

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: STREETWORKS

Report Number: P299683

Luminaire Tested: **GAA-AF-09-LED-U-5MQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299683
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: STREETWORKS
Catalog Number: GAA-AF-09-LED-U-5MQ-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 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: 39105 lumens
Efficiency: N/A
Efficacy: 104.6 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): 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: 28.75 FT

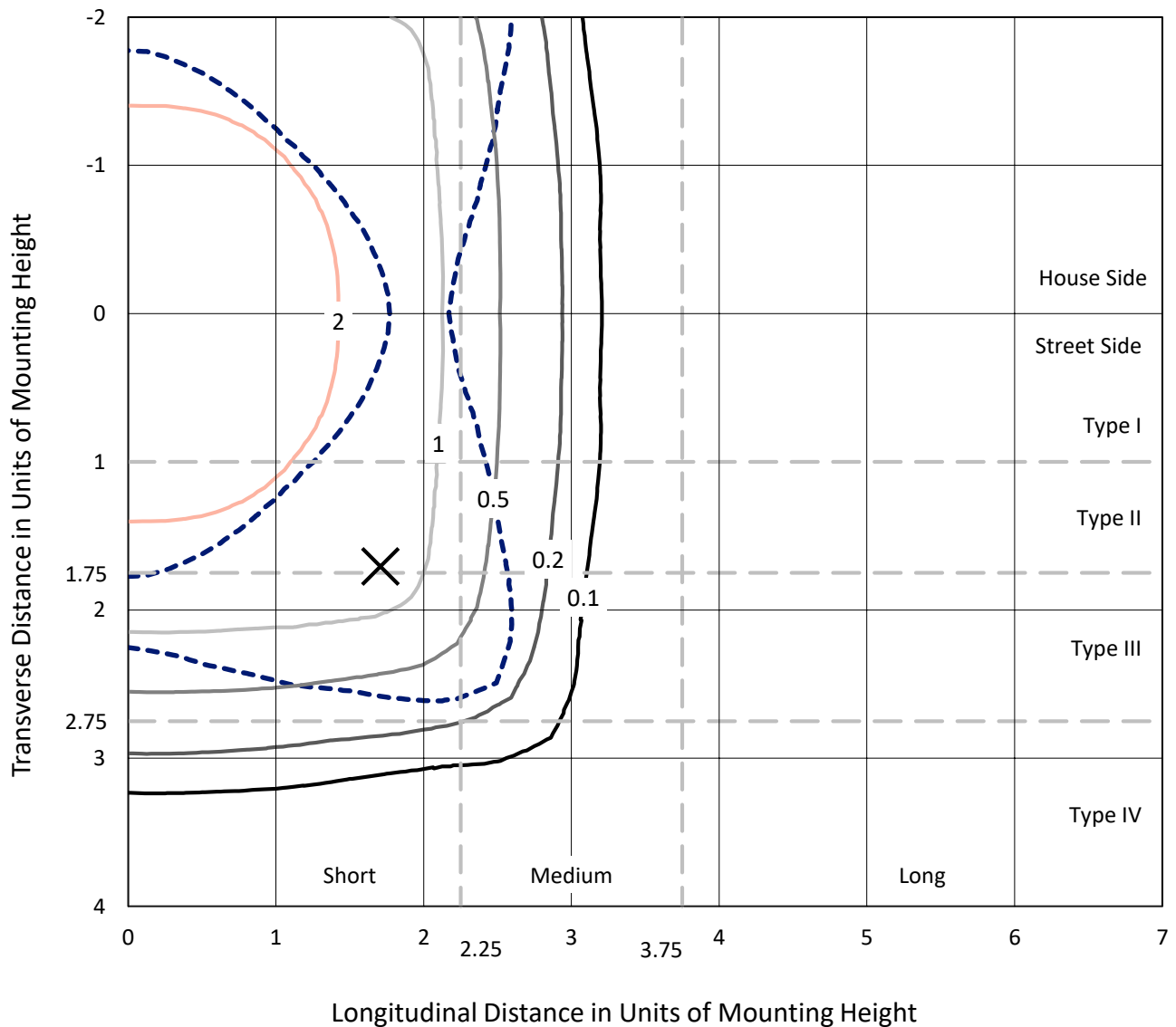


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

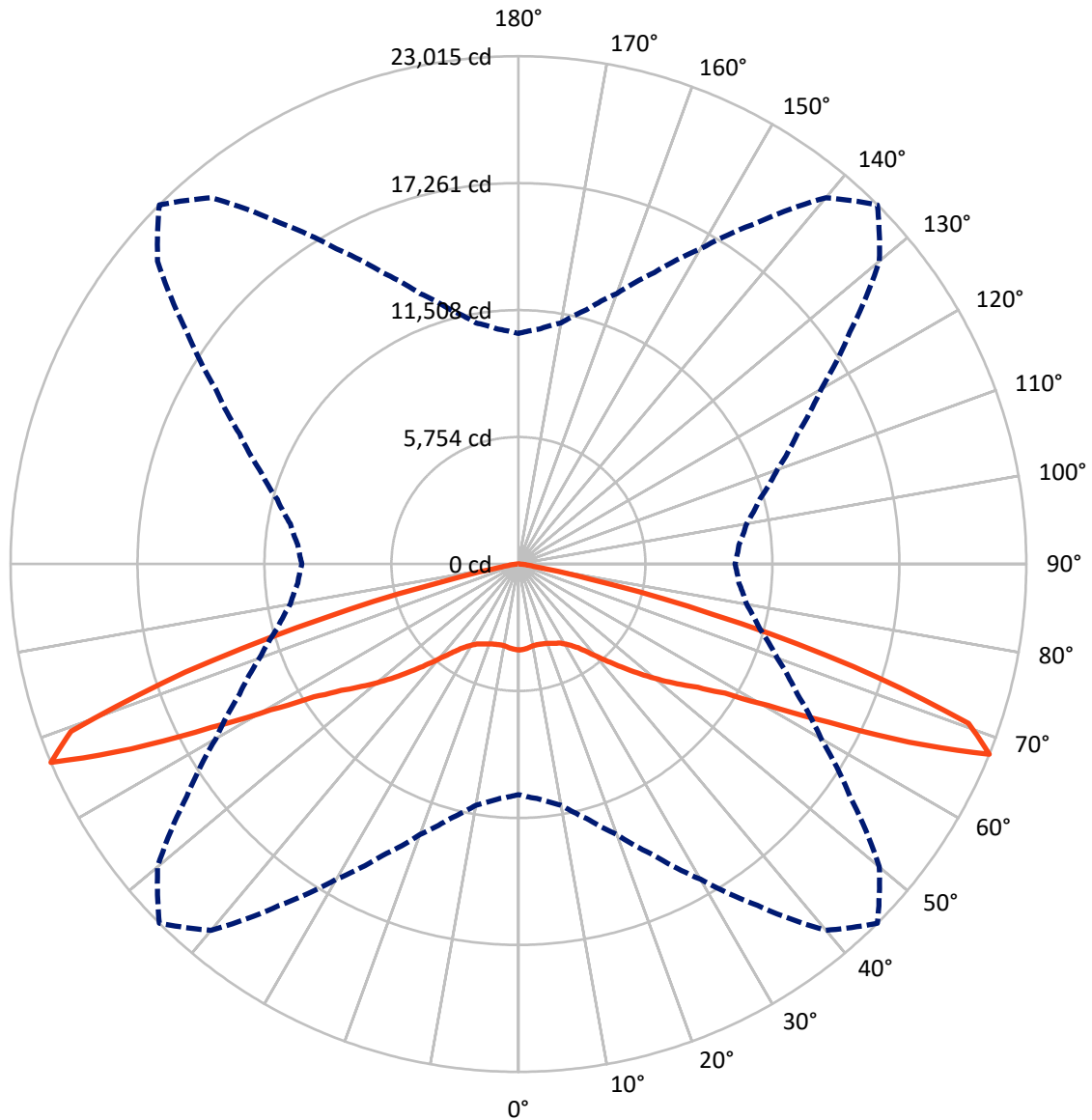


Based on 30 foot mounting height. Maximum calculated value = 4.3 fc
 Type V - Short - Full Cutoff

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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	19552.5	0.0	19552.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	19552.5	0.0	19552.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	39105.0	0.0	39105.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	364.7	0.9
10°-20°	1058.4	2.7
20°-30°	1799.3	4.6
30°-40°	2941.2	7.5
40°-50°	5250.7	13.4
50°-60°	8852.7	22.6
60°-70°	13738.2	35.1
70°-80°	4827.0	12.3
80°-90°	272.8	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°	39105.0	100.0
0°-180°	39105.0	100.0



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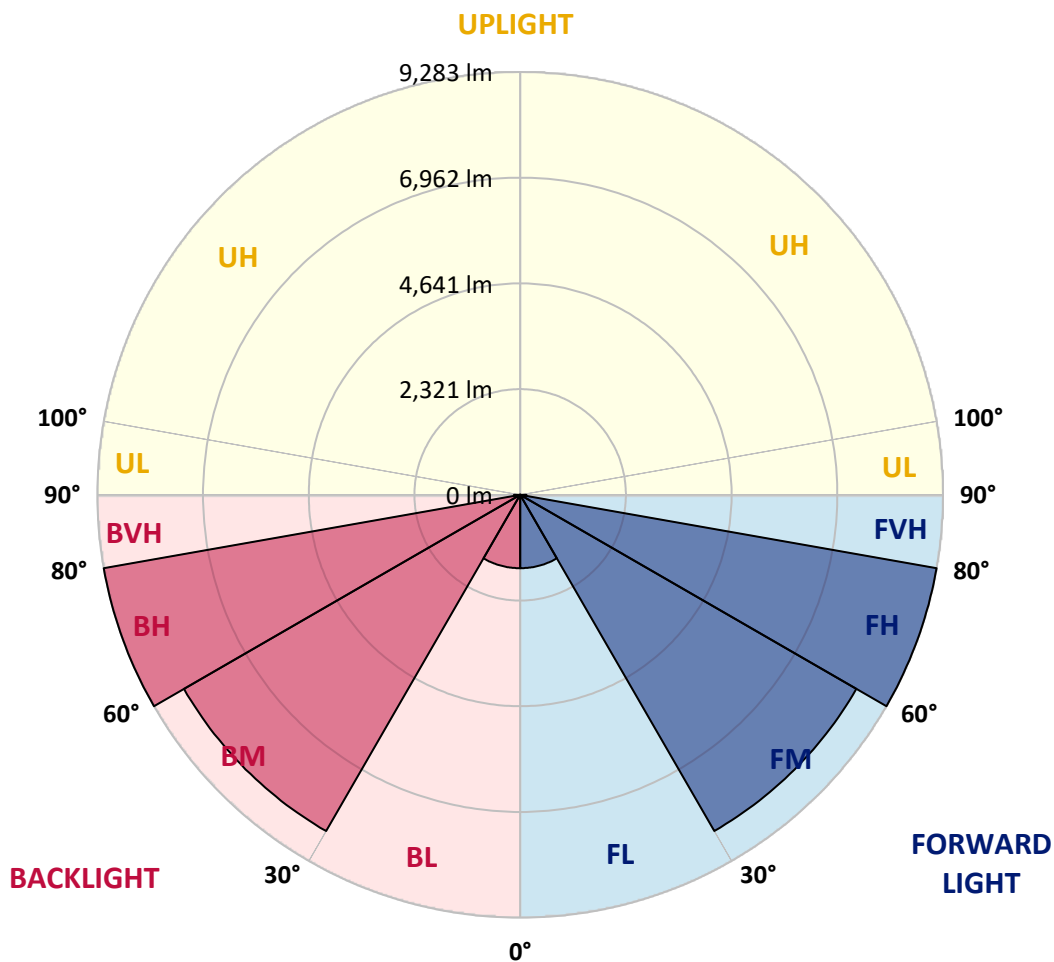
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1611.2	4.1			
FM	(30°-60°)	8522.3	21.8			
FH	(60°-80°)	9282.6	23.7			G4/12000
FVH	(80°-90°)	136.4	0.3			G2/225
BL	(0°-30°)	1611.2	4.1	B3/2500		
BM	(30°-60°)	8522.3	21.8	B5		
BH	(60°-80°)	9282.6	23.7	B5		G4/12000
BVH	(80°-90°)	136.4	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°	3897.0	3897.0	3897.0	3897.0	3897.0	3897.0	3897.0	3897.0	3897.0	3897.0	3897.0
2.5°	3882.6	3886.2	3886.2	3886.2	3884.4	3884.4	3880.8	3884.4	3882.6	3877.2	3879.0
5°	3850.2	3853.8	3853.8	3852.0	3857.4	3855.6	3850.2	3853.8	3852.0	3848.4	3850.2
7.5°	3803.5	3808.9	3808.9	3807.1	3812.5	3810.7	3807.1	3808.9	3808.9	3803.5	3803.5
10°	3751.3	3754.9	3754.9	3753.1	3762.1	3762.1	3760.3	3765.7	3767.5	3762.1	3758.5
12.5°	3702.8	3708.2	3708.2	3715.3	3724.3	3727.9	3736.9	3744.1	3751.3	3749.5	3742.3
15°	3674.0	3677.6	3684.8	3693.8	3708.2	3720.7	3735.1	3751.3	3765.7	3769.3	3758.5
17.5°	3656.0	3661.4	3672.2	3684.8	3704.6	3726.1	3747.7	3769.3	3789.1	3796.3	3783.7
20°	3650.6	3654.2	3665.0	3686.6	3713.5	3745.9	3776.5	3801.7	3828.6	3837.6	3828.6
22.5°	3661.4	3668.6	3681.2	3706.4	3742.3	3783.7	3819.6	3853.8	3888.0	3904.2	3891.6
25°	3710.0	3717.1	3733.3	3765.7	3805.3	3848.4	3889.8	3929.3	3959.9	3976.1	3967.1
27.5°	3799.9	3808.9	3828.6	3861.0	3904.2	3950.9	3995.9	4028.3	4053.4	4058.8	4048.0
30°	3934.7	3954.5	3977.9	4013.9	4064.2	4103.8	4148.7	4177.5	4208.1	4208.1	4199.1
32.5°	4145.1	4164.9	4190.1	4224.3	4263.8	4307.0	4346.6	4371.7	4404.1	4405.9	4384.3
35°	4459.9	4468.8	4490.4	4512.0	4548.0	4585.7	4619.9	4636.1	4663.1	4664.9	4645.1
37.5°	4875.3	4877.1	4891.5	4898.6	4931.0	4972.4	5004.7	5015.5	5040.7	5037.1	5017.3
40°	5359.0	5368.0	5373.4	5384.2	5418.4	5457.9	5492.1	5497.5	5524.5	5519.1	5493.9
42.5°	5918.3	5921.9	5952.5	5968.7	6001.0	6020.8	6064.0	6069.4	6101.7	6087.3	6058.6
45°	6545.9	6578.3	6607.1	6639.4	6673.6	6697.0	6731.1	6723.9	6745.5	6723.9	6707.8
47.5°	7205.9	7229.3	7294.0	7344.4	7400.1	7419.9	7468.5	7446.9	7468.5	7437.9	7432.5
50°	7932.4	7973.8	8029.5	8087.1	8146.4	8178.8	8241.7	8214.8	8243.5	8214.8	8198.6
52.5°	8648.2	8658.9	8781.2	8865.8	8948.5	8986.2	9024.0	9011.4	9013.2	9011.4	8995.2
55°	9327.9	9353.1	9475.4	9590.5	9734.3	9840.5	9905.2	9898.0	9881.8	9865.6	9838.7
57.5°	10094.0	10119.2	10259.5	10401.5	10565.2	10716.2	10847.5	10982.4	11034.5	11048.9	10989.6
60°	11129.9	11128.1	11315.1	11487.7	11721.5	11946.3	12234.0	12527.2	12863.4	13019.9	12813.1
62.5°	12183.7	12226.8	12496.6	12802.3	13284.2	13753.6	14284.1	14805.6	15337.9	15771.3	15311.0
65°	12057.8	12223.2	12624.3	13316.6	14206.8	15264.2	16407.9	17618.2	18711.6	19463.3	18619.9
67.5°	10450.1	10685.7	11093.9	11935.5	13048.7	14573.6	16494.3	18887.8	21669.9	23015.0	21348.0
70°	7574.6	7840.7	8268.7	9090.5	10192.9	11642.4	13728.4	16602.2	20285.1	21641.1	19805.0
72.5°	3769.3	3913.2	4177.5	4700.8	5535.3	6711.4	8603.2	11365.4	14624.0	15868.4	14190.6
75°	1280.4	1346.9	1391.9	1562.7	1827.1	2289.3	3229.8	4968.8	7580.0	9087.0	7472.1
77.5°	739.1	740.9	771.5	802.1	847.0	897.4	1023.2	1343.4	2323.4	3299.9	2404.4
80°	478.4	476.6	501.7	525.1	555.7	580.9	588.1	622.2	717.5	850.6	760.7
82.5°	248.2	278.7	334.5	365.1	422.6	433.4	419.0	406.4	429.8	446.0	456.8
85°	136.7	118.7	178.0	230.2	255.4	259.0	259.0	244.6	253.6	248.2	269.7
87.5°	62.9	57.5	70.1	113.3	120.5	102.5	107.9	95.3	68.3	66.5	75.5
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°	3897.0	3897.0	3897.0	3897.0	3897.0	3897.0	3897.0	3897.0
2.5°	3879.0	3880.8	3880.8	3886.2	3888.0	3891.6	3895.2	3897.0
5°	3848.4	3853.8	3850.2	3855.6	3855.6	3859.2	3859.2	3861.0
7.5°	3803.5	3808.9	3808.9	3808.9	3807.1	3812.5	3812.5	3812.5
10°	3756.7	3760.3	3758.5	3754.9	3751.3	3756.7	3754.9	3753.1
12.5°	3742.3	3733.3	3726.1	3722.5	3715.3	3717.1	3711.7	3711.7
15°	3751.3	3735.1	3722.5	3717.1	3710.0	3706.4	3702.8	3704.6
17.5°	3774.7	3754.9	3738.7	3729.7	3720.7	3715.3	3708.2	3710.0
20°	3816.1	3792.7	3769.3	3751.3	3735.1	3726.1	3720.7	3718.9
22.5°	3877.2	3843.0	3808.9	3781.9	3760.3	3747.7	3742.3	3738.7
25°	3947.3	3909.6	3870.0	3839.4	3817.9	3801.7	3790.9	3790.9
27.5°	4035.4	4004.9	3968.9	3932.9	3913.2	3897.0	3889.8	3886.2
30°	4182.9	4154.1	4125.4	4091.2	4066.0	4049.8	4037.2	4026.5
32.5°	4371.7	4348.4	4325.0	4299.8	4276.4	4254.8	4235.1	4226.1
35°	4637.9	4619.9	4603.7	4574.9	4566.0	4553.4	4542.6	4533.6
37.5°	5004.7	4997.6	4997.6	4967.0	4959.8	4954.4	4943.6	4945.4
40°	5486.7	5493.9	5484.9	5474.1	5468.7	5454.3	5454.3	5466.9
42.5°	6056.8	6062.2	6081.9	6064.0	6083.7	6065.8	6055.0	6064.0
45°	6718.6	6738.3	6777.9	6759.9	6772.5	6741.9	6704.2	6706.0
47.5°	7461.3	7479.2	7495.4	7482.8	7484.6	7434.3	7383.9	7371.3
50°	8232.7	8239.9	8248.9	8230.9	8234.5	8178.8	8121.2	8123.0
52.5°	8995.2	9029.4	9065.4	9016.8	9006.0	8943.1	8862.2	8829.8
55°	9867.4	9916.0	9874.6	9790.1	9705.6	9621.1	9515.0	9497.0
57.5°	10942.8	10860.1	10730.6	10570.6	10453.7	10335.0	10227.1	10182.1
60°	12439.0	12127.9	11894.1	11656.8	11507.5	11361.8	11219.8	11198.2
62.5°	14553.9	14016.2	13550.4	13059.5	12658.4	12345.5	12095.6	12025.4
65°	17204.6	15933.2	14830.8	13802.2	12908.4	12234.0	11809.6	11622.6
67.5°	18344.7	15834.3	13944.2	12484.0	11315.1	10498.6	10040.1	9811.7
70°	16120.2	13131.4	11075.9	9613.9	8549.3	7678.9	7263.4	7018.9
72.5°	11090.3	8353.2	6605.3	5391.4	4540.8	3812.5	3524.7	3503.1
75°	4979.6	3298.1	2273.1	1751.6	1474.6	1282.2	1222.9	1177.9
77.5°	1393.7	1030.4	918.9	859.6	802.1	735.5	710.3	715.7
80°	678.0	640.2	615.0	577.3	525.1	469.4	444.2	455.0
82.5°	449.6	444.2	460.4	433.4	357.9	303.9	255.4	233.8
85°	273.3	276.9	282.3	284.1	241.0	169.0	115.1	129.5
87.5°	107.9	124.1	134.9	140.3	131.3	80.9	64.7	66.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)