

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: P299924

Luminaire Tested: **GLNA-AF-09-LED-E1-5WQ-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299924
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-09-LED-E1-5WQ-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K 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: 43648.2 lumens
Efficiency: N/A
Efficacy: 116.7 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): 374
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

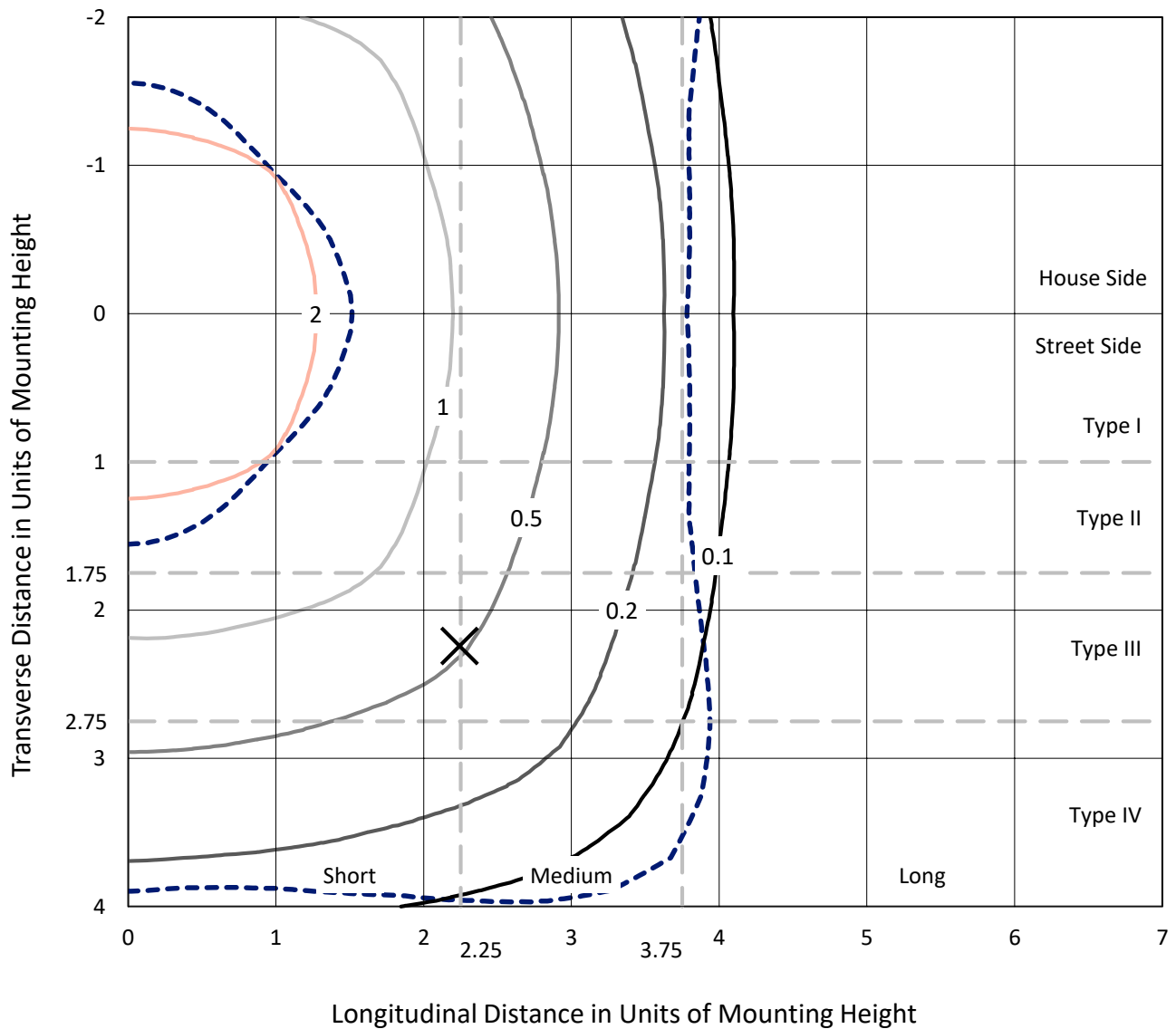


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

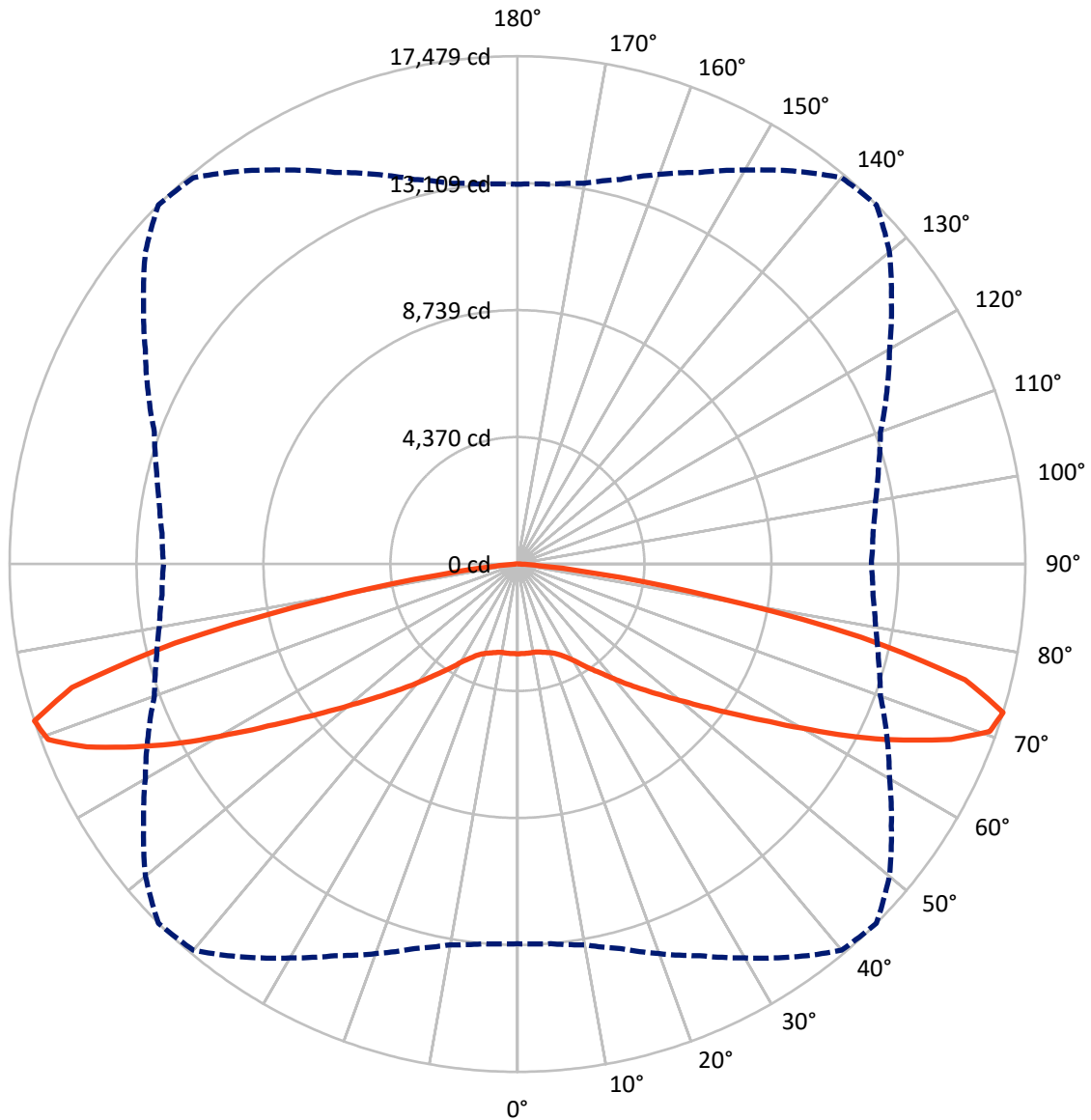


Based on 30 foot mounting height. Maximum calculated value = 3.4 fc
 Type V - Short - Semi-Cutoff

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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
House Side	Lumens	21824.1	0.0	21824.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	21824.1	0.0	21824.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	43648.2	0.0	43648.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.2	0.7
10°-20°	896.4	2.1
20°-30°	1638.1	3.8
30°-40°	2824.4	6.5
40°-50°	4828.2	11.1
50°-60°	7826.0	17.9
60°-70°	12983.0	29.7
70°-80°	11435.0	26.2
80°-90°	922.0	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°	43648.2	100.0
0°-180°	43648.2	100.0



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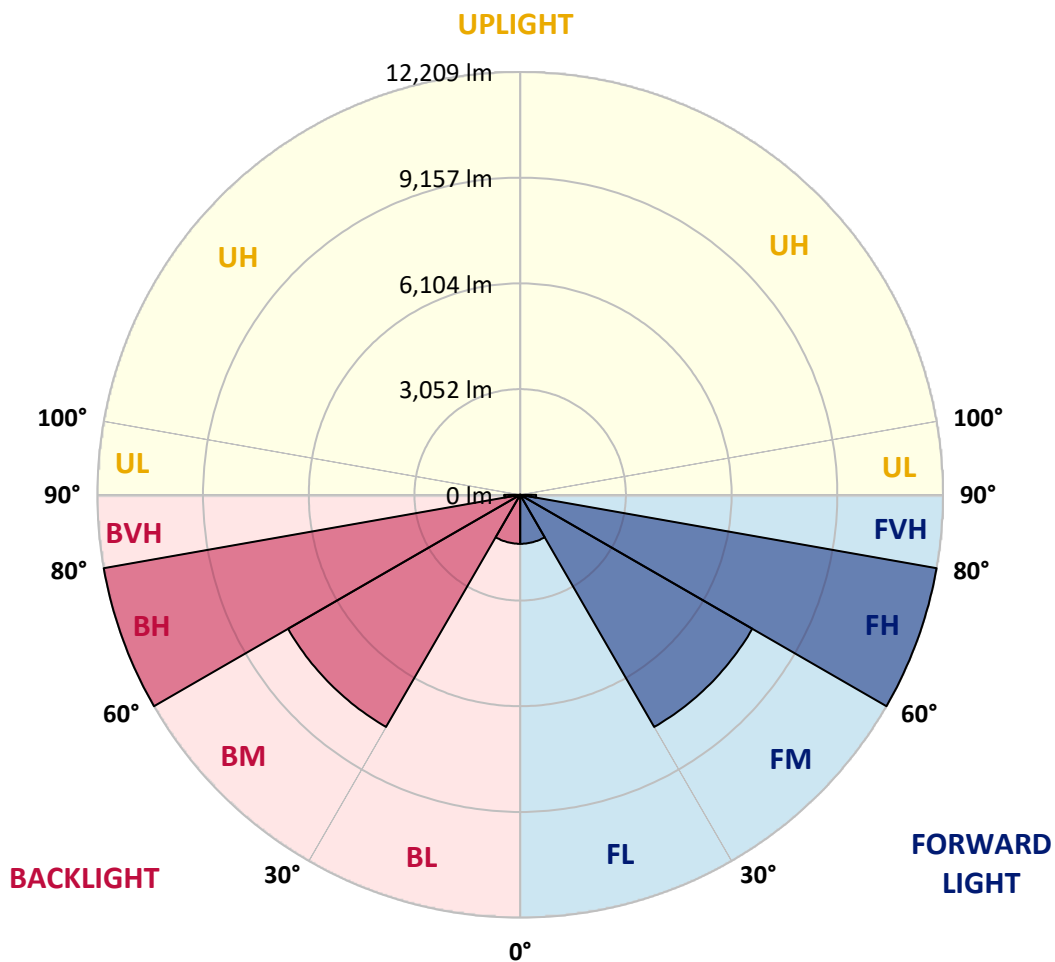
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1414.8	3.2			
FM (30°-60°)	7739.3	17.7			
FH (60°-80°)	12209.0	28.0			G5
FVH (80°-90°)	461.0	1.1			G3/500
BL (0°-30°)	1414.8	3.2	B3/2500		
BM (30°-60°)	7739.3	17.7	B4/8500		
BH (60°-80°)	12209.0	28.0	B5		G5
BVH (80°-90°)	461.0	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°	3091.0	3091.0	3091.0	3091.0	3091.0	3091.0	3091.0	3091.0	3091.0	3091.0	3091.0
2.5°	3091.0	3093.0	3095.0	3093.0	3093.0	3091.0	3089.0	3091.0	3089.0	3085.0	3087.0
5°	3101.0	3105.0	3105.0	3101.0	3103.0	3101.0	3097.0	3099.0	3095.0	3089.0	3089.0
7.5°	3113.0	3115.0	3115.0	3111.0	3113.0	3109.0	3105.0	3103.0	3099.0	3091.0	3085.0
10°	3131.0	3133.0	3131.0	3127.0	3127.0	3121.0	3111.0	3107.0	3099.0	3087.0	3081.0
12.5°	3151.0	3153.0	3151.0	3147.0	3145.0	3135.0	3127.0	3121.0	3115.0	3105.0	3095.0
15°	3179.1	3183.1	3179.1	3171.0	3165.0	3157.0	3153.0	3155.0	3157.0	3149.0	3139.0
17.5°	3231.1	3233.1	3227.1	3209.1	3201.1	3193.1	3193.1	3197.1	3203.1	3199.1	3189.1
20°	3327.2	3321.2	3307.2	3285.2	3275.1	3261.1	3259.1	3261.1	3261.1	3259.1	3251.1
22.5°	3447.3	3443.3	3425.3	3397.3	3383.3	3375.2	3363.2	3353.2	3351.2	3345.2	3337.2
25°	3591.5	3589.5	3567.4	3543.4	3533.4	3523.4	3513.4	3499.4	3487.4	3473.3	3465.3
27.5°	3775.6	3767.6	3735.6	3723.6	3709.6	3703.6	3689.5	3673.5	3663.5	3645.5	3635.5
30°	3977.8	3977.8	3951.8	3947.8	3947.8	3933.8	3917.8	3889.7	3871.7	3853.7	3847.7
32.5°	4180.0	4182.0	4156.0	4164.0	4170.0	4180.0	4184.0	4174.0	4162.0	4160.0	4148.0
35°	4472.3	4464.3	4438.3	4444.3	4442.3	4440.3	4440.3	4462.3	4466.3	4470.3	4446.3
37.5°	4834.6	4834.6	4808.6	4808.6	4796.6	4784.6	4768.6	4782.6	4804.6	4810.6	4794.6
40°	5249.0	5263.1	5231.0	5229.0	5233.0	5195.0	5177.0	5199.0	5213.0	5237.0	5219.0
42.5°	5737.5	5727.5	5695.5	5691.5	5669.5	5657.4	5641.4	5659.4	5681.5	5697.5	5703.5
45°	6206.0	6198.0	6161.9	6161.9	6139.9	6129.9	6137.9	6167.9	6177.9	6200.0	6222.0
47.5°	6668.4	6658.4	6634.4	6644.4	6646.4	6664.4	6690.4	6718.5	6746.5	6776.5	6786.5
50°	7140.9	7142.9	7116.8	7140.9	7170.9	7220.9	7291.0	7337.1	7395.1	7433.1	7445.2
52.5°	7571.3	7579.3	7607.3	7663.4	7723.4	7821.5	7941.6	8053.7	8149.8	8213.9	8209.9
55°	8087.8	8099.8	8167.9	8263.9	8362.0	8510.2	8688.4	8886.5	9046.7	9138.8	9080.7
57.5°	8748.4	8774.4	8850.5	8980.6	9126.8	9319.0	9563.2	9861.5	10109.7	10233.8	10139.7
60°	9655.3	9671.3	9763.4	9907.5	10083.7	10321.9	10648.2	11048.6	11399.0	11563.1	11455.0
62.5°	10850.4	10880.5	10954.5	11100.7	11280.8	11551.1	11949.5	12450.0	12886.4	13114.6	12870.4
65°	12277.8	12373.9	12436.0	12584.1	12752.3	13038.5	13454.9	13991.5	14459.9	14610.0	14327.8
67.5°	13691.2	13775.2	13883.3	14053.5	14223.7	14546.0	14932.4	15452.9	15967.4	16103.5	15665.1
70°	14309.8	14357.8	14526.0	14758.2	15084.5	15464.9	15911.3	16495.9	17132.5	17244.6	16688.0
72.5°	13070.6	13118.6	13306.8	13701.2	14269.7	14874.3	15653.0	16511.9	17352.7	17478.8	16712.1
75°	9885.5	9807.4	10085.7	10608.2	11374.9	12217.7	13306.8	14538.0	15753.1	15911.3	14996.4
77.5°	5108.9	5098.9	5309.1	5957.7	6872.6	7831.5	9030.7	10422.0	11611.2	12091.6	11346.9
80°	1439.4	1455.4	1555.5	1877.8	2412.3	3105.0	4041.9	5345.1	6318.1	6814.6	6398.2
82.5°	564.5	608.6	646.6	706.7	776.7	878.8	1173.1	1745.7	2342.3	2798.7	2292.2
85°	202.2	216.2	306.3	362.3	368.4	388.4	442.4	516.5	622.6	742.7	610.6
87.5°	76.1	84.1	98.1	162.2	160.2	146.1	178.2	186.2	140.1	128.1	158.2
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°	3091.0	3091.0	3091.0	3091.0	3091.0	3091.0	3091.0	3091.0
2.5°	3083.0	3085.0	3085.0	3087.0	3089.0	3089.0	3093.0	3093.0
5°	3085.0	3085.0	3081.0	3083.0	3081.0	3081.0	3083.0	3083.0
7.5°	3081.0	3079.0	3075.0	3073.0	3069.0	3069.0	3069.0	3069.0
10°	3075.0	3073.0	3069.0	3066.9	3064.9	3064.9	3064.9	3064.9
12.5°	3091.0	3085.0	3081.0	3079.0	3079.0	3079.0	3079.0	3079.0
15°	3133.0	3119.0	3109.0	3109.0	3111.0	3115.0	3115.0	3119.0
17.5°	3185.1	3169.0	3159.0	3151.0	3155.0	3161.0	3165.0	3169.0
20°	3247.1	3239.1	3225.1	3217.1	3217.1	3225.1	3229.1	3231.1
22.5°	3333.2	3327.2	3321.2	3311.2	3311.2	3315.2	3323.2	3323.2
25°	3461.3	3457.3	3453.3	3445.3	3443.3	3443.3	3447.3	3451.3
27.5°	3621.5	3623.5	3619.5	3617.5	3611.5	3609.5	3615.5	3613.5
30°	3835.7	3845.7	3855.7	3847.7	3837.7	3831.7	3825.7	3817.7
32.5°	4126.0	4114.0	4105.9	4091.9	4073.9	4057.9	4045.9	4031.9
35°	4400.2	4380.2	4372.2	4384.2	4382.2	4372.2	4358.2	4346.2
37.5°	4736.6	4732.6	4736.6	4758.6	4754.6	4764.6	4736.6	4734.6
40°	5161.0	5165.0	5193.0	5219.0	5233.0	5247.0	5231.0	5215.0
42.5°	5653.4	5651.4	5661.4	5697.5	5721.5	5737.5	5703.5	5699.5
45°	6173.9	6159.9	6167.9	6198.0	6222.0	6240.0	6202.0	6202.0
47.5°	6746.5	6722.5	6696.4	6730.5	6744.5	6756.5	6726.5	6716.5
50°	7385.1	7335.1	7279.0	7293.0	7293.0	7289.0	7251.0	7249.0
52.5°	8117.8	8025.7	7923.6	7885.6	7863.6	7839.5	7773.5	7741.4
55°	8960.6	8822.5	8662.3	8564.2	8512.2	8446.1	8336.0	8306.0
57.5°	9945.6	9729.4	9453.1	9333.0	9216.9	9108.8	8986.6	8952.6
60°	11112.7	10794.4	10428.0	10205.8	10079.7	9975.6	9849.5	9843.5
62.5°	12413.9	11911.5	11497.1	11296.9	11204.8	11112.7	10992.6	11008.6
65°	13737.2	13212.7	12824.3	12662.2	12576.1	12500.0	12379.9	12397.9
67.5°	15042.5	14560.0	14133.6	13967.4	13871.3	13775.2	13667.1	13685.2
70°	15979.4	15380.8	14900.3	14532.0	14301.8	14041.5	13873.3	13831.3
72.5°	15711.1	14788.2	14025.5	13294.8	12866.4	12518.0	12281.8	12179.7
75°	13597.1	12335.9	11354.9	10458.1	9953.6	9543.2	9244.9	9058.7
77.5°	10097.7	8680.3	7521.2	6488.2	5671.5	5122.9	4736.6	4486.3
80°	5527.3	4204.0	3073.0	2160.1	1587.5	1319.3	1165.1	1091.0
82.5°	1721.7	1111.1	818.8	706.7	656.6	628.6	582.6	508.5
85°	548.5	480.5	446.4	426.4	406.4	354.3	244.2	222.2
87.5°	212.2	218.2	216.2	204.2	208.2	150.1	120.1	106.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)