

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: P195822

Luminaire Tested: **NAV-AF-06-D-UNV-T3-7050-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195822  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-T3-7050-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23740 lumens  
Efficiency: N/A  
Efficacy: 123.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

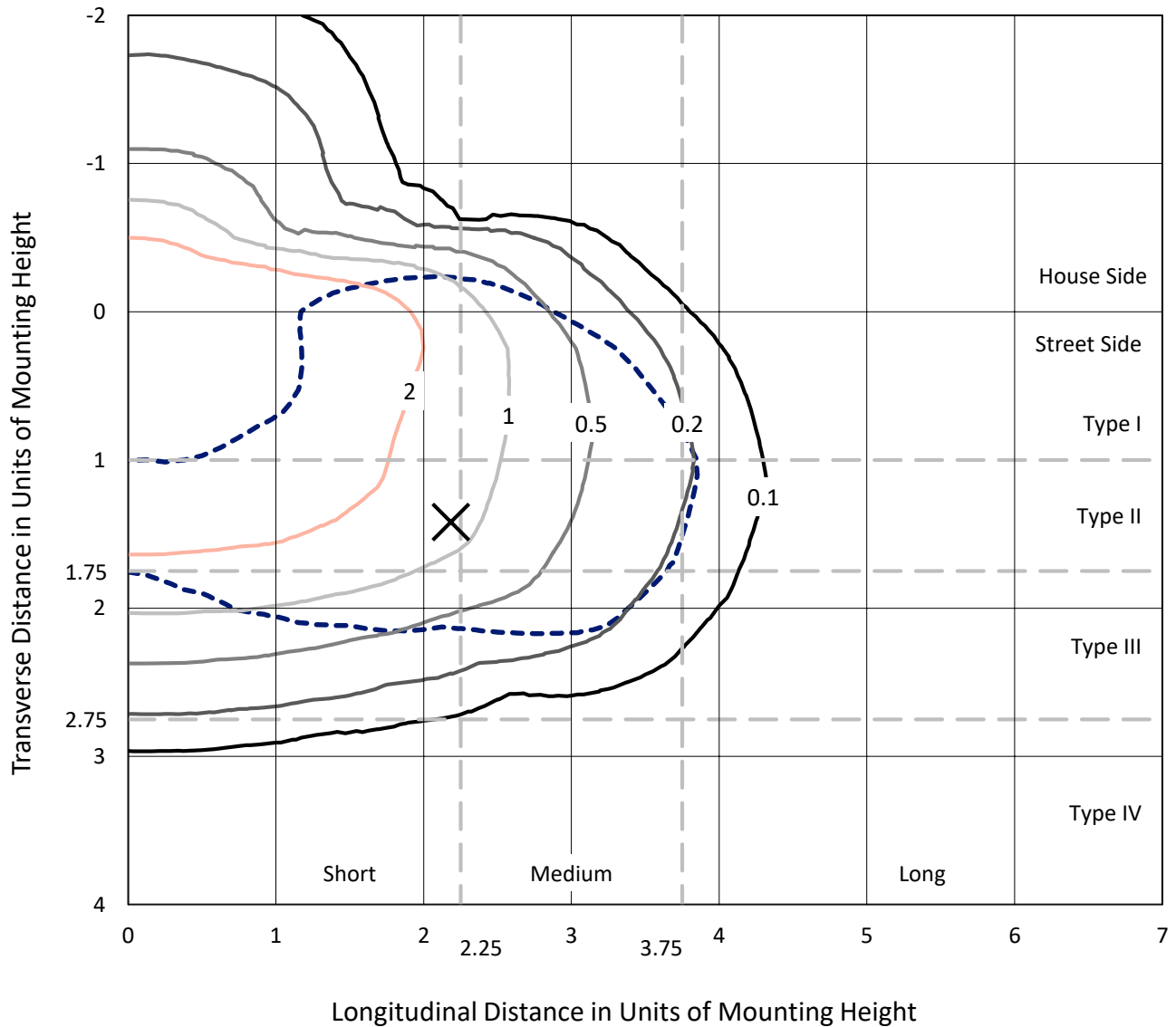
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

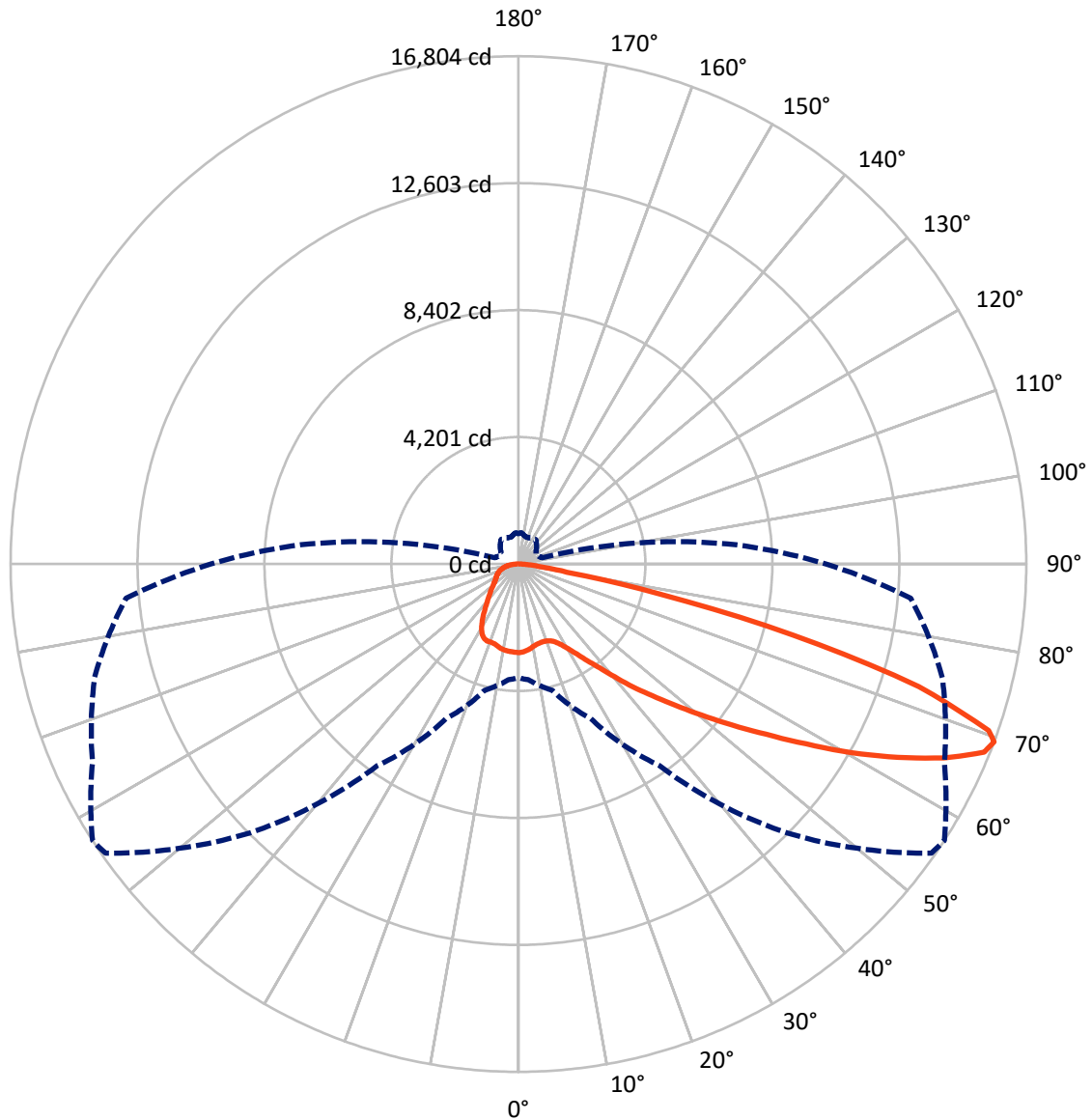
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5238.6	0.0	5238.6
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	18501.4	0.0	18501.4
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	23740.0	0.0	23740.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	274.6	1.2
10°-20°	780.8	3.3
20°-30°	1298.9	5.5
30°-40°	2121.0	8.9
40°-50°	3579.8	15.1
50°-60°	5568.5	23.5
60°-70°	6633.3	27.9
70°-80°	3090.2	13.0
80°-90°	393.0	1.7
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°	23740.0	100.0
0°-180°	23740.0	100.0



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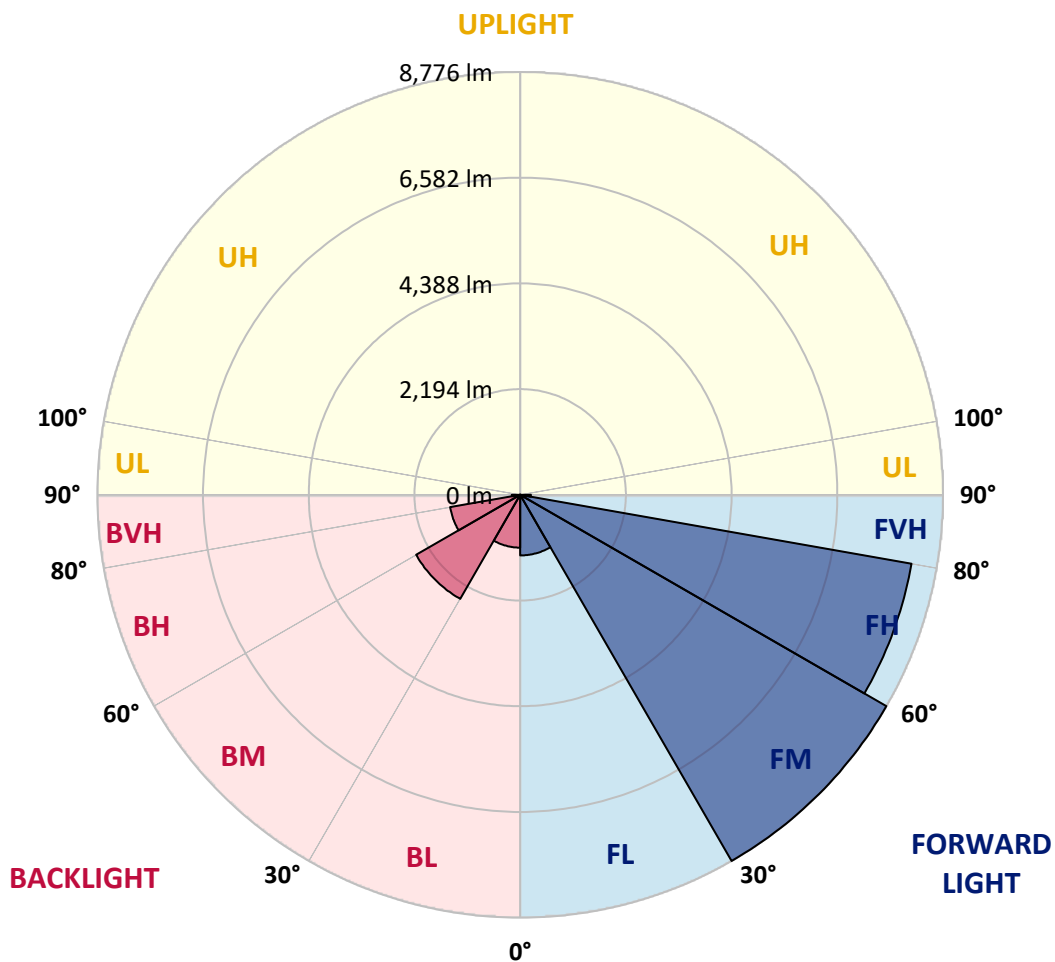
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1257.2	5.3			
FM	(30°-60°)	8776.0	37.0			
FH	(60°-80°)	8247.3	34.7			G4/12000
FVH	(80°-90°)	220.9	0.9			G2/225
BL	(0°-30°)	1097.1	4.6	B3/2500		
BM	(30°-60°)	2493.3	10.5	B2/2500		
BH	(60°-80°)	1476.2	6.2	B3/2500		G3/2500
BVH	(80°-90°)	172.1	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3
2.5°	2916.6	2916.6	2924.2	2924.2	2924.2	2921.1	2912.0	2915.1	2909.0	2904.4	2896.8
5°	2857.3	2860.4	2869.5	2872.5	2877.1	2878.6	2878.6	2877.1	2878.6	2878.6	2874.0
7.5°	2775.2	2778.3	2788.9	2795.0	2808.7	2820.8	2826.9	2826.9	2834.5	2840.6	2842.1
10°	2725.1	2725.1	2731.2	2731.2	2741.8	2747.9	2767.6	2766.1	2787.4	2807.2	2816.3
12.5°	2719.0	2719.0	2716.0	2705.3	2699.3	2697.7	2717.5	2720.5	2752.4	2787.4	2804.1
15°	2738.8	2738.8	2729.6	2708.4	2685.6	2674.9	2694.7	2700.8	2735.7	2776.8	2802.6
17.5°	2802.6	2801.1	2781.3	2738.8	2699.3	2682.5	2688.6	2694.7	2726.6	2773.7	2805.6
20°	2943.9	2943.9	2901.4	2823.9	2755.5	2716.0	2706.9	2711.4	2734.2	2778.3	2819.3
22.5°	3191.7	3196.2	3120.2	2992.6	2875.6	2792.0	2755.5	2760.0	2770.7	2813.2	2858.8
25°	3556.4	3544.3	3436.4	3255.5	3073.1	2930.3	2855.8	2860.4	2860.4	2899.9	2947.0
27.5°	3942.5	3945.5	3790.5	3596.0	3355.8	3143.0	3024.5	3023.0	3021.5	3059.5	3109.6
30°	4378.7	4380.2	4200.9	3975.9	3700.8	3428.8	3251.0	3249.4	3235.8	3282.9	3348.2
32.5°	4855.9	4854.4	4646.2	4392.4	4086.9	3778.3	3547.3	3545.8	3535.2	3599.0	3678.0
35°	5384.8	5384.8	5178.1	4865.0	4535.2	4191.7	3924.3	3922.7	3928.8	4015.4	4089.9
37.5°	6021.6	6035.3	5786.1	5406.1	5045.9	4679.6	4368.0	4358.9	4313.3	4459.2	4582.3
40°	6685.8	6723.8	6465.4	6021.6	5632.6	5254.1	4910.6	4904.6	4865.0	5020.1	5219.2
42.5°	7404.7	7491.3	7204.1	6751.2	6327.1	5918.3	5573.3	5556.6	5404.6	5646.2	5957.8
45°	8347.0	8403.2	7986.8	7576.4	7176.7	6710.1	6299.8	6210.1	6058.1	6368.2	6772.4
47.5°	8988.4	8961.0	8701.1	8426.0	8169.2	7722.4	7091.6	6977.6	6792.2	7202.6	7647.9
50°	9386.6	9406.3	9260.4	9246.8	9233.1	8921.5	7985.3	7848.5	7634.2	8120.6	8640.3
52.5°	9649.5	9559.8	9585.7	9895.7	10271.1	10122.2	8996.0	8844.0	8623.6	9110.0	9696.6
55°	9540.1	9421.5	9660.2	10271.1	11154.2	11187.6	10105.5	9948.9	9760.5	10161.7	10967.2
57.5°	9087.2	9146.5	9523.4	10373.0	11757.6	12142.1	11380.6	11221.0	10850.2	11257.5	12174.0
60°	8450.4	8570.4	9146.5	10211.9	12180.1	12885.3	12780.4	12674.0	12035.7	12324.5	13441.5
62.5°	7766.4	7885.0	8593.2	9936.8	11990.1	13543.4	14154.4	14089.0	13344.3	13351.9	14245.5
65°	6755.7	6804.4	7527.8	9186.0	11462.7	14137.6	15529.8	15472.1	14595.1	14228.8	14470.5
67.5°	5102.1	5162.9	5757.2	7251.2	9857.7	13815.4	16628.7	16619.5	15347.4	14554.1	13935.5
69°	3767.7	3842.2	4327.0	5629.5	8150.9	12587.4	16680.3	16803.5	15551.1	14520.6	13031.2
70°	2757.0	2842.1	3290.5	4468.4	6789.2	11231.7	16238.1	16502.5	15473.6	14309.4	12326.0
72.5°	1171.8	1200.7	1421.1	2016.8	3444.0	6772.4	13300.2	13856.5	13975.0	12821.4	9629.8
75°	734.1	743.2	829.8	1035.0	1532.0	2801.1	8613.0	9371.4	10433.8	9947.4	6447.2
77.5°	553.2	560.8	611.0	712.8	951.4	1045.7	3995.7	4764.7	5976.0	5851.4	3208.4
80°	424.0	428.6	462.0	518.3	670.3	655.1	1296.4	1629.3	2494.1	2200.7	1135.3
82.5°	332.8	334.4	363.2	373.9	468.1	440.8	650.5	725.0	1007.7	837.4	554.7
85°	294.9	299.4	328.3	273.6	299.4	266.0	357.2	387.6	535.0	504.6	209.7
87.5°	150.5	158.1	275.1	234.1	150.5	126.1	156.5	168.7	217.3	235.6	101.8
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°	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3	2933.3
2.5°	2898.4	2899.9	2904.4	2912.0	2924.2	2939.4	2957.6	2975.9	2986.5	2994.1	2991.1
5°	2874.0	2875.6	2884.7	2898.4	2913.6	2936.3	2966.7	2989.5	3006.3	3016.9	3015.4
7.5°	2843.6	2848.2	2866.4	2881.6	2902.9	2921.1	2945.5	2966.7	2983.5	2994.1	2992.6
10°	2820.8	2825.4	2848.2	2868.0	2886.2	2889.2	2884.7	2878.6	2877.1	2884.7	2881.6
12.5°	2810.2	2819.3	2840.6	2854.3	2846.7	2817.8	2784.4	2770.7	2766.1	2781.3	2782.8
15°	2813.2	2820.8	2839.1	2830.0	2788.9	2740.3	2722.0	2732.7	2741.8	2750.9	2752.4
17.5°	2820.8	2825.4	2830.0	2796.5	2738.8	2706.9	2700.8	2690.1	2662.8	2647.6	2646.1
20°	2834.5	2840.6	2833.0	2779.8	2728.1	2685.6	2612.6	2547.3	2485.0	2451.5	2437.8
22.5°	2881.6	2886.2	2863.4	2811.7	2732.7	2594.4	2447.0	2334.5	2238.7	2187.1	2167.3
25°	2974.3	2981.9	2950.0	2884.7	2678.0	2436.3	2228.1	2076.1	1956.0	1893.7	1877.0
27.5°	3137.0	3144.6	3109.6	2939.4	2550.3	2225.1	1972.8	1822.3	1718.9	1665.8	1658.2
30°	3380.1	3390.8	3358.9	2937.9	2355.8	1956.0	1723.5	1635.4	1576.1	1539.6	1538.1
32.5°	3717.6	3757.1	3626.4	2886.2	2115.6	1684.0	1535.0	1504.7	1475.8	1451.5	1451.5
35°	4146.1	4238.9	3890.8	2778.3	1851.2	1498.6	1430.2	1401.3	1364.8	1339.0	1335.9
37.5°	4658.3	4802.7	4079.3	2586.8	1623.2	1408.9	1366.3	1319.2	1261.5	1211.3	1199.2
40°	5362.0	5395.5	4172.0	2275.2	1453.0	1360.3	1307.1	1247.8	1174.8	1118.6	1112.5
42.5°	6068.8	5959.3	4153.7	1940.8	1355.7	1316.2	1246.3	1180.9	1115.6	1068.5	1068.5
45°	6872.8	6451.8	4015.4	1605.0	1267.6	1266.0	1190.0	1127.7	1077.6	1042.6	1035.0
47.5°	7641.8	6894.0	3776.8	1357.2	1176.4	1215.9	1153.6	1103.4	1057.8	1024.4	1018.3
50°	8575.0	7406.2	3523.0	1184.0	1088.2	1171.8	1138.4	1112.5	1068.5	1010.7	1004.6
52.5°	9502.1	8005.0	3326.9	1053.3	1010.7	1136.8	1147.5	1150.5	1109.5	997.0	989.4
55°	10497.6	8644.9	3120.2	951.4	946.9	1120.1	1168.8	1165.7	1146.0	1000.1	987.9
57.5°	11444.5	9287.8	2811.7	880.0	896.7	1103.4	1173.3	1124.7	1089.7	1015.3	995.5
60°	12228.7	9819.7	2358.8	829.8	854.2	1070.0	1142.9	1070.0	1010.7	1012.2	994.0
62.5°	12610.2	9968.7	1804.1	772.1	819.2	1015.3	1098.9	1028.9	974.2	1018.3	1007.7
65°	12319.9	9544.7	1285.8	718.9	776.6	951.4	1073.0	994.0	956.0	1048.7	1036.5
67.5°	11277.3	8389.6	933.2	671.8	735.6	886.1	1024.4	962.1	937.7	1071.5	1044.1
69°	10169.3	7243.6	808.6	644.4	706.7	851.1	992.5	945.3	924.1	1039.6	1000.1
70°	9248.3	6360.6	746.2	627.7	682.4	831.4	968.1	934.7	910.4	1001.6	954.5
72.5°	6631.1	4111.2	627.7	577.5	618.6	787.3	914.9	895.2	858.7	904.3	873.9
75°	4006.3	2146.0	533.5	525.9	551.7	726.5	852.6	828.3	791.8	796.4	781.2
77.5°	1840.5	990.9	446.8	465.1	481.8	650.5	776.6	749.3	715.8	703.7	705.2
80°	807.0	579.1	373.9	396.7	405.8	585.1	694.6	664.2	627.7	693.1	642.9
82.5°	436.2	335.9	291.8	307.0	332.8	509.1	603.4	563.9	528.9	615.5	497.0
85°	176.3	171.7	197.6	212.8	231.0	366.3	504.6	463.6	421.0	376.9	367.8
87.5°	76.0	82.1	97.3	103.3	123.1	228.0	338.9	296.4	297.9	255.3	250.8
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)