

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: P302781

Luminaire Tested: **GLNA-AF-04-LED-E1-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302781
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-04-LED-E1-T4W-7030
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22985 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

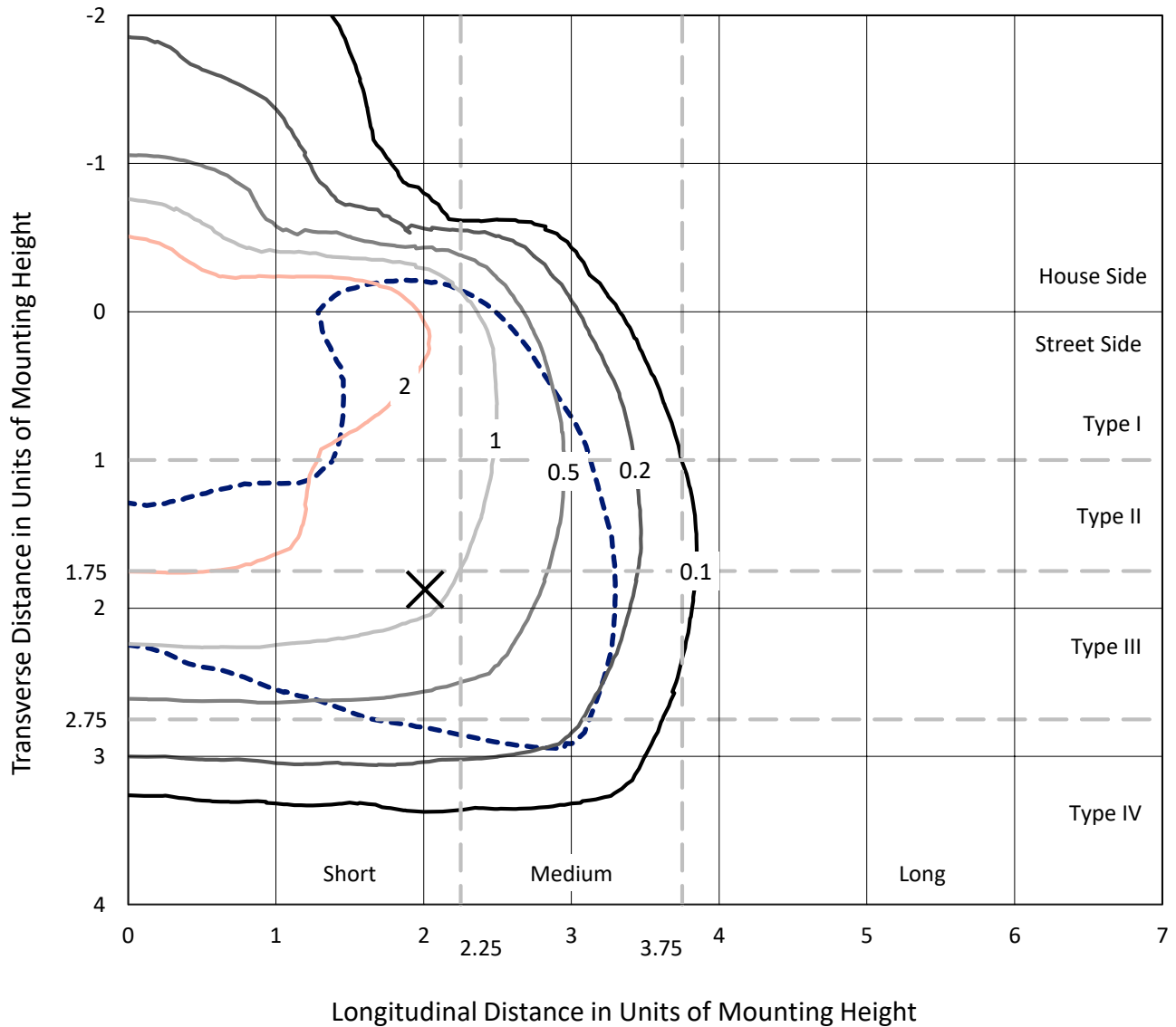
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

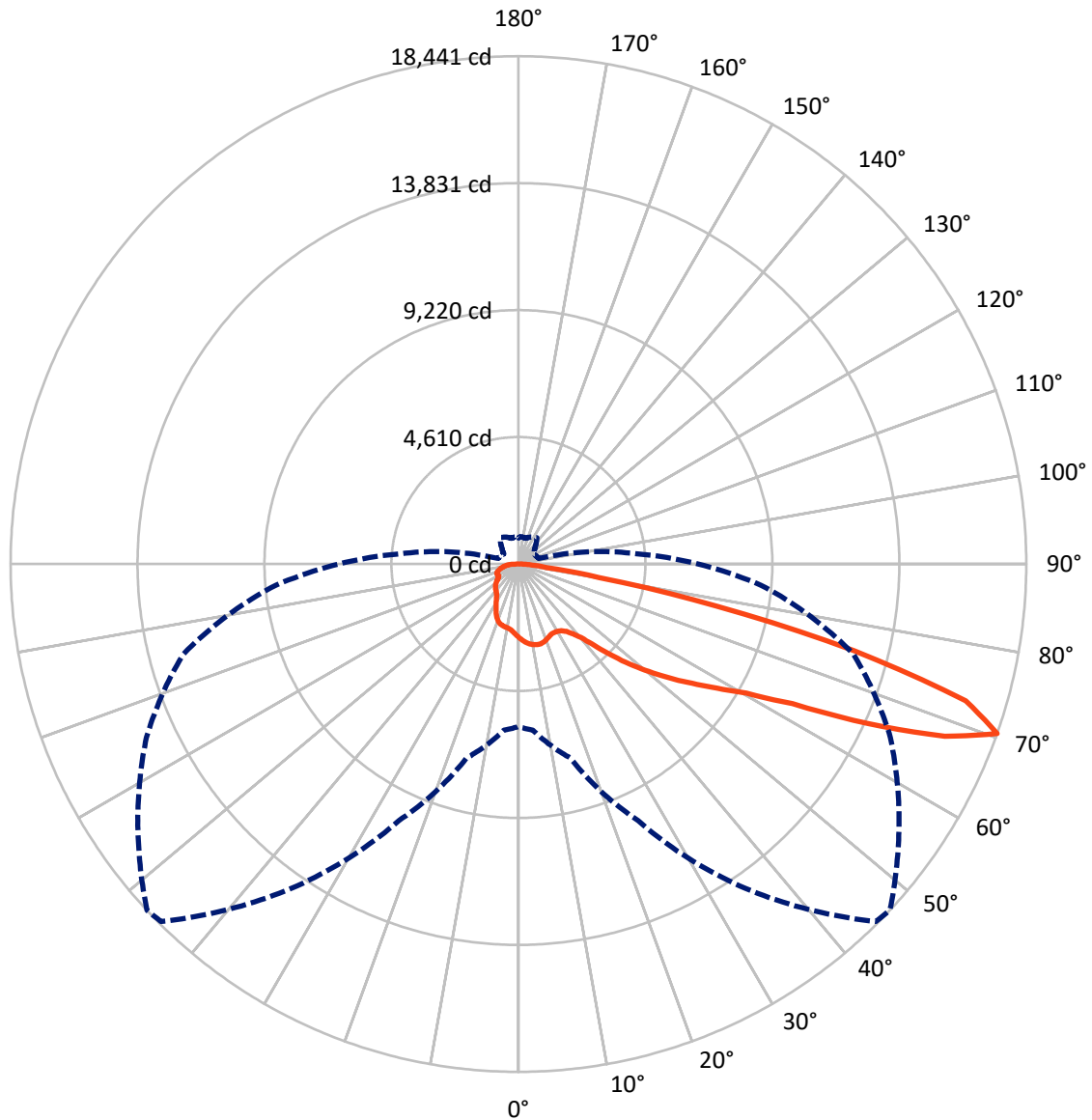
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 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	4795.1	0.0	4795.1
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	18189.9	0.0	18189.9
	% Fixture	79.1	0.0	79.1
Total	Lumens	22985.0	0.0	22985.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.5	1.1
10°-20°	749.7	3.3
20°-30°	1107.1	4.8
30°-40°	1609.1	7.0
40°-50°	2895.9	12.6
50°-60°	5016.8	21.8
60°-70°	7160.5	31.2
70°-80°	3675.8	16.0
80°-90°	514.6	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°	22985.0	100.0
0°-180°	22985.0	100.0



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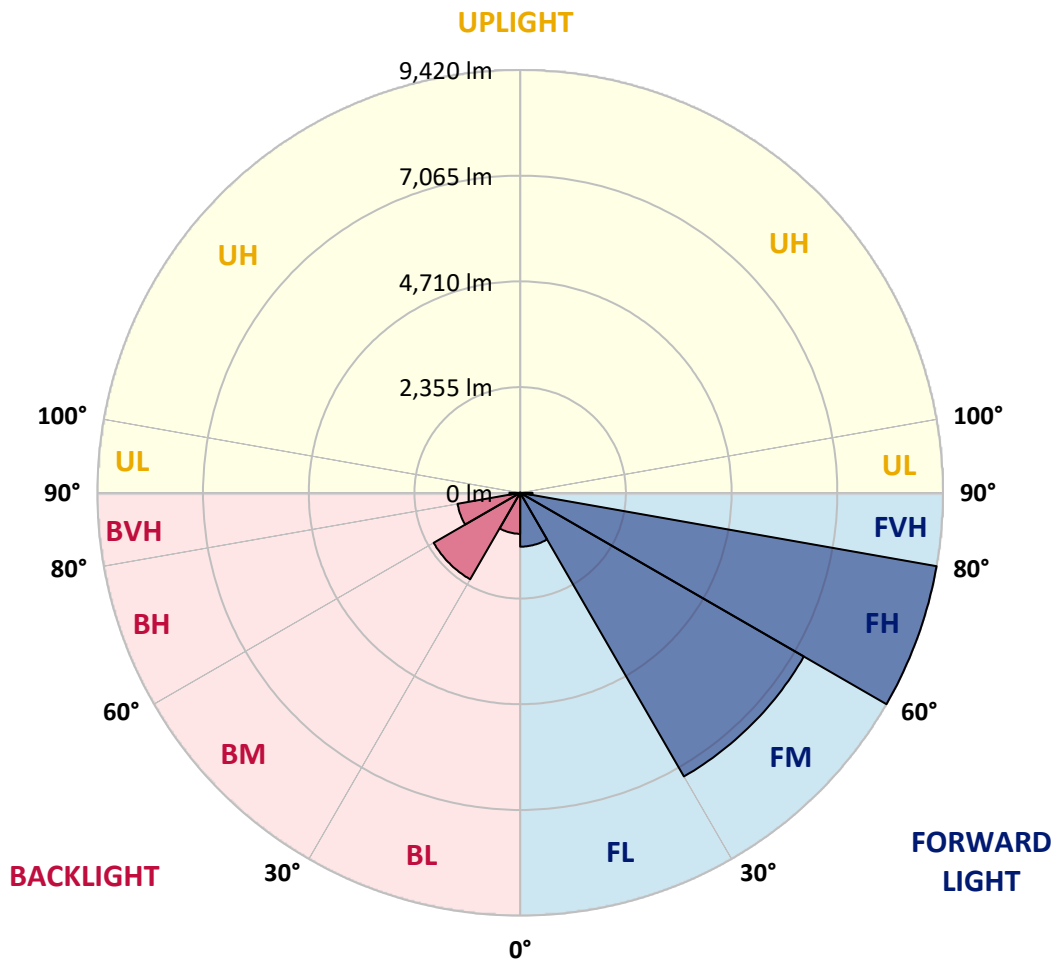
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1199.3	5.2			
FM	(30°-60°)	7296.1	31.7			
FH	(60°-80°)	9419.9	41.0			G4/12000
FVH	(80°-90°)	274.6	1.2			G3/500
BL	(0°-30°)	913.0	4.0	B2/1000		
BM	(30°-60°)	2225.8	9.7	B2/2500		
BH	(60°-80°)	1416.4	6.2	B3/2500		G3/2500
BVH	(80°-90°)	240.0	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°	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9
2.5°	2823.6	2818.1	2815.8	2811.4	2805.8	2777.6	2772.0	2752.0	2724.1	2694.8	2664.7
5°	3009.3	3008.2	2995.6	2973.3	2937.7	2876.0	2861.5	2812.5	2746.4	2682.5	2619.0
7.5°	3172.4	3162.3	3138.9	3094.0	3031.6	2947.7	2927.6	2859.3	2768.7	2681.4	2595.2
10°	3292.0	3286.4	3235.1	3173.5	3091.8	2998.9	2975.5	2899.4	2799.9	2689.2	2581.9
12.5°	3360.3	3349.2	3289.7	3216.2	3118.9	3028.3	3004.5	2927.6	2815.8	2689.2	2562.9
15°	3355.8	3348.0	3288.6	3208.0	3110.0	3030.5	3009.3	2932.1	2812.5	2678.1	2538.4
17.5°	3266.3	3269.7	3219.5	3140.1	3059.5	2998.9	2980.0	2908.7	2789.8	2655.8	2509.5
20°	3110.0	3125.6	3091.8	3021.6	2976.7	2935.4	2923.2	2862.6	2755.3	2623.5	2477.9
22.5°	2953.3	2967.7	2954.4	2894.9	2888.3	2863.8	2857.1	2813.6	2725.2	2603.4	2458.9
25°	2838.1	2851.5	2849.3	2797.6	2818.1	2817.0	2811.4	2789.8	2718.5	2603.4	2462.3
27.5°	2806.9	2811.4	2806.9	2759.8	2787.6	2810.3	2805.8	2802.1	2738.6	2635.7	2505.0
30°	2914.3	2907.6	2872.7	2777.6	2803.6	2834.8	2830.3	2832.6	2798.8	2720.8	2600.1
32.5°	3342.5	3312.0	3202.5	2935.4	2867.1	2883.8	2886.0	2923.2	2928.7	2851.5	2747.5
35°	3983.1	3949.7	3807.4	3358.1	3065.0	3007.1	3007.1	3062.8	3096.2	3039.4	2976.7
37.5°	4662.0	4624.9	4549.1	3944.1	3481.0	3220.7	3215.1	3254.1	3302.0	3315.7	3331.3
40°	5433.4	5394.4	5415.5	4601.5	4061.5	3590.6	3511.1	3483.2	3612.8	3699.0	3824.5
42.5°	6277.9	6259.7	6267.5	5333.8	4722.2	4144.3	4031.4	3886.9	4043.6	4196.7	4459.6
45°	7059.3	7074.9	7067.1	6117.8	5458.3	4819.5	4699.9	4420.2	4573.6	4836.2	5264.8
47.5°	7743.8	7678.8	7779.4	6974.2	6282.4	5575.6	5427.8	5053.4	5208.7	5532.9	6257.5
50°	8574.5	8565.6	8418.2	8117.4	7278.4	6334.7	6141.2	5707.5	5948.9	6399.7	7509.0
52.5°	9448.0	9285.8	9150.6	9006.1	8335.4	7113.1	6875.8	6359.2	6819.0	7385.7	9034.3
55°	9626.7	9554.3	9721.8	9964.6	9354.1	7921.7	7645.3	7176.7	7798.7	8513.3	10793.2
57.5°	10009.2	10008.1	10355.0	10787.6	10402.9	8779.2	8500.6	8164.2	8899.9	9804.6	12660.5
60°	10267.7	10340.1	10984.5	11824.2	11432.7	9770.0	9513.8	9303.6	10152.6	11248.2	14400.5
62.5°	10402.9	10501.3	11380.4	12244.6	12888.6	11419.4	11163.5	10860.4	11809.7	12831.7	15418.1
65°	9840.6	10033.7	11318.7	12608.2	14163.5	14093.0	13977.8	13445.6	13881.6	14082.9	15050.4
67.5°	8283.8	8481.7	9978.0	12269.1	15073.8	16671.9	16696.4	15787.2	15156.6	14190.3	12653.8
70°	5902.1	6057.3	7295.5	10286.6	14380.4	18356.8	18440.8	16866.1	14902.6	12584.4	8840.8
72.5°	2802.1	2897.2	4069.3	6695.0	11411.6	16819.3	16981.6	15488.6	12671.7	9316.9	4822.8
75°	1029.9	1058.8	1375.2	2848.2	6618.8	12403.5	12594.8	11102.9	8400.0	4638.6	1837.2
77.5°	617.2	636.2	771.7	1202.2	2603.4	7089.7	7372.4	6038.4	3671.1	1726.6	903.6
80°	431.5	444.9	553.4	748.0	1230.0	2701.8	2953.3	2464.5	1462.5	1092.6	657.4
82.5°	291.9	298.6	389.2	505.5	817.4	964.9	1041.0	1096.0	986.4	813.0	417.1
85°	191.3	197.9	264.1	333.1	519.9	498.8	509.9	645.1	720.1	552.3	231.4
87.5°	109.6	114.0	159.0	177.9	255.1	211.3	213.5	339.8	460.9	372.5	140.8
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°	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9	2666.9
2.5°	2656.9	2642.4	2610.1	2589.7	2570.7	2566.3	2558.5	2557.4	2556.2	2556.2	2552.9
5°	2597.5	2573.0	2522.8	2494.6	2471.2	2469.0	2467.9	2473.4	2475.7	2477.9	2474.5
7.5°	2559.6	2526.2	2463.4	2423.3	2395.4	2388.4	2399.9	2425.5	2442.2	2448.9	2445.6
10°	2536.2	2494.6	2422.2	2378.4	2355.0	2351.6	2366.1	2396.6	2431.1	2444.5	2443.3
12.5°	2509.5	2462.3	2385.0	2339.4	2326.0	2332.7	2351.6	2379.5	2415.5	2436.7	2437.8
15°	2482.3	2427.7	2348.3	2308.2	2302.6	2311.5	2329.3	2350.5	2378.4	2399.9	2402.1
17.5°	2450.0	2392.8	2313.7	2272.1	2267.7	2272.1	2273.3	2284.4	2302.6	2322.6	2328.2
20°	2415.5	2357.2	2274.4	2233.1	2213.1	2195.3	2174.8	2177.1	2182.6	2203.1	2207.5
22.5°	2390.6	2332.7	2244.3	2187.1	2133.6	2079.8	2039.6	2034.1	2036.3	2053.0	2058.6
25°	2392.8	2331.6	2236.5	2138.1	2020.7	1934.5	1880.7	1871.8	1870.7	1882.9	1891.1
27.5°	2436.7	2375.0	2265.5	2087.6	1897.8	1770.0	1713.2	1706.5	1697.6	1700.9	1709.9
30°	2534.0	2476.8	2336.0	2036.3	1764.5	1609.2	1549.8	1543.1	1530.9	1525.3	1532.0
32.5°	2692.5	2645.7	2438.9	1986.9	1631.5	1471.4	1411.3	1396.8	1389.0	1382.3	1387.9
35°	2956.6	2936.5	2576.3	1933.4	1514.1	1365.2	1310.6	1288.3	1277.2	1289.5	1298.4
37.5°	3370.3	3381.5	2756.4	1849.5	1423.5	1295.0	1249.0	1223.3	1206.6	1216.7	1226.7
40°	3956.4	3964.2	2955.5	1731.0	1345.2	1253.4	1204.4	1181.0	1157.2	1139.4	1138.3
42.5°	4725.5	4646.4	3151.2	1602.5	1254.5	1227.8	1173.2	1143.9	1108.2	1058.8	1048.8
45°	5638.0	5359.8	3299.8	1454.7	1152.8	1196.6	1138.3	1098.2	1042.1	988.6	983.1
47.5°	6689.4	6125.6	3372.6	1301.7	1057.7	1150.6	1096.0	1032.1	961.5	934.8	931.4
50°	7972.9	7034.8	3407.1	1152.8	975.3	1090.4	1034.3	959.3	900.2	894.7	891.3
52.5°	9434.7	8128.5	3418.6	1031.0	906.9	1012.0	984.2	911.4	864.2	869.0	869.0
55°	10964.4	9257.9	3266.3	942.6	844.2	931.4	950.4	892.4	853.1	871.3	878.0
57.5°	12368.6	10258.8	2787.6	874.6	785.1	870.2	938.1	910.3	883.5	955.9	960.4
60°	13446.8	10850.0	2082.0	813.0	741.3	848.6	970.8	978.6	985.3	1158.4	1182.1
62.5°	13672.6	10653.6	1431.3	765.1	721.2	866.8	1029.9	1031.0	1023.2	1143.9	1158.4
65°	12636.0	9408.7	1041.0	737.9	704.5	899.1	1080.4	1056.6	1005.3	1097.1	1070.0
67.5°	10034.8	7088.6	866.8	717.9	680.0	896.9	1133.8	1080.4	995.3	1074.8	1031.0
70°	6513.7	4286.2	771.7	701.2	650.7	854.2	1165.0	1078.1	966.0	999.8	948.1
72.5°	3177.9	1916.7	707.9	676.7	620.6	795.1	1163.9	1057.7	935.9	933.7	905.8
75°	1243.4	878.0	649.6	639.5	569.3	727.9	1132.7	1028.7	900.2	864.2	854.2
77.5°	727.9	626.2	576.0	584.9	507.7	660.7	1087.0	978.6	850.8	808.5	797.4
80°	530.0	468.7	491.0	505.5	433.8	593.8	1025.4	917.0	796.3	817.4	801.8
82.5°	339.8	301.9	398.1	412.6	361.4	525.5	958.2	852.0	719.0	652.9	637.3
85°	173.4	191.3	296.4	314.2	278.5	431.5	876.8	766.2	631.7	543.3	552.3
87.5°	97.3	130.7	189.0	211.3	196.8	332.0	711.2	631.7	515.5	419.3	369.2
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)