

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: P196782

Luminaire Tested: **NAV-AF-06-D-UNV-T3-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196782  
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-T3-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22960.9 lumens  
Efficiency: N/A  
Efficacy: 119.0 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

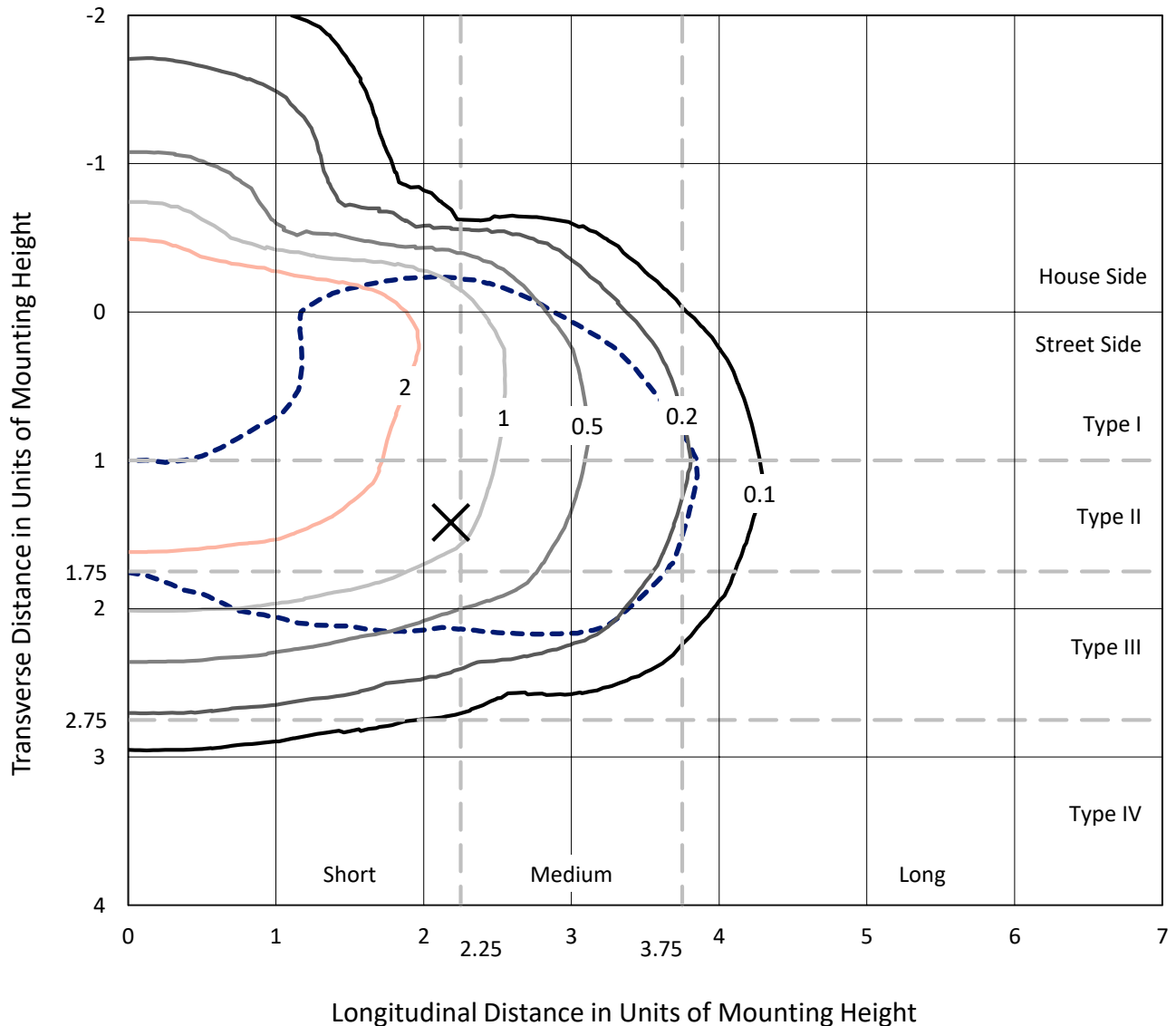
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

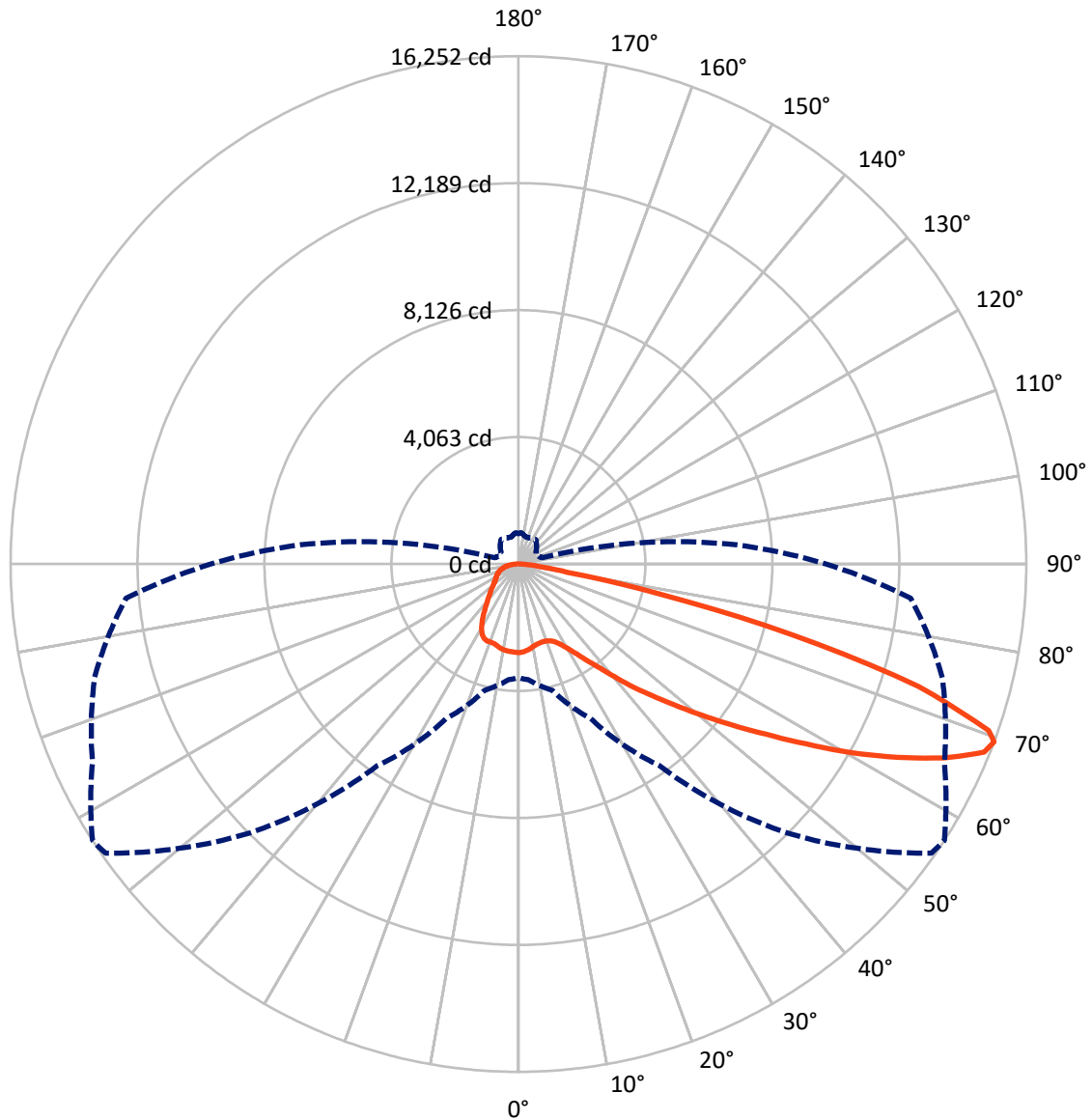
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 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	5066.7	0.0	5066.7
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	17894.2	0.0	17894.2
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	22960.9	0.0	22960.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	265.6	1.2
10°-20°	755.2	3.3
20°-30°	1256.2	5.5
30°-40°	2051.4	8.9
40°-50°	3462.3	15.1
50°-60°	5385.7	23.5
60°-70°	6415.6	27.9
70°-80°	2988.8	13.0
80°-90°	380.1	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°	22960.9	100.0
0°-180°	22960.9	100.0



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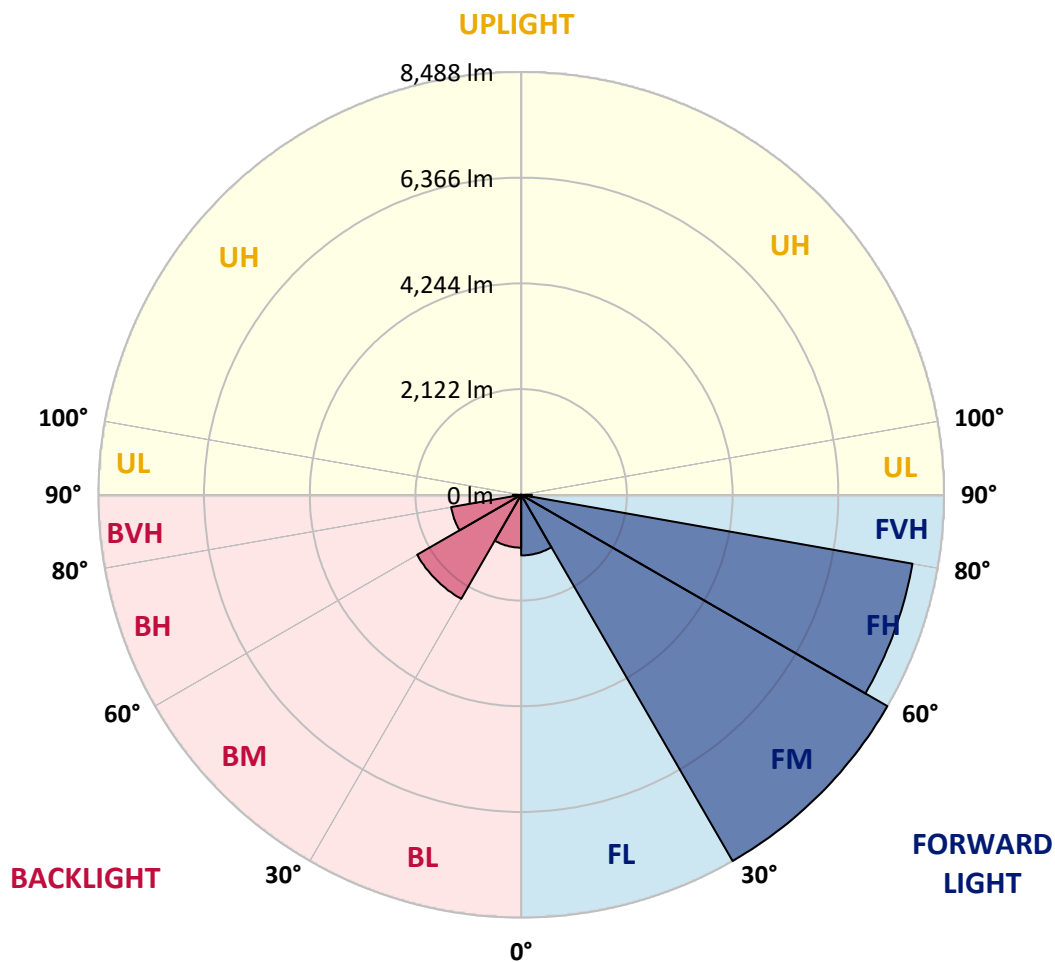
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1216.0	5.3			
FM	(30°-60°)	8487.9	37.0			
FH	(60°-80°)	7976.6	34.7			G4/12000
FVH	(80°-90°)	213.7	0.9			G2/225
BL	(0°-30°)	1061.1	4.6	B3/2500		
BM	(30°-60°)	2411.4	10.5	B2/2500		
BH	(60°-80°)	1427.7	6.2	B3/2500		G3/2500
BVH	(80°-90°)	166.5	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°	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0
2.5°	2820.8	2820.8	2828.1	2828.1	2828.1	2825.2	2816.4	2819.4	2813.5	2809.0	2801.7
5°	2763.5	2766.5	2775.3	2778.3	2782.7	2784.2	2784.2	2782.7	2784.2	2784.2	2779.7
7.5°	2684.2	2687.1	2697.4	2703.3	2716.5	2728.2	2734.1	2734.1	2741.6	2747.4	2748.9
10°	2635.7	2635.7	2641.6	2641.6	2651.8	2657.7	2676.9	2675.3	2696.0	2715.0	2723.9
12.5°	2629.8	2629.8	2626.8	2616.5	2610.6	2609.2	2628.3	2631.3	2662.1	2696.0	2712.1
15°	2648.9	2648.9	2640.0	2619.5	2597.4	2587.2	2606.3	2612.2	2645.9	2685.6	2710.6
17.5°	2710.6	2709.2	2690.1	2648.9	2610.6	2594.5	2600.4	2606.3	2637.1	2682.7	2713.6
20°	2847.3	2847.3	2806.3	2731.2	2665.1	2626.8	2618.0	2622.4	2644.5	2687.1	2726.8
22.5°	3086.9	3091.4	3017.8	2894.4	2781.2	2700.4	2665.1	2669.4	2679.8	2720.9	2765.1
25°	3439.7	3428.0	3323.5	3148.7	2972.3	2834.0	2762.1	2766.5	2766.5	2804.6	2850.2
27.5°	3813.0	3816.0	3666.0	3477.9	3245.6	3039.9	2925.2	2923.8	2922.2	2959.1	3007.6
30°	4235.0	4236.4	4063.1	3845.4	3579.4	3316.2	3144.3	3142.8	3129.5	3175.1	3238.3
32.5°	4696.5	4695.1	4493.8	4248.2	3952.8	3654.2	3430.8	3429.4	3419.2	3480.9	3557.4
35°	5208.1	5208.1	5008.2	4705.4	4386.4	4054.2	3795.4	3794.0	3799.8	3883.6	3955.7
37.5°	5823.9	5837.2	5596.2	5228.7	4880.3	4526.1	4224.7	4215.9	4171.7	4312.9	4432.0
40°	6466.4	6503.1	6253.2	5823.9	5447.6	5081.6	4749.5	4743.6	4705.4	4855.3	5047.9
42.5°	7161.7	7245.4	6967.7	6529.6	6119.5	5724.1	5390.5	5374.3	5227.2	5460.9	5762.3
45°	8073.0	8127.5	7724.6	7327.8	6941.1	6489.9	6093.1	6006.3	5859.2	6159.2	6550.2
47.5°	8693.4	8666.9	8415.5	8149.5	7901.1	7468.9	6858.9	6748.6	6569.3	6966.2	7396.9
50°	9078.5	9097.6	8956.5	8943.3	8930.1	8628.8	7723.2	7590.9	7383.6	7854.0	8356.8
52.5°	9332.8	9246.1	9271.0	9571.0	9934.1	9789.9	8700.8	8553.7	8340.7	8811.0	9378.4
55°	9227.0	9112.3	9343.1	9934.1	10788.0	10820.4	9773.8	9622.4	9440.1	9828.2	10607.3
57.5°	8789.0	8846.2	9210.8	10032.5	11371.7	11743.5	11007.1	10852.7	10494.2	10888.0	11774.5
60°	8173.0	8289.2	8846.2	9876.7	11780.4	12462.3	12360.9	12258.1	11640.7	11919.9	13000.4
62.5°	7511.6	7626.2	8311.3	9610.7	11596.6	13098.9	13689.7	13626.6	12906.2	12913.7	13778.0
65°	6534.0	6581.0	7280.7	8884.5	11086.5	13673.6	15020.1	14964.2	14116.1	13761.9	13995.6
67.5°	4934.7	4993.4	5568.2	7013.3	9534.2	13362.0	16082.9	16074.1	14843.8	14076.4	13478.1
69°	3644.1	3716.1	4184.9	5444.7	7883.4	12174.2	16132.9	16252.0	15040.7	14044.0	12603.5
70°	2666.5	2748.9	3182.5	4321.8	6566.4	10863.1	15705.2	15960.9	14965.7	13839.8	11921.4
72.5°	1133.3	1161.3	1374.4	1950.6	3331.0	6550.2	12863.6	13401.6	13516.4	12400.6	9313.7
75°	709.9	718.8	802.6	1001.1	1481.8	2709.2	8330.3	9063.8	10091.3	9621.0	6235.7
77.5°	535.1	542.4	590.9	689.4	920.2	1011.3	3864.5	4608.3	5780.0	5659.4	3103.1
80°	410.2	414.5	446.9	501.3	648.2	633.6	1253.9	1575.8	2412.2	2128.5	1098.0
82.5°	321.9	323.4	351.3	361.6	452.8	426.3	629.2	701.2	974.6	809.9	536.6
85°	285.1	289.5	317.5	264.6	289.5	257.2	345.5	374.9	517.5	488.1	202.9
87.5°	145.6	152.9	266.0	226.3	145.6	122.1	151.5	163.2	210.3	227.8	98.5
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°	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0	2837.0
2.5°	2803.3	2804.6	2809.0	2816.4	2828.1	2842.9	2860.5	2878.2	2888.5	2895.8	2892.8
5°	2779.7	2781.2	2790.1	2803.3	2817.9	2839.9	2869.3	2891.4	2907.6	2917.9	2916.4
7.5°	2750.3	2754.8	2772.4	2787.1	2807.6	2825.2	2848.8	2869.3	2885.5	2895.8	2894.4
10°	2728.2	2732.7	2754.8	2773.9	2791.5	2794.5	2790.1	2784.2	2782.7	2790.1	2787.1
12.5°	2718.0	2726.8	2747.4	2760.6	2753.3	2725.4	2693.0	2679.8	2675.3	2690.1	2691.5
15°	2720.9	2728.2	2745.9	2737.1	2697.4	2650.3	2632.7	2643.0	2651.8	2660.7	2662.1
17.5°	2728.2	2732.7	2737.1	2704.7	2648.9	2618.0	2612.2	2601.8	2575.3	2560.7	2559.2
20°	2741.6	2747.4	2740.0	2688.6	2638.6	2597.4	2526.8	2463.7	2403.3	2371.0	2357.9
22.5°	2787.1	2791.5	2769.4	2719.5	2643.0	2509.2	2366.7	2257.9	2165.3	2115.3	2096.1
25°	2876.7	2884.1	2853.2	2790.1	2590.1	2356.4	2154.9	2007.9	1891.9	1831.6	1815.5
27.5°	3034.0	3041.3	3007.6	2842.9	2466.6	2152.1	1908.0	1762.5	1662.5	1611.1	1603.7
30°	3269.2	3279.5	3248.6	2841.4	2278.5	1891.9	1667.0	1581.6	1524.3	1489.1	1487.6
32.5°	3595.5	3633.8	3507.3	2791.5	2046.2	1628.7	1484.7	1455.3	1427.4	1403.9	1403.9
35°	4010.1	4099.7	3763.1	2687.1	1790.4	1449.5	1383.2	1355.4	1320.1	1295.0	1292.1
37.5°	4505.5	4645.0	3945.4	2501.9	1569.9	1362.7	1321.5	1275.9	1220.1	1171.6	1159.8
40°	5186.0	5218.3	4035.1	2200.6	1405.3	1315.6	1264.1	1206.9	1136.3	1081.8	1075.9
42.5°	5869.6	5763.8	4017.5	1877.2	1311.2	1273.0	1205.3	1142.2	1078.9	1033.4	1033.4
45°	6647.3	6240.1	3883.6	1552.2	1226.0	1224.5	1150.9	1090.7	1042.3	1008.4	1001.1
47.5°	7391.0	6667.8	3652.9	1312.6	1137.7	1175.9	1115.7	1067.3	1023.1	990.8	984.9
50°	8293.6	7163.1	3407.4	1145.1	1052.5	1133.3	1101.0	1075.9	1033.4	977.6	971.7
52.5°	9190.3	7742.3	3217.8	1018.8	977.6	1099.5	1109.8	1112.8	1073.0	964.3	957.0
55°	10153.0	8361.2	3017.8	920.2	915.8	1083.5	1130.4	1127.4	1108.3	967.3	955.5
57.5°	11068.8	8983.0	2719.5	851.1	867.3	1067.3	1134.7	1087.7	1054.0	981.9	962.8
60°	11827.4	9497.5	2281.4	802.6	826.1	1034.9	1105.3	1034.9	977.6	979.0	961.4
62.5°	12196.3	9641.5	1744.9	746.8	792.3	981.9	1062.8	995.2	942.3	984.9	974.6
65°	11915.6	9231.5	1243.6	695.3	751.1	920.2	1037.8	961.4	924.7	1014.3	1002.6
67.5°	10907.2	8114.2	902.6	649.8	711.5	857.0	990.8	930.5	907.0	1036.4	1009.9
69°	9835.5	7005.8	782.0	623.3	683.5	823.2	959.9	914.3	893.7	1005.4	967.3
70°	8944.7	6151.9	721.7	607.1	660.0	804.0	936.4	904.0	880.5	968.7	923.1
72.5°	6413.4	3976.3	607.1	558.6	598.3	761.4	884.9	865.8	830.5	874.6	845.2
75°	3874.9	2075.6	515.9	508.6	533.6	702.6	824.7	801.1	765.8	770.3	755.5
77.5°	1780.2	958.4	432.1	449.8	466.0	629.2	751.1	724.7	692.3	680.5	682.1
80°	780.5	560.1	361.6	383.6	392.5	566.0	671.7	642.3	607.1	670.3	621.8
82.5°	421.8	324.8	282.2	296.9	321.9	492.4	583.6	545.3	511.6	595.4	480.6
85°	170.6	166.1	191.1	205.9	223.4	354.2	488.1	448.3	407.2	364.6	355.7
87.5°	73.5	79.4	94.1	100.0	119.1	220.4	327.8	286.7	288.1	246.9	242.5
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)