

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: P968299

Luminaire Tested: **NAV-SB5B-740-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968299
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-740-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23760.5 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

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

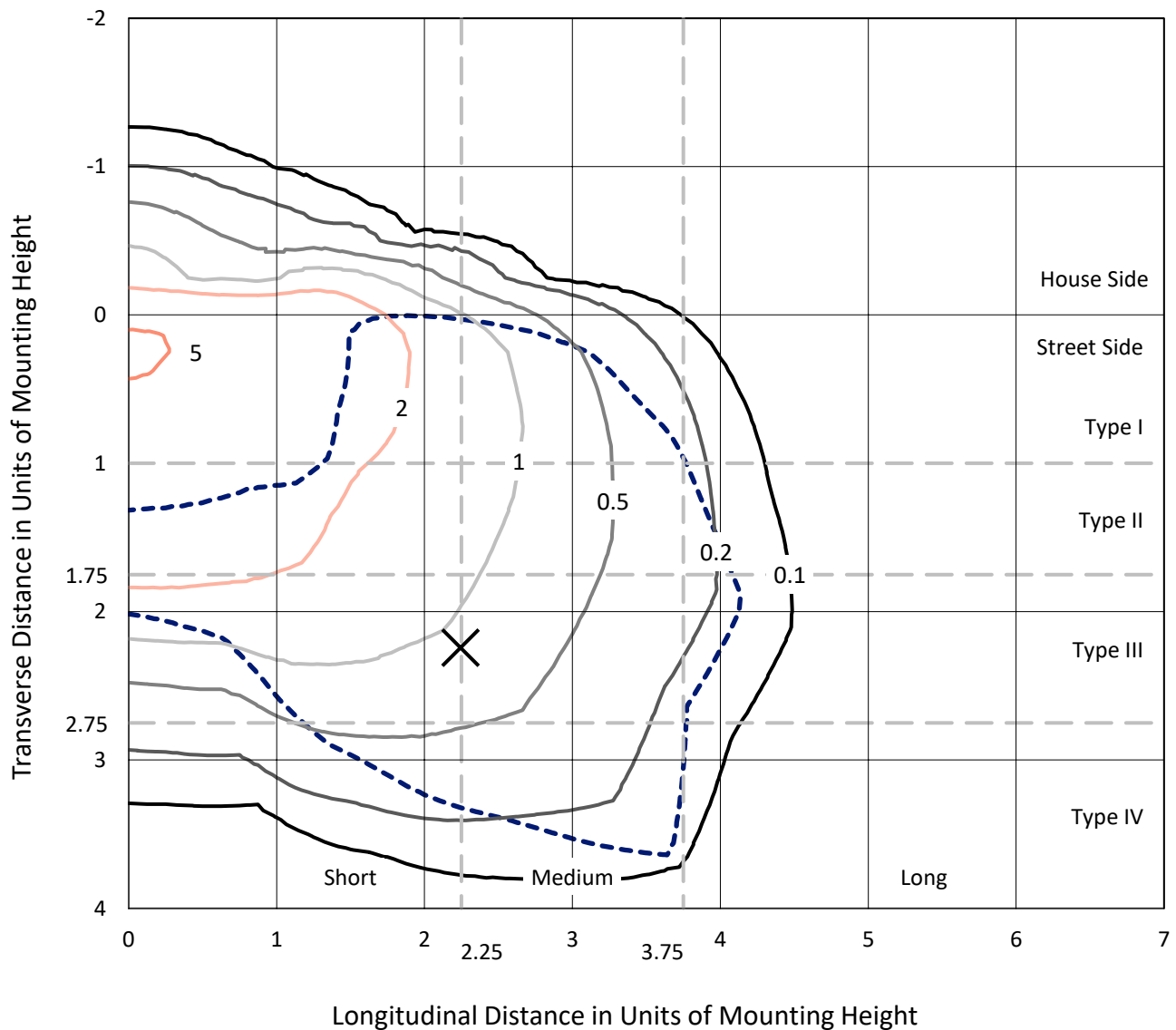


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

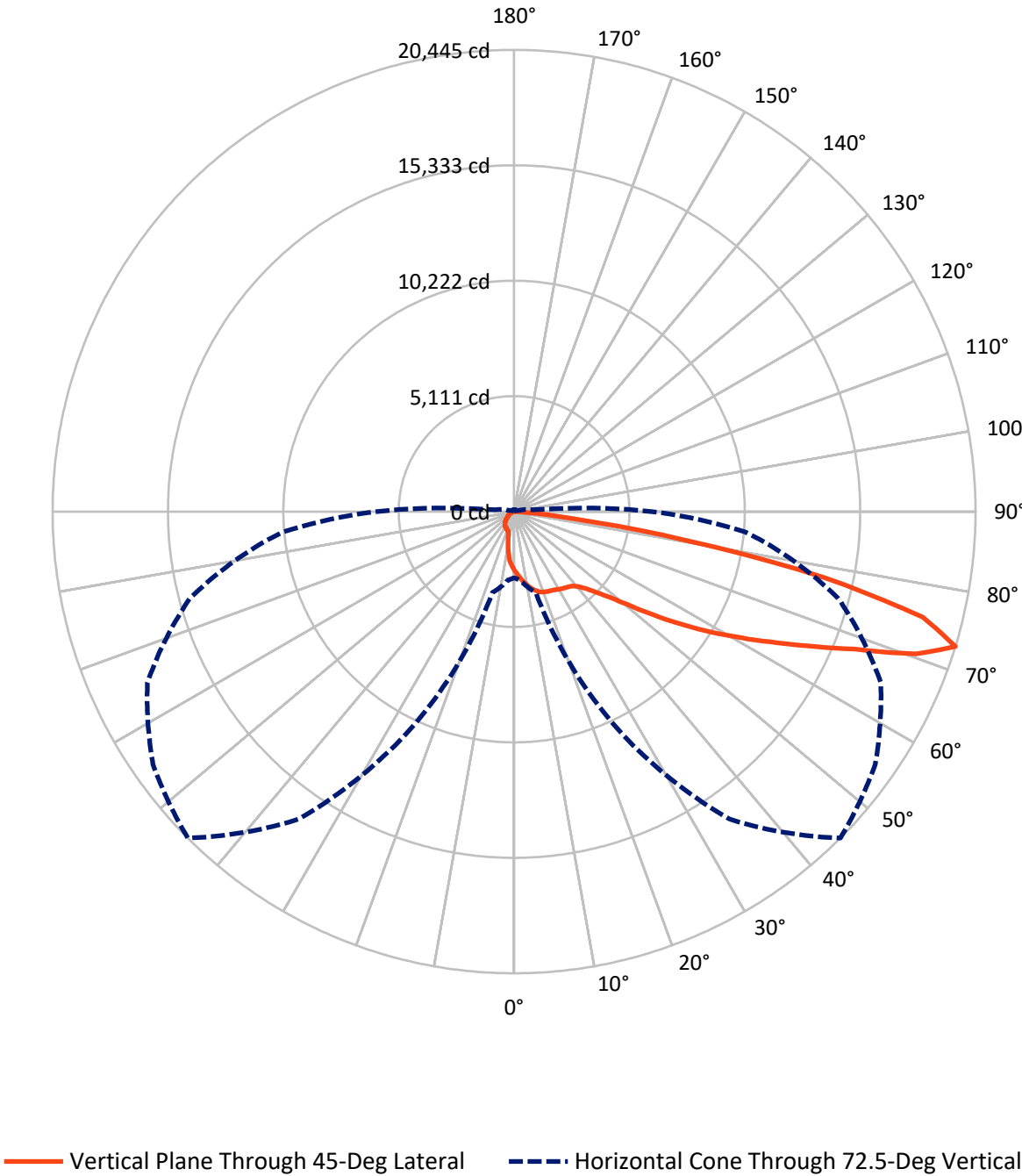


Based on 25 foot mounting height. Maximum calculated value = 5.7 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2496.6	0.0	2496.6
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	21263.9	0.0	21263.9
	% Fixture	89.5	0.0	89.5
Total	Lumens	23760.5	0.0	23760.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.3	1.0
10°-20°	716.8	3.0
20°-30°	1177.1	5.0
30°-40°	1669.4	7.0
40°-50°	2759.3	11.6
50°-60°	4956.7	20.9
60°-70°	6882.7	29.0
70°-80°	4992.5	21.0
80°-90°	360.9	1.5
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°	23760.5	100.0
0°-180°	23760.5	100.0

Coefficient of Utilization



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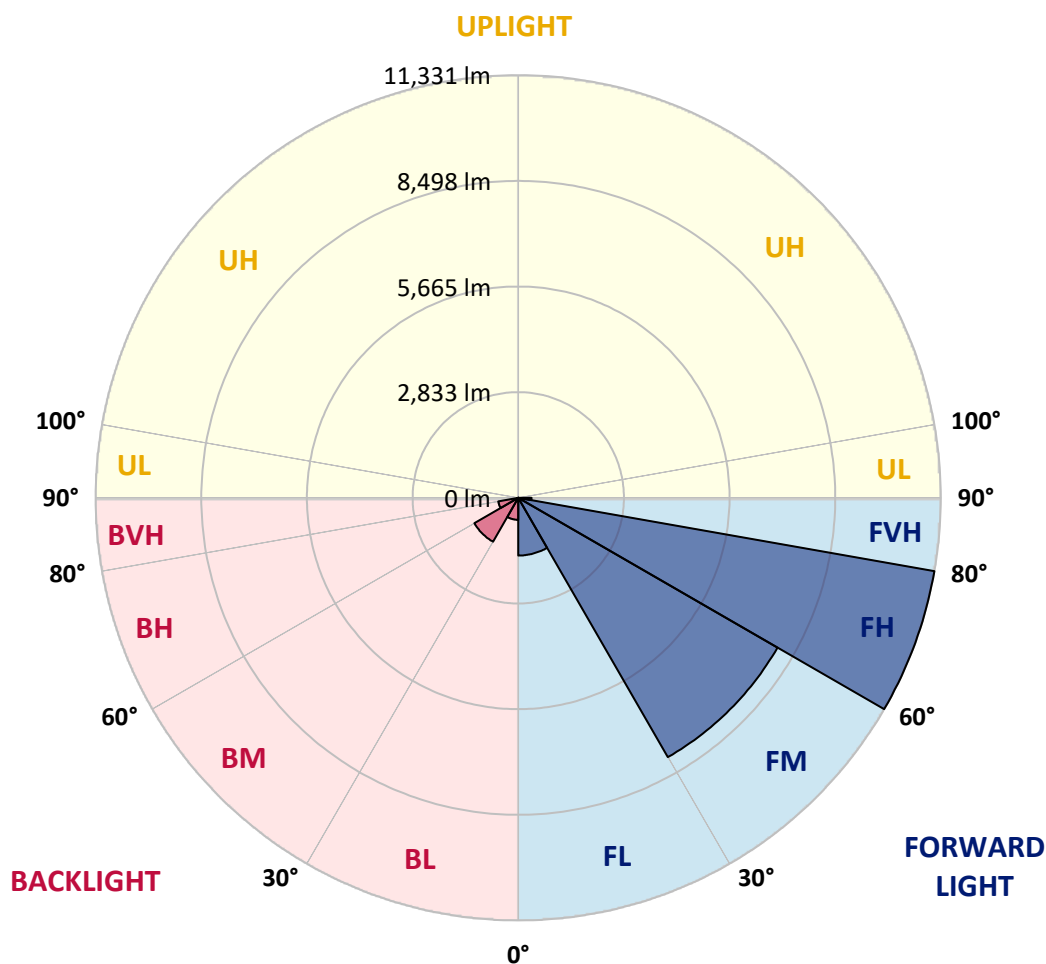
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1547.8	6.5			
FM	(30°-60°)	8027.6	33.8			
FH	(60°-80°)	11330.7	47.7			G4/12000
FVH	(80°-90°)	357.9	1.5			G3/500
BL	(0°-30°)	591.3	2.5	B2/1000		
BM	(30°-60°)	1357.8	5.7	B2/2500		
BH	(60°-80°)	544.4	2.3	B2/1000		G2/1000
BVH	(80°-90°)	3.0	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0
2.5°	2843.0	2847.9	2844.7	2825.2	2792.8	2774.9	2765.2	2732.8	2711.6	2674.3	2635.5
5°	3104.1	3123.6	3112.3	3073.4	3011.8	2967.9	2955.0	2888.4	2828.5	2758.7	2677.6
7.5°	3381.5	3391.2	3370.1	3319.9	3237.2	3162.5	3151.2	3058.7	2963.1	2856.1	2745.8
10°	3621.5	3632.9	3600.4	3527.4	3433.3	3341.0	3324.7	3222.6	3109.0	2977.6	2836.6
12.5°	3822.6	3834.0	3791.8	3704.2	3600.4	3504.8	3488.5	3381.5	3256.6	3110.7	2935.5
15°	3975.1	3996.2	3939.4	3845.3	3733.5	3637.7	3629.6	3524.3	3402.6	3240.4	3053.9
17.5°	4064.2	4085.3	4031.8	3918.3	3822.6	3741.6	3731.8	3644.2	3530.7	3375.0	3169.0
20°	4078.9	4098.4	4041.6	3942.7	3863.1	3798.3	3793.4	3730.2	3647.5	3498.2	3293.9
22.5°	4035.1	4059.4	4007.5	3928.0	3872.9	3838.8	3832.4	3796.7	3749.7	3623.2	3410.7
25°	3989.7	4009.1	3970.2	3900.4	3871.3	3868.0	3872.9	3866.4	3856.7	3749.7	3546.9
27.5°	3986.4	4007.5	3963.7	3897.3	3881.0	3915.1	3919.9	3950.8	3958.9	3864.8	3678.3
30°	4014.0	4028.6	3986.4	3916.7	3908.5	3986.4	3988.1	4043.2	4056.1	3962.1	3808.0
32.5°	4074.0	4090.3	4048.0	3945.8	3934.6	4043.2	4048.0	4121.0	4142.1	4065.9	3944.3
35°	4215.1	4234.6	4185.9	4027.0	3986.4	4096.7	4111.3	4197.3	4239.4	4176.2	4085.3
37.5°	4567.0	4510.3	4443.8	4190.8	4104.8	4181.1	4205.4	4305.9	4380.5	4307.6	4254.1
40°	5441.2	5262.8	5055.2	4469.7	4312.4	4361.1	4380.5	4481.1	4583.3	4511.8	4485.9
42.5°	6753.2	6542.4	6208.3	5112.0	4625.4	4649.7	4664.4	4751.9	4896.2	4839.5	4846.0
45°	7922.5	7846.4	7505.8	6208.3	5210.9	5090.9	5108.7	5154.1	5366.6	5345.5	5387.7
47.5°	8821.0	8777.3	8514.6	7466.8	6200.2	5630.9	5681.3	5702.3	6008.9	6083.5	6196.9
50°	9512.0	9495.7	9260.6	8585.9	7492.7	6427.3	6445.1	6399.7	6858.7	7043.6	7259.3
52.5°	10163.9	10219.0	10045.5	9625.5	8872.9	7470.1	7466.8	7252.8	7872.3	8151.2	8519.4
55°	10752.7	10772.1	10790.0	10686.1	10261.3	8657.3	8626.4	8276.2	9048.1	9336.8	9735.8
57.5°	11305.6	11313.7	11472.7	11685.2	11706.3	9932.0	9875.3	9455.2	10332.6	10538.5	10783.4
60°	11677.1	11714.4	12050.1	12640.4	12898.3	11247.3	11216.5	10788.3	11639.8	11735.4	11690.0
62.5°	11141.9	11368.9	12215.5	13386.5	14023.8	12705.3	12690.7	12288.5	13015.0	12937.2	12547.9
65°	9018.9	9403.2	10892.2	13890.9	15128.3	14333.6	14354.7	13926.6	14427.7	14174.7	13245.4
67.5°	6308.9	6714.4	8475.6	13931.4	16362.5	16245.7	16367.4	15695.9	15927.9	15360.2	13410.8
70°	4362.7	4571.9	5718.5	13058.9	17324.2	18879.6	18876.3	17869.1	17420.0	15900.3	12567.4
72.5°	2933.9	3042.5	3714.0	10360.2	16617.1	20444.6	20350.6	19529.9	17922.7	14870.4	10267.7
75°	1237.5	1316.9	1719.1	5822.3	13146.4	18704.4	18449.8	17259.4	15924.6	11709.5	6406.1
77.5°	392.5	426.5	677.9	2084.0	7241.4	14059.5	13790.4	10778.6	10673.2	5874.2	2341.9
80°	186.5	217.3	381.1	836.8	2849.5	7646.9	7609.6	4889.8	4591.4	1586.2	470.4
82.5°	81.1	95.7	210.8	447.6	1274.8	2727.9	2783.1	1664.0	1376.9	601.7	144.3
85°	25.9	34.0	97.3	205.9	538.4	677.9	669.8	395.8	554.6	327.6	50.3
87.5°	0.0	0.0	32.4	47.0	55.1	38.9	43.8	34.0	154.1	90.8	17.8
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°	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0	2603.0
2.5°	2616.0	2590.1	2544.7	2502.4	2465.1	2427.8	2405.2	2372.7	2369.5	2369.5	2377.6
5°	2633.8	2591.7	2510.5	2424.6	2325.7	2231.6	2137.5	2046.7	2017.5	1996.5	2006.2
7.5°	2685.7	2619.3	2491.2	2327.3	2139.2	1933.3	1788.8	1633.1	1573.2	1540.7	1545.6
10°	2760.3	2669.5	2474.9	2187.9	1882.9	1602.4	1396.4	1227.7	1162.9	1135.3	1135.3
12.5°	2843.0	2731.1	2445.6	2014.3	1602.4	1266.6	1065.5	987.7	978.0	978.0	978.0
15°	2942.0	2805.7	2395.4	1809.9	1308.8	1002.2	930.9	934.2	943.9	950.4	950.4
17.5°	3044.1	2885.2	2316.0	1581.3	1049.3	901.7	903.3	908.3	916.4	922.8	922.8
20°	3154.4	2964.7	2210.5	1338.0	900.2	872.6	877.4	882.2	888.8	892.0	893.6
22.5°	3272.8	3039.3	2085.7	1099.6	849.8	848.2	849.8	854.7	862.8	862.8	866.0
25°	3399.3	3122.0	1942.9	926.1	823.9	823.9	827.2	830.4	836.8	836.8	838.4
27.5°	3529.1	3198.2	1792.1	835.3	801.1	799.6	799.6	804.4	807.7	809.2	810.9
30°	3671.8	3287.4	1641.2	815.8	783.3	775.2	770.4	773.6	776.8	778.5	781.7
32.5°	3817.7	3373.4	1506.6	823.9	765.5	750.9	734.7	731.4	731.4	737.9	742.8
35°	3980.0	3467.5	1402.9	851.5	755.7	715.2	689.3	674.7	676.3	686.0	690.8
37.5°	4174.5	3580.9	1326.7	875.8	749.3	674.7	632.5	614.7	603.3	614.7	611.4
40°	4429.2	3748.0	1271.5	895.2	741.2	627.6	570.9	541.7	520.6	527.1	523.9
42.5°	4803.9	4010.7	1250.4	896.9	723.3	572.5	507.6	468.7	437.9	439.5	433.1
45°	5329.3	4426.0	1359.0	875.8	684.4	512.5	441.2	389.2	369.8	364.9	358.4
47.5°	6049.3	5030.9	1610.5	832.0	627.6	454.1	376.3	332.5	317.9	309.8	304.9
50°	7014.4	5807.8	1889.4	783.3	570.9	398.9	322.8	295.2	285.5	277.4	275.7
52.5°	8133.4	6596.0	2118.1	734.7	514.1	350.3	288.6	272.4	264.3	257.9	256.2
55°	9160.0	7139.2	2105.1	682.8	459.0	311.4	264.3	254.6	244.9	238.4	235.1
57.5°	9799.0	7215.5	1735.3	626.1	395.8	280.5	241.7	235.1	223.9	215.7	214.1
60°	10092.6	6780.8	1216.4	551.4	332.5	251.4	217.3	214.1	199.5	188.1	184.9
62.5°	10146.1	5973.2	810.9	459.0	277.4	223.9	193.0	188.1	168.7	149.2	139.5
65°	9928.8	4818.4	561.2	358.4	236.8	194.6	165.4	155.7	134.6	115.1	108.6
67.5°	9241.1	3383.1	390.8	257.9	201.1	154.1	131.4	128.1	111.9	95.7	90.8
70°	7981.0	1928.3	261.1	193.0	159.0	105.4	103.8	107.0	90.8	77.8	71.3
72.5°	6119.1	882.2	162.2	141.1	108.6	71.3	82.7	84.4	69.7	58.4	51.9
75°	3602.1	377.9	102.2	90.8	55.1	47.0	60.0	61.6	47.0	37.3	32.4
77.5°	1226.1	142.7	64.9	53.5	27.6	25.9	38.9	38.9	25.9	14.6	11.4
80°	278.9	53.5	32.4	21.1	13.0	11.4	13.0	11.4	6.5	1.6	0.0
82.5°	79.4	21.1	13.0	8.1	4.8	4.8	1.6	0.0	0.0	0.0	0.0
85°	22.8	9.7	3.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.7	1.6	0.0	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)