

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: P301249

Luminaire Tested: **GLNA-AF-09-LED-E1-T3R-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301249  
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-09-LED-E1-T3R-7030-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 34548 lumens  
Efficiency: N/A  
Efficacy: 119.1 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 - G5

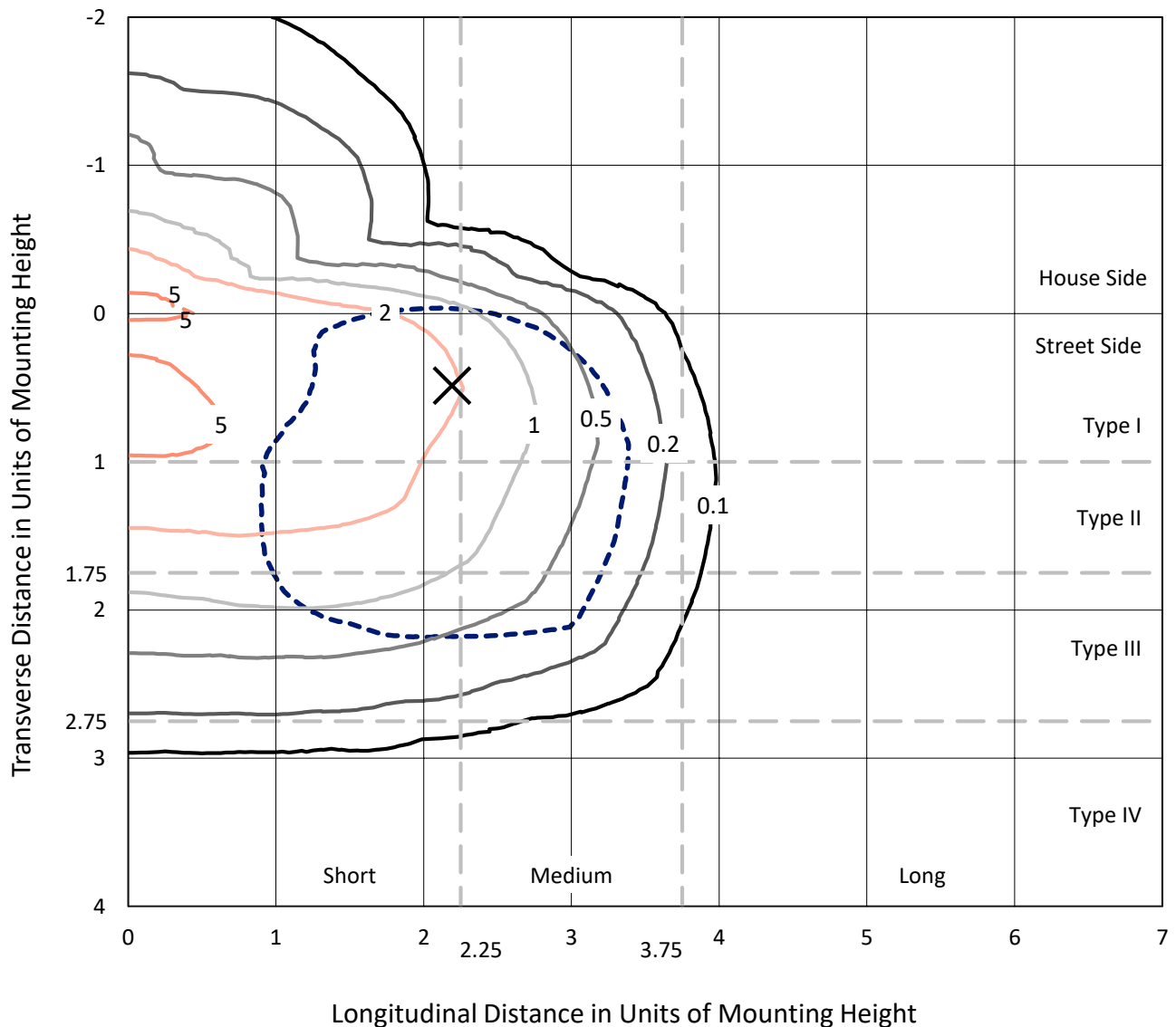
Input Watts (W): 290  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

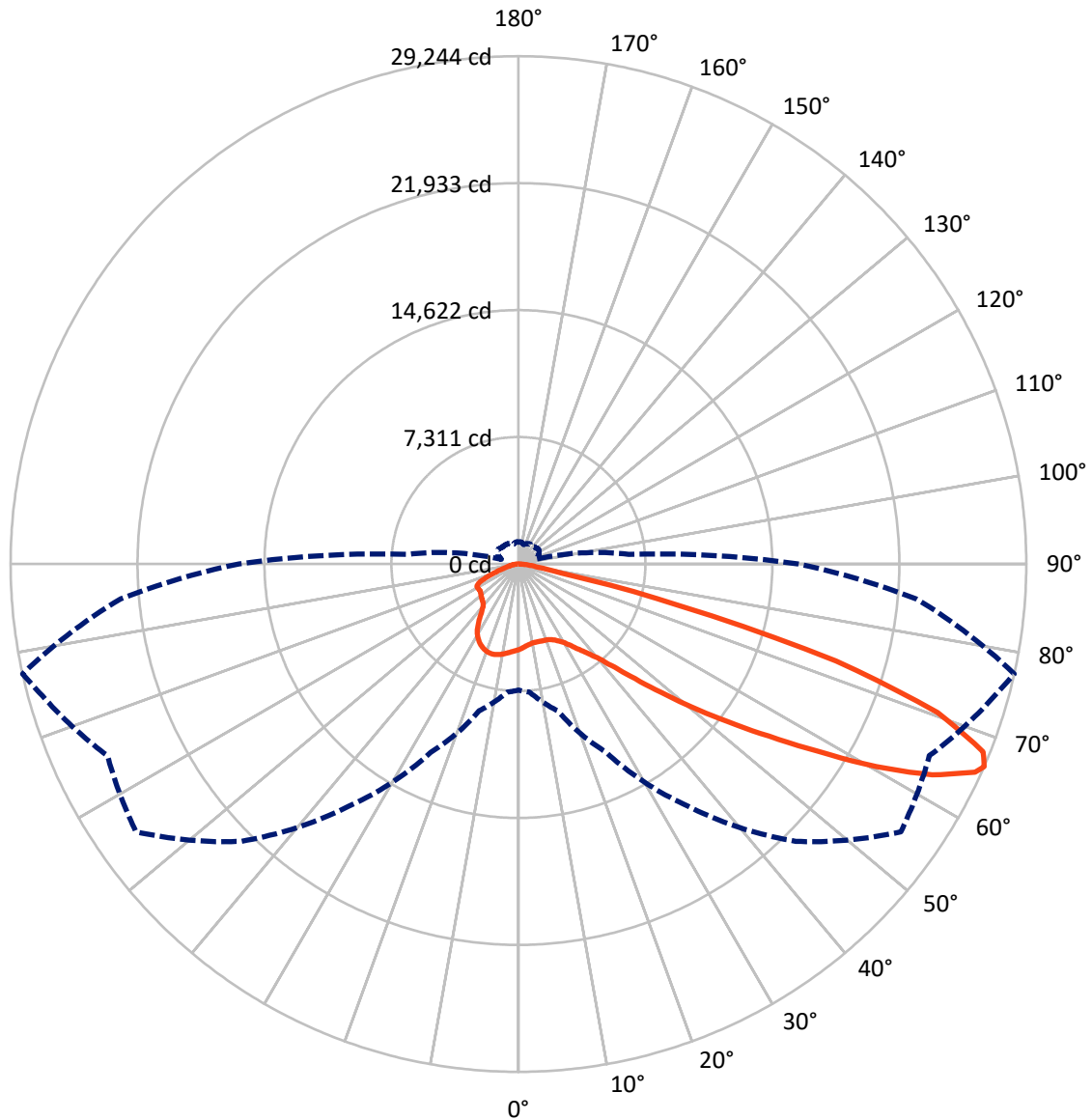
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 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
<b>House Side</b>	Lumens	5902.3	0.0	5902.3
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	28645.7	0.0	28645.7
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	34548.0	0.0	34548.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	439.8	1.3
10°-20°	1240.9	3.6
20°-30°	2117.8	6.1
30°-40°	3390.2	9.8
40°-50°	5237.5	15.2
50°-60°	7428.6	21.5
60°-70°	9937.5	28.8
70°-80°	4315.7	12.5
80°-90°	440.1	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°	34548.0	100.0
0°-180°	34548.0	100.0



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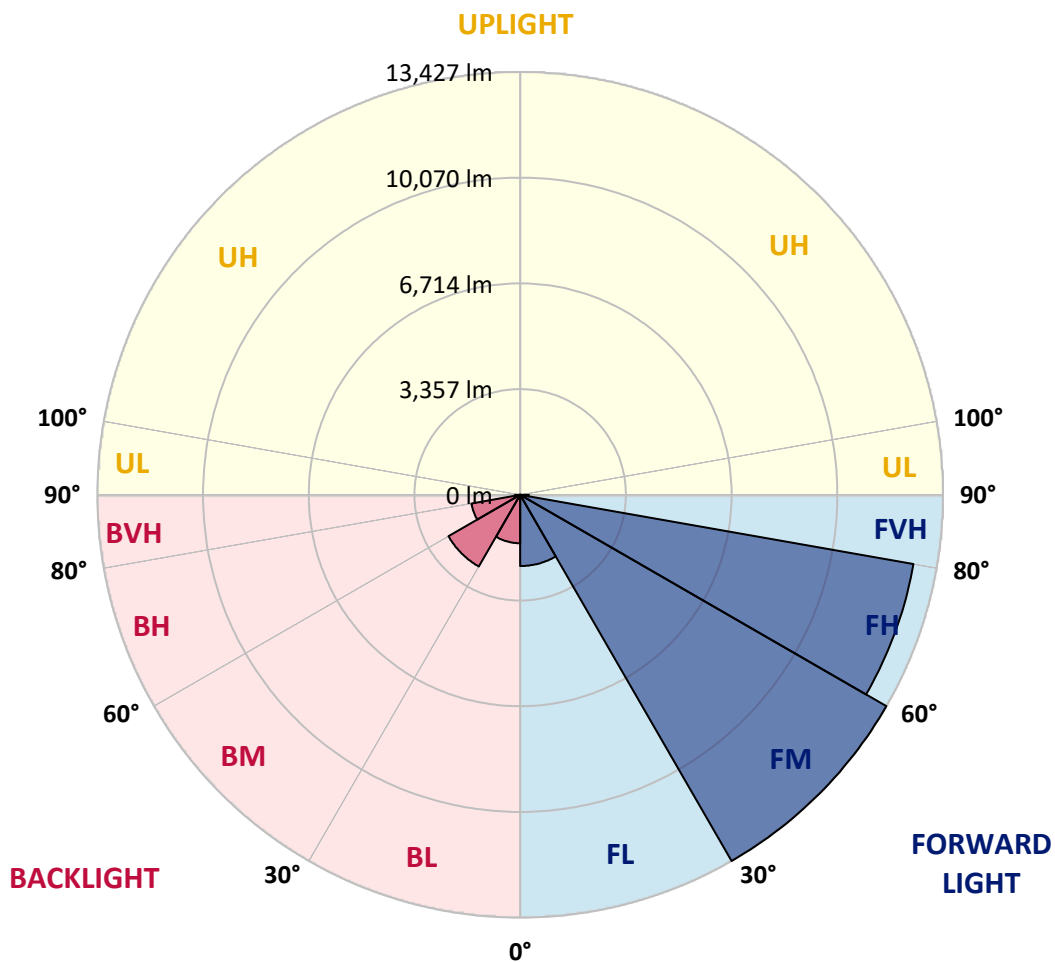
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2261.3	6.5			
FM	(30°-60°)	13427.2	38.9			
FH	(60°-80°)	12681.2	36.7			G5
FVH	(80°-90°)	276.0	0.8			G3/500
BL	(0°-30°)	1537.2	4.4	B3/2500		
BM	(30°-60°)	2629.1	7.6	B3/5000		
BH	(60°-80°)	1571.9	4.5	B3/2500		G3/2500
BVH	(80°-90°)	164.1	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-G5**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2
2.5°	4355.3	4384.5	4409.2	4431.9	4477.4	4552.5	4639.0	4709.2	4810.5	4830.3	4884.2
5°	3955.5	3955.5	3974.7	4009.3	4071.1	4183.8	4301.4	4458.1	4678.6	4730.5	4874.3
7.5°	3761.2	3762.7	3774.1	3803.2	3857.1	3959.9	4088.9	4273.8	4572.3	4658.8	4903.4
10°	3832.9	3816.6	3791.9	3777.5	3785.4	3845.7	3968.3	4173.9	4507.1	4617.8	4969.2
12.5°	4234.2	4203.6	4118.6	4005.9	3898.1	3854.1	3925.8	4126.5	4479.4	4608.4	5055.7
15°	4890.6	4877.7	4719.1	4485.8	4224.8	4005.9	3957.0	4108.7	4482.3	4619.7	5158.5
17.5°	5713.5	5695.2	5486.7	5147.1	4721.1	4295.0	4066.2	4123.5	4493.7	4639.0	5257.8
20°	6544.3	6488.5	6263.6	5858.8	5311.7	4687.9	4247.6	4161.1	4508.5	4660.3	5362.6
22.5°	7164.6	7118.7	6916.5	6523.1	5892.9	5143.6	4490.7	4226.3	4556.0	4722.5	5491.1
25°	7709.8	7712.7	7512.1	7132.0	6480.6	5627.0	4804.1	4400.8	4676.6	4849.6	5667.5
27.5°	8383.9	8344.9	8157.1	7780.0	7061.8	6114.8	5182.7	4641.0	4856.5	5031.0	5899.3
30°	9190.1	9162.4	8945.4	8517.9	7706.3	6638.7	5615.2	4919.7	5088.3	5269.2	6202.8
32.5°	10138.5	10125.7	9900.3	9350.2	8450.7	7256.1	6123.2	5289.0	5434.3	5622.1	6638.7
35°	11252.1	11253.5	10987.6	10326.3	9265.2	7974.2	6699.0	5763.9	5855.4	6051.1	7158.2
37.5°	11937.6	12020.6	11921.3	11247.1	10187.4	8777.4	7446.8	6394.1	6335.3	6533.0	7714.7
40°	12084.4	12185.7	12500.5	12158.0	11219.4	9662.1	8109.6	6999.5	6926.4	7167.6	8431.4
42.5°	11878.8	12019.1	12685.4	12926.6	12314.7	10752.4	9000.8	7899.1	7806.2	8130.9	9322.5
45°	11756.2	11861.0	12631.5	13326.9	13264.6	11985.0	10135.6	9028.4	8994.3	9420.4	10351.0
47.5°	11544.2	11639.1	12379.9	13419.8	13823.1	13114.4	11498.7	10409.9	10476.6	11035.1	11511.5
50°	11658.3	11697.4	12099.2	13183.1	13984.8	13942.3	13021.5	12009.2	12238.1	12935.0	12825.7
52.5°	11642.0	11743.3	12066.6	12794.6	14006.0	14453.3	14521.5	13793.5	14275.4	15075.1	14283.3
55°	9412.5	9598.3	11683.0	12696.7	14080.6	14954.0	15857.0	15674.1	16571.7	17503.8	15928.6
57.5°	8987.9	9105.5	10261.1	12902.4	14479.0	15910.8	17342.2	17744.0	19245.5	20327.9	17933.3
60°	8904.4	9049.7	10246.3	13153.9	15287.1	17469.7	19544.6	20249.8	22499.2	23684.4	20257.8
62.5°	8644.9	8801.6	10149.9	13120.8	16434.7	19626.1	22363.7	22913.8	25584.3	26736.9	22202.1
65°	7822.5	7969.3	9365.0	12593.9	17208.7	21927.8	25699.9	25355.9	28019.9	28886.3	23171.4
66°	7259.0	7402.9	8746.2	11973.7	17028.8	22580.7	26882.2	26111.6	28565.1	29244.2	22982.1
67.5°	6229.0	6341.7	7544.7	10584.3	16073.9	22763.6	27876.1	26679.5	28621.9	28862.1	21900.1
70°	3935.7	3968.3	4903.4	7306.5	12167.9	19741.8	26362.7	25269.4	26261.9	25612.0	18359.3
72.5°	1707.6	1696.3	2354.1	3716.7	6888.8	13246.8	21325.3	20850.4	20600.8	19118.5	12851.9
75°	949.9	963.3	1222.8	1725.4	2799.4	6506.8	13950.2	13349.6	11271.3	9618.1	5827.7
77.5°	762.1	780.4	1013.7	1224.3	1256.9	2269.1	6528.0	5311.7	3197.8	2566.1	1619.2
80°	602.5	635.1	884.7	953.4	847.1	935.1	2109.0	1686.4	1265.3	1160.5	839.2
82.5°	476.5	499.7	759.2	721.6	592.6	630.2	1010.2	984.5	822.9	749.3	484.9
85°	343.0	385.0	623.7	543.7	388.5	424.6	670.7	643.0	471.5	385.0	214.0
87.5°	140.4	182.9	440.9	360.8	217.0	197.7	334.6	314.8	223.4	163.1	106.3
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°	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2	4923.2
2.5°	4918.3	4957.3	5008.2	5039.4	5055.7	5067.0	5084.8	5083.3	5088.3	5089.8	5096.2
5°	4950.9	5016.1	5089.8	5109.5	5109.5	5091.3	5073.5	5043.8	5032.4	5029.5	5032.4
7.5°	5035.9	5107.6	5171.3	5148.6	5099.7	5027.5	4934.6	4853.0	4809.0	4794.2	4791.2
10°	5143.6	5230.1	5256.3	5169.8	5026.0	4853.0	4668.7	4534.7	4458.1	4436.9	4430.4
12.5°	5274.1	5355.7	5320.1	5137.2	4870.8	4592.1	4337.0	4123.5	3963.4	3913.0	3909.5
15°	5418.0	5481.7	5355.7	5035.9	4639.0	4227.8	3774.1	3405.4	3206.2	3142.4	3137.5
17.5°	5551.9	5584.5	5334.4	4859.4	4298.0	3632.2	3029.7	2745.5	2677.3	2693.7	2696.6
20°	5666.1	5666.1	5262.8	4606.4	3761.2	2846.9	2466.3	2461.9	2510.8	2559.7	2569.6
22.5°	5791.6	5716.5	5137.2	4249.1	3000.1	2329.4	2274.0	2319.5	2374.9	2428.7	2437.1
25°	5946.8	5757.5	4962.3	3707.4	2358.6	2115.4	2136.6	2174.2	2201.9	2236.5	2241.4
27.5°	6119.8	5809.4	4732.4	2961.0	2047.2	1981.9	1998.2	2011.1	2007.6	2021.0	2023.9
30°	6326.9	5870.2	4417.1	2314.6	1918.2	1867.3	1838.1	1826.7	1826.7	1848.0	1855.9
32.5°	6604.6	5959.6	3964.9	1983.4	1855.9	1785.7	1691.3	1648.8	1665.1	1736.8	1753.1
35°	6910.1	6056.0	3353.0	1870.7	1843.1	1748.2	1601.4	1522.8	1524.8	1591.5	1612.7
37.5°	7242.7	6178.6	2681.8	1849.5	1872.2	1750.1	1553.9	1446.2	1402.2	1402.2	1410.6
40°	7668.8	6304.1	2171.2	1864.3	1934.5	1769.4	1529.7	1385.9	1261.8	1265.3	1271.7
42.5°	8223.8	6411.9	1896.9	1894.9	2009.6	1795.6	1527.7	1305.8	1198.1	1271.7	1338.4
45°	8841.1	6465.8	1775.8	1923.1	2069.9	1811.9	1502.0	1293.0	1206.5	1424.9	1552.4
47.5°	9550.9	6434.6	1709.1	1932.5	2084.7	1811.9	1472.4	1324.1	1263.3	1650.3	1799.1
50°	10329.8	6345.2	1643.9	1913.2	2079.8	1808.5	1500.0	1354.7	1284.6	1689.3	1792.1
52.5°	11245.6	6270.0	1575.2	1870.7	2045.2	1790.7	1532.7	1341.9	1217.8	1536.1	1607.8
55°	12290.0	6291.3	1498.6	1810.4	1991.3	1756.6	1521.3	1289.5	1147.6	1353.3	1397.2
57.5°	13625.4	6544.3	1407.1	1733.8	1918.2	1699.2	1480.8	1265.3	1126.4	1227.7	1253.9
60°	15115.6	6984.7	1293.0	1656.7	1826.7	1607.8	1449.6	1276.6	1136.3	1217.8	1230.7
62.5°	16209.4	7241.2	1195.1	1544.0	1702.7	1506.5	1410.6	1291.0	1162.5	1251.9	1249.0
65°	16506.4	6820.1	1072.5	1379.4	1534.6	1400.7	1361.2	1307.3	1173.8	1279.6	1265.3
66°	16090.3	6366.4	1018.6	1302.8	1449.6	1348.3	1336.9	1305.8	1168.9	1283.1	1258.4
67.5°	15080.0	5435.7	925.7	1190.2	1314.2	1270.2	1297.9	1291.0	1155.6	1279.6	1245.5
70°	12298.4	3708.8	791.8	991.0	1093.8	1118.0	1222.8	1239.1	1113.0	1222.8	1147.6
72.5°	8593.0	2259.2	700.3	769.1	884.7	953.4	1120.0	1166.9	1056.2	1067.6	995.9
75°	4152.7	1200.0	635.1	596.1	687.0	796.7	995.9	1069.1	966.3	893.1	866.9
77.5°	1294.4	733.0	538.7	479.9	538.7	643.0	832.3	937.1	860.5	747.8	737.9
80°	695.4	538.7	414.7	385.0	426.0	504.6	654.4	781.9	739.4	670.7	599.0
82.5°	458.7	349.4	306.9	298.5	324.7	385.0	486.3	648.0	648.0	574.8	418.1
85°	236.7	214.0	210.5	210.5	226.9	256.5	331.1	499.7	532.3	303.5	251.6
87.5°	117.6	122.6	114.2	119.1	127.5	125.5	158.2	251.6	300.5	184.4	153.2
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)