

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: P299647

Luminaire Tested: **GLNA-AF-03-LED-E1-5MQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299647
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-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13354 lumens
Efficiency: N/A
Efficacy: 107.7 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): 124
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

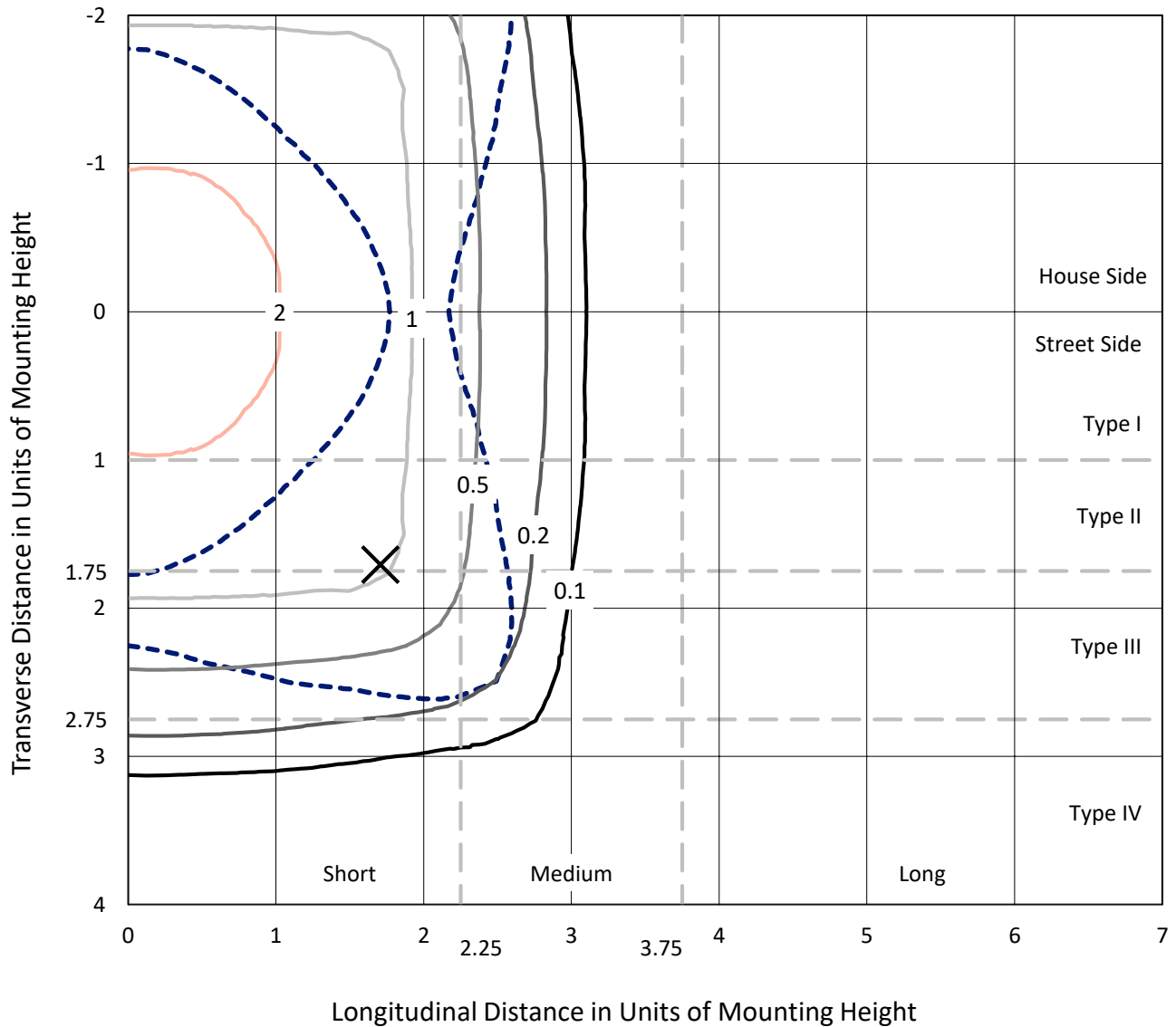


REPORT NUMBER: P299647

CATALOG NUMBER: GLNA-AF-03-LED-E1-5MQ-7027-800

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

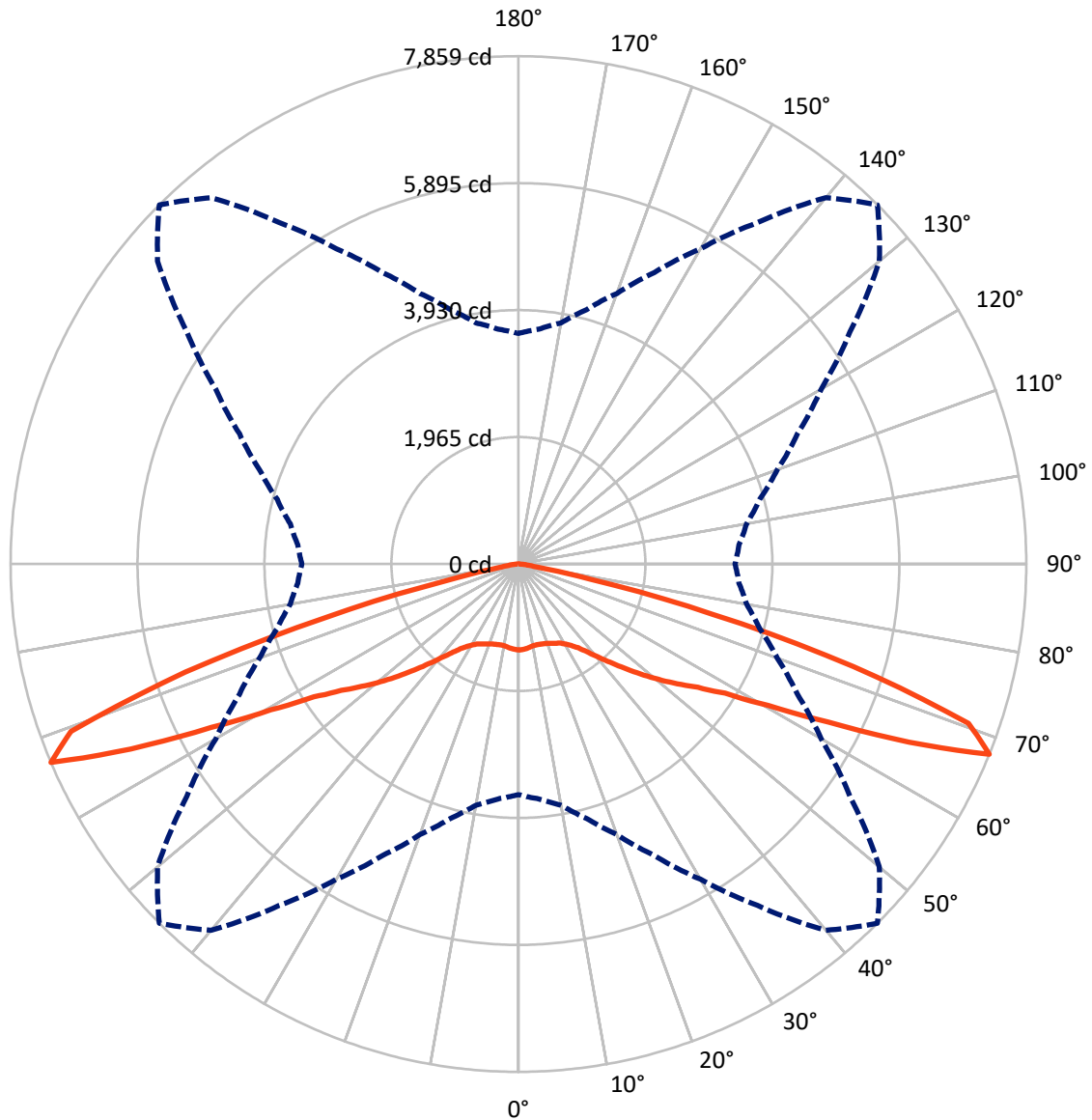


Based on 20 foot mounting height. Maximum calculated value = 3.3 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P299647

CATALOG NUMBER: GLNA-AF-03-LED-E1-5MQ-7027-800

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299647

CATALOG NUMBER: GLNA-AF-03-LED-E1-5MQ-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6677.0	0.0	6677.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6677.0	0.0	6677.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	13354.0	0.0	13354.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.6	0.9
10°-20°	361.4	2.7
20°-30°	614.4	4.6
30°-40°	1004.4	7.5
40°-50°	1793.0	13.4
50°-60°	3023.1	22.6
60°-70°	4691.5	35.1
70°-80°	1648.4	12.3
80°-90°	93.1	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°	13354.0	100.0
0°-180°	13354.0	100.0



REPORT NUMBER: P299647

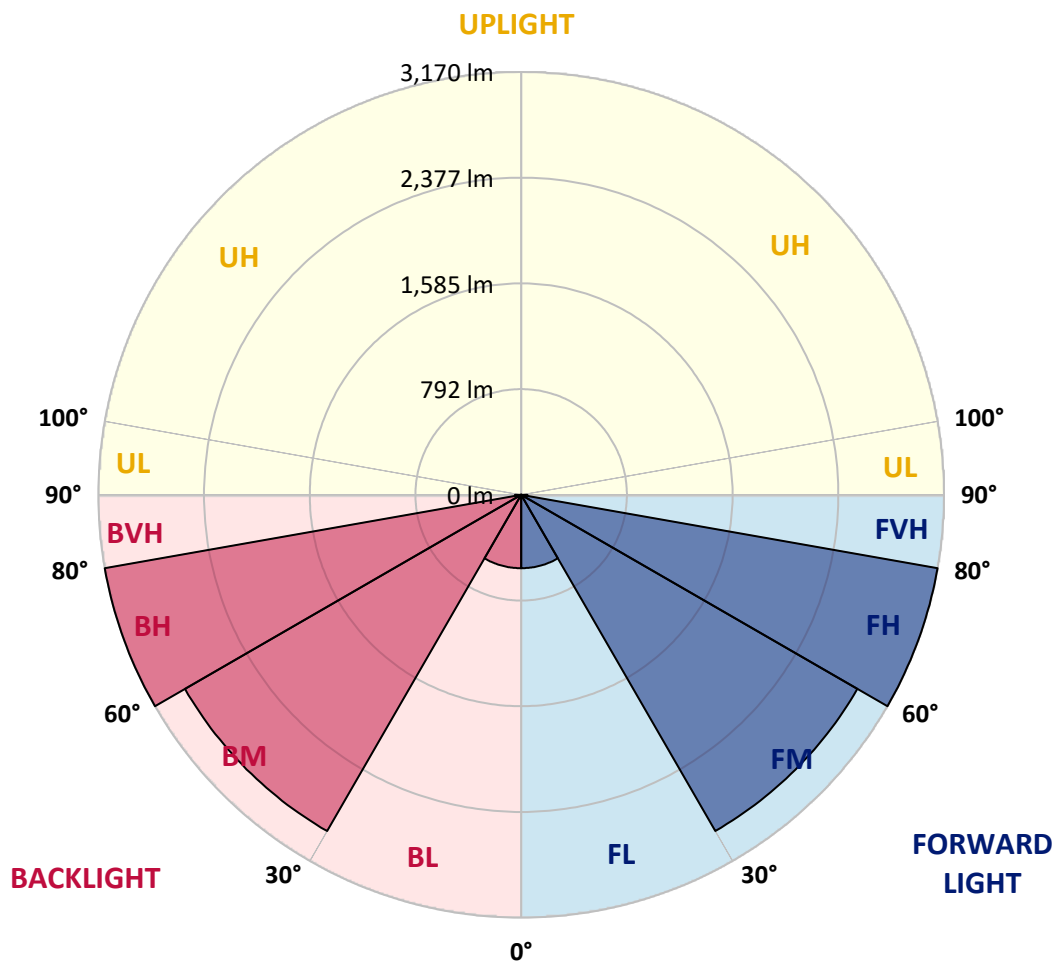
CATALOG NUMBER: GLNA-AF-03-LED-E1-5MQ-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	550.2	4.1			
FM	(30°-60°)	2910.3	21.8			
FH	(60°-80°)	3169.9	23.7			G2/5000
FVH	(80°-90°)	46.6	0.3			G1/100
BL	(0°-30°)	550.2	4.1	B2/1000		
BM	(30°-60°)	2910.3	21.8	B3/5000		
BH	(60°-80°)	3169.9	23.7	B4/5000		G2/5000
BVH	(80°-90°)	46.6	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





REPORT NUMBER: P299647

CATALOG NUMBER: GLNA-AF-03-LED-E1-5MQ-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1330.8	1330.8	1330.8	1330.8	1330.8	1330.8	1330.8	1330.8	1330.8	1330.8	1330.8
2.5°	1325.9	1327.1	1327.1	1327.1	1326.5	1326.5	1325.3	1326.5	1325.9	1324.0	1324.6
5°	1314.8	1316.0	1316.0	1315.4	1317.3	1316.7	1314.8	1316.0	1315.4	1314.2	1314.8
7.5°	1298.8	1300.7	1300.7	1300.1	1301.9	1301.3	1300.1	1300.7	1300.7	1298.8	1298.8
10°	1281.0	1282.3	1282.3	1281.7	1284.7	1284.7	1284.1	1286.0	1286.6	1284.7	1283.5
12.5°	1264.5	1266.3	1266.3	1268.8	1271.8	1273.1	1276.1	1278.6	1281.0	1280.4	1278.0
15°	1254.6	1255.9	1258.3	1261.4	1266.3	1270.6	1275.5	1281.0	1286.0	1287.2	1283.5
17.5°	1248.5	1250.3	1254.0	1258.3	1265.1	1272.4	1279.8	1287.2	1293.9	1296.4	1292.1
20°	1246.6	1247.9	1251.6	1258.9	1268.1	1279.2	1289.6	1298.2	1307.4	1310.5	1307.4
22.5°	1250.3	1252.8	1257.1	1265.7	1278.0	1292.1	1304.4	1316.0	1327.7	1333.2	1328.9
25°	1266.9	1269.4	1274.9	1286.0	1299.5	1314.2	1328.3	1341.8	1352.3	1357.8	1354.7
27.5°	1297.6	1300.7	1307.4	1318.5	1333.2	1349.2	1364.6	1375.6	1384.2	1386.1	1382.4
30°	1343.7	1350.4	1358.4	1370.7	1387.9	1401.4	1416.8	1426.6	1437.0	1437.0	1434.0
32.5°	1415.5	1422.3	1430.9	1442.6	1456.1	1470.8	1484.3	1492.9	1504.0	1504.6	1497.2
35°	1523.0	1526.1	1533.4	1540.8	1553.1	1566.0	1577.7	1583.2	1592.4	1593.0	1586.3
37.5°	1664.9	1665.5	1670.4	1672.8	1683.9	1698.0	1709.1	1712.8	1721.4	1720.1	1713.4
40°	1830.1	1833.1	1835.0	1838.7	1850.3	1863.8	1875.5	1877.3	1886.6	1884.7	1876.1
42.5°	2021.0	2022.3	2032.7	2038.2	2049.3	2056.0	2070.8	2072.6	2083.7	2078.8	2068.9
45°	2235.4	2246.4	2256.3	2267.3	2279.0	2287.0	2298.6	2296.2	2303.5	2296.2	2290.6
47.5°	2460.7	2468.7	2490.8	2508.0	2527.1	2533.8	2550.4	2543.0	2550.4	2540.0	2538.1
50°	2708.9	2723.0	2742.0	2761.7	2781.9	2793.0	2814.5	2805.3	2815.1	2805.3	2799.7
52.5°	2953.3	2957.0	2998.7	3027.6	3055.8	3068.7	3081.6	3077.3	3077.9	3077.3	3071.8
55°	3185.4	3194.0	3235.8	3275.1	3324.2	3360.4	3382.5	3380.1	3374.5	3369.0	3359.8
57.5°	3447.0	3455.6	3503.5	3552.0	3607.9	3659.5	3704.3	3750.4	3768.2	3773.1	3752.8
60°	3800.7	3800.1	3864.0	3923.0	4002.8	4079.6	4177.8	4277.9	4392.7	4446.2	4375.6
62.5°	4160.6	4175.4	4267.5	4371.9	4536.5	4696.7	4877.9	5056.0	5237.8	5385.8	5228.6
65°	4117.6	4174.1	4311.1	4547.5	4851.5	5212.6	5603.2	6016.5	6389.8	6646.5	6358.5
67.5°	3568.6	3649.1	3788.5	4075.9	4456.0	4976.8	5632.6	6450.0	7400.1	7859.4	7290.1
70°	2586.6	2677.5	2823.7	3104.3	3480.8	3975.8	4688.1	5669.5	6927.2	7390.2	6763.2
72.5°	1287.2	1336.3	1426.6	1605.3	1890.2	2291.9	2937.9	3881.2	4994.0	5418.9	4846.0
75°	437.2	460.0	475.3	533.7	623.9	781.8	1102.9	1696.8	2588.5	3103.1	2551.6
77.5°	252.4	253.0	263.5	273.9	289.2	306.4	349.4	458.7	793.4	1126.9	821.1
80°	163.4	162.7	171.3	179.3	189.8	198.4	200.8	212.5	245.0	290.5	259.8
82.5°	84.7	95.2	114.2	124.7	144.3	148.0	143.1	138.8	146.8	152.3	156.0
85°	46.7	40.5	60.8	78.6	87.2	88.4	88.4	83.5	86.6	84.7	92.1
87.5°	21.5	19.7	24.0	38.7	41.1	35.0	36.8	32.5	23.3	22.7	25.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299647

CATALOG NUMBER: GLNA-AF-03-LED-E1-5MQ-7027-800

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1330.8	1330.8	1330.8	1330.8	1330.8	1330.8	1330.8	1330.8
2.5°	1324.6	1325.3	1325.3	1327.1	1327.7	1328.9	1330.2	1330.8
5°	1314.2	1316.0	1314.8	1316.7	1316.7	1317.9	1317.9	1318.5
7.5°	1298.8	1300.7	1300.7	1300.7	1300.1	1301.9	1301.9	1301.9
10°	1282.9	1284.1	1283.5	1282.3	1281.0	1282.9	1282.3	1281.7
12.5°	1278.0	1274.9	1272.4	1271.2	1268.8	1269.4	1267.5	1267.5
15°	1281.0	1275.5	1271.2	1269.4	1266.9	1265.7	1264.5	1265.1
17.5°	1289.0	1282.3	1276.7	1273.7	1270.6	1268.8	1266.3	1266.9
20°	1303.1	1295.2	1287.2	1281.0	1275.5	1272.4	1270.6	1270.0
22.5°	1324.0	1312.4	1300.7	1291.5	1284.1	1279.8	1278.0	1276.7
25°	1348.0	1335.1	1321.6	1311.1	1303.8	1298.2	1294.5	1294.5
27.5°	1378.1	1367.6	1355.3	1343.1	1336.3	1330.8	1328.3	1327.1
30°	1428.4	1418.6	1408.8	1397.1	1388.5	1383.0	1378.7	1375.0
32.5°	1492.9	1484.9	1476.9	1468.3	1460.4	1453.0	1446.2	1443.2
35°	1583.8	1577.7	1572.1	1562.3	1559.2	1554.9	1551.2	1548.2
37.5°	1709.1	1706.6	1706.6	1696.2	1693.7	1691.9	1688.2	1688.8
40°	1873.7	1876.1	1873.0	1869.4	1867.5	1862.6	1862.6	1866.9
42.5°	2068.3	2070.2	2076.9	2070.8	2077.5	2071.4	2067.7	2070.8
45°	2294.3	2301.1	2314.6	2308.4	2312.7	2302.3	2289.4	2290.0
47.5°	2548.0	2554.1	2559.6	2555.3	2555.9	2538.7	2521.5	2517.2
50°	2811.4	2813.9	2816.9	2810.8	2812.0	2793.0	2773.3	2773.9
52.5°	3071.8	3083.5	3095.7	3079.2	3075.5	3054.0	3026.3	3015.3
55°	3369.6	3386.2	3372.1	3343.2	3314.4	3285.5	3249.3	3243.1
57.5°	3736.9	3708.6	3664.4	3609.8	3569.8	3529.3	3492.5	3477.1
60°	4247.8	4141.6	4061.7	3980.7	3929.7	3880.0	3831.4	3824.1
62.5°	4970.0	4786.4	4627.3	4459.7	4322.7	4215.9	4130.5	4106.6
65°	5875.2	5441.0	5064.6	4713.3	4408.1	4177.8	4032.9	3969.0
67.5°	6264.6	5407.3	4761.8	4263.2	3864.0	3585.2	3428.6	3350.6
70°	5504.9	4484.3	3782.3	3283.0	2919.5	2622.3	2480.4	2396.9
72.5°	3787.2	2852.6	2255.6	1841.1	1550.6	1301.9	1203.7	1196.3
75°	1700.5	1126.3	776.2	598.1	503.6	437.9	417.6	402.2
77.5°	475.9	351.9	313.8	293.5	273.9	251.2	242.6	244.4
80°	231.5	218.6	210.0	197.1	179.3	160.3	151.7	155.4
82.5°	153.5	151.7	157.2	148.0	122.2	103.8	87.2	79.8
85°	93.3	94.6	96.4	97.0	82.3	57.7	39.3	44.2
87.5°	36.8	42.4	46.1	47.9	44.8	27.6	22.1	22.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)