

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: P299414

Luminaire Tested: **GLNA-AF-04-LED-E1-5NQ-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299414
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-7030-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19288.4 lumens
Efficiency: N/A
Efficacy: 112.8 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

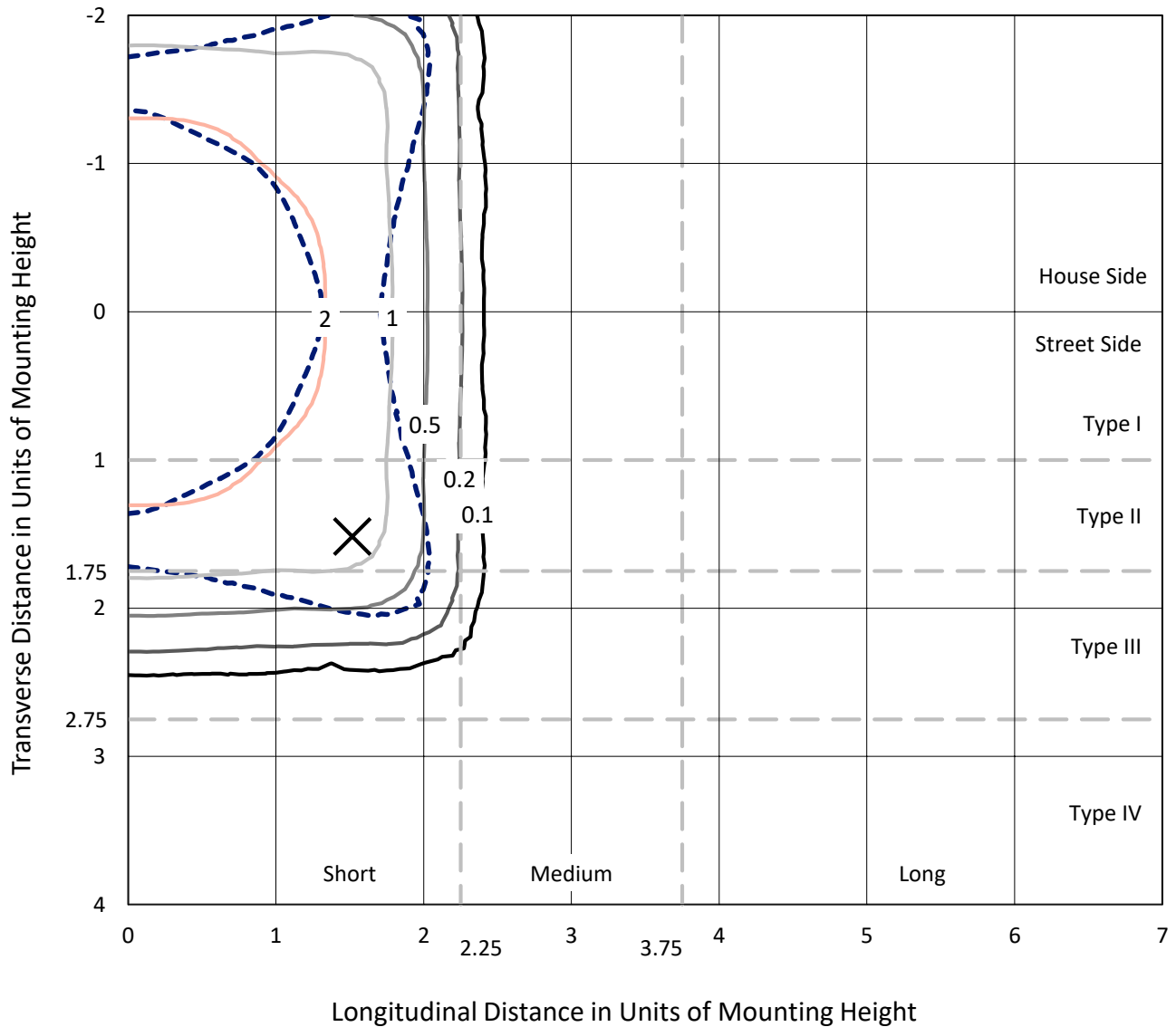
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

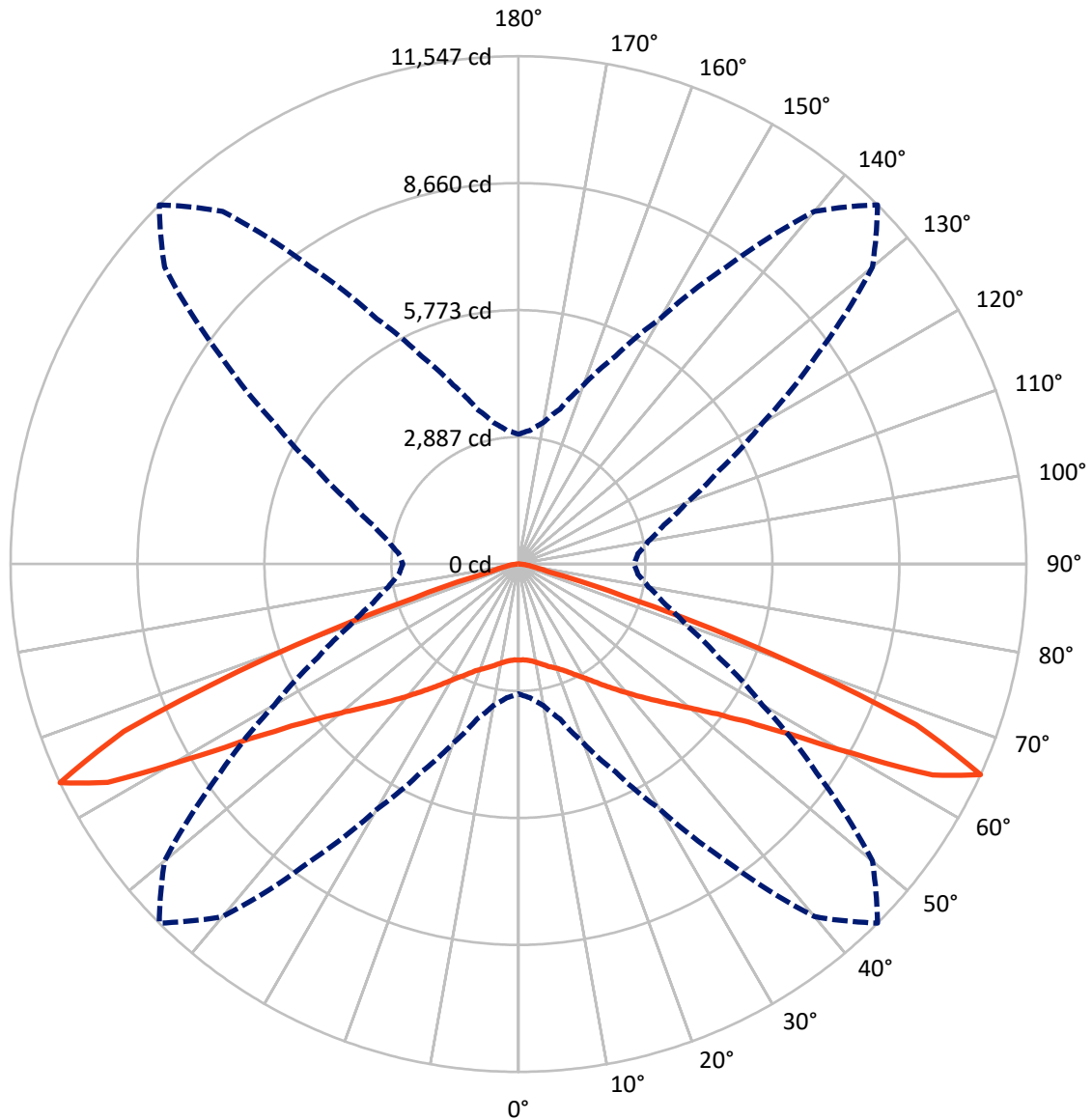


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type V - Short - Full Cutoff

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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	9644.2	0.0	9644.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	9644.2	0.0	9644.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	19288.4	0.0	19288.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.7	1.1
10°-20°	682.2	3.5
20°-30°	1275.7	6.6
30°-40°	2157.5	11.2
40°-50°	3527.7	18.3
50°-60°	5609.7	29.1
60°-70°	5070.8	26.3
70°-80°	641.7	3.3
80°-90°	110.4	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°	19288.4	100.0
0°-180°	19288.4	100.0



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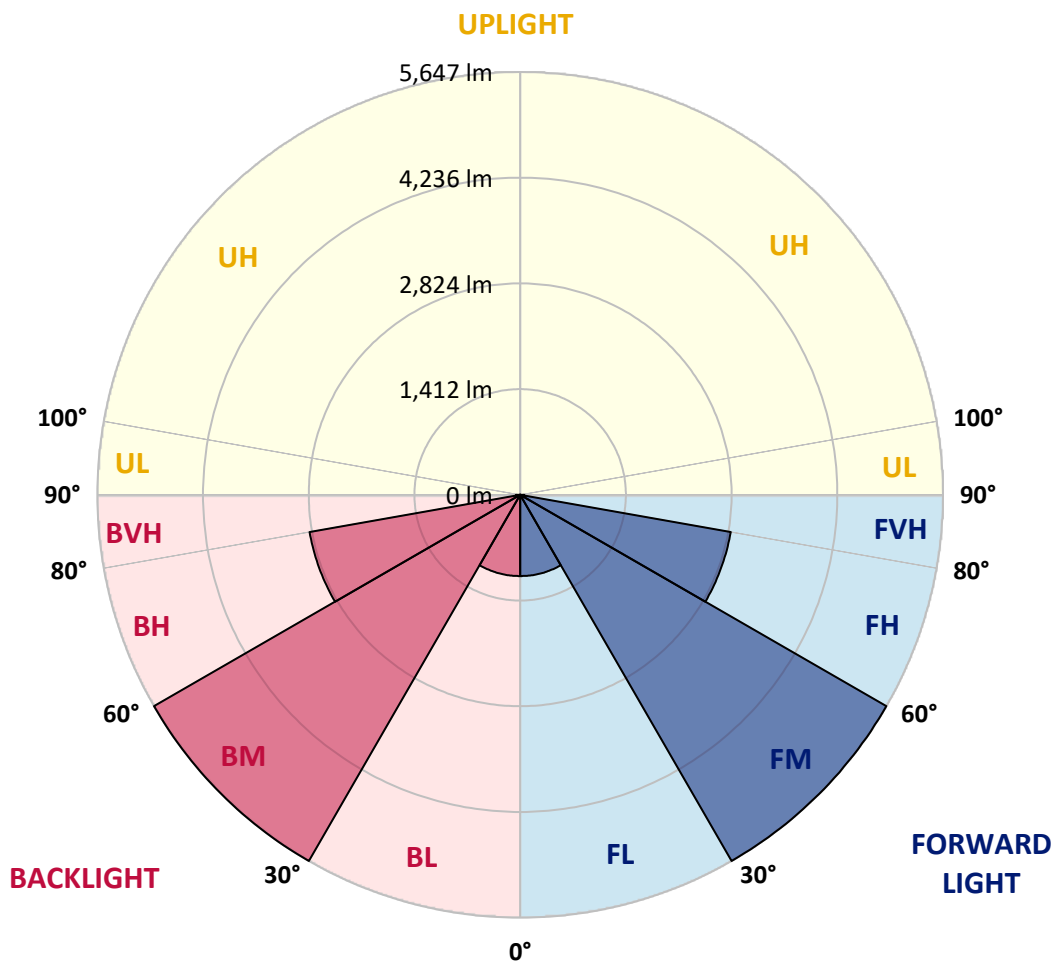
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1085.3	5.6			
FM	(30°-60°)	5647.4	29.3			
FH	(60°-80°)	2856.2	14.8			G2/5000
FVH	(80°-90°)	55.2	0.3			G1/100
BL	(0°-30°)	1085.3	5.6	B3/2500		
BM	(30°-60°)	5647.4	29.3	B4/8500		
BH	(60°-80°)	2856.2	14.8	B4/5000		G2/5000
BVH	(80°-90°)	55.2	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°	2182.5	2182.5	2182.5	2182.5	2182.5	2182.5	2182.5	2182.5	2182.5	2182.5	2182.5
2.5°	2184.3	2186.1	2187.9	2186.1	2187.9	2185.2	2183.4	2186.1	2183.4	2180.7	2182.5
5°	2203.3	2204.2	2204.2	2201.5	2204.2	2202.4	2199.7	2203.3	2200.6	2197.9	2199.7
7.5°	2234.9	2238.5	2235.8	2233.1	2234.9	2233.1	2231.3	2232.2	2231.3	2228.6	2229.5
10°	2277.3	2280.1	2278.2	2277.3	2279.2	2278.2	2276.4	2275.5	2276.4	2273.7	2273.7
12.5°	2328.8	2327.9	2327.0	2327.9	2330.6	2330.6	2329.7	2330.6	2332.4	2333.4	2331.5
15°	2379.4	2381.2	2381.2	2381.2	2386.7	2391.2	2393.9	2395.7	2399.3	2400.2	2396.6
17.5°	2442.7	2442.7	2441.8	2442.7	2448.1	2455.3	2458.0	2461.6	2465.2	2468.0	2463.4
20°	2513.1	2514.9	2514.9	2516.7	2524.0	2532.1	2532.1	2533.9	2532.1	2533.9	2531.2
22.5°	2598.9	2604.4	2604.4	2605.3	2612.5	2622.4	2619.7	2622.4	2617.9	2621.5	2617.9
25°	2711.0	2719.1	2717.3	2717.3	2722.7	2729.0	2729.9	2735.3	2734.4	2739.0	2736.2
27.5°	2837.4	2850.1	2853.7	2852.8	2856.4	2862.7	2864.5	2870.8	2867.2	2870.8	2869.0
30°	2989.2	2994.6	3001.8	3004.5	3009.1	3015.4	3015.4	3016.3	3011.8	3017.2	3019.9
32.5°	3146.4	3156.3	3163.5	3179.8	3187.9	3192.4	3191.5	3193.3	3188.8	3196.1	3201.5
35°	3354.1	3361.4	3373.1	3385.8	3396.6	3395.7	3393.0	3393.9	3393.9	3400.2	3405.6
37.5°	3604.4	3606.2	3621.5	3639.6	3645.0	3639.6	3623.3	3619.7	3611.6	3619.7	3628.8
40°	3869.0	3875.4	3906.1	3917.8	3920.5	3910.6	3887.1	3873.6	3855.5	3865.4	3878.1
42.5°	4146.4	4159.0	4187.0	4207.8	4216.8	4210.5	4178.0	4157.2	4133.7	4139.1	4151.8
45°	4453.5	4468.9	4508.6	4528.5	4545.7	4535.7	4504.1	4472.5	4435.4	4438.2	4458.0
47.5°	4796.8	4812.1	4863.6	4897.1	4906.1	4904.3	4869.1	4825.7	4775.1	4773.3	4790.5
50°	5181.6	5197.0	5261.1	5312.6	5338.8	5336.1	5294.5	5233.1	5171.7	5172.6	5194.3
52.5°	5557.4	5576.4	5643.2	5731.8	5783.2	5820.3	5795.0	5737.2	5662.2	5664.0	5683.9
55°	5909.7	5941.3	6018.1	6138.3	6234.0	6337.9	6367.7	6365.9	6320.7	6333.4	6353.3
57.5°	6080.4	6127.4	6245.8	6435.5	6630.6	6842.0	7020.8	7154.5	7211.4	7297.3	7277.4
60°	5757.0	5832.0	6006.4	6285.5	6671.2	7112.1	7584.5	8046.1	8440.0	8737.2	8566.5
62.5°	4713.7	4811.2	5022.6	5380.4	5963.9	6669.4	7573.7	8664.9	9853.7	10571.0	10058.8
65°	2949.4	3050.6	3265.6	3648.6	4331.6	5208.7	6435.5	8244.0	10465.3	11546.6	10504.2
67.5°	1150.0	1205.1	1321.6	1566.4	2079.5	2860.0	4091.3	6143.7	8800.4	9748.0	8636.9
70°	576.3	581.8	603.4	648.6	758.8	985.6	1499.6	2848.3	5047.0	6095.8	4865.4
72.5°	416.4	417.3	428.2	448.1	483.3	533.9	631.4	871.7	1641.4	2508.6	1538.4
75°	318.9	322.5	328.8	339.7	358.6	383.9	419.2	502.3	622.4	721.8	607.1
77.5°	245.7	252.9	257.5	267.4	279.1	296.3	306.2	337.9	393.0	413.7	407.4
80°	187.0	193.3	203.3	211.4	219.5	227.6	224.0	238.5	267.4	284.6	275.5
82.5°	119.2	126.5	155.4	162.6	166.2	171.6	165.3	166.2	178.9	189.7	178.9
85°	76.8	81.3	98.5	107.5	108.4	112.0	109.3	103.0	103.0	93.9	105.7
87.5°	35.2	36.1	44.3	52.4	54.2	48.8	47.9	46.1	37.0	35.2	37.9
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°	2182.5	2182.5	2182.5	2182.5	2182.5	2182.5	2182.5	2182.5
2.5°	2181.6	2183.4	2184.3	2187.0	2187.9	2187.9	2188.8	2190.6
5°	2198.8	2201.5	2202.4	2206.0	2206.9	2206.0	2207.8	2208.7
7.5°	2229.5	2234.0	2235.8	2239.4	2236.7	2240.3	2241.2	2241.2
10°	2274.6	2279.2	2280.1	2283.7	2281.9	2283.7	2283.7	2281.9
12.5°	2334.3	2335.2	2332.4	2335.2	2331.5	2333.4	2330.6	2328.8
15°	2400.2	2397.5	2391.2	2391.2	2385.7	2386.7	2385.7	2384.8
17.5°	2464.3	2458.9	2454.4	2452.6	2448.1	2447.2	2444.5	2444.5
20°	2534.8	2532.1	2529.4	2525.8	2521.2	2516.7	2515.8	2517.6
22.5°	2619.7	2618.8	2618.8	2617.0	2610.7	2606.2	2603.5	2603.5
25°	2733.5	2725.4	2725.4	2724.5	2721.8	2719.1	2713.7	2716.4
27.5°	2861.8	2857.3	2860.9	2860.0	2857.3	2857.3	2853.7	2853.7
30°	3019.9	3018.1	3023.5	3019.0	3010.0	3009.1	3005.4	3000.9
32.5°	3202.4	3200.6	3208.7	3203.3	3188.8	3180.7	3173.5	3169.9
35°	3405.6	3406.5	3416.5	3412.9	3396.6	3391.2	3378.5	3376.7
37.5°	3627.9	3642.3	3659.5	3663.1	3649.5	3645.9	3632.4	3625.1
40°	3888.9	3907.9	3934.1	3940.4	3926.0	3923.2	3904.3	3894.3
42.5°	4167.2	4199.7	4232.2	4237.6	4223.2	4208.7	4190.6	4183.4
45°	4477.9	4516.7	4559.2	4570.0	4548.4	4531.2	4507.7	4507.7
47.5°	4826.6	4875.4	4923.3	4953.1	4933.2	4915.1	4887.1	4869.1
50°	5238.5	5305.4	5367.7	5398.4	5366.8	5332.5	5283.7	5267.4
52.5°	5755.2	5827.5	5881.7	5865.5	5816.7	5768.8	5715.5	5693.8
55°	6414.7	6439.1	6439.1	6377.7	6280.1	6199.7	6115.7	6087.7
57.5°	7239.4	7145.5	7001.0	6817.6	6587.2	6386.7	6251.2	6187.0
60°	8208.7	7757.1	7246.7	6745.3	6333.4	5993.7	5792.3	5700.1
62.5°	8854.6	7673.1	6650.5	5845.6	5253.0	4843.8	4565.5	4457.1
65°	8275.6	6399.3	5029.9	4066.9	3421.0	3004.5	2729.0	2627.8
67.5°	6061.5	4010.0	2678.4	1919.6	1406.5	1122.0	1009.0	962.1
70°	2720.9	1411.9	865.4	675.7	582.7	534.8	514.0	506.8
72.5°	820.2	593.5	500.5	451.7	414.6	391.2	374.0	372.2
75°	495.0	411.9	365.9	336.9	313.5	294.5	285.5	282.7
77.5°	346.0	302.6	280.9	260.2	242.1	227.6	219.5	213.2
80°	243.0	222.2	212.3	200.5	188.8	175.2	163.5	158.1
82.5°	162.6	158.1	158.1	150.9	140.9	128.3	104.8	99.4
85°	104.8	103.9	105.7	103.0	95.8	82.2	67.8	64.1
87.5°	48.8	49.7	55.1	54.2	52.4	43.4	34.3	32.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)