

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: P883940

Luminaire Tested: **NAV-SB4C-735-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883940
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22980 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

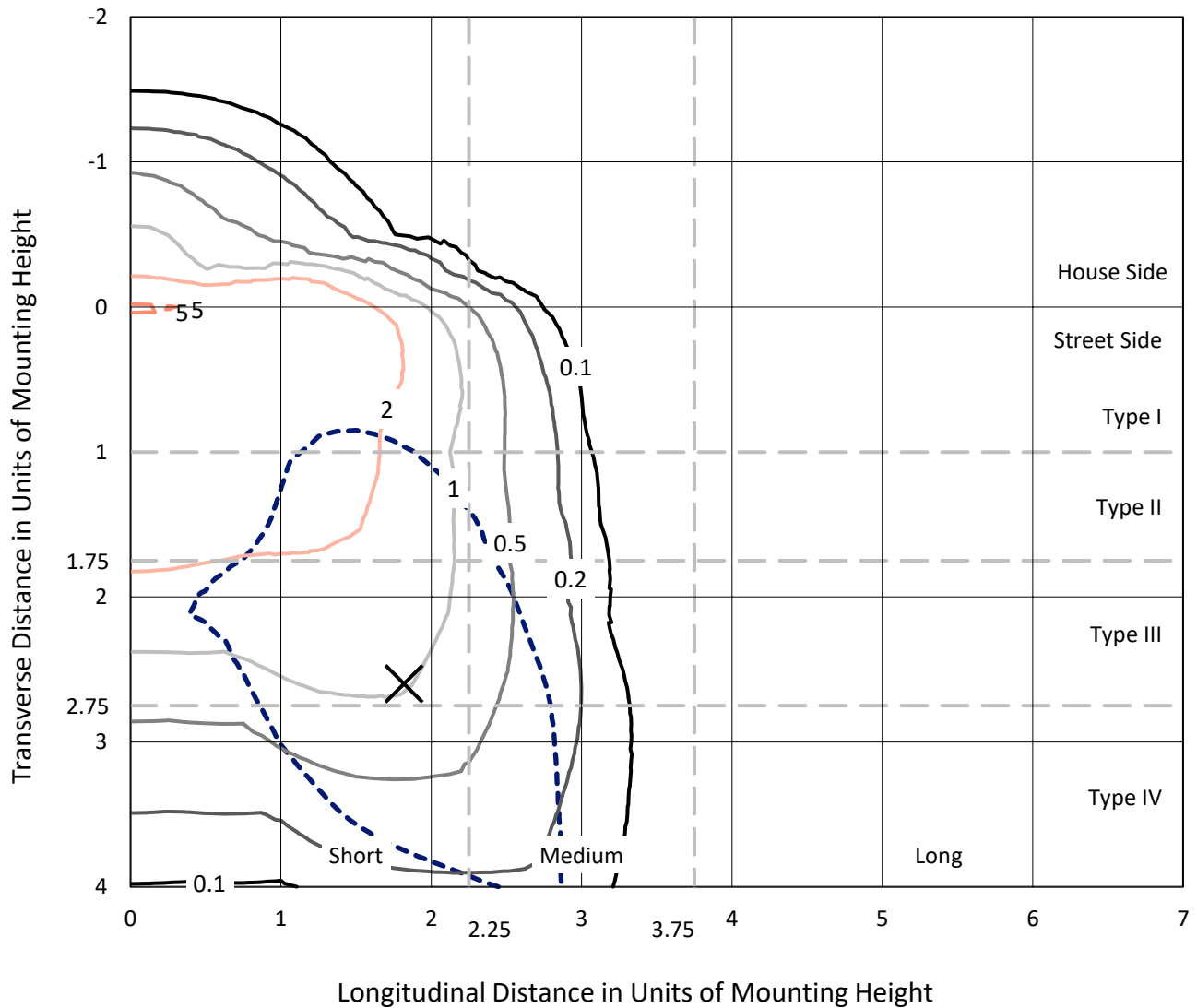
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883940
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Iso-Footcandle Lines of Horizontal Illumination

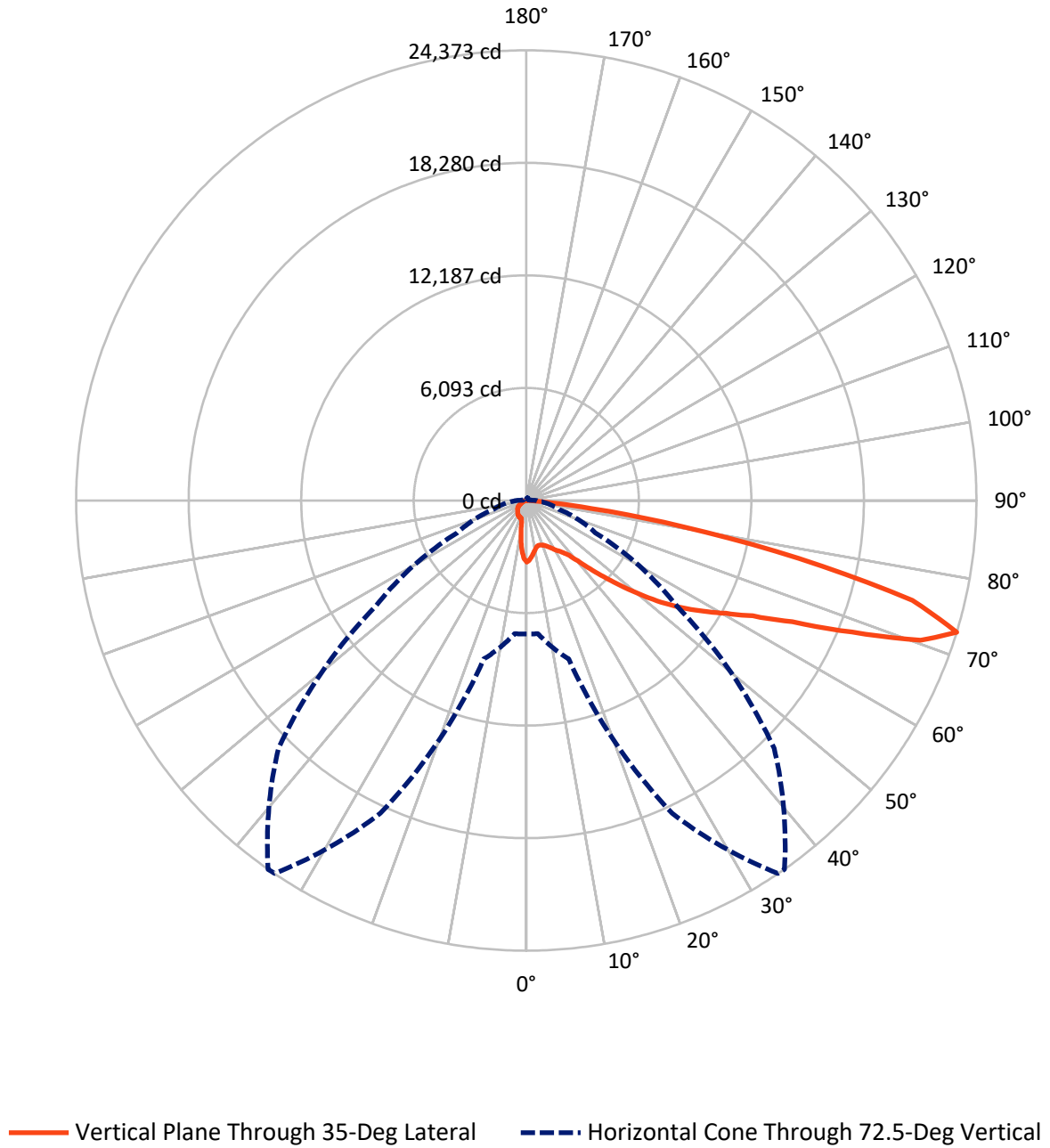
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Short - N/A

REPORT NUMBER: P883940
CATALOG NUMBER: NAV-SB4C-735-U-T4FT-HSS

Luminous Intensity Polar Plot



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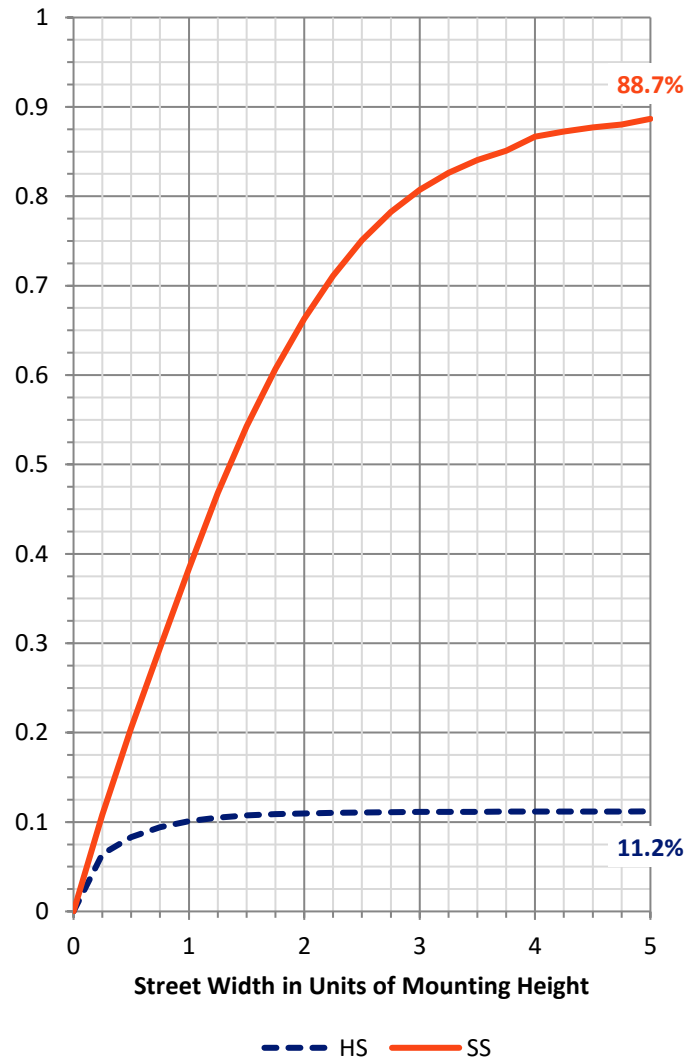
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2586.3	0.0	2586.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	20393.7	0.0	20393.7
	% Fixture	88.7	0.0	88.7
Total	Lumens	22980.0	0.0	22980.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.7	1.2
10°-20°	640.3	2.8
20°-30°	1040.1	4.5
30°-40°	1735.4	7.6
40°-50°	3283.3	14.3
50°-60°	5217.2	22.7
60°-70°	6454.0	28.1
70°-80°	4011.9	17.5
80°-90°	324.2	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°	22980.0	100.0
0°-180°	22980.0	100.0

Coefficient of Utilization



REPORT NUMBER: P883940

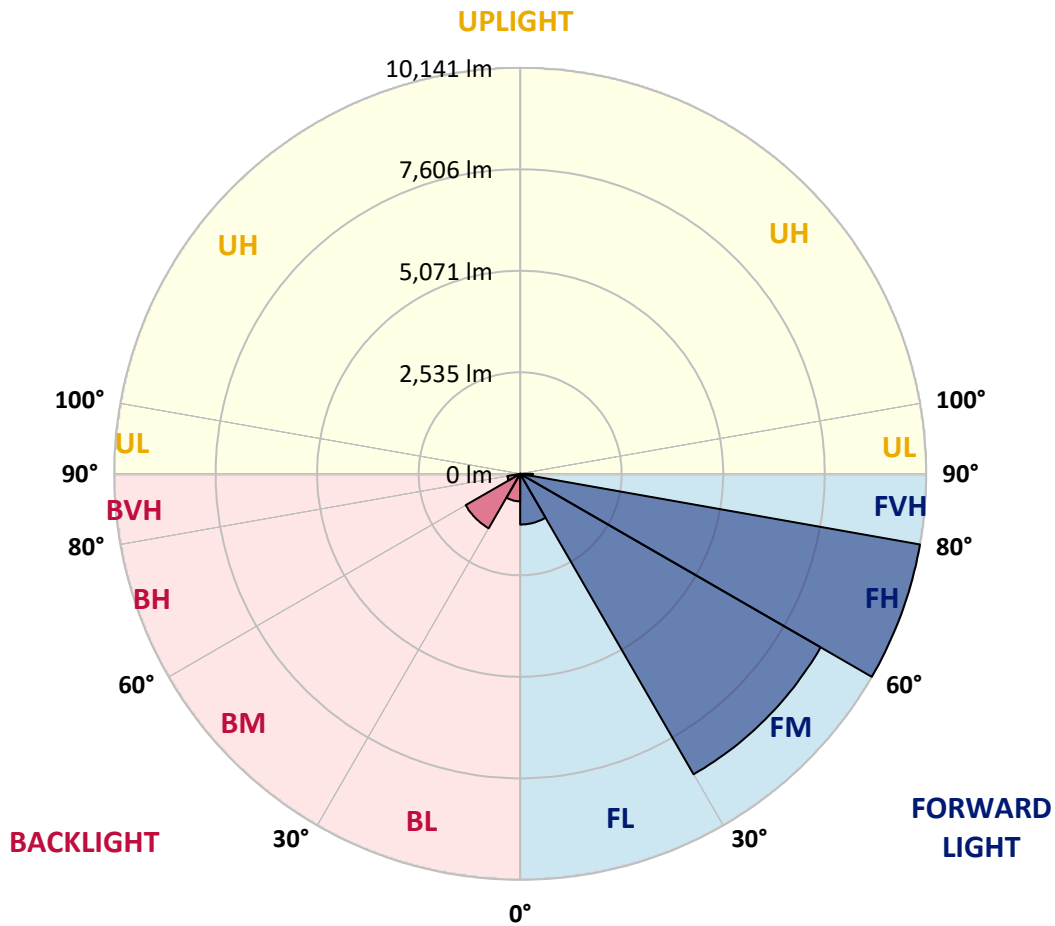
CATALOG NUMBER: NAV-SB4C-735-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1266.8	5.5			
FM (30°-60°)	8665.8	37.7			
FH (60°-80°)	10141.4	44.1			G4/12000
FVH (80°-90°)	319.8	1.4			G3/500
BL (0°-30°)	687.2	3.0	B2/1000		
BM (30°-60°)	1570.1	6.8	B2/2500		
BH (60°-80°)	324.5	1.4	B1/500		G1/500
BVH (80°-90°)	4.4	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-G4

Type IV Short



REPORT NUMBER: P883940
 CATALOG NUMBER: NAV-SB4C-735-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6
2.5°	3182.4	3209.3	3214.4	3222.8	3222.8	3232.9	3249.7	3273.3	3312.1	3332.3	3345.7
5°	2933.2	2953.4	2978.7	2998.9	3037.6	3042.6	3108.3	3172.3	3261.5	3328.9	3376.0
7.5°	2682.3	2705.9	2739.6	2788.4	2838.9	2854.1	2953.4	3061.2	3202.6	3328.9	3408.0
10°	2505.5	2507.2	2537.5	2586.3	2667.2	2685.7	2806.9	2960.1	3136.9	3308.7	3438.3
12.5°	2406.2	2417.9	2431.4	2468.5	2545.9	2557.7	2687.4	2867.5	3071.3	3296.9	3473.7
15°	2406.2	2414.6	2423.0	2441.5	2503.8	2513.9	2628.4	2808.6	3037.6	3301.9	3530.9
17.5°	2431.4	2444.9	2438.2	2460.0	2525.7	2532.4	2633.5	2791.8	3035.9	3333.9	3618.5
20°	2492.0	2502.1	2488.7	2502.1	2567.8	2581.3	2685.7	2823.7	3064.5	3389.5	3728.0
22.5°	2588.0	2593.1	2561.1	2571.2	2638.5	2655.4	2776.6	2914.7	3133.6	3478.7	3874.4
25°	2709.2	2719.4	2670.5	2682.3	2746.3	2766.5	2906.3	3051.1	3243.0	3601.7	4061.3
27.5°	2849.0	2854.1	2812.0	2810.3	2892.8	2921.4	3062.8	3219.4	3389.5	3756.6	4297.1
30°	3009.0	3024.1	2983.7	2977.0	3081.4	3104.9	3244.7	3426.5	3605.0	3988.9	4632.2
32.5°	3135.3	3147.0	3123.5	3140.3	3246.4	3264.9	3465.3	3719.5	3943.5	4319.0	5088.5
35°	3317.1	3323.8	3270.0	3300.3	3421.5	3468.6	3766.7	4130.4	4369.5	4733.2	5684.5
37.5°	3975.5	3975.5	3746.5	3596.6	3712.8	3754.9	4179.2	4647.3	4894.8	5288.8	6435.5
40°	4886.4	4871.3	4536.2	4229.7	4214.6	4297.1	4766.9	5298.9	5573.4	5955.6	7280.8
42.5°	5858.0	5834.4	5378.1	5075.0	5024.5	5053.1	5445.4	6102.1	6381.6	6768.9	8190.0
45°	6720.1	6713.3	6295.8	5888.3	5797.4	5888.3	6292.4	7041.7	7242.1	7649.5	9097.6
47.5°	7442.4	7442.4	7137.7	6871.6	6824.5	6878.4	7439.1	8084.0	8065.4	8587.4	9981.6
50°	8274.2	8267.5	7977.9	7863.4	7912.2	7988.0	8759.2	9181.8	8917.4	9508.5	10771.3
52.5°	8856.8	8897.2	8797.9	8779.4	9028.6	9159.9	10099.5	10256.1	9680.2	10382.4	11362.3
55°	9318.2	9365.3	9479.8	9609.5	10089.4	10261.1	11397.7	11274.8	10318.4	11140.1	11702.5
57.5°	9971.5	9904.2	10081.0	10336.9	11113.1	11320.2	12655.5	12236.2	10831.9	11754.7	11739.5
60°	10764.6	10774.7	10805.0	11128.3	12135.2	12401.2	13894.8	13145.5	11162.0	12131.8	11328.7
62.5°	11717.6	11732.8	11795.1	12291.8	13507.5	13758.4	15214.9	13889.7	11313.5	12025.8	10267.9
65°	11652.0	11715.9	12411.3	14110.3	15593.7	15841.3	16755.6	14411.7	11084.5	11055.9	8360.1
67.5°	10614.7	10719.1	11882.6	16282.4	18739.1	19015.2	18617.9	14514.4	10096.1	8597.5	5453.9
70°	9254.2	9291.3	10690.5	18235.6	22381.2	22660.7	20284.8	13384.6	7661.3	4795.5	2443.2
72.5°	7226.9	7235.3	8877.0	18688.6	24358.0	24373.1	18976.5	9936.2	4120.3	1842.1	848.6
75°	5162.6	5112.0	5945.5	15156.0	21429.8	21601.6	14226.5	4660.8	1574.4	870.5	422.6
77.5°	2768.2	2823.7	3364.2	8988.2	14804.0	15097.0	7762.4	1343.7	801.5	592.7	279.5
80°	855.4	902.5	1379.0	4115.2	8385.4	8562.2	2877.6	597.8	559.0	422.6	183.5
82.5°	269.4	279.5	643.2	1729.3	3480.4	3561.3	833.5	338.4	382.2	279.5	107.8
85°	77.5	79.1	286.2	644.9	860.4	877.3	234.0	131.3	218.9	173.4	55.6
87.5°	8.4	26.9	107.8	107.8	75.8	74.1	25.3	28.6	62.3	21.9	10.1
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: P883940
 CATALOG NUMBER: NAV-SB4C-735-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6
2.5°	3337.3	3339.0	3317.1	3280.1	3239.6	3206.0	3163.9	3130.2	3106.6	3099.9	3111.7
5°	3360.9	3349.1	3286.8	3174.0	3039.3	2923.1	2793.4	2690.7	2623.4	2594.7	2604.9
7.5°	3396.2	3362.6	3226.2	3003.9	2746.3	2517.3	2284.9	2104.8	1990.3	1933.0	1941.4
10°	3426.5	3359.2	3125.1	2758.1	2364.1	2017.2	1704.0	1486.8	1365.6	1308.3	1310.0
12.5°	3455.2	3357.5	2993.8	2466.8	1933.0	1508.7	1217.4	1109.6	1076.0	1064.2	1060.8
15°	3509.1	3362.6	2828.8	2133.4	1503.6	1139.9	1033.9	1032.2	1038.9	1035.5	1033.9
17.5°	3583.1	3367.6	2641.9	1779.8	1160.1	1005.2	1000.2	1015.3	1025.4	1020.4	1018.7
20°	3679.1	3387.8	2443.2	1429.6	996.8	971.6	983.3	996.8	1005.2	996.8	995.1
22.5°	3813.8	3423.2	2226.0	1148.4	944.6	951.4	961.5	976.6	985.0	973.2	971.6
25°	3978.8	3478.7	2012.2	998.5	919.4	927.8	942.9	959.8	969.9	958.1	956.4
27.5°	4192.7	3568.0	1815.1	964.8	894.1	899.2	921.0	946.3	959.8	944.6	944.6
30°	4502.5	3714.5	1645.1	980.0	878.9	867.2	897.5	932.8	948.0	934.5	932.8
32.5°	4913.4	3921.6	1540.7	1003.5	872.2	830.1	858.7	904.2	929.5	921.0	921.0
35°	5452.2	4236.5	1500.3	1030.5	867.2	791.4	811.6	860.4	904.2	912.6	912.6
37.5°	6105.5	4674.3	1512.1	1042.3	852.0	759.4	769.5	811.6	868.8	895.8	902.5
40°	6848.0	5184.4	1579.4	1030.5	835.2	732.5	734.1	766.1	816.6	857.1	870.5
42.5°	7614.2	5780.5	1704.0	986.7	820.0	708.9	703.8	725.7	759.4	788.0	799.8
45°	8343.3	6393.4	1826.9	926.1	801.5	685.3	673.5	681.9	688.7	700.5	707.2
47.5°	8979.7	6824.5	1791.6	870.5	776.2	658.4	638.2	634.8	614.6	612.9	611.2
50°	9419.2	6918.8	1591.2	815.0	739.2	628.1	596.1	575.9	540.5	523.7	525.3
52.5°	9559.0	6546.6	1299.9	759.4	678.6	587.6	542.2	510.2	466.4	451.3	449.6
55°	9373.8	5817.6	1038.9	692.0	594.4	533.8	483.3	441.2	405.8	387.3	387.3
57.5°	8920.8	4889.8	821.7	612.9	505.1	473.2	422.6	380.5	350.2	331.7	328.3
60°	8169.8	3882.9	649.9	518.6	431.1	407.5	355.3	328.3	301.4	279.5	274.5
62.5°	7029.9	2771.5	510.2	410.8	360.3	333.4	303.1	282.9	250.9	220.6	215.5
65°	5485.8	1695.6	394.0	301.4	289.6	276.1	257.6	239.1	200.4	170.1	165.0
67.5°	3460.2	803.2	281.2	227.3	229.0	222.3	213.8	198.7	170.1	143.1	139.8
70°	1523.8	389.0	185.2	173.4	170.1	170.1	176.8	171.7	144.8	119.6	114.5
72.5°	518.6	208.8	138.1	131.3	122.9	121.2	148.2	143.1	116.2	92.6	87.6
75°	271.1	139.8	101.0	94.3	74.1	89.2	117.9	111.1	82.5	60.6	55.6
77.5°	176.8	99.3	69.0	60.6	42.1	58.9	87.6	77.5	48.8	30.3	26.9
80°	111.1	65.7	40.4	28.6	20.2	32.0	47.1	33.7	18.5	6.7	5.1
82.5°	58.9	33.7	15.2	10.1	8.4	10.1	11.8	8.4	3.4	0.0	0.0
85°	23.6	11.8	5.1	3.4	1.7	0.0	3.4	1.7	0.0	0.0	0.0
87.5°	8.4	1.7	0.0	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)