

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: P299594

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299594
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-04-LED-E1-5MQ-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24315.5 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

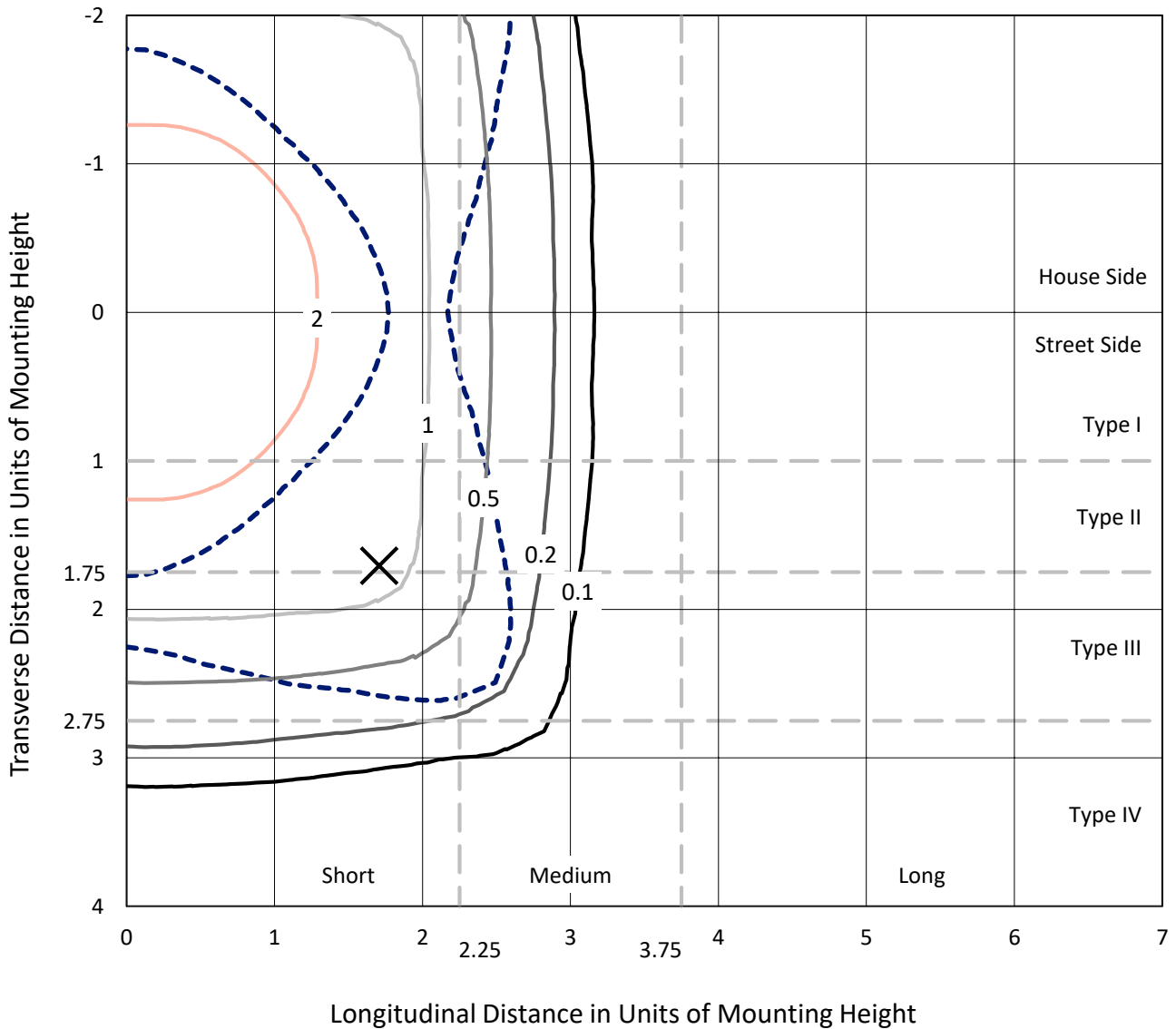
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

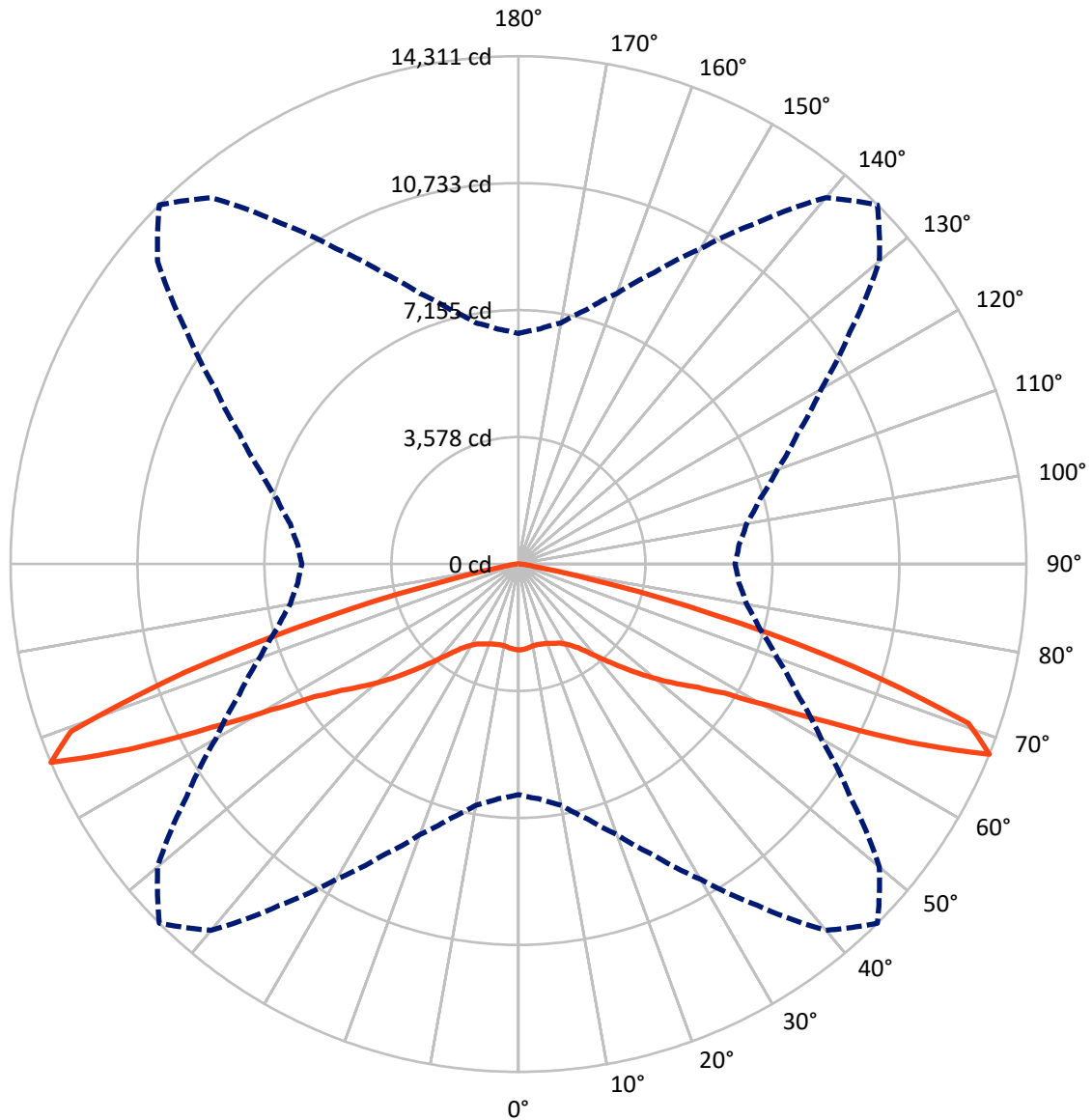
× Max cd
 - - - 1/2 Max cd



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 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12157.7	0.0	12157.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12157.7	0.0	12157.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	24315.5	0.0	24315.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.8	0.9
10°-20°	658.1	2.7
20°-30°	1118.8	4.6
30°-40°	1828.9	7.5
40°-50°	3264.9	13.4
50°-60°	5504.6	22.6
60°-70°	8542.4	35.1
70°-80°	3001.4	12.3
80°-90°	169.6	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°	24315.5	100.0
0°-180°	24315.5	100.0

Coefficient of Utilization



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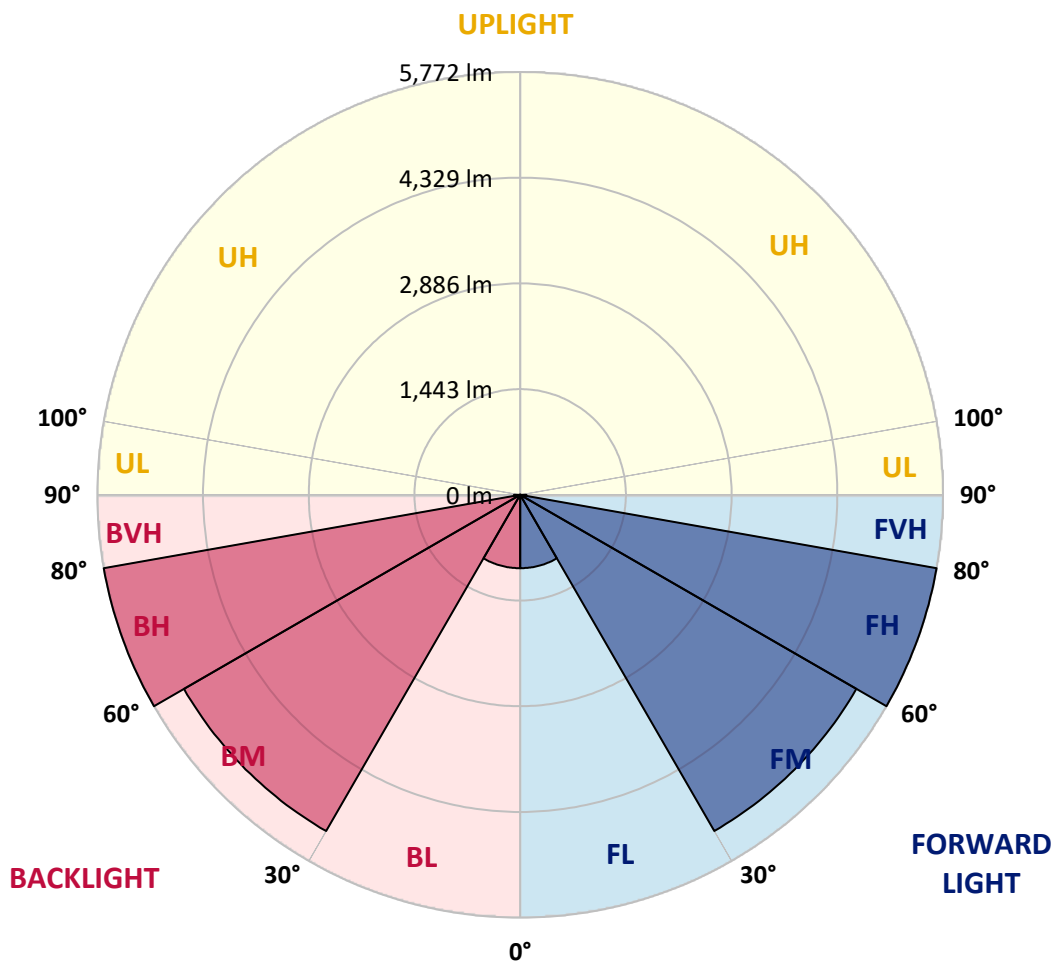
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1001.8	4.1			
FM	(30°-60°)	5299.2	21.8			
FH	(60°-80°)	5771.9	23.7			G3/7500
FVH	(80°-90°)	84.8	0.3			G1/100
BL	(0°-30°)	1001.8	4.1	B3/2500		
BM	(30°-60°)	5299.2	21.8	B4/8500		
BH	(60°-80°)	5771.9	23.7	B5		G3/7500
BVH	(80°-90°)	84.8	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°	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1
2.5°	2414.2	2416.4	2416.4	2416.4	2415.3	2415.3	2413.1	2415.3	2414.2	2410.8	2412.0
5°	2394.1	2396.3	2396.3	2395.2	2398.5	2397.4	2394.1	2396.3	2395.2	2392.9	2394.1
7.5°	2365.0	2368.3	2368.3	2367.2	2370.6	2369.5	2367.2	2368.3	2368.3	2365.0	2365.0
10°	2332.6	2334.8	2334.8	2333.7	2339.3	2339.3	2338.2	2341.5	2342.6	2339.3	2337.0
12.5°	2302.4	2305.7	2305.7	2310.2	2315.8	2318.0	2323.6	2328.1	2332.6	2331.4	2327.0
15°	2284.5	2286.7	2291.2	2296.8	2305.7	2313.6	2322.5	2332.6	2341.5	2343.7	2337.0
17.5°	2273.3	2276.7	2283.4	2291.2	2303.5	2316.9	2330.3	2343.7	2356.0	2360.5	2352.7
20°	2269.9	2272.2	2278.9	2292.3	2309.1	2329.2	2348.2	2363.9	2380.6	2386.2	2380.6
22.5°	2276.7	2281.1	2289.0	2304.6	2327.0	2352.7	2375.1	2396.3	2417.5	2427.6	2419.8
25°	2306.8	2311.3	2321.4	2341.5	2366.1	2392.9	2418.7	2443.3	2462.3	2472.3	2466.7
27.5°	2362.8	2368.3	2380.6	2400.8	2427.6	2456.7	2484.6	2504.8	2520.4	2523.8	2517.1
30°	2446.6	2458.9	2473.5	2495.8	2527.1	2551.7	2579.7	2597.6	2616.6	2616.6	2611.0
32.5°	2577.5	2589.8	2605.4	2626.7	2651.3	2678.1	2702.7	2718.3	2738.5	2739.6	2726.2
35°	2773.1	2778.7	2792.1	2805.6	2827.9	2851.4	2872.7	2882.7	2899.5	2900.6	2888.3
37.5°	3031.4	3032.6	3041.5	3046.0	3066.1	3091.8	3112.0	3118.7	3134.3	3132.1	3119.8
40°	3332.2	3337.8	3341.2	3347.9	3369.1	3393.7	3415.0	3418.3	3435.1	3431.8	3416.1
42.5°	3680.0	3682.2	3701.2	3711.3	3731.4	3743.7	3770.6	3773.9	3794.1	3785.1	3767.2
45°	4070.2	4090.4	4108.3	4128.4	4149.6	4164.2	4185.4	4181.0	4194.4	4181.0	4170.9
47.5°	4480.6	4495.2	4535.4	4566.7	4601.4	4613.7	4643.9	4630.5	4643.9	4624.9	4621.5
50°	4932.4	4958.1	4992.8	5028.5	5065.4	5085.6	5124.7	5107.9	5125.8	5107.9	5097.9
52.5°	5377.4	5384.1	5460.2	5512.7	5564.2	5587.6	5611.1	5603.3	5604.4	5603.3	5593.2
55°	5800.1	5815.8	5891.8	5963.4	6052.8	6118.8	6159.0	6154.6	6144.5	6134.4	6117.7
57.5°	6276.5	6292.1	6379.3	6467.7	6569.4	6663.4	6745.0	6828.8	6861.3	6870.2	6833.3
60°	6920.5	6919.4	7035.7	7143.1	7288.4	7428.2	7607.1	7789.4	7998.5	8095.8	7967.2
62.5°	7575.8	7602.6	7770.4	7960.5	8260.1	8552.0	8881.9	9206.1	9537.1	9806.6	9520.4
65°	7497.5	7600.4	7849.8	8280.3	8833.8	9491.3	10202.5	10955.0	11634.9	12102.3	11577.8
67.5°	6497.9	6644.3	6898.2	7421.5	8113.7	9061.9	10256.1	11744.5	13474.3	14310.7	13274.2
70°	4709.9	4875.4	5141.5	5652.5	6338.0	7239.2	8536.3	10323.2	12613.3	13456.4	12314.7
72.5°	2343.7	2433.2	2597.6	2923.0	3441.8	4173.1	5349.5	7067.0	9093.2	9867.0	8823.7
75°	796.2	837.5	865.5	971.7	1136.1	1423.5	2008.3	3089.6	4713.2	5650.3	4646.1
77.5°	459.6	460.7	479.7	498.7	526.7	558.0	636.3	835.3	1444.7	2051.9	1495.0
80°	297.4	296.3	312.0	326.5	345.5	361.2	365.7	386.9	446.2	528.9	473.0
82.5°	154.3	173.3	208.0	227.0	262.8	269.5	260.5	252.7	267.2	277.3	284.0
85°	85.0	73.8	110.7	143.1	158.8	161.0	161.0	152.1	157.7	154.3	167.7
87.5°	39.1	35.8	43.6	70.4	74.9	63.7	67.1	59.3	42.5	41.4	47.0
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°	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1	2423.1
2.5°	2412.0	2413.1	2413.1	2416.4	2417.5	2419.8	2422.0	2423.1
5°	2392.9	2396.3	2394.1	2397.4	2397.4	2399.7	2399.7	2400.8
7.5°	2365.0	2368.3	2368.3	2368.3	2367.2	2370.6	2370.6	2370.6
10°	2335.9	2338.2	2337.0	2334.8	2332.6	2335.9	2334.8	2333.7
12.5°	2327.0	2321.4	2316.9	2314.7	2310.2	2311.3	2308.0	2308.0
15°	2332.6	2322.5	2314.7	2311.3	2306.8	2304.6	2302.4	2303.5
17.5°	2347.1	2334.8	2324.7	2319.1	2313.6	2310.2	2305.7	2306.8
20°	2372.8	2358.3	2343.7	2332.6	2322.5	2316.9	2313.6	2312.4
22.5°	2410.8	2389.6	2368.3	2351.6	2338.2	2330.3	2327.0	2324.7
25°	2454.4	2431.0	2406.4	2387.4	2373.9	2363.9	2357.2	2357.2
27.5°	2509.2	2490.2	2467.9	2445.5	2433.2	2423.1	2418.7	2416.4
30°	2600.9	2583.0	2565.2	2543.9	2528.3	2518.2	2510.4	2503.7
32.5°	2718.3	2703.8	2689.3	2673.6	2659.1	2645.7	2633.4	2627.8
35°	2883.8	2872.7	2862.6	2844.7	2839.1	2831.3	2824.6	2819.0
37.5°	3112.0	3107.5	3107.5	3088.5	3084.0	3080.6	3073.9	3075.1
40°	3411.6	3416.1	3410.5	3403.8	3400.4	3391.5	3391.5	3399.3
42.5°	3766.1	3769.5	3781.8	3770.6	3782.9	3771.7	3765.0	3770.6
45°	4177.6	4189.9	4214.5	4203.3	4211.1	4192.1	4168.7	4169.8
47.5°	4639.4	4650.6	4660.7	4652.8	4653.9	4622.6	4591.3	4583.5
50°	5119.1	5123.6	5129.2	5118.0	5120.2	5085.6	5049.8	5050.9
52.5°	5593.2	5614.5	5636.8	5606.7	5599.9	5560.8	5510.5	5490.4
55°	6135.6	6165.8	6140.0	6087.5	6034.9	5982.4	5916.4	5905.2
57.5°	6804.2	6752.8	6672.3	6572.8	6500.1	6426.3	6359.2	6331.3
60°	7734.6	7541.1	7395.8	7248.2	7155.4	7064.8	6976.5	6963.0
62.5°	9049.6	8715.3	8425.6	8120.4	7871.0	7676.4	7521.0	7477.4
65°	10697.8	9907.3	9221.8	8582.2	8026.4	7607.1	7343.2	7226.9
67.5°	11406.8	9845.8	8670.5	7762.5	7035.7	6528.1	6242.9	6100.9
70°	10023.5	8165.1	6887.0	5977.9	5315.9	4774.7	4516.4	4364.3
72.5°	6895.9	5194.0	4107.1	3352.4	2823.5	2370.6	2191.7	2178.3
75°	3096.3	2050.8	1413.4	1089.1	916.9	797.3	760.4	732.4
77.5°	866.6	640.7	571.4	534.5	498.7	457.3	441.7	445.0
80°	421.6	398.1	382.4	358.9	326.5	291.9	276.2	282.9
82.5°	279.6	276.2	286.3	269.5	222.5	189.0	158.8	145.4
85°	170.0	172.2	175.6	176.7	149.8	105.1	71.6	80.5
87.5°	67.1	77.2	83.9	87.2	81.6	50.3	40.3	41.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)