

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: P967328

Luminaire Tested: **NAV-SB4D-827-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967328
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-827-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37025.1 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

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

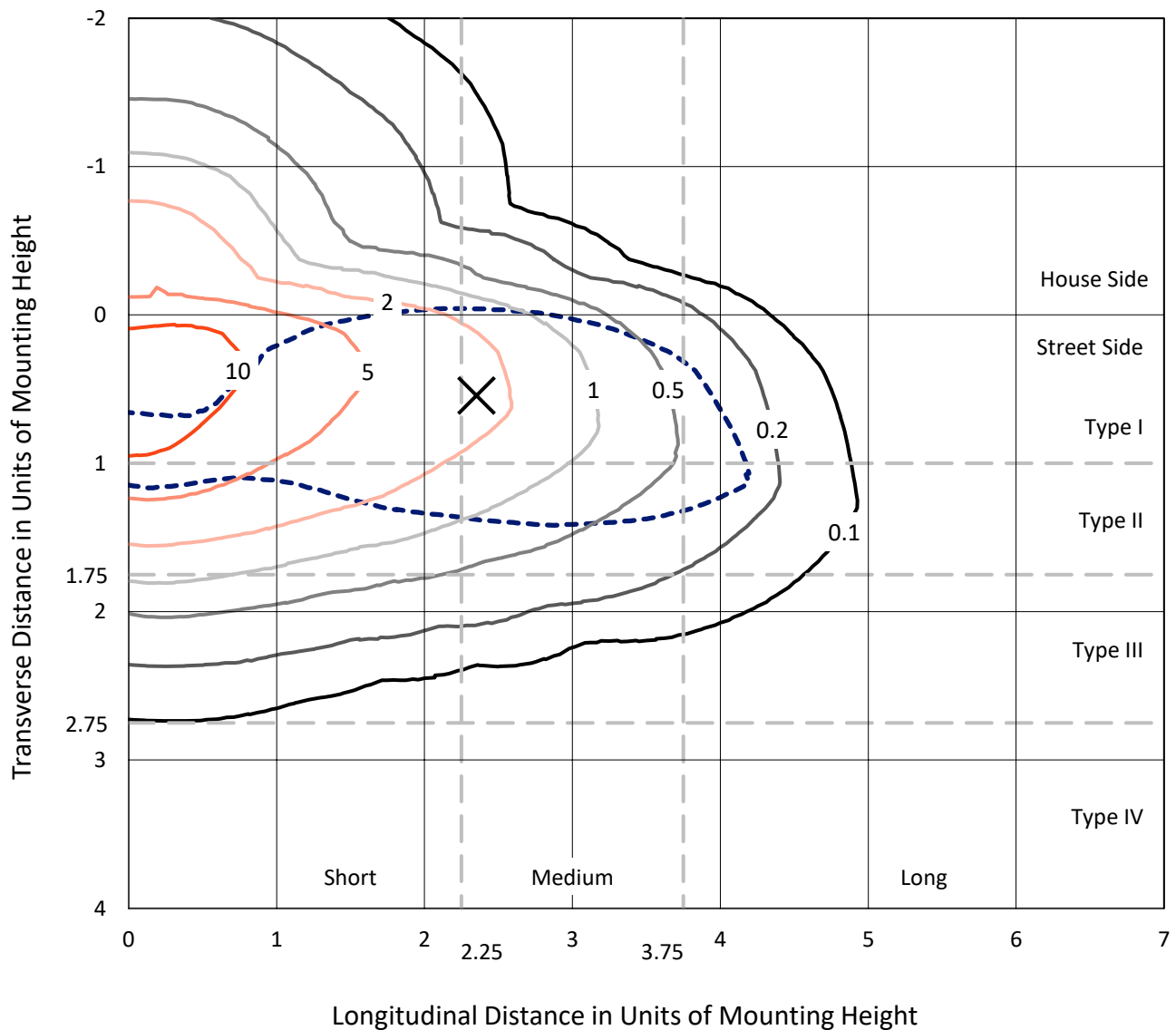


REPORT NUMBER: P967328

CATALOG NUMBER: NAV-SB4D-827-U-T2R

Iso-Footcandle Lines of Horizontal Illumination

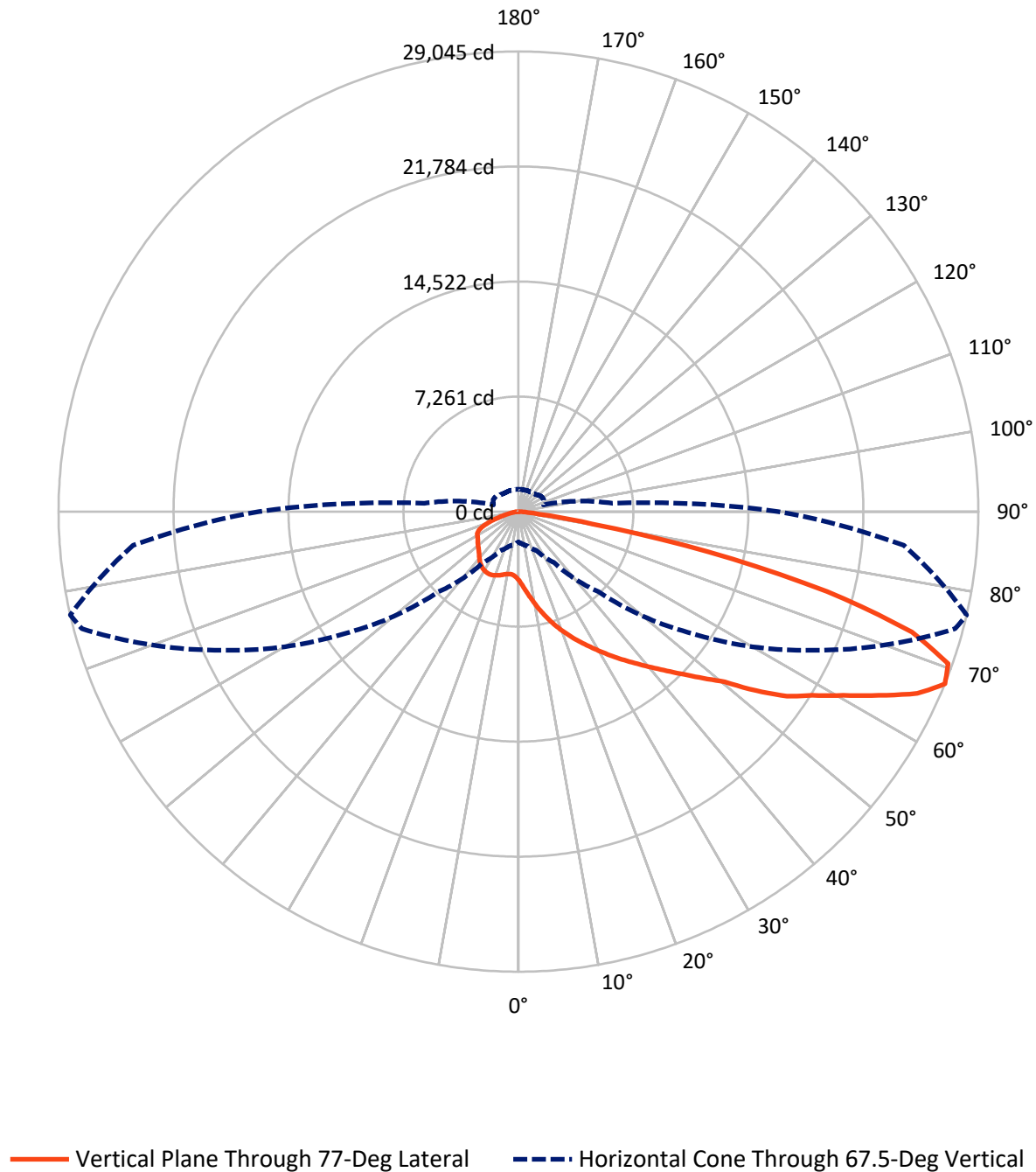
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.6 fc
Type II - Medium - N/A

REPORT NUMBER: P967328
CATALOG NUMBER: NAV-SB4D-827-U-T2R

Luminous Intensity Polar Plot



REPORT NUMBER: P967328

CATALOG NUMBER: NAV-SB4D-827-U-T2R

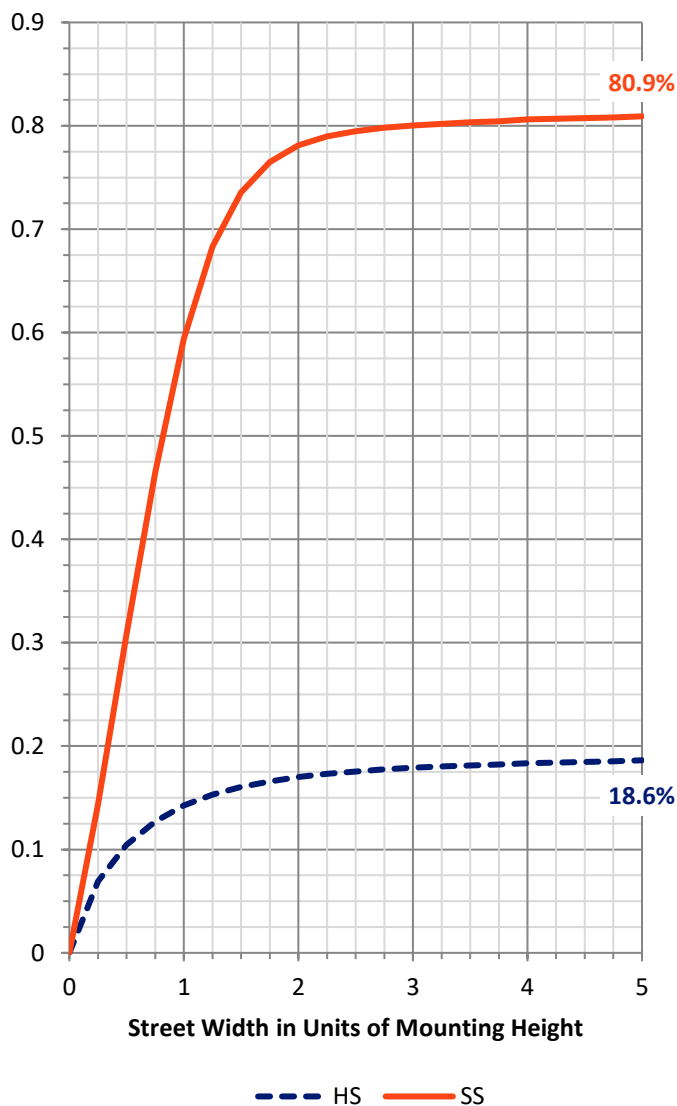
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7003.7	0.0	7003.7
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	30021.4	0.0	30021.4
	% Fixture	81.1	0.0	81.1
Total	Lumens	37025.1	0.0	37025.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	465.6	1.3
10°-20°	1672.9	4.5
20°-30°	3158.5	8.5
30°-40°	5088.3	13.7
40°-50°	6959.9	18.8
50°-60°	7850.8	21.2
60°-70°	7327.7	19.8
70°-80°	4016.8	10.8
80°-90°	484.5	1.3
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°	37025.1	100.0
0°-180°	37025.1	100.0

Coefficient of Utilization



REPORT NUMBER: P967328

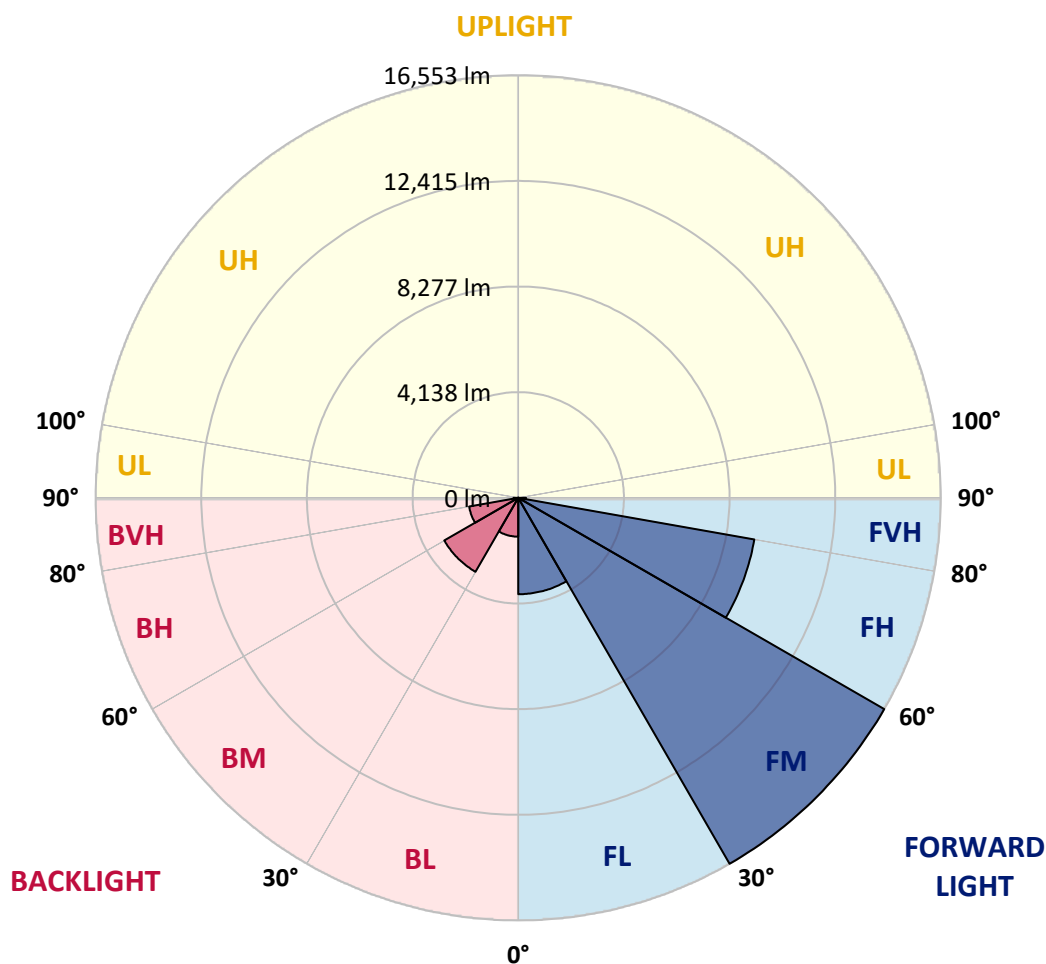
CATALOG NUMBER: NAV-SB4D-827-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3774.2	10.2			
FM	(30°-60°)	16553.5	44.7			
FH	(60°-80°)	9390.7	25.4			G4/12000
FVH	(80°-90°)	303.0	0.8			G3/500
BL	(0°-30°)	1522.8	4.1	B3/2500		
BM	(30°-60°)	3345.5	9.0	B3/5000		
BH	(60°-80°)	1953.9	5.3	B3/2500		G3/2500
BVH	(80°-90°)	181.5	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium



REPORT NUMBER: P967328

CATALOG NUMBER: NAV-SB4D-827-U-T2R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2
2.5°	5439.3	5477.5	5429.7	5429.7	5269.2	5185.2	5024.5	4902.3	4682.5	4644.3	4499.0
5°	6429.3	6477.1	6410.2	6381.5	6192.3	6018.4	5748.9	5483.2	5091.5	5051.3	4709.3
7.5°	7195.7	7256.9	7197.7	7167.0	6998.9	6804.0	6488.6	6117.8	5565.4	5487.1	4992.1
10°	7820.6	7830.3	7811.1	7822.6	7690.7	7530.2	7207.2	6775.2	6085.3	5978.3	5334.2
12.5°	8174.3	8218.2	8256.5	8325.3	8302.3	8203.0	7912.4	7396.4	6635.7	6498.1	5706.9
15°	8340.5	8417.0	8503.0	8661.7	8789.7	8814.5	8592.8	8063.4	7195.7	7029.4	6083.4
17.5°	8399.8	8472.4	8608.2	8837.4	9112.7	9298.1	9198.7	8711.3	7749.9	7558.9	6479.0
20°	8699.9	8720.9	8803.0	9020.9	9319.1	9626.8	9701.3	9334.4	8298.5	8082.5	6888.0
22.5°	9342.1	9299.9	9322.9	9422.3	9636.3	9934.5	10104.6	9884.8	8862.3	8613.8	7300.9
25°	10402.7	10280.4	10158.1	10043.5	10152.3	10320.5	10513.6	10435.2	9452.9	9137.5	7717.4
27.5°	11742.5	11593.5	11323.9	10947.4	10815.6	10874.8	10960.8	10945.6	9999.5	9680.3	8147.5
30°	13061.3	12887.3	12566.2	12021.5	11673.7	11517.0	11452.0	11408.0	10593.9	10253.7	8581.3
32.5°	14114.4	13976.7	13661.4	13051.6	12547.1	12279.5	12063.5	11906.8	11215.0	10874.8	9040.1
35°	15035.5	14907.5	14546.3	13881.2	13332.6	13047.8	12765.0	12430.5	11861.0	11517.0	9533.1
37.5°	15876.4	15748.4	15253.4	14561.6	14009.2	13812.4	13560.0	12992.4	12508.9	12184.0	10054.9
40°	16407.8	16379.1	15916.6	15133.0	14559.6	14462.1	14378.1	13644.2	13227.5	12925.6	10628.2
42.5°	16543.5	16606.5	16239.6	15595.5	15048.9	14970.5	15167.4	14381.9	14034.0	13745.5	11278.1
45°	16216.6	16398.3	16157.4	15719.7	15396.7	15354.7	15866.9	15188.4	14926.6	14662.8	12061.7
47.5°	15389.0	15696.7	15597.4	15536.2	15490.4	15671.9	16482.3	16044.6	15937.6	15708.2	12956.1
50°	13718.7	14301.6	14475.6	14861.6	15305.0	15918.5	17042.3	16979.2	17118.7	16887.5	14045.5
52.5°	10830.9	11633.5	12642.7	13609.7	14735.5	15836.4	17657.7	18320.8	18909.5	18783.4	15777.1
55°	8940.7	9301.9	10077.8	11851.5	13630.8	15490.4	17934.8	19404.6	20687.0	20574.2	17090.0
57.5°	7488.1	7811.1	8289.0	9770.1	11960.4	14704.9	18106.8	20065.8	21904.5	21893.0	18385.8
60°	5930.4	6272.6	6761.9	7811.1	10009.0	13348.0	18068.6	20818.9	23458.3	23553.8	19966.5
62.5°	4172.2	4548.6	5091.5	6070.0	8015.6	11589.6	17288.9	21363.6	25287.3	25547.2	21868.1
65°	2742.6	2991.1	3400.0	4244.8	5972.6	9328.6	15800.0	21434.3	27244.4	27683.9	23653.2
67.5°	1922.7	2018.2	2259.1	2717.8	3937.1	7153.7	13428.2	20702.2	28549.7	29044.7	24427.2
70°	1500.3	1548.1	1670.4	1853.9	2473.1	4810.5	10290.0	18798.7	28270.6	28786.7	23618.8
72.5°	1295.8	1341.6	1387.5	1410.5	1659.0	2970.0	6970.2	15717.9	25642.7	25992.5	20536.0
75°	1175.4	1186.8	1225.1	1217.4	1265.3	1926.5	4023.1	11452.0	20232.1	20111.7	15159.7
77.5°	988.1	1003.4	1066.4	1056.9	1123.8	1316.8	2089.0	7390.7	13116.6	12298.7	8438.0
80°	837.1	844.8	913.6	902.1	976.6	953.7	1066.4	3767.0	5563.5	4713.1	2432.9
82.5°	290.5	359.3	697.6	718.6	745.4	577.2	615.4	1536.6	1699.0	1301.5	510.2
85°	141.4	151.0	355.5	504.6	502.7	290.5	300.0	548.5	535.2	420.5	170.0
87.5°	23.0	28.7	42.0	196.9	156.7	76.5	103.2	107.0	110.8	95.5	38.2
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: P967328

CATALOG NUMBER: NAV-SB4D-827-U-T2R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2	4344.2
2.5°	4391.9	4296.4	4095.7	3910.4	3765.1	3625.5	3547.2	3480.3	3442.1	3434.5	3434.5
5°	4510.5	4313.6	3948.6	3640.9	3440.2	3291.1	3212.8	3163.0	3138.2	3123.0	3121.0
7.5°	4680.6	4391.9	3872.1	3522.4	3312.1	3205.1	3165.0	3157.3	3155.5	3157.3	3163.0
10°	4915.6	4520.0	3864.5	3493.7	3317.8	3258.6	3256.7	3258.6	3266.3	3268.2	3270.1
12.5°	5169.8	4651.9	3895.1	3518.5	3390.5	3358.0	3352.3	3350.3	3356.1	3360.0	3361.8
15°	5447.0	4825.8	3946.7	3572.0	3470.8	3436.3	3430.7	3419.2	3417.2	3415.3	3413.5
17.5°	5731.7	4997.8	4004.0	3629.4	3522.4	3474.5	3453.5	3426.8	3405.8	3400.0	3405.8
20°	6020.3	5167.9	4044.1	3658.0	3526.2	3459.3	3417.2	3371.4	3335.0	3314.0	3321.7
22.5°	6328.0	5345.7	4068.9	3650.4	3491.8	3400.0	3323.6	3270.1	3214.7	3178.3	3180.3
25°	6628.1	5500.5	4067.1	3610.3	3424.9	3308.3	3210.8	3142.0	3065.6	3027.3	3027.3
27.5°	6916.7	5640.0	4019.3	3539.5	3329.3	3199.3	3082.8	3000.6	2926.1	2889.8	2887.8
30°	7214.9	5756.6	3944.7	3436.3	3216.6	3073.3	2945.1	2874.5	2807.6	2773.1	2771.3
32.5°	7511.1	5863.6	3839.6	3308.3	3086.6	2949.0	2822.8	2757.9	2717.8	2717.8	2719.6
35°	7824.5	5938.1	3700.1	3159.3	2949.0	2817.1	2717.8	2679.6	2675.7	2652.8	2647.1
37.5°	8155.1	5985.9	3530.0	3006.3	2813.3	2689.1	2658.5	2612.6	2574.4	2524.7	2517.1
40°	8503.0	6033.7	3325.5	2847.8	2669.9	2601.1	2587.8	2526.6	2417.7	2295.4	2278.2
42.5°	8925.4	6066.2	3113.3	2689.1	2518.9	2496.1	2515.1	2410.1	2236.1	2144.4	2146.2
45°	9414.6	6119.7	2918.4	2532.4	2364.2	2364.2	2444.4	2306.9	2163.5	2106.2	2115.7
47.5°	10049.2	6243.9	2736.9	2360.4	2220.9	2259.1	2287.7	2182.6	2102.4	2031.7	2029.7
50°	10966.6	6542.1	2549.6	2186.4	2111.9	2188.4	2148.2	2087.0	1993.4	1936.0	1930.3
52.5°	12105.7	6718.0	2383.3	2029.7	2018.2	2094.7	2037.4	1980.0	1909.3	1832.9	1817.5
55°	12881.6	6750.4	2243.7	1915.0	1955.2	1947.5	1926.5	1874.9	1836.7	1735.4	1737.3
57.5°	13749.2	6815.4	2129.1	1846.2	1915.0	1831.0	1823.3	1779.3	1729.7	1660.8	1637.9
60°	14787.1	6916.7	2029.7	1819.5	1880.7	1754.5	1716.3	1699.0	1649.3	1615.0	1624.5
62.5°	15918.5	7008.4	1928.4	1823.3	1840.5	1680.0	1622.6	1616.9	1586.3	1574.8	1574.8
65°	16690.6	6758.0	1802.3	1819.5	1777.5	1603.5	1530.8	1529.0	1504.1	1500.3	1498.3
67.5°	16421.1	5964.9	1632.2	1766.0	1712.5	1527.0	1446.8	1439.1	1406.6	1408.6	1408.6
70°	15071.8	4833.5	1397.1	1634.1	1632.2	1458.3	1358.8	1334.0	1290.1	1297.8	1305.3
72.5°	12541.4	3581.7	1081.8	1414.3	1504.1	1395.2	1257.6	1217.4	1162.0	1169.6	1167.8
75°	9057.2	2434.9	787.4	1076.0	1309.2	1320.6	1158.1	1089.4	1022.5	1033.9	1037.8
77.5°	4634.7	1379.9	579.1	741.6	1028.3	1200.3	1068.4	976.6	961.3	1068.4	1053.1
80°	1511.8	691.9	401.4	519.9	674.7	982.4	936.5	831.4	827.6	852.4	732.0
82.5°	451.0	292.4	258.0	342.1	372.7	753.1	808.4	628.8	540.9	569.6	588.7
85°	154.8	141.4	147.2	170.0	177.7	441.5	565.7	416.7	393.7	433.9	428.1
87.5°	36.3	49.7	42.0	38.2	38.2	107.0	219.8	173.9	240.8	160.5	154.8
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)