

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: P961022

Luminaire Tested: **NAV-SB1D-830-U-SL2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961022
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-SB1D-830-U-SL2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7598.3 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - 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

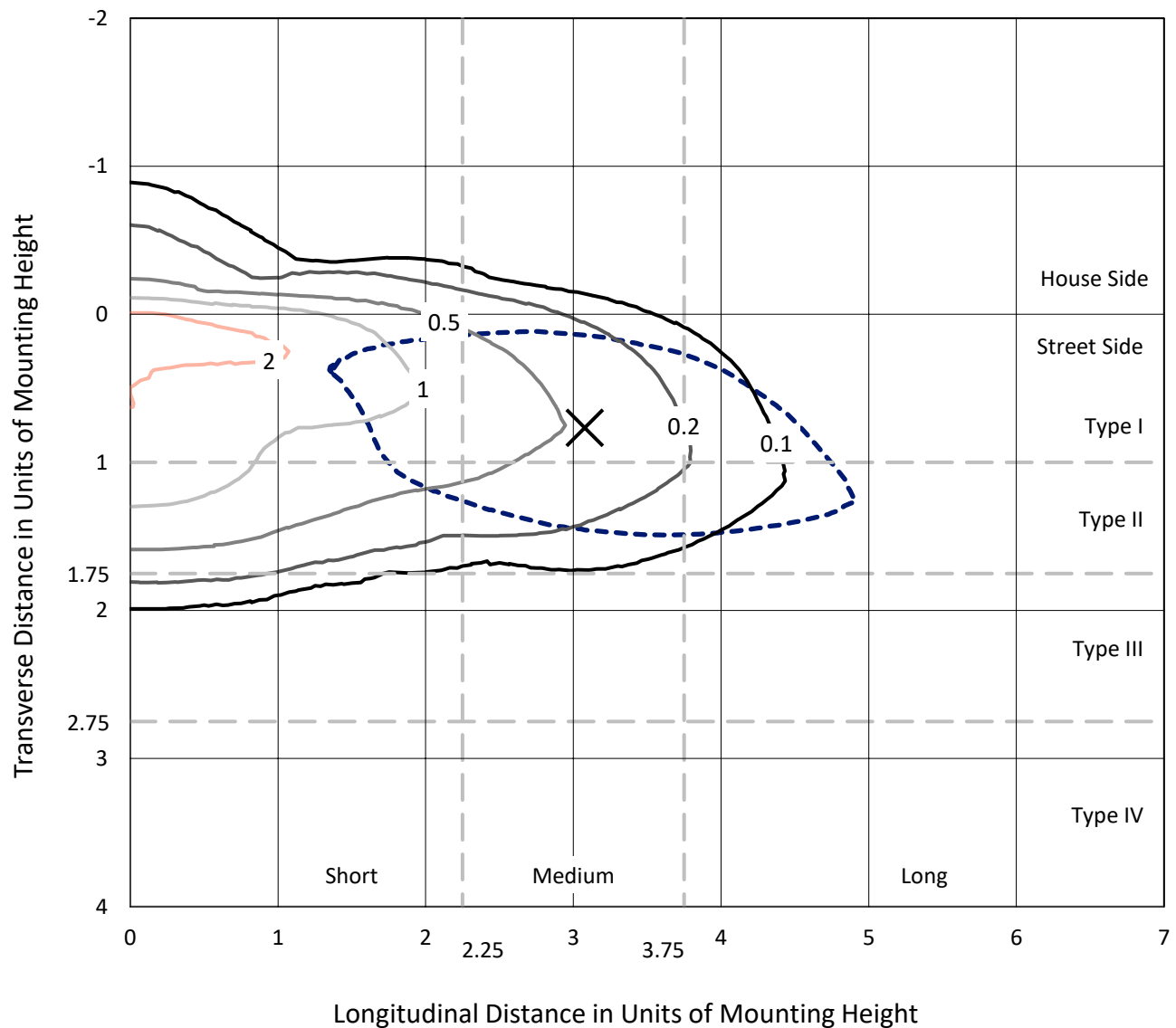


REPORT NUMBER: P961022

CATALOG NUMBER: NAV-SB1D-830-U-SL2-HSS

Iso-Footcandle Lines of Horizontal Illumination

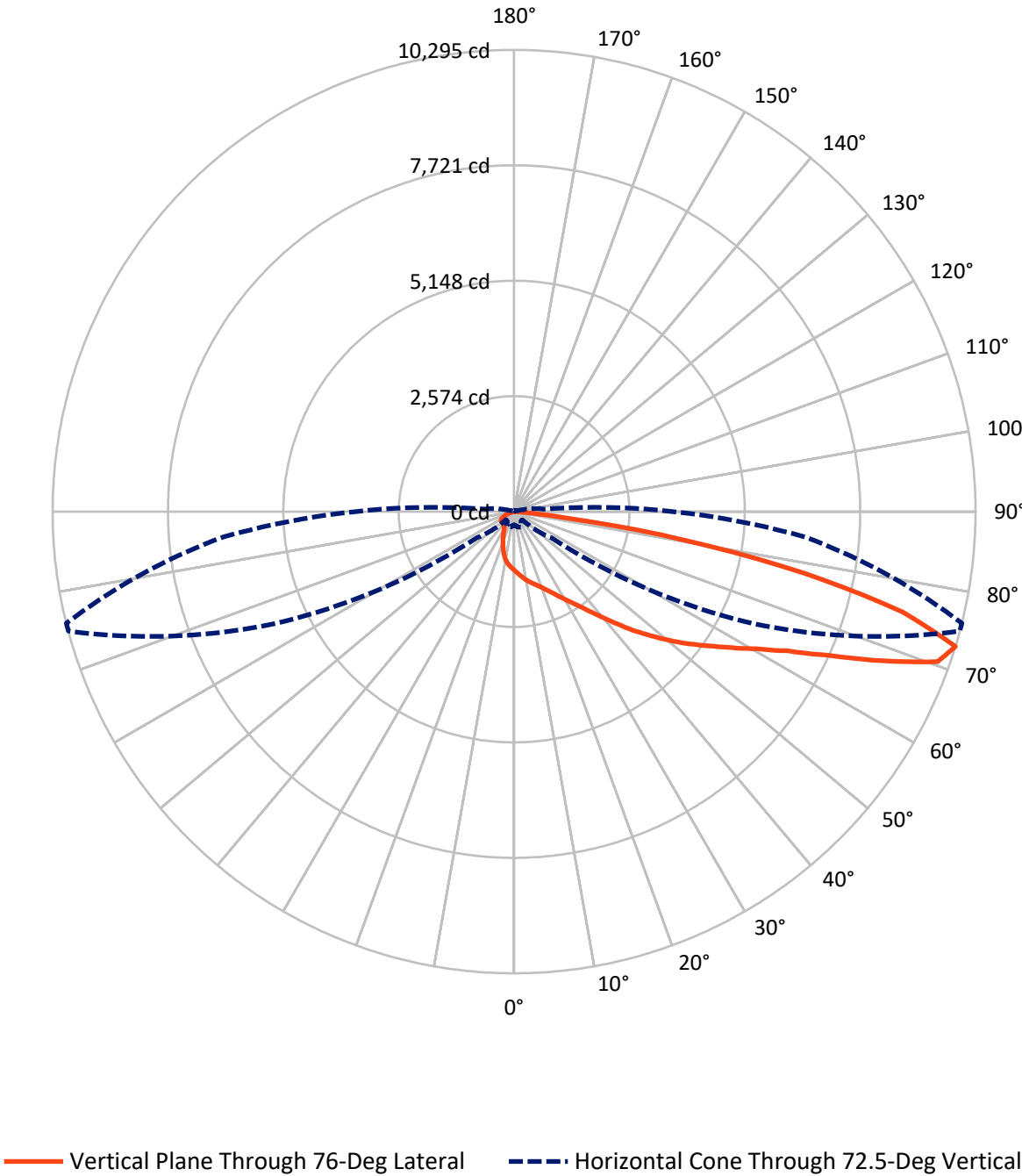
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
Type II - Medium - N/A

REPORT NUMBER: P961022
CATALOG NUMBER: NAV-SB1D-830-U-SL2-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P961022

CATALOG NUMBER: NAV-SB1D-830-U-SL2-HSS

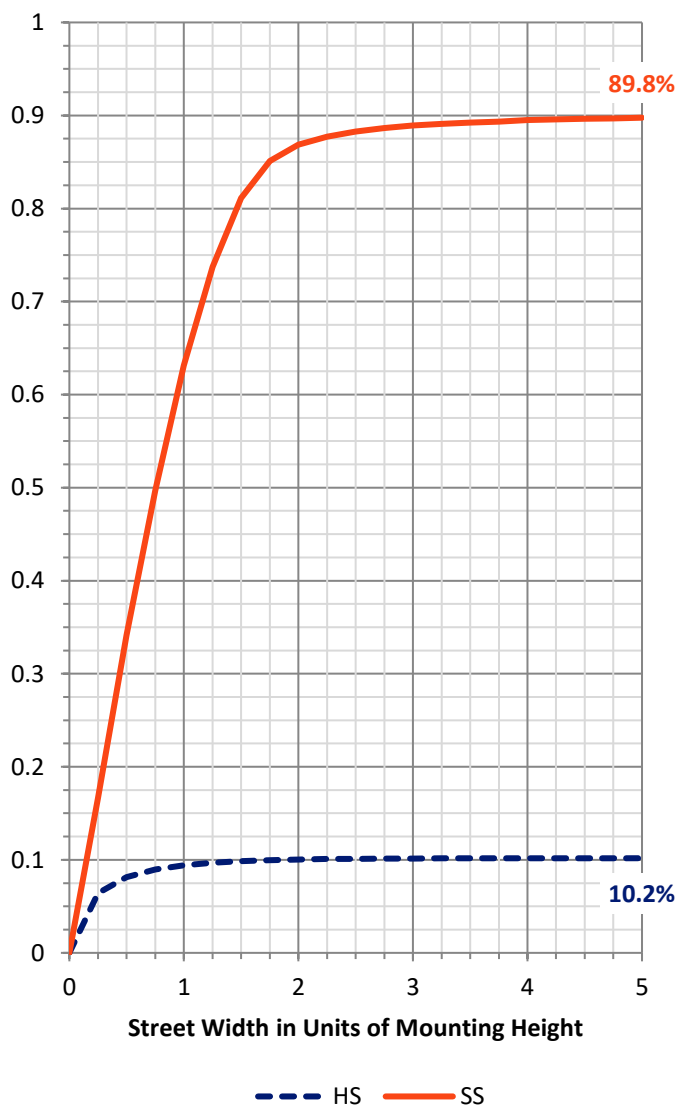
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	777.7	0.0	777.7
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	6820.6	0.0	6820.6
	% Fixture	89.8	0.0	89.8
Total	Lumens	7598.3	0.0	7598.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.4	1.6
10°-20°	320.2	4.2
20°-30°	506.8	6.7
30°-40°	784.1	10.3
40°-50°	1190.9	15.7
50°-60°	1641.8	21.6
60°-70°	1734.5	22.8
70°-80°	1189.9	15.7
80°-90°	110.7	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°	7598.3	100.0
0°-180°	7598.3	100.0

Coefficient of Utilization



REPORT NUMBER: P961022

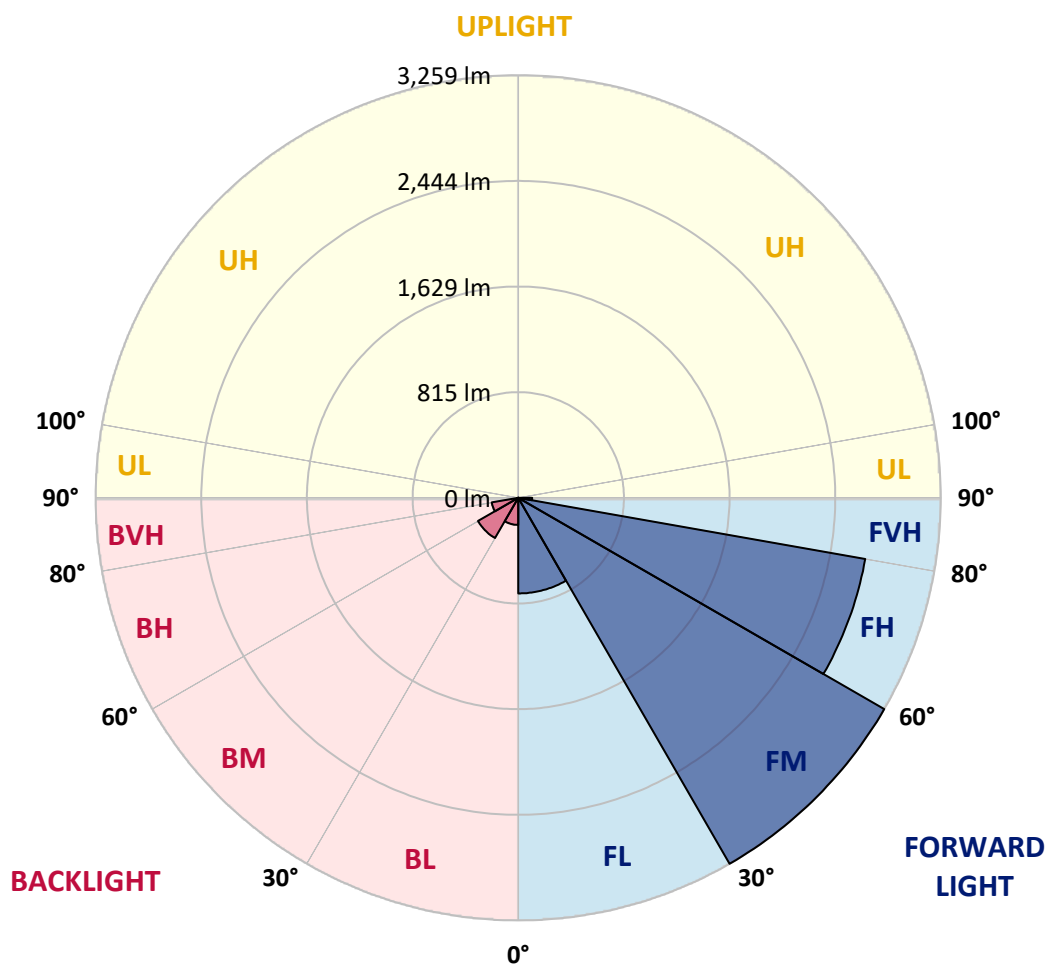
CATALOG NUMBER: NAV-SB1D-830-U-SL2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	737.4	9.7			
FM	(30°-60°)	3258.8	42.9			
FH	(60°-80°)	2716.7	35.8			G2/5000
FVH	(80°-90°)	107.8	1.4			G2/225
BL	(0°-30°)	209.0	2.8	B1/500		
BM	(30°-60°)	358.1	4.7	B1/1000		
BH	(60°-80°)	207.6	2.7	B1/500		G1/500
BVH	(80°-90°)	3.0	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 II Medium



REPORT NUMBER: P961022

CATALOG NUMBER: NAV-SB1D-830-U-SL2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0
2.5°	1526.4	1506.2	1510.2	1490.0	1480.6	1458.0	1434.3	1403.2	1368.8	1368.8	1335.3
5°	1687.2	1674.3	1674.3	1650.7	1632.4	1596.9	1554.6	1499.9	1434.8	1428.4	1364.8
7.5°	1785.8	1777.9	1782.8	1768.9	1754.2	1717.2	1667.0	1595.5	1503.3	1495.5	1399.8
10°	1804.9	1804.5	1818.2	1822.2	1832.1	1813.3	1768.5	1686.1	1570.8	1559.5	1429.9
12.5°	1730.5	1721.2	1755.2	1795.1	1851.3	1876.5	1853.3	1768.9	1632.4	1616.6	1458.0
15°	1608.3	1610.3	1642.8	1704.4	1798.1	1887.7	1917.9	1849.8	1695.0	1676.3	1484.6
17.5°	1538.3	1530.9	1559.0	1614.2	1717.7	1844.4	1947.9	1925.3	1761.6	1740.3	1511.7
20°	1529.9	1529.4	1535.9	1561.0	1639.8	1782.3	1944.4	1998.6	1840.0	1815.3	1550.6
22.5°	1588.1	1587.1	1581.7	1576.8	1598.5	1721.7	1929.7	2068.7	1933.6	1907.0	1605.9
25°	1677.3	1675.8	1667.5	1637.3	1616.2	1689.1	1915.8	2133.7	2044.5	2014.9	1672.9
27.5°	1786.3	1785.2	1770.0	1724.7	1669.9	1692.1	1909.0	2200.8	2172.7	2143.6	1750.3
30°	1919.8	1917.9	1886.3	1822.2	1750.7	1738.9	1918.3	2276.1	2306.2	2284.0	1839.5
32.5°	2087.4	2082.0	2040.6	1943.9	1843.9	1801.5	1936.0	2353.5	2464.4	2443.7	1958.8
35°	2217.0	2208.7	2184.5	2099.2	1951.8	1878.4	1977.4	2445.2	2654.7	2636.5	2111.1
37.5°	2328.4	2320.0	2300.3	2230.3	2106.6	1976.5	2044.1	2567.4	2879.4	2870.6	2296.8
40°	2448.6	2434.9	2425.5	2350.6	2238.7	2118.0	2139.2	2710.4	3138.2	3139.2	2520.2
42.5°	2541.4	2536.0	2536.9	2479.3	2366.3	2285.5	2265.4	2871.5	3448.2	3457.6	2788.7
45°	2620.7	2616.2	2634.5	2594.1	2495.1	2395.4	2413.2	3054.0	3787.4	3806.5	3089.5
47.5°	2681.8	2686.7	2712.9	2686.7	2628.6	2472.8	2544.3	3250.6	4143.8	4146.2	3399.9
50°	2742.9	2745.0	2788.3	2775.5	2751.8	2570.9	2665.1	3470.4	4519.3	4523.7	3690.3
52.5°	2762.2	2759.2	2828.2	2859.7	2860.8	2692.2	2821.3	3710.0	4887.5	4901.8	3989.0
55°	2663.6	2672.0	2783.4	2911.5	2962.2	2859.7	3032.3	4013.1	5279.9	5285.7	4284.7
57.5°	2181.5	2227.8	2474.4	2771.5	3027.8	3099.8	3335.4	4367.5	5732.8	5727.4	4584.3
60°	1323.9	1379.1	1673.8	2324.5	2813.9	3340.8	3781.9	4916.6	6227.7	6212.4	4887.5
62.5°	740.4	757.1	851.3	1391.4	2140.1	3187.5	4218.2	5621.9	6892.1	6840.3	5185.7
65°	545.6	551.0	573.2	681.6	1051.9	2451.6	4122.5	6465.2	7825.6	7733.4	5543.0
67.5°	474.2	479.6	501.2	516.1	469.8	1287.9	3396.5	6933.0	9011.0	8890.2	6026.6
70°	399.2	402.2	437.2	447.0	336.2	489.9	2182.0	6788.6	10108.1	10021.9	6545.5
72.5°	297.7	309.5	360.3	384.0	269.6	260.2	1027.2	5935.4	10294.0	10295.0	6510.6
75°	202.1	212.9	271.1	315.9	208.0	182.3	414.5	4432.1	8963.7	8963.7	5707.2
77.5°	138.0	146.9	188.8	247.9	157.7	125.2	214.9	2812.9	6430.7	6657.0	4067.8
80°	61.1	66.5	121.8	179.9	119.8	80.9	121.8	1540.3	3888.8	3841.1	1594.5
82.5°	30.0	34.5	77.9	112.3	77.4	49.8	64.1	732.5	1260.3	1197.7	248.9
85°	5.9	7.9	41.9	47.8	36.0	22.1	24.2	225.3	151.8	173.5	52.8
87.5°	0.0	0.0	12.8	8.9	3.9	4.9	4.9	20.2	11.8	13.8	13.8
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: P961022

CATALOG NUMBER: NAV-SB1D-830-U-SL2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0	1313.0
2.5°	1317.5	1299.3	1259.3	1219.9	1179.5	1142.6	1116.8	1091.2	1075.5	1068.6	1069.6
5°	1327.9	1290.9	1207.0	1119.3	1032.6	947.8	884.3	824.6	805.9	774.8	776.7
7.5°	1344.1	1284.0	1151.9	1004.0	863.0	738.8	649.1	577.7	549.1	521.5	521.0
10°	1354.9	1271.2	1078.9	881.3	690.5	551.0	465.2	413.5	394.8	378.0	377.5
12.5°	1359.4	1247.5	995.2	743.7	537.2	419.9	368.7	344.5	338.1	332.2	332.2
15°	1363.4	1224.4	901.5	611.2	424.4	351.5	331.2	323.3	318.9	315.0	315.0
17.5°	1366.7	1194.7	794.6	496.8	358.3	323.8	314.0	305.6	302.2	297.7	297.7
20°	1378.6	1166.1	698.9	410.1	322.4	304.1	293.3	284.4	281.5	278.5	279.0
22.5°	1400.8	1143.0	606.3	351.5	300.6	283.9	270.1	260.2	258.3	256.4	254.8
25°	1427.4	1114.4	519.1	313.4	279.5	260.8	245.5	237.1	235.1	235.6	234.6
27.5°	1461.4	1082.9	444.1	289.4	260.8	239.0	221.8	215.4	216.4	218.3	217.4
30°	1498.9	1053.8	385.4	272.5	244.0	219.9	202.5	198.1	201.6	204.6	203.6
32.5°	1554.6	1028.2	344.5	259.2	229.2	204.1	190.2	184.8	188.8	192.7	191.8
35°	1630.5	1015.4	321.3	247.9	216.4	191.8	177.9	173.9	177.9	179.0	178.5
37.5°	1723.6	1014.3	311.5	238.5	204.6	181.4	166.2	164.6	167.6	168.1	167.1
40°	1843.9	1020.8	304.1	231.6	192.2	169.5	155.3	153.8	154.8	158.3	157.7
42.5°	1996.2	1047.3	293.8	222.8	179.0	157.7	146.4	143.0	142.5	146.4	145.9
45°	2187.5	1106.1	279.9	208.5	167.1	147.9	136.5	132.6	131.1	132.1	133.6
47.5°	2395.9	1178.0	266.2	195.2	158.7	140.0	128.6	123.7	121.3	121.3	121.3
50°	2598.1	1259.3	256.8	181.4	152.8	132.6	120.2	115.3	111.4	110.4	109.9
52.5°	2798.1	1339.2	249.4	167.6	145.9	123.2	112.3	106.9	102.5	100.6	99.5
55°	2980.5	1415.1	236.6	154.3	137.0	113.4	104.4	99.1	93.7	90.2	88.8
57.5°	3155.5	1478.2	212.9	140.4	123.2	104.0	96.1	90.2	83.7	79.3	77.4
60°	3314.6	1510.7	183.4	125.7	109.5	94.1	86.7	81.3	73.0	65.6	63.6
62.5°	3435.9	1497.9	151.3	109.0	95.1	85.3	76.0	70.5	60.6	51.8	48.3
65°	3560.1	1427.9	120.7	91.2	83.3	73.4	63.6	58.1	46.8	37.4	35.0
67.5°	3721.3	1278.6	95.1	76.0	72.0	58.1	49.8	46.3	38.4	29.6	27.6
70°	3824.8	993.1	73.9	61.6	59.1	42.4	38.4	37.9	30.5	22.7	20.2
72.5°	3541.0	651.1	56.7	46.8	42.4	27.6	29.6	29.6	22.1	15.3	13.3
75°	2955.9	381.0	40.9	33.5	24.2	17.7	20.2	20.2	13.8	7.4	5.9
77.5°	2111.1	203.1	27.1	20.7	12.3	7.9	10.9	10.4	4.4	0.5	0.0
80°	807.4	70.0	12.8	8.4	3.5	1.4	1.0	0.5	0.5	0.0	0.0
82.5°	123.2	18.2	2.5	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	22.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.9	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)