

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: P299992

Luminaire Tested: **GLNA-AF-10-LED-E1-5WQ-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299992  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-10-LED-E1-5WQ-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40738.7 lumens  
Efficiency: N/A  
Efficacy: 126.1 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G4

Input Watts (W): 323  
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

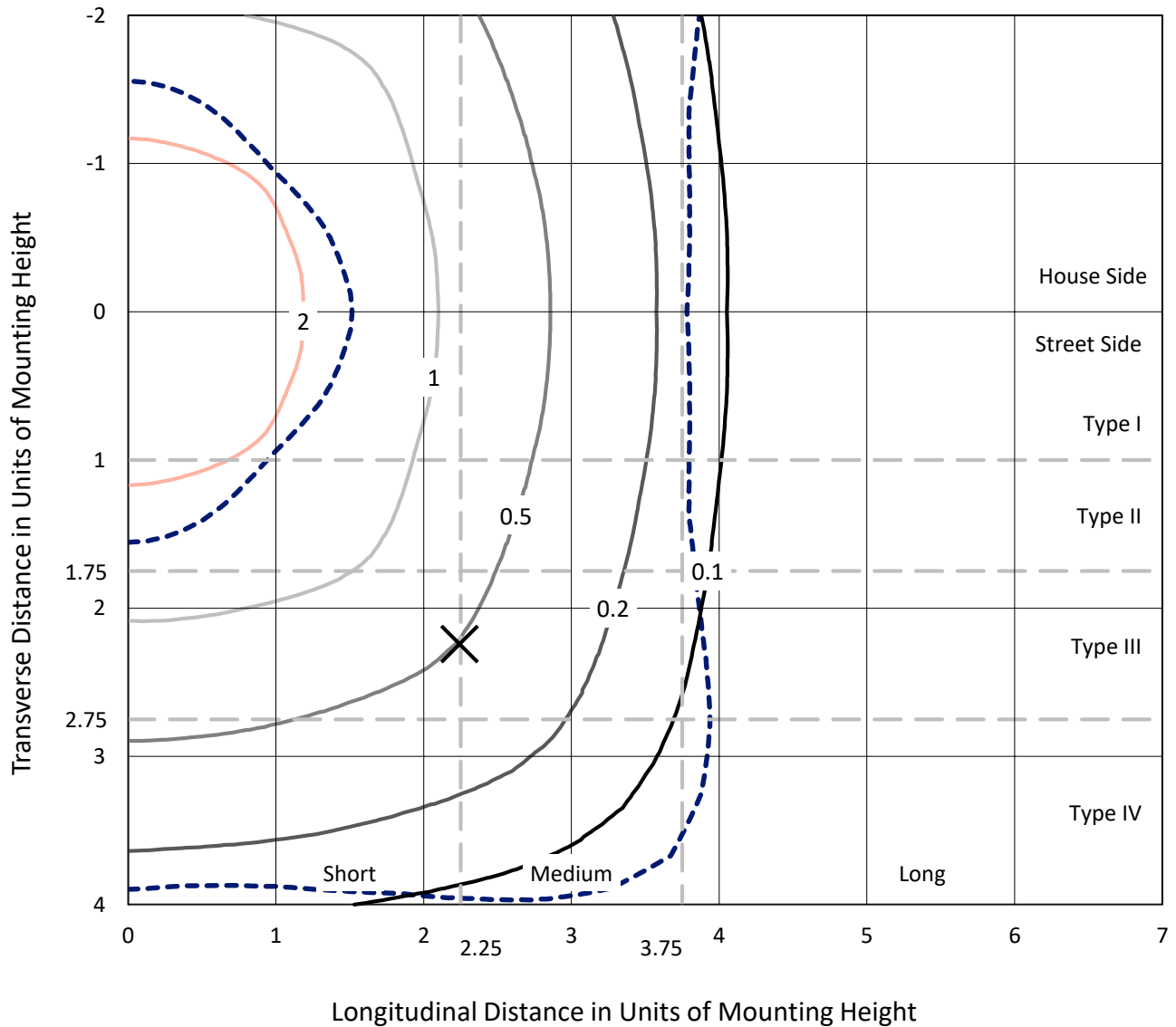


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

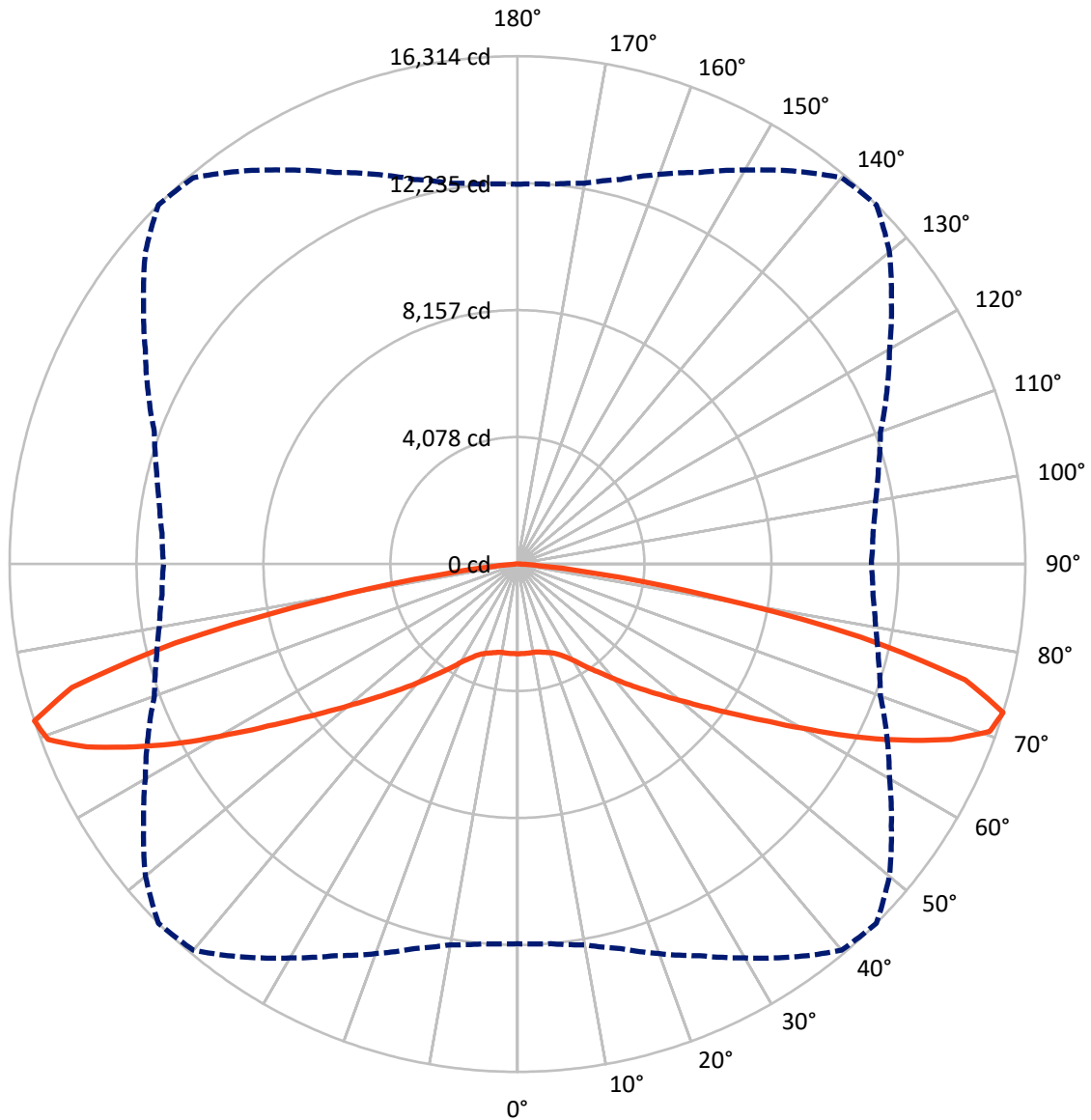


Based on 30 foot mounting height. Maximum calculated value = 3.2 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	20369.4	0.0	20369.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	20369.4	0.0	20369.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	40738.7	0.0	40738.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	275.5	0.7
10°-20°	836.7	2.1
20°-30°	1528.9	3.8
30°-40°	2636.1	6.5
40°-50°	4506.4	11.1
50°-60°	7304.3	17.9
60°-70°	12117.6	29.7
70°-80°	10672.7	26.2
80°-90°	860.5	2.1
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°	40738.7	100.0
0°-180°	40738.7	100.0



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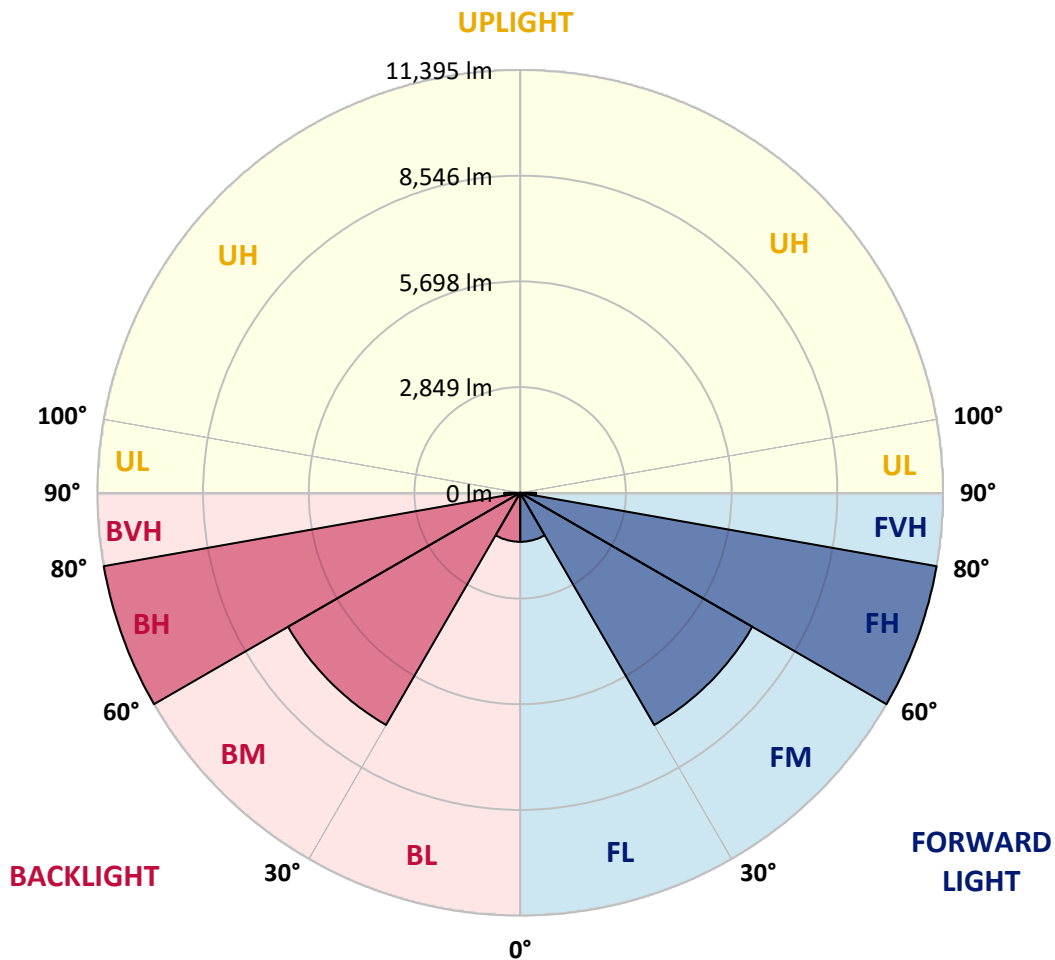
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1320.5	3.2			
FM	(30°-60°)	7223.4	17.7			
FH	(60°-80°)	11395.2	28.0			G4/12000
FVH	(80°-90°)	430.3	1.1			G3/500
BL	(0°-30°)	1320.5	3.2	B3/2500		
BM	(30°-60°)	7223.4	17.7	B4/8500		
BH	(60°-80°)	11395.2	28.0	B5		G4/12000
BVH	(80°-90°)	430.3	1.1			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2884.9	2884.9	2884.9	2884.9	2884.9	2884.9	2884.9	2884.9	2884.9	2884.9	2884.9
2.5°	2884.9	2886.8	2888.7	2886.8	2886.8	2884.9	2883.1	2884.9	2883.1	2879.3	2881.2
5°	2894.3	2898.0	2898.0	2894.3	2896.1	2894.3	2890.5	2892.4	2888.7	2883.1	2883.1
7.5°	2905.5	2907.4	2907.4	2903.6	2905.5	2901.8	2898.0	2896.1	2892.4	2884.9	2879.3
10°	2922.3	2924.2	2922.3	2918.6	2918.6	2913.0	2903.6	2899.9	2892.4	2881.2	2875.6
12.5°	2941.0	2942.9	2941.0	2937.3	2935.4	2926.0	2918.6	2913.0	2907.4	2898.0	2888.7
15°	2967.1	2970.9	2967.1	2959.7	2954.1	2946.6	2942.9	2944.7	2946.6	2939.1	2929.8
17.5°	3015.7	3017.6	3012.0	2995.2	2987.7	2980.2	2980.2	2984.0	2989.6	2985.8	2976.5
20°	3105.4	3099.8	3086.7	3066.2	3056.8	3043.8	3041.9	3043.8	3043.8	3041.9	3034.4
22.5°	3217.5	3213.8	3197.0	3170.8	3157.7	3150.3	3139.0	3129.7	3127.8	3122.2	3114.8
25°	3352.1	3350.2	3329.6	3307.2	3297.9	3288.5	3279.2	3266.1	3254.9	3241.8	3234.3
27.5°	3524.0	3516.5	3486.6	3475.4	3462.3	3456.7	3443.6	3428.7	3419.3	3402.5	3393.2
30°	3712.7	3712.7	3688.4	3684.6	3684.6	3671.6	3656.6	3630.5	3613.6	3596.8	3591.2
32.5°	3901.4	3903.3	3879.0	3886.4	3892.0	3901.4	3905.1	3895.8	3884.6	3882.7	3871.5
35°	4174.2	4166.7	4142.4	4148.0	4146.2	4144.3	4144.3	4164.8	4168.6	4172.3	4149.9
37.5°	4512.4	4512.4	4488.1	4488.1	4476.9	4465.7	4450.7	4463.8	4484.4	4490.0	4475.0
40°	4899.2	4912.2	4882.3	4880.5	4884.2	4848.7	4831.9	4852.4	4865.5	4887.9	4871.1
42.5°	5355.1	5345.7	5315.8	5312.1	5291.5	5280.3	5265.4	5282.2	5302.7	5317.7	5323.3
45°	5792.3	5784.8	5751.2	5751.2	5730.6	5721.3	5728.8	5756.8	5766.1	5786.7	5807.2
47.5°	6223.9	6214.6	6192.1	6201.5	6203.4	6220.2	6244.5	6270.6	6296.8	6324.8	6334.1
50°	6664.9	6666.7	6642.4	6664.9	6692.9	6739.6	6805.0	6848.0	6902.2	6937.7	6948.9
52.5°	7066.6	7074.1	7100.2	7152.5	7208.6	7300.2	7412.3	7516.9	7606.6	7666.4	7662.6
55°	7548.7	7559.9	7623.4	7713.1	7804.6	7942.9	8109.2	8294.2	8443.7	8529.6	8475.4
57.5°	8165.3	8189.6	8260.6	8382.0	8518.4	8697.8	8925.7	9204.1	9435.8	9551.7	9463.9
60°	9011.7	9026.6	9112.6	9247.1	9411.5	9633.9	9938.4	10312.1	10639.1	10792.3	10691.4
62.5°	10127.2	10155.2	10224.3	10360.7	10528.9	10781.1	11153.0	11620.1	12027.4	12240.4	12012.5
65°	11459.4	11549.1	11607.0	11745.3	11902.2	12169.4	12558.1	13058.8	13496.0	13636.2	13372.7
67.5°	12778.5	12857.0	12957.9	13116.7	13275.6	13576.4	13937.0	14422.8	14903.0	15030.1	14620.9
70°	13355.9	13400.7	13557.7	13774.4	14079.0	14434.0	14850.7	15396.3	15990.5	16095.1	15575.7
72.5°	12199.3	12244.2	12419.8	12787.9	13318.5	13882.8	14609.7	15411.2	16196.0	16313.7	15598.1
75°	9226.6	9153.7	9413.4	9901.1	10616.7	11403.3	12419.8	13568.9	14703.1	14850.7	13996.8
77.5°	4768.4	4759.0	4955.2	5560.6	6414.5	7309.5	8428.7	9727.3	10837.2	11285.6	10590.5
80°	1343.4	1358.4	1451.8	1752.6	2251.5	2898.0	3772.5	4988.8	5896.9	6360.3	5971.7
82.5°	526.9	568.0	603.5	659.6	725.0	820.3	1094.9	1629.3	2186.1	2612.1	2139.4
85°	188.7	201.8	285.9	338.2	343.8	362.5	412.9	482.1	581.1	693.2	569.9
87.5°	71.0	78.5	91.6	151.3	149.5	136.4	166.3	173.8	130.8	119.6	147.6
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°	2884.9	2884.9	2884.9	2884.9	2884.9	2884.9	2884.9	2884.9
2.5°	2877.5	2879.3	2879.3	2881.2	2883.1	2883.1	2886.8	2886.8
5°	2879.3	2879.3	2875.6	2877.5	2875.6	2875.6	2877.5	2877.5
7.5°	2875.6	2873.7	2870.0	2868.1	2864.4	2864.4	2864.4	2864.4
10°	2870.0	2868.1	2864.4	2862.5	2860.6	2860.6	2860.6	2860.6
12.5°	2884.9	2879.3	2875.6	2873.7	2873.7	2873.7	2873.7	2873.7
15°	2924.2	2911.1	2901.8	2901.8	2903.6	2907.4	2907.4	2911.1
17.5°	2972.8	2957.8	2948.5	2941.0	2944.7	2950.3	2954.1	2957.8
20°	3030.7	3023.2	3010.1	3002.6	3002.6	3010.1	3013.9	3015.7
22.5°	3111.0	3105.4	3099.8	3090.5	3090.5	3094.2	3101.7	3101.7
25°	3230.6	3226.9	3223.1	3215.7	3213.8	3213.8	3217.5	3221.3
27.5°	3380.1	3382.0	3378.2	3376.3	3370.7	3368.9	3374.5	3372.6
30°	3580.0	3589.4	3598.7	3591.2	3581.9	3576.3	3570.7	3563.2
32.5°	3850.9	3839.7	3832.3	3819.2	3802.4	3787.4	3776.2	3763.1
35°	4106.9	4088.2	4080.8	4092.0	4090.1	4080.8	4067.7	4056.5
37.5°	4420.8	4417.1	4420.8	4441.4	4437.6	4447.0	4420.8	4419.0
40°	4816.9	4820.7	4846.8	4871.1	4884.2	4897.3	4882.3	4867.4
42.5°	5276.6	5274.7	5284.1	5317.7	5340.1	5355.1	5323.3	5319.6
45°	5762.4	5749.3	5756.8	5784.8	5807.2	5824.1	5788.6	5788.6
47.5°	6296.8	6274.4	6250.1	6281.8	6294.9	6306.1	6278.1	6268.8
50°	6892.8	6846.1	6793.8	6806.9	6806.9	6803.1	6767.6	6765.8
52.5°	7576.7	7490.7	7395.4	7359.9	7339.4	7317.0	7255.3	7225.4
55°	8363.3	8234.4	8084.9	7993.4	7944.8	7883.1	7780.4	7752.3
57.5°	9282.6	9080.8	8823.0	8710.9	8602.5	8501.6	8387.6	8355.8
60°	10371.9	10074.8	9732.9	9525.5	9407.8	9310.6	9192.9	9187.3
62.5°	11586.4	11117.5	10730.7	10543.8	10457.9	10371.9	10259.8	10274.8
65°	12821.5	12332.0	11969.5	11818.1	11737.8	11666.8	11554.7	11571.5
67.5°	14039.8	13589.5	13191.5	13036.4	12946.7	12857.0	12756.1	12772.9
70°	14914.2	14355.5	13907.1	13563.3	13348.4	13105.5	12948.6	12909.3
72.5°	14663.8	13802.5	13090.6	12408.6	12008.7	11683.6	11463.1	11367.8
75°	12690.7	11513.6	10598.0	9760.9	9290.1	8907.0	8628.6	8454.9
77.5°	9424.6	8101.7	7019.9	6055.7	5293.4	4781.4	4420.8	4187.3
80°	5158.9	3923.8	2868.1	2016.1	1481.7	1231.3	1087.5	1018.3
82.5°	1606.9	1037.0	764.2	659.6	612.9	586.7	543.7	474.6
85°	512.0	448.4	416.7	398.0	379.3	330.7	228.0	207.4
87.5°	198.1	203.7	201.8	190.6	194.3	140.1	112.1	99.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)