

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: P300431

Luminaire Tested: **GLNA-AF-03-LED-E1-AFL-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-AFL-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12239.6 lumens
Efficiency: N/A
Efficacy: 127.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

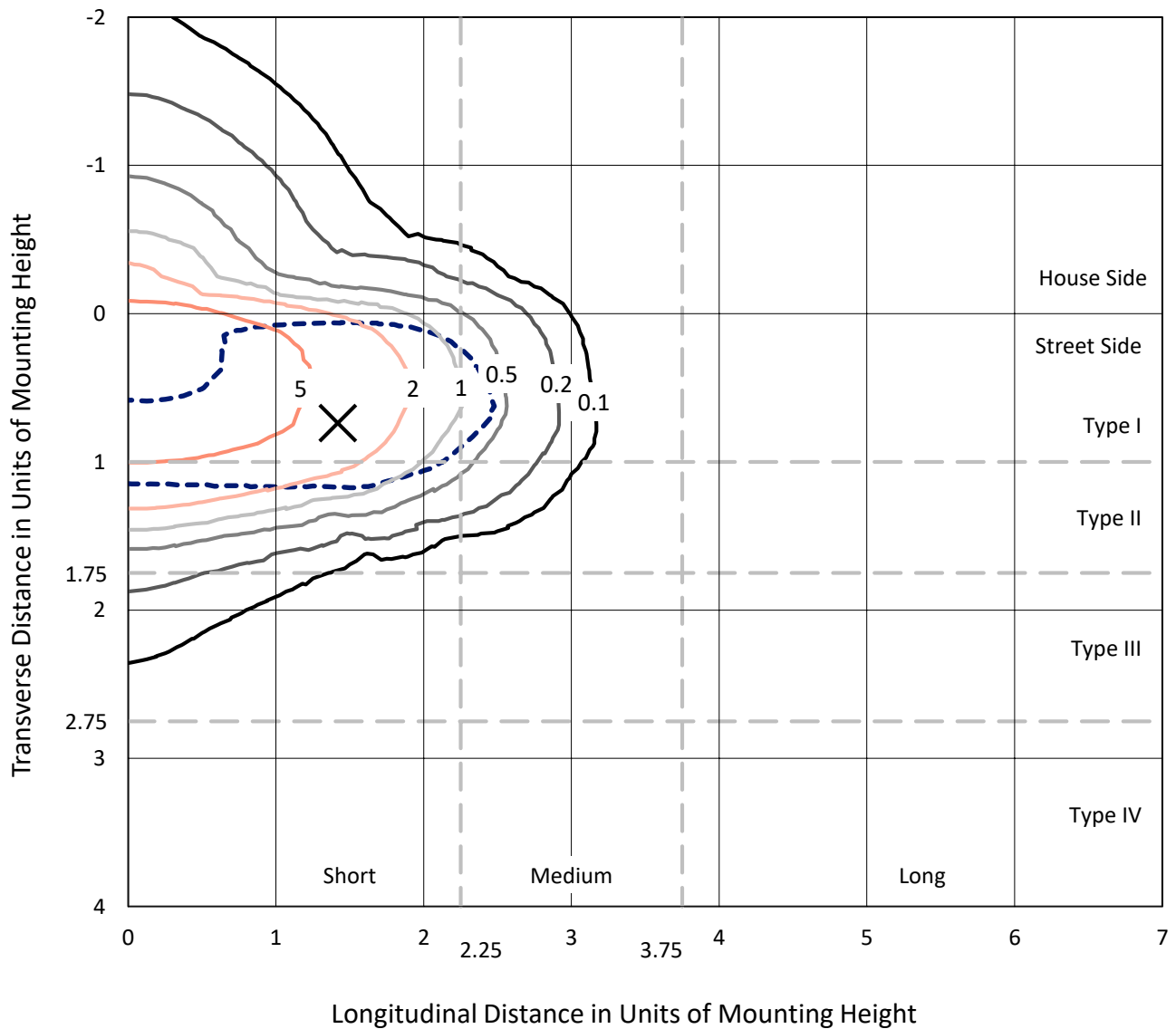
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

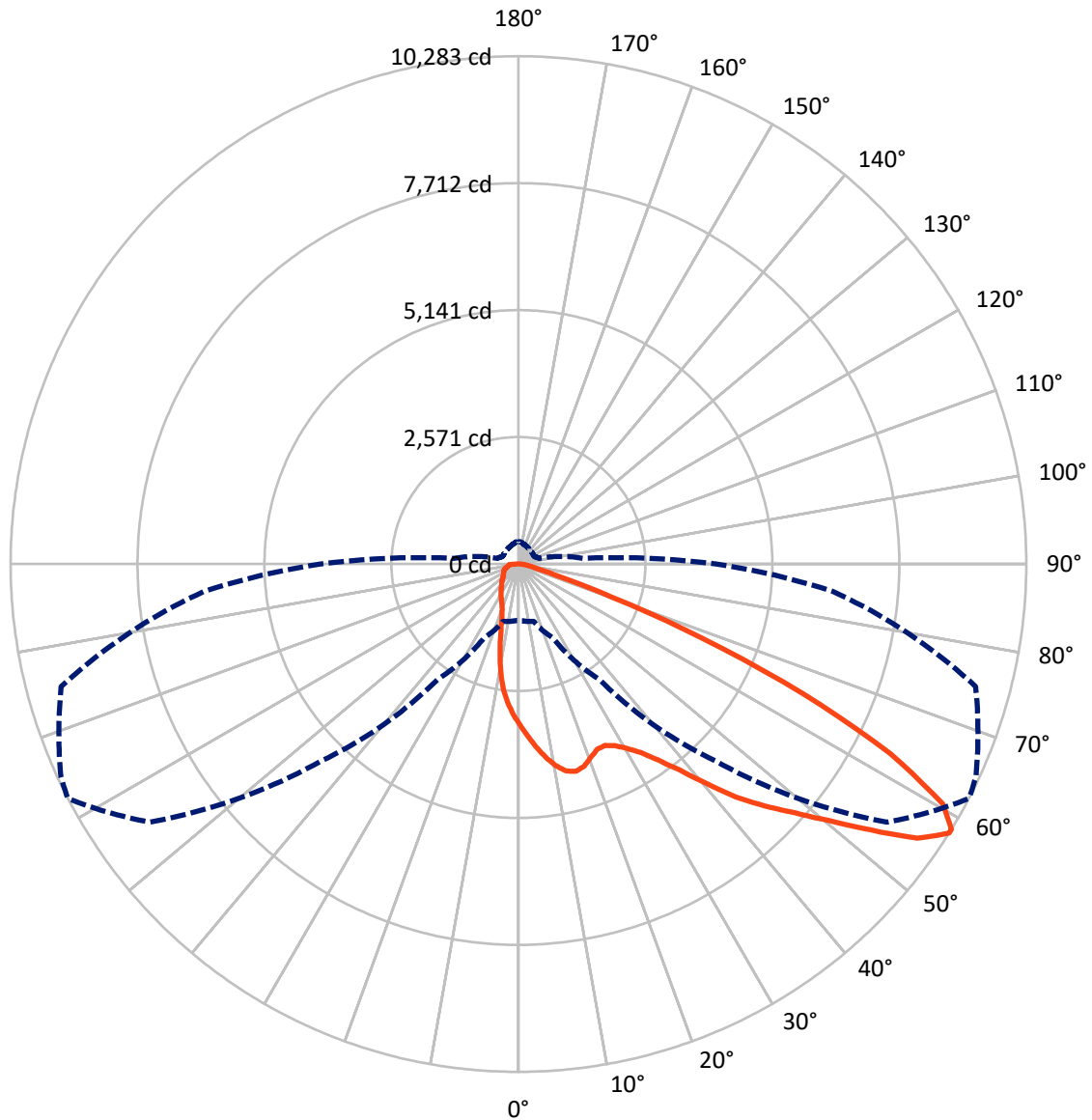
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1866.6	0.0	1866.6
	% Fixture	15.3	0.0	15.3
Street Side	Lumens	10373.0	0.0	10373.0
	% Fixture	84.7	0.0	84.7
Total	Lumens	12239.6	0.0	12239.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.8	2.4
10°-20°	743.3	6.1
20°-30°	1201.5	9.8
30°-40°	1907.4	15.6
40°-50°	2790.9	22.8
50°-60°	2919.0	23.8
60°-70°	1724.6	14.1
70°-80°	485.8	4.0
80°-90°	176.4	1.4
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°	12239.6	100.0
0°-180°	12239.6	100.0

Coefficient of Utilization



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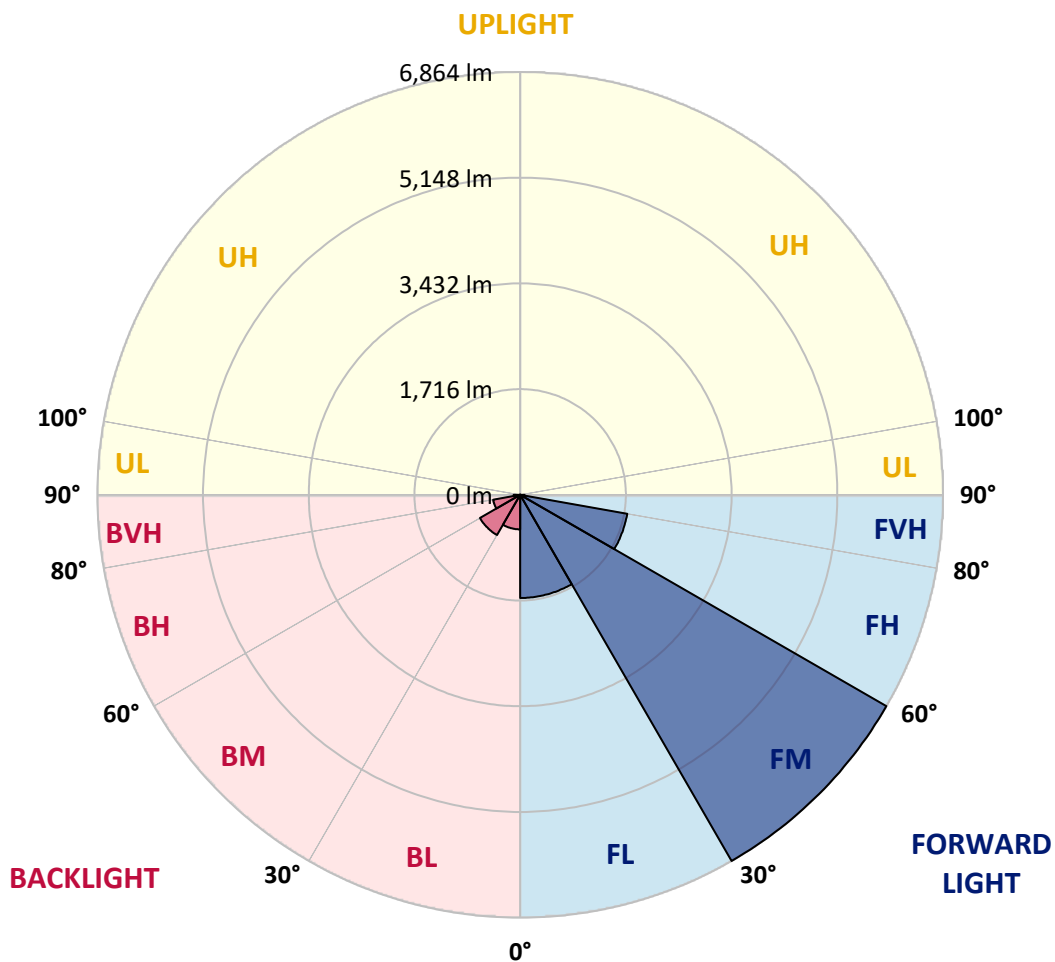
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1674.5	13.7			
FM	(30°-60°)	6863.9	56.1			
FH	(60°-80°)	1765.0	14.4			G1/1800
FVH	(80°-90°)	69.6	0.6			G1/100
BL	(0°-30°)	561.0	4.6	B2/1000		
BM	(30°-60°)	753.4	6.2	B1/1000		
BH	(60°-80°)	445.4	3.6	B1/500		G1/500
BVH	(80°-90°)	106.8	0.9			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2
2.5°	3715.2	3685.2	3666.2	3649.5	3627.6	3580.9	3518.0	3478.3	3458.1	3389.5	3308.3
5°	4079.4	4052.9	4033.3	4010.8	3971.6	3898.4	3797.0	3716.3	3676.5	3539.4	3376.8
7.5°	3994.1	4005.1	4039.1	4098.4	4149.1	4139.4	4048.9	3946.3	3893.8	3703.1	3456.4
10°	3480.0	3499.0	3557.8	3696.7	3921.5	4152.0	4222.3	4151.5	4098.4	3865.0	3538.2
12.5°	3376.8	3376.3	3380.9	3417.8	3551.5	3876.0	4228.1	4299.6	4267.9	4019.5	3621.8
15°	3418.9	3420.1	3416.6	3432.2	3473.7	3602.2	4051.7	4356.6	4379.1	4175.1	3708.2
17.5°	3529.6	3526.7	3513.4	3513.4	3528.4	3578.6	3844.3	4303.6	4407.4	4312.8	3784.3
20°	3715.2	3701.9	3666.7	3634.5	3618.3	3645.4	3759.0	4181.4	4358.4	4433.3	3847.1
22.5°	3939.9	3929.6	3872.5	3803.3	3747.4	3746.9	3802.8	4074.8	4273.6	4546.8	3900.2
25°	4230.4	4213.7	4129.0	4018.3	3920.3	3882.9	3898.4	4069.6	4227.5	4670.2	3947.4
27.5°	4571.6	4541.1	4440.8	4281.1	4137.0	4061.5	4039.1	4163.6	4269.6	4822.9	4013.1
30°	4985.4	4950.3	4821.8	4613.7	4410.2	4286.3	4238.5	4330.1	4409.1	5009.1	4118.6
32.5°	5456.3	5405.6	5256.9	5027.5	4760.1	4571.0	4493.2	4550.3	4613.1	5233.3	4250.6
35°	6107.0	6046.5	5831.5	5515.1	5213.1	4953.2	4828.7	4870.2	4931.3	5567.5	4441.4
37.5°	6550.8	6523.7	6380.8	6083.4	5754.9	5455.7	5263.2	5287.4	5322.0	5985.4	4685.7
40°	6546.8	6557.7	6560.6	6563.5	6339.9	6053.4	5846.5	5821.1	5814.2	6444.2	4963.5
42.5°	6218.8	6263.8	6409.0	6703.5	6839.6	6708.1	6518.5	6445.3	6409.0	6984.8	5258.0
45°	5716.8	5741.0	6013.1	6588.3	7095.5	7356.5	7213.0	6982.5	6916.8	7481.6	5502.4
47.5°	5458.0	5484.6	5655.7	6282.8	7092.6	7880.4	7963.4	7524.3	7406.7	7913.9	5713.4
50°	4841.9	4897.3	5112.8	5751.4	6833.8	8121.4	8747.9	8169.8	7926.6	8334.6	5924.9
52.5°	3710.5	3795.8	4037.3	4877.7	6177.3	8002.1	9375.5	8952.5	8609.0	8770.3	6106.4
55°	2340.6	2404.0	2606.8	3444.8	4941.6	7381.3	9613.5	9799.1	9493.6	9183.0	6263.8
57.5°	1272.6	1300.8	1376.9	1902.0	3214.3	6009.0	9266.6	10280.9	10154.1	9533.4	6382.5
58°	1138.9	1157.9	1205.1	1648.4	2850.6	5633.8	9112.7	10282.7	10219.3	9584.7	6391.7
60°	844.9	835.1	793.1	940.6	1586.7	3892.1	8182.5	9871.2	10057.3	9647.5	6346.8
62.5°	742.3	718.7	632.8	623.0	771.7	1793.0	6260.9	8455.6	8895.4	9289.0	6073.6
65°	697.4	672.0	561.4	525.6	556.8	758.5	3688.1	6341.6	6893.2	8202.0	5375.0
67.5°	664.0	631.1	515.8	466.8	469.1	501.4	1478.3	3994.1	4614.8	6227.5	4180.8
70°	631.7	595.9	477.2	420.7	407.5	396.5	587.9	1999.4	2562.5	3933.6	2665.6
72.5°	597.1	561.9	443.2	384.4	358.5	322.2	383.8	817.8	1142.3	1861.0	1209.2
75°	547.0	515.3	409.2	352.2	315.3	266.9	289.9	427.1	512.4	741.2	582.7
77.5°	485.3	459.4	371.2	325.6	279.5	216.7	223.0	296.2	328.5	424.2	346.4
80°	348.7	357.9	330.2	292.8	249.0	175.8	171.2	216.1	233.4	272.6	225.4
82.5°	244.9	250.1	273.2	239.2	205.8	138.3	126.2	152.2	162.5	179.2	121.6
85°	168.9	163.1	187.3	166.6	148.7	92.2	86.5	103.2	109.5	111.2	62.8
87.5°	101.4	101.4	108.4	89.3	80.1	47.8	46.7	58.8	62.8	59.9	34.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2	3251.2
2.5°	3259.8	3218.9	3131.9	3062.2	2974.0	2882.3	2831.0	2776.3	2738.8	2711.7	2755.0
5°	3284.6	3201.1	3021.2	2850.6	2662.2	2466.2	2317.5	2179.2	2082.9	2023.0	2079.5
7.5°	3323.8	3195.3	2908.8	2617.2	2278.9	1952.7	1661.0	1478.3	1371.7	1319.3	1352.1
10°	3368.8	3186.1	2776.9	2300.8	1816.7	1405.7	1187.9	1114.1	1089.9	1080.1	1084.7
12.5°	3406.2	3166.5	2614.9	1918.1	1364.2	1110.1	1047.2	1045.5	1050.7	1051.8	1053.6
15°	3432.7	3137.7	2374.6	1519.3	1091.0	1011.5	1008.0	1018.4	1028.2	1032.2	1034.5
17.5°	3450.6	3078.3	2103.1	1201.1	977.5	963.7	971.7	985.0	995.4	998.2	1000.5
20°	3448.9	2991.3	1779.8	1001.7	915.8	915.8	929.7	940.0	940.6	937.1	938.9
22.5°	3431.0	2872.0	1466.2	895.6	861.1	870.9	884.7	874.9	834.6	808.0	809.8
25°	3401.0	2729.6	1197.7	828.2	810.3	827.6	823.6	749.8	692.2	666.3	666.3
27.5°	3374.5	2561.3	991.3	769.4	759.6	781.0	709.5	642.6	618.4	606.3	602.3
30°	3355.5	2379.8	853.6	712.9	711.8	696.2	615.5	597.1	593.1	583.3	579.8
32.5°	3360.1	2195.9	765.4	663.4	667.4	595.9	570.6	574.6	571.2	560.8	556.2
35°	3398.2	2021.3	707.8	618.4	606.3	538.3	544.1	551.6	550.4	536.0	531.4
37.5°	3466.2	1855.8	669.7	581.0	529.1	509.5	518.7	530.2	527.4	517.6	514.1
40°	3537.6	1700.2	638.6	551.6	483.6	489.9	498.0	504.3	507.2	510.1	507.8
42.5°	3607.4	1537.7	600.6	521.6	464.5	471.5	474.9	481.3	496.8	507.8	507.2
45°	3648.9	1385.0	561.4	478.9	449.6	453.6	451.3	464.0	483.0	500.8	501.4
47.5°	3695.0	1266.2	530.2	439.8	435.1	438.0	431.1	443.8	461.1	483.0	485.3
50°	3750.9	1195.4	505.5	408.6	415.5	415.5	413.8	425.3	449.6	474.9	479.5
52.5°	3814.3	1181.5	484.7	386.2	396.0	395.4	397.1	414.4	440.9	465.7	469.7
55°	3891.5	1219.0	462.2	369.4	376.9	379.2	385.0	404.6	427.1	455.3	457.0
57.5°	3981.4	1295.1	444.4	356.2	359.6	367.1	376.4	394.2	418.4	449.6	451.3
58°	3996.4	1311.2	441.5	355.0	356.2	364.8	375.2	392.5	416.7	450.7	452.4
60°	3997.0	1364.8	435.1	349.8	342.9	357.3	368.9	386.2	413.8	454.7	458.8
62.5°	3855.2	1364.2	430.5	342.4	329.1	347.0	360.2	380.4	410.9	464.5	472.6
65°	3394.7	1239.7	408.6	330.8	318.1	337.7	352.7	376.4	419.0	507.2	512.4
67.5°	2655.2	1016.1	367.7	314.7	303.7	328.5	348.1	375.8	427.7	517.0	520.4
70°	1755.6	760.2	322.8	296.2	288.8	317.6	350.4	395.4	417.9	496.2	487.0
72.5°	911.2	533.7	286.4	273.2	271.5	307.8	383.8	393.1	408.1	466.8	455.3
75°	478.4	370.6	254.7	247.8	250.7	305.5	453.0	382.7	395.4	446.7	468.6
77.5°	292.8	299.1	227.7	224.8	230.5	298.5	452.4	369.4	376.9	410.9	435.1
80°	196.0	242.6	206.9	207.5	211.5	273.2	406.3	348.7	354.5	388.5	413.2
82.5°	123.9	143.5	187.9	197.7	192.5	225.4	345.2	317.6	325.6	444.4	469.7
85°	62.8	89.9	163.1	190.2	173.5	157.9	280.1	278.4	282.4	320.5	334.9
87.5°	28.8	49.6	127.4	166.0	130.8	98.6	203.5	206.3	222.5	227.7	227.7
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)