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: P961551

Luminaire Tested: **NAV-SB2A-830-U-SL3-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

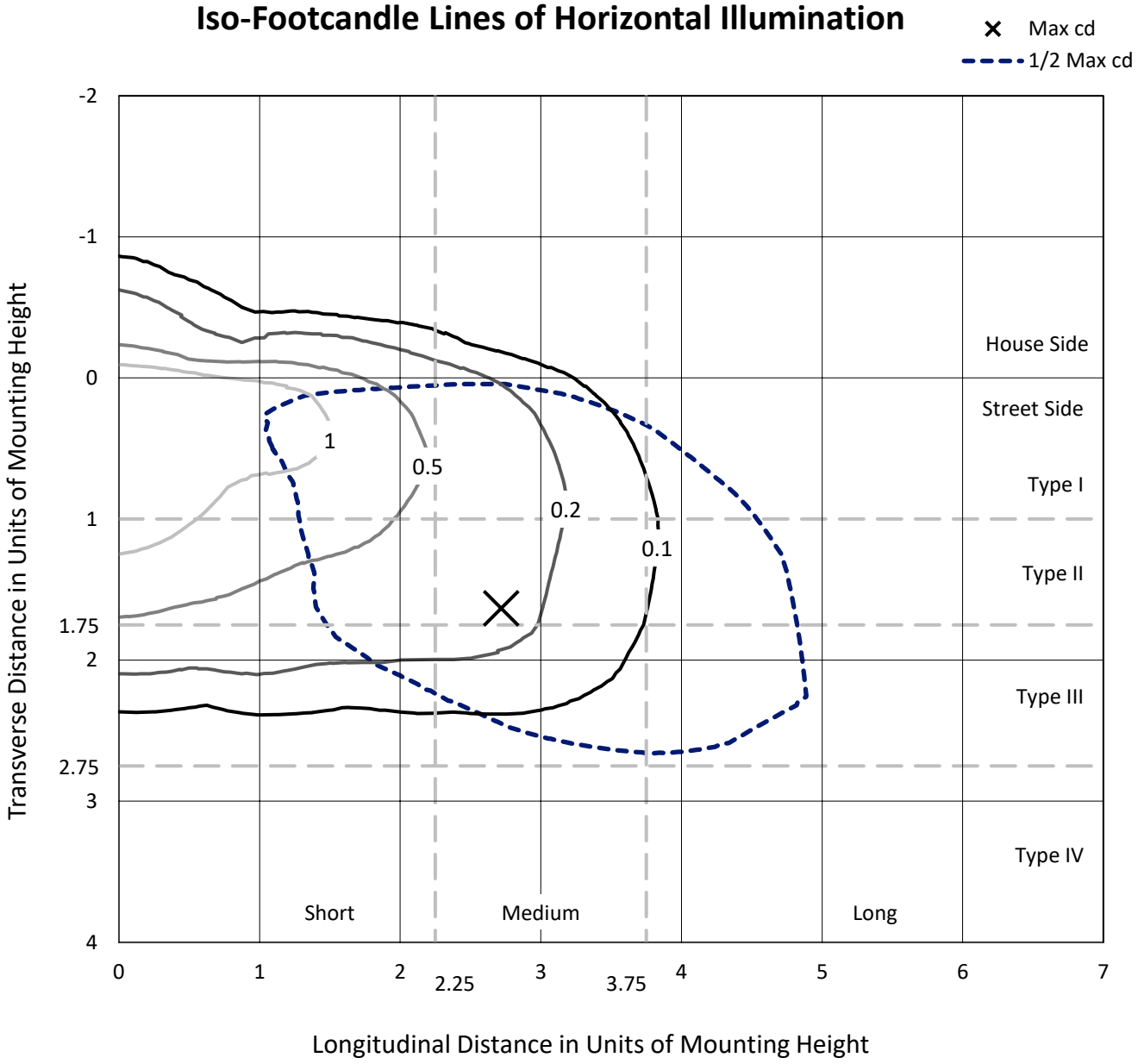
Test Method:	LM-79-08
Report Number:	P961551
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-13)
Test Lab:	INNOVATION CENTER
Issue Date:	1/21/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	NAV-SB2A-830-U-SL3-HSS
Description:	NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE (2) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	6653.3 lumens
Efficiency:	N/A
Efficacy:	116.1 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification:	Type III - Medium
BUG Rating:	B1 - U0 - G2
Input Watts (W):	57.3
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: P961551
CATALOG NUMBER: NAV-SB2A-830-U-SL3-HSS

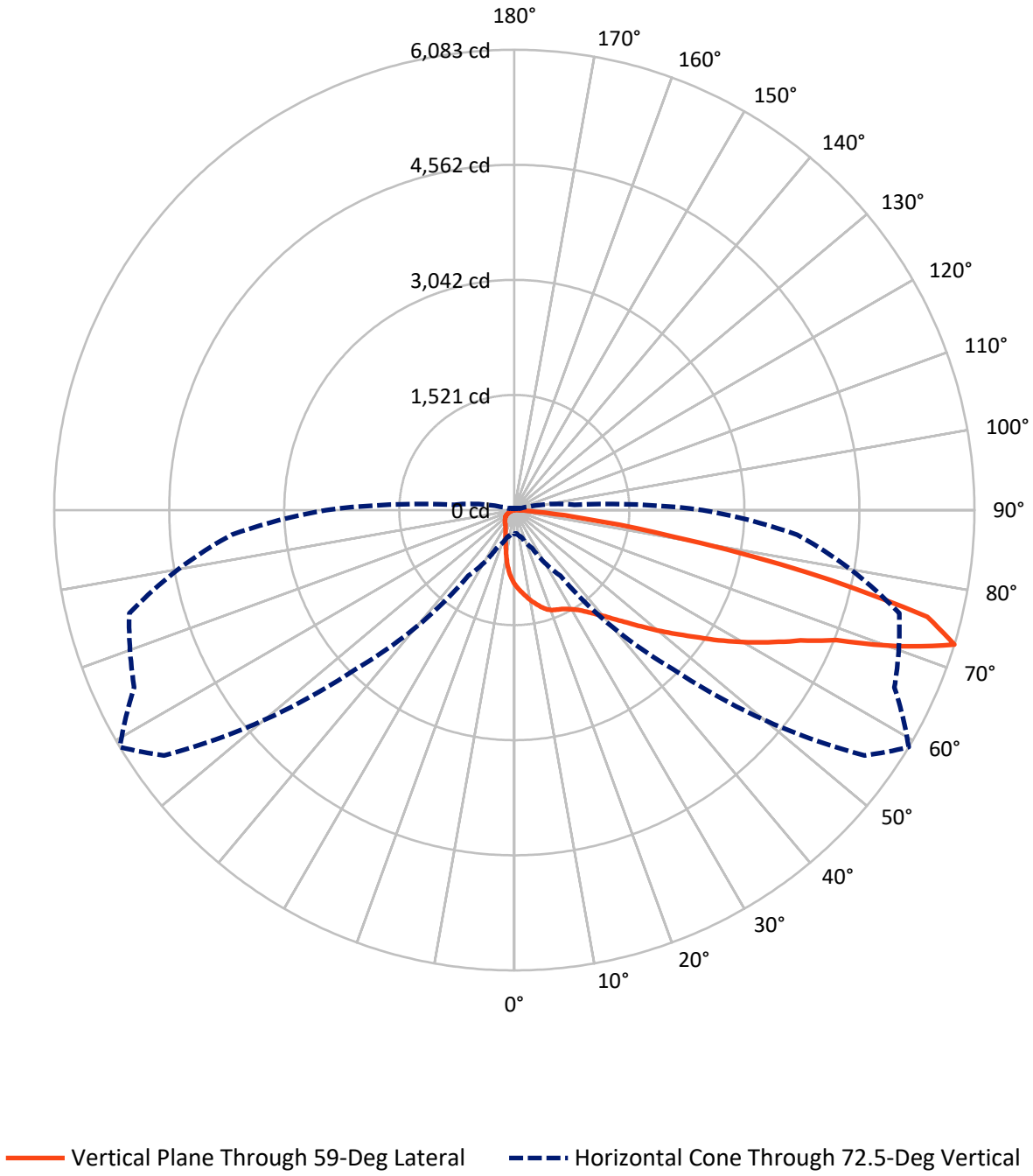
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
Type III - Medium - N/A

REPORT NUMBER: P961551
CATALOG NUMBER: NAV-SB2A-830-U-SL3-HSS

Luminous Intensity Polar Plot



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

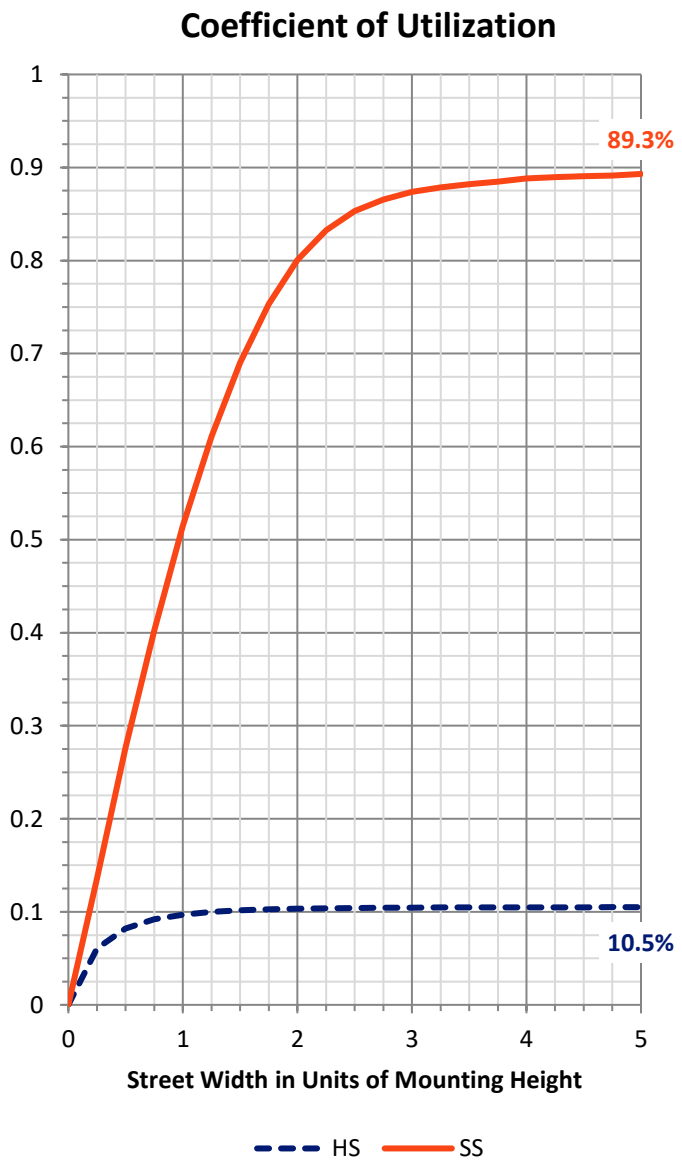
REPORT NUMBER: P961551
CATALOG NUMBER: NAV-SB2A-830-U-SL3-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	702.7	0.0	702.7
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	5950.6	0.0	5950.6
	% Fixture	89.4	0.0	89.4
Total	Lumens	6653.3	0.0	6653.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	1.3
10°-20°	236.4	3.6
20°-30°	374.7	5.6
30°-40°	601.3	9.0
40°-50°	960.5	14.4
50°-60°	1390.6	20.9
60°-70°	1650.3	24.8
70°-80°	1225.1	18.4
80°-90°	125.3	1.9
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°	6653.3	100.0
0°-180°	6653.3	100.0

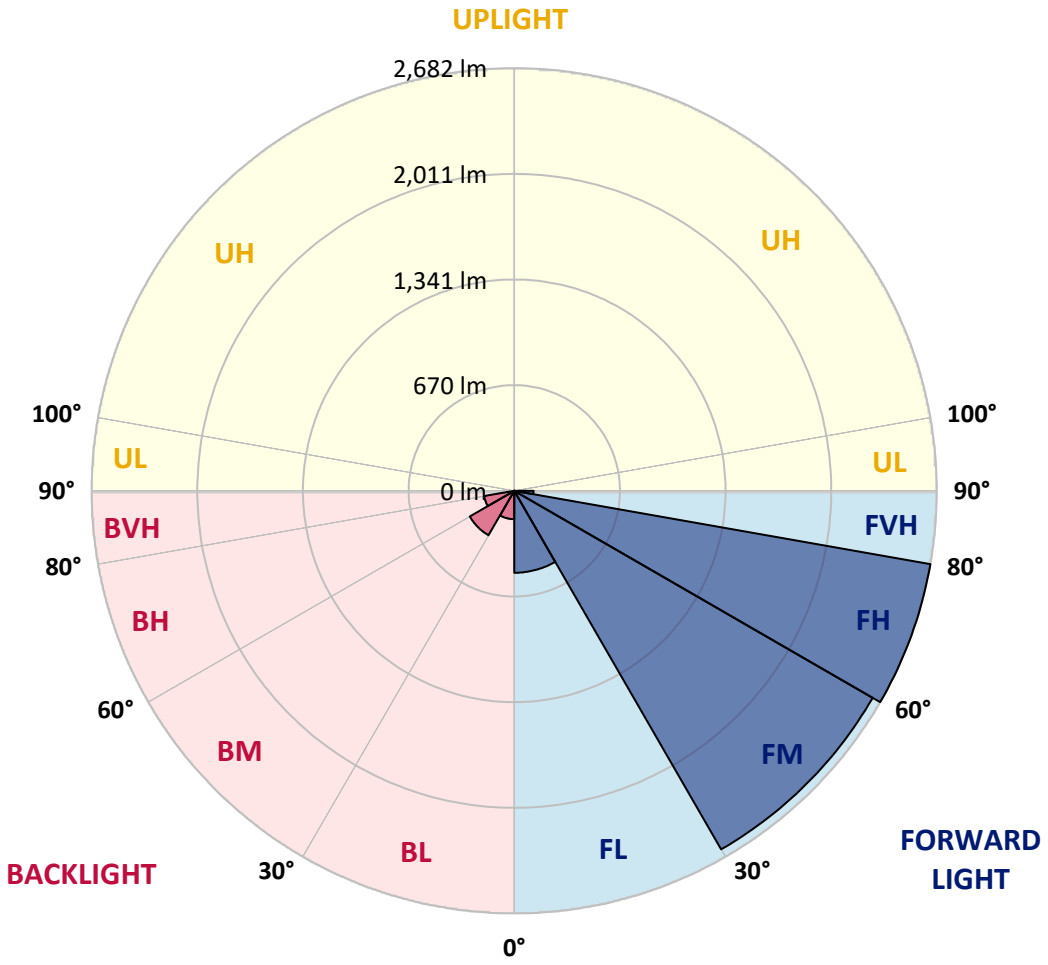


REPORT NUMBER: P961551
CATALOG NUMBER: NAV-SB2A-830-U-SL3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	520.1	7.8			
FM	(30°-60°)	2626.6	39.5			
FH	(60°-80°)	2681.6	40.3			G2/5000
FVH	(80°-90°)	122.1	1.8			G2/225
BL	(0°-30°)	180.0	2.7	B1/500		
BM	(30°-60°)	325.8	4.9	B1/1000		
BH	(60°-80°)	193.8	2.9	B1/500		G1/500
BVH	(80°-90°)	3.1	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 III Medium



REPORT NUMBER: P961551
CATALOG NUMBER: NAV-SB2A-830-U-SL3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	983.9	983.9	983.9	983.9	983.9	983.9	983.9	*983.9*	983.9	983.9	983.9
2.5°	1091.6	1085.5	1086.4	1075.9	1068.6	1060.8	1045.5	*1043.3*	1032.5	1013.4	993.8
5°	1186.7	1182.8	1179.4	1167.6	1152.4	1133.2	1107.6	*1098.5*	1078.5	1045.5	1007.3
7.5°	1256.2	1251.4	1253.2	1241.5	1229.3	1208.0	1172.8	*1155.9*	1129.3	1079.0	1021.2
10°	1269.7	1267.1	1278.4	1282.7	1282.7	1269.3	1234.9	*1218.0*	1179.4	1115.0	1035.6
12.5°	1194.1	1194.5	1222.7	1256.6	1300.9	1313.5	1290.6	*1272.3*	1234.1	1153.2	1053.8
15°	1105.9	1106.4	1133.8	1177.1	1249.7	1322.2	1340.5	*1328.7*	1289.2	1194.5	1075.1
17.5°	1052.9	1050.7	1069.0	1104.6	1180.6	1282.7	1370.9	*1378.7*	1346.5	1240.1	1098.5
20°	1045.5	1041.6	1051.2	1069.0	1123.3	1233.2	1374.3	*1411.3*	1405.7	1291.8	1125.4
22.5°	1090.7	1084.7	1079.4	1080.2	1103.3	1192.0	1365.7	*1429.6*	1466.5	1353.9	1162.4
25°	1180.2	1170.7	1153.7	1132.0	1127.2	1183.3	1359.6	*1449.6*	1522.9	1433.5	1211.0
27.5°	1289.7	1276.2	1243.6	1211.0	1183.3	1207.6	1372.2	*1481.2*	1586.8	1525.9	1267.5
30°	1410.0	1393.5	1360.9	1299.2	1254.9	1261.9	1402.2	*1522.9*	1668.4	1630.7	1338.3
32.5°	1586.8	1548.6	1491.7	1397.4	1338.8	1320.5	1447.3	*1575.9*	1769.7	1770.1	1440.8
35°	1738.4	1717.1	1659.8	1542.4	1422.2	1398.3	1506.9	*1650.7*	1910.0	1954.7	1584.1
37.5°	1837.8	1808.7	1758.4	1670.1	1551.5	1478.2	1586.3	*1742.3*	2058.5	2164.9	1761.0
40°	1949.0	1920.3	1853.5	1770.5	1701.9	1615.4	1686.6	*1847.9*	2221.4	2380.8	1963.0
42.5°	2083.3	2045.9	1966.9	1877.4	1805.7	1796.1	1817.8	*1979.5*	2388.7	2615.4	2173.2
45°	2241.0	2205.8	2115.0	2002.0	1939.1	1922.1	1983.0	*2132.8*	2575.0	2872.6	2385.6
47.5°	2388.7	2347.8	2250.1	2147.2	2077.2	2023.8	2158.4	*2313.9*	2786.1	3141.4	2586.3
50°	2514.1	2472.5	2383.0	2273.0	2225.8	2155.8	2330.8	*2515.9*	2995.5	3414.6	2769.5
52.5°	2600.2	2563.2	2458.2	2383.4	2351.2	2316.1	2532.9	*2730.1*	3203.9	3664.8	2950.7
55°	2580.6	2547.6	2455.1	2449.9	2447.7	2484.6	2774.4	*2972.9*	3416.3	3901.6	3131.0
57.5°	2518.5	2481.1	2365.6	2445.1	2522.0	2635.0	3035.8	*3260.0*	3649.2	4124.8	3304.7
60°	2335.7	2322.6	2252.2	2436.0	2553.3	2782.2	3334.7	*3548.4*	3901.2	4321.2	3459.0
62.5°	1948.6	1959.9	1959.5	2455.1	2609.8	2949.8	3606.2	*3840.3*	4147.5	4510.1	3596.2
65°	1459.1	1498.1	1548.2	2283.1	2685.3	3249.1	3930.7	*4157.0*	4397.7	4730.0	3735.6
67.5°	980.4	1011.7	1045.5	1873.0	2460.3	3563.6	4469.7	*4590.9*	4697.4	4973.6	3892.4
70°	561.2	571.2	618.6	1169.7	1896.5	3476.7	5347.6	*5391.5*	5144.3	5273.7	4006.7
72.5°	*314.5*	*311.0*	*373.6*	*555.1*	*1059.8*	*2977.2*	*5655.1*	*6083.0*	*5544.3*	*5269.0*	*3751.7*
75°	210.2	210.6	257.2	350.1	413.1	2084.1	4873.3	*5640.4*	5304.6	4672.2	3065.4
77.5°	143.3	148.1	188.9	270.6	191.2	1016.9	3223.9	*3951.1*	4294.6	3607.9	2116.3
80°	62.1	62.5	124.6	194.1	129.0	323.6	1671.5	*2116.7*	2693.6	2025.9	838.3
82.5°	32.2	36.5	79.5	125.6	81.2	113.4	789.7	*924.8*	1130.3	594.7	172.0
85°	11.3	13.4	49.1	61.7	40.8	40.4	275.0	*280.1*	239.3	89.5	47.4
87.5°	0.0	2.2	19.1	15.2	5.2	4.8	32.6	*27.4*	21.7	12.6	15.7
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: P961551
CATALOG NUMBER: NAV-SB2A-830-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	983.9	983.9	983.9	983.9	983.9	983.9	983.9	983.9	983.9	983.9	983.9
2.5°	984.7	973.0	953.9	930.4	903.0	888.3	867.0	854.0	842.2	842.7	852.3
5°	986.0	966.5	917.8	866.1	808.8	766.7	719.8	686.7	661.5	655.5	664.6
7.5°	989.9	956.9	877.4	791.4	695.9	625.0	560.4	519.5	496.5	490.4	496.5
10°	995.2	946.5	831.8	700.2	581.6	496.5	442.6	416.6	406.1	398.3	403.1
12.5°	999.5	935.6	774.5	606.0	480.0	413.5	372.7	351.0	341.8	336.2	339.3
15°	1006.9	921.3	712.4	518.2	411.3	357.0	318.4	302.4	299.7	300.6	301.9
17.5°	1014.2	907.4	642.9	449.6	361.0	307.5	284.1	281.5	285.0	288.4	289.8
20°	1022.5	887.4	572.5	397.9	314.5	273.3	267.1	268.9	270.6	276.6	278.4
22.5°	1034.6	862.2	510.9	354.0	275.8	256.8	253.7	255.0	256.2	262.4	264.1
25°	1052.1	835.3	460.8	313.6	251.5	243.2	240.3	240.3	241.9	247.6	249.8
27.5°	1070.3	797.0	420.5	276.2	237.2	228.5	223.2	223.2	225.4	232.0	234.5
30°	1090.7	762.3	388.8	248.5	225.0	213.7	206.7	205.0	207.7	215.9	218.0
32.5°	1127.6	739.7	366.1	235.4	214.1	200.3	190.6	185.9	188.5	198.0	200.7
35°	1183.7	734.5	350.5	228.9	203.8	188.1	174.7	167.3	169.4	179.4	182.4
37.5°	1249.3	745.4	335.4	220.3	193.7	176.4	158.6	149.0	152.4	161.5	164.2
40°	1343.6	790.6	323.6	213.7	183.8	162.5	142.5	132.9	138.6	146.4	147.7
42.5°	1457.3	870.9	320.6	207.7	171.6	147.7	127.7	120.7	125.0	132.5	133.8
45°	1598.5	973.4	334.5	199.8	158.2	133.4	115.9	112.0	113.4	120.7	124.2
47.5°	1750.1	1078.5	372.7	192.9	146.4	121.7	106.9	103.4	102.5	109.5	113.8
50°	1903.4	1172.0	417.9	187.7	138.2	112.0	99.9	95.5	93.4	97.8	99.4
52.5°	2055.0	1246.2	447.4	179.0	129.9	102.5	93.8	87.3	83.4	85.6	87.3
55°	2208.8	1311.4	449.2	165.9	122.1	96.5	87.7	80.4	75.5	75.5	76.5
57.5°	2352.6	1368.7	423.5	148.5	111.2	90.8	79.5	73.4	68.2	66.4	66.9
60°	2479.9	1411.3	381.0	129.0	101.7	83.4	71.2	66.4	60.0	56.5	55.6
62.5°	2593.2	1432.1	322.8	109.1	89.9	74.7	63.4	58.2	49.5	45.2	44.7
65°	2689.2	1410.8	261.9	90.3	79.9	65.2	54.3	49.1	39.6	34.3	34.3
67.5°	2784.3	1313.5	198.0	76.1	69.5	54.7	44.7	40.0	33.0	28.7	28.7
70°	2796.5	1108.9	138.6	63.9	57.8	42.1	36.1	33.0	27.0	23.1	22.5
72.5°	*2489.4*	*798.0*	*84.3*	*52.2*	*45.2*	*29.9*	*28.7*	*26.0*	*20.0*	*17.4*	*16.9*
75°	1989.8	489.1	49.5	39.1	29.9	21.3	21.3	18.7	13.4	11.3	11.3
77.5°	1375.2	255.8	29.1	25.2	17.8	12.6	13.9	11.3	6.6	5.2	5.2
80°	550.8	97.3	15.7	11.7	8.3	5.6	4.8	2.6	1.3	0.8	1.3
82.5°	109.9	25.6	5.2	3.1	3.1	1.3	0.0	0.0	0.0	0.0	0.0
85°	28.2	5.6	1.3	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.7	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)