

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: P270719

Luminaire Tested: **NAV-AF-06-D-UNV-T4W-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270719
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24127)
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-T4W-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24985.6 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 249
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

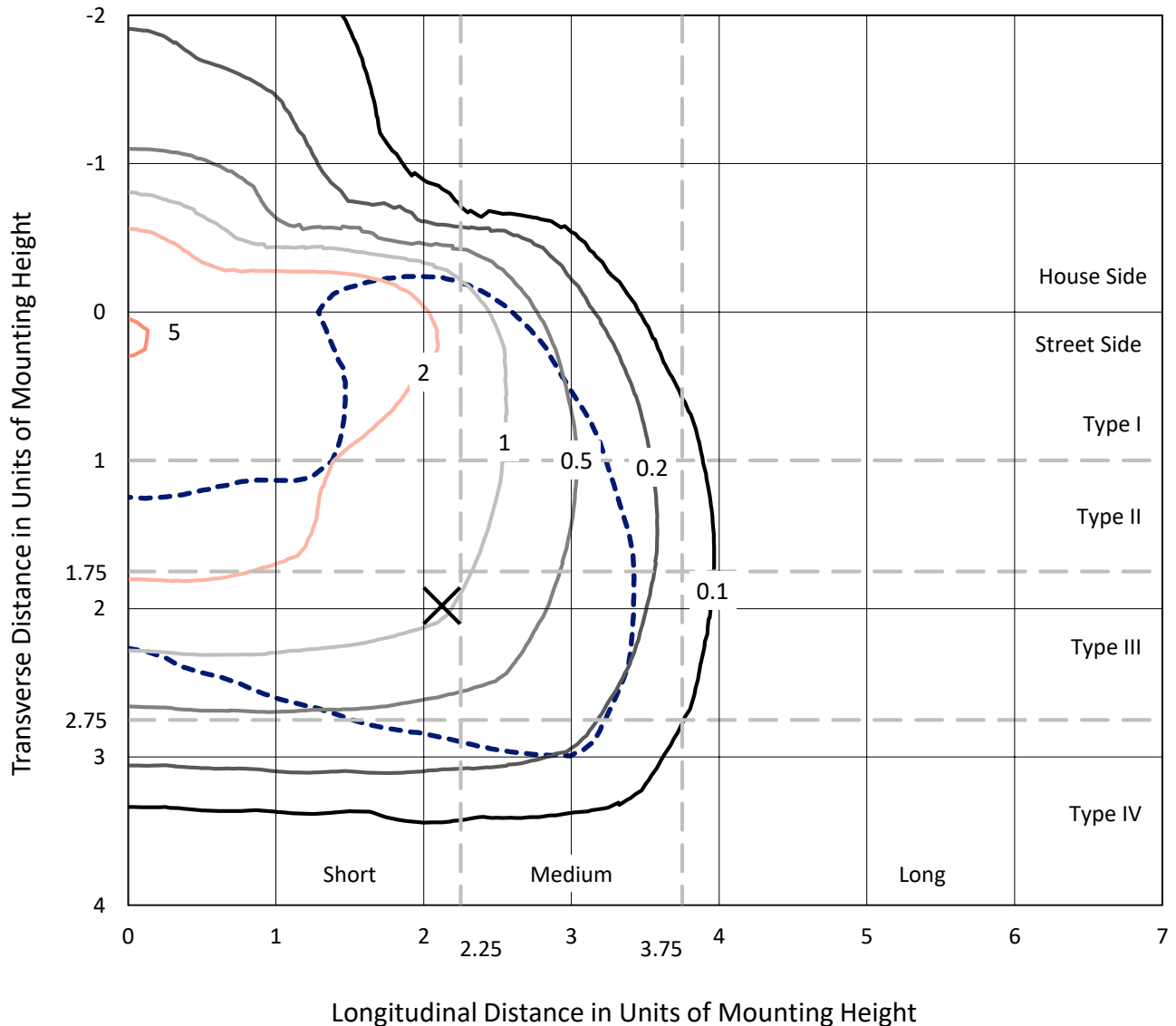


REPORT NUMBER: P270719

CATALOG NUMBER: NAV-AF-06-D-UNV-T4W-7027-800

Iso-Footcandle Lines of Horizontal Illumination

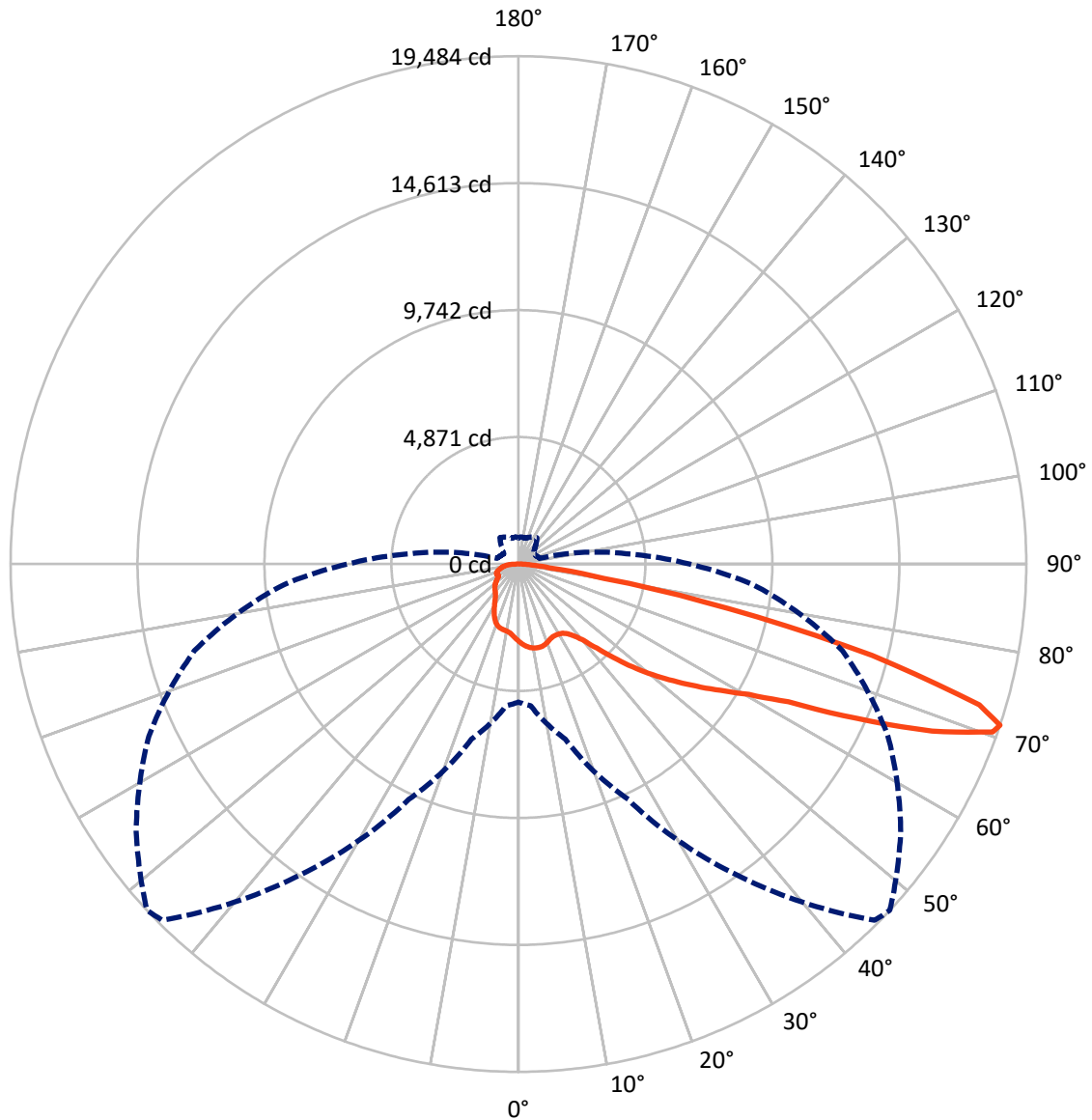
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P270719
CATALOG NUMBER: NAV-AF-06-D-UNV-T4W-7027-800

Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P270719

CATALOG NUMBER: NAV-AF-06-D-UNV-T4W-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5354.8	0.0	5354.8
	% Fixture	21.4	0.0	21.4
Street Side	Lumens	19630.8	0.0	19630.8
	% Fixture	78.6	0.0	78.6
Total	Lumens	24985.6	0.0	24985.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.7	1.1
10°-20°	830.0	3.3
20°-30°	1233.3	4.9
30°-40°	1770.8	7.1
40°-50°	3139.7	12.6
50°-60°	5372.5	21.5
60°-70°	7627.0	30.5
70°-80°	4177.2	16.7
80°-90°	551.4	2.2
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°	24985.6	100.0
0°-180°	24985.6	100.0

Coefficient of Utilization



REPORT NUMBER: P270719

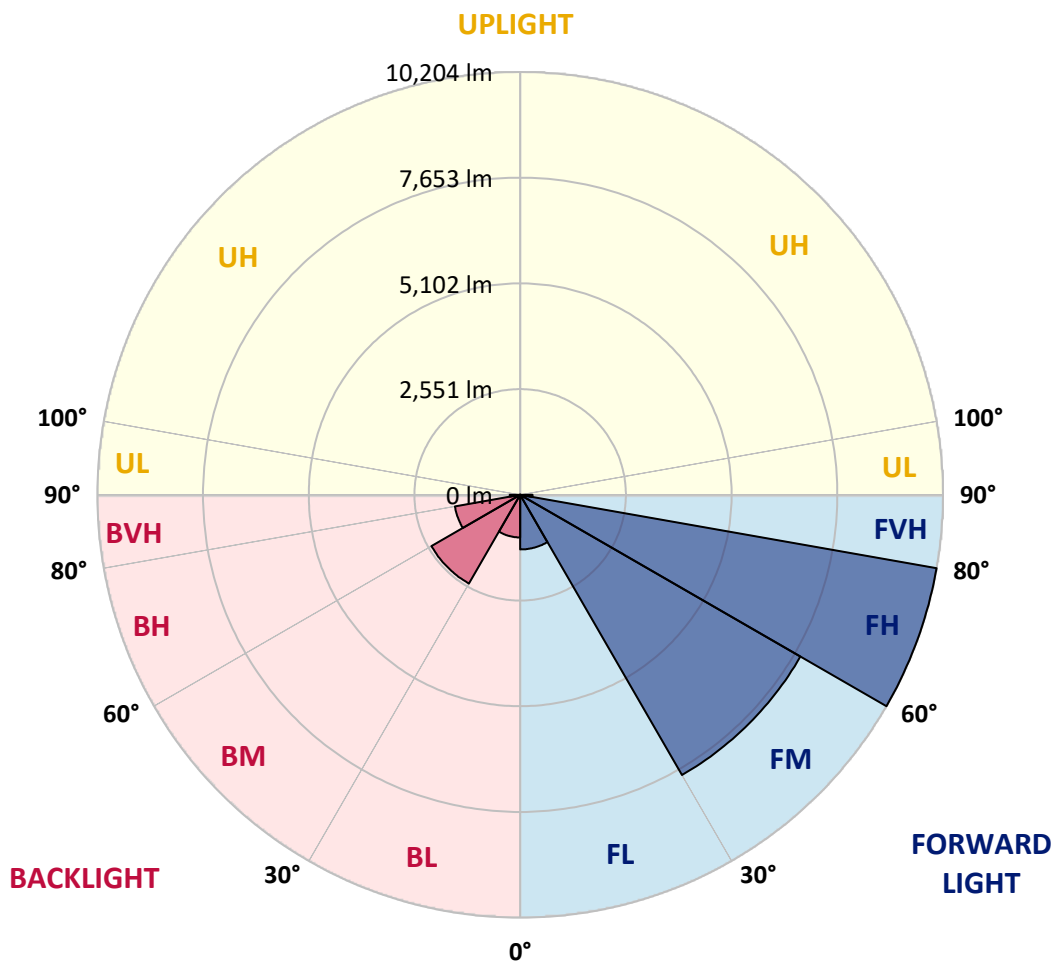
CATALOG NUMBER: NAV-AF-06-D-UNV-T4W-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1318.6	5.3			
FM	(30°-60°)	7808.7	31.3			
FH	(60°-80°)	10204.4	40.8			G4/12000
FVH	(80°-90°)	299.1	1.2			G3/500
BL	(0°-30°)	1028.3	4.1	B3/2500		
BM	(30°-60°)	2474.2	9.9	B2/2500		
BH	(60°-80°)	1599.9	6.4	B3/2500		G3/2500
BVH	(80°-90°)	252.3	1.0			G3/500
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 Short





REPORT NUMBER: P270719

CATALOG NUMBER: NAV-AF-06-D-UNV-T4W-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2
2.5°	3152.5	3146.0	3149.3	3138.0	3110.4	3081.2	3081.2	3050.6	3018.1	2985.7	2950.2
5°	3348.5	3338.8	3330.6	3295.1	3241.7	3181.6	3171.9	3110.4	3044.0	2977.7	2912.9
7.5°	3512.1	3502.3	3478.0	3413.2	3335.5	3246.5	3235.2	3154.2	3066.8	2974.5	2883.7
10°	3628.7	3622.1	3575.2	3492.6	3401.9	3296.7	3277.2	3194.6	3091.0	2976.1	2861.1
12.5°	3693.3	3683.6	3626.9	3529.8	3422.9	3316.2	3296.7	3217.3	3099.2	2972.9	2838.5
15°	3667.4	3662.6	3609.2	3510.3	3403.5	3311.2	3295.1	3214.0	3094.2	2961.5	2817.4
17.5°	3557.4	3568.6	3526.6	3429.4	3342.1	3277.2	3259.4	3183.4	3070.0	2934.0	2784.9
20°	3405.1	3418.1	3397.0	3298.2	3248.1	3206.1	3196.3	3134.7	3029.5	2893.5	2746.2
22.5°	3243.2	3254.6	3256.1	3163.9	3147.8	3131.5	3123.3	3079.7	2994.0	2869.1	2720.2
25°	3131.5	3144.4	3147.8	3066.8	3076.4	3081.2	3079.7	3048.9	2987.5	2869.1	2723.5
27.5°	3102.3	3108.9	3105.6	3031.2	3048.9	3076.4	3078.0	3071.6	3013.4	2901.5	2768.8
30°	3202.7	3206.1	3165.4	3053.8	3071.6	3107.1	3108.9	3105.6	3068.3	2985.7	2870.9
32.5°	3636.7	3633.5	3494.1	3206.1	3144.4	3157.5	3162.3	3191.4	3194.6	3125.1	3018.1
35°	4297.3	4295.6	4133.8	3641.5	3351.8	3283.8	3290.2	3335.5	3376.0	3329.1	3267.6
37.5°	5024.3	5029.3	4930.3	4263.4	3798.7	3515.2	3508.8	3542.7	3615.7	3631.8	3639.9
40°	5830.7	5855.0	5850.1	4977.4	4425.2	3910.3	3845.6	3806.7	3947.6	4036.7	4151.5
42.5°	6752.0	6745.6	6748.7	5761.1	5140.9	4532.0	4412.3	4230.9	4394.5	4548.3	4800.9
45°	7543.7	7569.7	7589.2	6594.9	5942.4	5242.9	5121.4	4791.2	4938.5	5168.5	5553.9
47.5°	8340.5	8295.0	8330.7	7522.8	6834.6	6054.1	5897.1	5451.9	5589.4	5913.3	6499.3
50°	9268.3	9247.2	9085.3	8734.0	7913.0	6876.6	6671.1	6141.5	6342.4	6774.7	7666.9
52.5°	10100.5	9987.1	9860.9	9686.0	8973.4	7709.0	7448.2	6858.9	7228.0	7764.1	9116.0
55°	10404.9	10328.8	10481.0	10707.6	10095.6	8557.3	8265.9	7696.0	8227.0	8895.7	10821.1
57.5°	10728.6	10754.6	11097.9	11556.2	11157.8	9462.6	9146.8	8686.9	9323.2	10161.9	12726.7
60°	10890.6	10994.3	11679.1	12538.9	12168.3	10455.1	10152.3	9825.2	10539.3	11560.9	14627.7
62.5°	10918.2	11057.3	12027.2	12883.9	13559.0	11975.5	11625.8	11271.2	12058.0	13107.3	16004.1
65°	10413.0	10626.7	11996.5	13308.1	14826.9	14516.0	14294.2	13675.6	14091.7	14469.0	16238.8
67.5°	8928.2	9161.4	10809.7	13133.2	15843.8	17152.0	17109.8	16196.7	15662.4	14995.2	14498.1
70°	6552.9	6740.6	8324.2	11227.5	15400.1	19221.4	19295.9	17830.5	16101.2	13878.0	10780.5
71°	5299.6	5461.5	6954.4	9967.8	14535.5	19328.2	19483.7	17903.3	15644.5	12869.3	9025.4
72.5°	3298.2	3388.9	4617.8	7522.8	12516.4	18227.1	18489.5	16970.7	14206.8	10877.7	6379.7
75°	1245.1	1280.8	1713.1	3317.7	7470.9	13693.5	14010.9	12825.6	9980.7	6209.5	2670.0
77.5°	668.7	686.6	850.1	1379.5	2994.0	7849.7	8257.8	7315.4	4788.0	2172.9	1091.4
80°	448.6	459.8	587.9	817.6	1376.4	2989.0	3329.1	2937.2	1792.5	1240.3	777.3
82.5°	289.9	296.4	399.9	537.5	889.0	1050.8	1199.9	1253.2	1118.8	889.0	469.5
85°	191.1	195.9	263.9	343.2	550.5	518.1	531.1	694.6	762.7	586.1	239.7
87.5°	110.1	113.4	158.7	176.4	247.8	194.4	210.6	330.2	453.4	382.0	137.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P270719

CATALOG NUMBER: NAV-AF-06-D-UNV-T4W-7027-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2	2971.2
2.5°	2934.0	2921.0	2891.9	2874.0	2866.0	2862.7	2859.5	2866.0	2866.0	2862.7	2856.3
5°	2880.5	2856.3	2807.7	2773.6	2755.8	2751.0	2757.4	2765.5	2770.5	2770.5	2765.5
7.5°	2841.7	2806.0	2741.3	2694.3	2666.8	2658.8	2676.5	2705.7	2725.1	2734.8	2736.4
10°	2809.3	2760.8	2689.4	2640.8	2618.2	2615.0	2637.7	2675.0	2715.3	2733.3	2736.4
12.5°	2780.2	2725.1	2647.3	2602.0	2585.9	2593.9	2624.7	2658.8	2705.7	2731.6	2733.3
15°	2752.5	2696.0	2613.3	2566.4	2563.1	2576.1	2605.3	2632.8	2668.4	2700.8	2700.8
17.5°	2720.2	2658.8	2572.8	2529.2	2529.2	2540.4	2559.9	2574.5	2597.2	2627.9	2626.4
20°	2681.4	2618.2	2530.7	2485.4	2475.6	2469.3	2469.3	2472.4	2491.9	2519.4	2524.2
22.5°	2652.2	2587.5	2495.1	2440.2	2396.4	2354.3	2336.5	2330.1	2347.8	2373.7	2380.1
25°	2652.2	2587.5	2483.9	2391.6	2284.7	2203.7	2169.6	2160.0	2177.9	2202.0	2211.7
27.5°	2696.0	2631.1	2509.8	2347.8	2151.9	2022.4	1981.9	1973.8	1989.9	2009.4	2019.1
30°	2798.0	2734.8	2584.2	2297.7	2004.6	1834.5	1789.2	1781.1	1789.2	1797.2	1808.6
32.5°	2968.0	2914.6	2705.7	2252.3	1855.5	1664.5	1609.5	1596.5	1599.7	1601.4	1611.1
35°	3244.9	3220.6	2867.6	2198.8	1714.8	1525.3	1468.5	1442.7	1441.2	1449.1	1460.6
37.5°	3669.0	3683.6	3076.4	2121.2	1598.2	1426.5	1369.8	1344.0	1331.0	1347.2	1360.2
40°	4268.1	4302.2	3317.7	2015.8	1502.7	1368.2	1308.3	1283.9	1266.3	1261.3	1267.8
42.5°	5046.9	5037.2	3563.8	1881.5	1399.0	1329.3	1266.3	1240.3	1211.2	1173.9	1165.8
45°	5970.0	5830.7	3769.5	1716.3	1280.8	1292.1	1227.4	1191.7	1146.3	1091.4	1084.9
47.5°	7059.6	6675.9	3895.8	1539.9	1170.8	1243.6	1183.6	1128.6	1062.2	1026.6	1021.7
50°	8372.8	7665.1	3984.8	1360.2	1071.9	1182.0	1122.2	1049.2	984.5	974.8	973.1
52.5°	9927.2	8832.7	4095.0	1198.2	994.2	1102.7	1060.5	986.1	934.2	939.1	939.1
55°	11580.4	10040.5	4098.2	1070.3	926.2	1010.4	1015.3	955.3	914.8	931.1	935.9
57.5°	13087.9	11096.3	3775.9	979.6	861.5	937.6	1000.6	966.7	935.9	992.5	997.4
60°	14402.6	11909.1	3083.0	905.1	807.9	910.1	1033.1	1036.3	1029.7	1183.6	1194.9
62.5°	14883.6	11917.2	2189.1	842.0	778.8	926.2	1101.1	1106.0	1106.0	1248.4	1269.5
65°	14210.0	10924.6	1457.3	804.7	759.3	961.7	1156.1	1135.1	1084.9	1183.6	1161.0
67.5°	11836.2	8504.0	1065.4	780.4	731.8	963.4	1204.6	1151.3	1065.4	1149.7	1110.8
70°	8134.8	5411.3	892.1	757.8	699.5	921.3	1230.6	1146.3	1036.3	1071.9	1020.0
71°	6547.9	4318.3	846.8	749.6	686.6	897.0	1233.8	1139.9	1021.7	1044.4	997.4
72.5°	4313.5	2660.3	791.8	731.8	667.1	854.9	1225.6	1125.3	1002.2	1003.9	973.1
75°	1701.7	1102.7	712.4	691.3	612.0	786.9	1190.2	1094.6	965.0	932.6	919.7
77.5°	859.8	720.5	626.6	634.7	547.2	717.2	1139.9	1044.4	913.2	869.5	859.8
80°	628.3	547.2	536.0	550.5	474.5	649.3	1076.8	976.4	846.8	892.1	872.8
82.5°	382.0	333.5	419.4	455.0	396.7	579.6	1002.2	897.0	762.7	702.7	680.0
85°	181.4	195.9	302.8	335.2	293.0	463.0	916.5	809.6	665.5	574.8	584.5
87.5°	89.0	108.4	173.3	200.9	192.6	340.0	691.3	628.3	524.6	432.4	422.7
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)