

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: P299248

Luminaire Tested: **GLNA-AF-06-LED-E1-T3-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299248
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-06-LED-E1-T3-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23377.3 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full 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

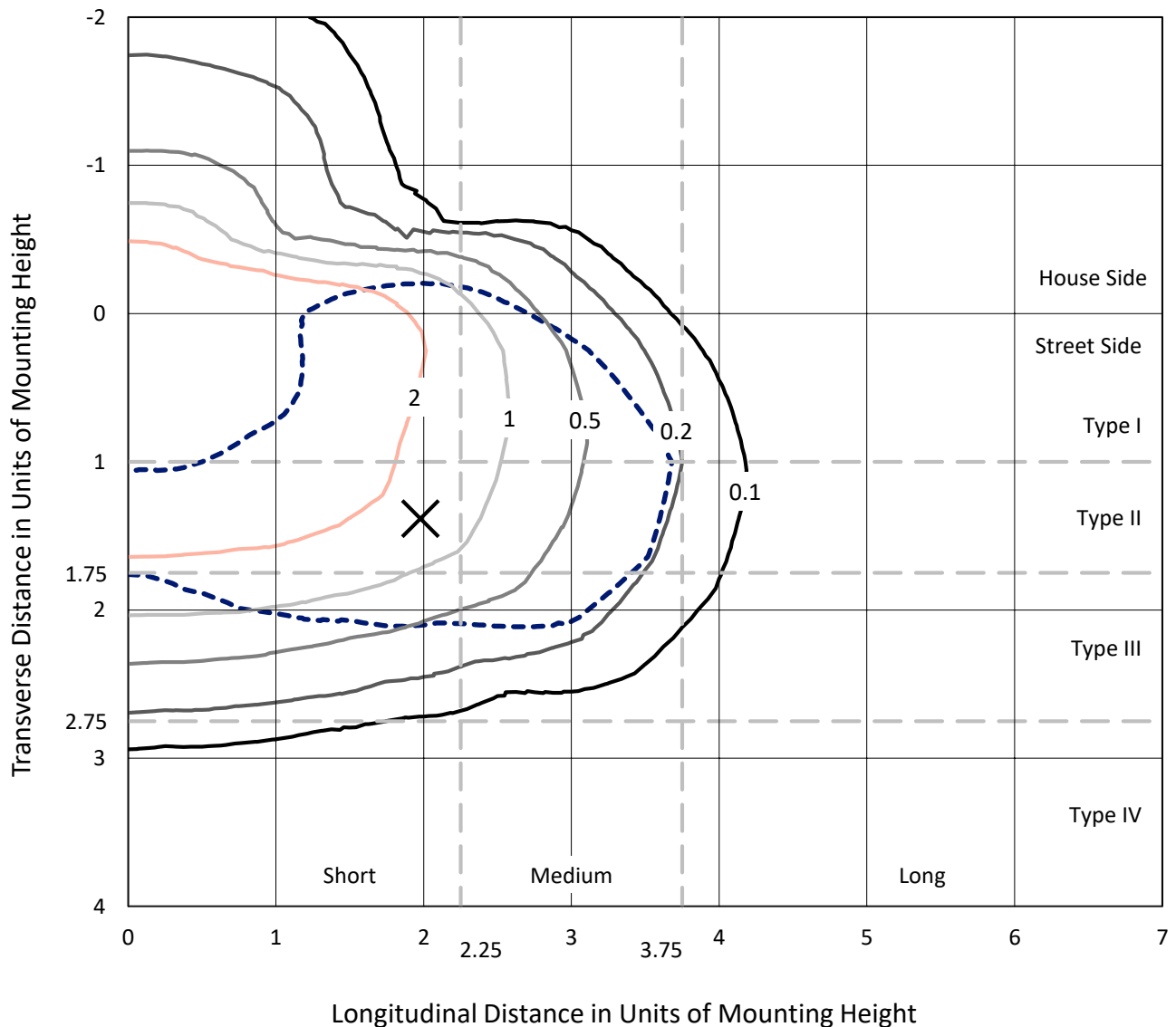


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Iso-Footcandle Lines of Horizontal Illumination

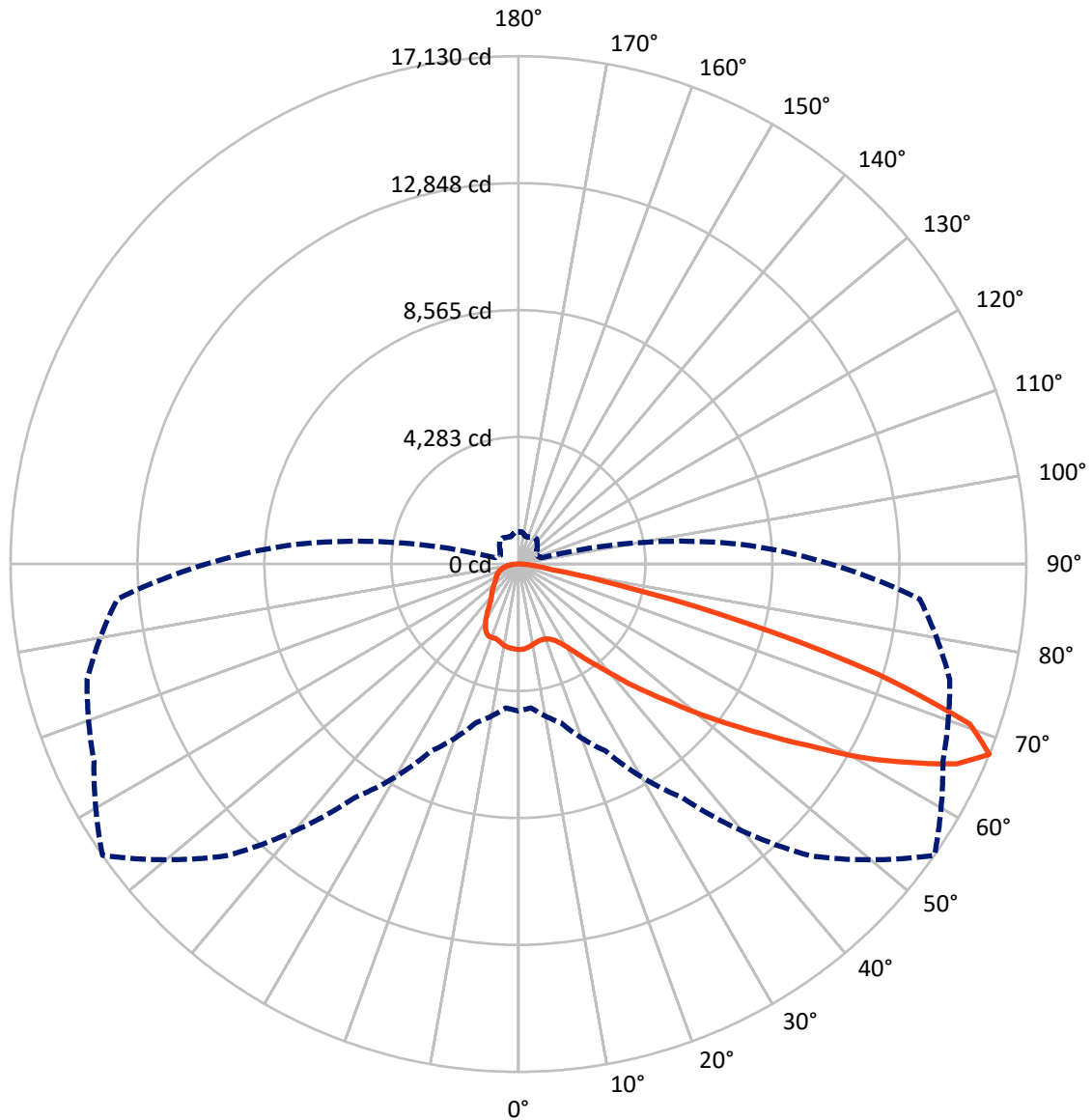
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5050.0	0.0	5050.0
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	18327.3	0.0	18327.3
	% Fixture	78.4	0.0	78.4
Total	Lumens	23377.3	0.0	23377.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.1	1.2
10°-20°	762.0	3.3
20°-30°	1276.5	5.5
30°-40°	2099.1	9.0
40°-50°	3533.5	15.1
50°-60°	5561.4	23.8
60°-70°	6637.0	28.4
70°-80°	2850.0	12.2
80°-90°	388.6	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°	23377.3	100.0
0°-180°	23377.3	100.0



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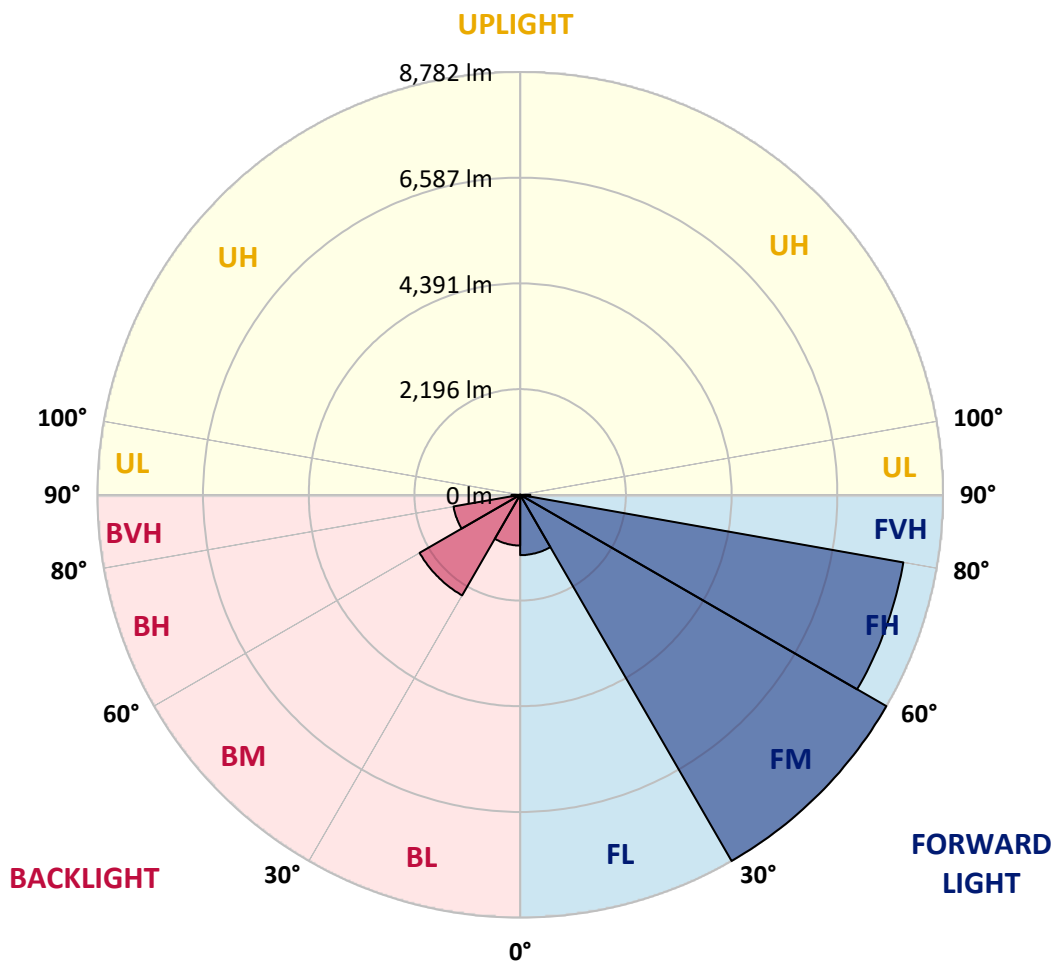
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1253.1	5.4			
FM	(30°-60°)	8782.2	37.6			
FH	(60°-80°)	8081.6	34.6			G4/12000
FVH	(80°-90°)	210.3	0.9			G2/225
BL	(0°-30°)	1054.5	4.5	B3/2500		
BM	(30°-60°)	2411.8	10.3	B2/2500		
BH	(60°-80°)	1405.4	6.0	B3/2500		G3/2500
BVH	(80°-90°)	178.2	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7
2.5°	2857.8	2859.0	2861.2	2870.3	2878.2	2875.9	2877.0	2872.5	2871.4	2864.6	2871.4
5°	2821.7	2825.1	2826.2	2840.9	2849.9	2852.2	2848.8	2843.2	2836.4	2829.6	2833.0
7.5°	2739.3	2748.3	2749.4	2769.8	2784.4	2803.6	2804.8	2805.9	2802.5	2798.0	2804.8
10°	2687.3	2689.6	2688.5	2703.1	2714.4	2735.9	2748.3	2769.8	2778.8	2781.0	2785.6
12.5°	2683.9	2681.7	2678.3	2678.3	2674.9	2683.9	2706.5	2737.0	2758.5	2765.2	2770.9
15°	2720.1	2718.9	2707.7	2690.7	2669.3	2662.5	2681.7	2715.6	2743.8	2758.5	2764.1
17.5°	2801.4	2794.6	2776.5	2738.1	2691.8	2673.8	2676.0	2704.3	2737.0	2756.2	2761.9
20°	2950.4	2950.4	2912.0	2839.8	2757.3	2714.4	2694.1	2711.0	2742.7	2768.6	2776.5
22.5°	3207.9	3210.1	3145.8	3027.2	2888.3	2796.9	2746.0	2742.7	2779.9	2809.3	2818.3
25°	3572.6	3563.5	3473.2	3303.8	3092.7	2941.4	2853.3	2833.0	2864.6	2897.3	2908.6
27.5°	3997.1	3964.4	3857.1	3652.7	3379.5	3158.2	3022.7	2989.9	3020.4	3057.7	3069.0
30°	4417.2	4383.3	4255.7	4032.1	3728.4	3448.4	3254.2	3201.1	3244.0	3297.1	3303.8
32.5°	4837.2	4837.2	4694.9	4434.1	4103.3	3795.0	3562.4	3499.2	3570.3	3634.7	3649.4
35°	5339.7	5341.9	5204.2	4890.3	4534.6	4208.3	3952.0	3905.7	4012.9	4058.1	4093.1
37.5°	5957.3	5969.7	5792.4	5413.1	5023.5	4680.2	4375.4	4312.1	4419.4	4542.5	4655.4
40°	6624.6	6640.4	6445.1	5977.6	5588.1	5229.0	4899.3	4785.3	4963.7	5198.5	5344.2
42.5°	7261.4	7342.7	7154.2	6673.2	6254.3	5882.8	5548.5	5382.6	5606.1	5960.7	6087.1
45°	8181.7	8240.4	7911.8	7476.0	7081.9	6666.4	6223.8	6048.8	6361.5	6808.7	6834.6
47.5°	8794.8	8750.8	8583.7	8312.7	8063.1	7674.7	7008.5	6816.6	7232.1	7758.3	7612.6
50°	9121.1	9134.7	9112.1	9127.9	9136.9	8893.0	7970.5	7707.4	8203.1	8838.8	8503.5
52.5°	9426.0	9335.7	9410.2	9780.5	10227.7	10137.3	9017.2	8742.9	9244.2	10038.0	9445.2
55°	9419.2	9281.5	9524.2	10178.0	11147.9	11251.8	10192.7	9876.5	10345.1	11324.1	10443.3
57.5°	9086.1	9092.9	9466.6	10322.5	11789.3	12299.6	11556.7	11082.4	11512.6	12627.1	11354.5
60°	8627.7	8689.8	9228.4	10298.8	12303.0	13158.9	13230.0	12382.0	12656.4	13811.5	12108.8
62.5°	7888.1	7953.6	8696.6	10052.6	12225.1	13986.5	14743.1	13856.7	13852.2	14529.7	12330.1
65°	6721.7	6702.5	7482.7	9132.4	11571.3	14598.5	16245.9	15131.5	14753.2	14540.9	11885.2
67.5°	4956.9	4871.1	5540.6	6955.4	9617.9	13913.1	17130.0	15795.4	15060.3	13584.6	10525.8
70°	2572.2	2486.3	3028.3	4061.5	6325.4	10858.8	16151.1	15452.2	14381.7	11387.3	8246.0
72.5°	1099.8	1085.1	1305.3	1781.8	3059.9	6263.3	12664.3	13374.6	12340.3	8484.3	5669.4
75°	739.6	735.1	817.5	971.1	1376.4	2541.7	7925.4	9493.7	9028.5	5260.6	3188.7
77.5°	580.4	574.7	623.3	697.8	892.0	1002.7	3517.2	5096.9	4717.5	2289.9	1395.6
80°	453.9	449.4	479.9	520.5	641.3	632.3	1157.4	2027.9	1569.5	877.3	678.6
82.5°	357.9	357.9	382.8	383.9	455.0	431.3	604.1	893.1	783.6	511.5	415.5
85°	327.4	327.4	353.4	286.8	297.0	272.1	374.9	529.6	496.8	210.0	180.7
87.5°	164.9	160.3	297.0	254.1	161.5	144.5	182.9	256.3	275.5	116.3	90.3
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7	2882.7
2.5°	2869.1	2868.0	2870.3	2871.4	2880.4	2892.8	2898.5	2906.4	2910.9	2908.6
5°	2835.2	2837.5	2846.5	2853.3	2869.1	2889.4	2900.7	2909.8	2917.7	2914.3
7.5°	2807.0	2812.7	2826.2	2831.9	2840.9	2846.5	2845.4	2848.8	2855.6	2847.7
10°	2791.2	2798.0	2808.1	2800.2	2778.8	2748.3	2720.1	2705.4	2709.9	2704.3
12.5°	2775.4	2784.4	2776.5	2739.3	2679.4	2639.9	2618.5	2620.7	2630.9	2633.1
15°	2766.4	2769.8	2735.9	2665.9	2604.9	2599.3	2610.6	2608.3	2609.4	2609.4
17.5°	2766.4	2757.3	2694.1	2624.1	2598.1	2588.0	2553.0	2508.9	2489.7	2483.0
20°	2781.0	2757.3	2680.6	2634.3	2577.8	2490.9	2398.3	2317.0	2280.8	2270.7
22.5°	2825.1	2784.4	2718.9	2638.8	2478.4	2332.8	2186.0	2088.9	2023.4	2012.1
25°	2914.3	2869.1	2794.6	2578.9	2320.4	2112.6	1945.5	1837.1	1771.6	1762.6
27.5°	3070.1	3040.7	2835.2	2446.8	2110.3	1887.9	1733.2	1649.7	1601.1	1597.7
30°	3305.0	3290.3	2814.9	2251.5	1851.8	1670.0	1595.5	1546.9	1510.8	1509.6
32.5°	3679.8	3561.3	2748.3	2013.2	1615.8	1515.3	1484.8	1455.4	1427.2	1427.2
35°	4162.0	3780.3	2621.8	1758.1	1472.4	1429.5	1391.1	1344.8	1307.5	1305.3
37.5°	4728.8	3915.8	2394.9	1552.6	1404.6	1371.9	1315.4	1246.6	1181.1	1169.8
40°	5301.3	3956.5	2075.3	1426.1	1361.7	1314.3	1245.4	1164.1	1100.9	1097.5
42.5°	5826.3	3878.6	1736.6	1339.1	1318.8	1255.6	1183.3	1111.1	1061.4	1060.3
45°	6266.7	3676.4	1452.1	1256.7	1273.7	1202.5	1138.2	1079.4	1041.1	1033.2
47.5°	6681.1	3390.8	1252.2	1169.8	1228.5	1173.2	1119.0	1063.6	1026.4	1020.7
50°	7162.1	3082.5	1112.2	1085.1	1189.0	1163.0	1134.8	1077.2	1015.1	1008.3
52.5°	7744.7	2816.1	1002.7	1010.6	1158.5	1176.6	1175.4	1115.6	1007.2	998.2
55°	8395.1	2520.2	920.2	949.6	1146.1	1201.4	1185.6	1151.7	1014.0	1000.4
57.5°	9035.3	2174.7	862.7	903.3	1128.0	1199.1	1137.0	1088.5	1029.8	1010.6
60°	9515.2	1710.6	818.6	862.7	1088.5	1161.9	1084.0	1019.6	1026.4	1011.7
62.5°	9546.8	1322.2	765.6	827.7	1028.6	1124.6	1049.0	989.1	1041.1	1027.5
65°	8985.6	999.3	714.7	785.9	964.3	1100.9	1015.1	972.2	1071.5	1056.9
67.5°	7565.2	803.9	671.8	743.0	899.9	1051.2	984.6	956.4	1098.6	1072.7
70°	5461.6	685.4	630.1	691.0	842.3	994.8	957.5	928.1	1025.3	984.6
72.5°	3362.6	593.9	582.6	622.2	798.3	936.0	916.9	875.1	923.6	890.9
75°	1679.0	514.9	529.6	554.4	736.2	869.4	849.1	807.3	814.1	807.3
77.5°	803.9	440.4	467.5	486.7	656.0	793.8	772.3	729.4	721.5	722.6
80°	509.2	368.1	394.1	407.6	586.0	705.7	684.3	641.3	731.7	678.6
82.5°	318.4	299.2	306.0	330.8	510.4	614.2	586.0	547.6	659.4	521.7
85°	176.1	208.9	217.9	239.4	392.9	513.8	485.5	437.0	391.8	385.0
87.5°	105.0	124.2	127.6	143.4	264.2	371.5	328.6	311.6	258.6	257.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)