

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: P967338

Luminaire Tested: **NAV-SB4D-827-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967338
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-827-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27999.9 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

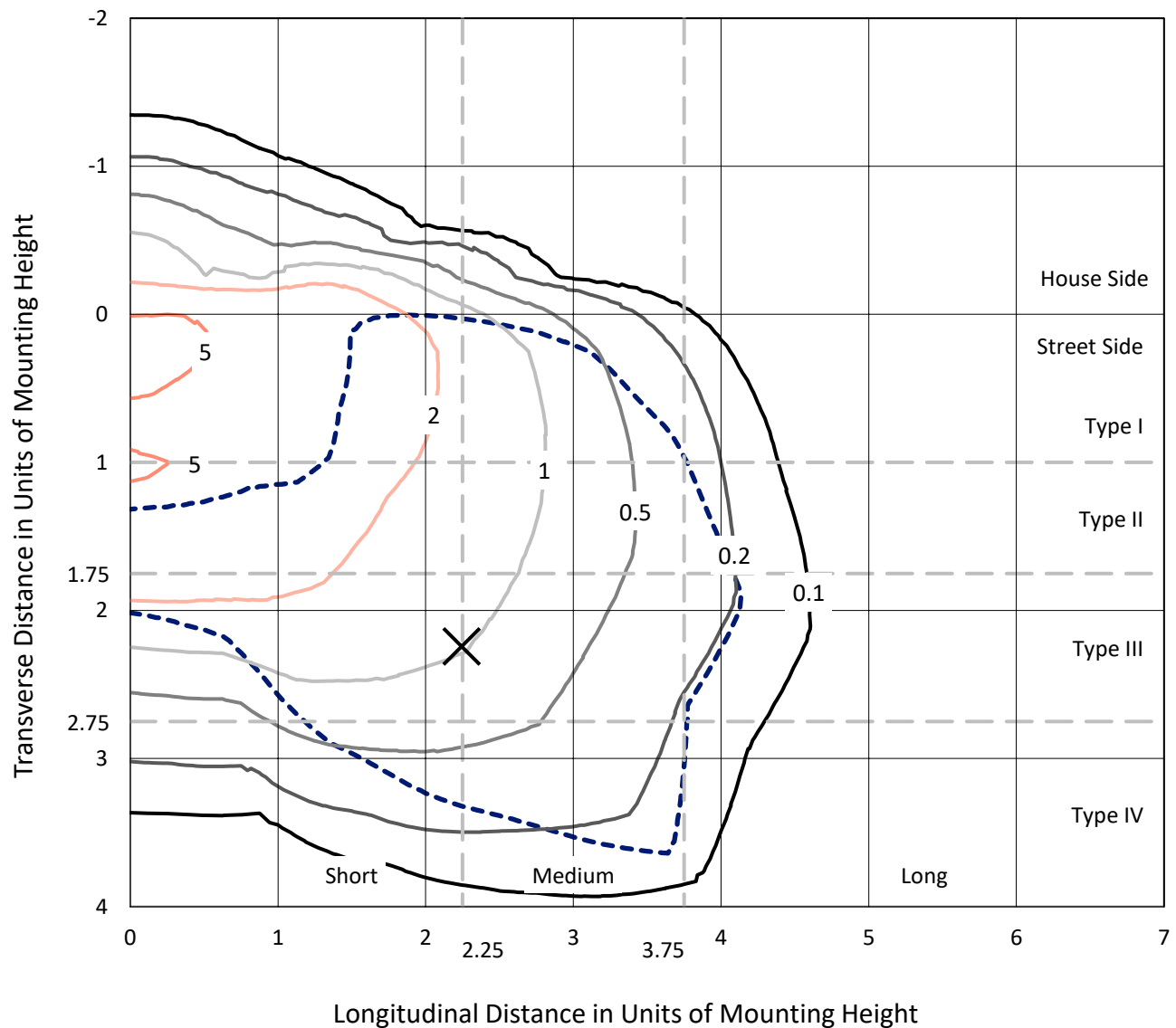
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P967338
CATALOG NUMBER: NAV-SB4D-827-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

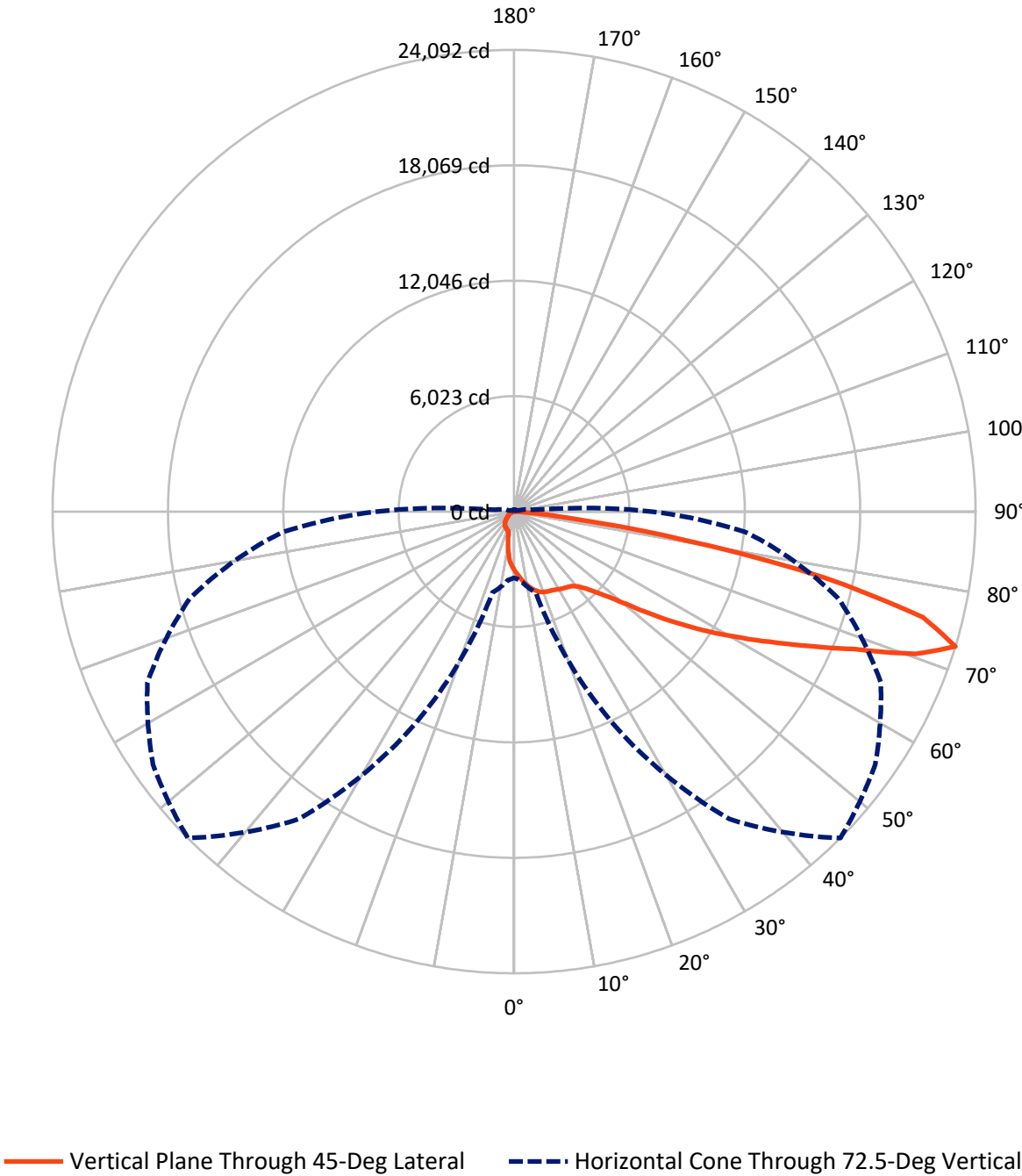
× Max cd
- - - 1/2 Max cd



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

REPORT NUMBER: P967338
CATALOG NUMBER: NAV-SB4D-827-U-T4W-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P967338

CATALOG NUMBER: NAV-SB4D-827-U-T4W-HSS

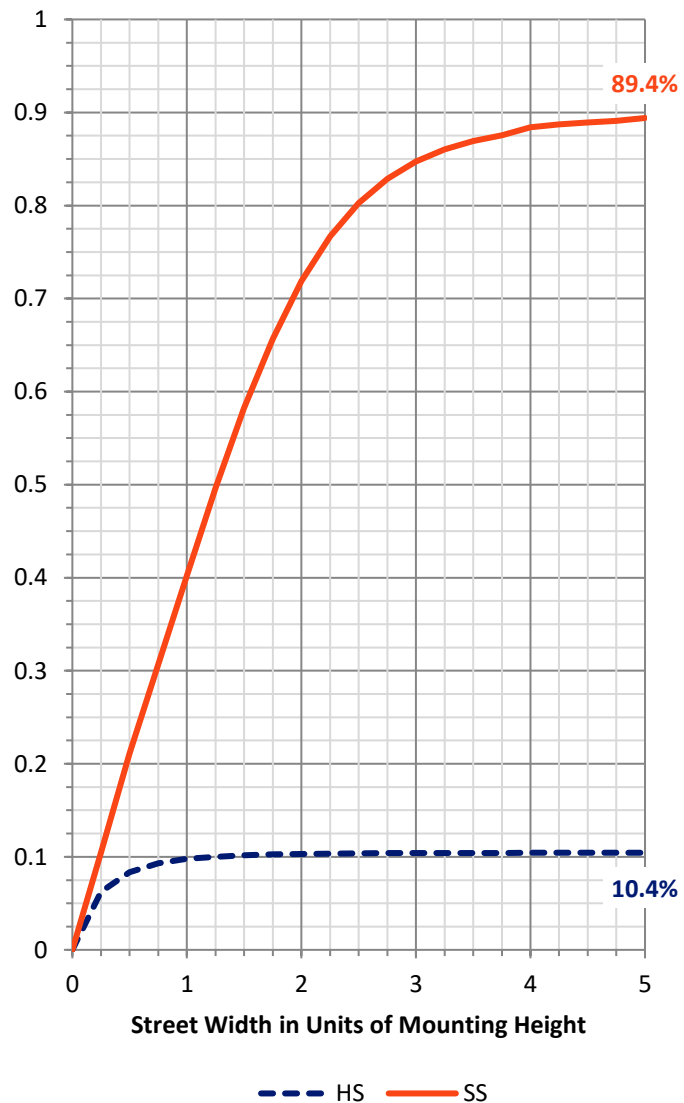
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2942.0	0.0	2942.0
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	25057.9	0.0	25057.9
	% Fixture	89.5	0.0	89.5
Total	Lumens	27999.9	0.0	27999.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.0	1.0
10°-20°	844.7	3.0
20°-30°	1387.1	5.0
30°-40°	1967.2	7.0
40°-50°	3251.6	11.6
50°-60°	5841.1	20.9
60°-70°	8110.7	29.0
70°-80°	5883.2	21.0
80°-90°	425.3	1.5
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°	27999.9	100.0
0°-180°	27999.9	100.0

Coefficient of Utilization



REPORT NUMBER: P967338

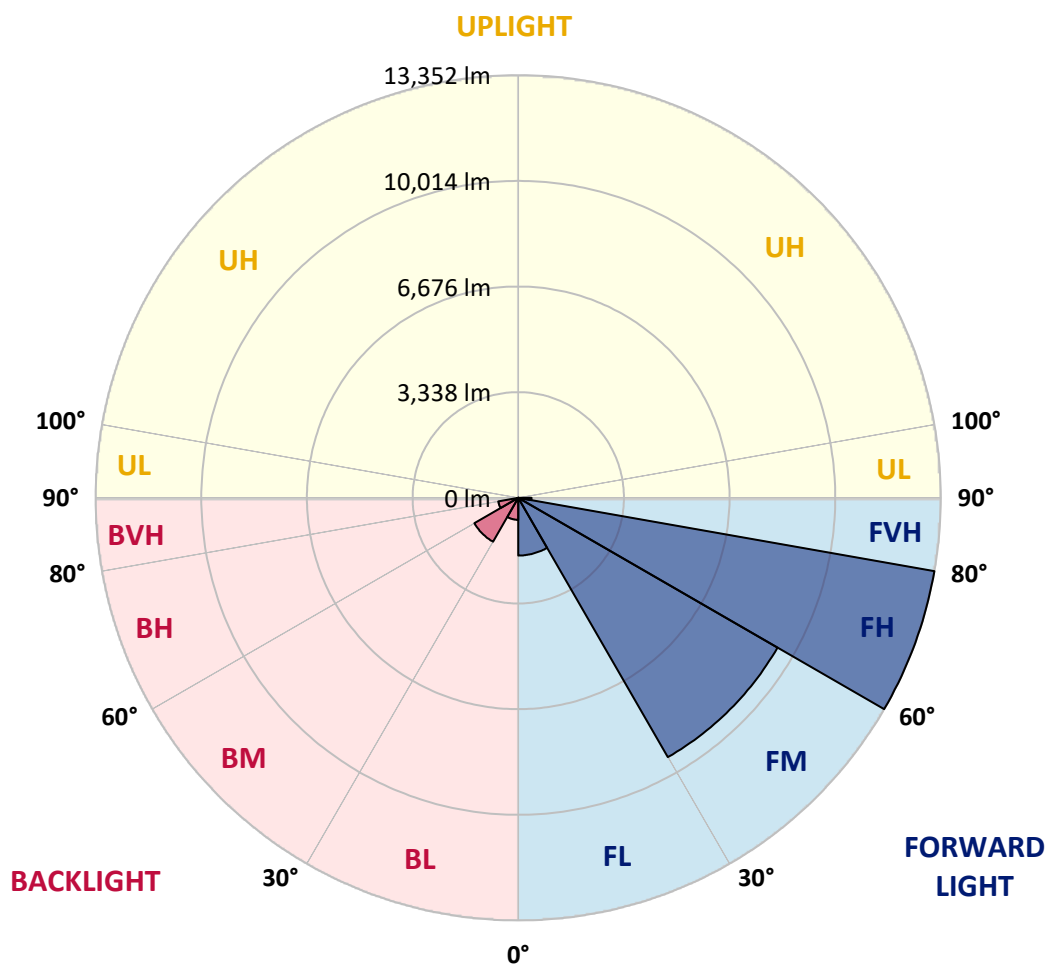
CATALOG NUMBER: NAV-SB4D-827-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1823.9	6.5			
FM	(30°-60°)	9459.9	33.8			
FH	(60°-80°)	13352.4	47.7			G5
FVH	(80°-90°)	421.8	1.5			G3/500
BL	(0°-30°)	696.8	2.5	B2/1000		
BM	(30°-60°)	1600.0	5.7	B2/2500		
BH	(60°-80°)	641.6	2.3	B2/1000		G2/1000
BVH	(80°-90°)	3.6	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-G5

Type IV Short



REPORT NUMBER: P967338

CATALOG NUMBER: NAV-SB4D-827-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4
2.5°	3350.3	3356.1	3352.3	3329.3	3291.1	3270.1	3258.6	3220.3	3195.5	3151.6	3105.6
5°	3658.0	3681.0	3667.6	3621.7	3549.1	3497.5	3482.1	3403.8	3333.1	3250.9	3155.4
7.5°	3984.8	3996.3	3971.5	3912.2	3814.7	3726.8	3713.5	3604.5	3491.8	3365.6	3235.6
10°	4267.7	4281.0	4242.8	4156.8	4046.0	3937.0	3918.0	3797.5	3663.8	3509.0	3342.6
12.5°	4504.7	4518.0	4468.4	4365.2	4242.8	4130.0	4111.0	3984.8	3837.7	3665.6	3459.3
15°	4684.4	4709.2	4642.2	4531.4	4399.5	4286.8	4277.2	4153.0	4009.7	3818.5	3598.8
17.5°	4789.4	4814.3	4751.2	4617.4	4504.7	4409.1	4397.7	4294.4	4160.7	3977.2	3734.5
20°	4806.6	4829.6	4762.7	4646.1	4552.4	4476.0	4470.2	4395.7	4298.2	4122.4	3881.6
22.5°	4755.1	4783.7	4722.6	4628.9	4563.9	4523.7	4516.2	4474.1	4418.7	4269.6	4019.2
25°	4701.5	4724.4	4678.6	4596.4	4562.0	4558.2	4563.9	4556.2	4544.7	4418.7	4179.7
27.5°	4697.7	4722.6	4670.9	4592.6	4573.4	4613.6	4619.4	4655.7	4665.2	4554.4	4334.5
30°	4730.2	4747.4	4697.7	4615.5	4605.9	4697.7	4699.6	4764.6	4779.9	4669.0	4487.4
32.5°	4800.9	4820.0	4770.3	4649.9	4636.5	4764.6	4770.3	4856.3	4881.2	4791.4	4648.0
35°	4967.2	4990.1	4932.8	4745.4	4697.7	4827.6	4844.9	4946.1	4995.8	4921.3	4814.3
37.5°	5381.9	5315.0	5236.6	4938.4	4837.2	4927.1	4955.7	5074.2	5162.1	5076.1	5013.1
40°	6412.0	6201.8	5957.2	5267.3	5081.8	5139.1	5162.1	5280.6	5401.0	5316.9	5286.3
42.5°	7958.2	7709.7	7316.0	6024.0	5450.7	5479.3	5496.6	5599.8	5769.8	5703.0	5710.6
45°	9336.1	9246.3	8844.9	7316.0	6140.7	5999.2	6020.2	6073.7	6324.1	6299.2	6349.0
47.5°	10394.9	10343.4	10033.7	8799.1	7306.5	6635.6	6694.9	6719.7	7080.9	7168.8	7302.6
50°	11209.1	11190.0	10912.9	10117.8	8829.7	7574.0	7595.0	7541.5	8082.4	8300.2	8554.4
52.5°	11977.4	12042.4	11837.8	11342.9	10456.1	8802.9	8799.1	8546.9	9276.9	9605.6	10039.5
55°	12671.2	12694.1	12715.1	12592.8	12092.0	10201.9	10165.5	9752.8	10662.5	11002.7	11472.8
57.5°	13322.8	13332.4	13519.7	13770.1	13795.0	11704.1	11637.2	11142.2	12176.2	12418.9	12707.4
60°	13760.5	13804.5	14200.1	14895.8	15199.6	13254.1	13217.8	12713.2	13716.6	13829.3	13775.8
62.5°	13129.8	13397.4	14395.0	15775.0	16526.0	14972.2	14955.1	14481.0	15337.3	15245.5	14786.9
65°	10628.1	11081.1	12835.6	16369.2	17827.5	16891.1	16915.9	16411.4	17001.9	16703.7	15608.6
67.5°	7434.5	7912.3	9987.8	16417.1	19282.0	19144.3	19287.6	18496.4	18769.7	18100.8	15803.6
70°	5141.1	5387.6	6738.9	15388.8	20415.2	22248.1	22244.2	21057.4	20528.1	18737.2	14809.8
72.5°	3457.3	3585.3	4376.6	12208.7	19582.0	24092.4	23981.5	23014.5	21120.5	17523.6	12099.7
75°	1458.3	1551.8	2025.8	6861.1	15492.1	22041.7	21741.7	20338.9	18765.9	13798.8	7549.2
77.5°	462.5	502.7	798.9	2455.9	8533.4	16568.1	16250.8	12701.7	12577.5	6922.3	2759.7
80°	219.8	256.1	449.2	986.2	3358.0	9011.2	8967.3	5762.2	5410.6	1869.1	554.2
82.5°	95.5	112.7	248.5	527.5	1502.2	3214.6	3279.6	1960.8	1622.6	709.1	170.0
85°	30.5	40.2	114.7	242.7	634.5	798.9	789.4	466.4	653.6	386.0	59.2
87.5°	0.0	0.0	38.2	55.5	65.0	45.8	51.6	40.2	181.5	107.0	21.0
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: P967338

CATALOG NUMBER: NAV-SB4D-827-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4	3067.4
2.5°	3082.8	3052.1	2998.6	2948.9	2905.0	2861.1	2834.3	2796.1	2792.2	2792.2	2801.8
5°	3103.8	3054.1	2958.6	2857.2	2740.6	2629.7	2518.9	2411.9	2377.5	2352.7	2364.2
7.5°	3164.9	3086.6	2935.6	2742.6	2520.9	2278.2	2108.0	1924.5	1853.8	1815.6	1821.3
10°	3252.8	3145.8	2916.4	2578.2	2218.9	1888.3	1645.5	1446.8	1370.3	1337.8	1337.8
12.5°	3350.3	3218.4	2882.1	2373.7	1888.3	1492.6	1255.6	1163.9	1152.4	1152.4	1152.4
15°	3466.9	3306.3	2822.8	2132.9	1542.3	1181.1	1097.1	1100.8	1112.3	1119.9	1119.9
17.5°	3587.3	3400.0	2729.2	1863.4	1236.6	1062.6	1064.6	1070.3	1079.8	1087.4	1087.4
20°	3717.3	3493.6	2604.9	1576.8	1060.7	1028.2	1033.9	1039.7	1047.3	1051.1	1053.1
22.5°	3856.8	3581.6	2457.7	1295.8	1001.4	999.6	1001.4	1007.2	1016.8	1016.8	1020.6
25°	4005.8	3679.0	2289.6	1091.3	970.9	970.9	974.7	978.6	986.2	986.2	988.1
27.5°	4158.7	3768.8	2111.9	984.3	944.1	942.2	942.2	947.9	951.8	953.7	955.6
30°	4326.9	3874.0	1934.1	961.3	923.1	913.6	907.8	911.6	915.4	917.4	921.2
32.5°	4498.9	3975.3	1775.5	970.9	902.1	884.9	865.8	861.9	861.9	869.6	875.4
35°	4690.1	4086.2	1653.2	1003.4	890.6	842.9	812.2	795.1	796.9	808.4	814.2
37.5°	4919.4	4219.9	1563.3	1032.1	882.9	795.1	745.4	724.4	710.9	724.4	720.5
40°	5219.4	4416.7	1498.3	1054.9	873.4	739.6	672.7	638.4	613.5	621.2	617.4
42.5°	5661.0	4726.4	1473.5	1056.9	852.4	674.7	598.2	552.4	516.0	517.9	510.2
45°	6280.2	5215.6	1601.6	1032.1	806.5	603.9	519.9	458.7	435.7	430.0	422.4
47.5°	7128.7	5928.5	1897.8	980.4	739.6	535.2	443.4	391.8	374.6	365.0	359.3
50°	8265.9	6843.9	2226.5	923.1	672.7	470.2	380.3	347.9	336.4	326.8	324.9
52.5°	9584.6	7772.8	2496.0	865.8	605.9	412.8	340.2	321.0	311.5	303.9	302.0
55°	10794.4	8413.0	2480.7	804.6	540.9	367.0	311.5	300.0	288.6	281.0	277.2
57.5°	11547.3	8502.9	2045.0	737.7	466.4	330.7	284.7	277.2	263.7	254.2	252.3
60°	11893.3	7990.7	1433.4	649.8	391.8	296.2	256.1	252.3	235.0	221.7	217.9
62.5°	11956.4	7038.9	955.6	540.9	326.8	263.7	227.4	221.7	198.7	175.8	164.4
65°	11700.3	5678.1	661.2	422.4	279.0	229.3	195.0	183.5	158.7	135.7	128.0
67.5°	10889.9	3986.7	460.6	303.9	237.0	181.5	154.8	151.0	131.9	112.7	107.0
70°	9405.0	2272.4	307.7	227.4	187.3	124.2	122.3	126.2	107.0	91.7	84.0
72.5°	7210.9	1039.7	191.2	166.3	128.0	84.0	97.5	99.4	82.2	68.8	61.2
75°	4244.7	445.3	120.4	107.0	65.0	55.5	70.7	72.7	55.5	44.0	38.2
77.5°	1444.8	168.2	76.5	63.0	32.5	30.5	45.8	45.8	30.5	17.2	13.4
80°	328.7	63.0	38.2	24.8	15.3	13.4	15.3	13.4	7.7	1.9	0.0
82.5°	93.7	24.8	15.3	9.5	5.7	5.7	1.9	0.0	0.0	0.0	0.0
85°	26.8	11.5	3.8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.5	1.9	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)