

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: P299728

Luminaire Tested: **GLNA-AF-06-LED-E1-5MQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299728
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-06-LED-E1-5MQ-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24553.6 lumens
Efficiency: N/A
Efficacy: 127.2 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): 193
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

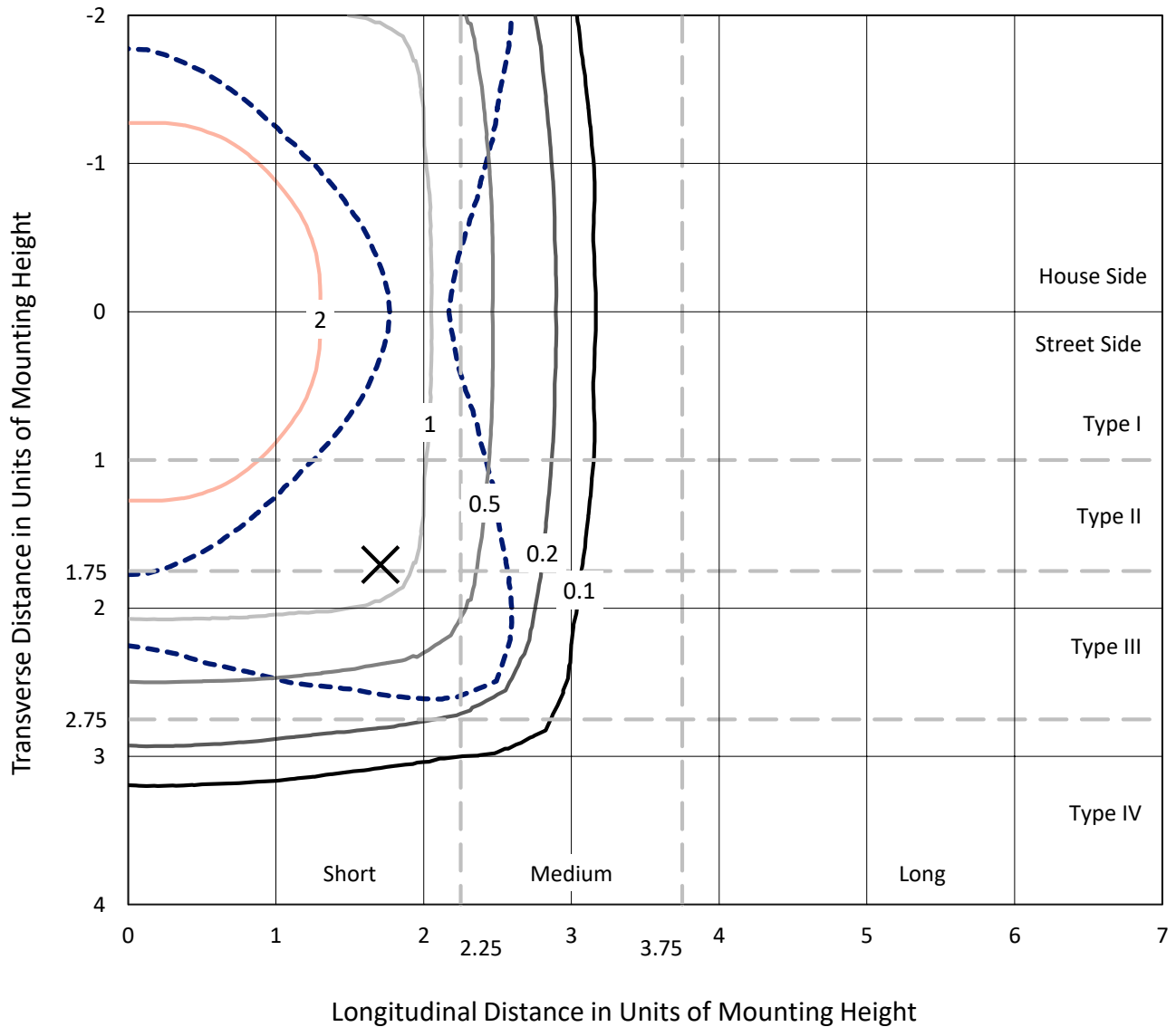


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

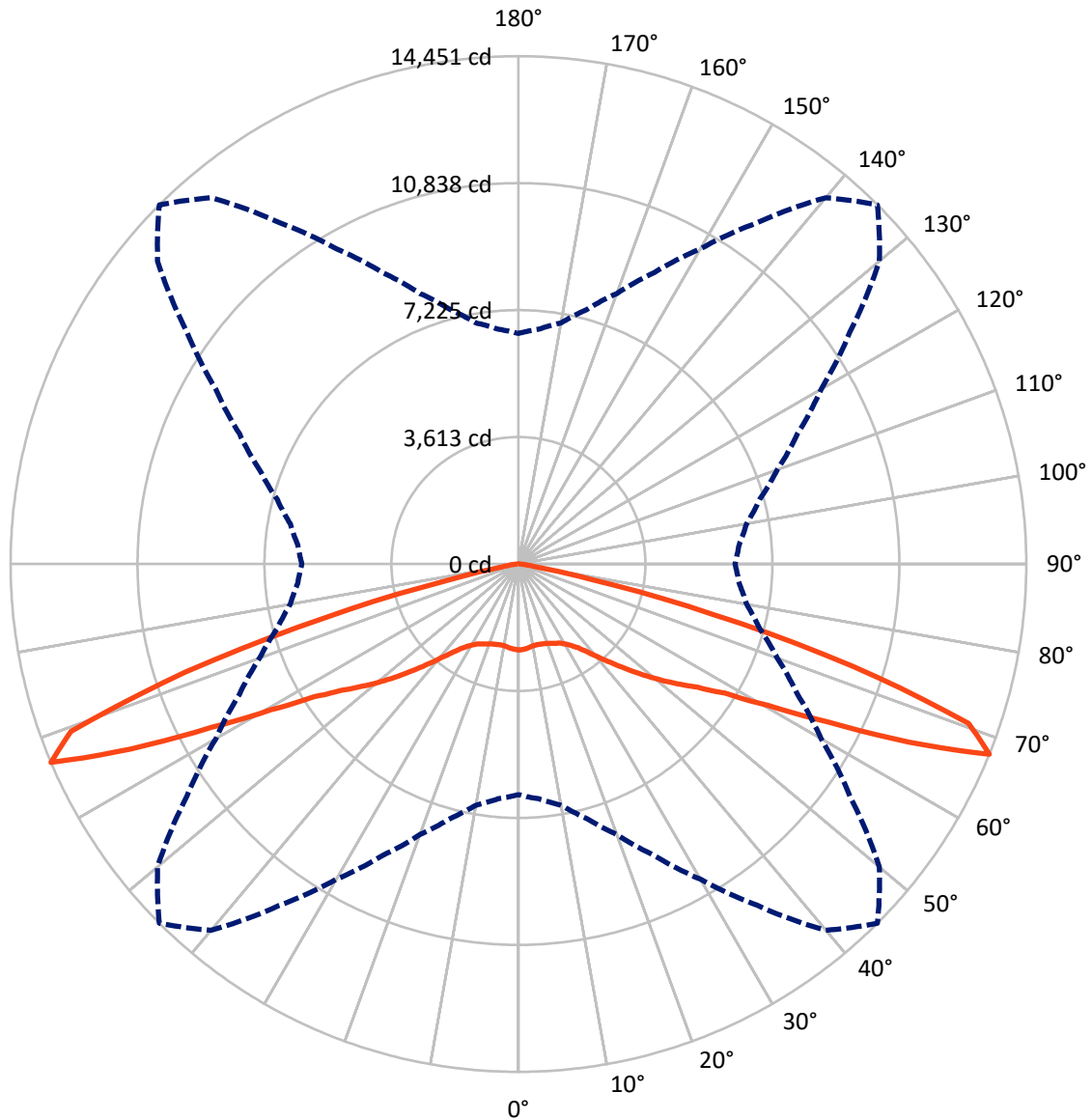


Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12276.8	0.0	12276.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12276.8	0.0	12276.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	24553.6	0.0	24553.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.0	0.9
10°-20°	664.6	2.7
20°-30°	1129.7	4.6
30°-40°	1846.8	7.5
40°-50°	3296.8	13.4
50°-60°	5558.6	22.6
60°-70°	8626.0	35.1
70°-80°	3030.8	12.3
80°-90°	171.3	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°	24553.6	100.0
0°-180°	24553.6	100.0



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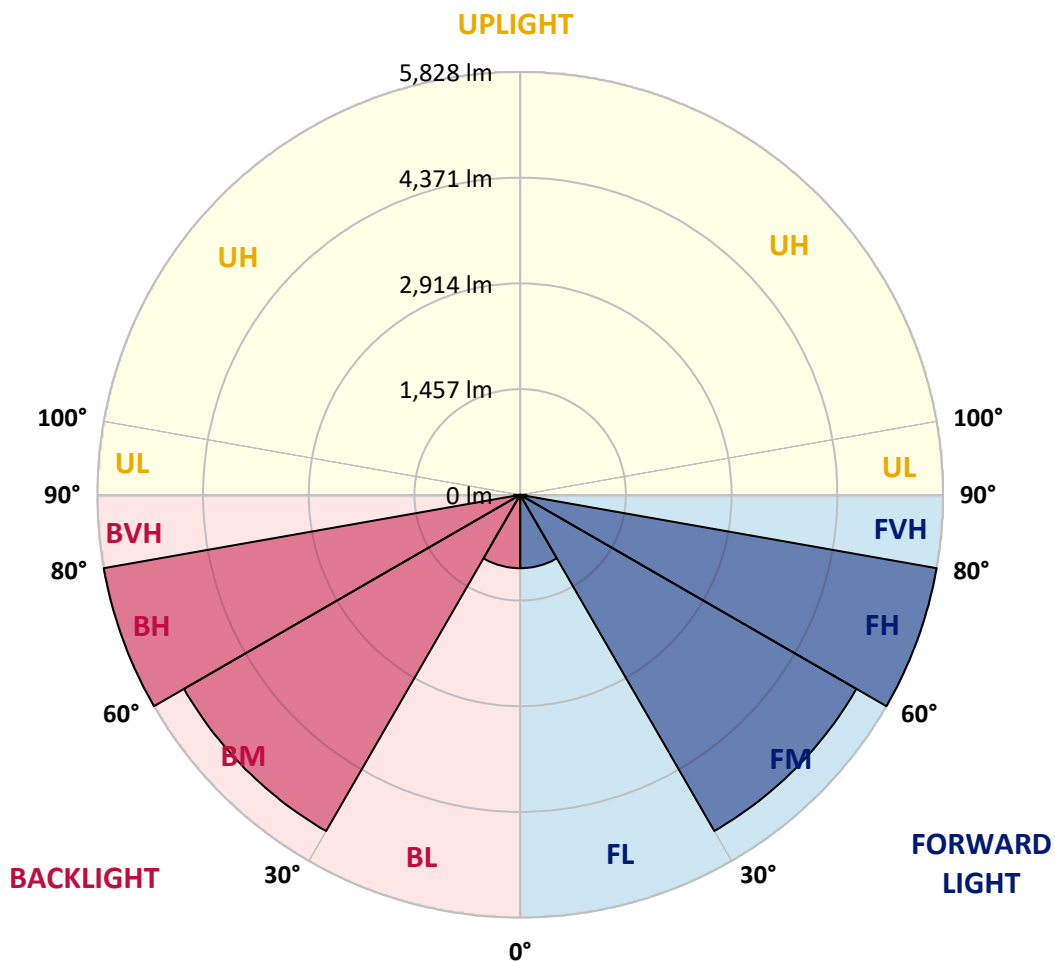
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1011.7	4.1			
FM	(30°-60°)	5351.1	21.8			
FH	(60°-80°)	5828.4	23.7			G3/7500
FVH	(80°-90°)	85.6	0.3			G1/100
BL	(0°-30°)	1011.7	4.1	B3/2500		
BM	(30°-60°)	5351.1	21.8	B4/8500		
BH	(60°-80°)	5828.4	23.7	B5		G3/7500
BVH	(80°-90°)	85.6	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°	2446.9	2446.9	2446.9	2446.9	2446.9	2446.9	2446.9	2446.9	2446.9	2446.9	2446.9
2.5°	2437.8	2440.1	2440.1	2440.1	2439.0	2439.0	2436.7	2439.0	2437.8	2434.5	2435.6
5°	2417.5	2419.8	2419.8	2418.6	2422.0	2420.9	2417.5	2419.8	2418.6	2416.4	2417.5
7.5°	2388.2	2391.5	2391.5	2390.4	2393.8	2392.7	2390.4	2391.5	2391.5	2388.2	2388.2
10°	2355.4	2357.7	2357.7	2356.5	2362.2	2362.2	2361.1	2364.4	2365.6	2362.2	2359.9
12.5°	2324.9	2328.3	2328.3	2332.8	2338.5	2340.7	2346.4	2350.9	2355.4	2354.3	2349.8
15°	2306.9	2309.1	2313.6	2319.3	2328.3	2336.2	2345.2	2355.4	2364.4	2366.7	2359.9
17.5°	2295.6	2299.0	2305.7	2313.6	2326.1	2339.6	2353.2	2366.7	2379.1	2383.6	2375.7
20°	2292.2	2294.4	2301.2	2314.8	2331.7	2352.0	2371.2	2387.0	2404.0	2409.6	2404.0
22.5°	2299.0	2303.5	2311.4	2327.2	2349.8	2375.7	2398.3	2419.8	2441.2	2451.4	2443.5
25°	2329.4	2334.0	2344.1	2364.4	2389.3	2416.4	2442.4	2467.2	2486.4	2496.6	2490.9
27.5°	2385.9	2391.5	2404.0	2424.3	2451.4	2480.7	2509.0	2529.3	2545.1	2548.5	2541.7
30°	2470.6	2483.0	2497.7	2520.3	2551.9	2576.7	2605.0	2623.0	2642.2	2642.2	2636.6
32.5°	2602.7	2615.1	2630.9	2652.4	2677.2	2704.3	2729.2	2745.0	2765.3	2766.4	2752.9
35°	2800.3	2805.9	2819.5	2833.0	2855.6	2879.3	2900.8	2911.0	2927.9	2929.0	2916.6
37.5°	3061.1	3062.3	3071.3	3075.8	3096.1	3122.1	3142.4	3149.2	3165.0	3162.8	3150.3
40°	3364.9	3370.5	3373.9	3380.7	3402.1	3427.0	3448.4	3451.8	3468.8	3465.4	3449.6
42.5°	3716.0	3718.3	3737.5	3747.7	3768.0	3780.4	3807.5	3810.9	3831.2	3822.2	3804.1
45°	4110.1	4130.4	4148.5	4168.8	4190.3	4205.0	4226.4	4221.9	4235.5	4221.9	4211.7
47.5°	4524.5	4539.2	4579.8	4611.5	4646.5	4658.9	4689.4	4675.8	4689.4	4670.2	4666.8
50°	4980.7	5006.7	5041.7	5077.8	5115.1	5135.4	5174.9	5158.0	5176.0	5158.0	5147.8
52.5°	5430.1	5436.9	5513.7	5566.7	5618.7	5642.4	5666.1	5658.2	5659.3	5658.2	5648.0
55°	5856.9	5872.7	5949.5	6021.8	6112.1	6178.7	6219.4	6214.9	6204.7	6194.5	6177.6
57.5°	6337.9	6353.7	6441.8	6531.0	6633.8	6728.6	6811.0	6895.7	6928.5	6937.5	6900.3
60°	6988.3	6987.2	7104.6	7213.0	7359.8	7501.0	7681.6	7865.7	8076.8	8175.1	8045.2
62.5°	7650.0	7677.1	7846.5	8038.4	8341.0	8635.8	8968.9	9296.3	9630.5	9902.7	9613.6
65°	7571.0	7674.8	7926.6	8361.4	8920.3	9584.2	10302.4	11062.3	11748.8	12220.8	11691.2
67.5°	6561.5	6709.4	6965.7	7494.2	8193.1	9150.7	10356.6	11859.5	13606.3	14450.9	13404.2
70°	4756.0	4923.1	5191.8	5707.9	6400.0	7310.1	8619.9	10424.3	12736.8	13588.2	12435.4
72.5°	2366.7	2457.0	2623.0	2951.6	3475.5	4214.0	5401.9	7136.2	9182.3	9963.6	8910.1
75°	804.0	845.7	874.0	981.2	1147.2	1437.4	2028.0	3119.8	4759.4	5705.6	4691.6
77.5°	464.1	465.2	484.4	503.6	531.8	563.4	642.5	843.5	1458.9	2072.0	1509.7
80°	300.4	299.2	315.0	329.7	348.9	364.7	369.2	390.7	450.5	534.1	477.6
82.5°	155.8	175.0	210.0	229.2	265.4	272.1	263.1	255.2	269.9	280.0	286.8
85°	85.8	74.5	111.8	144.5	160.3	162.6	162.6	153.6	159.2	155.8	169.4
87.5°	39.5	36.1	44.0	71.1	75.7	64.4	67.7	59.8	42.9	41.8	47.4
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°	2446.9	2446.9	2446.9	2446.9	2446.9	2446.9	2446.9	2446.9
2.5°	2435.6	2436.7	2436.7	2440.1	2441.2	2443.5	2445.7	2446.9
5°	2416.4	2419.8	2417.5	2420.9	2420.9	2423.2	2423.2	2424.3
7.5°	2388.2	2391.5	2391.5	2391.5	2390.4	2393.8	2393.8	2393.8
10°	2358.8	2361.1	2359.9	2357.7	2355.4	2358.8	2357.7	2356.5
12.5°	2349.8	2344.1	2339.6	2337.3	2332.8	2334.0	2330.6	2330.6
15°	2355.4	2345.2	2337.3	2334.0	2329.4	2327.2	2324.9	2326.1
17.5°	2370.1	2357.7	2347.5	2341.9	2336.2	2332.8	2328.3	2329.4
20°	2396.1	2381.4	2366.7	2355.4	2345.2	2339.6	2336.2	2335.1
22.5°	2434.5	2413.0	2391.5	2374.6	2361.1	2353.2	2349.8	2347.5
25°	2478.5	2454.8	2429.9	2410.7	2397.2	2387.0	2380.3	2380.3
27.5°	2533.8	2514.6	2492.0	2469.5	2457.0	2446.9	2442.4	2440.1
30°	2626.4	2608.3	2590.3	2568.8	2553.0	2542.9	2534.9	2528.2
32.5°	2745.0	2730.3	2715.6	2699.8	2685.1	2671.6	2659.2	2653.5
35°	2912.1	2900.8	2890.6	2872.6	2866.9	2859.0	2852.2	2846.6
37.5°	3142.4	3137.9	3137.9	3118.7	3114.2	3110.8	3104.0	3105.2
40°	3445.0	3449.6	3443.9	3437.1	3433.8	3424.7	3424.7	3432.6
42.5°	3803.0	3806.4	3818.8	3807.5	3819.9	3808.6	3801.9	3807.5
45°	4218.5	4230.9	4255.8	4244.5	4252.4	4233.2	4209.5	4210.6
47.5°	4684.9	4696.1	4706.3	4698.4	4699.5	4667.9	4636.3	4628.4
50°	5169.3	5173.8	5179.4	5168.1	5170.4	5135.4	5099.3	5100.4
52.5°	5648.0	5669.5	5692.1	5661.6	5654.8	5615.3	5564.5	5544.1
55°	6195.7	6226.1	6200.2	6147.1	6094.0	6041.0	5974.3	5963.1
57.5°	6870.9	6819.0	6737.7	6637.2	6563.8	6489.2	6421.5	6393.3
60°	7810.3	7615.0	7468.2	7319.2	7225.4	7134.0	7044.8	7031.2
62.5°	9138.2	8800.6	8508.2	8199.9	7948.1	7751.6	7594.7	7550.6
65°	10802.6	10004.3	9312.1	8666.2	8105.1	7681.6	7415.1	7297.7
67.5°	11518.5	9942.2	8755.4	7838.6	7104.6	6592.0	6304.1	6160.7
70°	10121.7	8245.1	6954.4	6036.4	5368.0	4821.5	4560.6	4407.1
72.5°	6963.5	5244.9	4147.4	3385.2	2851.1	2393.8	2213.1	2199.6
75°	3126.6	2070.9	1427.2	1099.8	925.9	805.1	767.8	739.6
77.5°	875.1	647.0	577.0	539.7	503.6	461.8	446.0	449.4
80°	425.7	402.0	386.2	362.5	329.7	294.7	278.9	285.7
82.5°	282.3	278.9	289.1	272.1	224.7	190.8	160.3	146.8
85°	171.6	173.9	177.3	178.4	151.3	106.1	72.3	81.3
87.5°	67.7	77.9	84.7	88.1	82.4	50.8	40.6	41.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)