

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: P962990

Luminaire Tested: **NAV-SB2D-735-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962990
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-735-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21138.6 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
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

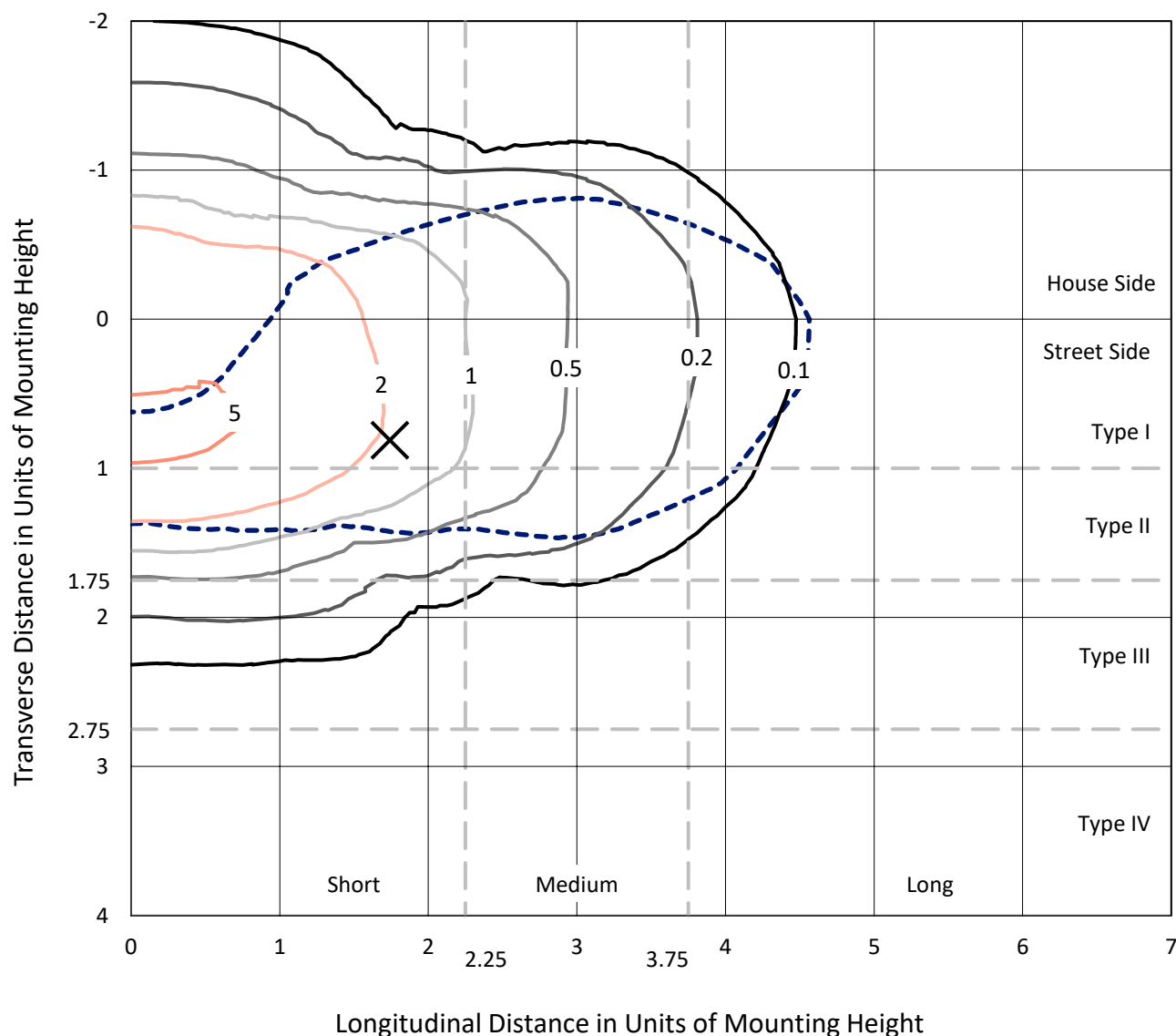


REPORT NUMBER: P962990

CATALOG NUMBER: NAV-SB2D-735-U-T2U

Iso-Footcandle Lines of Horizontal Illumination

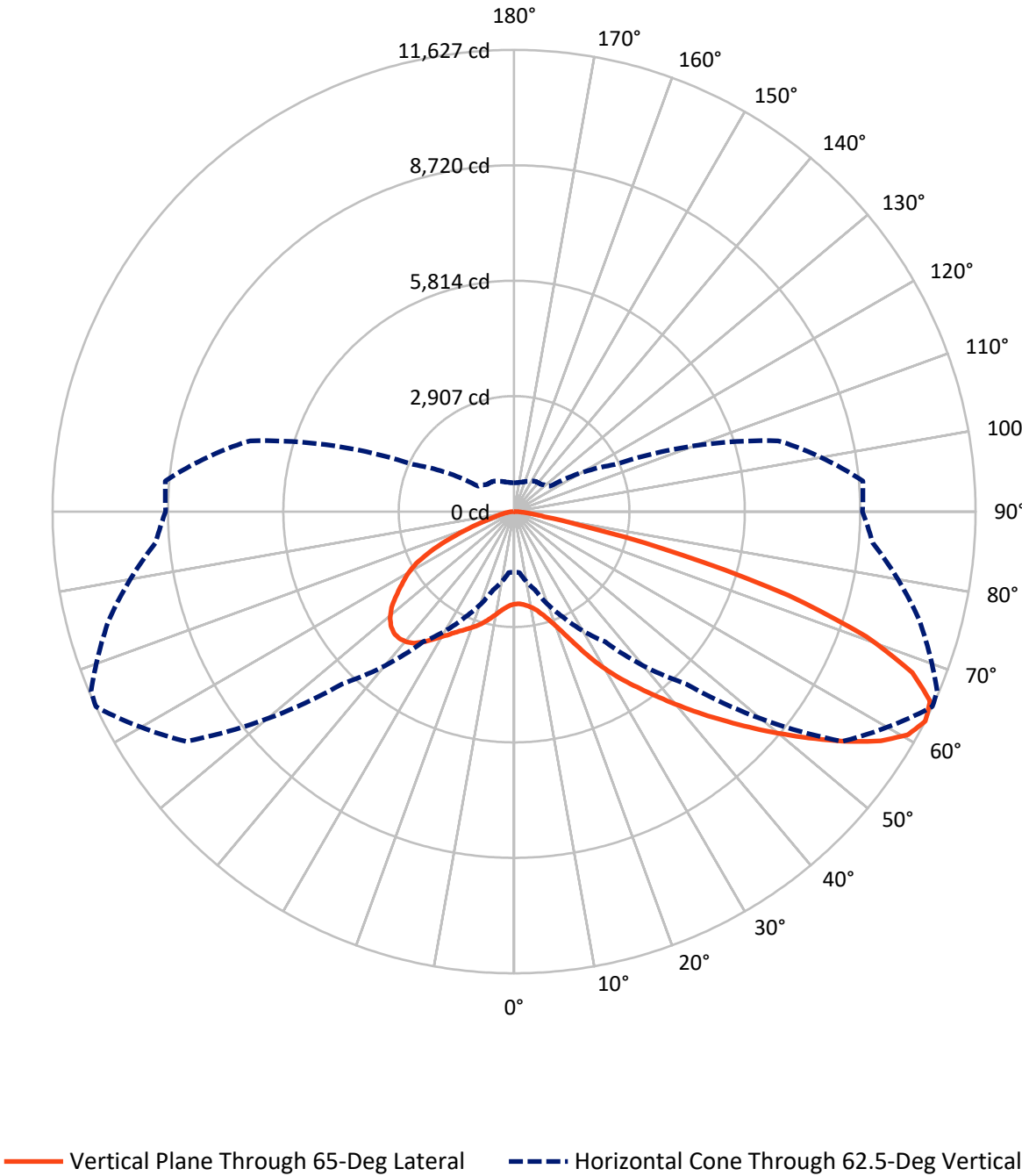
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Short - N/A

REPORT NUMBER: P962990
CATALOG NUMBER: NAV-SB2D-735-U-T2U

Luminous Intensity Polar Plot



REPORT NUMBER: P962990

CATALOG NUMBER: NAV-SB2D-735-U-T2U

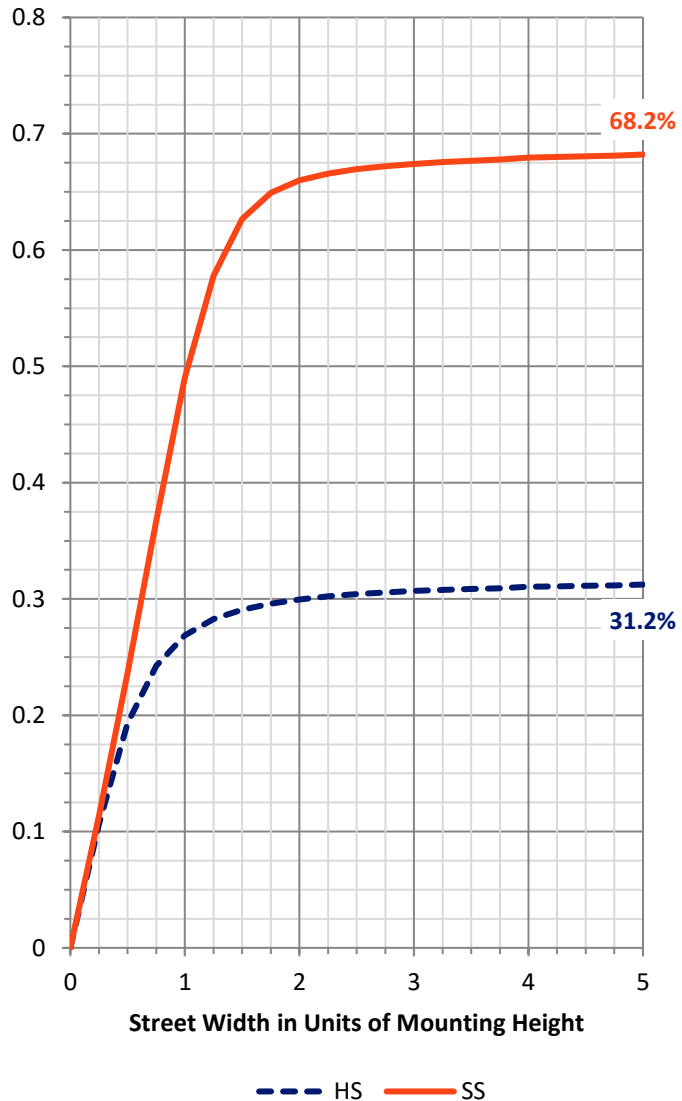
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6670.4	0.0	6670.4
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	14468.2	0.0	14468.2
	% Fixture	68.4	0.0	68.4
Total	Lumens	21138.6	0.0	21138.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.2	1.1
10°-20°	787.5	3.7
20°-30°	1596.8	7.6
30°-40°	2763.3	13.1
40°-50°	4181.7	19.8
50°-60°	4902.7	23.2
60°-70°	4110.3	19.4
70°-80°	2269.3	10.7
80°-90°	294.8	1.4
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°	21138.6	100.0
0°-180°	21138.6	100.0

Coefficient of Utilization



REPORT NUMBER: P962990

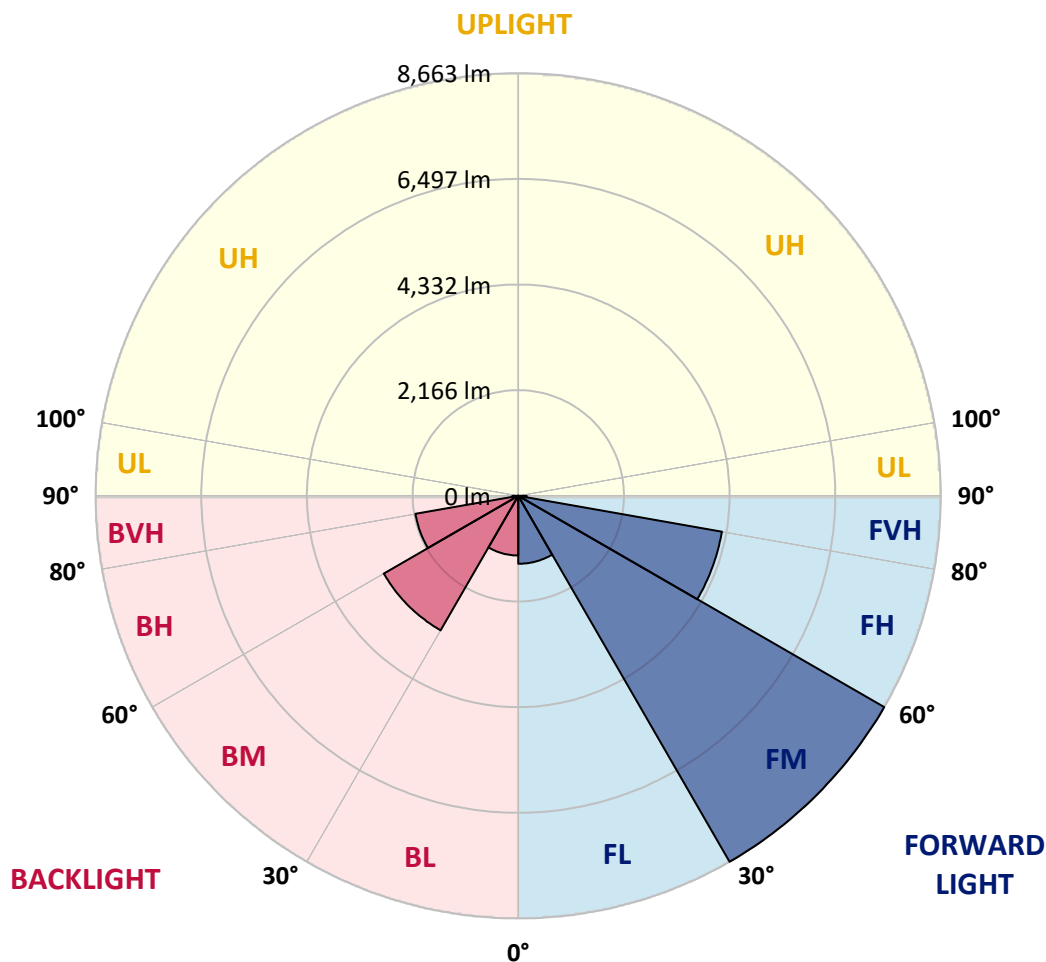
CATALOG NUMBER: NAV-SB2D-735-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1393.3	6.6			
FM	(30°-60°)	8663.3	41.0			
FH	(60°-80°)	4239.8	20.1			G2/5000
FVH	(80°-90°)	171.8	0.8			G2/225
BL	(0°-30°)	1223.3	5.8	B3/2500		
BM	(30°-60°)	3184.4	15.1	B3/5000		
BH	(60°-80°)	2139.8	10.1	B3/2500		G3/2500
BVH	(80°-90°)	123.0	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short



REPORT NUMBER: P962990

CATALOG NUMBER: NAV-SB2D-735-U-T2U

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4
2.5°	2314.0	2307.5	2312.9	2312.9	2315.2	2314.0	2321.7	2323.9	2327.2	2333.7	2333.7
5°	2291.0	2289.8	2299.8	2308.5	2317.3	2325.0	2334.8	2349.1	2351.4	2359.0	2368.9
7.5°	2283.3	2276.7	2292.1	2303.1	2323.9	2342.5	2368.9	2393.0	2402.9	2406.2	2424.8
10°	2342.5	2331.6	2345.8	2352.4	2370.0	2388.6	2419.3	2457.6	2468.6	2481.8	2502.6
12.5°	2443.4	2431.4	2452.2	2462.0	2478.6	2495.0	2515.9	2553.1	2558.6	2582.7	2602.5
15°	2581.7	2567.3	2580.5	2592.6	2620.0	2635.4	2656.2	2692.4	2692.4	2711.0	2725.3
17.5°	2769.1	2750.5	2760.4	2764.7	2782.4	2805.3	2840.5	2872.3	2888.7	2882.1	2862.4
20°	3048.8	3025.8	3025.8	3003.9	2997.3	3016.0	3062.0	3105.9	3123.4	3089.4	3041.2
22.5°	3468.8	3435.9	3417.4	3342.7	3313.1	3315.3	3361.4	3415.1	3429.3	3369.1	3260.4
25°	4002.9	3951.4	3926.2	3816.5	3749.6	3691.4	3727.6	3796.8	3816.5	3742.0	3566.5
27.5°	4537.1	4540.3	4516.2	4384.5	4273.8	4167.4	4148.8	4221.2	4242.1	4157.6	3940.4
30°	5286.0	5208.2	5162.1	5004.3	4846.3	4697.2	4620.4	4650.0	4655.4	4554.6	4302.3
32.5°	5932.0	5912.3	5813.6	5675.4	5472.5	5238.9	5110.5	5063.4	5054.7	4911.0	4611.6
35°	6667.9	6657.0	6552.7	6388.2	6168.9	5844.2	5612.9	5478.0	5467.0	5265.2	4917.5
37.5°	7415.9	7415.9	7313.9	7134.0	6907.0	6501.2	6149.2	5935.3	5900.2	5637.0	5229.0
40°	8012.4	7976.2	7994.9	7919.3	7659.3	7228.3	6744.7	6434.3	6387.2	6071.3	5560.2
42.5°	8351.3	8339.3	8451.1	8535.6	8429.2	8084.8	7400.5	6975.0	6909.2	6549.4	5941.9
45°	8427.0	8413.8	8613.5	8922.7	9071.9	8930.4	8113.4	7544.2	7464.2	7049.5	6351.0
47.5°	8252.6	8226.3	8519.1	9007.2	9485.3	9734.2	8885.4	8161.6	8045.3	7536.5	6770.9
50°	7728.4	7703.2	8146.3	8794.4	9624.5	10280.4	9723.3	8816.3	8638.7	8058.6	7195.4
52.5°	6588.9	6601.0	7295.2	8185.8	9441.5	10620.4	10445.0	9506.2	9292.3	8592.6	7593.5
55°	5132.5	5158.8	6012.0	6992.6	8708.8	10568.9	10937.4	10216.8	10004.0	9094.9	8004.7
57.5°	3675.0	3791.3	4590.8	5561.3	7301.8	9751.8	11044.8	10892.4	10686.2	9643.2	8407.3
60°	2382.0	2402.9	3225.4	4203.6	5560.2	8299.8	10826.6	11404.6	11243.3	10202.5	8744.0
62.5°	1526.6	1540.9	2042.0	2940.2	4001.8	6140.4	10091.7	11627.2	11577.8	10572.2	9067.5
65°	1122.0	1111.0	1372.0	1943.3	2695.6	3786.9	8664.9	11519.7	11617.2	10803.5	9335.1
67.5°	936.5	921.3	1049.5	1345.6	1986.1	2150.7	6411.3	10821.1	11178.6	10777.3	9531.4
70°	853.2	840.1	917.9	999.1	1549.6	1439.9	3231.9	9407.4	9958.0	10477.9	9499.6
72.5°	722.7	699.7	806.1	887.2	1205.3	1104.3	1335.8	7226.1	7897.3	9518.3	9052.1
75°	560.4	545.1	636.1	780.8	905.9	862.0	844.5	4387.9	5120.5	7361.0	7919.3
77.5°	444.1	423.3	506.7	608.6	814.9	650.4	615.2	1889.6	2615.6	4699.3	5925.4
80°	334.5	315.8	385.0	481.4	626.2	490.3	398.1	771.0	985.9	2381.0	2979.7
82.5°	238.0	221.5	268.7	353.1	421.2	439.7	244.6	432.1	485.8	917.9	665.7
85°	152.4	142.6	179.9	221.5	267.6	282.9	149.1	225.9	247.8	378.3	277.5
87.5°	83.3	68.0	96.6	103.1	123.9	113.0	71.2	82.2	88.9	137.0	117.4
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: P962990

CATALOG NUMBER: NAV-SB2D-735-U-T2U

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4	2329.4
2.5°	2338.1	2341.4	2352.4	2355.7	2363.3	2373.3	2379.8	2386.4	2386.4	2393.0	2393.0
5°	2370.0	2377.6	2400.7	2412.7	2432.4	2452.2	2464.3	2478.6	2487.3	2491.7	2493.9
7.5°	2431.4	2443.4	2476.3	2497.2	2531.1	2558.6	2577.3	2596.9	2601.3	2613.4	2609.0
10°	2514.7	2529.0	2566.3	2605.8	2646.3	2680.3	2697.9	2712.1	2717.6	2719.8	2714.3
12.5°	2610.2	2631.0	2679.2	2727.5	2770.3	2799.9	2804.3	2800.9	2785.6	2772.4	2772.4
15°	2727.5	2746.1	2799.9	2852.5	2894.2	2899.6	2872.3	2854.7	2836.1	2832.8	2832.8
17.5°	2867.8	2877.7	2927.1	2978.6	2981.9	2963.3	2922.7	2906.3	2888.7	2876.7	2877.7
20°	3031.2	3028.0	3063.1	3085.0	3062.0	3005.0	2943.5	2916.1	2898.6	2884.4	2885.4
22.5°	3226.5	3201.3	3196.9	3191.3	3129.9	3010.4	2927.1	2891.9	2864.6	2844.8	2851.4
25°	3510.5	3414.0	3347.1	3309.8	3171.7	2980.8	2874.4	2796.6	2745.1	2711.0	2724.1
27.5°	3865.9	3703.5	3534.6	3443.6	3171.7	2920.5	2747.2	2621.1	2536.7	2501.5	2519.1
30°	4204.8	4034.7	3785.8	3604.8	3164.0	2821.8	2542.1	2366.6	2267.9	2232.9	2253.7
32.5°	4494.2	4308.9	4052.3	3781.4	3145.3	2661.7	2287.7	2093.6	1998.1	1956.5	1977.3
35°	4763.0	4565.6	4319.9	3975.6	3096.0	2427.0	2008.1	1860.0	1753.6	1686.7	1708.7
37.5°	5038.2	4803.6	4573.2	4150.9	3007.1	2152.8	1793.1	1667.0	1541.9	1452.0	1476.1
40°	5337.6	5056.8	4844.2	4255.2	2861.3	1891.8	1626.4	1511.3	1378.5	1283.1	1301.8
42.5°	5687.4	5360.6	5145.7	4308.9	2661.7	1706.4	1517.8	1404.9	1279.8	1202.0	1217.3
45°	6052.6	5695.1	5420.9	4307.8	2439.1	1619.8	1482.8	1370.8	1232.7	1151.5	1164.7
47.5°	6435.4	6044.9	5658.9	4237.7	2246.0	1631.9	1463.0	1297.3	1144.9	1066.0	1077.0
50°	6819.2	6427.8	5889.2	4106.0	2163.8	1605.6	1389.5	1194.3	1014.4	943.2	947.5
52.5°	7199.8	6834.6	6087.8	3918.5	2080.4	1508.0	1295.2	1060.5	960.7	911.3	911.3
55°	7582.5	7237.1	6303.7	3645.4	1872.1	1393.9	1137.2	1010.0	917.9	873.0	868.6
57.5°	7966.4	7702.1	6508.9	3372.4	1610.0	1253.5	1050.6	948.6	875.1	836.8	830.1
60°	8365.5	8234.0	6720.5	3121.2	1351.2	1073.7	987.1	899.3	824.7	782.0	778.7
62.5°	8776.9	8819.6	6886.2	2797.6	1113.1	964.0	930.0	840.1	767.7	727.1	726.0
65°	9191.4	9384.4	6994.7	2349.1	902.6	859.8	868.6	775.4	701.9	666.8	665.7
67.5°	9504.0	9791.3	6964.1	1777.8	740.3	761.1	791.8	707.4	638.3	610.9	611.9
70°	9539.1	9743.0	6661.4	1217.3	619.6	664.6	706.2	640.4	569.2	549.4	550.5
72.5°	9071.9	9085.0	5818.0	795.1	524.2	583.4	616.3	572.5	503.4	483.6	482.6
75°	7846.9	7513.5	4271.6	524.2	438.7	501.2	531.9	501.2	434.3	438.7	423.3
77.5°	5945.2	5321.2	2593.7	372.9	366.3	421.2	462.8	440.9	383.9	431.0	379.5
80°	3063.1	2878.8	1157.0	278.6	289.6	336.7	380.6	352.1	303.8	289.6	264.3
82.5°	701.9	815.9	456.2	199.6	209.5	242.4	290.6	264.3	218.2	184.3	182.0
85°	245.7	268.7	201.8	125.0	122.8	151.4	197.4	176.6	148.0	118.5	125.0
87.5°	77.9	102.0	75.6	50.4	52.7	68.0	91.0	83.3	69.1	45.0	47.2
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)