

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: P966245

Luminaire Tested: **NAV-SB4B-760-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966245
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-760-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24800.9 lumens
Efficiency: N/A
Efficacy: 168.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

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

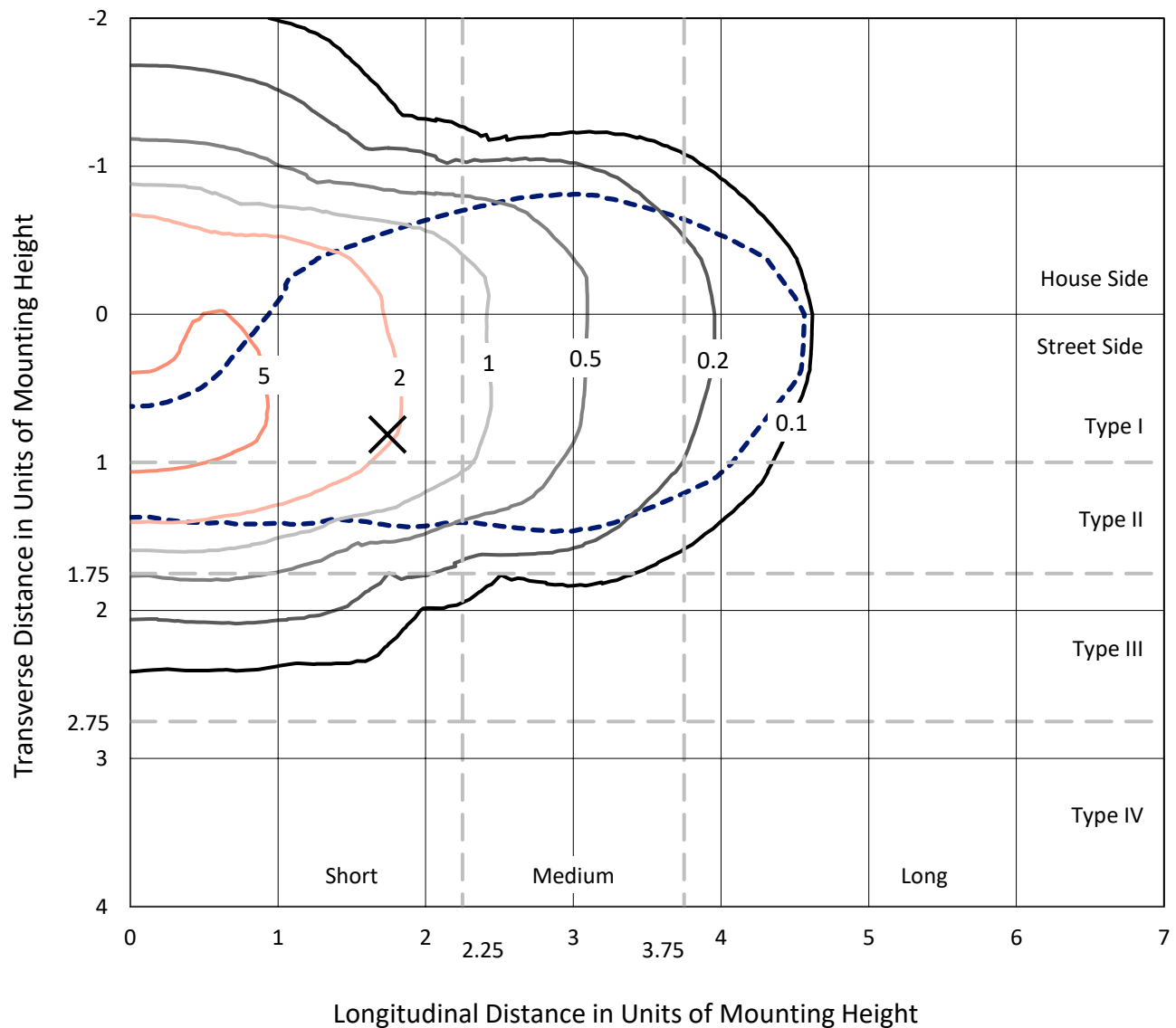


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Iso-Footcandle Lines of Horizontal Illumination

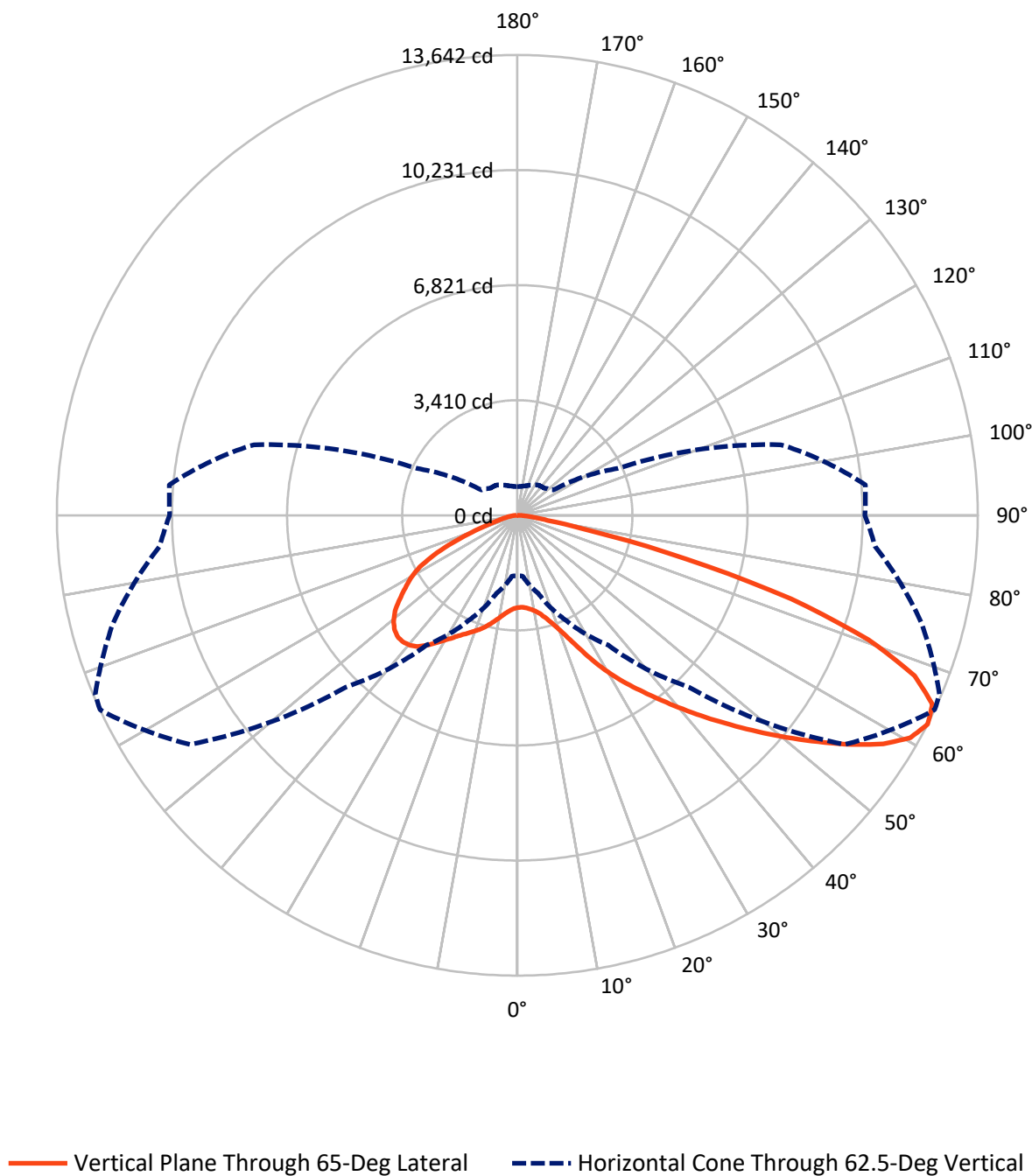
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7826.1	0.0	7826.1
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	16974.8	0.0	16974.8
	% Fixture	68.4	0.0	68.4
Total	Lumens	24800.9	0.0	24800.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.5	1.1
10°-20°	924.0	3.7
20°-30°	1873.5	7.6
30°-40°	3242.0	13.1
40°-50°	4906.1	19.8
50°-60°	5752.1	23.2
60°-70°	4822.5	19.4
70°-80°	2662.4	10.7
80°-90°	345.8	1.4
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°	24800.9	100.0
0°-180°	24800.9	100.0

Coefficient of Utilization



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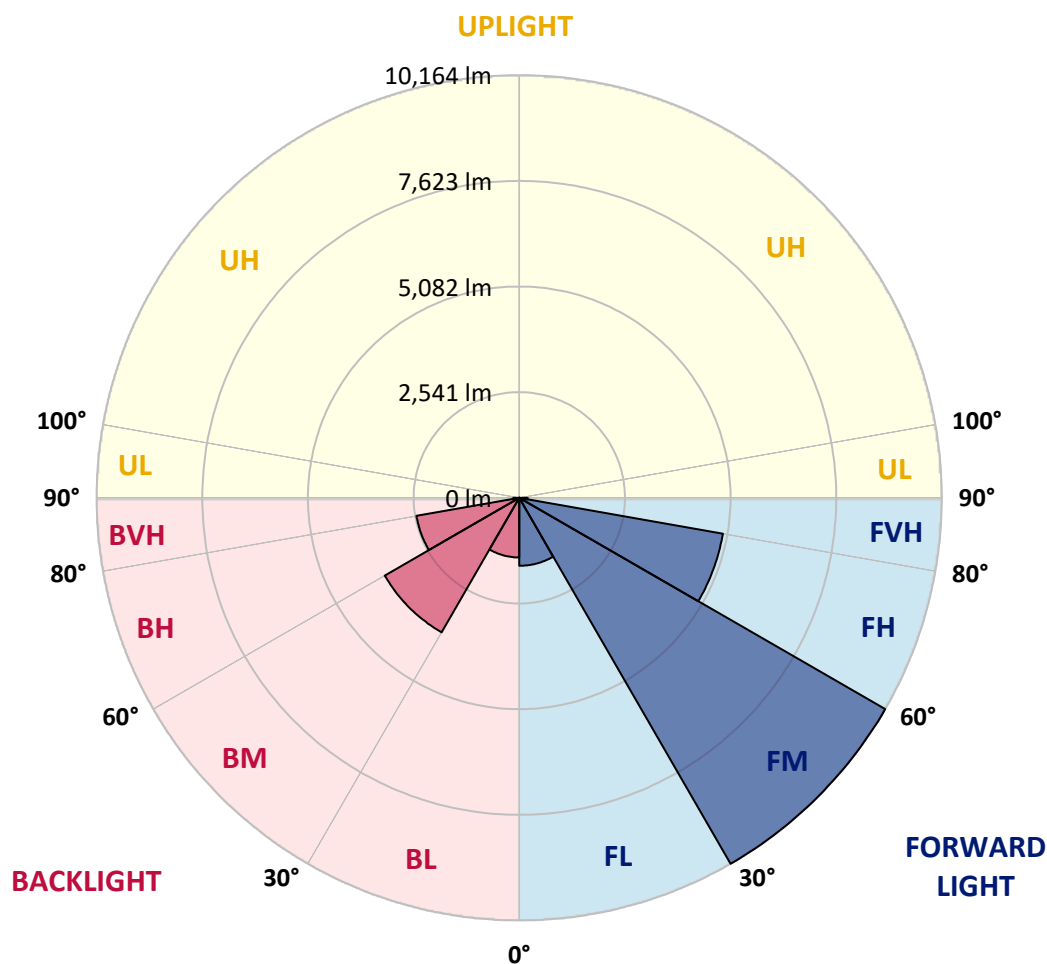
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1634.7	6.6			
FM	(30°-60°)	10164.2	41.0			
FH	(60°-80°)	4974.3	20.1			G2/5000
FVH	(80°-90°)	201.6	0.8			G2/225
BL	(0°-30°)	1435.2	5.8	B3/2500		
BM	(30°-60°)	3736.1	15.1	B3/5000		
BH	(60°-80°)	2510.5	10.1	B4/5000		G4/5000
BVH	(80°-90°)	144.3	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0
2.5°	2714.9	2707.2	2713.7	2713.7	2716.2	2714.9	2723.9	2726.5	2730.4	2738.1	2738.1
5°	2688.0	2686.6	2698.2	2708.5	2718.8	2727.8	2739.4	2756.1	2758.7	2767.7	2779.3
7.5°	2678.9	2671.1	2689.2	2702.1	2726.5	2748.4	2779.3	2807.6	2819.2	2823.1	2844.9
10°	2748.4	2735.5	2752.2	2760.0	2780.5	2802.5	2838.4	2883.5	2896.3	2911.8	2936.2
12.5°	2866.7	2852.6	2877.1	2888.7	2907.9	2927.2	2951.7	2995.5	3001.9	3030.2	3053.4
15°	3028.9	3012.2	3027.6	3041.8	3074.0	3091.9	3116.4	3158.8	3158.8	3180.7	3197.5
17.5°	3248.9	3227.0	3238.6	3243.8	3264.3	3291.4	3332.6	3369.9	3389.2	3381.5	3358.3
20°	3577.0	3550.0	3550.0	3524.3	3516.6	3538.4	3592.4	3644.0	3664.5	3624.6	3568.0
22.5°	4069.9	4031.2	4009.4	3921.9	3887.1	3889.7	3943.7	4006.8	4023.5	3952.7	3825.4
25°	4696.4	4636.0	4606.3	4477.7	4399.2	4331.0	4373.5	4454.5	4477.7	4390.2	4184.4
27.5°	5323.0	5326.9	5298.6	5144.3	5014.3	4889.5	4867.6	4952.5	4977.0	4877.9	4623.2
30°	6201.9	6110.5	6056.5	5871.2	5685.9	5510.9	5420.9	5455.6	5462.0	5343.6	5047.7
32.5°	6959.7	6936.6	6820.8	6658.7	6420.6	6146.6	5996.0	5940.7	5930.4	5761.8	5410.6
35°	7823.1	7810.3	7688.0	7495.0	7237.7	6856.8	6585.3	6427.1	6414.2	6177.5	5769.5
37.5°	8700.7	8700.7	8581.0	8369.9	8103.6	7627.5	7214.6	6963.6	6922.4	6613.6	6135.0
40°	9400.6	9358.1	9380.1	9291.2	8986.3	8480.6	7913.2	7549.0	7493.8	7123.1	6523.6
42.5°	9798.2	9784.0	9915.3	10014.4	9889.6	9485.6	8682.7	8183.4	8106.2	7684.2	6971.3
45°	9887.0	9871.6	10105.8	10468.6	10643.6	10477.7	9519.0	8851.2	8757.3	8270.9	7451.2
47.5°	9682.5	9651.5	9995.1	10567.6	11128.6	11420.8	10424.9	9575.7	9439.2	8842.2	7944.1
50°	9067.4	9037.7	9557.6	10318.1	11292.1	12061.5	11407.8	10343.8	10135.3	9454.7	8442.0
52.5°	7730.4	7744.7	8559.2	9603.9	11077.2	12460.4	12254.5	11153.1	10902.2	10081.3	8909.1
55°	6021.8	6052.6	7053.7	8204.0	10217.7	12399.9	12832.3	11986.9	11737.3	10670.6	9391.7
57.5°	4311.8	4448.1	5386.2	6524.8	8566.8	11441.4	12958.4	12779.5	12537.6	11313.9	9863.9
60°	2794.7	2819.2	3784.2	4931.9	6523.6	9737.7	12702.3	13380.4	13191.2	11970.2	10258.8
62.5°	1791.1	1807.8	2395.8	3449.6	4695.2	7204.2	11840.2	13641.6	13583.7	12403.8	10638.5
65°	1316.3	1303.4	1609.7	2280.0	3162.7	4443.0	10166.3	13515.5	13630.0	12675.3	10952.4
67.5°	1098.8	1080.9	1231.3	1578.8	2330.2	2523.2	7522.1	12695.9	13115.4	12644.4	11182.7
70°	1001.0	985.6	1077.0	1172.2	1818.1	1689.4	3791.9	11037.3	11683.3	12293.1	11145.4
72.5°	848.0	820.9	945.8	1041.0	1414.1	1295.7	1567.2	8478.1	9265.5	11167.3	10620.4
75°	657.5	639.5	746.3	916.1	1062.8	1011.4	990.8	5148.1	6007.6	8636.3	9291.2
77.5°	521.1	496.7	594.5	714.1	956.0	763.0	721.8	2217.0	3068.7	5513.5	6952.1
80°	392.5	370.5	451.6	564.9	734.7	575.1	467.1	904.6	1156.7	2793.4	3496.0
82.5°	279.2	259.9	315.3	414.3	494.0	516.0	286.9	507.0	570.0	1077.0	781.0
85°	178.9	167.3	211.0	259.9	314.0	332.0	175.0	265.1	290.8	443.9	325.5
87.5°	97.8	79.7	113.3	121.0	145.4	132.5	83.6	96.5	104.2	160.8	137.7
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°	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0	2733.0
2.5°	2743.2	2747.1	2760.0	2763.8	2772.8	2784.4	2792.1	2799.9	2799.9	2807.6	2807.6
5°	2780.5	2789.5	2816.6	2830.7	2853.9	2877.1	2891.2	2907.9	2918.3	2923.4	2926.0
7.5°	2852.6	2866.7	2905.4	2929.9	2969.7	3001.9	3023.7	3046.9	3052.0	3066.2	3061.1
10°	2950.4	2967.2	3010.8	3057.2	3104.8	3144.7	3165.3	3182.0	3188.5	3191.0	3184.6
12.5°	3062.4	3086.8	3143.4	3200.0	3250.2	3284.9	3290.0	3286.3	3268.2	3252.7	3252.7
15°	3200.0	3221.9	3284.9	3346.7	3395.6	3402.1	3369.9	3349.3	3327.5	3323.6	3323.6
17.5°	3364.8	3376.4	3434.2	3494.6	3498.5	3476.7	3429.0	3409.8	3389.2	3375.0	3376.4
20°	3556.4	3552.5	3593.8	3619.5	3592.4	3525.6	3453.5	3421.3	3400.7	3384.0	3385.3
22.5°	3785.4	3755.9	3750.8	3744.3	3672.3	3531.9	3434.2	3393.1	3360.9	3337.7	3345.4
25°	4118.8	4005.5	3927.0	3883.2	3721.2	3497.3	3372.5	3281.1	3220.7	3180.7	3196.2
27.5°	4535.6	4345.2	4147.0	4040.2	3721.2	3426.5	3223.2	3075.2	2976.1	2935.0	2955.6
30°	4933.2	4733.8	4441.7	4229.4	3712.1	3310.6	2982.5	2776.7	2660.9	2619.7	2644.2
32.5°	5272.9	5055.4	4754.4	4436.5	3690.3	3122.9	2684.1	2456.3	2344.4	2295.5	2319.9
35°	5588.1	5356.5	5068.3	4664.3	3632.4	2847.4	2356.0	2182.2	2057.5	1979.0	2004.7
37.5°	5911.1	5635.8	5365.6	4870.2	3528.2	2525.8	2103.7	1955.8	1809.1	1703.6	1731.9
40°	6262.3	5933.0	5683.3	4992.4	3357.0	2219.5	1908.1	1773.0	1617.3	1505.4	1527.4
42.5°	6672.9	6289.4	6037.1	5055.4	3122.9	2002.1	1780.8	1648.3	1501.6	1410.2	1428.2
45°	7101.3	6681.9	6360.1	5054.2	2861.6	1900.5	1739.6	1608.3	1446.3	1351.1	1366.4
47.5°	7550.4	7092.3	6639.3	4971.8	2635.2	1914.6	1716.5	1522.1	1343.4	1250.7	1263.5
50°	8000.7	7541.3	6909.6	4817.4	2538.6	1883.7	1630.3	1401.2	1190.2	1106.6	1111.7
52.5°	8447.2	8018.7	7142.5	4597.3	2440.8	1769.3	1519.6	1244.2	1127.2	1069.3	1069.3
55°	8896.3	8490.9	7396.0	4277.0	2196.4	1635.4	1334.3	1185.0	1077.0	1024.2	1019.1
57.5°	9346.6	9036.5	7636.6	3956.6	1888.9	1470.7	1232.7	1112.9	1026.7	981.7	974.1
60°	9815.0	9660.5	7884.9	3661.9	1585.3	1259.7	1158.0	1055.1	967.6	917.4	913.6
62.5°	10297.5	10347.7	8079.2	3282.4	1306.0	1131.0	1091.1	985.6	900.7	853.1	851.8
65°	10783.8	11010.3	8206.6	2756.1	1058.9	1008.8	1019.1	909.7	823.5	782.3	781.0
67.5°	11150.6	11487.7	8170.6	2085.8	868.5	893.0	929.0	829.9	748.9	716.7	718.0
70°	11191.8	11431.0	7815.4	1428.2	727.0	779.7	828.6	751.4	667.8	644.6	646.0
72.5°	10643.6	10659.0	6826.0	932.9	615.0	684.5	723.1	671.7	590.6	567.4	566.1
75°	9206.3	8815.2	5011.7	615.0	514.7	588.0	624.0	588.0	509.5	514.7	496.7
77.5°	6975.2	6243.1	3043.0	437.5	429.8	494.0	542.9	517.2	450.4	505.6	445.2
80°	3593.8	3377.6	1357.5	326.9	339.7	395.0	446.5	413.1	356.4	339.7	310.1
82.5°	823.5	957.4	535.3	234.2	245.8	284.3	341.0	310.1	256.0	216.2	213.6
85°	288.2	315.3	236.8	146.7	144.1	177.5	231.6	207.2	173.7	139.0	146.7
87.5°	91.3	119.6	88.8	59.1	61.8	79.7	106.8	97.8	81.1	52.8	55.4
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)