

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: P301239

Luminaire Tested: **GLNA-AF-07-LED-E1-T3R-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301239  
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-07-LED-E1-T3R-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 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: 28258.9 lumens  
Efficiency: N/A  
Efficacy: 125.0 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

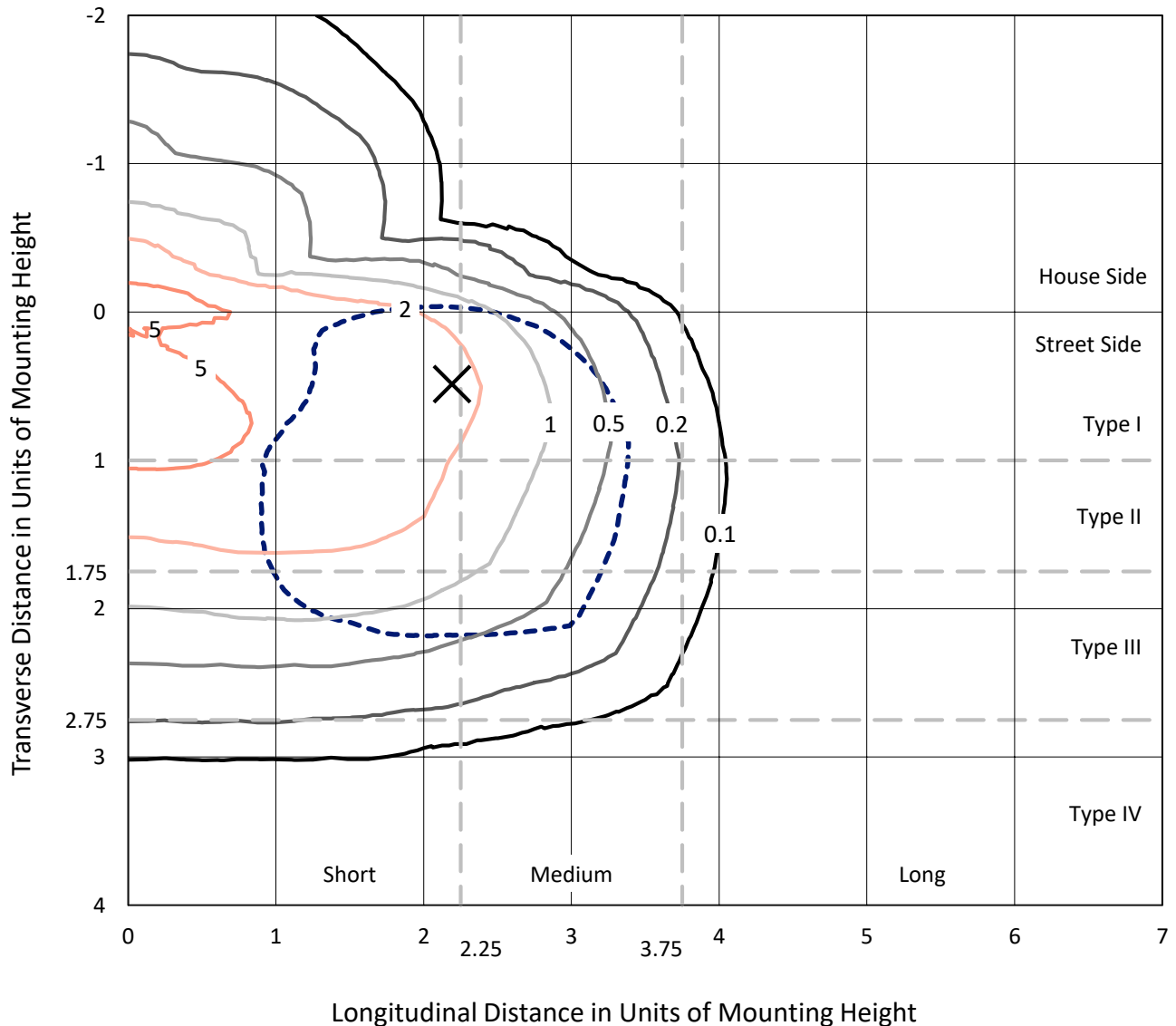
Input Watts (W): 226  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

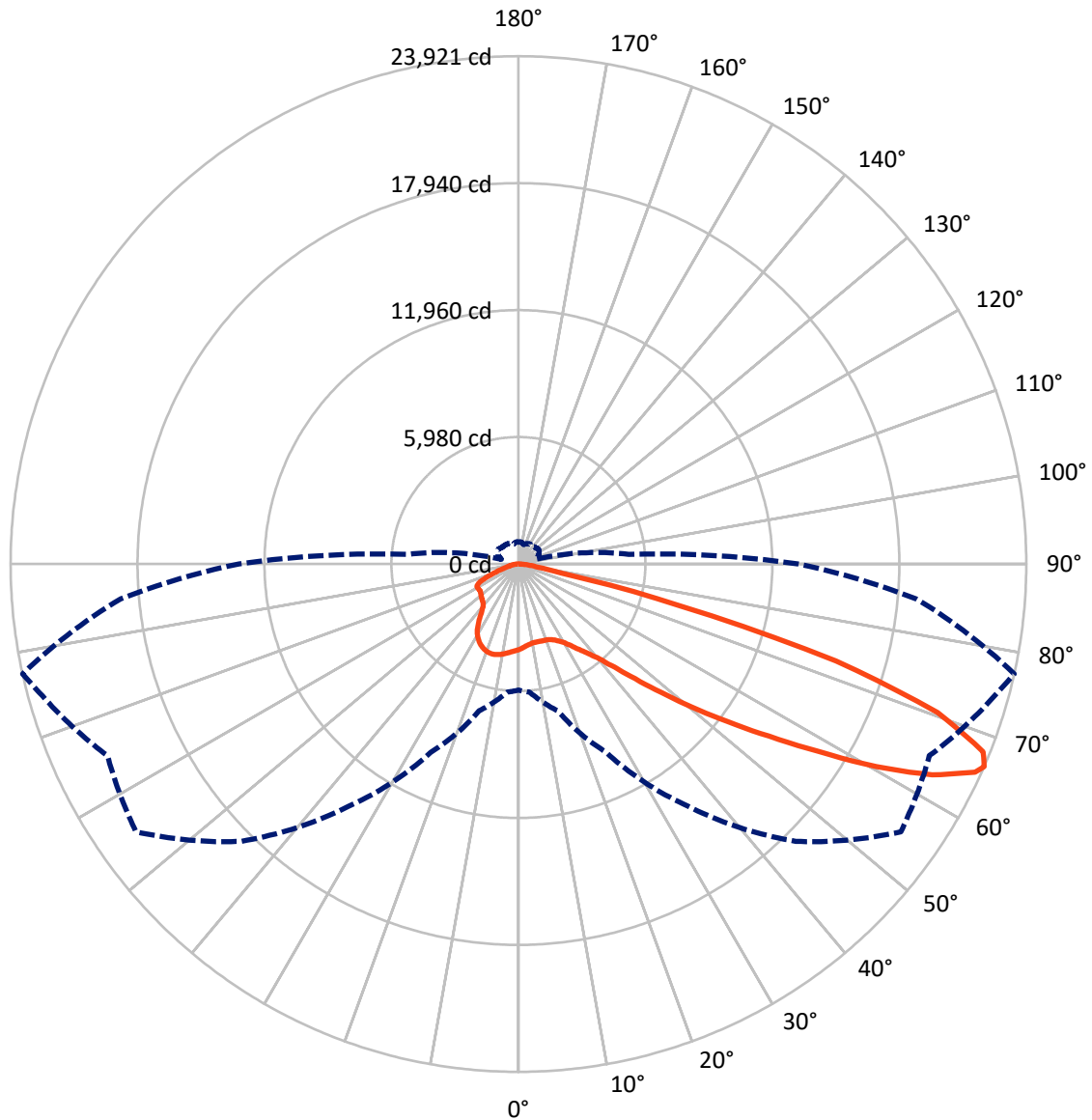
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 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
<b>House Side</b>	Lumens	4827.9	0.0	4827.9
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	23431.0	0.0	23431.0
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	28258.9	0.0	28258.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	359.8	1.3
10°-20°	1015.0	3.6
20°-30°	1732.3	6.1
30°-40°	2773.0	9.8
40°-50°	4284.1	15.2
50°-60°	6076.3	21.5
60°-70°	8128.4	28.8
70°-80°	3530.1	12.5
80°-90°	360.0	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°	28258.9	100.0
0°-180°	28258.9	100.0



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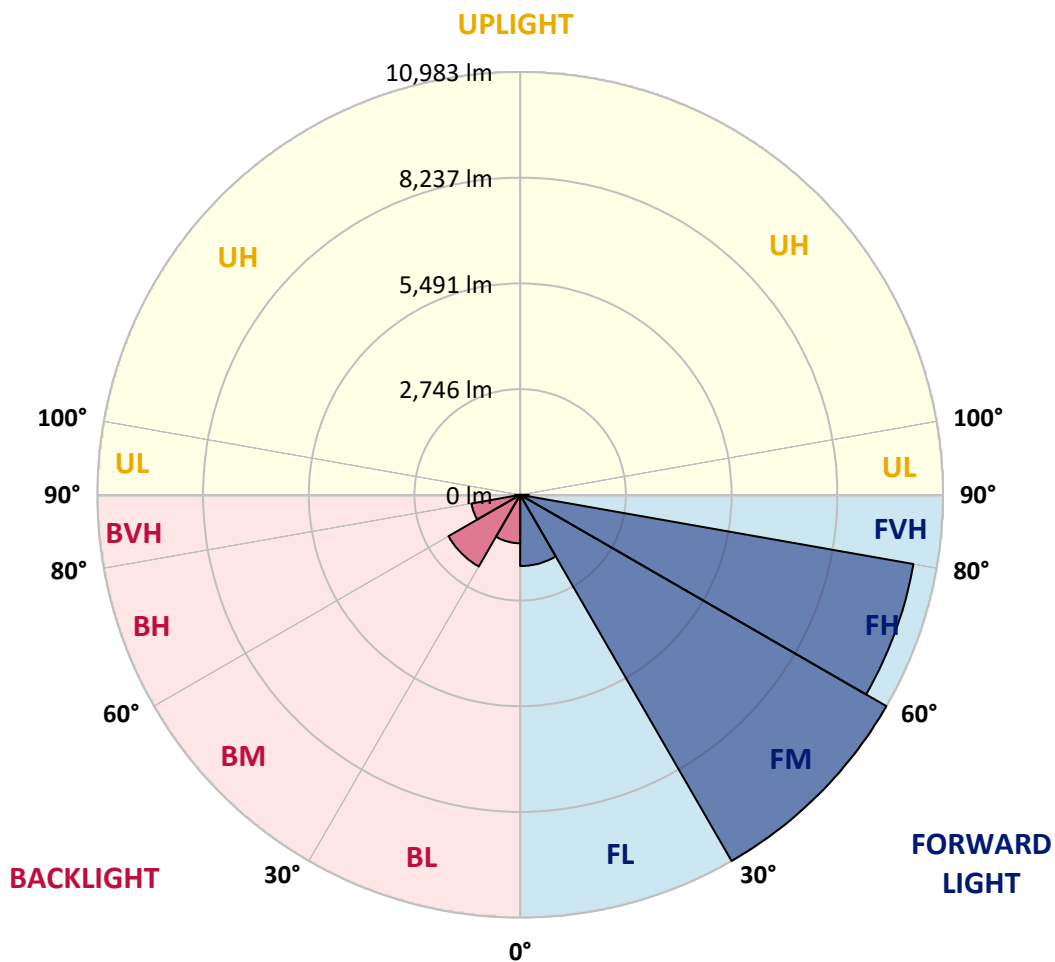
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1849.7	6.5			
FM	(30°-60°)	10982.9	38.9			
FH	(60°-80°)	10372.7	36.7			G4/12000
FVH	(80°-90°)	225.8	0.8			G3/500
BL	(0°-30°)	1257.4	4.4	B3/2500		
BM	(30°-60°)	2150.5	7.6	B2/2500		
BH	(60°-80°)	1285.8	4.5	B3/2500		G3/2500
BVH	(80°-90°)	134.2	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°	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0
2.5°	3562.5	3586.3	3606.5	3625.1	3662.3	3723.8	3794.5	3851.9	3934.8	3951.0	3995.0
5°	3235.4	3235.4	3251.2	3279.5	3330.0	3422.2	3518.4	3646.6	3826.9	3869.3	3987.0
7.5°	3076.5	3077.7	3087.0	3110.9	3155.0	3239.1	3344.6	3495.8	3739.9	3810.7	4010.8
10°	3135.2	3121.8	3101.6	3089.9	3096.3	3145.7	3245.9	3414.1	3686.6	3777.1	4064.6
12.5°	3463.4	3438.4	3368.8	3276.6	3188.5	3152.5	3211.2	3375.3	3663.9	3769.5	4135.3
15°	4000.3	3989.8	3860.0	3669.2	3455.7	3276.6	3236.6	3360.7	3666.4	3778.8	4219.4
17.5°	4673.4	4658.5	4487.9	4210.1	3861.6	3513.2	3326.0	3372.9	3675.7	3794.5	4300.7
20°	5353.0	5307.3	5123.4	4792.3	4344.7	3834.5	3474.3	3403.6	3687.8	3811.9	4386.4
22.5°	5860.4	5822.8	5657.4	5335.6	4820.2	4207.3	3673.2	3457.0	3726.6	3862.8	4491.5
25°	6306.3	6308.7	6144.6	5833.7	5300.9	4602.7	3929.6	3599.7	3825.3	3966.7	4635.8
27.5°	6857.7	6825.8	6672.2	6363.7	5776.3	5001.7	4239.2	3796.1	3972.4	4115.1	4825.4
30°	7517.1	7494.5	7317.0	6967.3	6303.5	5430.2	4593.0	4024.2	4162.0	4310.0	5073.7
32.5°	8292.9	8282.4	8098.0	7648.1	6912.3	5935.2	5008.6	4326.1	4445.0	4598.6	5430.2
35°	9203.7	9204.9	8987.4	8446.5	7578.5	6522.6	5479.5	4714.7	4789.4	4949.5	5855.1
37.5°	9764.5	9832.4	9751.1	9199.7	8332.9	7179.5	6091.2	5230.1	5182.0	5343.7	6310.3
40°	9884.5	9967.4	10224.9	9944.8	9177.0	7903.2	6633.3	5725.3	5665.5	5862.8	6896.5
42.5°	9716.3	9831.2	10376.1	10573.4	10072.9	8795.0	7362.3	6461.1	6385.1	6650.7	7625.4
45°	9616.1	9701.8	10332.1	10900.9	10849.9	9803.3	8290.5	7384.9	7357.0	7705.5	8466.7
47.5°	9442.7	9520.3	10126.3	10976.9	11306.8	10727.0	9405.5	8514.8	8569.4	9026.2	9416.0
50°	9536.0	9568.0	9896.7	10783.2	11439.0	11404.2	10651.0	9823.1	10010.3	10580.3	10490.9
52.5°	9522.7	9605.6	9870.0	10465.5	11456.3	11822.2	11878.0	11282.5	11676.7	12330.8	11683.1
55°	7699.0	7851.0	9556.3	10385.4	11517.4	12231.7	12970.4	12820.8	13554.9	14317.4	13029.0
57.5°	7351.7	7448.0	8393.2	10553.6	11843.2	13014.4	14185.2	14513.9	15742.1	16627.4	14668.7
60°	7283.4	7402.3	8381.0	10759.4	12504.2	14289.5	15986.7	16563.6	18403.4	19372.9	16570.0
62.5°	7071.2	7199.3	8302.2	10732.3	13443.0	16053.4	18292.6	18742.6	20926.9	21869.7	18160.4
65°	6398.5	6518.5	7660.2	10301.3	14076.0	17936.1	21021.5	20740.1	22919.2	23627.9	18953.2
66°	5937.6	6055.2	7154.1	9794.0	13928.9	18470.1	21988.5	21358.3	23365.1	23920.6	18798.4
67.5°	5095.1	5187.3	6171.3	8657.6	13147.8	18619.7	22801.5	21822.8	23411.6	23608.0	17913.4
70°	3219.2	3245.9	4010.8	5976.4	9952.8	16148.0	21563.6	20669.4	21481.2	20949.5	15017.2
72.5°	1396.8	1387.5	1925.6	3040.1	5634.8	10835.4	17443.3	17054.7	16850.6	15638.2	10512.4
75°	777.0	787.9	1000.2	1411.3	2289.8	5322.3	11410.7	10919.5	9219.5	7867.2	4766.8
77.5°	623.4	638.4	829.2	1001.4	1028.1	1856.0	5339.7	4344.7	2615.7	2099.0	1324.4
80°	492.8	519.5	723.7	779.8	692.9	764.9	1725.0	1379.4	1034.9	949.2	686.5
82.5°	389.7	408.7	621.0	590.2	484.7	515.5	826.3	805.3	673.1	612.9	396.6
85°	280.6	314.9	510.2	444.7	317.8	347.3	548.6	526.0	385.7	314.9	175.1
87.5°	114.8	149.6	360.6	295.1	177.5	161.7	273.7	257.5	182.7	133.4	86.9
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°	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0	4027.0
2.5°	4022.9	4054.9	4096.5	4122.0	4135.3	4144.6	4159.2	4158.0	4162.0	4163.2	4168.5
5°	4049.6	4103.0	4163.2	4179.4	4179.4	4164.4	4149.9	4125.6	4116.3	4113.9	4116.3
7.5°	4119.2	4177.8	4229.9	4211.3	4171.3	4112.3	4036.3	3969.6	3933.6	3921.5	3919.0
10°	4207.3	4278.0	4299.5	4228.7	4111.1	3969.6	3818.8	3709.2	3646.6	3629.2	3623.9
12.5°	4314.0	4380.7	4351.6	4202.0	3984.1	3756.1	3547.5	3372.9	3241.9	3200.6	3197.8
15°	4431.7	4483.8	4380.7	4119.2	3794.5	3458.2	3087.0	2785.5	2622.5	2570.4	2566.3
17.5°	4541.2	4567.9	4363.3	3974.8	3515.6	2971.0	2478.2	2245.7	2190.0	2203.3	2205.7
20°	4634.6	4634.6	4304.7	3767.8	3076.5	2328.6	2017.3	2013.7	2053.7	2093.7	2101.8
22.5°	4737.3	4675.8	4202.0	3475.6	2453.9	1905.3	1860.1	1897.3	1942.5	1986.6	1993.5
25°	4864.2	4709.4	4058.9	3032.5	1929.2	1730.3	1747.7	1778.4	1801.0	1829.3	1833.4
27.5°	5005.7	4751.8	3870.9	2422.0	1674.5	1621.1	1634.5	1645.0	1642.2	1653.1	1655.5
30°	5175.1	4801.6	3613.0	1893.2	1569.0	1527.4	1503.5	1494.2	1494.2	1511.6	1518.1
32.5°	5402.3	4874.7	3243.1	1622.4	1518.1	1460.6	1383.4	1348.7	1362.0	1420.6	1434.0
35°	5652.2	4953.6	2742.6	1530.2	1507.5	1429.9	1309.9	1245.6	1247.2	1301.8	1319.1
37.5°	5924.2	5053.8	2193.6	1512.8	1531.4	1431.5	1271.0	1182.9	1146.9	1146.9	1153.8
40°	6272.7	5156.5	1776.0	1524.9	1582.3	1447.3	1251.2	1133.6	1032.1	1034.9	1040.2
42.5°	6726.7	5244.7	1551.6	1550.0	1643.8	1468.7	1249.6	1068.1	980.0	1040.2	1094.8
45°	7231.7	5288.7	1452.6	1573.0	1693.1	1482.1	1228.6	1057.6	986.8	1165.5	1269.8
47.5°	7812.2	5263.3	1398.0	1580.7	1705.2	1482.1	1204.3	1083.1	1033.3	1349.9	1471.6
50°	8449.3	5190.1	1344.6	1564.9	1701.2	1479.2	1227.0	1108.1	1050.7	1381.8	1465.9
52.5°	9198.5	5128.6	1288.4	1530.2	1672.9	1464.7	1253.7	1097.6	996.1	1256.5	1315.1
55°	10052.7	5146.0	1225.8	1480.9	1628.8	1436.8	1244.4	1054.8	938.7	1106.9	1142.9
57.5°	11145.1	5353.0	1151.0	1418.2	1569.0	1389.9	1211.2	1034.9	921.3	1004.2	1025.6
60°	12363.9	5713.2	1057.6	1355.1	1494.2	1315.1	1185.7	1044.2	929.4	996.1	1006.6
62.5°	13258.6	5923.0	977.5	1263.0	1392.7	1232.2	1153.8	1056.0	950.9	1024.0	1021.6
65°	13501.6	5578.6	877.3	1128.3	1255.3	1145.7	1113.4	1069.3	960.2	1046.7	1034.9
66°	13161.2	5207.5	833.2	1065.7	1185.7	1102.9	1093.6	1068.1	956.1	1049.5	1029.3
67.5°	12334.8	4446.2	757.2	973.5	1075.0	1039.0	1061.6	1056.0	945.2	1046.7	1018.8
70°	10059.6	3033.7	647.6	810.6	894.7	914.5	1000.2	1013.5	910.4	1000.2	938.7
72.5°	7028.7	1847.9	572.9	629.1	723.7	779.8	916.1	954.5	863.9	873.2	814.6
75°	3396.7	981.6	519.5	487.6	561.9	651.7	814.6	874.4	790.4	730.5	709.1
77.5°	1058.8	599.5	440.7	392.6	440.7	526.0	680.8	766.5	703.8	611.7	603.6
80°	568.8	440.7	339.2	314.9	348.5	412.8	535.3	639.6	604.8	548.6	490.0
82.5°	375.2	285.8	251.1	244.2	265.6	314.9	397.8	530.0	530.0	470.2	342.0
85°	193.6	175.1	172.2	172.2	185.6	209.8	270.9	408.7	435.4	248.2	205.8
87.5°	96.2	100.3	93.4	97.4	104.3	102.7	129.4	205.8	245.8	150.8	125.3
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)