

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: P963025

Luminaire Tested: **NAV-SB2D-740-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963025
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-740-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22655.6 lumens
Efficiency: N/A
Efficacy: 153.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

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

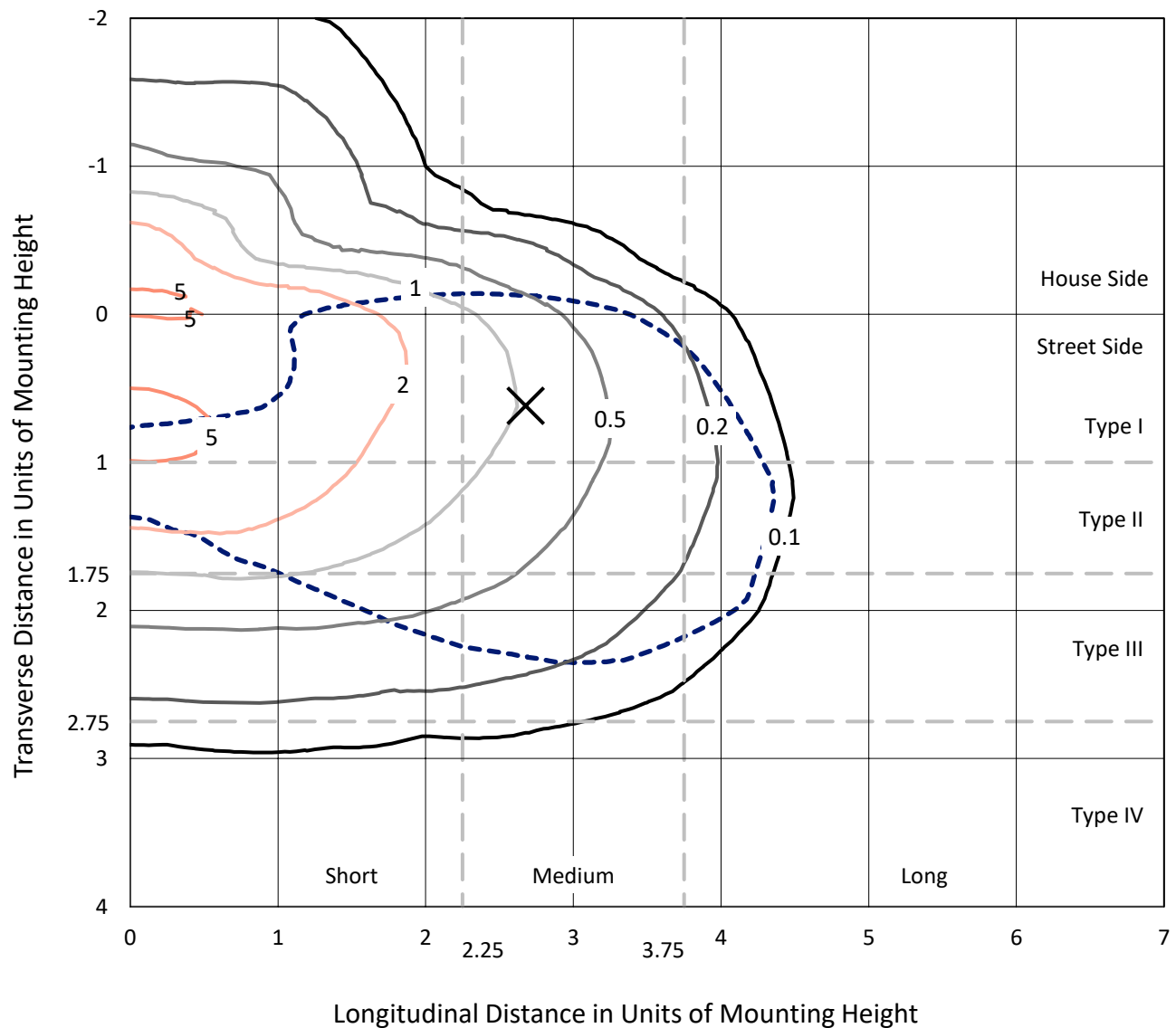


REPORT NUMBER: P963025

CATALOG NUMBER: NAV-SB2D-740-U-T3R

Iso-Footcandle Lines of Horizontal Illumination

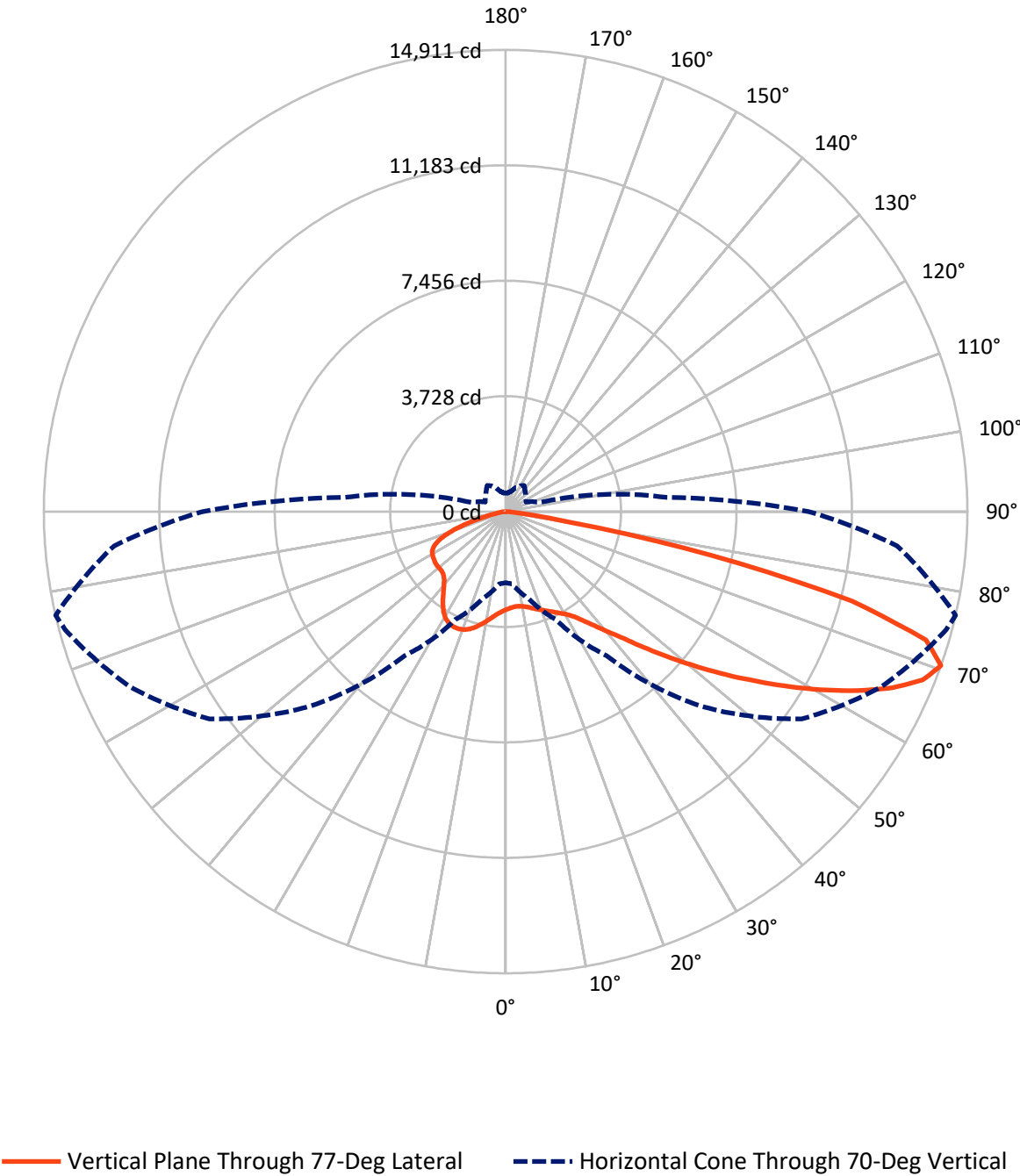
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
Type III - Medium - N/A

REPORT NUMBER: P963025
CATALOG NUMBER: NAV-SB2D-740-U-T3R

Luminous Intensity Polar Plot



REPORT NUMBER: P963025

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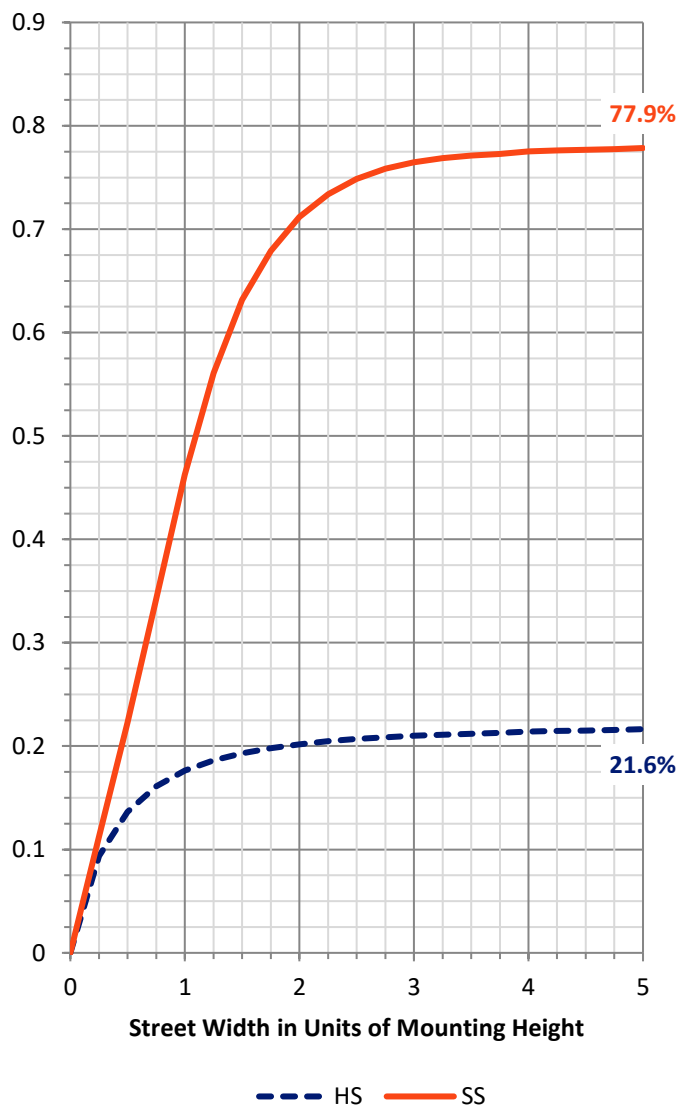
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4961.2	0.0	4961.2
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	17694.4	0.0	17694.4
	% Fixture	78.1	0.0	78.1
Total	Lumens	22655.6	0.0	22655.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.4	1.3
10°-20°	870.0	3.8
20°-30°	1487.8	6.6
30°-40°	2392.5	10.6
40°-50°	3735.4	16.5
50°-60°	4989.6	22.0
60°-70°	5318.1	23.5
70°-80°	3273.8	14.5
80°-90°	286.9	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°	22655.6	100.0
0°-180°	22655.6	100.0

Coefficient of Utilization



REPORT NUMBER: P963025

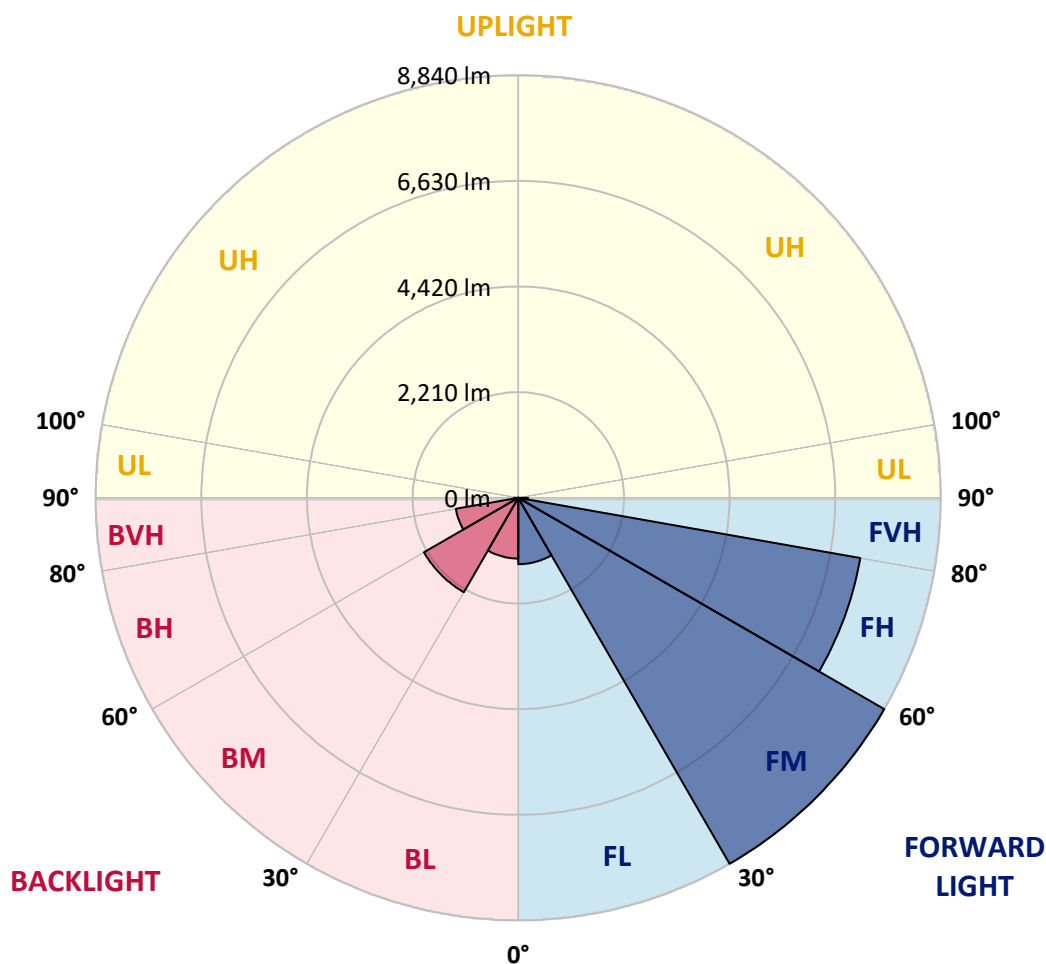
CATALOG NUMBER: NAV-SB2D-740-U-T3R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1388.0	6.1			
FM	(30°-60°)	8839.7	39.0			
FH	(60°-80°)	7266.0	32.1			G3/7500
FVH	(80°-90°)	200.6	0.9			G2/225
BL	(0°-30°)	1271.2	5.6	B3/2500		
BM	(30°-60°)	2277.8	10.1	B2/2500		
BH	(60°-80°)	1325.9	5.9	B3/2500		G3/2500
BVH	(80°-90°)	86.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Medium



REPORT NUMBER: P963025

CATALOG NUMBER: NAV-SB2D-740-U-T3R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7
2.5°	2913.6	2912.3	2927.4	2932.1	2959.9	2979.7	3016.8	3056.2	3107.3	3113.1	3144.4
5°	2745.3	2745.3	2762.7	2781.2	2817.2	2856.7	2913.6	2981.9	3070.2	3084.1	3161.8
7.5°	2602.6	2611.8	2626.9	2662.8	2704.7	2761.6	2848.6	2946.0	3062.1	3084.1	3209.4
10°	2487.7	2498.1	2516.7	2545.7	2608.3	2687.2	2800.9	2926.3	3081.8	3116.6	3279.0
12.5°	2451.7	2462.2	2472.6	2494.6	2552.7	2645.5	2781.2	2935.6	3129.3	3164.2	3374.2
15°	2535.2	2548.0	2539.8	2534.1	2564.2	2649.0	2790.6	2969.2	3188.5	3238.4	3491.4
17.5°	2727.8	2732.5	2713.9	2659.4	2654.7	2700.1	2834.6	3015.7	3262.8	3317.3	3609.7
20°	3038.8	3030.7	2992.4	2884.6	2823.1	2813.7	2910.1	3085.2	3339.3	3397.4	3737.4
22.5°	3461.2	3451.9	3375.3	3204.8	3067.8	2977.3	3019.1	3175.8	3425.2	3490.2	3861.5
25°	3988.0	3975.2	3862.6	3630.6	3418.3	3194.3	3167.7	3295.3	3530.8	3591.1	3991.5
27.5°	4602.9	4592.5	4470.6	4164.4	3858.0	3491.4	3352.2	3435.7	3641.0	3709.5	4137.6
30°	5264.3	5294.4	5078.7	4749.1	4361.6	3878.9	3600.4	3608.5	3783.8	3845.3	4315.1
32.5°	6041.7	6093.9	5834.0	5416.3	4887.2	4300.1	3913.7	3849.9	3991.5	4042.5	4539.1
35°	6812.2	6871.3	6655.5	6193.7	5584.5	4796.7	4240.9	4127.2	4267.6	4323.2	4836.2
37.5°	7478.1	7557.0	7445.6	7044.2	6330.6	5395.4	4667.8	4453.2	4607.6	4677.2	5235.3
40°	8003.7	8124.5	8116.3	7865.6	7210.2	6121.7	5209.8	4855.8	5029.9	5105.3	5719.1
42.5°	8430.7	8535.2	8625.7	8612.9	8127.9	6946.7	5846.8	5379.2	5511.4	5598.4	6263.3
45°	8725.4	8836.8	9031.8	9241.8	9010.9	7829.7	6576.6	5999.9	6120.6	6251.7	6911.9
47.5°	8988.8	9115.3	9368.3	9701.3	9760.5	8716.2	7376.0	6722.8	6833.1	6968.8	7562.9
50°	9012.1	9121.2	9513.3	9985.6	10293.0	9567.9	8234.6	7533.9	7637.1	7782.1	8260.2
52.5°	8451.6	8623.3	9307.9	9977.5	10537.8	10280.2	9087.4	8377.3	8493.4	8667.4	8981.9
55°	6560.3	6812.2	8705.7	9666.5	10450.8	10740.9	9898.5	9274.3	9422.8	9605.0	9708.3
57.5°	5650.6	5760.9	6910.8	9100.3	10054.0	10860.4	10583.1	10180.5	10419.5	10619.1	10476.3
60°	5078.7	5170.3	5850.2	8219.6	9531.9	10671.3	11112.2	11025.2	11438.3	11676.1	11261.9
62.5°	4466.0	4553.0	5171.4	6863.2	8863.6	10356.8	11446.4	11804.9	12482.6	12742.4	12002.1
65°	3858.0	3932.3	4525.2	5766.6	8014.2	10042.4	11619.3	12479.1	13449.0	13718.2	12617.1
67.5°	3180.4	3241.9	3802.3	4865.2	6981.5	9611.9	11705.1	13009.3	14290.2	14521.2	12921.2
70°	2295.1	2342.6	2921.7	3847.5	5685.5	8871.7	11670.3	13385.3	14726.6	14911.0	12691.3
72.5°	1084.9	1127.8	1807.8	2498.1	4015.8	7430.5	10966.0	13087.0	14283.3	14191.6	11285.0
75°	579.0	616.1	1038.4	1370.3	2121.0	5093.7	8973.8	11273.5	11994.0	11548.5	8340.2
77.5°	392.2	421.2	642.8	822.7	968.8	2418.1	5767.9	7805.4	7509.5	6773.8	4177.1
80°	311.0	341.1	526.7	557.0	468.7	873.7	2383.2	3613.2	2595.6	2075.7	1188.2
82.5°	239.0	272.6	443.2	403.7	255.2	358.5	693.8	1142.9	664.8	505.9	287.7
85°	146.2	182.1	348.1	257.6	143.9	163.6	235.5	318.0	203.1	169.4	103.2
87.5°	74.2	104.4	176.4	94.0	65.0	38.3	62.6	62.6	53.4	46.4	26.6
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: P963025

CATALOG NUMBER: NAV-SB2D-740-U-T3R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7	3160.7
2.5°	3172.3	3195.4	3234.9	3272.0	3301.0	3328.9	3356.8	3371.8	3376.5	3395.0	3405.5
5°	3209.4	3252.3	3328.9	3400.8	3446.0	3473.9	3493.7	3505.3	3507.6	3513.4	3522.7
7.5°	3277.8	3346.3	3453.0	3525.0	3558.6	3556.3	3548.2	3519.2	3507.6	3497.2	3499.5
10°	3374.2	3464.7	3595.8	3645.6	3624.8	3569.0	3497.2	3412.4	3373.0	3334.7	3323.2
12.5°	3493.7	3608.5	3737.4	3735.0	3631.8	3489.0	3321.9	3192.0	3109.6	3050.4	3036.5
15°	3638.7	3771.0	3869.6	3790.7	3564.4	3308.0	3063.2	2893.8	2819.6	2754.6	2747.6
17.5°	3788.4	3930.0	3975.2	3773.3	3395.0	3039.9	2762.7	2629.2	2556.1	2521.3	2531.8
20°	3934.6	4075.0	4037.9	3673.5	3137.4	2736.0	2488.8	2415.7	2400.7	2408.8	2405.3
22.5°	4088.9	4214.2	4050.6	3480.9	2809.1	2425.0	2289.2	2291.6	2325.2	2349.6	2355.4
25°	4246.7	4331.4	4017.0	3202.4	2456.3	2196.5	2162.8	2200.0	2266.1	2313.6	2326.4
27.5°	4398.7	4435.8	3943.9	2857.8	2153.5	2032.9	2038.6	2115.2	2215.0	2281.1	2297.4
30°	4570.5	4528.7	3803.5	2470.2	1943.5	1892.5	1941.1	2030.5	2130.4	2189.5	2203.4
32.5°	4764.2	4608.7	3580.7	2111.7	1795.0	1779.9	1860.0	1918.0	1962.1	1979.5	1988.7
35°	5005.6	4721.3	3295.3	1860.0	1661.5	1697.5	1774.1	1745.1	1727.6	1718.4	1727.6
37.5°	5318.8	4873.3	2961.1	1696.4	1553.6	1638.4	1669.6	1579.2	1510.7	1477.0	1485.2
40°	5695.9	5096.0	2639.7	1569.9	1485.2	1587.3	1532.8	1423.7	1336.7	1289.1	1292.5
42.5°	6114.7	5329.3	2369.3	1474.8	1446.9	1545.5	1431.8	1301.9	1161.4	1146.4	1161.4
45°	6554.6	5569.4	2184.9	1401.7	1428.3	1509.5	1373.8	1163.8	1063.9	1125.4	1157.9
47.5°	6994.3	5789.9	2073.5	1347.2	1419.0	1468.9	1322.8	1087.2	1016.4	1105.8	1147.5
50°	7483.9	5987.1	2023.6	1307.7	1408.6	1452.7	1246.2	1067.4	966.6	1025.7	1069.8
52.5°	7970.1	6140.3	1986.4	1268.2	1393.5	1439.9	1209.0	1044.3	906.2	909.7	934.1
55°	8455.1	6240.1	1945.9	1216.0	1359.9	1412.0	1205.5	1018.7	860.9	844.7	856.3
57.5°	8972.6	6297.0	1895.9	1157.9	1301.9	1341.3	1202.1	999.1	847.1	820.3	823.8
60°	9499.4	6380.5	1831.0	1087.2	1224.2	1256.6	1193.9	992.1	838.9	793.7	797.1
62.5°	9971.6	6409.5	1753.3	1019.9	1124.3	1173.1	1176.5	986.3	816.8	739.1	739.1
65°	10281.5	6284.2	1617.4	943.3	1016.4	1087.2	1142.9	966.6	777.4	699.7	699.7
67.5°	10268.7	5926.9	1405.2	844.7	912.0	992.1	1094.2	932.9	729.8	651.0	654.4
70°	9790.6	5221.3	1135.9	729.8	797.1	889.9	1031.5	883.0	673.0	597.6	604.5
72.5°	8397.1	4086.6	825.0	595.2	663.7	784.3	950.3	822.7	615.0	550.0	546.5
75°	5998.7	2586.3	559.2	457.2	516.3	664.8	849.3	751.8	561.6	552.3	521.0
77.5°	3064.3	1235.7	370.1	334.2	359.7	524.5	713.6	671.8	569.7	456.0	406.1
80°	996.7	456.0	233.2	227.4	239.0	349.2	552.3	551.1	431.6	309.8	273.9
82.5°	318.0	196.1	152.0	146.2	140.4	219.2	385.2	436.2	291.2	196.1	195.0
85°	126.5	117.2	89.4	82.4	59.1	103.2	201.9	290.1	217.0	141.6	145.0
87.5°	46.4	46.4	24.4	17.4	12.8	34.8	54.5	87.0	124.1	73.1	72.0
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)