

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: P299741

Luminaire Tested: **GLNA-AF-08-LED-E1-5MQ-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299741
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-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 5000K 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: 32900.8 lumens
Efficiency: N/A
Efficacy: 128.0 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): 257
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

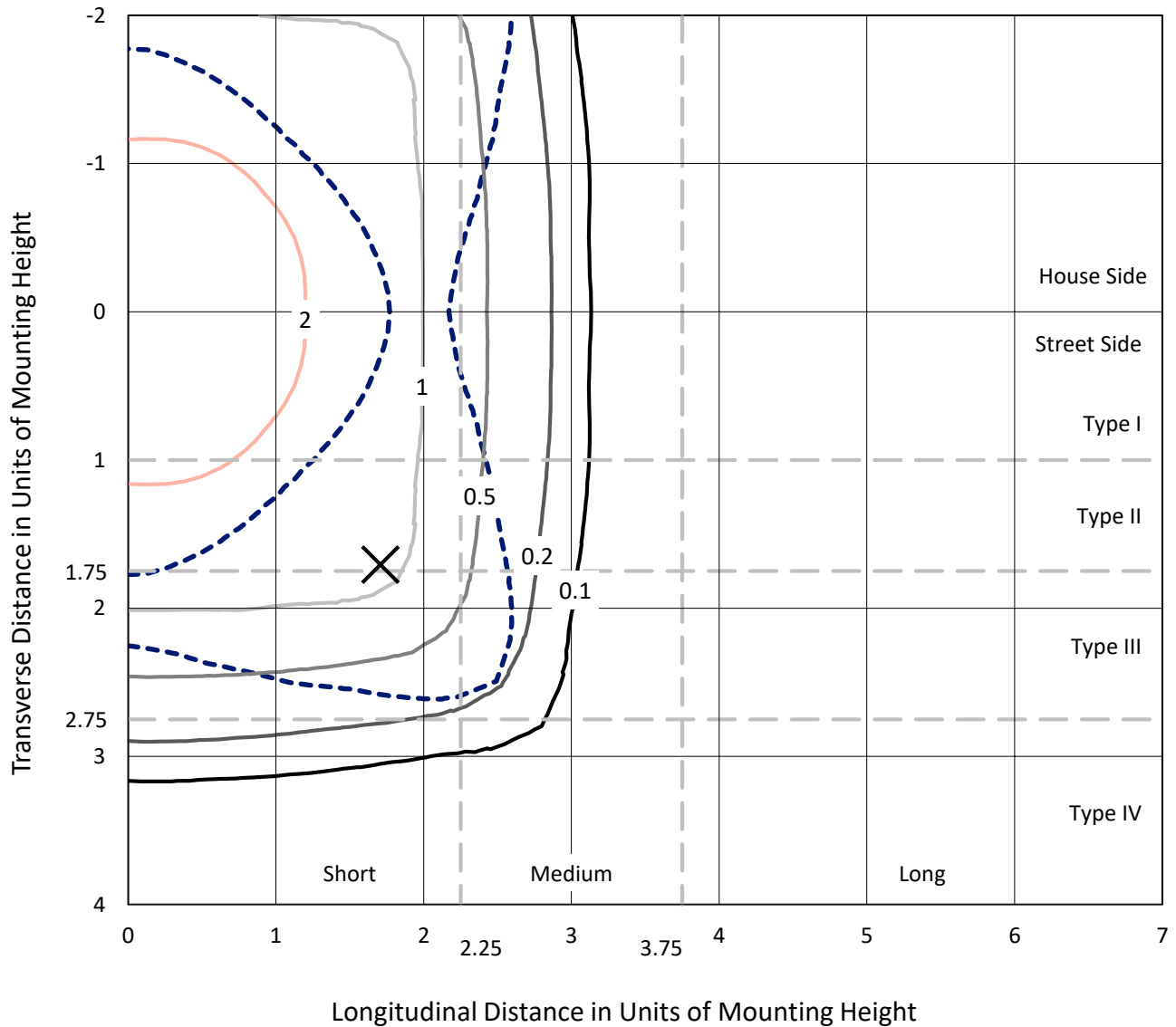


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Iso-Footcandle Lines of Horizontal Illumination

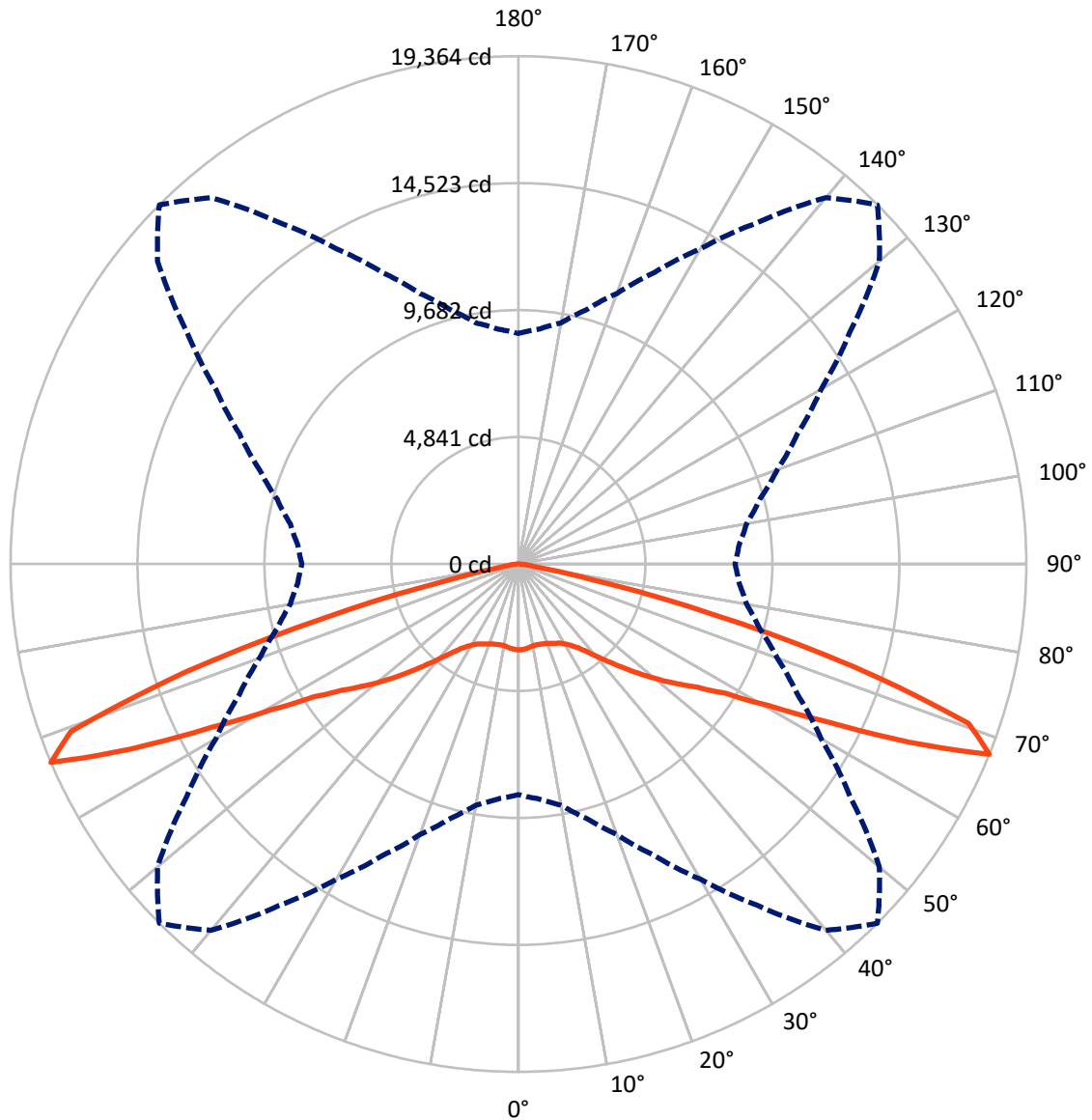
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.6 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	16450.4	0.0	16450.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	16450.4	0.0	16450.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	32900.8	0.0	32900.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.9	0.9
10°-20°	890.5	2.7
20°-30°	1513.8	4.6
30°-40°	2474.6	7.5
40°-50°	4417.6	13.4
50°-60°	7448.2	22.6
60°-70°	11558.5	35.1
70°-80°	4061.2	12.3
80°-90°	229.5	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°	32900.8	100.0
0°-180°	32900.8	100.0



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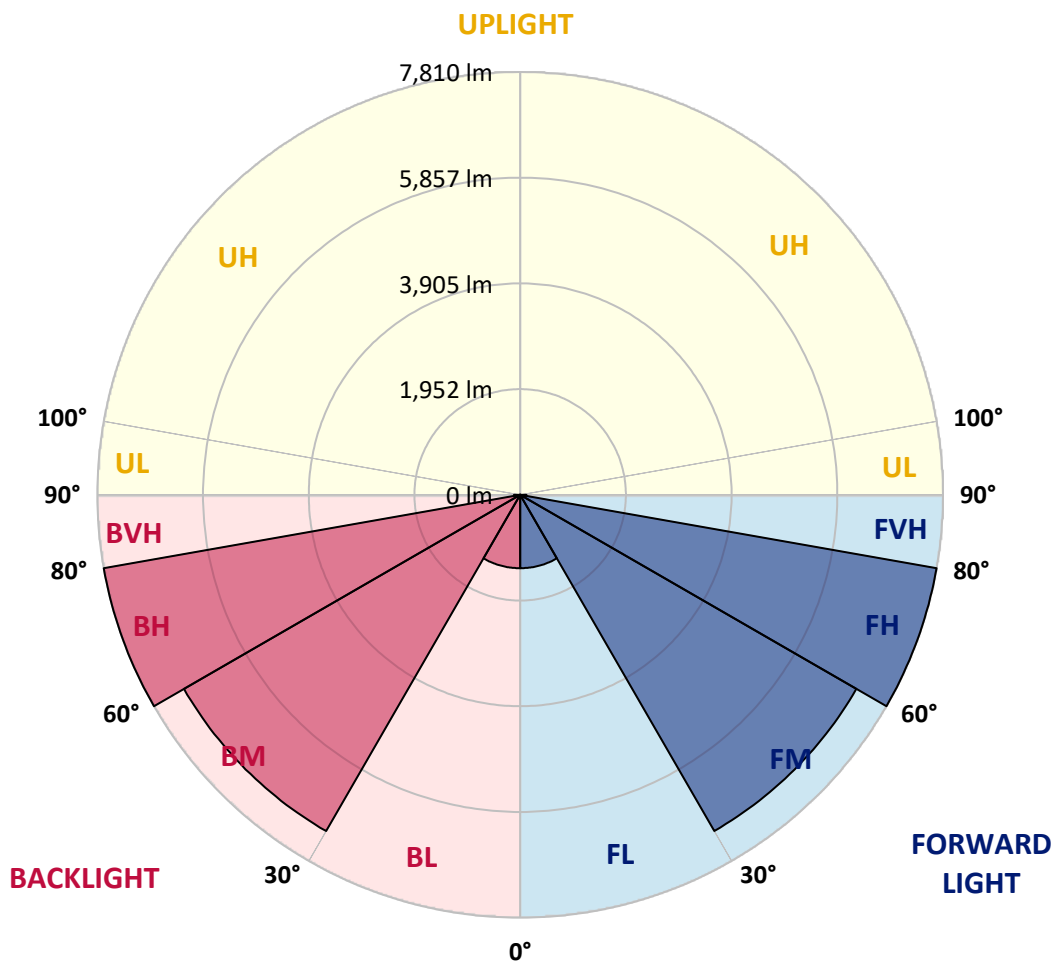
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1355.6	4.1			
FM	(30°-60°)	7170.2	21.8			
FH	(60°-80°)	7809.8	23.7			G4/12000
FVH	(80°-90°)	114.8	0.3			G2/225
BL	(0°-30°)	1355.6	4.1	B3/2500		
BM	(30°-60°)	7170.2	21.8	B4/8500		
BH	(60°-80°)	7809.8	23.7	B5		G4/12000
BVH	(80°-90°)	114.8	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°	3278.7	3278.7	3278.7	3278.7	3278.7	3278.7	3278.7	3278.7	3278.7	3278.7	3278.7
2.5°	3266.6	3269.6	3269.6	3269.6	3268.1	3268.1	3265.1	3268.1	3266.6	3262.1	3263.6
5°	3239.4	3242.4	3242.4	3240.9	3245.4	3243.9	3239.4	3242.4	3240.9	3237.8	3239.4
7.5°	3200.0	3204.6	3204.6	3203.0	3207.6	3206.1	3203.0	3204.6	3204.6	3200.0	3200.0
10°	3156.1	3159.2	3159.2	3157.7	3165.2	3165.2	3163.7	3168.2	3169.8	3165.2	3162.2
12.5°	3115.3	3119.8	3119.8	3125.9	3133.5	3136.5	3144.0	3150.1	3156.1	3154.6	3148.6
15°	3091.1	3094.1	3100.2	3107.7	3119.8	3130.4	3142.5	3156.1	3168.2	3171.3	3162.2
17.5°	3076.0	3080.5	3089.6	3100.2	3116.8	3135.0	3153.1	3171.3	3187.9	3194.0	3183.4
20°	3071.4	3074.4	3083.5	3101.7	3124.4	3151.6	3177.3	3198.5	3221.2	3228.8	3221.2
22.5°	3080.5	3086.5	3097.1	3118.3	3148.6	3183.4	3213.6	3242.4	3271.1	3284.8	3274.2
25°	3121.3	3127.4	3141.0	3168.2	3201.5	3237.8	3272.6	3305.9	3331.7	3345.3	3337.7
27.5°	3197.0	3204.6	3221.2	3248.4	3284.8	3324.1	3361.9	3389.1	3410.3	3414.9	3405.8
30°	3310.5	3327.1	3346.8	3377.0	3419.4	3452.7	3490.5	3514.7	3540.5	3540.5	3532.9
32.5°	3487.5	3504.1	3525.3	3554.1	3587.4	3623.7	3657.0	3678.1	3705.4	3706.9	3688.7
35°	3752.3	3759.8	3778.0	3796.1	3826.4	3858.2	3886.9	3900.5	3923.2	3924.8	3908.1
37.5°	4101.8	4103.3	4115.4	4121.4	4148.7	4183.5	4210.7	4219.8	4241.0	4237.9	4221.3
40°	4508.8	4516.3	4520.9	4530.0	4558.7	4592.0	4620.7	4625.3	4648.0	4643.4	4622.3
42.5°	4979.3	4982.4	5008.1	5021.7	5048.9	5065.6	5101.9	5106.4	5133.7	5121.5	5097.3
45°	5507.4	5534.6	5558.8	5586.0	5614.8	5634.5	5663.2	5657.2	5675.3	5657.2	5643.5
47.5°	6062.6	6082.3	6136.8	6179.1	6226.0	6242.7	6283.5	6265.4	6283.5	6257.8	6253.3
50°	6673.9	6708.7	6755.6	6804.0	6853.9	6881.2	6934.1	6911.4	6935.7	6911.4	6897.8
52.5°	7276.1	7285.2	7388.0	7459.2	7528.8	7560.5	7592.3	7581.7	7583.2	7581.7	7568.1
55°	7848.0	7869.2	7972.1	8068.9	8189.9	8279.2	8333.7	8327.6	8314.0	8300.4	8277.7
57.5°	8492.5	8513.7	8631.7	8751.3	8889.0	9016.0	9126.5	9240.0	9283.8	9296.0	9246.0
60°	9364.0	9362.5	9519.9	9665.1	9861.8	10050.9	10293.0	10539.6	10822.6	10954.2	10780.2
62.5°	10250.7	10287.0	10513.9	10771.1	11176.6	11571.5	12017.9	12456.6	12904.5	13269.1	12881.8
65°	10144.8	10284.0	10621.4	11203.9	11952.8	12842.5	13804.7	14823.0	15742.9	16375.3	15665.7
67.5°	8792.1	8990.3	9333.8	10041.9	10978.4	12261.5	13877.4	15891.2	18231.8	19363.5	17961.0
70°	6372.8	6596.7	6956.8	7648.3	8575.8	9795.2	11550.3	13968.1	17066.8	18207.6	16662.8
72.5°	3171.3	3292.3	3514.7	3955.0	4657.1	5646.6	7238.3	9562.2	12303.8	13350.8	11939.2
75°	1077.3	1133.2	1171.1	1314.8	1537.2	1926.1	2717.4	4180.5	6377.4	7645.3	6286.6
77.5°	621.8	623.4	649.1	674.8	712.6	755.0	860.9	1130.2	1954.8	2776.4	2022.9
80°	402.5	400.9	422.1	441.8	467.5	488.7	494.8	523.5	603.7	715.7	640.0
82.5°	208.8	234.5	281.4	307.1	355.6	364.6	352.5	341.9	361.6	375.2	384.3
85°	115.0	99.9	149.8	193.7	214.8	217.9	217.9	205.8	213.3	208.8	227.0
87.5°	53.0	48.4	59.0	95.3	101.4	86.2	90.8	80.2	57.5	56.0	63.5
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°	3278.7	3278.7	3278.7	3278.7	3278.7	3278.7	3278.7	3278.7
2.5°	3263.6	3265.1	3265.1	3269.6	3271.1	3274.2	3277.2	3278.7
5°	3237.8	3242.4	3239.4	3243.9	3243.9	3246.9	3246.9	3248.4
7.5°	3200.0	3204.6	3204.6	3204.6	3203.0	3207.6	3207.6	3207.6
10°	3160.7	3163.7	3162.2	3159.2	3156.1	3160.7	3159.2	3157.7
12.5°	3148.6	3141.0	3135.0	3131.9	3125.9	3127.4	3122.9	3122.9
15°	3156.1	3142.5	3131.9	3127.4	3121.3	3118.3	3115.3	3116.8
17.5°	3175.8	3159.2	3145.6	3138.0	3130.4	3125.9	3119.8	3121.3
20°	3210.6	3190.9	3171.3	3156.1	3142.5	3135.0	3130.4	3128.9
22.5°	3262.1	3233.3	3204.6	3181.9	3163.7	3153.1	3148.6	3145.6
25°	3321.1	3289.3	3256.0	3230.3	3212.1	3198.5	3189.4	3189.4
27.5°	3395.2	3369.5	3339.2	3309.0	3292.3	3278.7	3272.6	3269.6
30°	3519.3	3495.1	3470.9	3442.1	3420.9	3407.3	3396.7	3387.6
32.5°	3678.1	3658.5	3638.8	3617.6	3597.9	3579.8	3563.1	3555.6
35°	3902.1	3886.9	3873.3	3849.1	3841.5	3830.9	3821.9	3814.3
37.5°	4210.7	4204.7	4204.7	4178.9	4172.9	4168.4	4159.3	4160.8
40°	4616.2	4622.3	4614.7	4605.6	4601.1	4589.0	4589.0	4599.6
42.5°	5095.8	5100.4	5117.0	5101.9	5118.5	5103.4	5094.3	5101.9
45°	5652.6	5669.3	5702.5	5687.4	5698.0	5672.3	5640.5	5642.0
47.5°	6277.5	6292.6	6306.2	6295.6	6297.2	6254.8	6212.4	6201.8
50°	6926.6	6932.6	6940.2	6925.1	6928.1	6881.2	6832.8	6834.3
52.5°	7568.1	7596.8	7627.1	7586.2	7577.2	7524.2	7456.1	7428.9
55°	8301.9	8342.8	8308.0	8236.8	8165.7	8094.6	8005.4	7990.2
57.5°	9206.7	9137.1	9028.1	8893.5	8795.1	8695.3	8604.5	8566.7
60°	10465.5	10203.8	10007.1	9807.4	9681.8	9559.2	9439.7	9421.5
62.5°	12244.8	11792.4	11400.6	10987.5	10650.1	10386.8	10176.5	10117.5
65°	14475.0	13405.3	12477.8	11612.4	10860.4	10293.0	9936.0	9778.6
67.5°	15434.2	13322.1	11731.9	10503.3	9519.9	8833.0	8447.2	8255.0
70°	13562.6	11048.0	9318.6	8088.6	7192.9	6460.6	6111.1	5905.3
72.5°	9330.8	7027.9	5557.3	4536.0	3820.4	3207.6	2965.5	2947.3
75°	4189.5	2774.9	1912.4	1473.7	1240.7	1078.8	1028.8	991.0
77.5°	1172.6	867.0	773.1	723.2	674.8	618.8	597.6	602.2
80°	570.4	538.6	517.5	485.7	441.8	394.9	373.7	382.8
82.5°	378.3	373.7	387.3	364.6	301.1	255.7	214.8	196.7
85°	230.0	233.0	237.5	239.1	202.7	142.2	96.8	108.9
87.5°	90.8	104.4	113.5	118.0	110.4	68.1	54.5	56.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)