

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: P301231

Luminaire Tested: **GLNA-AF-06-LED-E1-T3R-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301231
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-06-LED-E1-T3R-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23113.4 lumens
Efficiency: N/A
Efficacy: 119.8 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

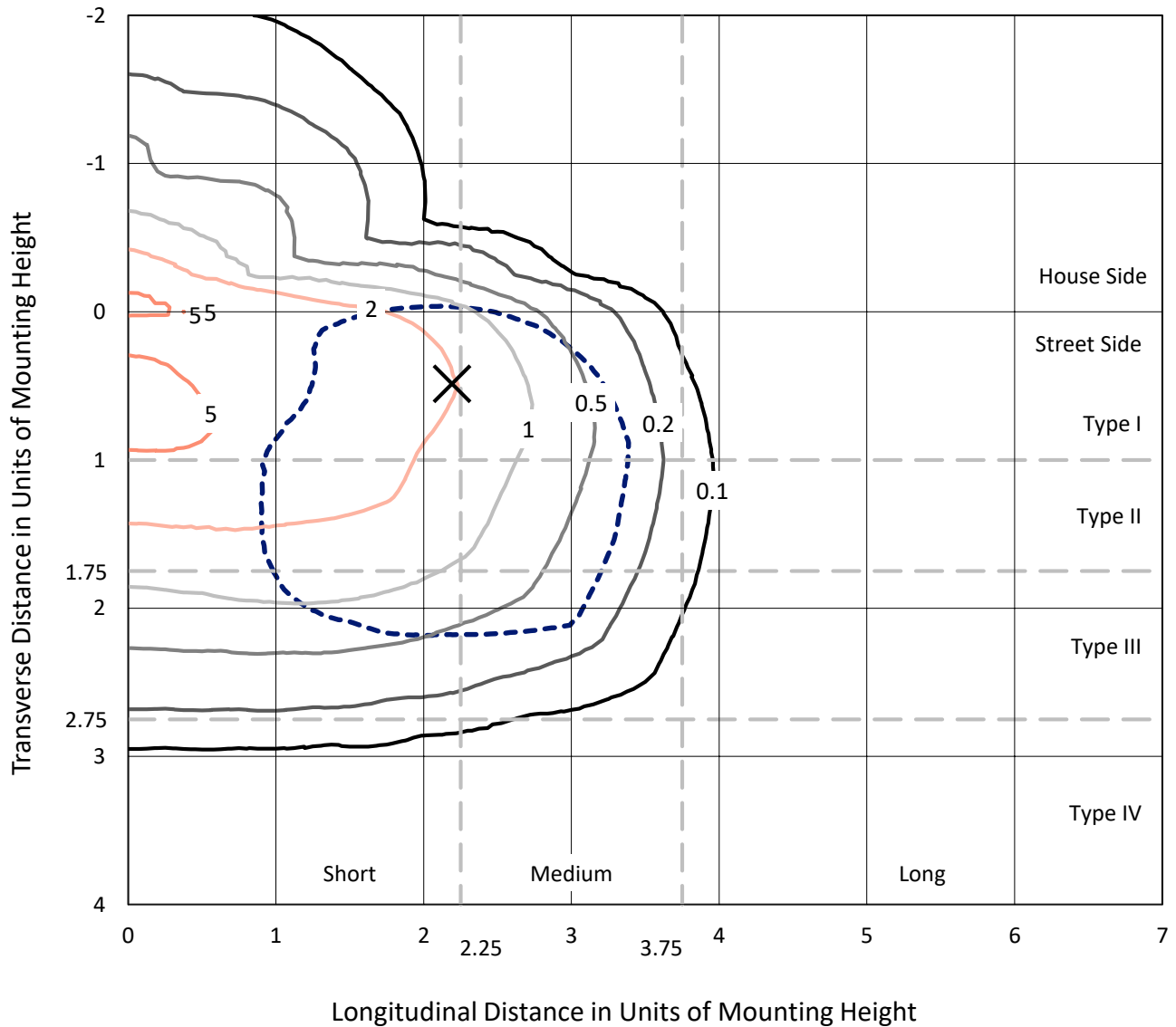
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

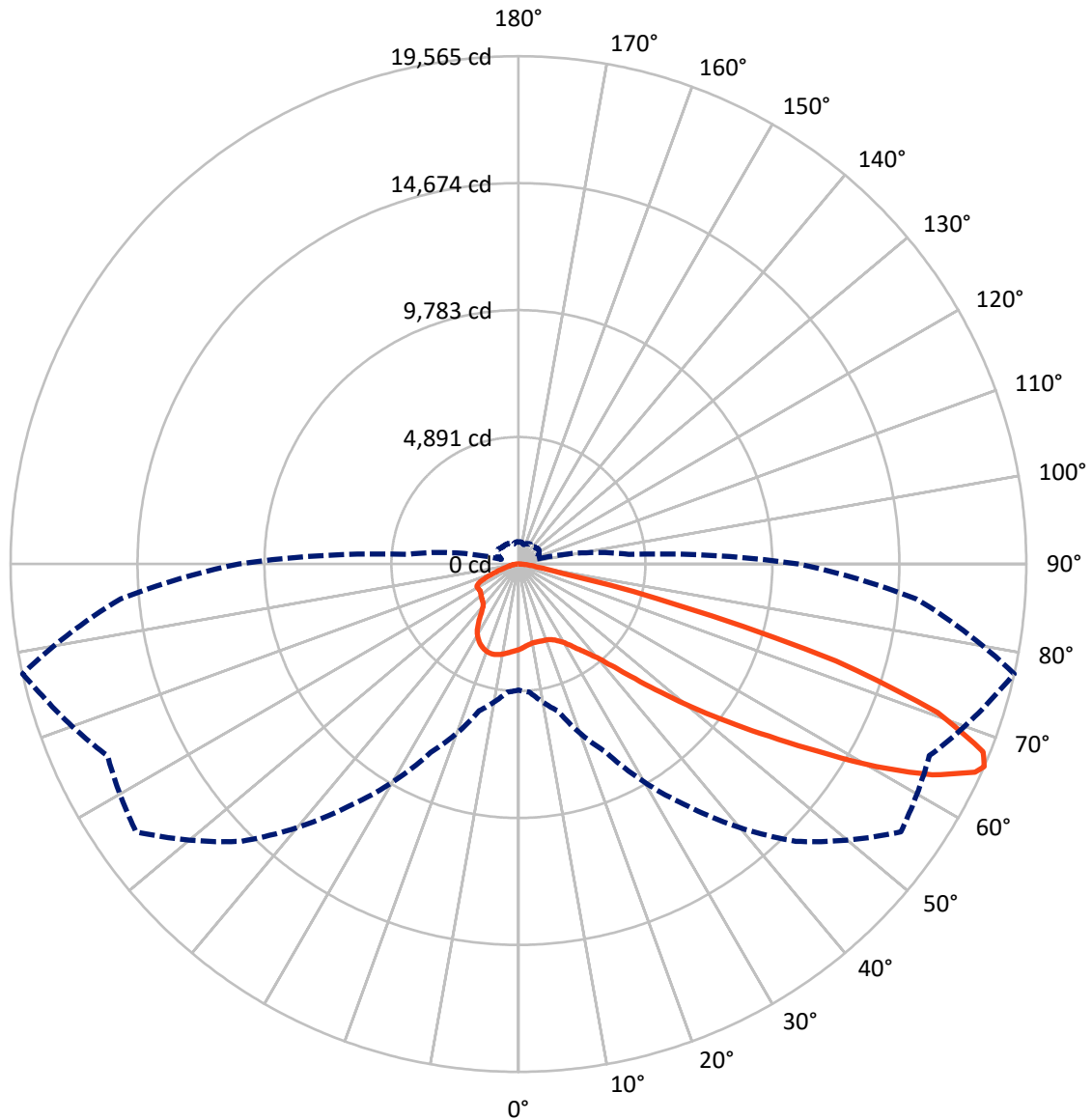
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3948.8	0.0	3948.8
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	19164.6	0.0	19164.6
	% Fixture	82.9	0.0	82.9
Total	Lumens	23113.4	0.0	23113.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.3	1.3
10°-20°	830.2	3.6
20°-30°	1416.8	6.1
30°-40°	2268.1	9.8
40°-50°	3504.0	15.2
50°-60°	4969.9	21.5
60°-70°	6648.4	28.8
70°-80°	2887.3	12.5
80°-90°	294.4	1.3
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°	23113.4	100.0
0°-180°	23113.4	100.0

Coefficient of Utilization



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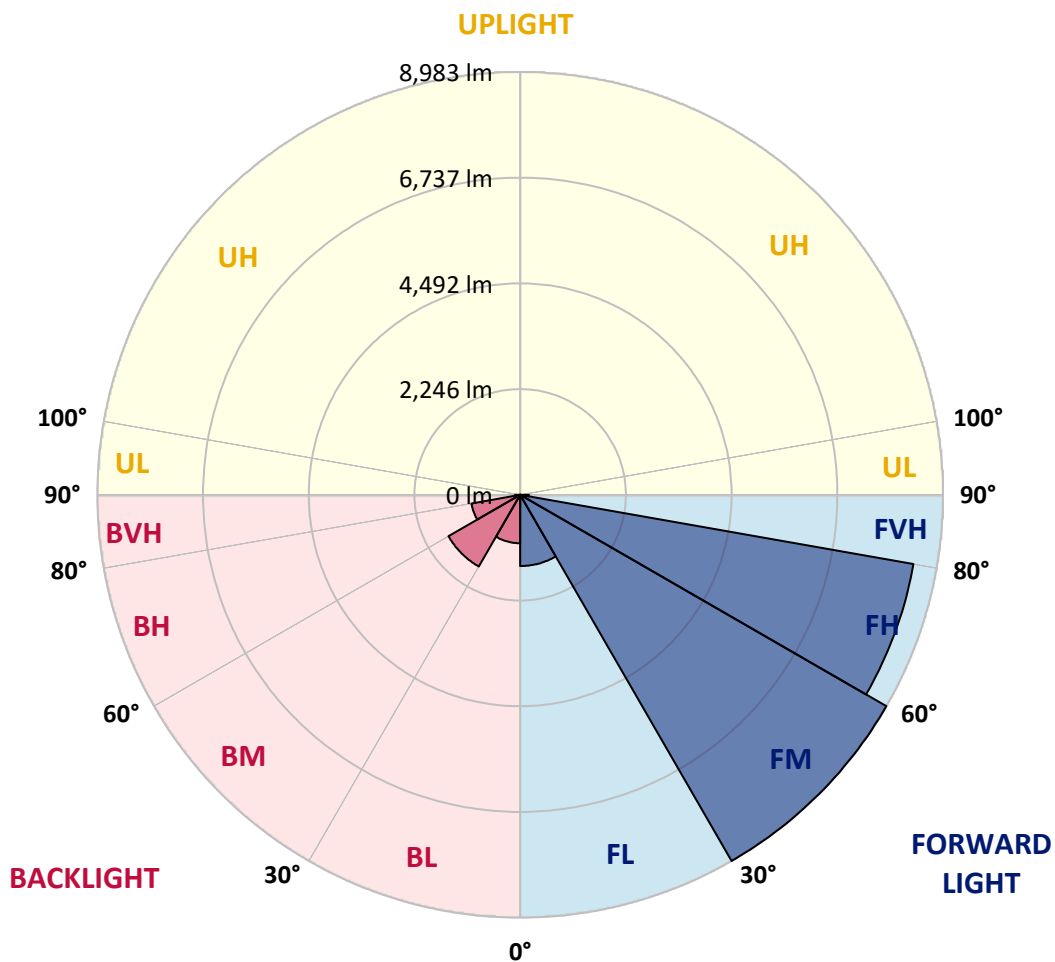
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1512.9	6.5			
FM	(30°-60°)	8983.1	38.9			
FH	(60°-80°)	8484.0	36.7			G4/12000
FVH	(80°-90°)	184.7	0.8			G2/225
BL	(0°-30°)	1028.4	4.4	B3/2500		
BM	(30°-60°)	1759.0	7.6	B2/2500		
BH	(60°-80°)	1051.6	4.5	B3/2500		G3/2500
BVH	(80°-90°)	109.8	0.5			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°	77.5°	85°
0°	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7
2.5°	2913.8	2933.3	2949.8	2965.1	2995.5	3045.7	3103.6	3150.6	3218.3	3231.6	3267.6
5°	2646.3	2646.3	2659.2	2682.3	2723.7	2799.1	2877.8	2982.6	3130.1	3164.8	3261.0
7.5°	2516.3	2517.3	2524.9	2544.5	2580.5	2649.3	2735.6	2859.2	3059.0	3116.8	3280.5
10°	2564.3	2553.4	2536.8	2527.3	2532.5	2572.9	2654.9	2792.4	3015.3	3089.4	3324.5
12.5°	2832.8	2812.3	2755.4	2680.0	2607.9	2578.5	2626.5	2760.7	2996.8	3083.1	3382.4
15°	3271.9	3263.3	3157.2	3001.1	2826.5	2680.0	2647.3	2748.8	2998.8	3090.7	3451.1
17.5°	3822.5	3810.2	3670.7	3443.5	3158.5	2873.5	2720.4	2758.7	3006.4	3103.6	3517.6
20°	4378.3	4340.9	4190.5	3919.7	3553.6	3136.3	2841.7	2783.9	3016.3	3117.8	3587.7
22.5°	4793.3	4762.5	4627.3	4364.1	3942.5	3441.2	3004.4	2827.5	3048.1	3159.5	3673.7
25°	5158.0	5160.0	5025.7	4771.5	4335.7	3764.6	3214.0	2944.2	3128.7	3244.5	3791.7
27.5°	5609.0	5582.9	5457.3	5205.0	4724.5	4091.0	3467.3	3104.9	3249.1	3365.8	3946.8
30°	6148.3	6129.8	5984.7	5698.6	5155.7	4441.5	3756.7	3291.4	3404.2	3525.2	4149.8
32.5°	6782.9	6774.3	6623.5	6255.5	5653.7	4854.5	4096.6	3538.4	3635.6	3761.3	4441.5
35°	7527.9	7528.9	7351.0	6908.5	6198.6	5334.9	4481.8	3856.2	3917.4	4048.3	4789.0
37.5°	7986.5	8042.1	7975.6	7524.6	6815.6	5872.2	4982.1	4277.8	4238.4	4370.7	5161.3
40°	8084.7	8152.5	8363.1	8134.0	7506.1	6464.1	5425.5	4682.9	4633.9	4795.3	5640.8
42.5°	7947.2	8041.1	8486.8	8648.2	8238.8	7193.6	6021.7	5284.7	5222.5	5439.7	6237.0
45°	7865.2	7935.3	8450.8	8916.0	8874.3	8018.2	6780.9	6040.2	6017.4	6302.4	6925.1
47.5°	7723.3	7786.8	8282.4	8978.2	9248.0	8773.8	7692.9	6964.4	7009.1	7382.7	7701.5
50°	7799.7	7825.8	8094.6	8819.8	9356.1	9327.7	8711.6	8034.5	8187.5	8653.8	8580.7
52.5°	7788.8	7856.6	8072.8	8559.9	9370.3	9669.6	9715.2	9228.1	9550.5	10085.6	9555.8
55°	6297.1	6421.5	7816.2	8494.4	9420.3	10004.5	10608.7	10486.3	11086.8	11710.4	10656.6
57.5°	6013.1	6091.8	6864.9	8632.0	9686.8	10644.7	11602.3	11871.1	12875.7	13599.8	11997.8
60°	5957.2	6054.4	6855.0	8800.3	10227.4	11687.6	13075.7	13547.6	15052.4	15845.4	13552.9
62.5°	5783.6	5888.4	6790.5	8778.1	10995.2	13130.3	14961.8	15329.9	17116.4	17887.5	14853.7
65°	5233.4	5331.6	6265.4	8425.6	11513.0	14670.2	17193.8	16963.7	18745.9	19325.6	15502.1
66°	4856.4	4952.7	5851.4	8010.6	11392.7	15107.0	17984.8	17469.3	19110.7	19565.0	15375.5
67.5°	4167.3	4242.7	5047.6	7081.1	10753.8	15229.3	18649.7	17849.2	19148.7	19309.4	14651.7
70°	2633.1	2654.9	3280.5	4888.2	8140.6	13207.7	17637.2	16905.8	17569.8	17135.0	12282.8
72.5°	1142.4	1134.8	1574.9	2486.6	4608.8	8862.4	14267.1	13949.4	13782.4	12790.7	8598.2
75°	635.5	644.5	818.1	1154.3	1872.9	4353.2	9333.0	8931.2	7540.8	6434.7	3898.8
77.5°	509.9	522.1	678.2	819.1	840.9	1518.1	4367.4	3553.6	2139.4	1716.8	1083.3
80°	403.1	424.9	591.9	637.8	566.8	625.6	1410.9	1128.2	846.5	776.4	561.5
82.5°	318.8	334.3	507.9	482.8	396.5	421.6	675.9	658.7	550.6	501.3	324.4
85°	229.5	257.6	417.3	363.7	259.9	284.0	448.7	430.2	315.5	257.6	143.2
87.5°	93.9	122.3	295.0	241.4	145.2	132.3	223.9	210.6	149.5	109.1	71.1
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°	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7	3293.7
2.5°	3290.4	3316.6	3350.6	3371.4	3382.4	3390.0	3401.9	3400.9	3404.2	3405.2	3409.5
5°	3312.3	3355.9	3405.2	3418.4	3418.4	3406.2	3394.3	3374.4	3366.8	3364.8	3366.8
7.5°	3369.1	3417.1	3459.7	3444.5	3411.8	3363.5	3301.3	3246.8	3217.4	3207.4	3205.4
10°	3441.2	3499.1	3516.6	3458.7	3362.5	3246.8	3123.4	3033.8	2982.6	2968.4	2964.1
12.5°	3528.5	3583.1	3559.3	3436.9	3258.7	3072.2	2901.6	2758.7	2651.6	2617.9	2615.5
15°	3624.7	3667.4	3583.1	3369.1	3103.6	2828.5	2524.9	2278.3	2145.0	2102.4	2099.0
17.5°	3714.3	3736.2	3568.8	3251.1	2875.4	2430.0	2027.0	1836.8	1791.2	1802.1	1804.1
20°	3790.7	3790.7	3520.9	3081.8	2516.3	1904.6	1650.0	1647.0	1679.8	1712.5	1719.1
22.5°	3874.7	3824.4	3436.9	2842.7	2007.1	1558.4	1521.4	1551.8	1588.8	1624.9	1630.5
25°	3978.5	3851.9	3319.9	2480.3	1577.9	1415.2	1429.5	1454.6	1473.1	1496.3	1499.6
27.5°	4094.3	3886.6	3166.1	1981.0	1369.6	1326.0	1336.9	1345.5	1343.2	1352.1	1354.1
30°	4232.8	3927.3	2955.1	1548.5	1283.3	1249.2	1229.7	1222.1	1222.1	1236.3	1241.6
32.5°	4418.7	3987.1	2652.6	1327.0	1241.6	1194.7	1131.5	1103.1	1114.0	1161.9	1172.9
35°	4623.0	4051.6	2243.2	1251.6	1233.0	1169.6	1071.3	1018.8	1020.1	1064.7	1079.0
37.5°	4845.5	4133.6	1794.2	1237.3	1252.6	1170.9	1039.6	967.5	938.1	938.1	943.7
40°	5130.6	4217.6	1452.6	1247.3	1294.2	1183.8	1023.4	927.2	844.2	846.5	850.8
42.5°	5501.9	4289.7	1269.1	1267.8	1344.5	1201.3	1022.1	873.6	801.5	850.8	895.4
45°	5914.9	4325.7	1188.1	1286.6	1384.8	1212.2	1004.9	865.0	807.1	953.3	1038.6
47.5°	6389.7	4304.9	1143.4	1292.9	1394.7	1212.2	985.0	885.8	845.2	1104.1	1203.6
50°	6910.9	4245.1	1099.8	1280.0	1391.4	1209.9	1003.6	906.3	859.4	1130.2	1199.0
52.5°	7523.6	4194.8	1053.8	1251.6	1368.3	1198.0	1025.4	897.8	814.8	1027.7	1075.6
55°	8222.3	4209.0	1002.6	1211.2	1332.2	1175.2	1017.8	862.7	767.8	905.4	934.8
57.5°	9115.7	4378.3	941.4	1160.0	1283.3	1136.8	990.7	846.5	753.6	821.4	838.9
60°	10112.7	4672.9	865.0	1108.4	1222.1	1075.6	969.8	854.1	760.2	814.8	823.4
62.5°	10844.4	4844.5	799.5	1033.0	1139.1	1007.9	943.7	863.7	777.7	837.6	835.6
65°	11043.2	4562.8	717.5	922.9	1026.7	937.1	910.6	874.6	785.3	856.1	846.5
66°	10764.7	4259.3	681.5	871.6	969.8	902.0	894.4	873.6	782.0	858.4	841.9
67.5°	10088.9	3636.6	619.3	796.2	879.2	849.8	868.3	863.7	773.1	856.1	833.3
70°	8227.9	2481.3	529.7	663.0	731.8	748.0	818.1	829.0	744.7	818.1	767.8
72.5°	5748.9	1511.5	468.5	514.5	591.9	637.8	749.3	780.7	706.6	714.2	666.3
75°	2778.2	802.8	424.9	398.8	459.6	533.0	666.3	715.2	646.4	597.5	580.0
77.5°	866.0	490.4	360.4	321.1	360.4	430.2	556.8	626.9	575.7	500.3	493.7
80°	465.2	360.4	277.4	257.6	285.0	337.6	437.8	523.1	494.7	448.7	400.8
82.5°	306.9	233.8	205.3	199.7	217.2	257.6	325.4	433.5	433.5	384.6	279.7
85°	158.4	143.2	140.9	140.9	151.8	171.6	221.5	334.3	356.1	203.0	168.3
87.5°	78.7	82.0	76.4	79.7	85.3	84.0	105.8	168.3	201.0	123.3	102.5
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)