

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: P302927

Luminaire Tested: **GLNA-AF-08-LED-E1-T4W-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302927  
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-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

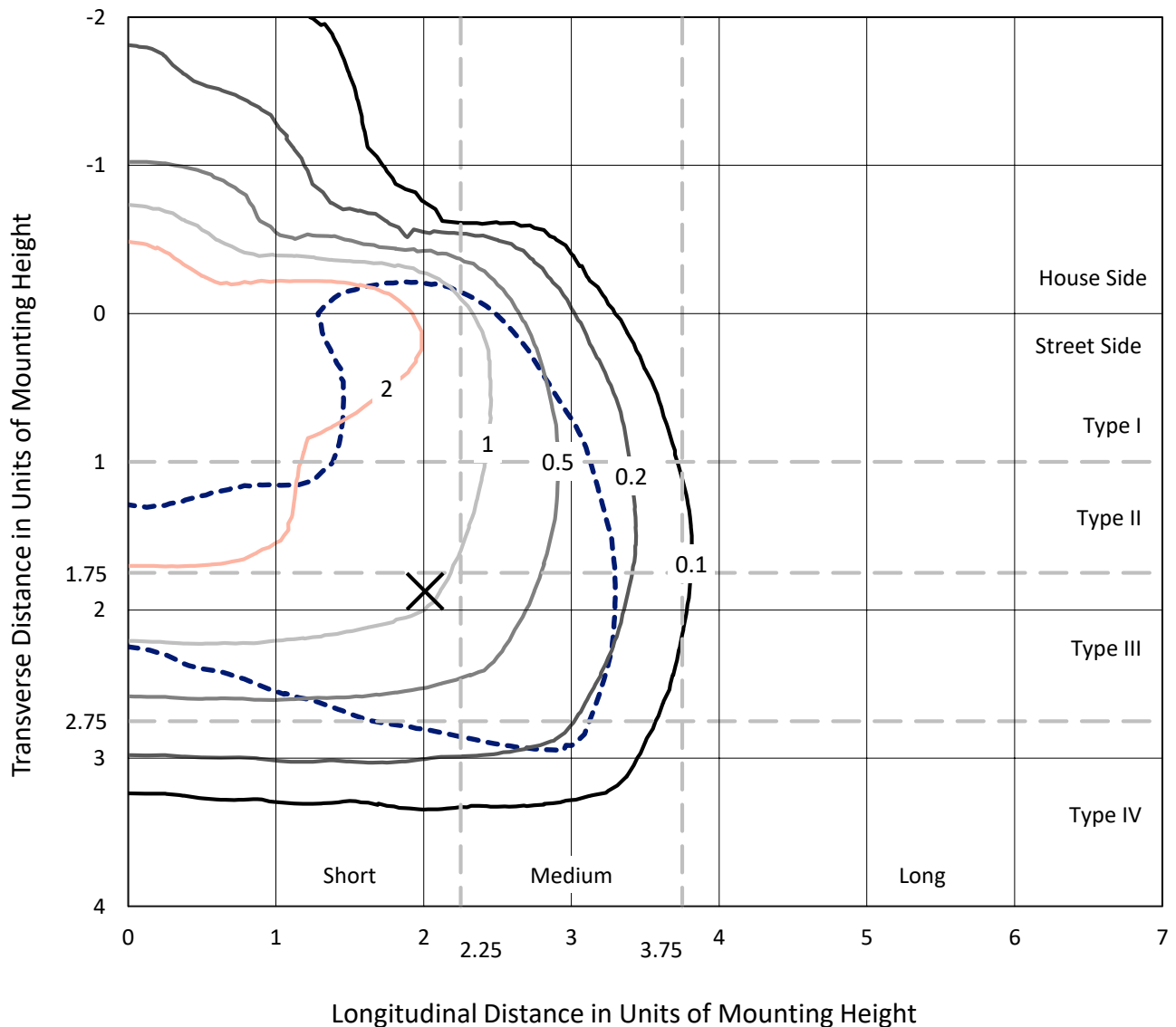
Lumens per Lamp: N/A  
Luminaire Lumens: 31100.5 lumens  
Efficiency: N/A  
Efficacy: 121.0 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 257  
Input Voltage (V): NR  
Input Current (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

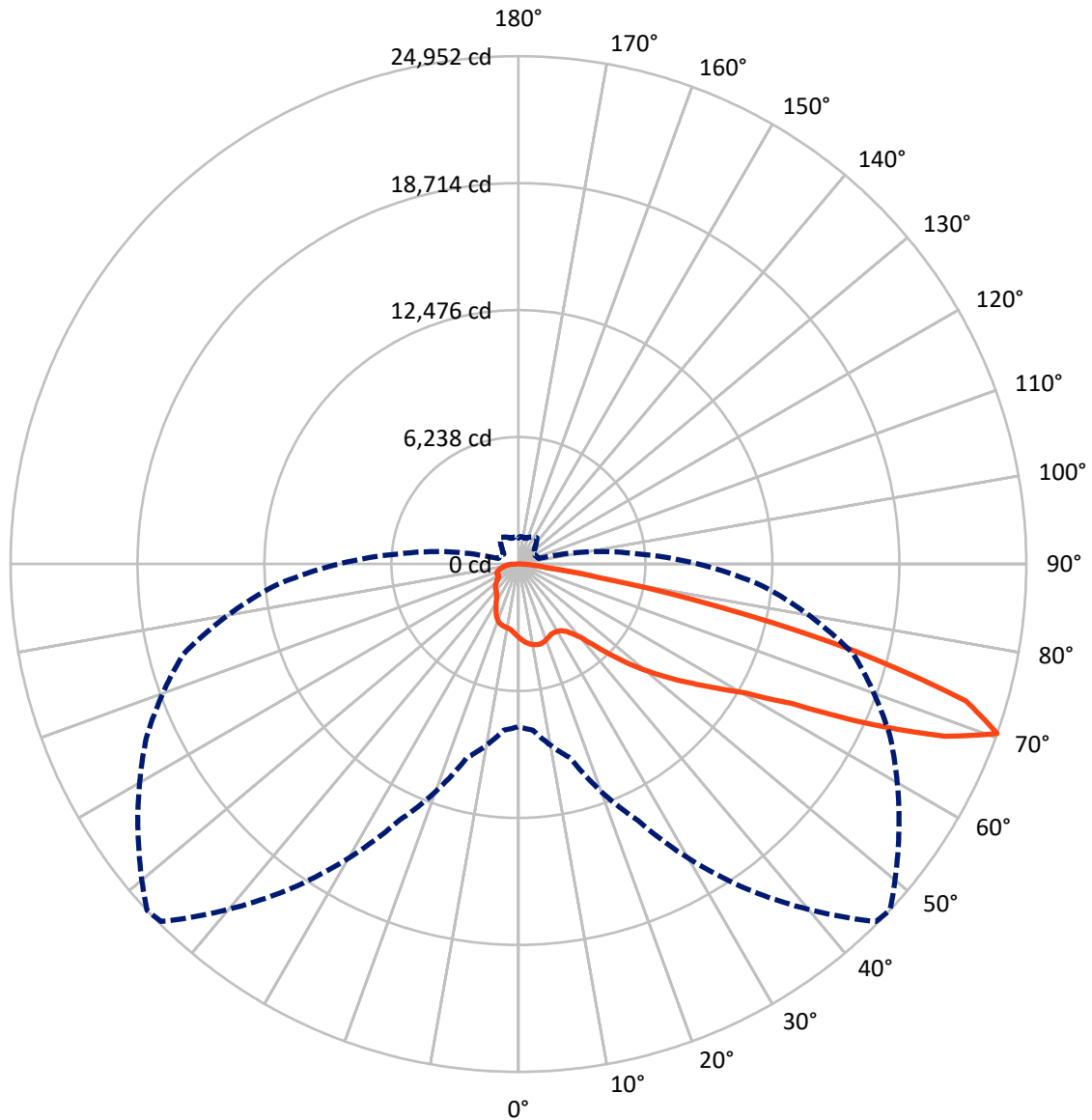
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.6 fc  
 Type IV - Short - Semi-Cutoff

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### 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
<b>House Side</b>	Lumens	6488.2	0.0	6488.2
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	24612.4	0.0	24612.4
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	31100.5	0.0	31100.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	345.8	1.1
10°-20°	1014.4	3.3
20°-30°	1498.0	4.8
30°-40°	2177.3	7.0
40°-50°	3918.3	12.6
50°-60°	6788.2	21.8
60°-70°	9688.7	31.2
70°-80°	4973.6	16.0
80°-90°	696.3	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°	31100.5	100.0
0°-180°	31100.5	100.0



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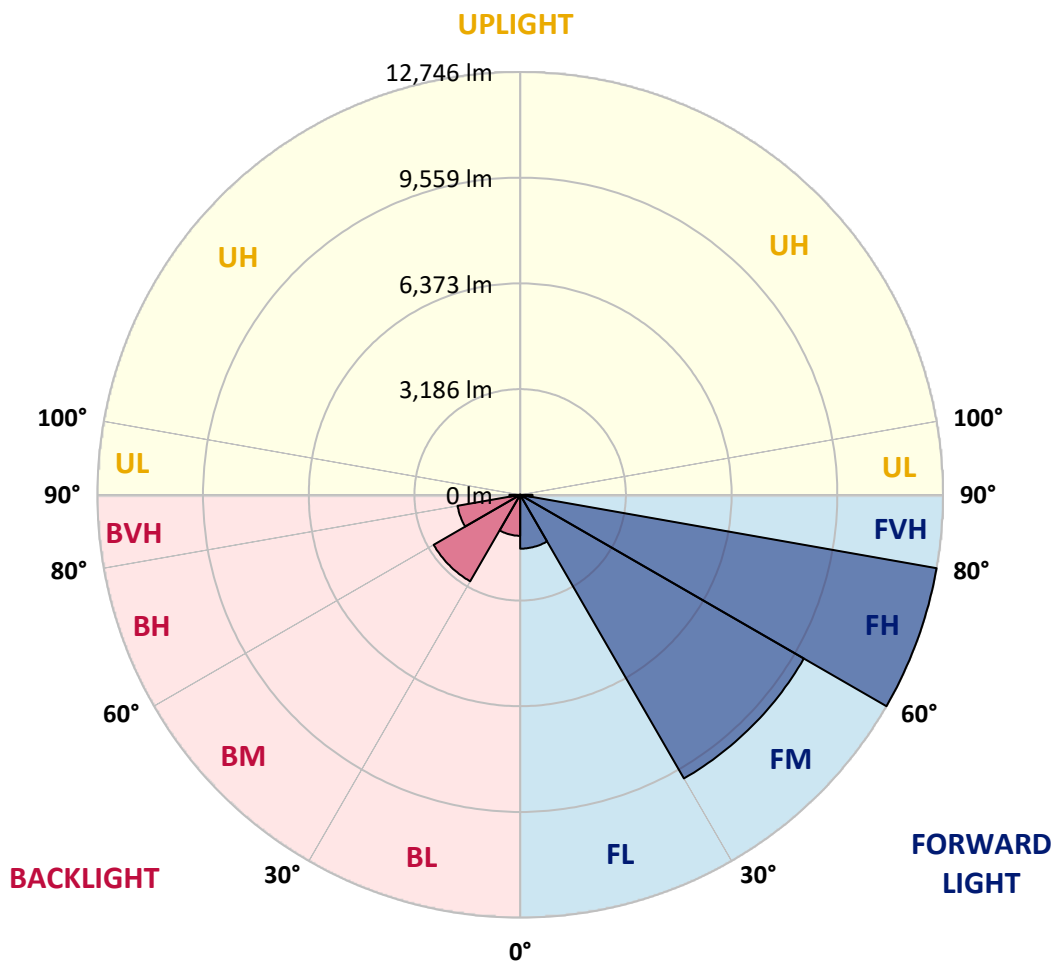
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1622.8	5.2			
FM	(30°-60°)	9872.2	31.7			
FH	(60°-80°)	12745.8	41.0			G5
FVH	(80°-90°)	371.6	1.2			G3/500
BL	(0°-30°)	1235.4	4.0	B3/2500		
BM	(30°-60°)	3011.6	9.7	B3/5000		
BH	(60°-80°)	1916.4	6.2	B3/2500		G3/2500
BVH	(80°-90°)	324.8	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6
2.5°	3820.6	3813.1	3810.1	3804.0	3796.5	3758.3	3750.8	3723.6	3685.9	3646.2	3605.5
5°	4071.9	4070.4	4053.3	4023.1	3974.9	3891.5	3871.9	3805.5	3716.1	3629.7	3543.7
7.5°	4292.5	4278.9	4247.2	4186.4	4102.0	3988.5	3961.3	3868.9	3746.2	3628.1	3511.6
10°	4454.3	4446.7	4377.4	4294.0	4183.4	4057.8	4026.1	3923.1	3788.5	3638.7	3493.5
12.5°	4546.7	4531.7	4451.3	4351.8	4220.1	4097.5	4065.3	3961.3	3810.1	3638.7	3467.8
15°	4540.7	4530.2	4449.8	4340.7	4208.1	4100.5	4071.9	3967.3	3805.5	3623.6	3434.7
17.5°	4419.6	4424.1	4356.3	4248.8	4139.7	4057.8	4032.2	3935.7	3774.9	3593.5	3395.5
20°	4208.1	4229.2	4183.4	4088.5	4027.6	3971.9	3955.3	3873.4	3728.1	3549.8	3352.8
22.5°	3996.0	4015.6	3997.5	3917.1	3908.0	3874.9	3865.8	3807.0	3687.4	3522.6	3327.1
25°	3840.2	3858.3	3855.3	3785.4	3813.1	3811.6	3804.0	3774.9	3678.4	3522.6	3331.7
27.5°	3798.0	3804.0	3798.0	3734.2	3771.9	3802.5	3796.5	3791.5	3705.5	3566.3	3389.5
30°	3943.2	3934.2	3886.9	3758.3	3793.5	3835.7	3829.7	3832.7	3786.9	3681.4	3518.1
32.5°	4522.6	4481.4	4333.2	3971.9	3879.4	3902.0	3905.0	3955.3	3962.8	3858.3	3717.6
35°	5389.5	5344.2	5151.8	4543.7	4147.2	4068.9	4068.9	4144.2	4189.5	4112.6	4027.6
37.5°	6308.1	6257.8	6155.3	5336.7	4710.1	4357.8	4350.3	4403.0	4467.8	4486.4	4507.5
40°	7351.8	7299.0	7327.7	6226.1	5495.5	4858.3	4750.8	4713.1	4888.5	5005.0	5174.9
42.5°	8494.5	8469.9	8480.4	7217.1	6389.5	5607.6	5454.8	5259.3	5471.4	5678.4	6034.2
45°	9551.8	9572.9	9562.3	8277.9	7385.4	6521.1	6359.3	5980.9	6188.5	6543.7	7123.6
47.5°	10477.9	10390.0	10526.2	9436.7	8500.5	7544.2	7344.2	6837.7	7047.8	7486.4	8466.9
50°	11602.0	11590.0	11390.5	10983.4	9848.3	8571.4	8309.6	7722.6	8049.3	8659.3	10160.3
52.5°	12783.9	12564.4	12381.4	12186.0	11278.4	9624.6	9303.5	8604.5	9226.7	9993.5	12224.1
55°	13025.7	12927.7	13154.3	13482.9	12656.8	10718.6	10344.7	9710.6	10552.3	11519.1	14604.1
57.5°	13543.2	13541.7	14011.1	14596.5	14075.9	11878.9	11502.0	11046.8	12042.2	13266.4	17130.7
60°	13893.0	13991.0	14862.8	15999.0	15469.4	13219.6	12872.9	12588.5	13737.2	15219.6	19485.0
62.5°	14075.9	14209.1	15398.5	16567.9	17439.2	15451.3	15105.1	14695.0	15979.4	17362.4	20861.9
65°	13315.1	13576.4	15315.1	17059.8	19164.4	19068.9	18913.1	18193.0	18783.0	19055.3	20364.4
67.5°	11208.6	11476.4	13501.0	16601.0	20396.0	22558.3	22591.5	21361.4	20508.1	19200.5	17121.6
70°	7985.9	8196.0	9871.4	13918.6	19457.8	24838.2	24951.8	22821.2	20164.4	17027.7	11962.3
72.5°	3791.5	3920.1	5506.0	9058.8	15440.7	22757.8	22977.4	20957.3	17145.8	12606.6	6525.6
75°	1393.5	1432.7	1860.8	3853.8	8955.8	16783.0	17041.7	15023.2	11365.9	6276.4	2485.9
77.5°	835.2	860.8	1044.2	1626.6	3522.6	9593.0	9975.4	8170.4	4967.3	2336.2	1222.6
80°	583.9	602.0	748.7	1012.1	1664.3	3655.8	3996.0	3334.7	1978.9	1478.4	889.4
82.5°	395.0	404.0	526.6	683.9	1106.0	1305.5	1408.5	1482.9	1334.7	1100.0	564.3
85°	258.8	267.8	357.3	450.8	703.5	674.9	690.0	872.9	974.4	747.2	313.1
87.5°	148.2	154.3	215.1	240.7	345.2	285.9	288.9	459.8	623.6	504.0	190.5
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°	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6	3608.6
2.5°	3595.0	3575.4	3531.7	3504.0	3478.4	3472.4	3461.8	3460.3	3458.8	3458.8	3454.3
5°	3514.6	3481.4	3413.6	3375.4	3343.7	3340.7	3339.2	3346.7	3349.8	3352.8	3348.2
7.5°	3463.3	3418.1	3333.2	3278.9	3241.2	3231.7	3247.2	3281.9	3304.5	3313.6	3309.1
10°	3431.7	3375.4	3277.4	3218.1	3186.4	3181.9	3201.5	3242.7	3289.5	3307.5	3306.0
12.5°	3395.5	3331.7	3227.1	3165.3	3147.2	3156.3	3181.9	3219.6	3268.3	3297.0	3298.5
15°	3358.8	3284.9	3177.4	3123.1	3115.6	3127.6	3151.8	3180.4	3218.1	3247.2	3250.3
17.5°	3315.1	3237.7	3130.7	3074.4	3068.3	3074.4	3075.9	3091.0	3115.6	3142.7	3150.3
20°	3268.3	3189.5	3077.4	3021.6	2994.5	2970.4	2942.7	2945.7	2953.3	2980.9	2986.9
22.5°	3234.7	3156.3	3036.7	2959.3	2886.9	2814.1	2759.8	2752.3	2755.3	2777.9	2785.4
25°	3237.7	3154.8	3026.1	2893.0	2734.2	2617.6	2544.7	2532.7	2531.2	2547.7	2558.8
27.5°	3297.0	3213.6	3065.3	2824.6	2567.8	2395.0	2318.1	2309.1	2297.0	2301.5	2313.6
30°	3428.7	3351.3	3160.8	2755.3	2387.4	2177.4	2097.0	2087.9	2071.4	2063.8	2072.9
32.5°	3643.2	3579.9	3300.0	2688.4	2207.5	1991.0	1909.6	1890.0	1879.4	1870.4	1877.9
35°	4000.5	3973.4	3485.9	2616.1	2048.7	1847.2	1773.4	1743.2	1728.1	1744.7	1756.8
37.5°	4560.3	4575.4	3729.7	2502.5	1926.1	1752.3	1690.0	1655.3	1632.7	1646.2	1659.8
40°	5353.3	5363.8	3999.0	2342.2	1820.1	1696.0	1629.7	1598.0	1565.8	1541.7	1540.2
42.5°	6394.0	6286.9	4263.8	2168.3	1697.5	1661.3	1587.4	1547.7	1499.5	1432.7	1419.1
45°	7628.7	7252.3	4464.8	1968.3	1559.8	1619.1	1540.2	1485.9	1410.1	1337.7	1330.2
47.5°	9051.3	8288.5	4563.3	1761.3	1431.2	1556.8	1482.9	1396.5	1301.0	1264.8	1260.3
50°	10788.0	9518.6	4610.1	1559.8	1319.6	1475.4	1399.5	1298.0	1218.1	1210.6	1206.0
52.5°	12765.9	10998.5	4625.6	1395.0	1227.1	1369.3	1331.7	1233.2	1169.3	1175.9	1175.9
55°	14835.7	12526.7	4419.6	1275.4	1142.2	1260.3	1285.9	1207.5	1154.3	1178.9	1187.9
57.5°	16735.7	13880.9	3771.9	1183.4	1062.3	1177.4	1269.3	1231.7	1195.5	1293.5	1299.5
60°	18194.5	14680.9	2817.1	1100.0	1003.0	1148.2	1313.6	1324.1	1333.2	1567.3	1599.5
62.5°	18500.0	14415.1	1936.7	1035.2	975.9	1172.9	1393.5	1395.0	1384.4	1547.7	1567.3
65°	17097.5	12730.7	1408.5	998.5	953.3	1216.6	1461.8	1429.7	1360.3	1484.4	1447.7
67.5°	13577.9	9591.5	1172.9	971.4	920.1	1213.6	1534.2	1461.8	1346.7	1454.3	1395.0
70°	8813.6	5799.5	1044.2	948.7	880.4	1155.8	1576.4	1458.8	1307.0	1352.8	1282.9
72.5°	4300.0	2593.5	957.8	915.6	839.7	1075.9	1574.9	1431.2	1266.3	1263.3	1225.6
75°	1682.4	1187.9	878.9	865.3	770.4	984.9	1532.7	1392.0	1218.1	1169.3	1155.8
77.5°	984.9	847.2	779.4	791.5	686.9	894.0	1470.9	1324.1	1151.3	1094.0	1078.9
80°	717.1	634.2	664.3	683.9	586.9	803.5	1387.4	1240.7	1077.4	1106.0	1084.9
82.5°	459.8	408.5	538.7	558.3	488.9	711.1	1296.5	1152.8	972.9	883.4	862.3
85°	234.7	258.8	401.0	425.1	376.9	583.9	1186.4	1036.7	854.8	735.2	747.2
87.5°	131.7	176.9	255.8	285.9	266.3	449.2	962.3	854.8	697.5	567.3	499.5
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)