

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: P299354

Luminaire Tested: **GLNA-AF-04-LED-E1-5NQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299354
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-04-LED-E1-5NQ-7030
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K 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: 23875.3 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 225
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

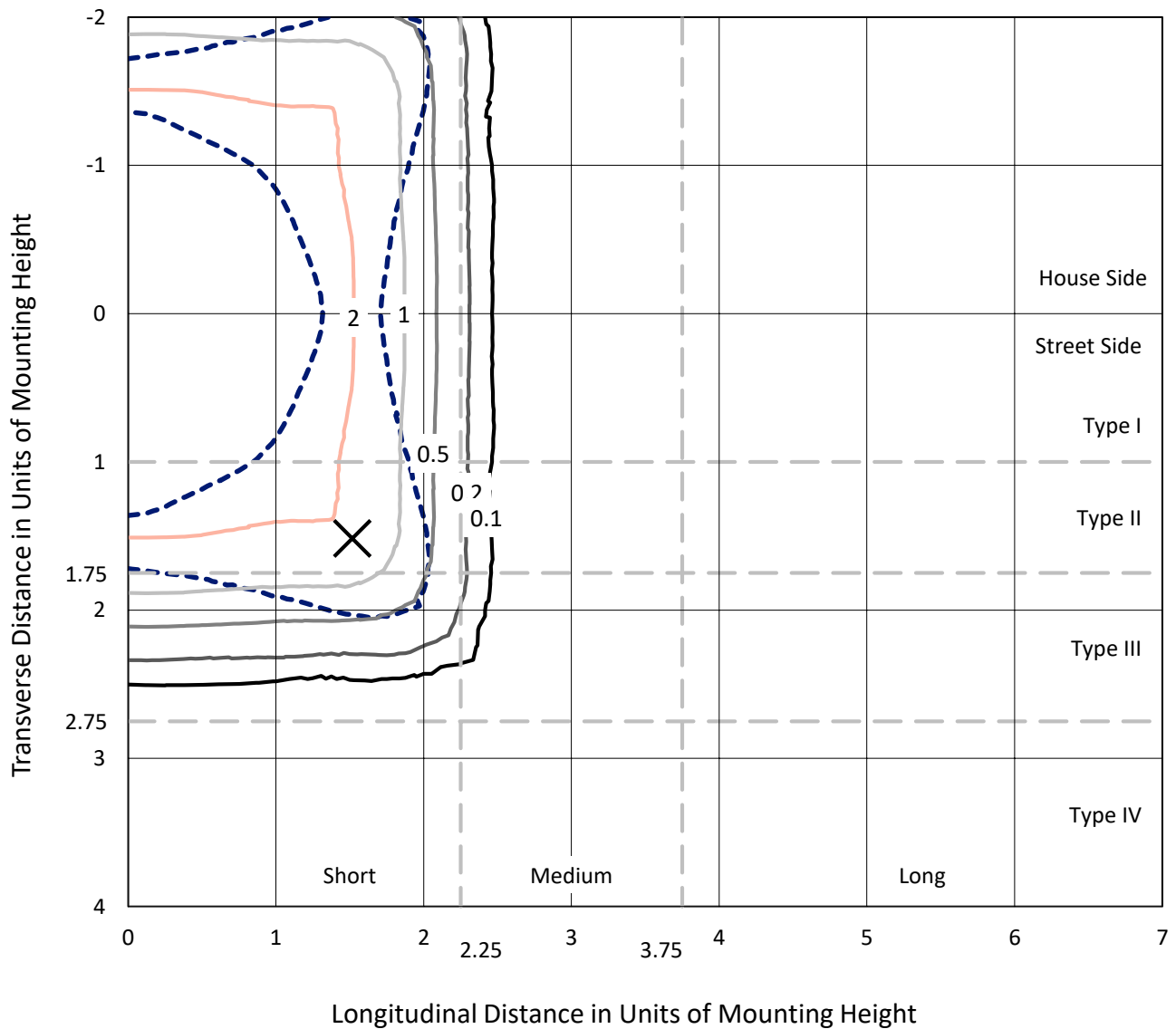


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Iso-Footcandle Lines of Horizontal Illumination

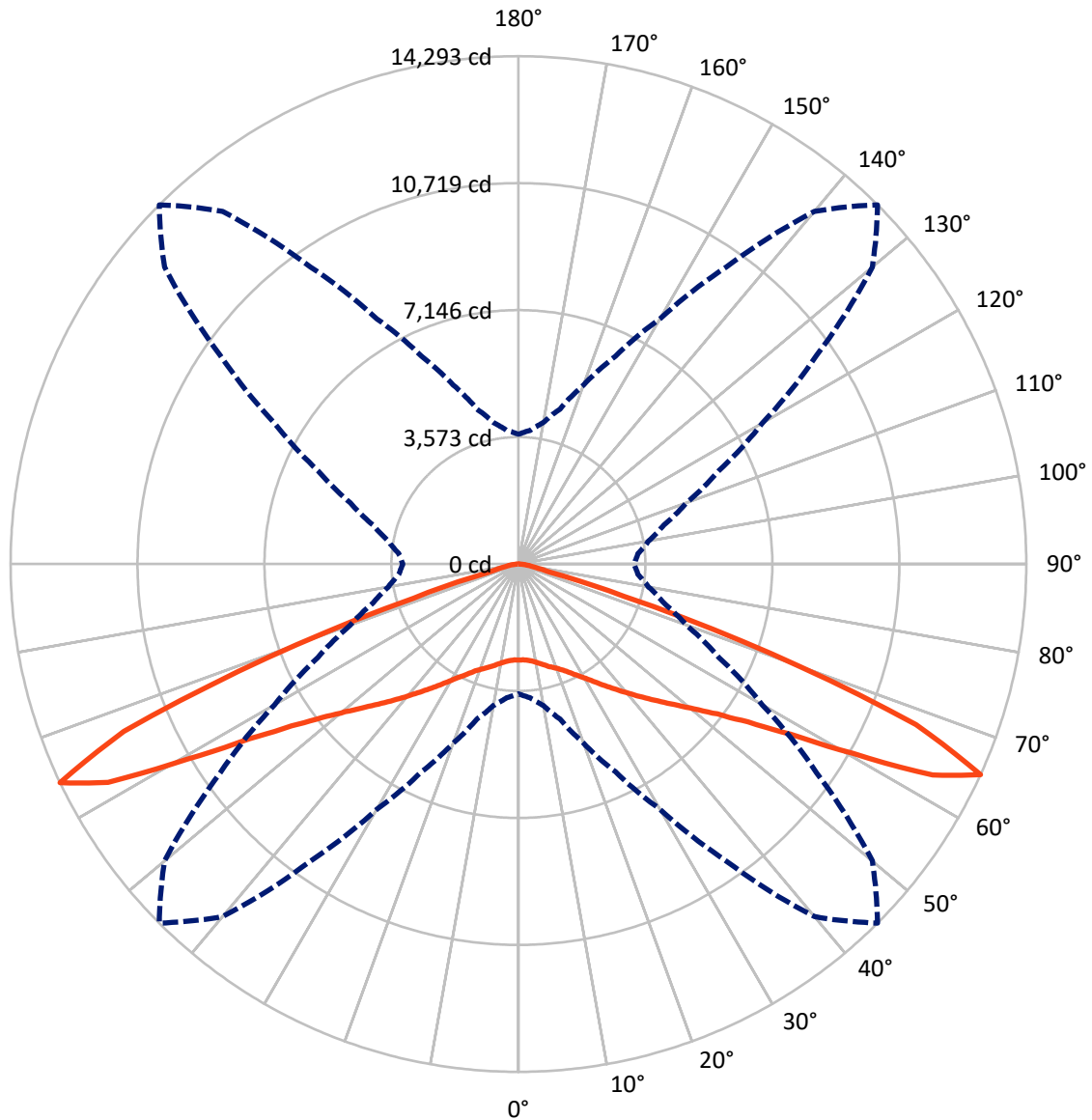
× Max cd
 - - - 1/2 Max cd



Based on 25 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 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11937.6	0.0	11937.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	11937.6	0.0	11937.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	23875.3	0.0	23875.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.3	1.1
10°-20°	844.5	3.5
20°-30°	1579.0	6.6
30°-40°	2670.6	11.2
40°-50°	4366.7	18.3
50°-60°	6943.7	29.1
60°-70°	6276.6	26.3
70°-80°	794.3	3.3
80°-90°	136.6	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°	23875.3	100.0
0°-180°	23875.3	100.0



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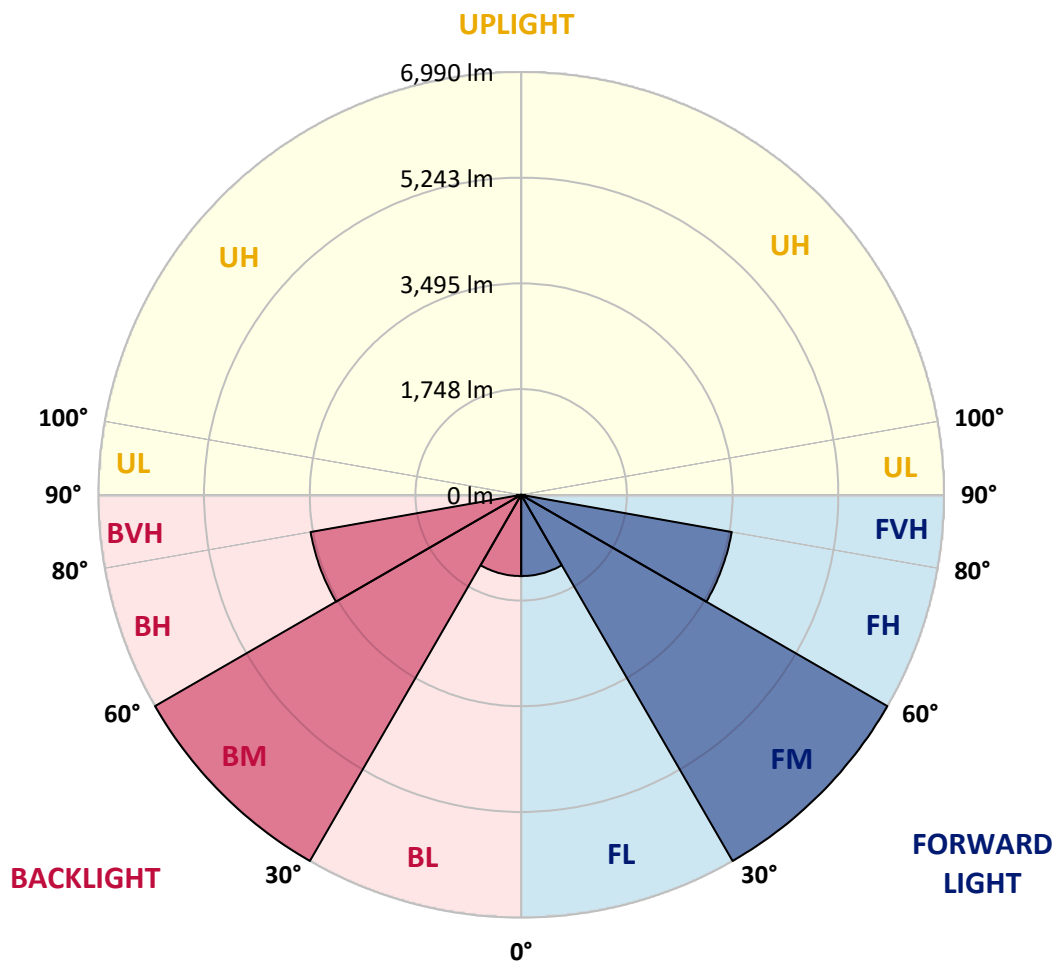
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1343.4	5.6			
FM	(30°-60°)	6990.4	29.3			
FH	(60°-80°)	3535.5	14.8			G2/5000
FVH	(80°-90°)	68.3	0.3			G1/100
BL	(0°-30°)	1343.4	5.6	B3/2500		
BM	(30°-60°)	6990.4	29.3	B4/8500		
BH	(60°-80°)	3535.5	14.8	B4/5000		G2/5000
BVH	(80°-90°)	68.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2701.5	2701.5	2701.5	2701.5	2701.5	2701.5	2701.5	2701.5	2701.5	2701.5	2701.5
2.5°	2703.7	2706.0	2708.2	2706.0	2708.2	2704.9	2702.6	2706.0	2702.6	2699.3	2701.5
5°	2727.2	2728.3	2728.3	2725.0	2728.3	2726.1	2722.7	2727.2	2723.9	2720.5	2722.7
7.5°	2766.4	2770.8	2767.5	2764.1	2766.4	2764.1	2761.9	2763.0	2761.9	2758.5	2759.6
10°	2818.9	2822.3	2820.0	2818.9	2821.1	2820.0	2817.8	2816.7	2817.8	2814.4	2814.4
12.5°	2882.6	2881.5	2880.4	2881.5	2884.9	2884.9	2883.8	2884.9	2887.1	2888.2	2886.0
15°	2945.3	2947.5	2947.5	2947.5	2954.2	2959.8	2963.2	2965.4	2969.9	2971.0	2966.5
17.5°	3023.5	3023.5	3022.4	3023.5	3030.2	3039.2	3042.5	3047.0	3051.5	3054.8	3049.3
20°	3110.8	3113.0	3113.0	3115.2	3124.2	3134.2	3134.2	3136.5	3134.2	3136.5	3133.1
22.5°	3217.0	3223.7	3223.7	3224.8	3233.8	3246.1	3242.7	3246.1	3240.5	3244.9	3240.5
25°	3355.6	3365.7	3363.5	3363.5	3370.2	3378.0	3379.1	3385.8	3384.7	3390.3	3386.9
27.5°	3512.2	3527.8	3532.3	3531.2	3535.7	3543.5	3545.7	3553.6	3549.1	3553.6	3551.3
30°	3700.0	3706.7	3715.7	3719.0	3724.6	3732.5	3732.5	3733.6	3728.0	3734.7	3738.0
32.5°	3894.6	3906.9	3915.8	3936.0	3946.0	3951.6	3950.5	3952.7	3947.1	3956.1	3962.8
35°	4151.8	4160.7	4175.3	4190.9	4204.3	4203.2	4199.9	4201.0	4201.0	4208.8	4215.5
37.5°	4461.5	4463.7	4482.8	4505.1	4511.8	4505.1	4485.0	4480.5	4470.5	4480.5	4491.7
40°	4789.1	4797.0	4835.0	4849.5	4852.9	4840.6	4811.5	4794.7	4772.4	4784.7	4800.3
42.5°	5132.4	5148.1	5182.7	5208.4	5219.6	5211.8	5171.5	5145.8	5116.8	5123.5	5139.1
45°	5512.6	5531.6	5580.8	5605.4	5626.6	5614.3	5575.2	5536.1	5490.2	5493.6	5518.2
47.5°	5937.5	5956.5	6020.2	6061.6	6072.8	6070.6	6026.9	5973.3	5910.7	5908.4	5929.7
50°	6413.8	6432.8	6512.2	6576.0	6608.4	6605.0	6553.6	6477.6	6401.5	6402.7	6429.5
52.5°	6879.0	6902.5	6985.2	7094.8	7158.5	7204.4	7173.1	7101.5	7008.7	7010.9	7035.5
55°	7315.1	7354.2	7449.3	7598.0	7716.5	7845.1	7882.0	7879.8	7823.8	7839.5	7864.1
57.5°	7526.4	7584.6	7731.0	7965.9	8207.4	8469.0	8690.4	8855.9	8926.4	9032.6	9008.0
60°	7126.1	7218.9	7434.7	7780.2	8257.7	8803.4	9388.2	9959.6	10447.1	10815.0	10603.6
62.5°	5834.6	5955.4	6217.0	6659.8	7382.2	8255.5	9374.8	10725.5	12197.0	13084.8	12450.8
65°	3650.8	3776.1	4042.2	4516.3	5361.6	6447.4	7965.9	10204.4	12954.0	14292.5	13002.1
67.5°	1423.4	1491.6	1635.9	1938.9	2574.0	3540.1	5064.2	7604.7	10893.2	12066.2	10690.8
70°	713.4	720.1	746.9	802.8	939.3	1219.9	1856.2	3525.6	6247.2	7545.4	6022.5
72.5°	515.5	516.6	530.0	554.6	598.2	660.8	781.6	1079.0	2031.7	3105.2	1904.2
75°	394.7	399.2	407.0	420.4	443.9	475.2	518.8	621.7	770.4	893.4	751.4
77.5°	304.1	313.1	318.7	331.0	345.5	366.8	379.1	418.2	486.4	512.1	504.3
80°	231.5	239.3	251.6	261.7	271.7	281.8	277.3	295.2	331.0	352.2	341.0
82.5°	147.6	156.5	192.3	201.3	205.7	212.5	204.6	205.7	221.4	234.8	221.4
85°	95.0	100.6	121.9	133.1	134.2	138.7	135.3	127.5	127.5	116.3	130.8
87.5°	43.6	44.7	54.8	64.9	67.1	60.4	59.3	57.0	45.8	43.6	47.0
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°	2701.5	2701.5	2701.5	2701.5	2701.5	2701.5	2701.5	2701.5
2.5°	2700.4	2702.6	2703.7	2707.1	2708.2	2708.2	2709.3	2711.6
5°	2721.6	2725.0	2726.1	2730.6	2731.7	2730.6	2732.8	2733.9
7.5°	2759.6	2765.2	2767.5	2771.9	2768.6	2773.1	2774.2	2774.2
10°	2815.6	2821.1	2822.3	2826.7	2824.5	2826.7	2826.7	2824.5
12.5°	2889.4	2890.5	2887.1	2890.5	2886.0	2888.2	2884.9	2882.6
15°	2971.0	2967.6	2959.8	2959.8	2953.1	2954.2	2953.1	2952.0
17.5°	3050.4	3043.7	3038.1	3035.8	3030.2	3029.1	3025.8	3025.8
20°	3137.6	3134.2	3130.9	3126.4	3120.8	3115.2	3114.1	3116.3
22.5°	3242.7	3241.6	3241.6	3239.3	3231.5	3225.9	3222.6	3222.6
25°	3383.6	3373.5	3373.5	3372.4	3369.1	3365.7	3359.0	3362.3
27.5°	3542.4	3536.8	3541.3	3540.1	3536.8	3536.8	3532.3	3532.3
30°	3738.0	3735.8	3742.5	3736.9	3725.7	3724.6	3720.2	3714.6
32.5°	3963.9	3961.7	3971.7	3965.0	3947.1	3937.1	3928.1	3923.7
35°	4215.5	4216.6	4228.9	4224.5	4204.3	4197.6	4182.0	4179.7
37.5°	4490.6	4508.5	4529.7	4534.2	4517.4	4512.9	4496.2	4487.2
40°	4813.7	4837.2	4869.6	4877.5	4859.6	4856.2	4832.7	4820.4
42.5°	5158.1	5198.4	5238.6	5245.3	5227.5	5209.6	5187.2	5178.3
45°	5542.8	5590.9	5643.4	5656.8	5630.0	5608.8	5579.7	5579.7
47.5°	5974.4	6034.8	6094.0	6130.9	6106.3	6084.0	6049.3	6026.9
50°	6484.3	6567.0	6644.2	6682.2	6643.1	6600.6	6540.2	6520.1
52.5°	7123.9	7213.3	7280.4	7260.3	7199.9	7140.6	7074.7	7047.8
55°	7940.1	7970.3	7970.3	7894.3	7773.5	7674.0	7570.0	7535.4
57.5°	8961.0	8844.7	8665.8	8438.8	8153.7	7905.5	7737.8	7658.4
60°	10160.8	9601.7	8970.0	8349.4	7839.5	7419.1	7169.7	7055.7
62.5°	10960.3	9497.8	8232.0	7235.7	6502.2	5995.6	5651.2	5517.1
65°	10243.6	7921.1	6226.0	5034.0	4234.5	3719.0	3378.0	3252.8
67.5°	7502.9	4963.6	3315.4	2376.1	1741.0	1388.8	1249.0	1190.9
70°	3367.9	1747.7	1071.2	836.4	721.2	662.0	636.2	627.3
72.5°	1015.3	734.6	619.5	559.1	513.2	484.2	462.9	460.7
75°	612.8	509.9	452.9	417.1	388.0	364.5	353.3	350.0
77.5°	428.3	374.6	347.8	322.0	299.7	281.8	271.7	263.9
80°	300.8	275.1	262.8	248.2	233.7	216.9	202.4	195.7
82.5°	201.3	195.7	195.7	186.7	174.4	158.8	129.7	123.0
85°	129.7	128.6	130.8	127.5	118.5	101.8	83.9	79.4
87.5°	60.4	61.5	68.2	67.1	64.9	53.7	42.5	40.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)