

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: P883904

Luminaire Tested: **NAV-SB4C-722-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883904
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-722-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23974 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

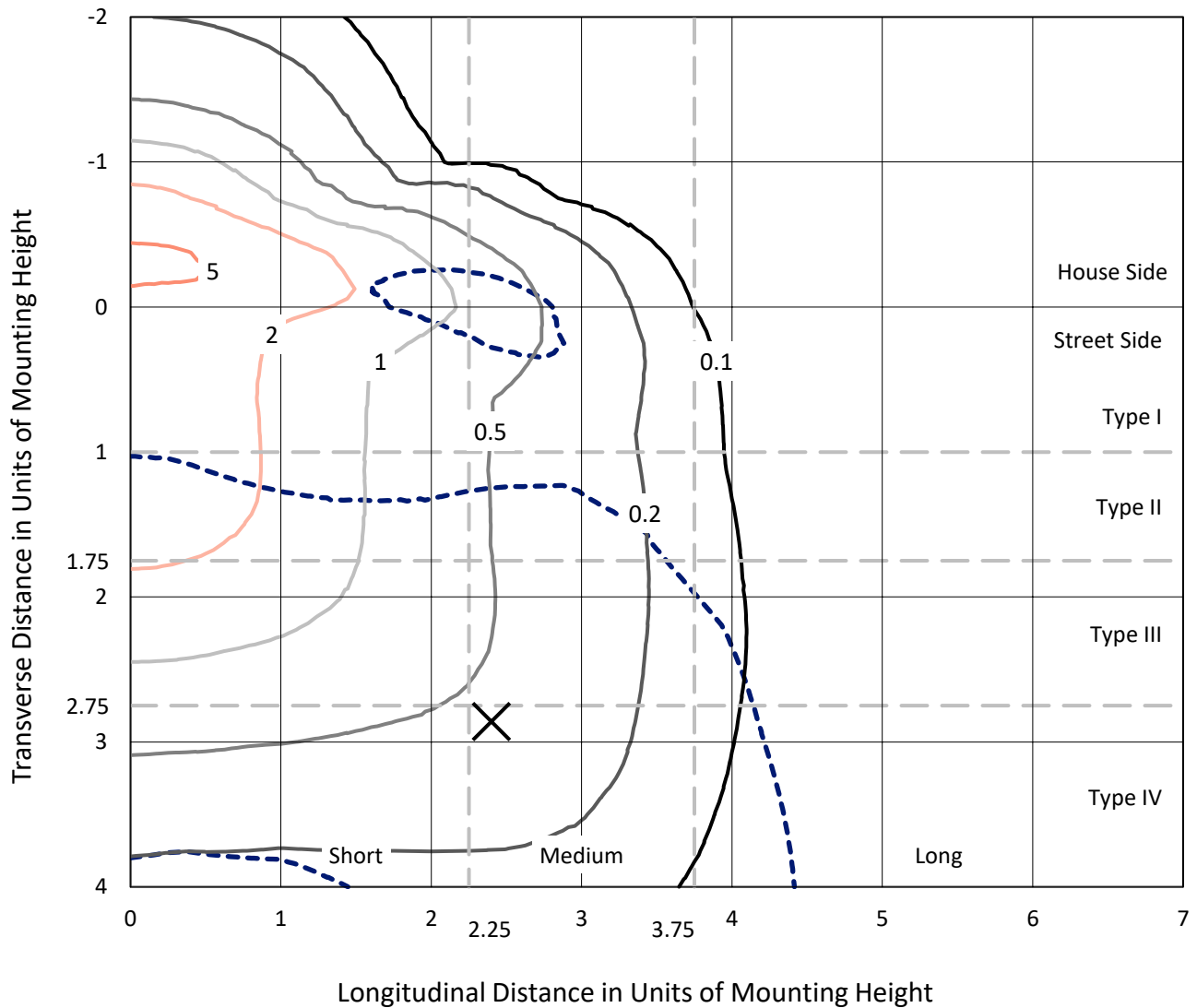
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

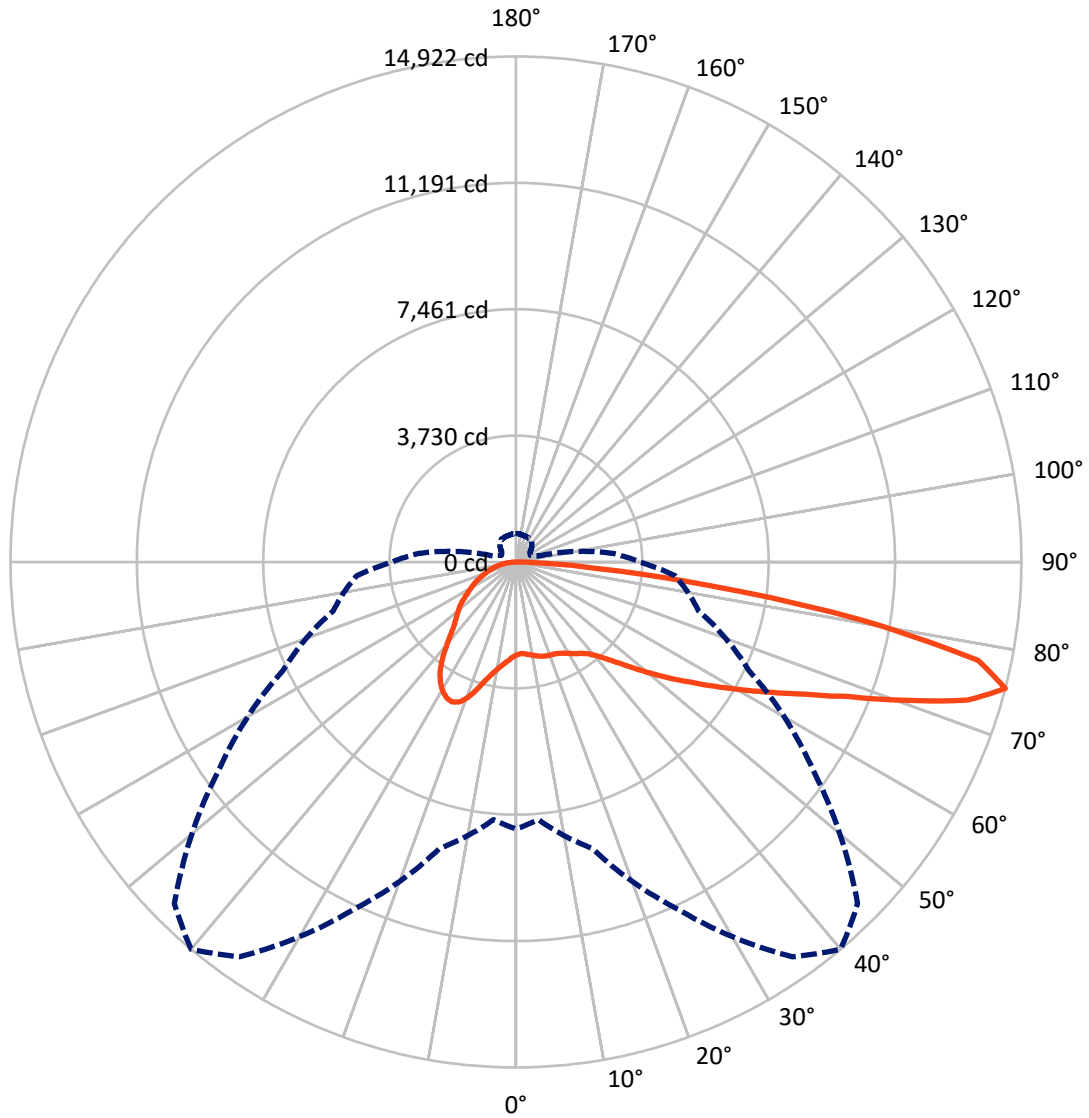
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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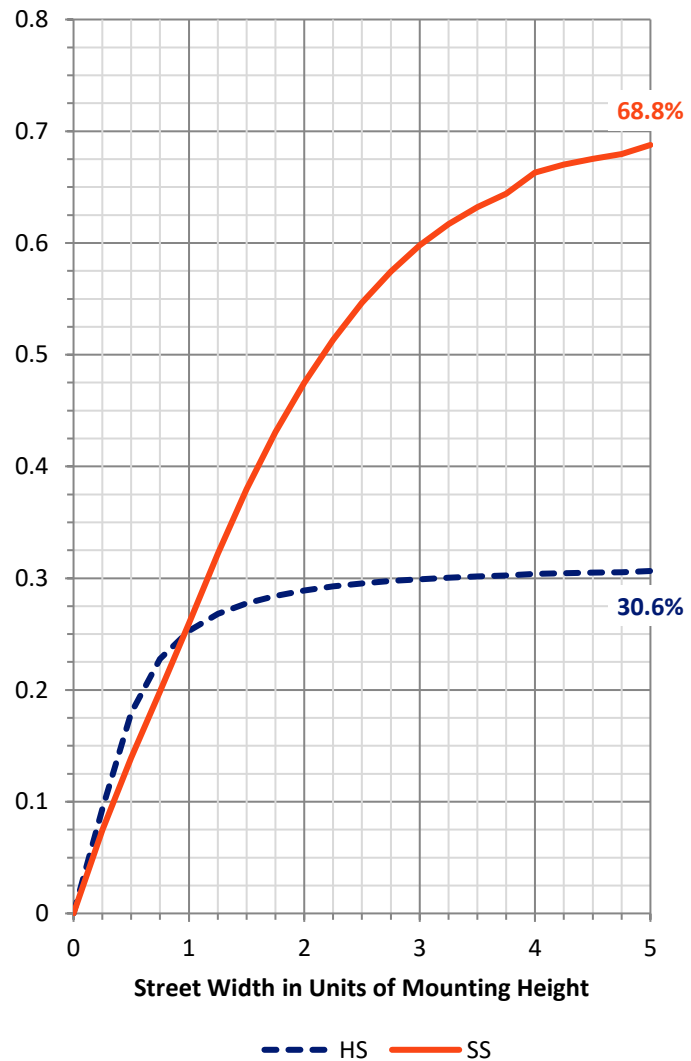
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7428.0	0.0	7428.0
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	16546.0	0.0	16546.0
	% Fixture	69.0	0.0	69.0
Total	Lumens	23974.0	0.0	23974.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.7	1.1
10°-20°	918.8	3.8
20°-30°	1677.6	7.0
30°-40°	2379.3	9.9
40°-50°	3212.8	13.4
50°-60°	4322.0	18.0
60°-70°	5485.6	22.9
70°-80°	4978.6	20.8
80°-90°	725.7	3.0
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°	23974.0	100.0
0°-180°	23974.0	100.0

Coefficient of Utilization



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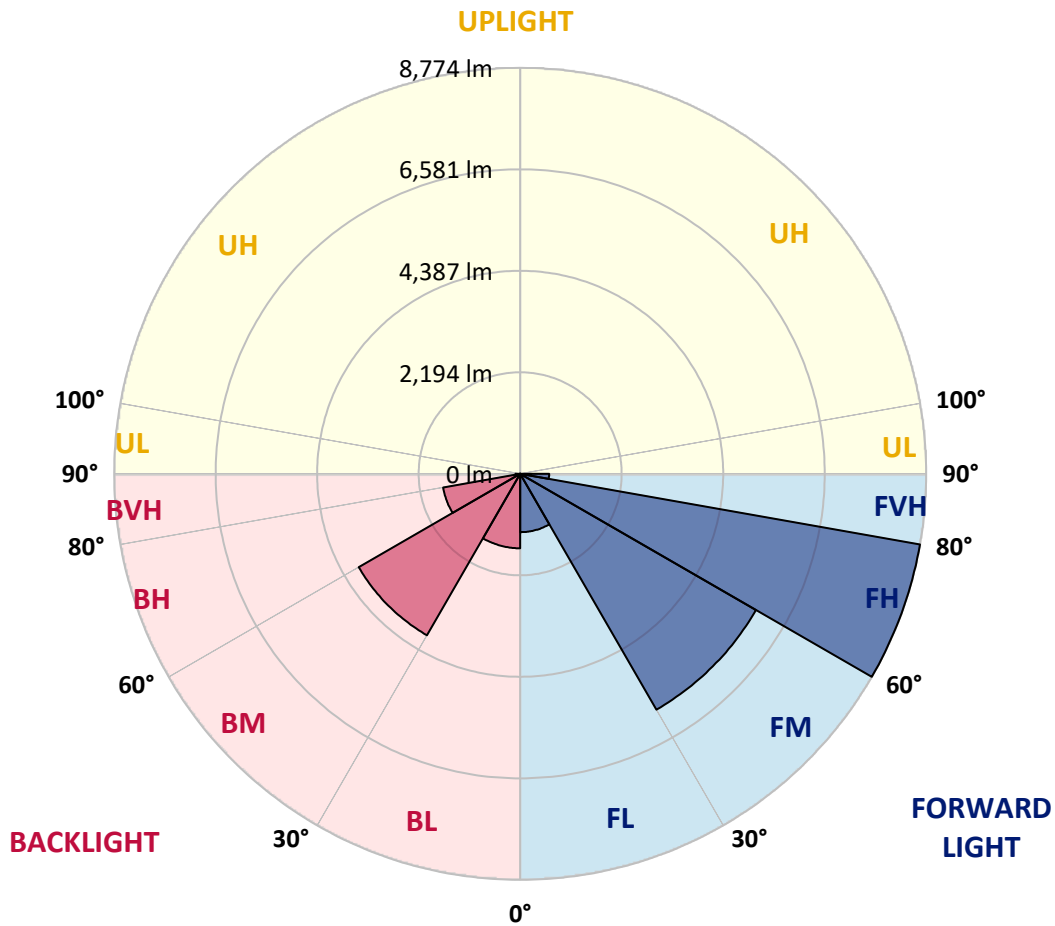
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1261.1	5.3			
FM (30°-60°)	5885.1	24.5			
FH (60°-80°)	8774.1	36.6			G4/12000
FVH (80°-90°)	625.8	2.6			G4/750
BL (0°-30°)	1609.0	6.7	B3/2500		
BM (30°-60°)	4029.0	16.8	B3/5000		
BH (60°-80°)	1690.1	7.0	B3/2500		G3/2500
BVH (80°-90°)	99.9	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5
2.5°	2699.5	2714.8	2710.9	2705.9	2705.9	2707.1	2705.9	2714.8	2723.7	2732.6	2746.5
5°	2727.5	2742.7	2735.1	2728.7	2723.7	2722.4	2718.6	2717.3	2722.4	2733.8	2752.9
7.5°	2782.1	2797.4	2786.0	2774.5	2764.3	2759.3	2754.2	2746.5	2742.7	2749.1	2775.8
10°	2843.2	2858.4	2844.5	2824.1	2807.6	2801.2	2796.1	2788.5	2783.4	2787.2	2816.5
12.5°	2904.2	2919.5	2900.4	2872.4	2850.8	2847.0	2840.6	2838.1	2836.8	2835.6	2864.8
15°	2961.4	2974.2	2950.0	2916.9	2894.0	2887.7	2881.3	2885.1	2891.5	2899.1	2932.2
17.5°	3005.9	3018.7	2983.1	2939.8	2918.2	2915.7	2911.8	2924.6	2942.4	2961.4	3002.1
20°	3046.6	3059.3	3013.6	2955.1	2929.6	2929.6	2930.9	2957.6	2983.1	3011.0	3067.0
22.5°	3103.9	3114.0	3058.1	2978.0	2941.1	2943.6	2953.8	2980.5	3012.3	3050.4	3128.0
25°	3189.0	3196.7	3128.0	3021.2	2979.2	2986.9	2995.8	3008.5	3039.0	3083.5	3187.8
27.5°	3326.4	3332.7	3242.4	3097.5	3033.9	3046.6	3059.3	3050.4	3064.4	3102.6	3236.1
30°	3519.6	3523.5	3409.0	3217.0	3126.7	3133.1	3135.6	3098.8	3072.1	3102.6	3270.4
32.5°	3748.5	3747.3	3611.2	3362.0	3232.3	3225.9	3204.3	3131.8	3069.5	3096.2	3300.9
35°	4103.3	4089.3	3913.8	3565.4	3351.8	3312.4	3261.5	3168.7	3082.2	3089.9	3327.6
37.5°	4690.7	4647.5	4404.6	3898.6	3529.8	3429.4	3354.3	3228.5	3110.2	3087.3	3359.4
40°	5353.2	5298.5	5031.5	4355.1	3796.8	3635.4	3514.6	3313.7	3156.0	3098.8	3406.5
42.5°	6139.0	6061.5	5774.1	4892.9	4135.1	3901.1	3719.3	3421.7	3223.4	3135.6	3470.1
45°	7104.1	7001.1	6594.3	5499.4	4561.0	4249.5	4006.6	3585.8	3326.4	3206.8	3565.4
47.5°	8079.4	8104.9	7526.3	6193.7	5072.2	4679.3	4366.5	3832.4	3476.4	3321.3	3719.3
50°	9115.7	9133.5	8453.3	6963.0	5652.0	5165.0	4770.9	4108.4	3684.9	3484.0	3949.4
52.5°	9924.4	9927.0	9295.0	7767.9	6256.0	5699.1	5207.0	4423.7	3926.5	3700.2	4255.9
55°	10430.5	10424.2	9885.0	8529.5	6950.3	6259.8	5690.2	4782.3	4221.5	3954.5	4641.2
57.5°	10798.0	10778.9	10291.9	9184.4	7690.3	6922.3	6236.9	5189.2	4569.9	4257.1	5148.5
60°	10937.9	10926.4	10567.8	9750.2	8468.5	7654.7	6867.6	5644.4	4965.4	4614.4	5800.8
62.5°	10991.3	11012.9	10838.7	10298.3	9301.4	8466.0	7560.6	6188.6	5410.4	5018.8	6488.7
65°	11179.5	11218.9	11183.3	11015.4	10242.3	9415.8	8480.0	6835.8	5896.2	5452.4	7207.1
67.5°	11552.0	11591.4	11606.7	11873.7	11391.8	10599.6	9626.9	7642.0	6464.6	5902.5	7747.5
70°	11543.1	11531.7	11801.2	12556.5	12831.2	12238.7	11173.1	8633.8	7142.3	6276.4	7816.2
72.5°	10506.8	10415.3	11052.3	12548.9	14029.0	13950.2	13061.3	9913.0	7727.2	6322.1	6782.4
75°	7882.3	7638.2	8763.5	11309.2	14228.6	14921.6	14261.7	10706.4	7588.6	5585.9	4720.0
77.5°	3370.9	3125.5	4451.7	8371.9	12734.6	13948.9	13160.5	9340.8	6057.7	3693.8	2318.0
80°	882.5	881.2	1345.3	3795.6	8660.5	10300.8	9036.9	6032.2	3461.2	1319.9	639.6
82.5°	364.9	356.0	494.6	1476.3	4231.7	5780.5	4717.4	2690.6	1249.9	357.3	212.3
85°	136.1	134.8	240.3	509.9	1492.8	2384.2	1725.5	687.9	311.5	174.2	95.4
87.5°	38.1	36.9	52.1	176.7	363.7	551.9	295.0	113.2	87.7	68.7	28.0
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°	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5
2.5°	2750.4	2756.7	2768.2	2777.1	2788.5	2801.2	2819.0	2830.5	2841.9	2849.5	2844.5
5°	2761.8	2775.8	2805.0	2834.3	2868.6	2900.4	2937.3	2964.0	2985.6	2992.0	2994.5
7.5°	2787.2	2810.1	2859.7	2909.3	2964.0	3016.1	3069.5	3115.3	3152.2	3166.2	3167.4
10°	2831.7	2862.3	2932.2	3002.1	3074.6	3154.7	3223.4	3289.5	3341.6	3363.2	3364.5
12.5°	2887.7	2925.8	3017.4	3114.0	3214.5	3325.1	3414.1	3495.5	3560.3	3589.6	3589.6
15°	2960.2	3009.8	3126.7	3256.4	3403.9	3557.8	3671.0	3761.2	3833.7	3869.3	3866.8
17.5°	3039.0	3105.1	3252.6	3448.4	3659.5	3861.7	3993.9	4060.1	4135.1	4169.4	4168.1
20°	3115.3	3196.7	3407.8	3692.6	3973.6	4188.5	4295.3	4313.1	4318.2	4322.0	4332.2
22.5°	3194.1	3303.5	3602.3	4000.3	4301.6	4450.4	4465.7	4389.4	4282.6	4233.0	4247.0
25°	3280.6	3425.6	3856.6	4339.8	4583.9	4601.7	4484.8	4299.1	4096.9	4004.1	4018.1
27.5°	3364.5	3566.7	4161.8	4664.0	4787.4	4631.0	4379.2	4116.0	3871.9	3774.0	3785.4
30°	3448.4	3728.2	4498.7	4947.6	4880.2	4558.5	4212.6	3918.9	3673.5	3570.5	3582.0
32.5°	3533.6	3916.4	4886.6	5152.3	4863.7	4404.6	4005.4	3697.7	3481.5	3373.4	3387.4
35°	3630.3	4147.8	5254.0	5264.2	4753.0	4178.3	3732.0	3433.2	3245.0	3158.5	3177.6
37.5°	3756.2	4441.5	5578.3	5292.2	4559.8	3846.4	3392.5	3120.4	2965.3	2925.8	2953.8
40°	3912.6	4795.0	5826.2	5247.7	4273.7	3443.4	3021.2	2803.8	2716.0	2724.9	2755.4
42.5°	4116.0	5190.5	6000.4	5133.2	3875.7	3027.6	2695.7	2599.0	2641.0	2676.6	2709.7
45°	4380.5	5601.2	6108.5	4938.7	3425.6	2675.3	2503.7	2526.6	2558.4	2562.2	2587.6
47.5°	4718.7	6017.0	6179.7	4645.0	2966.5	2427.4	2381.6	2386.7	2380.3	2353.6	2374.0
50°	5140.9	6421.3	6243.3	4255.9	2576.2	2272.3	2211.2	2193.4	2105.7	2019.2	2030.7
52.5°	5621.5	6792.6	6270.0	3772.7	2272.3	2142.6	2043.4	1931.5	1767.5	1740.8	1749.7
55°	6155.6	7135.9	6201.3	3178.9	2016.7	1976.0	1825.9	1691.2	1673.4	1650.5	1654.3
57.5°	6793.9	7506.0	6061.5	2516.4	1754.7	1781.4	1635.2	1650.5	1618.7	1583.1	1576.7
60°	7492.0	7888.7	5816.1	1912.4	1483.9	1538.6	1585.6	1584.3	1575.4	1546.2	1536.0
62.5°	8120.1	8140.5	5332.9	1464.8	1246.1	1350.4	1478.8	1477.5	1469.9	1453.4	1447.0
65°	8493.9	8102.3	4526.7	1153.3	1050.3	1195.3	1333.9	1344.0	1345.3	1344.0	1344.0
67.5°	8427.8	7656.0	3420.5	918.1	888.8	1037.6	1190.2	1204.2	1214.3	1216.9	1219.4
70°	7680.2	6675.6	2230.3	732.4	745.1	899.0	1054.1	1068.1	1077.0	1087.2	1092.3
72.5°	5986.5	4908.2	1276.6	592.5	619.2	779.5	919.3	935.9	940.9	960.0	967.6
75°	3648.1	2886.4	689.2	466.7	508.6	666.3	785.8	804.9	813.8	836.7	839.2
77.5°	1734.4	1249.9	392.9	363.7	409.4	544.2	663.7	685.4	661.2	673.9	663.7
80°	586.2	464.1	248.0	277.2	312.8	424.7	531.5	553.1	502.3	499.7	494.6
82.5°	204.7	188.2	157.7	184.4	202.2	303.9	401.8	429.8	373.8	372.6	354.8
85°	80.1	76.3	87.7	100.5	120.8	186.9	264.5	278.5	230.2	185.6	183.1
87.5°	16.5	17.8	21.6	22.9	36.9	64.8	95.4	117.0	92.8	78.8	72.5
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)