

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: P963099

Luminaire Tested: **NAV-SB2D-827-U-SL2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963099
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-11)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-827-U-SL2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14701.6 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

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



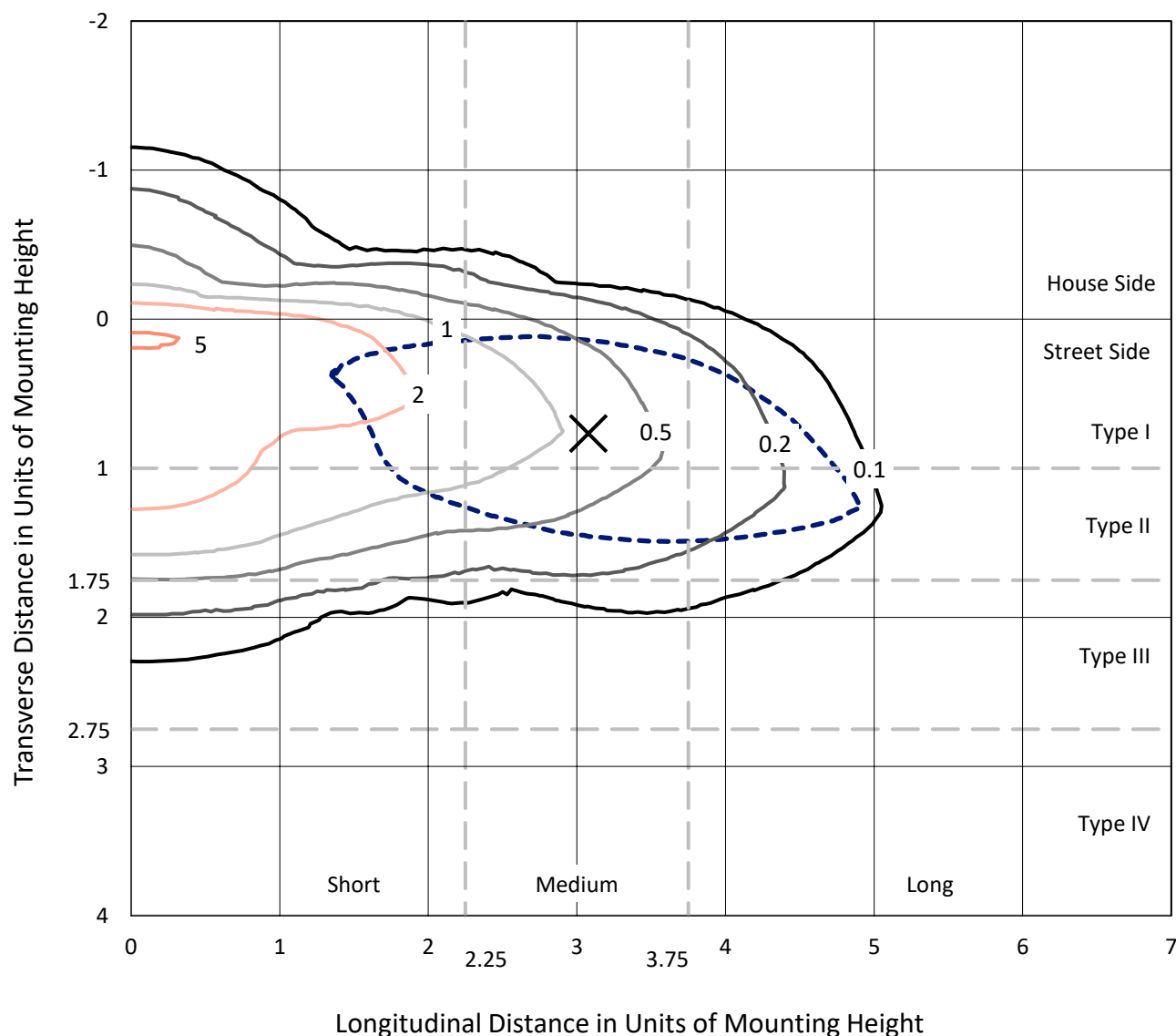
REPORT NUMBER: P963099

CATALOG NUMBER: NAV-SB2D-827-U-SL2-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

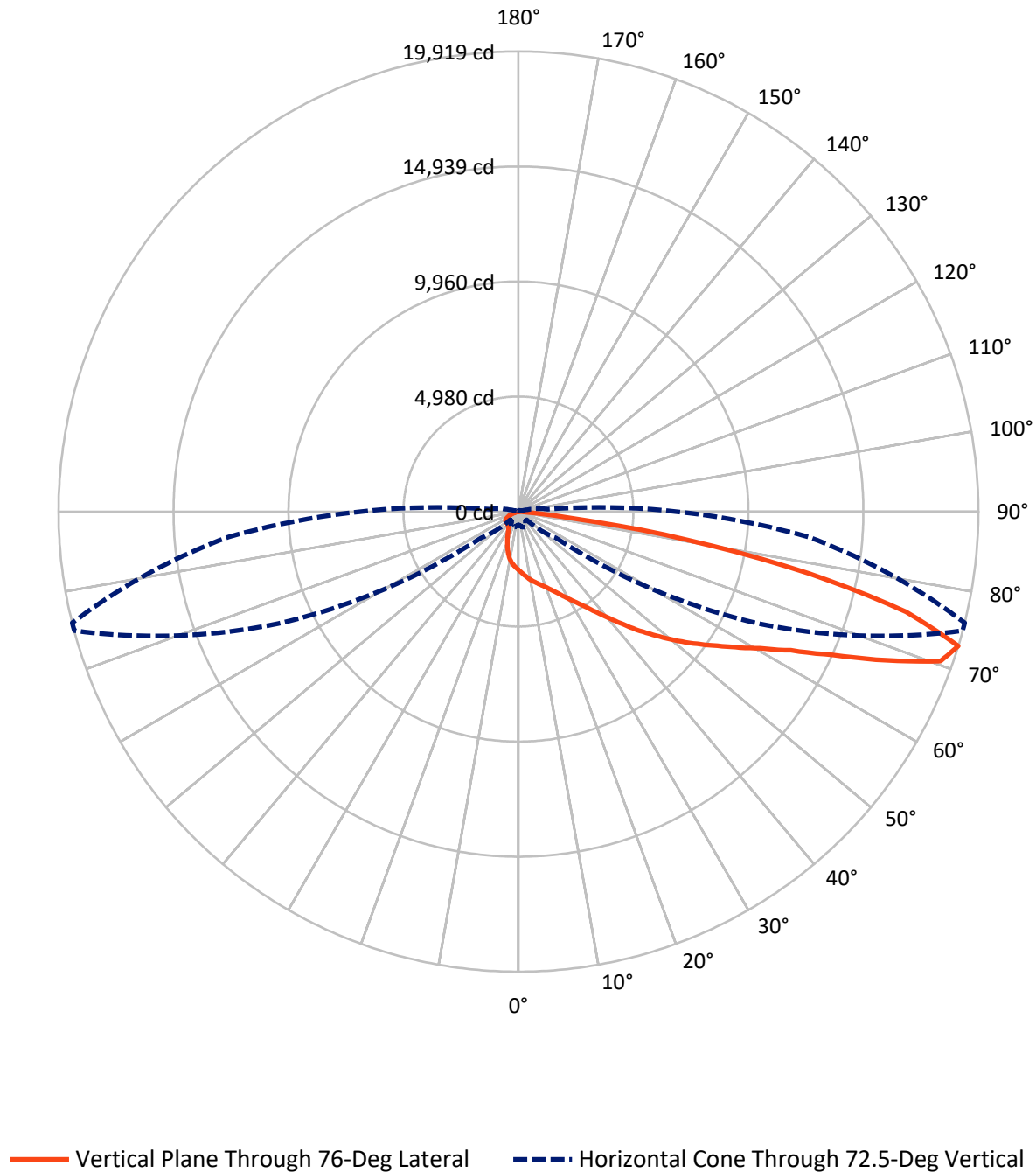
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type II - Medium - N/A

REPORT NUMBER: P963099
CATALOG NUMBER: NAV-SB2D-827-U-SL2-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P963099

CATALOG NUMBER: NAV-SB2D-827-U-SL2-HSS

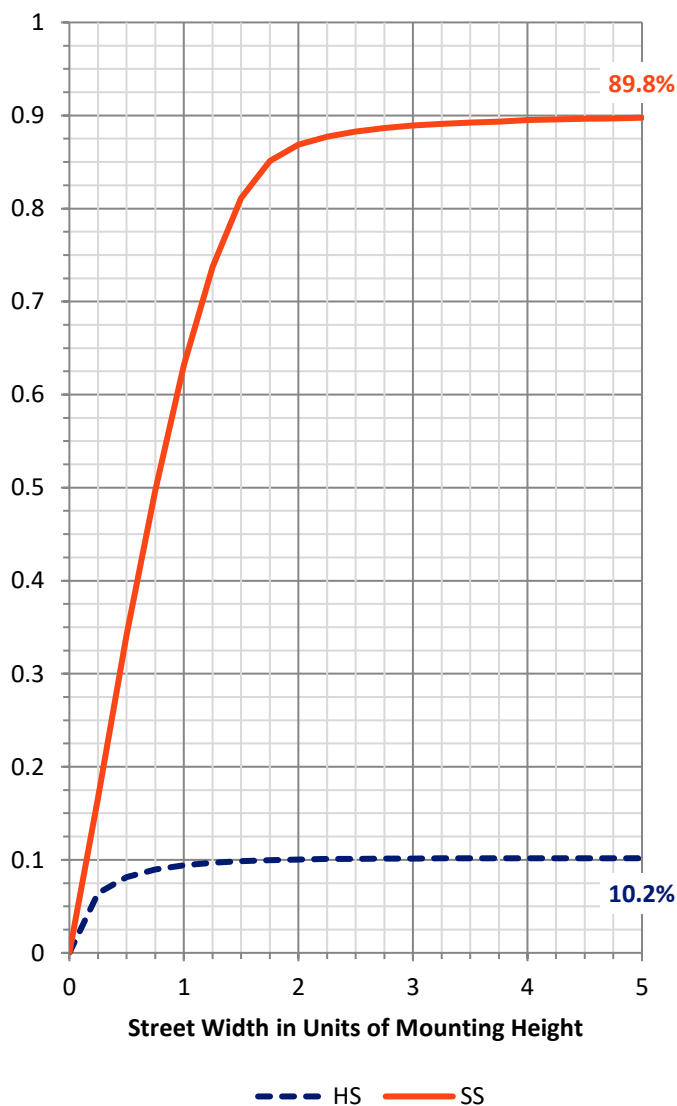
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1504.7	0.0	1504.7
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	13196.9	0.0	13196.9
	% Fixture	89.8	0.0	89.8
Total	Lumens	14701.6	0.0	14701.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.1	1.6
10°-20°	619.6	4.2
20°-30°	980.6	6.7
30°-40°	1517.1	10.3
40°-50°	2304.2	15.7
50°-60°	3176.6	21.6
60°-70°	3355.9	22.8
70°-80°	2302.2	15.7
80°-90°	214.3	1.5
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°	14701.6	100.0
0°-180°	14701.6	100.0

Coefficient of Utilization



REPORT NUMBER: P963099

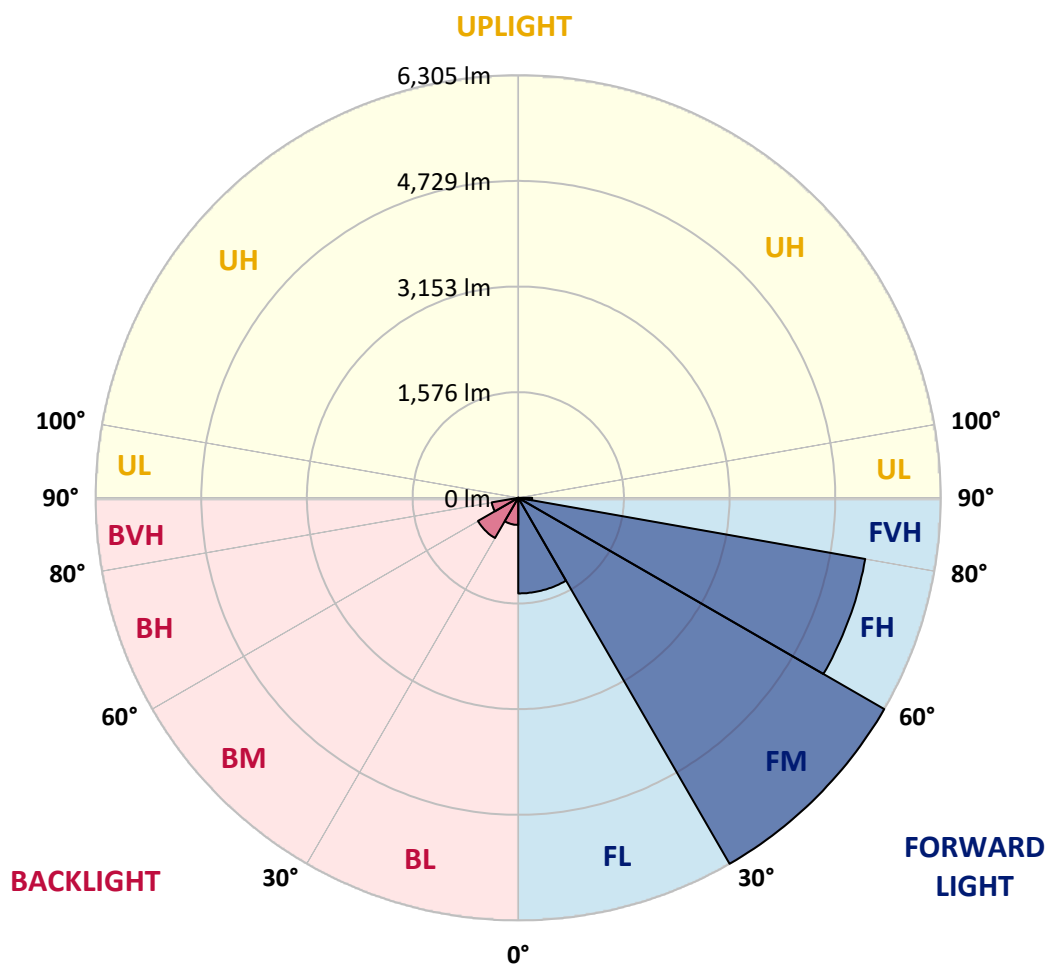
CATALOG NUMBER: NAV-SB2D-827-U-SL2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1426.8	9.7			
FM	(30°-60°)	6305.2	42.9			
FH	(60°-80°)	5256.4	35.8			G3/7500
FVH	(80°-90°)	208.5	1.4			G2/225
BL	(0°-30°)	404.5	2.8	B1/500		
BM	(30°-60°)	692.8	4.7	B1/1000		
BH	(60°-80°)	401.7	2.7	B1/500		G1/500
BVH	(80°-90°)	5.8	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: P963099

CATALOG NUMBER: NAV-SB2D-827-U-SL2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6
2.5°	2953.5	2914.4	2922.1	2882.9	2864.8	2820.9	2775.2	2715.1	2648.3	2648.3	2583.5
5°	3264.4	3239.6	3239.6	3193.8	3158.5	3089.9	3007.9	2902.0	2776.1	2763.7	2640.7
7.5°	3455.2	3439.9	3449.4	3422.7	3394.1	3322.5	3225.3	3087.0	2908.6	2893.4	2708.4
10°	3492.3	3491.4	3518.1	3525.7	3544.8	3508.6	3421.8	3262.5	3039.3	3017.4	2766.6
12.5°	3348.3	3330.2	3396.0	3473.2	3582.0	3630.6	3585.8	3422.7	3158.5	3128.0	2820.9
15°	3111.8	3115.6	3178.5	3297.7	3479.0	3652.5	3710.7	3579.1	3279.7	3243.4	2872.5
17.5°	2976.4	2962.0	3016.5	3123.3	3323.6	3568.6	3768.9	3725.1	3408.4	3367.4	2924.8
20°	2960.2	2959.2	2971.6	3020.3	3172.9	3448.4	3762.2	3867.1	3560.0	3512.4	3000.2
22.5°	3072.7	3070.8	3060.3	3050.8	3092.7	3331.1	3733.6	4002.5	3741.2	3689.7	3107.1
25°	3245.4	3242.5	3226.3	3168.1	3127.1	3268.2	3706.9	4128.4	3955.8	3898.6	3236.7
27.5°	3456.1	3454.1	3424.6	3336.9	3231.0	3274.0	3693.6	4258.2	4203.7	4147.5	3386.5
30°	3714.5	3710.7	3649.7	3525.7	3387.4	3364.6	3711.6	4404.0	4462.2	4419.3	3559.1
32.5°	4038.8	4028.2	3948.2	3761.2	3567.6	3485.6	3746.0	4553.8	4768.3	4728.2	3789.8
35°	4289.6	4273.3	4226.6	4061.7	3776.5	3634.4	3826.1	4731.1	5136.5	5101.1	4084.5
37.5°	4505.1	4488.9	4450.8	4315.4	4075.9	3824.2	3954.9	4967.7	5571.3	5554.2	4444.1
40°	4737.8	4711.1	4693.0	4548.0	4331.5	4097.8	4139.0	5244.2	6072.0	6073.8	4876.1
42.5°	4917.1	4906.6	4908.5	4796.9	4578.6	4422.2	4383.0	5556.0	6671.8	6690.0	5395.8
45°	5070.7	5062.1	5097.3	5019.1	4827.4	4634.8	4669.2	5908.9	7327.9	7365.1	5977.6
47.5°	5188.9	5198.4	5248.9	5198.4	5085.8	4784.5	4922.8	6289.4	8017.4	8022.3	6578.3
50°	5307.1	5310.9	5394.9	5370.1	5324.3	4974.3	5156.5	6714.8	8744.2	8752.7	7140.0
52.5°	5344.3	5338.6	5472.2	5533.2	5535.1	5208.9	5458.7	7178.2	9456.5	9484.2	7718.0
55°	5153.6	5169.8	5385.3	5633.3	5731.5	5533.2	5866.9	7764.7	10215.7	10227.0	8290.2
57.5°	4221.0	4310.5	4787.4	5362.5	5858.4	5997.6	6453.4	8450.4	11092.0	11081.6	8870.0
60°	2561.6	2668.4	3238.7	4497.5	5444.5	6464.0	7317.5	9512.8	12049.5	12020.0	9456.5
62.5°	1432.4	1464.8	1647.0	2692.2	4140.8	6167.3	8161.5	10877.5	13335.0	13234.9	10033.5
65°	1055.8	1066.2	1109.2	1318.9	2035.1	4743.5	7976.4	12509.2	15141.3	14963.0	10724.9
67.5°	917.4	927.9	969.9	998.5	908.9	2491.9	6571.7	13414.3	17434.8	17201.2	11660.4
70°	772.4	778.2	845.9	865.0	650.4	947.9	4221.9	13134.8	19557.7	19390.8	12664.7
72.5°	576.0	598.9	697.1	742.9	521.6	503.6	1987.5	11484.0	19917.3	19919.1	12596.9
75°	391.0	411.9	524.5	611.3	402.4	352.8	802.1	8575.4	17343.3	17343.3	11042.4
77.5°	267.0	284.2	365.2	479.7	305.1	242.2	415.8	5442.5	12442.5	12880.2	7870.6
80°	118.3	128.7	235.5	348.1	231.8	156.4	235.5	2980.2	7524.4	7431.9	3085.1
82.5°	58.2	66.7	150.7	217.4	149.8	96.4	124.0	1417.2	2438.5	2317.4	481.6
85°	11.5	15.3	81.1	92.5	69.6	42.9	46.7	435.8	293.8	335.7	102.1
87.5°	0.0	0.0	24.8	17.1	7.6	9.5	9.5	39.1	22.9	26.8	26.8
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: P963099

CATALOG NUMBER: NAV-SB2D-827-U-SL2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6	2540.6
2.5°	2549.2	2513.8	2436.6	2360.3	2282.2	2210.6	2161.0	2111.4	2080.9	2067.5	2069.5
5°	2569.2	2497.6	2335.6	2165.7	1997.9	1833.9	1710.8	1595.5	1559.2	1499.2	1503.0
7.5°	2600.6	2484.3	2228.8	1942.6	1669.8	1429.6	1255.9	1117.7	1062.4	1009.0	1008.0
10°	2621.6	2459.5	2087.6	1705.2	1336.1	1066.2	900.3	800.1	763.9	731.4	730.5
12.5°	2630.3	2413.8	1925.5	1439.1	1039.5	812.5	713.3	666.7	654.3	642.8	642.8
15°	2637.8	2368.9	1744.2	1182.5	821.1	680.0	640.8	625.6	617.0	609.4	609.4
17.5°	2644.5	2311.7	1537.3	961.2	693.3	626.6	607.5	591.3	584.6	576.0	576.0
20°	2667.4	2256.3	1352.3	793.5	623.7	588.5	567.4	550.2	544.6	538.8	539.8
22.5°	2710.3	2211.5	1173.0	680.0	581.7	549.3	522.6	503.6	499.7	495.9	493.0
25°	2761.8	2156.2	1004.2	606.5	540.7	504.5	474.9	458.7	454.9	455.8	454.0
27.5°	2827.6	2095.2	859.3	559.8	504.5	462.5	429.2	416.8	418.6	422.5	420.6
30°	2900.1	2038.9	745.8	527.4	472.0	425.4	392.0	383.3	390.0	395.8	393.9
32.5°	3007.9	1989.3	666.7	501.6	443.4	394.8	368.1	357.6	365.2	372.9	370.9
35°	3154.7	1964.5	621.8	479.7	418.6	370.9	344.3	336.6	344.3	346.1	345.2
37.5°	3334.9	1962.7	602.7	461.6	395.8	351.0	321.3	318.6	324.2	325.2	323.3
40°	3567.6	1975.1	588.5	448.2	372.0	328.1	300.4	297.6	299.4	306.2	305.1
42.5°	3862.3	2026.5	568.4	431.0	346.1	305.1	283.2	276.5	275.6	283.2	282.3
45°	4232.3	2140.0	541.7	403.4	323.3	286.1	264.1	256.6	253.7	255.5	258.4
47.5°	4635.8	2279.3	515.0	377.6	307.1	270.8	248.9	239.3	234.6	234.6	234.6
50°	5026.8	2436.6	496.8	351.0	295.6	256.6	232.7	223.1	215.6	213.6	212.7
52.5°	5413.9	2591.1	482.6	324.2	282.3	238.4	217.4	206.9	198.3	194.5	192.6
55°	5766.9	2738.0	457.8	298.5	265.2	219.4	202.1	191.7	181.2	174.6	171.7
57.5°	6105.3	2860.1	411.9	271.8	238.4	201.2	185.9	174.6	162.2	153.5	149.8
60°	6413.4	2923.0	354.8	243.2	211.7	182.1	167.9	157.3	141.1	126.8	123.0
62.5°	6647.9	2898.2	292.7	210.7	184.1	165.0	146.9	136.3	117.3	100.1	93.5
65°	6888.3	2762.8	233.6	176.4	161.1	142.1	123.0	112.5	90.6	72.5	67.8
67.5°	7200.1	2473.8	184.1	146.9	139.2	112.5	96.4	89.7	74.4	57.2	53.4
70°	7400.4	1921.7	143.1	119.2	114.4	82.0	74.4	73.4	59.1	43.9	39.1
72.5°	6851.1	1259.8	109.7	90.6	82.0	53.4	57.2	57.2	42.9	29.5	25.7
75°	5719.1	737.2	79.1	64.9	46.7	34.3	39.1	39.1	26.8	14.3	11.5
77.5°	4084.5	392.9	52.5	40.1	23.9	15.3	21.0	20.0	8.6	0.9	0.0
80°	1562.1	135.4	24.8	16.2	6.7	2.9	1.9	0.9	0.9	0.0	0.0
82.5°	238.4	35.3	4.8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	42.9	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.5	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)