

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: P299263

Luminaire Tested: **GLNA-AF-09-LED-E1-T3-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299263  
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-09-LED-E1-T3-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 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: 30359.3 lumens  
Efficiency: N/A  
Efficacy: 104.7 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 290  
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

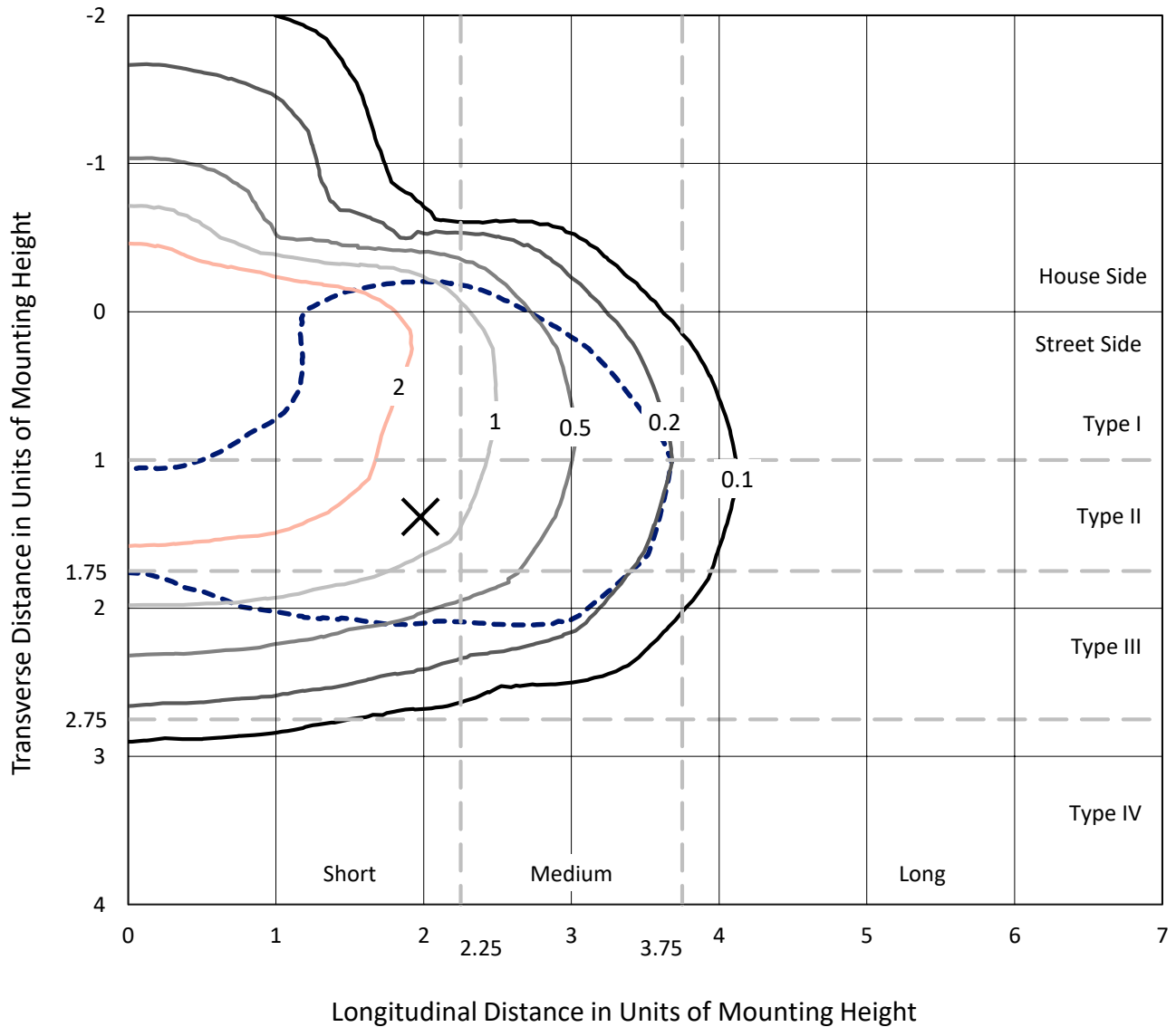


REPORT NUMBER: P299263

CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7027-600

### Iso-Footcandle Lines of Horizontal Illumination

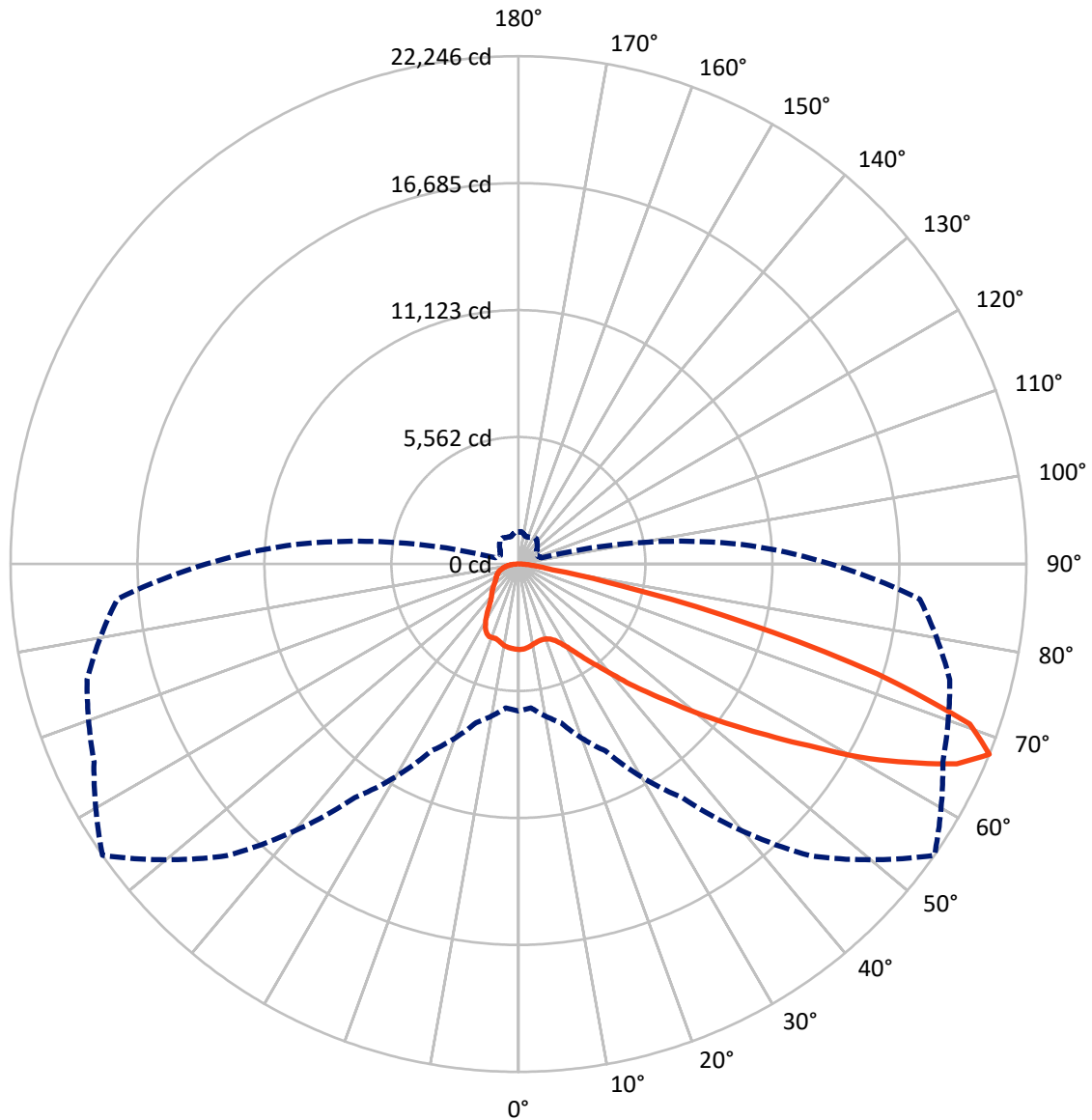
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.3 fc  
 Type III - Short - Full Cutoff

REPORT NUMBER: P299263  
CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7027-600

### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299263

CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7027-600

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6558.3	0.0	6558.3
	% Fixture	21.6	0.0	21.6
<b>Street Side</b>	Lumens	23801.1	0.0	23801.1
	% Fixture	78.4	0.0	78.4
<b>Total</b>	Lumens	30359.3	0.0	30359.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	349.4	1.2
10°-20°	989.6	3.3
20°-30°	1657.8	5.5
30°-40°	2726.1	9.0
40°-50°	4588.8	15.1
50°-60°	7222.5	23.8
60°-70°	8619.2	28.4
70°-80°	3701.3	12.2
80°-90°	504.6	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°	30359.3	100.0
0°-180°	30359.3	100.0



REPORT NUMBER: P299263

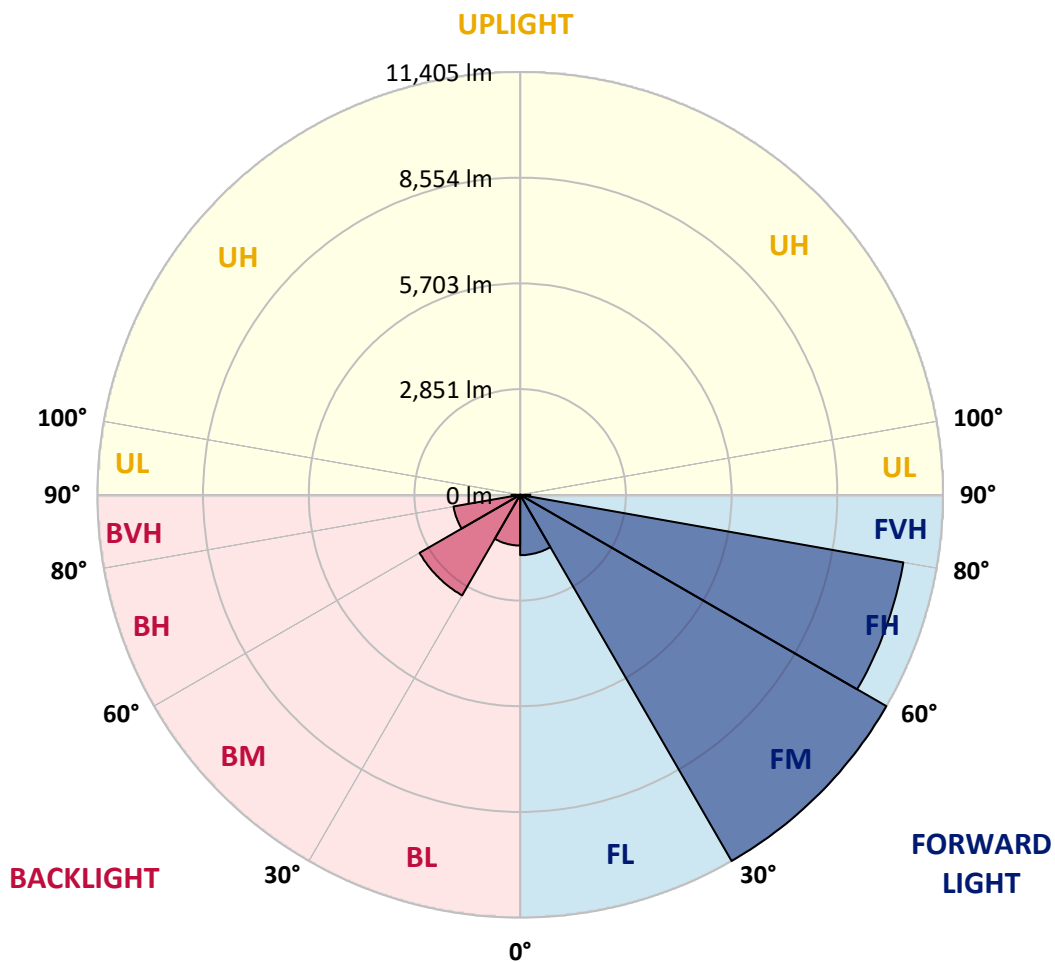
CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7027-600

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1627.3	5.4			
FM	(30°-60°)	11405.2	37.6			
FH	(60°-80°)	10495.4	34.6			G4/12000
FVH	(80°-90°)	273.2	0.9			G3/500
BL	(0°-30°)	1369.5	4.5	B3/2500		
BM	(30°-60°)	3132.2	10.3	B3/5000		
BH	(60°-80°)	1825.1	6.0	B3/2500		G3/2500
BVH	(80°-90°)	231.5	0.8			G3/500
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





REPORT NUMBER: P299263

CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7027-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6
2.5°	3711.4	3712.8	3715.8	3727.5	3737.8	3734.8	3736.3	3730.4	3729.0	3720.2	3729.0
5°	3664.5	3668.9	3670.3	3689.4	3701.1	3704.0	3699.6	3692.3	3683.5	3674.7	3679.1
7.5°	3557.4	3569.1	3570.6	3597.0	3616.1	3641.0	3642.5	3643.9	3639.5	3633.7	3642.5
10°	3490.0	3492.9	3491.4	3510.5	3525.1	3553.0	3569.1	3597.0	3608.7	3611.7	3617.5
12.5°	3485.6	3482.6	3478.2	3478.2	3473.8	3485.6	3514.9	3554.5	3582.3	3591.1	3598.5
15°	3532.5	3531.0	3516.4	3494.4	3466.5	3457.7	3482.6	3526.6	3563.3	3582.3	3589.7
17.5°	3638.1	3629.3	3605.8	3555.9	3495.8	3472.4	3475.3	3512.0	3554.5	3579.4	3586.7
20°	3831.6	3831.6	3781.8	3687.9	3580.9	3525.1	3498.8	3520.7	3561.8	3595.5	3605.8
22.5°	4166.0	4168.9	4085.3	3931.3	3751.0	3632.2	3566.2	3561.8	3610.2	3648.3	3660.1
25°	4639.6	4627.9	4510.5	4290.6	4016.4	3819.9	3705.5	3679.1	3720.2	3762.7	3777.4
27.5°	5190.9	5148.4	5009.1	4743.7	4388.8	4101.4	3925.5	3882.9	3922.5	3970.9	3985.6
30°	5736.4	5692.4	5526.7	5236.4	4841.9	4478.3	4226.1	4157.2	4212.9	4281.8	4290.6
32.5°	6281.9	6281.9	6097.2	5758.4	5328.8	4928.5	4626.4	4544.3	4636.7	4720.2	4739.3
35°	6934.5	6937.4	6758.5	6350.8	5888.9	5465.2	5132.3	5072.2	5211.5	5270.1	5315.6
37.5°	7736.6	7752.7	7522.5	7029.8	6523.9	6078.1	5682.2	5600.1	5739.4	5899.2	6045.8
40°	8603.2	8623.7	8370.0	7763.0	7257.1	6790.7	6362.6	6214.5	6446.2	6751.2	6940.3
42.5°	9430.2	9535.8	9290.9	8666.2	8122.2	7639.8	7205.7	6990.2	7280.5	7741.0	7905.2
45°	10625.3	10701.6	10274.8	9708.8	9197.1	8657.4	8082.6	7855.3	8261.5	8842.2	8875.9
47.5°	11421.5	11364.4	11147.3	10795.4	10471.3	9966.9	9101.7	8852.5	9392.1	10075.4	9886.3
50°	11845.3	11862.9	11833.6	11854.1	11865.8	11549.1	10351.1	10009.4	10653.2	11478.7	11043.2
52.5°	12241.2	12123.9	12220.7	12701.7	13282.4	13165.1	11710.4	11354.1	12005.2	13036.0	12266.2
55°	12232.4	12053.5	12368.8	13217.8	14477.5	14612.4	13236.9	12826.3	13434.9	14706.2	13562.4
57.5°	11799.9	11808.7	12294.0	13405.5	15310.3	15973.1	15008.3	14392.4	14951.1	16398.4	14745.8
60°	11204.5	11285.2	11984.6	13374.7	15977.5	17089.1	17181.4	16080.2	16436.5	17936.6	15725.3
62.5°	10244.0	10329.1	11294.0	13055.1	15876.4	18163.9	19146.4	17995.3	17989.4	18869.2	16012.7
65°	8729.3	8704.4	9717.6	11860.0	15027.3	18958.7	21098.1	19650.8	19159.6	18883.9	15435.0
67.5°	6437.4	6325.9	7195.5	9032.8	12490.5	18068.6	22246.3	20513.0	19558.4	17641.9	13669.5
70°	3340.4	3228.9	3932.8	5274.5	8214.6	14102.1	20974.9	20067.2	18677.1	14788.3	10708.9
72.5°	1428.2	1409.2	1695.1	2313.9	3973.9	8133.9	16446.8	17369.1	16025.9	11018.3	7362.6
75°	960.5	954.6	1061.7	1261.1	1787.5	3300.8	10292.4	12329.2	11725.1	6831.8	4141.0
77.5°	753.7	746.4	809.4	906.2	1158.4	1302.1	4567.7	6619.2	6126.5	2973.8	1812.4
80°	589.5	583.6	623.2	676.0	832.9	821.2	1503.0	2633.6	2038.3	1139.4	881.3
82.5°	464.8	464.8	497.1	498.6	590.9	560.2	784.5	1159.9	1017.7	664.3	539.6
85°	425.2	425.2	459.0	372.5	385.7	353.4	486.8	687.7	645.2	272.7	234.6
87.5°	214.1	208.2	385.7	329.9	209.7	187.7	237.6	332.9	357.8	151.0	117.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299263

CATALOG NUMBER: GLNA-AF-09-LED-E1-T3-7027-600

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6	3743.6
2.5°	3726.0	3724.6	3727.5	3729.0	3740.7	3756.8	3764.2	3774.4	3780.3	3777.4
5°	3682.0	3685.0	3696.7	3705.5	3726.0	3752.4	3767.1	3778.8	3789.1	3784.7
7.5°	3645.4	3652.7	3670.3	3677.7	3689.4	3696.7	3695.2	3699.6	3708.4	3698.2
10°	3624.9	3633.7	3646.9	3636.6	3608.7	3569.1	3532.5	3513.4	3519.3	3512.0
12.5°	3604.3	3616.1	3605.8	3557.4	3479.7	3428.4	3400.5	3403.4	3416.6	3419.6
15°	3592.6	3597.0	3553.0	3462.1	3382.9	3375.6	3390.2	3387.3	3388.8	3388.8
17.5°	3592.6	3580.9	3498.8	3407.8	3374.1	3360.9	3315.5	3258.3	3233.3	3224.5
20°	3611.7	3580.9	3481.2	3421.0	3347.7	3234.8	3114.6	3009.0	2962.1	2948.9
22.5°	3668.9	3616.1	3531.0	3426.9	3218.7	3029.5	2838.9	2712.8	2627.7	2613.1
25°	3784.7	3726.0	3629.3	3349.2	3013.4	2743.6	2526.6	2385.8	2300.7	2289.0
27.5°	3987.1	3948.9	3682.0	3177.6	2740.6	2451.8	2250.9	2142.4	2079.3	2074.9
30°	4292.1	4273.0	3655.7	2923.9	2404.8	2168.8	2072.0	2008.9	1962.0	1960.5
32.5°	4778.9	4624.9	3569.1	2614.5	2098.4	1967.9	1928.3	1890.1	1853.5	1853.5
35°	5405.0	4909.4	3404.9	2283.1	1912.1	1856.4	1806.6	1746.4	1698.1	1695.1
37.5°	6141.1	5085.4	3110.2	2016.3	1824.2	1781.6	1708.3	1618.9	1533.8	1519.2
40°	6884.6	5138.2	2695.2	1852.0	1768.4	1706.9	1617.4	1511.8	1429.7	1425.3
42.5°	7566.5	5037.0	2255.3	1739.1	1712.7	1630.6	1536.8	1442.9	1378.4	1376.9
45°	8138.3	4774.5	1885.7	1632.1	1654.1	1561.7	1478.1	1401.8	1352.0	1341.7
47.5°	8676.5	4403.5	1626.2	1519.2	1595.4	1523.6	1453.2	1381.3	1332.9	1325.6
50°	9301.2	4003.2	1444.4	1409.2	1544.1	1510.4	1473.7	1398.9	1318.3	1309.5
52.5°	10057.8	3657.1	1302.1	1312.4	1504.5	1528.0	1526.5	1448.8	1308.0	1296.3
55°	10902.4	3272.9	1195.1	1233.2	1488.4	1560.2	1539.7	1495.7	1316.8	1299.2
57.5°	11733.9	2824.2	1120.3	1173.1	1464.9	1557.3	1476.6	1413.6	1337.3	1312.4
60°	12357.1	2221.5	1063.1	1120.3	1413.6	1508.9	1407.7	1324.1	1332.9	1313.9
62.5°	12398.1	1717.1	994.2	1074.8	1335.9	1460.5	1362.3	1284.5	1352.0	1334.4
65°	11669.4	1297.7	928.2	1020.6	1252.3	1429.7	1318.3	1262.5	1391.6	1372.5
67.5°	9824.7	1044.1	872.5	964.9	1168.7	1365.2	1278.7	1242.0	1426.8	1393.0
70°	7092.8	890.1	818.2	897.4	1093.9	1291.9	1243.5	1205.4	1331.5	1278.7
72.5°	4366.8	771.3	756.6	808.0	1036.7	1215.6	1190.7	1136.4	1199.5	1157.0
75°	2180.5	668.7	687.7	720.0	956.1	1129.1	1102.7	1048.5	1057.3	1048.5
77.5°	1044.1	571.9	607.1	632.0	852.0	1030.9	1003.0	947.3	937.0	938.5
80°	661.3	478.0	511.8	529.4	761.0	916.5	888.6	832.9	950.2	881.3
82.5°	413.5	388.6	397.4	429.6	662.8	797.7	761.0	711.2	856.4	677.5
85°	228.8	271.3	283.0	310.9	510.3	667.2	630.5	567.5	508.8	500.0
87.5°	136.4	161.3	165.7	186.2	343.1	482.4	426.7	404.7	335.8	334.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)