

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: P961042

Luminaire Tested: **NAV-SB1D-830-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961042
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-830-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9381.8 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

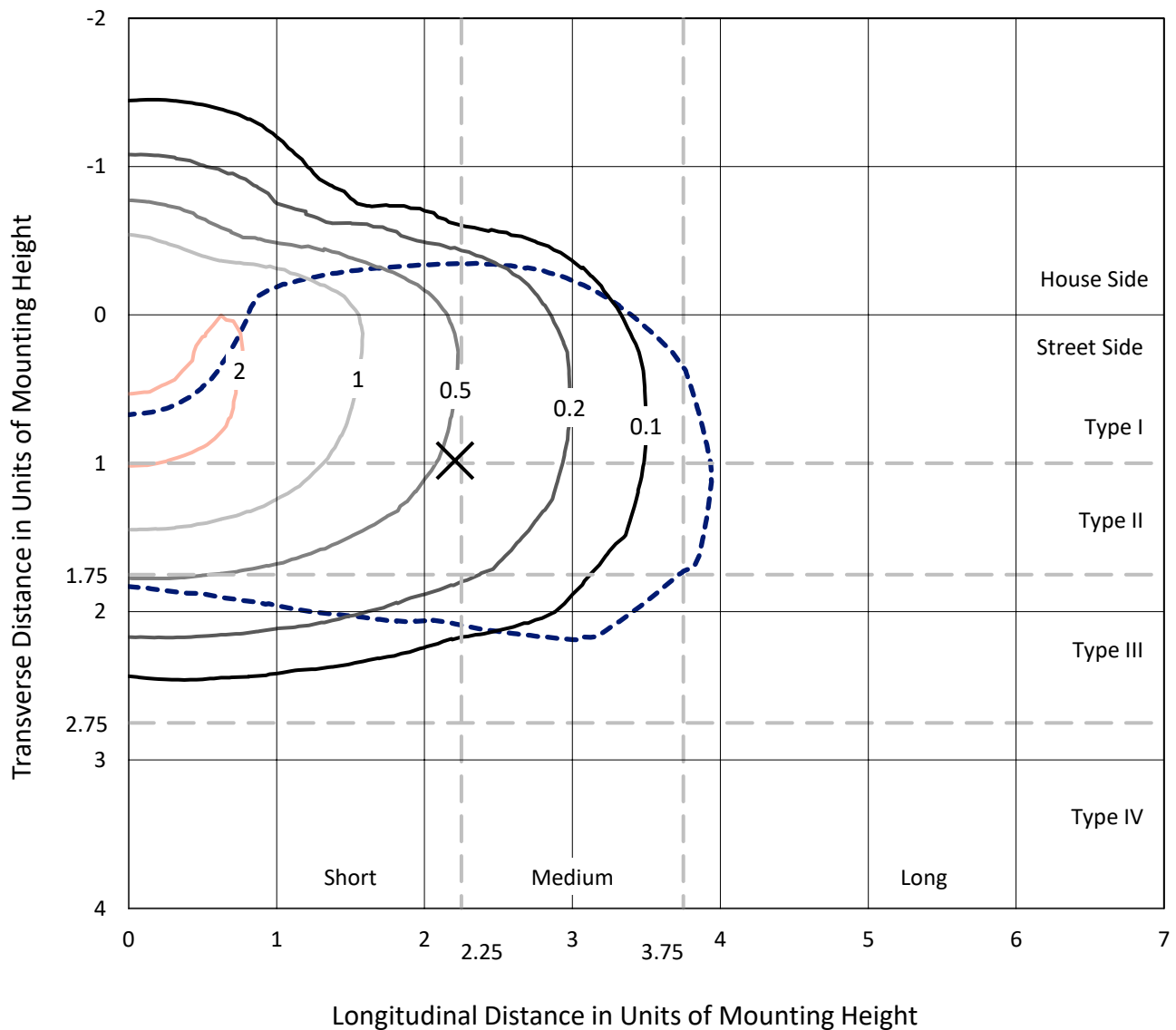
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P961042
CATALOG NUMBER: NAV-SB1D-830-U-T3

Iso-Footcandle Lines of Horizontal Illumination

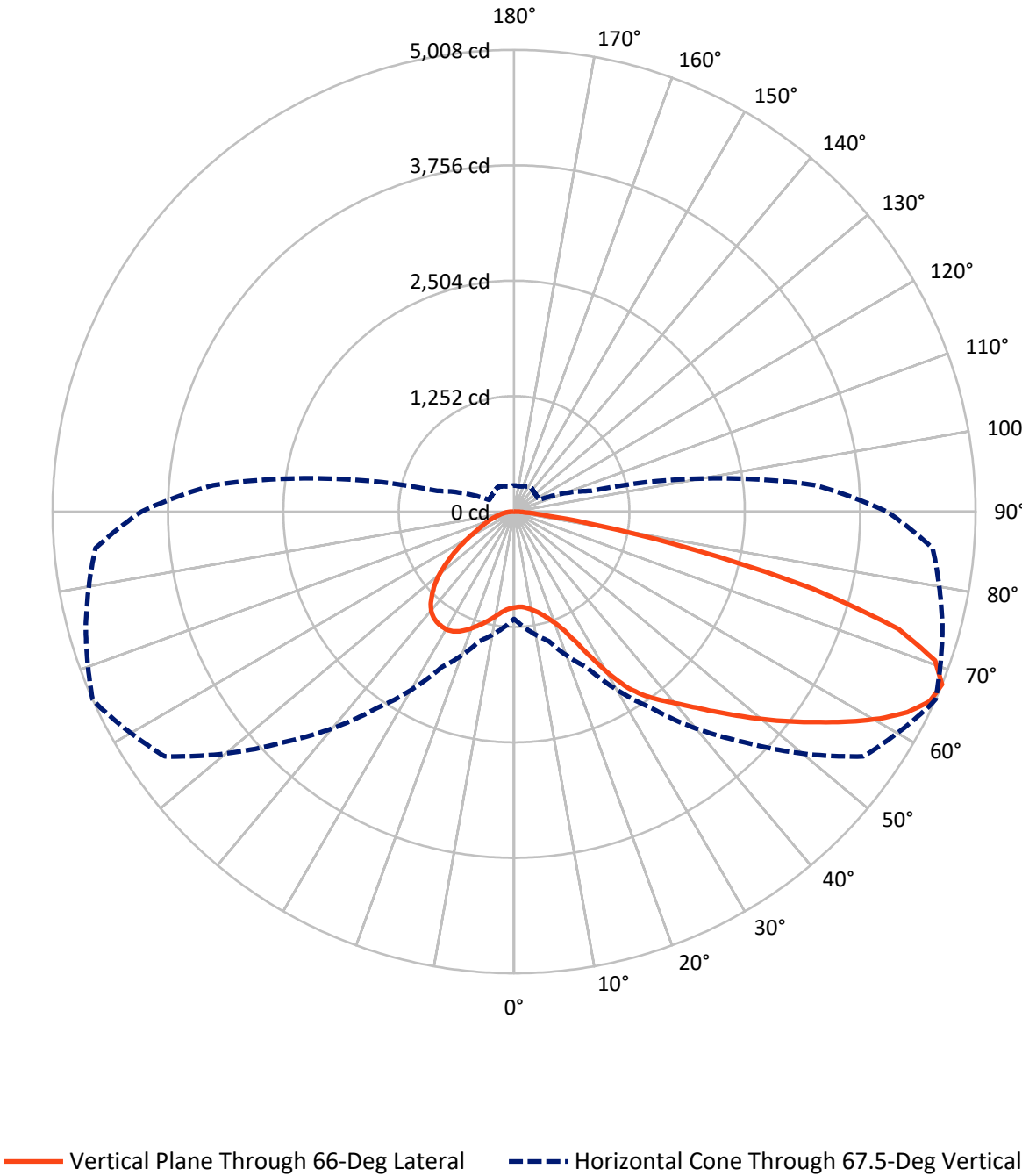
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
Type III - Short - N/A

REPORT NUMBER: P961042
CATALOG NUMBER: NAV-SB1D-830-U-T3

Luminous Intensity Polar Plot



REPORT NUMBER: P961042

CATALOG NUMBER: NAV-SB1D-830-U-T3

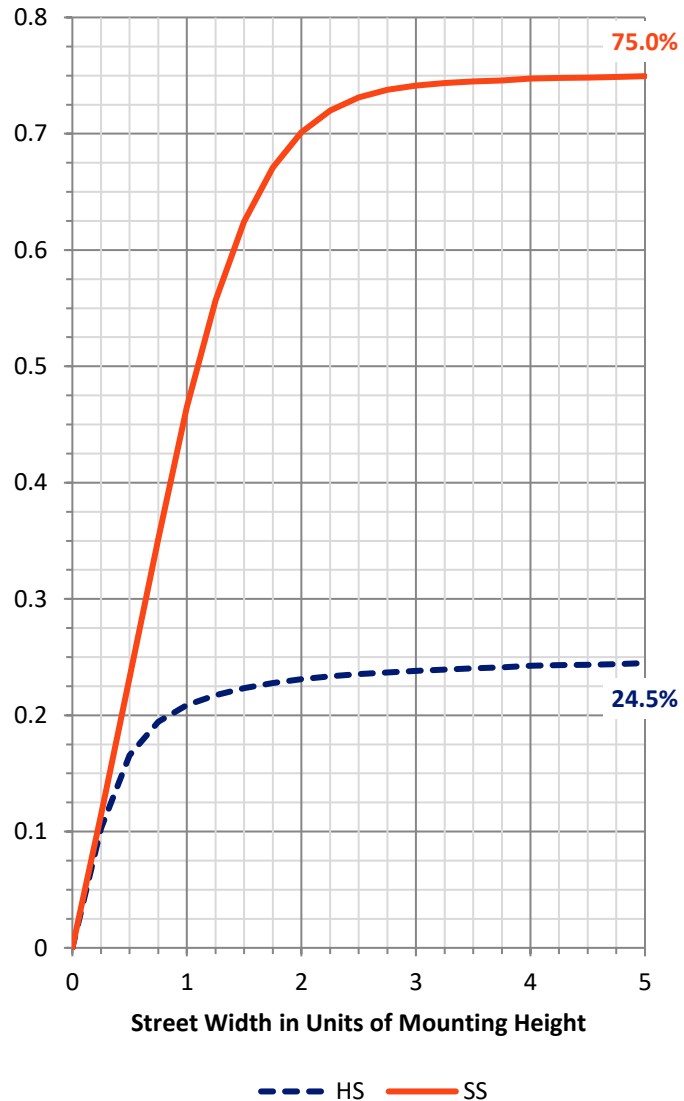
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2332.8	0.0	2332.8
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	7049.1	0.0	7049.1
	% Fixture	75.1	0.0	75.1
Total	Lumens	9381.8	0.0	9381.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.2	1.1
10°-20°	340.9	3.6
20°-30°	657.0	7.0
30°-40°	1151.9	12.3
40°-50°	1712.5	18.3
50°-60°	2170.8	23.1
60°-70°	2124.1	22.6
70°-80°	1013.2	10.8
80°-90°	108.3	1.2
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°	9381.8	100.0
0°-180°	9381.8	100.0

Coefficient of Utilization



REPORT NUMBER: P961042

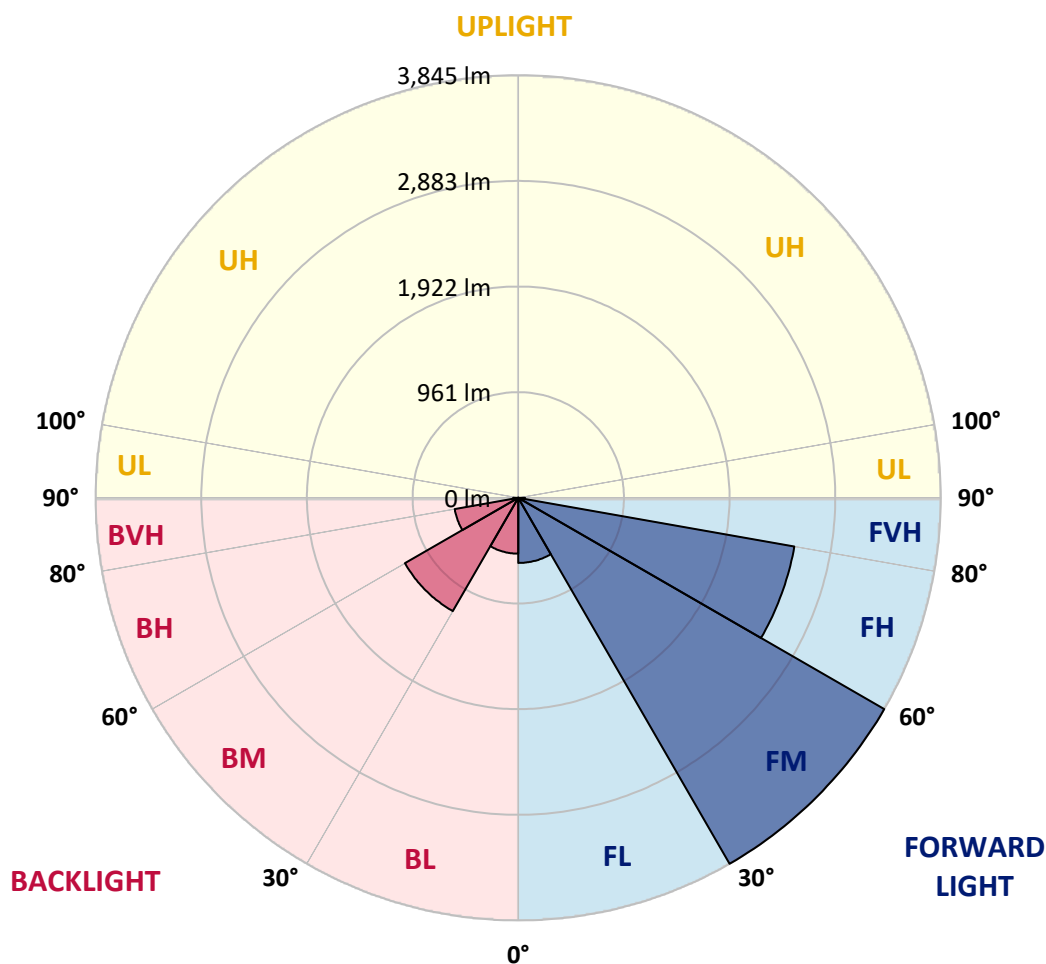
CATALOG NUMBER: NAV-SB1D-830-U-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	592.8	6.3			
FM	(30°-60°)	3844.6	41.0			
FH	(60°-80°)	2550.2	27.2			G2/5000
FVH	(80°-90°)	61.4	0.7			G1/100
BL	(0°-30°)	508.2	5.4	B2/1000		
BM	(30°-60°)	1190.7	12.7	B2/2500		
BH	(60°-80°)	587.0	6.3	B2/1000		G2/1000
BVH	(80°-90°)	46.9	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 III Short



REPORT NUMBER: P961042

CATALOG NUMBER: NAV-SB1D-830-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6
2.5°	1029.7	1035.7	1034.1	1031.7	1031.3	1032.2	1033.7	1035.1	1034.6	1037.1	1041.1
5°	1026.7	1032.7	1032.2	1032.2	1034.1	1038.1	1040.6	1043.0	1040.6	1043.6	1049.0
7.5°	1028.7	1033.2	1035.1	1037.1	1042.0	1049.4	1055.3	1060.8	1057.8	1061.3	1068.2
10°	1053.9	1057.3	1059.3	1059.3	1062.7	1071.1	1077.1	1086.9	1084.4	1089.9	1098.7
12.5°	1099.7	1103.2	1103.2	1101.2	1103.6	1109.0	1111.1	1121.9	1117.5	1126.4	1135.2
15°	1155.9	1162.9	1157.4	1153.9	1155.0	1160.3	1159.9	1168.2	1163.8	1171.2	1179.1
17.5°	1218.0	1226.9	1218.0	1217.5	1215.5	1221.5	1222.0	1229.4	1221.5	1226.9	1232.4
20°	1291.5	1303.8	1296.4	1298.9	1294.5	1296.9	1299.4	1310.2	1297.9	1301.9	1300.3
22.5°	1395.0	1409.8	1401.9	1411.2	1408.2	1406.3	1405.8	1425.1	1405.8	1407.3	1393.0
25°	1545.8	1563.5	1549.8	1562.6	1562.6	1569.0	1576.3	1601.0	1569.0	1559.6	1522.6
27.5°	1768.6	1786.4	1759.2	1767.1	1764.6	1780.4	1772.5	1833.7	1799.2	1783.9	1709.5
30°	2036.8	2068.3	2017.1	2015.0	2012.6	2037.8	2049.1	2089.6	2054.5	2039.2	1949.5
32.5°	2326.6	2359.7	2298.6	2280.7	2271.4	2286.7	2277.3	2309.8	2285.8	2262.1	2151.2
35°	2633.2	2665.7	2607.6	2573.1	2535.6	2503.6	2470.0	2478.4	2455.8	2419.8	2304.9
37.5°	2923.1	2982.7	2921.0	2884.1	2815.1	2752.5	2658.8	2619.9	2598.7	2565.7	2449.9
40°	3218.3	3252.3	3205.5	3173.9	3099.0	3000.9	2851.0	2768.7	2740.1	2708.2	2610.1
42.5°	3435.7	3468.2	3443.1	3421.4	3362.7	3248.8	3055.1	2952.1	2910.7	2874.7	2791.5
45°	3608.2	3632.4	3616.6	3624.5	3599.4	3488.9	3266.7	3148.8	3106.0	3062.1	2996.5
47.5°	3677.7	3703.3	3728.5	3775.3	3818.2	3736.8	3493.8	3361.8	3316.4	3271.6	3207.0
50°	3669.8	3695.9	3768.9	3868.5	4001.6	3974.4	3733.5	3588.5	3546.6	3495.4	3435.7
52.5°	3606.8	3636.3	3730.0	3895.6	4107.6	4152.4	3977.4	3822.6	3783.2	3722.1	3662.4
55°	3441.1	3458.9	3599.4	3834.0	4132.7	4276.6	4216.5	4072.0	4032.7	3947.4	3882.3
57.5°	3134.0	3159.7	3364.3	3667.9	4069.6	4361.0	4426.5	4334.3	4296.4	4173.6	4105.6
60°	2733.3	2774.2	3008.4	3388.9	3908.9	4360.5	4617.2	4592.1	4560.5	4396.4	4325.4
62.5°	2279.8	2327.1	2552.4	2994.5	3628.0	4236.7	4736.5	4808.0	4791.8	4601.9	4511.2
65°	1750.9	1783.4	2007.7	2484.4	3190.7	3971.1	4750.4	4955.4	4958.3	4758.3	4608.4
67.5°	1165.7	1259.4	1454.2	1864.3	2605.1	3536.8	4629.1	4979.6	5008.2	4812.0	4559.6
70°	568.9	692.1	882.8	1211.7	1864.3	2870.8	4312.1	4781.4	4845.0	4655.2	4268.7
72.5°	236.2	276.0	380.1	597.9	1070.1	1937.2	3675.2	4244.1	4361.9	4124.8	3589.0
75°	159.2	172.5	217.4	306.6	487.5	955.3	2650.4	3164.6	3354.4	3115.3	2546.5
77.5°	122.7	131.1	158.3	214.4	289.9	361.3	1418.6	1907.1	2005.2	1856.4	1325.0
80°	96.7	103.0	118.3	156.2	205.5	193.2	483.6	864.1	920.8	772.4	425.9
82.5°	83.8	86.3	84.8	106.0	136.5	112.9	158.8	318.9	352.0	255.3	139.0
85°	60.7	67.5	70.5	65.6	72.5	57.2	65.1	112.9	124.2	110.9	78.4
87.5°	24.6	36.5	44.9	42.4	26.6	16.3	20.2	33.0	37.9	41.4	25.6
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: P961042

CATALOG NUMBER: NAV-SB1D-830-U-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6	1040.6
2.5°	1041.6	1045.0	1047.4	1050.4	1052.4	1055.3	1061.3	1064.8	1065.2	1067.6	1067.2
5°	1050.9	1055.9	1061.3	1069.2	1078.0	1085.5	1096.8	1104.6	1107.6	1110.1	1109.6
7.5°	1071.1	1078.0	1087.9	1101.7	1114.5	1124.3	1138.2	1147.5	1156.9	1160.3	1160.8
10°	1101.2	1111.1	1125.3	1144.1	1157.8	1170.7	1185.0	1192.9	1202.2	1206.2	1208.2
12.5°	1138.7	1149.0	1167.8	1193.8	1206.7	1215.5	1220.5	1218.5	1220.5	1224.0	1224.9
15°	1181.5	1192.9	1214.1	1242.2	1251.0	1243.1	1232.4	1222.4	1221.0	1222.0	1225.4
17.5°	1232.4	1240.7	1265.4	1289.0	1282.6	1250.1	1226.4	1210.6	1202.7	1200.3	1203.8
20°	1303.3	1303.3	1323.5	1338.3	1295.4	1240.2	1203.2	1177.6	1161.3	1154.5	1152.9
22.5°	1389.6	1381.7	1394.5	1384.2	1292.9	1212.6	1161.3	1116.9	1092.3	1082.5	1081.0
25°	1499.0	1489.6	1486.1	1422.1	1275.2	1168.7	1085.5	1031.7	1010.0	1004.6	1005.5
27.5°	1664.1	1640.4	1595.6	1442.8	1242.7	1099.7	996.7	946.9	934.6	935.1	936.5
30°	1884.0	1836.6	1726.7	1446.3	1189.4	1002.1	906.0	870.5	864.6	867.0	875.5
32.5°	2087.5	2042.7	1860.8	1430.5	1107.6	906.5	824.7	801.0	792.1	795.1	799.0
35°	2247.2	2234.9	1985.0	1408.2	1007.1	816.8	751.7	731.5	714.2	710.3	713.3
37.5°	2398.1	2393.2	2078.2	1377.2	907.4	753.2	693.1	666.5	641.3	627.5	628.0
40°	2563.7	2558.8	2139.3	1329.4	819.3	698.0	640.3	605.4	574.3	549.1	551.6
42.5°	2750.1	2721.0	2168.4	1261.0	744.4	651.2	597.5	550.1	509.2	486.1	487.5
45°	2953.6	2888.0	2167.9	1173.6	681.2	608.2	551.6	484.5	446.6	424.9	423.9
47.5°	3169.5	3047.7	2141.2	1077.1	620.1	561.0	480.6	429.4	404.2	390.9	388.0
50°	3392.3	3197.1	2095.9	966.2	557.5	507.3	436.2	401.3	382.0	369.7	365.2
52.5°	3601.8	3332.7	2041.2	840.4	493.9	455.0	416.6	389.4	369.2	355.4	349.5
55°	3796.5	3449.5	1963.8	711.8	442.2	419.9	407.1	384.5	361.3	345.0	338.7
57.5°	3969.5	3525.4	1830.2	591.0	405.2	395.9	397.3	376.1	349.5	335.7	326.8
60°	4113.4	3581.1	1632.6	479.1	375.2	372.2	382.0	360.3	329.2	313.5	306.6
62.5°	4199.7	3580.1	1390.0	392.4	349.5	350.4	361.8	340.6	309.0	294.3	289.9
65°	4192.4	3492.4	1123.9	335.7	324.8	325.8	340.6	318.9	292.3	283.4	282.9
67.5°	4043.9	3278.5	862.1	298.7	297.8	302.2	319.4	304.1	282.0	281.0	282.5
70°	3642.2	2834.3	621.0	269.2	269.7	276.0	298.7	294.8	276.5	278.5	278.0
72.5°	2920.6	2161.0	417.0	238.1	238.6	249.0	279.0	287.4	271.1	297.2	301.1
75°	1945.0	1347.7	268.1	205.1	205.5	218.8	261.8	273.1	256.4	296.2	298.7
77.5°	934.6	605.8	194.2	172.5	172.5	184.8	226.2	244.5	218.3	230.2	210.9
80°	322.9	227.8	152.8	139.0	136.0	144.4	190.8	212.0	188.3	173.5	162.7
82.5°	127.2	118.3	122.7	107.9	98.1	103.5	148.4	175.0	138.5	125.2	124.7
85°	73.0	76.9	86.7	71.4	56.7	63.6	109.0	125.7	104.6	92.1	94.2
87.5°	19.7	27.1	40.0	37.0	25.6	27.1	51.8	69.5	60.2	46.3	47.8
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)