

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: P299251

Luminaire Tested: **GLNA-AF-07-LED-E1-T3-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299251
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-07-LED-E1-T3-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24020.1 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 226
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

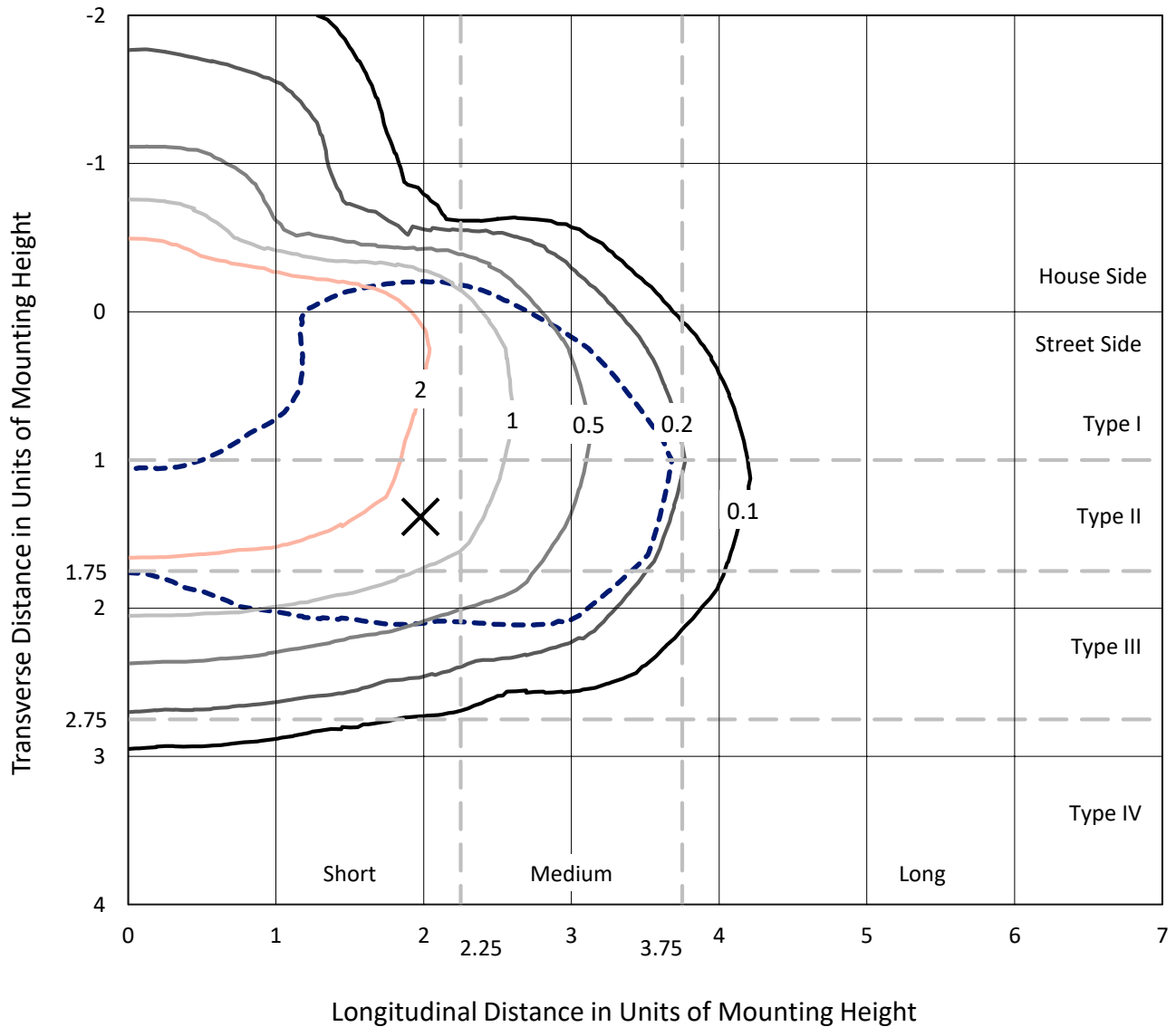


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Iso-Footcandle Lines of Horizontal Illumination

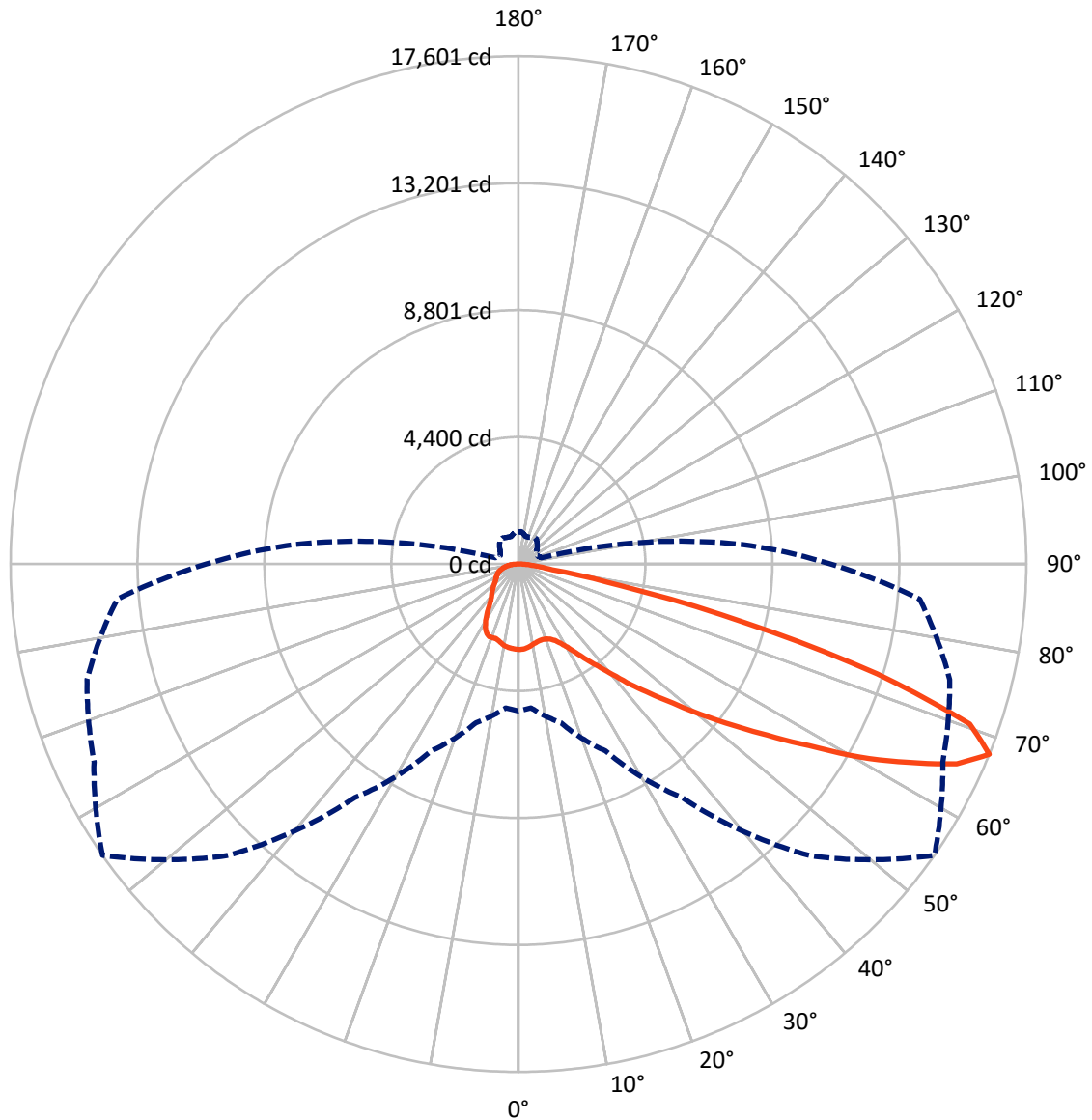
✕ Max cd
 - - - 1/2 Max cd



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	5188.9	0.0	5188.9
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	18831.3	0.0	18831.3
	% Fixture	78.4	0.0	78.4
Total	Lumens	24020.1	0.0	24020.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.5	1.2
10°-20°	783.0	3.3
20°-30°	1311.6	5.5
30°-40°	2156.9	9.0
40°-50°	3630.7	15.1
50°-60°	5714.4	23.8
60°-70°	6819.5	28.4
70°-80°	2928.4	12.2
80°-90°	399.3	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°	24020.1	100.0
0°-180°	24020.1	100.0



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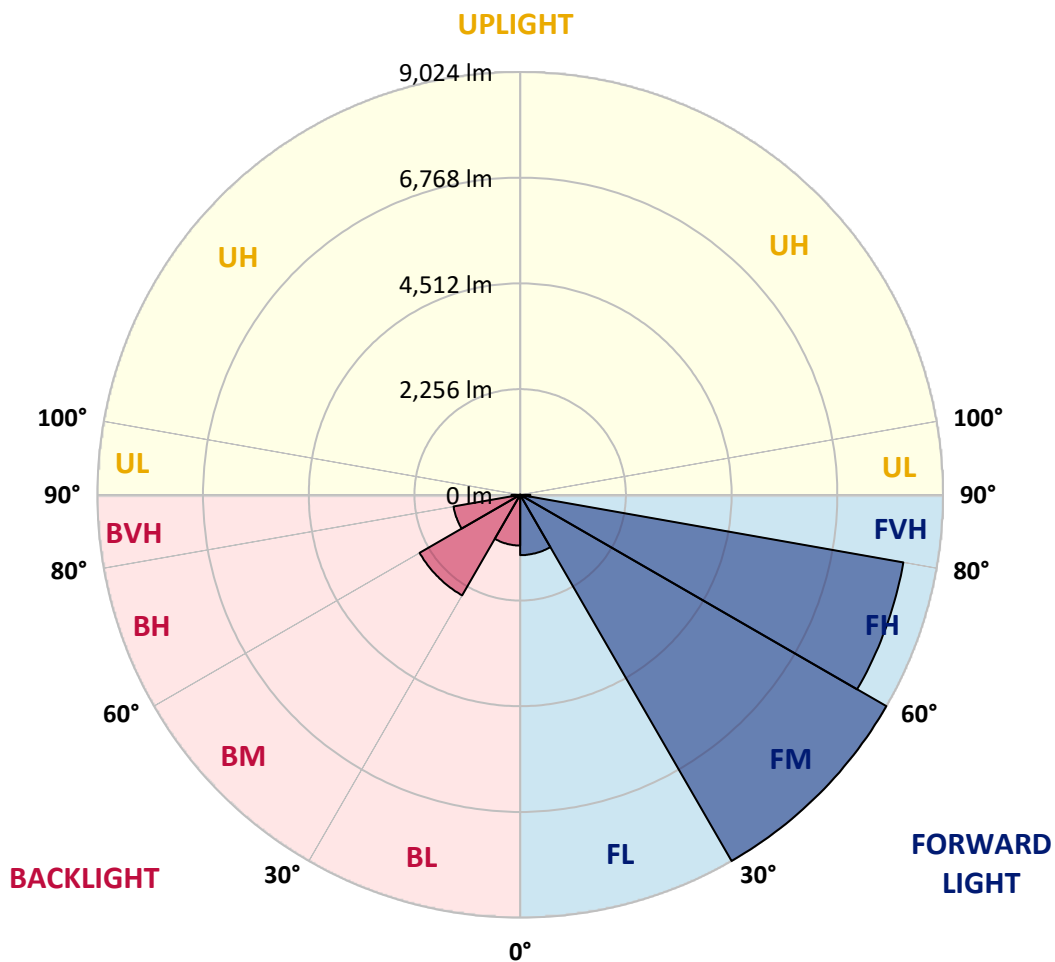
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1287.5	5.4			
FM	(30°-60°)	9023.7	37.6			
FH	(60°-80°)	8303.9	34.6			G4/12000
FVH	(80°-90°)	216.1	0.9			G2/225
BL	(0°-30°)	1083.5	4.5	B3/2500		
BM	(30°-60°)	2478.1	10.3	B2/2500		
BH	(60°-80°)	1444.0	6.0	B3/2500		G3/2500
BVH	(80°-90°)	183.1	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°	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9
2.5°	2936.4	2937.6	2939.9	2949.2	2957.3	2955.0	2956.1	2951.5	2950.3	2943.4	2950.3
5°	2899.3	2902.8	2903.9	2919.0	2928.3	2930.6	2927.1	2921.3	2914.4	2907.4	2910.9
7.5°	2814.6	2823.9	2825.0	2845.9	2861.0	2880.7	2881.9	2883.1	2879.6	2874.9	2881.9
10°	2761.2	2763.6	2762.4	2777.5	2789.1	2811.1	2823.9	2845.9	2855.2	2857.5	2862.2
12.5°	2757.8	2755.4	2752.0	2752.0	2748.5	2757.8	2781.0	2812.3	2834.3	2841.3	2847.1
15°	2794.9	2793.7	2782.1	2764.7	2742.7	2735.7	2755.4	2790.2	2819.2	2834.3	2840.1
17.5°	2878.4	2871.5	2852.9	2813.4	2765.9	2747.3	2749.6	2778.6	2812.3	2832.0	2837.8
20°	3031.6	3031.6	2992.1	2917.9	2833.2	2789.1	2768.2	2785.6	2818.1	2844.8	2852.9
22.5°	3296.1	3298.4	3232.3	3110.5	2967.7	2873.8	2821.6	2818.1	2856.4	2886.5	2895.8
25°	3670.8	3661.5	3568.7	3394.7	3177.7	3022.3	2931.8	2910.9	2943.4	2977.0	2988.6
27.5°	4107.0	4073.4	3963.2	3753.2	3472.4	3245.0	3105.8	3072.2	3103.5	3141.8	3153.4
30°	4538.6	4503.8	4372.7	4143.0	3830.9	3543.2	3343.6	3289.1	3333.2	3387.7	3394.7
32.5°	4970.2	4970.2	4824.0	4556.0	4216.1	3899.4	3660.4	3595.4	3668.5	3734.6	3749.7
35°	5486.5	5488.8	5347.3	5024.8	4659.3	4324.0	4060.6	4013.1	4123.3	4169.7	4205.7
37.5°	6121.1	6133.9	5951.7	5561.9	5161.7	4809.0	4495.7	4430.7	4541.0	4667.4	4783.4
40°	6806.8	6823.0	6622.3	6142.0	5741.7	5372.8	5034.0	4916.9	5100.2	5341.5	5491.1
42.5°	7461.1	7544.7	7350.9	6856.7	6426.3	6044.6	5701.1	5530.6	5760.3	6124.6	6254.5
45°	8406.7	8467.0	8129.4	7681.6	7276.7	6849.7	6394.9	6215.1	6536.5	6995.9	7022.6
47.5°	9036.7	8991.4	8819.7	8541.3	8284.9	7885.8	7201.3	7004.0	7431.0	7971.6	7822.0
50°	9372.0	9385.9	9362.7	9378.9	9388.2	9137.6	8189.7	7919.4	8428.7	9081.9	8737.3
52.5°	9685.2	9592.4	9669.0	10049.5	10508.9	10416.1	9265.2	8983.3	9498.4	10314.0	9704.9
55°	9678.2	9536.7	9786.1	10457.9	11454.5	11561.2	10473.0	10148.1	10629.6	11635.5	10730.5
57.5°	9336.0	9343.0	9727.0	10606.4	12113.5	12637.9	11874.5	11387.2	11829.2	12974.3	11666.8
60°	8865.0	8928.8	9482.2	10582.0	12641.4	13520.8	13593.9	12722.6	13004.5	14191.4	12441.8
62.5°	8105.0	8172.3	8935.7	10329.1	12561.3	14371.2	15148.5	14237.8	14233.1	14929.2	12669.2
65°	6906.6	6886.8	7688.5	9383.6	11889.6	15000.0	16692.7	15547.6	15159.0	14940.8	12212.1
67.5°	5093.2	5005.0	5693.0	7146.7	9882.4	14295.8	17601.1	16229.8	15474.5	13958.2	10815.2
70°	2642.9	2554.7	3111.6	4173.2	6499.3	11157.5	16595.3	15877.1	14777.3	11700.4	8472.8
72.5°	1130.0	1114.9	1341.2	1830.8	3144.1	6435.5	13012.6	13742.4	12679.6	8717.6	5825.3
75°	759.9	755.3	840.0	997.8	1414.3	2611.6	8143.3	9754.8	9276.8	5405.3	3276.4
77.5°	596.3	590.5	640.4	717.0	916.5	1030.2	3614.0	5237.1	4847.2	2352.9	1434.0
80°	466.4	461.8	493.1	534.8	659.0	649.7	1189.2	2083.7	1612.7	901.5	697.3
82.5°	367.8	367.8	393.3	394.5	467.6	443.2	620.7	917.7	805.2	525.6	426.9
85°	336.5	336.5	363.1	294.7	305.1	279.6	385.2	544.1	510.5	215.8	185.6
87.5°	169.4	164.7	305.1	261.0	165.9	148.5	187.9	263.4	283.1	119.5	92.8
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9	2961.9
2.5°	2948.0	2946.9	2949.2	2950.3	2959.6	2972.4	2978.2	2986.3	2991.0	2988.6
5°	2913.2	2915.5	2924.8	2931.8	2948.0	2968.9	2980.5	2989.8	2997.9	2994.4
7.5°	2884.2	2890.0	2903.9	2909.7	2919.0	2924.8	2923.7	2927.1	2934.1	2926.0
10°	2868.0	2874.9	2885.4	2877.3	2855.2	2823.9	2794.9	2779.8	2784.4	2778.6
12.5°	2851.7	2861.0	2852.9	2814.6	2753.1	2712.5	2690.5	2692.8	2703.2	2705.5
15°	2842.4	2845.9	2811.1	2739.2	2676.5	2670.7	2682.3	2680.0	2681.2	2681.2
17.5°	2842.4	2833.2	2768.2	2696.3	2669.6	2659.1	2623.2	2577.9	2558.2	2551.2
20°	2857.5	2833.2	2754.3	2706.7	2648.7	2559.4	2464.2	2380.7	2343.6	2333.1
22.5°	2902.8	2861.0	2793.7	2711.3	2546.6	2396.9	2246.1	2146.3	2079.0	2067.4
25°	2994.4	2948.0	2871.5	2649.9	2384.2	2170.7	1999.0	1887.6	1820.3	1811.0
27.5°	3154.5	3124.4	2913.2	2514.1	2168.4	1939.8	1780.9	1695.0	1645.1	1641.7
30°	3395.9	3380.8	2892.3	2313.4	1902.7	1715.9	1639.3	1589.5	1552.3	1551.2
32.5°	3781.0	3659.2	2823.9	2068.6	1660.2	1557.0	1525.6	1495.5	1466.5	1466.5
35°	4276.4	3884.3	2693.9	1806.4	1512.9	1468.8	1429.3	1381.8	1343.5	1341.2
37.5°	4858.8	4023.5	2460.7	1595.3	1443.3	1409.6	1351.6	1280.8	1213.6	1201.9
40°	5447.1	4065.3	2132.4	1465.3	1399.2	1350.5	1279.7	1196.1	1131.2	1127.7
42.5°	5986.5	3985.2	1784.4	1376.0	1355.1	1290.1	1215.9	1141.6	1090.6	1089.4
45°	6439.0	3777.6	1492.0	1291.3	1308.7	1235.6	1169.5	1109.1	1069.7	1061.6
47.5°	6864.8	3484.0	1286.6	1201.9	1262.3	1205.4	1149.7	1092.9	1054.6	1048.8
50°	7359.0	3167.3	1142.8	1114.9	1221.7	1195.0	1166.0	1106.8	1043.0	1036.0
52.5°	7957.7	2893.5	1030.2	1038.4	1190.3	1208.9	1207.8	1146.3	1034.9	1025.6
55°	8626.0	2589.5	945.5	975.7	1177.6	1234.4	1218.2	1183.4	1041.8	1027.9
57.5°	9283.8	2234.5	886.4	928.1	1159.0	1232.1	1168.3	1118.4	1058.1	1038.4
60°	9776.9	1757.7	841.1	886.4	1118.4	1193.8	1113.8	1047.6	1054.6	1039.5
62.5°	9809.3	1358.6	786.6	850.4	1056.9	1155.5	1077.8	1016.3	1069.7	1055.8
65°	9232.7	1026.8	734.4	807.5	990.8	1131.2	1043.0	998.9	1101.0	1085.9
67.5°	7773.2	826.1	690.3	763.4	924.7	1080.1	1011.7	982.7	1128.9	1102.2
70°	5611.8	704.2	647.4	710.0	865.5	1022.1	983.8	953.7	1053.4	1011.7
72.5°	3455.0	610.3	598.7	639.3	820.2	961.8	942.1	899.1	949.0	915.4
75°	1725.2	529.0	544.1	569.6	756.4	893.3	872.5	829.5	836.5	829.5
77.5°	826.1	452.5	480.3	500.0	674.1	815.6	793.6	749.5	741.4	742.5
80°	523.2	378.2	404.9	418.8	602.1	725.1	703.1	659.0	751.8	697.3
82.5°	327.2	307.4	314.4	339.9	524.4	631.1	602.1	562.7	677.5	536.0
85°	181.0	214.6	223.9	246.0	403.7	527.9	498.9	449.0	402.6	395.6
87.5°	107.9	127.6	131.1	147.3	271.5	381.7	337.6	320.2	265.7	264.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)