

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: P968414

Luminaire Tested: **NAV-SB5B-830-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968414
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-830-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20021.3 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 182.7
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

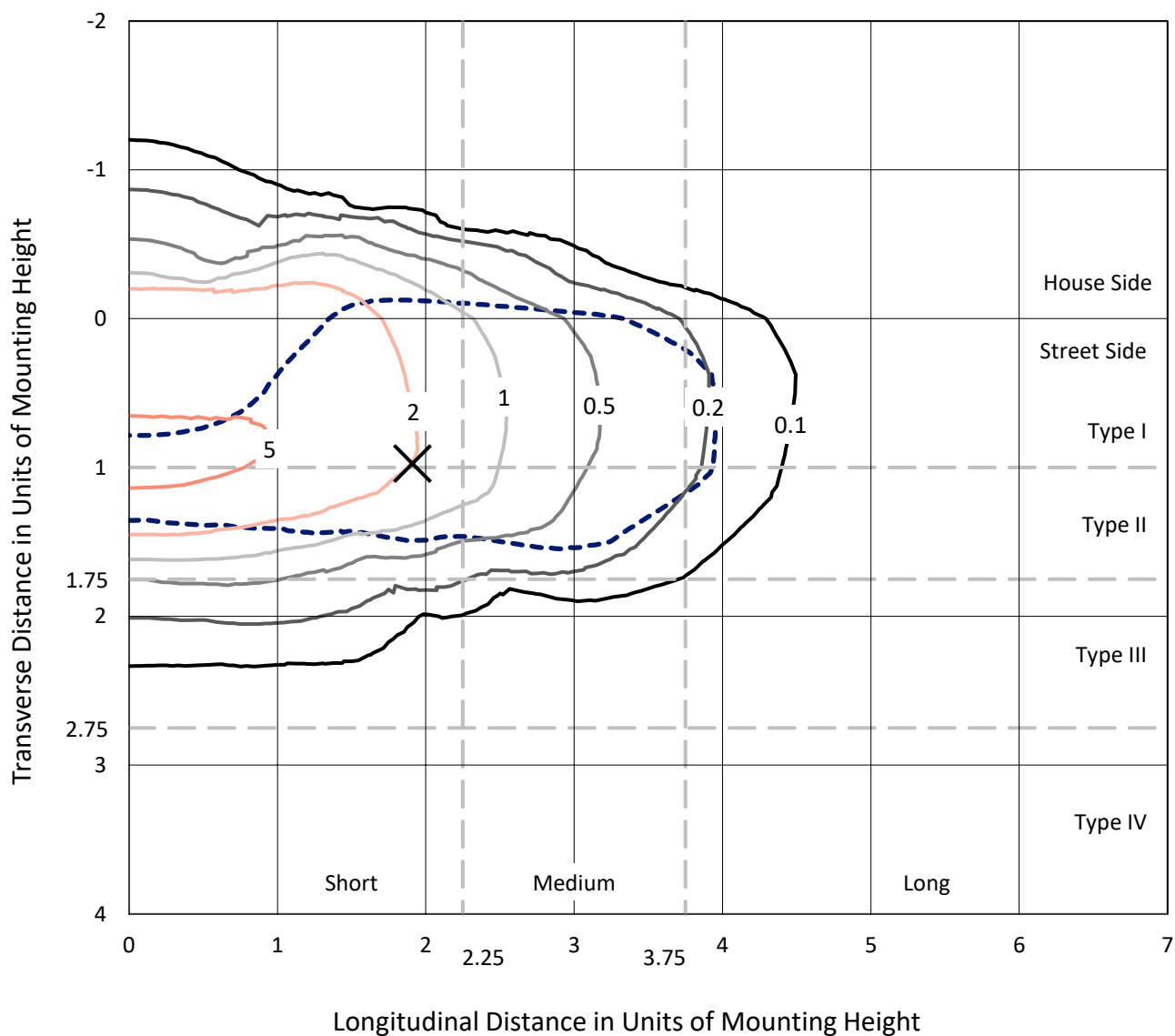


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

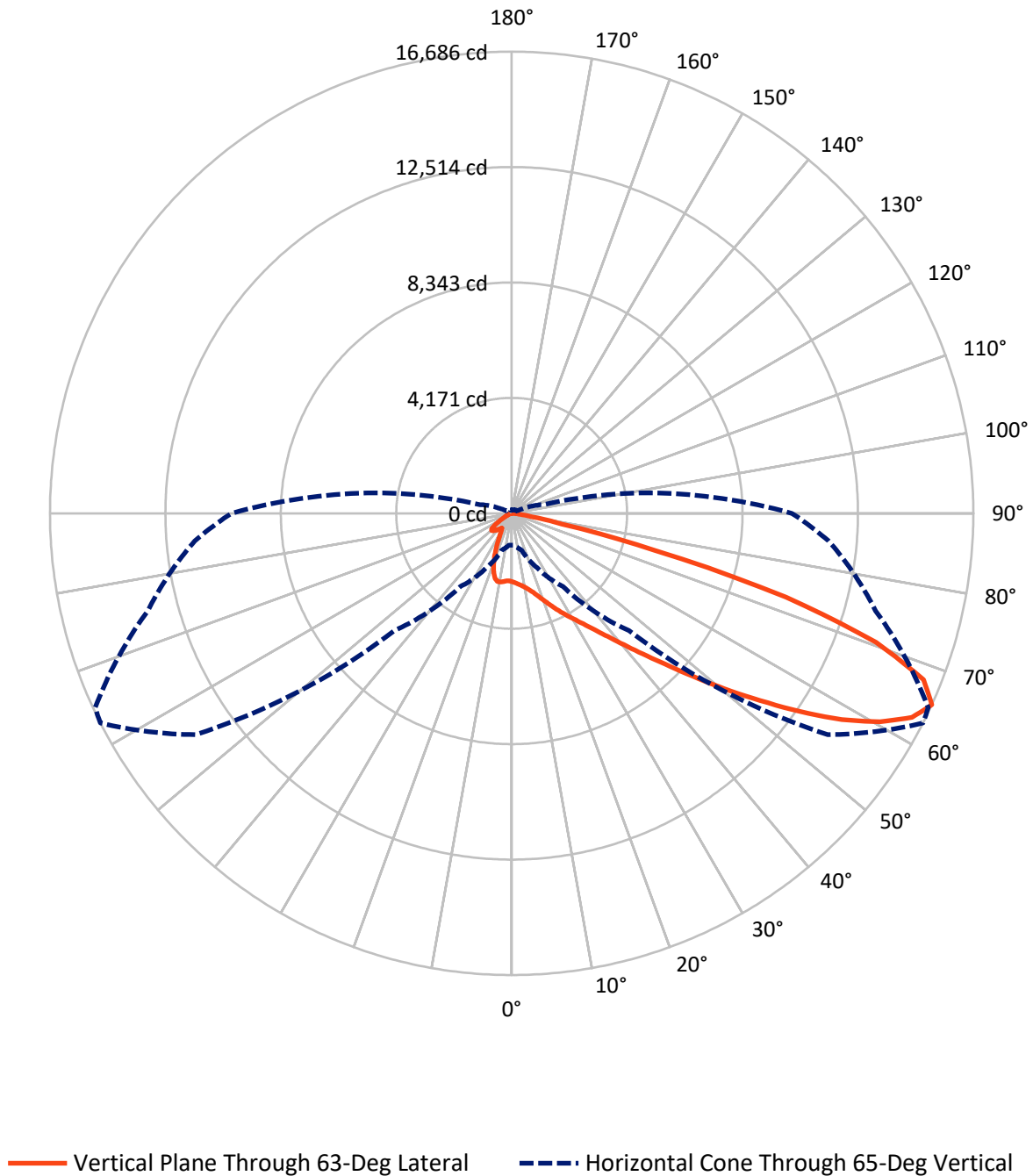


Based on 25 foot mounting height. Maximum calculated value = 6.8 fc

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	2943.0	0.0	2943.0
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	17078.3	0.0	17078.3
	% Fixture	85.3	0.0	85.3
Total	Lumens	20021.3	0.0	20021.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.8	1.2
10°-20°	646.0	3.2
20°-30°	1124.8	5.6
30°-40°	2027.4	10.1
40°-50°	4020.9	20.1
50°-60°	5477.1	27.4
60°-70°	4371.8	21.8
70°-80°	1978.3	9.9
80°-90°	142.2	0.7
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°	20021.3	100.0
0°-180°	20021.3	100.0

Coefficient of Utilization



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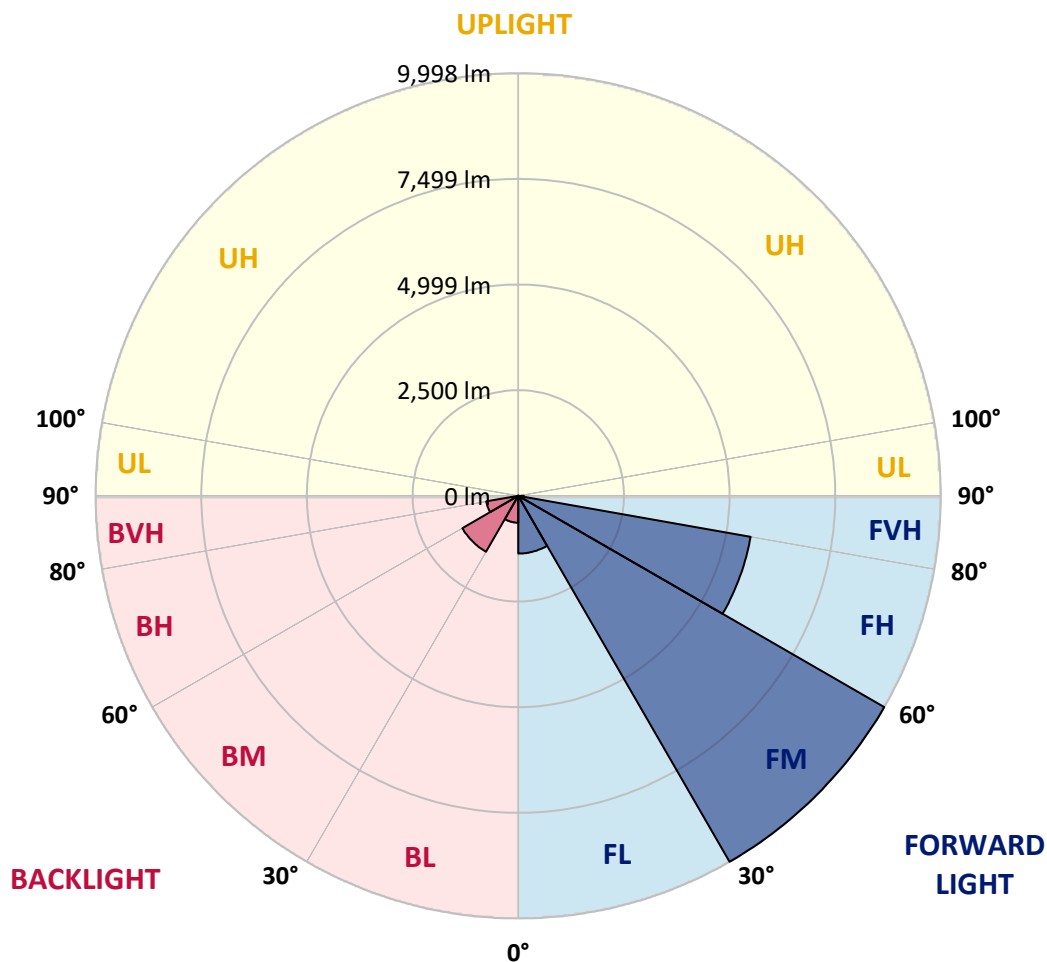
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1366.7	6.8			
FM	(30°-60°)	9998.2	49.9			
FH	(60°-80°)	5581.8	27.9			G3/7500
FVH	(80°-90°)	131.6	0.7			G2/225
BL	(0°-30°)	636.9	3.2	B2/1000		
BM	(30°-60°)	1527.2	7.6	B2/2500		
BH	(60°-80°)	768.3	3.8	B2/1000		G2/1000
BVH	(80°-90°)	10.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0
2.5°	2528.9	2522.0	2531.6	2527.4	2524.7	2519.2	2516.5	2513.7	2508.2	2504.1	2487.6
5°	2535.7	2531.6	2541.3	2549.5	2557.8	2566.1	2570.2	2575.7	2570.2	2559.1	2542.6
7.5°	2477.9	2475.2	2495.8	2520.6	2557.8	2589.5	2623.9	2643.2	2644.6	2640.4	2622.6
10°	2473.7	2466.9	2487.6	2517.8	2566.1	2622.6	2683.1	2724.4	2730.0	2747.8	2728.5
12.5°	2538.5	2531.6	2560.6	2593.6	2643.2	2702.4	2776.8	2834.6	2842.9	2867.6	2853.9
15°	2647.3	2637.6	2670.7	2713.4	2776.8	2844.3	2922.8	2975.2	2982.0	3012.3	2987.6
17.5°	2774.1	2764.4	2803.0	2848.4	2917.3	3009.6	3100.4	3158.3	3166.6	3185.9	3140.4
20°	2936.5	2924.1	2954.5	2995.8	3068.7	3178.9	3287.8	3370.4	3369.1	3369.1	3294.7
22.5°	3125.2	3106.0	3132.2	3165.2	3234.1	3367.6	3512.3	3610.0	3610.0	3571.5	3448.9
25°	3327.8	3308.5	3337.4	3367.6	3428.3	3579.8	3749.2	3870.4	3875.9	3809.8	3614.3
27.5°	3581.1	3556.3	3578.4	3614.3	3650.0	3804.3	4005.4	4145.9	4148.7	4046.7	3771.3
30°	4068.7	3998.5	3929.6	3891.1	3907.6	4060.5	4275.4	4431.0	4444.8	4304.3	3942.0
32.5°	4961.3	4947.6	4705.2	4388.3	4223.0	4336.0	4577.0	4764.3	4772.6	4592.2	4163.8
35°	6348.3	6331.8	5942.0	5338.7	4800.2	4705.2	4943.4	5165.2	5159.6	4955.8	4451.7
37.5°	8003.9	7988.7	7475.0	6667.8	5796.0	5263.0	5415.8	5648.6	5683.0	5415.8	4823.5
40°	9418.5	9362.0	9036.9	8258.7	7118.3	6188.5	6088.0	6242.2	6278.0	5961.3	5296.0
42.5°	10490.1	10441.9	10276.5	9790.4	8718.8	7557.6	6880.0	6939.2	6979.1	6599.0	5838.7
45°	11045.2	11034.1	11100.2	11054.8	10349.6	9238.0	8012.2	7765.6	7780.8	7305.6	6454.4
47.5°	11123.7	11118.2	11419.8	11846.8	11751.7	11133.3	9465.4	8795.9	8742.2	8103.1	7123.7
50°	10660.9	10649.9	11228.4	12028.6	12688.4	12725.6	11115.4	9957.1	9838.6	8928.2	7822.1
52.5°	9183.0	9180.2	10130.6	11462.5	13017.6	14119.5	12746.2	11232.5	11034.1	9801.4	8560.4
55°	7065.9	7116.9	8206.4	9780.8	12417.1	14790.2	14210.4	12648.4	12344.1	10680.2	9240.8
57.5°	5005.4	5079.8	6156.9	7559.1	10554.8	14393.6	15200.7	14067.1	13739.3	11556.2	9930.9
60°	2688.7	2754.8	3833.2	5506.7	7852.4	12914.3	15722.7	15298.5	14988.6	12388.2	10553.4
62.5°	1601.9	1623.9	2070.2	3555.0	5311.1	9866.1	15501.0	16236.5	15981.7	13086.5	11094.7
65°	1150.2	1154.3	1378.7	2170.7	3224.4	5994.3	13945.9	16685.6	16607.0	13612.6	11495.6
67.5°	968.3	965.6	1059.2	1442.1	2196.9	3002.6	10688.4	16050.6	16383.9	13945.9	11722.8
70°	830.6	834.7	944.8	1056.5	1651.5	1699.7	5313.9	13974.8	14685.6	14034.1	11709.1
72.5°	618.5	632.2	734.1	962.8	1246.5	1169.4	1834.6	10362.0	11647.1	13222.8	11101.7
75°	436.6	443.5	516.5	809.9	929.8	851.3	936.6	5356.6	7003.9	10137.5	9086.5
77.5°	336.1	348.5	391.1	566.1	915.9	597.8	573.0	1853.9	2848.4	6123.8	6229.8
80°	181.8	203.9	282.4	409.1	643.2	422.8	283.7	738.3	965.6	2863.5	2402.2
82.5°	93.7	104.7	197.0	294.8	366.3	369.1	140.5	307.2	398.1	884.3	329.2
85°	37.2	45.4	132.2	162.6	188.7	181.8	63.3	123.9	143.3	245.2	100.6
87.5°	8.3	13.7	48.2	37.2	35.8	38.5	15.2	28.9	27.6	28.9	17.9
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°	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0	2471.0
2.5°	2486.1	2480.6	2465.5	2448.9	2429.7	2418.7	2411.8	2410.4	2400.8	2393.9	2400.8
5°	2527.4	2522.0	2493.0	2458.6	2421.5	2392.5	2365.0	2340.2	2304.3	2297.4	2294.7
7.5°	2610.2	2595.0	2548.1	2501.3	2431.1	2347.0	2245.2	2128.0	2023.4	1991.7	1976.5
10°	2712.0	2691.3	2632.2	2549.5	2393.9	2165.2	1918.7	1690.0	1508.2	1457.2	1438.0
12.5°	2827.8	2809.8	2731.3	2578.5	2238.2	1823.7	1446.3	1162.6	986.2	942.1	929.8
15°	2965.5	2939.3	2830.5	2534.4	1960.0	1385.6	993.1	825.0	761.7	753.4	745.2
17.5°	3111.5	3068.7	2918.7	2376.0	1585.4	984.8	767.2	719.0	691.5	683.2	679.1
20°	3245.0	3190.0	2971.0	2136.3	1184.6	767.2	687.3	655.6	630.9	621.2	615.7
22.5°	3378.7	3300.2	2971.0	1809.8	888.4	680.4	630.9	601.9	573.0	560.6	553.7
25°	3517.8	3413.1	2918.7	1446.3	714.8	623.9	577.1	545.4	520.6	505.5	500.0
27.5°	3652.8	3508.2	2798.9	1101.9	636.3	574.4	527.6	497.2	473.9	462.8	462.8
30°	3780.9	3601.8	2630.8	836.1	585.4	526.1	482.1	455.9	432.4	421.5	422.8
32.5°	3954.4	3720.2	2451.7	685.9	541.3	480.7	440.7	415.9	395.3	387.0	387.0
35°	4195.5	3895.2	2297.4	673.5	504.1	443.5	403.5	380.2	359.5	352.6	352.6
37.5°	4537.1	4177.6	2216.2	756.1	473.9	410.4	373.3	348.5	329.2	323.7	322.3
40°	4958.5	4560.5	2260.2	838.9	453.2	381.5	345.7	320.9	304.4	297.6	296.1
42.5°	5458.5	5033.0	2504.1	902.2	439.4	356.7	319.6	292.0	281.0	278.2	278.2
45°	6032.9	5552.2	2877.4	969.6	417.4	333.3	293.4	272.8	264.4	263.1	261.7
47.5°	6685.8	6122.4	3309.8	1053.7	395.3	311.3	272.8	258.9	252.0	249.3	249.3
50°	7333.2	6696.8	3754.7	1100.5	377.4	290.6	256.1	245.2	239.6	238.3	238.3
52.5°	8010.8	7287.6	4114.2	1056.5	362.2	274.1	242.4	234.1	228.7	227.2	227.2
55°	8656.8	7765.6	4176.2	896.7	332.0	257.6	227.2	223.1	216.3	216.3	214.8
57.5°	9213.2	8005.2	3738.2	658.4	301.7	232.8	212.1	208.0	202.4	201.1	199.7
60°	9724.3	7936.5	2885.6	443.5	268.5	208.0	192.8	190.0	184.6	177.6	176.3
62.5°	10012.1	7633.4	1973.7	289.3	235.5	181.8	170.8	169.4	157.0	143.3	140.5
65°	10121.0	7010.8	1231.3	210.7	197.0	155.6	147.4	144.6	126.7	111.5	110.2
67.5°	10025.9	5986.1	621.2	166.7	155.6	129.5	121.3	121.3	108.9	95.0	93.7
70°	9645.8	4487.4	261.7	133.6	119.8	99.2	99.2	104.7	92.2	77.2	75.7
72.5°	8820.7	3019.2	139.1	101.9	89.5	70.2	81.3	85.4	73.0	57.8	57.8
75°	7012.2	1841.5	96.5	75.7	56.5	49.6	62.0	64.8	49.6	38.5	37.2
77.5°	4796.0	1057.8	64.8	48.2	35.8	28.9	42.7	40.0	26.1	17.9	19.3
80°	2106.0	440.7	37.2	22.0	13.7	11.1	15.2	11.1	8.3	5.5	5.5
82.5°	246.5	103.3	13.7	8.3	5.5	2.8	1.3	0.0	0.0	0.0	0.0
85°	50.9	12.4	6.9	2.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.6	2.8	1.3	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)