

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: P967674

Luminaire Tested: **NAV-SB5A-727-U-T3R-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P967674  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5A-727-U-T3R-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

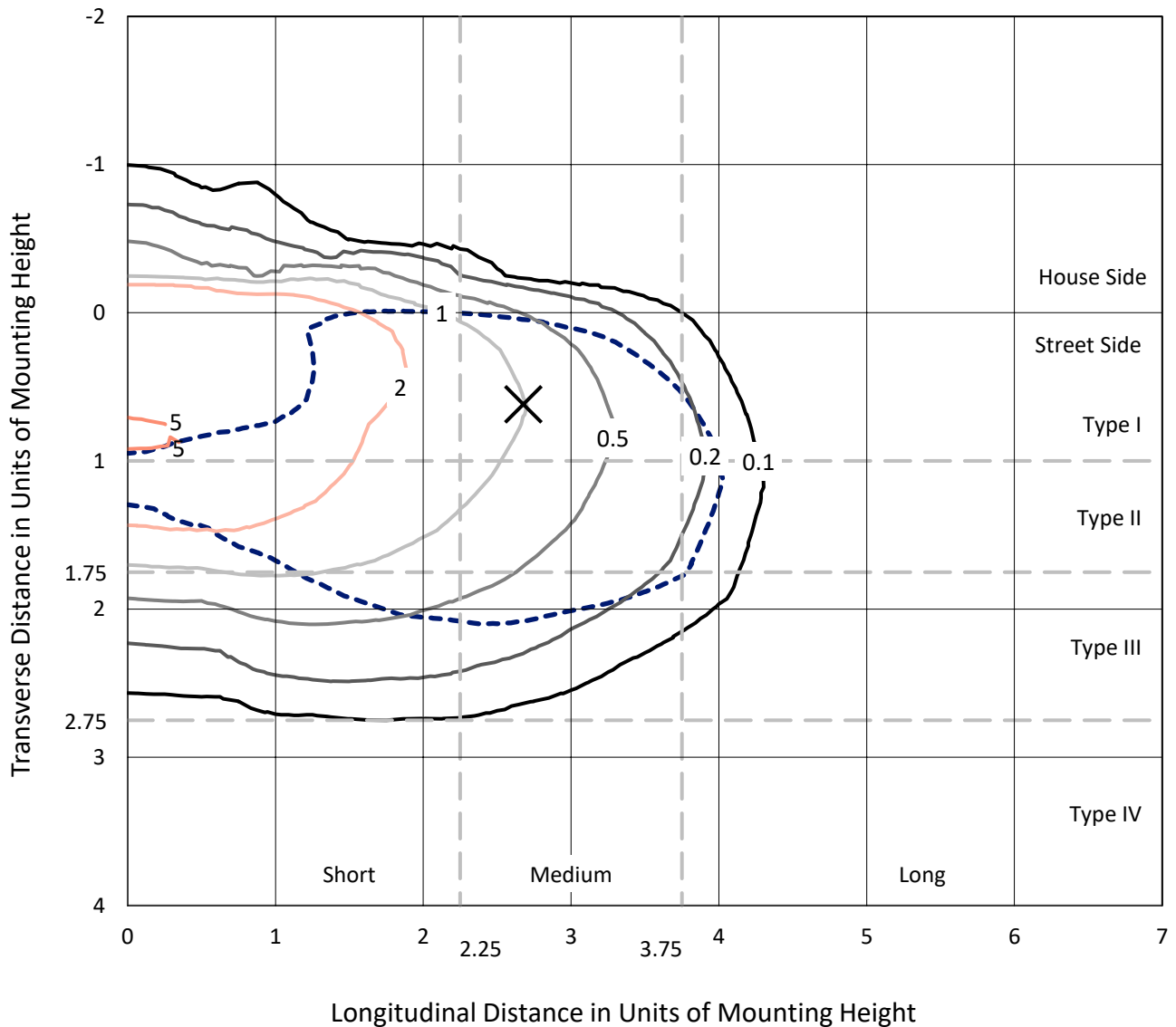
Lumens per Lamp: N/A  
Luminaire Lumens: 17935.4 lumens  
Efficiency: N/A  
Efficacy: 126.6 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 141.7  
Input Voltage (V): NR  
Input Current (Ain): 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

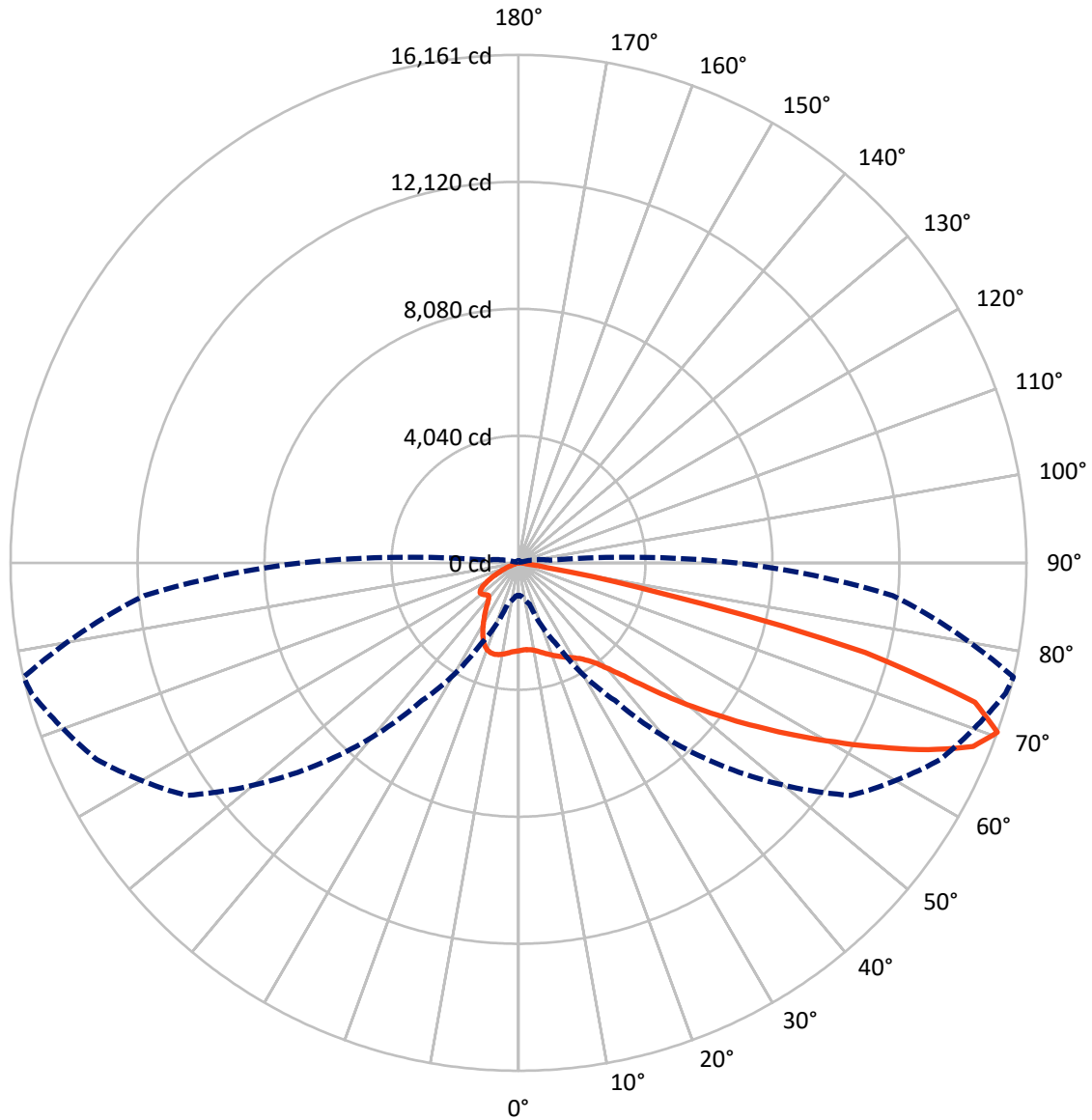
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc  
 Type III - Medium - N/A

REPORT NUMBER: P967674  
CATALOG NUMBER: NAV-SB5A-727-U-T3R-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1890.6	0.0	1890.6
	% Fixture	10.5	0.0	10.5
<b>Street Side</b>	Lumens	16044.8	0.0	16044.8
	% Fixture	89.5	0.0	89.5
<b>Total</b>	Lumens	17935.4	0.0	17935.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	241.1	1.3
10°-20°	572.4	3.2
20°-30°	885.3	4.9
30°-40°	1606.4	9.0
40°-50°	3032.3	16.9
50°-60°	4381.4	24.4
60°-70°	4663.9	26.0
70°-80°	2471.5	13.8
80°-90°	81.2	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°	17935.4	100.0
0°-180°	17935.4	100.0

**Coefficient of Utilization**



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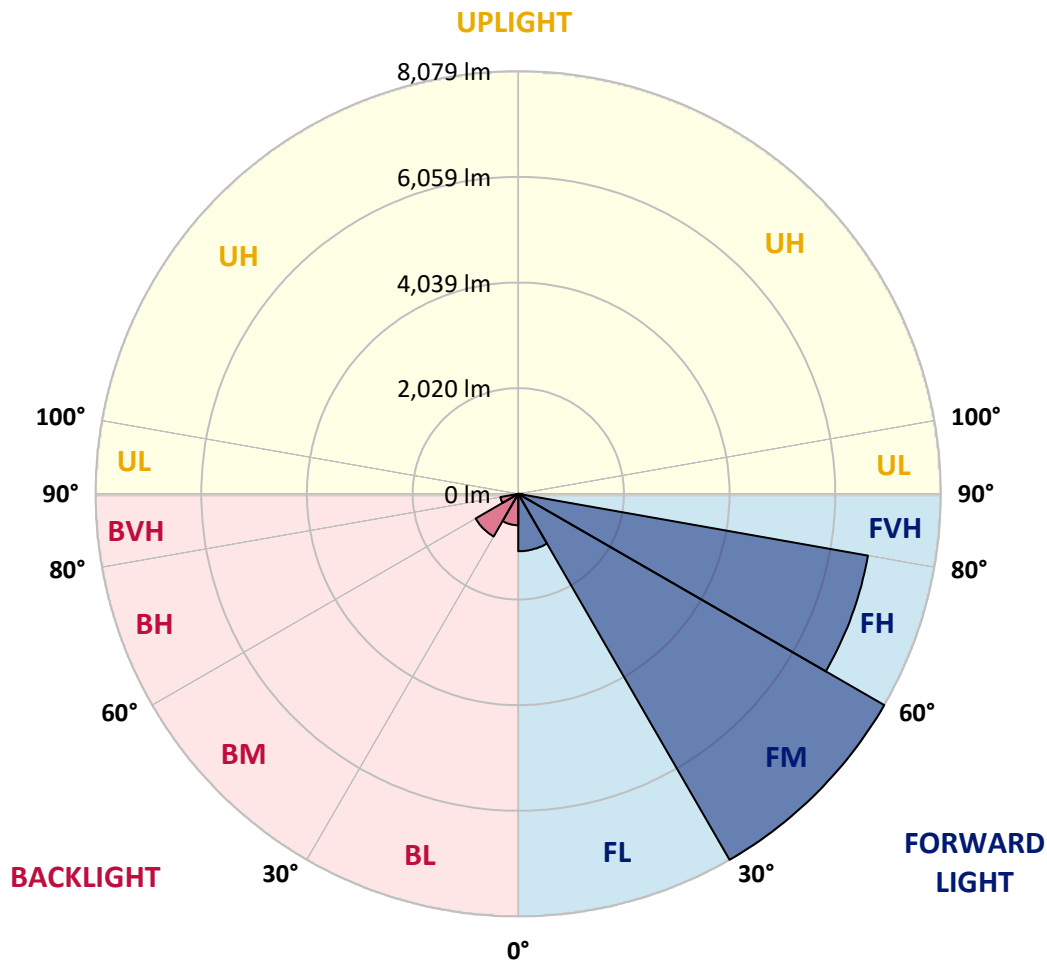
CATALOG NUMBER: NAV-SB5A-727-U-T3R-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1098.1	6.1			
FM (30°-60°)	8078.9	45.0			
FH (60°-80°)	6788.8	37.9			G3/7500
FVH (80°-90°)	79.0	0.4			G1/100
BL (0°-30°)	600.7	3.3	B2/1000		
BM (30°-60°)	941.2	5.2	B1/1000		
BH (60°-80°)	346.6	1.9	B1/500		G1/500
BVH (80°-90°)	2.2	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 III Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6
2.5°	2626.6	2650.3	2647.0	2662.8	2668.5	2691.1	2713.8	2744.3	2778.4	2777.2	2799.9
5°	2478.2	2502.0	2507.7	2529.2	2556.4	2591.5	2637.9	2699.0	2762.5	2772.7	2818.0
7.5°	2302.7	2327.6	2342.3	2385.3	2435.2	2507.7	2583.5	2673.0	2778.4	2793.1	2880.2
10°	2127.1	2149.7	2169.0	2230.2	2309.4	2417.1	2540.5	2669.6	2811.2	2832.7	2956.2
12.5°	2018.3	2039.9	2061.4	2114.7	2213.2	2344.6	2512.2	2685.5	2865.6	2896.1	3059.2
15°	1979.9	1999.1	2016.1	2063.6	2155.4	2304.9	2506.5	2718.3	2934.7	2975.5	3183.9
17.5°	1985.5	1995.7	2007.1	2043.2	2132.7	2286.8	2516.7	2775.0	3016.2	3052.4	3308.4
20°	2018.3	2024.1	2025.2	2050.1	2129.3	2284.5	2537.1	2829.3	3093.2	3141.9	3431.9
22.5°	2060.2	2062.5	2060.2	2077.3	2150.9	2301.5	2564.2	2895.0	3179.3	3224.6	3556.4
25°	2256.2	2213.2	2158.8	2126.0	2187.1	2334.3	2605.0	2983.4	3273.3	3317.5	3677.7
27.5°	2864.5	2741.0	2546.2	2327.6	2261.9	2381.9	2661.7	3072.8	3368.5	3408.1	3807.9
30°	3852.1	3690.1	3359.4	2866.7	2502.0	2481.6	2735.3	3162.3	3469.2	3512.3	3947.3
32.5°	4842.0	4802.3	4420.6	3738.8	3042.3	2703.6	2857.6	3283.5	3602.9	3636.9	4135.3
35°	5843.2	5762.9	5450.2	4776.3	3874.7	3155.6	3061.5	3442.1	3778.5	3817.0	4409.3
37.5°	6610.0	6561.3	6367.7	5812.7	4862.4	3853.2	3410.4	3687.8	4033.3	4076.3	4760.5
40°	7287.3	7264.7	7199.0	6833.2	5966.7	4766.1	3952.9	4068.4	4386.7	4437.6	5190.9
42.5°	7819.7	7872.9	7910.3	7808.3	7105.0	5808.2	4682.3	4603.1	4879.4	4931.5	5739.1
45°	8364.5	8382.7	8533.2	8680.5	8235.4	6897.7	5504.6	5229.3	5492.2	5556.7	6396.0
47.5°	8714.4	8787.0	9052.0	9311.4	9185.6	7978.3	6388.1	5969.0	6202.3	6323.5	7132.2
50°	8740.6	8877.6	9242.3	9694.2	9877.7	9006.7	7348.5	6811.6	7059.7	7193.3	7918.2
52.5°	8306.7	8519.7	9084.9	9746.3	10251.4	9877.7	8341.9	7654.4	7972.7	8147.0	8733.7
55°	6368.8	6647.4	8492.5	9463.1	10266.2	10538.0	9309.2	8532.1	8989.8	9186.8	9614.9
57.5°	5548.7	5689.3	6676.8	8971.6	9993.2	10804.2	10183.5	9368.0	10096.2	10340.9	10447.4
60°	4616.6	4801.2	5599.8	8167.4	9622.9	10830.3	10956.0	10446.3	11295.8	11571.0	11210.8
62.5°	3137.4	3337.9	4131.9	6785.6	9116.6	10817.7	11589.2	11556.3	12628.8	12924.5	11857.5
65°	1943.6	2069.4	2592.6	5540.8	8408.7	10831.4	12251.7	12904.1	14035.6	14335.8	12358.2
67.5°	1535.9	1593.6	1866.6	4254.2	7188.8	10525.5	12913.2	14171.5	15359.6	15597.5	12511.0
70°	1031.9	1066.9	1358.0	2852.0	5348.3	9114.3	12900.8	14808.1	16041.5	16160.5	11953.9
72.5°	543.7	570.8	794.0	1320.6	3230.3	6478.7	10874.4	14046.9	15363.0	15184.0	10217.5
75°	271.8	317.1	534.6	670.6	1379.5	3613.1	6752.8	11074.9	12092.0	11398.8	6555.7
77.5°	206.1	249.2	441.8	441.8	480.2	1216.5	2859.9	6040.3	5571.4	4639.3	1924.3
80°	131.4	169.9	386.2	334.2	200.5	309.2	745.3	1692.2	1183.6	900.5	349.9
82.5°	77.0	111.0	321.6	220.9	112.1	114.4	210.6	360.2	307.0	239.0	107.6
85°	30.5	72.5	220.9	87.2	44.2	28.3	63.4	77.0	63.4	47.6	27.2
87.5°	0.0	17.0	38.5	0.0	3.4	2.3	4.5	5.6	5.6	4.5	9.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6	2797.6
2.5°	2810.0	2812.3	2819.2	2820.3	2804.4	2784.0	2776.1	2772.7	2759.1	2758.0	2760.2
5°	2844.1	2854.2	2844.1	2814.5	2744.3	2645.8	2571.1	2509.9	2454.5	2437.4	2427.2
7.5°	2912.0	2922.2	2891.6	2776.1	2599.4	2403.4	2226.7	2102.2	1990.0	1948.1	1931.1
10°	3009.4	3023.0	2926.7	2693.4	2380.8	2065.9	1766.9	1556.3	1392.1	1325.2	1296.8
12.5°	3131.7	3137.4	2946.0	2567.7	2096.5	1646.9	1223.2	997.8	851.8	797.3	780.4
15°	3266.5	3258.6	2948.2	2396.7	1709.2	1164.3	798.5	655.8	596.9	578.8	578.8
17.5°	3408.1	3375.2	2902.9	2149.7	1284.4	796.2	592.3	558.4	548.2	543.7	542.5
20°	3547.4	3473.8	2820.3	1827.0	922.0	594.6	538.0	527.8	522.1	519.9	517.6
22.5°	3674.2	3548.6	2678.6	1452.0	669.4	525.5	508.5	499.5	489.3	484.7	483.6
25°	3797.7	3591.6	2479.4	1102.1	535.8	491.6	478.0	460.9	447.4	441.8	439.4
27.5°	3917.8	3618.8	2230.2	815.5	478.0	459.8	434.9	411.1	401.0	398.7	396.5
30°	4045.8	3627.8	1947.0	608.2	442.9	420.2	384.0	356.8	351.2	352.3	352.3
32.5°	4202.1	3641.4	1661.5	498.4	413.4	372.6	329.6	301.2	296.7	301.2	300.1
35°	4388.9	3668.6	1386.3	458.7	387.3	323.9	277.5	253.7	249.2	252.6	251.4
37.5°	4642.6	3712.8	1129.2	450.8	365.8	283.2	233.3	214.0	214.0	215.2	214.0
40°	4980.2	3830.5	899.3	445.2	354.5	252.6	197.1	189.1	192.6	194.9	194.9
42.5°	5391.3	4080.8	744.2	438.3	342.0	239.0	179.0	175.6	181.2	183.5	183.5
45°	5852.3	4398.0	689.8	427.0	330.8	248.0	171.1	166.5	173.3	174.5	175.6
47.5°	6329.2	4708.3	683.0	414.5	319.4	261.7	168.7	158.6	166.5	167.6	168.7
50°	6811.6	4911.1	689.8	395.2	301.2	261.7	169.9	150.7	157.4	160.8	162.0
52.5°	7297.6	5003.9	685.2	353.4	269.6	245.8	169.9	143.8	150.7	152.9	152.9
55°	7768.8	4985.8	616.1	291.1	228.8	217.5	165.3	138.2	142.7	143.8	143.8
57.5°	8141.4	4733.2	488.2	226.5	185.7	181.2	150.7	131.4	134.8	133.7	133.7
60°	8336.2	4178.3	348.8	174.5	146.1	142.7	132.5	122.3	124.6	118.9	117.8
62.5°	8338.5	3444.3	233.3	138.2	116.6	113.3	113.3	109.9	107.6	96.2	92.9
65°	8160.6	2629.9	155.2	109.9	94.0	88.4	95.1	94.0	86.1	70.2	68.0
67.5°	7757.4	1723.8	117.8	86.1	72.5	69.1	75.8	79.3	73.6	58.9	57.8
70°	6928.3	1003.5	97.4	66.8	54.3	50.9	61.2	68.0	61.2	47.6	45.3
72.5°	5755.0	541.4	79.3	49.8	37.4	34.0	48.7	55.5	48.7	35.2	34.0
75°	3734.3	290.0	61.2	32.8	19.3	21.5	36.3	40.8	34.0	22.7	20.4
77.5°	1253.8	128.0	38.5	15.9	9.0	9.0	21.5	24.9	15.9	7.9	6.8
80°	279.7	53.2	15.9	6.8	3.4	3.4	4.5	4.5	2.3	0.0	0.0
82.5°	91.7	21.5	6.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	35.2	7.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	13.6	1.1	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)