

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: P299180

Luminaire Tested: **GLNA-AF-05-LED-E1-T3-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299180
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
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-T3-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23173.2 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

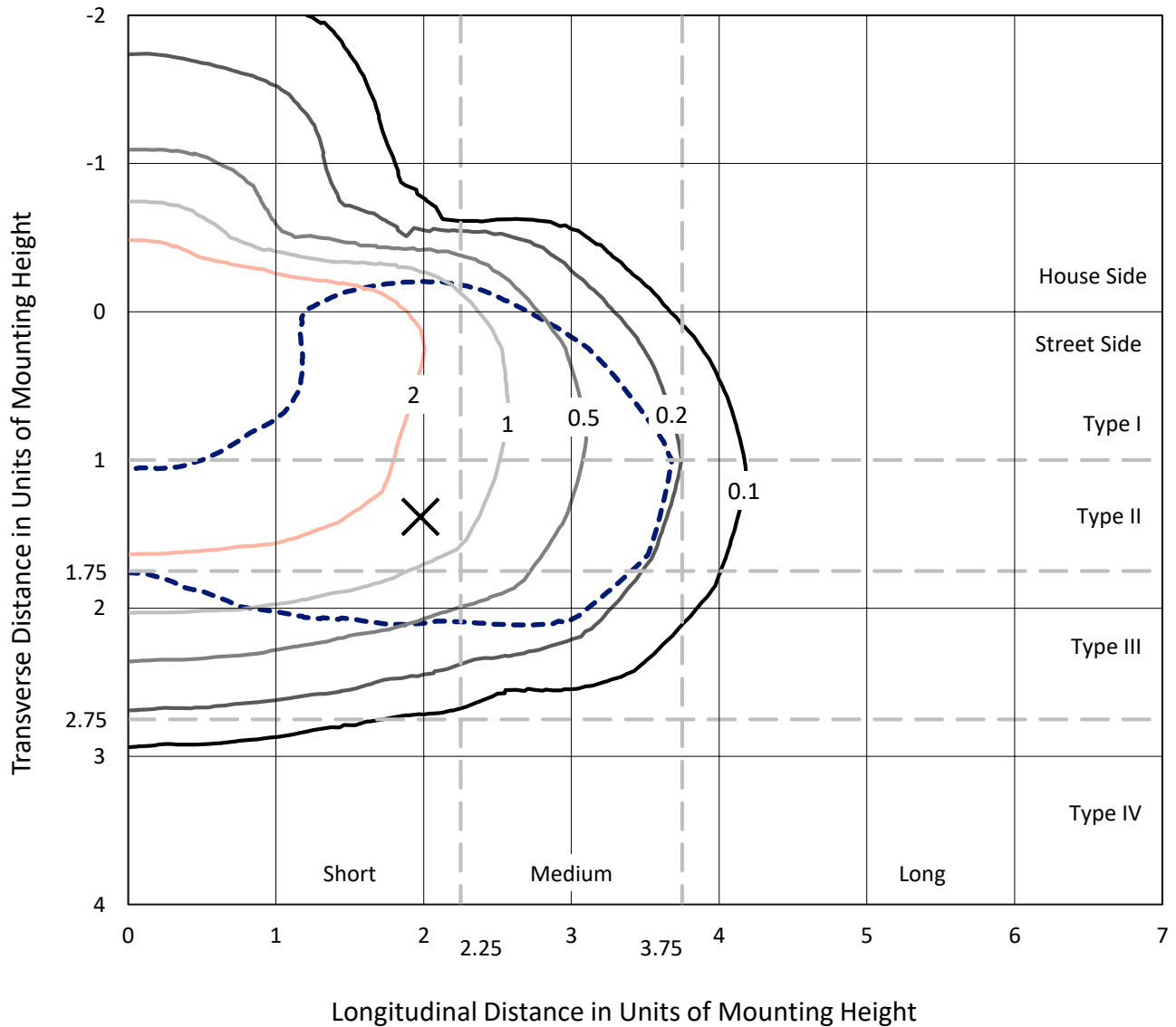
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299180
 CATALOG NUMBER: GLNA-AF-05-LED-E1-T3-7030-800

Iso-Footcandle Lines of Horizontal Illumination

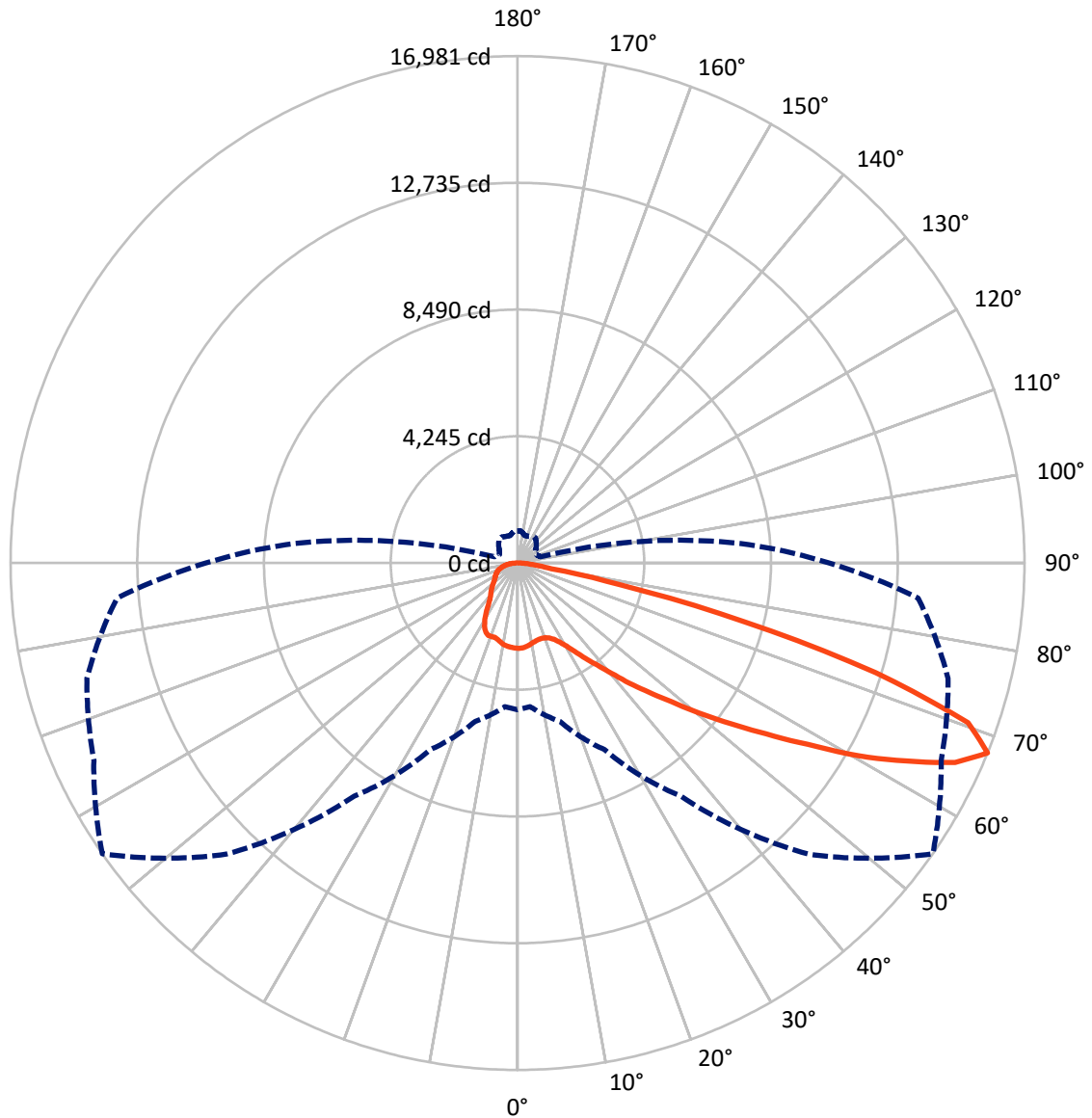
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P299180
CATALOG NUMBER: GLNA-AF-05-LED-E1-T3-7030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299180

CATALOG NUMBER: GLNA-AF-05-LED-E1-T3-7030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5005.9	0.0	5005.9
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	18167.3	0.0	18167.3
	% Fixture	78.4	0.0	78.4
Total	Lumens	23173.2	0.0	23173.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.7	1.2
10°-20°	755.4	3.3
20°-30°	1265.4	5.5
30°-40°	2080.8	9.0
40°-50°	3502.6	15.1
50°-60°	5512.9	23.8
60°-70°	6579.0	28.4
70°-80°	2825.2	12.2
80°-90°	385.2	1.7
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°	23173.2	100.0
0°-180°	23173.2	100.0



REPORT NUMBER: P299180

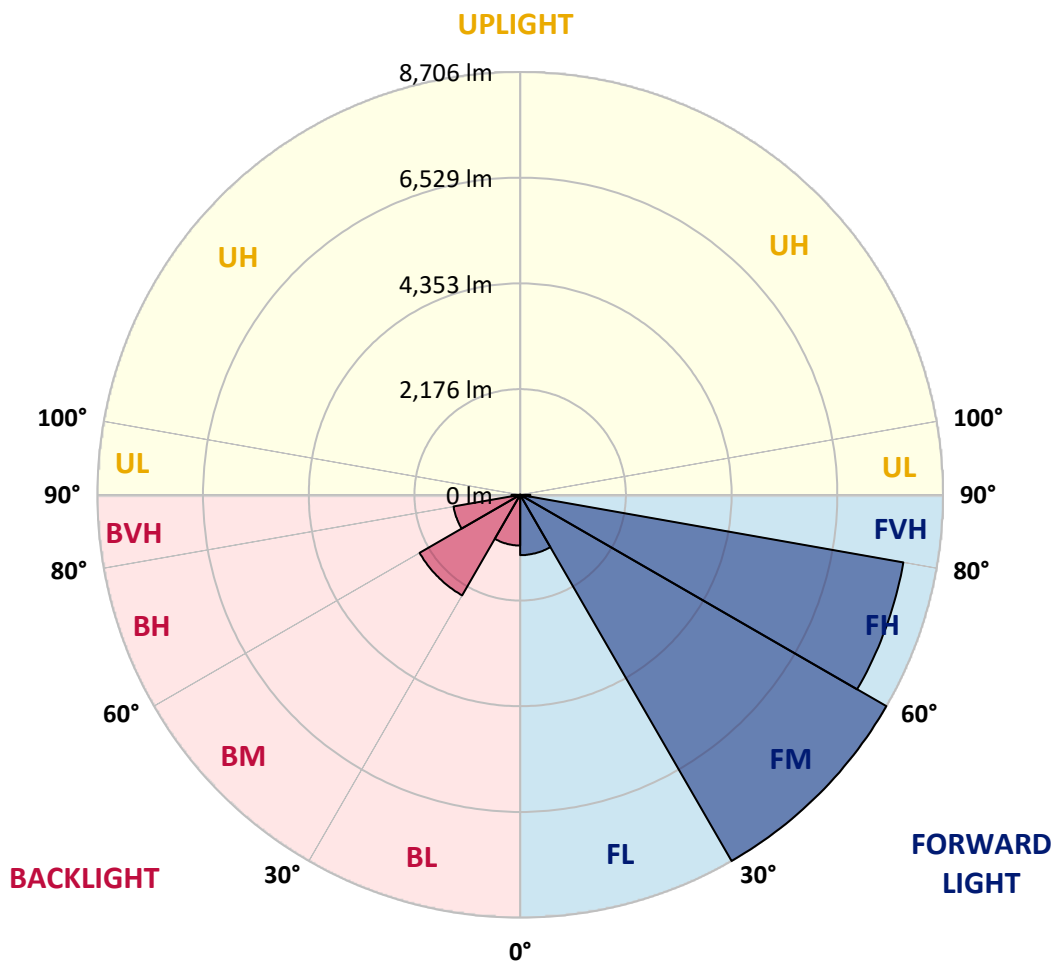
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1242.1	5.4			
FM	(30°-60°)	8705.6	37.6			
FH	(60°-80°)	8011.1	34.6			G4/12000
FVH	(80°-90°)	208.5	0.9			G2/225
BL	(0°-30°)	1045.3	4.5	B3/2500		
BM	(30°-60°)	2390.8	10.3	B2/2500		
BH	(60°-80°)	1393.1	6.0	B3/2500		G3/2500
BVH	(80°-90°)	176.7	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short





REPORT NUMBER: P299180

CATALOG NUMBER: GLNA-AF-05-LED-E1-T3-7030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5
2.5°	2832.9	2834.0	2836.2	2845.2	2853.0	2850.8	2851.9	2847.4	2846.3	2839.6	2846.3
5°	2797.1	2800.4	2801.5	2816.1	2825.0	2827.3	2823.9	2818.3	2811.6	2804.9	2808.3
7.5°	2715.4	2724.3	2725.4	2745.6	2760.1	2779.2	2780.3	2781.4	2778.0	2773.6	2780.3
10°	2663.9	2666.1	2665.0	2679.5	2690.7	2712.0	2724.3	2745.6	2754.5	2756.8	2761.2
12.5°	2660.5	2658.3	2654.9	2654.9	2651.6	2660.5	2682.9	2713.1	2734.4	2741.1	2746.7
15°	2696.3	2695.2	2684.0	2667.2	2646.0	2639.2	2658.3	2691.9	2719.8	2734.4	2740.0
17.5°	2776.9	2770.2	2752.3	2714.2	2668.3	2650.4	2652.7	2680.7	2713.1	2732.1	2737.7
20°	2924.7	2924.7	2886.6	2815.0	2733.3	2690.7	2670.6	2687.4	2718.7	2744.5	2752.3
22.5°	3179.9	3182.1	3118.3	3000.8	2863.1	2772.4	2722.1	2718.7	2755.7	2784.8	2793.7
25°	3541.4	3532.4	3442.9	3275.0	3065.7	2915.7	2828.4	2808.3	2839.6	2872.1	2883.3
27.5°	3962.2	3929.8	3823.4	3620.9	3350.0	3130.6	2996.3	2963.8	2994.1	3031.0	3042.2
30°	4378.6	4345.0	4218.5	3996.9	3695.8	3418.3	3225.7	3173.1	3215.7	3268.3	3275.0
32.5°	4795.0	4795.0	4653.9	4395.4	4067.4	3761.9	3531.3	3468.6	3539.1	3602.9	3617.5
35°	5293.0	5295.3	5158.7	4847.6	4495.0	4171.5	3917.5	3871.6	3977.9	4022.7	4057.4
37.5°	5905.3	5917.6	5741.9	5365.8	4979.7	4639.4	4337.2	4274.5	4380.8	4502.8	4614.8
40°	6566.8	6582.5	6388.8	5925.4	5539.3	5183.4	4856.5	4743.5	4920.3	5153.1	5297.5
42.5°	7198.1	7278.6	7091.7	6614.9	6199.7	5831.4	5500.1	5335.6	5557.2	5908.6	6034.0
45°	8110.3	8168.5	7842.8	7410.7	7020.1	6608.2	6169.4	5996.0	6306.0	6749.2	6775.0
47.5°	8718.0	8674.4	8508.7	8240.1	7992.7	7607.7	6947.3	6757.1	7169.0	7690.5	7546.1
50°	9041.5	9054.9	9032.5	9048.2	9057.2	8815.4	7901.0	7640.2	8131.5	8761.7	8429.3
52.5°	9343.7	9254.2	9328.0	9695.2	10138.4	10048.8	8938.5	8666.5	9163.5	9950.3	9362.7
55°	9337.0	9200.4	9441.1	10089.1	11050.6	11153.6	10103.7	9790.3	10254.8	11225.2	10352.2
57.5°	9006.8	9013.5	9384.0	10232.4	11686.3	12192.3	11455.8	10985.7	11412.1	12516.8	11255.4
60°	8552.4	8613.9	9147.8	10208.9	12195.6	13044.0	13114.5	12274.0	12545.9	13691.0	12003.1
62.5°	7819.3	7884.2	8620.7	9964.9	12118.4	13864.5	14614.4	13735.7	13731.3	14402.8	12222.5
65°	6663.0	6644.0	7417.4	9052.7	11470.3	14471.1	16104.1	14999.4	14624.4	14414.0	11781.5
67.5°	4913.6	4828.5	5492.3	6894.7	9534.0	13791.7	16980.5	15657.5	14928.9	13466.0	10433.9
70°	2549.7	2464.6	3001.9	4026.0	6270.2	10764.1	16010.1	15317.3	14256.2	11287.9	8174.1
72.5°	1090.2	1075.6	1293.9	1766.2	3033.2	6208.6	12553.8	13257.8	12232.5	8410.2	5619.9
75°	733.1	728.6	810.4	962.6	1364.4	2519.5	7856.2	9410.9	8949.7	5214.7	3160.8
77.5°	575.3	569.7	617.8	691.7	884.2	993.9	3486.5	5052.4	4676.3	2269.9	1383.4
80°	449.9	445.5	475.7	516.0	635.7	626.8	1147.3	2010.2	1555.8	869.7	672.7
82.5°	354.8	354.8	379.4	380.6	451.1	427.6	598.8	885.3	776.8	507.0	411.9
85°	324.6	324.6	350.3	284.3	294.4	269.7	371.6	524.9	492.5	208.2	179.1
87.5°	163.4	158.9	294.4	251.8	160.1	143.3	181.3	254.1	273.1	115.3	89.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299180

CATALOG NUMBER: GLNA-AF-05-LED-E1-T3-7030-800

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5	2857.5
2.5°	2844.1	2843.0	2845.2	2846.3	2855.3	2867.6	2873.2	2881.0	2885.5	2883.3
5°	2810.5	2812.7	2821.7	2828.4	2844.1	2864.2	2875.4	2884.4	2892.2	2888.8
7.5°	2782.5	2788.1	2801.5	2807.1	2816.1	2821.7	2820.6	2823.9	2830.6	2822.8
10°	2766.8	2773.6	2783.6	2775.8	2754.5	2724.3	2696.3	2681.8	2686.3	2680.7
12.5°	2751.2	2760.1	2752.3	2715.4	2656.0	2616.9	2595.6	2597.8	2607.9	2610.1
15°	2742.2	2745.6	2712.0	2642.6	2582.2	2576.6	2587.8	2585.5	2586.6	2586.6
17.5°	2742.2	2733.3	2670.6	2601.2	2575.5	2565.4	2530.7	2487.0	2468.0	2461.3
20°	2756.8	2733.3	2657.2	2611.3	2555.3	2469.1	2377.3	2296.8	2260.9	2250.9
22.5°	2800.4	2760.1	2695.2	2615.7	2456.8	2312.4	2166.9	2070.7	2005.7	1994.5
25°	2888.8	2844.1	2770.2	2556.4	2300.1	2094.2	1928.5	1821.1	1756.1	1747.2
27.5°	3043.3	3014.2	2810.5	2425.5	2091.9	1871.4	1718.1	1635.3	1587.1	1583.8
30°	3276.1	3261.6	2790.4	2231.8	1835.6	1655.4	1581.5	1533.4	1497.6	1496.5
32.5°	3647.7	3530.2	2724.3	1995.7	1601.7	1502.1	1471.8	1442.7	1414.8	1414.8
35°	4125.6	3747.3	2599.0	1742.7	1459.5	1417.0	1378.9	1333.1	1296.1	1293.9
37.5°	4687.5	3881.6	2374.0	1539.0	1392.4	1359.9	1304.0	1235.7	1170.8	1159.6
40°	5255.0	3921.9	2057.2	1413.6	1349.8	1302.8	1234.6	1154.0	1091.3	1087.9
42.5°	5775.5	3844.7	1721.4	1327.5	1307.3	1244.6	1173.0	1101.4	1052.1	1051.0
45°	6212.0	3644.4	1439.4	1245.8	1262.5	1192.0	1128.2	1070.0	1032.0	1024.1
47.5°	6622.7	3361.2	1241.3	1159.6	1217.8	1162.9	1109.2	1054.4	1017.4	1011.8
50°	7099.6	3055.6	1102.5	1075.6	1178.6	1152.9	1124.9	1067.8	1006.2	999.5
52.5°	7677.1	2791.5	993.9	1001.8	1148.4	1166.3	1165.2	1105.8	998.4	989.4
55°	8321.8	2498.2	912.2	941.3	1136.1	1190.9	1175.2	1141.7	1005.1	991.7
57.5°	8956.4	2155.7	855.1	895.4	1118.2	1188.7	1127.1	1079.0	1020.8	1001.8
60°	9432.1	1695.7	811.5	855.1	1079.0	1151.7	1074.5	1010.7	1017.4	1002.9
62.5°	9463.5	1310.7	758.9	820.4	1019.7	1114.8	1039.8	980.5	1032.0	1018.5
65°	8907.2	990.6	708.5	779.0	955.9	1091.3	1006.2	963.7	1062.2	1047.6
67.5°	7499.1	796.9	666.0	736.5	892.1	1042.0	976.0	948.0	1089.1	1063.3
70°	5413.9	679.4	624.6	685.0	835.0	986.1	949.1	920.0	1016.3	976.0
72.5°	3333.2	588.7	577.5	616.7	791.3	927.9	908.9	867.4	915.6	883.1
75°	1664.4	510.4	524.9	549.6	729.8	861.8	841.7	800.3	807.0	800.3
77.5°	796.9	436.5	463.4	482.4	650.3	786.8	765.6	723.1	715.2	716.3
80°	504.8	364.9	390.6	404.1	580.9	699.5	678.3	635.7	725.3	672.7
82.5°	315.6	296.6	303.3	327.9	505.9	608.9	580.9	542.8	653.7	517.1
85°	174.6	207.1	216.0	237.3	389.5	509.3	481.3	433.2	388.4	381.7
87.5°	104.1	123.1	126.5	142.1	261.9	368.2	325.7	308.9	256.3	255.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)