

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: P302864

Luminaire Tested: **GLNA-AF-08-LED-E1-T4W-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302864
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-08-LED-E1-T4W-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33137.9 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 334
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

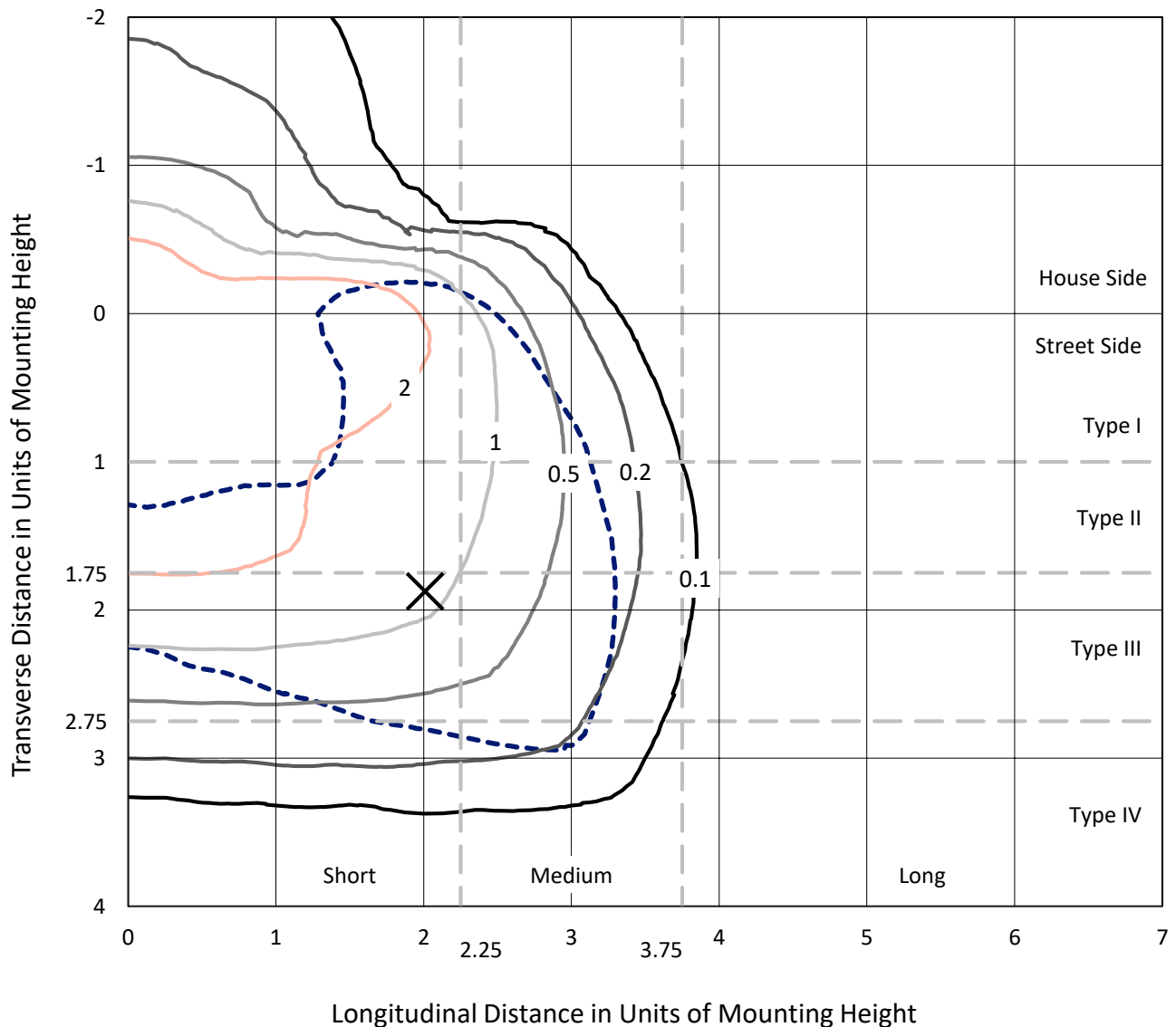


REPORT NUMBER: P302864

CATALOG NUMBER: GLNA-AF-08-LED-E1-T4W-7027-800

Iso-Footcandle Lines of Horizontal Illumination

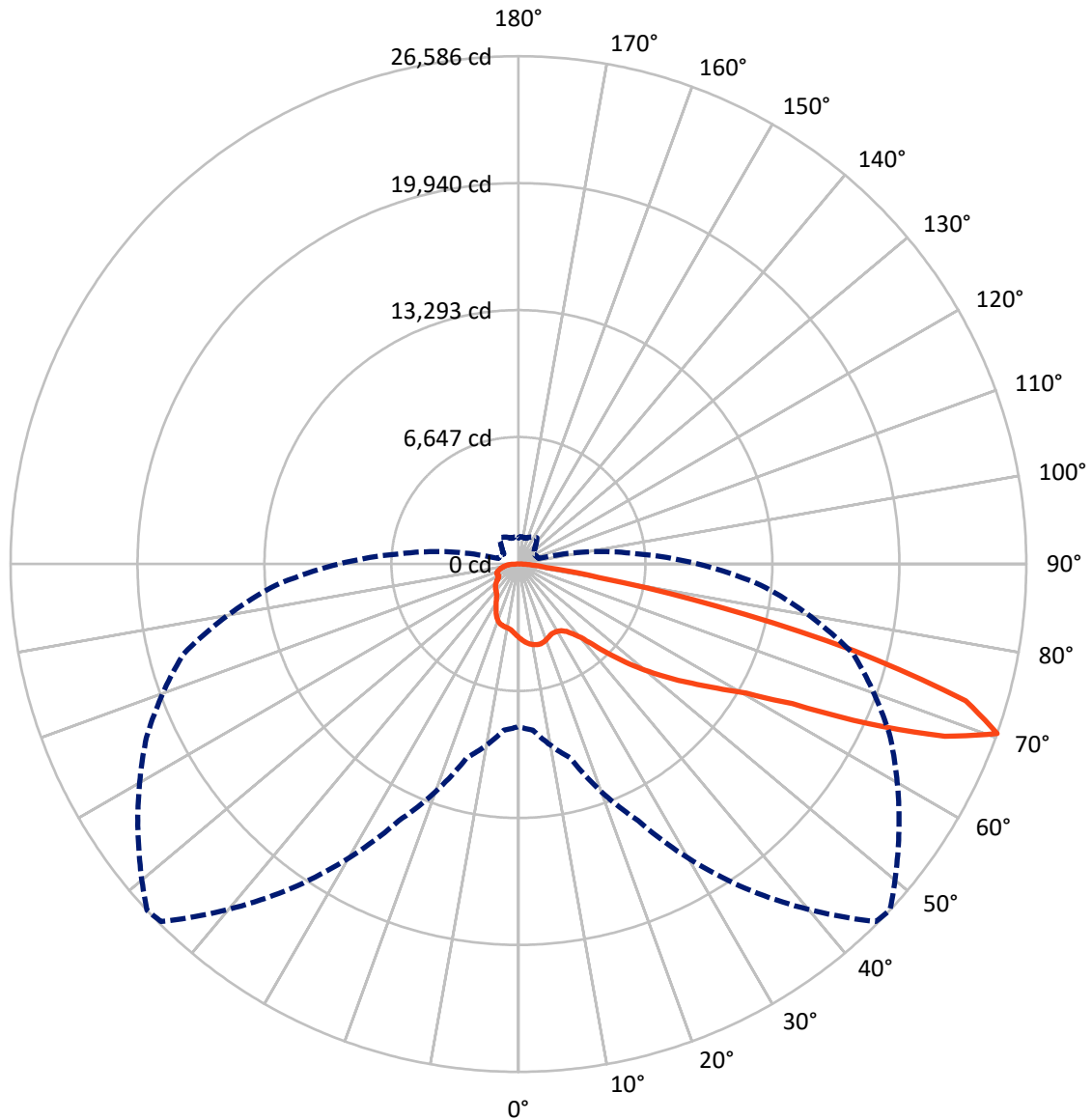
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P302864
CATALOG NUMBER: GLNA-AF-08-LED-E1-T4W-7027-800

Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6913.2	0.0	6913.2
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	26224.7	0.0	26224.7
	% Fixture	79.1	0.0	79.1
Total	Lumens	33137.9	0.0	33137.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	368.4	1.1
10°-20°	1080.8	3.3
20°-30°	1596.1	4.8
30°-40°	2319.9	7.0
40°-50°	4175.0	12.6
50°-60°	7232.8	21.8
60°-70°	10323.4	31.2
70°-80°	5299.4	16.0
80°-90°	741.9	2.2
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°	33137.9	100.0
0°-180°	33137.9	100.0



REPORT NUMBER: P302864

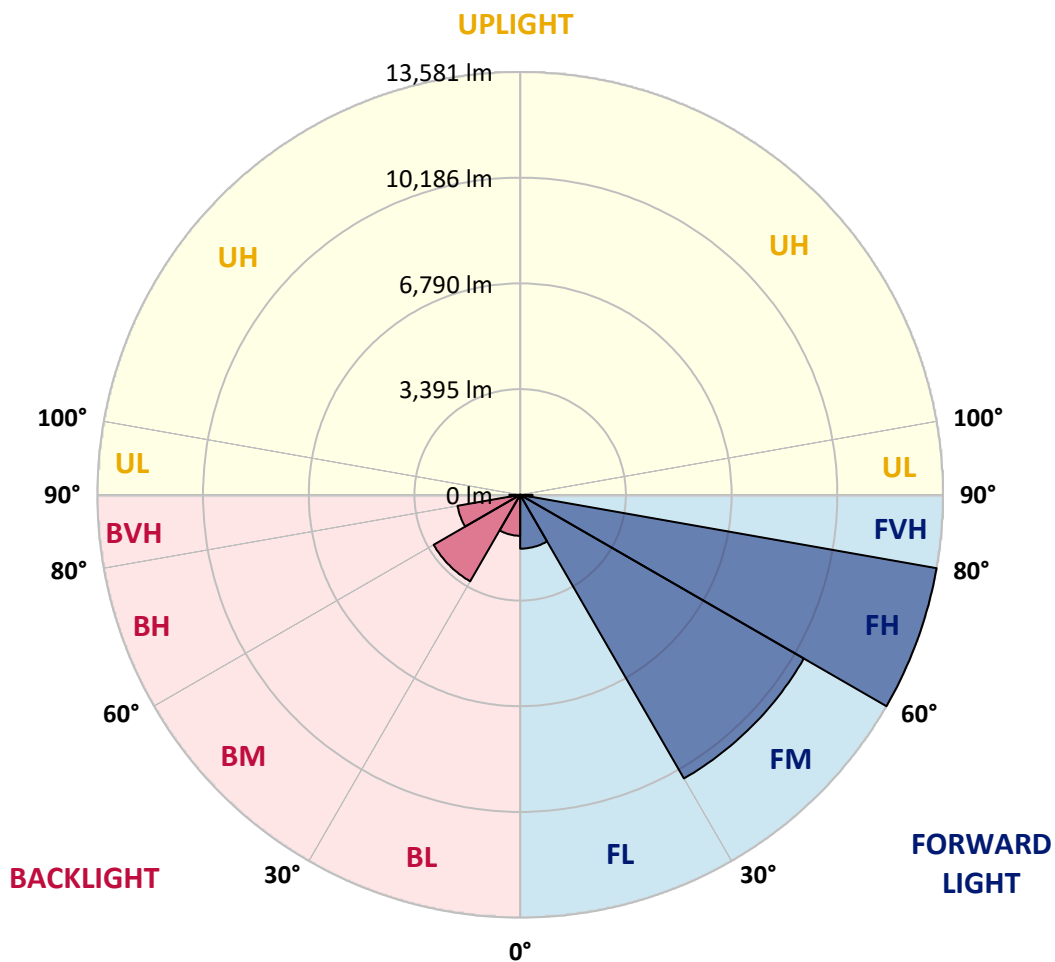
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1729.1	5.2			
FM	(30°-60°)	10518.9	31.7			
FH	(60°-80°)	13580.8	41.0			G5
FVH	(80°-90°)	395.9	1.2			G3/500
BL	(0°-30°)	1316.3	4.0	B3/2500		
BM	(30°-60°)	3208.9	9.7	B3/5000		
BH	(60°-80°)	2042.0	6.2	B3/2500		G3/2500
BVH	(80°-90°)	346.0	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





REPORT NUMBER: P302864

CATALOG NUMBER: GLNA-AF-08-LED-E1-T4W-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9
2.5°	4070.9	4062.9	4059.6	4053.2	4045.2	4004.5	3996.5	3967.6	3927.4	3885.1	3841.7
5°	4338.6	4337.0	4318.8	4286.7	4235.3	4146.4	4125.5	4054.8	3959.5	3867.4	3775.9
7.5°	4573.7	4559.2	4525.5	4460.7	4370.7	4249.7	4220.8	4122.3	3991.6	3865.8	3741.6
10°	4746.1	4738.0	4664.2	4575.3	4457.5	4323.6	4289.9	4180.1	4036.6	3877.1	3722.3
12.5°	4844.6	4828.5	4742.9	4636.8	4496.6	4365.9	4331.6	4220.8	4059.6	3877.1	3695.0
15°	4838.2	4826.9	4741.3	4625.1	4483.7	4369.1	4338.6	4227.2	4054.8	3861.0	3659.7
17.5°	4709.1	4713.9	4641.7	4527.1	4410.9	4323.6	4296.3	4193.5	4022.2	3828.9	3617.9
20°	4483.7	4506.2	4457.5	4356.3	4291.5	4232.1	4214.4	4127.1	3972.4	3782.3	3572.4
22.5°	4257.8	4278.6	4259.4	4173.7	4164.1	4128.7	4119.1	4056.4	3929.0	3753.4	3545.1
25°	4091.8	4111.1	4107.8	4033.4	4062.9	4061.3	4053.2	4022.2	3919.4	3753.4	3549.9
27.5°	4046.8	4053.2	4046.8	3978.8	4019.0	4051.6	4045.2	4039.8	3948.3	3800.0	3611.5
30°	4201.5	4191.9	4141.6	4004.5	4042.0	4087.0	4080.5	4083.7	4035.0	3922.6	3748.6
32.5°	4818.9	4775.0	4617.0	4232.1	4133.5	4157.6	4160.8	4214.4	4222.4	4111.1	3961.1
35°	5742.5	5694.3	5489.3	4841.4	4418.9	4335.4	4335.4	4415.7	4463.9	4382.0	4291.5
37.5°	6721.3	6667.7	6558.5	5686.3	5018.6	4643.3	4635.2	4691.5	4760.5	4780.3	4802.8
40°	7833.4	7777.2	7807.7	6634.0	5855.5	5176.6	5062.0	5021.8	5208.7	5332.9	5513.9
42.5°	9051.0	9024.7	9036.0	7689.9	6808.0	5974.9	5812.1	5603.8	5829.8	6050.4	6429.5
45°	10177.5	10200.0	10188.7	8820.2	7869.3	6948.3	6775.9	6372.7	6593.9	6972.4	7590.3
47.5°	11164.3	11070.6	11215.7	10054.9	9057.4	8038.4	7825.3	7285.6	7509.4	7976.9	9021.5
50°	12362.1	12349.2	12136.6	11702.9	10493.4	9132.9	8853.9	8228.5	8576.6	9226.6	10825.9
52.5°	13621.4	13387.4	13192.5	12984.2	12017.2	10255.1	9913.0	9168.2	9831.1	10648.1	13024.9
55°	13878.9	13774.5	14016.0	14366.2	13485.9	11420.8	11022.4	10346.7	11243.5	12273.7	15560.7
57.5°	14430.4	14428.8	14928.9	15552.7	14998.0	12657.1	12255.5	11770.4	12831.1	14135.4	18252.9
60°	14803.1	14907.5	15836.5	17047.1	16482.8	14085.6	13716.2	13413.1	14637.1	16216.6	20761.4
62.5°	14998.0	15139.9	16407.3	17653.2	18581.6	16463.5	16094.6	15657.7	17026.2	18499.7	22228.5
65°	14187.4	14465.8	16318.4	18177.4	20419.8	20318.1	20152.1	19384.8	20013.4	20303.6	21698.4
67.5°	11942.8	12228.2	14385.5	17688.5	21732.1	24036.1	24071.4	22760.7	21851.5	20458.3	18243.3
70°	8509.1	8732.9	10518.0	14830.4	20732.5	26465.4	26586.4	24316.1	21485.3	18143.1	12746.0
72.5°	4039.8	4176.9	5866.7	9652.2	16452.2	24248.7	24482.7	22330.2	18269.0	13432.4	6953.1
75°	1484.8	1526.5	1982.7	4106.2	9542.5	17882.4	18158.1	16007.3	12110.4	6687.6	2648.8
77.5°	889.9	917.2	1112.6	1733.2	3753.4	10221.4	10628.9	8705.6	5292.8	2489.2	1302.7
80°	622.2	641.4	797.8	1078.4	1773.4	3895.3	4257.8	3553.1	2108.5	1575.2	947.7
82.5°	420.8	430.5	561.1	728.7	1178.5	1391.1	1500.8	1580.1	1422.1	1172.1	601.3
85°	275.7	285.4	380.7	480.3	749.6	719.1	735.1	930.0	1038.2	796.2	333.6
87.5°	158.0	164.4	229.2	256.5	367.8	304.7	307.9	489.9	664.5	537.0	202.9
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°	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9	3844.9
2.5°	3830.5	3809.6	3763.0	3733.6	3706.3	3699.8	3688.6	3687.0	3685.4	3685.4	3680.6
5°	3744.8	3709.5	3637.2	3596.5	3562.8	3559.6	3557.9	3566.0	3569.2	3572.4	3567.6
7.5°	3690.2	3642.0	3551.5	3493.7	3453.5	3443.4	3460.0	3496.9	3521.0	3530.6	3525.8
10°	3656.5	3596.5	3492.1	3428.9	3395.2	3390.4	3411.2	3455.1	3504.9	3524.2	3522.6
12.5°	3617.9	3549.9	3438.5	3372.7	3353.4	3363.1	3390.4	3430.5	3482.5	3513.0	3514.6
15°	3578.8	3500.1	3385.5	3327.7	3319.7	3332.5	3358.2	3388.8	3428.9	3460.0	3463.2
17.5°	3532.2	3449.8	3335.7	3275.8	3269.4	3275.8	3277.4	3293.4	3319.7	3348.6	3356.6
20°	3482.5	3398.4	3279.0	3219.6	3190.6	3164.9	3135.5	3138.7	3146.7	3176.2	3182.6
22.5°	3446.6	3363.1	3235.6	3153.2	3076.1	2998.4	2940.6	2932.6	2935.8	2959.9	2967.9
25°	3449.8	3361.4	3224.4	3082.5	2913.3	2789.1	2711.4	2698.6	2697.0	2714.6	2726.4
27.5°	3513.0	3424.1	3266.1	3009.7	2736.1	2551.9	2470.0	2460.3	2447.5	2452.3	2465.1
30°	3653.3	3570.8	3367.9	2935.8	2543.8	2320.0	2234.4	2224.7	2207.1	2199.0	2208.7
32.5°	3881.9	3814.4	3516.2	2864.6	2352.2	2121.4	2034.6	2013.8	2002.5	1992.9	2000.9
35°	4262.6	4233.7	3714.3	2787.5	2183.0	1968.2	1889.5	1857.4	1841.4	1859.0	1871.9
37.5°	4859.0	4875.1	3974.0	2666.5	2052.3	1867.1	1800.7	1763.7	1739.6	1754.1	1768.5
40°	5704.0	5715.2	4261.0	2495.7	1939.3	1807.1	1736.4	1702.7	1668.4	1642.7	1641.1
42.5°	6812.8	6698.8	4543.1	2310.4	1808.7	1770.1	1691.4	1649.1	1597.7	1526.5	1512.1
45°	8128.4	7727.4	4757.3	2097.3	1662.0	1725.2	1641.1	1583.3	1502.4	1425.3	1417.3
47.5°	9644.2	8831.4	4862.3	1876.7	1524.9	1658.8	1580.1	1488.0	1386.2	1347.7	1342.9
50°	11494.7	10142.2	4912.1	1662.0	1406.0	1572.0	1491.2	1383.0	1297.9	1289.9	1285.0
52.5°	13602.1	11719.0	4928.7	1486.4	1307.5	1459.1	1418.9	1314.0	1246.0	1252.9	1252.9
55°	15807.6	13347.3	4709.1	1358.9	1217.0	1342.9	1370.2	1286.6	1229.9	1256.1	1265.8
57.5°	17832.0	14790.3	4019.0	1260.9	1131.9	1254.5	1352.5	1312.3	1273.8	1378.2	1384.6
60°	19386.4	15642.7	3001.6	1172.1	1068.7	1223.5	1399.6	1410.9	1420.5	1670.0	1704.3
62.5°	19711.9	15359.4	2063.6	1103.0	1039.8	1249.7	1484.8	1486.4	1475.1	1649.1	1670.0
65°	18217.6	13564.6	1500.8	1063.9	1015.7	1296.3	1557.6	1523.3	1449.4	1581.7	1542.6
67.5°	14467.4	10219.8	1249.7	1035.0	980.4	1293.1	1634.7	1557.6	1435.0	1549.5	1486.4
70°	9391.0	6179.4	1112.6	1010.9	938.1	1231.5	1679.7	1554.4	1392.7	1441.4	1367.0
72.5°	4581.7	2763.4	1020.5	975.6	894.7	1146.4	1678.0	1524.9	1349.3	1346.1	1305.9
75°	1792.6	1265.8	936.5	922.0	820.8	1049.4	1633.1	1483.1	1297.9	1246.0	1231.5
77.5°	1049.4	902.7	830.5	843.3	731.9	952.5	1567.2	1410.9	1226.7	1165.6	1149.6
80°	764.1	675.7	707.8	728.7	625.4	856.2	1478.3	1322.0	1148.0	1178.5	1156.0
82.5°	489.9	435.3	574.0	594.9	521.0	757.6	1381.4	1228.3	1036.6	941.3	918.8
85°	250.0	275.7	427.3	453.0	401.6	622.2	1264.2	1104.6	910.8	783.3	796.2
87.5°	140.3	188.5	272.5	304.7	283.8	478.7	1025.4	910.8	743.2	604.5	532.2
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)