

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: P884279

Luminaire Tested: **NAV-SB5A-735-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884279
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-735-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22778 lumens
Efficiency: N/A
Efficacy: 160.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

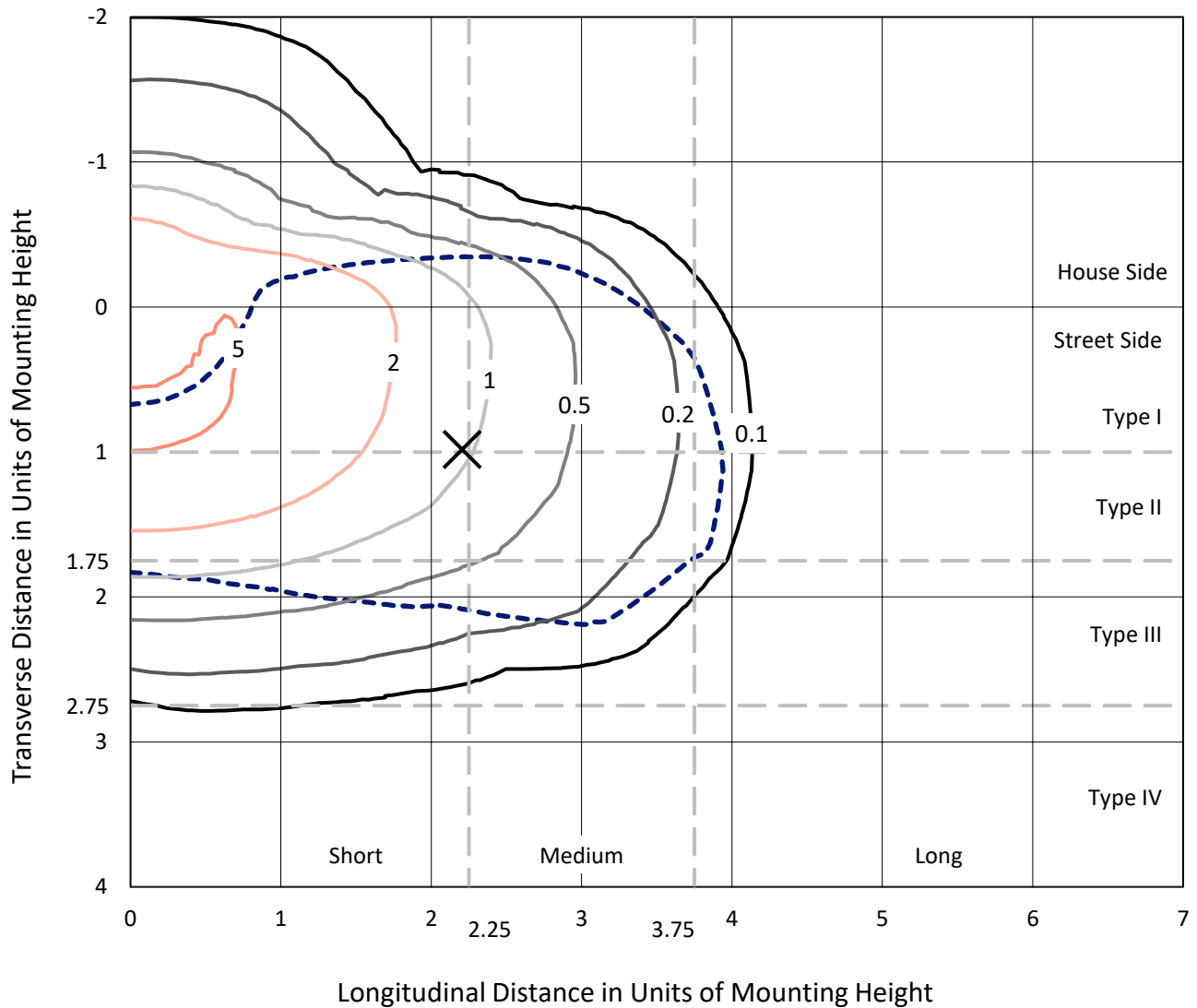
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

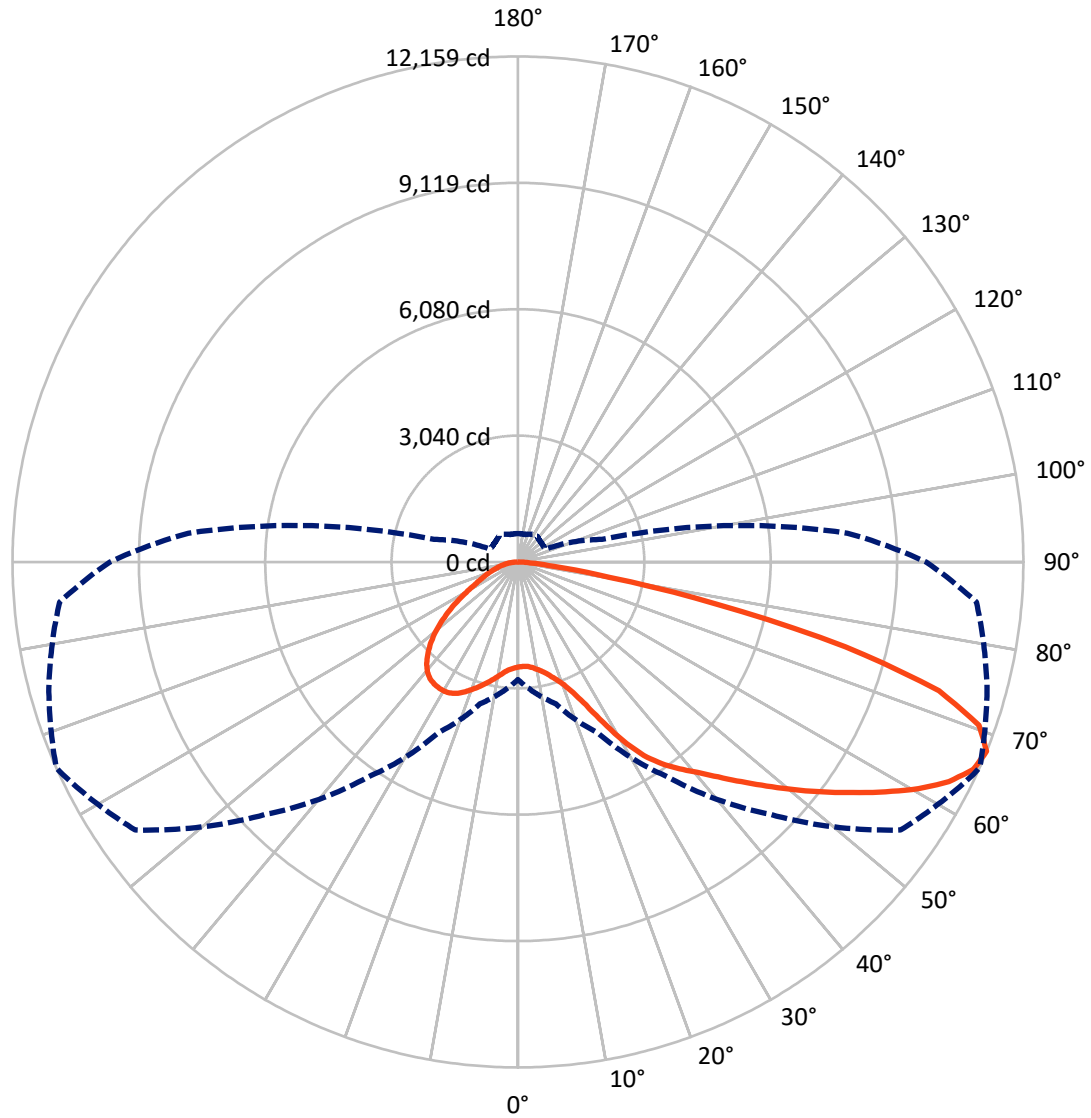
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5663.7	0.0	5663.7
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	17114.3	0.0	17114.3
	% Fixture	75.1	0.0	75.1
Total	Lumens	22778.0	0.0	22778.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.5	1.1
10°-20°	827.6	3.6
20°-30°	1595.1	7.0
30°-40°	2796.7	12.3
40°-50°	4157.8	18.3
50°-60°	5270.5	23.1
60°-70°	5157.0	22.6
70°-80°	2459.9	10.8
80°-90°	262.9	1.2
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°	22778.0	100.0
0°-180°	22778.0	100.0

Coefficient of Utilization



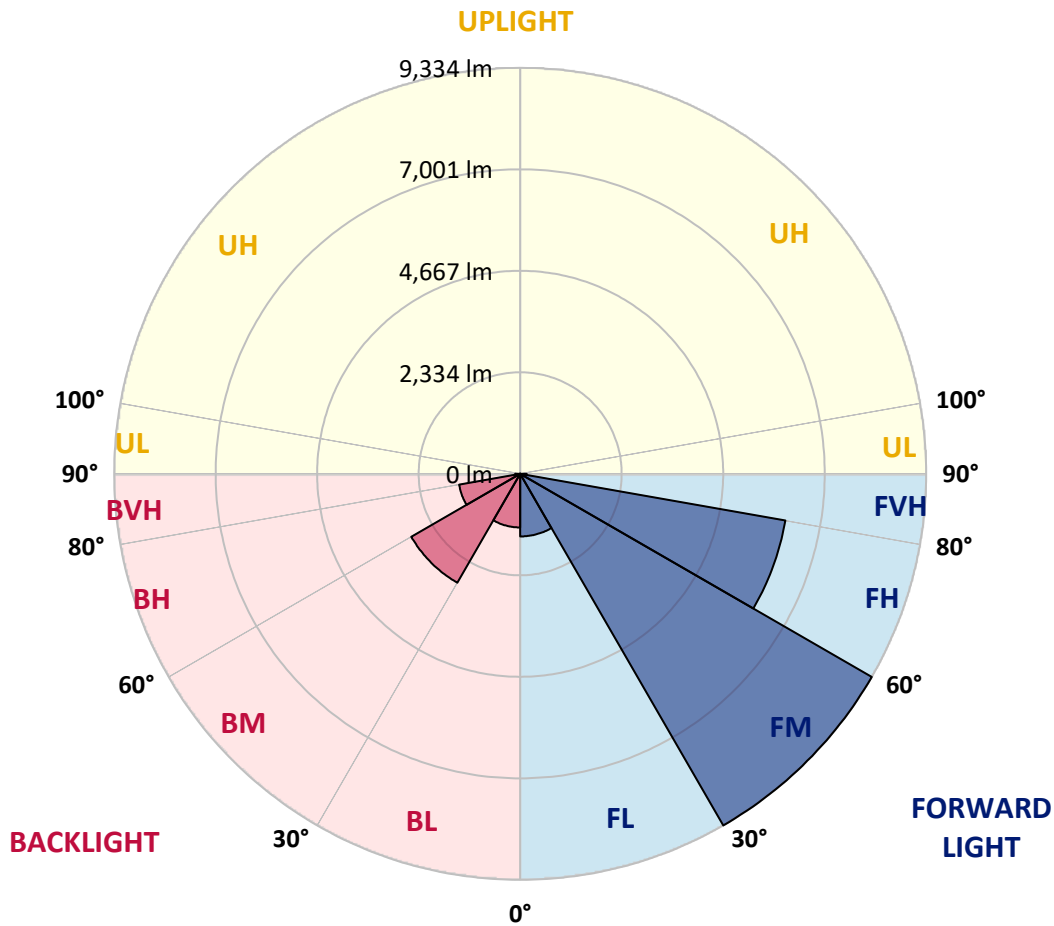
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1439.3	6.3			
FM (30°-60°)	9334.2	41.0			
FH (60°-80°)	6191.7	27.2			G3/7500
FVH (80°-90°)	149.1	0.7			G2/225
BL (0°-30°)	1233.8	5.4	B3/2500		
BM (30°-60°)	2890.8	12.7	B3/5000		
BH (60°-80°)	1425.3	6.3	B3/2500		G3/2500
BVH (80°-90°)	113.8	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-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4
2.5°	2500.1	2514.4	2510.8	2504.8	2503.6	2506.0	2509.6	2513.2	2512.0	2518.0	2527.6
5°	2492.9	2507.2	2506.0	2506.0	2510.8	2520.4	2526.4	2532.4	2526.4	2533.6	2546.7
7.5°	2497.7	2508.4	2513.2	2518.0	2530.0	2547.9	2562.3	2575.4	2568.3	2576.6	2593.4
10°	2558.7	2567.1	2571.9	2571.9	2580.2	2600.6	2614.9	2638.9	2632.9	2646.1	2667.6
12.5°	2670.0	2678.4	2678.4	2673.6	2679.6	2692.7	2697.5	2723.8	2713.1	2734.6	2756.2
15°	2806.4	2823.2	2810.0	2801.6	2804.0	2817.2	2816.0	2836.3	2825.6	2843.5	2862.7
17.5°	2957.2	2978.8	2957.2	2956.0	2951.2	2965.6	2966.8	2984.7	2965.6	2978.8	2991.9
20°	3135.5	3165.5	3147.5	3153.5	3142.7	3148.7	3154.7	3181.0	3151.1	3160.7	3157.1
22.5°	3386.9	3422.8	3403.6	3426.4	3419.2	3414.4	3413.2	3459.9	3413.2	3416.8	3382.1
25°	3753.1	3796.2	3762.6	3793.8	3793.8	3809.3	3827.3	3887.1	3809.3	3786.6	3696.8
27.5°	4294.0	4337.1	4271.3	4290.4	4284.4	4322.7	4303.6	4452.0	4368.2	4331.1	4150.4
30°	4945.1	5021.6	4897.2	4892.4	4886.4	4947.4	4975.0	5073.1	4988.1	4951.0	4733.2
32.5°	5648.8	5728.9	5580.5	5537.5	5514.7	5551.8	5529.1	5608.1	5549.4	5492.0	5222.7
35°	6393.1	6472.1	6330.9	6247.1	6156.2	6078.4	5997.0	6017.4	5962.3	5874.9	5596.1
37.5°	7096.8	7241.7	7092.1	7002.3	6834.8	6682.8	6455.4	6360.8	6309.4	6229.2	5947.9
40°	7813.7	7896.3	7782.6	7706.0	7524.1	7285.9	6922.1	6722.3	6652.8	6575.1	6336.9
42.5°	8341.5	8420.5	8359.4	8306.8	8164.4	7887.9	7417.6	7167.5	7066.9	6979.6	6777.3
45°	8760.4	8819.0	8780.7	8799.8	8738.8	8470.7	7931.0	7645.0	7540.8	7434.3	7275.2
47.5°	8929.1	8991.3	9052.4	9166.1	9270.2	9072.7	8482.7	8162.0	8051.9	7943.0	7786.2
50°	8910.0	8973.4	9150.5	9392.3	9715.4	9649.6	9064.3	8712.5	8610.8	8486.3	8341.5
52.5°	8756.8	8828.6	9056.0	9458.1	9972.7	10081.6	9656.7	9281.0	9185.2	9036.8	8892.0
55°	8354.7	8397.7	8738.8	9308.5	10033.7	10383.2	10237.2	9886.5	9790.8	9583.7	9425.8
57.5°	7609.1	7671.3	8168.0	8905.2	9880.5	10587.8	10747.0	10523.2	10431.0	10133.1	9967.9
60°	6636.1	6735.4	7303.9	8227.8	9490.4	10586.6	11210.1	11149.1	11072.5	10674.0	10501.7
62.5°	5535.1	5650.0	6196.9	7270.4	8808.2	10286.2	11499.8	11673.3	11633.8	11173.0	10952.8
65°	4250.9	4329.9	4874.4	6031.7	7746.7	9641.2	11533.3	12031.1	12038.3	11552.4	11188.6
67.5°	2830.4	3057.7	3530.5	4526.2	6324.9	8586.8	11238.9	12089.8	12159.2	11682.9	11070.1
70°	1381.1	1680.3	2143.4	2941.7	4526.2	6970.0	10469.3	11608.7	11763.1	11302.3	10364.0
72.5°	573.3	670.2	922.7	1451.7	2598.2	4703.3	8923.1	10304.2	10590.2	10014.6	8713.7
75°	386.6	418.9	527.8	744.4	1183.6	2319.3	6435.0	7683.3	8144.0	7563.6	6182.5
77.5°	298.0	318.3	384.2	520.6	703.7	877.2	3444.3	4630.3	4868.5	4507.0	3216.9
80°	234.6	250.1	287.2	379.4	499.1	469.1	1174.0	2097.9	2235.6	1875.3	1034.0
82.5°	203.5	209.4	205.8	257.3	331.5	274.1	385.4	774.3	854.5	619.9	337.5
85°	147.2	164.0	171.1	159.2	175.9	138.8	158.0	274.1	301.6	269.3	190.3
87.5°	59.8	88.6	108.9	102.9	64.6	39.5	49.1	80.2	92.2	100.5	62.2
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°	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4	2526.4
2.5°	2528.8	2537.2	2543.1	2550.3	2555.1	2562.3	2576.6	2585.0	2586.2	2592.2	2591.0
5°	2551.5	2563.5	2576.6	2595.8	2617.3	2635.3	2662.8	2682.0	2689.1	2695.1	2693.9
7.5°	2600.6	2617.3	2641.3	2674.8	2705.9	2729.8	2763.3	2786.1	2808.8	2817.2	2818.4
10°	2673.6	2697.5	2732.2	2777.7	2811.2	2842.3	2877.0	2896.2	2918.9	2928.5	2933.3
12.5°	2764.5	2789.7	2835.1	2898.6	2929.7	2951.2	2963.2	2958.4	2963.2	2971.6	2974.0
15°	2868.7	2896.2	2947.6	3015.9	3037.4	3018.3	2991.9	2968.0	2964.4	2966.8	2975.2
17.5°	2991.9	3012.3	3072.1	3129.6	3114.0	3035.0	2977.6	2939.3	2920.1	2914.1	2922.5
20°	3164.3	3164.3	3213.3	3249.2	3145.1	3011.1	2921.3	2859.1	2819.6	2802.8	2799.2
22.5°	3373.7	3354.5	3385.7	3360.5	3139.1	2944.1	2819.6	2711.9	2652.0	2628.1	2624.5
25°	3639.4	3616.6	3608.3	3452.7	3096.0	2837.5	2635.3	2504.8	2452.2	2439.0	2441.4
27.5°	4040.3	3982.9	3873.9	3502.9	3017.1	2670.0	2419.9	2299.0	2269.1	2270.3	2273.9
30°	4574.1	4459.2	4192.3	3511.3	2887.8	2433.0	2199.7	2113.5	2099.1	2105.1	2125.5
32.5°	5068.3	4959.4	4517.8	3473.0	2689.1	2200.9	2002.2	1944.8	1923.2	1930.4	1940.0
35°	5456.1	5426.2	4819.4	3419.2	2445.0	1983.0	1825.1	1776.0	1734.1	1724.5	1731.7
37.5°	5822.3	5810.3	5045.6	3343.8	2203.3	1828.7	1682.7	1618.0	1557.0	1523.5	1524.7
40°	6224.4	6212.4	5194.0	3227.7	1989.0	1694.6	1554.6	1469.6	1394.2	1333.2	1339.2
42.5°	6676.8	6606.2	5264.6	3061.3	1807.1	1580.9	1450.5	1335.6	1236.3	1180.0	1183.6
45°	7171.0	7011.9	5263.4	2849.5	1653.9	1476.8	1339.2	1176.4	1084.3	1031.6	1029.2
47.5°	7695.2	7399.6	5198.8	2614.9	1505.5	1361.9	1166.9	1042.4	981.4	949.0	941.9
50°	8236.2	7762.2	5088.7	2345.7	1353.5	1231.5	1059.1	974.2	927.5	897.6	886.8
52.5°	8744.8	8091.4	4955.8	2040.5	1199.2	1104.6	1011.3	945.4	896.4	862.9	848.5
55°	9217.5	8375.0	4767.9	1728.1	1073.5	1019.6	988.5	933.5	877.2	837.7	822.2
57.5°	9637.6	8559.3	4443.6	1434.9	983.7	961.0	964.6	913.1	848.5	815.0	793.5
60°	9987.0	8694.5	3963.7	1163.3	910.7	903.6	927.5	874.8	799.4	761.1	744.4
62.5°	10196.5	8692.1	3374.9	952.6	848.5	850.9	878.4	827.0	750.4	714.5	703.7
65°	10178.5	8479.1	2728.6	815.0	788.7	791.1	827.0	774.3	709.7	688.1	686.9
67.5°	9818.3	7959.7	2093.2	725.2	722.8	733.6	775.5	738.4	684.6	682.2	685.7
70°	8842.9	6881.4	1507.9	653.4	654.6	670.2	725.2	715.7	671.4	676.2	675.0
72.5°	7090.9	5246.6	1012.5	578.0	579.2	604.4	677.4	697.7	658.2	721.7	731.2
75°	4722.5	3272.0	651.0	497.9	499.1	531.4	635.5	663.0	622.3	719.3	725.2
77.5°	2269.1	1470.8	471.5	418.9	418.9	448.8	549.3	593.6	530.2	558.9	512.2
80°	783.9	552.9	371.0	337.5	330.3	350.7	463.1	514.6	457.2	421.3	394.9
82.5°	308.8	287.2	298.0	262.1	238.2	251.3	360.2	424.9	336.3	304.0	302.8
85°	177.1	186.7	210.6	173.5	137.6	154.4	264.5	305.2	253.7	223.8	228.6
87.5°	47.9	65.8	96.9	89.8	62.2	65.8	125.7	168.7	146.0	112.5	116.1
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)