

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: P299735

Luminaire Tested: **GLNA-AF-07-LED-E1-5MQ-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299735
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-5MQ-7050-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29037.5 lumens
Efficiency: N/A
Efficacy: 128.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 226
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

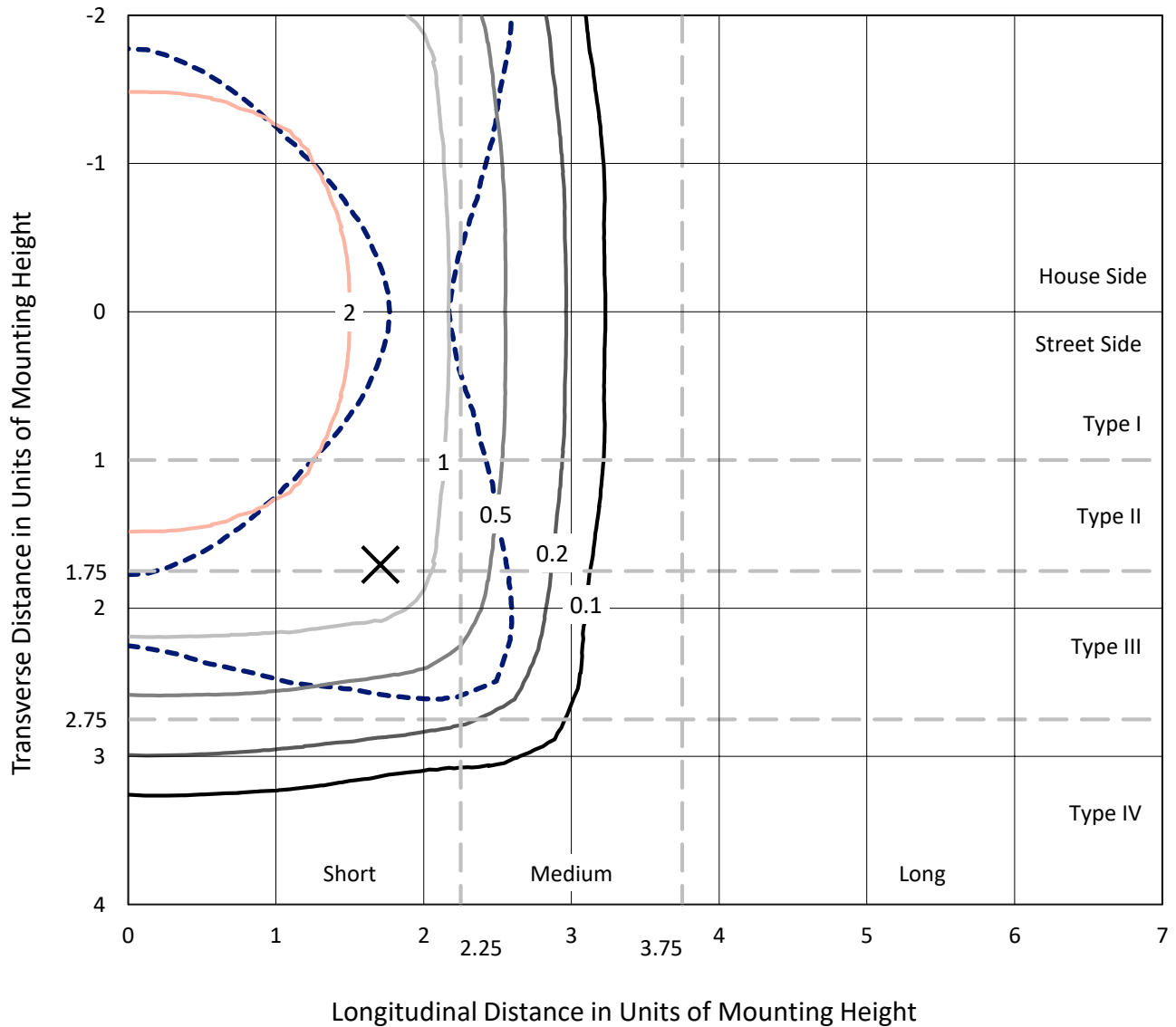


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Iso-Footcandle Lines of Horizontal Illumination

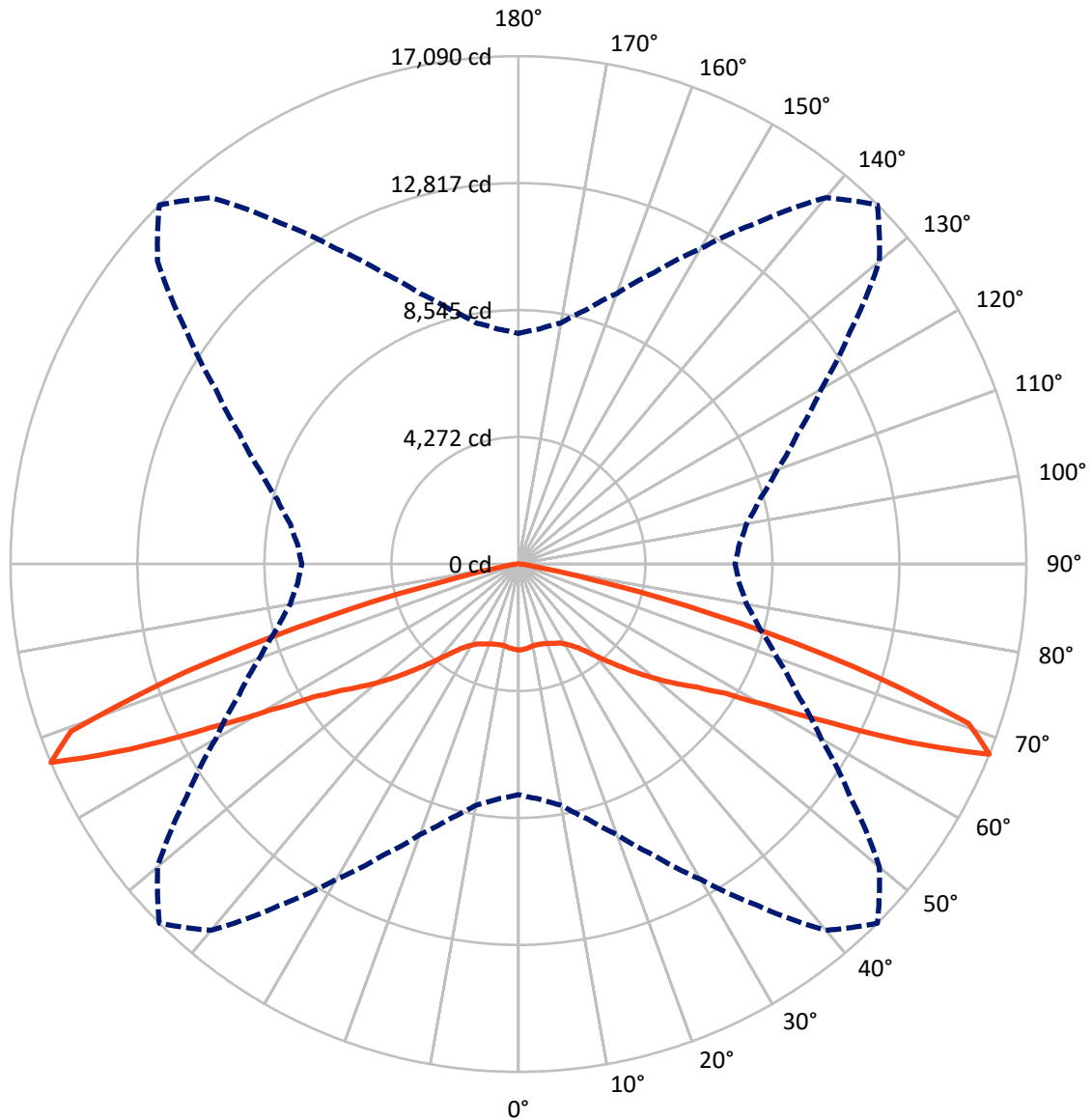
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14518.7	0.0	14518.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14518.7	0.0	14518.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	29037.5	0.0	29037.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.8	0.9
10°-20°	785.9	2.7
20°-30°	1336.0	4.6
30°-40°	2184.0	7.5
40°-50°	3898.9	13.4
50°-60°	6573.6	22.6
60°-70°	10201.3	35.1
70°-80°	3584.3	12.3
80°-90°	202.6	0.7
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°	29037.5	100.0
0°-180°	29037.5	100.0



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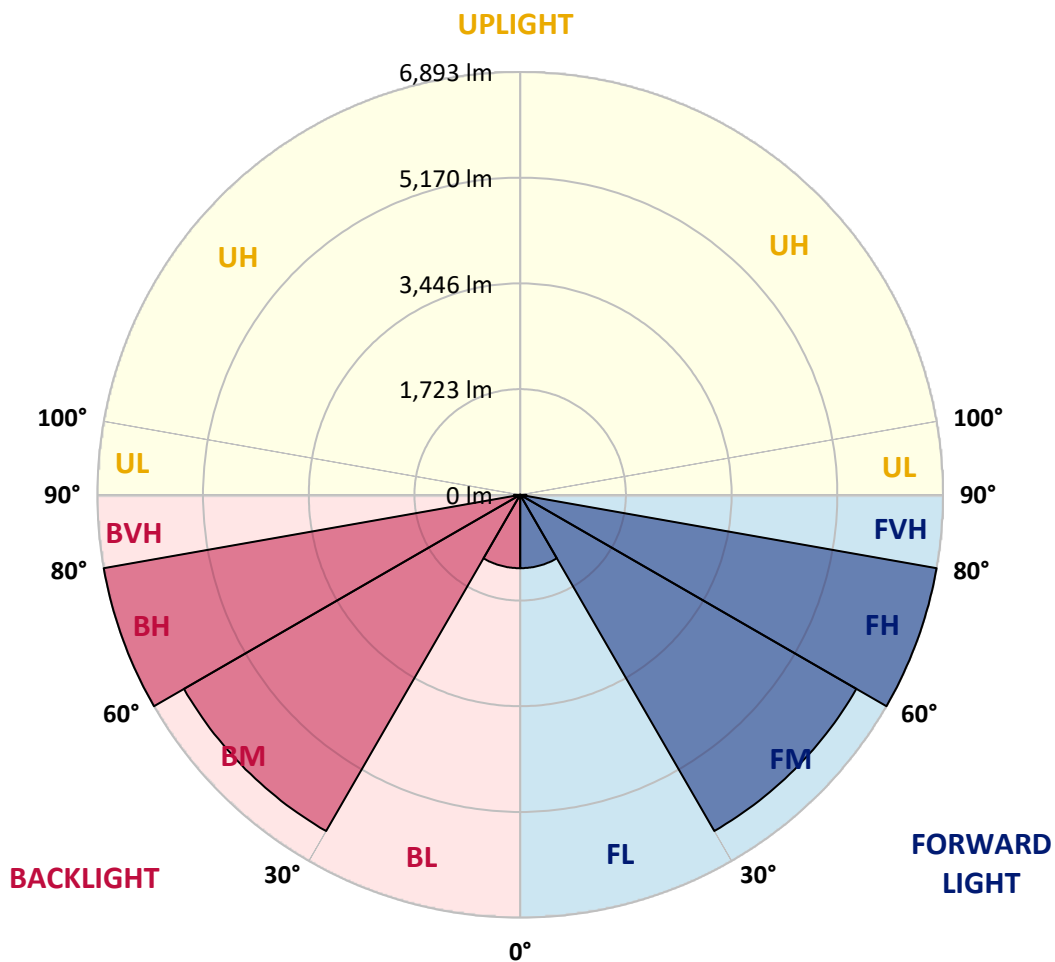
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1196.4	4.1			
FM	(30°-60°)	6328.3	21.8			
FH	(60°-80°)	6892.8	23.7			G3/7500
FVH	(80°-90°)	101.3	0.3			G2/225
BL	(0°-30°)	1196.4	4.1	B3/2500		
BM	(30°-60°)	6328.3	21.8	B4/8500		
BH	(60°-80°)	6892.8	23.7	B5		G3/7500
BVH	(80°-90°)	101.3	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2893.7	2893.7	2893.7	2893.7	2893.7	2893.7	2893.7	2893.7	2893.7	2893.7	2893.7
2.5°	2883.0	2885.7	2885.7	2885.7	2884.4	2884.4	2881.7	2884.4	2883.0	2879.0	2880.4
5°	2859.0	2861.7	2861.7	2860.3	2864.3	2863.0	2859.0	2861.7	2860.3	2857.7	2859.0
7.5°	2824.3	2828.3	2828.3	2826.9	2830.9	2829.6	2826.9	2828.3	2828.3	2824.3	2824.3
10°	2785.5	2788.2	2788.2	2786.9	2793.6	2793.6	2792.2	2796.2	2797.6	2793.6	2790.9
12.5°	2749.5	2753.5	2753.5	2758.8	2765.5	2768.2	2774.9	2780.2	2785.5	2784.2	2778.9
15°	2728.1	2730.8	2736.1	2742.8	2753.5	2762.8	2773.5	2785.5	2796.2	2798.9	2790.9
17.5°	2714.8	2718.8	2726.8	2736.1	2750.8	2766.8	2782.9	2798.9	2813.6	2818.9	2809.6
20°	2710.8	2713.4	2721.4	2737.5	2757.5	2781.5	2804.2	2822.9	2843.0	2849.6	2843.0
22.5°	2718.8	2724.1	2733.5	2752.2	2778.9	2809.6	2836.3	2861.7	2887.0	2899.0	2889.7
25°	2754.8	2760.2	2772.2	2796.2	2825.6	2857.7	2888.4	2917.7	2940.4	2952.5	2945.8
27.5°	2821.6	2828.3	2843.0	2867.0	2899.0	2933.8	2967.2	2991.2	3009.9	3013.9	3005.9
30°	2921.7	2936.4	2953.8	2980.5	3017.9	3047.3	3080.7	3102.0	3124.7	3124.7	3118.0
32.5°	3078.0	3092.7	3111.4	3136.7	3166.1	3198.2	3227.5	3246.2	3270.3	3271.6	3255.6
35°	3311.7	3318.3	3334.4	3350.4	3377.1	3405.1	3430.5	3442.5	3462.6	3463.9	3449.2
37.5°	3620.1	3621.5	3632.2	3637.5	3661.5	3692.2	3716.3	3724.3	3743.0	3740.3	3725.6
40°	3979.3	3986.0	3990.0	3998.0	4023.4	4052.8	4078.2	4082.2	4102.2	4098.2	4079.5
42.5°	4394.6	4397.3	4420.0	4432.0	4456.1	4470.8	4502.8	4506.8	4530.8	4520.2	4498.8
45°	4860.7	4884.7	4906.1	4930.1	4955.5	4972.9	4998.2	4992.9	5008.9	4992.9	4980.9
47.5°	5350.8	5368.1	5416.2	5453.6	5495.0	5509.7	5545.7	5529.7	5545.7	5523.0	5519.0
50°	5890.2	5921.0	5962.3	6005.1	6049.1	6073.2	6119.9	6099.9	6121.3	6099.9	6087.9
52.5°	6421.7	6429.7	6520.5	6583.3	6644.7	6672.8	6700.8	6691.4	6692.8	6691.4	6679.4
55°	6926.5	6945.2	7036.0	7121.4	7228.3	7307.0	7355.1	7349.8	7337.8	7325.7	7305.7
57.5°	7495.3	7514.0	7618.2	7723.7	7845.2	7957.4	8054.8	8155.0	8193.7	8204.4	8160.3
60°	8264.5	8263.2	8402.0	8530.2	8703.8	8870.7	9084.4	9302.1	9551.8	9667.9	9514.4
62.5°	9047.0	9079.1	9279.4	9506.4	9864.2	10212.8	10606.7	10994.0	11389.2	11711.0	11369.2
65°	8953.5	9076.4	9374.2	9888.3	10549.3	11334.5	12183.8	13082.4	13894.3	14452.5	13826.2
67.5°	7759.7	7934.7	8237.8	8862.7	9689.3	10821.7	12247.8	14025.2	16091.0	17089.8	15852.0
70°	5624.5	5822.1	6139.9	6750.2	7568.8	8645.1	10194.1	12328.0	15062.8	16069.6	14706.2
72.5°	2798.9	2905.7	3102.0	3490.6	4110.2	4983.5	6388.3	8439.4	10859.1	11783.1	10537.3
75°	950.8	1000.2	1033.6	1160.4	1356.7	1699.9	2398.3	3689.6	5628.5	6747.5	5548.4
77.5°	548.8	550.2	572.9	595.6	629.0	666.3	759.8	997.5	1725.3	2450.4	1785.4
80°	355.2	353.9	372.6	389.9	412.6	431.3	436.7	462.0	532.8	631.6	564.9
82.5°	184.3	207.0	248.4	271.1	313.8	321.8	311.1	301.8	319.1	331.2	339.2
85°	101.5	88.1	132.2	170.9	189.6	192.3	192.3	181.6	188.3	184.3	200.3
87.5°	46.7	42.7	52.1	84.1	89.5	76.1	80.1	70.8	50.7	49.4	56.1
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°	2893.7	2893.7	2893.7	2893.7	2893.7	2893.7	2893.7	2893.7
2.5°	2880.4	2881.7	2881.7	2885.7	2887.0	2889.7	2892.4	2893.7
5°	2857.7	2861.7	2859.0	2863.0	2863.0	2865.7	2865.7	2867.0
7.5°	2824.3	2828.3	2828.3	2828.3	2826.9	2830.9	2830.9	2830.9
10°	2789.6	2792.2	2790.9	2788.2	2785.5	2789.6	2788.2	2786.9
12.5°	2778.9	2772.2	2766.8	2764.2	2758.8	2760.2	2756.2	2756.2
15°	2785.5	2773.5	2764.2	2760.2	2754.8	2752.2	2749.5	2750.8
17.5°	2802.9	2788.2	2776.2	2769.5	2762.8	2758.8	2753.5	2754.8
20°	2833.6	2816.3	2798.9	2785.5	2773.5	2766.8	2762.8	2761.5
22.5°	2879.0	2853.6	2828.3	2808.2	2792.2	2782.9	2778.9	2776.2
25°	2931.1	2903.1	2873.7	2851.0	2835.0	2822.9	2814.9	2814.9
27.5°	2996.5	2973.8	2947.1	2920.4	2905.7	2893.7	2888.4	2885.7
30°	3106.0	3084.7	3063.3	3037.9	3019.2	3007.2	2997.9	2989.9
32.5°	3246.2	3228.9	3211.5	3192.8	3175.5	3159.4	3144.8	3138.1
35°	3443.9	3430.5	3418.5	3397.1	3390.5	3381.1	3373.1	3366.4
37.5°	3716.3	3710.9	3710.9	3688.2	3682.9	3678.9	3670.9	3672.2
40°	4074.2	4079.5	4072.8	4064.8	4060.8	4050.1	4050.1	4059.5
42.5°	4497.5	4501.5	4516.2	4502.8	4517.5	4504.1	4496.1	4502.8
45°	4988.9	5003.6	5032.9	5019.6	5028.9	5006.2	4978.2	4979.5
47.5°	5540.4	5553.7	5565.7	5556.4	5557.7	5520.3	5483.0	5473.6
50°	6113.2	6118.6	6125.3	6111.9	6114.6	6073.2	6030.4	6031.8
52.5°	6679.4	6704.8	6731.5	6695.5	6687.4	6640.7	6580.6	6556.6
55°	7327.1	7363.1	7332.4	7269.7	7206.9	7144.1	7065.3	7052.0
57.5°	8125.6	8064.2	7968.0	7849.2	7762.4	7674.3	7594.1	7560.8
60°	9236.6	9005.6	8832.0	8655.8	8544.9	8436.8	8331.3	8315.2
62.5°	10807.0	10407.7	10061.9	9697.3	9399.5	9167.2	8981.6	8929.5
65°	12775.3	11831.2	11012.6	10248.8	9585.2	9084.4	8769.3	8630.4
67.5°	13621.9	11757.8	10354.3	9270.0	8402.0	7795.8	7455.3	7285.7
70°	11970.1	9750.7	8224.4	7138.8	6348.3	5702.0	5393.5	5211.9
72.5°	8235.1	6202.7	4904.7	4003.4	3371.8	2830.9	2617.3	2601.3
75°	3697.6	2449.0	1687.9	1300.6	1095.0	952.1	908.0	874.7
77.5°	1034.9	765.2	682.4	638.3	595.6	546.2	527.5	531.5
80°	503.4	475.4	456.7	428.6	389.9	348.5	329.8	337.8
82.5°	333.8	329.8	341.9	321.8	265.7	225.7	189.6	173.6
85°	203.0	205.6	209.7	211.0	178.9	125.5	85.5	96.1
87.5°	80.1	92.1	100.2	104.2	97.5	60.1	48.1	49.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)