

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: P967363

Luminaire Tested: **NAV-SB4D-830-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967363
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29458.5 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 293.6
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

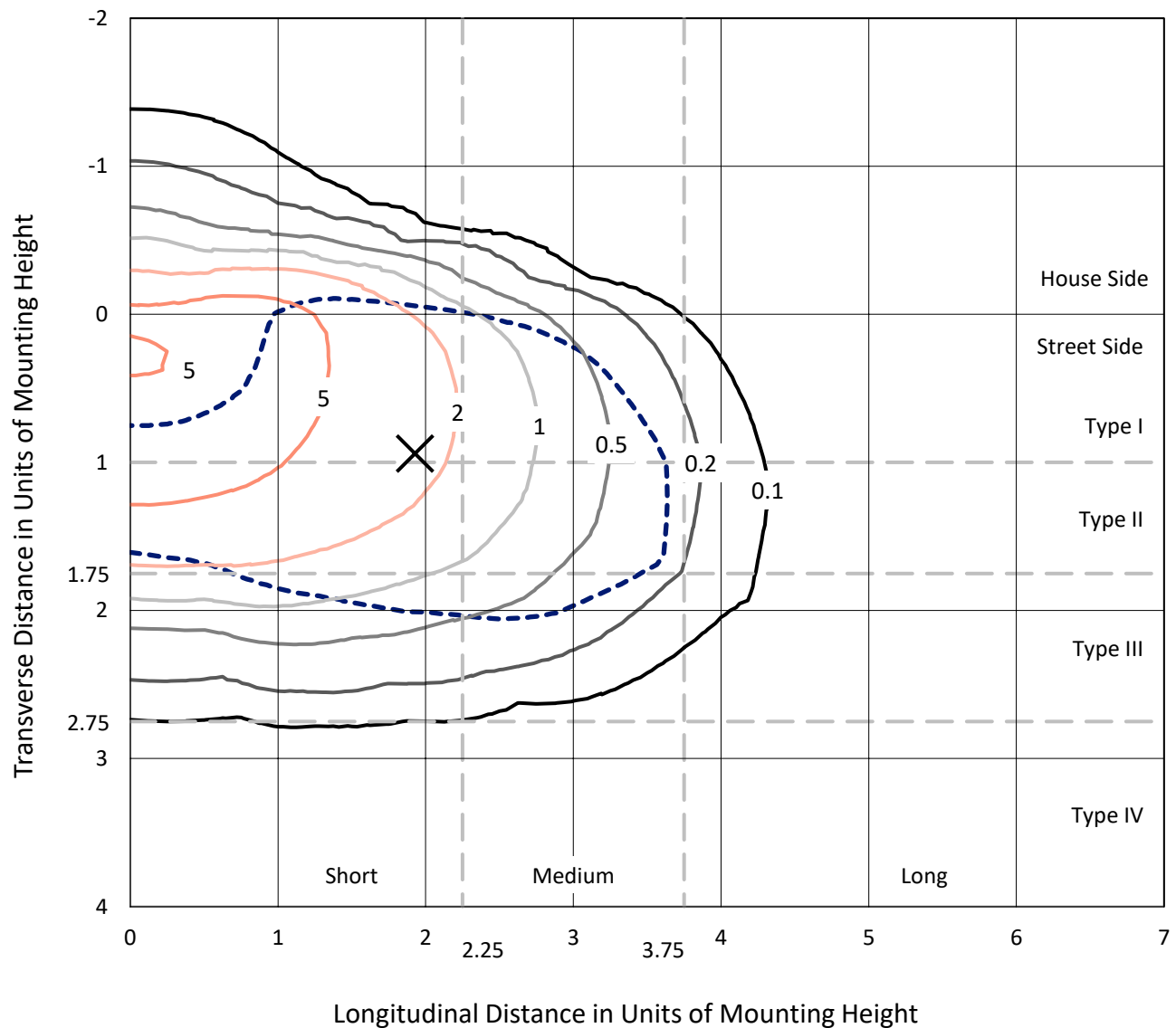


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

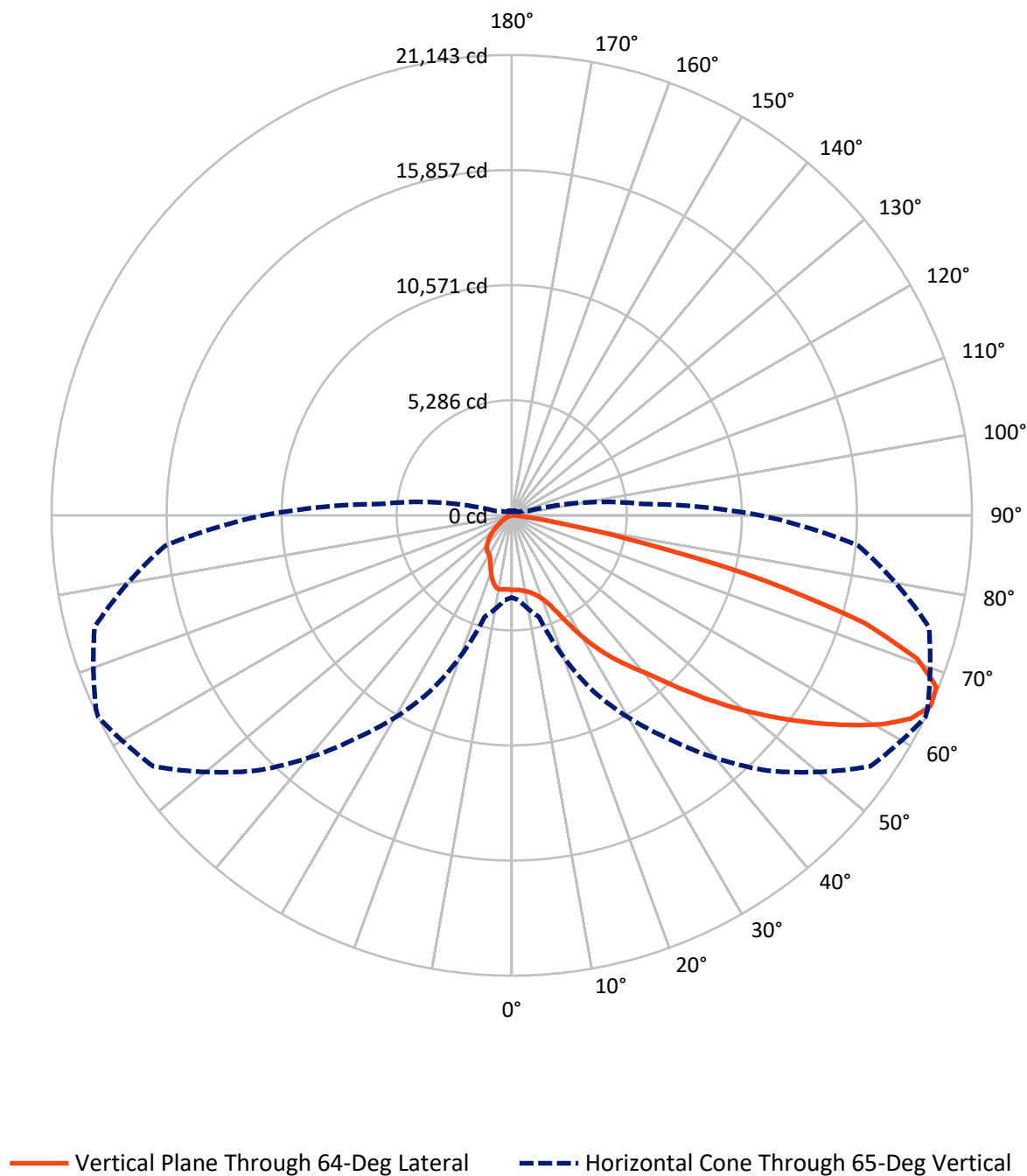


Based on 25 foot mounting height. Maximum calculated value = 8.6 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3939.5	0.0	3939.5
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	25519.0	0.0	25519.0
	% Fixture	86.6	0.0	86.6
Total	Lumens	29458.5	0.0	29458.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.1	1.1
10°-20°	857.4	2.9
20°-30°	1624.7	5.5
30°-40°	3287.6	11.2
40°-50°	5600.4	19.0
50°-60°	7616.2	25.9
60°-70°	7152.0	24.3
70°-80°	2865.4	9.7
80°-90°	138.8	0.5
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°	29458.5	100.0
0°-180°	29458.5	100.0

Coefficient of Utilization



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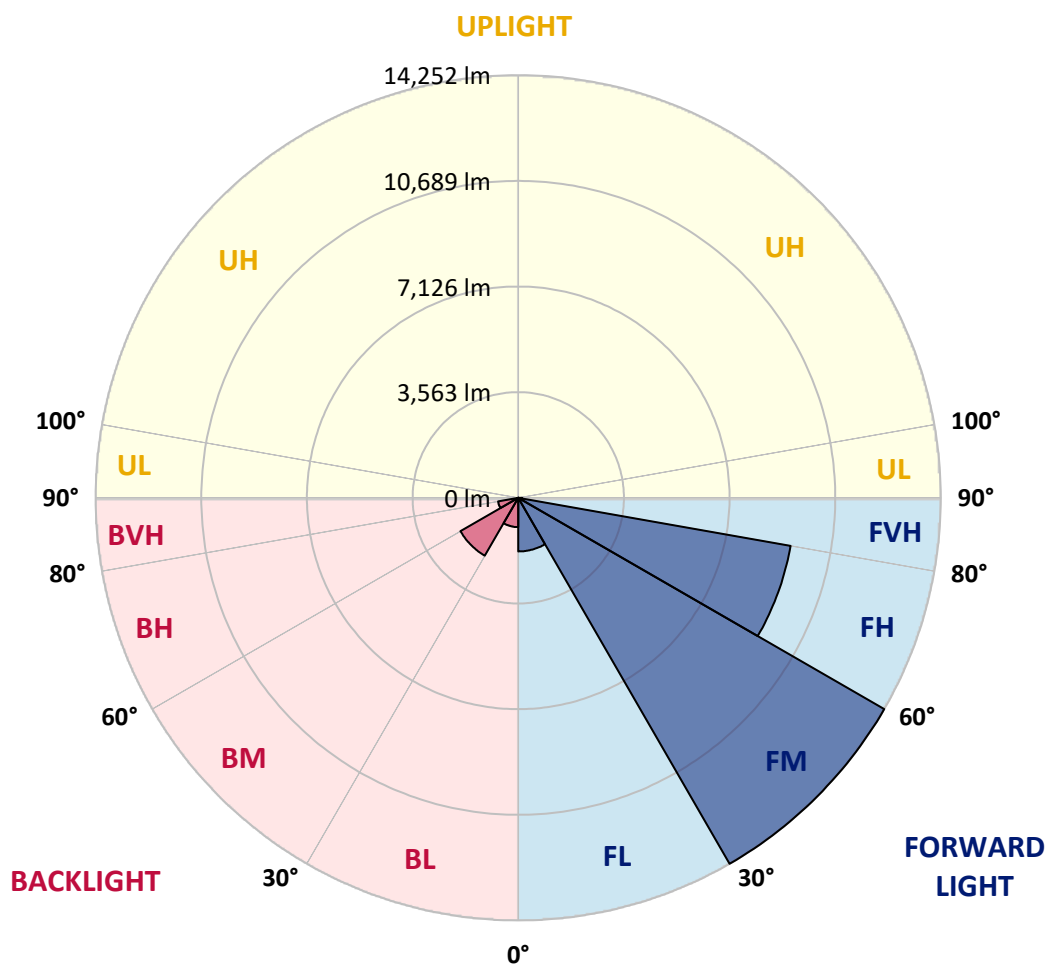
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1809.1	6.1			
FM	(30°-60°)	14252.0	48.4			
FH	(60°-80°)	9325.9	31.7			G4/12000
FVH	(80°-90°)	132.0	0.4			G2/225
BL	(0°-30°)	989.1	3.4	B2/1000		
BM	(30°-60°)	2252.2	7.6	B2/2500		
BH	(60°-80°)	691.4	2.3	B2/1000		G2/1000
BVH	(80°-90°)	6.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4
2.5°	3414.5	3438.2	3432.2	3426.4	3424.3	3428.3	3430.3	3428.3	3428.3	3428.3	3430.3
5°	3349.3	3369.1	3369.1	3382.9	3402.6	3426.4	3444.1	3448.1	3452.0	3457.9	3456.0
7.5°	3224.9	3240.7	3252.5	3297.9	3347.3	3410.5	3463.9	3491.5	3495.5	3517.2	3525.1
10°	3140.0	3159.8	3179.4	3226.9	3297.9	3392.7	3483.6	3550.7	3560.6	3612.0	3635.7
12.5°	3136.0	3155.8	3181.5	3232.7	3315.8	3416.4	3527.0	3623.8	3641.6	3716.6	3766.0
15°	3177.5	3201.2	3224.9	3288.1	3377.0	3499.4	3617.8	3738.4	3756.1	3862.8	3916.1
17.5°	3262.4	3294.0	3311.8	3375.0	3469.7	3606.1	3762.1	3900.3	3916.1	4040.6	4107.7
20°	3430.3	3467.8	3473.7	3525.1	3617.8	3764.0	3949.6	4121.4	4141.2	4283.4	4358.4
22.5°	3777.8	3831.1	3783.8	3809.4	3892.4	4038.5	4239.9	4457.2	4484.9	4646.7	4713.9
25°	4390.1	4465.1	4342.6	4299.2	4334.7	4486.8	4739.6	5014.1	5045.7	5176.0	5209.6
27.5°	5592.7	5495.9	5310.3	5128.6	5022.0	5108.9	5393.2	5732.9	5772.4	5898.8	5859.3
30°	6913.8	6829.0	6578.1	6175.3	5922.6	5908.7	6171.3	6550.5	6596.0	6716.4	6596.0
32.5°	8237.0	8156.0	7883.5	7387.8	6949.4	6732.2	6913.8	7334.5	7358.2	7435.2	7257.5
35°	9538.4	9455.5	9183.0	8675.4	8136.3	7642.6	7607.0	8081.0	8088.9	8169.9	7905.2
37.5°	10847.8	10778.6	10488.3	9990.7	9459.4	8778.1	8448.4	8788.0	8797.9	8876.9	8602.3
40°	11781.9	11811.5	11612.0	11226.9	10770.7	10026.2	9392.3	9540.4	9481.1	9613.5	9449.6
42.5°	12583.6	12642.9	12469.1	12275.5	12010.9	11355.3	10561.4	10535.7	10441.0	10512.0	10342.1
45°	13276.8	13326.1	13170.1	13124.7	13118.8	12658.6	11839.1	11685.1	11552.8	11538.9	11335.5
47.5°	13531.5	13626.4	13693.5	13845.5	14141.7	13948.2	13160.3	12921.4	12773.2	12664.6	12342.6
50°	13628.3	13729.1	13958.1	14400.4	15101.5	15184.5	14475.5	14206.9	14025.3	13827.8	13353.8
52.5°	13497.9	13677.7	13985.7	14730.3	15747.3	16175.8	15737.4	15502.4	15295.0	14973.2	14270.2
55°	12729.8	12909.5	13539.4	14726.3	16069.2	16871.0	16930.2	16825.6	16592.5	16085.0	15010.7
57.5°	11110.4	11377.0	12374.3	14224.7	16063.3	17469.4	18099.3	18174.4	17913.7	17186.9	15593.2
60°	8867.0	9228.4	10444.9	13112.8	15567.6	17793.2	19124.2	19499.5	19223.0	18273.1	16065.2
62.5°	6187.1	6605.8	7757.1	11371.0	14434.0	17560.2	19872.7	20565.9	20356.5	19244.7	16247.0
65°	3773.9	3908.2	4836.4	8947.9	12506.6	16584.6	20103.7	21142.6	21073.4	19839.2	15978.3
67.5°	2513.9	2626.6	2893.2	6135.8	9708.3	14635.5	19550.8	21041.8	21061.6	19742.4	14994.9
70°	1514.7	1611.5	1785.2	3568.5	6291.8	11584.3	17838.6	19758.2	19872.7	18448.9	13130.7
72.5°	624.0	689.2	847.2	1617.3	3258.5	7352.3	14205.0	16963.8	17230.4	15512.2	10077.6
75°	353.5	387.0	497.6	811.7	1414.0	3426.4	8604.4	12042.5	12435.5	10691.8	6062.8
77.5°	235.0	250.8	321.8	525.3	795.8	1169.1	3677.1	6274.0	7024.4	5839.5	2624.5
80°	158.0	171.8	221.2	351.5	517.4	501.6	1171.1	2324.4	2859.5	2006.4	639.8
82.5°	106.6	108.6	158.0	231.0	327.8	242.9	345.6	722.8	908.5	580.6	242.9
85°	61.2	59.2	116.5	134.3	146.2	100.8	104.7	217.2	284.3	244.9	138.3
87.5°	7.9	11.9	45.4	35.6	19.8	21.7	21.7	37.5	55.2	59.2	29.6
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°	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4	3426.4
2.5°	3430.3	3428.3	3422.4	3416.4	3402.6	3394.7	3398.7	3394.7	3392.7	3394.7	3402.6
5°	3456.0	3450.0	3434.3	3414.5	3386.8	3353.3	3331.6	3300.0	3270.4	3252.5	3256.5
7.5°	3525.1	3519.1	3497.4	3442.2	3353.3	3213.1	3084.6	2972.1	2887.2	2837.8	2839.8
10°	3635.7	3625.8	3592.2	3469.7	3236.7	2930.7	2675.9	2464.6	2326.3	2261.1	2255.2
12.5°	3766.0	3754.2	3694.9	3444.1	3015.5	2537.7	2186.1	1951.1	1822.8	1765.5	1759.6
15°	3920.0	3904.2	3787.7	3321.6	2693.7	2103.2	1781.3	1605.6	1522.6	1471.3	1473.2
17.5°	4111.6	4083.9	3856.9	3138.0	2344.1	1771.4	1532.5	1400.1	1327.1	1277.8	1273.8
20°	4360.5	4315.0	3912.1	2918.8	2022.2	1562.1	1364.6	1254.0	1198.7	1155.3	1147.4
22.5°	4708.0	4642.8	3979.3	2681.8	1795.1	1417.9	1240.1	1159.3	1113.8	1064.5	1056.6
25°	5138.5	5061.4	4062.2	2462.6	1639.1	1293.6	1149.3	1082.2	1028.9	971.6	965.7
27.5°	5740.8	5602.5	4161.0	2282.9	1504.8	1186.8	1066.4	991.4	930.2	882.7	872.9
30°	6412.3	6185.2	4247.9	2174.3	1382.4	1088.1	957.8	882.7	825.4	791.9	786.0
32.5°	7048.2	6740.1	4305.1	2126.9	1271.8	975.6	839.3	758.3	714.9	705.0	710.9
35°	7648.6	7241.7	4299.2	2081.5	1173.0	863.0	722.8	639.8	606.3	612.2	612.2
37.5°	8339.7	7776.9	4257.7	2010.3	1092.0	760.3	622.1	549.0	519.4	521.3	529.2
40°	9143.5	8395.0	4232.0	1876.1	1003.2	665.5	539.2	479.9	458.2	450.3	448.3
42.5°	10000.5	8993.3	4236.0	1724.0	892.7	580.6	481.9	432.4	412.8	406.8	404.9
45°	10861.5	9564.1	4242.0	1566.0	776.1	515.5	440.3	398.9	387.0	379.1	379.1
47.5°	11671.3	10049.9	4131.4	1396.3	661.5	466.1	406.8	379.1	369.3	359.5	359.5
50°	12425.7	10373.8	3864.8	1198.7	570.7	426.6	381.1	361.4	351.5	341.6	341.6
52.5°	13012.2	10425.2	3424.3	995.3	507.6	397.0	365.3	347.6	335.7	325.8	323.9
55°	13272.8	10103.2	2798.4	805.8	458.2	371.3	349.5	331.8	318.0	308.1	306.1
57.5°	13205.7	9425.9	2182.2	647.7	410.7	345.6	329.8	318.0	302.2	286.4	284.3
60°	12875.8	8519.4	1645.0	539.2	367.4	318.0	308.1	298.2	276.4	252.8	248.9
62.5°	12305.1	7379.9	1173.0	446.3	319.9	286.4	282.4	274.5	242.9	199.5	195.5
65°	11432.3	5995.5	790.0	371.3	274.5	250.8	252.8	238.9	197.5	148.1	144.1
67.5°	10156.5	4384.1	505.5	304.1	229.1	209.3	211.4	203.4	167.9	126.4	120.4
70°	8531.3	2903.0	329.8	231.0	183.7	162.0	173.7	175.8	142.2	102.7	98.7
72.5°	6254.2	1714.1	231.0	171.8	134.3	112.5	142.2	146.2	114.5	77.0	73.1
75°	3564.5	813.6	173.7	124.4	82.9	79.0	110.6	110.6	79.0	51.4	47.4
77.5°	1496.9	339.7	122.5	81.0	47.4	45.4	75.0	69.1	39.5	23.7	23.7
80°	432.4	152.1	65.2	39.5	19.8	17.7	29.6	21.7	9.8	4.0	4.0
82.5°	169.8	67.1	25.6	15.8	7.9	7.9	4.0	0.0	0.0	0.0	0.0
85°	100.8	27.7	11.9	5.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	25.6	5.9	4.0	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)