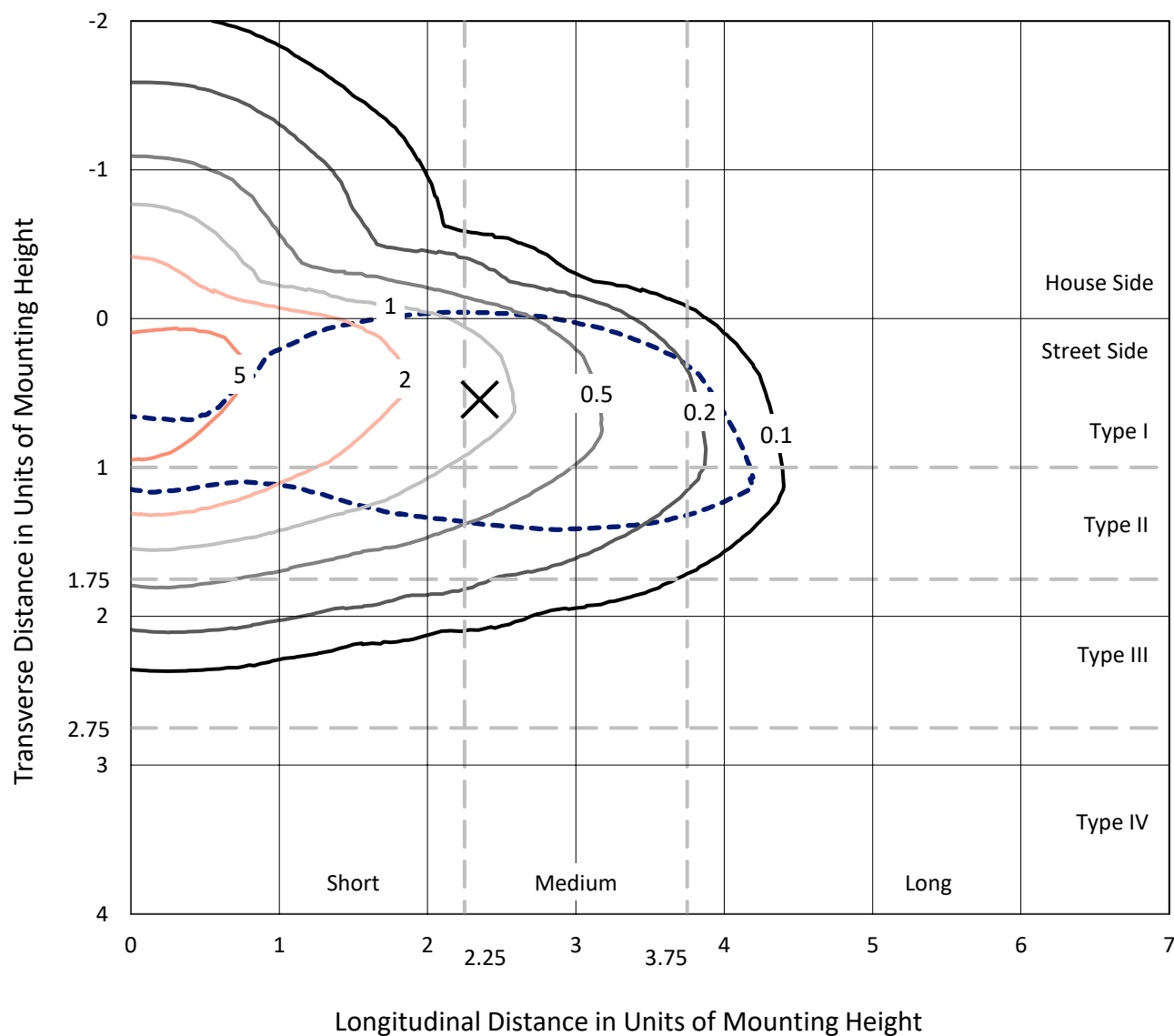
REPORT NUMBER: P963112

CATALOG NUMBER: NAV-SB2D-827-U-T2R

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

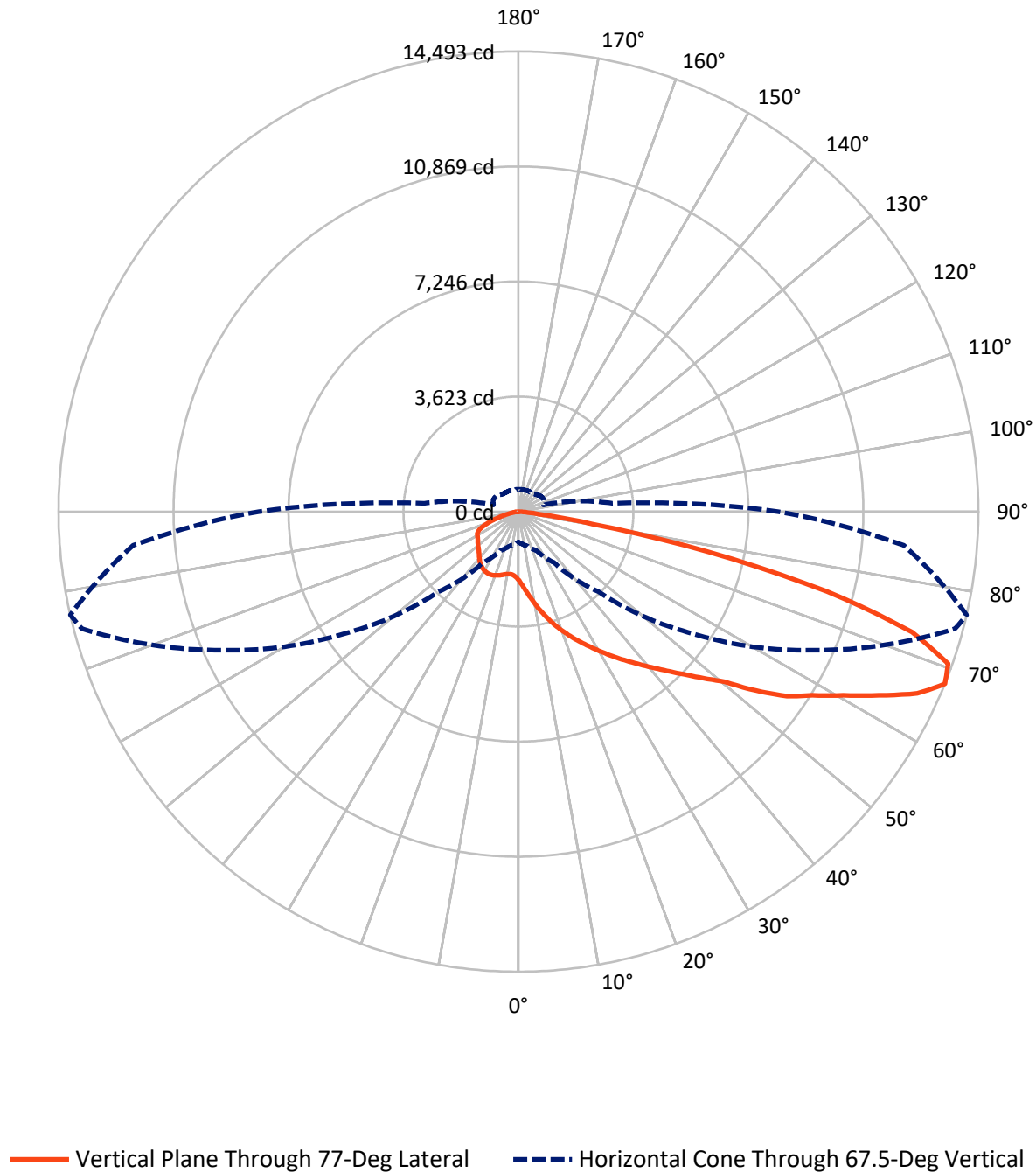
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
Type II - Medium - N/A

REPORT NUMBER: P963112
CATALOG NUMBER: NAV-SB2D-827-U-T2R

Luminous Intensity Polar Plot



REPORT NUMBER: P963112

CATALOG NUMBER: NAV-SB2D-827-U-T2R

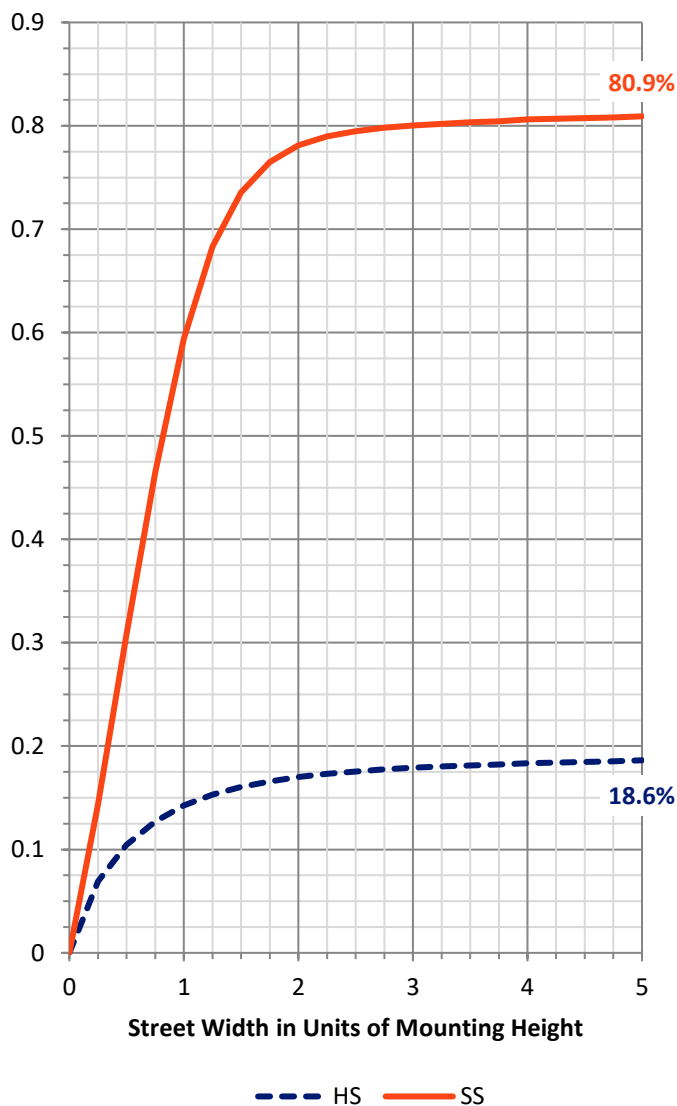
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3494.7	0.0	3494.7
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	14979.9	0.0	14979.9
	% Fixture	81.1	0.0	81.1
Total	Lumens	18474.6	0.0	18474.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.3	1.3
10°-20°	834.7	4.5
20°-30°	1576.0	8.5
30°-40°	2538.9	13.7
40°-50°	3472.8	18.8
50°-60°	3917.4	21.2
60°-70°	3656.4	19.8
70°-80°	2004.3	10.8
80°-90°	241.8	1.3
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°	18474.6	100.0
0°-180°	18474.6	100.0

Coefficient of Utilization



REPORT NUMBER: P963112

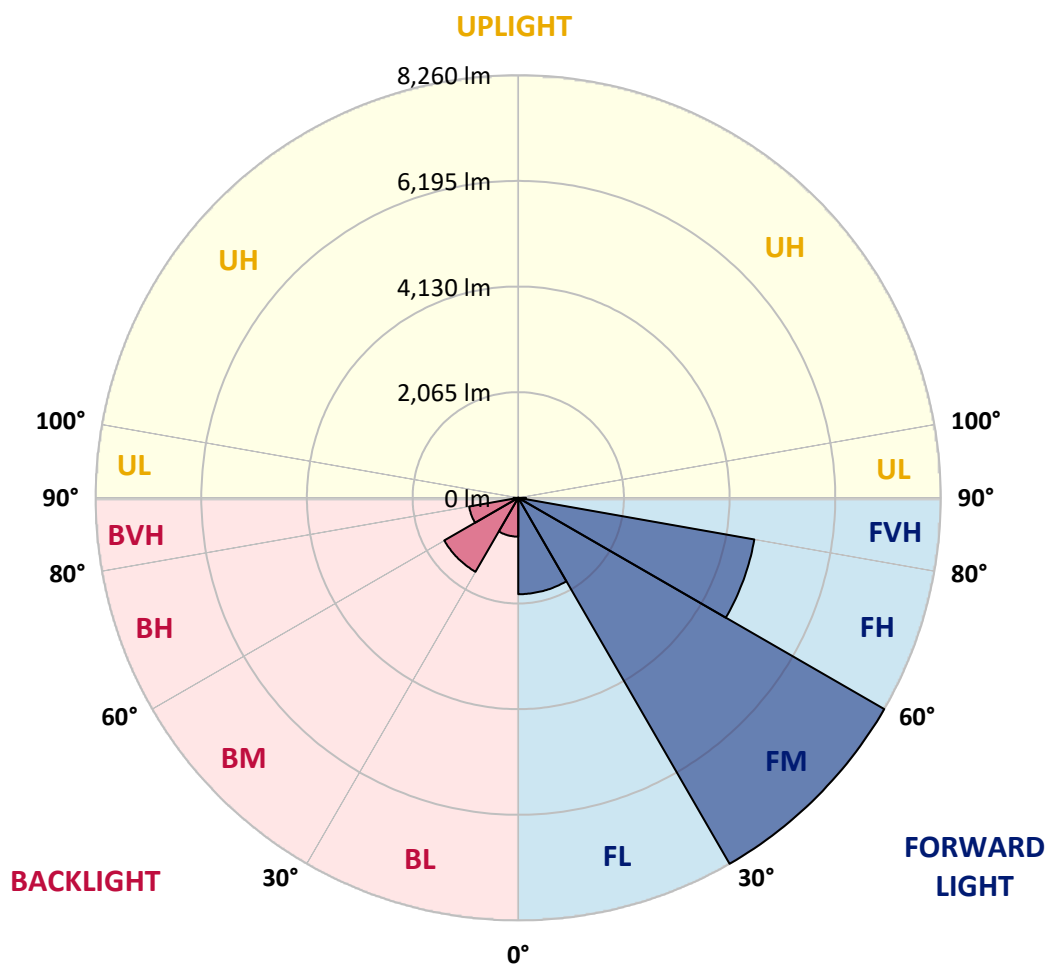
CATALOG NUMBER: NAV-SB2D-827-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1883.3	10.2			
FM	(30°-60°)	8259.8	44.7			
FH	(60°-80°)	4685.7	25.4			G2/5000
FVH	(80°-90°)	151.2	0.8			G2/225
BL	(0°-30°)	759.8	4.1	B2/1000		
BM	(30°-60°)	1669.3	9.0	B2/2500		
BH	(60°-80°)	975.0	5.3	B2/1000		G2/1000
BVH	(80°-90°)	90.6	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-G2

Type II Medium



REPORT NUMBER: P963112

CATALOG NUMBER: NAV-SB2D-827-U-T2R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7
2.5°	2714.1	2733.2	2709.3	2709.3	2629.2	2587.2	2507.1	2446.1	2336.5	2317.3	2244.9
5°	3208.0	3231.9	3198.5	3184.3	3089.9	3003.0	2868.6	2736.0	2540.6	2520.5	2349.8
7.5°	3590.5	3621.0	3591.4	3576.2	3492.3	3395.0	3237.7	3052.7	2777.0	2737.9	2491.0
10°	3902.4	3907.1	3897.6	3903.3	3837.5	3757.3	3596.2	3380.7	3036.5	2983.1	2661.6
12.5°	4078.8	4100.7	4119.8	4154.1	4142.6	4093.0	3948.1	3690.6	3311.1	3242.4	2847.6
15°	4161.7	4199.8	4242.8	4321.9	4385.9	4398.3	4287.6	4023.4	3590.5	3507.6	3035.4
17.5°	4191.3	4227.5	4295.3	4409.7	4547.0	4639.5	4590.0	4346.7	3867.0	3771.7	3232.8
20°	4341.0	4351.5	4392.5	4501.2	4650.0	4803.6	4840.8	4657.6	4140.8	4033.0	3436.9
22.5°	4661.4	4640.5	4651.9	4701.5	4808.3	4957.1	5042.0	4932.3	4422.1	4298.1	3643.0
25°	5190.7	5129.7	5068.6	5011.4	5065.8	5149.7	5246.1	5206.9	4716.7	4559.4	3850.8
27.5°	5859.2	5784.8	5650.4	5462.5	5396.7	5426.2	5469.2	5461.5	4989.5	4830.2	4065.5
30°	6517.3	6430.4	6270.2	5998.4	5824.9	5746.7	5714.3	5692.3	5286.0	5116.3	4281.8
32.5°	7042.7	6974.0	6816.7	6512.4	6260.7	6127.2	6019.4	5941.2	5596.0	5426.2	4510.7
35°	7502.4	7438.4	7258.2	6926.3	6652.7	6510.6	6369.5	6202.6	5918.3	5746.7	4756.8
37.5°	7921.9	7858.1	7611.0	7265.8	6990.3	6892.0	6766.1	6482.9	6241.6	6079.5	5017.2
40°	8187.1	8172.7	7942.0	7551.0	7264.9	7216.3	7174.3	6808.2	6600.2	6449.5	5303.2
42.5°	8254.8	8286.3	8103.1	7781.8	7509.0	7469.9	7568.2	7176.2	7002.6	6858.7	5627.5
45°	8091.8	8182.3	8062.1	7843.8	7682.6	7661.6	7917.2	7578.6	7448.0	7316.3	6018.5
47.5°	7678.8	7832.3	7782.7	7752.2	7729.3	7819.9	8224.3	8005.9	7952.5	7838.1	6464.8
50°	6845.3	7136.2	7223.0	7415.6	7636.9	7942.9	8503.7	8472.2	8541.8	8426.4	7008.3
52.5°	5404.3	5804.9	6308.4	6790.9	7352.6	7901.9	8810.8	9141.7	9435.4	9372.5	7872.4
55°	4461.2	4641.4	5028.5	5913.5	6801.4	7729.3	8949.1	9682.4	10322.3	10266.0	8527.5
57.5°	3736.4	3897.6	4136.0	4875.1	5968.0	7337.4	9034.9	10012.4	10929.8	10924.0	9174.1
60°	2959.2	3129.8	3374.0	3897.6	4994.2	6660.2	9015.8	10388.1	11705.1	11752.8	9962.8
62.5°	2081.8	2269.7	2540.6	3028.8	3999.7	5782.9	8626.7	10659.9	12617.7	12747.4	10911.6
65°	1368.5	1492.5	1696.6	2118.1	2980.2	4654.7	7883.8	10695.2	13594.3	13813.6	11802.4
67.5°	959.4	1007.1	1127.2	1356.1	1964.5	3569.5	6700.3	10329.9	14245.7	14492.6	12188.6
70°	748.7	772.4	833.5	925.1	1234.0	2400.3	5134.4	9380.1	14106.4	14363.8	11785.2
72.5°	646.6	669.4	692.4	703.8	827.8	1481.9	3477.9	7842.8	12795.1	12969.6	10246.9
75°	586.5	592.2	611.3	607.5	631.3	961.2	2007.5	5714.3	10095.3	10035.3	7564.3
77.5°	493.0	500.7	532.2	527.4	560.8	657.0	1042.3	3687.7	6544.9	6136.8	4210.4
80°	417.7	421.5	455.8	450.1	487.3	475.9	532.2	1879.6	2776.1	2351.7	1214.0
82.5°	144.9	179.3	348.1	358.5	372.0	288.0	307.1	766.7	847.8	649.4	254.6
85°	70.5	75.3	177.4	251.7	250.8	144.9	149.8	273.7	267.0	209.8	84.9
87.5°	11.5	14.3	21.0	98.2	78.2	38.1	51.5	53.4	55.4	47.7	19.1
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: P963112

CATALOG NUMBER: NAV-SB2D-827-U-T2R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7	2167.7
2.5°	2191.4	2143.8	2043.6	1951.2	1878.7	1809.0	1770.0	1736.6	1717.5	1713.7	1713.7
5°	2250.6	2152.4	1970.3	1816.7	1716.6	1642.2	1603.1	1578.3	1565.9	1558.3	1557.3
7.5°	2335.5	2191.4	1932.1	1757.6	1652.7	1599.3	1579.2	1575.4	1574.5	1575.4	1578.3
10°	2452.8	2255.4	1928.2	1743.3	1655.6	1626.0	1625.0	1626.0	1629.7	1630.8	1631.7
12.5°	2579.6	2321.2	1943.5	1755.6	1691.8	1675.6	1672.7	1671.8	1674.6	1676.5	1677.5
15°	2717.9	2407.9	1969.3	1782.4	1731.8	1714.6	1711.7	1706.1	1705.1	1704.2	1703.2
17.5°	2860.0	2493.8	1997.9	1811.0	1757.6	1733.7	1723.2	1709.9	1699.4	1696.6	1699.4
20°	3004.0	2578.7	2017.9	1825.3	1759.5	1726.1	1705.1	1682.2	1664.1	1653.6	1657.4
22.5°	3157.5	2667.4	2030.3	1821.4	1742.3	1696.6	1658.3	1631.7	1604.0	1585.9	1586.9
25°	3307.3	2744.6	2029.4	1801.4	1709.0	1650.8	1602.2	1567.8	1529.6	1510.5	1510.5
27.5°	3451.3	2814.2	2005.5	1766.2	1661.2	1596.4	1538.2	1497.2	1460.0	1441.9	1440.9
30°	3600.0	2872.4	1968.3	1714.6	1604.9	1533.5	1469.5	1434.3	1400.9	1383.7	1382.8
32.5°	3747.8	2925.8	1915.9	1650.8	1540.2	1471.5	1408.6	1376.2	1356.1	1356.1	1357.0
35°	3904.2	2963.0	1846.2	1576.3	1471.5	1405.7	1356.1	1337.0	1335.1	1323.7	1320.8
37.5°	4069.2	2986.8	1761.4	1500.1	1403.7	1341.8	1326.6	1303.6	1284.5	1259.7	1255.9
40°	4242.8	3010.6	1659.4	1421.0	1332.3	1298.0	1291.2	1260.8	1206.3	1145.3	1136.7
42.5°	4453.5	3026.9	1553.5	1341.8	1257.0	1245.5	1255.0	1202.5	1115.8	1070.0	1070.9
45°	4697.7	3053.6	1456.2	1263.6	1179.7	1179.7	1219.8	1151.1	1079.5	1050.9	1055.6
47.5°	5014.3	3115.6	1365.6	1177.7	1108.1	1127.2	1141.5	1089.1	1049.0	1013.7	1012.8
50°	5472.1	3264.3	1272.1	1091.0	1053.8	1091.9	1071.9	1041.4	994.7	966.1	963.2
52.5°	6040.4	3352.1	1189.2	1012.8	1007.1	1045.2	1016.6	988.0	952.7	914.5	906.9
55°	6427.6	3368.3	1119.6	955.6	975.6	971.8	961.2	935.5	916.5	865.9	866.8
57.5°	6860.5	3400.7	1062.4	921.3	955.6	913.6	909.8	887.9	863.0	828.7	817.2
60°	7378.4	3451.3	1012.8	907.8	938.4	875.5	856.4	847.8	823.0	805.9	810.6
62.5°	7942.9	3497.0	962.3	909.8	918.4	838.2	809.6	806.8	791.5	785.8	785.8
65°	8328.2	3372.1	899.3	907.8	886.9	800.1	763.8	762.9	750.5	748.7	747.6
67.5°	8193.7	2976.3	814.5	881.2	854.4	762.0	721.9	718.1	701.9	702.8	702.8
70°	7520.5	2411.8	697.1	815.4	814.5	727.6	678.0	665.6	643.7	647.5	651.4
72.5°	6257.8	1787.1	539.8	705.7	750.5	696.2	627.5	607.5	579.8	583.6	582.7
75°	4519.3	1214.9	392.9	536.9	653.2	659.0	577.9	543.6	510.2	515.9	517.8
77.5°	2312.6	688.5	288.9	370.0	513.0	598.9	533.1	487.3	479.7	533.1	525.4
80°	754.3	345.2	200.3	259.4	336.6	490.2	467.3	414.8	413.0	425.4	365.2
82.5°	225.1	145.9	128.7	170.7	185.9	375.8	403.4	313.8	269.9	284.2	293.8
85°	77.3	70.5	73.4	84.9	88.7	220.3	282.3	207.9	196.5	216.5	213.6
87.5°	18.1	24.8	21.0	19.1	19.1	53.4	109.7	86.8	120.1	80.2	77.3
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)