

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: P299677

Luminaire Tested: **GLNA-AF-08-LED-E1-5MQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299677
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
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-E1-5MQ-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35056 lumens
Efficiency: N/A
Efficacy: 105.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 334
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

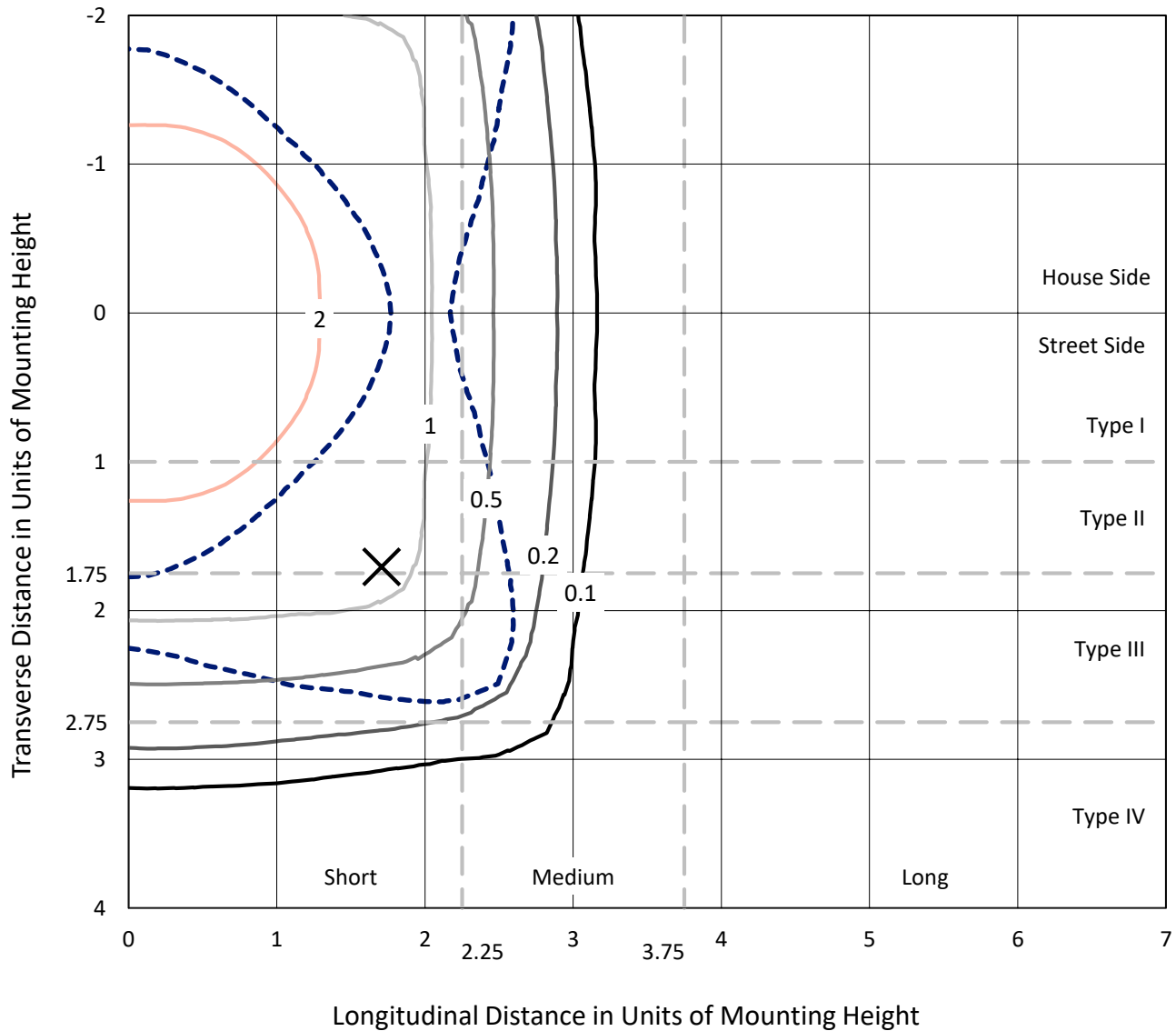


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

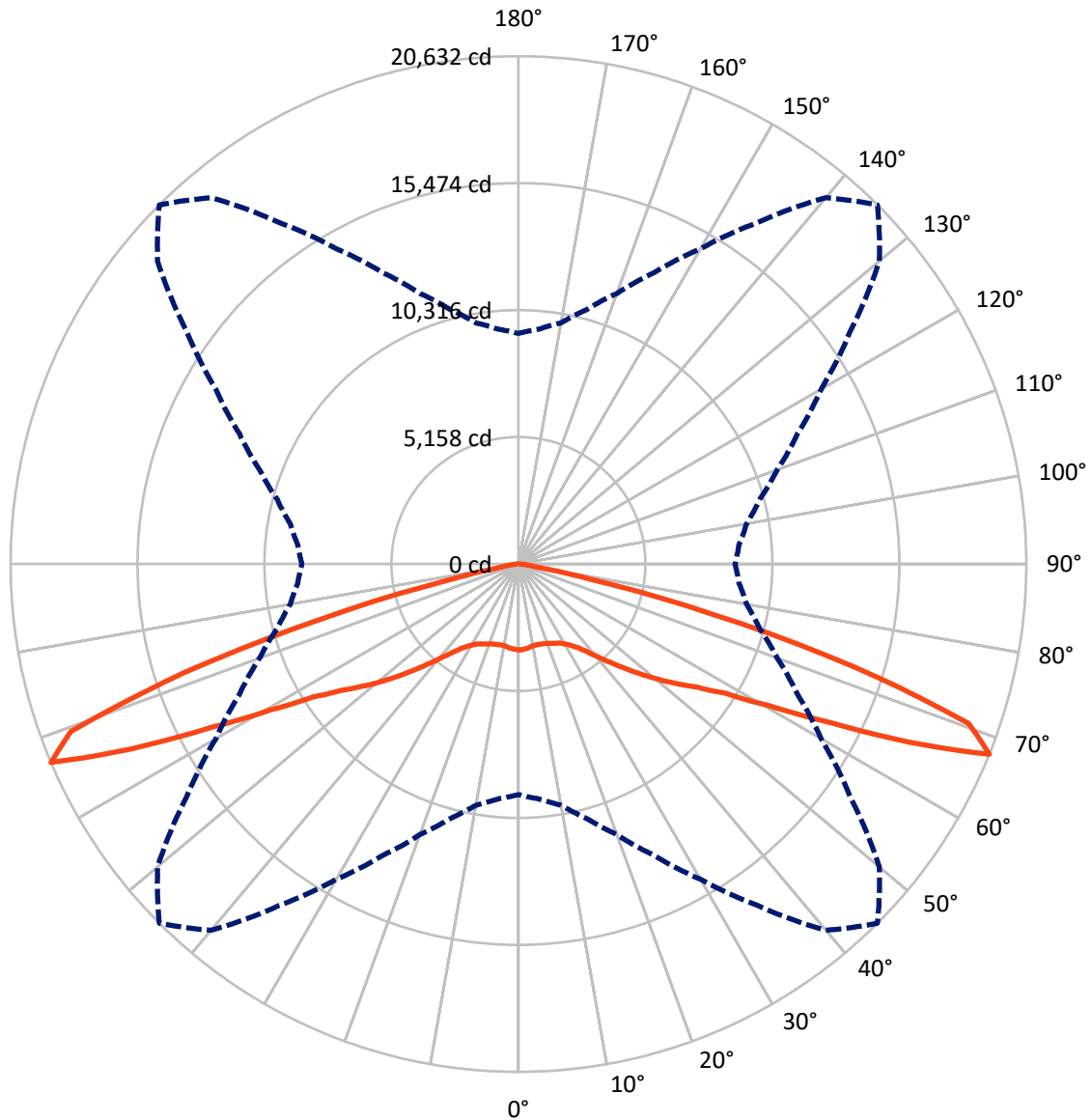


Based on 30 foot mounting height. Maximum calculated value = 3.9 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17528.0	0.0	17528.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17528.0	0.0	17528.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	35056.0	0.0	35056.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.0	0.9
10°-20°	948.8	2.7
20°-30°	1613.0	4.6
30°-40°	2636.7	7.5
40°-50°	4707.0	13.4
50°-60°	7936.1	22.6
60°-70°	12315.7	35.1
70°-80°	4327.2	12.3
80°-90°	244.5	0.7
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°	35056.0	100.0
0°-180°	35056.0	100.0



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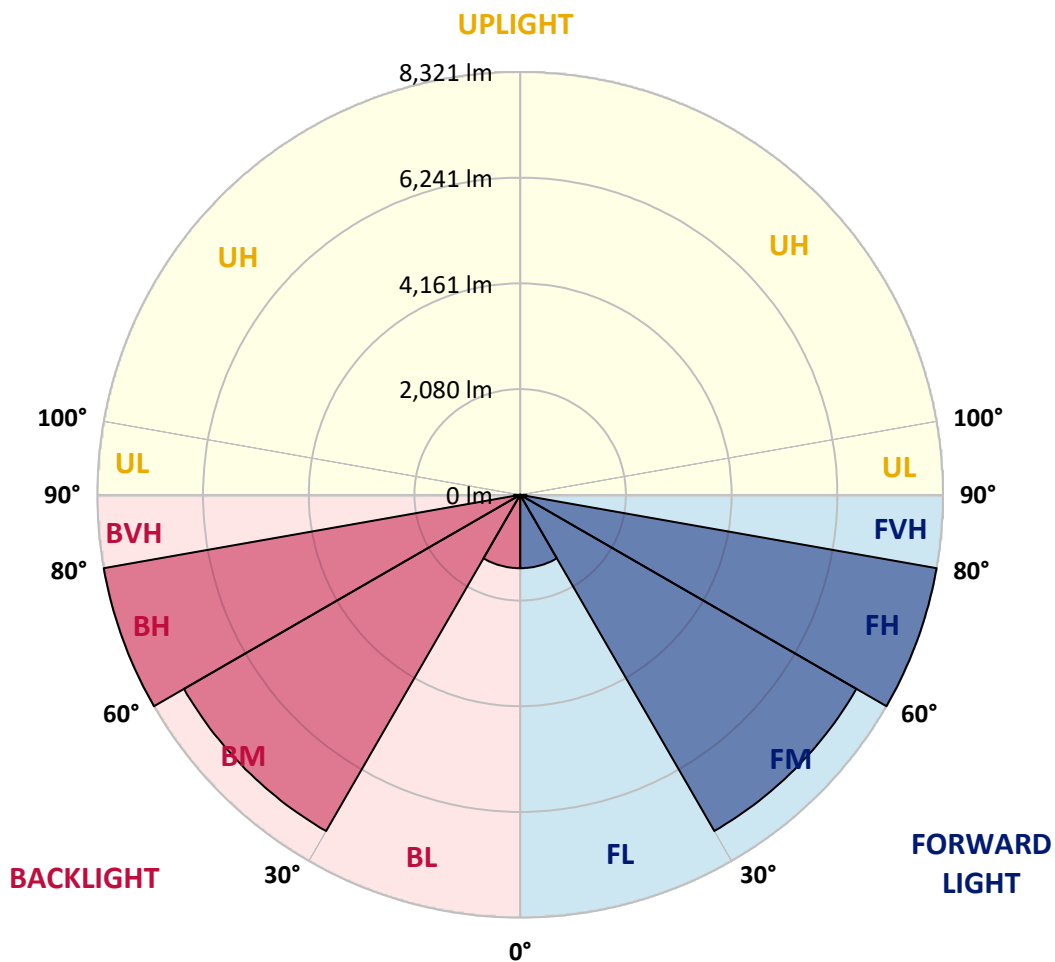
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1444.4	4.1			
FM	(30°-60°)	7639.9	21.8			
FH	(60°-80°)	8321.4	23.7			G4/12000
FVH	(80°-90°)	122.3	0.3			G2/225
BL	(0°-30°)	1444.4	4.1	B3/2500		
BM	(30°-60°)	7639.9	21.8	B4/8500		
BH	(60°-80°)	8321.4	23.7	B5		G4/12000
BVH	(80°-90°)	122.3	0.3			G2/225
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°	3493.5	3493.5	3493.5	3493.5	3493.5	3493.5	3493.5	3493.5	3493.5	3493.5	3493.5
2.5°	3480.6	3483.8	3483.8	3483.8	3482.2	3482.2	3479.0	3482.2	3480.6	3475.7	3477.4
5°	3451.6	3454.8	3454.8	3453.2	3458.0	3456.4	3451.6	3454.8	3453.2	3450.0	3451.6
7.5°	3409.7	3414.5	3414.5	3412.9	3417.7	3416.1	3412.9	3414.5	3414.5	3409.7	3409.7
10°	3362.9	3366.1	3366.1	3364.5	3372.6	3372.6	3371.0	3375.8	3377.4	3372.6	3369.3
12.5°	3319.4	3324.2	3324.2	3330.7	3338.7	3341.9	3350.0	3356.5	3362.9	3361.3	3354.8
15°	3293.6	3296.8	3303.2	3311.3	3324.2	3335.5	3348.4	3362.9	3375.8	3379.0	3369.3
17.5°	3277.5	3282.3	3292.0	3303.2	3321.0	3340.3	3359.7	3379.0	3396.8	3403.2	3391.9
20°	3272.6	3275.8	3285.5	3304.9	3329.0	3358.1	3385.5	3408.0	3432.2	3440.3	3432.2
22.5°	3282.3	3288.7	3300.0	3322.6	3354.8	3391.9	3424.2	3454.8	3485.4	3499.9	3488.6
25°	3325.8	3332.3	3346.8	3375.8	3411.3	3450.0	3487.0	3522.5	3549.9	3564.4	3556.4
27.5°	3406.4	3414.5	3432.2	3461.2	3499.9	3541.8	3582.1	3611.2	3633.7	3638.6	3628.9
30°	3527.3	3545.1	3566.0	3598.3	3643.4	3678.9	3719.2	3745.0	3772.4	3772.4	3764.3
32.5°	3716.0	3733.7	3756.3	3786.9	3822.4	3861.0	3896.5	3919.1	3948.1	3949.7	3930.4
35°	3998.1	4006.1	4025.5	4044.8	4077.1	4110.9	4141.6	4156.1	4180.2	4181.9	4164.1
37.5°	4370.5	4372.1	4385.0	4391.4	4420.5	4457.5	4486.6	4496.2	4518.8	4515.6	4497.8
40°	4804.1	4812.2	4817.0	4826.7	4857.3	4892.8	4923.4	4928.3	4952.5	4947.6	4925.1
42.5°	5305.5	5308.7	5336.1	5350.7	5379.7	5397.4	5436.1	5440.9	5469.9	5457.1	5431.3
45°	5868.1	5897.2	5923.0	5952.0	5982.6	6003.6	6034.2	6027.7	6047.1	6027.7	6013.2
47.5°	6459.8	6480.8	6538.8	6583.9	6633.9	6651.6	6695.2	6675.8	6695.2	6667.8	6662.9
50°	7111.1	7148.2	7198.2	7249.7	7302.9	7332.0	7388.4	7364.2	7390.0	7364.2	7349.7
52.5°	7752.7	7762.4	7872.0	7947.8	8021.9	8055.8	8089.7	8078.4	8080.0	8078.4	8063.9
55°	8362.1	8384.7	8494.3	8597.5	8726.4	8821.6	8879.6	8873.2	8858.6	8844.1	8820.0
57.5°	9048.9	9071.4	9197.2	9324.5	9471.3	9606.7	9724.4	9845.3	9892.0	9904.9	9851.7
60°	9977.5	9975.8	10143.5	10298.3	10507.8	10709.4	10967.3	11230.1	11531.6	11671.8	11486.4
62.5°	10922.2	10960.9	11202.7	11476.7	11908.8	12329.6	12805.1	13272.6	13749.8	14138.4	13725.7
65°	10809.3	10957.6	11317.1	11937.8	12735.8	13683.7	14709.1	15794.0	16774.2	17448.1	16692.0
67.5°	9368.1	9579.3	9945.2	10699.7	11697.6	13064.7	14786.4	16932.2	19426.1	20632.0	19137.6
70°	6790.3	7028.9	7412.6	8149.3	9137.5	10436.9	12307.0	14883.2	18184.8	19400.3	17754.4
72.5°	3379.0	3508.0	3745.0	4214.1	4962.1	6016.5	7712.4	10188.6	13109.8	14225.4	12721.3
75°	1147.8	1207.5	1247.8	1400.9	1637.9	2052.2	2895.4	4454.3	6795.1	8146.1	6698.4
77.5°	662.6	664.2	691.6	719.0	759.3	804.5	917.3	1204.3	2082.9	2958.3	2155.4
80°	428.8	427.2	449.8	470.7	498.1	520.7	527.2	557.8	643.2	762.5	681.9
82.5°	222.5	249.9	299.9	327.3	378.9	388.5	375.6	364.3	385.3	399.8	409.5
85°	122.5	106.4	159.6	206.4	228.9	232.1	232.1	219.2	227.3	222.5	241.8
87.5°	56.4	51.6	62.9	101.6	108.0	91.9	96.7	85.4	61.3	59.6	67.7
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°	3493.5	3493.5	3493.5	3493.5	3493.5	3493.5	3493.5	3493.5
2.5°	3477.4	3479.0	3479.0	3483.8	3485.4	3488.6	3491.9	3493.5
5°	3450.0	3454.8	3451.6	3456.4	3456.4	3459.6	3459.6	3461.2
7.5°	3409.7	3414.5	3414.5	3414.5	3412.9	3417.7	3417.7	3417.7
10°	3367.7	3371.0	3369.3	3366.1	3362.9	3367.7	3366.1	3364.5
12.5°	3354.8	3346.8	3340.3	3337.1	3330.7	3332.3	3327.4	3327.4
15°	3362.9	3348.4	3337.1	3332.3	3325.8	3322.6	3319.4	3321.0
17.5°	3383.9	3366.1	3351.6	3343.6	3335.5	3330.7	3324.2	3325.8
20°	3420.9	3400.0	3379.0	3362.9	3348.4	3340.3	3335.5	3333.9
22.5°	3475.7	3445.1	3414.5	3390.3	3371.0	3359.7	3354.8	3351.6
25°	3538.6	3504.8	3469.3	3441.9	3422.5	3408.0	3398.4	3398.4
27.5°	3617.6	3590.2	3558.0	3525.7	3508.0	3493.5	3487.0	3483.8
30°	3749.8	3724.0	3698.2	3667.6	3645.0	3630.5	3619.2	3609.6
32.5°	3919.1	3898.1	3877.2	3854.6	3833.6	3814.3	3796.6	3788.5
35°	4157.7	4141.6	4127.0	4101.3	4093.2	4081.9	4072.2	4064.2
37.5°	4486.6	4480.1	4480.1	4452.7	4446.2	4441.4	4431.7	4433.4
40°	4918.6	4925.1	4917.0	4907.3	4902.5	4889.6	4889.6	4900.9
42.5°	5429.6	5434.5	5452.2	5436.1	5453.8	5437.7	5428.0	5436.1
45°	6022.9	6040.6	6076.1	6060.0	6071.3	6043.9	6010.0	6011.6
47.5°	6688.7	6704.8	6719.3	6708.1	6709.7	6664.5	6619.4	6608.1
50°	7380.3	7386.8	7394.8	7378.7	7381.9	7332.0	7280.4	7282.0
52.5°	8063.9	8094.5	8126.7	8083.2	8073.5	8017.1	7944.6	7915.5
55°	8845.7	8889.3	8852.2	8776.4	8700.7	8624.9	8529.8	8513.6
57.5°	9809.8	9735.6	9619.6	9476.1	9371.3	9264.9	9168.2	9127.9
60°	11151.1	10872.2	10662.6	10449.8	10316.0	10185.4	10058.1	10038.7
62.5°	13047.0	12564.9	12147.4	11707.3	11347.8	11067.3	10843.2	10780.3
65°	15423.2	14283.5	13295.2	12373.1	11571.9	10967.3	10586.8	10419.2
67.5°	16445.3	14194.8	12500.4	11191.4	10143.5	9411.6	9000.5	8795.8
70°	14451.1	11771.8	9929.1	8618.4	7664.1	6883.8	6511.4	6292.1
72.5°	9942.0	7488.3	5921.3	4833.2	4070.6	3417.7	3159.8	3140.4
75°	4464.0	2956.6	2037.7	1570.2	1321.9	1149.4	1096.2	1055.9
77.5°	1249.4	923.7	823.8	770.6	719.0	659.4	636.8	641.6
80°	607.8	573.9	551.3	517.5	470.7	420.8	398.2	407.9
82.5°	403.0	398.2	412.7	388.5	320.8	272.4	228.9	209.6
85°	245.0	248.3	253.1	254.7	216.0	151.5	103.2	116.1
87.5°	96.7	111.2	120.9	125.7	117.7	72.5	58.0	59.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)