

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: P300320

Luminaire Tested: **GLNA-AF-05-LED-E1-AFL-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300320  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-05-LED-E1-AFL-7030  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

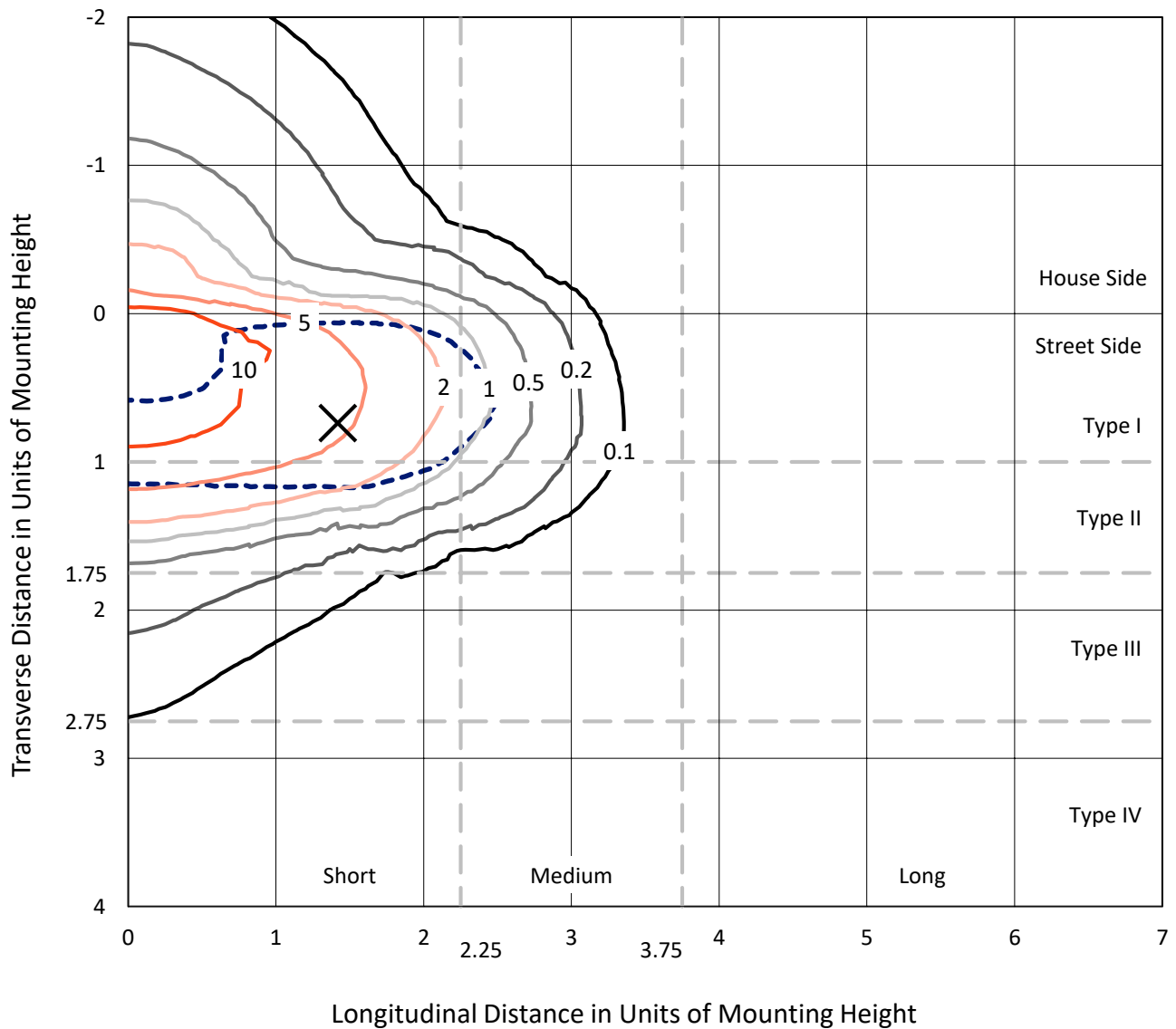
Lumens per Lamp: N/A  
Luminaire Lumens: 29422 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (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

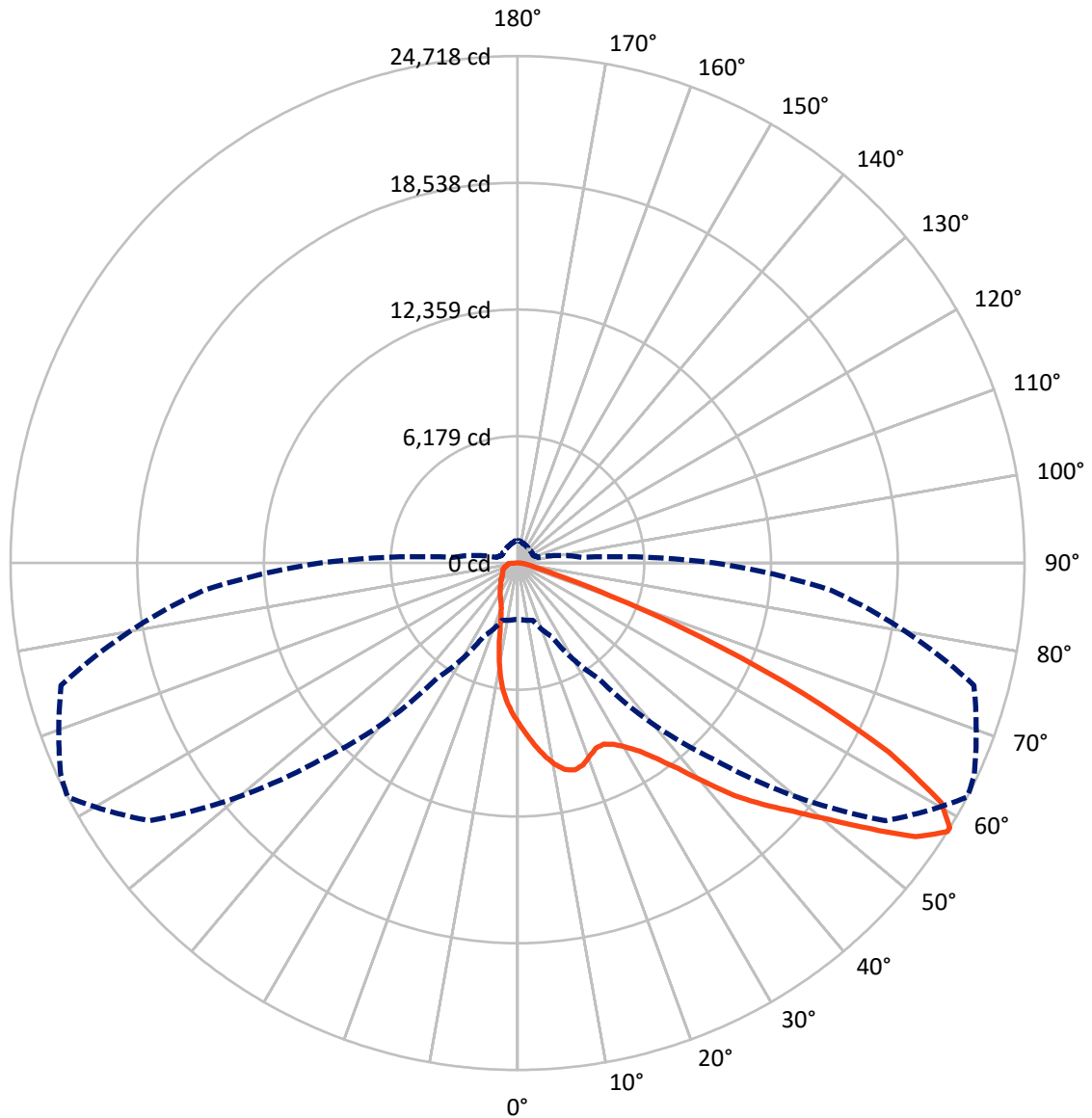
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.2 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral    - - - Horizontal Cone Through 58-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4487.0	0.0	4487.0
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	24935.1	0.0	24935.1
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	29422.0	0.0	29422.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	699.0	2.4
10°-20°	1786.7	6.1
20°-30°	2888.2	9.8
30°-40°	4585.0	15.6
40°-50°	6708.9	22.8
50°-60°	7016.9	23.8
60°-70°	4145.6	14.1
70°-80°	1167.8	4.0
80°-90°	424.0	1.4
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°	29422.0	100.0
0°-180°	29422.0	100.0



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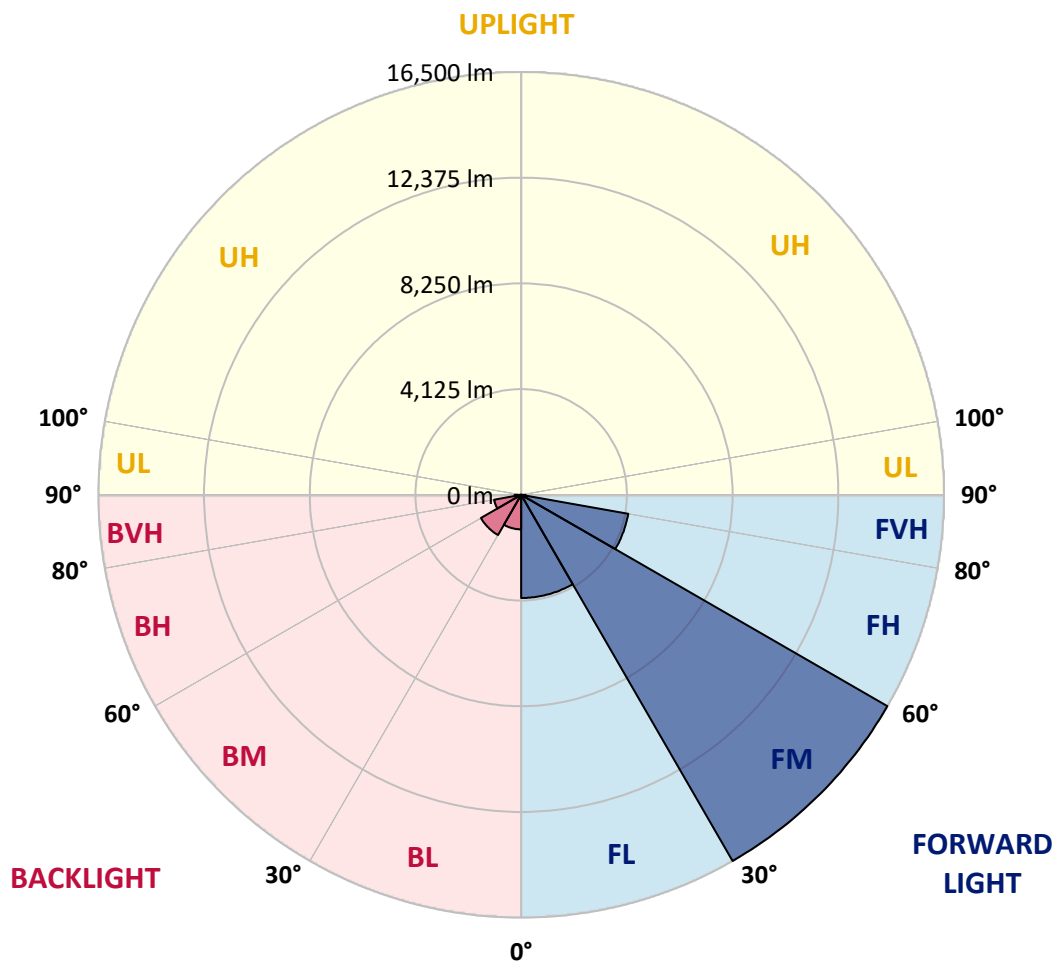
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4025.3	13.7			
FM (30°-60°)	16499.7	56.1			
FH (60°-80°)	4242.8	14.4			G2/5000
FVH (80°-90°)	167.3	0.6			G2/225
BL (0°-30°)	1348.6	4.6	B3/2500		
BM (30°-60°)	1811.1	6.2	B2/2500		
BH (60°-80°)	1070.6	3.6	B3/2500		G3/2500
BVH (80°-90°)	256.7	0.9			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4
2.5°	8930.7	8858.6	8812.9	8772.7	8720.1	8607.8	8456.8	8361.2	8312.7	8147.9	7952.5
5°	9806.3	9742.5	9695.4	9641.4	9547.2	9371.2	9127.4	8933.4	8837.8	8508.1	8117.4
7.5°	9601.2	9627.5	9709.3	9852.0	9973.9	9950.4	9732.8	9486.2	9360.1	8901.6	8308.6
10°	8365.4	8411.1	8552.4	8886.3	9426.6	9980.8	10149.9	9979.4	9852.0	9290.9	8505.3
12.5°	8117.4	8116.0	8127.1	8215.8	8537.2	9317.2	10163.7	10335.5	10259.3	9662.2	8706.2
15°	8218.5	8221.3	8213.0	8250.4	8350.1	8659.1	9739.8	10472.7	10526.7	10036.3	8914.0
17.5°	8484.5	8477.6	8445.7	8445.7	8481.8	8602.3	9241.0	10345.2	10594.6	10367.4	9096.9
20°	8930.7	8898.8	8814.3	8736.7	8697.9	8763.0	9036.0	10051.5	10476.8	10656.9	9247.9
22.5°	9471.0	9446.0	9308.9	9142.6	9008.2	9006.9	9141.2	9795.2	10273.2	10929.9	9375.4
25°	10169.3	10129.1	9925.4	9659.4	9423.9	9333.8	9371.2	9782.7	10162.3	11226.4	9489.0
27.5°	10989.4	10916.0	10674.9	10291.2	9944.8	9763.3	9709.3	10008.5	10263.5	11593.5	9646.9
30°	11984.2	11899.7	11590.7	11090.6	10601.5	10303.6	10188.7	10408.9	10598.7	12041.0	9900.5
32.5°	13116.1	12994.2	12636.8	12085.3	11442.5	10988.1	10801.0	10938.2	11089.2	12579.9	10217.7
35°	14680.3	14534.8	14018.1	13257.4	12531.5	11906.6	11607.4	11707.1	11854.0	13383.5	10676.3
37.5°	15747.1	15682.0	15338.4	14623.5	13833.8	13114.7	12652.0	12710.2	12793.3	14388.0	11263.8
40°	15737.4	15763.7	15770.7	15777.6	15240.0	14551.5	14054.1	13993.1	13976.5	15490.8	11931.6
42.5°	14949.1	15057.1	15406.3	16114.3	16441.2	16125.3	15669.5	15493.6	15406.3	16790.4	12639.5
45°	13742.3	13800.5	14454.5	15837.2	17056.4	17684.0	17339.0	16784.8	16626.9	17984.6	13227.0
47.5°	13120.3	13184.0	13595.5	15102.9	17049.4	18943.4	19142.9	18087.1	17804.5	19023.7	13734.0
50°	11639.2	11772.2	12290.4	13825.5	16427.4	19522.5	21028.5	19638.9	19054.2	20035.1	14242.5
52.5°	8919.6	9124.6	9705.1	11725.1	14849.3	19235.7	22537.2	21520.3	20694.6	21082.5	14678.9
55°	5626.3	5778.7	6266.4	8280.9	11878.9	17743.5	23109.4	23555.5	22821.2	22074.5	15057.1
57.5°	3059.1	3127.0	3309.9	4572.0	7726.7	14444.8	22275.4	24713.8	24409.0	22916.8	15342.6
58°	2737.7	2783.4	2897.0	3962.4	6852.5	13542.8	21905.5	24717.9	24565.5	23040.1	15364.7
60°	2031.1	2007.5	1906.4	2261.1	3814.2	9356.0	19669.3	23728.7	24176.2	23191.2	15256.7
62.5°	1784.5	1727.7	1521.2	1497.7	1855.1	4310.2	15050.2	20326.0	21383.1	22329.4	14599.9
65°	1676.4	1615.4	1349.4	1263.5	1338.4	1823.3	8865.5	15244.2	16570.1	19716.4	12920.8
67.5°	1596.0	1517.1	1240.0	1122.2	1127.8	1205.3	3553.7	9601.2	11093.4	14969.9	10050.1
70°	1518.5	1432.6	1147.2	1011.4	979.5	953.2	1413.2	4806.2	6159.7	9455.7	6407.7
72.5°	1435.3	1350.8	1065.4	924.1	861.8	774.5	922.7	1966.0	2746.0	4473.6	2906.7
75°	1314.8	1238.6	983.7	846.5	757.8	641.5	696.9	1026.6	1231.7	1781.7	1400.7
77.5°	1166.6	1104.2	892.2	782.8	671.9	520.9	536.2	712.1	789.7	1019.7	832.7
80°	838.2	860.4	793.9	703.8	598.5	422.6	411.5	519.5	561.1	655.3	541.7
82.5°	588.8	601.3	656.7	575.0	494.6	332.5	303.4	365.8	390.7	430.9	292.3
85°	405.9	392.1	450.3	400.4	357.4	221.7	207.8	248.0	263.2	267.4	151.0
87.5°	243.8	243.8	260.5	214.7	192.6	115.0	112.2	141.3	151.0	144.1	83.1
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°	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4	7815.4
2.5°	7836.1	7737.8	7528.6	7360.9	7149.0	6928.7	6805.4	6673.7	6583.7	6518.6	6622.5
5°	7895.7	7694.8	7262.6	6852.5	6399.4	5928.4	5570.9	5238.4	5007.0	4863.0	4998.7
7.5°	7989.9	7681.0	6992.4	6291.4	5478.1	4693.9	3992.9	3553.7	3297.4	3171.3	3250.3
10°	8098.0	7658.8	6675.1	5530.7	4367.0	3379.1	2855.4	2678.1	2619.9	2596.3	2607.4
12.5°	8188.1	7611.7	6285.8	4610.8	3279.4	2668.4	2517.4	2513.2	2525.7	2528.5	2532.6
15°	8251.8	7542.4	5708.1	3652.1	2622.7	2431.5	2423.2	2448.1	2471.7	2481.4	2486.9
17.5°	8294.7	7399.7	5055.5	2887.3	2349.7	2316.5	2335.9	2367.7	2392.7	2399.6	2405.2
20°	8290.6	7190.5	4278.3	2407.9	2201.5	2201.5	2234.7	2259.7	2261.1	2252.8	2256.9
22.5°	8247.6	6903.7	3524.6	2153.0	2069.9	2093.4	2126.7	2103.1	2006.1	1942.4	1946.6
25°	8175.6	6561.5	2879.0	1990.9	1948.0	1989.5	1979.8	1802.5	1663.9	1601.6	1601.6
27.5°	8111.9	6157.0	2383.0	1849.6	1826.0	1877.3	1705.5	1544.8	1486.6	1457.5	1447.8
30°	8066.1	5720.6	2051.9	1713.8	1711.0	1673.6	1479.7	1435.3	1425.6	1402.1	1393.8
32.5°	8077.2	5278.6	1839.9	1594.7	1604.4	1432.6	1371.6	1381.3	1373.0	1348.0	1337.0
35°	8168.7	4858.8	1701.3	1486.6	1457.5	1294.0	1307.9	1325.9	1323.1	1288.5	1277.4
37.5°	8332.1	4461.2	1609.9	1396.5	1271.8	1224.7	1246.9	1274.6	1267.7	1244.1	1235.8
40°	8503.9	4087.1	1535.1	1325.9	1162.4	1177.6	1197.0	1212.3	1219.2	1226.1	1220.6
42.5°	8671.6	3696.4	1443.6	1253.8	1116.7	1133.3	1141.6	1156.9	1194.3	1220.6	1219.2
45°	8771.3	3329.3	1349.4	1151.3	1080.7	1090.4	1084.8	1115.3	1161.0	1204.0	1205.3
47.5°	8882.2	3043.8	1274.6	1057.1	1046.0	1052.9	1036.3	1066.8	1108.4	1161.0	1166.6
50°	9016.6	2873.4	1215.0	982.3	998.9	998.9	994.8	1022.5	1080.7	1141.6	1152.7
52.5°	9169.0	2840.2	1165.2	928.3	951.8	950.4	954.6	996.1	1059.9	1119.4	1129.1
55°	9354.6	2930.2	1111.1	888.1	906.1	911.6	925.5	972.6	1026.6	1094.5	1098.7
57.5°	9570.7	3113.1	1068.2	856.2	864.5	882.5	904.7	947.7	1005.8	1080.7	1084.8
58°	9606.8	3151.9	1061.3	853.4	856.2	877.0	901.9	943.5	1001.7	1083.4	1087.6
60°	9608.1	3280.8	1046.0	841.0	824.3	859.0	886.7	928.3	994.8	1093.1	1102.8
62.5°	9267.3	3279.4	1034.9	823.0	791.1	834.0	865.9	914.4	987.8	1116.7	1136.1
65°	8160.3	2980.1	982.3	795.3	764.8	811.9	847.9	904.7	1007.2	1219.2	1231.7
67.5°	6382.8	2442.6	883.9	756.5	730.1	789.7	836.8	903.3	1028.0	1242.8	1251.1
70°	4220.1	1827.4	775.9	712.1	694.1	763.4	842.4	950.4	1004.5	1192.9	1170.7
72.5°	2190.4	1282.9	688.6	656.7	652.6	739.8	922.7	944.9	980.9	1122.2	1094.5
75°	1149.9	890.8	612.4	595.7	602.7	734.3	1089.0	919.9	950.4	1073.7	1126.4
77.5°	703.8	719.1	547.3	540.3	554.2	717.7	1087.6	888.1	906.1	987.8	1046.0
80°	471.1	583.3	497.4	498.8	508.5	656.7	976.7	838.2	852.1	933.8	993.4
82.5°	297.9	345.0	451.7	475.2	462.7	541.7	829.9	763.4	782.8	1068.2	1129.1
85°	151.0	216.1	392.1	457.2	417.0	379.6	673.3	669.2	678.9	770.3	805.0
87.5°	69.3	119.1	306.2	399.0	314.5	236.9	489.1	496.0	534.8	547.3	547.3
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)