

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: P300556

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300556
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24166)
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-RW
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND
Rectangular Wide Type I OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24460.5 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - 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

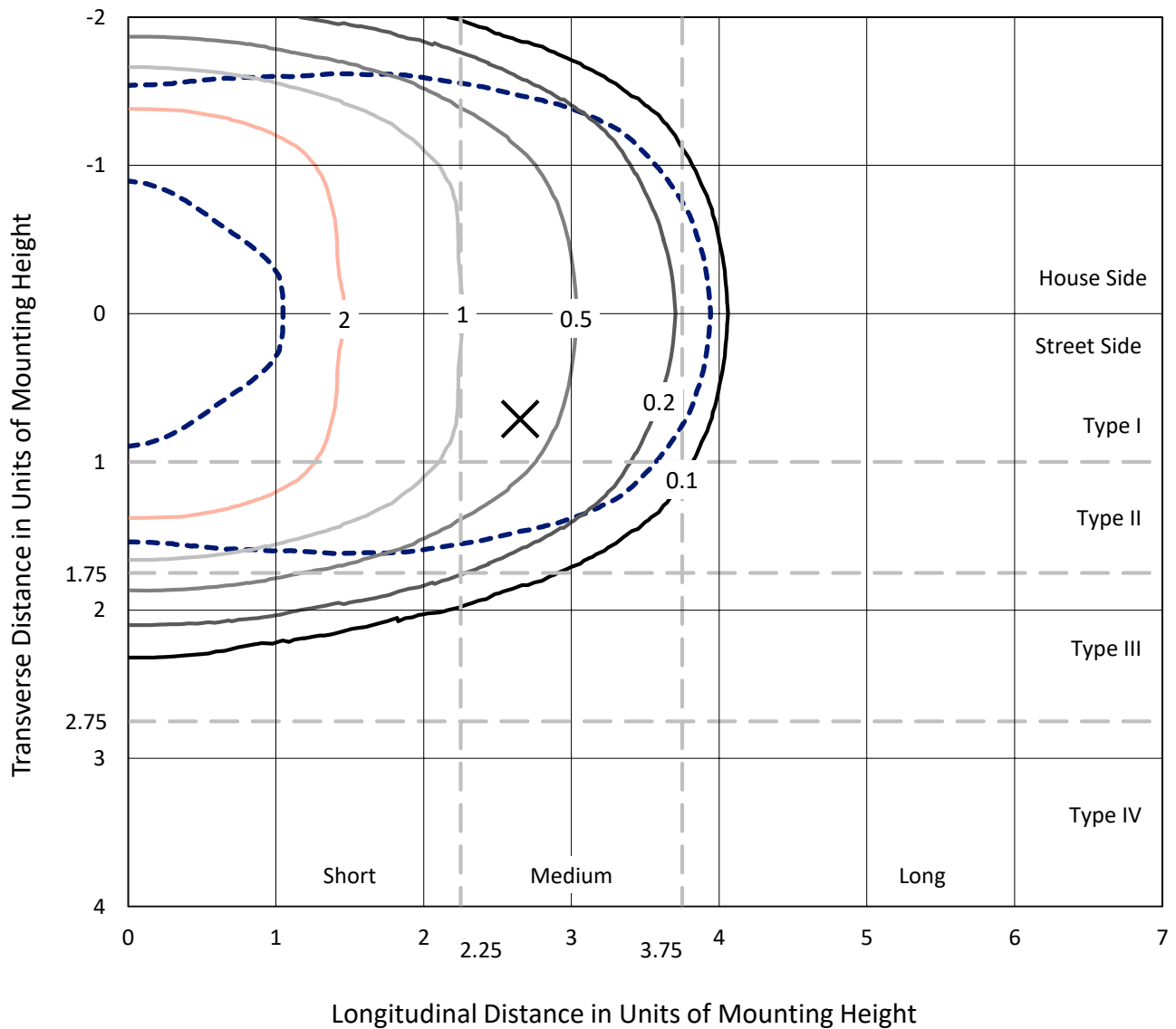


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

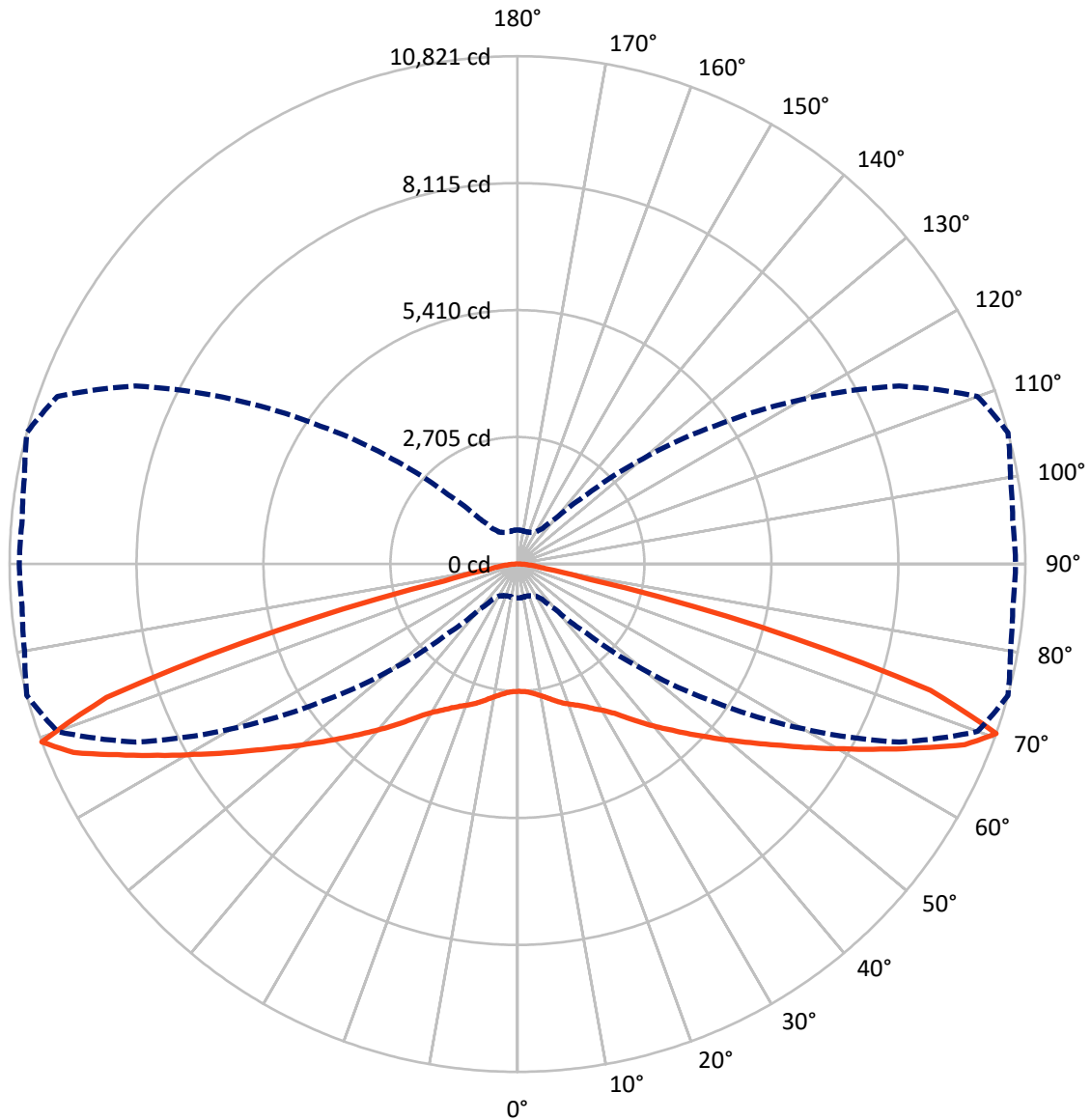


Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12230.3	0.0	12230.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12230.3	0.0	12230.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	24460.5	0.0	24460.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.2	1.1
10°-20°	808.5	3.3
20°-30°	1521.8	6.2
30°-40°	2694.8	11.0
40°-50°	4506.6	18.4
50°-60°	6280.0	25.7
60°-70°	5823.7	23.8
70°-80°	2320.9	9.5
80°-90°	244.0	1.0
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°	24460.5	100.0
0°-180°	24460.5	100.0



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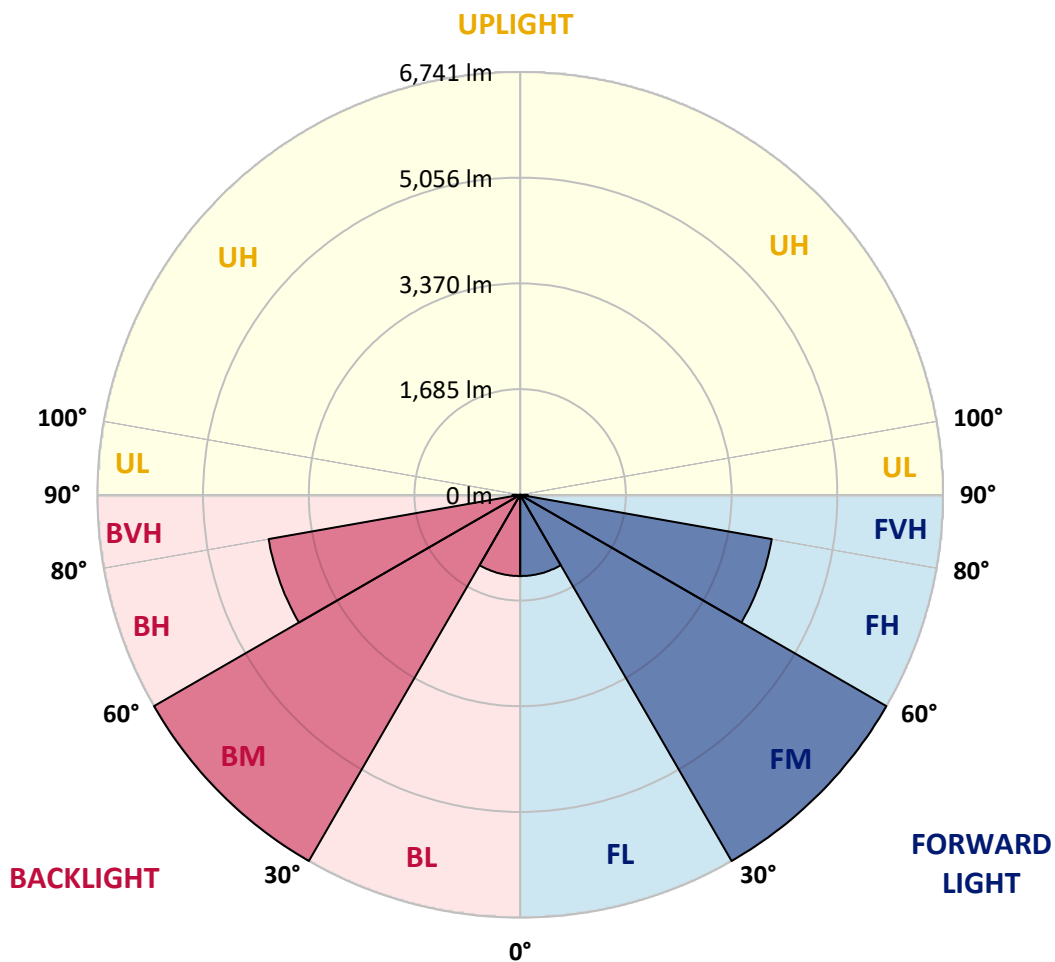
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1295.3	5.3			
FM	(30°-60°)	6740.7	27.6			
FH	(60°-80°)	4072.3	16.6			G2/5000
FVH	(80°-90°)	122.0	0.5			G2/225
BL	(0°-30°)	1295.3	5.3	B3/2500		
BM	(30°-60°)	6740.7	27.6	B4/8500		
BH	(60°-80°)	4072.3	16.6	B4/5000		G4/5000
BVH	(80°-90°)	122.0	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2713.2	2713.2	2713.2	2713.2	2713.2	2713.2	2713.2	2713.2	2713.2	2713.2	2713.2
2.5°	2708.6	2706.3	2708.6	2707.5	2709.8	2709.8	2712.1	2716.7	2716.7	2720.2	2719.0
5°	2682.0	2680.9	2684.3	2687.8	2691.3	2698.2	2705.2	2715.6	2723.6	2729.4	2735.2
7.5°	2630.0	2630.0	2634.6	2642.7	2650.8	2665.8	2682.0	2702.8	2723.6	2741.0	2756.0
10°	2587.2	2589.5	2595.3	2609.2	2623.1	2646.2	2668.2	2698.2	2727.1	2756.0	2779.1
12.5°	2561.8	2565.3	2575.7	2596.5	2619.6	2650.8	2684.3	2722.5	2754.9	2789.5	2812.7
15°	2569.9	2572.2	2587.2	2612.7	2642.7	2682.0	2727.1	2772.2	2810.4	2847.3	2878.6
17.5°	2615.0	2618.4	2635.8	2664.7	2695.9	2742.1	2790.7	2841.6	2889.0	2930.6	2968.7
20°	2695.9	2699.4	2721.3	2752.6	2789.5	2836.9	2885.5	2938.7	2991.9	3035.8	3078.6
22.5°	2810.4	2816.1	2836.9	2868.2	2909.8	2960.6	3018.4	3075.1	3126.0	3166.4	3204.6
25°	2960.6	2973.4	2993.0	3027.7	3071.6	3117.9	3180.3	3238.1	3286.6	3324.8	3352.5
27.5°	3173.4	3190.7	3205.7	3239.2	3282.0	3326.0	3388.4	3439.2	3485.5	3522.5	3543.3
30°	3455.4	3472.8	3487.8	3520.2	3559.5	3601.1	3660.0	3705.1	3734.0	3762.9	3761.8
32.5°	3797.6	3816.1	3821.9	3856.6	3897.0	3942.1	3995.3	4020.7	4043.9	4047.3	4026.5
35°	4180.3	4189.5	4212.6	4258.9	4305.1	4342.1	4393.0	4405.7	4405.7	4388.4	4342.1
37.5°	4599.9	4605.7	4638.1	4690.1	4737.5	4775.6	4810.3	4835.7	4823.0	4786.0	4708.6
40°	5060.0	5070.4	5116.7	5162.9	5216.1	5251.9	5288.9	5293.5	5280.8	5226.5	5121.3
42.5°	5499.3	5508.6	5554.8	5627.6	5697.0	5746.7	5781.4	5788.3	5747.9	5698.2	5567.5
45°	5877.3	5901.6	5961.7	6047.3	6147.9	6218.4	6265.8	6285.4	6249.6	6184.9	6033.4
47.5°	6176.8	6201.0	6286.6	6388.3	6513.2	6627.6	6706.2	6747.9	6738.6	6690.1	6524.7
50°	6396.4	6419.5	6512.0	6636.9	6782.5	6924.7	7058.8	7158.3	7192.9	7171.0	7019.5
52.5°	6421.8	6460.0	6568.7	6736.3	6925.9	7120.1	7310.8	7479.6	7594.1	7611.4	7499.3
55°	6066.9	6105.1	6255.4	6503.9	6786.0	7102.8	7408.0	7692.3	7917.8	8033.4	7974.4
57.5°	5230.0	5298.2	5456.5	5747.9	6162.9	6636.9	7123.6	7628.8	8087.7	8394.1	8453.0
60°	4008.0	4088.9	4248.5	4558.3	5020.7	5586.0	6235.7	6982.5	7792.9	8481.9	8893.5
62.5°	2571.1	2647.4	2815.0	3084.3	3461.2	4073.9	4771.0	5657.7	6746.7	7834.5	8814.9
65°	1321.4	1363.0	1450.8	1613.8	1907.5	2365.3	2990.7	3875.1	5120.1	6462.3	7879.6
67.5°	837.0	845.1	864.7	887.8	963.0	1121.4	1412.7	1964.1	2988.4	4388.4	6047.3
70°	723.7	723.7	714.4	711.0	720.2	742.2	787.3	915.6	1261.2	2083.2	3487.8
72.5°	662.4	655.5	639.3	626.6	624.3	624.3	633.5	653.2	708.7	848.5	1365.3
75°	610.4	590.7	568.8	553.7	548.0	542.2	541.0	544.5	556.1	578.0	652.0
77.5°	546.8	521.4	495.9	480.9	474.0	465.9	459.0	450.9	445.1	452.0	484.4
80°	470.5	441.6	422.0	412.7	405.8	394.2	379.2	365.3	352.6	350.3	369.9
82.5°	379.2	345.7	346.8	350.3	337.6	321.4	305.2	290.2	268.2	256.6	268.2
85°	306.4	289.0	280.9	302.9	284.4	260.1	234.7	208.1	173.4	145.7	158.4
87.5°	119.1	119.1	178.0	274.0	246.2	201.2	172.3	146.8	91.3	70.5	71.7
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2713.2	2713.2	2713.2	2713.2	2713.2	2713.2	2713.2	2713.2
2.5°	2717.9	2720.2	2719.0	2717.9	2717.9	2716.7	2717.9	2717.9
5°	2738.7	2744.5	2744.5	2746.8	2746.8	2747.9	2749.1	2747.9
7.5°	2769.9	2780.3	2787.2	2795.3	2796.5	2797.6	2799.9	2797.6
10°	2801.1	2821.9	2836.9	2852.0	2858.9	2861.2	2863.5	2863.5
12.5°	2840.4	2869.3	2895.9	2922.5	2935.2	2942.1	2942.1	2946.8
15°	2905.1	2934.1	2965.3	3001.1	3023.1	3034.6	3038.1	3038.1
17.5°	2996.5	3021.9	3048.5	3083.2	3110.9	3126.0	3129.4	3128.3
20°	3102.8	3127.1	3142.1	3164.1	3188.4	3205.7	3210.3	3210.3
22.5°	3224.2	3238.1	3240.4	3247.3	3267.0	3290.1	3300.5	3302.8
25°	3358.3	3361.8	3352.5	3352.5	3365.3	3387.2	3397.6	3398.8
27.5°	3531.7	3514.4	3491.3	3483.2	3491.3	3516.7	3529.4	3534.0
30°	3747.9	3706.3	3653.1	3624.2	3619.6	3653.1	3676.2	3679.7
32.5°	3995.3	3935.2	3864.7	3805.7	3790.7	3811.5	3839.2	3838.1
35°	4288.9	4217.3	4131.7	4056.6	4021.9	4042.7	4082.0	4086.6
37.5°	4627.7	4534.0	4435.8	4341.0	4286.6	4292.4	4334.0	4347.9
40°	5005.7	4884.3	4760.6	4633.4	4556.0	4541.0	4591.8	4599.9
42.5°	5410.3	5254.2	5098.2	4940.9	4841.5	4818.4	4877.4	4873.9
45°	5841.5	5642.7	5460.0	5286.6	5168.7	5134.0	5182.6	5182.6
47.5°	6305.1	6060.0	5842.7	5646.1	5517.8	5468.1	5514.3	5517.8
50°	6796.4	6536.3	6280.8	6062.3	5908.6	5845.0	5905.1	5914.3
52.5°	7285.4	7032.2	6774.4	6524.7	6338.6	6261.2	6330.5	6360.6
55°	7781.4	7532.8	7286.6	7042.6	6821.8	6730.5	6804.5	6842.6
57.5°	8305.0	8075.0	7840.3	7594.1	7381.4	7239.2	7317.8	7368.7
60°	8918.9	8722.4	8478.5	8206.8	7991.8	7847.3	7892.3	7937.4
62.5°	9404.5	9480.8	9273.8	8959.4	8683.1	8498.1	8542.0	8589.4
65°	9169.8	9952.4	10136.2	9818.3	9435.7	9147.8	9129.3	9153.6
67.5°	7664.6	9184.8	10293.5	10596.3	10276.1	9876.1	9802.1	9838.0
70°	5127.1	7020.7	8976.7	10433.3	10820.6	10665.7	10592.9	10614.8
72.5°	2462.4	4088.9	6090.1	8026.4	9205.6	9746.6	9920.0	10004.4
75°	900.6	1623.1	2935.2	4423.0	5339.8	6181.4	6730.5	6954.8
77.5°	543.3	655.5	937.6	1411.5	1598.8	1789.6	1715.6	1752.6
80°	402.3	454.3	514.4	578.0	598.8	598.8	575.7	557.2
82.5°	282.1	315.6	344.5	379.2	388.4	371.1	305.2	242.8
85°	181.5	196.5	209.2	231.2	225.4	215.0	144.5	128.3
87.5°	83.2	94.8	99.4	109.8	105.2	100.6	71.7	60.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)