

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: P299744

Luminaire Tested: **GLNA-AF-09-LED-E1-5MQ-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299744
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-09-LED-E1-5MQ-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35499.9 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 290
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

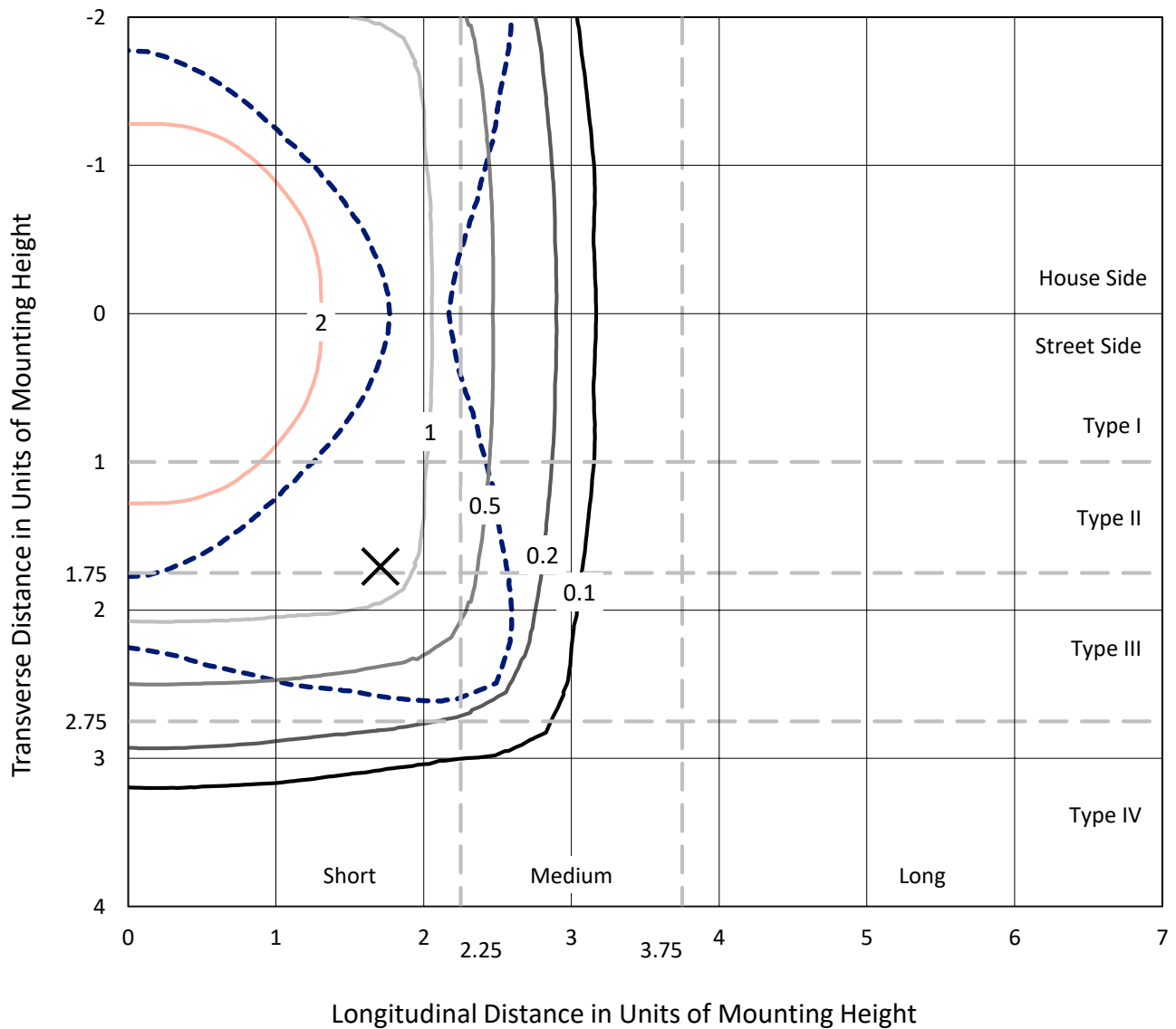


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

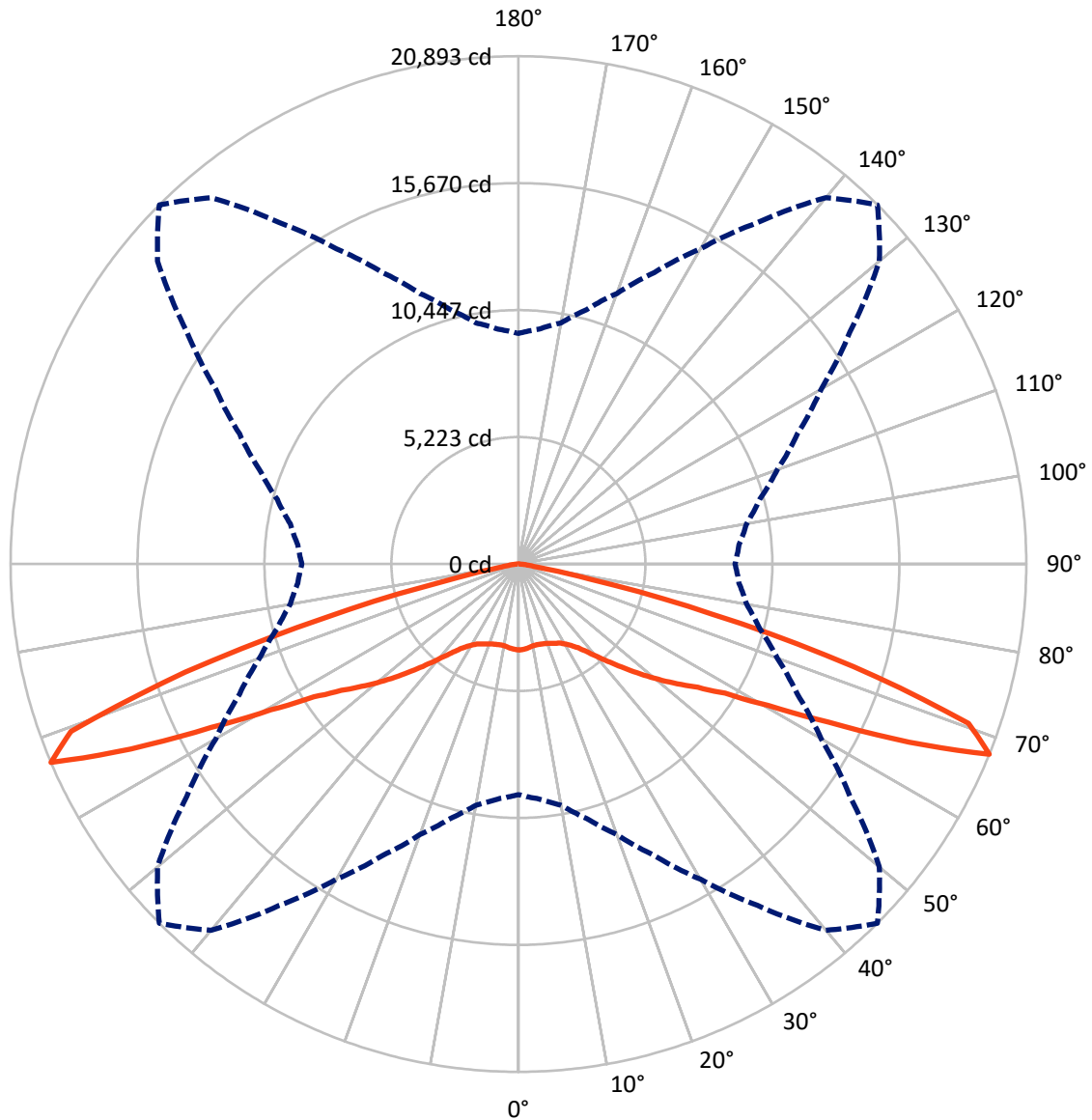


Based on 30 foot mounting height. Maximum calculated value = 3.9 fc
 Type V - Short - Full Cutoff

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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	17750.0	0.0	17750.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17750.0	0.0	17750.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	35499.9	0.0	35499.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.1	0.9
10°-20°	960.8	2.7
20°-30°	1633.4	4.6
30°-40°	2670.1	7.5
40°-50°	4766.6	13.4
50°-60°	8036.6	22.6
60°-70°	12471.6	35.1
70°-80°	4382.0	12.3
80°-90°	247.6	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°	35499.9	100.0
0°-180°	35499.9	100.0



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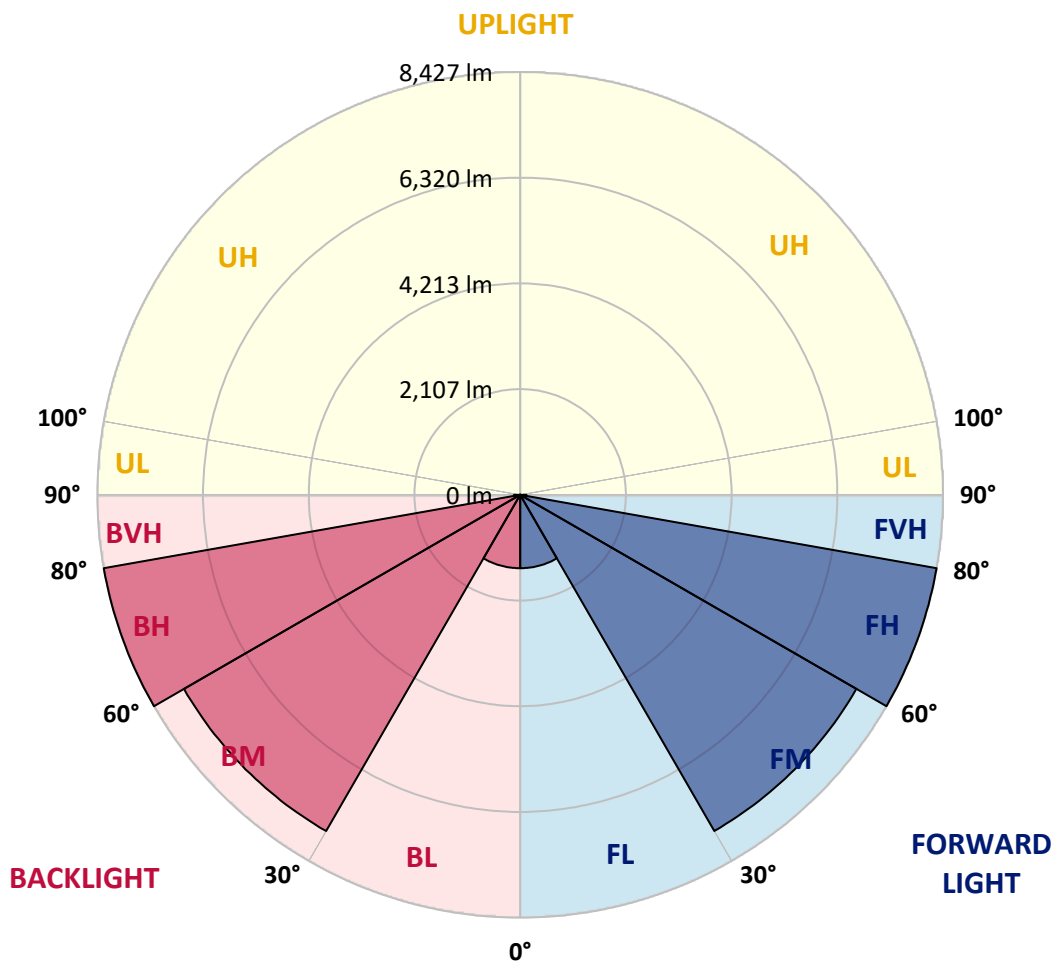
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1462.7	4.1			
FM	(30°-60°)	7736.7	21.8			
FH	(60°-80°)	8426.8	23.7			G4/12000
FVH	(80°-90°)	123.8	0.3			G2/225
BL	(0°-30°)	1462.7	4.1	B3/2500		
BM	(30°-60°)	7736.7	21.8	B4/8500		
BH	(60°-80°)	8426.8	23.7	B5		G4/12000
BVH	(80°-90°)	123.8	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°	3537.7	3537.7	3537.7	3537.7	3537.7	3537.7	3537.7	3537.7	3537.7	3537.7	3537.7
2.5°	3524.7	3527.9	3527.9	3527.9	3526.3	3526.3	3523.0	3526.3	3524.7	3519.8	3521.4
5°	3495.3	3498.5	3498.5	3496.9	3501.8	3500.2	3495.3	3498.5	3496.9	3493.6	3495.3
7.5°	3452.8	3457.7	3457.7	3456.1	3461.0	3459.4	3456.1	3457.7	3457.7	3452.8	3452.8
10°	3405.5	3408.7	3408.7	3407.1	3415.3	3415.3	3413.6	3418.5	3420.2	3415.3	3412.0
12.5°	3361.4	3366.3	3366.3	3372.8	3381.0	3384.3	3392.4	3398.9	3405.5	3403.8	3397.3
15°	3335.3	3338.5	3345.1	3353.2	3366.3	3377.7	3390.8	3405.5	3418.5	3421.8	3412.0
17.5°	3319.0	3323.9	3333.6	3345.1	3363.0	3382.6	3402.2	3421.8	3439.8	3446.3	3434.9
20°	3314.1	3317.3	3327.1	3346.7	3371.2	3400.6	3428.3	3451.2	3475.7	3483.8	3475.7
22.5°	3323.9	3330.4	3341.8	3364.7	3397.3	3434.9	3467.5	3498.5	3529.6	3544.2	3532.8
25°	3367.9	3374.5	3389.2	3418.5	3454.5	3493.6	3531.2	3567.1	3594.9	3609.5	3601.4
27.5°	3449.6	3457.7	3475.7	3505.1	3544.2	3586.7	3627.5	3656.9	3679.7	3684.6	3674.8
30°	3572.0	3590.0	3611.2	3643.8	3689.5	3725.5	3766.3	3792.4	3820.1	3820.1	3812.0
32.5°	3763.0	3781.0	3803.8	3834.8	3870.8	3909.9	3945.9	3968.7	3998.1	3999.7	3980.1
35°	4048.7	4056.9	4076.5	4096.0	4128.7	4163.0	4194.0	4208.7	4233.2	4234.8	4216.9
37.5°	4425.8	4427.5	4440.5	4447.0	4476.4	4514.0	4543.4	4553.2	4576.0	4572.7	4554.8
40°	4865.0	4873.1	4878.0	4887.8	4918.8	4954.8	4985.8	4990.7	5015.2	5010.3	4987.4
42.5°	5372.7	5376.0	5403.7	5418.4	5447.8	5465.7	5504.9	5509.8	5539.2	5526.2	5500.0
45°	5942.4	5971.8	5998.0	6027.3	6058.4	6079.6	6110.6	6104.1	6123.7	6104.1	6089.4
47.5°	6541.6	6562.8	6621.6	6667.3	6717.9	6735.9	6779.9	6760.4	6779.9	6752.2	6747.3
50°	7201.1	7238.7	7289.3	7341.5	7395.4	7424.8	7481.9	7457.4	7483.6	7457.4	7442.8
52.5°	7850.9	7860.7	7971.7	8048.4	8123.5	8157.8	8192.1	8180.7	8182.3	8180.7	8166.0
55°	8468.0	8490.8	8601.9	8706.3	8836.9	8933.3	8992.0	8985.5	8970.8	8956.1	8931.6
57.5°	9163.5	9186.3	9313.6	9442.6	9591.2	9728.3	9847.5	9969.9	10017.3	10030.3	9976.5
60°	10103.8	10102.2	10271.9	10428.7	10640.9	10845.0	11106.2	11372.3	11677.6	11819.6	11631.9
62.5°	11060.5	11099.6	11344.5	11622.1	12059.6	12485.7	12967.3	13440.7	13923.9	14317.4	13899.5
65°	10946.2	11096.4	11460.4	12089.0	12897.1	13857.0	14895.3	15994.0	16986.6	17669.0	16903.3
67.5°	9486.7	9700.6	10071.1	10835.2	11845.7	13230.1	14973.7	17146.6	19672.1	20893.3	19379.9
70°	6876.3	7117.9	7506.4	8252.5	9253.2	10569.1	12462.8	15071.6	18415.1	19646.0	17979.2
72.5°	3421.8	3552.4	3792.4	4267.5	5025.0	6092.6	7810.1	10317.7	13275.8	14405.5	12882.4
75°	1162.4	1222.8	1263.6	1418.7	1658.7	2078.2	2932.0	4510.7	6881.2	8249.2	6783.2
77.5°	671.0	672.6	700.4	728.1	768.9	814.6	928.9	1219.5	2109.2	2995.7	2182.7
80°	434.3	432.6	455.5	476.7	504.5	527.3	533.8	564.9	651.4	772.2	690.6
82.5°	225.3	253.0	303.7	331.4	383.6	393.4	380.4	369.0	390.2	404.9	414.7
85°	124.1	107.7	161.6	209.0	231.8	235.1	235.1	222.0	230.2	225.3	244.9
87.5°	57.1	52.2	63.7	102.9	109.4	93.1	98.0	86.5	62.0	60.4	68.6
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°	3537.7	3537.7	3537.7	3537.7	3537.7	3537.7	3537.7	3537.7
2.5°	3521.4	3523.0	3523.0	3527.9	3529.6	3532.8	3536.1	3537.7
5°	3493.6	3498.5	3495.3	3500.2	3500.2	3503.4	3503.4	3505.1
7.5°	3452.8	3457.7	3457.7	3457.7	3456.1	3461.0	3461.0	3461.0
10°	3410.4	3413.6	3412.0	3408.7	3405.5	3410.4	3408.7	3407.1
12.5°	3397.3	3389.2	3382.6	3379.4	3372.8	3374.5	3369.6	3369.6
15°	3405.5	3390.8	3379.4	3374.5	3367.9	3364.7	3361.4	3363.0
17.5°	3426.7	3408.7	3394.1	3385.9	3377.7	3372.8	3366.3	3367.9
20°	3464.3	3443.0	3421.8	3405.5	3390.8	3382.6	3377.7	3376.1
22.5°	3519.8	3488.7	3457.7	3433.2	3413.6	3402.2	3397.3	3394.1
25°	3583.4	3549.1	3513.2	3485.5	3465.9	3451.2	3441.4	3441.4
27.5°	3663.4	3635.7	3603.0	3570.4	3552.4	3537.7	3531.2	3527.9
30°	3797.3	3771.2	3745.0	3714.0	3691.2	3676.5	3665.1	3655.3
32.5°	3968.7	3947.5	3926.3	3903.4	3882.2	3862.6	3844.6	3836.5
35°	4210.3	4194.0	4179.3	4153.2	4145.0	4133.6	4123.8	4115.6
37.5°	4543.4	4536.8	4536.8	4509.1	4502.5	4497.6	4487.9	4489.5
40°	4980.9	4987.4	4979.2	4969.5	4964.6	4951.5	4951.5	4962.9
42.5°	5498.4	5503.3	5521.3	5504.9	5522.9	5506.6	5496.8	5504.9
45°	6099.2	6117.1	6153.0	6136.7	6148.1	6120.4	6086.1	6087.7
47.5°	6773.4	6789.7	6804.4	6793.0	6794.6	6748.9	6703.2	6691.8
50°	7473.8	7480.3	7488.5	7472.1	7475.4	7424.8	7372.6	7374.2
52.5°	8166.0	8197.0	8229.6	8185.6	8175.8	8118.6	8045.2	8015.8
55°	8957.8	9001.8	8964.3	8887.6	8810.8	8734.1	8637.8	8621.4
57.5°	9934.0	9858.9	9741.4	9596.1	9490.0	9382.2	9284.3	9243.4
60°	11292.3	11009.9	10797.6	10582.1	10446.6	10314.4	10185.4	10165.8
62.5°	13212.2	12724.0	12301.2	11855.5	11491.5	11207.4	10980.5	10916.8
65°	15618.5	14464.3	13463.6	12529.7	11718.4	11106.2	10720.9	10551.1
67.5°	16653.5	14374.5	12658.7	11333.1	10271.9	9530.8	9114.5	8907.1
70°	14634.1	11920.8	10054.8	8727.6	7761.1	6970.9	6593.8	6371.8
72.5°	10067.9	7583.2	5996.3	4894.4	4122.2	3461.0	3199.8	3180.2
75°	4520.5	2994.1	2063.5	1590.1	1338.7	1164.0	1110.1	1069.3
77.5°	1265.2	935.4	834.2	780.4	728.1	667.7	644.9	649.8
80°	615.5	581.2	558.3	524.0	476.7	426.1	403.2	413.0
82.5°	408.1	403.2	417.9	393.4	324.9	275.9	231.8	212.2
85°	248.1	251.4	256.3	257.9	218.8	153.5	104.5	117.5
87.5°	98.0	112.6	122.4	127.3	119.2	73.5	58.8	60.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)