

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: P966309

Luminaire Tested: **NAV-SB4B-830-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966309
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16301.6 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 147
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



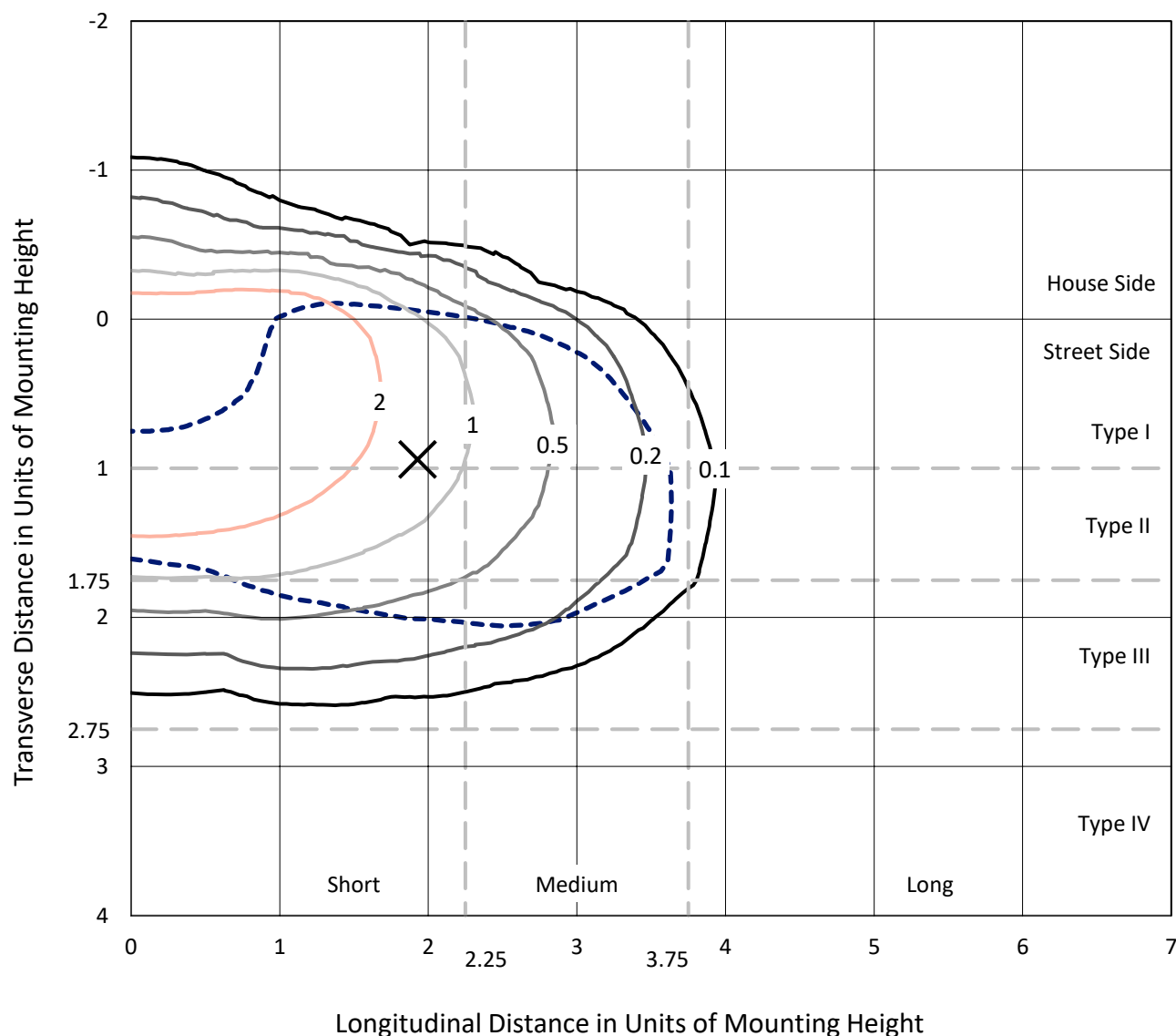
REPORT NUMBER: P966309

CATALOG NUMBER: NAV-SB4B-830-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



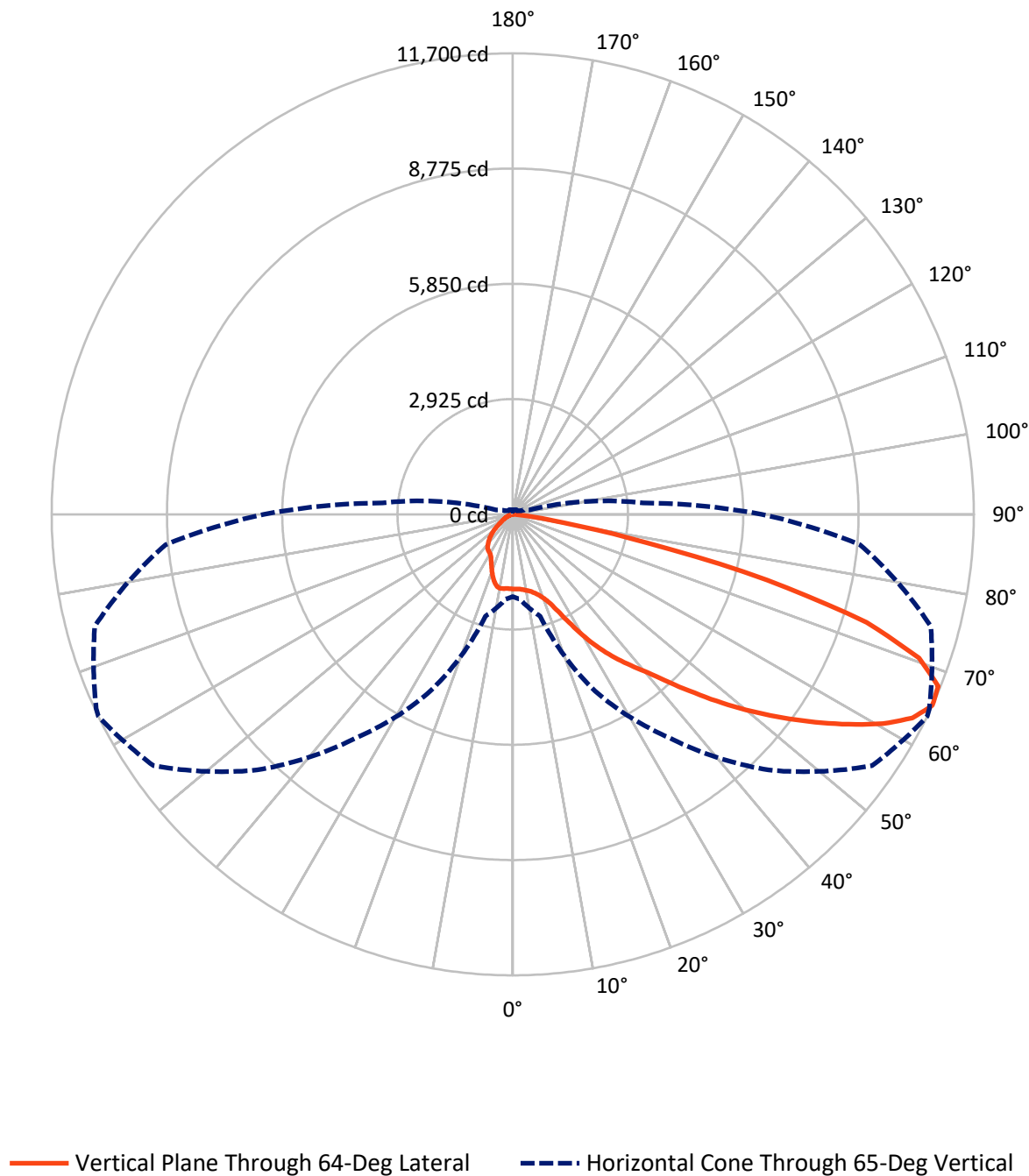
Based on 25 foot mounting height. Maximum calculated value = 4.8 fc

Type III - Short - N/A

REPORT NUMBER: P966309

CATALOG NUMBER: NAV-SB4B-830-U-T3-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P966309

CATALOG NUMBER: NAV-SB4B-830-U-T3-HSS

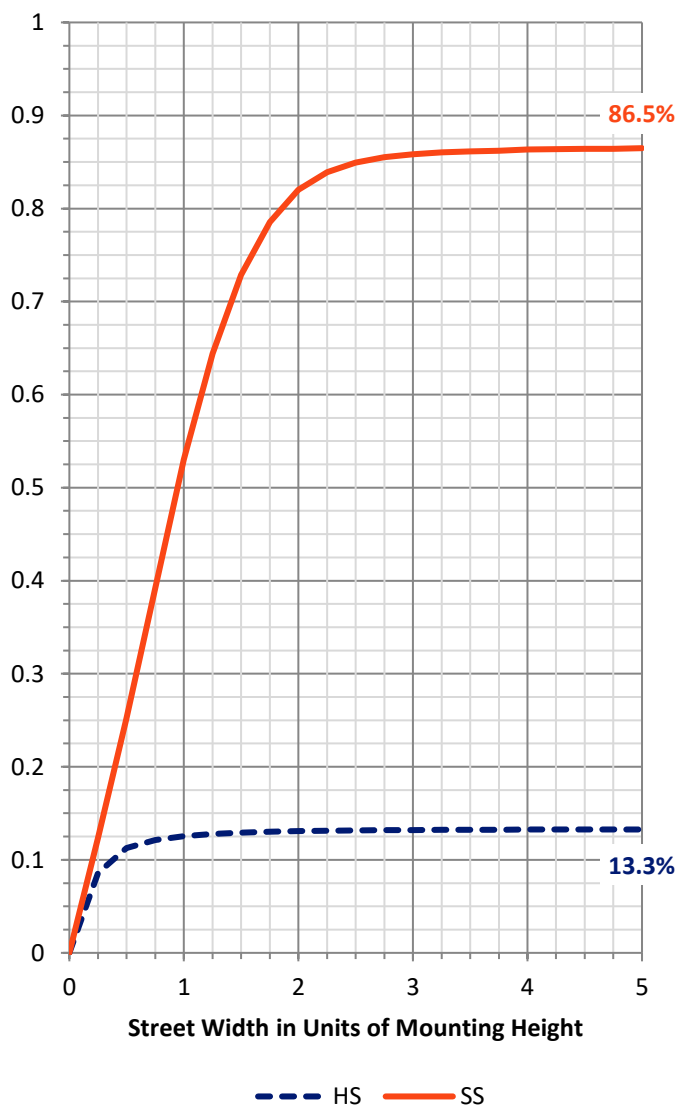
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2180.0	0.0	2180.0
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	14121.6	0.0	14121.6
	% Fixture	86.6	0.0	86.6
Total	Lumens	16301.6	0.0	16301.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.9	1.1
10°-20°	474.5	2.9
20°-30°	899.1	5.5
30°-40°	1819.3	11.2
40°-50°	3099.1	19.0
50°-60°	4214.6	25.9
60°-70°	3957.7	24.3
70°-80°	1585.6	9.7
80°-90°	76.8	0.5
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°	16301.6	100.0
0°-180°	16301.6	100.0

Coefficient of Utilization



REPORT NUMBER: P966309

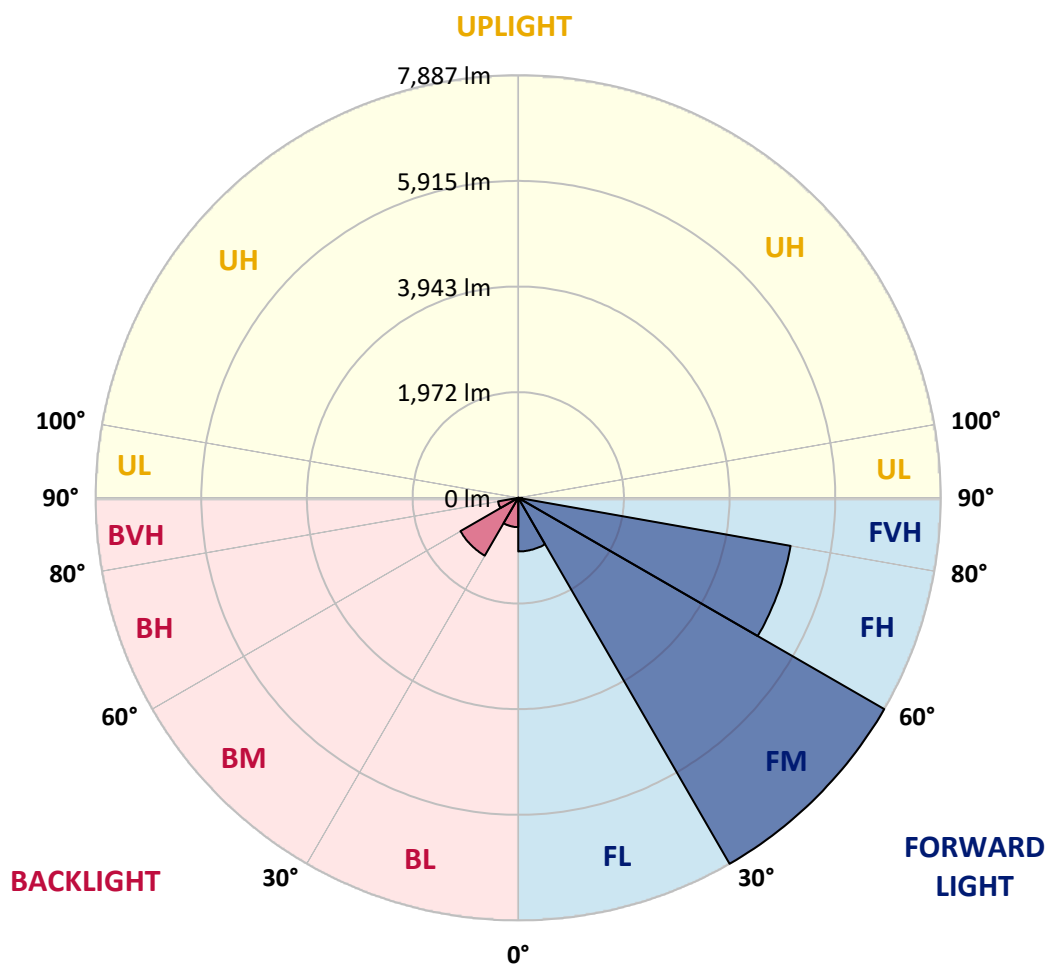
CATALOG NUMBER: NAV-SB4B-830-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1001.1	6.1			
FM	(30°-60°)	7886.7	48.4			
FH	(60°-80°)	5160.7	31.7			G3/7500
FVH	(80°-90°)	73.1	0.4			G1/100
BL	(0°-30°)	547.3	3.4	B2/1000		
BM	(30°-60°)	1246.3	7.6	B2/2500		
BH	(60°-80°)	382.6	2.3	B1/500		G1/500
BVH	(80°-90°)	3.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short



REPORT NUMBER: P966309

CATALOG NUMBER: NAV-SB4B-830-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0
2.5°	1889.5	1902.6	1899.3	1896.0	1894.9	1897.2	1898.2	1897.2	1897.2	1897.2	1898.2
5°	1853.4	1864.4	1864.4	1872.0	1882.9	1896.0	1905.9	1908.0	1910.3	1913.6	1912.4
7.5°	1784.6	1793.3	1799.9	1825.0	1852.4	1887.3	1916.9	1932.1	1934.3	1946.3	1950.7
10°	1737.6	1748.5	1759.4	1785.7	1825.0	1877.5	1927.7	1964.9	1970.4	1998.7	2011.9
12.5°	1735.4	1746.3	1760.5	1788.9	1834.9	1890.6	1951.8	2005.3	2015.2	2056.7	2084.0
15°	1758.4	1771.5	1784.6	1819.6	1868.7	1936.4	2002.0	2068.8	2078.6	2137.5	2167.1
17.5°	1805.3	1822.9	1832.7	1867.7	1920.1	1995.5	2081.8	2158.3	2167.1	2235.9	2273.0
20°	1898.2	1919.0	1922.3	1950.7	2002.0	2082.9	2185.6	2280.7	2291.7	2370.3	2411.8
22.5°	2090.6	2120.1	2093.9	2108.0	2153.9	2234.8	2346.3	2466.5	2481.8	2571.4	2608.5
25°	2429.4	2470.9	2403.1	2379.0	2398.7	2482.9	2622.8	2774.7	2792.2	2864.3	2882.8
27.5°	3094.9	3041.3	2938.6	2838.0	2779.1	2827.2	2984.5	3172.5	3194.3	3264.2	3242.4
30°	3826.0	3779.0	3640.2	3417.2	3277.3	3269.7	3415.1	3624.9	3650.0	3716.6	3650.0
32.5°	4558.2	4513.4	4362.5	4088.2	3845.6	3725.5	3826.0	4058.7	4071.8	4114.5	4016.2
35°	5278.3	5232.4	5081.6	4800.8	4502.4	4229.3	4209.6	4471.9	4476.2	4521.0	4374.6
37.5°	6002.9	5964.6	5804.0	5528.5	5234.6	4857.6	4675.1	4863.0	4868.5	4912.2	4760.3
40°	6519.8	6536.1	6425.8	6212.7	5960.3	5548.2	5197.5	5279.5	5246.7	5319.9	5229.1
42.5°	6963.4	6996.2	6900.1	6793.0	6646.5	6283.8	5844.4	5830.2	5777.7	5817.1	5723.1
45°	7347.0	7374.4	7288.1	7262.8	7259.6	7005.0	6551.5	6466.2	6393.0	6385.3	6272.8
47.5°	7488.0	7540.5	7577.6	7661.8	7825.7	7718.6	7282.5	7150.3	7068.4	7008.2	6830.1
50°	7541.5	7597.3	7724.1	7968.9	8356.8	8402.7	8010.4	7861.7	7761.2	7651.9	7389.6
52.5°	7469.5	7568.9	7739.4	8151.3	8714.1	8951.3	8708.7	8578.6	8463.9	8285.8	7896.7
55°	7044.3	7143.7	7492.3	8149.2	8892.3	9336.0	9368.8	9310.8	9181.8	8901.0	8306.5
57.5°	6148.3	6295.8	6847.6	7871.6	8889.0	9667.1	10015.7	10057.2	9913.0	9510.9	8629.0
60°	4906.8	5106.8	5780.0	7256.4	8614.7	9846.4	10582.9	10790.5	10637.6	10111.8	8890.1
62.5°	3423.8	3655.5	4292.6	6292.5	7987.4	9717.4	10997.0	11380.7	11264.9	10649.5	8990.7
65°	2088.3	2162.6	2676.3	4951.6	6920.8	9177.5	11124.9	11699.8	11661.5	10978.5	8842.1
67.5°	1391.1	1453.4	1600.9	3395.4	5372.3	8098.9	10819.0	11644.0	11655.0	10925.0	8297.8
70°	838.2	891.7	987.9	1974.8	3481.7	6410.5	9871.5	10933.7	10997.0	10209.1	7266.1
72.5°	345.3	381.4	468.8	895.0	1803.2	4068.5	7860.6	9387.4	9534.9	8584.1	5576.7
75°	195.6	214.2	275.4	449.2	782.5	1896.0	4761.4	6664.0	6881.5	5916.5	3354.9
77.5°	130.1	138.8	178.1	290.7	440.4	647.0	2034.8	3471.9	3887.2	3231.5	1452.3
80°	87.4	95.1	122.4	194.5	286.3	277.6	648.0	1286.3	1582.4	1110.3	354.0
82.5°	59.0	60.1	87.4	127.8	181.4	134.4	191.3	400.0	502.7	321.3	134.4
85°	33.9	32.8	64.5	74.3	80.9	55.8	57.9	120.2	157.3	135.5	76.5
87.5°	4.4	6.6	25.1	19.7	11.0	12.0	12.0	20.8	30.6	32.8	16.4
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: P966309

CATALOG NUMBER: NAV-SB4B-830-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0	1896.0
2.5°	1898.2	1897.2	1893.9	1890.6	1882.9	1878.5	1880.8	1878.5	1877.5	1878.5	1882.9
5°	1912.4	1909.2	1900.5	1889.5	1874.2	1855.7	1843.6	1826.1	1809.7	1799.9	1802.1
7.5°	1950.7	1947.4	1935.4	1904.8	1855.7	1778.1	1707.0	1644.7	1597.7	1570.4	1571.4
10°	2011.9	2006.4	1987.9	1920.1	1791.1	1621.8	1480.8	1363.9	1287.3	1251.3	1248.0
12.5°	2084.0	2077.5	2044.7	1905.9	1668.7	1404.2	1209.7	1079.7	1008.7	977.0	973.7
15°	2169.2	2160.5	2096.0	1838.1	1490.7	1163.9	985.7	888.5	842.6	814.2	815.3
17.5°	2275.3	2259.9	2134.3	1736.5	1297.1	980.3	848.0	774.8	734.4	707.0	704.9
20°	2413.0	2387.8	2164.9	1615.2	1119.1	864.4	755.1	693.9	663.4	639.3	634.9
22.5°	2605.2	2569.3	2202.0	1484.1	993.3	784.6	686.3	641.4	616.3	589.1	584.7
25°	2843.6	2800.9	2247.9	1362.7	907.0	715.8	636.0	598.9	569.4	537.7	534.4
27.5°	3176.8	3100.3	2302.6	1263.3	832.7	656.8	590.1	548.6	514.8	488.5	483.0
30°	3548.3	3422.7	2350.6	1203.2	765.0	602.2	530.0	488.5	456.8	438.2	434.9
32.5°	3900.3	3729.8	2382.3	1177.0	703.8	539.9	464.4	419.6	395.6	390.1	393.4
35°	4232.5	4007.3	2379.0	1151.8	649.1	477.5	400.0	354.0	335.5	338.8	338.8
37.5°	4615.0	4303.6	2356.2	1112.5	604.3	420.8	344.2	303.8	287.4	288.5	292.8
40°	5059.8	4645.6	2341.9	1038.2	555.1	368.3	298.4	265.6	253.6	249.2	248.0
42.5°	5534.1	4976.7	2344.1	954.1	493.9	321.3	266.6	239.3	228.4	225.1	224.1
45°	6010.5	5292.5	2347.4	866.6	429.5	285.3	243.7	220.8	214.2	209.8	209.8
47.5°	6458.5	5561.3	2286.2	772.6	366.1	257.9	225.1	209.8	204.4	198.8	198.8
50°	6876.0	5740.6	2138.7	663.4	315.8	236.1	210.9	200.0	194.5	189.0	189.0
52.5°	7200.6	5769.0	1894.9	550.7	280.8	219.7	202.1	192.3	185.7	180.3	179.3
55°	7344.8	5590.9	1548.6	445.9	253.6	205.4	193.4	183.6	176.0	170.5	169.4
57.5°	7307.7	5216.0	1207.6	358.4	227.3	191.3	182.4	176.0	167.2	158.5	157.3
60°	7125.2	4714.4	910.3	298.4	203.3	176.0	170.5	165.0	153.0	139.9	137.7
62.5°	6809.4	4083.9	649.1	247.0	177.0	158.5	156.3	151.9	134.4	110.4	108.2
65°	6326.3	3317.8	437.2	205.4	151.9	138.8	139.9	132.2	109.3	82.0	79.7
67.5°	5620.4	2426.1	279.7	168.3	126.8	115.8	117.0	112.5	92.9	69.9	66.6
70°	4720.9	1606.5	182.4	127.8	101.7	89.6	96.1	97.3	78.7	56.8	54.6
72.5°	3461.0	948.5	127.8	95.1	74.3	62.3	78.7	80.9	63.3	42.6	40.4
75°	1972.5	450.3	96.1	68.9	45.9	43.7	61.2	61.2	43.7	28.4	26.2
77.5°	828.4	188.0	67.8	44.8	26.2	25.1	41.5	38.2	21.8	13.1	13.1
80°	239.3	84.2	36.1	21.8	11.0	9.8	16.4	12.0	5.4	2.2	2.2
82.5°	94.0	37.1	14.2	8.7	4.4	4.4	2.2	0.0	0.0	0.0	0.0
85°	55.8	15.3	6.6	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	14.2	3.3	2.2	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)