

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: P966079

Luminaire Tested: **NAV-SB4B-727-U-SL4-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P966079  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-727-U-SL4-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14977.3 lumens  
Efficiency: N/A  
Efficacy: 101.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

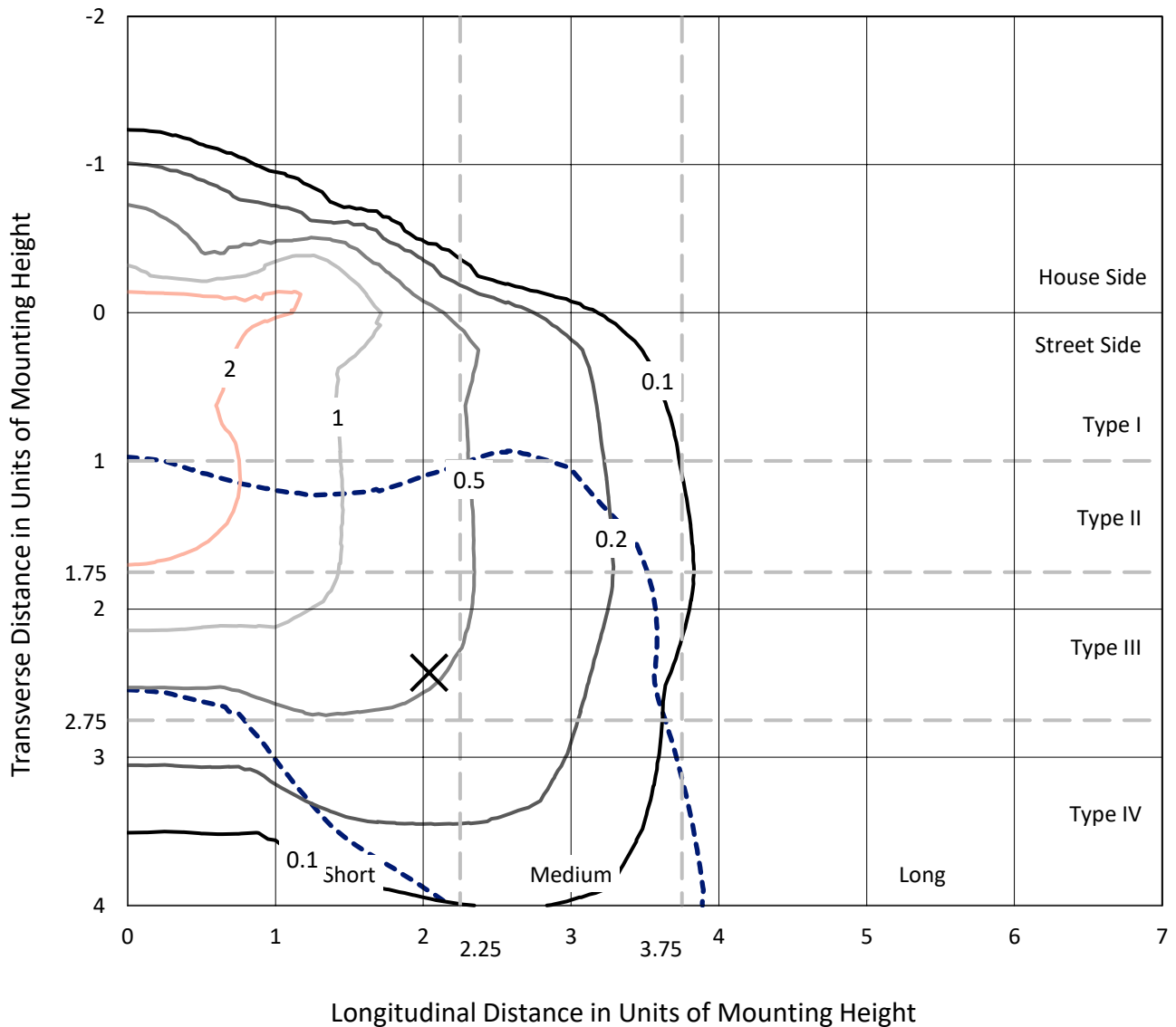
Input Watts (W): 147  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

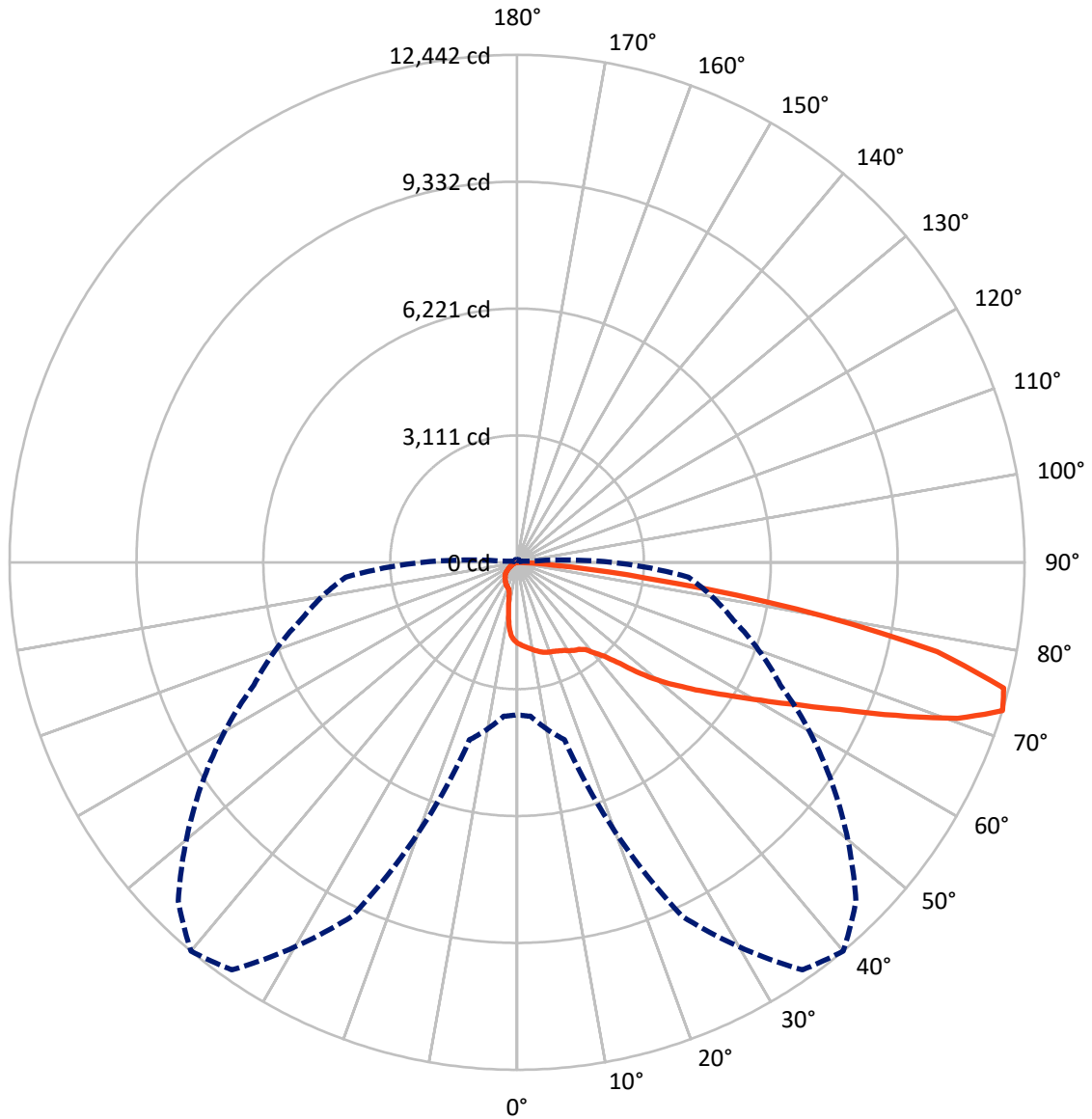
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc  
 Type IV - Short - N/A

REPORT NUMBER: P966079  
CATALOG NUMBER: NAV-SB4B-727-U-SL4-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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 CATALOG NUMBER: NAV-SB4B-727-U-SL4-HSS

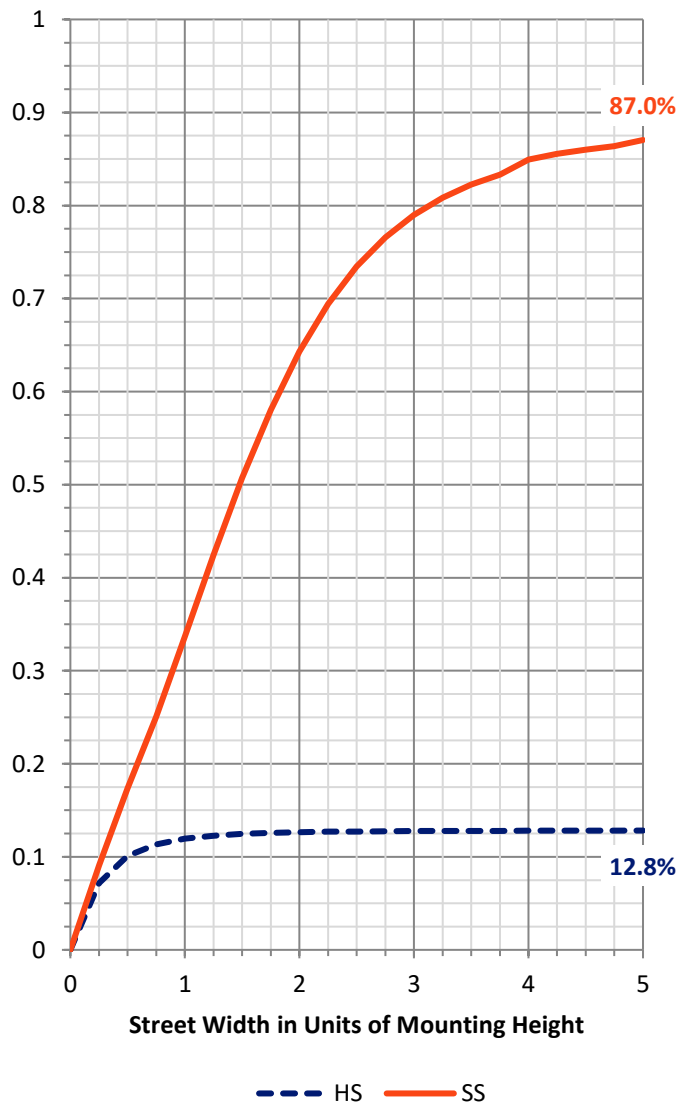
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1934.1	0.0	1934.1
	% Fixture	12.9	0.0	12.9
<b>Street Side</b>	Lumens	13043.1	0.0	13043.1
	% Fixture	87.1	0.0	87.1
<b>Total</b>	Lumens	14977.3	0.0	14977.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.1	1.2
10°-20°	491.8	3.3
20°-30°	795.8	5.3
30°-40°	1174.9	7.8
40°-50°	1977.4	13.2
50°-60°	3070.4	20.5
60°-70°	3842.0	25.7
70°-80°	3145.4	21.0
80°-90°	298.3	2.0
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°	14977.3	100.0
0°-180°	14977.3	100.0

**Coefficient of Utilization**



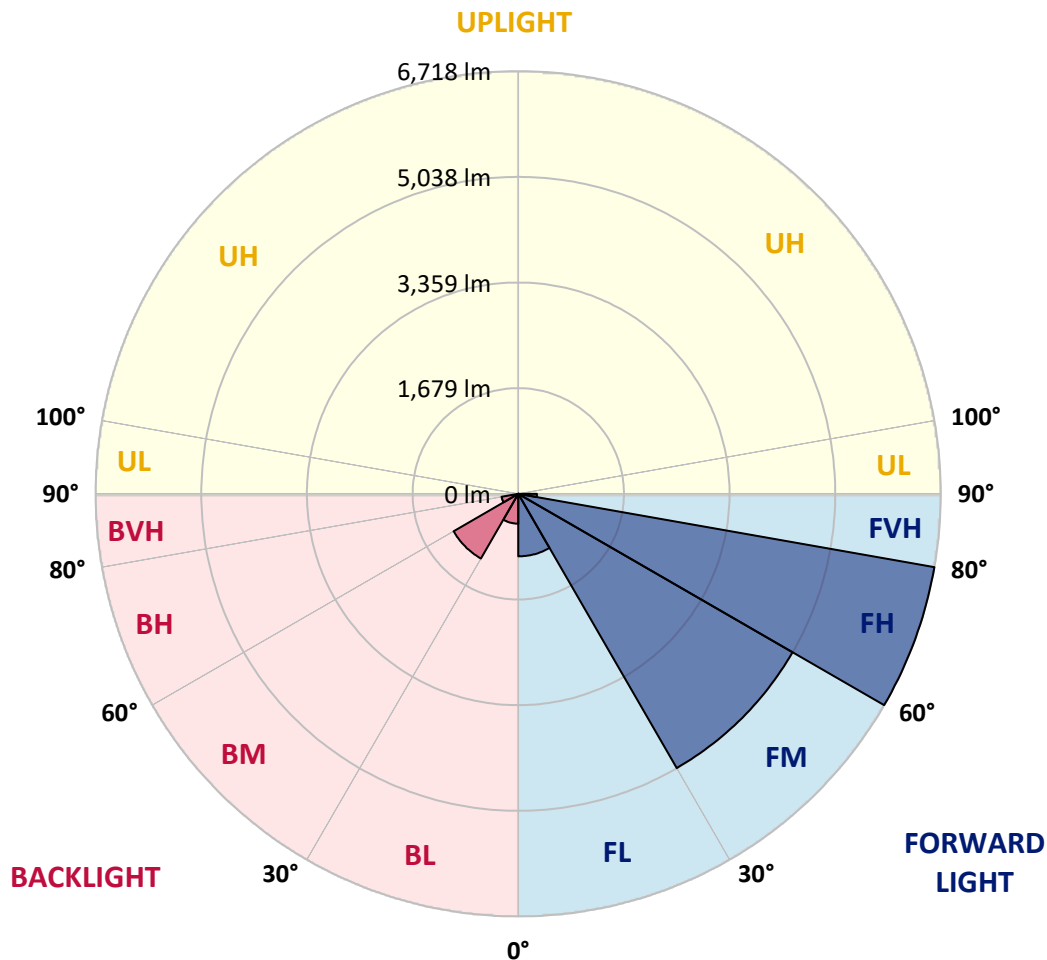
REPORT NUMBER: P966079  
 CATALOG NUMBER: NAV-SB4B-727-U-SL4-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	994.1	6.6			
FM (30°-60°)	5035.1	33.6			
FH (60°-80°)	6718.0	44.9			G3/7500
FVH (80°-90°)	296.0	2.0			G3/500
BL (0°-30°)	474.7	3.2	B1/500		
BM (30°-60°)	1187.7	7.9	B2/2500		
BH (60°-80°)	269.4	1.8	B1/500		G1/500
BVH (80°-90°)	2.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Short



REPORT NUMBER: P966079  
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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1
2.5°	2042.9	2050.8	2046.3	2037.3	2035.0	2030.5	2024.9	2022.6	2014.7	2008.0	2000.1
5°	2100.4	2108.3	2102.7	2090.3	2084.6	2079.0	2071.1	2064.4	2048.6	2033.9	2015.9
7.5°	2163.6	2170.3	2163.6	2145.5	2136.5	2129.7	2118.5	2108.3	2090.3	2068.9	2046.3
10°	2233.6	2239.2	2229.1	2205.4	2190.6	2180.5	2170.3	2159.1	2142.1	2118.5	2091.4
12.5°	2299.0	2305.7	2290.0	2261.8	2244.9	2234.7	2223.4	2214.4	2197.4	2174.8	2146.7
15°	2358.7	2368.9	2341.8	2311.4	2292.2	2284.3	2273.0	2267.4	2256.1	2240.3	2214.4
17.5°	2403.8	2410.7	2382.4	2346.3	2324.9	2319.3	2311.4	2314.8	2312.5	2304.6	2287.7
20°	2442.3	2446.8	2409.6	2365.5	2341.8	2342.9	2340.7	2352.0	2356.5	2356.5	2355.3
22.5°	2489.6	2490.8	2443.4	2388.0	2359.9	2367.8	2371.1	2383.5	2392.6	2401.6	2422.0
25°	2551.6	2549.4	2493.0	2417.5	2392.6	2403.8	2411.8	2416.3	2426.5	2441.1	2487.4
27.5°	2644.2	2637.4	2565.2	2464.8	2435.5	2445.6	2460.3	2458.1	2453.5	2464.8	2542.6
30°	2761.5	2752.4	2656.6	2531.3	2504.3	2513.3	2517.8	2497.5	2464.8	2475.0	2591.1
32.5°	2947.6	2931.8	2798.7	2605.8	2564.0	2574.2	2568.5	2526.8	2478.3	2488.5	2639.7
35°	3271.4	3233.0	3044.7	2761.5	2631.8	2620.5	2606.9	2566.3	2506.5	2496.4	2680.3
37.5°	3959.5	3891.8	3570.3	3065.0	2785.1	2711.8	2670.1	2629.5	2537.0	2496.4	2726.5
40°	4735.6	4666.7	4295.7	3572.5	3040.1	2916.0	2816.7	2704.0	2568.5	2511.0	2798.7
42.5°	5545.5	5469.9	5088.6	4202.0	3404.4	3149.5	2964.5	2763.7	2620.5	2556.1	2894.6
45°	6450.2	6355.4	5856.8	4858.5	3933.5	3537.6	3202.5	2886.7	2710.7	2636.3	3025.4
47.5°	7404.5	7281.6	6622.8	5495.8	4503.2	4074.5	3637.9	3106.7	2843.9	2755.8	3202.5
50°	8250.5	8128.8	7413.5	6162.5	5035.6	4585.5	4134.3	3411.2	3043.5	2925.0	3440.5
52.5°	8858.6	8766.1	8133.3	6850.7	5589.5	5064.9	4584.4	3765.4	3296.2	3141.6	3721.5
55°	9265.8	9181.2	8643.1	7502.7	6233.6	5592.9	5027.7	4150.1	3600.7	3401.1	4031.6
57.5°	9512.8	9464.3	9012.0	8084.8	6872.1	6170.4	5535.3	4573.1	3959.5	3706.8	4378.0
60°	9600.9	9561.4	9241.0	8639.7	7643.7	6864.2	6132.1	5050.3	4394.9	4054.2	4733.3
62.5°	9366.2	9374.1	9405.7	9297.4	8457.0	7676.4	6847.3	5623.4	4877.7	4447.9	5067.2
65°	8261.8	8327.3	8927.4	10026.1	9534.3	8693.9	7757.6	6322.7	5430.4	4895.7	5332.3
67.5°	6840.5	6935.3	7682.1	10452.5	10682.7	10014.9	9025.5	7213.8	6089.2	5351.5	5432.7
70°	5236.4	5337.9	6242.7	10363.5	11757.7	11458.8	10593.6	8347.6	6771.7	5667.3	5176.7
72.5°	3737.3	3789.1	4502.1	9570.4	12198.7	12442.4	11748.7	9421.5	7120.3	5492.5	4222.3
75°	2626.2	2617.1	3089.8	7706.9	11511.8	12322.9	11343.7	8840.5	6443.5	4363.3	2603.5
77.5°	1143.8	1146.1	1543.1	4680.3	9188.0	10524.7	9429.4	5537.6	4491.9	2312.5	1098.7
80°	296.6	305.7	566.3	1863.6	5531.9	6946.5	5750.8	2434.4	2075.6	564.1	209.8
82.5°	105.0	111.7	260.6	585.5	2040.7	3185.6	2560.7	778.4	541.5	161.3	56.4
85°	30.4	36.1	139.9	179.4	421.9	900.2	621.6	151.2	133.1	83.4	14.7
87.5°	0.0	4.5	28.2	24.8	24.8	16.9	31.6	16.9	21.4	10.1	4.5
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: P966079

CATALOG NUMBER: NAV-SB4B-727-U-SL4-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1	1983.1
2.5°	1993.3	1985.3	1968.4	1950.4	1933.5	1917.7	1913.2	1896.2	1888.4	1889.5	1888.4
5°	2003.5	1988.7	1956.0	1916.5	1876.0	1829.7	1791.4	1737.2	1690.9	1685.3	1681.9
7.5°	2030.5	2006.8	1953.8	1877.1	1775.5	1648.1	1529.6	1412.3	1345.7	1309.6	1307.4
10°	2072.2	2040.7	1959.4	1812.8	1597.4	1369.5	1190.1	1042.3	966.8	931.7	925.0
12.5°	2121.9	2086.9	1968.4	1703.3	1367.2	1068.3	874.2	784.0	768.2	766.0	764.9
15°	2191.8	2153.4	1978.6	1555.5	1117.9	813.3	724.2	725.3	737.8	744.6	743.4
17.5°	2269.7	2231.3	1963.9	1375.1	872.0	694.8	692.6	702.7	720.8	727.5	726.4
20°	2348.6	2312.5	1912.0	1163.1	705.0	662.2	671.2	682.4	700.5	709.5	709.5
22.5°	2429.9	2398.2	1829.7	937.4	636.2	638.5	649.7	661.0	681.3	691.5	691.5
25°	2516.7	2489.6	1720.3	751.3	606.9	613.7	628.3	641.9	663.3	675.7	675.7
27.5°	2604.6	2584.3	1596.2	627.2	579.8	587.7	604.6	622.7	644.1	658.8	659.9
30°	2700.6	2689.3	1496.9	581.0	553.9	560.7	579.8	600.1	623.8	641.9	644.1
32.5°	2798.7	2796.4	1448.4	614.8	530.2	534.7	551.7	571.9	601.3	623.8	626.1
35°	2895.7	2900.2	1420.2	710.6	522.2	509.8	521.1	539.3	574.2	602.4	606.9
37.5°	3019.8	3031.0	1419.1	814.5	541.5	485.0	492.9	505.3	535.9	568.6	574.2
40°	3204.8	3264.6	1491.3	903.5	575.3	462.5	464.7	467.0	482.8	509.8	518.9
42.5°	3450.7	3625.5	1751.8	964.5	588.9	442.2	434.3	421.9	419.6	434.3	442.2
45°	3756.4	4062.1	2209.9	998.4	575.3	419.6	398.2	365.5	353.1	363.3	363.3
47.5°	4116.3	4540.4	2752.4	1006.2	552.8	391.4	353.1	310.2	300.0	303.4	302.3
50°	4467.1	4899.1	3229.6	940.7	515.5	355.4	303.4	267.3	260.6	261.7	261.7
52.5°	4777.3	5022.1	3365.0	786.3	465.9	311.3	260.6	235.7	231.2	231.2	230.1
55°	4982.6	4888.9	3000.6	601.3	403.8	266.2	223.3	210.9	208.7	207.6	205.3
57.5°	5025.5	4455.8	2266.3	434.3	315.9	224.5	198.5	191.8	187.3	182.8	180.5
60°	4872.0	3733.9	1442.8	303.4	236.9	191.8	176.0	171.5	162.5	153.4	150.1
62.5°	4540.4	2820.1	798.7	210.9	190.6	163.6	155.7	150.1	133.1	118.5	114.0
65°	4094.9	1874.8	353.1	164.7	155.7	137.7	133.1	125.3	105.0	87.9	84.6
67.5°	3647.0	1079.5	159.1	132.0	125.3	112.9	109.5	103.7	89.1	73.3	71.0
70°	3136.0	547.1	109.5	105.0	97.0	85.7	89.1	87.9	73.3	59.8	57.5
72.5°	2335.1	271.8	82.3	78.9	69.9	60.9	73.3	72.2	57.5	45.1	42.8
75°	1322.0	134.3	59.8	55.2	41.7	45.1	58.6	55.2	39.5	29.3	27.1
77.5°	524.6	68.8	39.5	33.8	24.8	30.4	42.8	37.2	20.3	12.4	11.3
80°	120.7	33.8	20.3	14.7	11.3	18.0	22.5	13.5	5.6	1.1	0.0
82.5°	33.8	14.7	6.8	5.6	5.6	6.8	5.6	2.3	0.0	0.0	0.0
85°	11.3	6.8	2.3	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0
87.5°	4.5	2.3	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)