

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: P967312

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967312
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-827-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30992.9 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

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



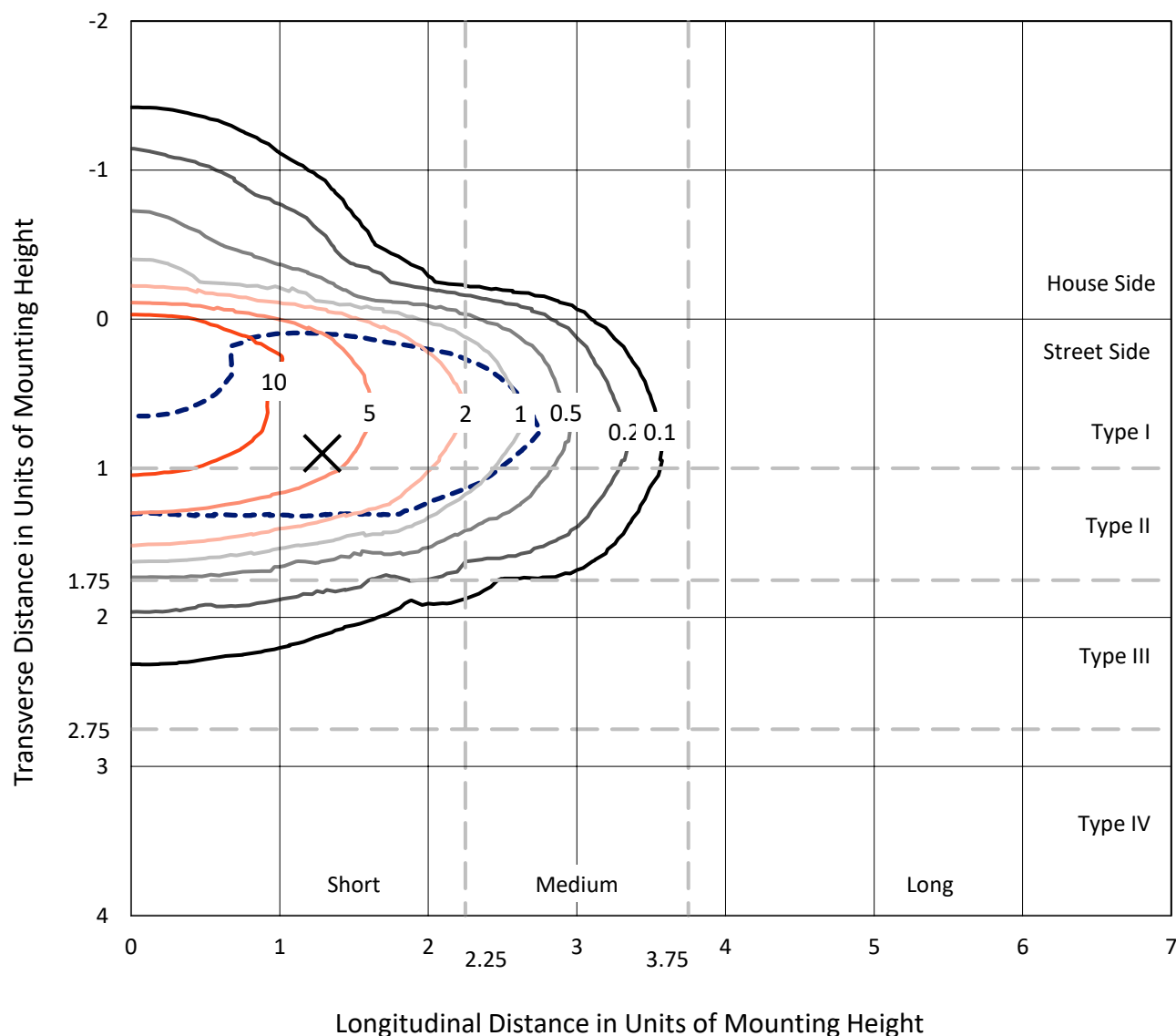
REPORT NUMBER: P967312

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

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

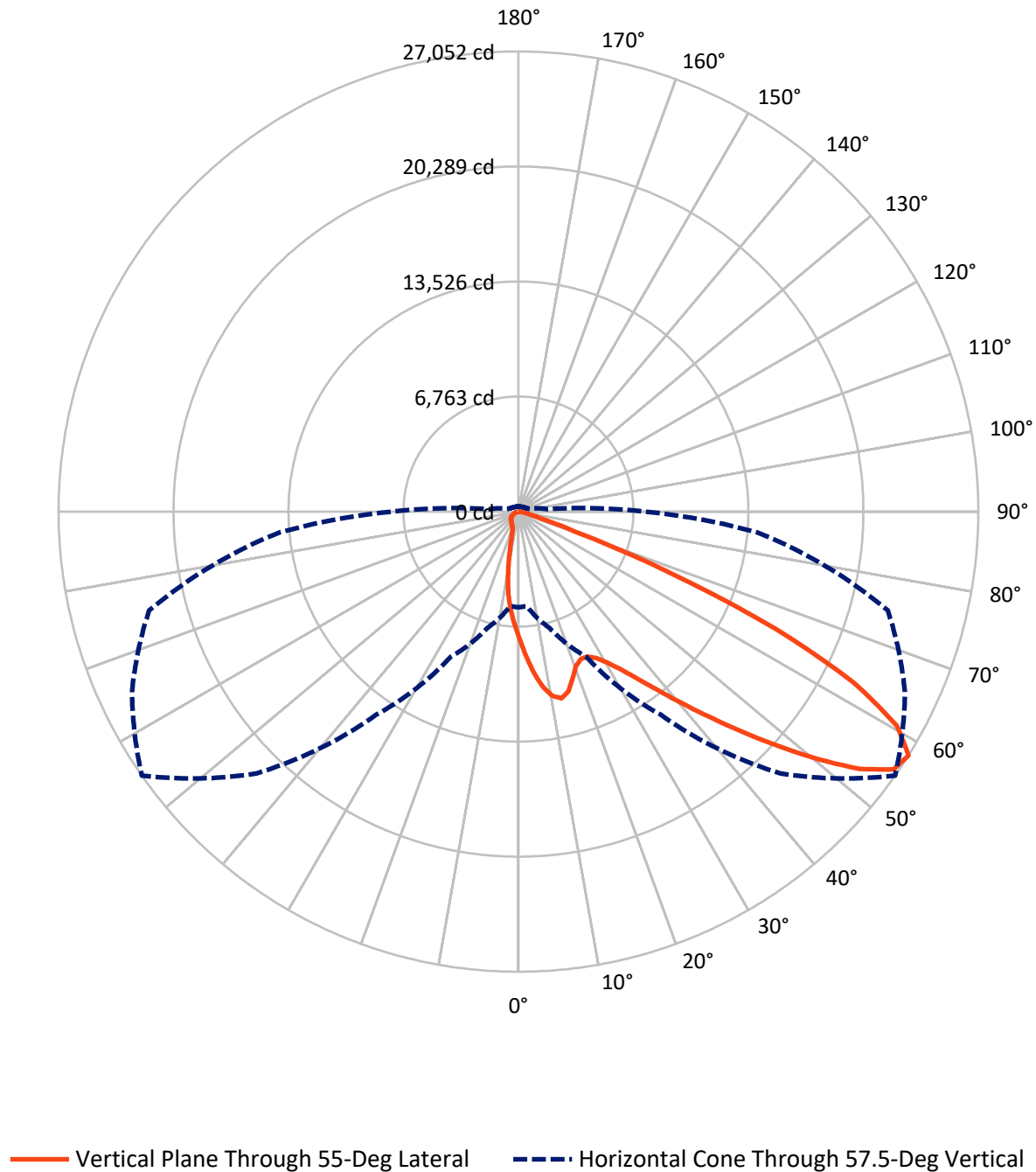


Based on 25 foot mounting height. Maximum calculated value = 17.1 fc

Type II - Short - N/A

REPORT NUMBER: P967312
CATALOG NUMBER: NAV-SB4D-827-U-AFL-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P967312

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

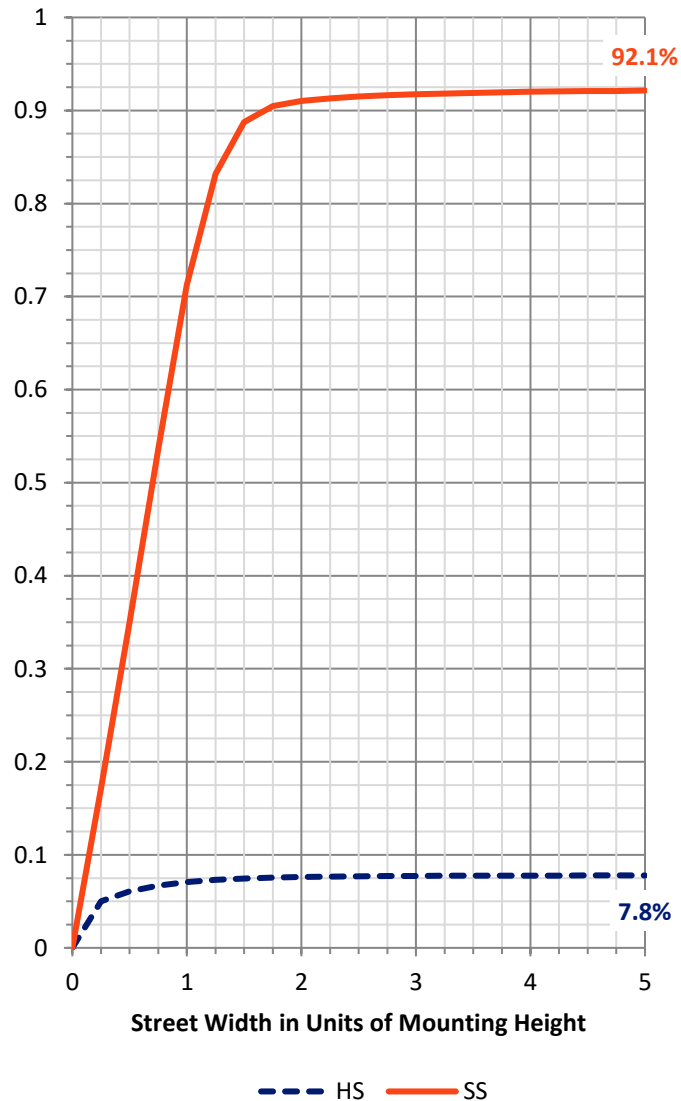
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2420.4	0.0	2420.4
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	28572.5	0.0	28572.5
	% Fixture	92.2	0.0	92.2
Total	Lumens	30992.9	0.0	30992.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	694.9	2.2
10°-20°	1678.5	5.4
20°-30°	2685.7	8.7
30°-40°	4545.6	14.7
40°-50°	7463.0	24.1
50°-60°	8202.3	26.5
60°-70°	4704.9	15.2
70°-80°	961.3	3.1
80°-90°	56.7	0.2
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°	30992.9	100.0
0°-180°	30992.9	100.0

Coefficient of Utilization



REPORT NUMBER: P967312

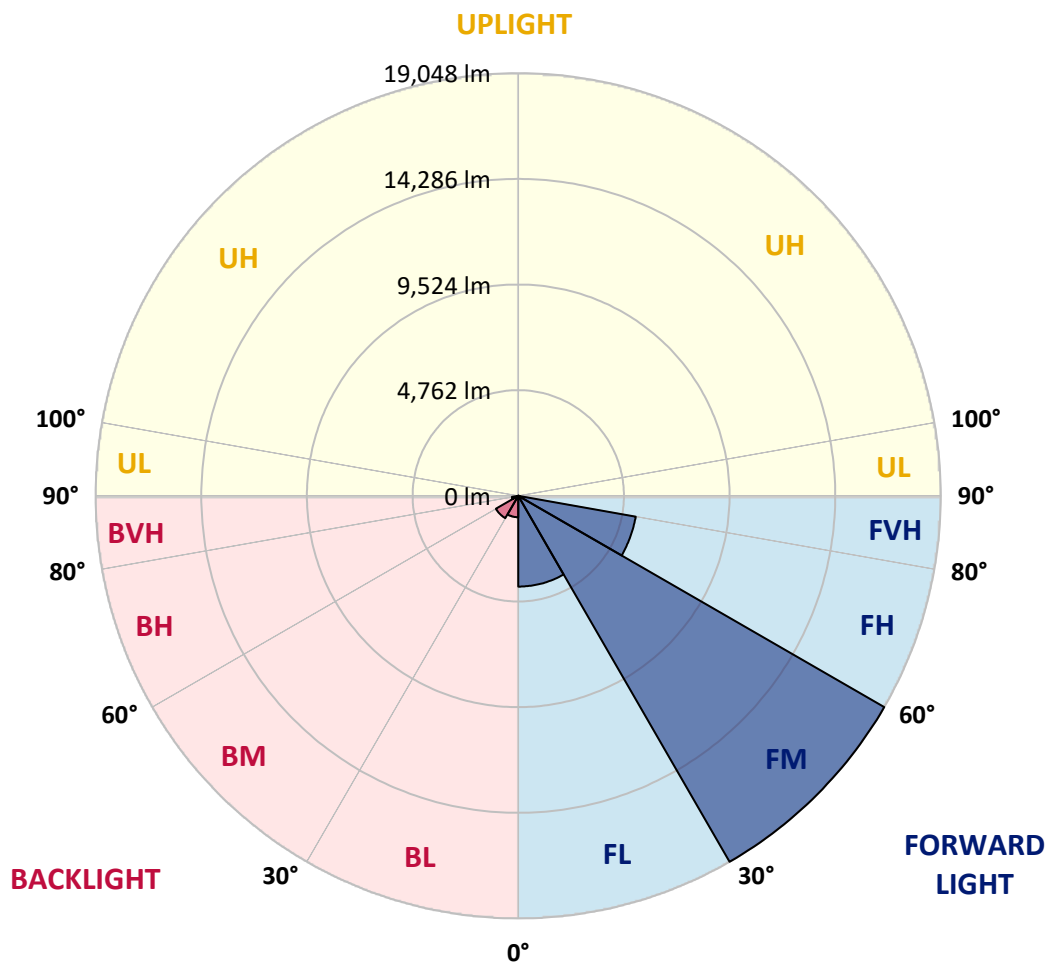
CATALOG NUMBER: NAV-SB4D-827-U-AFL-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4092.8	13.2			
FM	(30°-60°)	19048.5	61.5			
FH	(60°-80°)	5378.3	17.4			G3/7500
FVH	(80°-90°)	52.9	0.2			G1/100
BL	(0°-30°)	966.3	3.1	B2/1000		
BM	(30°-60°)	1162.4	3.8	B2/2500		
BH	(60°-80°)	287.9	0.9	B1/500		G1/500
BVH	(80°-90°)	3.8	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-G3

Type II Short



REPORT NUMBER: P967312

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6
2.5°	9266.8	9150.3	9133.1	9110.2	8888.5	8722.2	8481.4	8217.6	7921.5	7619.5	7485.8
5°	10705.9	10614.2	10597.0	10490.0	10237.7	9954.9	9526.8	8986.0	8433.6	7783.8	7504.8
7.5°	10984.9	10967.7	11046.1	11042.2	11007.9	10784.2	10423.1	9779.0	8949.6	7986.4	7554.6
10°	9740.8	9784.8	10017.9	10222.4	10774.7	11095.7	11017.4	10486.2	9480.9	8217.6	7609.9
12.5°	8607.5	8556.0	8722.2	8953.5	9595.5	10551.1	11263.9	11076.7	10088.7	8479.5	7692.1
15°	7896.6	7875.6	7969.3	8076.3	8565.5	9528.7	10977.2	11556.4	10673.4	8789.1	7816.3
17.5°	7669.2	7652.0	7680.6	7707.4	8024.6	8770.0	10295.0	11850.6	11233.4	9142.7	7953.9
20°	7854.6	7831.6	7827.8	7806.8	7938.6	8447.0	9677.7	11871.7	11735.9	9463.7	8072.4
22.5°	8395.4	8368.6	8275.0	8190.9	8202.4	8491.0	9402.5	11661.4	12114.4	9763.7	8147.0
25°	9375.8	9331.8	9137.0	8854.1	8674.5	8796.8	9444.6	11384.4	12475.6	9998.8	8110.6
27.5°	10602.7	10545.4	10295.0	9874.5	9463.7	9314.7	9748.5	11193.2	12775.6	10178.5	8032.3
30°	11804.8	11730.3	11483.7	11156.9	10556.9	10086.7	10296.9	11277.4	13133.0	10365.7	7929.1
32.5°	13102.4	13031.7	12704.9	12299.8	11802.9	11170.3	11048.0	11688.2	13570.6	10627.6	7856.5
35°	14744.0	14633.2	14168.8	13616.5	13089.0	12448.8	12064.7	12397.3	14153.5	11026.9	7896.6
37.5°	16613.1	16464.1	15963.4	15200.7	14512.8	13796.2	13303.1	13371.8	15007.7	11562.1	8020.8
40°	18375.1	18239.5	17777.0	17058.4	16194.6	15325.0	14799.5	14646.5	16186.9	12213.8	8238.7
42.5°	19431.9	19309.7	19114.7	18810.8	18082.7	17196.0	16532.8	16202.2	17582.0	12993.5	8504.3
45°	19491.2	19384.2	19646.0	19999.5	19856.2	19265.7	18457.3	17851.5	18982.8	13725.5	8779.5
47.5°	18543.3	18470.7	19265.7	20500.2	21115.6	21364.1	20618.7	19363.2	20139.0	14251.0	8892.3
50°	15959.5	15932.7	17568.6	19835.2	21595.3	23202.5	22898.7	20769.7	21035.4	14522.4	8785.3
52.5°	13838.2	13740.7	14694.4	17706.3	20897.7	24169.5	25127.0	22149.5	21662.1	14574.0	8534.9
55°	10495.7	10409.7	11606.1	14144.0	18648.4	23825.5	26757.1	23573.3	22111.3	14442.0	8085.8
57.5°	5630.0	5576.5	7088.2	9414.0	14577.8	21761.6	27051.5	25079.2	22489.7	14092.3	7457.1
60°	2192.1	2182.4	2748.1	4567.5	8859.8	17704.3	25566.6	25983.1	22726.6	13662.3	6931.6
62.5°	1326.2	1354.9	1446.7	2050.6	3913.9	10998.4	22143.8	24955.0	22885.3	13268.7	6497.7
65°	1097.0	1098.9	1110.4	1408.5	1874.8	4601.9	16670.4	21572.4	22493.5	12567.3	5882.4
67.5°	940.2	957.5	1001.4	1118.0	1322.5	2018.1	9597.5	16710.6	20110.4	10935.2	4923.0
70°	741.5	764.4	819.9	919.2	1020.5	1263.2	3547.0	11118.7	15363.2	8242.5	3722.8
72.5°	624.9	623.0	651.7	747.2	810.3	888.7	1364.5	6230.2	8928.6	3935.0	1842.3
75°	483.5	502.7	538.9	624.9	663.2	644.0	739.6	2276.1	3199.1	1192.5	626.8
77.5°	378.4	393.7	426.2	510.2	548.5	456.7	426.2	814.2	1028.2	428.0	282.8
80°	170.0	183.5	290.5	376.5	447.2	315.3	231.2	416.7	456.7	195.0	143.3
82.5°	30.5	51.6	170.0	198.7	229.3	204.5	120.4	216.0	223.6	78.3	49.7
85°	1.9	3.8	59.2	72.7	91.7	66.9	36.3	86.0	74.5	26.8	19.1
87.5°	0.0	0.0	0.0	1.9	1.9	9.5	11.5	15.3	11.5	9.5	7.7
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: P967312

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

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6	7468.6
2.5°	7348.1	7076.8	6813.1	6597.1	6470.9	6256.9	6115.5	6092.5	6033.4	6084.9
5°	7206.7	6721.3	6230.2	5790.6	5429.4	4963.0	4615.3	4468.1	4340.1	4384.0
7.5°	7139.8	6373.4	5609.0	4858.0	4085.9	3340.6	2786.4	2555.1	2379.3	2404.1
10°	7050.1	6012.2	4814.0	3667.3	2633.4	1897.7	1515.5	1374.1	1295.7	1297.6
12.5°	6981.2	5580.4	3891.0	2486.3	1603.4	1211.7	1093.2	1058.7	1035.8	1037.7
15°	6946.8	5072.0	2979.4	1656.9	1146.7	1026.2	997.6	982.3	967.0	965.1
17.5°	6889.4	4506.3	2180.6	1209.7	1003.3	961.2	936.4	919.2	900.2	896.3
20°	6803.4	3864.2	1593.9	1022.4	940.2	907.7	873.4	850.4	827.5	823.7
22.5°	6644.9	3185.8	1225.0	946.0	894.4	858.0	816.0	789.2	766.4	762.5
25°	6350.6	2549.4	1032.0	898.2	854.2	810.3	764.4	728.2	707.1	703.3
27.5°	5977.9	2002.8	936.4	854.2	802.7	762.5	710.9	676.5	657.4	653.6
30°	5538.4	1542.2	881.0	804.5	741.5	707.1	661.2	632.5	621.2	621.2
32.5°	5064.4	1232.7	858.0	754.9	688.0	649.7	613.5	602.0	598.2	596.2
35°	4619.1	1070.2	846.6	714.7	640.2	603.9	588.7	590.5	598.2	598.2
37.5°	4223.5	1018.6	840.9	686.0	598.2	565.7	575.2	592.4	584.8	584.8
40°	3866.1	1024.4	837.0	665.0	563.8	544.7	563.8	550.4	531.3	529.4
42.5°	3592.8	1072.1	829.4	647.9	542.7	529.4	521.7	500.7	498.8	502.7
45°	3394.1	1114.2	827.5	640.2	519.8	495.0	485.4	464.4	502.7	512.2
47.5°	3159.0	1114.2	827.5	613.5	481.5	472.0	456.7	433.8	472.0	481.5
50°	2855.1	1043.4	795.0	582.9	451.0	445.3	418.5	389.9	382.2	388.0
52.5°	2471.1	915.4	712.8	540.8	420.5	409.0	376.5	355.5	349.7	349.7
55°	2033.4	766.4	602.0	479.7	388.0	367.0	344.0	334.5	328.7	324.9
57.5°	1653.1	628.7	483.5	426.2	357.4	330.7	323.0	311.5	302.0	296.2
60°	1356.9	495.0	399.4	378.4	326.8	302.0	300.0	284.7	259.9	256.0
62.5°	1047.2	363.2	336.3	328.7	296.2	275.2	271.4	240.8	202.5	195.0
65°	739.6	282.8	271.4	288.5	263.7	244.7	235.0	189.2	149.0	143.3
67.5°	519.8	237.0	214.0	252.3	229.3	204.5	198.7	160.5	124.2	120.4
70°	370.7	193.0	175.8	216.0	183.5	179.7	168.2	133.8	101.3	97.5
72.5°	261.8	147.2	135.7	187.3	126.2	154.8	137.6	103.2	76.5	72.7
75°	193.0	105.1	95.5	109.0	91.7	116.5	97.5	68.8	47.8	45.8
77.5°	141.4	66.9	57.3	53.5	53.5	72.7	53.5	28.7	21.0	19.1
80°	99.4	30.5	26.8	23.0	21.0	17.2	7.7	3.8	1.9	1.9
82.5°	59.2	13.4	13.4	9.5	5.7	0.0	0.0	0.0	0.0	0.0
85°	13.4	5.7	5.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	1.9	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

(END OF REPORT)