

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: P299582

Luminaire Tested: **GLNA-AF-02-LED-E1-5MQ-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299582  
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-02-LED-E1-5MQ-7030  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

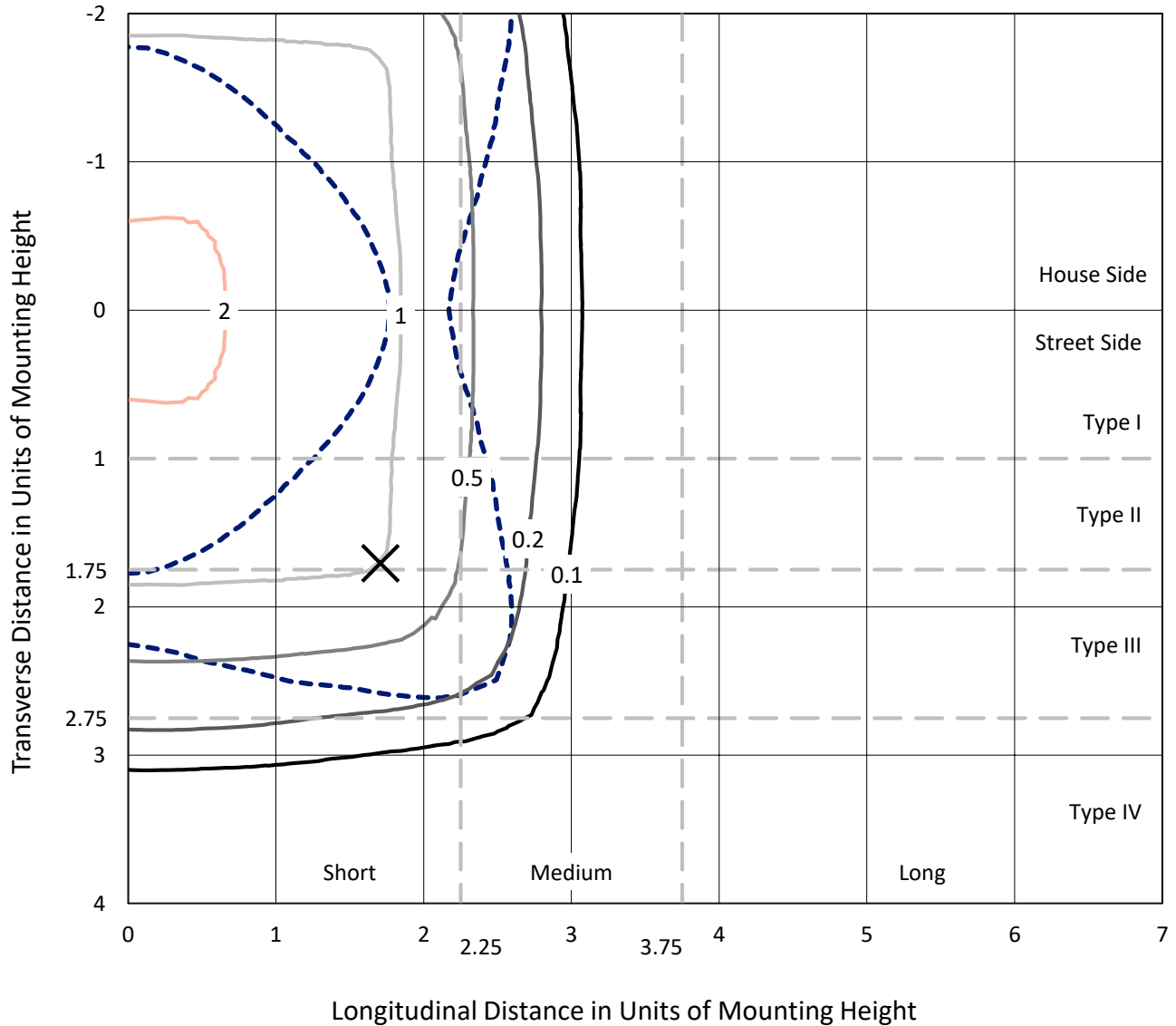
Lumens per Lamp: N/A  
Luminaire Lumens: 12332.7 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2  
  
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (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

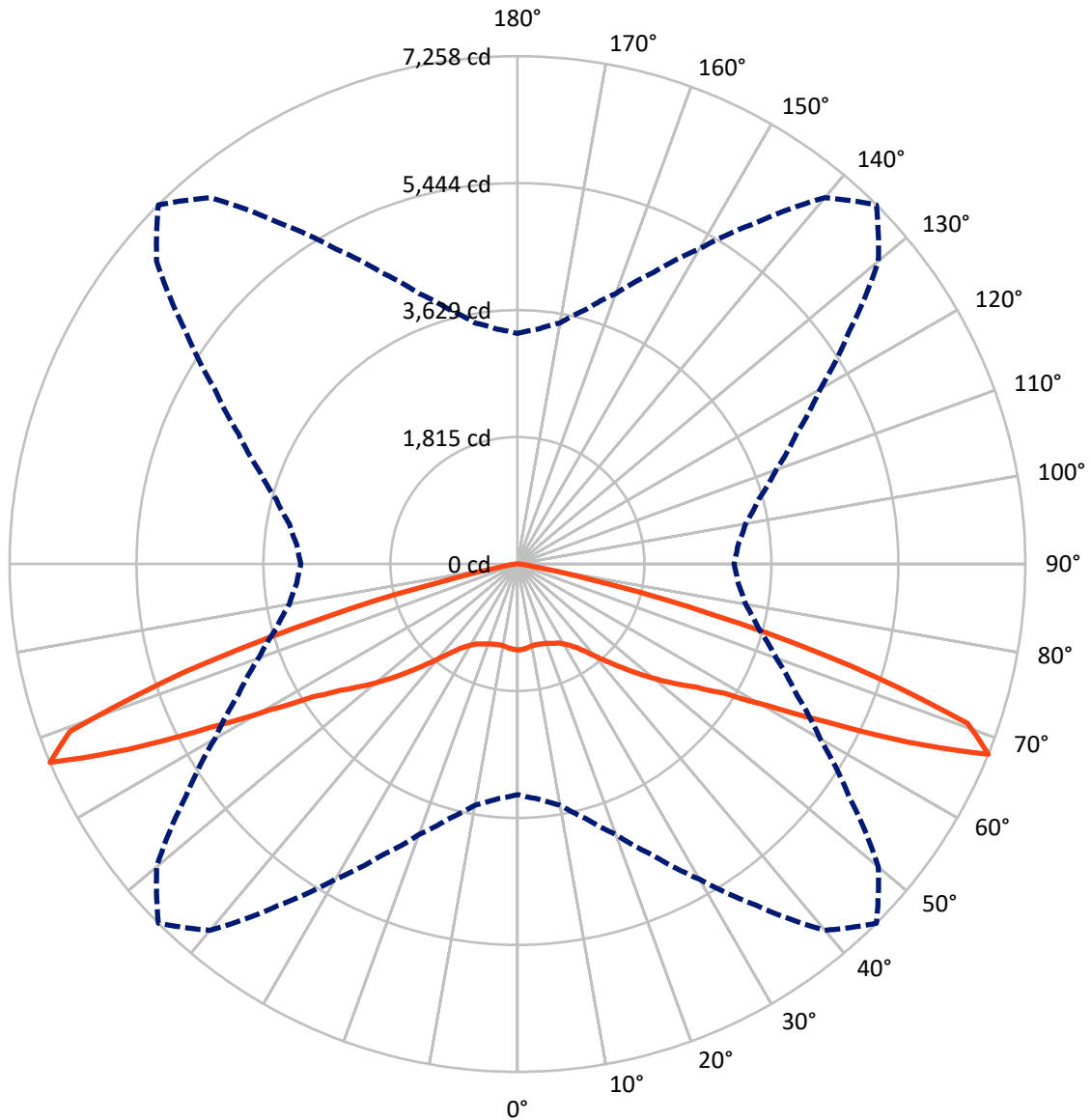
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.1 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
<b>House Side</b>	Lumens	6166.3	0.0	6166.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6166.3	0.0	6166.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	12332.7	0.0	12332.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.0	0.9
10°-20°	333.8	2.7
20°-30°	567.4	4.6
30°-40°	927.6	7.5
40°-50°	1655.9	13.4
50°-60°	2791.9	22.6
60°-70°	4332.6	35.1
70°-80°	1522.3	12.3
80°-90°	86.0	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°	12332.7	100.0
0°-180°	12332.7	100.0



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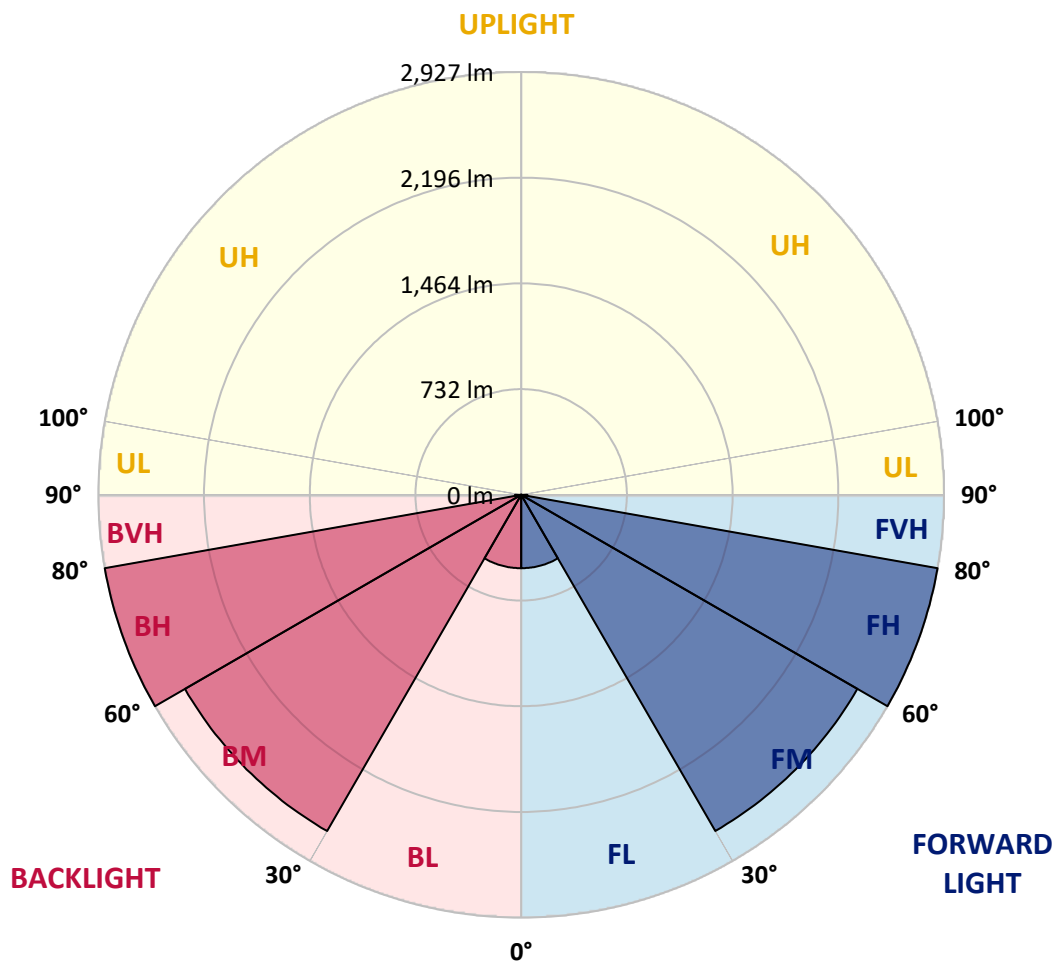
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	508.1	4.1			
FM	(30°-60°)	2687.7	21.8			
FH	(60°-80°)	2927.5	23.7			G2/5000
FVH	(80°-90°)	43.0	0.3			G1/100
BL	(0°-30°)	508.1	4.1	B2/1000		
BM	(30°-60°)	2687.7	21.8	B3/5000		
BH	(60°-80°)	2927.5	23.7	B4/5000		G2/5000
BVH	(80°-90°)	43.0	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°	1229.0	1229.0	1229.0	1229.0	1229.0	1229.0	1229.0	1229.0	1229.0	1229.0	1229.0
2.5°	1224.5	1225.6	1225.6	1225.6	1225.0	1225.0	1223.9	1225.0	1224.5	1222.8	1223.3
5°	1214.3	1215.4	1215.4	1214.8	1216.5	1216.0	1214.3	1215.4	1214.8	1213.7	1214.3
7.5°	1199.5	1201.2	1201.2	1200.6	1202.3	1201.8	1200.6	1201.2	1201.2	1199.5	1199.5
10°	1183.1	1184.2	1184.2	1183.6	1186.5	1186.5	1185.9	1187.6	1188.2	1186.5	1185.3
12.5°	1167.7	1169.5	1169.5	1171.7	1174.6	1175.7	1178.5	1180.8	1183.1	1182.5	1180.2
15°	1158.7	1159.8	1162.1	1164.9	1169.5	1173.4	1178.0	1183.1	1187.6	1188.7	1185.3
17.5°	1153.0	1154.7	1158.1	1162.1	1168.3	1175.1	1181.9	1188.7	1195.0	1197.2	1193.3
20°	1151.3	1152.4	1155.8	1162.6	1171.2	1181.4	1191.0	1198.9	1207.4	1210.3	1207.4
22.5°	1154.7	1157.0	1160.9	1168.9	1180.2	1193.3	1204.6	1215.4	1226.2	1231.3	1227.3
25°	1170.0	1172.3	1177.4	1187.6	1200.1	1213.7	1226.7	1239.2	1248.9	1254.0	1251.1
27.5°	1198.4	1201.2	1207.4	1217.7	1231.3	1246.0	1260.2	1270.4	1278.3	1280.0	1276.6
30°	1240.9	1247.1	1254.5	1265.9	1281.7	1294.2	1308.4	1317.5	1327.1	1327.1	1324.3
32.5°	1307.3	1313.5	1321.4	1332.2	1344.7	1358.3	1370.8	1378.7	1388.9	1389.5	1382.7
35°	1406.5	1409.4	1416.2	1423.0	1434.3	1446.2	1457.0	1462.1	1470.6	1471.2	1464.9
37.5°	1537.5	1538.1	1542.6	1544.9	1555.1	1568.2	1578.4	1581.8	1589.7	1588.6	1582.3
40°	1690.1	1692.9	1694.6	1698.0	1708.8	1721.3	1732.1	1733.8	1742.3	1740.6	1732.6
42.5°	1866.5	1867.6	1877.2	1882.4	1892.6	1898.8	1912.4	1914.1	1924.3	1919.8	1910.7
45°	2064.4	2074.6	2083.7	2093.9	2104.7	2112.0	2122.8	2120.6	2127.4	2120.6	2115.4
47.5°	2272.5	2279.9	2300.3	2316.2	2333.8	2340.0	2355.3	2348.5	2355.3	2345.7	2344.0
50°	2501.7	2514.7	2532.3	2550.4	2569.2	2579.4	2599.2	2590.7	2599.8	2590.7	2585.6
52.5°	2727.4	2730.8	2769.4	2796.0	2822.1	2834.0	2845.9	2842.0	2842.5	2842.0	2836.9
55°	2941.8	2949.7	2988.3	3024.6	3070.0	3103.4	3123.8	3121.6	3116.5	3111.4	3102.8
57.5°	3183.4	3191.3	3235.6	3280.4	3332.0	3379.6	3421.0	3463.5	3480.0	3484.5	3465.8
60°	3510.1	3509.5	3568.5	3622.9	3696.6	3767.5	3858.3	3950.7	4056.8	4106.1	4040.9
62.5°	3842.4	3856.0	3941.1	4037.5	4189.5	4337.5	4504.8	4669.3	4837.2	4973.9	4828.7
65°	3802.7	3854.9	3981.4	4199.7	4480.4	4813.9	5174.6	5556.3	5901.1	6138.2	5872.2
67.5°	3295.7	3370.0	3498.7	3764.1	4115.2	4596.1	5201.8	5956.7	6834.1	7258.3	6732.6
70°	2388.8	2472.7	2607.7	2866.9	3214.6	3671.7	4329.6	5235.9	6397.4	6825.0	6246.0
72.5°	1188.7	1234.1	1317.5	1482.5	1745.7	2116.6	2713.2	3584.3	4612.0	5004.5	4475.3
75°	403.8	424.8	439.0	492.8	576.2	722.0	1018.6	1567.0	2390.5	2865.8	2356.5
77.5°	233.1	233.7	243.3	252.9	267.1	283.0	322.7	423.7	732.7	1040.7	758.3
80°	150.9	150.3	158.2	165.6	175.2	183.2	185.5	196.2	226.3	268.3	239.9
82.5°	78.3	87.9	105.5	115.1	133.3	136.7	132.1	128.2	135.5	140.7	144.1
85°	43.1	37.4	56.1	72.6	80.5	81.7	81.7	77.1	80.0	78.3	85.1
87.5°	19.9	18.1	22.1	35.7	38.0	32.3	34.0	30.1	21.6	21.0	23.8
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°	1229.0	1229.0	1229.0	1229.0	1229.0	1229.0	1229.0	1229.0
2.5°	1223.3	1223.9	1223.9	1225.6	1226.2	1227.3	1228.4	1229.0
5°	1213.7	1215.4	1214.3	1216.0	1216.0	1217.1	1217.1	1217.7
7.5°	1199.5	1201.2	1201.2	1201.2	1200.6	1202.3	1202.3	1202.3
10°	1184.8	1185.9	1185.3	1184.2	1183.1	1184.8	1184.2	1183.6
12.5°	1180.2	1177.4	1175.1	1174.0	1171.7	1172.3	1170.6	1170.6
15°	1183.1	1178.0	1174.0	1172.3	1170.0	1168.9	1167.7	1168.3
17.5°	1190.4	1184.2	1179.1	1176.3	1173.4	1171.7	1169.5	1170.0
20°	1203.5	1196.1	1188.7	1183.1	1178.0	1175.1	1173.4	1172.9
22.5°	1222.8	1212.0	1201.2	1192.7	1185.9	1181.9	1180.2	1179.1
25°	1244.9	1233.0	1220.5	1210.9	1204.0	1198.9	1195.5	1195.5
27.5°	1272.7	1263.0	1251.7	1240.3	1234.1	1229.0	1226.7	1225.6
30°	1319.2	1310.1	1301.0	1290.3	1282.3	1277.2	1273.2	1269.8
32.5°	1378.7	1371.4	1364.0	1356.0	1348.7	1341.9	1335.6	1332.8
35°	1462.7	1457.0	1451.9	1442.8	1440.0	1436.0	1432.6	1429.8
37.5°	1578.4	1576.1	1576.1	1566.5	1564.2	1562.5	1559.1	1559.6
40°	1730.4	1732.6	1729.8	1726.4	1724.7	1720.1	1720.1	1724.1
42.5°	1910.1	1911.8	1918.1	1912.4	1918.6	1913.0	1909.6	1912.4
45°	2118.8	2125.1	2137.6	2131.9	2135.9	2126.2	2114.3	2114.9
47.5°	2353.1	2358.8	2363.9	2359.9	2360.5	2344.6	2328.7	2324.7
50°	2596.4	2598.7	2601.5	2595.8	2597.0	2579.4	2561.2	2561.8
52.5°	2836.9	2847.6	2859.0	2843.7	2840.3	2820.4	2794.9	2784.7
55°	3111.9	3127.2	3114.2	3087.5	3060.9	3034.2	3000.8	2995.1
57.5°	3451.1	3425.0	3384.1	3333.7	3296.8	3259.4	3225.3	3211.2
60°	3922.9	3824.8	3751.1	3676.2	3629.2	3583.2	3538.4	3531.6
62.5°	4589.9	4420.3	4273.4	4118.6	3992.1	3893.4	3814.6	3792.5
65°	5425.9	5024.9	4677.2	4352.8	4071.0	3858.3	3724.4	3665.5
67.5°	5785.4	4993.7	4397.6	3937.1	3568.5	3311.0	3166.4	3094.3
70°	5083.9	4141.3	3493.0	3032.0	2696.2	2421.7	2290.7	2213.6
72.5°	3497.6	2634.4	2083.1	1700.3	1432.0	1202.3	1111.6	1104.8
75°	1570.4	1040.1	716.9	552.4	465.1	404.4	385.7	371.5
77.5°	439.5	325.0	289.8	271.1	252.9	232.0	224.0	225.7
80°	213.8	201.9	194.0	182.1	165.6	148.0	140.1	143.5
82.5°	141.8	140.1	145.2	136.7	112.9	95.8	80.5	73.7
85°	86.2	87.3	89.0	89.6	76.0	53.3	36.3	40.8
87.5°	34.0	39.1	42.5	44.2	41.4	25.5	20.4	21.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)