

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: P963009

Luminaire Tested: **NAV-SB2D-740-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963009
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-740-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21568 lumens
Efficiency: N/A
Efficacy: 146.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 147.6
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

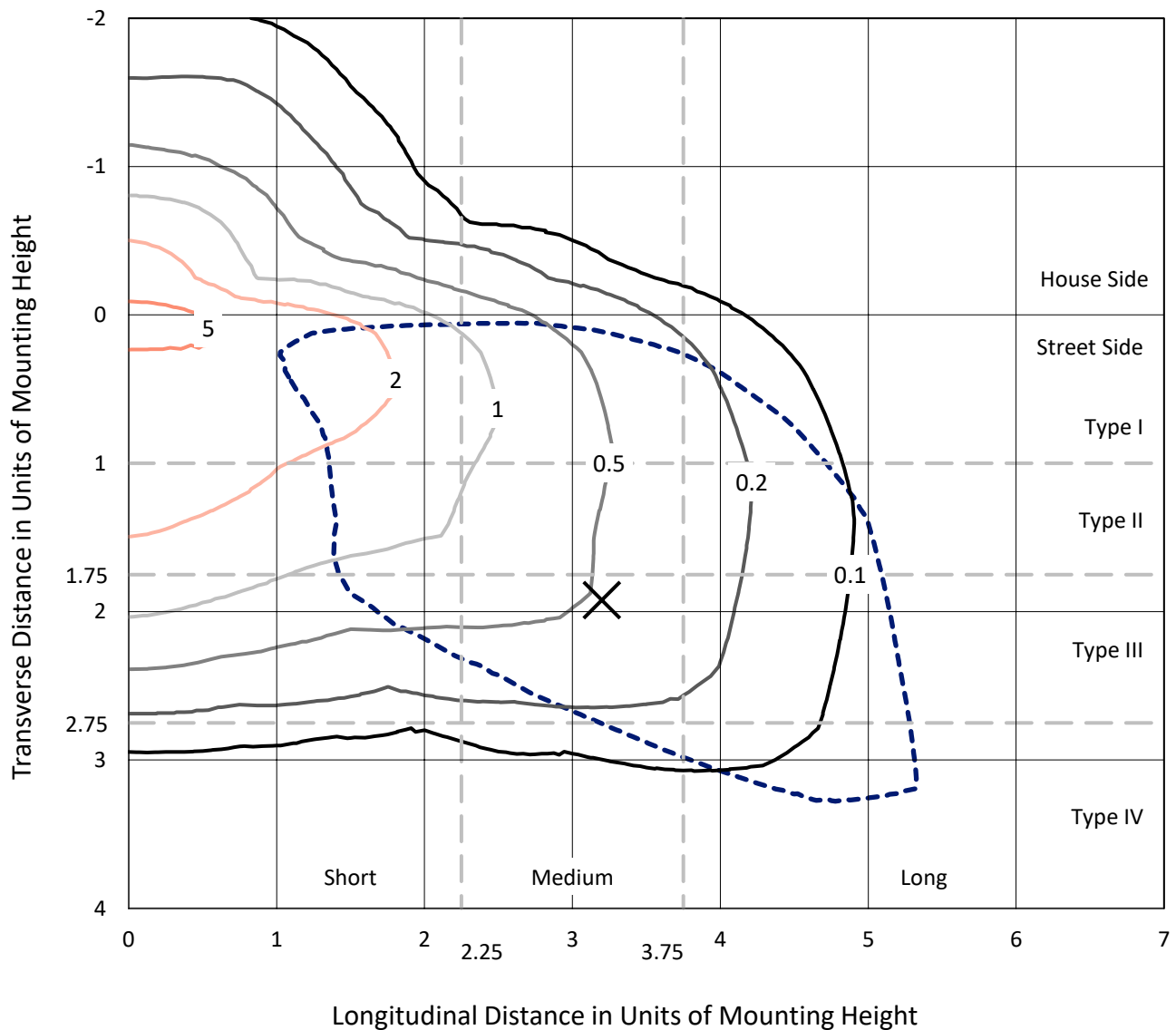


REPORT NUMBER: P963009

CATALOG NUMBER: NAV-SB2D-740-U-SL3

Iso-Footcandle Lines of Horizontal Illumination

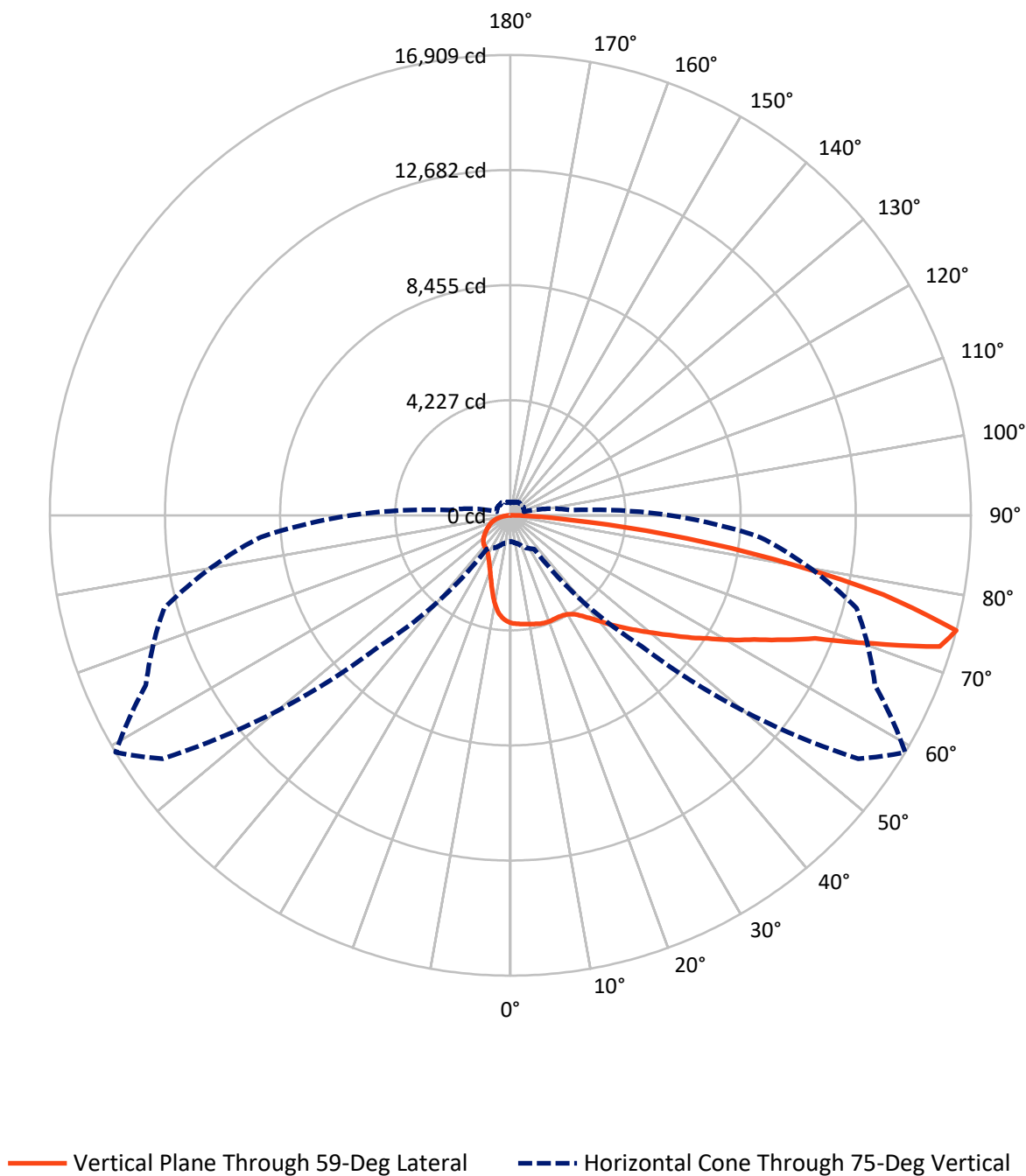
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
Type IV - Medium - N/A

REPORT NUMBER: P963009
CATALOG NUMBER: NAV-SB2D-740-U-SL3

Luminous Intensity Polar Plot



REPORT NUMBER: P963009

CATALOG NUMBER: NAV-SB2D-740-U-SL3

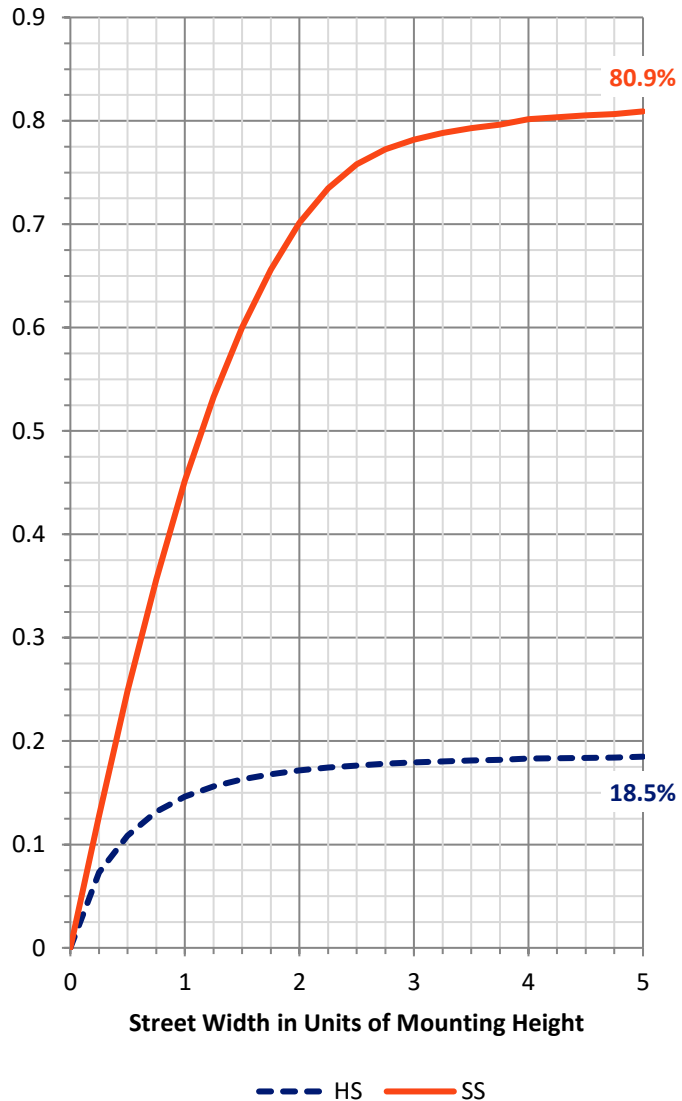
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4045.2	0.0	4045.2
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	17522.8	0.0	17522.8
	% Fixture	81.2	0.0	81.2
Total	Lumens	21568.0	0.0	21568.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.0	1.6
10°-20°	907.3	4.2
20°-30°	1378.1	6.4
30°-40°	2048.6	9.5
40°-50°	3046.6	14.1
50°-60°	4135.4	19.2
60°-70°	5048.6	23.4
70°-80°	3962.1	18.4
80°-90°	686.3	3.2
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°	21568.0	100.0
0°-180°	21568.0	100.0

Coefficient of Utilization



REPORT NUMBER: P963009

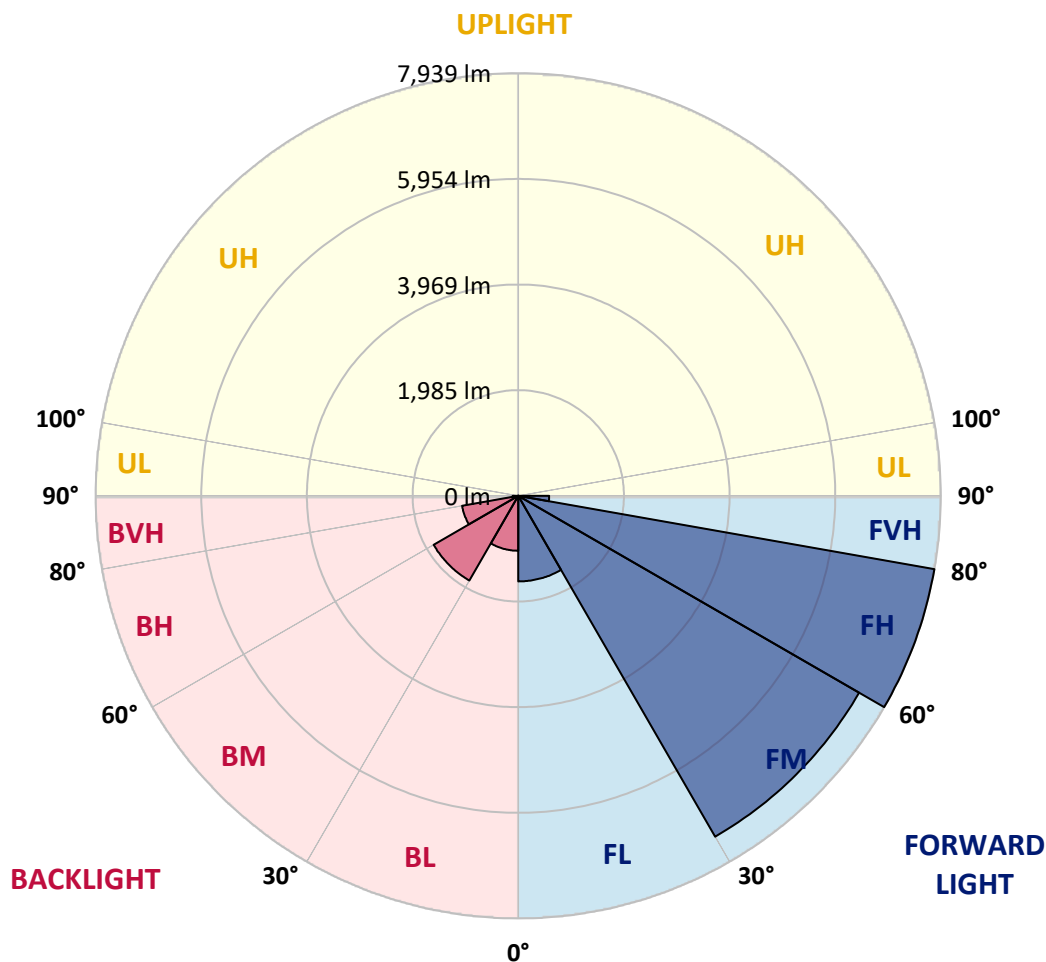
CATALOG NUMBER: NAV-SB2D-740-U-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1608.1	7.5			
FM	(30°-60°)	7394.4	34.3			
FH	(60°-80°)	7939.0	36.8			G4/12000
FVH	(80°-90°)	581.3	2.7			G4/750
BL	(0°-30°)	1032.3	4.8	B3/2500		
BM	(30°-60°)	1836.1	8.5	B2/2500		
BH	(60°-80°)	1071.7	5.0	B3/2500		G3/2500
BVH	(80°-90°)	105.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Medium



REPORT NUMBER: P963009

CATALOG NUMBER: NAV-SB2D-740-U-SL3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8
2.5°	3992.4	3978.5	3992.4	3986.6	3984.3	3979.7	3980.8	3988.9	3984.3	3990.1	3970.3
5°	3965.7	3957.6	3971.6	3968.1	3983.2	3985.4	4000.6	4009.8	4015.6	4016.8	4001.7
7.5°	3921.6	3913.6	3933.2	3949.5	3982.0	3991.2	4022.6	4037.7	4045.8	4059.7	4037.7
10°	3760.3	3756.9	3805.6	3867.1	3943.7	3991.2	4038.8	4064.3	4077.1	4114.2	4088.7
12.5°	3475.0	3479.6	3543.4	3661.7	3814.9	3968.1	4057.4	4094.6	4114.2	4160.7	4149.1
15°	3202.3	3201.1	3270.8	3397.2	3611.9	3866.0	4066.7	4130.4	4164.2	4232.6	4223.3
17.5°	3044.5	3039.8	3088.5	3184.9	3384.4	3709.3	4043.4	4150.2	4222.2	4308.0	4299.9
20°	3015.4	3006.2	3031.7	3079.3	3220.9	3537.6	3983.2	4150.2	4268.5	4379.9	4375.3
22.5°	3121.0	3106.0	3095.5	3089.8	3152.4	3396.0	3914.7	4136.3	4337.0	4483.2	4475.0
25°	3333.4	3310.2	3256.8	3204.6	3186.0	3332.3	3854.3	4132.8	4439.1	4622.4	4592.3
27.5°	3676.8	3647.8	3539.9	3414.6	3302.0	3364.8	3827.7	4153.7	4551.6	4769.7	4709.5
30°	4102.7	4071.3	3935.6	3743.0	3541.1	3485.4	3861.3	4215.2	4695.5	4965.8	4847.5
32.5°	4484.4	4449.5	4333.5	4137.4	3864.8	3694.2	3968.1	4332.4	4921.7	5238.6	5055.2
35°	4823.1	4782.5	4678.1	4497.1	4261.6	3987.8	4160.7	4540.0	5243.2	5681.8	5337.2
37.5°	5155.0	5107.4	4993.7	4802.2	4637.5	4378.8	4426.4	4806.9	5670.1	6220.1	5710.8
40°	5526.3	5457.8	5319.7	5130.6	4970.5	4837.1	4775.6	5134.1	6104.1	6821.1	6177.2
42.5°	5886.0	5821.0	5656.3	5494.9	5294.2	5255.9	5180.6	5517.0	6578.7	7481.3	6650.5
45°	6273.5	6195.7	5996.1	5792.0	5665.5	5534.4	5572.7	5899.9	7043.9	8154.2	7147.1
47.5°	6636.7	6549.6	6314.1	6086.7	6017.1	5768.8	5932.4	6321.1	7527.7	8836.4	7639.1
50°	6832.8	6746.9	6550.8	6345.4	6290.8	6057.6	6322.2	6784.0	8034.8	9516.4	8111.3
52.5°	6996.3	6903.5	6647.0	6533.3	6517.2	6372.1	6802.5	7313.1	8541.7	10117.4	8567.3
55°	7170.3	7067.1	6739.9	6637.8	6712.0	6724.8	7372.2	7912.9	9077.8	10703.3	8997.8
57.5°	7371.1	7240.0	6829.3	6725.9	6902.4	7137.9	8026.6	8534.8	9604.6	11246.3	9380.6
60°	7560.2	7427.9	7001.0	6866.4	7107.7	7617.0	8777.3	9287.8	10200.9	11730.1	9742.6
62.5°	7597.3	7488.2	7137.9	7136.7	7386.2	8176.2	9666.1	10047.8	10721.8	12208.2	10067.4
65°	6954.5	6886.1	6678.4	7126.2	7785.3	8981.5	10655.7	11020.1	11384.4	12625.8	10352.9
67.5°	5293.1	5302.3	5287.3	6151.6	7462.7	10138.3	12088.6	12060.8	12202.3	13094.6	10681.2
70°	2420.2	2474.8	2829.8	4246.5	5978.7	10271.7	14457.8	14097.0	13229.2	13701.4	10965.6
72.5°	1307.6	1349.4	1494.4	2057.1	3594.5	9132.3	16228.4	16484.8	14594.8	14109.7	10653.4
75°	959.5	982.8	1083.6	1307.6	1509.5	6787.4	15593.7	16909.4	14765.3	13157.2	9199.6
77.5°	718.2	728.7	811.0	1036.1	772.7	3578.2	12459.9	14004.2	12639.8	10810.1	6795.5
80°	520.9	532.6	594.1	777.4	541.8	1308.7	8555.7	9829.6	8656.6	6890.7	3386.8
82.5°	359.7	364.3	391.0	529.1	378.2	508.2	4854.5	5764.1	4832.5	2418.0	914.3
85°	217.0	222.7	234.4	308.6	214.6	241.3	2095.4	2167.4	1444.5	577.8	284.2
87.5°	89.4	95.1	104.4	130.0	84.7	67.3	345.7	433.9	270.3	169.4	88.1
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: P963009

CATALOG NUMBER: NAV-SB2D-740-U-SL3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8	3958.8
2.5°	3964.6	3956.4	3934.4	3904.2	3876.3	3841.6	3826.5	3813.7	3802.1	3780.1	3769.6
5°	3988.9	3966.9	3907.7	3831.1	3744.1	3649.0	3556.1	3492.4	3437.8	3397.2	3363.5
7.5°	4026.1	3984.3	3876.3	3719.7	3520.2	3316.0	3131.5	3000.4	2901.8	2865.8	2803.2
10°	4064.3	4014.4	3826.5	3550.4	3205.8	2891.3	2646.5	2512.0	2433.0	2407.5	2368.1
12.5°	4109.6	4036.6	3748.7	3314.8	2854.2	2509.6	2296.1	2217.3	2176.6	2162.8	2166.1
15°	4175.7	4055.1	3631.6	3020.2	2518.9	2231.1	2093.0	2038.5	2017.7	2016.5	2021.2
17.5°	4225.7	4058.6	3449.4	2704.6	2261.4	2062.9	1949.2	1928.3	1942.3	1963.2	1971.3
20°	4281.3	4027.2	3210.4	2416.8	2080.3	1915.5	1868.0	1881.9	1915.5	1945.8	1956.2
22.5°	4320.8	3970.3	2921.5	2192.9	1923.7	1830.9	1828.6	1857.6	1876.2	1891.2	1899.3
25°	4355.5	3874.1	2615.2	2004.9	1794.9	1779.8	1805.3	1796.1	1783.3	1796.1	1804.2
27.5°	4381.1	3722.1	2341.4	1840.2	1704.4	1745.1	1729.9	1709.1	1707.9	1714.8	1726.4
30°	4373.0	3519.0	2116.3	1683.6	1640.6	1680.1	1644.1	1640.6	1637.1	1640.6	1653.3
32.5°	4373.0	3288.1	1943.4	1575.6	1600.0	1584.9	1581.4	1573.3	1559.3	1558.2	1573.3
35°	4397.4	3057.3	1794.9	1517.6	1566.3	1530.3	1532.7	1513.0	1484.0	1470.1	1484.0
37.5°	4447.3	2871.6	1647.6	1489.7	1507.2	1506.0	1496.7	1463.1	1412.0	1368.0	1383.0
40°	4567.9	2817.1	1546.6	1477.0	1479.3	1493.2	1468.8	1403.9	1287.9	1216.0	1225.2
42.5°	4757.0	2908.7	1524.6	1445.7	1460.7	1474.7	1427.1	1276.2	1193.9	1151.0	1151.0
45°	4997.2	3068.8	1572.1	1400.5	1416.7	1441.0	1299.5	1227.5	1190.4	1191.6	1197.4
47.5°	5301.2	3237.1	1660.3	1361.0	1352.9	1366.7	1214.8	1170.7	1119.6	1132.4	1164.9
50°	5652.8	3407.6	1743.8	1307.6	1282.1	1236.9	1160.2	1118.5	1053.5	1023.4	1031.5
52.5°	6033.3	3572.4	1777.5	1242.6	1205.5	1153.3	1123.1	1072.0	993.1	943.3	942.1
55°	6394.2	3722.1	1740.3	1164.9	1128.9	1088.3	1083.6	1052.4	967.6	898.0	898.0
57.5°	6735.3	3847.3	1647.6	1086.0	1051.1	1026.8	1058.1	1043.0	936.3	847.0	842.3
60°	7024.1	3933.2	1513.0	1005.9	981.5	968.8	1016.4	1011.8	892.3	792.4	788.9
62.5°	7253.8	3966.9	1364.5	929.4	923.5	900.4	958.4	958.4	836.5	739.1	735.6
65°	7433.7	3934.4	1213.6	853.9	865.5	830.8	887.5	880.6	777.4	691.5	686.9
67.5°	7592.7	3827.7	1046.5	779.7	806.4	762.3	813.3	797.0	712.4	643.9	639.3
70°	7663.4	3579.4	856.3	705.4	737.9	694.9	739.1	708.9	639.3	592.9	583.6
72.5°	7094.9	2974.9	674.1	627.7	655.6	620.7	659.0	624.2	560.4	539.6	522.1
75°	5869.7	2232.3	518.6	543.0	563.9	537.2	562.7	537.2	479.2	494.3	451.3
77.5°	4262.8	1507.2	396.8	453.7	462.9	449.1	471.1	442.1	389.8	386.3	369.0
80°	2119.8	882.9	311.0	358.5	355.1	345.7	371.3	357.3	313.2	331.8	328.3
82.5°	613.8	378.2	226.2	251.7	244.8	247.1	265.7	272.6	408.4	405.0	414.2
85°	192.6	148.5	135.7	140.4	133.5	136.9	156.6	311.0	287.7	168.2	182.1
87.5°	49.9	51.0	33.6	36.0	37.1	44.1	49.9	189.1	90.5	59.1	62.6
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)