

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: P966293

Luminaire Tested: **NAV-SB4B-830-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966293
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-830-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20659.9 lumens
Efficiency: N/A
Efficacy: 140.5 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): 147
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



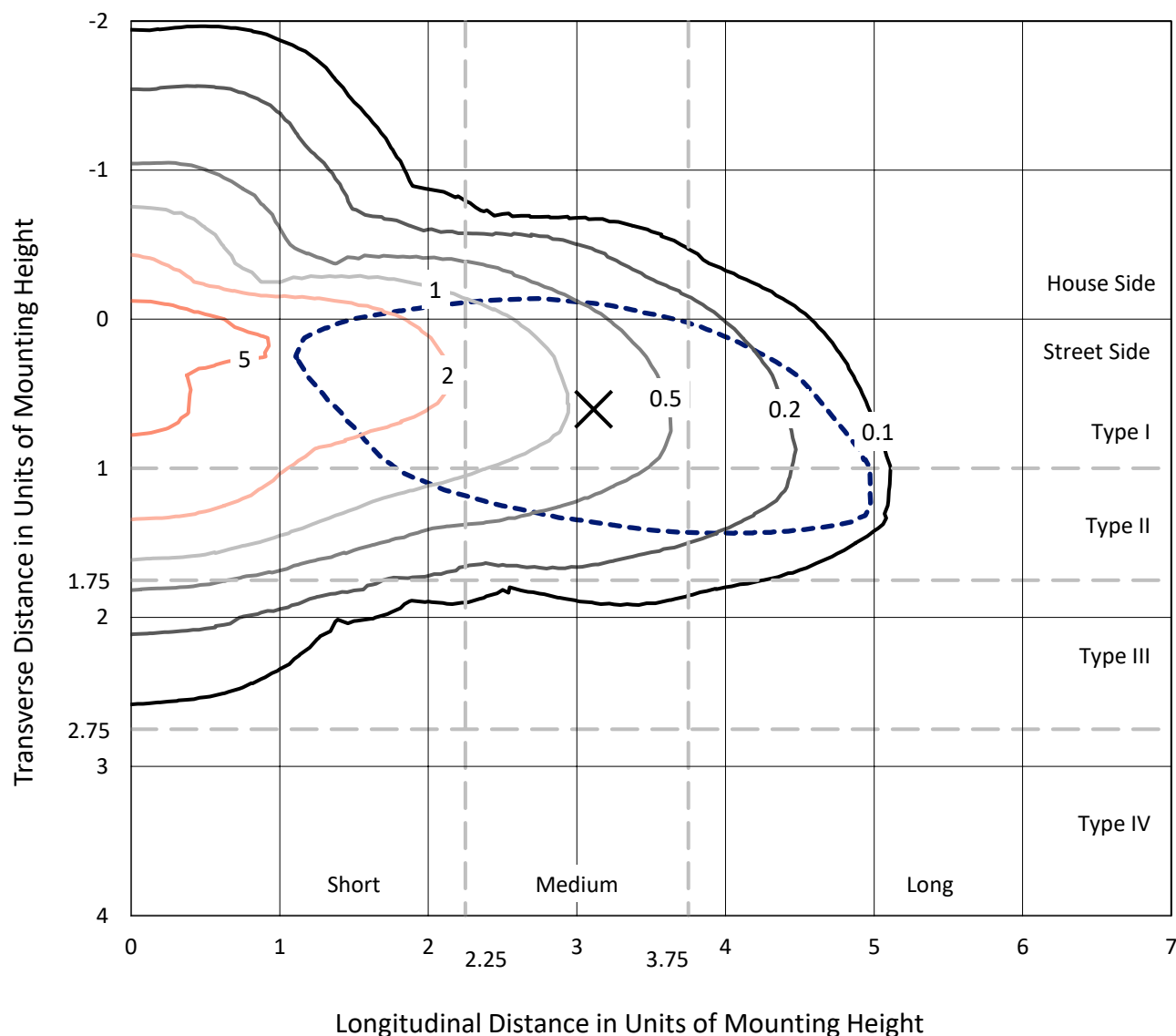
REPORT NUMBER: P966293

CATALOG NUMBER: NAV-SB4B-830-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

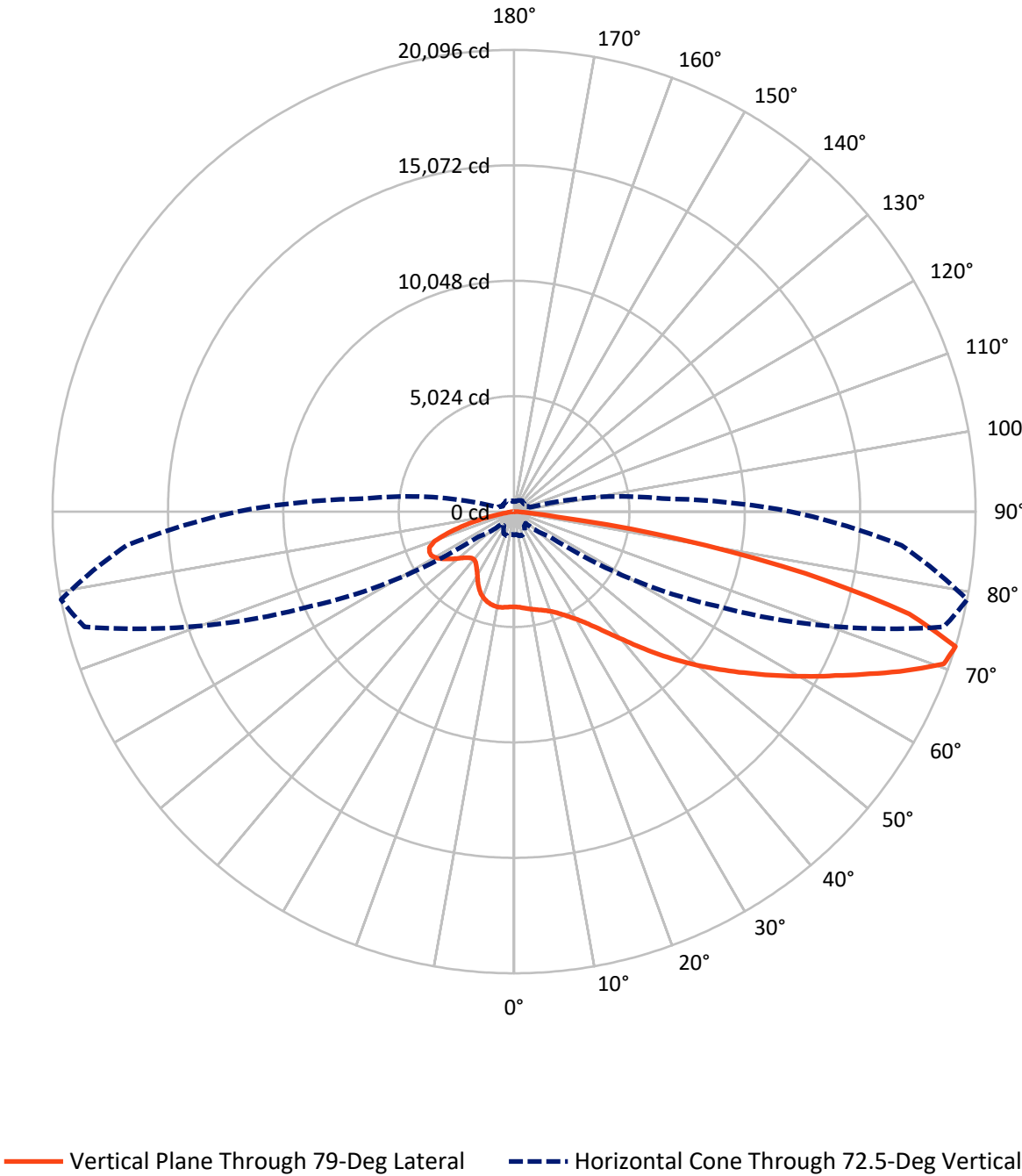
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
Type II - Medium - N/A

REPORT NUMBER: P966293
CATALOG NUMBER: NAV-SB4B-830-U-SL2

Luminous Intensity Polar Plot



REPORT NUMBER: P966293

CATALOG NUMBER: NAV-SB4B-830-U-SL2

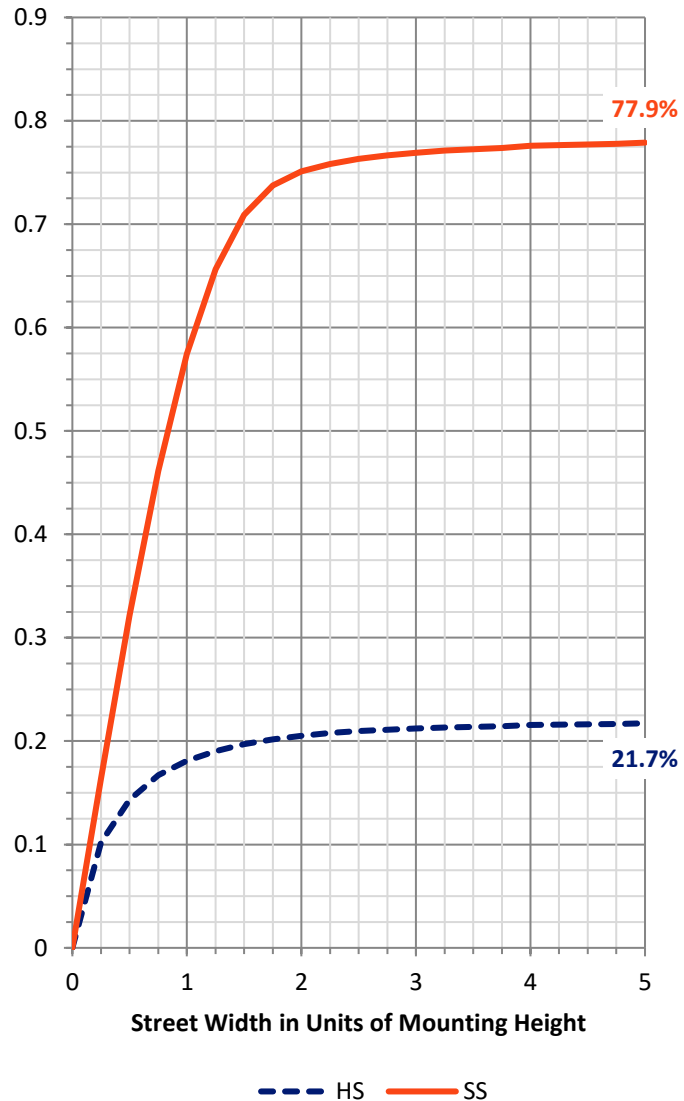
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4546.3	0.0	4546.3
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	16113.6	0.0	16113.6
	% Fixture	78.0	0.0	78.0
Total	Lumens	20659.9	0.0	20659.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	376.5	1.8
10°-20°	984.2	4.8
20°-30°	1588.2	7.7
30°-40°	2383.6	11.5
40°-50°	3381.3	16.4
50°-60°	4270.1	20.7
60°-70°	4336.9	21.0
70°-80°	2955.8	14.3
80°-90°	383.5	1.9
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°	20659.9	100.0
0°-180°	20659.9	100.0

Coefficient of Utilization



REPORT NUMBER: P966293

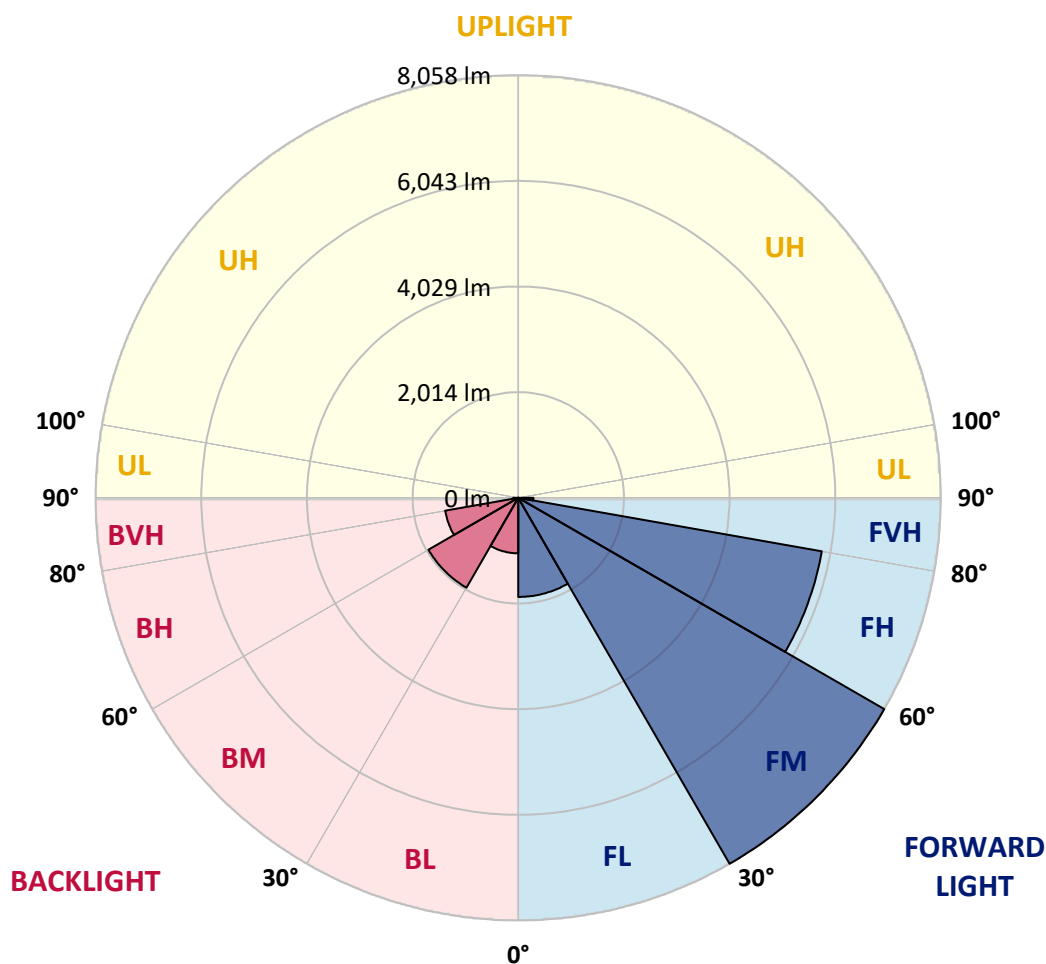
CATALOG NUMBER: NAV-SB4B-830-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1889.9	9.1			
FM	(30°-60°)	8057.8	39.0			
FH	(60°-80°)	5877.0	28.4			G3/7500
FVH	(80°-90°)	288.9	1.4			G3/500
BL	(0°-30°)	1059.0	5.1	B3/2500		
BM	(30°-60°)	1977.2	9.6	B2/2500		
BH	(60°-80°)	1415.6	6.9	B3/2500		G3/2500
BVH	(80°-90°)	94.6	0.5			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: P966293

CATALOG NUMBER: NAV-SB4B-830-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3
2.5°	4149.5	4129.8	4141.8	4137.4	4142.9	4149.5	4151.7	4154.9	4165.9	4164.8	4163.7
5°	4140.7	4121.0	4137.4	4132.0	4146.2	4161.5	4174.6	4186.6	4204.1	4211.7	4200.9
7.5°	4122.1	4109.0	4125.4	4141.8	4168.1	4191.0	4209.6	4236.9	4262.1	4266.4	4274.0
10°	4014.0	4004.2	4042.4	4085.0	4157.1	4219.4	4259.8	4291.6	4318.8	4323.2	4334.1
12.5°	3901.4	3889.4	3932.0	3989.9	4106.9	4219.4	4304.7	4346.2	4370.2	4384.4	4400.8
15°	3882.8	3873.0	3897.0	3947.3	4044.5	4189.9	4335.2	4411.7	4432.5	4448.9	4455.5
17.5°	3972.4	3953.8	3963.7	3981.2	4038.0	4162.6	4359.3	4486.0	4517.8	4535.2	4535.2
20°	4180.1	4153.8	4138.5	4103.6	4093.7	4166.9	4357.1	4575.7	4617.2	4639.0	4644.5
22.5°	4456.6	4439.1	4406.3	4317.7	4221.6	4220.5	4398.6	4690.4	4768.0	4788.8	4775.7
25°	4791.0	4764.7	4723.2	4603.0	4418.3	4326.5	4468.6	4836.9	4966.9	4972.4	4934.1
27.5°	5175.6	5136.3	5079.5	4921.0	4671.8	4492.6	4575.7	5005.2	5195.3	5193.2	5114.4
30°	5581.0	5541.8	5481.6	5289.3	4975.7	4716.6	4724.3	5186.6	5466.3	5454.3	5319.9
32.5°	5877.2	5847.7	5835.7	5687.1	5325.4	4981.1	4894.8	5387.6	5800.7	5789.8	5601.8
35°	6104.5	6066.3	6080.5	6005.1	5706.8	5277.2	5103.5	5626.9	6207.3	6206.2	5972.3
37.5°	6329.7	6295.8	6307.7	6257.5	6059.7	5653.2	5358.1	5919.9	6711.1	6735.1	6420.4
40°	6535.1	6499.0	6547.1	6500.1	6334.0	6053.1	5647.7	6251.0	7294.6	7340.5	6962.4
42.5°	6658.6	6630.2	6710.0	6711.1	6572.3	6390.9	5965.7	6616.0	7970.0	8072.7	7629.1
45°	6701.2	6691.4	6811.6	6836.7	6783.1	6586.4	6252.1	7013.8	8697.8	8881.4	8388.5
47.5°	6655.3	6636.8	6802.8	6895.7	6938.3	6678.3	6489.2	7444.4	9441.0	9709.7	9216.9
50°	6423.7	6387.6	6634.5	6830.2	6982.1	6738.4	6728.5	7941.6	10285.7	10579.6	10049.6
52.5°	6007.3	5980.0	6260.8	6600.7	6886.0	6767.9	6997.4	8484.7	11087.8	11468.1	10903.1
55°	5475.0	5439.0	5748.3	6191.9	6646.6	6758.0	7266.2	9092.4	12034.2	12420.0	11785.0
57.5°	4631.4	4559.3	4950.5	5475.0	6256.4	6746.0	7545.9	9696.7	12995.9	13458.1	12726.0
60°	3400.8	3293.7	3773.5	4395.3	5493.7	6629.1	7892.4	10374.2	14149.9	14566.3	13753.2
62.5°	1980.2	1917.9	2231.5	2811.9	4140.7	5940.6	8086.9	11162.1	15284.3	15721.4	14763.0
65°	1537.6	1520.1	1547.4	1592.2	2304.8	4447.8	7486.9	11930.4	16726.8	17032.8	15815.4
67.5°	1406.5	1393.4	1405.4	1321.2	1169.3	2477.4	5923.2	12124.9	18272.1	18457.9	16736.6
70°	1250.2	1234.9	1274.3	1202.1	920.1	1126.7	3827.0	11418.9	19501.5	19850.1	17437.2
72.5°	1018.5	1001.0	1092.9	1060.1	774.8	723.4	1922.3	9741.5	19372.5	20095.9	16935.6
75°	782.5	772.6	881.9	909.3	631.6	569.4	922.3	7241.1	17048.1	17777.0	14595.8
77.5°	607.6	599.9	655.7	755.1	509.2	441.5	567.1	4593.1	12847.2	12975.2	10058.4
80°	455.7	433.9	485.2	584.7	396.7	322.4	384.7	2678.5	8120.8	7361.2	4377.9
82.5°	285.3	274.3	316.9	390.1	279.7	221.8	250.3	1479.7	3254.5	1916.9	844.8
85°	162.9	158.5	172.7	222.9	151.9	127.8	143.2	653.5	594.5	408.7	254.6
87.5°	65.6	63.3	78.7	99.4	55.8	46.9	50.2	157.3	131.1	121.3	84.2
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: P966293

CATALOG NUMBER: NAV-SB4B-830-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3	4147.3
2.5°	4159.3	4159.3	4144.0	4120.0	4092.6	4075.2	4046.7	4039.1	4009.6	4000.9	4015.0
5°	4209.6	4200.9	4153.8	4086.1	3993.2	3907.9	3813.9	3755.0	3671.9	3642.4	3664.3
7.5°	4272.9	4248.9	4168.1	4019.4	3824.9	3633.6	3434.8	3283.9	3139.7	3088.3	3094.9
10°	4330.8	4297.0	4159.3	3899.2	3562.6	3231.5	2914.6	2692.7	2524.5	2455.6	2470.9
12.5°	4388.7	4326.5	4101.3	3699.2	3190.0	2740.8	2403.1	2230.5	2126.7	2043.5	2070.9
15°	4443.5	4356.0	4011.7	3431.5	2781.2	2325.5	2076.3	1938.7	1855.7	1801.0	1810.8
17.5°	4506.8	4381.2	3877.4	3091.6	2392.2	2038.1	1834.9	1751.8	1735.4	1728.9	1733.2
20°	4595.4	4404.1	3700.4	2711.3	2105.9	1808.6	1703.8	1696.1	1694.9	1691.7	1702.6
22.5°	4690.4	4431.4	3466.4	2366.0	1862.2	1665.4	1646.9	1631.6	1621.8	1620.6	1632.7
25°	4802.9	4440.2	3173.6	2082.9	1654.6	1597.7	1575.8	1552.9	1546.3	1546.3	1552.9
27.5°	4912.2	4410.7	2832.6	1837.0	1537.6	1535.4	1507.1	1499.4	1498.2	1501.5	1510.3
30°	5021.6	4354.9	2493.8	1609.8	1469.8	1469.8	1460.0	1465.4	1469.8	1480.8	1488.4
32.5°	5169.1	4295.9	2210.8	1441.5	1410.8	1399.9	1409.8	1420.6	1425.1	1439.2	1451.3
35°	5385.5	4254.4	1985.6	1349.6	1349.6	1335.5	1340.9	1338.8	1328.9	1322.4	1337.6
37.5°	5671.7	4252.2	1799.9	1307.0	1298.3	1296.1	1297.1	1283.0	1244.8	1198.8	1200.0
40°	6016.0	4311.3	1656.7	1277.6	1271.0	1284.1	1277.6	1239.2	1134.4	1054.6	1052.4
42.5°	6478.3	4479.5	1565.0	1241.5	1261.2	1277.6	1251.3	1119.1	1048.1	994.5	992.3
45°	7022.5	4752.7	1517.9	1203.2	1242.5	1262.2	1135.5	1077.5	1020.7	956.2	951.8
47.5°	7638.8	5096.9	1507.1	1167.2	1201.0	1213.1	1086.3	1060.1	995.6	925.6	920.1
50°	8309.9	5504.6	1536.5	1124.5	1140.9	1099.4	1069.9	1045.8	979.2	910.3	902.7
52.5°	9003.8	5953.7	1595.5	1066.6	1080.8	1034.9	1063.3	1042.5	969.3	876.5	869.9
55°	9685.7	6406.1	1652.4	998.9	1019.6	977.0	1044.8	1029.4	924.6	819.6	814.2
57.5°	10378.5	6856.4	1708.1	938.7	960.6	921.3	1015.3	994.5	874.2	767.2	765.0
60°	11098.7	7293.5	1734.3	880.8	896.2	869.9	970.5	934.4	817.4	713.6	710.3
62.5°	11773.0	7657.5	1691.7	822.9	832.7	821.8	911.4	863.4	760.7	653.5	652.4
65°	12449.4	7873.8	1560.6	766.1	768.2	762.8	828.4	786.8	693.9	601.1	594.5
67.5°	13062.6	7995.1	1351.9	704.9	699.5	697.2	750.8	703.8	629.5	548.6	542.0
70°	13192.6	7687.0	1032.7	632.7	632.7	627.3	665.5	617.5	558.4	492.8	490.7
72.5°	12049.5	6466.2	733.3	550.8	559.5	548.6	580.3	539.9	486.3	442.6	429.5
75°	9716.3	4741.8	533.3	466.7	482.0	463.4	492.8	464.4	418.5	417.5	376.0
77.5°	6676.0	2932.0	386.8	384.7	395.6	371.6	405.5	390.1	348.6	330.0	309.2
80°	2849.0	1169.3	282.0	297.2	297.2	275.4	314.8	319.1	283.0	274.3	274.3
82.5°	567.1	332.2	197.8	204.4	192.3	185.7	222.9	247.0	340.9	379.2	380.3
85°	170.5	122.4	119.1	111.4	98.4	99.4	131.1	248.0	306.0	174.9	150.8
87.5°	46.9	30.6	31.7	25.1	20.8	27.4	44.8	188.0	102.7	43.7	37.1
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)