

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: P302847

Luminaire Tested: **GLNA-AF-05-LED-E1-T4W-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302847
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
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-T4W-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23007.5 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

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

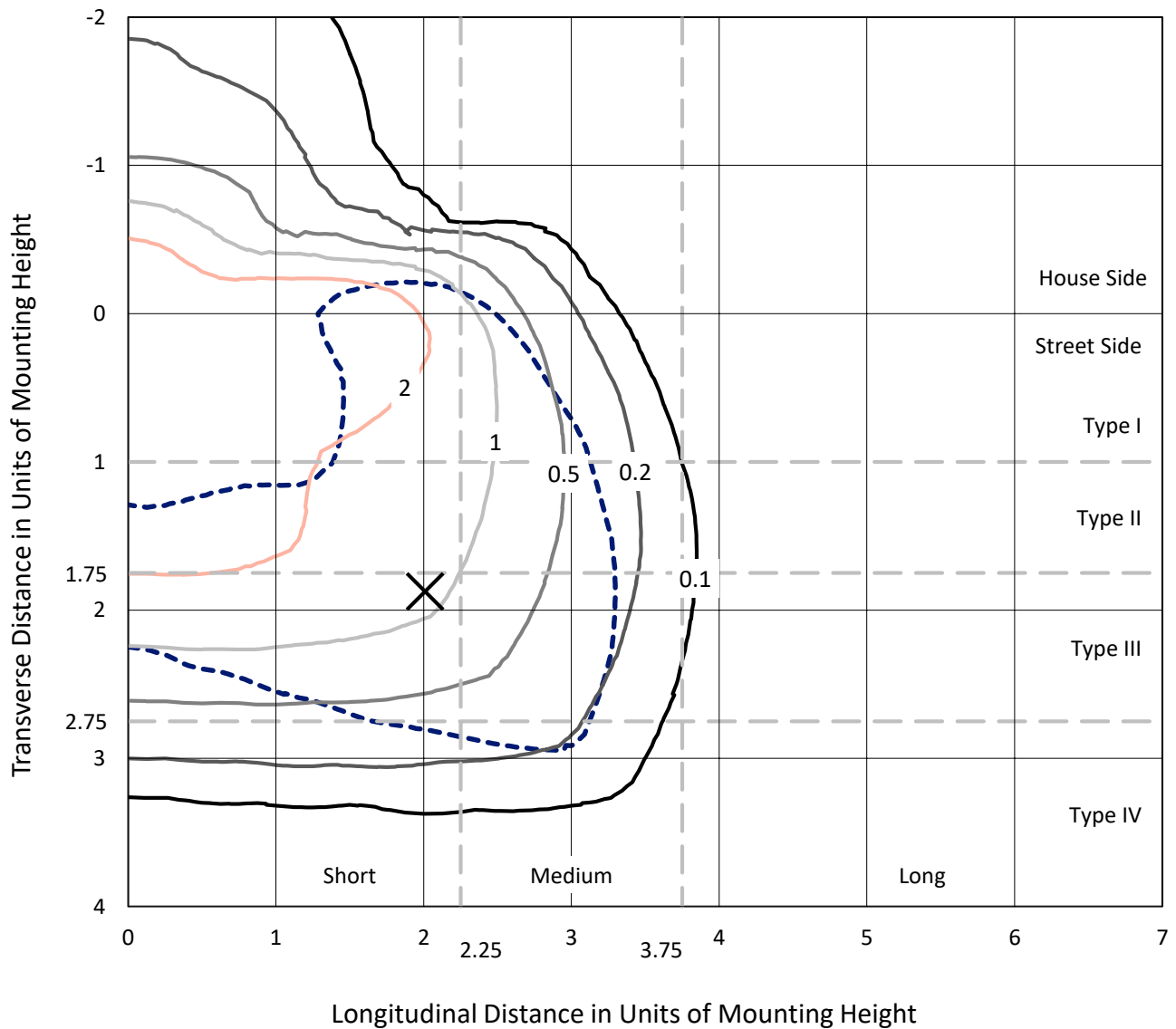


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Iso-Footcandle Lines of Horizontal Illumination

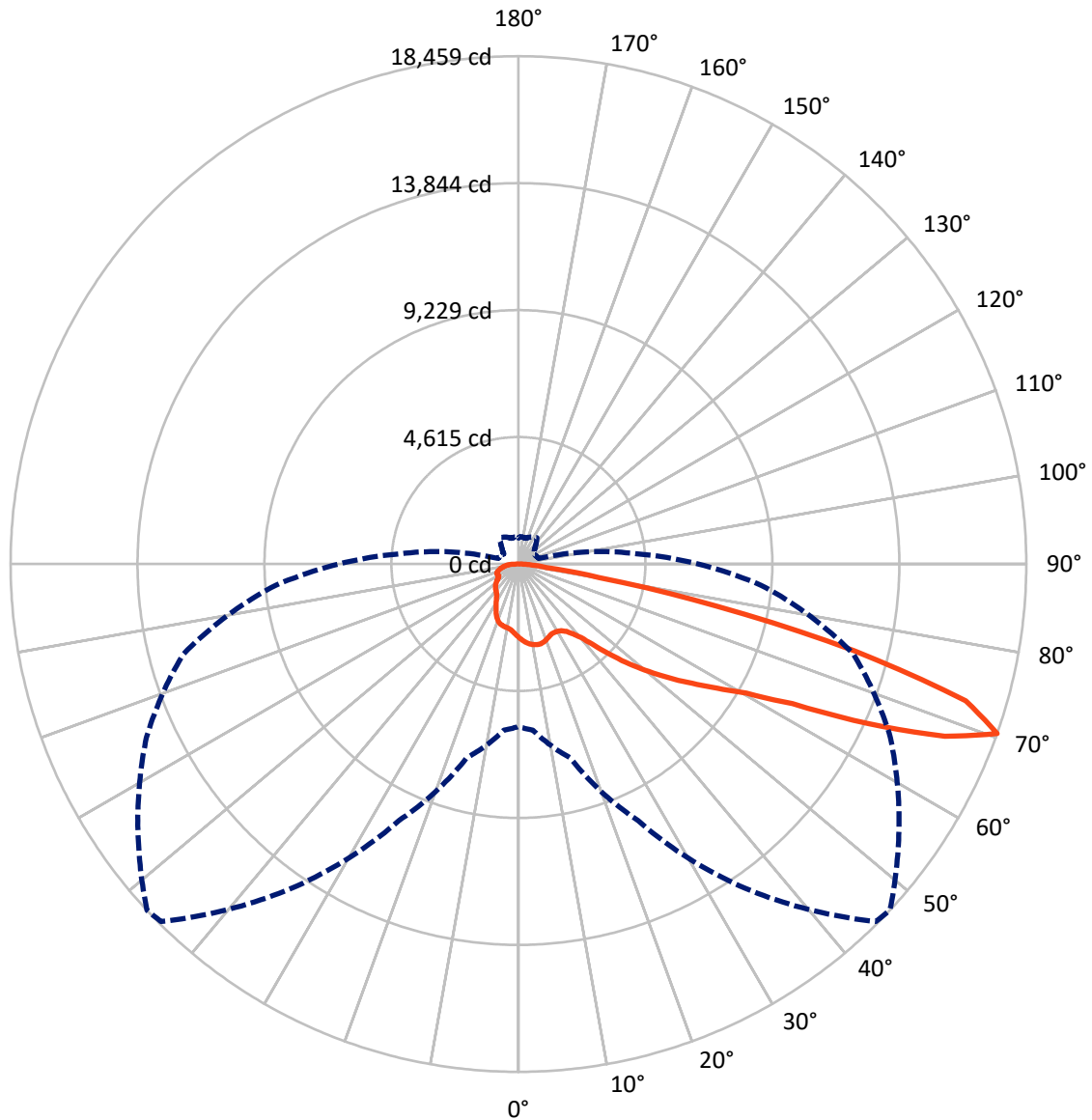
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4799.8	0.0	4799.8
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	18207.7	0.0	18207.7
	% Fixture	79.1	0.0	79.1
Total	Lumens	23007.5	0.0	23007.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.8	1.1
10°-20°	750.4	3.3
20°-30°	1108.2	4.8
30°-40°	1610.7	7.0
40°-50°	2898.7	12.6
50°-60°	5021.7	21.8
60°-70°	7167.5	31.2
70°-80°	3679.4	16.0
80°-90°	515.1	2.2
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°	23007.5	100.0
0°-180°	23007.5	100.0



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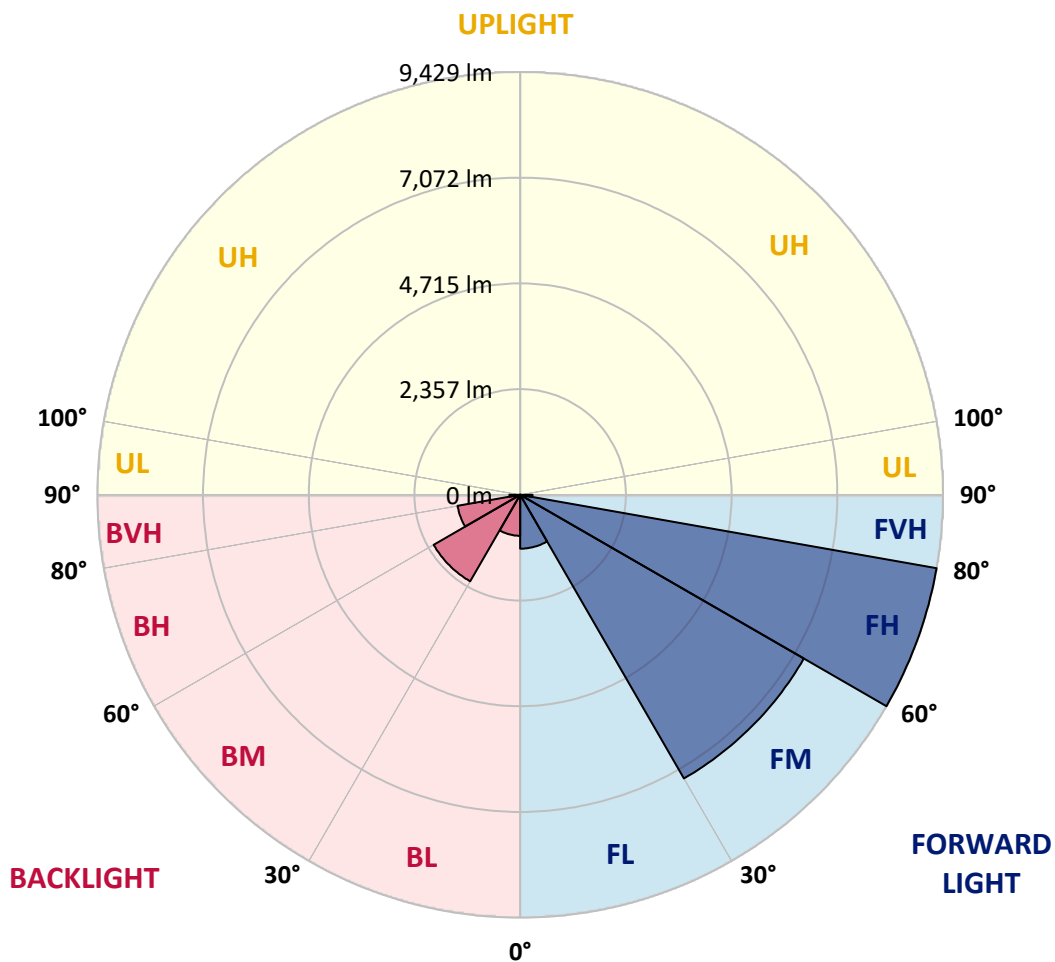
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1200.5	5.2			
FM	(30°-60°)	7303.2	31.7			
FH	(60°-80°)	9429.1	41.0			G4/12000
FVH	(80°-90°)	274.9	1.2			G3/500
BL	(0°-30°)	913.9	4.0	B2/1000		
BM	(30°-60°)	2227.9	9.7	B2/2500		
BH	(60°-80°)	1417.7	6.2	B3/2500		G3/2500
BVH	(80°-90°)	240.2	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5
2.5°	2826.4	2820.8	2818.6	2814.1	2808.6	2780.3	2774.7	2754.7	2726.8	2697.4	2667.3
5°	3012.3	3011.2	2998.5	2976.2	2940.5	2878.8	2864.3	2815.3	2749.1	2685.1	2621.6
7.5°	3175.5	3165.4	3142.0	3097.0	3034.6	2950.6	2930.5	2862.1	2771.4	2684.0	2597.8
10°	3295.2	3289.6	3238.3	3176.6	3094.8	3001.9	2978.5	2902.2	2802.6	2691.8	2584.4
12.5°	3363.6	3352.4	3293.0	3219.3	3122.0	3031.2	3007.5	2930.5	2818.6	2691.8	2565.4
15°	3359.1	3351.3	3291.8	3211.2	3113.0	3033.5	3012.3	2935.0	2815.3	2680.7	2540.9
17.5°	3269.5	3272.9	3222.7	3143.1	3062.5	3001.9	2982.9	2911.5	2792.6	2658.4	2511.9
20°	3113.0	3128.6	3094.8	3024.6	2979.6	2938.3	2926.0	2865.4	2758.0	2626.0	2480.3
22.5°	2956.2	2970.6	2957.3	2897.8	2891.1	2866.6	2859.9	2816.4	2727.9	2606.0	2461.4
25°	2840.9	2854.3	2852.1	2800.4	2820.8	2819.7	2814.1	2792.6	2721.2	2606.0	2464.7
27.5°	2809.7	2814.1	2809.7	2762.5	2790.4	2813.0	2808.6	2804.8	2741.3	2638.3	2507.4
30°	2917.1	2910.4	2875.5	2780.3	2806.3	2837.6	2833.1	2835.3	2801.5	2723.4	2602.6
32.5°	3345.7	3315.3	3205.6	2938.3	2869.9	2886.6	2888.9	2926.0	2931.6	2854.3	2750.2
35°	3987.0	3953.6	3811.2	3361.4	3068.0	3010.1	3010.1	3065.8	3099.3	3042.4	2979.6
37.5°	4666.6	4629.4	4553.6	3948.0	3484.4	3223.8	3218.2	3257.3	3305.2	3319.0	3334.6
40°	5438.7	5399.7	5420.8	4606.0	4065.5	3594.1	3514.5	3486.6	3616.4	3702.6	3828.3
42.5°	6284.1	6265.8	6273.6	5339.1	4726.8	4148.4	4035.3	3890.7	4047.6	4200.8	4464.0
45°	7066.2	7081.8	7074.0	6123.8	5463.6	4824.2	4704.5	4424.6	4578.1	4840.9	5269.9
47.5°	7751.3	7686.3	7787.0	6981.1	6288.5	5581.1	5433.1	5058.4	5213.8	5538.3	6263.6
50°	8582.9	8574.0	8426.4	8125.3	7285.5	6340.9	6147.2	5713.0	5954.7	6406.0	7516.4
52.5°	9457.3	9294.8	9159.5	9014.9	8343.5	7120.1	6882.6	6365.5	6825.7	7393.0	9043.2
55°	9636.1	9563.6	9731.3	9974.4	9363.2	7929.4	7652.8	7183.7	7806.4	8521.6	10803.8
57.5°	10019.0	10017.9	10365.1	10798.2	10413.1	8787.8	8509.0	8172.2	8908.6	9814.2	12672.9
60°	10277.8	10350.2	10995.2	11835.8	11443.9	9779.6	9523.1	9312.7	10162.5	11259.2	14414.6
62.5°	10413.1	10511.6	11391.5	12256.6	12901.2	11430.5	11174.4	10871.1	11821.3	12844.3	15433.2
65°	9850.2	10043.6	11329.8	12620.5	14177.4	14106.8	13991.5	13458.8	13895.2	14096.7	15065.1
67.5°	8291.9	8490.0	9987.8	12281.1	15088.6	16688.2	16712.7	15802.7	15171.5	14204.2	12666.2
70°	5907.8	6063.2	7302.6	10296.7	14394.5	18374.8	18458.8	16882.6	14917.2	12596.7	8849.5
72.5°	2804.8	2900.0	4073.3	6701.5	11422.7	16835.8	16998.2	15503.8	12684.1	9326.1	4827.5
75°	1030.9	1059.9	1376.6	2850.9	6625.3	12415.7	12607.1	11113.8	8408.2	4643.1	1839.0
77.5°	617.8	636.8	772.5	1203.4	2606.0	7096.7	7379.6	6044.3	3674.7	1728.3	904.5
80°	432.0	445.4	553.9	748.7	1231.2	2704.5	2956.2	2466.9	1463.9	1093.7	658.0
82.5°	292.2	298.9	389.6	506.0	818.2	965.8	1042.0	1097.0	987.4	813.8	417.5
85°	191.5	198.1	264.3	333.5	520.4	499.3	510.4	645.7	720.8	552.8	231.6
87.5°	109.7	114.1	159.1	178.1	255.4	211.5	213.8	340.2	461.3	372.9	140.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5	2669.5
2.5°	2659.5	2645.0	2612.7	2592.2	2573.2	2568.8	2561.0	2559.9	2558.8	2558.8	2555.4
5°	2600.0	2575.5	2525.3	2497.0	2473.6	2471.4	2470.3	2475.9	2478.1	2480.3	2477.0
7.5°	2562.1	2528.6	2465.8	2425.7	2397.8	2390.7	2402.2	2427.9	2444.6	2451.3	2448.0
10°	2538.7	2497.0	2424.5	2380.7	2357.3	2353.9	2368.4	2398.9	2433.5	2446.9	2445.7
12.5°	2511.9	2464.7	2387.4	2341.6	2328.3	2335.0	2353.9	2381.8	2417.9	2439.0	2440.2
15°	2484.8	2430.1	2350.6	2310.4	2304.8	2313.8	2331.6	2352.8	2380.7	2402.2	2404.5
17.5°	2452.4	2395.2	2316.0	2274.4	2269.9	2274.4	2275.5	2286.6	2304.8	2324.9	2330.5
20°	2417.9	2359.5	2276.6	2235.3	2215.3	2197.4	2177.0	2179.2	2184.8	2205.2	2209.7
22.5°	2393.0	2335.0	2246.5	2189.2	2135.7	2081.8	2041.6	2036.1	2038.3	2055.0	2060.6
25°	2395.2	2333.8	2238.7	2140.2	2022.7	1936.4	1882.5	1873.6	1872.5	1884.8	1892.9
27.5°	2439.0	2377.3	2267.7	2089.6	1899.6	1771.8	1714.9	1708.2	1699.3	1702.6	1711.5
30°	2536.4	2479.2	2338.3	2038.3	1766.2	1610.8	1551.3	1544.6	1532.4	1526.8	1533.5
32.5°	2695.2	2648.3	2441.3	1988.9	1633.1	1472.9	1412.6	1398.1	1390.3	1383.7	1389.2
35°	2959.5	2939.4	2578.8	1935.3	1515.6	1366.6	1311.9	1289.6	1278.4	1290.7	1299.6
37.5°	3373.6	3384.8	2759.1	1851.3	1424.9	1296.3	1250.2	1224.5	1207.8	1217.9	1227.9
40°	3960.2	3968.1	2958.4	1732.7	1346.5	1254.7	1205.6	1182.2	1158.4	1140.5	1139.4
42.5°	4730.1	4651.0	3154.3	1604.1	1255.8	1229.0	1174.4	1145.0	1109.3	1059.9	1049.8
45°	5643.5	5365.1	3303.0	1456.1	1153.9	1197.8	1139.4	1099.3	1043.1	989.6	984.0
47.5°	6695.9	6131.6	3375.9	1303.0	1058.7	1151.7	1097.0	1033.1	962.5	935.7	932.3
50°	7980.7	7041.7	3410.4	1153.9	976.2	1091.5	1035.3	960.2	901.1	895.5	892.2
52.5°	9443.9	8136.5	3422.0	1032.0	907.8	1013.0	985.1	912.3	865.1	869.9	869.9
55°	10975.2	9267.0	3269.5	943.5	845.0	932.3	951.3	893.3	853.9	872.1	878.8
57.5°	12380.7	10268.8	2790.4	875.5	785.9	871.0	939.0	911.2	884.4	956.9	961.3
60°	13459.9	10860.7	2084.0	813.8	742.0	849.4	971.8	979.6	986.3	1159.5	1183.3
62.5°	13686.0	10664.0	1432.7	765.8	721.9	867.7	1030.9	1032.0	1024.2	1145.0	1159.5
65°	12648.4	9417.9	1042.0	738.7	705.2	900.0	1081.4	1057.6	1006.3	1098.1	1071.0
67.5°	10044.7	7095.6	867.7	718.6	680.7	897.8	1135.0	1081.4	996.3	1075.8	1032.0
70°	6520.1	4290.4	772.5	701.9	651.3	855.0	1166.2	1079.2	966.9	1000.7	949.1
72.5°	3181.1	1918.6	708.6	677.3	621.2	795.9	1165.1	1058.7	936.8	934.6	906.7
75°	1244.6	878.8	650.2	640.2	569.9	728.6	1133.8	1029.7	901.1	865.1	855.0
77.5°	728.6	626.8	576.6	585.5	508.2	661.3	1088.1	979.6	851.7	809.3	798.1
80°	530.5	469.1	491.5	506.0	434.2	594.4	1026.4	917.8	797.0	818.2	802.6
82.5°	340.2	302.2	398.5	413.0	361.7	526.0	959.1	852.8	719.7	653.5	637.9
85°	173.6	191.5	296.7	314.5	278.8	432.0	877.7	766.9	632.3	543.9	552.8
87.5°	97.4	130.9	189.2	211.5	197.0	332.3	711.9	632.3	516.0	419.7	369.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)