

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: P966830

Luminaire Tested: **NAV-SB4C-830-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966830
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20186.3 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

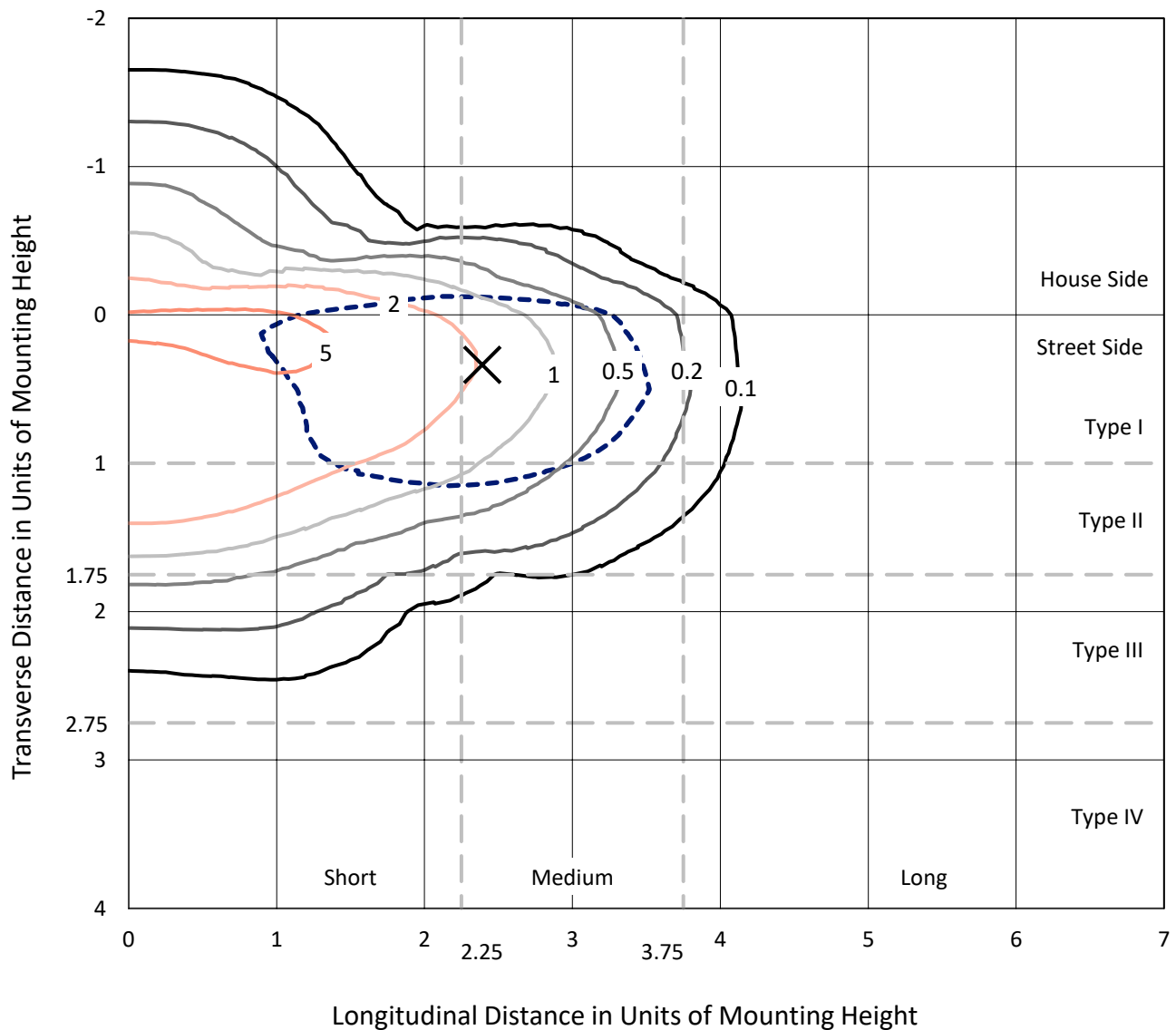
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P966830
 CATALOG NUMBER: NAV-SB4C-830-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

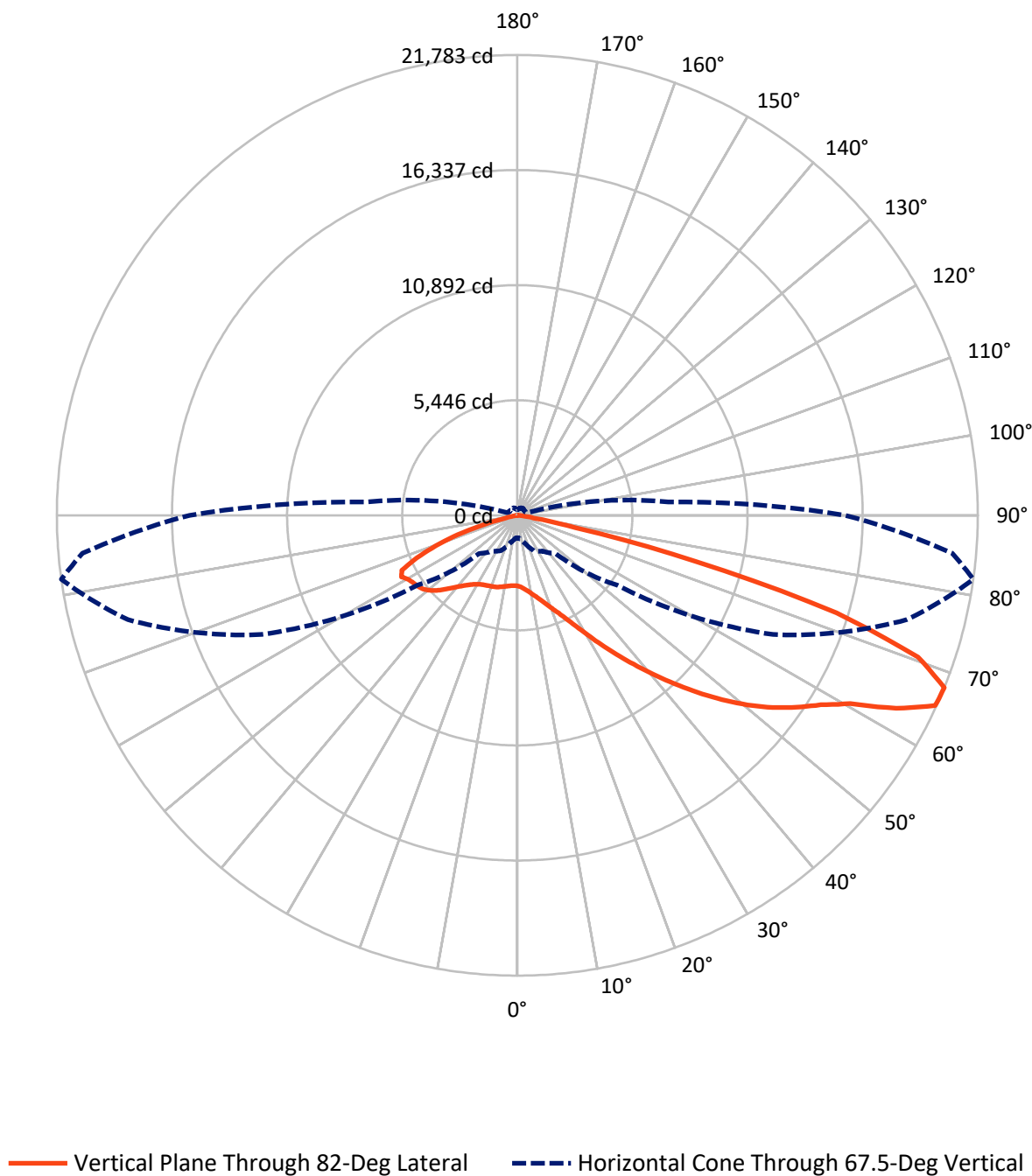


Based on 25 foot mounting height. Maximum calculated value = 7.1 fc
 Type II - Medium - N/A

REPORT NUMBER: P966830

CATALOG NUMBER: NAV-SB4C-830-U-T2-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P966830

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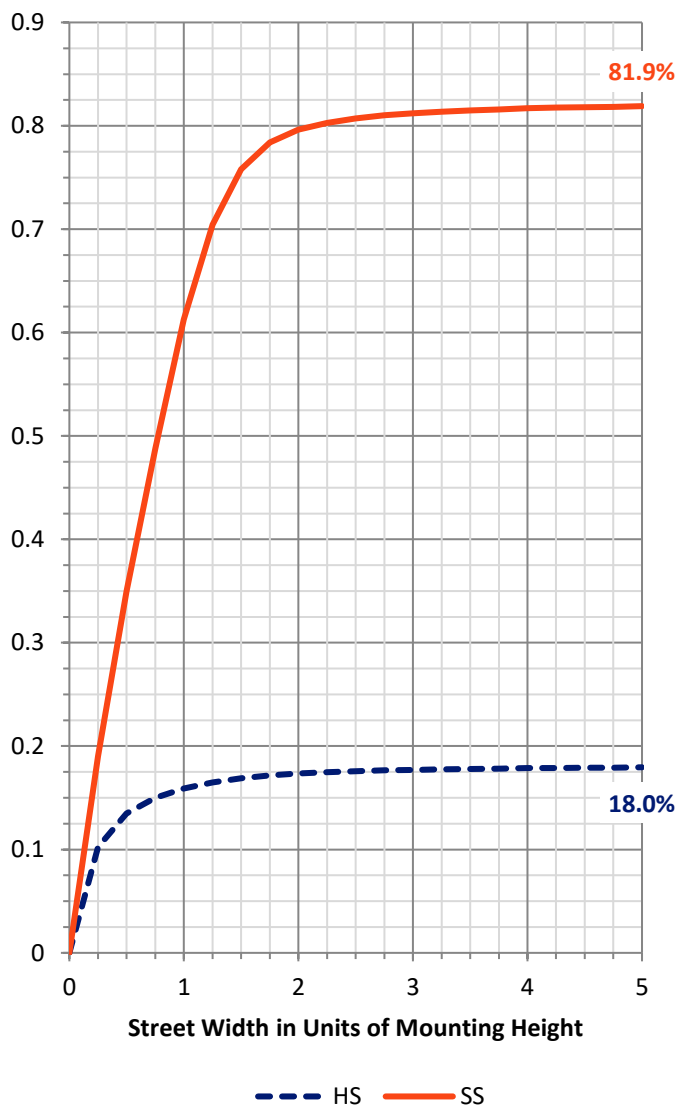
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3656.6	0.0	3656.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	16529.8	0.0	16529.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	20186.3	0.0	20186.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.9	1.5
10°-20°	774.2	3.8
20°-30°	1240.1	6.1
30°-40°	2192.8	10.9
40°-50°	3842.1	19.0
50°-60°	5124.2	25.4
60°-70°	4770.4	23.6
70°-80°	1830.9	9.1
80°-90°	113.7	0.6
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°	20186.3	100.0
0°-180°	20186.3	100.0

Coefficient of Utilization



REPORT NUMBER: P966830

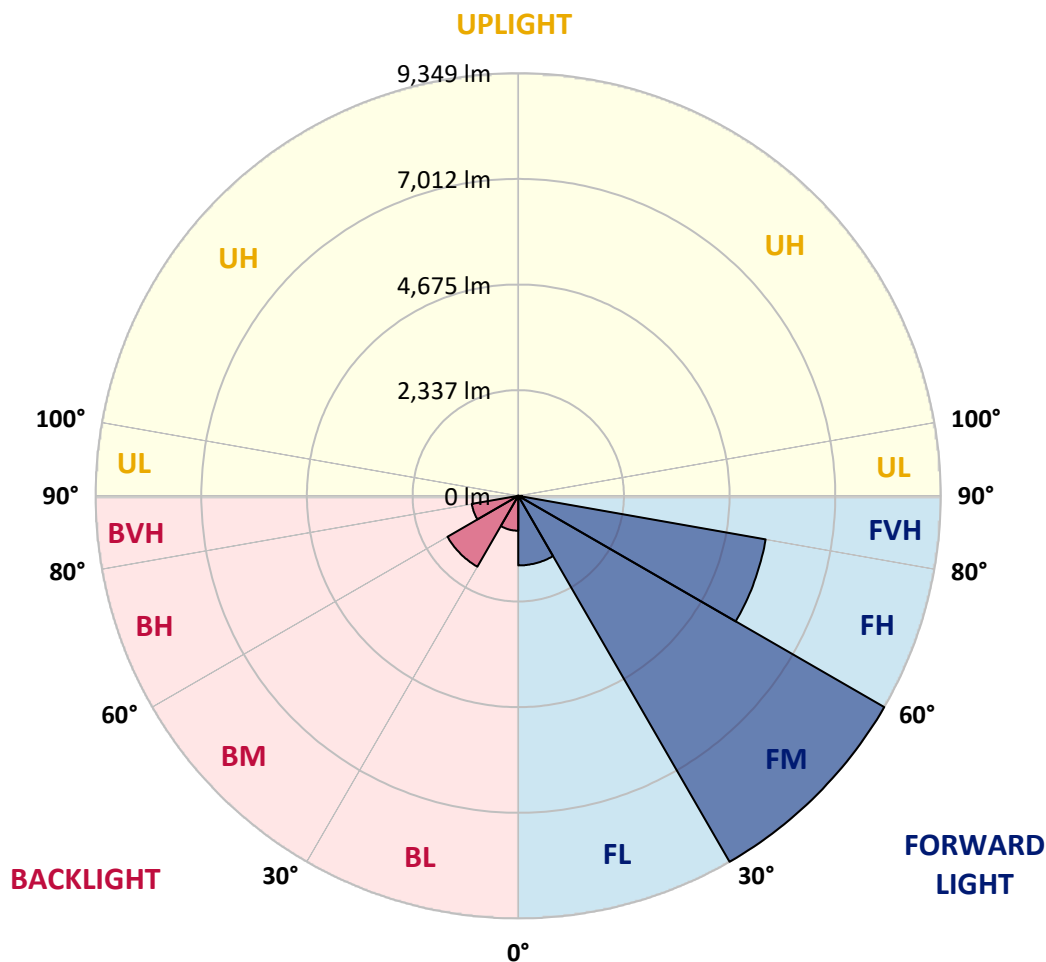
CATALOG NUMBER: NAV-SB4C-830-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1540.0	7.6			
FM	(30°-60°)	9349.5	46.3			
FH	(60°-80°)	5557.6	27.5			G3/7500
FVH	(80°-90°)	82.7	0.4			G1/100
BL	(0°-30°)	772.3	3.8	B2/1000		
BM	(30°-60°)	1809.6	9.0	B2/2500		
BH	(60°-80°)	1043.7	5.2	B3/2500		G3/2500
BVH	(80°-90°)	31.0	0.2			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 II Medium



REPORT NUMBER: P966830

CATALOG NUMBER: NAV-SB4C-830-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2
2.5°	3534.6	3554.9	3543.3	3537.5	3527.3	3512.8	3501.2	3464.8	3427.1	3402.3	3393.6
5°	3605.8	3626.1	3624.7	3630.6	3637.7	3642.1	3639.3	3598.6	3544.8	3502.6	3477.9
7.5°	3544.8	3568.0	3586.9	3616.0	3666.8	3720.6	3746.8	3738.1	3682.8	3624.7	3594.2
10°	3371.8	3396.5	3441.5	3509.9	3617.4	3733.7	3831.0	3876.1	3841.3	3777.3	3735.1
12.5°	3055.0	3079.7	3168.4	3316.6	3496.8	3698.8	3884.9	4005.5	4014.2	3950.2	3900.8
15°	2698.9	2723.6	2818.0	3004.1	3278.8	3602.9	3914.0	4142.1	4219.1	4163.9	4104.3
17.5°	2478.0	2499.8	2571.0	2720.7	3007.0	3411.1	3903.7	4287.5	4463.3	4419.7	4348.5
20°	2411.1	2430.1	2463.5	2568.1	2806.4	3211.9	3836.9	4424.0	4726.4	4701.7	4621.7
22.5°	2482.3	2499.8	2509.9	2556.5	2706.2	3081.1	3752.6	4563.6	5031.5	5034.5	4937.1
25°	2646.5	2664.0	2652.4	2681.5	2746.9	3040.5	3720.6	4727.8	5415.3	5447.3	5336.8
27.5°	2916.9	2918.4	2890.7	2889.3	2899.4	3101.4	3754.1	4903.7	5899.2	5958.8	5822.2
30°	3459.0	3437.2	3331.1	3216.3	3164.0	3284.6	3847.0	5111.5	6470.4	6576.5	6405.0
32.5°	4294.6	4262.8	4068.0	3793.3	3517.2	3579.6	4014.2	5348.3	7092.4	7284.3	7075.0
35°	5201.6	5192.9	4989.4	4581.0	4098.5	3999.7	4285.9	5659.4	7771.1	8076.4	7827.8
37.5°	6044.5	6040.2	5923.9	5442.9	4855.7	4585.3	4722.0	6066.4	8497.9	8939.6	8646.1
40°	6814.8	6827.9	6711.6	6281.4	5689.9	5336.8	5314.9	6569.2	9305.9	9880.0	9531.2
42.5°	7480.4	7495.0	7377.3	7059.0	6514.0	6168.0	6043.1	7185.5	10095.1	10890.1	10477.3
45°	7932.5	8022.6	8005.1	7750.8	7359.8	7000.9	6918.0	7958.6	10994.7	11961.2	11477.2
47.5°	8060.4	8143.2	8274.0	8308.9	8070.5	7717.3	7816.2	8890.2	11904.6	13033.8	12483.0
50°	7745.0	7822.0	8093.8	8455.6	8621.4	8512.3	8689.6	9888.7	12836.2	14103.5	13469.8
52.5°	7122.9	7201.4	7544.4	8117.1	8792.9	9135.8	9566.0	10872.6	13738.7	15116.5	14404.3
55°	6223.3	6306.1	6746.6	7394.8	8465.9	9393.1	10297.0	11855.2	14565.7	16027.7	15247.3
57.5°	4999.5	5060.6	5518.4	6425.3	7643.2	9137.4	10836.3	12927.7	15344.7	16923.0	16083.0
60°	3258.5	3312.2	3844.2	4855.7	6280.0	8282.7	10943.8	14123.8	16379.4	18087.1	17209.3
62.5°	2167.0	2203.3	2518.7	3261.3	4422.6	6641.9	10314.6	15078.7	17896.7	20113.2	19140.8
65°	1486.8	1523.1	1838.5	2355.9	2857.3	4393.6	8505.1	14952.2	19271.6	21722.0	20572.4
67.5°	1061.0	1091.5	1358.9	1847.3	2068.1	2552.1	5765.5	13336.1	19074.0	21783.1	20649.4
70°	760.1	777.6	998.5	1438.8	1643.8	1533.3	3206.1	10199.7	16700.6	20114.6	19076.9
72.5°	532.0	537.7	693.2	1095.8	1324.0	1119.1	1526.0	6800.3	12631.2	15787.9	14789.4
75°	360.4	367.7	466.6	803.7	1062.4	854.5	808.1	3646.5	7415.1	8739.0	7833.7
77.5°	220.9	223.9	300.8	549.4	795.0	651.1	520.3	1544.9	2869.0	2816.6	2401.0
80°	124.9	124.9	191.9	341.5	542.1	420.0	364.8	656.9	908.4	797.9	703.5
82.5°	69.8	71.2	139.5	212.2	359.0	248.6	200.6	303.7	392.4	347.4	302.3
85°	29.1	32.0	85.8	100.2	171.5	123.5	81.4	127.9	145.3	129.4	94.5
87.5°	2.9	4.4	26.1	18.9	20.4	24.7	11.6	24.7	20.4	20.4	14.6
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: P966830

CATALOG NUMBER: NAV-SB4C-830-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2	3344.2
2.5°	3366.0	3344.2	3288.9	3225.1	3140.7	3100.0	3044.8	3007.0	2975.1	2977.9	2948.9
5°	3431.4	3376.1	3252.6	3098.6	2906.7	2770.2	2624.8	2524.5	2443.1	2425.7	2386.4
7.5°	3521.5	3434.3	3217.8	2940.1	2616.1	2370.4	2151.0	2010.0	1909.7	1877.8	1845.8
10°	3637.7	3511.3	3172.7	2741.1	2274.5	1962.1	1726.6	1616.1	1547.9	1524.6	1507.2
12.5°	3772.9	3600.0	3113.1	2498.3	1922.8	1622.0	1472.3	1417.1	1395.2	1388.0	1383.6
15°	3943.0	3710.4	3023.0	2210.6	1624.8	1414.1	1350.1	1343.0	1345.8	1343.0	1341.4
17.5°	4145.0	3831.0	2876.3	1914.1	1424.3	1308.0	1284.7	1290.6	1297.9	1296.4	1293.4
20°	4365.9	3950.2	2688.7	1651.1	1287.7	1232.5	1219.3	1225.2	1231.0	1228.1	1226.6
22.5°	4617.3	4078.2	2480.9	1446.1	1196.1	1162.7	1148.2	1149.6	1149.6	1143.8	1140.9
25°	4918.2	4219.1	2262.9	1300.7	1126.4	1100.2	1082.7	1077.0	1068.3	1050.8	1047.9
27.5°	5277.2	4368.9	2053.6	1199.0	1071.1	1046.4	1026.1	1011.6	989.7	960.6	957.8
30°	5681.2	4550.5	1876.3	1135.1	1027.6	1002.9	979.6	957.8	925.8	889.5	886.5
32.5°	6156.5	4745.2	1746.9	1093.0	988.3	962.2	934.5	908.4	873.5	837.1	838.6
35°	6723.3	4980.7	1671.4	1063.8	957.8	922.9	892.4	863.3	837.1	805.1	802.3
37.5°	7338.1	5230.7	1648.1	1049.3	937.5	883.7	848.8	828.4	825.5	806.6	805.1
40°	8011.0	5527.1	1665.5	1040.6	915.6	845.8	808.1	803.7	811.0	777.6	779.0
42.5°	8723.1	5878.9	1694.6	1030.4	885.1	808.1	771.7	771.7	765.9	719.4	719.4
45°	9493.3	6284.4	1723.7	1005.7	848.8	770.3	742.7	732.5	707.8	662.8	661.3
47.5°	10269.5	6697.1	1745.5	960.6	805.1	738.3	713.6	690.3	654.1	613.4	611.8
50°	11006.3	7067.7	1722.2	893.8	755.7	707.8	681.6	649.6	610.4	582.8	578.4
52.5°	11664.7	7388.9	1623.4	815.4	703.5	675.8	652.5	619.1	587.1	558.1	555.1
55°	12237.4	7649.1	1449.0	741.2	656.9	648.2	624.9	582.8	539.2	514.4	511.6
57.5°	12786.7	7846.7	1231.0	680.2	614.8	617.7	582.8	545.0	504.3	478.2	475.3
60°	13517.8	8111.2	1010.1	623.5	569.7	578.4	540.7	513.0	462.2	428.8	424.4
62.5°	14686.3	8522.6	802.3	553.7	517.4	520.3	504.3	470.9	409.9	370.6	367.7
65°	15613.5	8371.4	632.2	478.2	457.8	462.2	462.2	425.8	360.4	315.4	311.0
67.5°	15508.9	7168.0	504.3	404.1	401.1	404.1	414.2	383.7	319.7	283.4	277.6
70°	14286.6	5701.6	404.1	335.7	348.8	341.5	370.6	350.2	287.7	251.4	247.0
72.5°	11657.4	4107.2	308.1	277.6	267.4	279.0	334.3	315.4	239.8	199.2	194.7
75°	6811.9	2191.7	229.6	219.5	193.3	232.6	296.5	268.9	183.2	146.8	142.5
77.5°	2217.8	764.4	168.6	161.3	143.9	187.5	252.9	226.7	149.6	116.2	111.9
80°	594.4	231.0	114.8	106.1	93.0	139.5	200.6	180.2	107.5	75.5	74.1
82.5°	238.3	97.4	66.8	59.6	50.8	95.9	158.5	145.3	79.9	48.0	48.0
85°	77.0	32.0	24.7	18.9	23.3	59.6	94.5	98.8	56.7	24.7	18.9
87.5°	10.1	4.4	4.4	5.8	4.4	10.1	29.1	27.6	16.0	2.9	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)