

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: P966678

Luminaire Tested: **NAV-SB4C-735-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966678
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-SB4C-735-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 615mA 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: 23511.4 lumens
Efficiency: N/A
Efficacy: 117.1 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): 200.7
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



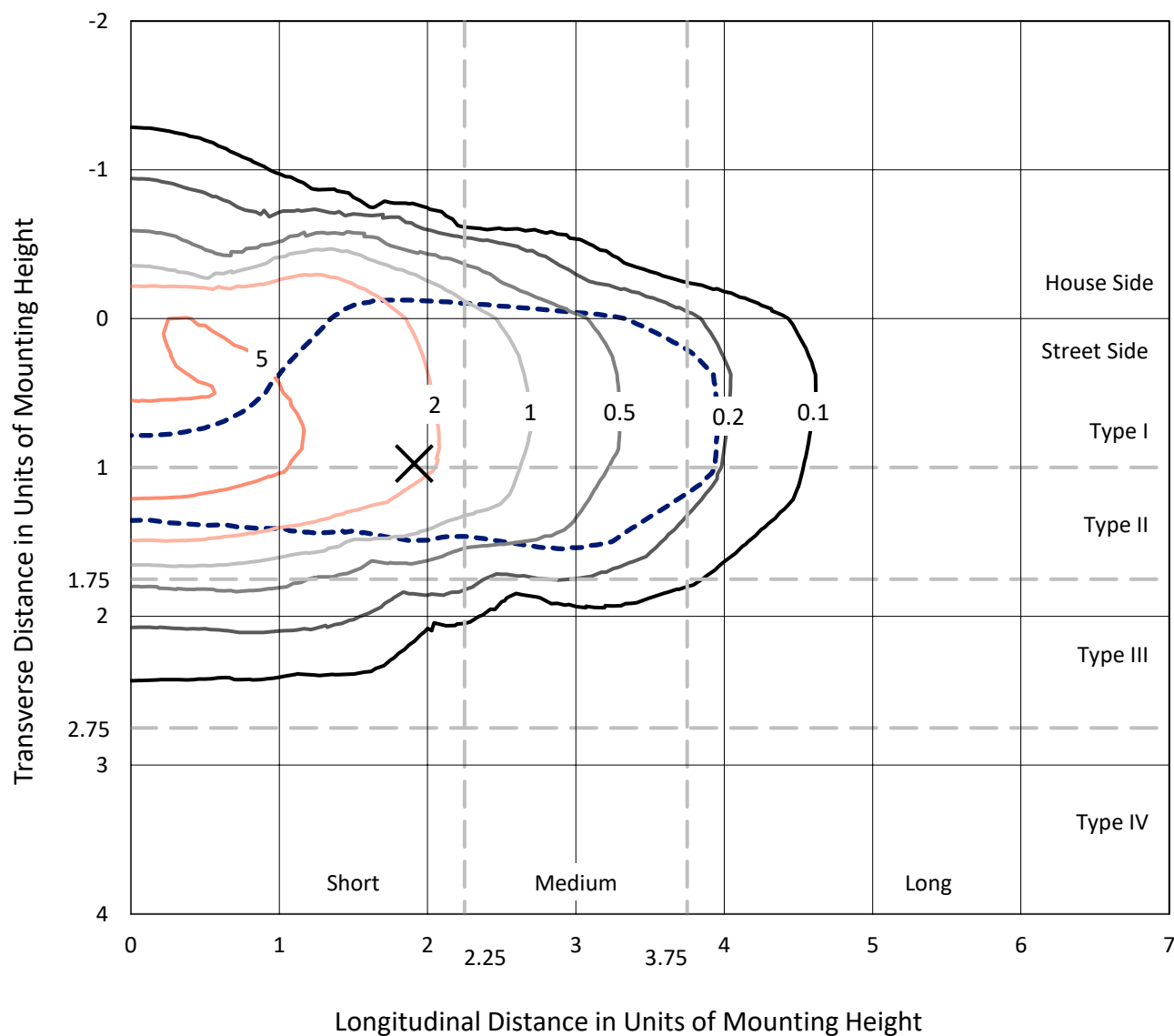
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

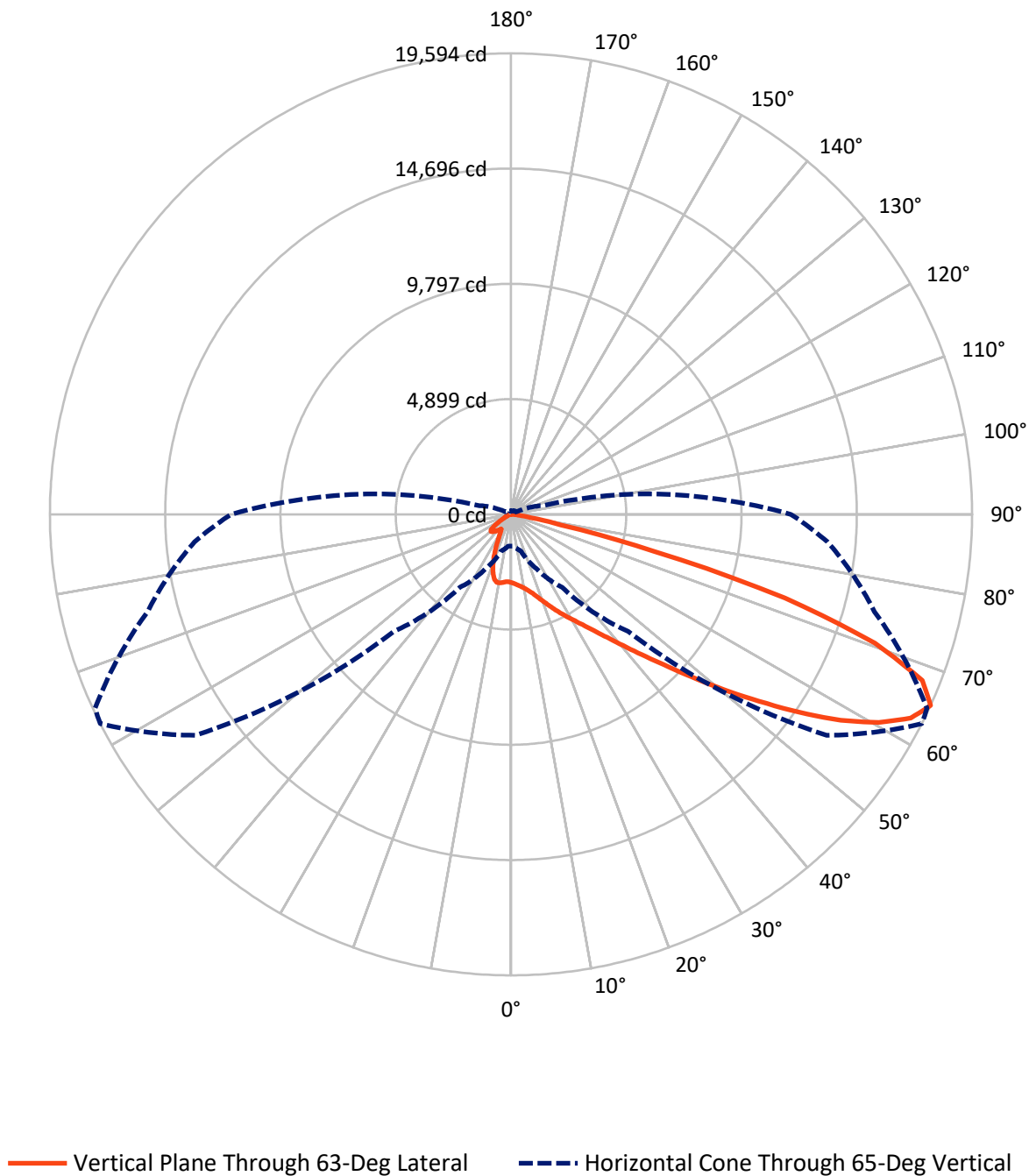


Based on 25 foot mounting height. Maximum calculated value = 8 fc

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	3456.0	0.0	3456.0
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	20055.4	0.0	20055.4
	% Fixture	85.3	0.0	85.3
Total	Lumens	23511.4	0.0	23511.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.4	1.2
10°-20°	758.6	3.2
20°-30°	1320.9	5.6
30°-40°	2380.8	10.1
40°-50°	4721.8	20.1
50°-60°	6431.9	27.4
60°-70°	5133.9	21.8
70°-80°	2323.2	9.9
80°-90°	167.0	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°	23511.4	100.0
0°-180°	23511.4	100.0

Coefficient of Utilization



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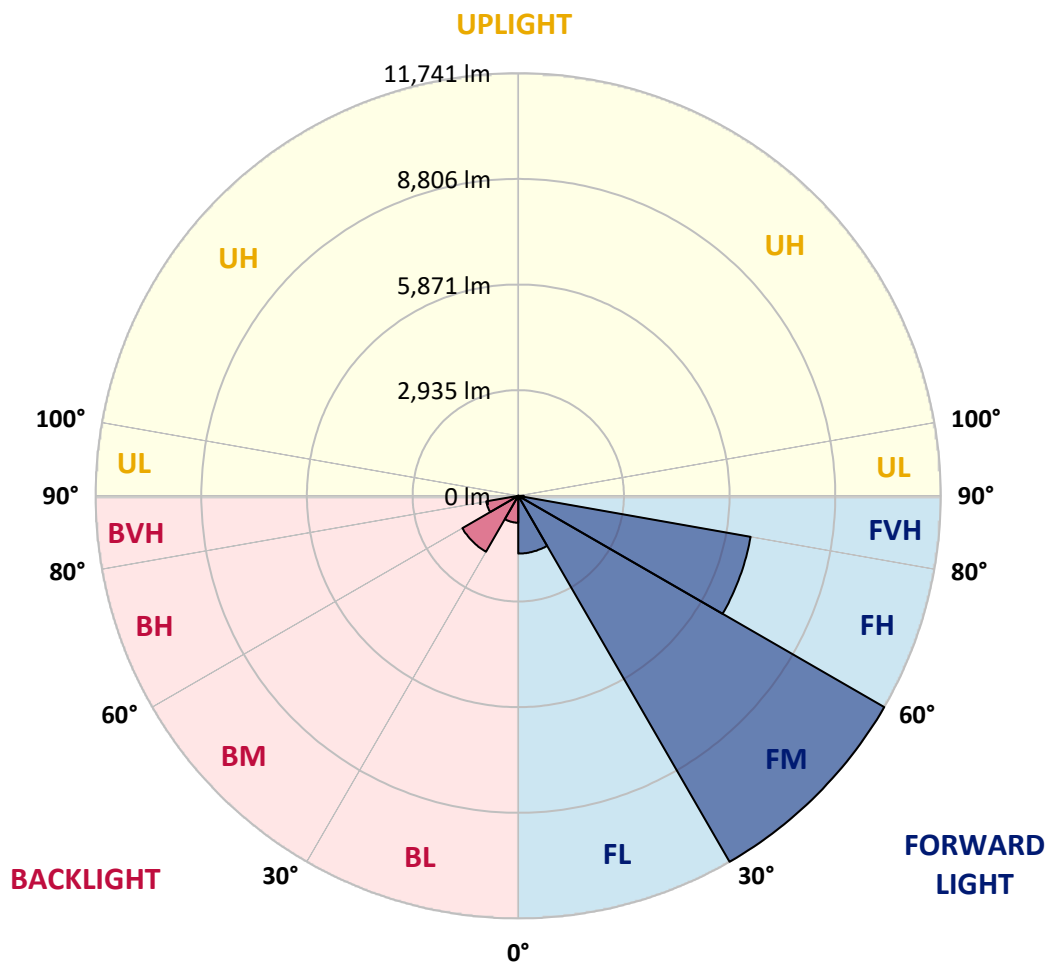
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1604.9	6.8			
FM	(30°-60°)	11741.0	49.9			
FH	(60°-80°)	6554.9	27.9			G3/7500
FVH	(80°-90°)	154.6	0.7			G2/225
BL	(0°-30°)	747.9	3.2	B2/1000		
BM	(30°-60°)	1793.5	7.6	B2/2500		
BH	(60°-80°)	902.2	3.8	B2/1000		G2/1000
BVH	(80°-90°)	12.4	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°	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8
2.5°	2969.7	2961.6	2972.9	2968.1	2964.8	2958.4	2955.2	2951.9	2945.4	2940.6	2921.1
5°	2977.7	2972.9	2984.3	2993.9	3003.7	3013.4	3018.2	3024.7	3018.2	3005.3	2985.8
7.5°	2909.9	2906.6	2930.9	2960.0	3003.7	3040.9	3081.3	3103.9	3105.5	3100.7	3079.7
10°	2905.0	2896.9	2921.1	2956.7	3013.4	3079.7	3150.8	3199.3	3205.9	3226.9	3204.3
12.5°	2981.0	2972.9	3006.9	3045.7	3103.9	3173.5	3260.8	3328.8	3338.5	3367.6	3351.4
15°	3108.8	3097.4	3136.3	3186.4	3260.8	3340.1	3432.3	3493.7	3501.8	3537.4	3508.3
17.5°	3257.6	3246.3	3291.6	3345.0	3425.9	3534.2	3640.9	3708.9	3718.6	3741.2	3687.8
20°	3448.5	3434.0	3469.5	3518.0	3603.7	3733.2	3861.0	3957.9	3956.4	3956.4	3869.0
22.5°	3670.0	3647.5	3678.1	3717.0	3797.8	3954.8	4124.6	4239.4	4239.4	4194.1	4050.2
25°	3907.8	3885.2	3919.2	3954.8	4025.9	4203.8	4402.8	4545.2	4551.6	4473.9	4244.2
27.5°	4205.5	4176.4	4202.2	4244.2	4286.3	4467.5	4703.6	4868.6	4871.8	4752.1	4428.6
30°	4778.0	4695.5	4614.7	4569.3	4588.8	4768.3	5020.7	5203.4	5219.6	5054.6	4629.2
32.5°	5826.2	5810.0	5525.3	5153.3	4959.2	5091.8	5374.9	5594.9	5604.6	5392.6	4889.7
35°	7454.9	7435.6	6977.8	6269.3	5636.9	5525.3	5805.1	6065.5	6059.1	5819.6	5227.7
37.5°	9399.1	9381.4	8778.1	7830.2	6806.3	6180.3	6359.9	6633.3	6673.7	6359.9	5664.5
40°	11060.4	10994.0	10612.2	9698.4	8359.1	7267.4	7149.3	7330.4	7372.5	7000.4	6219.2
42.5°	12318.8	12262.1	12068.0	11497.0	10238.6	8875.1	8079.4	8148.9	8195.8	7749.3	6856.5
45°	12970.6	12957.6	13035.2	12981.9	12153.7	10848.4	9408.9	9119.3	9137.2	8579.1	7579.5
47.5°	13062.8	13056.2	13410.5	13911.9	13800.3	13074.1	11115.3	10329.2	10266.1	9515.6	8365.6
50°	12519.2	12506.3	13185.7	14125.4	14900.2	14943.9	13053.1	11692.8	11553.7	10484.5	9185.6
52.5°	10783.7	10780.5	11896.6	13460.7	15286.7	16580.8	14968.2	13190.5	12957.6	11509.9	10052.6
55°	8297.7	8357.5	9636.9	11485.7	14581.5	17368.5	16687.5	14853.3	14495.9	12541.9	10851.7
57.5°	5878.0	5965.3	7230.1	8876.7	12394.7	16902.7	17850.5	16519.3	16134.3	13570.7	11662.0
60°	3157.3	3235.0	4501.5	6466.7	9221.2	15165.5	18463.5	17965.4	17601.4	14547.6	12393.2
62.5°	1881.1	1907.0	2431.1	4174.7	6237.0	11586.0	18203.1	19066.8	18767.6	15367.6	13028.8
65°	1350.6	1355.5	1619.1	2549.2	3786.6	7039.3	16376.9	19594.1	19502.0	15985.6	13499.5
67.5°	1137.1	1133.9	1243.8	1693.5	2579.9	3526.1	12551.6	18848.5	19239.9	16376.9	13766.4
70°	975.4	980.2	1109.6	1240.6	1939.4	1996.0	6240.2	16411.0	17245.5	16480.5	13750.2
72.5°	726.2	742.4	862.1	1130.6	1463.8	1373.2	2154.4	12168.3	13677.4	15527.8	13036.9
75°	512.7	520.8	606.6	951.1	1091.8	999.6	1099.9	6290.4	8224.9	11904.7	10670.6
77.5°	394.6	409.2	459.4	664.8	1075.6	702.0	672.9	2177.1	3345.0	7191.3	7315.8
80°	213.5	239.3	331.6	480.4	755.3	496.6	333.2	866.9	1133.9	3362.7	2820.9
82.5°	110.0	122.9	231.3	346.1	430.3	433.5	165.0	360.7	467.5	1038.4	386.5
85°	43.7	53.4	155.3	190.9	221.6	213.5	74.4	145.5	168.2	287.9	118.1
87.5°	9.7	16.2	56.6	43.7	42.0	45.3	17.8	33.9	32.4	33.9	21.0
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°	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8	2901.8
2.5°	2919.5	2913.0	2895.3	2875.8	2853.2	2840.3	2832.2	2830.5	2819.3	2811.2	2819.3
5°	2968.1	2961.6	2927.6	2887.2	2843.6	2809.5	2777.2	2748.1	2706.0	2698.0	2694.7
7.5°	3065.2	3047.3	2992.4	2937.3	2854.8	2756.2	2636.5	2499.1	2376.1	2338.8	2321.1
10°	3184.8	3160.6	3091.0	2993.9	2811.2	2542.7	2253.2	1984.6	1771.1	1711.3	1688.7
12.5°	3320.7	3299.7	3207.4	3028.0	2628.4	2141.5	1698.3	1365.2	1158.1	1106.4	1091.8
15°	3482.4	3451.7	3323.9	2976.2	2301.6	1627.2	1166.2	968.8	894.4	884.8	875.0
17.5°	3653.9	3603.7	3427.4	2790.2	1861.7	1156.5	901.0	844.3	812.0	802.3	797.4
20°	3810.7	3746.1	3488.9	2508.7	1391.0	901.0	807.1	769.9	740.8	729.5	723.0
22.5°	3967.7	3875.5	3488.9	2125.3	1043.2	799.0	740.8	706.8	672.9	658.4	650.3
25°	4131.1	4008.2	3427.4	1698.3	839.5	732.7	677.7	640.5	611.4	593.6	587.1
27.5°	4289.5	4119.7	3286.8	1294.0	747.2	674.4	619.5	583.9	556.4	543.5	543.5
30°	4440.0	4229.7	3089.4	981.8	687.5	617.9	566.1	535.4	507.9	495.0	496.6
32.5°	4643.8	4368.9	2879.1	805.5	635.7	564.5	517.6	488.5	464.2	454.5	454.5
35°	4926.9	4574.3	2698.0	791.0	592.0	520.8	474.0	446.4	422.2	414.1	414.1
37.5°	5328.0	4905.9	2602.5	888.0	556.4	482.1	438.3	409.2	386.5	380.1	378.5
40°	5822.9	5355.5	2654.2	985.0	532.2	448.0	406.0	376.9	357.4	349.4	347.8
42.5°	6410.0	5910.3	2940.6	1059.4	516.0	418.9	375.3	342.9	329.9	326.8	326.8
45°	7084.6	6520.0	3378.9	1138.7	490.1	391.4	344.5	320.2	310.6	308.9	307.3
47.5°	7851.2	7189.7	3886.8	1237.4	464.2	365.5	320.2	304.1	296.0	292.7	292.7
50°	8611.4	7864.2	4409.2	1292.3	443.2	341.3	300.8	287.9	281.5	279.8	279.8
52.5°	9407.2	8558.0	4831.4	1240.6	425.4	321.8	284.6	275.0	268.5	266.9	266.9
55°	10165.8	9119.3	4904.2	1053.0	389.8	302.5	266.9	262.0	254.0	254.0	252.4
57.5°	10819.3	9400.8	4389.9	773.2	354.2	273.4	249.1	244.3	237.8	236.2	234.5
60°	11419.4	9319.9	3388.6	520.8	315.4	244.3	226.4	223.2	216.8	208.7	207.0
62.5°	11757.5	8964.0	2317.8	339.7	276.5	213.5	200.6	199.0	184.4	168.2	165.0
65°	11885.3	8233.0	1446.1	247.4	231.3	182.8	173.0	169.8	148.8	131.0	129.4
67.5°	11773.7	7029.6	729.5	195.7	182.8	152.0	142.4	142.4	127.8	111.6	110.0
70°	11327.2	5269.7	307.3	156.9	140.7	116.4	116.4	122.9	108.3	90.6	89.0
72.5°	10358.3	3545.5	163.4	119.7	105.2	82.5	95.4	100.2	85.7	68.0	68.0
75°	8234.5	2162.5	113.3	89.0	66.3	58.2	72.8	76.1	58.2	45.3	43.7
77.5°	5632.1	1242.2	76.1	56.6	42.0	33.9	50.1	46.9	30.7	21.0	22.7
80°	2473.1	517.6	43.7	25.8	16.2	12.9	17.8	12.9	9.7	6.5	6.5
82.5°	289.6	121.4	16.2	9.7	6.5	3.3	1.6	0.0	0.0	0.0	0.0
85°	59.9	14.6	8.1	3.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	11.3	3.3	1.6	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)