

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: P969440

Luminaire Tested: **NAV-SB5D-827-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969440
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-827-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35932.4 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 364.9
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

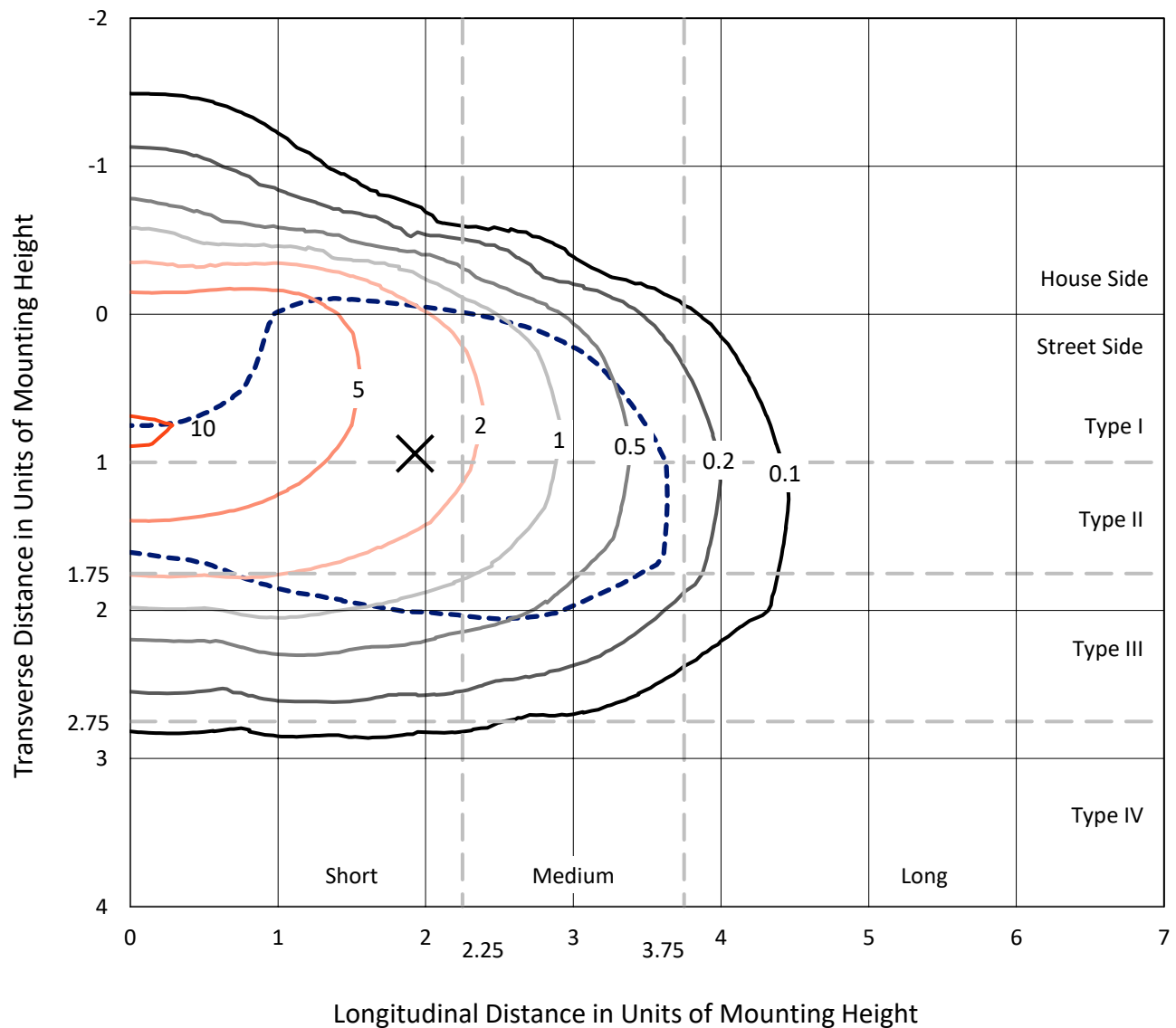


REPORT NUMBER: P969440

CATALOG NUMBER: NAV-SB5D-827-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

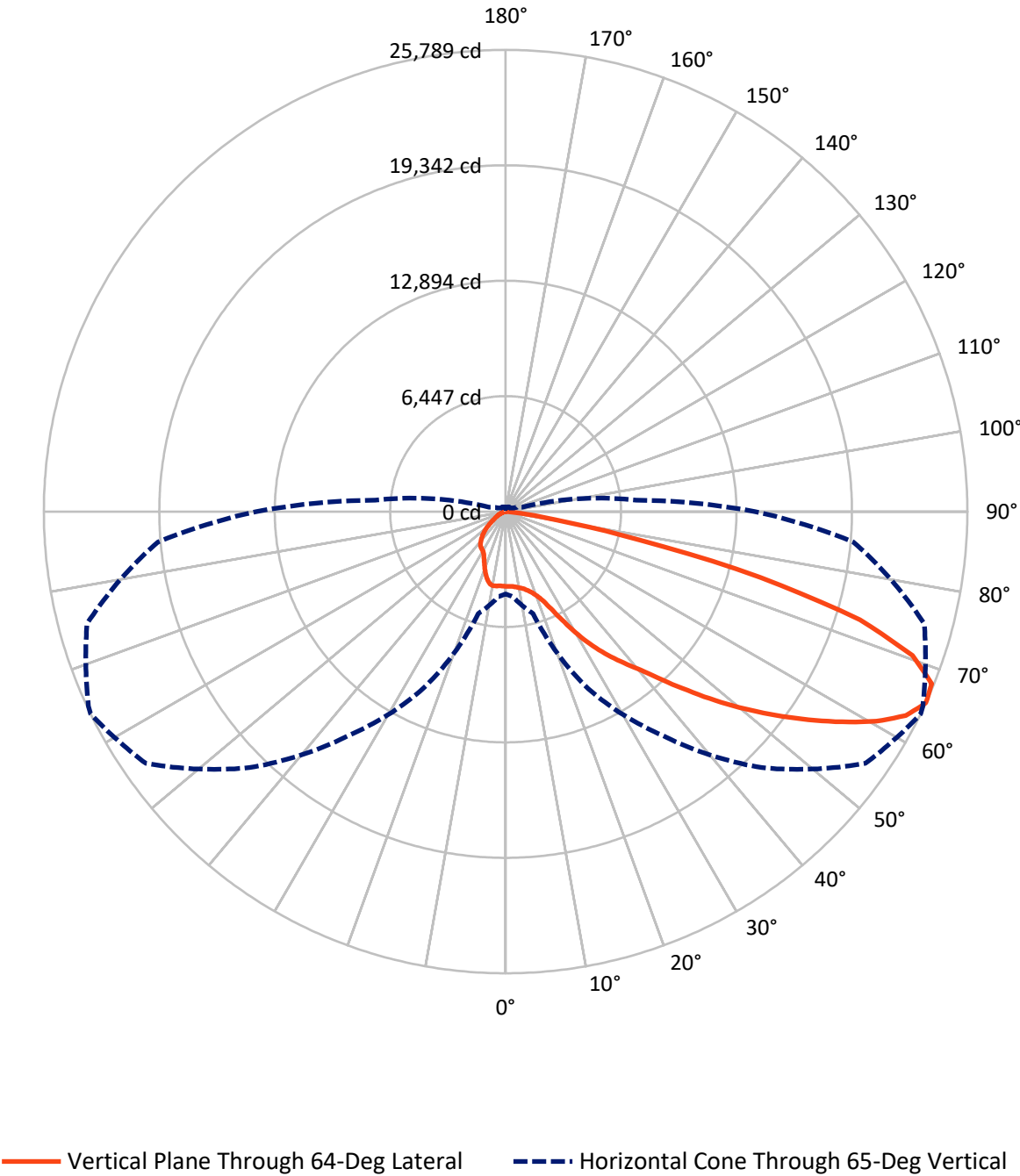
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc
Type III - Short - N/A

REPORT NUMBER: P969440
CATALOG NUMBER: NAV-SB5D-827-U-T3-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P969440

CATALOG NUMBER: NAV-SB5D-827-U-T3-HSS

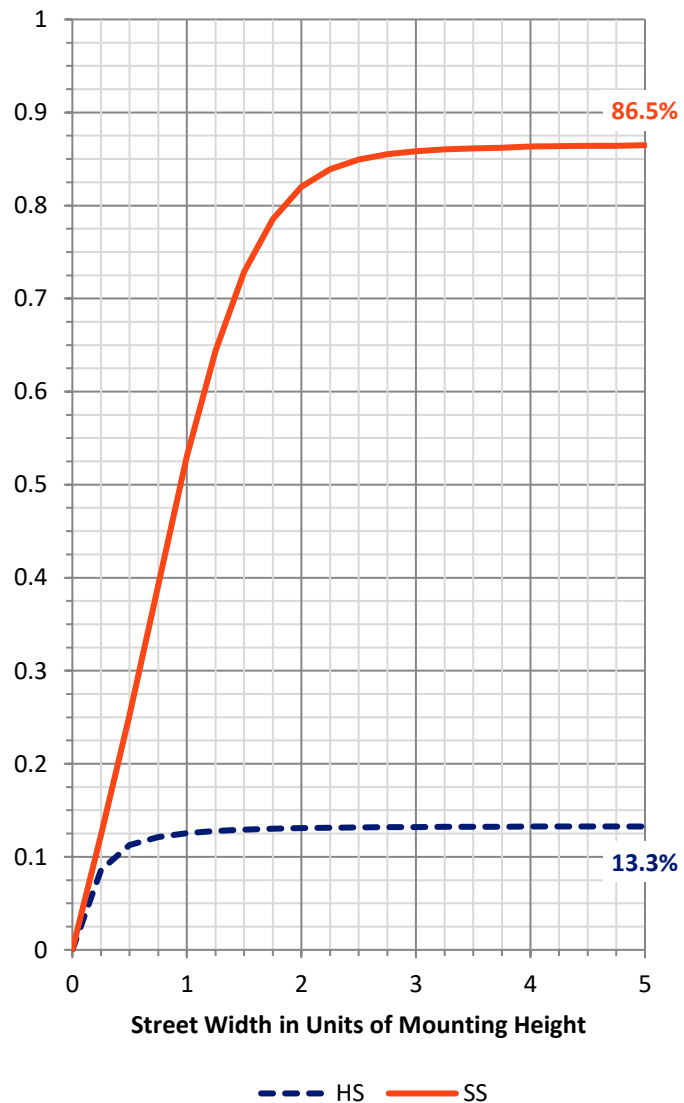
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4805.3	0.0	4805.3
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	31127.1	0.0	31127.1
	% Fixture	86.6	0.0	86.6
Total	Lumens	35932.4	0.0	35932.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	385.6	1.1
10°-20°	1045.8	2.9
20°-30°	1981.7	5.5
30°-40°	4010.1	11.2
40°-50°	6831.2	19.0
50°-60°	9289.9	25.9
60°-70°	8723.7	24.3
70°-80°	3495.1	9.7
80°-90°	169.3	0.5
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°	35932.4	100.0
0°-180°	35932.4	100.0

Coefficient of Utilization



REPORT NUMBER: P969440

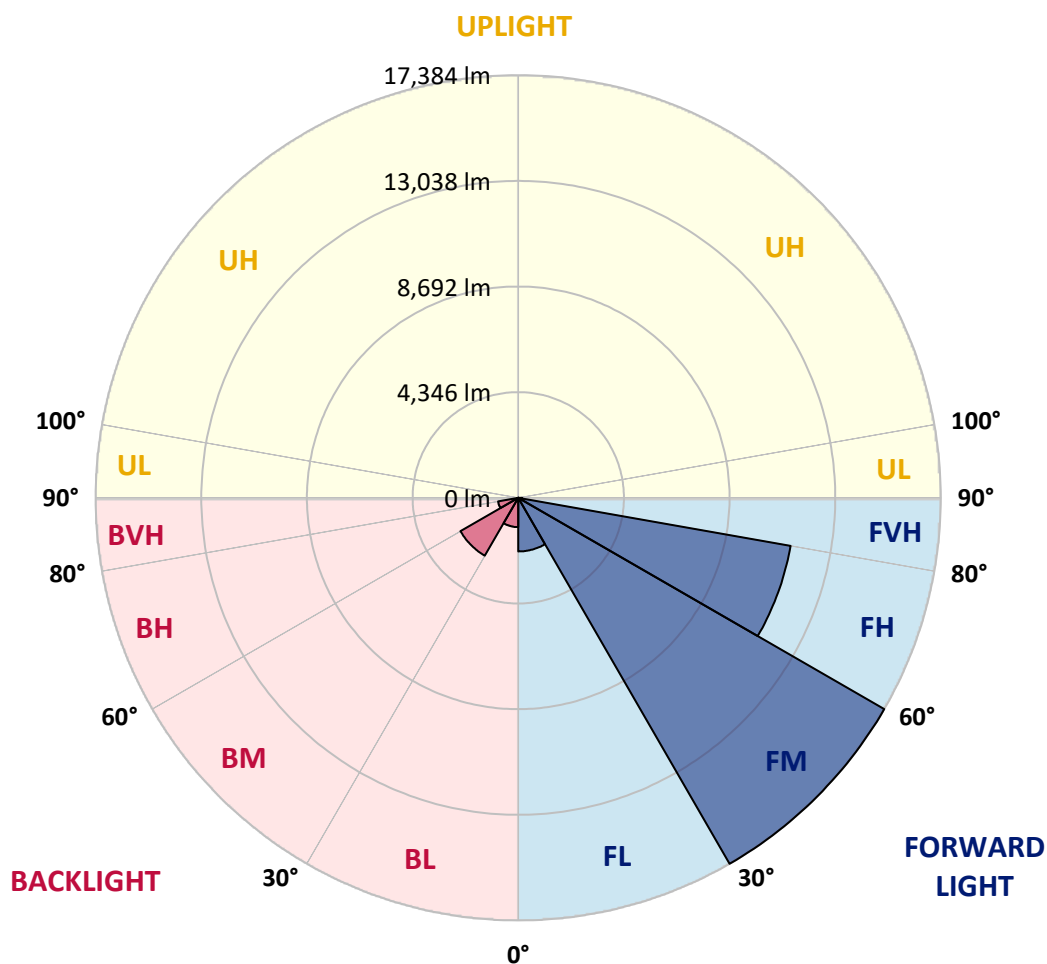
CATALOG NUMBER: NAV-SB5D-827-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2206.7	6.1			
FM	(30°-60°)	17384.0	48.4			
FH	(60°-80°)	11375.4	31.7			G4/12000
FVH	(80°-90°)	161.1	0.4			G2/225
BL	(0°-30°)	1206.5	3.4	B3/2500		
BM	(30°-60°)	2747.1	7.6	B3/5000		
BH	(60°-80°)	843.4	2.3	B2/1000		G2/1000
BVH	(80°-90°)	8.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short



REPORT NUMBER: P969440

CATALOG NUMBER: NAV-SB5D-827-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3
2.5°	4164.9	4193.8	4186.5	4179.3	4176.9	4181.7	4184.2	4181.7	4181.7	4181.7	4184.2
5°	4085.3	4109.4	4109.4	4126.3	4150.4	4179.3	4201.0	4205.8	4210.6	4217.9	4215.4
7.5°	3933.6	3952.9	3967.4	4022.7	4083.0	4160.1	4225.0	4258.8	4263.6	4290.1	4299.8
10°	3830.0	3854.1	3878.2	3936.0	4022.7	4138.3	4249.1	4331.0	4343.1	4405.8	4434.7
12.5°	3825.2	3849.3	3880.6	3943.3	4044.4	4167.2	4302.1	4420.2	4441.8	4533.4	4593.6
15°	3875.8	3904.7	3933.6	4010.7	4119.1	4268.4	4412.9	4559.9	4581.5	4711.6	4776.7
17.5°	3979.4	4017.9	4039.6	4116.7	4232.3	4398.5	4588.8	4757.4	4776.7	4928.4	5010.4
20°	4184.2	4229.9	4237.1	4299.8	4412.9	4591.2	4817.6	5027.2	5051.3	5224.7	5316.3
22.5°	4608.1	4673.1	4615.3	4646.6	4747.8	4926.0	5171.7	5436.7	5470.4	5667.9	5749.8
25°	5354.8	5446.3	5297.0	5244.0	5287.4	5472.9	5781.2	6116.0	6154.5	6313.5	6354.5
27.5°	6821.8	6703.8	6477.3	6255.7	6125.6	6231.6	6578.4	6992.9	7041.0	7195.2	7147.0
30°	8433.3	8329.8	8023.8	7532.4	7224.1	7207.2	7527.6	7990.1	8045.4	8192.4	8045.4
32.5°	10047.3	9948.4	9616.0	9011.4	8476.6	8211.7	8433.3	8946.4	8975.3	9069.2	8852.4
35°	11634.7	11533.4	11201.0	10582.0	9924.4	9322.2	9278.8	9856.9	9866.5	9965.4	9642.5
37.5°	13231.7	13147.4	12793.2	12186.2	11538.3	10707.3	10304.9	10719.2	10731.3	10827.7	10492.8
40°	14371.0	14407.2	14163.9	13694.2	13137.7	12229.6	11456.3	11637.0	11564.8	11726.2	11526.2
42.5°	15349.1	15421.3	15209.4	14973.3	14650.4	13850.7	12882.4	12851.0	12735.4	12822.1	12615.0
45°	16194.5	16254.8	16064.4	16009.1	16001.8	15440.6	14440.9	14253.0	14091.6	14074.8	13826.6
47.5°	16505.3	16620.9	16702.8	16888.3	17249.6	17013.6	16052.4	15760.9	15580.3	15447.8	15055.2
50°	16623.3	16746.1	17025.6	17565.1	18420.3	18521.4	17656.6	17329.1	17107.5	16866.6	16288.5
52.5°	16464.3	16683.5	17059.3	17967.4	19208.0	19730.6	19195.9	18909.3	18656.3	18263.8	17406.1
55°	15527.3	15746.5	16514.9	17962.6	19600.6	20578.6	20650.9	20523.2	20238.9	19619.8	18309.5
57.5°	13552.0	13877.3	15093.7	17350.8	19593.4	21308.4	22076.9	22168.4	21850.4	20964.0	19020.1
60°	10815.6	11256.4	12740.2	15994.6	18988.7	21703.6	23327.1	23784.7	23447.5	22288.8	19595.7
62.5°	7546.9	8057.5	9461.9	13870.0	17606.1	21419.2	24240.0	25085.5	24830.2	23474.0	19817.5
65°	4603.3	4767.1	5899.2	10914.4	15255.1	20229.3	24521.8	25788.9	25704.5	24199.0	19489.8
67.5°	3066.4	3203.7	3529.0	7484.2	11841.8	17851.8	23847.3	25666.0	25690.1	24081.0	18290.2
70°	1847.6	1965.6	2177.6	4352.8	7674.5	14130.1	21758.9	24100.3	24240.0	22503.3	16016.2
72.5°	761.2	840.7	1033.4	1972.8	3974.5	8968.0	17326.7	20691.8	21017.0	18921.3	12292.2
75°	431.2	472.1	607.0	990.0	1724.8	4179.3	10495.3	14689.0	15168.4	13041.4	7395.1
77.5°	286.7	306.0	392.7	640.7	970.8	1426.0	4485.2	7652.9	8568.2	7122.9	3201.3
80°	192.7	209.6	269.8	428.8	631.1	611.8	1428.4	2835.1	3488.0	2447.4	780.4
82.5°	130.1	132.5	192.7	281.9	399.9	296.3	421.6	881.6	1108.0	708.2	296.3
85°	74.7	72.3	142.2	163.8	178.2	122.9	127.7	265.0	346.9	298.7	168.6
87.5°	9.6	14.5	55.5	43.4	24.1	26.5	26.5	45.8	67.4	72.3	36.2
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: P969440

CATALOG NUMBER: NAV-SB5D-827-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3	4179.3
2.5°	4184.2	4181.7	4174.5	4167.2	4150.4	4140.8	4145.6	4140.8	4138.3	4140.8	4150.4
5°	4215.4	4208.2	4189.0	4164.9	4131.2	4090.2	4063.7	4025.2	3989.0	3967.4	3972.2
7.5°	4299.8	4292.5	4266.0	4198.6	4090.2	3919.2	3762.6	3625.3	3521.7	3461.5	3463.9
10°	4434.7	4422.6	4381.7	4232.3	3948.1	3574.7	3263.9	3006.2	2837.6	2758.1	2750.9
12.5°	4593.6	4579.2	4506.9	4201.0	3678.3	3095.3	2666.5	2379.9	2223.3	2153.5	2146.2
15°	4781.5	4762.3	4620.1	4051.6	3285.6	2565.4	2172.8	1958.4	1857.2	1794.6	1797.0
17.5°	5015.2	4981.5	4704.4	3827.7	2859.2	2160.7	1869.3	1707.9	1618.7	1558.5	1553.7
20°	5318.7	5263.3	4771.9	3560.2	2466.7	1905.4	1664.5	1529.6	1462.2	1409.2	1399.5
22.5°	5742.7	5663.1	4853.8	3271.2	2189.6	1729.6	1512.7	1414.0	1358.5	1298.4	1288.7
25°	6267.8	6173.8	4955.0	3003.8	1999.4	1577.8	1401.9	1320.0	1255.0	1185.1	1177.9
27.5°	7002.5	6833.9	5075.4	2784.6	1835.6	1447.7	1300.7	1209.2	1134.6	1076.8	1064.7
30°	7821.5	7544.4	5181.4	2652.1	1686.2	1327.3	1168.3	1076.8	1006.9	966.0	958.7
32.5°	8597.1	8221.3	5251.3	2594.3	1551.2	1189.9	1023.8	925.0	872.0	860.0	867.2
35°	9329.3	8833.1	5244.0	2538.9	1430.8	1052.7	881.6	780.4	739.5	746.7	746.7
37.5°	10172.5	9486.0	5193.5	2452.2	1332.1	927.4	758.8	669.6	633.6	635.9	645.5
40°	11152.8	10240.0	5162.1	2288.4	1223.6	811.8	657.6	585.4	558.8	549.2	546.8
42.5°	12198.3	10969.8	5166.9	2102.9	1088.8	708.2	587.7	527.6	503.5	496.2	493.8
45°	13248.5	11665.9	5174.2	1910.2	946.7	628.7	537.2	486.6	472.1	462.5	462.5
47.5°	14236.1	12258.5	5039.3	1703.0	807.0	568.5	496.2	462.5	450.5	438.4	438.4
50°	15156.4	12653.5	4714.1	1462.2	696.2	520.3	464.9	440.9	428.8	416.8	416.8
52.5°	15871.7	12716.2	4176.9	1214.0	619.1	484.2	445.7	423.9	409.5	397.5	395.0
55°	16189.7	12323.6	3413.4	982.8	558.8	452.8	426.4	404.7	387.9	375.8	373.4
57.5°	16107.8	11497.3	2661.7	790.1	501.0	421.6	402.3	387.9	368.6	349.3	346.9
60°	15705.6	10391.7	2006.5	657.6	448.0	387.9	375.8	363.8	337.2	308.3	303.5
62.5°	15009.4	9001.8	1430.8	544.4	390.2	349.3	344.5	334.9	296.3	243.3	238.5
65°	13944.7	7313.2	963.5	452.8	334.9	306.0	308.3	291.5	240.9	180.7	175.9
67.5°	12388.6	5347.6	616.6	370.9	279.4	255.3	257.8	248.2	204.8	154.2	147.0
70°	10406.1	3541.0	402.3	281.9	224.1	197.5	212.0	214.4	173.4	125.3	120.4
72.5°	7628.8	2090.9	281.9	209.6	163.8	137.4	173.4	178.2	139.7	94.0	89.2
75°	4347.9	992.4	212.0	151.8	101.2	96.4	134.9	134.9	96.4	62.6	57.8
77.5°	1825.9	414.3	149.3	98.8	57.8	55.5	91.5	84.4	48.2	28.9	28.9
80°	527.6	185.5	79.5	48.2	24.1	21.7	36.2	26.5	12.1	4.8	4.8
82.5°	207.2	81.9	31.4	19.3	9.6	9.6	4.8	0.0	0.0	0.0	0.0
85°	122.9	33.7	14.5	7.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	31.4	7.3	4.8	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)