

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: P300469

Luminaire Tested: **GLNA-AF-10-LED-E1-AFL-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300469  
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-10-LED-E1-AFL-7027-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

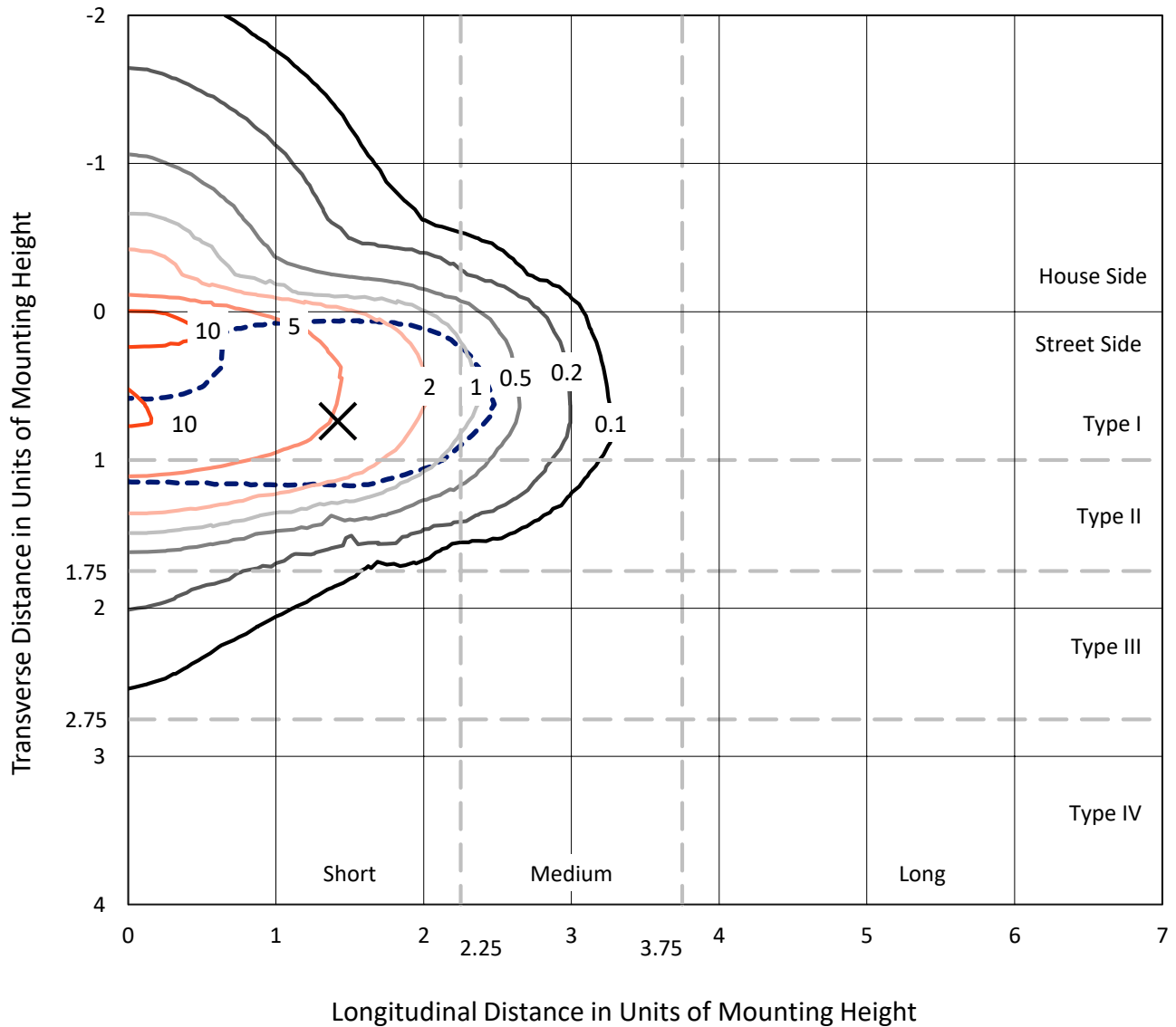
Lumens per Lamp: N/A  
Luminaire Lumens: 34477.6 lumens  
Efficiency: N/A  
Efficacy: 106.7 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 323  
Input Voltage (V): NR  
Input Current (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

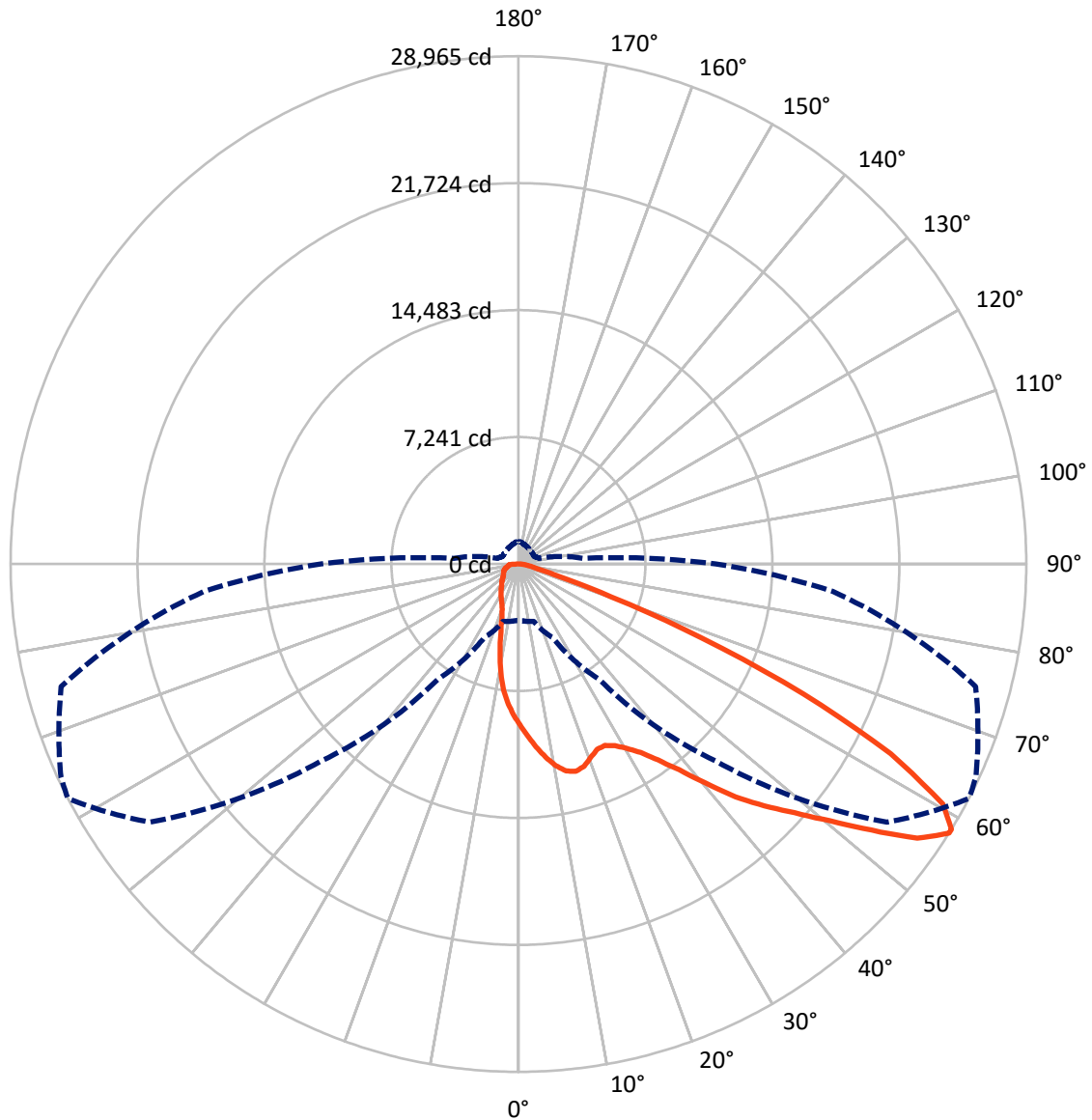
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.4 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	5258.0	0.0	5258.0
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	29219.6	0.0	29219.6
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	34477.6	0.0	34477.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	819.1	2.4
10°-20°	2093.7	6.1
20°-30°	3384.5	9.8
30°-40°	5372.9	15.6
40°-50°	7861.6	22.8
50°-60°	8222.6	23.8
60°-70°	4857.9	14.1
70°-80°	1368.5	4.0
80°-90°	496.8	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°	34477.6	100.0
0°-180°	34477.6	100.0

**Coefficient of Utilization**



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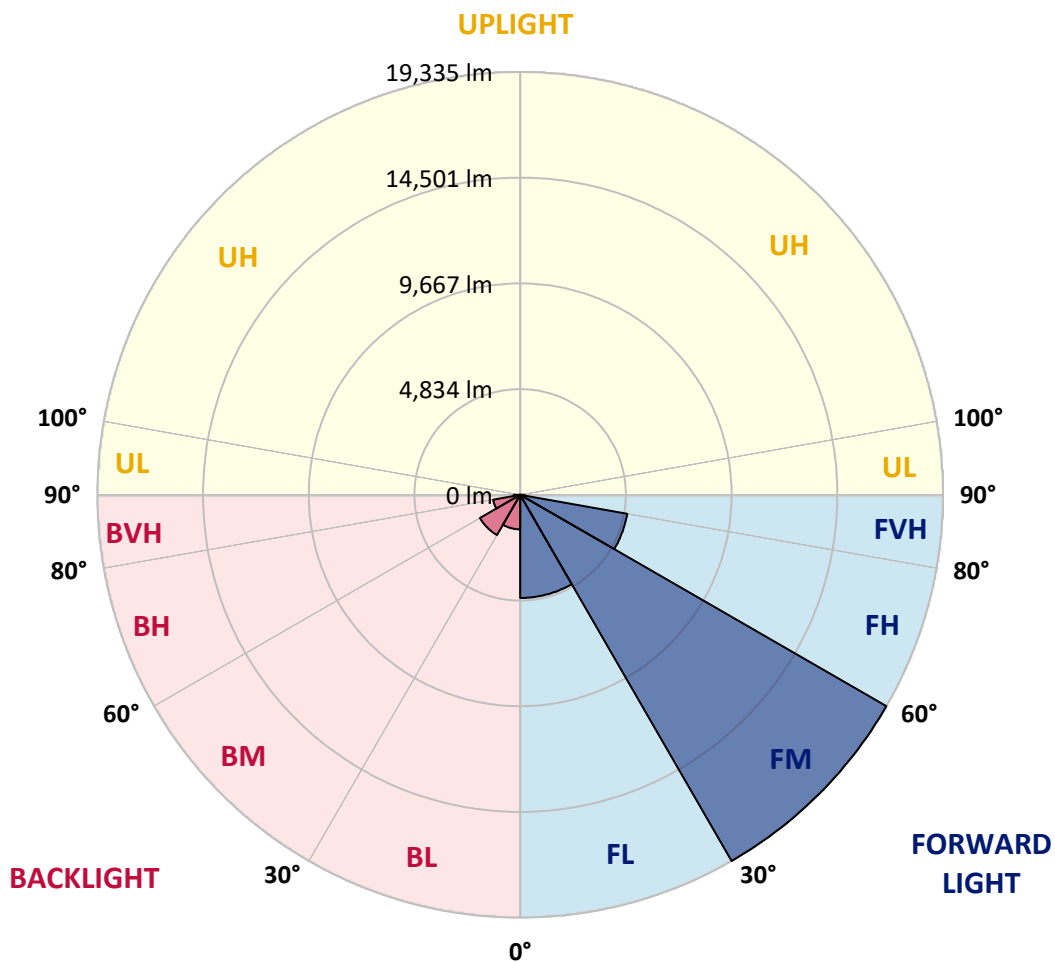
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4717.0	13.7			
FM	(30°-60°)	19334.8	56.1			
FH	(60°-80°)	4971.8	14.4			G2/5000
FVH	(80°-90°)	196.0	0.6			G2/225
BL	(0°-30°)	1580.3	4.6	B3/2500		
BM	(30°-60°)	2122.2	6.2	B2/2500		
BH	(60°-80°)	1254.6	3.6	B3/2500		G3/2500
BVH	(80°-90°)	300.8	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°	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3
2.5°	10465.2	10380.8	10327.2	10280.1	10218.4	10086.9	9910.0	9797.9	9741.1	9547.9	9319.0
5°	11491.3	11416.6	11361.4	11298.1	11187.7	10981.5	10695.7	10468.4	10356.4	9970.0	9512.2
7.5°	11251.0	11281.8	11377.6	11544.8	11687.7	11660.1	11405.2	11116.2	10968.5	10431.1	9736.2
10°	9802.8	9856.4	10022.0	10413.2	11046.4	11695.8	11893.9	11694.2	11544.8	10887.3	9966.8
12.5°	9512.2	9510.6	9523.6	9627.5	10004.1	10918.2	11910.1	12111.4	12022.2	11322.4	10202.2
15°	9630.7	9634.0	9624.2	9668.1	9784.9	10147.0	11413.3	12272.2	12335.5	11760.8	10445.7
17.5°	9942.4	9934.3	9897.0	9897.0	9939.2	10080.4	10828.9	12122.8	12415.0	12148.8	10660.0
20°	10465.2	10427.9	10328.8	10237.9	10192.4	10268.8	10588.6	11778.6	12277.0	12488.1	10837.0
22.5°	11098.4	11069.1	10908.4	10713.6	10556.1	10554.5	10712.0	11478.3	12038.4	12807.9	10986.3
25°	11916.6	11869.5	11630.9	11319.2	11043.2	10937.6	10981.5	11463.7	11908.5	13155.4	11119.5
27.5°	12877.7	12791.7	12509.2	12059.5	11653.6	11440.9	11377.6	11728.3	12027.0	13585.6	11304.6
30°	14043.4	13944.4	13582.4	12996.3	12423.2	12074.1	11939.4	12197.5	12419.9	14110.0	11601.7
32.5°	15369.8	15227.0	14808.1	14162.0	13408.6	12876.1	12656.9	12817.7	12994.6	14741.5	11973.4
35°	17202.8	17032.3	16426.8	15535.4	14684.7	13952.5	13601.8	13718.7	13890.8	15683.2	12510.8
37.5°	18452.9	18376.6	17974.0	17136.2	16210.8	15368.2	14826.0	14894.2	14991.6	16860.2	13199.2
40°	18441.5	18472.4	18480.5	18488.6	17858.7	17051.8	16469.0	16397.5	16378.1	18152.6	13981.7
42.5°	17517.8	17644.4	18053.5	18883.1	19266.3	18896.1	18362.0	18155.8	18053.5	19675.4	14811.4
45°	16103.7	16171.9	16938.2	18558.4	19987.1	20722.6	20318.3	19668.9	19483.8	21074.9	15499.7
47.5°	15374.7	15449.4	15931.6	17698.0	19979.0	22198.4	22432.2	21195.0	20863.8	22292.5	16093.9
50°	13639.2	13795.0	14402.2	16201.1	19250.1	22877.0	24641.8	23013.4	22328.2	23477.7	16689.8
52.5°	10452.2	10692.5	11372.7	13739.8	17400.9	22540.9	26409.8	25218.1	24250.5	24705.1	17201.2
55°	6593.1	6771.7	7343.2	9703.8	13920.0	20792.4	27080.3	27603.1	26742.6	25867.5	17644.4
57.5°	3584.7	3664.3	3878.6	5357.6	9054.4	16926.8	26102.9	28960.3	28603.1	26854.6	17978.8
58°	3208.1	3261.6	3394.8	4643.3	8029.9	15869.9	25669.4	28965.2	28786.6	26999.1	18004.8
60°	2380.1	2352.5	2234.0	2649.6	4469.5	10963.6	23049.1	27806.0	28330.4	27176.1	17878.2
62.5°	2091.1	2024.5	1782.6	1755.0	2173.9	5050.8	17636.3	23818.6	25057.4	26166.2	17108.6
65°	1964.5	1893.0	1581.3	1480.6	1568.3	2136.6	10388.9	17863.6	19417.3	23104.3	15140.9
67.5°	1870.3	1777.8	1453.0	1315.0	1321.5	1412.5	4164.3	11251.0	12999.5	17542.1	11777.0
70°	1779.4	1678.7	1344.3	1185.2	1147.8	1117.0	1656.0	5632.0	7218.2	11080.5	7508.8
72.5°	1682.0	1582.9	1248.5	1082.9	1009.8	907.5	1081.3	2303.8	3217.8	5242.3	3406.1
75°	1540.7	1451.4	1152.7	992.0	888.1	751.7	816.6	1203.0	1443.3	2087.8	1641.4
77.5°	1367.0	1293.9	1045.5	917.3	787.4	610.4	628.3	834.5	925.4	1194.9	975.7
80°	982.2	1008.2	930.3	824.7	701.4	495.2	482.2	608.8	657.5	767.9	634.8
82.5°	690.0	704.6	769.5	673.8	579.6	389.6	355.6	428.6	457.8	504.9	342.6
85°	475.7	459.5	527.6	469.2	418.9	259.8	243.5	290.6	308.5	313.3	177.0
87.5°	285.7	285.7	305.2	251.6	225.7	134.8	131.5	165.6	177.0	168.8	97.4
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°	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3	9158.3
2.5°	9182.6	9067.3	8822.2	8625.8	8377.4	8119.2	7974.7	7820.5	7715.0	7638.7	7760.4
5°	9252.4	9017.0	8510.5	8029.9	7499.0	6947.0	6528.2	6138.5	5867.4	5698.5	5857.7
7.5°	9362.8	9000.8	8193.9	7372.4	6419.4	5500.5	4679.0	4164.3	3864.0	3716.2	3808.8
10°	9489.5	8974.8	7822.1	6481.1	5117.3	3959.8	3346.1	3138.3	3070.1	3042.5	3055.5
12.5°	9595.0	8919.6	7365.9	5403.1	3842.9	3126.9	2949.9	2945.1	2959.7	2962.9	2967.8
15°	9669.7	8838.4	6688.9	4279.6	3073.3	2849.3	2839.5	2868.8	2896.4	2907.7	2914.2
17.5°	9720.0	8671.2	5924.2	3383.4	2753.5	2714.5	2737.3	2774.6	2803.8	2811.9	2818.4
20°	9715.1	8426.1	5013.4	2821.7	2579.8	2579.8	2618.7	2648.0	2649.6	2639.8	2644.7
22.5°	9664.8	8090.0	4130.2	2522.9	2425.5	2453.1	2492.1	2464.5	2350.9	2276.2	2281.0
25°	9580.4	7689.0	3373.7	2333.0	2282.7	2331.4	2320.0	2112.2	1949.8	1876.8	1876.8
27.5°	9505.7	7214.9	2792.5	2167.4	2139.8	2199.9	1998.6	1810.2	1742.0	1707.9	1696.6
30°	9452.1	6703.5	2404.4	2008.3	2005.0	1961.2	1733.9	1682.0	1670.6	1643.0	1633.3
32.5°	9465.1	6185.6	2156.0	1868.7	1880.0	1678.7	1607.3	1618.6	1608.9	1579.7	1566.7
35°	9572.3	5693.7	1993.7	1742.0	1707.9	1516.4	1532.6	1553.7	1550.5	1509.9	1496.9
37.5°	9763.8	5227.7	1886.5	1636.5	1490.4	1435.2	1461.2	1493.6	1485.5	1457.9	1448.2
40°	9965.2	4789.4	1798.9	1553.7	1362.1	1380.0	1402.7	1420.6	1428.7	1436.8	1430.3
42.5°	10161.6	4331.5	1691.7	1469.3	1308.6	1328.0	1337.8	1355.6	1399.5	1430.3	1428.7
45°	10278.5	3901.3	1581.3	1349.1	1266.3	1277.7	1271.2	1306.9	1360.5	1410.8	1412.5
47.5°	10408.4	3566.9	1493.6	1238.7	1225.8	1233.9	1214.4	1250.1	1298.8	1360.5	1367.0
50°	10565.9	3367.2	1423.8	1151.1	1170.6	1170.6	1165.7	1198.2	1266.3	1337.8	1350.8
52.5°	10744.4	3328.2	1365.4	1087.8	1115.4	1113.7	1118.6	1167.3	1242.0	1311.8	1323.2
55°	10962.0	3433.7	1302.1	1040.7	1061.8	1068.3	1084.5	1139.7	1203.0	1282.6	1287.5
57.5°	11215.3	3648.0	1251.7	1003.3	1013.1	1034.2	1060.2	1110.5	1178.7	1266.3	1271.2
58°	11257.5	3693.5	1243.6	1000.1	1003.3	1027.7	1056.9	1105.6	1173.8	1269.6	1274.5
60°	11259.1	3844.5	1225.8	985.5	966.0	1006.6	1039.1	1087.8	1165.7	1281.0	1292.3
62.5°	10859.7	3842.9	1212.8	964.4	927.0	977.4	1014.7	1071.5	1157.6	1308.6	1331.3
65°	9562.5	3492.2	1151.1	931.9	896.2	951.4	993.6	1060.2	1180.3	1428.7	1443.3
67.5°	7479.5	2862.3	1035.8	886.4	855.6	925.4	980.6	1058.5	1204.7	1456.3	1466.0
70°	4945.2	2141.4	909.2	834.5	813.4	894.6	987.1	1113.7	1177.1	1397.8	1371.9
72.5°	2566.8	1503.4	806.9	769.5	764.7	867.0	1081.3	1107.2	1149.5	1315.0	1282.6
75°	1347.5	1043.9	717.6	698.1	706.2	860.5	1276.1	1078.0	1113.7	1258.2	1319.9
77.5°	824.7	842.6	641.3	633.2	649.4	841.0	1274.5	1040.7	1061.8	1157.6	1225.8
80°	552.0	683.5	582.8	584.5	595.8	769.5	1144.6	982.2	998.5	1094.3	1164.1
82.5°	349.1	404.3	529.3	556.9	542.3	634.8	972.5	894.6	917.3	1251.7	1323.2
85°	177.0	253.3	459.5	535.8	488.7	444.8	789.0	784.2	795.5	902.7	943.3
87.5°	81.2	139.6	358.8	467.6	368.5	277.6	573.1	581.2	626.7	641.3	641.3
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)