

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: P299183

Luminaire Tested: **GLNA-AF-05-LED-E1-T3-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299183
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-T3-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23957.1 lumens
Efficiency: N/A
Efficacy: 114.1 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

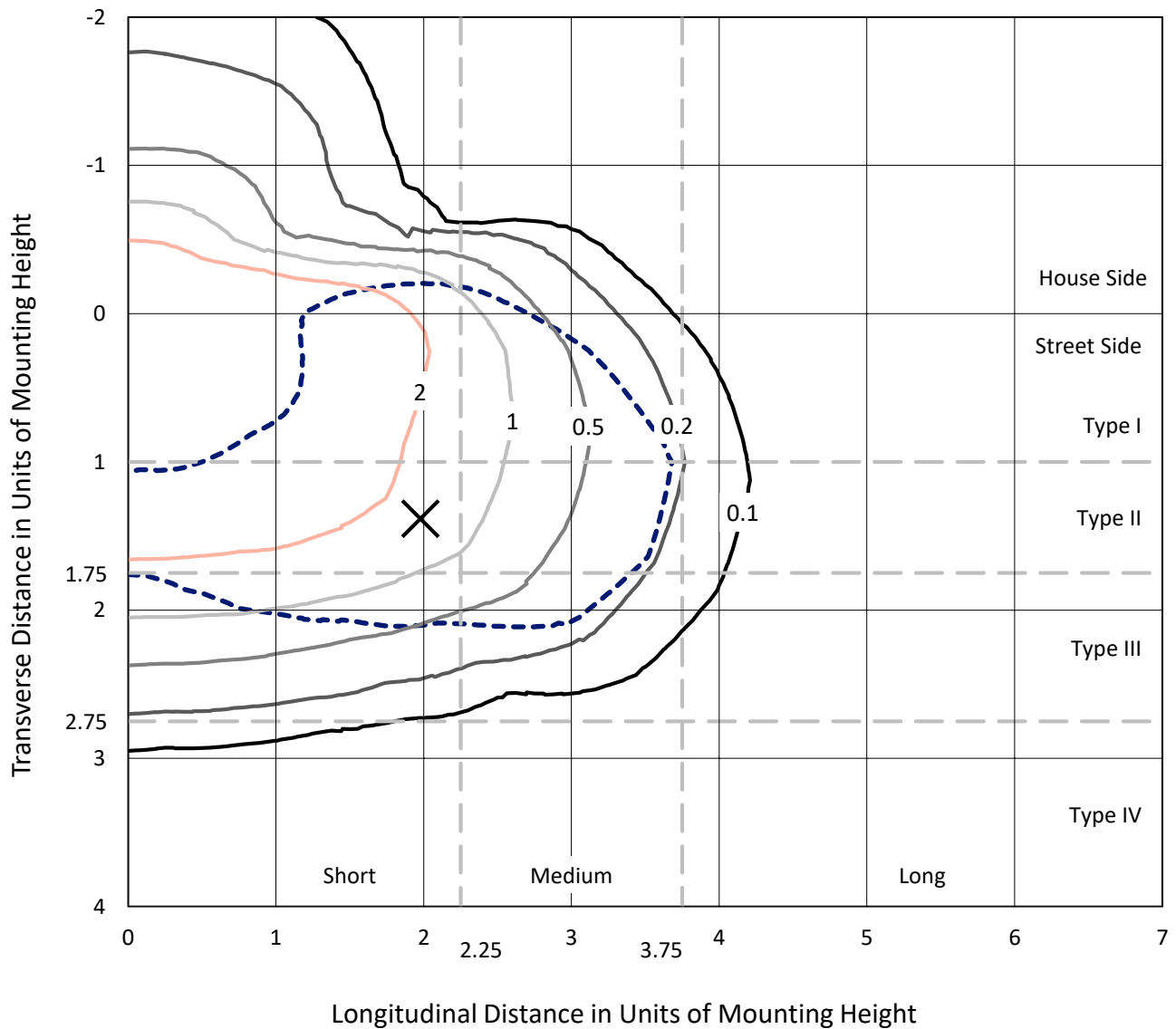


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Iso-Footcandle Lines of Horizontal Illumination

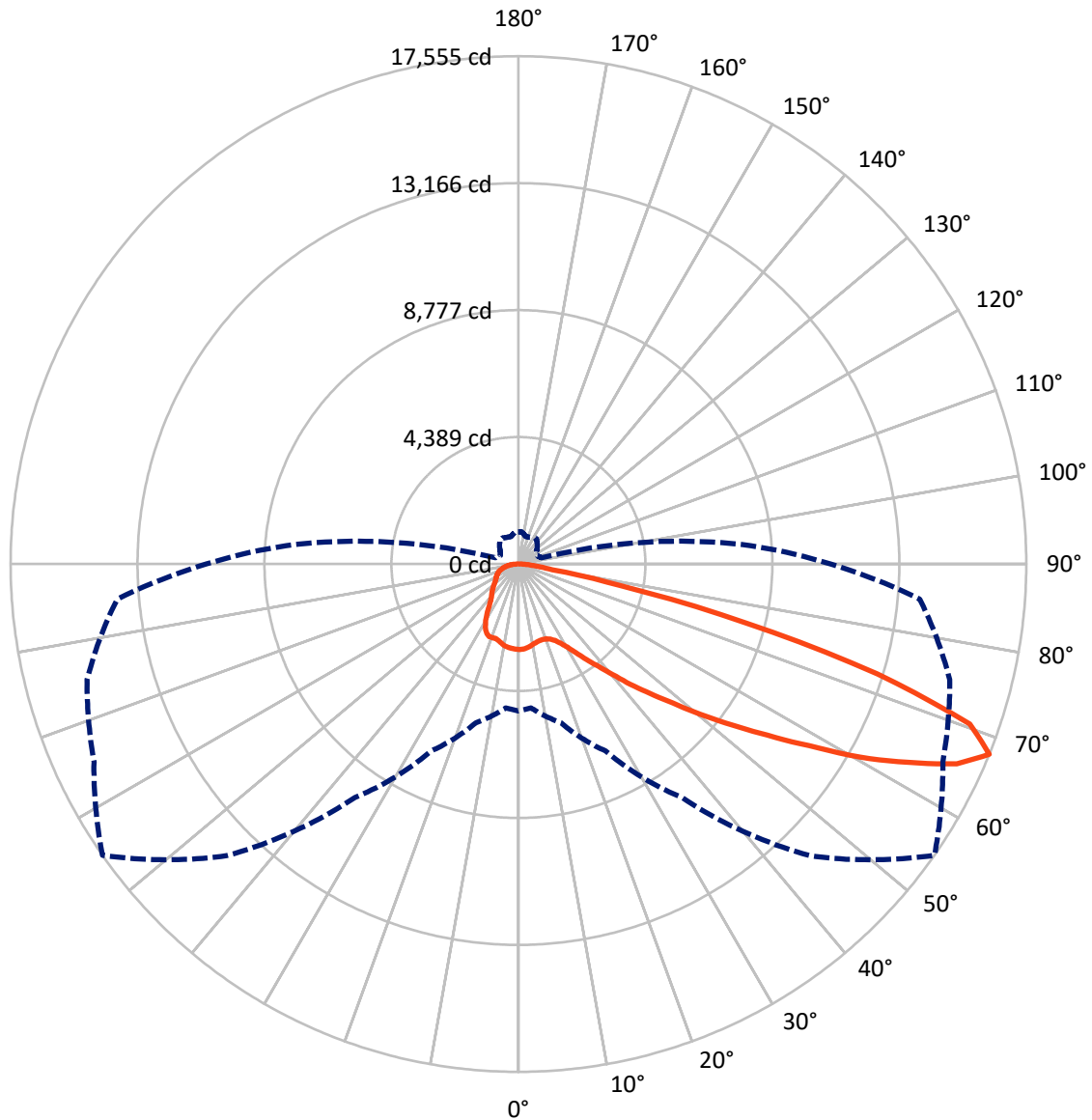
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5175.3	0.0	5175.3
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	18781.8	0.0	18781.8
	% Fixture	78.4	0.0	78.4
Total	Lumens	23957.1	0.0	23957.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.7	1.2
10°-20°	780.9	3.3
20°-30°	1308.2	5.5
30°-40°	2151.2	9.0
40°-50°	3621.1	15.1
50°-60°	5699.4	23.8
60°-70°	6801.6	28.4
70°-80°	2920.7	12.2
80°-90°	398.2	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°	23957.1	100.0
0°-180°	23957.1	100.0



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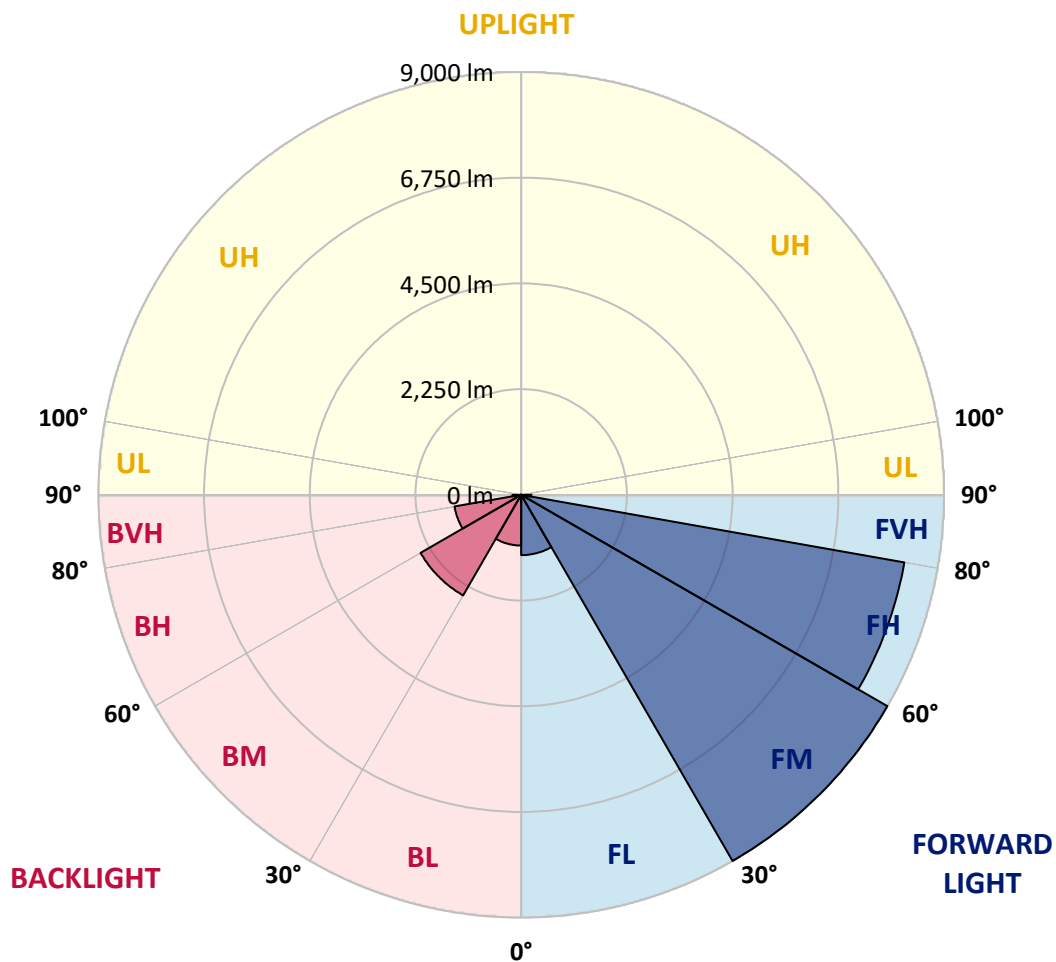
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1284.2	5.4			
FM	(30°-60°)	9000.1	37.6			
FH	(60°-80°)	8282.1	34.6			G4/12000
FVH	(80°-90°)	215.6	0.9			G2/225
BL	(0°-30°)	1080.7	4.5	B3/2500		
BM	(30°-60°)	2471.6	10.3	B2/2500		
BH	(60°-80°)	1440.3	6.0	B3/2500		G3/2500
BVH	(80°-90°)	182.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2
2.5°	2928.7	2929.9	2932.2	2941.4	2949.5	2947.2	2948.4	2943.8	2942.6	2935.7	2942.6
5°	2891.7	2895.2	2896.3	2911.4	2920.6	2922.9	2919.5	2913.7	2906.7	2899.8	2903.3
7.5°	2807.2	2816.5	2817.6	2838.5	2853.5	2873.2	2874.3	2875.5	2872.0	2867.4	2874.3
10°	2754.0	2756.3	2755.1	2770.2	2781.8	2803.7	2816.5	2838.5	2847.7	2850.0	2854.7
12.5°	2750.5	2748.2	2744.7	2744.7	2741.3	2750.5	2773.7	2804.9	2826.9	2833.8	2839.6
15°	2787.5	2786.4	2774.8	2757.5	2735.5	2728.5	2748.2	2782.9	2811.8	2826.9	2832.7
17.5°	2870.9	2863.9	2845.4	2806.1	2758.6	2740.1	2742.4	2771.3	2804.9	2824.6	2830.4
20°	3023.6	3023.6	2984.3	2910.2	2825.7	2781.8	2760.9	2778.3	2810.7	2837.3	2845.4
22.5°	3287.4	3289.7	3223.8	3102.3	2960.0	2866.2	2814.2	2810.7	2848.9	2879.0	2888.2
25°	3661.2	3651.9	3559.4	3385.8	3169.4	3014.3	2924.1	2903.3	2935.7	2969.2	2980.8
27.5°	4096.3	4062.7	3952.8	3743.3	3463.3	3236.5	3097.7	3064.1	3095.3	3133.5	3145.1
30°	4526.7	4492.0	4361.2	4132.1	3820.9	3533.9	3334.9	3280.5	3324.5	3378.8	3385.8
32.5°	4957.2	4957.2	4811.4	4544.1	4205.0	3889.1	3650.8	3586.0	3658.9	3724.8	3739.9
35°	5472.1	5474.4	5333.2	5011.6	4647.1	4312.6	4050.0	4002.5	4112.5	4158.7	4194.6
37.5°	6105.1	6117.8	5936.1	5547.3	5148.1	4796.3	4483.9	4419.1	4529.0	4655.2	4770.9
40°	6788.9	6805.1	6604.9	6125.9	5726.7	5358.7	5020.8	4903.9	5086.8	5327.5	5476.7
42.5°	7441.5	7524.9	7331.6	6838.7	6409.4	6028.7	5686.2	5516.1	5745.2	6108.5	6238.1
45°	8384.6	8444.8	8108.1	7661.4	7257.6	6831.7	6378.1	6198.8	6519.3	6977.5	7004.1
47.5°	9012.9	8967.8	8796.6	8518.8	8263.1	7865.1	7182.3	6985.6	7411.5	7950.7	7801.4
50°	9347.3	9361.2	9338.1	9354.3	9363.5	9113.6	8168.2	7898.6	8406.6	9058.1	8714.4
52.5°	9659.8	9567.2	9643.6	10023.1	10481.3	10388.8	9240.9	8959.7	9473.5	10286.9	9679.4
55°	9652.8	9511.7	9760.4	10430.4	11424.4	11530.9	10445.5	10121.5	10601.7	11604.9	10702.4
57.5°	9311.5	9318.4	9701.4	10578.5	12081.7	12604.7	11843.3	11357.3	11798.2	12940.3	11636.2
60°	8841.7	8905.3	9457.3	10554.2	12608.2	13485.3	13558.2	12689.2	12970.3	14154.1	12409.1
62.5°	8083.8	8150.9	8912.3	10302.0	12528.3	14333.5	15108.7	14200.4	14195.8	14890.0	12635.9
65°	6888.4	6868.8	7668.3	9358.9	11858.3	14960.6	16648.9	15506.8	15119.1	14901.6	12180.0
67.5°	5079.8	4991.9	5678.1	7128.0	9856.5	14258.2	17554.9	16187.2	15433.9	13921.5	10786.8
70°	2636.0	2548.0	3103.4	4162.2	6482.3	11128.2	16551.7	15835.4	14738.4	11669.7	8450.6
72.5°	1127.1	1112.0	1337.6	1826.0	3135.8	6418.6	12978.4	13706.3	12646.3	8694.7	5810.0
75°	757.9	753.3	837.8	995.1	1410.5	2604.7	8121.9	9729.2	9252.5	5391.1	3267.8
77.5°	594.8	589.0	638.7	715.1	914.1	1027.5	3604.5	5223.3	4834.5	2346.7	1430.2
80°	465.2	460.5	491.8	533.4	657.3	648.0	1186.1	2078.2	1608.4	899.1	695.4
82.5°	366.8	366.8	392.3	393.4	466.3	442.0	619.1	915.3	803.1	524.2	425.8
85°	335.6	335.6	362.2	293.9	304.3	278.9	384.2	542.7	509.1	215.2	185.1
87.5°	168.9	164.3	304.3	260.4	165.5	148.1	187.5	262.7	282.3	119.2	92.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2	2954.2
2.5°	2940.3	2939.1	2941.4	2942.6	2951.9	2964.6	2970.4	2978.5	2983.1	2980.8
5°	2905.6	2907.9	2917.1	2924.1	2940.3	2961.1	2972.7	2981.9	2990.0	2986.6
7.5°	2876.6	2882.4	2896.3	2902.1	2911.4	2917.1	2916.0	2919.5	2926.4	2918.3
10°	2860.4	2867.4	2877.8	2869.7	2847.7	2816.5	2787.5	2772.5	2777.1	2771.3
12.5°	2844.2	2853.5	2845.4	2807.2	2745.9	2705.4	2683.4	2685.7	2696.1	2698.4
15°	2835.0	2838.5	2803.7	2732.0	2669.5	2663.7	2675.3	2673.0	2674.1	2674.1
17.5°	2835.0	2825.7	2760.9	2689.2	2662.6	2652.2	2616.3	2571.2	2551.5	2544.5
20°	2850.0	2825.7	2747.0	2699.6	2641.7	2552.6	2457.8	2374.4	2337.4	2327.0
22.5°	2895.2	2853.5	2786.4	2704.2	2539.9	2390.6	2240.2	2140.7	2073.6	2062.0
25°	2986.6	2940.3	2863.9	2642.9	2377.9	2165.0	1993.7	1882.7	1815.5	1806.3
27.5°	3146.3	3116.2	2905.6	2507.5	2162.7	1934.7	1776.2	1690.6	1640.8	1637.3
30°	3386.9	3371.9	2884.7	2307.3	1897.7	1711.4	1635.0	1585.3	1548.2	1547.1
32.5°	3771.1	3649.6	2816.5	2063.2	1655.9	1552.9	1521.6	1491.5	1462.6	1462.6
35°	4265.2	3874.1	2686.9	1801.7	1508.9	1464.9	1425.6	1378.1	1340.0	1337.6
37.5°	4846.1	4012.9	2454.3	1591.1	1439.5	1405.9	1348.1	1277.5	1210.4	1198.8
40°	5432.8	4054.6	2126.8	1461.5	1395.5	1346.9	1276.3	1193.0	1128.2	1124.7
42.5°	5970.8	3974.8	1779.7	1372.4	1351.5	1286.7	1212.7	1138.6	1087.7	1086.6
45°	6422.1	3767.6	1488.1	1287.9	1305.3	1232.4	1166.4	1106.2	1066.9	1058.8
47.5°	6846.8	3474.9	1283.3	1198.8	1259.0	1202.3	1146.7	1090.0	1051.8	1046.1
50°	7339.7	3159.0	1139.8	1112.0	1218.5	1191.9	1162.9	1103.9	1040.3	1033.3
52.5°	7936.8	2885.9	1027.5	1035.6	1187.2	1205.7	1204.6	1143.3	1032.2	1022.9
55°	8603.3	2582.7	943.1	973.2	1174.5	1231.2	1215.0	1180.3	1039.1	1025.2
57.5°	9259.4	2228.6	884.1	925.7	1156.0	1228.9	1165.2	1115.5	1055.3	1035.6
60°	9751.2	1753.1	838.9	884.1	1115.5	1190.7	1110.9	1044.9	1051.8	1036.8
62.5°	9783.6	1355.0	784.5	848.2	1054.2	1152.5	1075.0	1013.7	1066.9	1053.0
65°	9208.5	1024.1	732.5	805.4	988.2	1128.2	1040.3	996.3	1098.1	1083.1
67.5°	7752.8	823.9	688.5	761.4	922.2	1077.3	1009.0	980.1	1125.9	1099.3
70°	5597.1	702.4	645.7	708.2	863.2	1019.4	981.3	951.2	1050.7	1009.0
72.5°	3446.0	608.7	597.1	637.6	818.1	959.3	939.6	896.8	946.5	913.0
75°	1720.7	527.7	542.7	568.2	754.5	891.0	870.2	827.4	834.3	827.4
77.5°	823.9	451.3	479.1	498.7	672.3	813.5	791.5	747.5	739.4	740.6
80°	521.9	377.2	403.8	417.7	600.6	723.2	701.2	657.3	749.8	695.4
82.5°	326.3	306.6	313.6	339.0	523.0	629.5	600.6	561.2	675.8	534.6
85°	180.5	214.1	223.3	245.3	402.7	526.5	497.6	447.8	401.5	394.6
87.5°	107.6	127.3	130.8	147.0	270.8	380.7	336.7	319.4	265.0	263.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)