

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: P299353

Luminaire Tested: **GLNA-AF-04-LED-E1-5NQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299353
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-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 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: 21445.5 lumens
Efficiency: N/A
Efficacy: 95.3 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

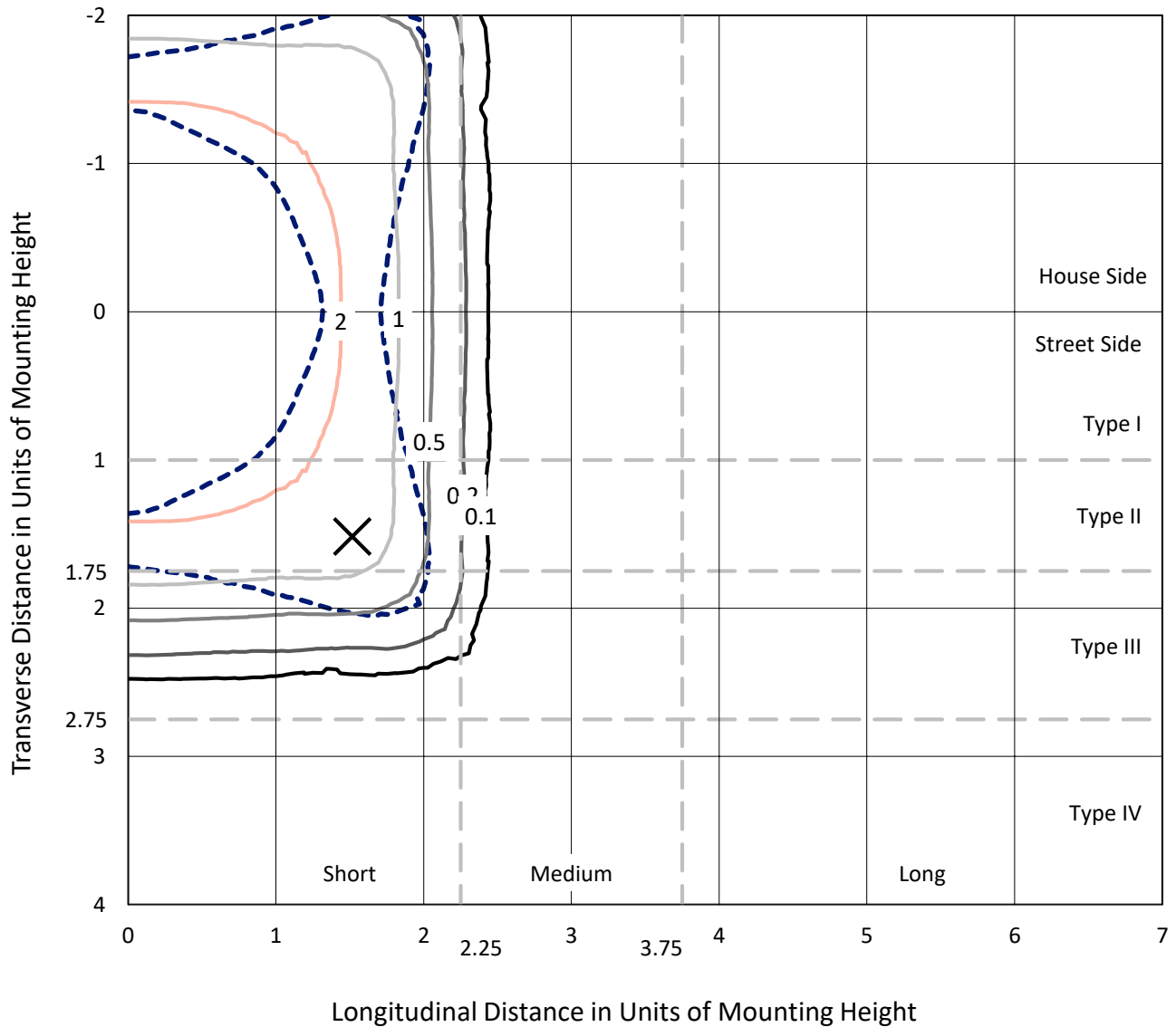
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

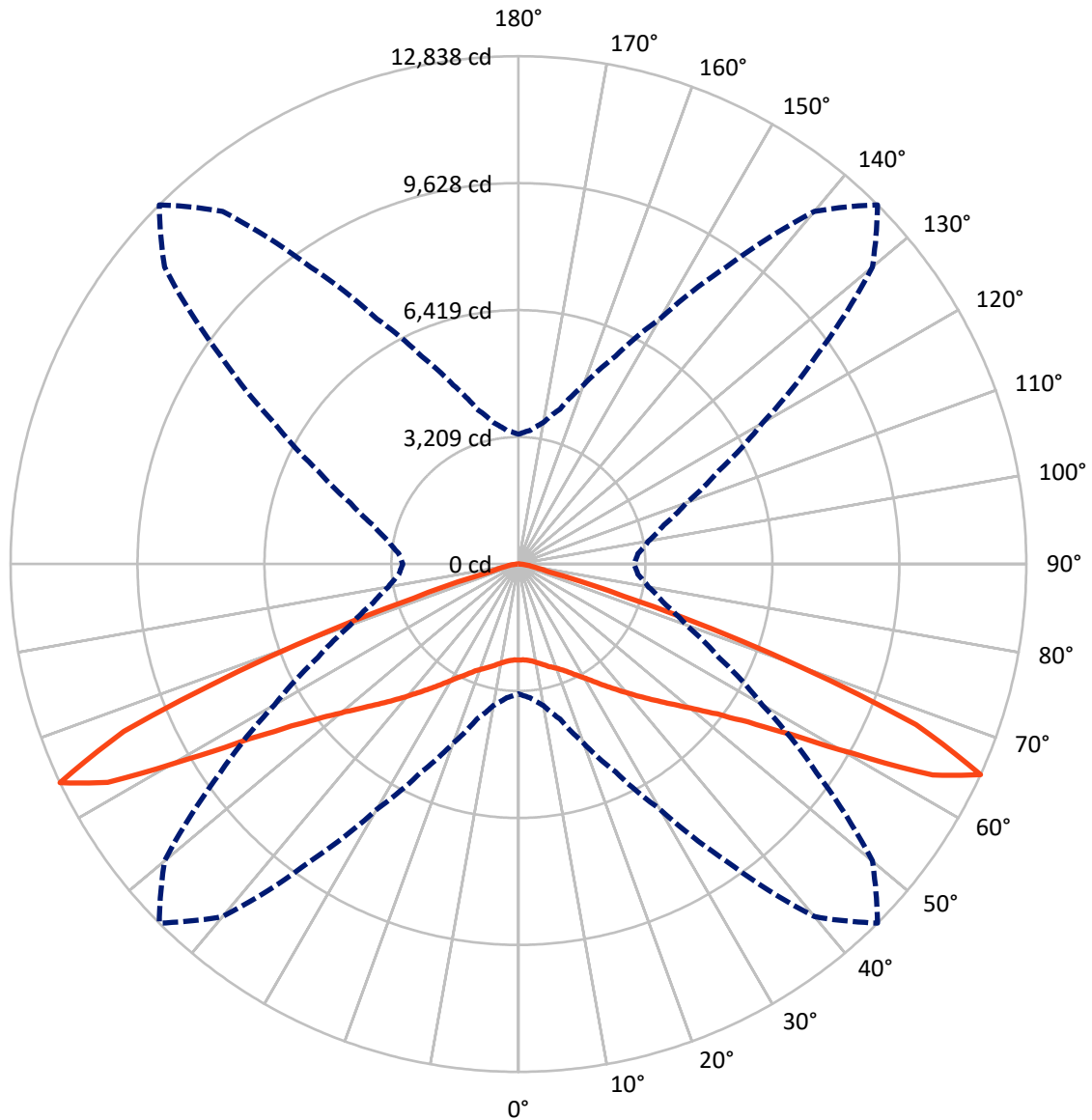
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 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	10722.8	0.0	10722.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10722.8	0.0	10722.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	21445.5	0.0	21445.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.5	1.1
10°-20°	758.5	3.5
20°-30°	1418.3	6.6
30°-40°	2398.8	11.2
40°-50°	3922.3	18.3
50°-60°	6237.0	29.1
60°-70°	5637.9	26.3
70°-80°	713.5	3.3
80°-90°	122.7	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°	21445.5	100.0
0°-180°	21445.5	100.0



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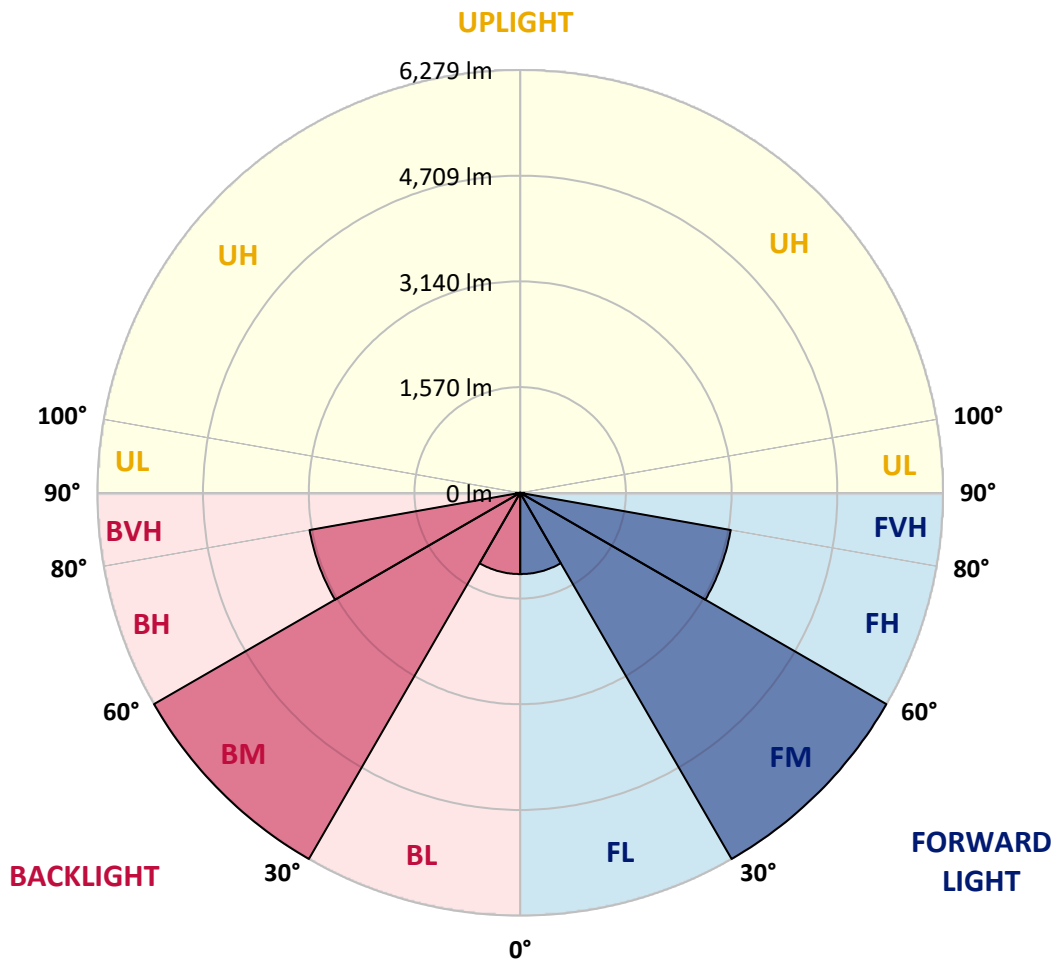
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1206.7	5.6			
FM	(30°-60°)	6279.0	29.3			
FH	(60°-80°)	3175.7	14.8			G2/5000
FVH	(80°-90°)	61.4	0.3			G1/100
BL	(0°-30°)	1206.7	5.6	B3/2500		
BM	(30°-60°)	6279.0	29.3	B4/8500		
BH	(60°-80°)	3175.7	14.8	B4/5000		G2/5000
BVH	(80°-90°)	61.4	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°	2426.6	2426.6	2426.6	2426.6	2426.6	2426.6	2426.6	2426.6	2426.6	2426.6	2426.6
2.5°	2428.6	2430.6	2432.6	2430.6	2432.6	2429.6	2427.6	2430.6	2427.6	2424.6	2426.6
5°	2449.7	2450.7	2450.7	2447.7	2450.7	2448.7	2445.7	2449.7	2446.7	2443.6	2445.7
7.5°	2484.8	2488.8	2485.8	2482.8	2484.8	2482.8	2480.8	2481.8	2480.8	2477.8	2478.8
10°	2532.0	2535.0	2533.0	2532.0	2534.0	2533.0	2531.0	2530.0	2531.0	2528.0	2528.0
12.5°	2589.3	2588.3	2587.3	2588.3	2591.3	2591.3	2590.3	2591.3	2593.3	2594.3	2592.3
15°	2645.5	2647.5	2647.5	2647.5	2653.6	2658.6	2661.6	2663.6	2667.6	2668.6	2664.6
17.5°	2715.8	2715.8	2714.8	2715.8	2721.9	2729.9	2732.9	2736.9	2740.9	2744.0	2738.9
20°	2794.2	2796.2	2796.2	2798.2	2806.2	2815.3	2815.3	2817.3	2815.3	2817.3	2814.3
22.5°	2889.6	2895.6	2895.6	2896.6	2904.7	2915.7	2912.7	2915.7	2910.7	2914.7	2910.7
25°	3014.1	3023.2	3021.2	3021.2	3027.2	3034.2	3035.2	3041.2	3040.2	3045.3	3042.3
27.5°	3154.7	3168.8	3172.8	3171.8	3175.8	3182.9	3184.9	3191.9	3187.9	3191.9	3189.9
30°	3323.5	3329.5	3337.5	3340.6	3345.6	3352.6	3352.6	3353.6	3348.6	3354.6	3357.6
32.5°	3498.2	3509.3	3517.3	3535.4	3544.4	3549.5	3548.5	3550.5	3545.4	3553.5	3559.5
35°	3729.2	3737.3	3750.3	3764.4	3776.5	3775.4	3772.4	3773.4	3773.4	3780.5	3786.5
37.5°	4007.5	4009.5	4026.5	4046.6	4052.7	4046.6	4028.5	4024.5	4015.5	4024.5	4034.6
40°	4301.7	4308.8	4342.9	4356.0	4359.0	4347.9	4321.8	4306.8	4286.7	4297.7	4311.8
42.5°	4610.1	4624.1	4655.3	4678.4	4688.4	4681.4	4645.2	4622.1	4596.0	4602.0	4616.1
45°	4951.6	4968.6	5012.8	5034.9	5054.0	5043.0	5007.8	4972.7	4931.5	4934.5	4956.6
47.5°	5333.2	5350.3	5407.6	5444.7	5454.8	5452.8	5413.6	5365.4	5309.1	5307.1	5326.2
50°	5761.1	5778.2	5849.5	5906.7	5935.9	5932.8	5886.6	5818.3	5750.0	5751.1	5775.2
52.5°	6178.9	6200.0	6274.3	6372.8	6430.0	6471.2	6443.1	6378.8	6295.4	6297.4	6319.5
55°	6570.6	6605.8	6691.1	6824.7	6931.2	7046.7	7079.8	7077.8	7027.6	7041.7	7063.8
57.5°	6760.4	6812.7	6944.2	7155.2	7372.1	7607.1	7806.0	7954.7	8017.9	8113.3	8091.2
60°	6400.9	6484.2	6678.1	6988.4	7417.3	7907.4	8432.7	8946.0	9383.9	9714.3	9524.5
62.5°	5240.8	5349.3	5584.3	5982.1	6630.9	7415.3	8420.7	9634.0	10955.7	11753.2	11183.7
65°	3279.3	3391.8	3630.8	4056.7	4816.0	5791.2	7155.2	9165.9	11635.7	12837.9	11678.9
67.5°	1278.6	1339.8	1469.4	1741.6	2312.1	3179.9	4548.8	6830.8	9784.6	10838.2	9602.8
70°	640.8	646.8	670.9	721.1	843.7	1095.8	1667.3	3166.8	5611.4	6777.5	5409.6
72.5°	463.0	464.0	476.1	498.2	537.3	593.6	702.1	969.2	1824.9	2789.1	1710.5
75°	354.5	358.6	365.6	377.6	398.7	426.9	466.0	558.4	692.0	802.5	674.9
77.5°	273.2	281.2	286.2	297.3	310.4	329.4	340.5	375.6	436.9	460.0	453.0
80°	207.9	214.9	226.0	235.0	244.1	253.1	249.1	265.2	297.3	316.4	306.3
82.5°	132.6	140.6	172.8	180.8	184.8	190.8	183.8	184.8	198.9	210.9	198.9
85°	85.4	90.4	109.5	119.5	120.5	124.5	121.5	114.5	114.5	104.5	117.5
87.5°	39.2	40.2	49.2	58.3	60.3	54.2	53.2	51.2	41.2	39.2	42.2
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°	2426.6	2426.6	2426.6	2426.6	2426.6	2426.6	2426.6	2426.6
2.5°	2425.6	2427.6	2428.6	2431.6	2432.6	2432.6	2433.6	2435.6
5°	2444.6	2447.7	2448.7	2452.7	2453.7	2452.7	2454.7	2455.7
7.5°	2478.8	2483.8	2485.8	2489.8	2486.8	2490.9	2491.9	2491.9
10°	2529.0	2534.0	2535.0	2539.1	2537.1	2539.1	2539.1	2537.1
12.5°	2595.3	2596.3	2593.3	2596.3	2592.3	2594.3	2591.3	2589.3
15°	2668.6	2665.6	2658.6	2658.6	2652.6	2653.6	2652.6	2651.6
17.5°	2739.9	2733.9	2728.9	2726.9	2721.9	2720.9	2717.8	2717.8
20°	2818.3	2815.3	2812.3	2808.2	2803.2	2798.2	2797.2	2799.2
22.5°	2912.7	2911.7	2911.7	2909.7	2902.6	2897.6	2894.6	2894.6
25°	3039.2	3030.2	3030.2	3029.2	3026.2	3023.2	3017.1	3020.2
27.5°	3181.9	3176.8	3180.9	3179.9	3176.8	3176.8	3172.8	3172.8
30°	3357.6	3355.6	3361.6	3356.6	3346.6	3345.6	3341.6	3336.5
32.5°	3560.5	3558.5	3567.5	3561.5	3545.4	3536.4	3528.4	3524.4
35°	3786.5	3787.5	3798.5	3794.5	3776.5	3770.4	3756.4	3754.4
37.5°	4033.6	4049.6	4068.7	4072.7	4057.7	4053.7	4038.6	4030.6
40°	4323.8	4344.9	4374.1	4381.1	4365.0	4362.0	4340.9	4329.9
42.5°	4633.2	4669.3	4705.5	4711.5	4695.5	4679.4	4659.3	4651.3
45°	4978.7	5021.9	5069.1	5081.1	5057.0	5037.9	5011.8	5011.8
47.5°	5366.4	5420.6	5473.8	5507.0	5484.9	5464.8	5433.7	5413.6
50°	5824.4	5898.7	5968.0	6002.1	5967.0	5928.8	5874.6	5856.5
52.5°	6398.9	6479.2	6539.5	6521.4	6467.2	6413.9	6354.7	6330.6
55°	7132.1	7159.2	7159.2	7090.9	6982.4	6893.0	6799.6	6768.5
57.5°	8049.1	7944.6	7783.9	7580.0	7323.9	7100.9	6950.3	6879.0
60°	9126.8	8624.6	8057.1	7499.7	7041.7	6664.0	6440.1	6337.6
62.5°	9844.9	8531.2	7394.2	6499.3	5840.4	5385.5	5076.1	4955.6
65°	9201.1	7115.0	5592.4	4521.7	3803.6	3340.6	3034.2	2921.7
67.5°	6739.4	4458.4	2978.0	2134.3	1563.8	1247.4	1121.9	1069.7
70°	3025.2	1569.8	962.2	751.3	647.8	594.6	571.5	563.5
72.5°	912.0	659.9	556.4	502.2	461.0	434.9	415.8	413.8
75°	550.4	458.0	406.8	374.6	348.5	327.4	317.4	314.4
77.5°	384.7	336.5	312.4	289.3	269.2	253.1	244.1	237.0
80°	270.2	247.1	236.0	223.0	209.9	194.8	181.8	175.8
82.5°	180.8	175.8	175.8	167.7	156.7	142.6	116.5	110.5
85°	116.5	115.5	117.5	114.5	106.5	91.4	75.3	71.3
87.5°	54.2	55.2	61.3	60.3	58.3	48.2	38.2	36.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)