

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: P299851

Luminaire Tested: **GLNA-AF-07-LED-E1-5WQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299851
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-07-LED-E1-5WQ-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38396.4 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G4

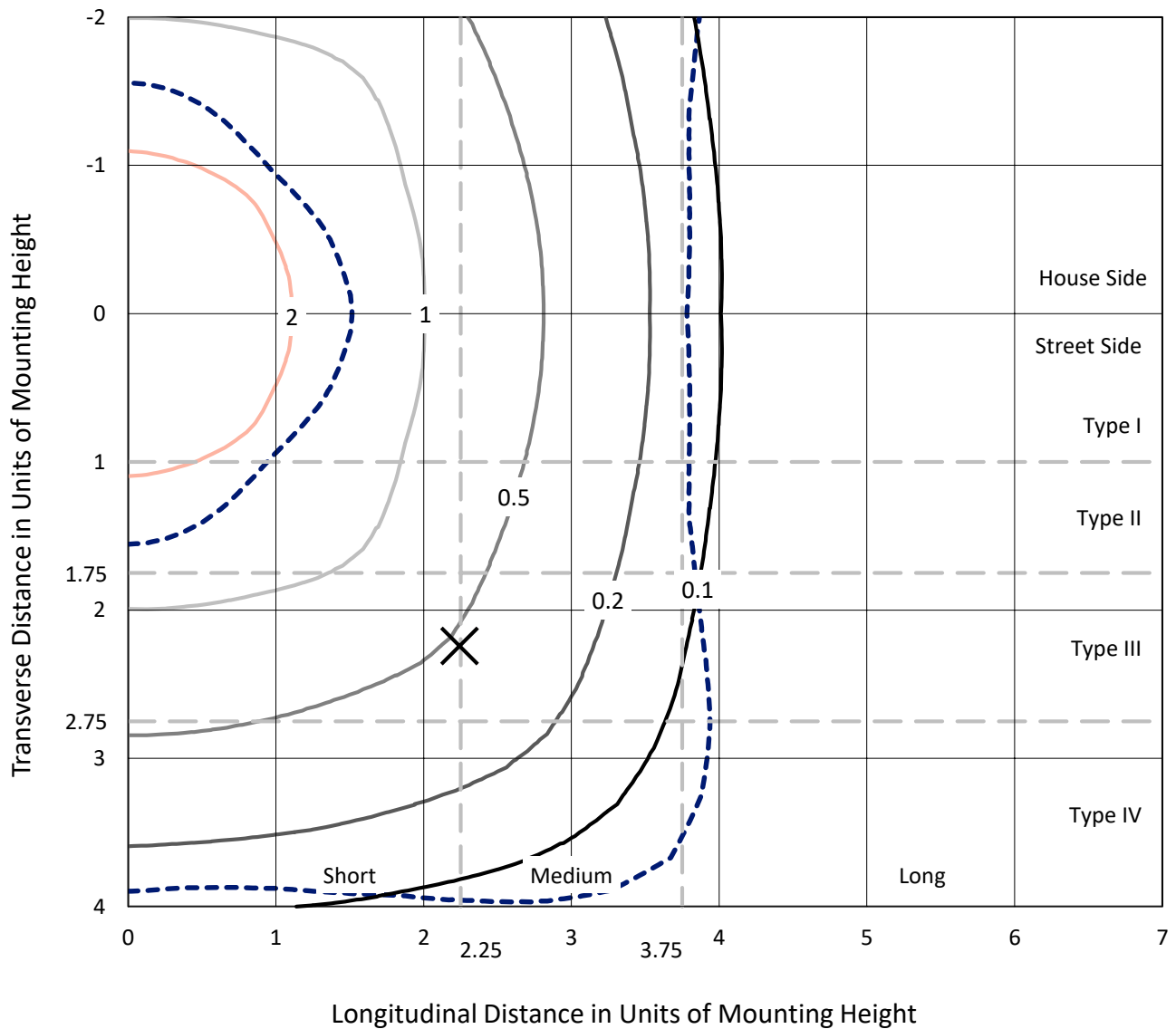
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299851
 CATALOG NUMBER: GLNA-AF-07-LED-E1-5WQ-7027

Iso-Footcandle Lines of Horizontal Illumination

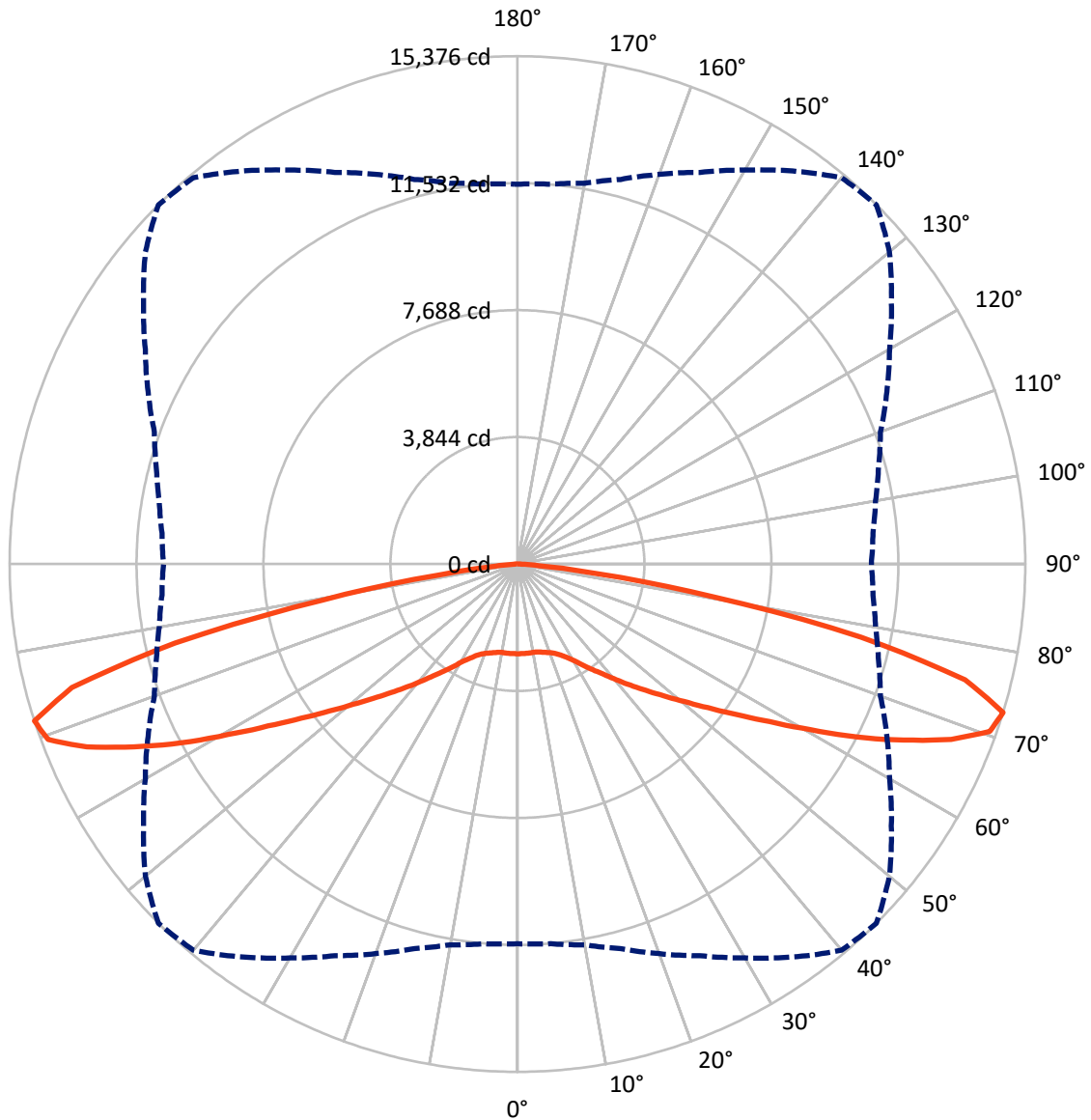
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3 fc
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P299851
CATALOG NUMBER: GLNA-AF-07-LED-E1-5WQ-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299851

CATALOG NUMBER: GLNA-AF-07-LED-E1-5WQ-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	19198.2	0.0	19198.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	19198.2	0.0	19198.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	38396.4	0.0	38396.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.6	0.7
10°-20°	788.6	2.1
20°-30°	1441.0	3.8
30°-40°	2484.5	6.5
40°-50°	4247.3	11.1
50°-60°	6884.3	17.9
60°-70°	11420.9	29.7
70°-80°	10059.1	26.2
80°-90°	811.0	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°	38396.4	100.0
0°-180°	38396.4	100.0



REPORT NUMBER: P299851

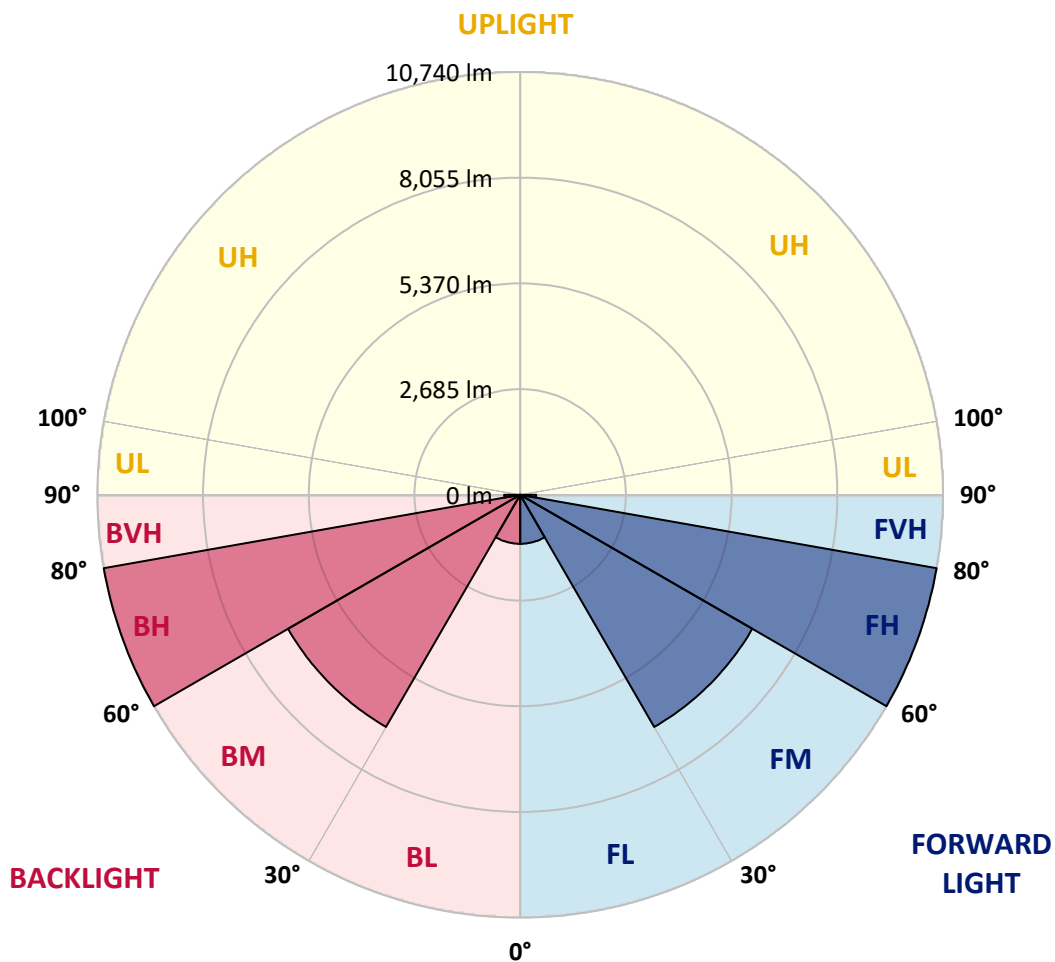
CATALOG NUMBER: GLNA-AF-07-LED-E1-5WQ-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1244.6	3.2			
FM	(30°-60°)	6808.1	17.7			
FH	(60°-80°)	10740.0	28.0			G4/12000
FVH	(80°-90°)	405.5	1.1			G3/500
BL	(0°-30°)	1244.6	3.2	B3/2500		
BM	(30°-60°)	6808.1	17.7	B4/8500		
BH	(60°-80°)	10740.0	28.0	B5		G4/12000
BVH	(80°-90°)	405.5	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





REPORT NUMBER: P299851

CATALOG NUMBER: GLNA-AF-07-LED-E1-5WQ-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1
2.5°	2719.1	2720.8	2722.6	2720.8	2720.8	2719.1	2717.3	2719.1	2717.3	2713.8	2715.5
5°	2727.9	2731.4	2731.4	2727.9	2729.6	2727.9	2724.3	2726.1	2722.6	2717.3	2717.3
7.5°	2738.4	2740.2	2740.2	2736.7	2738.4	2734.9	2731.4	2729.6	2726.1	2719.1	2713.8
10°	2754.3	2756.0	2754.3	2750.8	2750.8	2745.5	2736.7	2733.1	2726.1	2715.5	2710.3
12.5°	2771.9	2773.7	2771.9	2768.4	2766.6	2757.8	2750.8	2745.5	2740.2	2731.4	2722.6
15°	2796.5	2800.1	2796.5	2789.5	2784.2	2777.2	2773.7	2775.4	2777.2	2770.1	2761.3
17.5°	2842.3	2844.1	2838.8	2823.0	2815.9	2808.9	2808.9	2812.4	2817.7	2814.2	2805.3
20°	2926.9	2921.6	2909.3	2889.9	2881.1	2868.7	2867.0	2868.7	2868.7	2867.0	2859.9
22.5°	3032.5	3029.0	3013.2	2988.5	2976.2	2969.1	2958.6	2949.8	2948.0	2942.7	2935.7
25°	3159.3	3157.6	3138.2	3117.1	3108.3	3099.4	3090.6	3078.3	3067.7	3055.4	3048.4
27.5°	3321.3	3314.3	3286.1	3275.5	3263.2	3257.9	3245.6	3231.5	3222.7	3206.9	3198.1
30°	3499.2	3499.2	3476.3	3472.8	3472.8	3460.5	3446.4	3421.7	3405.9	3390.0	3384.7
32.5°	3677.1	3678.8	3655.9	3663.0	3668.3	3677.1	3680.6	3671.8	3661.2	3659.5	3648.9
35°	3934.2	3927.1	3904.2	3909.5	3907.8	3906.0	3906.0	3925.4	3928.9	3932.4	3911.3
37.5°	4252.9	4252.9	4230.0	4230.0	4219.5	4208.9	4194.8	4207.1	4226.5	4231.8	4217.7
40°	4617.5	4629.8	4601.6	4599.9	4603.4	4569.9	4554.1	4573.4	4585.8	4606.9	4591.1
42.5°	5047.2	5038.4	5010.2	5006.7	4987.3	4976.7	4962.6	4978.5	4997.9	5011.9	5017.2
45°	5459.2	5452.2	5420.5	5420.5	5401.1	5392.3	5399.4	5425.8	5434.6	5454.0	5473.3
47.5°	5866.1	5857.2	5836.1	5844.9	5846.7	5862.5	5885.4	5910.1	5934.7	5961.1	5970.0
50°	6281.7	6283.4	6260.5	6281.7	6308.1	6352.1	6413.7	6454.2	6505.3	6538.8	6549.3
52.5°	6660.3	6667.3	6692.0	6741.3	6794.1	6880.4	6986.1	7084.7	7169.2	7225.6	7222.1
55°	7114.6	7125.2	7185.1	7269.6	7355.9	7486.2	7642.9	7817.3	7958.2	8039.2	7988.1
57.5°	7695.8	7718.7	7785.6	7900.1	8028.6	8197.7	8412.5	8674.9	8893.3	9002.5	8919.7
60°	8493.5	8507.6	8588.6	8715.4	8870.4	9080.0	9367.0	9719.2	10027.4	10171.8	10076.7
62.5°	9544.9	9571.3	9636.5	9765.0	9923.5	10161.2	10511.7	10952.0	11335.9	11536.6	11321.8
65°	10800.5	10885.0	10939.6	11069.9	11217.9	11469.7	11836.0	12308.0	12720.1	12852.1	12603.8
67.5°	12043.8	12117.8	12212.9	12362.6	12512.2	12795.8	13135.7	13593.5	14046.1	14165.9	13780.2
70°	12588.0	12630.2	12778.2	12982.4	13269.5	13604.1	13996.8	14511.0	15071.1	15169.7	14680.1
72.5°	11497.9	11540.1	11705.7	12052.6	12552.8	13084.6	13769.6	14525.1	15264.8	15375.7	14701.2
75°	8696.1	8627.4	8872.2	9331.8	10006.3	10747.7	11705.7	12788.7	13857.7	13996.8	13192.0
77.5°	4494.2	4485.4	4670.3	5240.9	6045.7	6889.2	7944.1	9168.0	10214.1	10636.7	9981.6
80°	1266.2	1280.3	1368.3	1651.9	2122.1	2731.4	3555.6	4702.0	5557.9	5994.6	5628.3
82.5°	496.6	535.4	568.8	621.7	683.3	773.1	1032.0	1535.6	2060.4	2461.9	2016.4
85°	177.9	190.2	269.4	318.7	324.0	341.6	389.2	454.4	547.7	653.3	537.1
87.5°	66.9	74.0	86.3	142.6	140.9	128.6	156.7	163.8	123.3	112.7	139.1
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: P299851

CATALOG NUMBER: GLNA-AF-07-LED-E1-5WQ-7027

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1
2.5°	2712.0	2713.8	2713.8	2715.5	2717.3	2717.3	2720.8	2720.8
5°	2713.8	2713.8	2710.3	2712.0	2710.3	2710.3	2712.0	2712.0
7.5°	2710.3	2708.5	2705.0	2703.2	2699.7	2699.7	2699.7	2699.7
10°	2705.0	2703.2	2699.7	2697.9	2696.2	2696.2	2696.2	2696.2
12.5°	2719.1	2713.8	2710.3	2708.5	2708.5	2708.5	2708.5	2708.5
15°	2756.0	2743.7	2734.9	2734.9	2736.7	2740.2	2740.2	2743.7
17.5°	2801.8	2787.7	2778.9	2771.9	2775.4	2780.7	2784.2	2787.7
20°	2856.4	2849.4	2837.0	2830.0	2830.0	2837.0	2840.6	2842.3
22.5°	2932.1	2926.9	2921.6	2912.8	2912.8	2916.3	2923.3	2923.3
25°	3044.9	3041.3	3037.8	3030.8	3029.0	3029.0	3032.5	3036.0
27.5°	3185.7	3187.5	3184.0	3182.2	3176.9	3175.2	3180.5	3178.7
30°	3374.2	3383.0	3391.8	3384.7	3375.9	3370.6	3365.4	3358.3
32.5°	3629.5	3619.0	3611.9	3599.6	3583.7	3569.6	3559.1	3546.8
35°	3870.8	3853.2	3846.1	3856.7	3854.9	3846.1	3833.8	3823.2
37.5°	4166.6	4163.1	4166.6	4186.0	4182.5	4191.3	4166.6	4164.9
40°	4540.0	4543.5	4568.2	4591.1	4603.4	4615.7	4601.6	4587.5
42.5°	4973.2	4971.4	4980.2	5011.9	5033.1	5047.2	5017.2	5013.7
45°	5431.1	5418.7	5425.8	5452.2	5473.3	5489.2	5455.7	5455.7
47.5°	5934.7	5913.6	5890.7	5920.6	5933.0	5943.5	5917.1	5908.3
50°	6496.5	6452.5	6403.2	6415.5	6415.5	6412.0	6378.5	6376.8
52.5°	7141.1	7060.0	6970.2	6936.8	6917.4	6896.3	6838.2	6810.0
55°	7882.5	7760.9	7620.1	7533.8	7488.0	7429.9	7333.0	7306.6
57.5°	8748.9	8558.7	8315.7	8210.0	8107.9	8012.8	7905.3	7875.4
60°	9775.6	9495.6	9173.3	8977.8	8866.9	8775.3	8664.4	8659.1
62.5°	10920.3	10478.2	10113.7	9937.6	9856.6	9775.6	9669.9	9684.0
65°	12084.3	11622.9	11281.3	11138.6	11062.9	10996.0	10890.3	10906.2
67.5°	13232.5	12808.1	12433.0	12286.8	12202.3	12117.8	12022.7	12038.5
70°	14056.7	13530.1	13107.5	12783.4	12580.9	12352.0	12204.1	12167.1
72.5°	13820.7	13008.9	12337.9	11695.1	11318.3	11011.8	10804.0	10714.2
75°	11961.0	10851.6	9988.7	9199.7	8755.9	8394.9	8132.5	7968.7
77.5°	8882.7	7635.9	6616.3	5707.6	4989.0	4506.5	4166.6	3946.5
80°	4862.3	3698.2	2703.2	1900.2	1396.5	1160.5	1024.9	959.8
82.5°	1514.5	977.4	720.3	621.7	577.6	553.0	512.5	447.3
85°	482.5	422.7	392.7	375.1	357.5	311.7	214.8	195.5
87.5°	186.7	192.0	190.2	179.6	183.1	132.1	105.7	93.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)