

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: McGRAW-EDISON

Report Number: P299116

Luminaire Tested: **GLNA-AF-04-LED-E1-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299116
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-T3
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23933.6 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

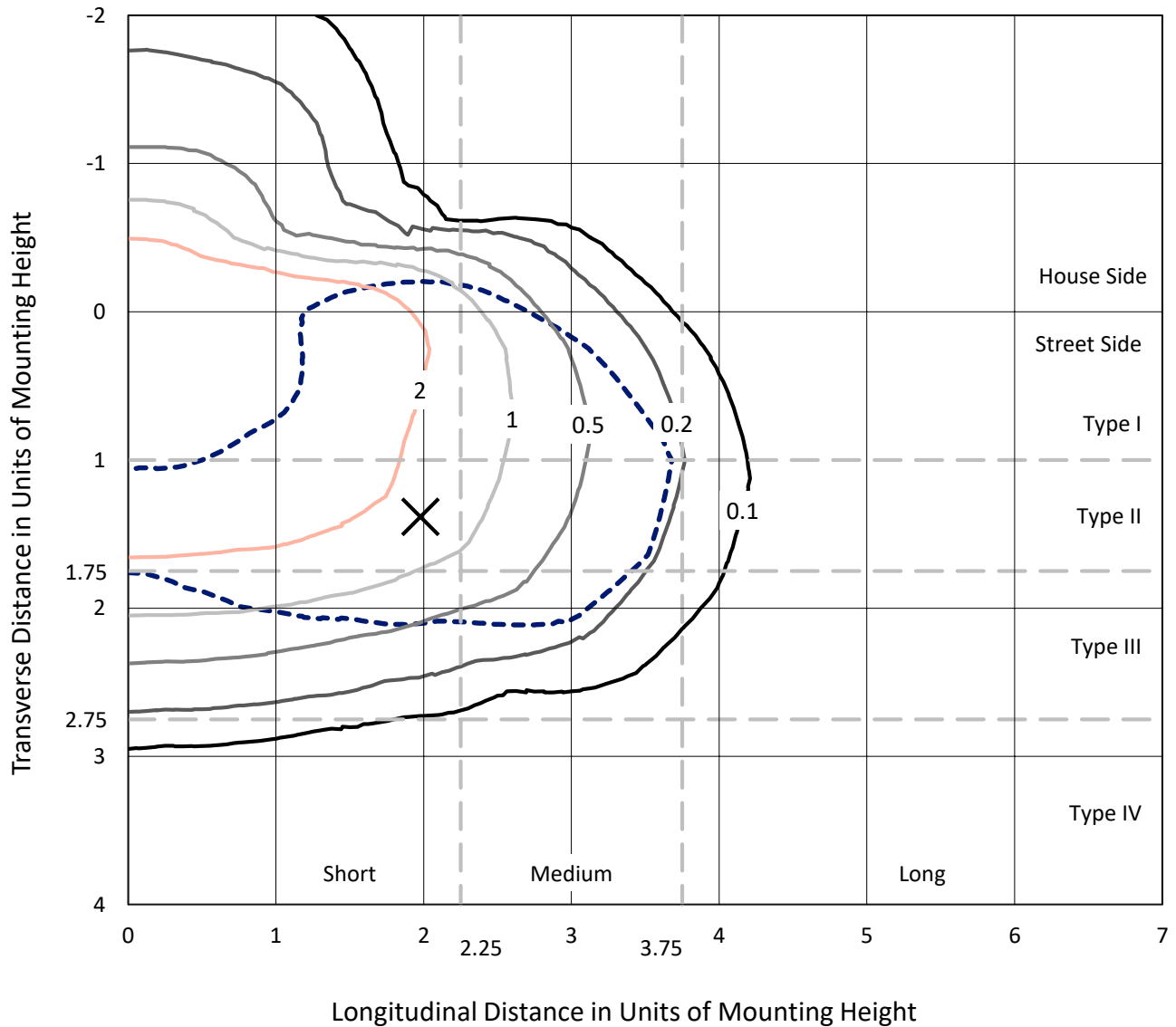
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299116
 CATALOG NUMBER: GLNA-AF-04-LED-E1-T3

Iso-Footcandle Lines of Horizontal Illumination

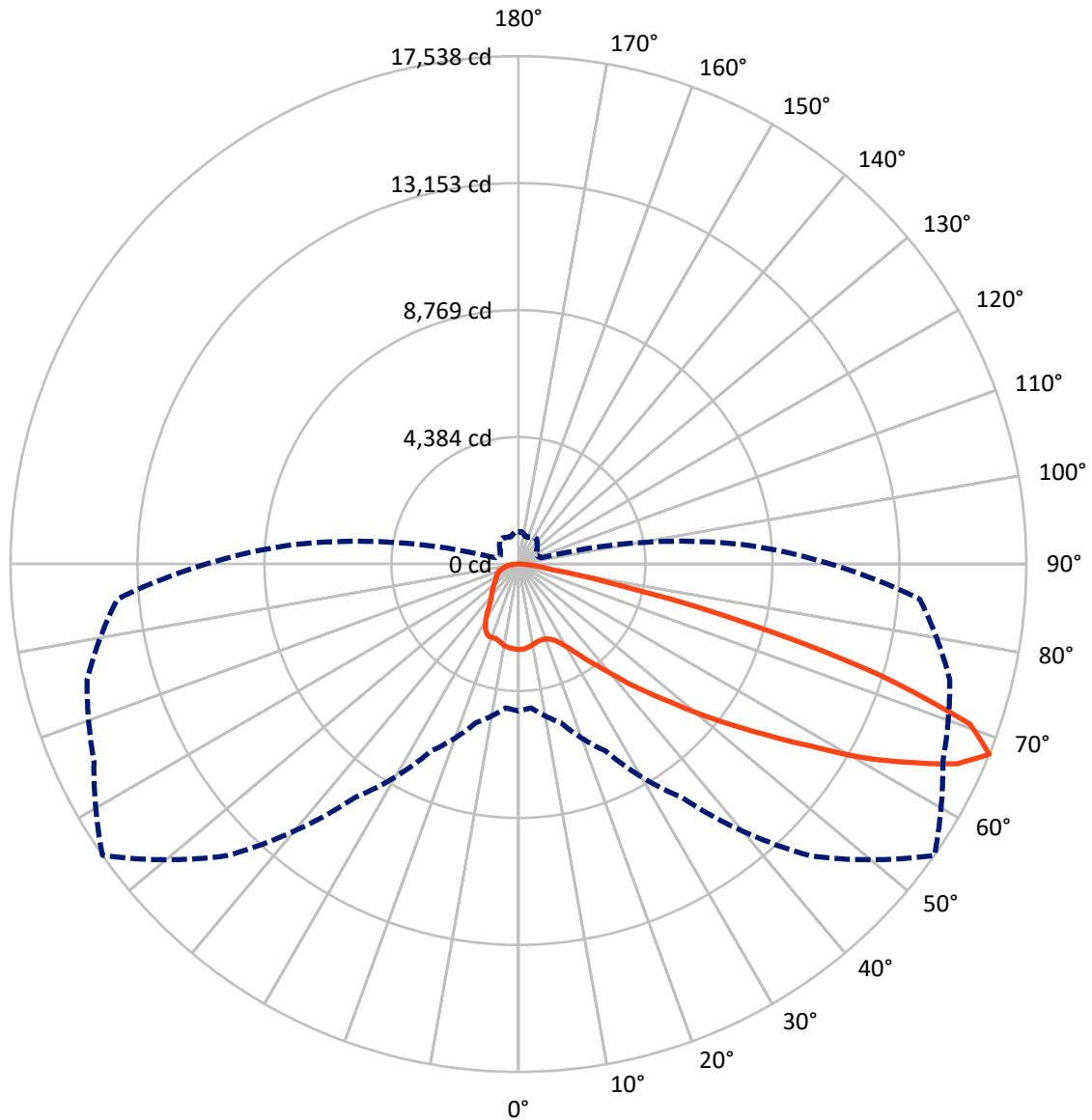
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P299116
CATALOG NUMBER: GLNA-AF-04-LED-E1-T3

Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299116

CATALOG NUMBER: GLNA-AF-04-LED-E1-T3

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5170.2	0.0	5170.2
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	18763.5	0.0	18763.5
	% Fixture	78.4	0.0	78.4
Total	Lumens	23933.6	0.0	23933.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.5	1.2
10°-20°	780.2	3.3
20°-30°	1306.9	5.5
30°-40°	2149.1	9.0
40°-50°	3617.6	15.1
50°-60°	5693.8	23.8
60°-70°	6794.9	28.4
70°-80°	2917.9	12.2
80°-90°	397.8	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°	23933.6	100.0
0°-180°	23933.6	100.0



REPORT NUMBER: P299116

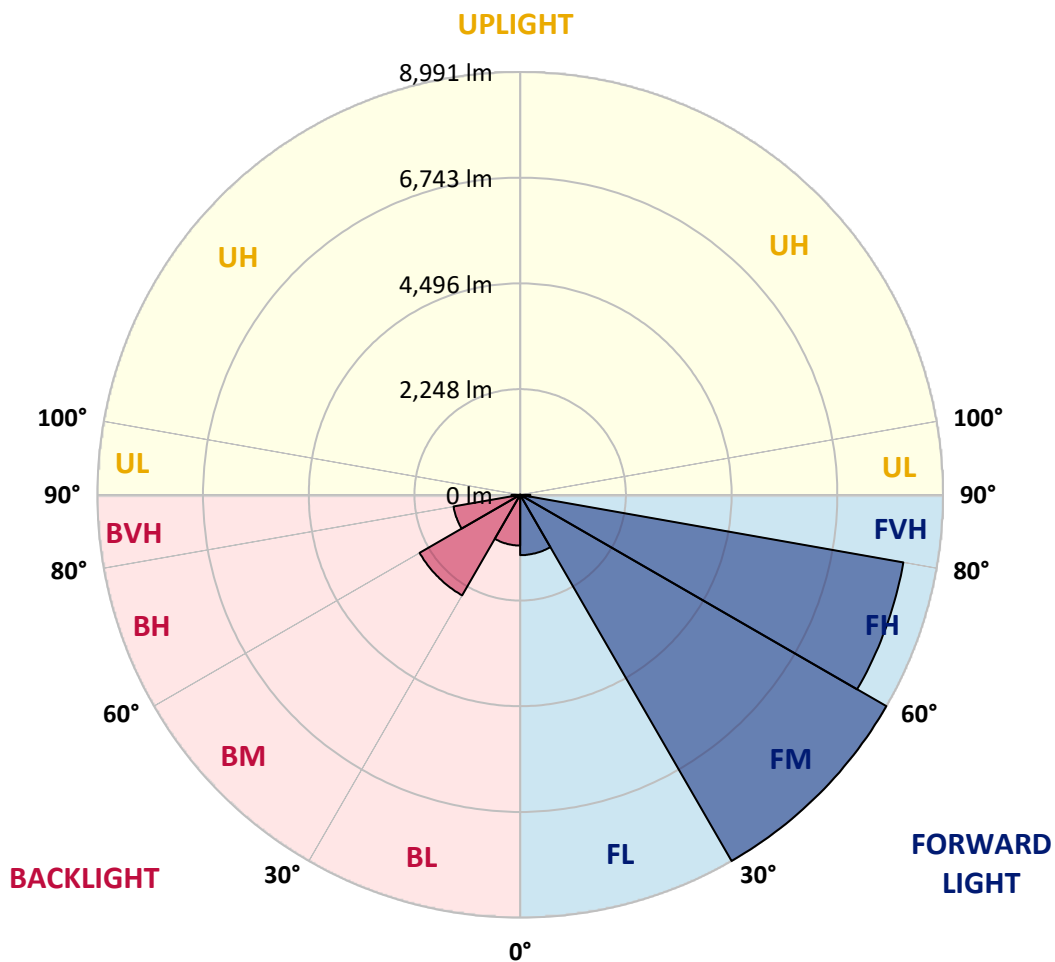
CATALOG NUMBER: GLNA-AF-04-LED-E1-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1282.9	5.4			
FM (30°-60°)	8991.2	37.6			
FH (60°-80°)	8274.0	34.6			G4/12000
FVH (80°-90°)	215.3	0.9			G2/225
BL (0°-30°)	1079.6	4.5	B3/2500		
BM (30°-60°)	2469.2	10.3	B2/2500		
BH (60°-80°)	1438.8	6.0	B3/2500		G3/2500
BVH (80°-90°)	182.5	0.8			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





REPORT NUMBER: P299116
 CATALOG NUMBER: GLNA-AF-04-LED-E1-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3
2.5°	2925.8	2927.0	2929.3	2938.6	2946.7	2944.3	2945.5	2940.9	2939.7	2932.8	2939.7
5°	2888.9	2892.3	2893.5	2908.5	2917.8	2920.1	2916.6	2910.8	2903.9	2896.9	2900.4
7.5°	2804.5	2813.7	2814.9	2835.7	2850.7	2870.4	2871.5	2872.7	2869.2	2864.6	2871.5
10°	2751.3	2753.6	2752.4	2767.5	2779.0	2801.0	2813.7	2835.7	2844.9	2847.2	2851.9
12.5°	2747.8	2745.5	2742.0	2742.0	2738.6	2747.8	2770.9	2802.2	2824.1	2831.1	2836.8
15°	2784.8	2783.7	2772.1	2754.8	2732.8	2725.9	2745.5	2780.2	2809.1	2824.1	2829.9
17.5°	2868.0	2861.1	2842.6	2803.3	2755.9	2737.4	2739.7	2768.6	2802.2	2821.8	2827.6
20°	3020.6	3020.6	2981.3	2907.4	2823.0	2779.0	2758.2	2775.6	2807.9	2834.5	2842.6
22.5°	3284.2	3286.5	3220.6	3099.2	2957.1	2863.4	2811.4	2807.9	2846.1	2876.1	2885.4
25°	3657.6	3648.3	3555.9	3382.5	3166.3	3011.4	2921.2	2900.4	2932.8	2966.3	2977.9
27.5°	4092.3	4058.7	3948.9	3739.7	3459.9	3233.3	3094.6	3061.1	3092.3	3130.5	3142.0
30°	4522.3	4487.6	4357.0	4128.1	3817.1	3530.4	3331.6	3277.3	3321.2	3375.5	3382.5
32.5°	4952.3	4952.3	4806.7	4539.6	4200.9	3885.3	3647.2	3582.5	3655.3	3721.2	3736.2
35°	5466.7	5469.1	5328.0	5006.7	4642.5	4308.4	4046.0	3998.6	4108.4	4154.7	4190.5
37.5°	6099.1	6111.8	5930.3	5541.9	5143.1	4791.6	4479.5	4414.8	4524.6	4650.6	4766.2
40°	6782.3	6798.5	6598.5	6119.9	5721.1	5353.5	5015.9	4899.1	5081.8	5322.2	5471.4
42.5°	7434.3	7517.5	7324.4	6832.0	6403.1	6022.8	5680.6	5510.7	5739.6	6102.5	6232.0
45°	8376.4	8436.5	8100.1	7653.9	7250.5	6825.0	6371.9	6192.7	6512.9	6970.7	6997.3
47.5°	9004.1	8959.0	8787.9	8510.5	8255.0	7857.4	7175.3	6978.8	7404.2	7942.9	7793.8
50°	9338.2	9352.1	9329.0	9345.1	9354.4	9104.7	8160.2	7890.9	8398.4	9049.2	8705.9
52.5°	9650.3	9557.8	9634.1	10013.3	10471.1	10378.6	9231.8	8950.9	9464.2	10276.9	9670.0
55°	9643.4	9502.4	9750.9	10420.2	11413.2	11519.6	10435.2	10111.6	10591.3	11593.6	10691.9
57.5°	9302.4	9309.3	9691.9	10568.2	12069.8	12592.4	11831.7	11346.2	11786.6	12927.6	11624.8
60°	8833.0	8896.6	9448.0	10543.9	12595.8	13472.1	13544.9	12676.7	12957.6	14140.2	12397.0
62.5°	8075.8	8142.9	8903.5	10291.9	12516.1	14319.4	15093.9	14186.5	14181.9	14875.5	12623.6
65°	6881.7	6862.0	7660.8	9349.8	11846.7	14946.0	16632.6	15491.6	15104.3	14887.0	12168.1
67.5°	5074.9	4987.0	5672.5	7121.0	9846.8	14244.3	17537.7	16171.3	15418.8	13907.9	10776.3
70°	2633.4	2545.5	3100.4	4158.1	6475.9	11117.3	16535.5	15819.9	14724.0	11658.3	8442.3
72.5°	1125.9	1110.9	1336.3	1824.2	3132.8	6412.4	12965.7	13692.9	12634.0	8686.2	5804.3
75°	757.2	752.6	836.9	994.2	1409.2	2602.2	8114.0	9719.7	9243.4	5385.8	3264.6
77.5°	594.2	588.4	638.1	714.4	913.2	1026.5	3601.0	5218.2	4829.8	2344.4	1428.8
80°	464.7	460.1	491.3	532.9	656.6	647.4	1184.9	2076.2	1606.8	898.2	694.8
82.5°	366.5	366.5	391.9	393.0	465.9	441.6	618.5	914.4	802.3	523.7	425.4
85°	335.2	335.2	361.8	293.6	304.0	278.6	383.8	542.2	508.6	215.0	185.0
87.5°	168.8	164.2	304.0	260.1	165.3	148.0	187.3	262.4	282.1	119.1	92.5
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: P299116

CATALOG NUMBER: GLNA-AF-04-LED-E1-T3

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3	2951.3
2.5°	2937.4	2936.3	2938.6	2939.7	2949.0	2961.7	2967.5	2975.6	2980.2	2977.9
5°	2902.7	2905.0	2914.3	2921.2	2937.4	2958.2	2969.8	2979.0	2987.1	2983.6
7.5°	2873.8	2879.6	2893.5	2899.3	2908.5	2914.3	2913.1	2916.6	2923.5	2915.4
10°	2857.6	2864.6	2875.0	2866.9	2844.9	2813.7	2784.8	2769.8	2774.4	2768.6
12.5°	2841.5	2850.7	2842.6	2804.5	2743.2	2702.7	2680.8	2683.1	2693.5	2695.8
15°	2832.2	2835.7	2801.0	2729.3	2666.9	2661.1	2672.7	2670.4	2671.5	2671.5
17.5°	2832.2	2823.0	2758.2	2686.6	2660.0	2649.6	2613.7	2568.6	2549.0	2542.1
20°	2847.2	2823.0	2744.4	2697.0	2639.2	2550.1	2455.4	2372.1	2335.1	2324.7
22.5°	2892.3	2850.7	2783.7	2701.6	2537.4	2388.3	2238.0	2138.6	2071.6	2060.0
25°	2983.6	2937.4	2861.1	2640.3	2375.6	2162.9	1991.8	1880.8	1813.8	1804.5
27.5°	3143.2	3113.1	2902.7	2505.1	2160.6	1932.8	1774.5	1688.9	1639.2	1635.7
30°	3383.6	3368.6	2881.9	2305.1	1895.8	1709.7	1633.4	1583.7	1546.7	1545.6
32.5°	3767.4	3646.0	2813.7	2061.2	1654.2	1551.4	1520.1	1490.1	1461.2	1461.2
35°	4261.0	3870.3	2684.2	1799.9	1507.4	1463.5	1424.2	1376.8	1338.7	1336.3
37.5°	4841.3	4009.0	2451.9	1589.5	1438.1	1404.5	1346.7	1276.2	1209.2	1197.6
40°	5427.4	4050.6	2124.7	1460.0	1394.1	1345.6	1275.1	1191.8	1127.1	1123.6
42.5°	5965.0	3970.9	1777.9	1371.0	1350.2	1285.5	1211.5	1137.5	1086.6	1085.5
45°	6415.8	3763.9	1486.6	1286.6	1304.0	1231.1	1165.3	1105.1	1065.8	1057.7
47.5°	6840.1	3471.5	1282.0	1197.6	1257.7	1201.1	1145.6	1089.0	1050.8	1045.0
50°	7332.5	3155.9	1138.7	1110.9	1217.3	1190.7	1161.8	1102.8	1039.2	1032.3
52.5°	7929.0	2883.1	1026.5	1034.6	1186.1	1204.6	1203.4	1142.1	1031.2	1021.9
55°	8594.9	2580.2	942.1	972.2	1173.3	1230.0	1213.8	1179.1	1038.1	1024.2
57.5°	9250.3	2226.5	883.2	924.8	1154.8	1227.7	1164.1	1114.4	1054.3	1034.6
60°	9741.6	1751.3	838.1	883.2	1114.4	1189.5	1109.8	1043.9	1050.8	1035.8
62.5°	9774.0	1353.7	783.8	847.4	1053.1	1151.4	1073.9	1012.7	1065.8	1052.0
65°	9199.5	1023.1	731.8	804.6	987.2	1127.1	1039.2	995.3	1097.0	1082.0
67.5°	7745.2	823.1	687.8	760.7	921.3	1076.2	1008.0	979.1	1124.8	1098.2
70°	5591.6	701.7	645.1	707.5	862.4	1018.4	980.3	950.2	1049.7	1008.0
72.5°	3442.6	608.1	596.5	637.0	817.3	958.3	938.7	895.9	945.6	912.1
75°	1719.0	527.1	542.2	567.6	753.7	890.1	869.3	826.5	833.5	826.5
77.5°	823.1	450.8	478.6	498.2	671.6	812.7	790.7	746.8	738.7	739.8
80°	521.4	376.9	403.4	417.3	600.0	722.5	700.5	656.6	749.1	694.8
82.5°	326.0	306.3	313.3	338.7	522.5	628.9	600.0	560.7	675.1	534.1
85°	180.3	213.9	223.1	245.1	402.3	526.0	497.1	447.4	401.1	394.2
87.5°	107.5	127.2	130.6	146.8	270.5	380.3	336.4	319.1	264.7	263.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)