

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: P302786

Luminaire Tested: **GLNA-AF-05-LED-E1-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302786
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-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25580.6 lumens
Efficiency: N/A
Efficacy: 91.7 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

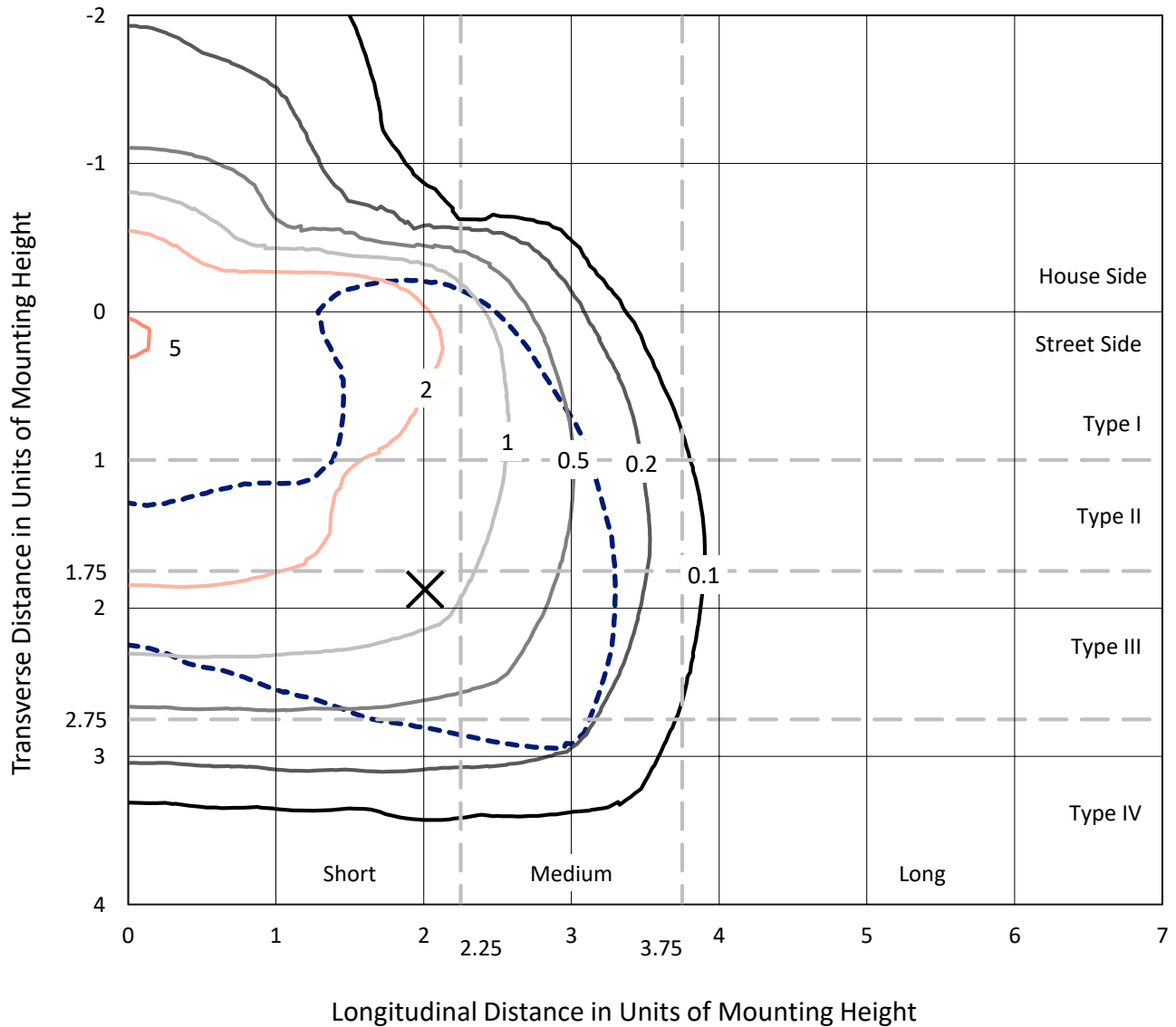
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

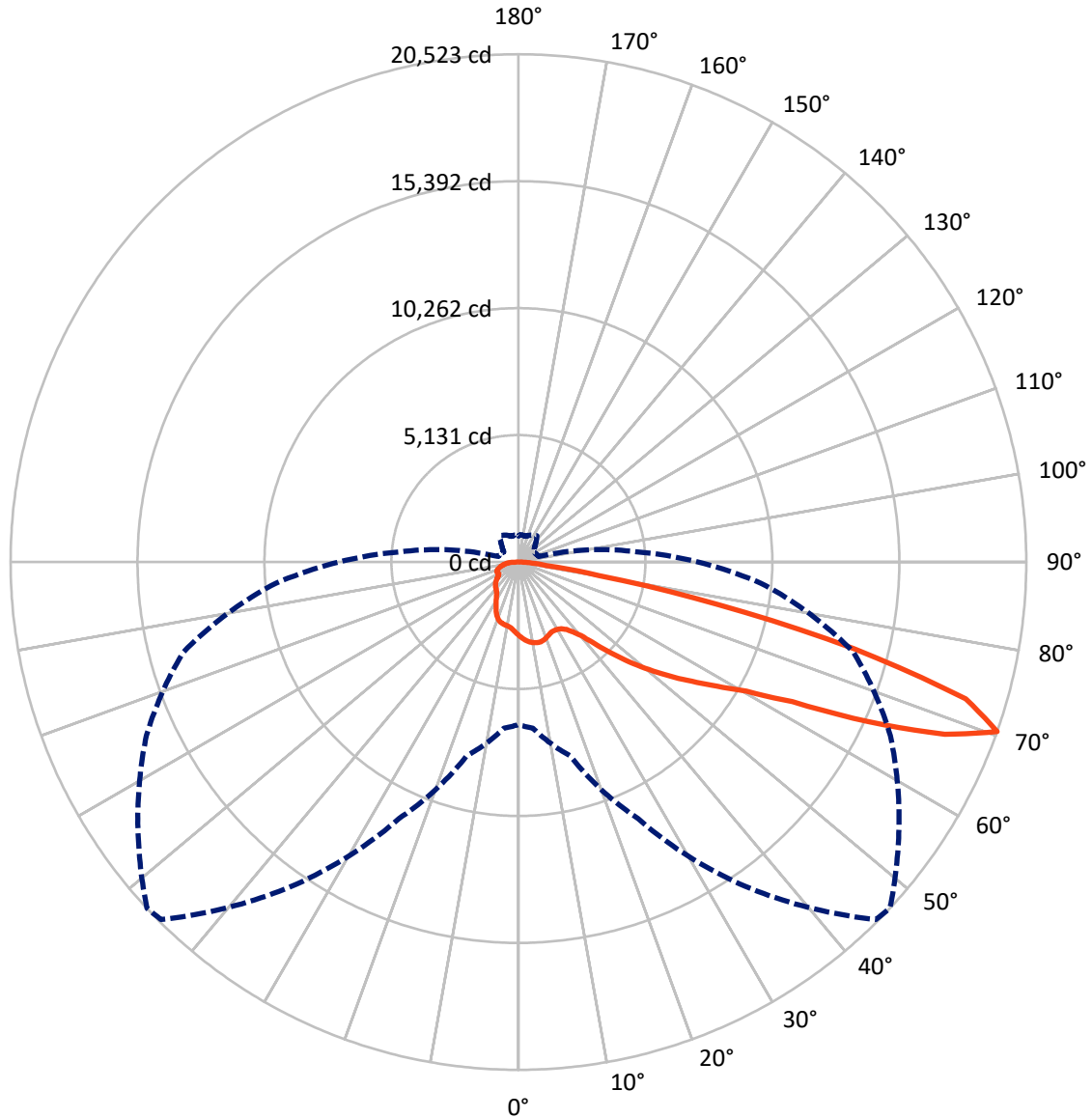
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 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	5336.6	0.0	5336.6
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	20244.0	0.0	20244.0
	% Fixture	79.1	0.0	79.1
Total	Lumens	25580.6	0.0	25580.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.4	1.1
10°-20°	834.4	3.3
20°-30°	1232.1	4.8
30°-40°	1790.9	7.0
40°-50°	3222.9	12.6
50°-60°	5583.3	21.8
60°-70°	7969.1	31.2
70°-80°	4090.9	16.0
80°-90°	572.7	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°	25580.6	100.0
0°-180°	25580.6	100.0



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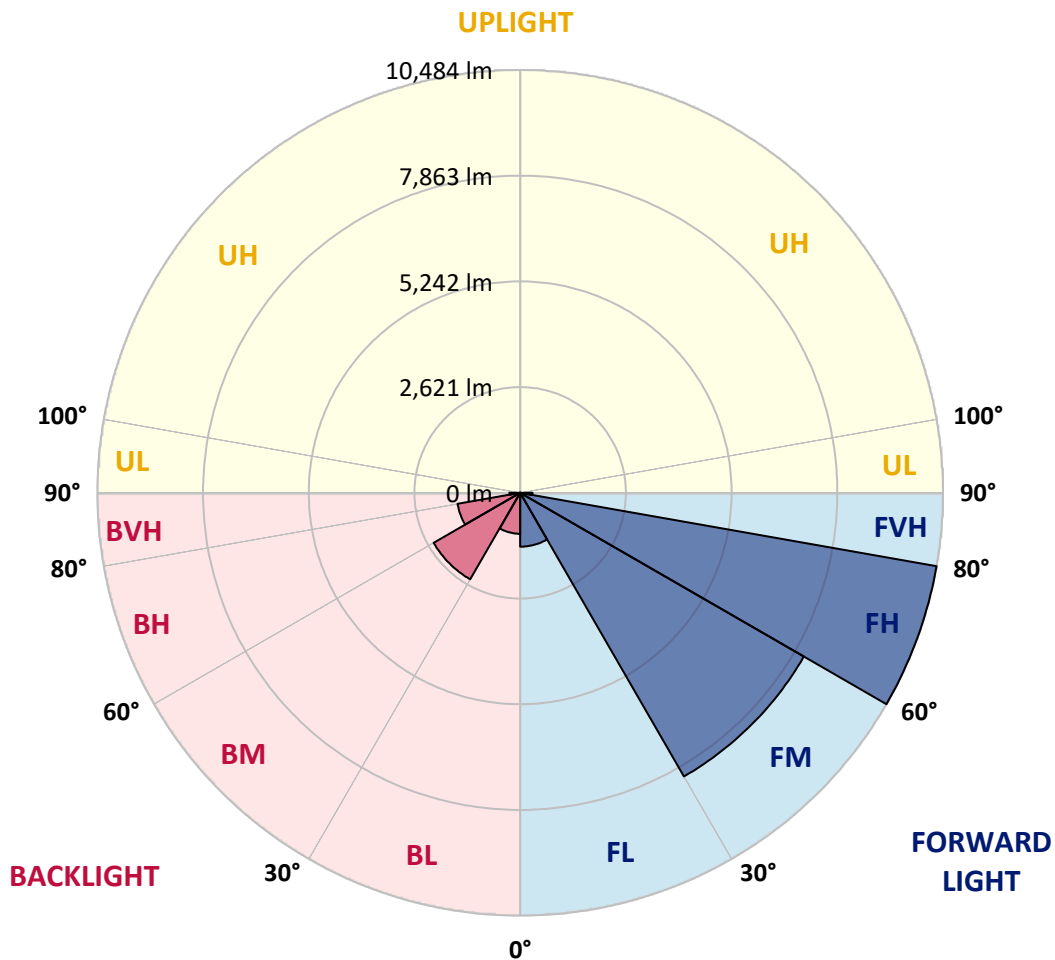
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1334.7	5.2			
FM	(30°-60°)	8120.0	31.7			
FH	(60°-80°)	10483.6	41.0			G4/12000
FVH	(80°-90°)	305.6	1.2			G3/500
BL	(0°-30°)	1016.1	4.0	B3/2500		
BM	(30°-60°)	2477.1	9.7	B2/2500		
BH	(60°-80°)	1576.3	6.2	B3/2500		G3/2500
BVH	(80°-90°)	267.1	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°	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1
2.5°	3142.5	3136.3	3133.8	3128.9	3122.7	3091.2	3085.0	3062.7	3031.7	2999.1	2965.6
5°	3349.2	3347.9	3333.9	3309.1	3269.4	3200.8	3184.7	3130.1	3056.5	2985.4	2914.8
7.5°	3530.6	3519.4	3493.4	3443.4	3374.0	3280.5	3258.2	3182.2	3081.3	2984.2	2888.3
10°	3663.7	3657.5	3600.5	3531.8	3440.9	3337.6	3311.5	3226.8	3116.0	2992.9	2873.4
12.5°	3739.8	3727.4	3661.2	3579.4	3471.1	3370.2	3343.8	3258.2	3133.8	2992.9	2852.3
15°	3734.8	3726.1	3660.0	3570.3	3461.2	3372.7	3349.2	3263.2	3130.1	2980.5	2825.1
17.5°	3635.2	3638.9	3583.1	3494.6	3405.0	3337.6	3316.5	3237.1	3104.9	2955.7	2792.8
20°	3461.2	3478.5	3440.9	3362.8	3312.8	3266.9	3253.3	3185.9	3066.4	2919.7	2757.7
22.5°	3286.7	3302.9	3288.0	3221.9	3214.4	3187.1	3179.7	3131.3	3033.0	2897.4	2736.6
25°	3158.6	3173.5	3171.0	3113.6	3136.3	3135.1	3128.9	3104.9	3025.5	2897.4	2740.3
27.5°	3123.9	3128.9	3123.9	3071.4	3102.4	3127.6	3122.7	3118.5	3047.8	2933.4	2787.9
30°	3243.3	3235.9	3197.1	3091.2	3120.2	3154.9	3149.9	3152.4	3114.8	3028.0	2893.7
32.5°	3719.9	3686.0	3564.1	3266.9	3190.9	3209.5	3211.9	3253.3	3259.5	3173.5	3057.8
35°	4432.9	4395.7	4237.4	3737.3	3411.2	3346.7	3346.7	3408.7	3445.9	3382.6	3312.8
37.5°	5188.4	5147.1	5062.8	4389.5	3874.1	3584.3	3578.1	3621.5	3674.9	3690.2	3707.5
40°	6046.9	6003.5	6027.1	5121.1	4520.1	3996.0	3907.6	3876.6	4020.8	4116.7	4256.4
42.5°	6986.8	6966.6	6975.2	5936.2	5255.4	4612.3	4486.6	4325.8	4500.3	4670.6	4963.2
45°	7856.5	7873.8	7865.1	6808.7	6074.6	5363.7	5230.6	4919.4	5090.1	5382.3	5859.3
47.5°	8618.2	8545.9	8657.9	7761.8	6991.8	6205.2	6040.7	5624.1	5796.9	6157.7	6964.1
50°	9542.8	9532.9	9368.8	9034.0	8100.3	7050.1	6834.7	6352.0	6620.6	7122.4	8357.0
52.5°	10514.9	10334.3	10183.9	10023.1	9276.6	7916.4	7652.3	7077.3	7589.0	8219.8	10054.5
55°	10713.8	10633.2	10819.6	11089.9	10410.4	8816.2	8508.7	7987.1	8679.4	9474.6	12012.0
57.5°	11139.5	11138.2	11524.3	12005.8	11577.6	9770.6	9460.6	9086.1	9904.9	10911.7	14090.2
60°	11427.2	11507.8	12224.9	13159.4	12723.7	10873.3	10588.1	10354.2	11299.0	12518.3	16026.6
62.5°	11577.6	11687.1	12665.5	13627.3	14344.0	12708.9	12424.1	12086.8	13143.3	14280.7	17159.1
65°	10951.8	11166.8	12596.9	14031.9	15762.9	15684.4	15556.3	14964.0	15449.2	15673.2	16749.9
67.5°	9219.2	9439.5	11104.8	13654.6	16776.0	18554.5	18581.8	17570.0	16868.1	15792.7	14082.8
70°	6568.5	6741.3	8119.3	11448.2	16004.3	20429.8	20523.2	18770.7	16585.4	14005.5	9839.2
72.5°	3118.5	3224.3	4528.8	7451.0	12700.2	18718.6	18899.2	17237.7	14102.6	10369.0	5367.4
75°	1146.1	1178.4	1530.5	3169.8	7366.3	13804.2	14017.0	12356.7	9348.6	5162.4	2044.7
77.5°	686.9	708.0	858.9	1337.9	2897.4	7890.3	8204.9	6720.2	4085.7	1921.5	1005.6
80°	480.3	495.2	615.9	832.4	1368.9	3006.9	3286.7	2742.8	1627.7	1216.0	731.6
82.5°	324.9	332.3	433.2	562.5	909.7	1073.8	1158.5	1219.7	1097.8	904.8	464.2
85°	212.9	220.3	293.9	370.8	578.7	555.1	567.5	717.9	801.4	614.6	257.5
87.5°	121.9	126.9	176.9	198.0	284.0	235.2	237.7	378.2	512.9	414.6	156.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1	2968.1
2.5°	2956.9	2940.8	2904.8	2882.1	2861.0	2856.1	2847.4	2846.1	2844.9	2844.9	2841.2
5°	2890.8	2863.5	2807.7	2776.3	2750.3	2747.8	2746.5	2752.7	2755.2	2757.7	2754.0
7.5°	2848.6	2811.4	2741.6	2696.9	2665.9	2658.1	2670.9	2699.4	2718.0	2725.5	2721.7
10°	2822.6	2776.3	2695.7	2646.9	2620.9	2617.2	2633.3	2667.2	2705.6	2720.5	2719.3
12.5°	2792.8	2740.3	2654.4	2603.5	2588.6	2596.1	2617.2	2648.2	2688.3	2711.8	2713.1
15°	2762.7	2701.9	2613.4	2568.8	2562.6	2572.5	2592.4	2615.9	2646.9	2670.9	2673.4
17.5°	2726.7	2663.0	2575.0	2528.7	2523.8	2528.7	2530.0	2542.4	2562.6	2584.9	2591.1
20°	2688.3	2623.4	2531.2	2485.3	2463.0	2443.2	2420.4	2422.9	2429.1	2451.8	2456.8
22.5°	2660.6	2596.1	2497.7	2434.1	2374.5	2314.6	2270.0	2263.8	2266.3	2284.9	2291.1
25°	2663.0	2594.8	2489.0	2379.5	2248.9	2153.0	2093.1	2083.2	2081.9	2095.6	2104.6
27.5°	2711.8	2643.2	2521.3	2323.3	2112.1	1969.9	1906.7	1899.2	1889.3	1893.0	1902.9
30°	2820.1	2756.5	2599.8	2266.3	1963.7	1790.9	1724.8	1717.4	1703.7	1697.5	1705.0
32.5°	2996.6	2944.5	2714.3	2211.3	1815.7	1637.6	1570.6	1554.5	1545.8	1538.4	1544.6
35°	3290.5	3268.1	2867.2	2151.8	1685.1	1519.4	1458.6	1433.8	1421.4	1435.1	1445.0
37.5°	3750.9	3763.3	3067.7	2058.4	1584.3	1441.3	1390.0	1361.5	1342.9	1354.0	1365.2
40°	4403.1	4411.8	3289.2	1926.5	1497.1	1395.0	1340.4	1314.4	1287.9	1268.1	1266.8
42.5°	5259.1	5171.1	3507.0	1783.5	1396.2	1366.4	1305.7	1273.0	1233.4	1178.4	1167.2
45°	6274.7	5965.1	3672.4	1619.0	1283.0	1331.7	1266.8	1222.2	1159.8	1100.3	1094.1
47.5°	7444.8	6817.4	3753.4	1448.7	1177.1	1280.5	1219.7	1148.6	1070.1	1040.3	1036.6
50°	8873.2	7829.2	3791.8	1283.0	1085.4	1213.5	1151.1	1067.6	1001.9	995.7	992.0
52.5°	10500.1	9046.4	3804.6	1147.4	1009.3	1126.3	1095.3	1014.3	961.8	967.2	967.2
55°	12202.5	10303.3	3635.2	1049.0	939.5	1036.6	1057.7	993.2	949.4	969.7	977.1
57.5°	13765.3	11417.2	3102.4	973.4	873.8	968.4	1044.1	1013.1	983.3	1063.9	1068.9
60°	14965.2	12075.2	2317.1	904.8	825.0	944.4	1080.4	1089.1	1096.5	1289.2	1315.6
62.5°	15216.5	11856.6	1592.9	851.4	802.7	964.7	1146.1	1147.4	1138.7	1273.0	1289.2
65°	14062.9	10471.1	1158.5	821.3	784.1	1000.7	1202.4	1175.9	1118.9	1221.0	1190.8
67.5°	11168.0	7889.1	964.7	799.0	756.8	998.2	1261.9	1202.4	1107.7	1196.2	1147.4
70°	7249.3	4770.2	858.9	780.4	724.1	950.6	1296.6	1199.9	1075.1	1112.7	1055.2
72.5°	3536.8	2133.2	787.8	753.1	690.7	884.9	1295.4	1177.1	1041.6	1039.1	1008.1
75°	1383.8	977.1	722.9	711.7	633.6	810.1	1260.6	1144.9	1001.9	961.8	950.6
77.5°	810.1	696.9	641.1	651.0	565.0	735.3	1209.8	1089.1	946.9	899.8	887.4
80°	589.8	521.6	546.4	562.5	482.8	660.9	1141.2	1020.5	886.2	909.7	892.4
82.5°	378.2	336.0	443.1	459.2	402.2	584.9	1066.4	948.2	800.2	726.6	709.3
85°	193.0	212.9	329.8	349.7	310.0	480.3	975.9	852.7	703.1	604.7	614.6
87.5°	108.3	145.5	210.4	235.2	219.1	369.5	791.5	703.1	573.7	466.6	410.8
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)