

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: P300466

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300466
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-09-LED-E1-AFL-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35841.6 lumens
Efficiency: N/A
Efficacy: 123.6 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

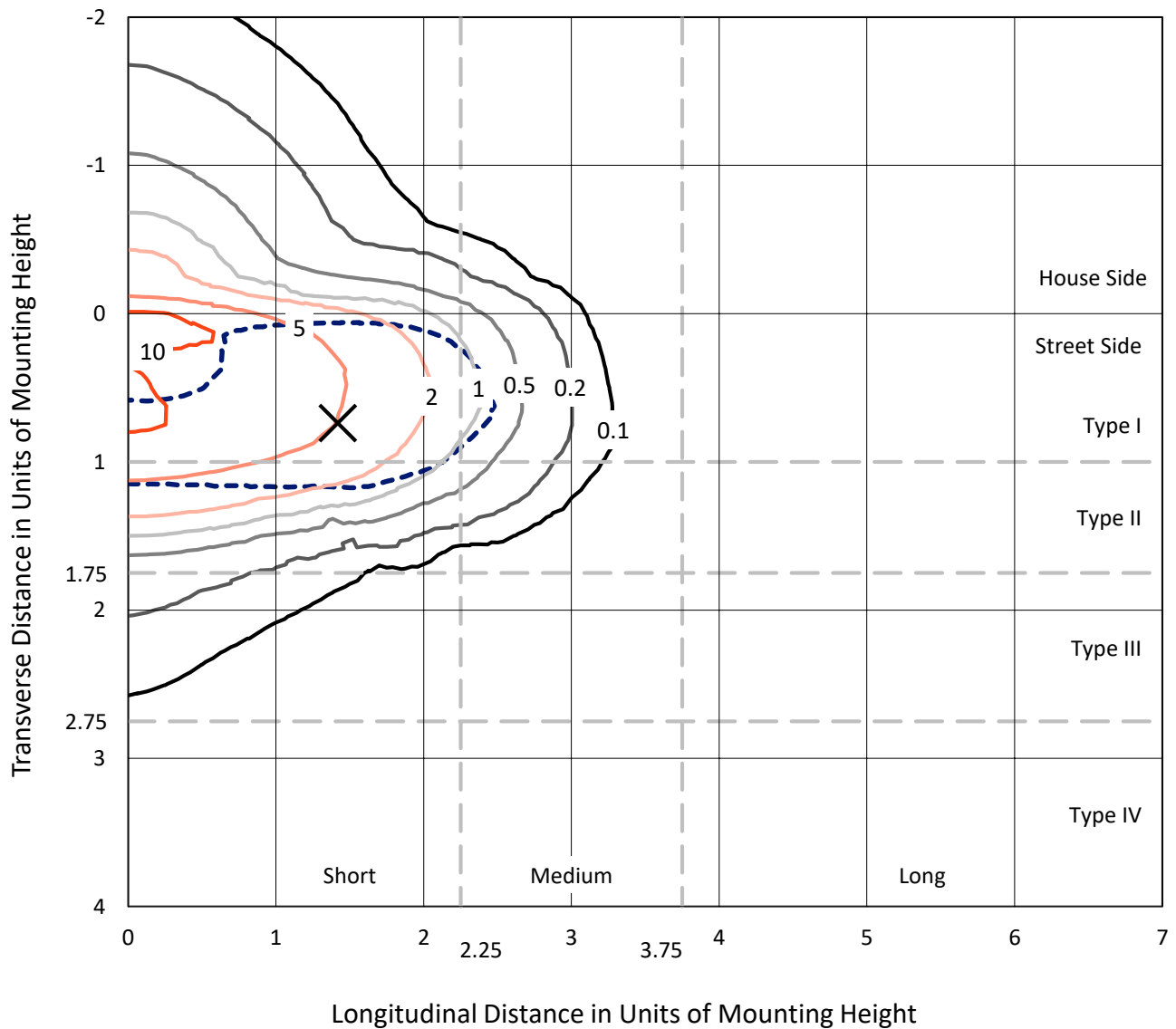
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

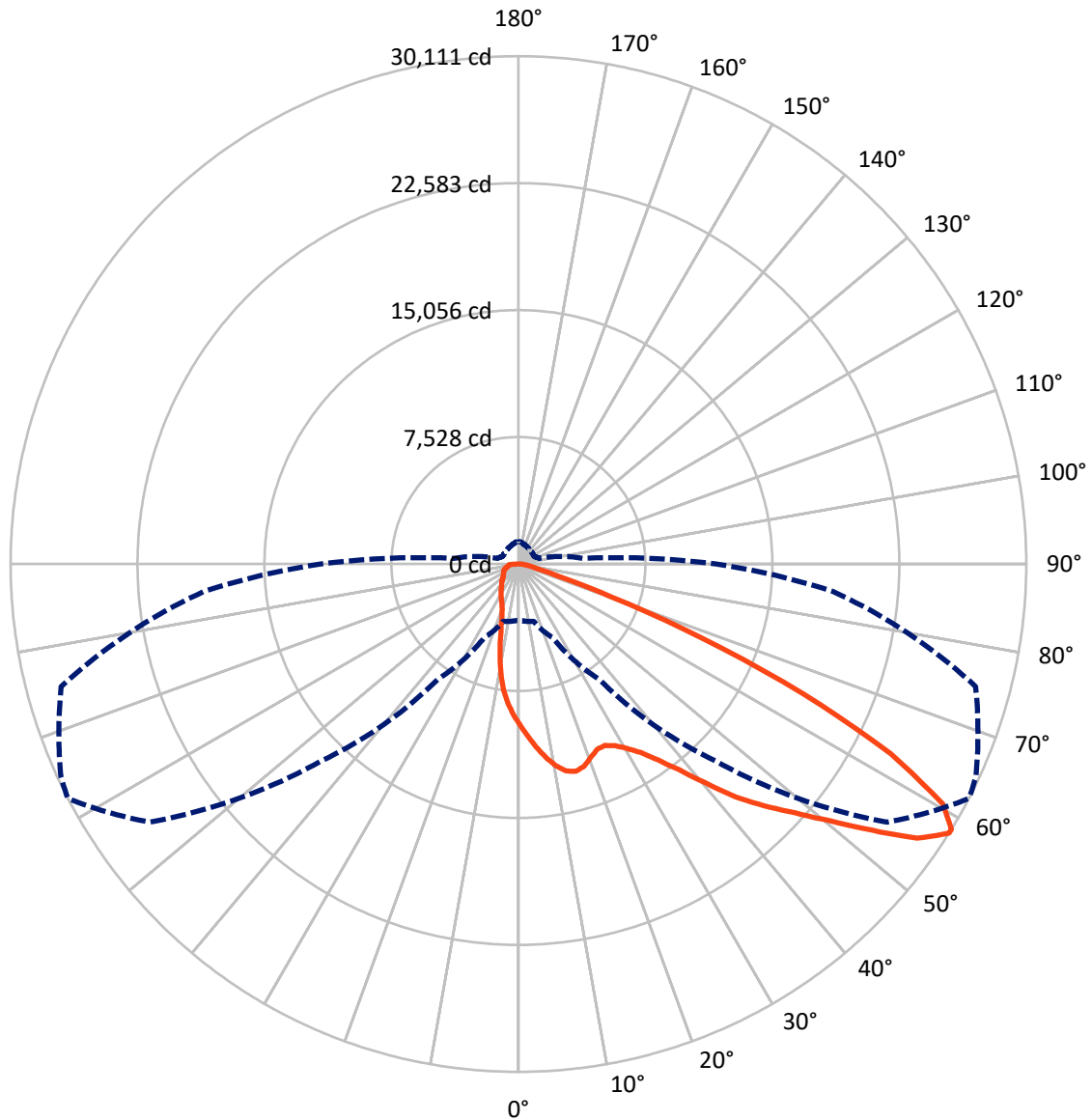
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.9 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
House Side	Lumens	5466.0	0.0	5466.0
	% Fixture	15.3	0.0	15.3
Street Side	Lumens	30375.6	0.0	30375.6
	% Fixture	84.7	0.0	84.7
Total	Lumens	35841.6	0.0	35841.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	851.5	2.4
10°-20°	2176.5	6.1
20°-30°	3518.4	9.8
30°-40°	5585.4	15.6
40°-50°	8172.6	22.8
50°-60°	8547.9	23.8
60°-70°	5050.1	14.1
70°-80°	1422.6	4.0
80°-90°	516.5	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°	35841.6	100.0
0°-180°	35841.6	100.0



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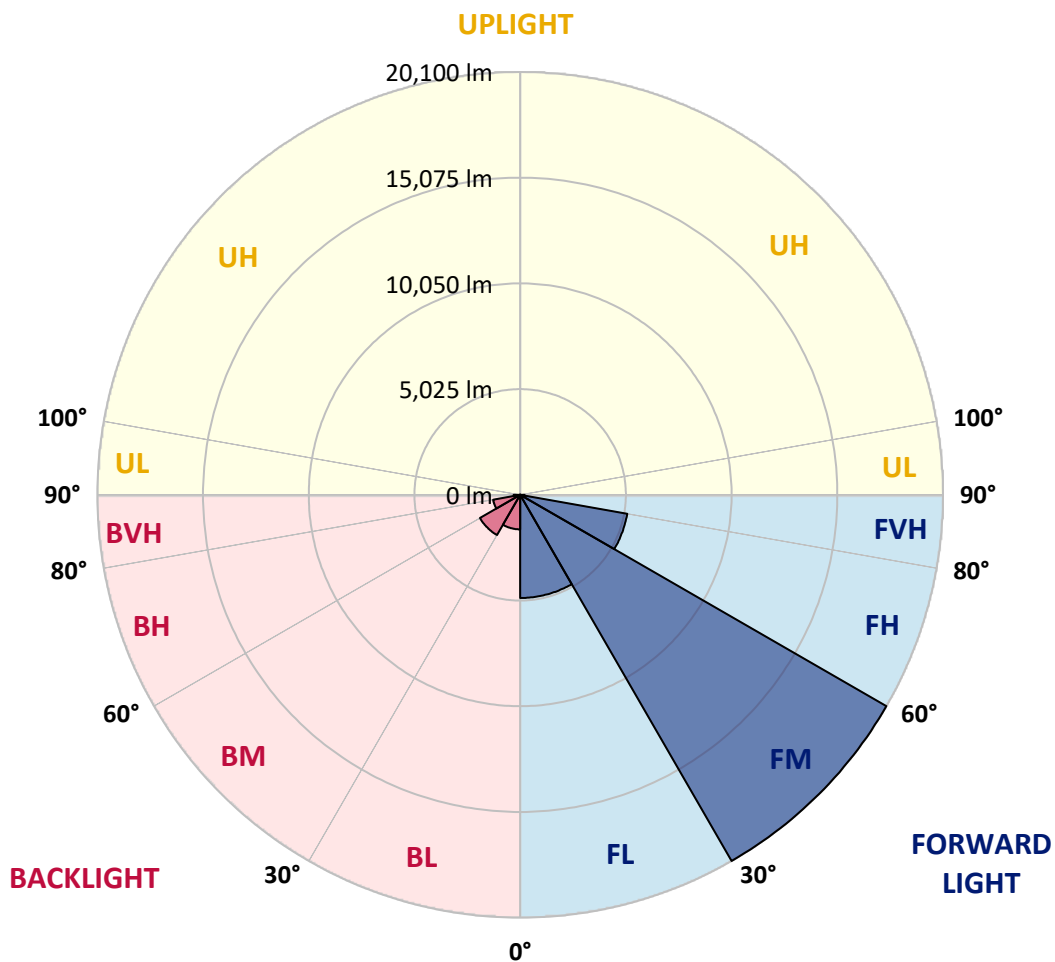
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4903.6	13.7			
FM	(30°-60°)	20099.8	56.1			
FH	(60°-80°)	5168.5	14.4			G3/7500
FVH	(80°-90°)	203.8	0.6			G2/225
BL	(0°-30°)	1642.8	4.6	B3/2500		
BM	(30°-60°)	2206.2	6.2	B2/2500		
BH	(60°-80°)	1304.2	3.6	B3/2500		G3/2500
BVH	(80°-90°)	312.7	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°	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6
2.5°	10879.2	10791.5	10735.8	10686.8	10622.7	10486.0	10302.0	10185.6	10126.5	9925.6	9687.7
5°	11945.9	11868.2	11810.9	11745.0	11630.3	11415.9	11118.9	10882.6	10766.1	10364.5	9888.5
7.5°	11696.1	11728.2	11827.7	12001.6	12150.1	12121.4	11856.4	11556.0	11402.4	10843.8	10121.4
10°	10190.6	10246.3	10418.5	10825.2	11483.4	12158.5	12364.4	12156.8	12001.6	11318.0	10361.1
12.5°	9888.5	9886.8	9900.3	10008.3	10399.9	11350.1	12381.3	12590.6	12497.8	11770.4	10605.8
15°	10011.7	10015.1	10005.0	10050.5	10172.1	10548.4	11864.9	12757.7	12823.5	12226.0	10859.0
17.5°	10335.8	10327.3	10288.5	10288.5	10332.4	10479.2	11257.3	12602.4	12906.2	12629.4	11081.8
20°	10879.2	10840.4	10737.5	10642.9	10595.7	10675.0	11007.5	12244.6	12762.8	12982.2	11265.7
22.5°	11537.4	11507.1	11340.0	11137.5	10973.7	10972.1	11135.8	11932.4	12514.7	13314.6	11421.0
25°	12388.1	12339.1	12091.0	11767.0	11480.1	11370.4	11415.9	11917.2	12379.6	13675.8	11559.4
27.5°	13387.2	13297.8	13004.1	12536.6	12114.7	11893.6	11827.7	12192.3	12502.8	14123.1	11751.8
30°	14599.0	14496.1	14119.7	13510.4	12914.6	12551.8	12411.7	12680.1	12911.3	14668.2	12060.6
32.5°	15977.9	15829.4	15394.0	14722.2	13939.1	13385.5	13157.7	13324.8	13508.7	15324.8	12447.1
35°	17883.4	17706.2	17076.6	16150.1	15265.7	14504.5	14140.0	14261.5	14440.4	16303.6	13005.8
37.5°	19182.9	19103.6	18685.1	17814.2	16852.2	15976.2	15412.5	15483.4	15584.7	17527.3	13721.4
40°	19171.1	19203.2	19211.6	19220.1	18565.2	17726.4	17120.5	17046.3	17026.0	18870.7	14534.9
42.5°	18210.8	18342.4	18767.8	19630.2	20028.5	19643.7	19088.4	18874.1	18767.8	20453.8	15397.3
45°	16740.8	16811.7	17608.3	19292.6	20777.9	21542.4	21122.2	20447.1	20254.7	21908.7	16112.9
47.5°	15983.0	16060.6	16561.9	18398.1	20769.4	23076.6	23319.6	22033.6	21689.3	23174.5	16730.6
50°	14178.8	14340.8	14972.0	16842.0	20011.6	23782.1	25616.6	23923.8	23211.6	24406.5	17350.1
52.5°	10865.7	11115.5	11822.7	14283.4	18089.3	23432.7	27454.6	26215.8	25209.9	25682.5	17881.7
55°	6853.9	7039.6	7633.7	10087.7	14470.8	21615.0	28151.6	28695.1	27800.6	26890.9	18342.4
57.5°	3726.5	3809.2	4032.0	5569.6	9412.6	17596.5	27135.6	30106.1	29734.7	27917.0	18690.1
58°	3335.0	3390.7	3529.1	4827.0	8347.6	16497.7	26685.0	30111.1	29925.5	28067.3	18717.1
60°	2474.2	2445.5	2322.3	2754.4	4646.4	11397.4	23961.0	28906.1	29451.2	28251.2	18585.5
62.5°	2173.8	2104.6	1853.1	1824.5	2259.9	5250.6	18334.0	24761.0	26048.7	27201.4	17785.5
65°	2042.2	1967.9	1643.9	1539.2	1630.4	2221.1	10799.9	18570.3	20185.5	24018.3	15739.9
67.5°	1944.3	1848.1	1510.5	1367.1	1373.8	1468.3	4329.1	11696.1	13513.8	18236.1	12242.9
70°	1849.8	1745.1	1397.5	1232.1	1193.2	1161.2	1721.5	5854.8	7503.7	11518.9	7805.8
72.5°	1748.5	1645.6	1297.9	1125.7	1049.8	943.5	1124.0	2394.9	3345.1	5449.7	3540.9
75°	1601.7	1508.8	1198.3	1031.2	923.2	781.4	848.9	1250.6	1500.4	2170.4	1706.3
77.5°	1421.1	1345.1	1086.9	953.6	818.6	634.6	653.2	867.5	962.0	1242.2	1014.3
80°	1021.1	1048.1	967.1	857.4	729.1	514.8	501.3	632.9	683.5	798.3	659.9
82.5°	717.3	732.5	800.0	700.4	602.5	405.1	369.6	445.6	475.9	524.9	356.1
85°	494.5	477.6	548.5	487.8	435.4	270.0	253.2	302.1	320.7	325.7	184.0
87.5°	297.0	297.0	317.3	261.6	234.6	140.1	136.7	172.2	184.0	175.5	101.3
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°	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6	9520.6
2.5°	9545.9	9426.1	9171.2	8967.0	8708.8	8440.4	8290.2	8129.9	8020.2	7940.9	8067.4
5°	9618.5	9373.8	8847.2	8347.6	7795.7	7221.9	6786.4	6381.4	6099.5	5924.0	6089.4
7.5°	9733.2	9356.9	8518.1	7664.1	6673.4	5718.1	4864.1	4329.1	4016.8	3863.3	3959.5
10°	9864.9	9329.9	8131.6	6737.5	5319.8	4116.4	3478.4	3262.4	3191.5	3162.8	3176.3
12.5°	9974.6	9272.5	7657.3	5616.8	3994.9	3250.6	3066.6	3061.6	3076.8	3080.1	3085.2
15°	10052.2	9188.1	6953.5	4448.9	3194.9	2962.0	2951.9	2982.3	3010.9	3022.8	3029.5
17.5°	10104.5	9014.3	6158.6	3517.3	2862.4	2821.9	2845.5	2884.4	2914.7	2923.2	2929.9
20°	10099.5	8759.4	5211.8	2933.3	2681.8	2681.8	2722.3	2752.7	2754.4	2744.3	2749.3
22.5°	10047.2	8410.0	4293.6	2622.8	2521.5	2550.2	2590.7	2562.0	2443.9	2366.2	2371.3
25°	9959.4	7993.2	3507.1	2425.3	2373.0	2423.6	2411.8	2195.8	2027.0	1951.0	1951.0
27.5°	9881.8	7500.4	2902.9	2253.1	2224.5	2286.9	2077.6	1881.8	1811.0	1775.5	1763.7
30°	9826.1	6968.7	2499.6	2087.7	2084.4	2038.8	1802.5	1748.5	1736.7	1708.0	1697.9
32.5°	9839.6	6430.3	2241.3	1942.6	1954.4	1745.1	1670.9	1682.7	1672.6	1642.2	1628.7
35°	9951.0	5918.9	2072.6	1811.0	1775.5	1576.4	1593.2	1615.2	1611.8	1569.6	1556.1
37.5°	10150.1	5434.5	1961.2	1701.3	1549.4	1492.0	1519.0	1552.7	1544.3	1515.6	1505.5
40°	10359.4	4978.9	1870.0	1615.2	1416.0	1434.6	1458.2	1476.8	1485.2	1493.7	1486.9
42.5°	10563.6	4502.9	1758.6	1527.4	1360.3	1380.6	1390.7	1409.3	1454.8	1486.9	1485.2
45°	10685.1	4055.7	1643.9	1402.5	1316.4	1328.3	1321.5	1358.6	1414.3	1466.7	1468.3
47.5°	10820.2	3708.0	1552.7	1287.8	1274.2	1282.7	1262.4	1299.6	1350.2	1414.3	1421.1
50°	10983.9	3500.4	1480.2	1196.6	1216.9	1216.9	1211.8	1245.6	1316.4	1390.7	1404.2
52.5°	11169.5	3459.9	1419.4	1130.8	1159.5	1157.8	1162.9	1213.5	1291.1	1363.7	1375.5
55°	11395.7	3569.6	1353.6	1081.8	1103.8	1110.5	1127.4	1184.8	1250.6	1333.3	1338.4
57.5°	11659.0	3792.4	1301.3	1043.0	1053.2	1075.1	1102.1	1154.4	1225.3	1316.4	1321.5
58°	11702.8	3839.6	1292.8	1039.7	1043.0	1068.3	1098.7	1149.4	1220.2	1319.8	1324.9
60°	11704.5	3996.6	1274.2	1024.5	1004.2	1046.4	1080.2	1130.8	1211.8	1331.6	1343.4
62.5°	11289.3	3994.9	1260.7	1002.5	963.7	1016.0	1054.8	1113.9	1203.4	1360.3	1384.0
65°	9940.8	3630.3	1196.6	968.8	931.6	989.0	1032.9	1102.1	1227.0	1485.2	1500.4
67.5°	7775.5	2975.5	1076.8	921.5	889.4	962.0	1019.4	1100.4	1252.3	1513.9	1524.0
70°	5140.9	2226.1	945.1	867.5	845.6	929.9	1026.2	1157.8	1223.6	1453.2	1426.1
72.5°	2668.3	1562.9	838.8	800.0	794.9	901.3	1124.0	1151.0	1194.9	1367.1	1333.3
75°	1400.8	1085.2	746.0	725.7	734.2	894.5	1326.6	1120.7	1157.8	1308.0	1372.1
77.5°	857.4	875.9	666.7	658.2	675.1	874.3	1324.9	1081.8	1103.8	1203.4	1274.2
80°	573.8	710.5	605.9	607.6	619.4	800.0	1189.9	1021.1	1038.0	1137.5	1210.1
82.5°	362.9	420.2	550.2	578.9	563.7	659.9	1011.0	929.9	953.6	1301.3	1375.5
85°	184.0	263.3	477.6	557.0	508.0	462.4	820.2	815.2	827.0	938.4	980.6
87.5°	84.4	145.1	373.0	486.1	383.1	288.6	595.8	604.2	651.5	666.7	666.7
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)