

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: P299857

Luminaire Tested: **GLNA-AF-08-LED-E1-5WQ-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299857  
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-08-LED-E1-5WQ-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

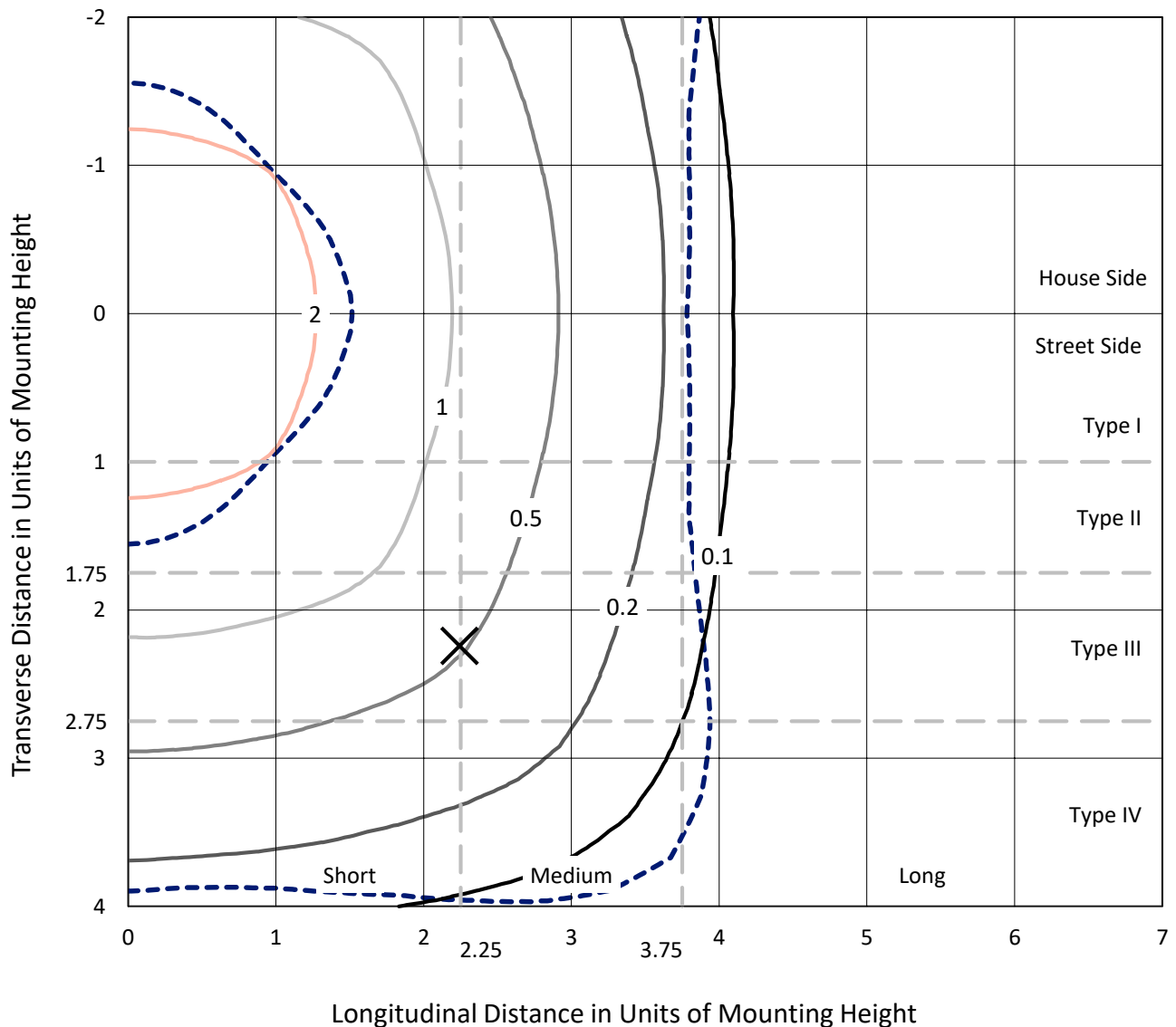
Lumens per Lamp: N/A  
Luminaire Lumens: 43504.8 lumens  
Efficiency: N/A  
Efficacy: 97.8 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G5  
  
Input Watts (W): 445  
Input Voltage (V): NR  
Input Current (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

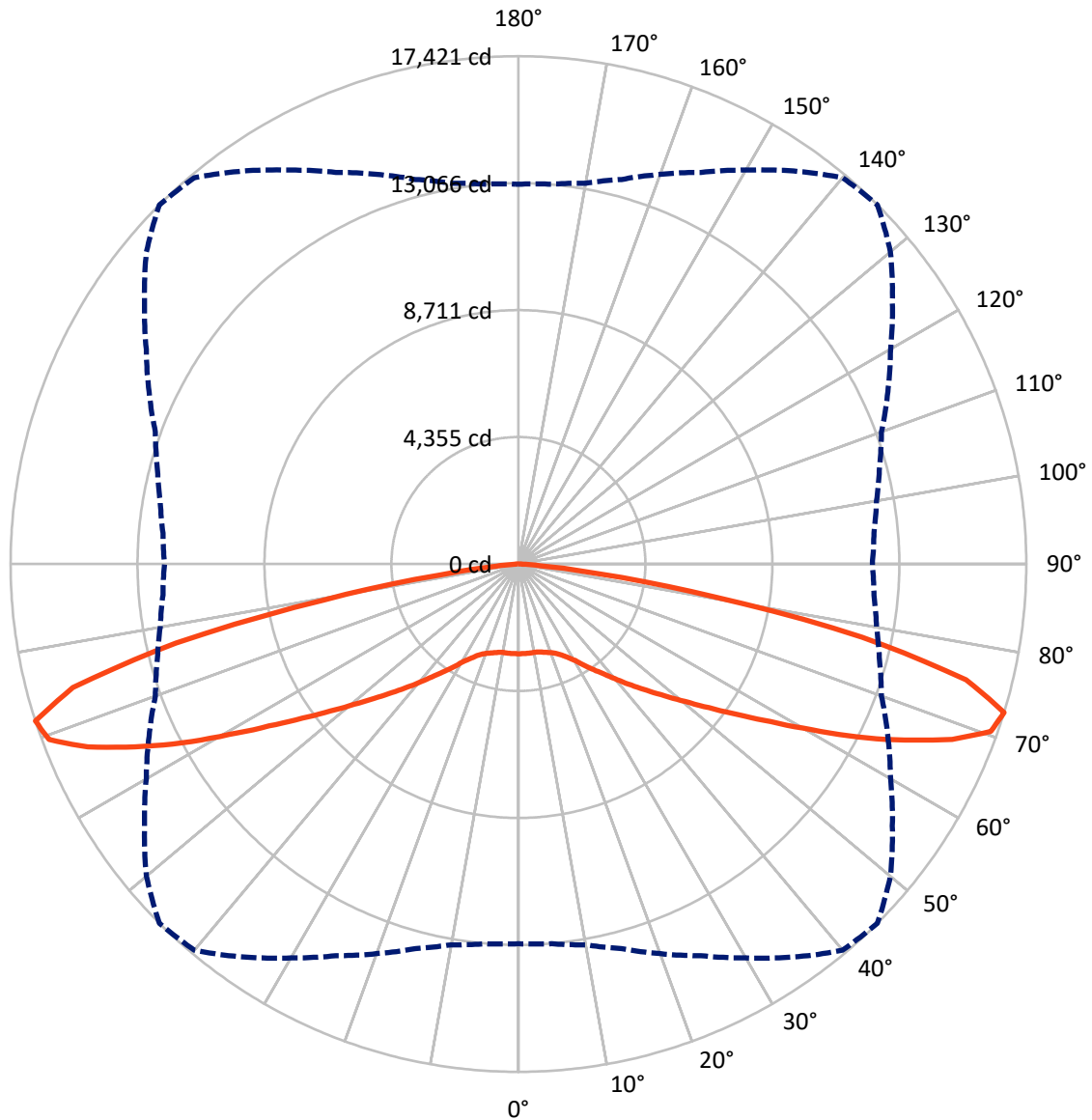
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.4 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	21752.4	0.0	21752.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	21752.4	0.0	21752.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	43504.8	0.0	43504.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	294.2	0.7
10°-20°	893.5	2.1
20°-30°	1632.7	3.8
30°-40°	2815.1	6.5
40°-50°	4812.4	11.1
50°-60°	7800.3	17.9
60°-70°	12940.3	29.7
70°-80°	11397.4	26.2
80°-90°	919.0	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°	43504.8	100.0
0°-180°	43504.8	100.0



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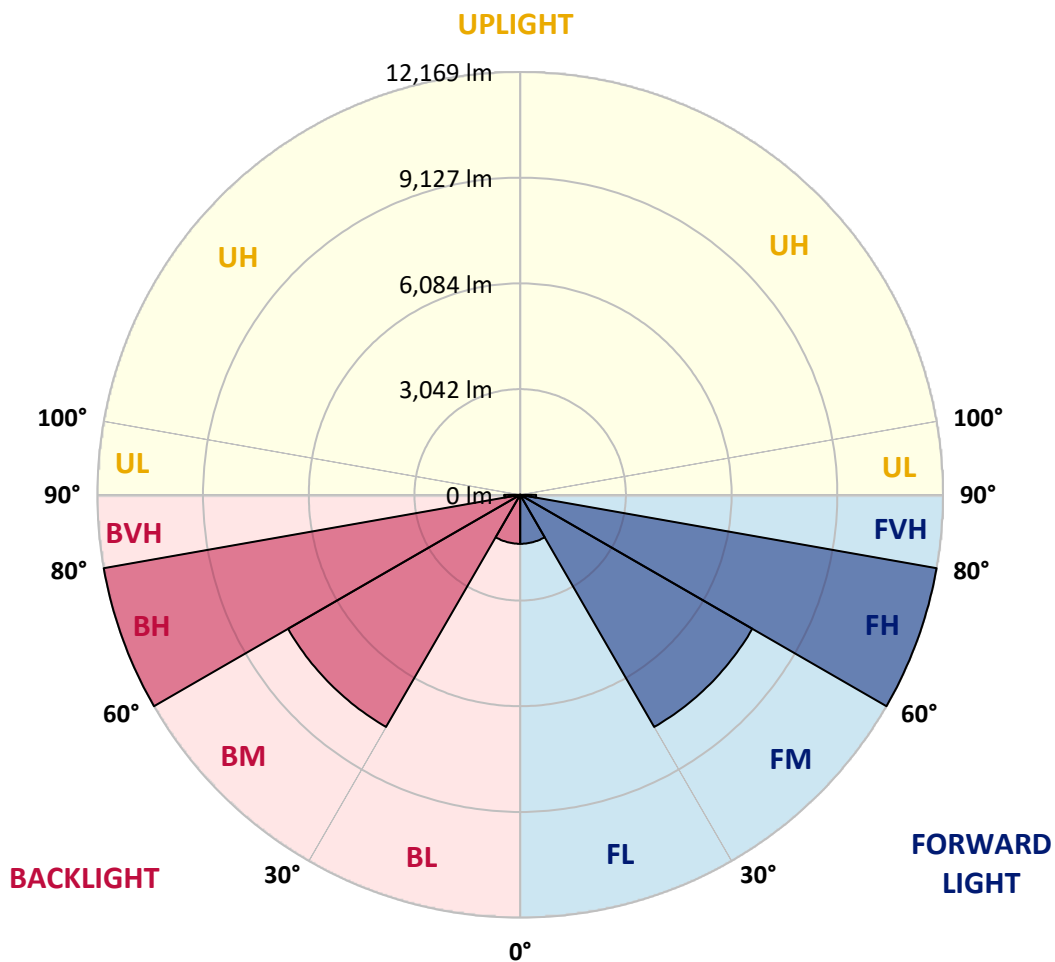
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1410.2	3.2			
FM	(30°-60°)	7713.9	17.7			
FH	(60°-80°)	12168.9	28.0			G5
FVH	(80°-90°)	459.5	1.1			G3/500
BL	(0°-30°)	1410.2	3.2	B3/2500		
BM	(30°-60°)	7713.9	17.7	B4/8500		
BH	(60°-80°)	12168.9	28.0	B5		G5
BVH	(80°-90°)	459.5	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-G5**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3080.8	3080.8	3080.8	3080.8	3080.8	3080.8	3080.8	3080.8	3080.8	3080.8	3080.8
2.5°	3080.8	3082.8	3084.8	3082.8	3082.8	3080.8	3078.8	3080.8	3078.8	3074.8	3076.8
5°	3090.8	3094.8	3094.8	3090.8	3092.8	3090.8	3086.8	3088.8	3084.8	3078.8	3078.8
7.5°	3102.8	3104.8	3104.8	3100.8	3102.8	3098.8	3094.8	3092.8	3088.8	3080.8	3074.8
10°	3120.7	3122.7	3120.7	3116.7	3116.7	3110.7	3100.8	3096.8	3088.8	3076.8	3070.8
12.5°	3140.7	3142.7	3140.7	3136.7	3134.7	3124.7	3116.7	3110.7	3104.8	3094.8	3084.8
15°	3168.6	3172.6	3168.6	3160.6	3154.6	3146.7	3142.7	3144.7	3146.7	3138.7	3128.7
17.5°	3220.5	3222.5	3216.5	3198.5	3190.6	3182.6	3182.6	3186.6	3192.6	3188.6	3178.6
20°	3316.3	3310.3	3296.3	3274.4	3264.4	3250.4	3248.4	3250.4	3250.4	3248.4	3240.4
22.5°	3436.0	3432.0	3414.0	3386.1	3372.1	3364.2	3352.2	3342.2	3340.2	3334.2	3326.2
25°	3579.7	3577.7	3555.7	3531.8	3521.8	3511.8	3501.8	3487.9	3475.9	3461.9	3453.9
27.5°	3763.2	3755.2	3723.3	3711.3	3697.4	3691.4	3677.4	3661.5	3651.5	3633.5	3623.5
30°	3964.8	3964.8	3938.8	3934.8	3934.8	3920.9	3904.9	3877.0	3859.0	3841.0	3835.1
32.5°	4166.3	4168.3	4142.3	4150.3	4156.3	4166.3	4170.3	4160.3	4148.3	4146.3	4134.4
35°	4457.6	4449.6	4423.7	4429.7	4427.7	4425.7	4425.7	4447.6	4451.6	4455.6	4431.7
37.5°	4818.8	4818.8	4792.8	4792.8	4780.8	4768.9	4752.9	4766.9	4788.8	4794.8	4778.9
40°	5231.8	5245.8	5213.8	5211.8	5215.8	5177.9	5160.0	5181.9	5195.9	5219.8	5201.9
42.5°	5718.7	5708.7	5676.8	5672.8	5650.8	5638.8	5622.9	5640.8	5662.8	5678.8	5684.7
45°	6185.6	6177.6	6141.7	6141.7	6119.7	6109.7	6117.7	6147.7	6157.6	6179.6	6201.5
47.5°	6646.5	6636.5	6612.6	6622.6	6624.5	6642.5	6668.4	6696.4	6724.3	6754.2	6764.2
50°	7117.4	7119.4	7093.5	7117.4	7147.3	7197.2	7267.1	7312.9	7370.8	7408.7	7420.7
52.5°	7546.4	7554.4	7582.3	7638.2	7698.0	7795.8	7915.5	8027.3	8123.1	8186.9	8182.9
55°	8061.2	8073.2	8141.0	8236.8	8334.6	8482.2	8659.8	8857.3	9017.0	9108.8	9050.9
57.5°	8719.7	8745.6	8821.4	8951.1	9096.8	9288.3	9531.8	9829.1	10076.5	10200.2	10106.4
60°	9623.6	9639.5	9731.3	9875.0	10050.6	10288.0	10613.2	11012.3	11361.5	11525.1	11417.4
62.5°	10814.8	10844.7	10918.5	11064.2	11243.8	11513.1	11910.2	12409.1	12844.0	13071.5	12828.1
65°	12237.5	12333.2	12395.1	12542.7	12710.4	12995.7	13410.7	13945.5	14412.4	14562.0	14280.7
67.5°	13646.2	13730.0	13837.7	14007.3	14176.9	14498.2	14883.3	15402.1	15914.9	16050.6	15613.6
70°	14262.7	14310.6	14478.2	14709.7	15034.9	15414.0	15859.0	16441.7	17076.2	17187.9	16633.2
72.5°	13027.6	13075.5	13263.1	13656.1	14222.8	14825.4	15601.6	16457.6	17295.7	17421.4	16657.1
75°	9853.0	9775.2	10052.6	10573.3	11337.6	12177.6	13263.1	14490.2	15701.4	15859.0	14947.1
77.5°	5092.1	5082.1	5291.7	5938.1	6850.0	7805.8	9001.0	10387.8	11573.0	12051.9	11309.6
80°	1434.7	1450.6	1550.4	1871.6	2404.4	3094.8	4028.6	5327.6	6297.3	6792.2	6377.1
82.5°	562.7	606.6	644.5	704.4	774.2	876.0	1169.3	1739.9	2334.6	2789.5	2284.7
85°	201.5	215.5	305.3	361.2	367.1	387.1	441.0	514.8	620.6	740.3	608.6
87.5°	75.8	83.8	97.8	161.6	159.6	145.7	177.6	185.6	139.7	127.7	157.6
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°	3080.8	3080.8	3080.8	3080.8	3080.8	3080.8	3080.8	3080.8
2.5°	3072.8	3074.8	3074.8	3076.8	3078.8	3078.8	3082.8	3082.8
5°	3074.8	3074.8	3070.8	3072.8	3070.8	3070.8	3072.8	3072.8
7.5°	3070.8	3068.8	3064.9	3062.9	3058.9	3058.9	3058.9	3058.9
10°	3064.9	3062.9	3058.9	3056.9	3054.9	3054.9	3054.9	3054.9
12.5°	3080.8	3074.8	3070.8	3068.8	3068.8	3068.8	3068.8	3068.8
15°	3122.7	3108.7	3098.8	3098.8	3100.8	3104.8	3104.8	3108.7
17.5°	3174.6	3158.6	3148.7	3140.7	3144.7	3150.7	3154.6	3158.6
20°	3236.5	3228.5	3214.5	3206.5	3206.5	3214.5	3218.5	3220.5
22.5°	3322.3	3316.3	3310.3	3300.3	3300.3	3304.3	3312.3	3312.3
25°	3450.0	3446.0	3442.0	3434.0	3432.0	3432.0	3436.0	3440.0
27.5°	3609.6	3611.6	3607.6	3605.6	3599.6	3597.6	3603.6	3601.6
30°	3823.1	3833.1	3843.0	3835.1	3825.1	3819.1	3813.1	3805.1
32.5°	4112.4	4100.4	4092.5	4078.5	4060.5	4044.6	4032.6	4018.6
35°	4385.8	4365.8	4357.8	4369.8	4367.8	4357.8	4343.9	4331.9
37.5°	4721.0	4717.0	4721.0	4742.9	4738.9	4748.9	4721.0	4719.0
40°	5144.0	5148.0	5175.9	5201.9	5215.8	5229.8	5213.8	5197.9
42.5°	5634.9	5632.9	5642.8	5678.8	5702.7	5718.7	5684.7	5680.8
45°	6153.6	6139.7	6147.7	6177.6	6201.5	6219.5	6181.6	6181.6
47.5°	6724.3	6700.4	6674.4	6708.4	6722.3	6734.3	6704.4	6694.4
50°	7360.8	7310.9	7255.1	7269.0	7269.0	7265.1	7227.1	7225.1
52.5°	8091.1	7999.3	7897.6	7859.7	7837.7	7813.8	7747.9	7716.0
55°	8931.2	8793.5	8633.9	8536.1	8484.2	8418.4	8308.6	8278.7
57.5°	9912.9	9697.4	9422.0	9302.3	9186.6	9078.8	8957.1	8923.2
60°	11076.2	10758.9	10393.8	10172.3	10046.6	9942.8	9817.1	9811.1
62.5°	12373.1	11872.3	11459.3	11259.7	11168.0	11076.2	10956.4	10972.4
65°	13692.1	13169.3	12782.2	12620.6	12534.8	12458.9	12339.2	12357.2
67.5°	14993.0	14512.2	14087.1	13921.5	13825.8	13730.0	13622.2	13640.2
70°	15926.9	15330.2	14851.4	14484.2	14254.8	13995.4	13827.7	13785.8
72.5°	15659.5	14739.6	13979.4	13251.1	12824.1	12476.9	12241.4	12139.7
75°	13552.4	12295.3	11317.6	10423.7	9920.9	9511.8	9214.5	9028.9
77.5°	10064.5	8651.8	7496.5	6466.9	5652.8	5106.1	4721.0	4471.6
80°	5509.2	4190.2	3062.9	2153.0	1582.3	1314.9	1161.3	1087.5
82.5°	1716.0	1107.4	816.1	704.4	654.5	626.5	580.6	506.8
85°	546.7	478.9	445.0	425.0	405.1	353.2	243.4	221.5
87.5°	211.5	217.5	215.5	203.5	207.5	149.7	119.7	105.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)