

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: P299708

Luminaire Tested: **GLNA-AF-03-LED-E1-5MQ-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299708
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-5MQ-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12122.9 lumens
Efficiency: N/A
Efficacy: 126.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 96
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

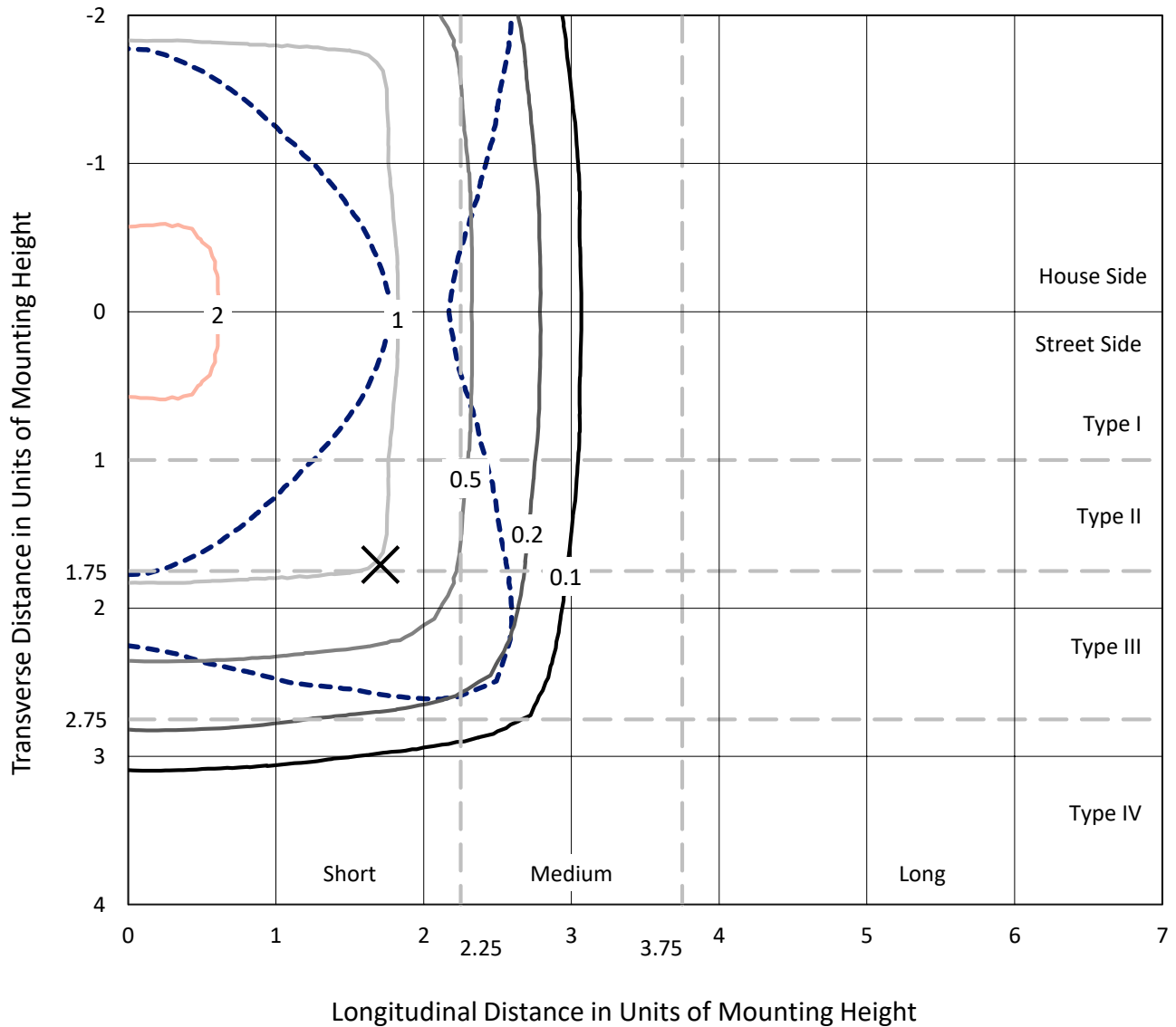


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

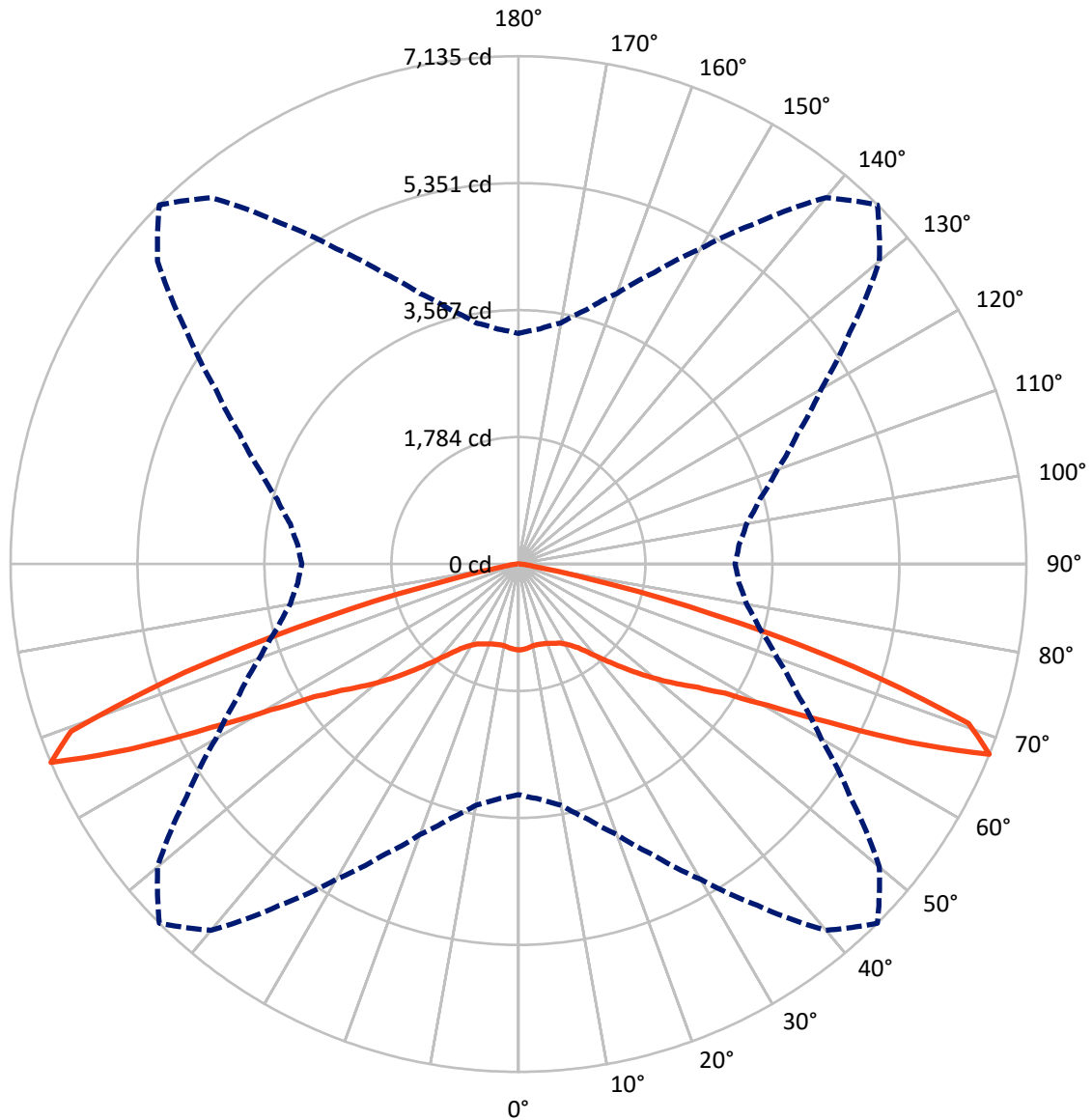


Based on 20 foot mounting height. Maximum calculated value = 3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6061.4	0.0	6061.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6061.4	0.0	6061.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	12122.9	0.0	12122.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.1	0.9
10°-20°	328.1	2.7
20°-30°	557.8	4.6
30°-40°	911.8	7.5
40°-50°	1627.8	13.4
50°-60°	2744.4	22.6
60°-70°	4258.9	35.1
70°-80°	1496.4	12.3
80°-90°	84.6	0.7
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°	12122.9	100.0
0°-180°	12122.9	100.0



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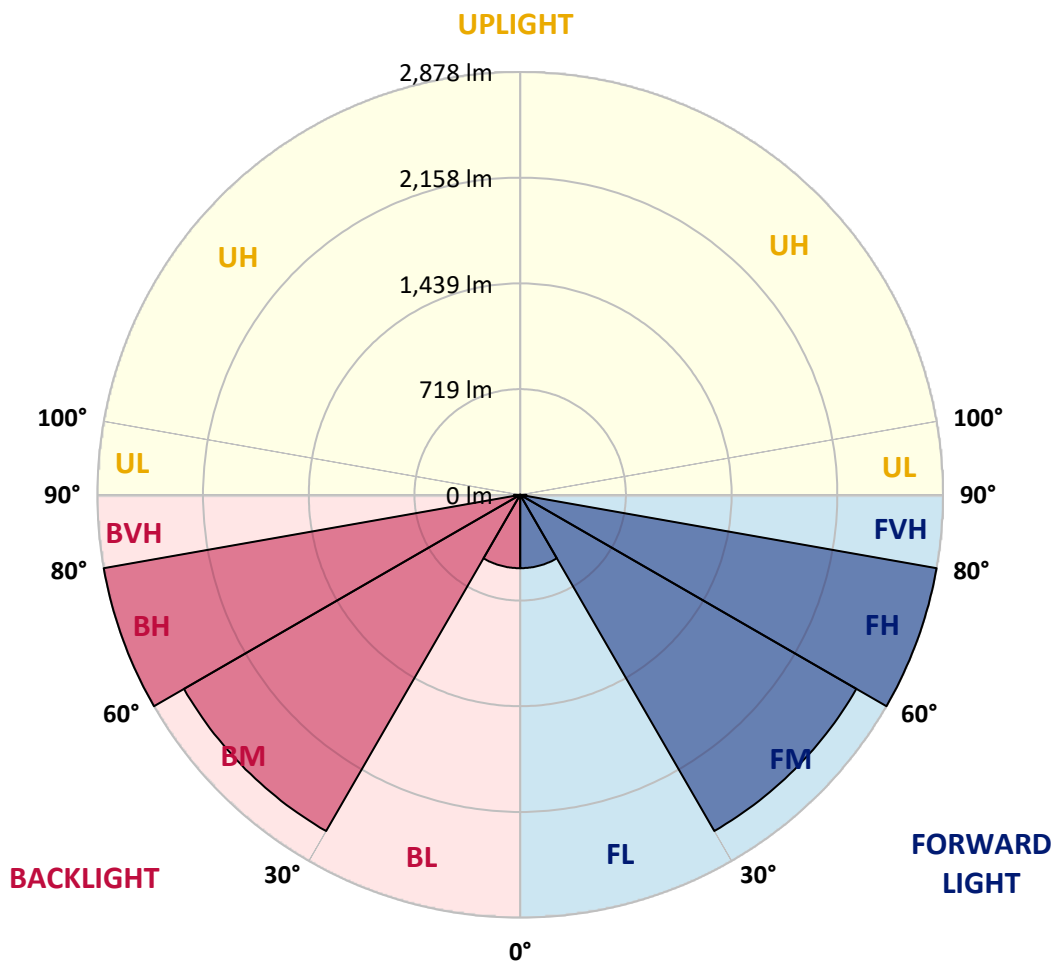
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	499.5	4.1			
FM	(30°-60°)	2642.0	21.8			
FH	(60°-80°)	2877.7	23.7			G2/5000
FVH	(80°-90°)	42.3	0.3			G1/100
BL	(0°-30°)	499.5	4.1	B1/500		
BM	(30°-60°)	2642.0	21.8	B3/5000		
BH	(60°-80°)	2877.7	23.7	B4/5000		G2/5000
BVH	(80°-90°)	42.3	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1208.1	1208.1	1208.1	1208.1	1208.1	1208.1	1208.1	1208.1	1208.1	1208.1	1208.1
2.5°	1203.6	1204.8	1204.8	1204.8	1204.2	1204.2	1203.1	1204.2	1203.6	1202.0	1202.5
5°	1193.6	1194.7	1194.7	1194.2	1195.8	1195.3	1193.6	1194.7	1194.2	1193.0	1193.6
7.5°	1179.1	1180.8	1180.8	1180.2	1181.9	1181.3	1180.2	1180.8	1180.8	1179.1	1179.1
10°	1162.9	1164.1	1164.1	1163.5	1166.3	1166.3	1165.7	1167.4	1168.0	1166.3	1165.2
12.5°	1147.9	1149.6	1149.6	1151.8	1154.6	1155.7	1158.5	1160.7	1162.9	1162.4	1160.2
15°	1139.0	1140.1	1142.3	1145.1	1149.6	1153.5	1157.9	1162.9	1167.4	1168.5	1165.2
17.5°	1133.4	1135.1	1138.4	1142.3	1148.4	1155.1	1161.8	1168.5	1174.6	1176.9	1173.0
20°	1131.7	1132.8	1136.2	1142.9	1151.2	1161.3	1170.7	1178.6	1186.9	1189.7	1186.9
22.5°	1135.1	1137.3	1141.2	1149.0	1160.2	1173.0	1184.1	1194.7	1205.3	1210.3	1206.4
25°	1150.1	1152.3	1157.4	1167.4	1179.7	1193.0	1205.9	1218.1	1227.6	1232.6	1229.8
27.5°	1178.0	1180.8	1186.9	1196.9	1210.3	1224.8	1238.8	1248.8	1256.6	1258.3	1254.9
30°	1219.8	1225.9	1233.2	1244.3	1259.9	1272.2	1286.1	1295.1	1304.5	1304.5	1301.8
32.5°	1285.0	1291.2	1299.0	1309.6	1321.8	1335.2	1347.5	1355.3	1365.3	1365.9	1359.2
35°	1382.6	1385.4	1392.1	1398.8	1409.9	1421.6	1432.2	1437.2	1445.6	1446.1	1440.0
37.5°	1511.4	1511.9	1516.4	1518.6	1528.7	1541.5	1551.5	1554.9	1562.7	1561.6	1555.4
40°	1661.3	1664.1	1665.8	1669.1	1679.7	1692.0	1702.6	1704.3	1712.6	1711.0	1703.2
42.5°	1834.7	1835.8	1845.3	1850.3	1860.4	1866.5	1879.9	1881.6	1891.6	1887.1	1878.2
45°	2029.3	2039.3	2048.2	2058.3	2068.9	2076.1	2086.7	2084.5	2091.2	2084.5	2079.5
47.5°	2233.9	2241.1	2261.2	2276.8	2294.1	2300.2	2315.3	2308.6	2315.3	2305.8	2304.1
50°	2459.1	2471.9	2489.2	2507.1	2525.5	2535.5	2555.0	2546.7	2555.6	2546.7	2541.6
52.5°	2681.0	2684.4	2722.3	2748.5	2774.1	2785.8	2797.5	2793.6	2794.2	2793.6	2788.6
55°	2891.7	2899.5	2937.5	2973.1	3017.7	3050.6	3070.7	3068.5	3063.5	3058.4	3050.1
57.5°	3129.2	3137.0	3180.5	3224.6	3275.3	3322.1	3362.8	3404.6	3420.8	3425.3	3406.9
60°	3450.4	3449.8	3507.8	3561.3	3633.8	3703.5	3792.7	3883.5	3987.8	4036.3	3972.2
62.5°	3777.0	3790.4	3874.1	3968.8	4118.2	4263.7	4428.2	4589.9	4754.9	4889.3	4746.5
65°	3738.0	3789.3	3913.6	4128.3	4404.2	4732.0	5086.6	5461.8	5800.8	6033.8	5772.3
67.5°	3239.6	3312.7	3439.2	3700.1	4045.2	4518.0	5113.4	5855.4	6717.8	7134.9	6618.1
70°	2348.2	2430.7	2563.4	2818.2	3159.9	3609.2	4255.9	5146.8	6288.6	6708.9	6139.7
72.5°	1168.5	1213.1	1295.1	1457.3	1716.0	2080.6	2667.1	3523.4	4533.6	4919.4	4399.2
75°	396.9	417.6	431.5	484.5	566.4	709.7	1001.3	1540.4	2349.9	2817.0	2316.4
77.5°	229.1	229.7	239.2	248.6	262.6	278.2	317.2	416.5	720.3	1023.0	745.4
80°	148.3	147.7	155.5	162.8	172.3	180.1	182.3	192.9	222.4	263.7	235.8
82.5°	76.9	86.4	103.7	113.2	131.0	134.4	129.9	126.0	133.2	138.3	141.6
85°	42.4	36.8	55.2	71.4	79.2	80.3	80.3	75.8	78.6	76.9	83.6
87.5°	19.5	17.8	21.7	35.1	37.4	31.8	33.4	29.5	21.2	20.6	23.4
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1208.1	1208.1	1208.1	1208.1	1208.1	1208.1	1208.1	1208.1
2.5°	1202.5	1203.1	1203.1	1204.8	1205.3	1206.4	1207.5	1208.1
5°	1193.0	1194.7	1193.6	1195.3	1195.3	1196.4	1196.4	1196.9
7.5°	1179.1	1180.8	1180.8	1180.8	1180.2	1181.9	1181.9	1181.9
10°	1164.6	1165.7	1165.2	1164.1	1162.9	1164.6	1164.1	1163.5
12.5°	1160.2	1157.4	1155.1	1154.0	1151.8	1152.3	1150.7	1150.7
15°	1162.9	1157.9	1154.0	1152.3	1150.1	1149.0	1147.9	1148.4
17.5°	1170.2	1164.1	1159.0	1156.3	1153.5	1151.8	1149.6	1150.1
20°	1183.0	1175.8	1168.5	1162.9	1157.9	1155.1	1153.5	1152.9
22.5°	1202.0	1191.4	1180.8	1172.4	1165.7	1161.8	1160.2	1159.0
25°	1223.7	1212.0	1199.7	1190.3	1183.6	1178.6	1175.2	1175.2
27.5°	1251.0	1241.5	1230.4	1219.2	1213.1	1208.1	1205.9	1204.8
30°	1296.7	1287.8	1278.9	1268.3	1260.5	1255.5	1251.6	1248.2
32.5°	1355.3	1348.0	1340.8	1333.0	1325.7	1319.0	1312.9	1310.1
35°	1437.8	1432.2	1427.2	1418.3	1415.5	1411.6	1408.2	1405.5
37.5°	1551.5	1549.3	1549.3	1539.8	1537.6	1535.9	1532.6	1533.1
40°	1700.9	1703.2	1700.4	1697.0	1695.4	1690.9	1690.9	1694.8
42.5°	1877.7	1879.3	1885.5	1879.9	1886.0	1880.4	1877.1	1879.9
45°	2082.8	2088.9	2101.2	2095.6	2099.5	2090.1	2078.4	2078.9
47.5°	2313.1	2318.6	2323.7	2319.7	2320.3	2304.7	2289.1	2285.2
50°	2552.2	2554.5	2557.2	2551.7	2552.8	2535.5	2517.7	2518.2
52.5°	2788.6	2799.2	2810.3	2795.3	2791.9	2772.4	2747.3	2737.3
55°	3059.0	3074.0	3061.2	3035.0	3008.8	2982.6	2949.7	2944.1
57.5°	3392.4	3366.7	3326.6	3277.0	3240.7	3203.9	3170.5	3156.6
60°	3856.2	3759.8	3687.3	3613.7	3567.4	3522.3	3478.2	3471.5
62.5°	4511.8	4345.1	4200.7	4048.5	3924.2	3827.2	3749.7	3728.0
65°	5333.6	4939.4	4597.7	4278.8	4001.7	3792.7	3661.1	3603.1
67.5°	5687.0	4908.8	4322.8	3870.2	3507.8	3254.7	3112.5	3041.7
70°	4997.4	4070.8	3433.6	2980.4	2650.3	2380.5	2251.7	2175.9
72.5°	3438.1	2589.6	2047.7	1671.4	1407.7	1181.9	1092.7	1086.0
75°	1543.7	1022.5	704.7	543.0	457.1	397.5	379.1	365.2
77.5°	432.1	319.4	284.9	266.5	248.6	228.0	220.2	221.9
80°	210.2	198.5	190.7	179.0	162.8	145.5	137.7	141.0
82.5°	139.4	137.7	142.7	134.4	110.9	94.2	79.2	72.5
85°	84.7	85.9	87.5	88.1	74.7	52.4	35.7	40.1
87.5°	33.4	38.5	41.8	43.5	40.7	25.1	20.1	20.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)