

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: P966117

Luminaire Tested: **NAV-SB4B-730-U-T2-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P966117  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-730-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16892 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

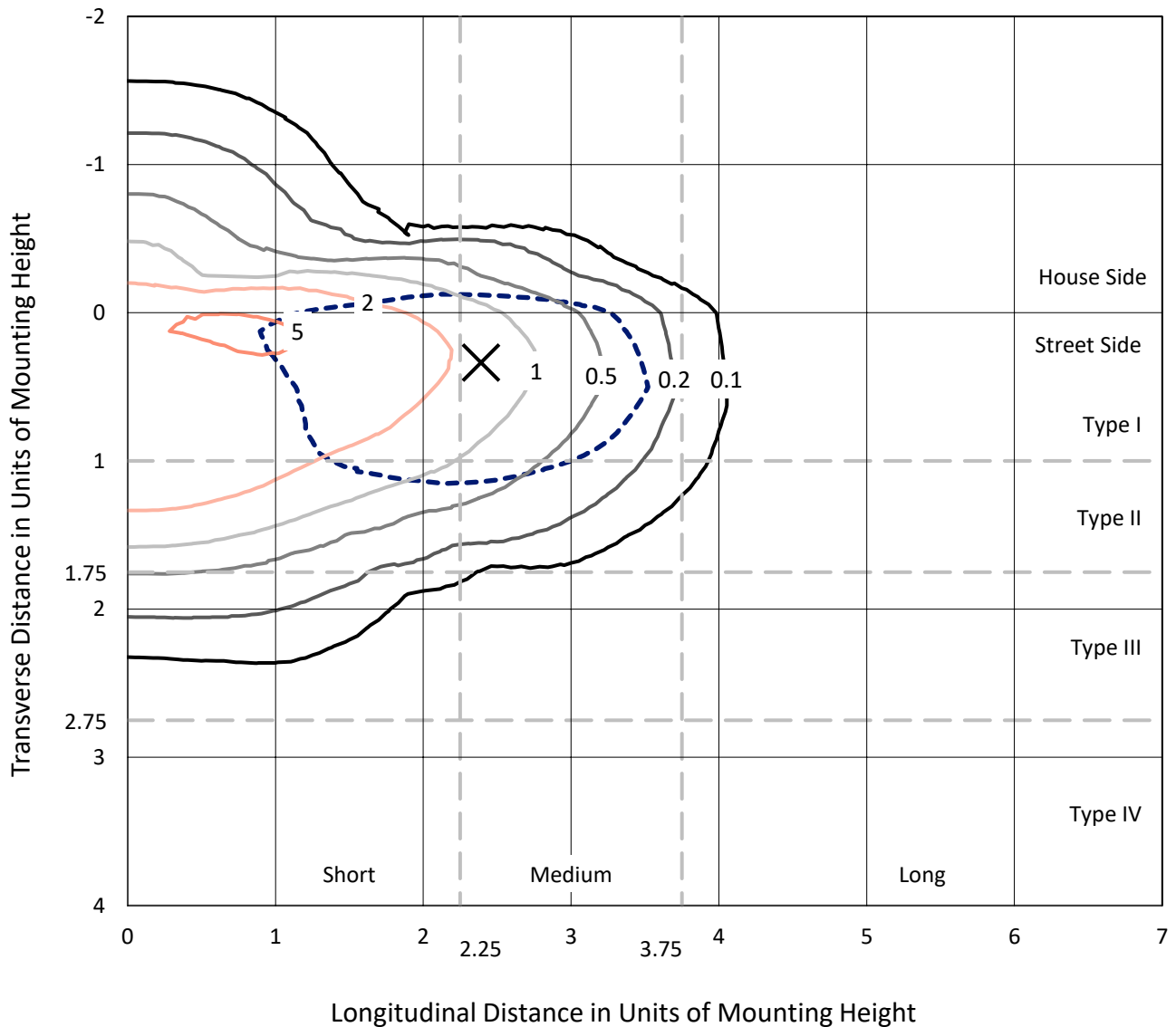
Input Watts (W): 147  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

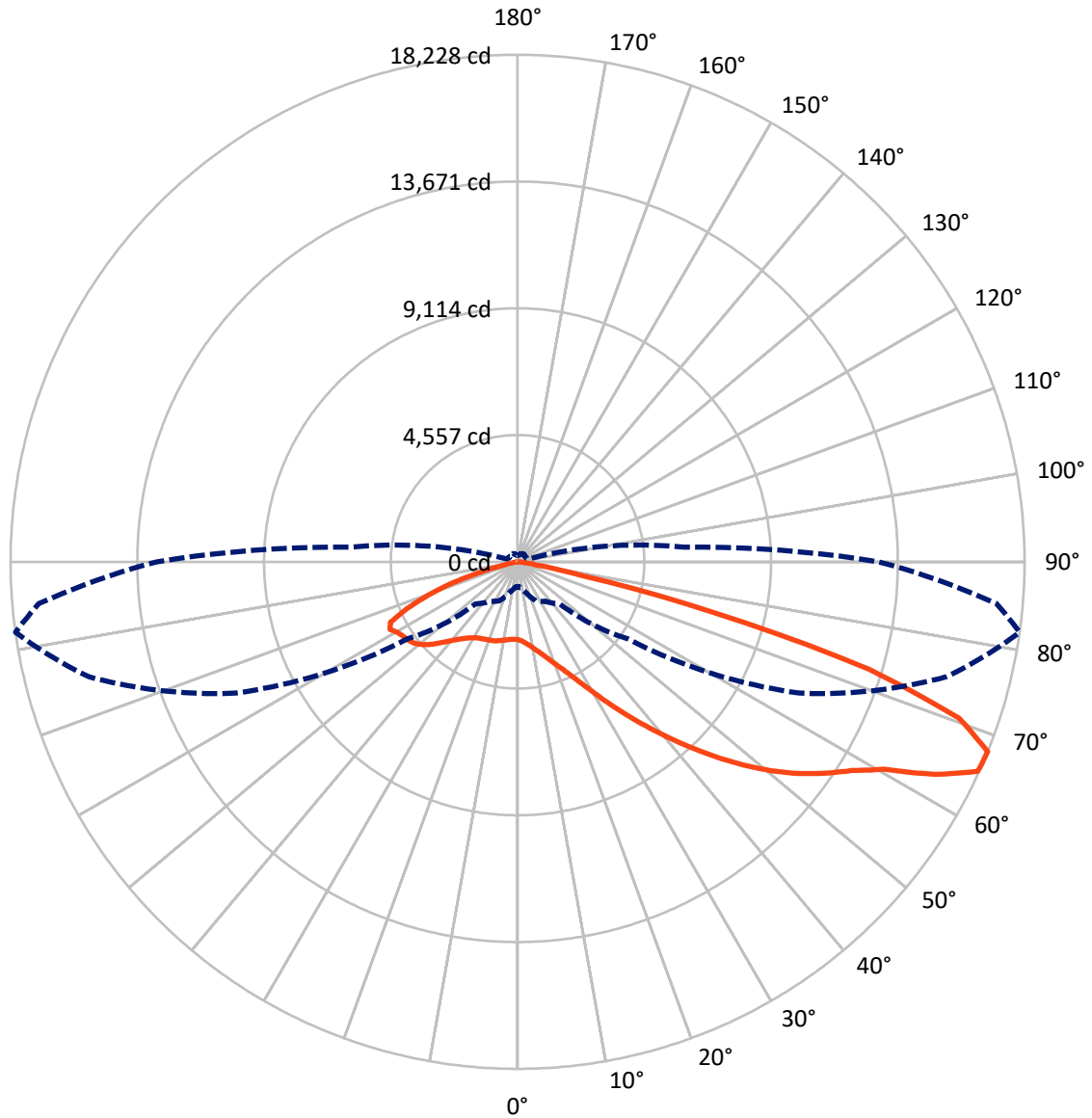
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3059.8	0.0	3059.8
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	13832.2	0.0	13832.2
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	16892.0	0.0	16892.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	249.3	1.5
10°-20°	647.9	3.8
20°-30°	1037.7	6.1
30°-40°	1835.0	10.9
40°-50°	3215.0	19.0
50°-60°	4288.0	25.4
60°-70°	3991.9	23.6
70°-80°	1532.1	9.1
80°-90°	95.2	0.6
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°	16892.0	100.0
0°-180°	16892.0	100.0

**Coefficient of Utilization**



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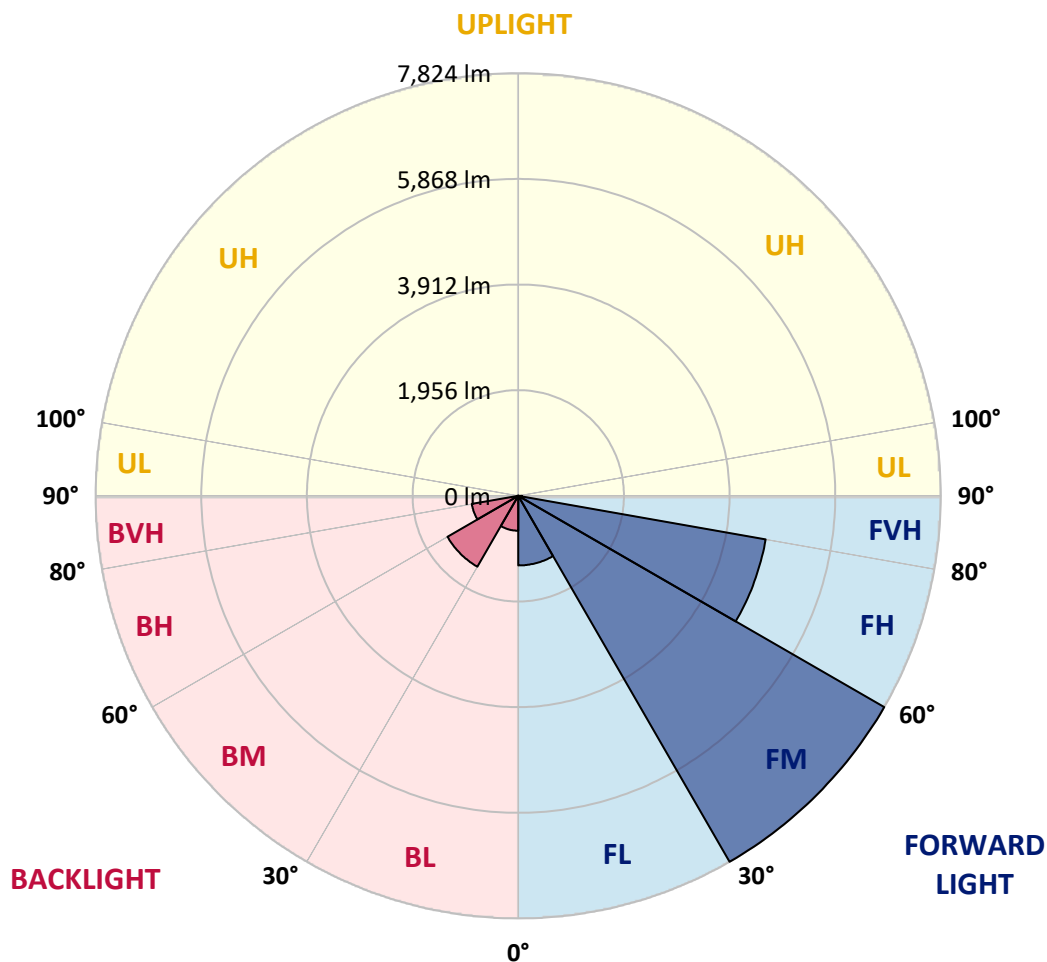
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1288.7	7.6			
FM (30°-60°)	7823.7	46.3			
FH (60°-80°)	4650.6	27.5			G2/5000
FVH (80°-90°)	69.2	0.4			G1/100
BL (0°-30°)	646.2	3.8	B2/1000		
BM (30°-60°)	1514.3	9.0	B2/2500		
BH (60°-80°)	873.3	5.2	B2/1000		G2/1000
BVH (80°-90°)	26.0	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5
2.5°	2957.7	2974.8	2965.0	2960.2	2951.7	2939.5	2929.8	2899.4	2867.7	2847.0	2839.8
5°	3017.4	3034.4	3033.2	3038.0	3044.1	3047.7	3045.3	3011.2	2966.2	2931.0	2910.3
7.5°	2966.2	2985.7	3001.5	3025.9	3068.4	3113.4	3135.3	3128.0	3081.8	3033.2	3007.7
10°	2821.5	2842.2	2879.9	2937.0	3027.0	3124.4	3205.9	3243.5	3214.4	3160.9	3125.6
12.5°	2556.5	2577.1	2651.3	2775.3	2926.2	3095.2	3250.9	3351.7	3359.1	3305.6	3264.2
15°	2258.5	2279.1	2358.2	2513.8	2743.7	3014.9	3275.2	3466.1	3530.6	3484.4	3434.5
17.5°	2073.6	2091.8	2151.5	2276.7	2516.3	2854.4	3266.7	3587.7	3734.9	3698.4	3638.9
20°	2017.6	2033.5	2061.4	2149.0	2348.5	2687.8	3210.7	3702.1	3955.1	3934.4	3867.4
22.5°	2077.3	2091.8	2100.3	2139.3	2264.5	2578.3	3140.2	3818.8	4210.4	4212.9	4131.4
25°	2214.6	2229.3	2219.5	2243.8	2298.6	2544.3	3113.4	3956.2	4531.5	4558.3	4465.8
27.5°	2440.8	2442.1	2419.0	2417.8	2426.3	2595.3	3141.4	4103.4	4936.5	4986.3	4872.0
30°	2894.5	2876.3	2787.5	2691.4	2647.7	2748.5	3219.2	4277.3	5414.5	5503.2	5359.7
32.5°	3593.9	3567.1	3404.1	3174.2	2943.2	2995.5	3359.1	4475.6	5935.0	6095.5	5920.4
35°	4352.7	4345.4	4175.1	3833.4	3429.6	3346.9	3586.5	4735.8	6502.9	6758.3	6550.4
37.5°	5058.1	5054.5	4957.1	4554.6	4063.3	3837.1	3951.4	5076.3	7111.0	7480.8	7235.1
40°	5702.7	5713.7	5616.3	5256.3	4761.3	4465.8	4447.6	5497.2	7787.2	8267.6	7975.7
42.5°	6259.7	6271.9	6173.4	5907.0	5451.0	5161.5	5056.8	6012.8	8447.6	9112.9	8767.4
45°	6637.9	6713.3	6698.7	6485.9	6158.7	5858.4	5789.0	6659.8	9200.4	10009.1	9604.1
47.5°	6744.9	6814.3	6923.7	6952.9	6753.4	6457.9	6540.6	7439.3	9961.8	10906.7	10445.8
50°	6481.1	6545.4	6772.9	7075.8	7214.4	7123.1	7271.6	8274.9	10741.3	11801.8	11271.6
52.5°	5960.5	6026.2	6313.2	6792.4	7357.9	7645.0	8004.9	9098.2	11496.6	12649.5	12053.6
55°	5207.7	5277.0	5645.5	6187.9	7084.3	7860.2	8616.7	9920.4	12188.6	13412.0	12759.0
57.5°	4183.6	4234.8	4617.8	5376.7	6395.9	7646.1	9067.9	10818.0	12840.5	14161.2	13458.2
60°	2726.7	2771.7	3216.8	4063.3	5255.1	6931.0	9157.9	11818.9	13706.4	15135.4	14400.8
62.5°	1813.3	1843.8	2107.6	2729.1	3700.9	5558.0	8631.2	12617.9	14976.1	16830.7	16017.1
65°	1244.1	1274.6	1538.4	1971.4	2391.0	3676.5	7117.1	12512.1	16126.5	18177.0	17215.1
67.5°	887.9	913.4	1137.1	1545.8	1730.6	2135.6	4824.6	11159.7	15961.2	18228.1	17279.6
70°	636.0	650.7	835.5	1204.1	1375.6	1283.1	2682.9	8535.2	13975.2	16831.9	15963.6
72.5°	445.2	450.0	580.2	917.0	1107.9	936.4	1276.9	5690.5	10569.8	13211.3	12375.8
75°	301.7	307.7	390.4	672.5	889.0	715.1	676.2	3051.4	6204.9	7312.9	6555.2
77.5°	184.9	187.3	251.7	459.7	665.2	544.9	435.4	1292.8	2400.8	2357.0	2009.1
80°	104.6	104.6	160.5	285.8	453.7	351.5	305.2	549.7	760.1	667.7	588.7
82.5°	58.4	59.6	116.7	177.5	300.4	208.0	167.8	254.2	328.4	290.7	253.0
85°	24.3	26.8	71.8	83.9	143.5	103.4	68.1	107.0	121.7	108.2	79.0
87.5°	2.5	3.7	21.9	15.8	17.0	20.7	9.7	20.7	17.0	17.0	12.2
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°	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5	2798.5
2.5°	2816.7	2798.5	2752.2	2698.7	2628.2	2594.1	2547.9	2516.3	2489.5	2492.0	2467.6
5°	2871.4	2825.2	2721.8	2592.9	2432.3	2318.0	2196.5	2112.5	2044.4	2029.8	1997.0
7.5°	2946.8	2873.8	2692.7	2460.3	2189.1	1983.6	1799.9	1682.0	1598.1	1571.3	1544.6
10°	3044.1	2938.3	2655.0	2293.7	1903.3	1641.8	1444.8	1352.4	1295.2	1275.8	1261.2
12.5°	3157.2	3012.5	2605.0	2090.6	1609.0	1357.3	1231.9	1185.8	1167.6	1161.4	1157.8
15°	3299.5	3104.9	2529.7	1849.8	1359.7	1183.4	1129.9	1123.7	1126.2	1123.7	1122.6
17.5°	3468.5	3205.9	2406.8	1601.7	1191.9	1094.6	1075.1	1079.9	1086.1	1084.9	1082.4
20°	3653.4	3305.6	2250.0	1381.6	1077.6	1031.4	1020.4	1025.2	1030.1	1027.7	1026.4
22.5°	3863.8	3412.6	2076.0	1210.1	1000.9	972.9	960.7	962.0	962.0	957.1	954.7
25°	4115.6	3530.6	1893.6	1088.4	942.6	920.7	906.1	901.2	893.9	879.3	876.9
27.5°	4415.9	3655.9	1718.5	1003.4	896.4	875.7	858.6	846.4	828.2	803.9	801.4
30°	4754.1	3807.9	1570.1	949.9	859.9	839.2	819.7	801.4	774.7	744.3	741.9
32.5°	5151.8	3970.8	1461.9	914.6	827.0	805.1	782.0	760.1	730.9	700.5	701.7
35°	5626.0	4167.9	1398.6	890.2	801.4	772.2	746.7	722.4	700.5	673.7	671.4
37.5°	6140.5	4377.1	1379.1	878.1	784.4	739.4	710.2	693.2	690.7	675.0	673.7
40°	6703.6	4625.1	1393.7	870.7	766.2	707.9	676.2	672.5	678.7	650.7	651.9
42.5°	7299.5	4919.5	1418.1	862.2	740.7	676.2	645.8	645.8	640.9	602.0	602.0
45°	7944.1	5258.8	1442.4	841.6	710.2	644.6	621.5	612.9	592.2	554.6	553.4
47.5°	8593.5	5604.2	1460.6	803.9	673.7	617.9	597.2	577.7	547.2	513.2	512.0
50°	9210.1	5914.2	1441.1	747.9	632.4	592.2	570.4	543.7	510.8	487.7	484.0
52.5°	9761.1	6183.1	1358.4	682.2	588.7	565.5	546.0	518.1	491.4	467.0	464.5
55°	10240.3	6400.7	1212.6	620.2	549.7	542.4	523.0	487.7	451.2	430.5	428.1
57.5°	10700.0	6566.2	1030.1	569.2	514.4	516.9	487.7	456.0	422.0	400.2	397.7
60°	11311.7	6787.6	845.2	521.7	476.7	484.0	452.4	429.3	386.7	358.7	355.2
62.5°	12289.5	7131.6	671.4	463.4	433.0	435.4	422.0	394.0	343.0	310.2	307.7
65°	13065.5	7005.2	529.0	400.2	383.1	386.7	386.7	356.3	301.7	263.9	260.2
67.5°	12977.8	5998.2	422.0	338.1	335.7	338.1	346.7	321.0	267.5	237.2	232.3
70°	11955.1	4771.1	338.1	281.0	291.9	285.8	310.2	293.2	240.8	210.4	206.7
72.5°	9755.0	3436.9	257.8	232.3	223.8	233.5	279.7	263.9	200.7	166.7	163.0
75°	5700.2	1834.0	192.2	183.7	161.7	194.5	248.0	225.0	153.2	122.8	119.2
77.5°	1855.9	639.7	141.0	135.0	120.4	156.9	211.7	189.7	125.3	97.3	93.7
80°	497.4	193.4	96.0	88.8	77.8	116.7	167.8	150.8	90.0	63.2	62.0
82.5°	199.5	81.5	56.0	49.8	42.5	80.3	132.5	121.7	66.9	40.2	40.2
85°	64.5	26.8	20.7	15.8	19.5	49.8	79.0	82.7	47.5	20.7	15.8
87.5°	8.5	3.7	3.7	4.8	3.7	8.5	24.3	23.1	13.4	2.5	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)