

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: P967772

Luminaire Tested: **NAV-SB5A-740-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967772
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-740-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18927.7 lumens
Efficiency: N/A
Efficacy: 133.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

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



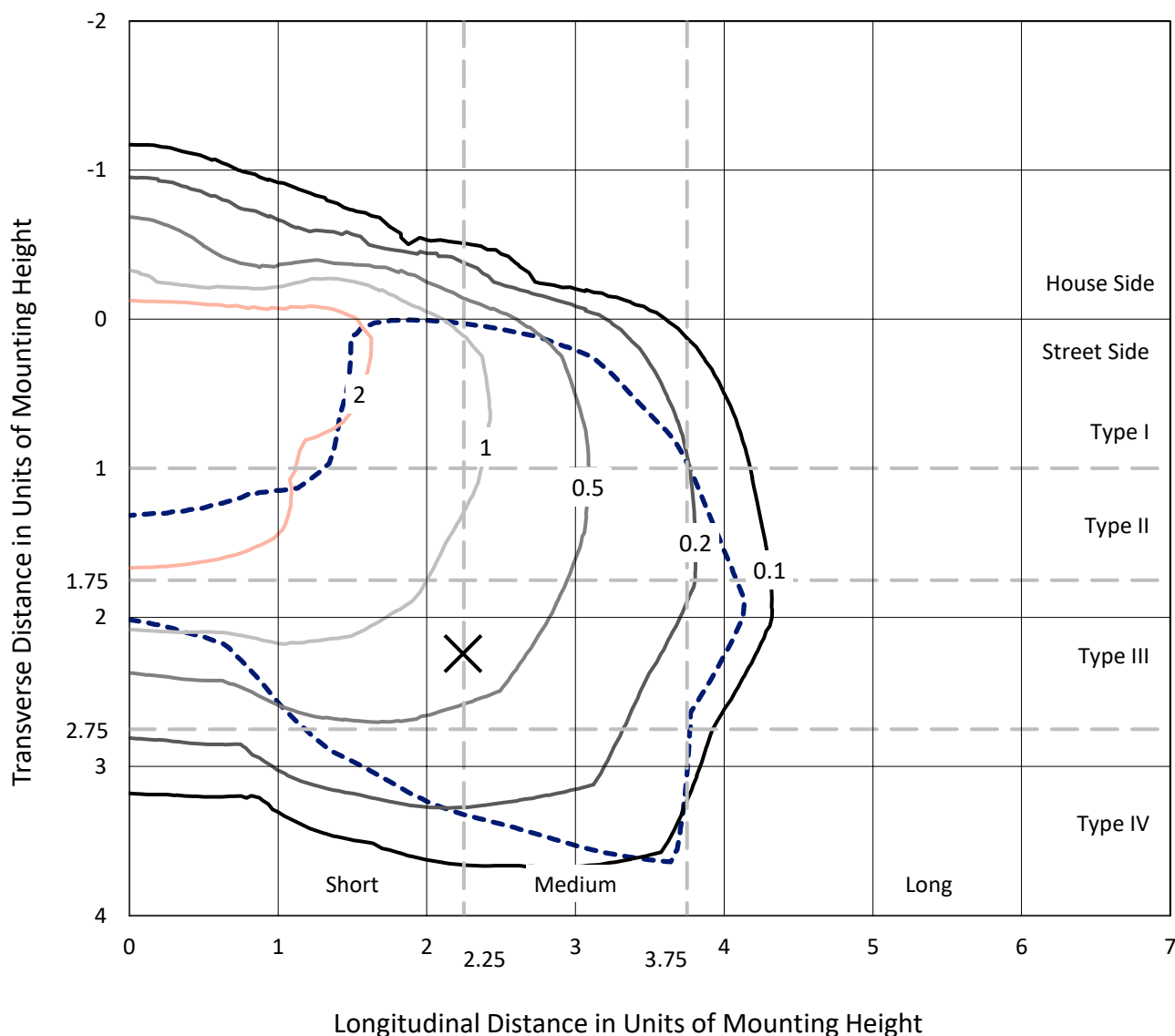
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

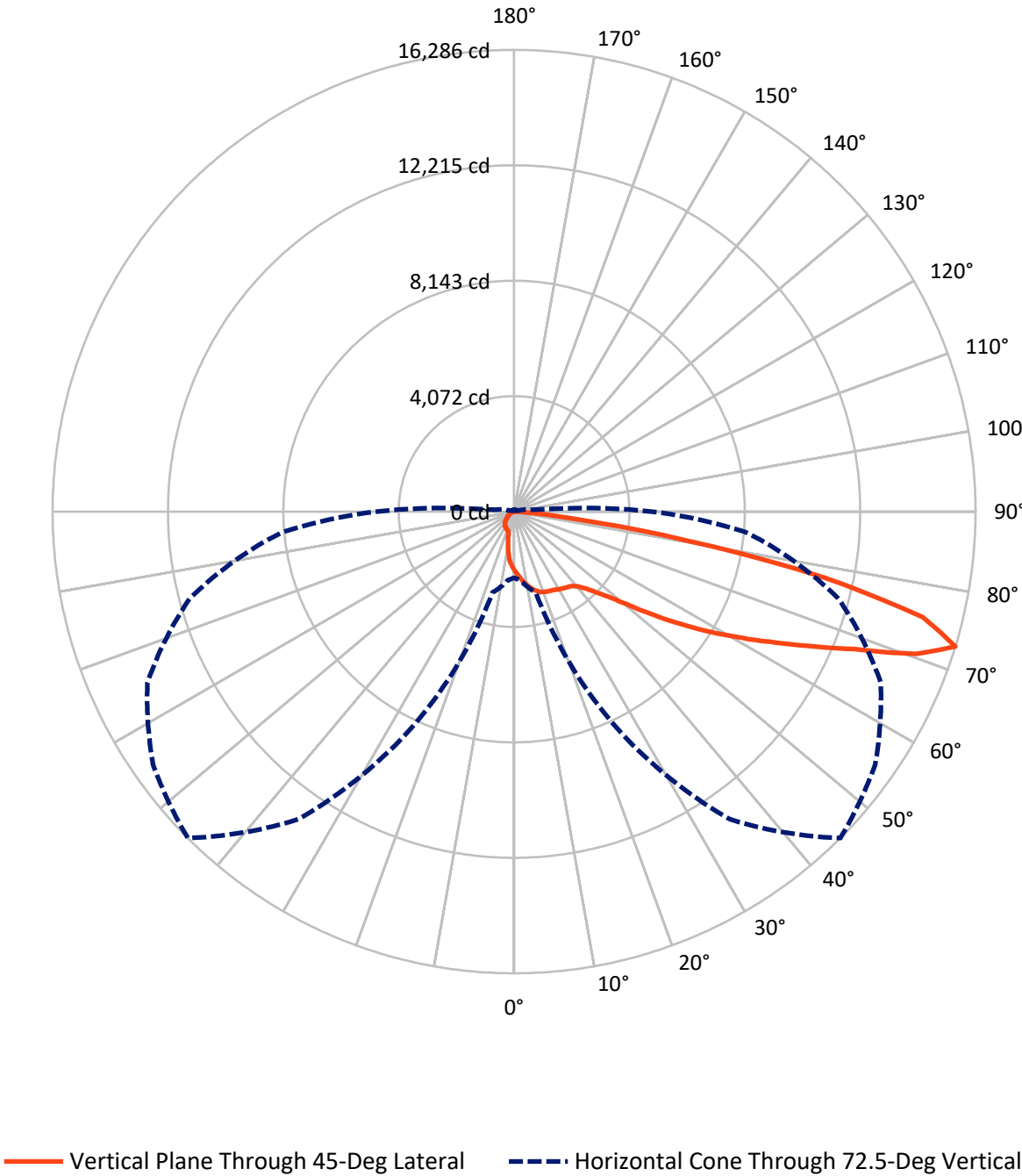


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1988.8	0.0	1988.8
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	16938.9	0.0	16938.9
	% Fixture	89.5	0.0	89.5
Total	Lumens	18927.7	0.0	18927.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.4	1.0
10°-20°	571.0	3.0
20°-30°	937.7	5.0
30°-40°	1329.8	7.0
40°-50°	2198.0	11.6
50°-60°	3948.5	20.9
60°-70°	5482.7	29.0
70°-80°	3977.0	21.0
80°-90°	287.5	1.5
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°	18927.7	100.0
0°-180°	18927.7	100.0

Coefficient of Utilization



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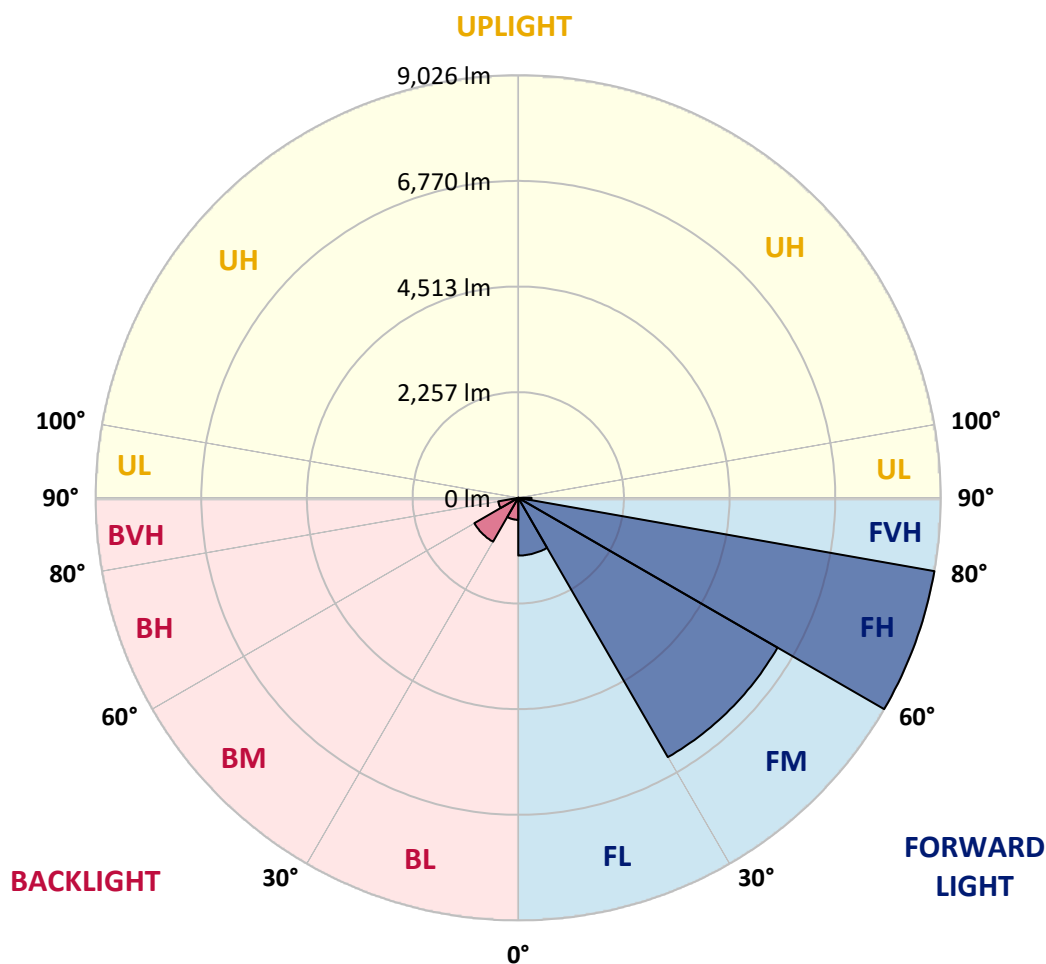
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1232.9	6.5			
FM	(30°-60°)	6394.8	33.8			
FH	(60°-80°)	9026.1	47.7			G4/12000
FVH	(80°-90°)	285.1	1.5			G3/500
BL	(0°-30°)	471.1	2.5	B1/500		
BM	(30°-60°)	1081.6	5.7	B2/2500		
BH	(60°-80°)	433.7	2.3	B1/500		G1/500
BVH	(80°-90°)	2.4	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6
2.5°	2264.7	2268.6	2266.1	2250.6	2224.8	2210.5	2202.7	2176.9	2160.1	2130.4	2099.4
5°	2472.8	2488.3	2479.3	2448.2	2399.1	2364.3	2353.9	2300.9	2253.2	2197.6	2133.0
7.5°	2693.7	2701.5	2684.7	2644.6	2578.7	2519.2	2510.2	2436.6	2360.4	2275.1	2187.2
10°	2884.9	2894.0	2868.2	2809.9	2735.0	2661.4	2648.5	2567.1	2476.6	2372.0	2259.6
12.5°	3045.1	3054.2	3020.6	2950.8	2868.2	2791.9	2779.0	2693.7	2594.2	2477.9	2338.4
15°	3166.5	3183.3	3138.1	3063.2	2974.0	2897.8	2891.3	2807.4	2710.5	2581.3	2432.7
17.5°	3237.6	3254.4	3211.7	3121.3	3045.1	2980.5	2972.7	2903.0	2812.6	2688.6	2524.5
20°	3249.2	3264.7	3219.5	3140.7	3077.4	3025.7	3021.8	2971.5	2905.6	2786.7	2623.9
22.5°	3214.3	3233.8	3192.4	3129.1	3085.1	3058.0	3052.9	3024.5	2987.0	2886.2	2717.0
25°	3178.2	3193.7	3162.6	3107.1	3083.8	3081.3	3085.1	3080.0	3072.2	2987.0	2825.5
27.5°	3175.6	3192.4	3157.5	3104.5	3091.6	3118.8	3122.7	3147.2	3153.6	3078.7	2930.2
30°	3197.6	3209.2	3175.6	3120.0	3113.5	3175.6	3176.9	3220.9	3231.1	3156.2	3033.5
32.5°	3245.4	3258.3	3224.6	3143.3	3134.2	3220.9	3224.6	3282.9	3299.6	3238.9	3142.0
35°	3357.8	3373.3	3334.5	3207.8	3175.6	3263.4	3275.1	3343.6	3377.2	3326.7	3254.4
37.5°	3638.1	3592.9	3539.9	3338.4	3269.9	3330.6	3350.0	3430.1	3489.5	3431.4	3388.8
40°	4334.4	4192.4	4027.0	3560.5	3435.3	3474.0	3489.5	3569.7	3651.0	3594.2	3573.5
42.5°	5379.6	5211.7	4945.5	4072.2	3684.6	3704.0	3715.6	3785.4	3900.3	3855.1	3860.4
45°	6311.1	6250.4	5979.1	4945.5	4151.0	4055.4	4069.7	4105.7	4275.1	4258.3	4291.8
47.5°	7026.9	6991.9	6782.7	5948.1	4939.1	4485.6	4525.7	4542.5	4786.6	4846.1	4936.5
50°	7577.2	7564.3	7377.0	6839.5	5968.8	5120.0	5134.1	5098.0	5463.7	5610.8	5782.7
52.5°	8096.6	8140.6	8002.3	7667.6	7068.2	5950.6	5948.1	5777.5	6271.1	6493.3	6786.5
55°	8565.5	8581.1	8595.2	8512.6	8174.1	6896.4	6871.8	6592.8	7207.7	7437.7	7755.6
57.5°	9006.2	9012.6	9139.2	9308.4	9325.2	7911.9	7866.7	7532.0	8231.0	8395.1	8590.1
60°	9302.0	9331.7	9599.1	10069.4	10274.8	8959.6	8935.0	8594.0	9272.3	9348.5	9312.3
62.5°	8875.7	9056.5	9730.9	10663.7	11171.4	10121.1	10109.5	9789.1	10367.8	10305.8	9995.7
65°	7184.4	7490.7	8676.6	11065.5	12051.2	11418.2	11435.0	11093.9	11493.1	11291.6	10551.2
67.5°	5025.7	5348.7	6751.7	11097.8	13034.4	12941.3	13038.3	12503.4	12688.2	12235.9	10683.1
70°	3475.4	3642.0	4555.4	10402.7	13800.5	15039.5	15036.9	14234.6	13876.8	12666.2	10011.3
72.5°	2337.1	2423.7	2958.6	8252.9	13237.3	16286.2	16211.3	15557.6	14277.2	11845.8	8179.3
75°	985.7	1049.1	1369.5	4638.0	10472.4	14899.9	14697.1	13748.8	12685.6	9327.8	5103.2
77.5°	312.6	339.8	540.1	1660.2	5768.5	11199.9	10985.3	8586.2	8502.3	4679.4	1865.6
80°	148.5	173.1	303.6	666.7	2270.0	6091.5	6061.7	3895.2	3657.5	1263.5	374.6
82.5°	64.6	76.3	168.0	356.6	1015.5	2173.0	2217.0	1325.5	1096.9	479.3	115.0
85°	20.7	27.2	77.5	164.1	429.0	540.1	533.6	315.2	441.9	261.0	40.1
87.5°	0.0	0.0	25.8	37.5	44.0	31.1	34.8	27.2	122.7	72.4	14.2
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°	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6	2073.6
2.5°	2083.9	2063.2	2027.0	1993.4	1963.8	1934.1	1915.9	1890.1	1887.5	1887.5	1894.0
5°	2098.1	2064.6	1999.9	1931.4	1852.7	1777.8	1702.7	1630.5	1607.2	1590.4	1598.2
7.5°	2139.5	2086.5	1984.4	1853.9	1704.1	1540.0	1425.1	1301.0	1253.2	1227.3	1231.2
10°	2198.9	2126.6	1971.5	1742.8	1500.0	1276.4	1112.3	978.0	926.3	904.4	904.4
12.5°	2264.7	2175.7	1948.2	1604.6	1276.4	1009.0	848.8	786.8	779.0	779.0	779.0
15°	2343.6	2235.0	1908.2	1441.8	1042.6	798.4	741.6	744.2	751.9	757.1	757.1
17.5°	2424.9	2298.4	1844.9	1259.6	835.9	718.3	719.7	723.4	729.9	735.1	735.1
20°	2512.8	2361.7	1761.0	1065.9	717.0	695.1	698.9	702.8	708.0	710.5	711.9
22.5°	2607.1	2421.0	1661.4	876.0	677.0	675.7	677.0	680.8	687.3	687.3	689.9
25°	2707.9	2487.0	1547.7	737.7	656.3	656.3	658.9	661.4	666.7	666.7	667.9
27.5°	2811.3	2547.7	1427.6	665.3	638.3	636.9	636.9	640.8	643.4	644.7	646.0
30°	2924.9	2618.8	1307.5	649.8	624.0	617.6	613.7	616.2	618.8	620.1	622.7
32.5°	3041.3	2687.2	1200.2	656.3	609.8	598.2	585.3	582.7	582.7	587.8	591.7
35°	3170.4	2762.2	1117.6	678.2	602.1	569.7	549.1	537.4	538.7	546.5	550.3
37.5°	3325.4	2852.6	1056.8	697.6	596.9	537.4	503.9	489.6	480.6	489.6	487.1
40°	3528.3	2985.7	1012.9	713.2	590.4	500.0	454.8	431.5	414.7	419.8	417.3
42.5°	3826.7	3194.9	996.1	714.4	576.3	456.0	404.4	373.4	348.8	350.1	344.9
45°	4245.3	3525.7	1082.6	697.6	545.2	408.3	351.4	310.1	294.6	290.7	285.6
47.5°	4818.9	4007.6	1282.9	662.8	500.0	361.7	299.7	264.9	253.2	246.7	242.9
50°	5587.7	4626.4	1505.1	624.0	454.8	317.9	257.1	235.1	227.3	220.9	219.7
52.5°	6479.1	5254.4	1687.3	585.3	409.6	279.1	230.0	217.1	210.6	205.4	204.1
55°	7296.9	5687.1	1676.9	543.9	365.6	248.0	210.6	202.8	195.1	189.9	187.4
57.5°	7805.9	5747.9	1382.4	498.7	315.2	223.6	192.5	187.4	178.2	171.8	170.6
60°	8039.8	5401.6	968.9	439.2	264.9	200.3	173.1	170.6	158.9	149.9	147.3
62.5°	8082.3	4758.3	646.0	365.6	220.9	178.2	153.8	149.9	134.4	118.9	111.1
65°	7909.3	3838.3	447.0	285.6	188.6	155.1	131.8	124.0	107.2	91.7	86.5
67.5°	7361.4	2695.0	311.4	205.4	160.2	122.7	104.7	102.1	89.2	76.3	72.4
70°	6357.7	1536.2	208.0	153.8	126.6	83.9	82.7	85.3	72.4	62.0	56.9
72.5°	4874.5	702.8	129.1	112.4	86.5	56.9	65.9	67.1	55.6	46.5	41.3
75°	2869.4	301.0	81.4	72.4	44.0	37.5	47.8	49.1	37.5	29.7	25.8
77.5°	976.7	113.7	51.7	42.6	21.9	20.7	31.1	31.1	20.7	11.6	9.0
80°	222.2	42.6	25.8	16.8	10.4	9.0	10.4	9.0	5.1	1.3	0.0
82.5°	63.3	16.8	10.4	6.5	3.9	3.9	1.3	0.0	0.0	0.0	0.0
85°	18.0	7.8	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.8	1.3	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)