

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: P965623

Luminaire Tested: **NAV-SB4A-735-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965623
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-735-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18768.8 lumens
Efficiency: N/A
Efficacy: 164.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 114
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

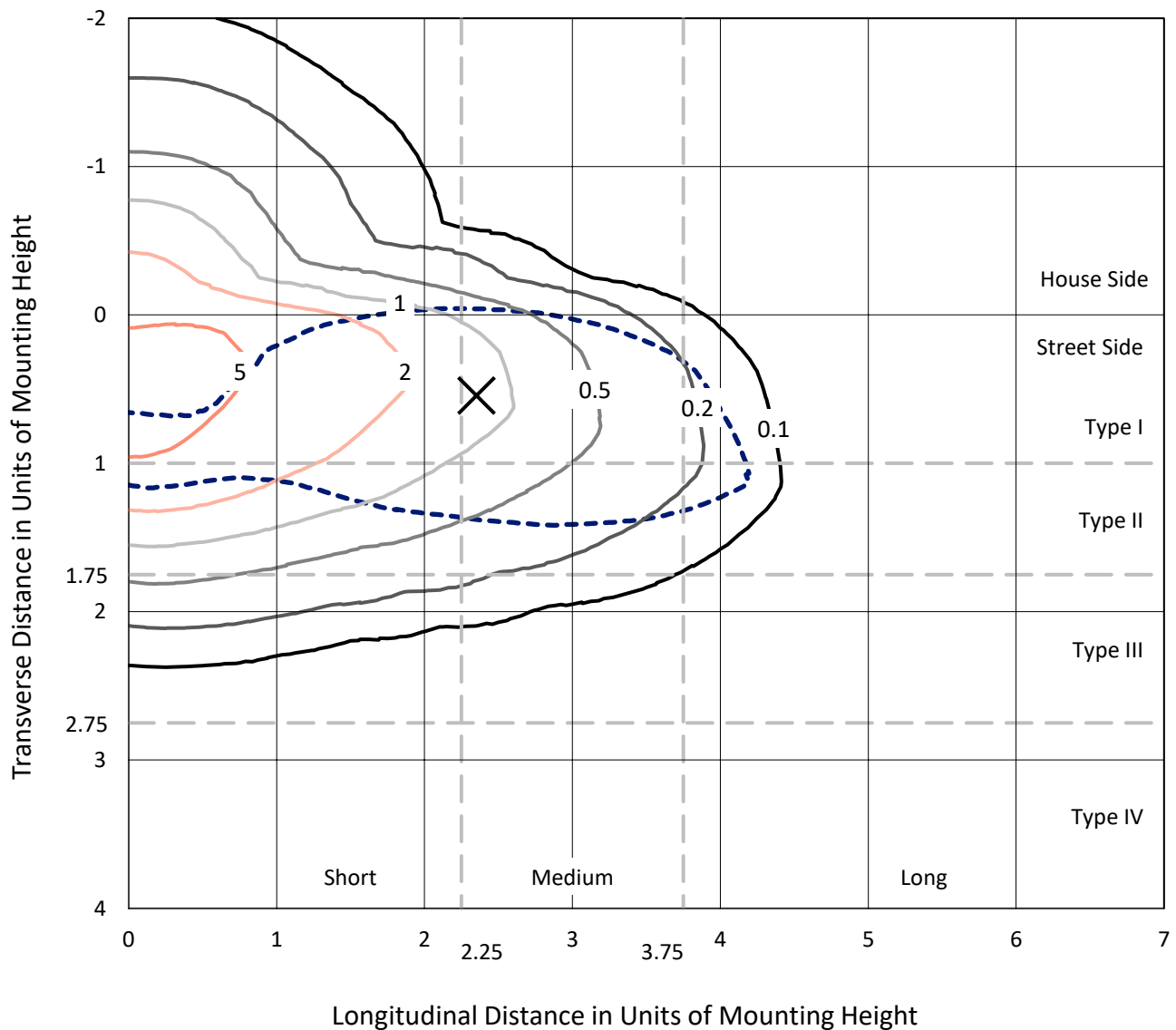


REPORT NUMBER: P965623

CATALOG NUMBER: NAV-SB4A-735-U-T2R

Iso-Footcandle Lines of Horizontal Illumination

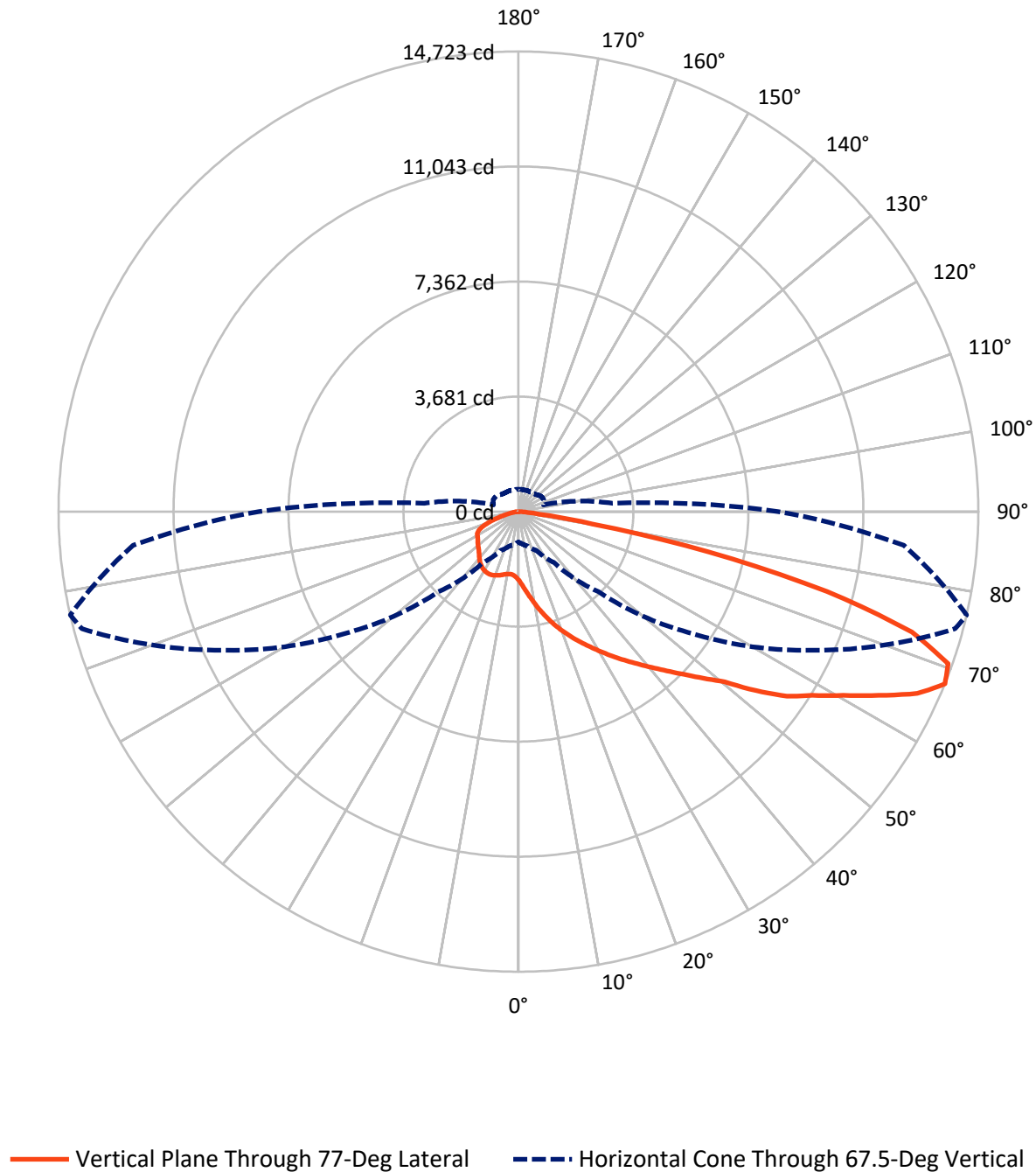
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
Type II - Medium - N/A

REPORT NUMBER: P965623
CATALOG NUMBER: NAV-SB4A-735-U-T2R

Luminous Intensity Polar Plot



REPORT NUMBER: P965623

CATALOG NUMBER: NAV-SB4A-735-U-T2R

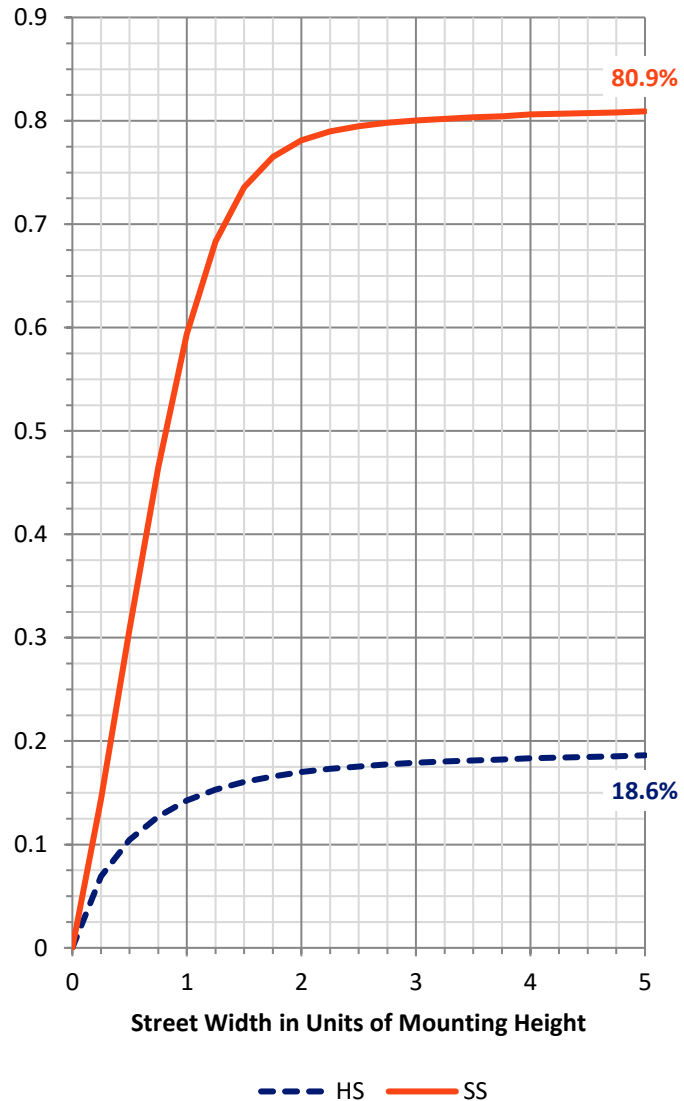
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3550.3	0.0	3550.3
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	15218.5	0.0	15218.5
	% Fixture	81.1	0.0	81.1
Total	Lumens	18768.8	0.0	18768.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.0	1.3
10°-20°	848.0	4.5
20°-30°	1601.1	8.5
30°-40°	2579.4	13.7
40°-50°	3528.1	18.8
50°-60°	3979.7	21.2
60°-70°	3714.6	19.8
70°-80°	2036.2	10.8
80°-90°	245.6	1.3
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°	18768.8	100.0
0°-180°	18768.8	100.0

Coefficient of Utilization



REPORT NUMBER: P965623

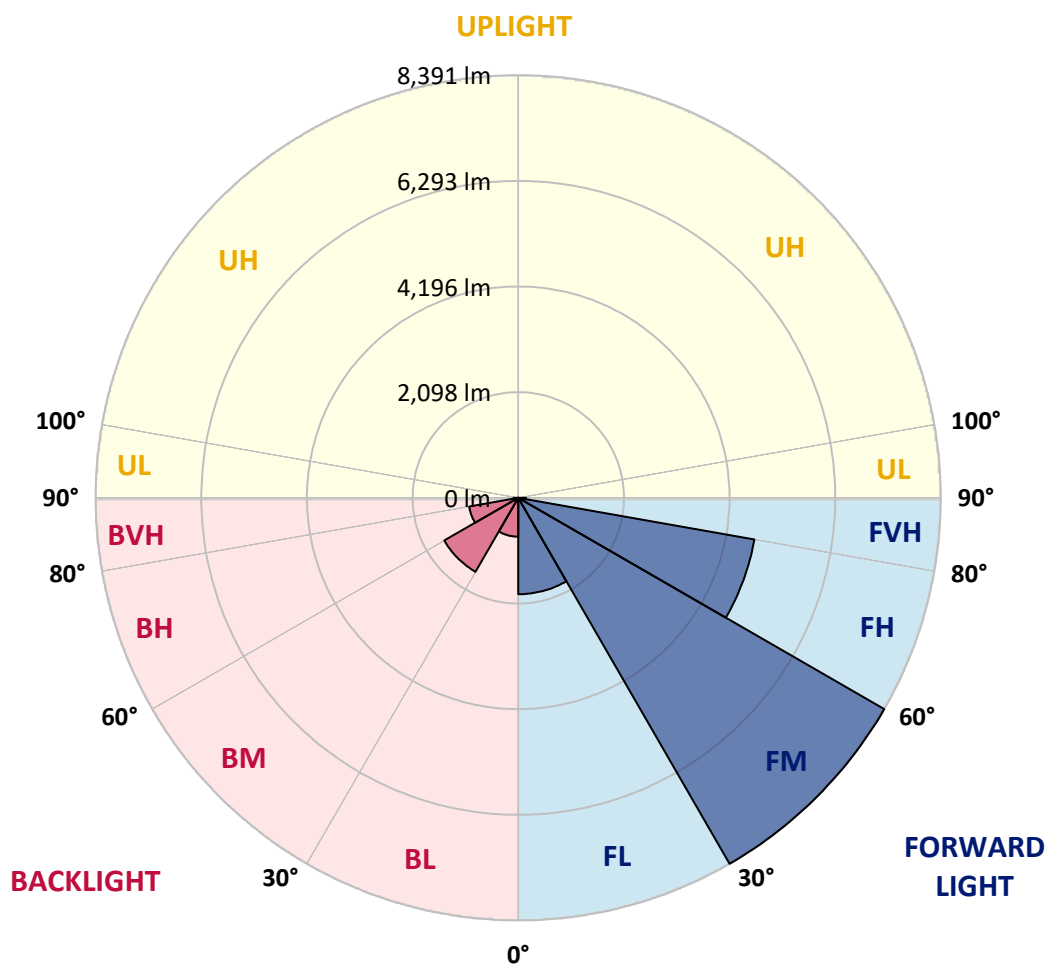
CATALOG NUMBER: NAV-SB4A-735-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1913.2	10.2			
FM	(30°-60°)	8391.3	44.7			
FH	(60°-80°)	4760.3	25.4			G2/5000
FVH	(80°-90°)	153.6	0.8			G2/225
BL	(0°-30°)	771.9	4.1	B2/1000		
BM	(30°-60°)	1695.9	9.0	B2/2500		
BH	(60°-80°)	990.5	5.3	B2/1000		G2/1000
BVH	(80°-90°)	92.0	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 II Medium



REPORT NUMBER: P965623

CATALOG NUMBER: NAV-SB4A-735-U-T2R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1
2.5°	2757.4	2776.7	2752.4	2752.4	2671.0	2628.4	2547.0	2485.0	2373.7	2354.2	2280.6
5°	3259.2	3283.4	3249.5	3234.9	3139.1	3050.8	2914.3	2779.6	2581.0	2560.7	2387.2
7.5°	3647.7	3678.6	3648.6	3633.1	3547.8	3449.0	3289.2	3101.2	2821.2	2781.5	2530.6
10°	3964.5	3969.3	3959.6	3965.4	3898.6	3817.2	3653.5	3434.5	3084.7	3030.5	2704.1
12.5°	4143.7	4166.0	4185.4	4220.2	4208.6	4158.2	4010.9	3749.3	3363.7	3294.0	2893.0
15°	4228.0	4266.8	4310.3	4390.8	4455.7	4468.3	4355.8	4087.5	3647.7	3563.4	3083.8
17.5°	4258.1	4294.9	4363.6	4479.9	4619.4	4713.4	4663.0	4415.9	3928.6	3831.8	3284.3
20°	4410.2	4420.8	4462.4	4572.9	4724.0	4880.0	4917.8	4731.8	4206.7	4097.2	3491.7
22.5°	4735.7	4714.4	4726.0	4776.4	4884.8	5036.0	5122.2	5010.8	4492.5	4366.5	3701.0
25°	5273.3	5211.4	5149.4	5091.2	5146.4	5231.7	5329.6	5289.8	4791.9	4632.0	3912.1
27.5°	5952.5	5876.9	5740.3	5549.5	5482.6	5512.7	5556.2	5548.5	5068.9	4907.2	4130.1
30°	6621.0	6532.8	6370.1	6093.9	5917.6	5838.2	5805.3	5782.9	5370.3	5197.8	4350.1
32.5°	7154.8	7085.1	6925.2	6616.2	6360.4	6224.7	6115.3	6035.8	5685.2	5512.7	4582.6
35°	7621.8	7556.9	7373.7	7036.6	6758.5	6614.2	6470.8	6301.3	6012.5	5838.2	4832.6
37.5°	8048.1	7983.2	7732.3	7381.5	7101.5	7001.8	6873.9	6586.1	6341.1	6176.3	5097.0
40°	8317.5	8302.9	8068.5	7671.2	7380.6	7331.2	7288.6	6916.5	6705.3	6552.2	5387.7
42.5°	8386.2	8418.2	8232.2	7905.7	7628.6	7588.9	7688.6	7290.5	7114.1	6967.8	5717.1
45°	8220.6	8312.6	8190.6	7968.7	7805.0	7783.6	8043.3	7699.3	7566.6	7432.9	6114.3
47.5°	7801.1	7957.1	7906.6	7875.7	7852.4	7944.5	8355.2	8133.4	8079.2	7962.8	6567.7
50°	6954.3	7249.8	7338.0	7533.6	7758.4	8069.4	8639.1	8607.1	8677.9	8560.6	7120.0
52.5°	5490.4	5897.3	6408.8	6899.1	7469.7	8027.8	8951.0	9287.2	9585.7	9521.7	7997.8
55°	4532.2	4715.3	5108.7	6007.7	6909.7	7852.4	9091.5	9836.6	10486.7	10429.5	8663.3
57.5°	3795.9	3959.6	4201.9	4952.7	6063.0	7454.2	9178.8	10171.8	11103.8	11098.0	9320.2
60°	3006.3	3179.8	3427.7	3959.6	5073.8	6766.3	9159.4	10553.5	11891.4	11939.9	10121.4
62.5°	2115.0	2305.8	2581.0	3077.0	4063.3	5875.0	8764.1	10829.6	12818.6	12950.4	11085.4
65°	1390.3	1516.2	1723.5	2151.8	3027.6	4728.8	8009.4	10865.5	13810.7	14033.6	11990.2
67.5°	974.7	1023.1	1145.1	1377.7	1995.8	3626.3	6807.0	10494.5	14472.5	14723.4	12382.7
70°	760.6	784.7	846.8	939.7	1253.7	2438.6	5216.2	9529.4	14331.0	14592.6	11972.8
72.5°	656.8	680.1	703.4	715.0	840.9	1505.5	3533.4	7967.7	12998.8	13176.2	10410.1
75°	595.8	601.7	621.0	617.2	641.3	976.6	2039.4	5805.3	10256.0	10195.1	7684.8
77.5°	500.9	508.6	540.6	535.8	569.7	667.5	1058.9	3746.5	6649.1	6234.5	4277.4
80°	424.4	428.2	463.1	457.3	495.1	483.5	540.6	1909.6	2820.3	2389.2	1233.3
82.5°	147.3	182.1	353.6	364.3	377.8	292.6	312.0	778.9	861.3	659.8	258.7
85°	71.6	76.6	180.2	255.7	254.8	147.3	152.1	278.1	271.3	213.1	86.2
87.5°	11.6	14.6	21.3	99.8	79.4	38.7	52.3	54.2	56.2	48.5	19.4
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: P965623

CATALOG NUMBER: NAV-SB4A-735-U-T2R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1	2202.1
2.5°	2226.4	2177.9	2076.2	1982.2	1908.7	1837.9	1798.2	1764.2	1744.9	1741.0	1741.0
5°	2286.5	2186.6	2001.6	1845.6	1743.9	1668.3	1628.6	1603.4	1590.8	1583.1	1582.1
7.5°	2372.7	2226.4	1962.9	1785.6	1679.0	1624.7	1604.4	1600.5	1599.5	1600.5	1603.4
10°	2491.9	2291.3	1959.0	1771.0	1681.9	1651.9	1650.9	1651.9	1655.8	1656.7	1657.6
12.5°	2620.7	2358.1	1974.5	1783.6	1718.7	1702.2	1699.3	1698.3	1701.3	1703.2	1704.2
15°	2761.1	2446.3	2000.6	1810.8	1759.4	1742.0	1739.0	1733.3	1732.2	1731.3	1730.3
17.5°	2905.6	2533.5	2029.7	1839.8	1785.6	1761.4	1750.7	1737.2	1726.5	1723.5	1726.5
20°	3051.8	2619.7	2050.1	1854.3	1787.5	1753.6	1732.2	1709.0	1690.6	1680.0	1683.9
22.5°	3207.8	2709.8	2062.6	1850.4	1770.1	1723.5	1684.8	1657.6	1629.5	1611.2	1612.1
25°	3360.0	2788.3	2061.7	1830.1	1736.1	1677.0	1627.6	1592.7	1554.0	1534.6	1534.6
27.5°	3506.2	2859.0	2037.5	1794.3	1687.7	1621.9	1562.7	1521.1	1483.3	1464.8	1463.9
30°	3657.3	2918.2	1999.7	1742.0	1630.6	1557.9	1493.0	1457.1	1423.2	1405.8	1404.8
32.5°	3807.6	2972.4	1946.4	1677.0	1564.7	1495.0	1431.0	1398.0	1377.7	1377.7	1378.6
35°	3966.4	3010.1	1875.6	1601.5	1495.0	1428.0	1377.7	1358.3	1356.4	1344.7	1341.8
37.5°	4134.0	3034.4	1789.4	1524.0	1426.1	1363.1	1347.7	1324.4	1305.0	1279.8	1275.9
40°	4310.3	3058.6	1685.8	1443.6	1353.5	1318.6	1311.8	1280.8	1225.6	1163.6	1154.9
42.5°	4524.5	3075.1	1578.2	1363.1	1276.9	1265.3	1275.0	1221.7	1133.5	1087.0	1088.0
45°	4772.5	3102.2	1479.4	1283.7	1198.4	1198.4	1239.1	1169.4	1096.8	1067.6	1072.5
47.5°	5094.1	3165.2	1387.3	1196.5	1125.8	1145.1	1159.7	1106.4	1065.7	1029.9	1028.9
50°	5559.2	3316.3	1292.4	1108.3	1070.6	1109.4	1089.0	1058.0	1010.4	981.4	978.6
52.5°	6136.6	3405.5	1208.2	1028.9	1023.1	1061.8	1032.8	1003.7	967.9	929.2	921.4
55°	6530.0	3422.0	1137.4	970.8	991.1	987.3	976.6	950.4	931.0	879.7	880.7
57.5°	6969.8	3454.9	1079.3	935.9	970.8	928.1	924.2	902.0	876.8	841.9	830.2
60°	7495.8	3506.2	1028.9	922.3	953.4	889.4	870.0	861.3	836.1	818.7	823.5
62.5°	8069.4	3552.8	977.5	924.2	933.0	851.6	822.6	819.6	804.1	798.3	798.3
65°	8460.9	3425.8	913.6	922.3	901.0	812.8	776.0	775.1	762.5	760.6	759.5
67.5°	8324.2	3023.7	827.4	895.2	868.1	774.1	733.4	729.5	713.1	714.0	714.0
70°	7640.2	2450.2	708.2	828.3	827.4	739.2	688.8	676.3	653.9	657.8	661.7
72.5°	6357.5	1815.6	548.4	717.0	762.5	707.2	637.4	617.2	589.1	593.0	591.9
75°	4591.3	1234.3	399.1	545.4	663.7	669.4	587.1	552.3	518.3	524.2	526.0
77.5°	2349.4	699.5	293.6	375.9	521.2	608.4	541.6	495.1	487.3	541.6	533.8
80°	766.4	350.8	203.5	263.5	342.0	497.9	474.8	421.5	419.5	432.1	371.0
82.5°	228.7	148.2	130.8	173.4	188.9	381.7	409.8	318.8	274.2	288.7	298.4
85°	78.5	71.6	74.6	86.2	90.1	223.8	286.8	211.3	199.6	220.0	217.0
87.5°	18.4	25.2	21.3	19.4	19.4	54.2	111.4	88.1	122.1	81.4	78.5
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)