Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P959941

Luminaire Tested: **NAV-SB1B-827-U-SL4-HSS**

Issue Date: 1/21/2025

Report Generated By 670246001

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Test Information

Test Method:	LM-79-08
Report Number:	P959941
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab:	INNOVATION CENTER
Issue Date:	1/21/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	NAV-SB1B-827-U-SL4-HSS
Description:	NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE (1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	-

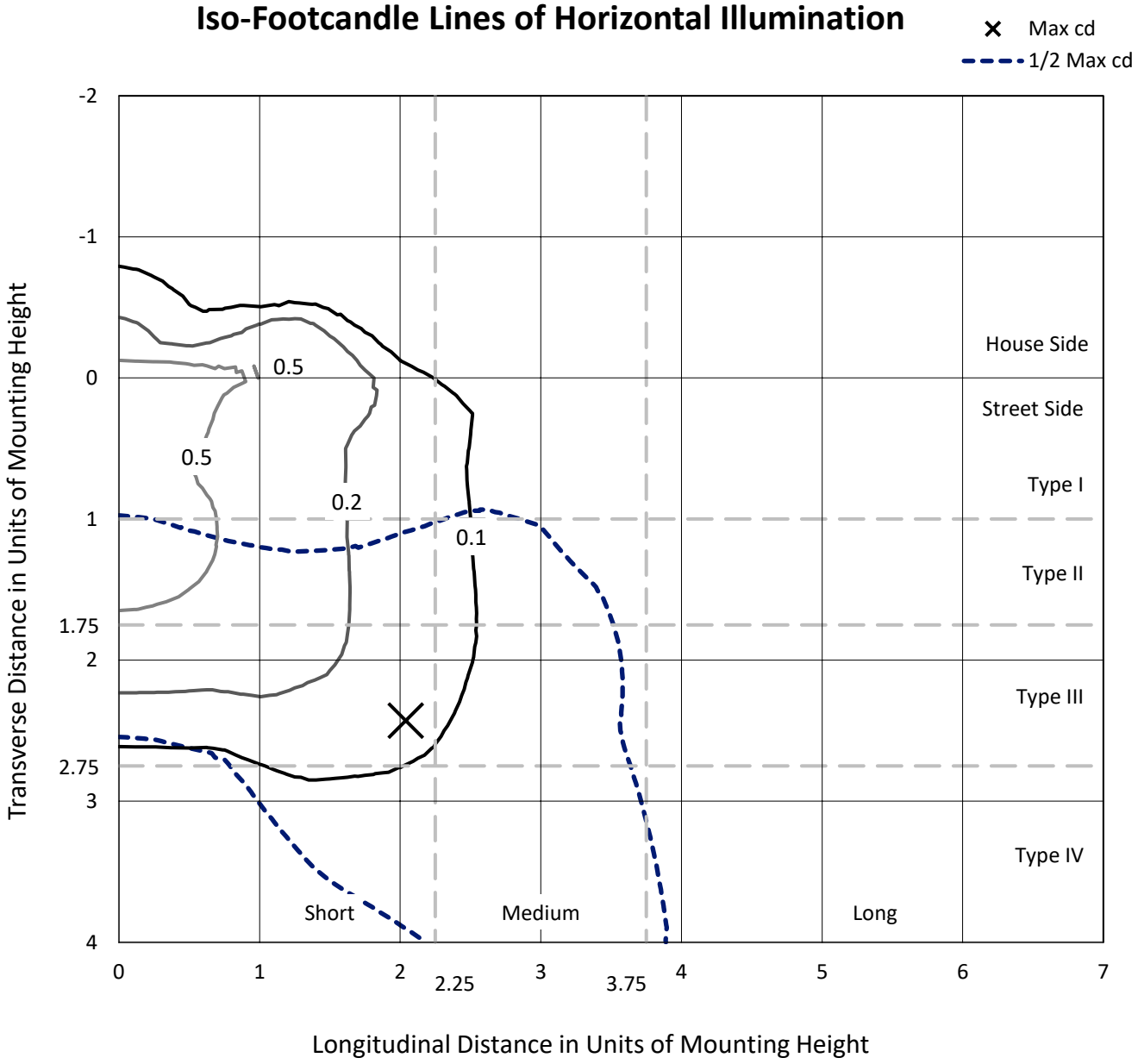
Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	3504.5 lumens
Efficiency:	N/A
Efficacy:	88.1 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U0 - G1
Input Watts (W):	39.8
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

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: P959941
CATALOG NUMBER: NAV-SB1B-827-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

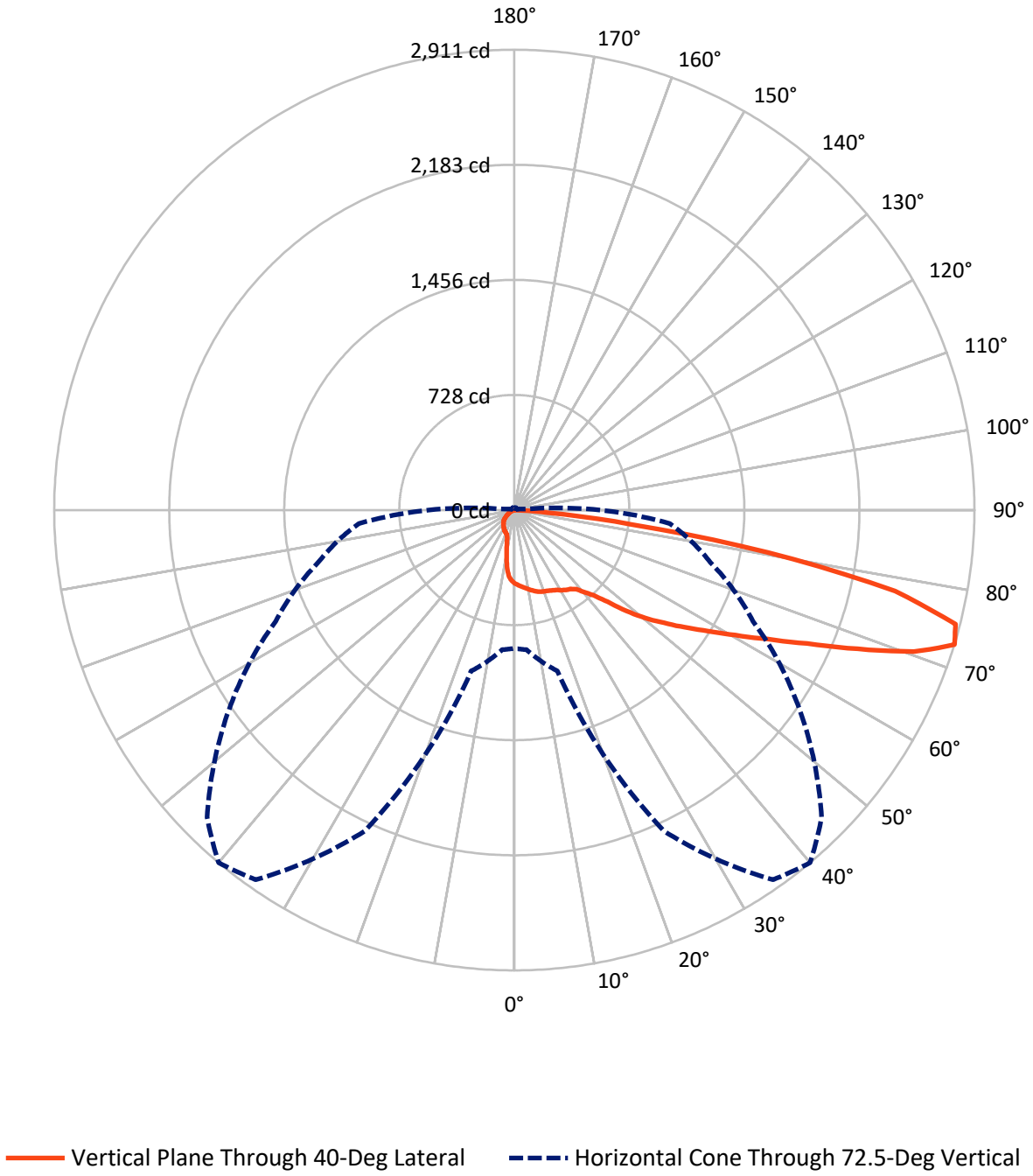


Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
Type IV - Short - N/A

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: P959941
CATALOG NUMBER: NAV-SB1B-827-U-SL4-HSS

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

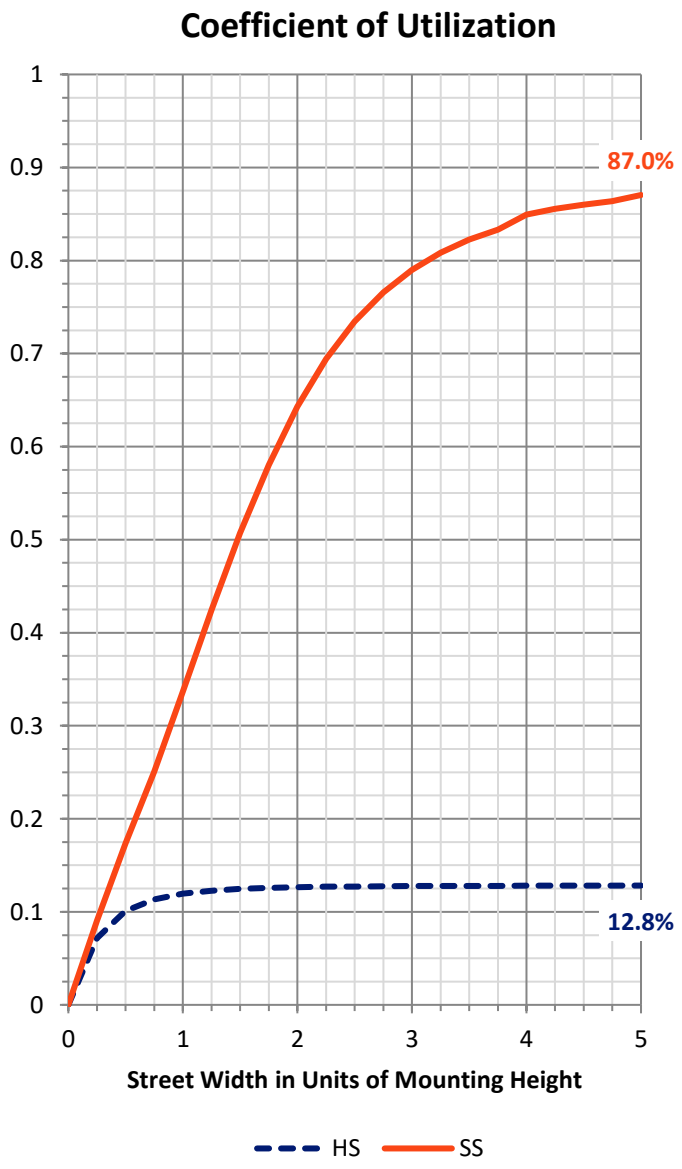
REPORT NUMBER: P959941
CATALOG NUMBER: NAV-SB1B-827-U-SL4-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	452.6	0.0	452.6
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	3051.9	0.0	3051.9
	% Fixture	87.1	0.0	87.1
Total	Lumens	3504.5	0.0	3504.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.4	1.2
10°-20°	115.1	3.3
20°-30°	186.2	5.3
30°-40°	274.9	7.8
40°-50°	462.7	13.2
50°-60°	718.4	20.5
60°-70°	899.0	25.7
70°-80°	736.0	21.0
80°-90°	69.8	2.0
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°	3504.5	100.0
0°-180°	3504.5	100.0

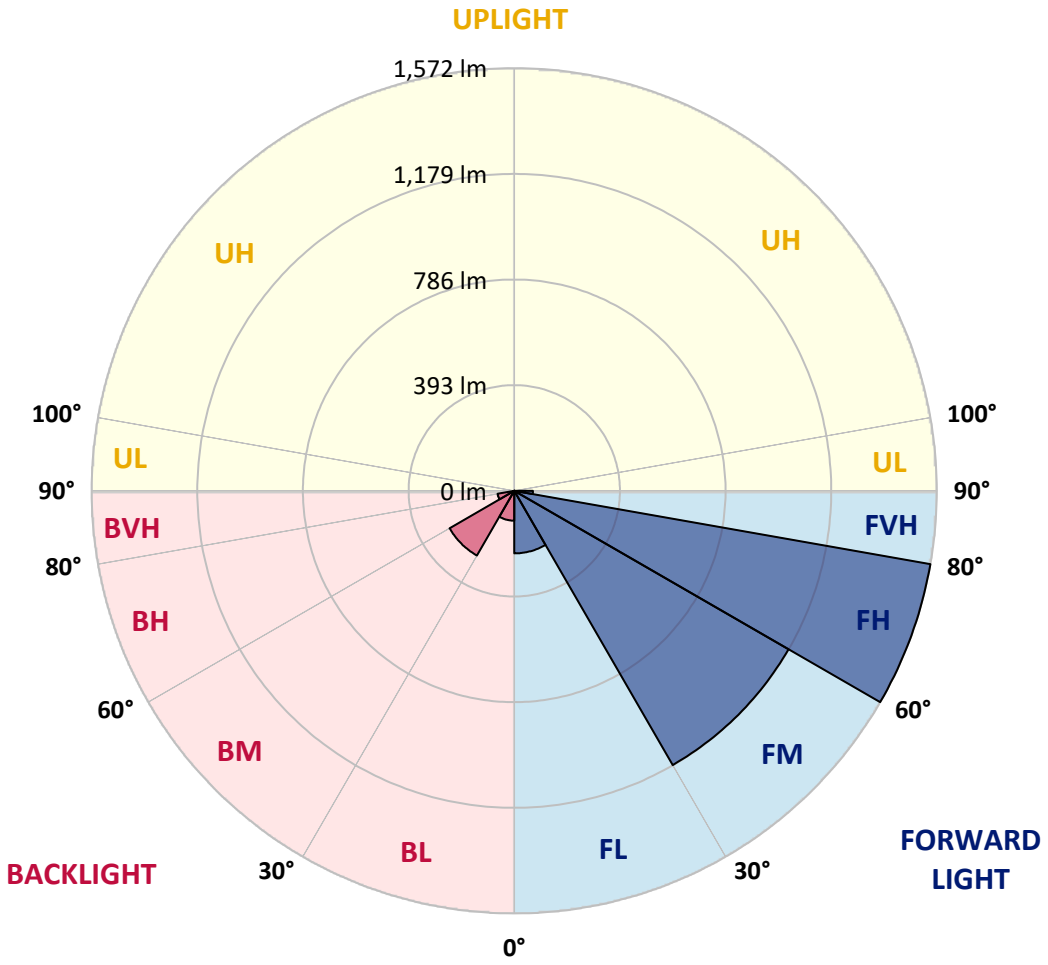


REPORT NUMBER: P959941
CATALOG NUMBER: NAV-SB1B-827-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	232.6	6.6			
FM	(30°-60°)	1178.1	33.6			
FH	(60°-80°)	1571.9	44.9			G1/1800
FVH	(80°-90°)	69.3	2.0			G1/100
BL	(0°-30°)	111.1	3.2	B1/500		
BM	(30°-60°)	277.9	7.9	B1/1000		
BH	(60°-80°)	63.0	1.8	B0/110		G0/110
BVH	(80°-90°)	0.5	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-G1
Type IV Short



REPORT NUMBER: P959941
CATALOG NUMBER: NAV-SB1B-827-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	464.0	464.0	464.0	464.0	464.0	*464.0*	464.0	464.0	464.0	464.0	464.0
2.5°	478.1	479.9	478.8	476.7	476.1	*475.1*	473.8	473.2	471.4	469.9	468.0
5°	491.5	493.3	492.0	489.1	487.8	*486.5*	484.6	483.0	479.3	475.9	471.7
7.5°	506.2	507.9	506.2	502.0	499.9	*498.4*	495.7	493.3	489.1	484.1	478.8
10°	522.6	524.0	521.5	516.0	512.6	*510.2*	507.9	505.2	501.2	495.7	489.3
12.5°	537.9	539.6	535.8	529.2	525.2	*522.9*	520.3	518.1	514.1	508.9	502.2
15°	552.0	554.3	548.0	540.8	536.4	*534.5*	531.9	530.5	527.9	524.2	518.1
17.5°	562.5	564.1	557.5	549.0	544.0	*542.6*	540.8	541.6	541.1	539.3	535.3
20°	571.4	572.5	563.8	553.5	548.0	*548.2*	547.7	550.3	551.3	551.3	551.1
22.5°	582.5	582.8	571.7	558.7	552.2	*554.0*	554.8	557.7	559.9	561.9	566.7
25°	597.1	596.6	583.3	565.6	559.9	*562.5*	564.4	565.4	567.7	571.2	582.0
27.5°	618.7	617.2	600.2	576.8	569.9	*572.3*	575.6	575.1	574.1	576.8	594.9
30°	646.2	644.0	621.6	592.3	586.0	*588.0*	589.2	584.4	576.8	579.1	606.3
32.5°	689.7	686.0	654.9	609.7	599.9	*602.3*	601.1	591.2	579.9	582.3	617.7
35°	765.5	756.4	712.4	646.2	615.8	*613.2*	610.0	600.4	586.5	584.1	627.1
37.5°	926.5	910.6	835.4	717.2	651.7	*634.6*	624.7	615.3	593.6	584.1	638.0
40°	1108.0	1091.9	1005.1	835.9	711.3	*682.3*	659.1	632.7	601.1	587.5	654.9
42.5°	1297.5	1279.9	1190.6	983.2	796.6	*737.0*	693.6	646.7	613.2	598.1	677.3
45°	1509.2	1487.1	1370.4	1136.8	920.3	*827.8*	749.4	675.5	634.3	616.8	707.9
47.5°	1732.6	1703.8	1549.6	1286.0	1053.7	*953.4*	851.3	726.9	665.4	644.8	749.4
50°	1930.5	1902.0	1734.7	1442.0	1178.2	*1073.0*	967.4	798.2	712.2	684.4	805.0
52.5°	2072.8	2051.1	1903.1	1603.0	1307.9	*1185.1*	1072.7	881.1	771.2	735.1	870.7
55°	2168.1	2148.3	2022.3	1755.5	1458.6	*1308.6*	1176.4	971.1	842.6	795.8	943.3
57.5°	2225.9	2214.5	2108.7	1891.7	1608.0	*1443.8*	1295.2	1070.0	926.5	867.4	1024.4
60°	2246.5	2237.3	2162.2	2021.6	1788.5	*1606.2*	1434.8	1181.7	1028.4	948.6	1107.5
62.5°	2191.6	2193.4	2200.8	2175.5	1978.9	*1796.2*	1602.2	1315.8	1141.3	1040.8	1185.6
65°	1933.2	1948.4	2088.8	2346.0	2230.9	*2034.2*	1815.2	1479.4	1270.7	1145.5	1247.7
67.5°	1600.5	1622.8	1797.4	2445.8	2499.6	*2343.4*	2111.8	1688.0	1424.7	1252.1	1271.2
70°	1225.3	1249.0	1460.7	2424.8	2751.1	*2681.2*	2478.8	1953.2	1584.4	1326.0	1211.2
72.5°	*874.4*	*886.6*	*1053.4*	*2239.3*	*2854.3*	*2911.3*	*2749.0*	*2204.5*	*1666.0*	*1285.1*	*988.0*
75°	614.5	612.3	722.9	1803.3	2693.6	*2883.3*	2654.2	2068.6	1507.7	1021.0	609.2
77.5°	267.6	268.1	361.1	1095.1	2149.8	*2462.7*	2206.3	1295.7	1051.0	541.1	257.1
80°	69.4	71.5	132.5	436.0	1294.4	*1625.3*	1345.6	569.6	485.6	132.0	49.1
82.5°	24.5	26.1	61.0	136.9	477.4	*745.4*	599.1	182.1	126.7	37.7	13.2
85°	7.2	8.4	32.7	41.9	98.7	*210.6*	145.4	35.4	31.2	19.6	3.4
87.5°	0.0	1.0	6.6	5.8	5.8	*4.0*	7.4	4.0	5.0	2.4	1.0
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: P959941
CATALOG NUMBER: NAV-SB1B-827-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	464.0	464.0	464.0	464.0	464.0	464.0	464.0	464.0	464.0	464.0	464.0
2.5°	466.4	464.5	460.6	456.3	452.4	448.7	447.6	443.7	441.9	442.1	441.9
5°	468.7	465.4	457.7	448.4	438.9	428.1	419.1	406.5	395.6	394.3	393.5
7.5°	475.1	469.6	457.2	439.2	415.4	385.6	357.9	330.5	314.9	306.5	306.0
10°	484.8	477.4	458.5	424.1	373.7	320.4	278.5	243.8	226.2	218.0	216.5
12.5°	496.5	488.3	460.6	398.5	319.9	250.0	204.6	183.5	179.8	179.2	179.0
15°	512.8	503.9	463.0	364.0	261.6	190.3	169.4	169.7	172.6	174.2	173.9
17.5°	531.1	522.1	459.5	321.7	204.1	162.6	162.1	164.4	168.6	170.3	169.9
20°	549.5	541.1	447.4	272.1	164.9	155.0	157.0	159.7	163.9	166.0	166.0
22.5°	568.6	561.2	428.1	219.4	148.8	149.4	152.0	154.7	159.4	161.8	161.8
25°	588.9	582.5	402.5	175.8	142.0	143.6	147.0	150.2	155.2	158.1	158.1
27.5°	609.5	604.8	373.5	146.8	135.7	137.6	141.4	145.7	150.7	154.2	154.4
30°	631.9	629.2	350.2	135.9	129.6	131.2	135.7	140.4	146.0	150.2	150.7
32.5°	654.9	654.4	338.9	143.8	124.0	125.2	129.0	133.9	140.7	146.0	146.5
35°	677.5	678.7	332.3	166.3	122.2	119.3	122.0	126.2	134.4	140.9	142.0
37.5°	706.6	709.2	332.0	190.5	126.7	113.5	115.3	118.3	125.4	133.0	134.4
40°	749.9	763.8	348.9	211.5	134.6	108.2	108.8	109.3	113.0	119.3	121.5
42.5°	807.4	848.3	409.9	225.7	137.8	103.4	101.6	98.7	98.2	101.6	103.4
45°	878.9	950.5	517.1	233.6	134.6	98.2	93.2	85.5	82.6	85.0	85.0
47.5°	963.2	1062.4	644.0	235.4	129.4	91.6	82.6	72.6	70.2	71.0	70.7
50°	1045.2	1146.4	755.7	220.2	120.6	83.1	71.0	62.5	61.0	61.2	61.2
52.5°	1117.9	1175.1	787.4	184.0	109.1	72.9	61.0	55.1	54.1	54.1	53.8
55°	1165.8	1144.0	702.1	140.7	94.5	62.3	52.3	49.4	48.8	48.6	48.1
57.5°	1175.9	1042.6	530.2	101.6	73.9	52.5	46.4	44.9	43.8	42.7	42.2
60°	1140.0	873.7	337.6	71.0	55.5	44.9	41.2	40.1	38.0	35.9	35.1
62.5°	1062.4	659.9	186.9	49.4	44.6	38.2	36.4	35.1	31.2	27.7	26.6
65°	958.2	438.7	82.6	38.5	36.4	32.2	31.2	29.3	24.5	20.6	19.8
67.5°	853.3	252.6	37.2	30.9	29.3	26.4	25.6	24.3	20.8	17.1	16.6
70°	733.8	128.0	25.6	24.5	22.7	20.1	20.8	20.6	17.1	13.9	13.4
72.5°	*546.3*	*63.7*	*19.3*	*18.4*	*16.4*	*14.2*	*17.1*	*16.9*	*13.4*	*10.6*	*10.0*
75°	309.3	31.4	13.9	12.9	9.7	10.6	13.7	12.9	9.2	6.9	6.4
77.5°	122.7	16.1	9.2	7.9	5.8	7.2	10.0	8.7	4.7	2.9	2.7
80°	28.3	7.9	4.7	3.4	2.7	4.2	5.3	3.2	1.3	0.3	0.0
82.5°	7.9	3.4	1.5	1.3	1.3	1.5	1.3	0.5	0.0	0.0	0.0
85°	2.7	1.5	0.5	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0
87.5°	1.0	0.5	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)