

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: P299662

Luminaire Tested: **GLNA-AF-05-LED-E1-5MQ-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299662
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
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-E1-5MQ-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25162.6 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 210
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

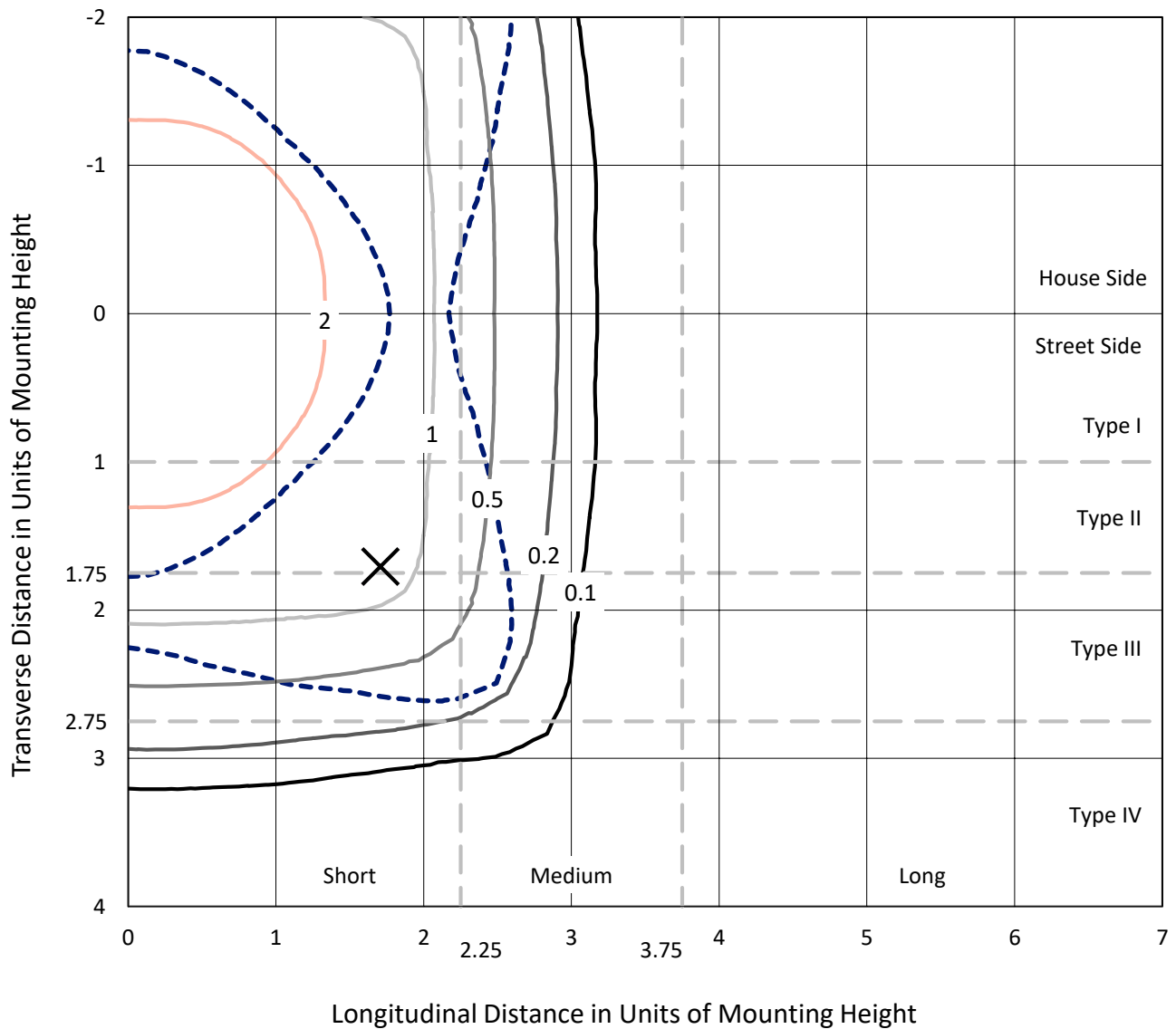


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

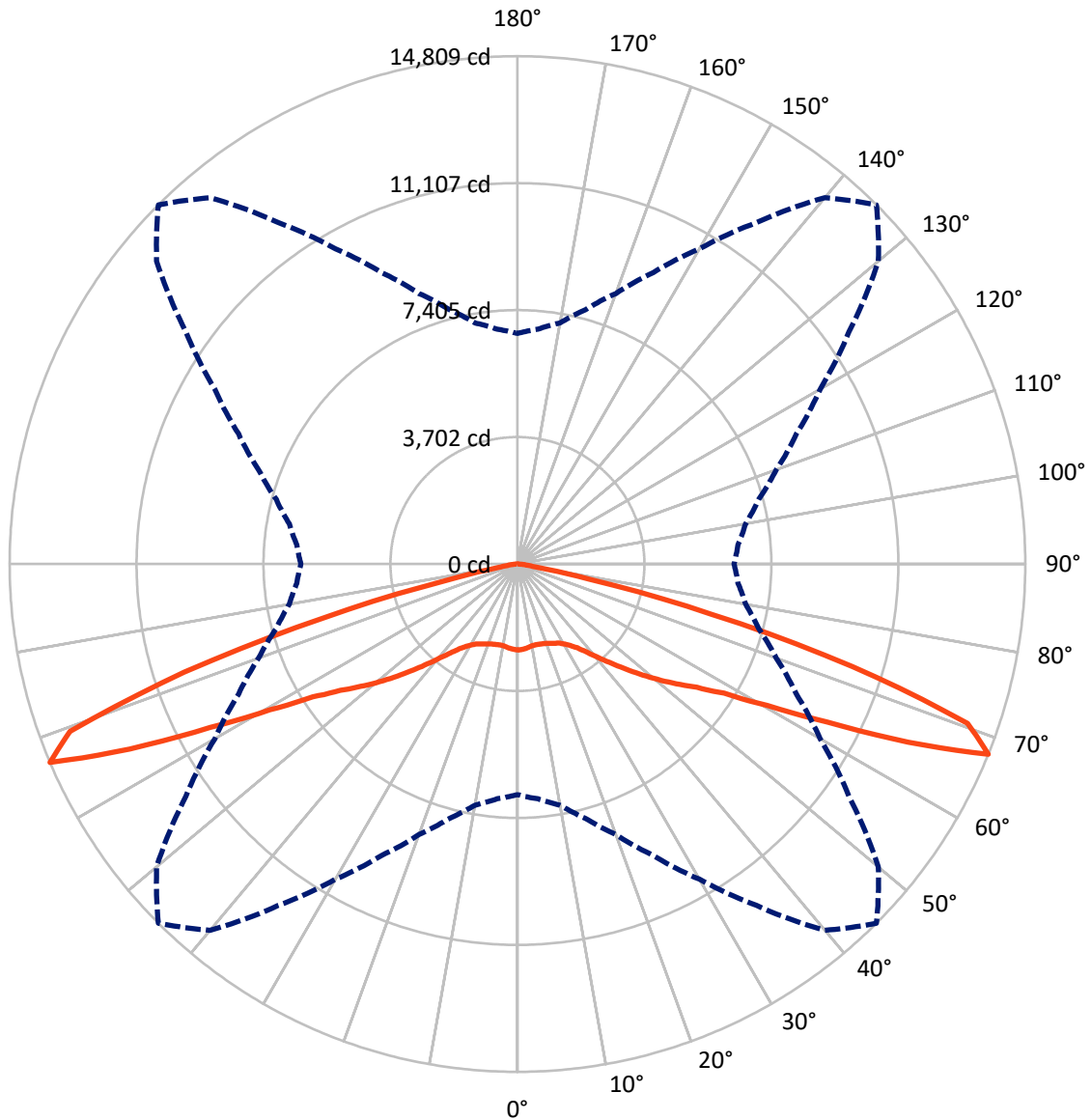


Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12581.3	0.0	12581.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12581.3	0.0	12581.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	25162.6	0.0	25162.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.7	0.9
10°-20°	681.0	2.7
20°-30°	1157.8	4.6
30°-40°	1892.6	7.5
40°-50°	3378.6	13.4
50°-60°	5696.4	22.6
60°-70°	8840.0	35.1
70°-80°	3106.0	12.3
80°-90°	175.5	0.7
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°	25162.6	100.0
0°-180°	25162.6	100.0



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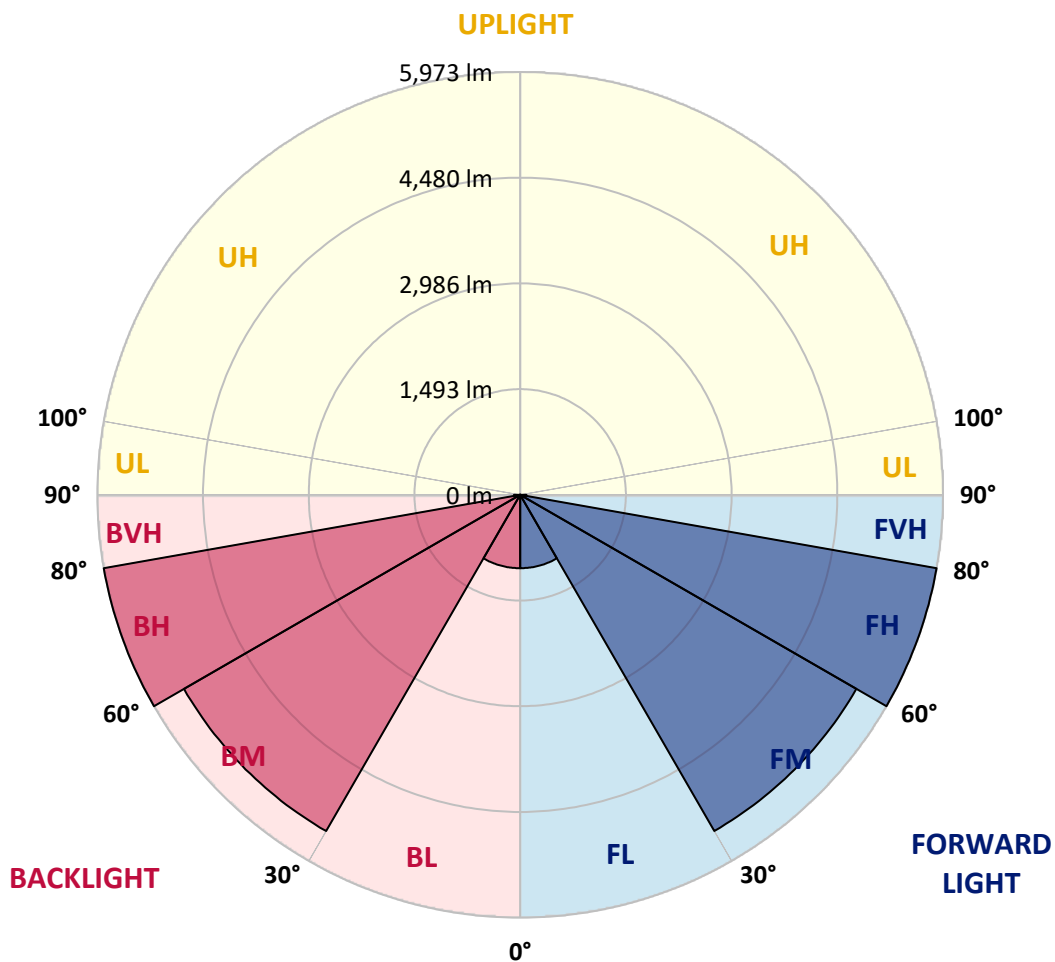
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1036.7	4.1			
FM (30°-60°)	5483.8	21.8			
FH (60°-80°)	5973.0	23.7			G3/7500
FVH (80°-90°)	87.8	0.3			G1/100
BL (0°-30°)	1036.7	4.1	B3/2500		
BM (30°-60°)	5483.8	21.8	B4/8500		
BH (60°-80°)	5973.0	23.7	B5		G3/7500
BVH (80°-90°)	87.8	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2507.6	2507.6	2507.6	2507.6	2507.6	2507.6	2507.6	2507.6	2507.6	2507.6	2507.6
2.5°	2498.3	2500.6	2500.6	2500.6	2499.5	2499.5	2497.1	2499.5	2498.3	2494.8	2496.0
5°	2477.5	2479.8	2479.8	2478.6	2482.1	2480.9	2477.5	2479.8	2478.6	2476.3	2477.5
7.5°	2447.4	2450.9	2450.9	2449.7	2453.2	2452.0	2449.7	2450.9	2450.9	2447.4	2447.4
10°	2413.8	2416.1	2416.1	2415.0	2420.8	2420.8	2419.6	2423.1	2424.2	2420.8	2418.5
12.5°	2382.6	2386.1	2386.1	2390.7	2396.5	2398.8	2404.6	2409.2	2413.8	2412.7	2408.0
15°	2364.1	2366.4	2371.0	2376.8	2386.1	2394.2	2403.4	2413.8	2423.1	2425.4	2418.5
17.5°	2352.5	2356.0	2362.9	2371.0	2383.7	2397.6	2411.5	2425.4	2438.1	2442.8	2434.7
20°	2349.0	2351.3	2358.3	2372.2	2389.5	2410.4	2430.0	2446.2	2463.6	2469.4	2463.6
22.5°	2356.0	2360.6	2368.7	2384.9	2408.0	2434.7	2457.8	2479.8	2501.8	2512.2	2504.1
25°	2387.2	2391.8	2402.3	2423.1	2448.5	2476.3	2502.9	2528.4	2548.1	2558.5	2552.7
27.5°	2445.1	2450.9	2463.6	2484.4	2512.2	2542.3	2571.2	2592.0	2608.2	2611.7	2604.8
30°	2531.9	2544.6	2559.6	2582.8	2615.2	2640.6	2669.6	2688.1	2707.8	2707.8	2702.0
32.5°	2667.3	2680.0	2696.2	2718.2	2743.6	2771.4	2796.9	2813.1	2833.9	2835.0	2821.2
35°	2869.8	2875.5	2889.4	2903.3	2926.5	2950.8	2972.7	2983.2	3000.5	3001.7	2988.9
37.5°	3137.1	3138.2	3147.5	3152.1	3172.9	3199.5	3220.4	3227.3	3243.5	3241.2	3228.5
40°	3448.3	3454.1	3457.6	3464.5	3486.5	3512.0	3534.0	3537.4	3554.8	3551.3	3535.1
42.5°	3808.2	3810.5	3830.2	3840.6	3861.4	3874.2	3901.9	3905.4	3926.2	3917.0	3898.5
45°	4212.1	4232.9	4251.4	4272.2	4294.2	4309.3	4331.2	4326.6	4340.5	4326.6	4316.2
47.5°	4636.7	4651.8	4693.4	4725.8	4761.7	4774.4	4805.7	4791.8	4805.7	4786.0	4782.5
50°	5104.2	5130.8	5166.7	5203.7	5241.9	5262.8	5303.3	5285.9	5304.4	5285.9	5275.5
52.5°	5564.8	5571.7	5650.4	5704.8	5758.0	5782.3	5806.6	5798.5	5799.7	5798.5	5788.1
55°	6002.2	6018.4	6097.1	6171.1	6263.7	6332.0	6373.6	6369.0	6358.6	6348.2	6330.8
57.5°	6495.1	6511.3	6601.6	6693.0	6798.3	6895.5	6980.0	7066.8	7100.3	7109.6	7071.4
60°	7161.7	7160.5	7280.8	7391.9	7542.4	7687.0	7872.2	8060.8	8277.2	8377.8	8244.8
62.5°	7839.8	7867.5	8041.1	8237.8	8547.9	8850.0	9191.3	9526.9	9869.4	10148.3	9852.1
65°	7758.8	7865.2	8123.3	8568.8	9141.6	9822.0	10557.9	11336.7	12040.2	12523.9	11981.2
67.5°	6724.3	6875.8	7138.5	7680.1	8396.3	9377.6	10613.5	12153.6	13943.8	14809.3	13736.6
70°	4874.0	5045.2	5320.6	5849.4	6558.8	7491.4	8833.8	10682.9	13052.8	13925.3	12743.8
72.5°	2425.4	2518.0	2688.1	3024.8	3561.7	4318.5	5535.8	7313.2	9410.0	10210.8	9131.1
75°	823.9	866.7	895.6	1005.6	1175.7	1473.1	2078.3	3197.2	4877.4	5847.1	4808.0
77.5°	475.6	476.7	496.4	516.1	545.0	577.4	658.4	864.4	1495.0	2123.4	1547.1
80°	307.8	306.6	322.8	337.9	357.6	373.8	378.4	400.4	461.7	547.3	489.5
82.5°	159.7	179.4	215.2	234.9	271.9	278.9	269.6	261.5	276.6	287.0	293.9
85°	87.9	76.4	114.6	148.1	164.3	166.6	166.6	157.4	163.2	159.7	173.6
87.5°	40.5	37.0	45.1	72.9	77.5	66.0	69.4	61.3	44.0	42.8	48.6
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°	2507.6	2507.6	2507.6	2507.6	2507.6	2507.6	2507.6	2507.6
2.5°	2496.0	2497.1	2497.1	2500.6	2501.8	2504.1	2506.4	2507.6
5°	2476.3	2479.8	2477.5	2480.9	2480.9	2483.3	2483.3	2484.4
7.5°	2447.4	2450.9	2450.9	2450.9	2449.7	2453.2	2453.2	2453.2
10°	2417.3	2419.6	2418.5	2416.1	2413.8	2417.3	2416.1	2415.0
12.5°	2408.0	2402.3	2397.6	2395.3	2390.7	2391.8	2388.4	2388.4
15°	2413.8	2403.4	2395.3	2391.8	2387.2	2384.9	2382.6	2383.7
17.5°	2428.9	2416.1	2405.7	2399.9	2394.2	2390.7	2386.1	2387.2
20°	2455.5	2440.4	2425.4	2413.8	2403.4	2397.6	2394.2	2393.0
22.5°	2494.8	2472.8	2450.9	2433.5	2419.6	2411.5	2408.0	2405.7
25°	2540.0	2515.7	2490.2	2470.5	2456.6	2446.2	2439.3	2439.3
27.5°	2596.7	2577.0	2553.8	2530.7	2518.0	2507.6	2502.9	2500.6
30°	2691.6	2673.0	2654.5	2632.5	2616.3	2605.9	2597.8	2590.9
32.5°	2813.1	2798.0	2783.0	2766.8	2751.7	2737.8	2725.1	2719.3
35°	2984.3	2972.7	2962.3	2943.8	2938.0	2929.9	2923.0	2917.2
37.5°	3220.4	3215.7	3215.7	3196.1	3191.4	3188.0	3181.0	3182.2
40°	3530.5	3535.1	3529.3	3522.4	3518.9	3509.7	3509.7	3517.8
42.5°	3897.3	3900.8	3913.5	3901.9	3914.7	3903.1	3896.2	3901.9
45°	4323.1	4335.9	4361.3	4349.8	4357.9	4338.2	4313.9	4315.0
47.5°	4801.1	4812.6	4823.0	4814.9	4816.1	4783.7	4751.3	4743.2
50°	5297.5	5302.1	5307.9	5296.3	5298.6	5262.8	5225.7	5226.9
52.5°	5788.1	5810.1	5833.2	5802.0	5795.1	5754.6	5702.5	5681.7
55°	6349.3	6380.6	6354.0	6299.6	6245.2	6190.8	6122.5	6111.0
57.5°	7041.3	6988.1	6904.8	6801.8	6726.6	6650.2	6580.8	6551.8
60°	8004.1	7803.9	7653.4	7500.7	7404.7	7310.9	7219.5	7205.6
62.5°	9364.9	9018.9	8719.2	8403.3	8145.2	7943.9	7783.1	7737.9
65°	11070.5	10252.4	9543.1	8881.2	8306.1	7872.2	7599.1	7478.7
67.5°	11804.2	10188.8	8972.6	8033.0	7280.8	6755.5	6460.4	6313.5
70°	10372.8	8449.6	7126.9	6186.2	5501.1	4941.1	4673.8	4516.4
72.5°	7136.2	5375.0	4250.2	3469.2	2921.8	2453.2	2268.0	2254.1
75°	3204.2	2122.2	1462.6	1127.1	948.9	825.1	786.9	757.9
77.5°	896.8	663.1	591.3	553.1	516.1	473.3	457.1	460.5
80°	436.2	411.9	395.7	371.4	337.9	302.0	285.8	292.8
82.5°	289.3	285.8	296.2	278.9	230.3	195.6	164.3	150.4
85°	175.9	178.2	181.7	182.8	155.1	108.8	74.1	83.3
87.5°	69.4	79.8	86.8	90.3	84.5	52.1	41.7	42.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)