

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: P299848

Luminaire Tested: **GLNA-AF-06-LED-E1-5WQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299848
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-06-LED-E1-5WQ
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37368.7 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 333
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

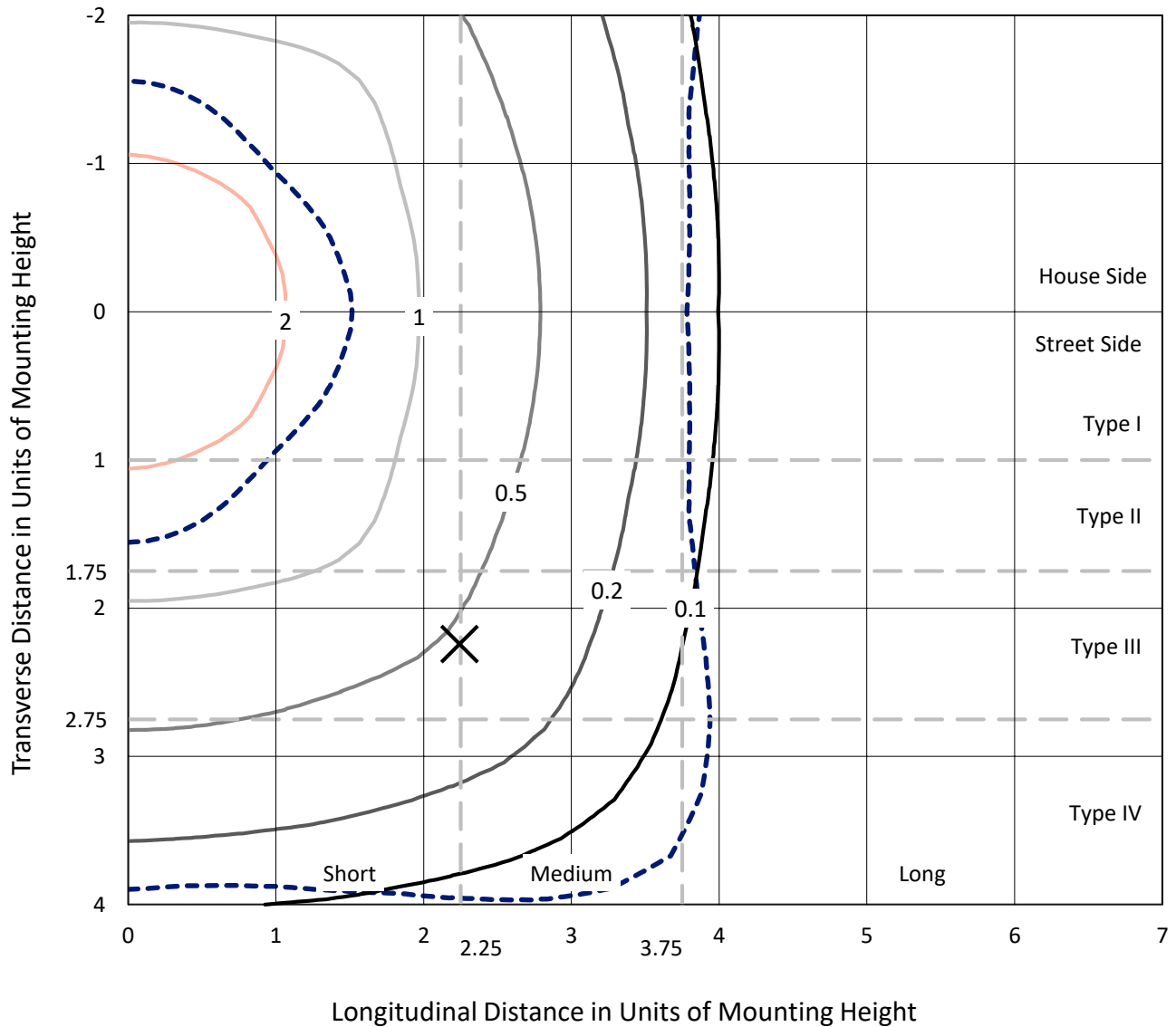


REPORT NUMBER: P299848

CATALOG NUMBER: GLNA-AF-06-LED-E1-5WQ

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

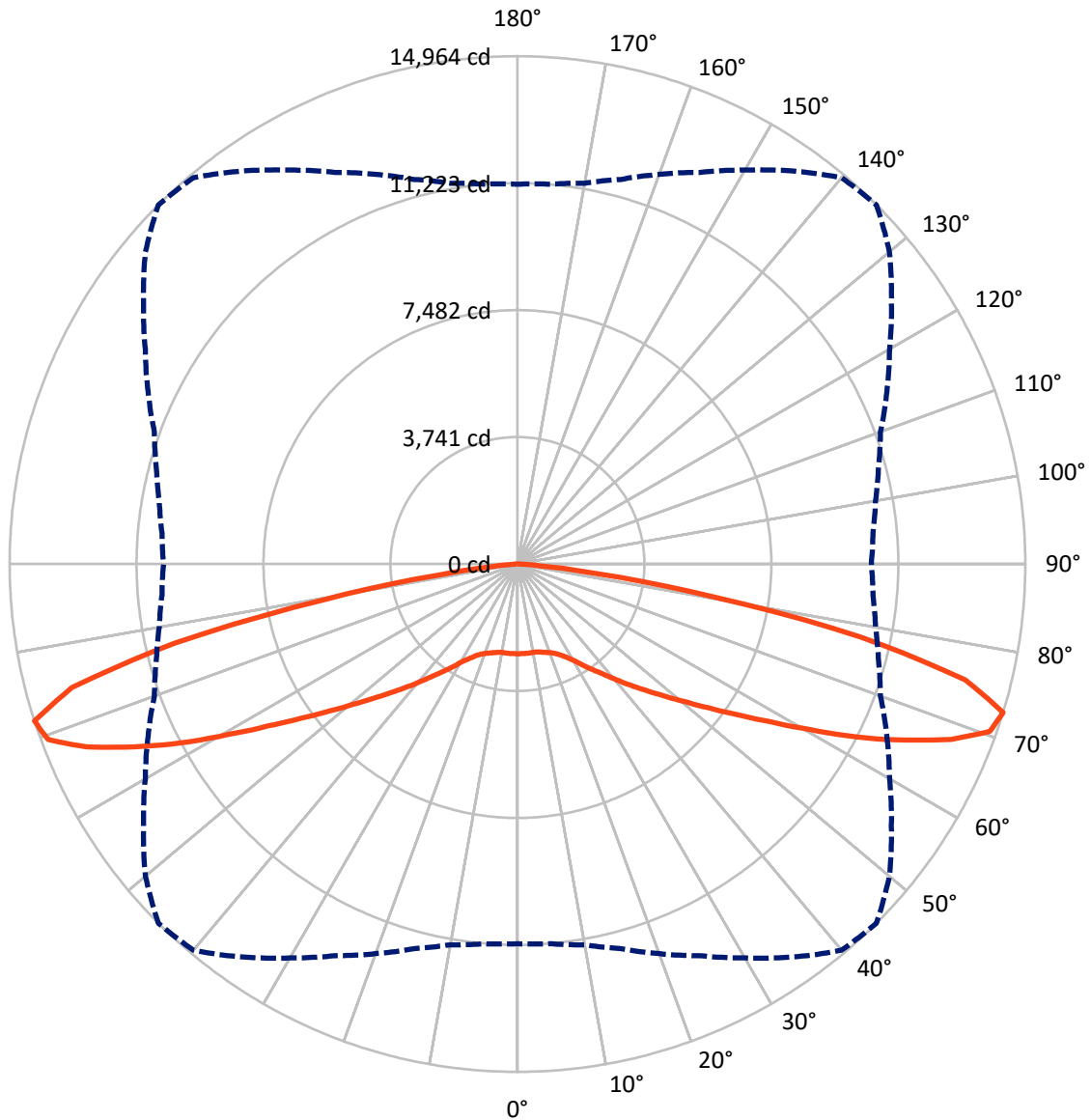


Based on 30 foot mounting height. Maximum calculated value = 2.9 fc
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P299848

CATALOG NUMBER: GLNA-AF-06-LED-E1-5WQ

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18684.3	0.0	18684.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	18684.3	0.0	18684.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	37368.7	0.0	37368.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.7	0.7
10°-20°	767.4	2.1
20°-30°	1402.4	3.8
30°-40°	2418.0	6.5
40°-50°	4133.6	11.1
50°-60°	6700.1	17.9
60°-70°	11115.2	29.7
70°-80°	9789.9	26.2
80°-90°	789.3	2.1
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°	37368.7	100.0
0°-180°	37368.7	100.0



REPORT NUMBER: P299848

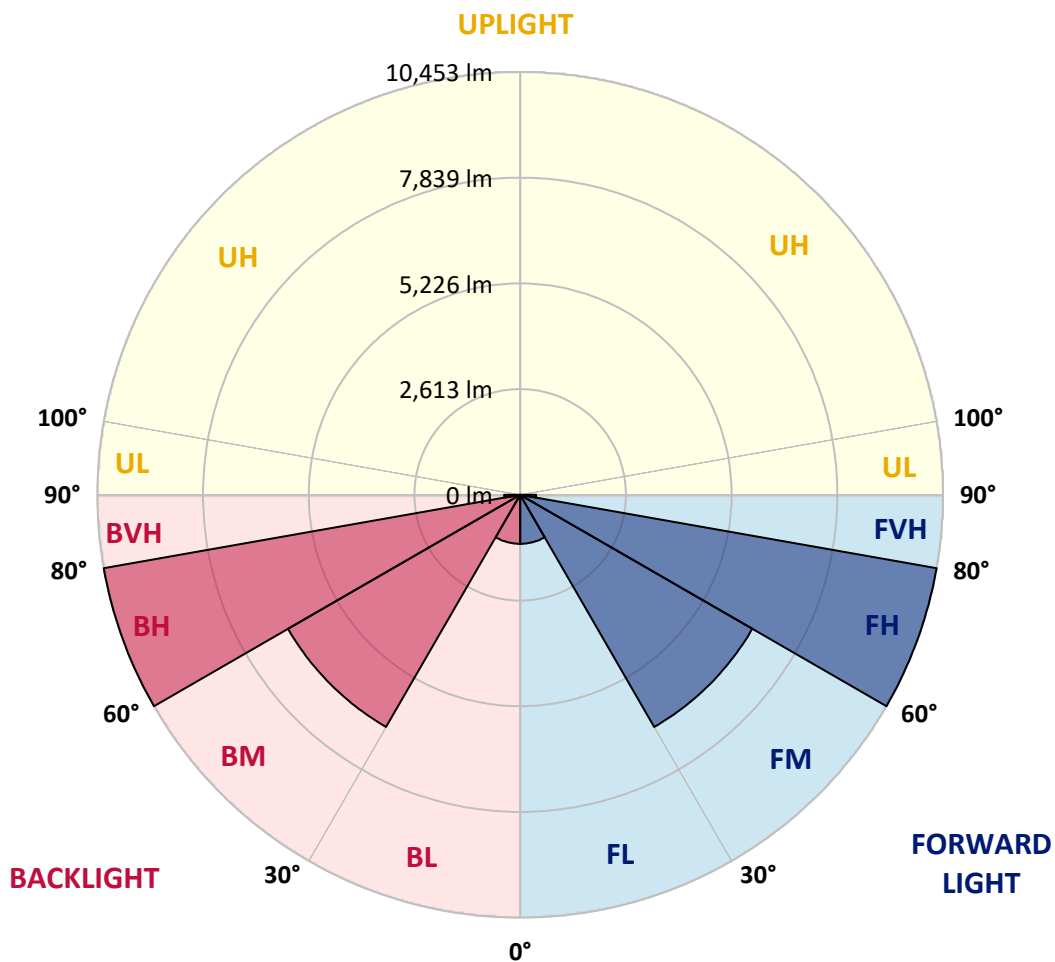
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1211.3	3.2			
FM	(30°-60°)	6625.9	17.7			
FH	(60°-80°)	10452.5	28.0			G4/12000
FVH	(80°-90°)	394.7	1.1			G3/500
BL	(0°-30°)	1211.3	3.2	B3/2500		
BM	(30°-60°)	6625.9	17.7	B4/8500		
BH	(60°-80°)	10452.5	28.0	B5		G4/12000
BVH	(80°-90°)	394.7	1.1			G3/500
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





REPORT NUMBER: P299848

CATALOG NUMBER: GLNA-AF-06-LED-E1-5WQ

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2646.3	2646.3	2646.3	2646.3	2646.3	2646.3	2646.3	2646.3	2646.3	2646.3	2646.3
2.5°	2646.3	2648.0	2649.7	2648.0	2648.0	2646.3	2644.6	2646.3	2644.6	2641.1	2642.9
5°	2654.9	2658.3	2658.3	2654.9	2656.6	2654.9	2651.4	2653.1	2649.7	2644.6	2644.6
7.5°	2665.1	2666.8	2666.8	2663.4	2665.1	2661.7	2658.3	2656.6	2653.1	2646.3	2641.1
10°	2680.6	2682.3	2680.6	2677.1	2677.1	2672.0	2663.4	2660.0	2653.1	2642.9	2637.7
12.5°	2697.7	2699.4	2697.7	2694.3	2692.6	2684.0	2677.1	2672.0	2666.8	2658.3	2649.7
15°	2721.7	2725.1	2721.7	2714.8	2709.7	2702.8	2699.4	2701.1	2702.8	2696.0	2687.4
17.5°	2766.3	2768.0	2762.8	2747.4	2740.5	2733.7	2733.7	2737.1	2742.3	2738.8	2730.3
20°	2848.5	2843.4	2831.4	2812.5	2804.0	2792.0	2790.3	2792.0	2792.0	2790.3	2783.4
22.5°	2951.4	2947.9	2932.5	2908.5	2896.5	2889.7	2879.4	2870.8	2869.1	2863.9	2857.1
25°	3074.8	3073.0	3054.2	3033.6	3025.1	3016.5	3007.9	2995.9	2985.6	2973.6	2966.8
27.5°	3232.4	3225.6	3198.2	3187.9	3175.9	3170.7	3158.7	3145.0	3136.5	3121.0	3112.5
30°	3405.5	3405.5	3383.3	3379.8	3379.8	3367.8	3354.1	3330.1	3314.7	3299.3	3294.1
32.5°	3578.7	3580.4	3558.1	3564.9	3570.1	3578.7	3582.1	3573.5	3563.2	3561.5	3551.2
35°	3828.9	3822.0	3799.7	3804.9	3803.2	3801.5	3801.5	3820.3	3823.7	3827.2	3806.6
37.5°	4139.1	4139.1	4116.8	4116.8	4106.5	4096.3	4082.5	4094.5	4113.4	4118.5	4104.8
40°	4493.9	4505.9	4478.5	4476.7	4480.2	4447.6	4432.2	4451.0	4463.0	4483.6	4468.2
42.5°	4912.1	4903.5	4876.1	4872.7	4853.8	4843.5	4829.8	4845.2	4864.1	4877.8	4882.9
45°	5313.1	5306.3	5275.4	5275.4	5256.6	5248.0	5254.9	5280.6	5289.1	5308.0	5326.8
47.5°	5709.0	5700.5	5679.9	5688.5	5690.2	5705.6	5727.9	5751.9	5775.9	5801.6	5810.2
50°	6113.5	6115.2	6093.0	6113.5	6139.2	6182.1	6242.1	6281.5	6331.2	6363.8	6374.0
52.5°	6482.0	6488.9	6512.9	6560.9	6612.3	6696.3	6799.1	6895.1	6977.3	7032.2	7028.8
55°	6924.2	6934.5	6992.8	7075.0	7159.0	7285.8	7438.4	7608.1	7745.2	7824.0	7774.3
57.5°	7489.8	7512.1	7577.2	7688.6	7813.7	7978.3	8187.4	8442.7	8655.3	8761.5	8681.0
60°	8266.2	8279.9	8358.8	8482.2	8633.0	8836.9	9116.3	9459.1	9759.0	9899.6	9807.0
62.5°	9289.4	9315.1	9378.5	9503.7	9657.9	9889.3	10230.3	10658.8	11032.5	11227.8	11018.7
65°	10511.4	10593.7	10646.8	10773.7	10917.6	11162.7	11519.2	11978.5	12379.6	12508.1	12266.5
67.5°	11721.5	11793.4	11886.0	12031.7	12177.4	12453.3	12784.1	13229.7	13670.2	13786.7	13411.4
70°	12251.1	12292.2	12436.2	12635.0	12914.3	13240.0	13622.2	14122.6	14667.7	14763.7	14287.2
72.5°	11190.1	11231.3	11392.4	11730.0	12216.8	12734.4	13401.1	14136.4	14856.2	14964.2	14307.7
75°	8463.3	8396.5	8634.7	9082.0	9738.5	10460.0	11392.4	12446.4	13486.8	13622.2	12838.9
77.5°	4373.9	4365.3	4545.3	5100.6	5883.9	6704.8	7731.5	8922.6	9940.7	10352.0	9714.5
80°	1232.3	1246.0	1331.7	1607.7	2065.3	2658.3	3460.4	4576.1	5409.1	5834.2	5477.7
82.5°	483.3	521.0	553.6	605.0	665.0	752.4	1004.4	1494.5	2005.3	2396.1	1962.4
85°	173.1	185.1	262.2	310.2	315.4	332.5	378.8	442.2	533.0	635.9	522.7
87.5°	65.1	72.0	84.0	138.8	137.1	125.1	152.5	159.4	120.0	109.7	135.4
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: P299848

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2646.3	2646.3	2646.3	2646.3	2646.3	2646.3	2646.3	2646.3
2.5°	2639.4	2641.1	2641.1	2642.9	2644.6	2644.6	2648.0	2648.0
5°	2641.1	2641.1	2637.7	2639.4	2637.7	2637.7	2639.4	2639.4
7.5°	2637.7	2636.0	2632.6	2630.9	2627.4	2627.4	2627.4	2627.4
10°	2632.6	2630.9	2627.4	2625.7	2624.0	2624.0	2624.0	2624.0
12.5°	2646.3	2641.1	2637.7	2636.0	2636.0	2636.0	2636.0	2636.0
15°	2682.3	2670.3	2661.7	2661.7	2663.4	2666.8	2666.8	2670.3
17.5°	2726.8	2713.1	2704.6	2697.7	2701.1	2706.3	2709.7	2713.1
20°	2780.0	2773.1	2761.1	2754.3	2754.3	2761.1	2764.5	2766.3
22.5°	2853.7	2848.5	2843.4	2834.8	2834.8	2838.2	2845.1	2845.1
25°	2963.4	2959.9	2956.5	2949.6	2947.9	2947.9	2951.4	2954.8
27.5°	3100.5	3102.2	3098.8	3097.0	3091.9	3090.2	3095.3	3093.6
30°	3283.9	3292.4	3301.0	3294.1	3285.6	3280.4	3275.3	3268.4
32.5°	3532.4	3522.1	3515.2	3503.2	3487.8	3474.1	3463.8	3451.8
35°	3767.2	3750.0	3743.2	3753.5	3751.8	3743.2	3731.2	3720.9
37.5°	4055.1	4051.7	4055.1	4074.0	4070.5	4079.1	4055.1	4053.4
40°	4418.5	4421.9	4445.9	4468.2	4480.2	4492.2	4478.5	4464.7
42.5°	4840.1	4838.4	4846.9	4877.8	4898.4	4912.1	4882.9	4879.5
45°	5285.7	5273.7	5280.6	5306.3	5326.8	5342.3	5309.7	5309.7
47.5°	5775.9	5755.3	5733.0	5762.2	5774.2	5784.5	5758.7	5750.2
50°	6322.6	6279.8	6231.8	6243.8	6243.8	6240.4	6207.8	6206.1
52.5°	6949.9	6871.1	6783.7	6751.1	6732.3	6711.7	6655.1	6627.7
55°	7671.5	7553.2	7416.1	7332.1	7287.6	7231.0	7136.7	7111.0
57.5°	8514.7	8329.6	8093.1	7990.3	7890.9	7798.3	7693.8	7664.6
60°	9513.9	9241.4	8927.8	8737.5	8629.6	8540.4	8432.5	8427.3
62.5°	10628.0	10197.8	9843.0	9671.6	9592.8	9513.9	9411.1	9424.8
65°	11760.9	11311.8	10979.3	10840.5	10766.8	10701.7	10598.8	10614.3
67.5°	12878.3	12465.3	12100.2	11958.0	11875.7	11793.4	11700.9	11716.3
70°	13680.5	13168.0	12756.7	12441.3	12244.2	12021.4	11877.4	11841.4
72.5°	13450.8	12660.7	12007.7	11382.1	11015.3	10717.1	10514.9	10427.4
75°	11640.9	10561.1	9721.3	8953.5	8521.6	8170.2	7914.9	7755.5
77.5°	8645.0	7431.5	6439.2	5554.8	4855.5	4385.9	4055.1	3840.9
80°	4732.1	3599.2	2630.9	1849.3	1359.1	1129.5	997.5	934.1
82.5°	1474.0	951.2	701.0	605.0	562.2	538.2	498.7	435.3
85°	469.6	411.3	382.2	365.1	347.9	303.4	209.1	190.2
87.5°	181.7	186.8	185.1	174.8	178.2	128.5	102.8	90.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)