

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: P299603

Luminaire Tested: **GLNA-AF-05-LED-E1-5MQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299603
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-05-LED-E1-5MQ-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31146.5 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

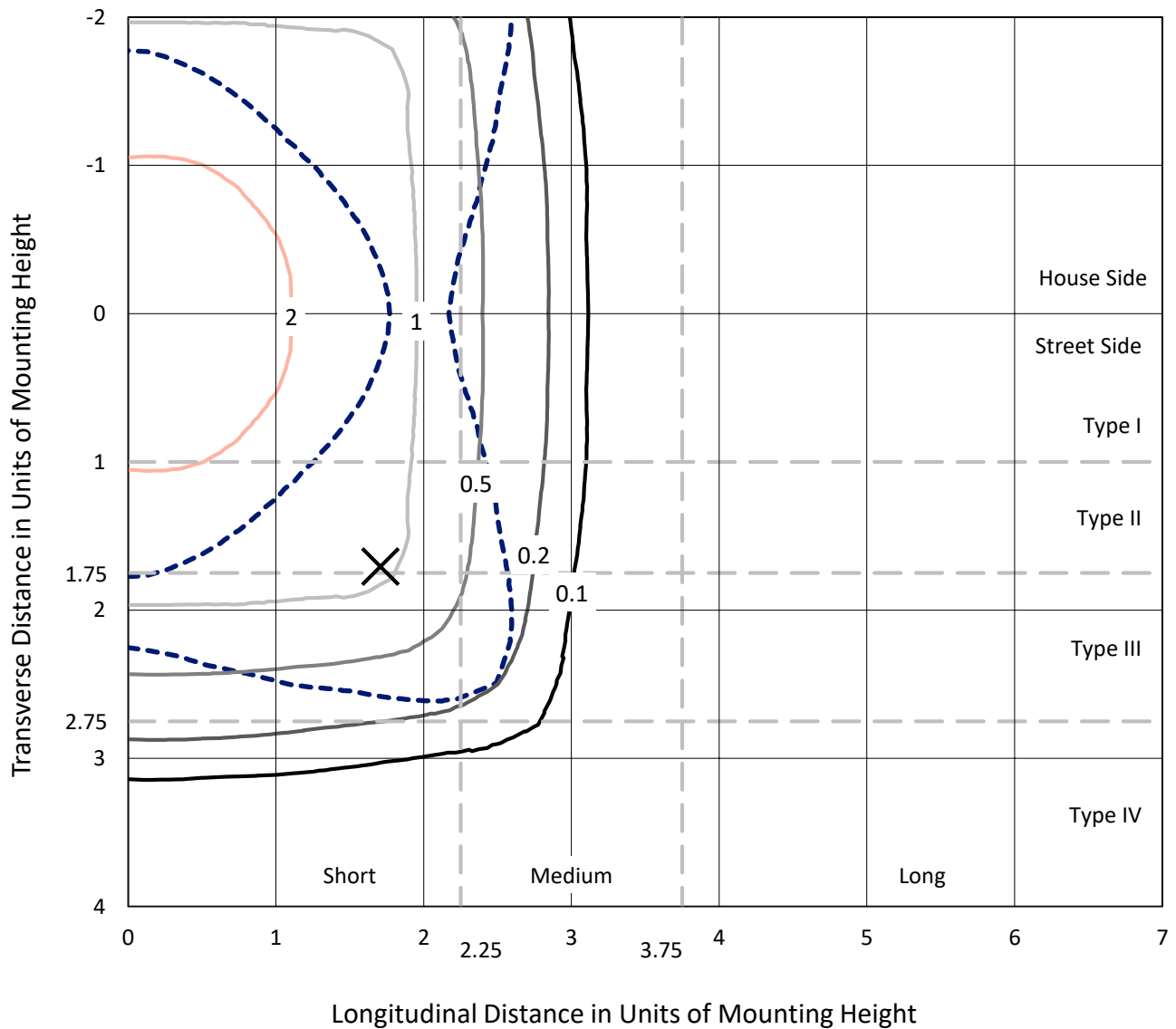
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299603
 CATALOG NUMBER: GLNA-AF-05-LED-E1-5MQ-7050

Iso-Footcandle Lines of Horizontal Illumination

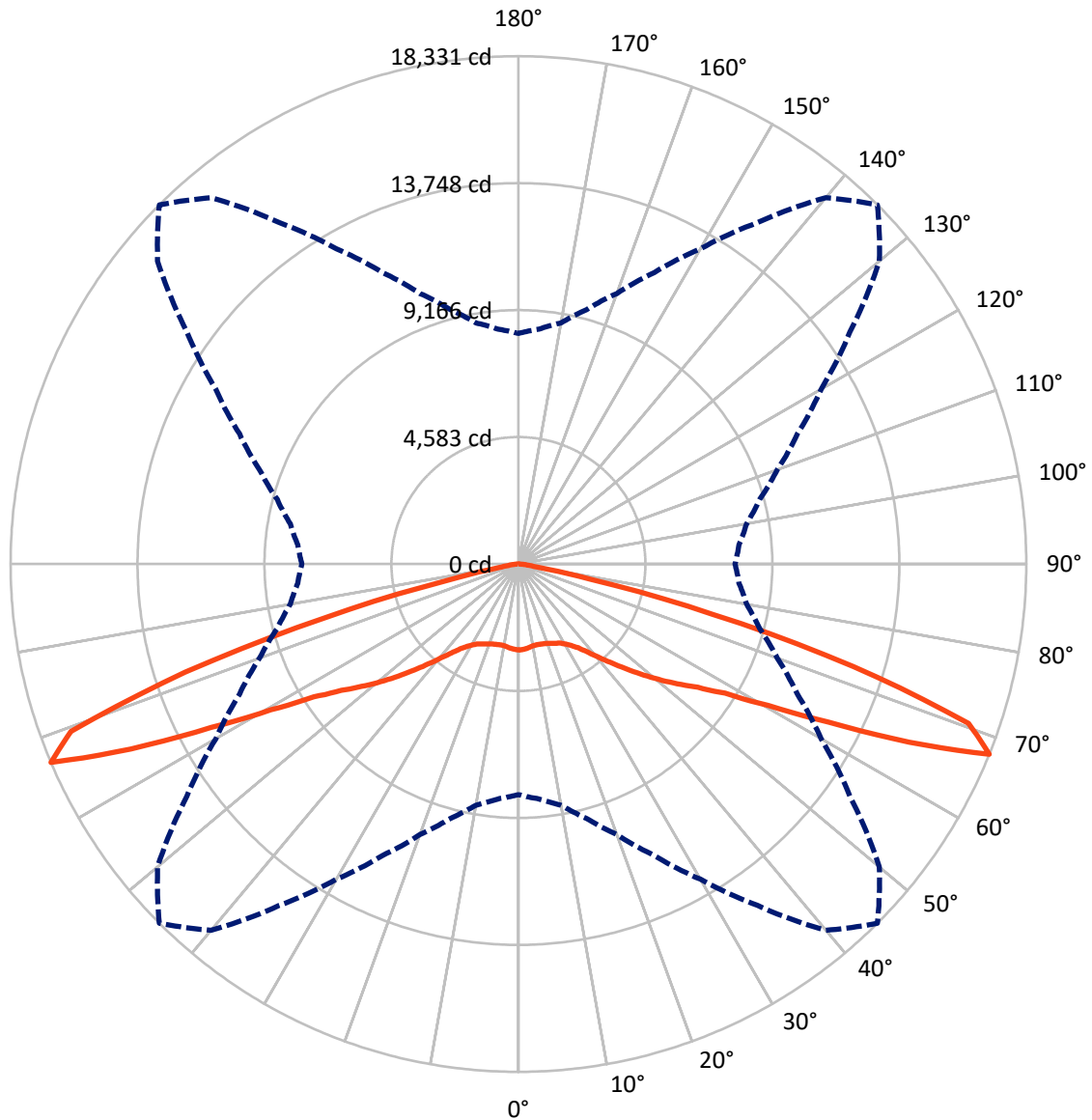
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.4 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P299603
CATALOG NUMBER: GLNA-AF-05-LED-E1-5MQ-7050

Luminous Intensity Polar Plot



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

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CATALOG NUMBER: GLNA-AF-05-LED-E1-5MQ-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15573.2	0.0	15573.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	15573.2	0.0	15573.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	31146.5	0.0	31146.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.5	0.9
10°-20°	843.0	2.7
20°-30°	1433.1	4.6
30°-40°	2342.7	7.5
40°-50°	4182.1	13.4
50°-60°	7051.1	22.6
60°-70°	10942.2	35.1
70°-80°	3844.6	12.3
80°-90°	217.3	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°	31146.5	100.0
0°-180°	31146.5	100.0

Coefficient of Utilization



REPORT NUMBER: P299603

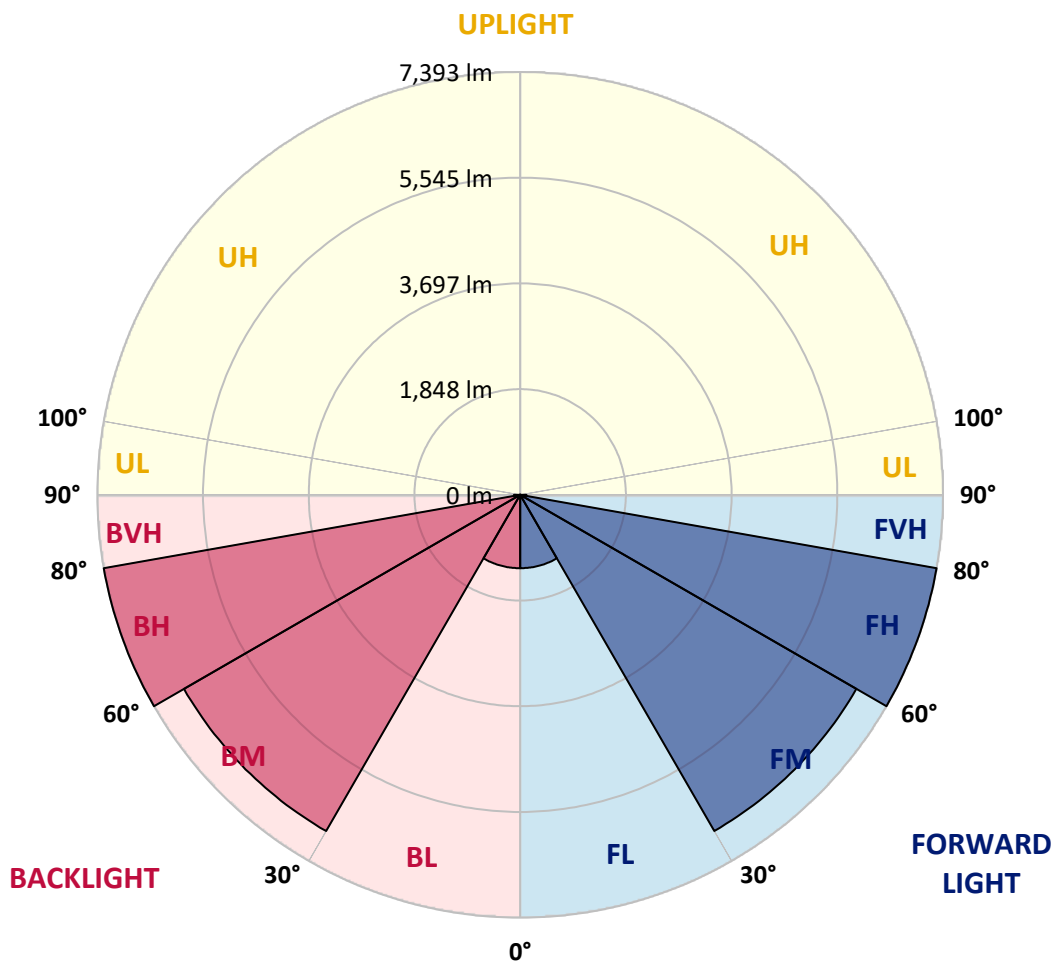
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1283.3	4.1			
FM	(30°-60°)	6787.9	21.8			
FH	(60°-80°)	7393.4	23.7			G3/7500
FVH	(80°-90°)	108.6	0.3			G2/225
BL	(0°-30°)	1283.3	4.1	B3/2500		
BM	(30°-60°)	6787.9	21.8	B4/8500		
BH	(60°-80°)	7393.4	23.7	B5		G3/7500
BVH	(80°-90°)	108.6	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





REPORT NUMBER: P299603
 CATALOG NUMBER: GLNA-AF-05-LED-E1-5MQ-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3103.9	3103.9	3103.9	3103.9	3103.9	3103.9	3103.9	3103.9	3103.9	3103.9	3103.9
2.5°	3092.4	3095.3	3095.3	3095.3	3093.9	3093.9	3091.0	3093.9	3092.4	3088.1	3089.6
5°	3066.6	3069.5	3069.5	3068.1	3072.4	3070.9	3066.6	3069.5	3068.1	3065.2	3066.6
7.5°	3029.4	3033.7	3033.7	3032.3	3036.6	3035.1	3032.3	3033.7	3033.7	3029.4	3029.4
10°	2987.9	2990.7	2990.7	2989.3	2996.5	2996.5	2995.0	2999.3	3000.7	2996.5	2993.6
12.5°	2949.2	2953.5	2953.5	2959.2	2966.4	2969.2	2976.4	2982.1	2987.9	2986.4	2980.7
15°	2926.3	2929.1	2934.9	2942.0	2953.5	2963.5	2975.0	2987.9	2999.3	3002.2	2993.6
17.5°	2911.9	2916.2	2924.8	2934.9	2950.6	2967.8	2985.0	3002.2	3017.9	3023.7	3013.6
20°	2907.6	2910.5	2919.1	2936.3	2957.8	2983.6	3007.9	3028.0	3049.4	3056.6	3049.4
22.5°	2916.2	2922.0	2932.0	2952.0	2980.7	3013.6	3042.3	3069.5	3096.7	3109.6	3099.6
25°	2954.9	2960.6	2973.5	2999.3	3030.8	3065.2	3098.1	3129.7	3154.0	3166.9	3159.7
27.5°	3026.5	3033.7	3049.4	3075.2	3109.6	3146.8	3182.7	3208.4	3228.5	3232.8	3224.2
30°	3134.0	3149.7	3168.3	3197.0	3237.1	3268.6	3304.4	3327.3	3351.7	3351.7	3344.5
32.5°	3301.5	3317.3	3337.3	3364.6	3396.1	3430.5	3462.0	3482.0	3507.8	3509.2	3492.0
35°	3552.2	3559.4	3576.5	3593.7	3622.4	3652.5	3679.7	3692.6	3714.1	3715.5	3699.7
37.5°	3883.1	3884.5	3896.0	3901.7	3927.5	3960.4	3986.2	3994.8	4014.8	4012.0	3996.2
40°	4268.4	4275.5	4279.8	4288.4	4315.6	4347.1	4374.4	4378.7	4400.1	4395.8	4375.8
42.5°	4713.8	4716.7	4741.0	4753.9	4779.7	4795.5	4829.8	4834.1	4859.9	4848.5	4825.5
45°	5213.7	5239.5	5262.4	5288.2	5315.4	5334.0	5361.2	5355.5	5372.7	5355.5	5342.6
47.5°	5739.4	5758.0	5809.6	5849.7	5894.1	5909.8	5948.5	5931.3	5948.5	5924.2	5919.9
50°	6318.0	6351.0	6395.4	6441.2	6488.5	6514.3	6564.4	6542.9	6565.8	6542.9	6530.0
52.5°	6888.1	6896.7	6994.1	7061.4	7127.3	7157.4	7187.5	7177.4	7178.9	7177.4	7164.6
55°	7429.5	7449.6	7547.0	7638.7	7753.2	7837.8	7889.3	7883.6	7870.7	7857.8	7836.3
57.5°	8039.7	8059.8	8171.5	8284.6	8415.0	8535.3	8639.9	8747.3	8788.8	8800.3	8753.0
60°	8864.7	8863.3	9012.3	9149.8	9336.0	9515.0	9744.2	9977.7	10245.5	10370.1	10205.4
62.5°	9704.1	9738.5	9953.3	10196.8	10580.7	10954.5	11377.1	11792.4	12216.4	12561.6	12194.9
65°	9603.8	9735.6	10055.0	10606.5	11315.5	12157.7	13068.7	14032.6	14903.5	15502.2	14830.4
67.5°	8323.3	8511.0	8836.1	9506.4	10393.0	11607.7	13137.4	15043.8	17259.7	18331.1	17003.3
70°	6033.0	6245.0	6585.9	7240.5	8118.5	9273.0	10934.5	13223.3	16156.8	17236.8	15774.3
72.5°	3002.2	3116.8	3327.3	3744.1	4408.7	5345.5	6852.3	9052.4	11647.8	12639.0	11302.6
75°	1019.8	1072.8	1108.6	1244.7	1455.3	1823.4	2572.5	3957.6	6037.3	7237.6	5951.4
77.5°	588.7	590.1	614.5	638.8	674.6	714.7	815.0	1070.0	1850.6	2628.3	1915.0
80°	381.0	379.6	399.6	418.2	442.6	462.6	468.4	495.6	571.5	677.5	605.9
82.5°	197.7	222.0	266.4	290.8	336.6	345.2	333.7	323.7	342.3	355.2	363.8
85°	108.9	94.5	141.8	183.3	203.4	206.3	206.3	194.8	202.0	197.7	214.9
87.5°	50.1	45.8	55.9	90.2	96.0	81.6	85.9	75.9	54.4	53.0	60.2
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: P299603

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3103.9	3103.9	3103.9	3103.9	3103.9	3103.9	3103.9	3103.9
2.5°	3089.6	3091.0	3091.0	3095.3	3096.7	3099.6	3102.4	3103.9
5°	3065.2	3069.5	3066.6	3070.9	3070.9	3073.8	3073.8	3075.2
7.5°	3029.4	3033.7	3033.7	3033.7	3032.3	3036.6	3036.6	3036.6
10°	2992.2	2995.0	2993.6	2990.7	2987.9	2992.2	2990.7	2989.3
12.5°	2980.7	2973.5	2967.8	2964.9	2959.2	2960.6	2956.3	2956.3
15°	2987.9	2975.0	2964.9	2960.6	2954.9	2952.0	2949.2	2950.6
17.5°	3006.5	2990.7	2977.8	2970.7	2963.5	2959.2	2953.5	2954.9
20°	3039.4	3020.8	3002.2	2987.9	2975.0	2967.8	2963.5	2962.1
22.5°	3088.1	3060.9	3033.7	3012.2	2995.0	2985.0	2980.7	2977.8
25°	3144.0	3113.9	3082.4	3058.0	3040.9	3028.0	3019.4	3019.4
27.5°	3214.2	3189.8	3161.2	3132.5	3116.8	3103.9	3098.1	3095.3
30°	3331.6	3308.7	3285.8	3258.6	3238.5	3225.6	3215.6	3207.0
32.5°	3482.0	3463.4	3444.8	3424.7	3406.1	3388.9	3373.2	3366.0
35°	3694.0	3679.7	3666.8	3643.9	3636.7	3626.7	3618.1	3610.9
37.5°	3986.2	3980.5	3980.5	3956.1	3950.4	3946.1	3937.5	3938.9
40°	4370.1	4375.8	4368.6	4360.0	4355.7	4344.3	4344.3	4354.3
42.5°	4824.1	4828.4	4844.2	4829.8	4845.6	4831.3	4822.7	4829.8
45°	5351.2	5367.0	5398.5	5384.2	5394.2	5369.8	5339.8	5341.2
47.5°	5942.8	5957.1	5970.0	5960.0	5961.4	5921.3	5881.2	5871.2
50°	6557.2	6563.0	6570.1	6555.8	6558.7	6514.3	6468.4	6469.9
52.5°	7164.6	7191.8	7220.4	7181.7	7173.2	7123.0	7058.6	7032.8
55°	7859.2	7897.9	7865.0	7797.7	7730.3	7663.0	7578.5	7564.2
57.5°	8715.8	8649.9	8546.8	8419.3	8326.2	8231.6	8145.7	8109.9
60°	9907.5	9659.7	9473.5	9284.4	9165.5	9049.5	8936.4	8919.2
62.5°	11591.9	11163.6	10792.7	10401.6	10082.2	9833.0	9633.9	9578.0
65°	13703.2	12690.5	11812.5	10993.2	10281.3	9744.2	9406.2	9257.2
67.5°	14611.3	12611.7	11106.4	9943.3	9012.3	8362.0	7996.7	7814.8
70°	12839.5	10458.9	8821.8	7657.3	6809.3	6116.1	5785.2	5590.4
72.5°	8833.2	6653.2	5261.0	4294.2	3616.7	3036.6	2807.4	2790.2
75°	3966.1	2626.9	1810.5	1395.1	1174.5	1021.3	974.0	938.2
77.5°	1110.1	820.7	731.9	684.7	638.8	585.8	565.8	570.1
80°	540.0	509.9	489.9	459.8	418.2	373.8	353.8	362.4
82.5°	358.1	353.8	366.7	345.2	285.0	242.1	203.4	186.2
85°	217.7	220.6	224.9	226.3	191.9	134.6	91.7	103.1
87.5°	85.9	98.8	107.4	111.7	104.6	64.5	51.6	53.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)