

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: P299929

Luminaire Tested: **GLNA-AF-10-LED-E1-5WQ-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299929  
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-7027-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 43407.4 lumens  
Efficiency: N/A  
Efficacy: 103.6 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 - G5  
  
Input Watts (W): 419  
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

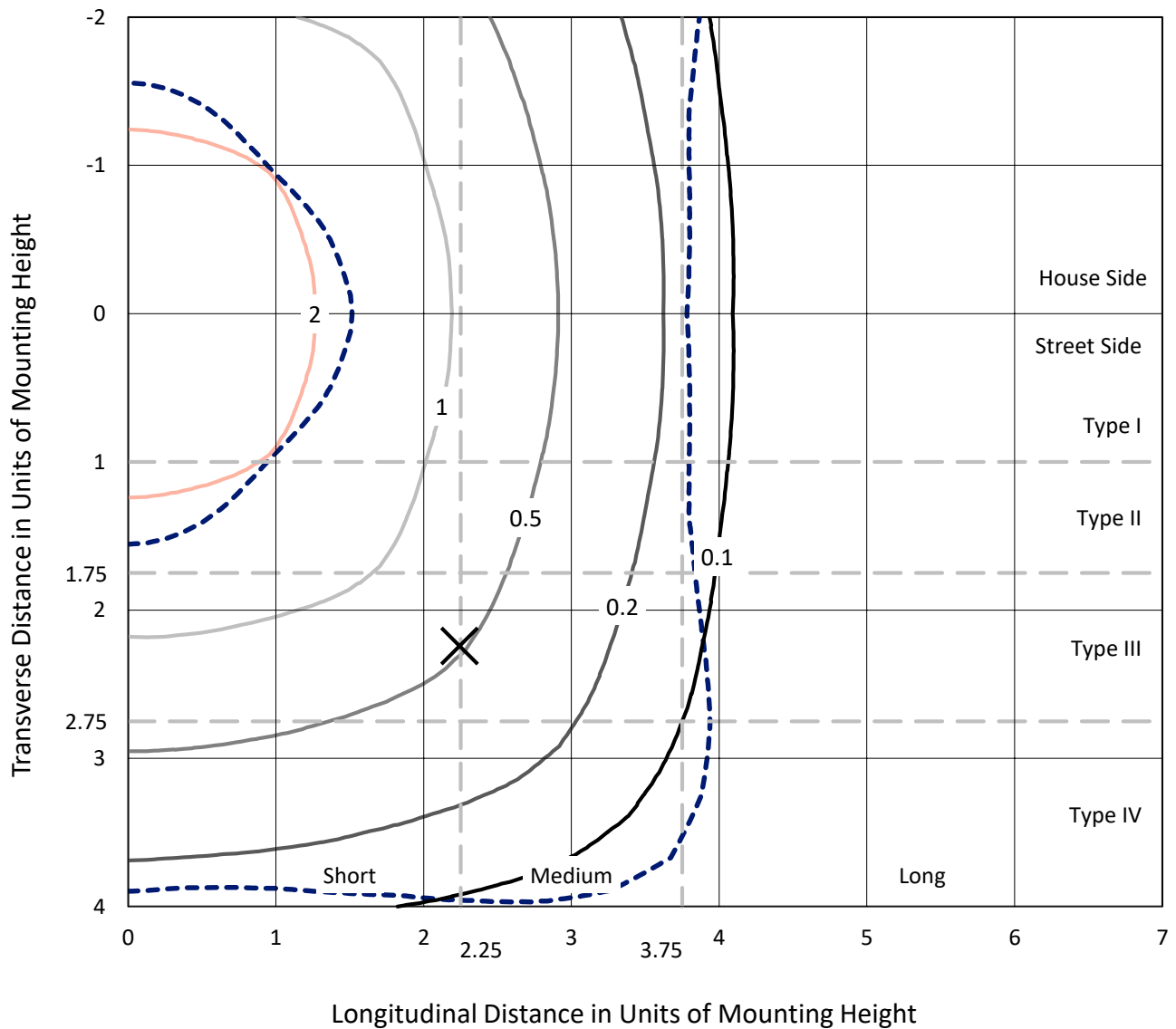


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

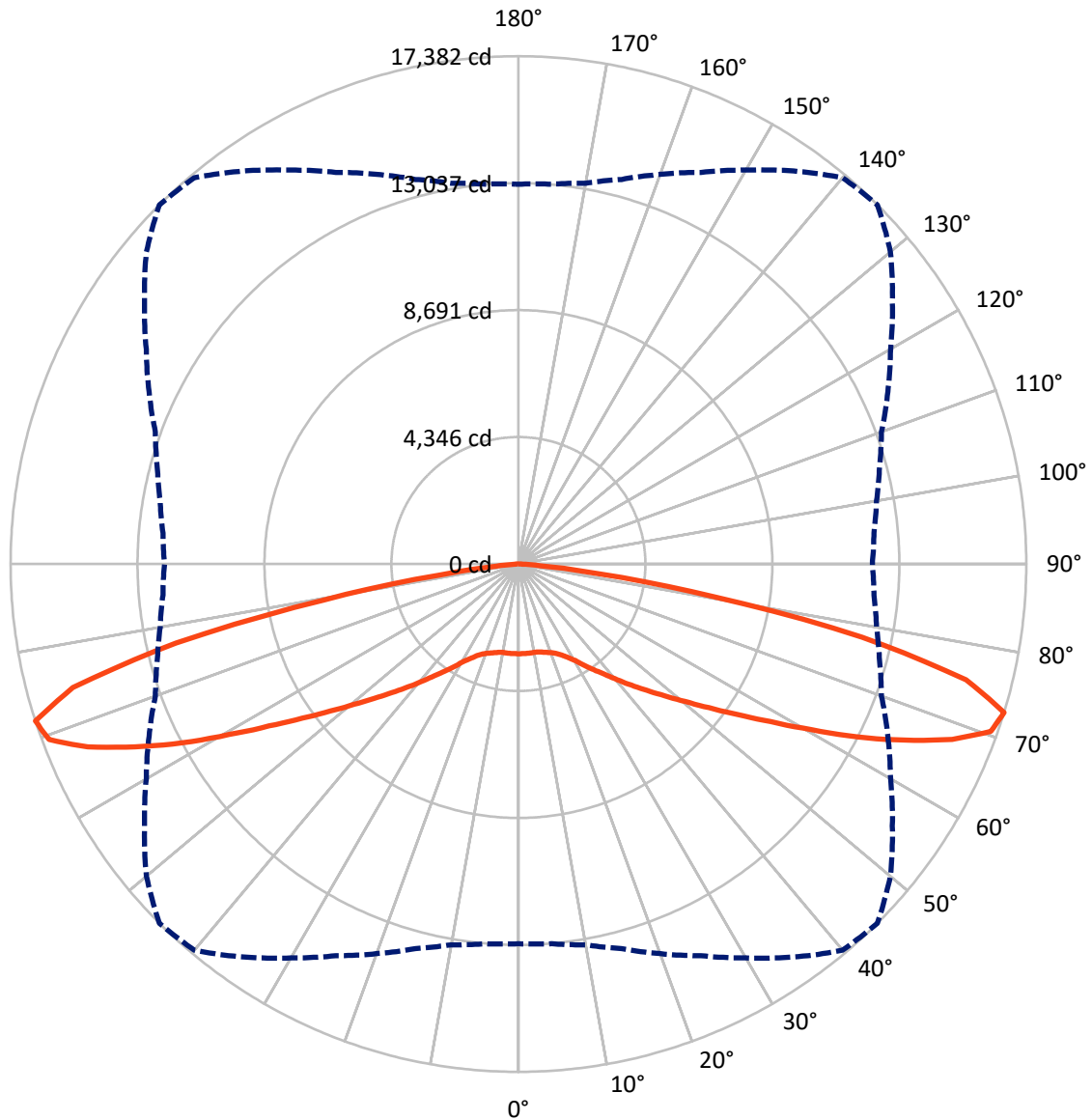


Based on 30 foot mounting height. Maximum calculated value = 3.4 fc  
 Type V - Short - Semi-Cutoff

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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	21703.7	0.0	21703.7
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	21703.7	0.0	21703.7
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	43407.4	0.0	43407.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	293.5	0.7
10°-20°	891.5	2.1
20°-30°	1629.1	3.8
30°-40°	2808.8	6.5
40°-50°	4801.6	11.1
50°-60°	7782.8	17.9
60°-70°	12911.4	29.7
70°-80°	11371.9	26.2
80°-90°	916.9	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°	43407.4	100.0
0°-180°	43407.4	100.0



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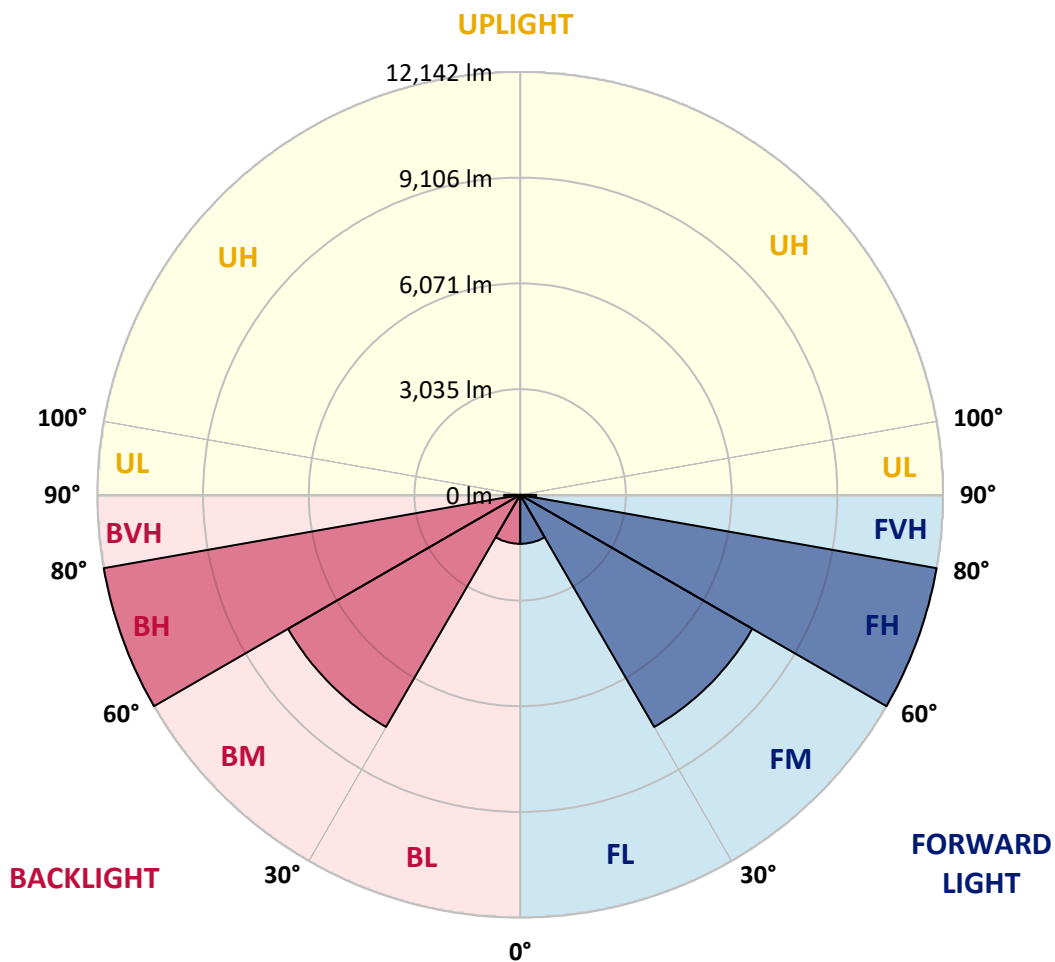
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1407.0	3.2			
FM	(30°-60°)	7696.6	17.7			
FH	(60°-80°)	12141.6	28.0			G5
FVH	(80°-90°)	458.4	1.1			G3/500
BL	(0°-30°)	1407.0	3.2	B3/2500		
BM	(30°-60°)	7696.6	17.7	B4/8500		
BH	(60°-80°)	12141.6	28.0	B5		G5
BVH	(80°-90°)	458.4	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°	3073.9	3073.9	3073.9	3073.9	3073.9	3073.9	3073.9	3073.9	3073.9	3073.9	3073.9
2.5°	3073.9	3075.9	3077.9	3075.9	3075.9	3073.9	3071.9	3073.9	3071.9	3067.9	3069.9
5°	3083.9	3087.9	3087.9	3083.9	3085.9	3083.9	3079.9	3081.9	3077.9	3071.9	3071.9
7.5°	3095.8	3097.8	3097.8	3093.8	3095.8	3091.8	3087.9	3085.9	3081.9	3073.9	3067.9
10°	3113.7	3115.7	3113.7	3109.8	3109.8	3103.8	3093.8	3089.8	3081.9	3069.9	3064.0
12.5°	3133.6	3135.6	3133.6	3129.7	3127.7	3117.7	3109.8	3103.8	3097.8	3087.9	3077.9
15°	3161.5	3165.5	3161.5	3153.6	3147.6	3139.6	3135.6	3137.6	3139.6	3131.7	3121.7
17.5°	3213.3	3215.3	3209.3	3191.4	3183.4	3175.5	3175.5	3179.4	3185.4	3181.4	3171.5
20°	3308.8	3302.9	3288.9	3267.0	3257.1	3243.1	3241.2	3243.1	3243.1	3241.2	3233.2
22.5°	3428.3	3424.3	3406.4	3378.5	3364.6	3356.6	3344.7	3334.7	3332.7	3326.8	3318.8
25°	3571.6	3569.7	3547.8	3523.9	3513.9	3504.0	3494.0	3480.1	3468.1	3454.2	3446.2
27.5°	3754.8	3746.8	3715.0	3703.0	3689.1	3683.1	3669.2	3653.3	3643.3	3625.4	3615.4
30°	3955.9	3955.9	3930.0	3926.0	3926.0	3912.1	3896.2	3868.3	3850.4	3832.4	3826.5
32.5°	4157.0	4159.0	4133.1	4141.0	4147.0	4157.0	4160.9	4151.0	4139.0	4137.1	4125.1
35°	4447.6	4439.7	4413.8	4419.8	4417.8	4415.8	4415.8	4437.7	4441.7	4445.6	4421.7
37.5°	4808.0	4808.0	4782.1	4782.1	4770.2	4758.2	4742.3	4756.2	4778.1	4784.1	4768.2
40°	5220.1	5234.0	5202.2	5200.2	5204.2	5166.3	5148.4	5170.3	5184.3	5208.1	5190.2
42.5°	5705.9	5695.9	5664.1	5660.1	5638.2	5626.2	5610.3	5628.2	5650.1	5666.0	5672.0
45°	6171.7	6163.8	6127.9	6127.9	6106.0	6096.1	6104.0	6133.9	6143.9	6165.8	6187.7
47.5°	6631.6	6621.7	6597.8	6607.7	6609.7	6627.6	6653.5	6681.4	6709.3	6739.1	6749.1
50°	7101.5	7103.5	7077.6	7101.5	7131.3	7181.1	7250.8	7296.6	7354.3	7392.1	7404.1
52.5°	7529.5	7537.5	7565.3	7621.1	7680.8	7778.4	7897.8	8009.3	8104.9	8168.6	8164.6
55°	8043.2	8055.1	8122.8	8218.4	8315.9	8463.2	8640.4	8837.5	8996.8	9088.4	9030.6
57.5°	8700.2	8726.0	8801.7	8931.1	9076.4	9267.6	9510.4	9807.1	10054.0	10177.4	10083.8
60°	9602.0	9617.9	9709.5	9852.9	10028.1	10265.0	10589.5	10987.7	11336.1	11499.3	11391.8
62.5°	10790.6	10820.4	10894.1	11039.4	11218.6	11487.4	11883.6	12381.3	12815.3	13042.3	12799.4
65°	12210.1	12305.6	12367.4	12514.7	12681.9	12966.6	13380.7	13914.3	14380.1	14529.5	14248.7
67.5°	13615.6	13699.3	13806.8	13976.0	14145.2	14465.7	14850.0	15367.6	15879.3	16014.7	15578.6
70°	14230.8	14278.6	14445.8	14676.8	15001.3	15379.6	15823.5	16404.9	17038.0	17149.5	16596.0
72.5°	12998.5	13046.2	13233.4	13625.6	14191.0	14792.2	15566.7	16420.8	17257.0	17382.4	16619.9
75°	9831.0	9753.3	10030.1	10549.7	11312.2	12150.3	13233.4	14457.8	15666.2	15823.5	14913.7
77.5°	5080.7	5070.8	5279.8	5924.9	6834.7	7788.3	8980.9	10364.5	11547.1	12024.9	11284.3
80°	1431.4	1447.4	1546.9	1867.4	2399.0	3087.9	4019.6	5315.7	6283.2	6777.0	6362.9
82.5°	561.4	605.2	643.1	702.8	772.5	874.0	1166.7	1736.0	2329.3	2783.3	2279.6
85°	201.1	215.0	304.6	360.3	366.3	386.2	440.0	513.6	619.2	738.6	607.2
87.5°	75.7	83.6	97.6	161.3	159.3	145.3	177.2	185.2	139.4	127.4	157.3
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°	3073.9	3073.9	3073.9	3073.9	3073.9	3073.9	3073.9	3073.9
2.5°	3066.0	3067.9	3067.9	3069.9	3071.9	3071.9	3075.9	3075.9
5°	3067.9	3067.9	3064.0	3066.0	3064.0	3064.0	3066.0	3066.0
7.5°	3064.0	3062.0	3058.0	3056.0	3052.0	3052.0	3052.0	3052.0
10°	3058.0	3056.0	3052.0	3050.0	3048.0	3048.0	3048.0	3048.0
12.5°	3073.9	3067.9	3064.0	3062.0	3062.0	3062.0	3062.0	3062.0
15°	3115.7	3101.8	3091.8	3091.8	3093.8	3097.8	3097.8	3101.8
17.5°	3167.5	3151.6	3141.6	3133.6	3137.6	3143.6	3147.6	3151.6
20°	3229.2	3221.2	3207.3	3199.3	3199.3	3207.3	3211.3	3213.3
22.5°	3314.8	3308.8	3302.9	3292.9	3292.9	3296.9	3304.9	3304.9
25°	3442.2	3438.3	3434.3	3426.3	3424.3	3424.3	3428.3	3432.3
27.5°	3601.5	3603.5	3599.5	3597.5	3591.6	3589.6	3595.5	3593.5
30°	3814.5	3824.5	3834.4	3826.5	3816.5	3810.5	3804.6	3796.6
32.5°	4103.2	4091.3	4083.3	4069.4	4051.4	4035.5	4023.6	4009.6
35°	4376.0	4356.0	4348.1	4360.0	4358.0	4348.1	4334.1	4322.2
37.5°	4710.4	4706.4	4710.4	4732.3	4728.3	4738.3	4710.4	4708.4
40°	5132.5	5136.5	5164.3	5190.2	5204.2	5218.1	5202.2	5186.2
42.5°	5622.2	5620.3	5630.2	5666.0	5689.9	5705.9	5672.0	5668.0
45°	6139.9	6125.9	6133.9	6163.8	6187.7	6205.6	6167.8	6167.8
47.5°	6709.3	6685.4	6659.5	6693.3	6707.3	6719.2	6689.4	6679.4
50°	7344.4	7294.6	7238.8	7252.8	7252.8	7248.8	7211.0	7209.0
52.5°	8073.0	7981.4	7879.9	7842.1	7820.2	7796.3	7730.6	7698.7
55°	8911.2	8773.8	8614.5	8517.0	8465.2	8399.5	8290.0	8260.2
57.5°	9890.7	9675.7	9400.9	9281.5	9166.0	9058.5	8937.1	8903.2
60°	11051.4	10734.8	10370.5	10149.5	10024.1	9920.6	9795.1	9789.2
62.5°	12345.5	11845.7	11433.6	11234.5	11143.0	11051.4	10931.9	10947.9
65°	13661.4	13139.8	12753.6	12592.3	12506.7	12431.1	12311.6	12329.5
67.5°	14959.5	14479.7	14055.6	13890.4	13794.8	13699.3	13591.7	13609.7
70°	15891.2	15295.9	14818.1	14451.8	14222.9	13964.0	13796.8	13755.0
72.5°	15624.4	14706.6	13948.1	13221.4	12795.4	12449.0	12214.1	12112.5
75°	13522.1	12267.8	11292.3	10400.4	9898.7	9490.5	9193.9	9008.7
77.5°	10042.0	8632.5	7479.7	6452.4	5640.2	5094.7	4710.4	4461.6
80°	5496.8	4180.9	3056.0	2148.2	1578.8	1312.0	1158.7	1085.0
82.5°	1712.2	1104.9	814.3	702.8	653.0	625.1	579.3	505.7
85°	545.5	477.8	444.0	424.1	404.1	352.4	242.9	221.0
87.5°	211.0	217.0	215.0	203.1	207.1	149.3	119.5	105.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)