

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: P301233

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301233
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-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23895.2 lumens
Efficiency: N/A
Efficacy: 123.8 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

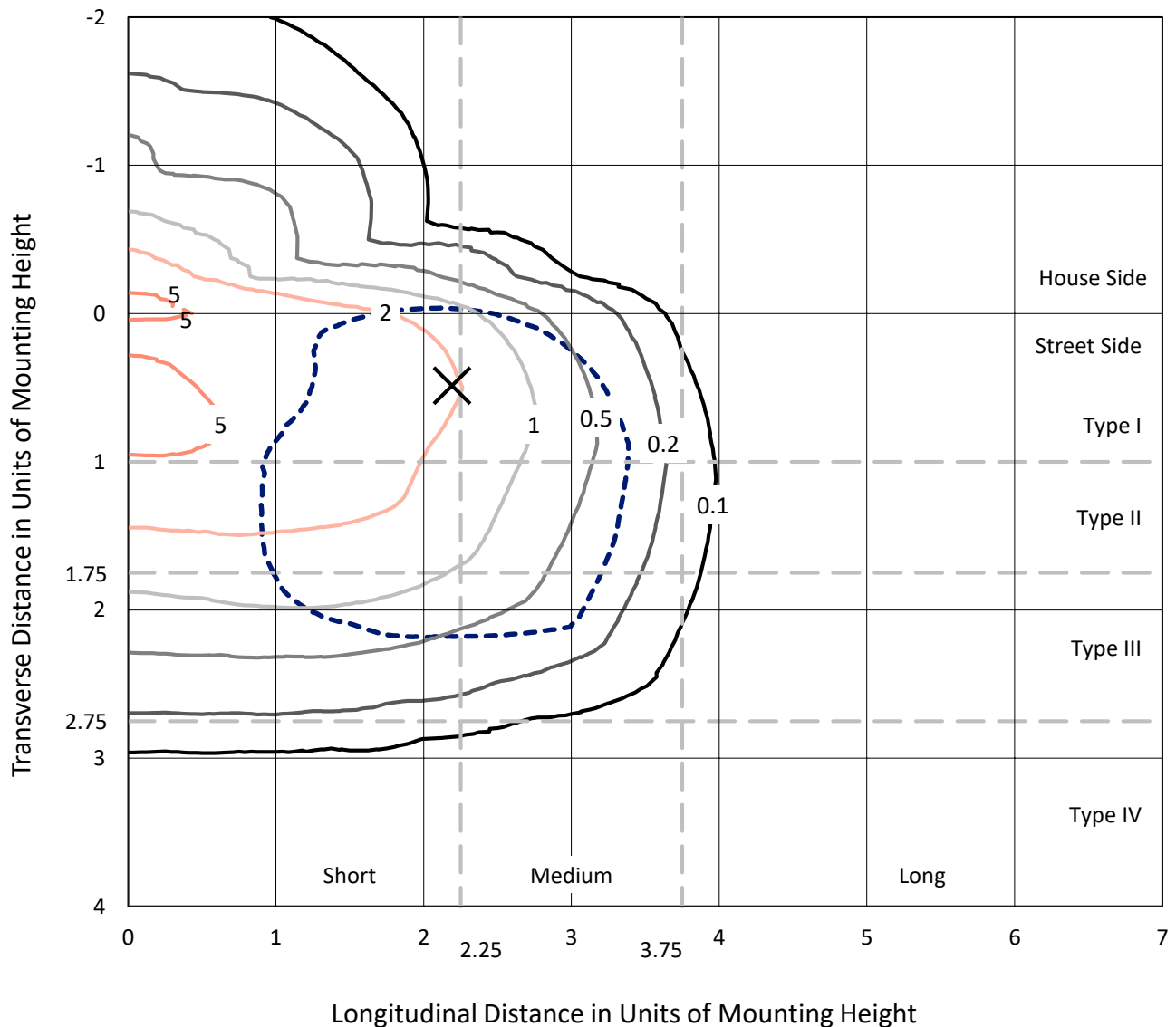
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

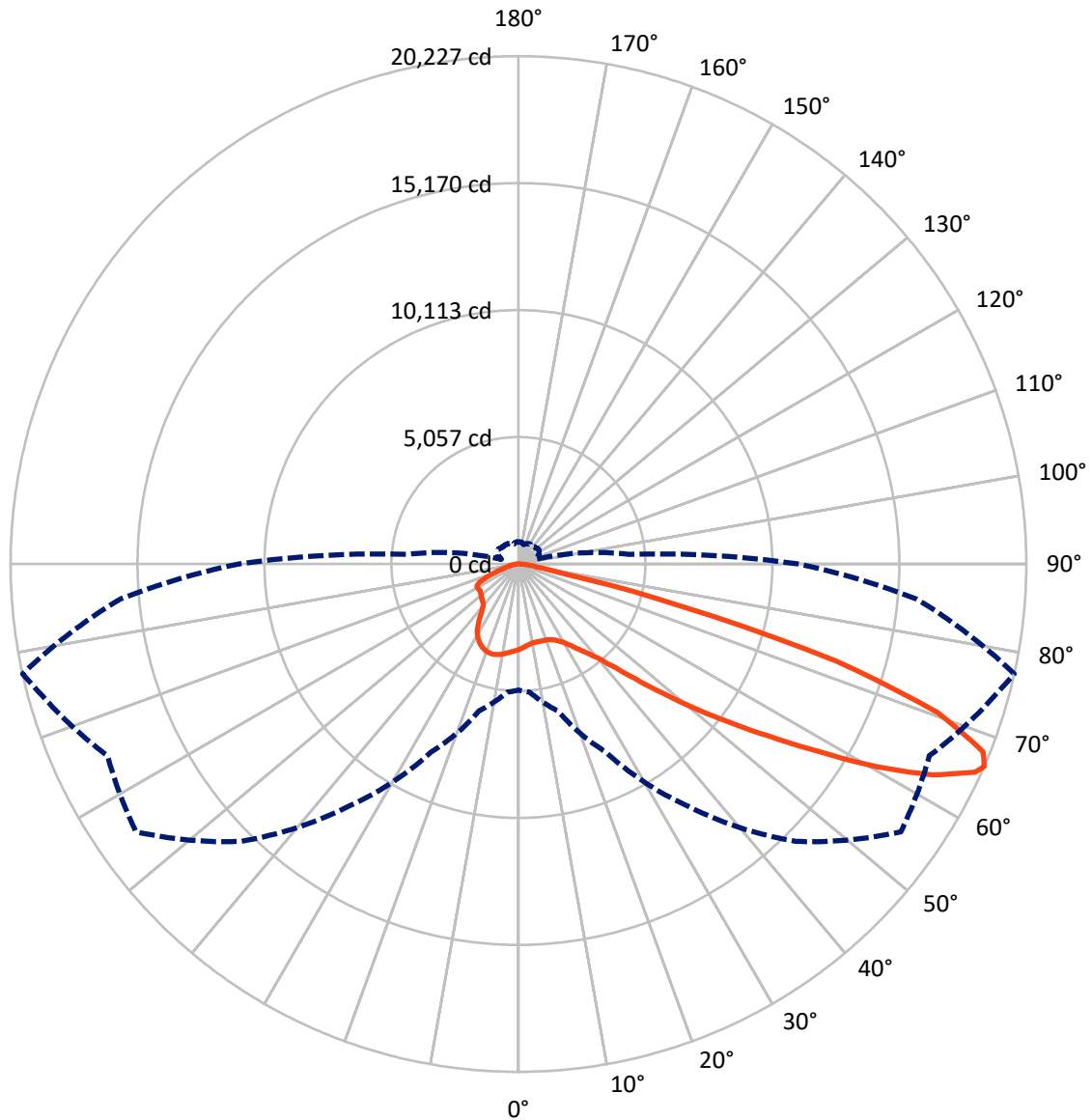
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 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	4082.4	0.0	4082.4
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	19812.9	0.0	19812.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	23895.2	0.0	23895.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.2	1.3
10°-20°	858.3	3.6
20°-30°	1464.8	6.1
30°-40°	2344.8	9.8
40°-50°	3622.5	15.2
50°-60°	5138.0	21.5
60°-70°	6873.3	28.8
70°-80°	2984.9	12.5
80°-90°	304.4	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°	23895.2	100.0
0°-180°	23895.2	100.0



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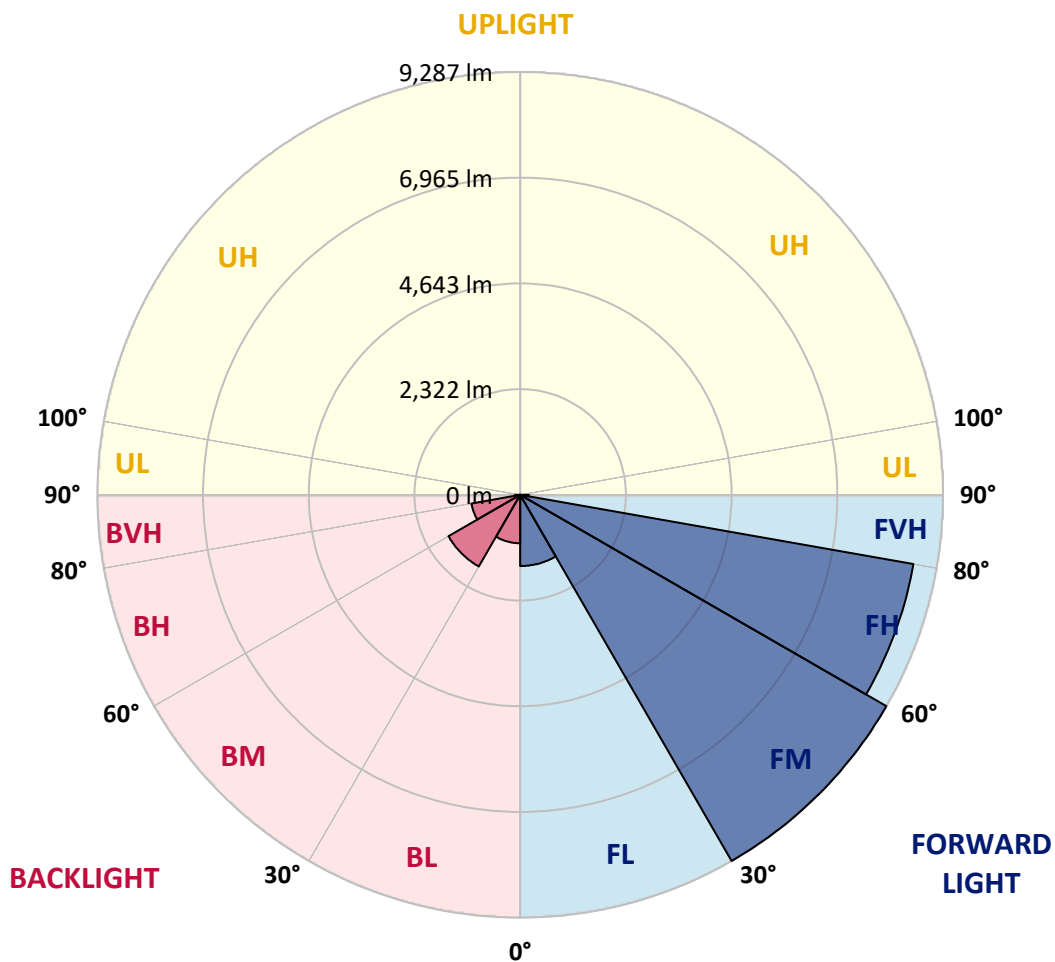
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1564.1	6.5			
FM	(30°-60°)	9286.9	38.9			
FH	(60°-80°)	8771.0	36.7			G4/12000
FVH	(80°-90°)	190.9	0.8			G2/225
BL	(0°-30°)	1063.2	4.4	B3/2500		
BM	(30°-60°)	1818.5	7.6	B2/2500		
BH	(60°-80°)	1087.2	4.5	B3/2500		G3/2500
BVH	(80°-90°)	113.5	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°	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2
2.5°	3012.4	3032.5	3049.6	3065.4	3096.8	3148.8	3208.6	3257.1	3327.2	3340.9	3378.1
5°	2735.8	2735.8	2749.1	2773.1	2815.8	2893.7	2975.1	3083.5	3235.9	3271.8	3371.3
7.5°	2601.5	2602.5	2610.4	2630.5	2667.8	2738.9	2828.1	2956.0	3162.4	3222.3	3391.5
10°	2651.0	2639.8	2622.7	2612.7	2618.2	2659.9	2744.7	2886.9	3117.3	3193.9	3436.9
12.5°	2928.6	2907.4	2848.6	2770.7	2696.2	2665.7	2715.3	2854.1	3098.2	3187.4	3496.8
15°	3382.6	3373.7	3264.0	3102.6	2922.1	2770.7	2736.8	2841.8	3100.2	3195.3	3567.9
17.5°	3951.8	3939.1	3794.9	3560.0	3265.3	2970.7	2812.4	2852.0	3108.1	3208.6	3636.6
20°	4526.4	4487.8	4332.2	4052.3	3673.8	3242.4	2937.8	2878.0	3118.3	3223.3	3709.1
22.5°	4955.4	4923.6	4783.8	4511.7	4075.9	3557.6	3106.0	2923.1	3151.2	3266.4	3797.9
25°	5332.5	5334.5	5195.8	4932.9	4482.3	3891.9	3322.8	3043.8	3234.6	3354.2	3920.0
27.5°	5798.8	5771.8	5641.9	5381.0	4884.3	4229.4	3584.6	3210.0	3359.0	3479.7	4080.3
30°	6356.3	6337.2	6187.1	5891.4	5330.1	4591.7	3883.7	3402.8	3519.3	3644.4	4290.2
32.5°	7012.3	7003.5	6847.6	6467.1	5844.9	5018.7	4235.2	3658.1	3758.6	3888.5	4591.7
35°	7782.5	7783.6	7599.6	7142.2	6408.3	5515.4	4633.4	3986.6	4049.9	4185.3	4951.0
37.5°	8256.7	8314.1	8245.4	7779.1	7046.2	6070.9	5150.6	4422.5	4381.8	4518.6	5335.9
40°	8358.2	8428.3	8646.0	8409.1	7760.0	6682.8	5609.1	4841.3	4790.7	4957.5	5831.6
42.5°	8216.0	8313.1	8773.9	8940.7	8517.5	7436.9	6225.4	5463.4	5399.2	5623.8	6447.9
45°	8131.2	8203.7	8736.6	9217.6	9174.5	8289.5	7010.3	6244.5	6221.0	6515.6	7159.3
47.5°	7984.6	8050.2	8562.6	9281.9	9560.8	9070.6	7953.1	7200.0	7246.2	7632.5	7962.0
50°	8063.5	8090.5	8368.5	9118.1	9672.6	9643.2	9006.3	8306.2	8464.5	8946.5	8871.0
52.5°	8052.2	8122.3	8345.9	8849.4	9687.3	9996.7	10043.9	9540.3	9873.6	10426.7	9879.1
55°	6510.2	6638.7	8080.6	8781.7	9738.9	10343.0	10967.5	10841.0	11461.8	12106.6	11017.1
57.5°	6216.5	6297.9	7097.1	8924.0	10014.5	11004.8	11994.8	12272.7	13311.2	14059.9	12403.6
60°	6158.7	6259.2	7086.9	9098.0	10573.4	12083.0	13518.1	14005.9	15561.6	16381.4	14011.3
62.5°	5979.3	6087.6	7020.2	9075.1	11367.1	13574.5	15468.0	15848.4	17695.4	18492.6	15356.2
65°	5410.4	5512.0	6477.3	8710.6	11902.5	15166.5	17775.4	17537.5	19380.1	19979.3	16026.5
66°	5020.7	5120.2	6049.4	8281.6	11778.1	15618.0	18593.1	18060.2	19757.1	20226.8	15895.6
67.5°	4308.3	4386.3	5218.3	7320.7	11117.6	15744.5	19280.6	18453.0	19796.5	19962.6	15147.3
70°	2722.1	2744.7	3391.5	5053.5	8416.0	13654.5	18233.9	17477.7	18164.1	17714.6	12698.3
72.5°	1181.1	1173.2	1628.2	2570.7	4764.7	9162.2	14749.7	14421.2	14248.6	13223.4	8889.1
75°	657.0	666.3	845.7	1193.4	1936.2	4500.4	9648.7	9233.3	7795.9	6652.4	4030.7
77.5°	527.1	539.8	701.1	846.8	869.3	1569.4	4515.1	3673.8	2211.8	1774.9	1119.9
80°	416.7	439.3	611.9	659.4	585.9	646.8	1458.7	1166.4	875.1	802.7	580.5
82.5°	329.5	345.6	525.1	499.1	409.9	435.9	698.7	681.0	569.2	518.2	335.4
85°	237.2	266.3	431.4	376.0	268.7	293.6	463.9	444.7	326.1	266.3	148.0
87.5°	97.1	126.5	304.9	249.5	150.1	136.7	231.4	217.8	154.5	112.8	73.5
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°	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2	3405.2
2.5°	3401.7	3428.7	3464.0	3485.5	3496.8	3504.6	3516.9	3515.9	3519.3	3520.4	3524.8
5°	3424.3	3469.4	3520.4	3534.0	3534.0	3521.4	3509.1	3488.6	3480.7	3478.7	3480.7
7.5°	3483.1	3532.7	3576.8	3561.0	3527.2	3477.3	3413.0	3356.6	3326.2	3315.9	3313.9
10°	3557.6	3617.4	3635.6	3575.7	3476.3	3356.6	3229.1	3136.5	3083.5	3068.8	3064.3
12.5°	3647.9	3704.3	3679.7	3553.2	3368.9	3176.1	2999.7	2852.0	2741.3	2706.4	2704.0
15°	3747.3	3791.4	3704.3	3483.1	3208.6	2924.2	2610.4	2355.3	2217.6	2173.5	2170.1
17.5°	3840.0	3862.5	3689.6	3361.1	2972.7	2512.2	2095.5	1899.0	1851.8	1863.1	1865.1
20°	3919.0	3919.0	3640.0	3186.0	2601.5	1969.0	1705.8	1702.7	1736.6	1770.4	1777.3
22.5°	4005.8	3953.8	3553.2	2938.9	2075.0	1611.1	1572.8	1604.3	1642.6	1679.8	1685.7
25°	4113.1	3982.2	3432.2	2564.2	1631.3	1463.1	1477.8	1503.8	1522.9	1546.9	1550.3
27.5°	4232.8	4018.1	3273.2	2048.0	1415.9	1370.8	1382.1	1391.0	1388.6	1397.8	1399.9
30°	4376.0	4060.1	3055.1	1600.9	1326.7	1291.5	1271.3	1263.5	1263.5	1278.2	1283.6
32.5°	4568.1	4122.0	2742.3	1371.8	1283.6	1235.1	1169.8	1140.4	1151.7	1201.3	1212.5
35°	4779.4	4188.7	2319.1	1293.9	1274.8	1209.1	1107.6	1053.2	1054.6	1100.8	1115.5
37.5°	5009.4	4273.4	1854.9	1279.2	1294.9	1210.5	1074.8	1000.2	969.8	969.8	975.6
40°	5304.1	4360.3	1501.7	1289.5	1338.0	1223.8	1058.0	958.5	872.7	875.1	879.6
42.5°	5688.0	4434.8	1312.0	1310.6	1390.0	1241.9	1056.7	903.2	828.6	879.6	925.7
45°	6115.0	4472.1	1228.3	1330.1	1431.7	1253.2	1038.9	894.3	834.5	985.5	1073.7
47.5°	6605.9	4450.5	1182.1	1336.6	1441.9	1253.2	1018.4	915.8	873.8	1141.4	1244.3
50°	7144.6	4388.7	1137.0	1323.3	1438.5	1250.8	1037.5	937.0	888.5	1168.4	1239.5
52.5°	7778.1	4336.7	1089.5	1293.9	1414.6	1238.5	1060.1	928.1	842.3	1062.5	1112.0
55°	8500.4	4351.4	1036.5	1252.2	1377.3	1214.9	1052.2	891.9	793.8	936.0	966.4
57.5°	9424.1	4526.4	973.2	1199.2	1326.7	1175.3	1024.2	875.1	779.1	849.2	867.3
60°	10454.8	4831.0	894.3	1145.9	1263.5	1112.0	1002.6	883.0	785.9	842.3	851.2
62.5°	11211.3	5008.4	826.6	1067.9	1177.7	1042.0	975.6	892.9	804.0	865.9	863.9
65°	11416.7	4717.2	741.8	954.1	1061.4	968.8	941.5	904.2	811.9	885.0	875.1
66°	11128.9	4403.4	704.5	901.1	1002.6	932.6	924.7	903.2	808.5	887.4	870.3
67.5°	10430.1	3759.7	640.3	823.2	909.0	878.6	897.7	892.9	799.2	885.0	861.5
70°	8506.2	2565.2	547.6	685.4	756.5	773.3	845.7	857.0	769.8	845.7	793.8
72.5°	5943.4	1562.6	484.4	531.9	611.9	659.4	774.6	807.1	730.5	738.4	688.8
75°	2872.2	830.0	439.3	412.3	475.2	551.1	688.8	739.4	668.3	617.7	599.6
77.5°	895.3	507.0	372.6	331.9	372.6	444.7	575.7	648.1	595.2	517.2	510.4
80°	481.0	372.6	286.8	266.3	294.7	349.0	452.6	540.8	511.4	463.9	414.3
82.5°	317.2	241.7	212.3	206.5	224.6	266.3	336.4	448.2	448.2	397.6	289.2
85°	163.7	148.0	145.6	145.6	156.9	177.4	229.0	345.6	368.2	209.9	174.0
87.5°	81.4	84.8	79.0	82.4	88.2	86.8	109.4	174.0	207.8	127.5	106.0
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)