

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: P965252

Luminaire Tested: **NAV-SB3D-830-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965252
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-SB3D-830-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 900mA 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: 21491.2 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 218.1
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



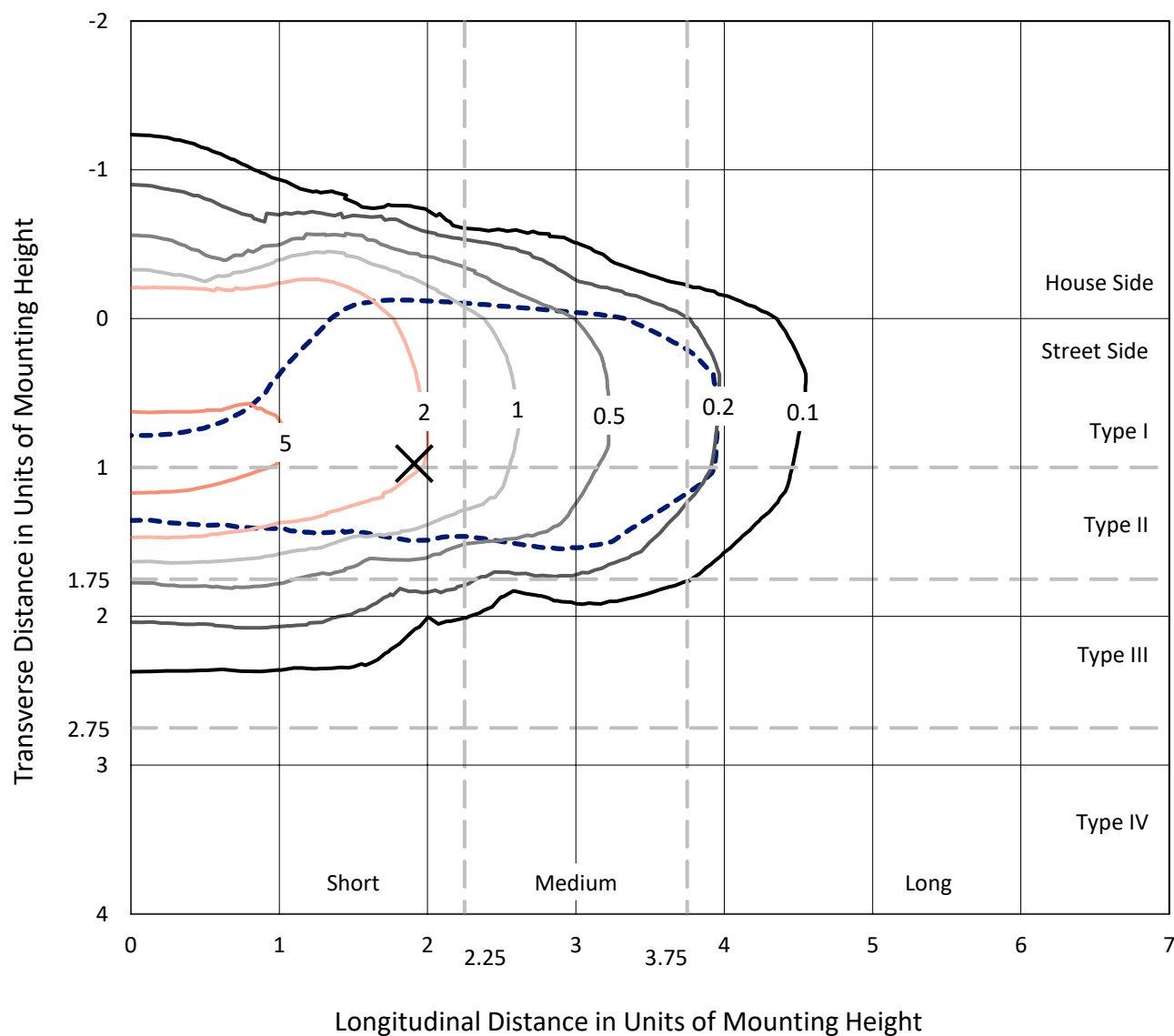
REPORT NUMBER: P965252

CATALOG NUMBER: NAV-SB3D-830-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

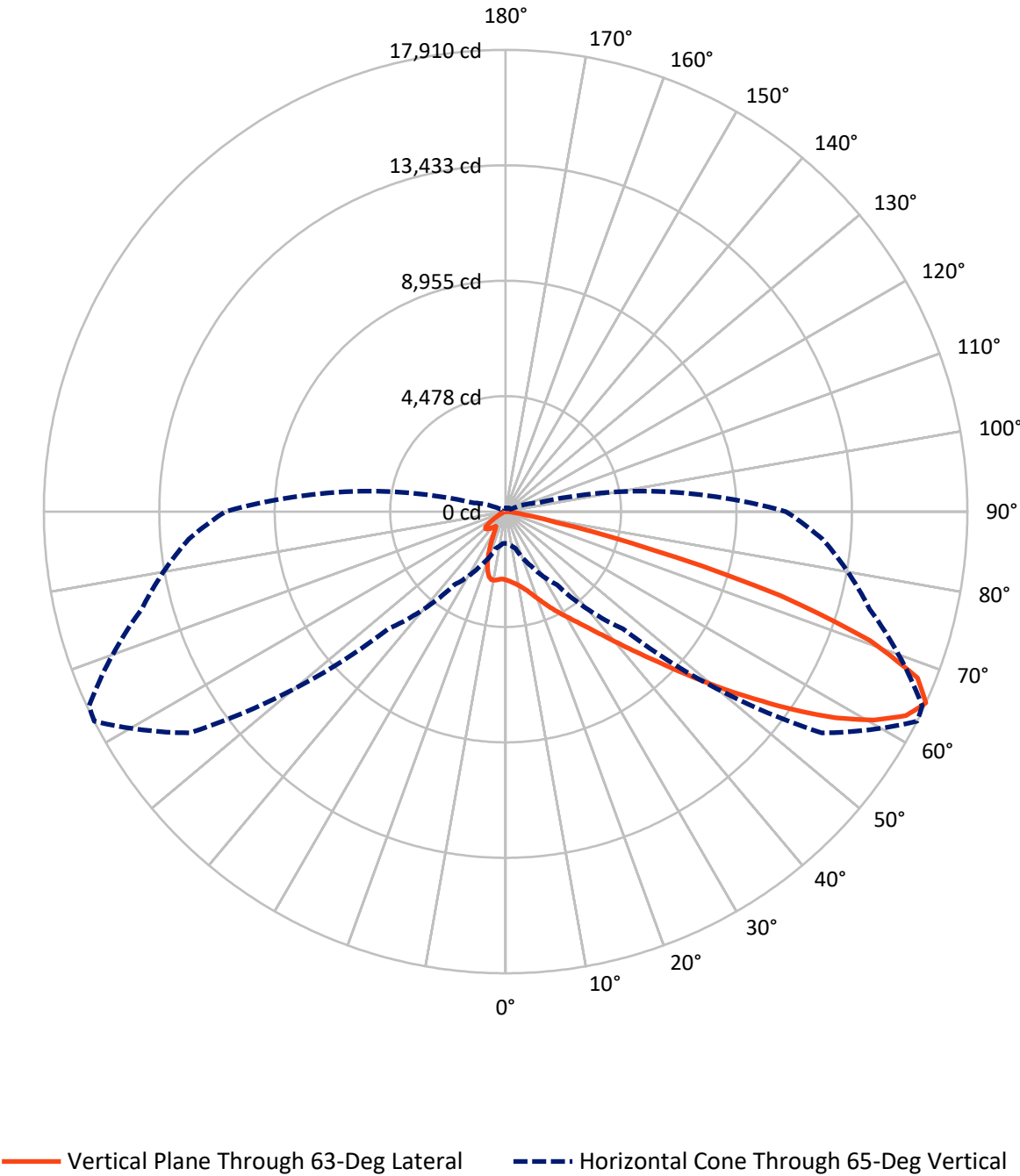


Based on 25 foot mounting height. Maximum calculated value = 7.3 fc

Type II - Short - N/A

REPORT NUMBER: P965252
CATALOG NUMBER: NAV-SB3D-830-U-T2U-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3159.0	0.0	3159.0
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	18332.1	0.0	18332.1
	% Fixture	85.3	0.0	85.3
Total	Lumens	21491.2	0.0	21491.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.9	1.2
10°-20°	693.4	3.2
20°-30°	1207.4	5.6
30°-40°	2176.2	10.1
40°-50°	4316.1	20.1
50°-60°	5879.2	27.4
60°-70°	4692.8	21.8
70°-80°	2123.6	9.9
80°-90°	152.6	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°	21491.2	100.0
0°-180°	21491.2	100.0

Coefficient of Utilization



REPORT NUMBER: P965252

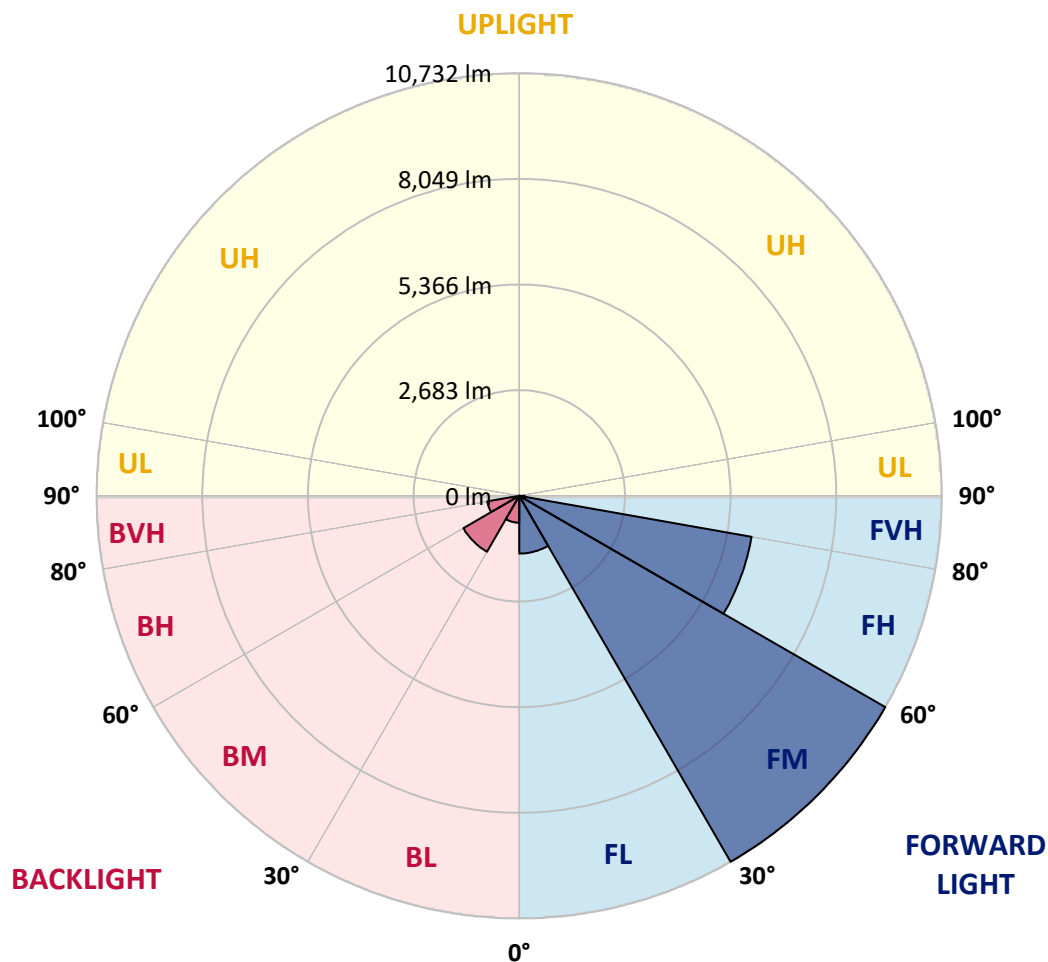
CATALOG NUMBER: NAV-SB3D-830-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1467.0	6.8			
FM	(30°-60°)	10732.2	49.9			
FH	(60°-80°)	5991.6	27.9			G3/7500
FVH	(80°-90°)	141.3	0.7			G2/225
BL	(0°-30°)	683.7	3.2	B2/1000		
BM	(30°-60°)	1639.3	7.6	B2/2500		
BH	(60°-80°)	824.7	3.8	B2/1000		G2/1000
BVH	(80°-90°)	11.3	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



REPORT NUMBER: P965252

CATALOG NUMBER: NAV-SB3D-830-U-T2U-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4
2.5°	2714.5	2707.1	2717.5	2713.1	2710.1	2704.2	2701.2	2698.2	2692.4	2687.9	2670.1
5°	2721.9	2717.5	2727.8	2736.6	2745.6	2754.5	2758.9	2764.7	2758.9	2747.0	2729.3
7.5°	2659.8	2656.9	2679.0	2705.7	2745.6	2779.6	2816.5	2837.2	2838.7	2834.2	2815.1
10°	2655.4	2648.0	2670.1	2702.7	2754.5	2815.1	2880.1	2924.4	2930.4	2949.6	2928.9
12.5°	2724.9	2717.5	2748.5	2784.0	2837.2	2900.9	2980.6	3042.7	3051.6	3078.2	3063.4
15°	2841.7	2831.4	2866.8	2912.6	2980.6	3053.1	3137.3	3193.6	3201.0	3233.5	3206.8
17.5°	2977.7	2967.4	3008.8	3057.6	3131.5	3230.5	3328.1	3390.2	3399.1	3419.7	3370.9
20°	3152.2	3138.9	3171.4	3215.7	3294.0	3412.3	3529.2	3617.8	3616.4	3616.4	3536.6
22.5°	3354.7	3334.0	3362.1	3397.6	3471.5	3614.9	3770.2	3875.1	3875.1	3833.7	3702.2
25°	3572.0	3551.3	3582.4	3614.9	3680.0	3842.6	4024.5	4154.5	4160.5	4089.5	3879.5
27.5°	3844.1	3817.5	3841.1	3879.5	3918.0	4083.6	4299.5	4450.2	4453.2	4343.8	4048.1
30°	4367.4	4292.1	4218.2	4176.8	4194.5	4358.6	4589.2	4756.3	4771.1	4620.3	4231.4
32.5°	5325.5	5310.7	5050.5	4710.5	4533.1	4654.3	4913.0	5114.1	5123.0	4929.3	4469.5
35°	6814.4	6796.7	6378.3	5730.7	5152.6	5050.5	5306.3	5544.3	5538.5	5319.6	4778.4
37.5°	8591.6	8575.3	8023.8	7157.4	6221.5	5649.3	5813.4	6063.3	6100.3	5813.4	5177.7
40°	10110.0	10049.3	9700.4	8865.0	7640.9	6642.8	6535.0	6700.5	6739.0	6398.9	5684.9
42.5°	11260.2	11208.5	11031.0	10509.1	9358.9	8112.5	7385.1	7448.7	7491.5	7083.5	6267.4
45°	11856.1	11844.2	11915.2	11866.4	11109.4	9916.3	8600.4	8335.7	8352.0	7842.0	6928.2
47.5°	11940.3	11934.4	12258.2	12716.6	12614.5	11950.7	10160.2	9441.7	9384.0	8697.9	7646.8
50°	11443.5	11431.7	12052.7	12911.7	13619.9	13659.8	11931.4	10688.0	10560.9	9583.5	8396.4
52.5°	9857.1	9854.1	10874.3	12304.0	13973.2	15156.1	13682.0	12057.1	11844.2	10520.9	9188.8
55°	7584.7	7639.3	8808.8	10498.8	13328.6	15876.0	15253.6	13577.0	13250.3	11464.2	9919.2
57.5°	5372.8	5452.7	6608.9	8114.0	11329.7	15450.2	16316.7	15099.9	14748.0	12404.6	10659.9
60°	2886.0	2957.0	4114.7	5911.0	8428.9	13862.3	16877.0	16421.6	16089.0	13297.5	11328.2
62.5°	1719.4	1743.1	2222.2	3816.0	5701.0	10590.4	16638.9	17428.5	17154.9	14047.2	11909.3
65°	1234.5	1239.0	1480.0	2330.1	3461.1	6434.4	14969.7	17910.4	17826.2	14612.0	12339.5
67.5°	1039.4	1036.4	1136.9	1548.0	2358.2	3223.1	11473.1	17228.9	17586.6	14969.7	12583.4
70°	891.5	896.0	1014.2	1134.0	1772.7	1824.5	5704.0	15000.8	15763.7	15064.3	12568.7
72.5°	663.9	678.7	788.0	1033.5	1338.0	1255.2	1969.3	11122.7	12502.1	14193.6	11916.6
75°	468.7	476.1	554.4	869.4	997.9	913.7	1005.4	5749.8	7518.2	10881.7	9753.6
77.5°	360.8	374.0	419.9	607.6	983.2	641.6	615.1	1990.0	3057.6	6573.4	6687.2
80°	195.2	218.8	303.1	439.1	690.4	453.9	304.5	792.4	1036.4	3073.8	2578.5
82.5°	100.6	112.3	211.5	316.4	393.3	396.3	150.8	329.7	427.3	949.1	353.3
85°	39.9	48.8	142.0	174.5	202.5	195.2	68.1	133.0	153.8	263.2	107.9
87.5°	8.9	14.8	51.8	39.9	38.4	41.4	16.3	31.1	29.5	31.1	19.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P965252

CATALOG NUMBER: NAV-SB3D-830-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4	2652.4
2.5°	2668.7	2662.7	2646.5	2628.7	2608.1	2596.2	2588.8	2587.4	2577.1	2569.6	2577.1
5°	2713.1	2707.1	2676.1	2639.1	2599.2	2568.1	2538.6	2512.0	2473.5	2466.1	2463.2
7.5°	2801.7	2785.4	2735.2	2685.0	2609.5	2519.3	2410.0	2284.3	2171.9	2137.9	2121.6
10°	2911.1	2889.0	2825.4	2736.6	2569.6	2324.2	2059.5	1814.1	1619.0	1564.3	1543.5
12.5°	3035.3	3016.2	2931.8	2767.7	2402.6	1957.5	1552.5	1247.8	1058.6	1011.3	997.9
15°	3183.2	3155.2	3038.3	2720.5	2103.9	1487.4	1066.0	885.6	817.6	808.7	799.9
17.5°	3340.0	3294.0	3132.9	2550.4	1701.7	1057.1	823.5	771.7	742.2	733.3	728.9
20°	3483.4	3424.2	3189.1	2293.1	1271.5	823.5	737.8	703.8	677.1	666.8	660.9
22.5°	3626.8	3542.5	3189.1	1942.8	953.7	730.4	677.1	646.1	615.1	601.8	594.4
25°	3776.1	3663.7	3132.9	1552.5	767.3	669.7	619.5	585.5	558.8	542.6	536.7
27.5°	3920.9	3765.7	3004.3	1182.7	683.1	616.5	566.3	533.7	508.6	496.8	496.8
30°	4058.5	3866.3	2823.9	897.5	628.3	564.8	517.5	489.3	464.2	452.4	453.9
32.5°	4244.7	3993.4	2631.7	736.3	581.1	516.0	473.1	446.5	424.4	415.4	415.4
35°	4503.4	4181.2	2466.1	722.9	541.1	476.1	433.2	408.1	385.9	378.5	378.5
37.5°	4870.2	4484.3	2378.9	811.7	508.6	440.5	400.7	374.0	353.3	347.5	345.9
40°	5322.6	4895.3	2426.2	900.4	486.5	409.6	371.2	344.5	326.8	319.4	317.9
42.5°	5859.3	5402.4	2687.9	968.4	471.6	382.9	343.0	313.4	301.7	298.7	298.7
45°	6475.8	5959.8	3088.5	1040.9	448.0	357.8	314.9	292.7	283.8	282.4	281.0
47.5°	7176.6	6571.9	3552.9	1131.1	424.4	334.2	292.7	278.0	270.6	267.6	267.6
50°	7871.5	7188.4	4030.4	1181.3	405.1	312.0	275.0	263.2	257.3	255.7	255.7
52.5°	8598.9	7822.7	4416.2	1134.0	388.9	294.2	260.2	251.3	245.4	244.0	244.0
55°	9292.3	8335.7	4482.8	962.5	356.3	276.4	244.0	239.5	232.2	232.2	230.6
57.5°	9889.6	8593.0	4012.7	706.7	323.8	249.9	227.7	223.2	217.3	215.9	214.4
60°	10438.2	8519.1	3097.4	476.1	288.3	223.2	206.9	204.1	198.1	190.8	189.2
62.5°	10747.1	8193.8	2118.7	310.5	252.9	195.2	183.4	181.8	168.5	153.8	150.8
65°	10864.0	7525.6	1321.7	226.2	211.5	167.1	158.2	155.3	136.0	119.7	118.3
67.5°	10762.0	6425.5	666.8	178.9	167.1	139.0	130.1	130.1	116.8	102.0	100.6
70°	10353.9	4816.9	281.0	143.4	128.6	106.5	106.5	112.3	99.0	82.8	81.3
72.5°	9468.2	3240.8	149.3	109.4	96.1	75.4	87.2	91.6	78.3	62.1	62.1
75°	7527.0	1976.7	103.5	81.3	60.6	53.2	66.5	69.5	53.2	41.4	39.9
77.5°	5148.2	1135.5	69.5	51.8	38.4	31.1	45.8	42.8	28.1	19.3	20.7
80°	2260.6	473.1	39.9	23.7	14.8	11.8	16.3	11.8	8.9	5.9	5.9
82.5°	264.7	110.9	14.8	8.9	5.9	3.0	1.4	0.0	0.0	0.0	0.0
85°	54.7	13.3	7.4	3.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.4	3.0	1.4	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)