

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: P299359

Luminaire Tested: **GLNA-AF-05-LED-E1-5NQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299359
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-5NQ-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26571.4 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

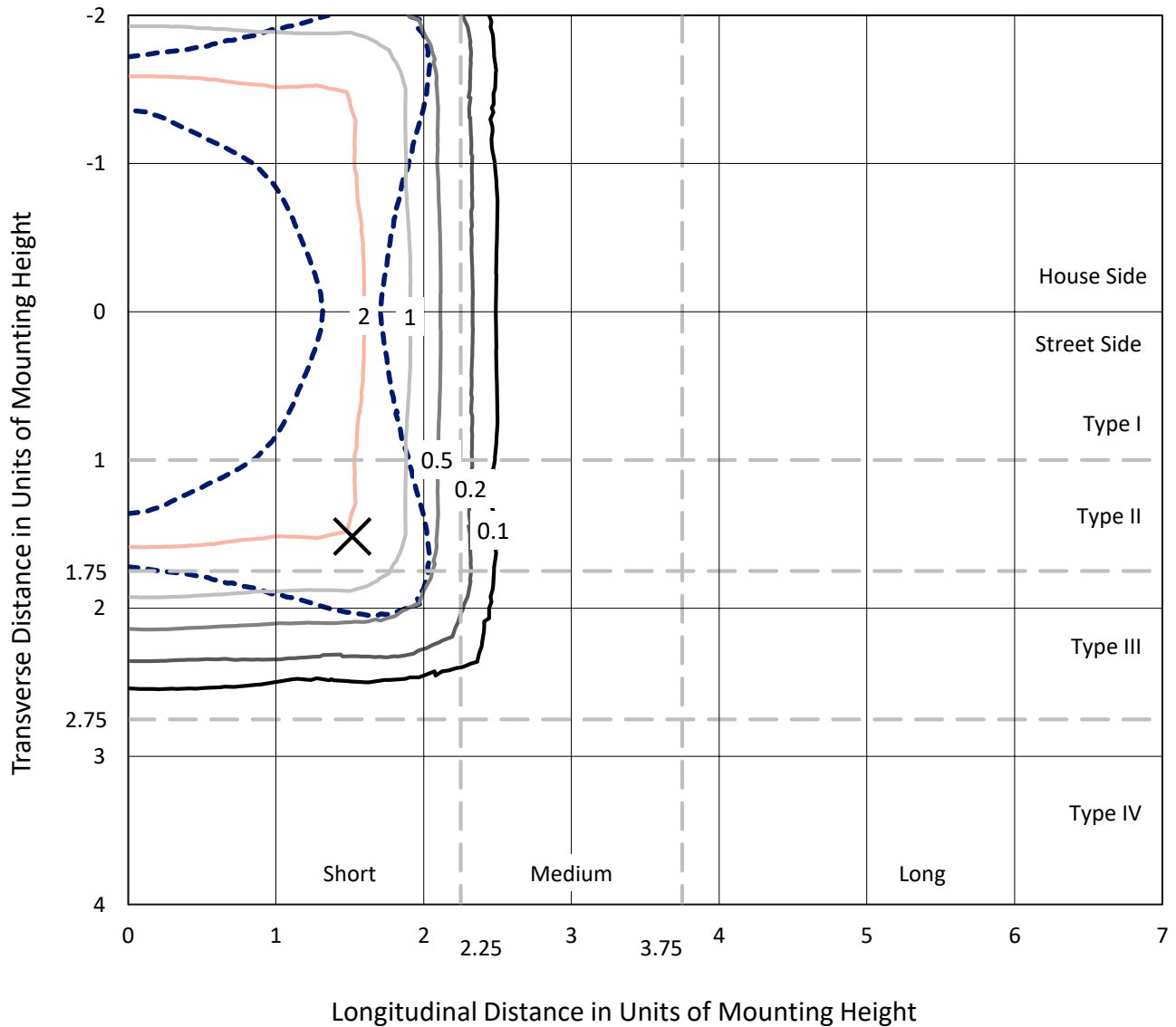
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299359
 CATALOG NUMBER: GLNA-AF-05-LED-E1-5NQ-7027

Iso-Footcandle Lines of Horizontal Illumination

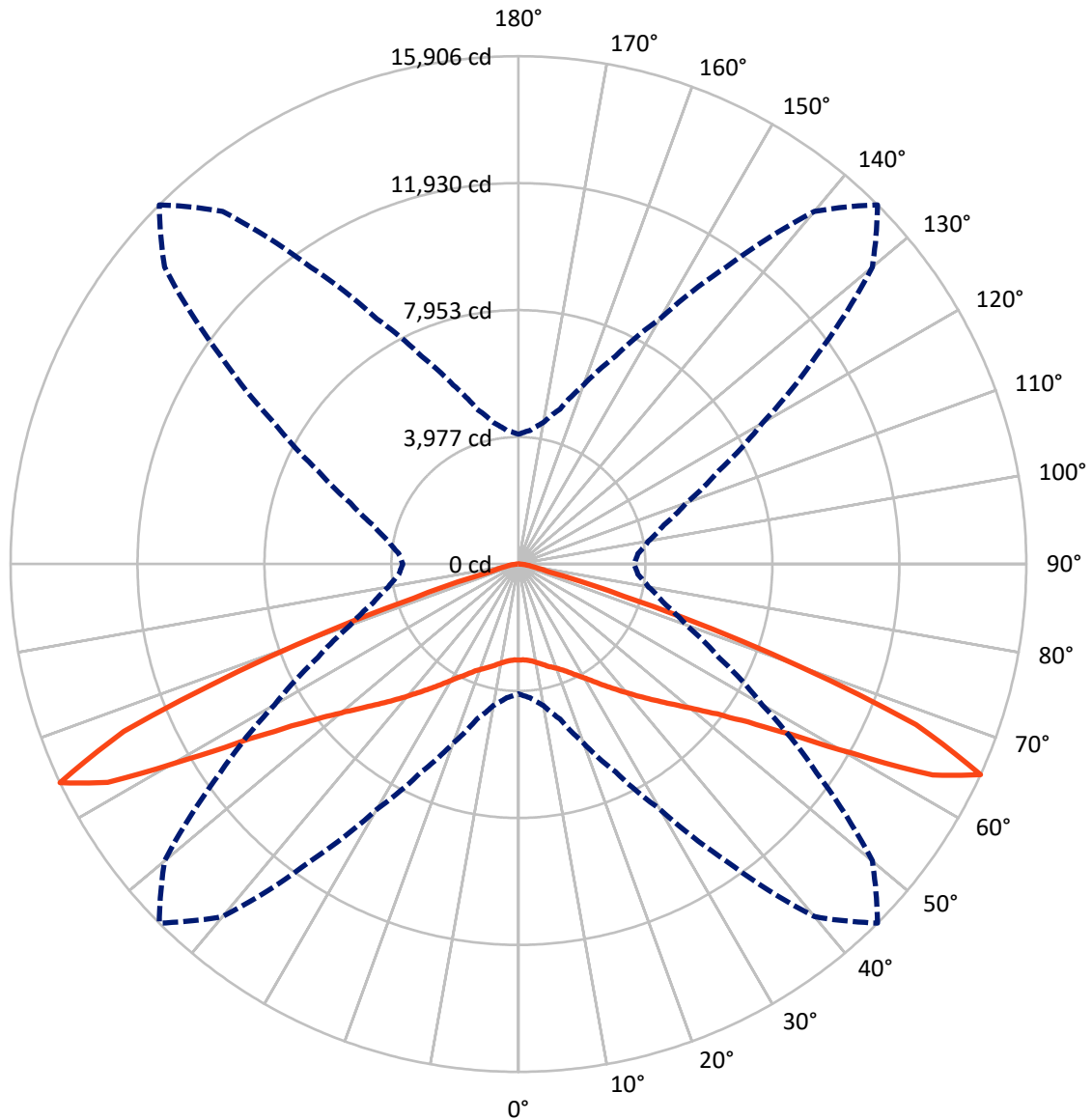
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P299359
CATALOG NUMBER: GLNA-AF-05-LED-E1-5NQ-7027

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P299359

CATALOG NUMBER: GLNA-AF-05-LED-E1-5NQ-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13285.7	0.0	13285.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	13285.7	0.0	13285.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	26571.4	0.0	26571.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.0	1.1
10°-20°	939.8	3.5
20°-30°	1757.3	6.6
30°-40°	2972.1	11.2
40°-50°	4859.8	18.3
50°-60°	7727.8	29.1
60°-70°	6985.4	26.3
70°-80°	884.0	3.3
80°-90°	152.1	0.6
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°	26571.4	100.0
0°-180°	26571.4	100.0



REPORT NUMBER: P299359

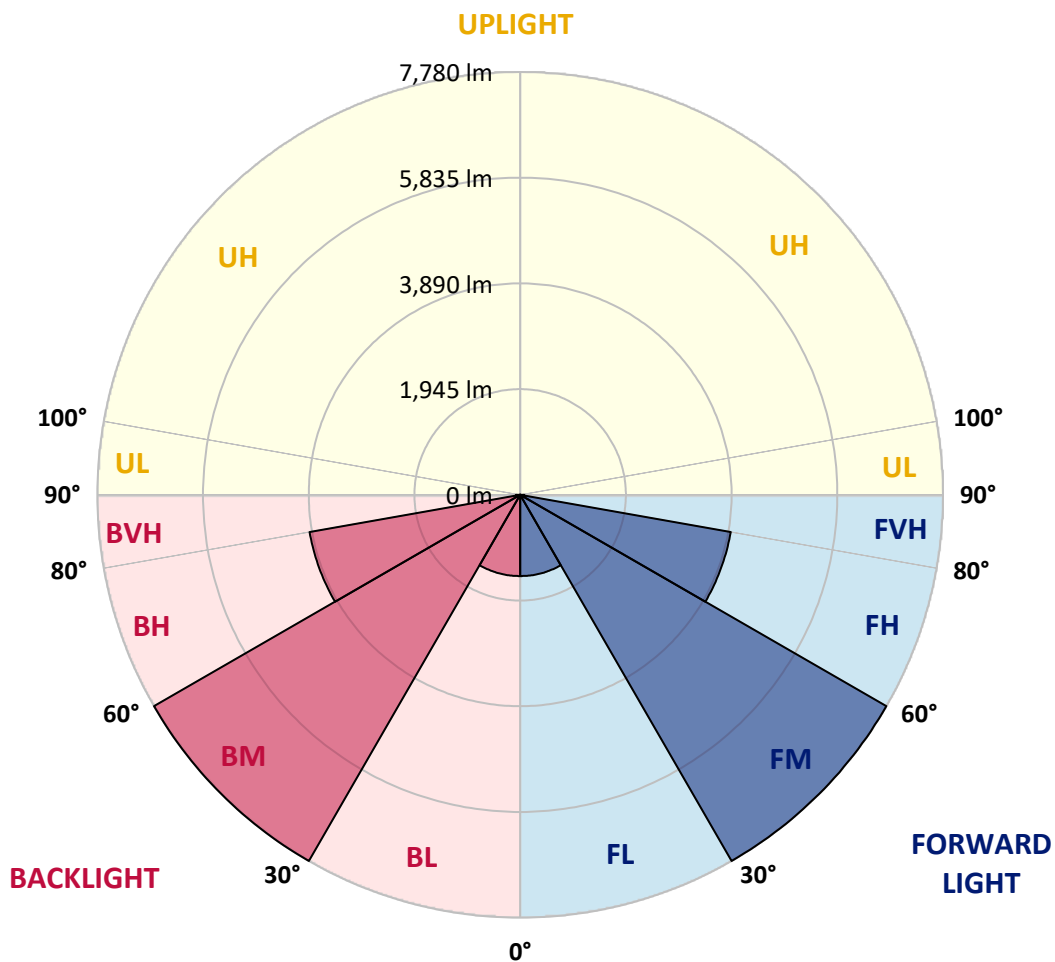
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1495.1	5.6			
FM	(30°-60°)	7779.8	29.3			
FH	(60°-80°)	3934.7	14.8			G2/5000
FVH	(80°-90°)	76.0	0.3			G1/100
BL	(0°-30°)	1495.1	5.6	B3/2500		
BM	(30°-60°)	7779.8	29.3	B4/8500		
BH	(60°-80°)	3934.7	14.8	B4/5000		G2/5000
BVH	(80°-90°)	76.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P299359

CATALOG NUMBER: GLNA-AF-05-LED-E1-5NQ-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3006.6	3006.6	3006.6	3006.6	3006.6	3006.6	3006.6	3006.6	3006.6	3006.6	3006.6
2.5°	3009.1	3011.5	3014.0	3011.5	3014.0	3010.3	3007.8	3011.5	3007.8	3004.1	3006.6
5°	3035.2	3036.4	3036.4	3032.7	3036.4	3033.9	3030.2	3035.2	3031.5	3027.7	3030.2
7.5°	3078.7	3083.7	3080.0	3076.3	3078.7	3076.3	3073.8	3075.0	3073.8	3070.0	3071.3
10°	3137.2	3141.0	3138.5	3137.2	3139.7	3138.5	3136.0	3134.7	3136.0	3132.3	3132.3
12.5°	3208.2	3206.9	3205.7	3206.9	3210.7	3210.7	3209.4	3210.7	3213.1	3214.4	3211.9
15°	3277.9	3280.3	3280.3	3280.3	3287.8	3294.0	3297.8	3300.3	3305.2	3306.5	3301.5
17.5°	3365.0	3365.0	3363.7	3365.0	3372.4	3382.4	3386.1	3391.1	3396.1	3399.8	3393.6
20°	3462.0	3464.5	3464.5	3467.0	3477.0	3488.2	3488.2	3490.7	3488.2	3490.7	3486.9
22.5°	3580.3	3587.7	3587.7	3589.0	3598.9	3612.6	3608.9	3612.6	3606.4	3611.4	3606.4
25°	3734.6	3745.8	3743.3	3743.3	3750.7	3759.5	3760.7	3768.2	3766.9	3773.1	3769.4
27.5°	3908.8	3926.2	3931.2	3929.9	3934.9	3943.6	3946.1	3954.8	3949.9	3954.8	3952.3
30°	4117.9	4125.3	4135.3	4139.0	4145.2	4153.9	4153.9	4155.2	4149.0	4156.4	4160.2
32.5°	4334.4	4348.1	4358.0	4380.4	4391.6	4397.8	4396.6	4399.1	4392.9	4402.8	4410.3
35°	4620.6	4630.6	4646.7	4664.2	4679.1	4677.8	4674.1	4675.4	4675.4	4684.1	4691.5
37.5°	4965.3	4967.8	4989.0	5013.8	5021.3	5013.8	4991.4	4986.5	4975.3	4986.5	4998.9
40°	5329.9	5338.6	5381.0	5397.1	5400.9	5387.2	5354.8	5336.2	5311.3	5325.0	5342.4
42.5°	5712.0	5729.4	5768.0	5796.6	5809.0	5800.3	5755.5	5726.9	5694.6	5702.0	5719.4
45°	6135.1	6156.2	6211.0	6238.4	6262.0	6248.3	6204.8	6161.2	6110.2	6113.9	6141.3
47.5°	6608.0	6629.1	6700.1	6746.1	6758.6	6756.1	6707.5	6647.8	6578.1	6575.6	6599.3
50°	7138.1	7159.3	7247.6	7318.5	7354.6	7350.9	7293.7	7209.0	7124.4	7125.7	7155.5
52.5°	7655.8	7681.9	7774.0	7896.0	7966.9	8017.9	7983.1	7903.4	7800.1	7802.6	7830.0
55°	8141.1	8184.7	8290.5	8456.0	8587.9	8731.0	8772.1	8769.6	8707.3	8724.8	8752.1
57.5°	8376.3	8441.0	8604.1	8865.4	9134.2	9425.4	9671.8	9856.0	9934.4	10052.6	10025.2
60°	7930.8	8034.1	8274.3	8658.8	9190.2	9797.5	10448.3	11084.2	11626.8	12036.2	11801.0
62.5°	6493.5	6627.9	6919.1	7411.9	8215.8	9187.7	10433.4	11936.7	13574.3	14562.4	13856.8
65°	4063.1	4202.5	4498.6	5026.3	5967.1	7175.4	8865.4	11356.8	14416.8	15906.4	14470.3
67.5°	1584.2	1660.1	1820.6	2157.9	2864.7	3939.9	5636.1	8463.4	12123.3	13428.7	11898.1
70°	794.0	801.4	831.3	893.5	1045.3	1357.7	2065.8	3923.7	6952.7	8397.5	6702.6
72.5°	573.7	574.9	589.9	617.2	665.8	735.5	869.9	1200.9	2261.1	3455.8	2119.3
75°	439.3	444.3	453.0	467.9	494.0	528.9	577.4	691.9	857.4	994.3	836.3
77.5°	338.5	348.4	354.7	368.4	384.5	408.2	421.9	465.4	541.3	570.0	561.2
80°	257.6	266.3	280.0	291.2	302.4	313.6	308.6	328.5	368.4	392.0	379.6
82.5°	164.3	174.2	214.0	224.0	229.0	236.4	227.7	229.0	246.4	261.3	246.4
85°	105.8	112.0	135.6	148.1	149.3	154.3	150.6	141.9	141.9	129.4	145.6
87.5°	48.5	49.8	61.0	72.2	74.7	67.2	66.0	63.5	51.0	48.5	52.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299359

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3006.6	3006.6	3006.6	3006.6	3006.6	3006.6	3006.6	3006.6
2.5°	3005.3	3007.8	3009.1	3012.8	3014.0	3014.0	3015.3	3017.8
5°	3029.0	3032.7	3033.9	3038.9	3040.2	3038.9	3041.4	3042.7
7.5°	3071.3	3077.5	3080.0	3085.0	3081.2	3086.2	3087.5	3087.5
10°	3133.5	3139.7	3141.0	3145.9	3143.5	3145.9	3145.9	3143.5
12.5°	3215.6	3216.9	3213.1	3216.9	3211.9	3214.4	3210.7	3208.2
15°	3306.5	3302.7	3294.0	3294.0	3286.6	3287.8	3286.6	3285.3
17.5°	3394.8	3387.4	3381.1	3378.7	3372.4	3371.2	3367.5	3367.5
20°	3491.9	3488.2	3484.4	3479.5	3473.2	3467.0	3465.8	3468.3
22.5°	3608.9	3607.6	3607.6	3605.1	3596.4	3590.2	3586.5	3586.5
25°	3765.7	3754.5	3754.5	3753.2	3749.5	3745.8	3738.3	3742.0
27.5°	3942.4	3936.2	3941.1	3939.9	3936.2	3936.2	3931.2	3931.2
30°	4160.2	4157.7	4165.1	4158.9	4146.5	4145.2	4140.3	4134.0
32.5°	4411.5	4409.0	4420.2	4412.8	4392.9	4381.7	4371.7	4366.7
35°	4691.5	4692.8	4706.5	4701.5	4679.1	4671.6	4654.2	4651.7
37.5°	4997.7	5017.6	5041.2	5046.2	5027.5	5022.6	5003.9	4993.9
40°	5357.3	5383.4	5419.5	5428.2	5408.3	5404.6	5378.5	5364.8
42.5°	5740.6	5785.4	5830.2	5837.7	5817.8	5797.8	5773.0	5763.0
45°	6168.7	6222.2	6280.7	6295.6	6265.8	6242.1	6209.8	6209.8
47.5°	6649.0	6716.2	6782.2	6823.3	6795.9	6771.0	6732.4	6707.5
50°	7216.5	7308.6	7394.5	7436.8	7393.2	7345.9	7278.7	7256.3
52.5°	7928.3	8027.9	8102.5	8080.1	8012.9	7947.0	7873.6	7843.7
55°	8836.8	8870.4	8870.4	8785.7	8651.3	8540.6	8424.9	8386.3
57.5°	9972.9	9843.5	9644.4	9391.8	9074.5	8798.2	8611.5	8523.2
60°	11308.2	10686.0	9982.9	9292.2	8724.8	8256.9	7979.3	7852.4
62.5°	12198.0	10570.3	9161.6	8052.8	7236.4	6672.7	6289.4	6140.1
65°	11400.3	8815.6	6929.0	5602.5	4712.7	4139.0	3759.5	3620.1
67.5°	8350.2	5524.1	3689.8	2644.4	1937.6	1545.6	1390.0	1325.3
70°	3748.3	1945.1	1192.2	930.8	802.7	736.7	708.1	698.1
72.5°	1130.0	817.6	689.4	622.2	571.2	538.8	515.2	512.7
75°	682.0	567.5	504.0	464.2	431.8	405.7	393.2	389.5
77.5°	476.6	416.9	387.0	358.4	333.5	313.6	302.4	293.7
80°	334.8	306.1	292.4	276.3	260.1	241.4	225.2	217.8
82.5°	224.0	217.8	217.8	207.8	194.1	176.7	144.4	136.9
85°	144.4	143.1	145.6	141.9	131.9	113.2	93.3	88.4
87.5°	67.2	68.4	75.9	74.7	72.2	59.7	47.3	44.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)