

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: P299228

Luminaire Tested: **GLNA-AF-03-LED-E1-T3-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299228
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
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-T3-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11542.1 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

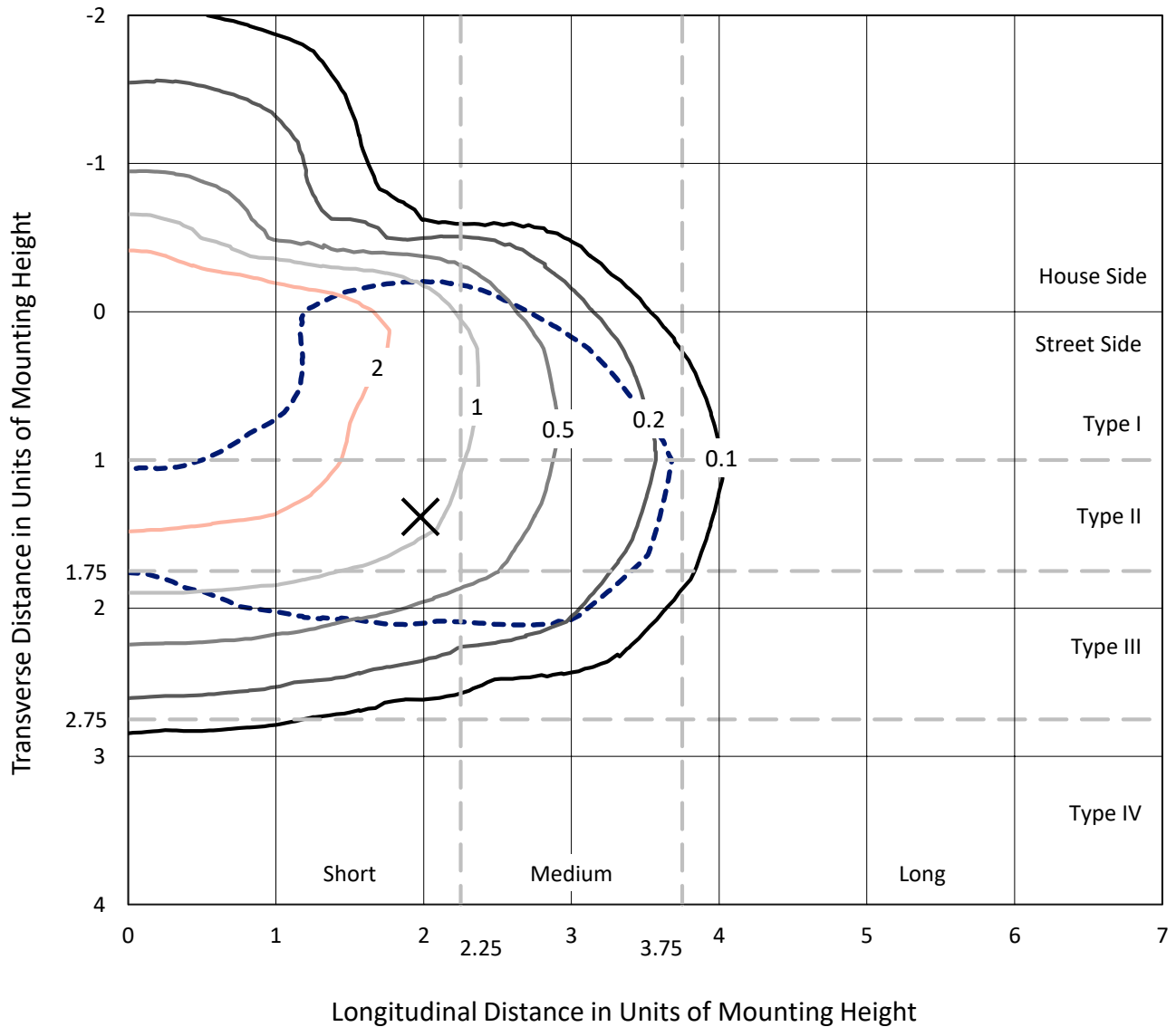
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

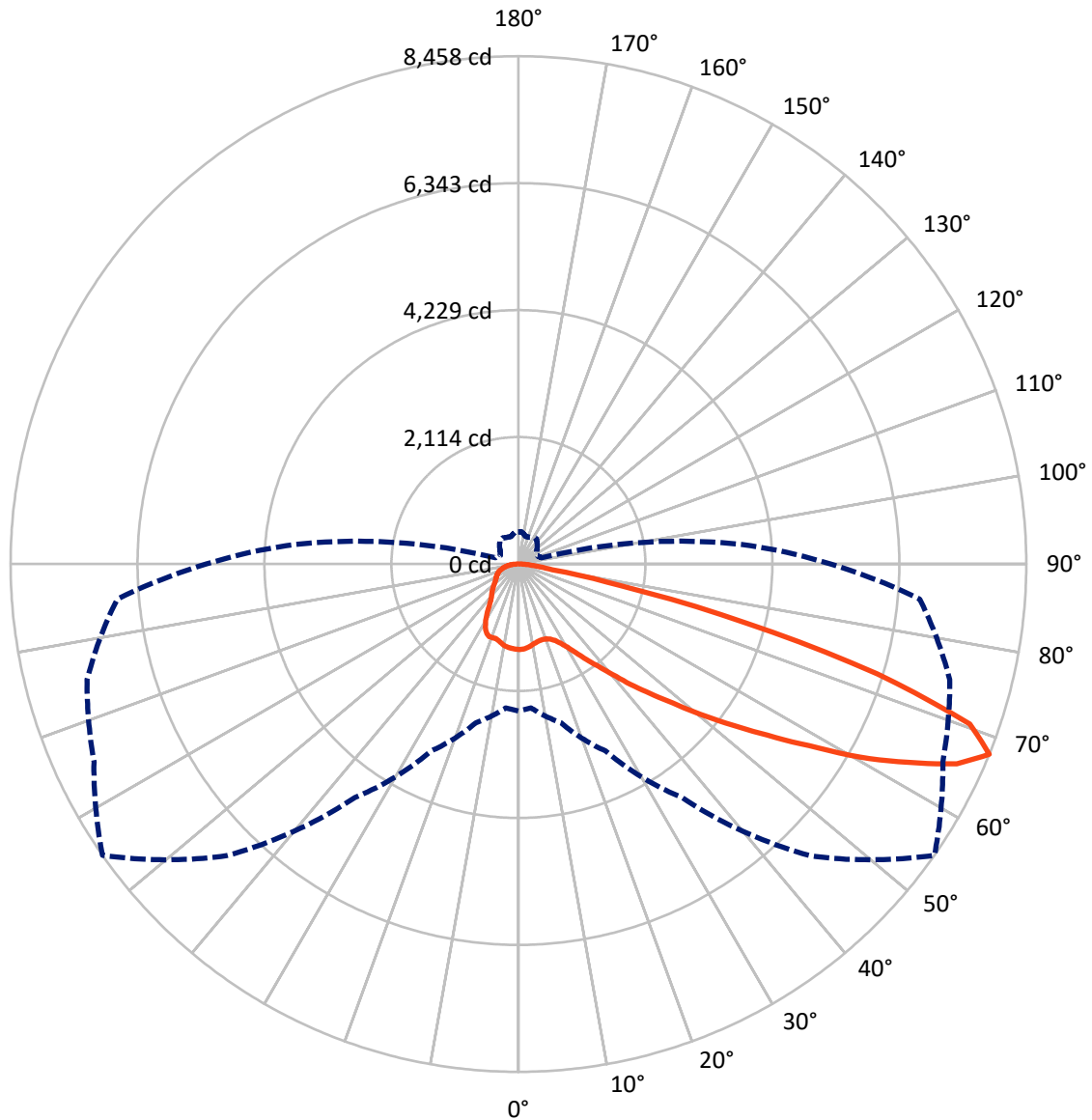
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.7 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2493.3	0.0	2493.3
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	9048.7	0.0	9048.7
	% Fixture	78.4	0.0	78.4
Total	Lumens	11542.1	0.0	11542.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.8	1.2
10°-20°	376.2	3.3
20°-30°	630.3	5.5
30°-40°	1036.4	9.0
40°-50°	1744.6	15.1
50°-60°	2745.8	23.8
60°-70°	3276.9	28.4
70°-80°	1407.2	12.2
80°-90°	191.9	1.7
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°	11542.1	100.0
0°-180°	11542.1	100.0



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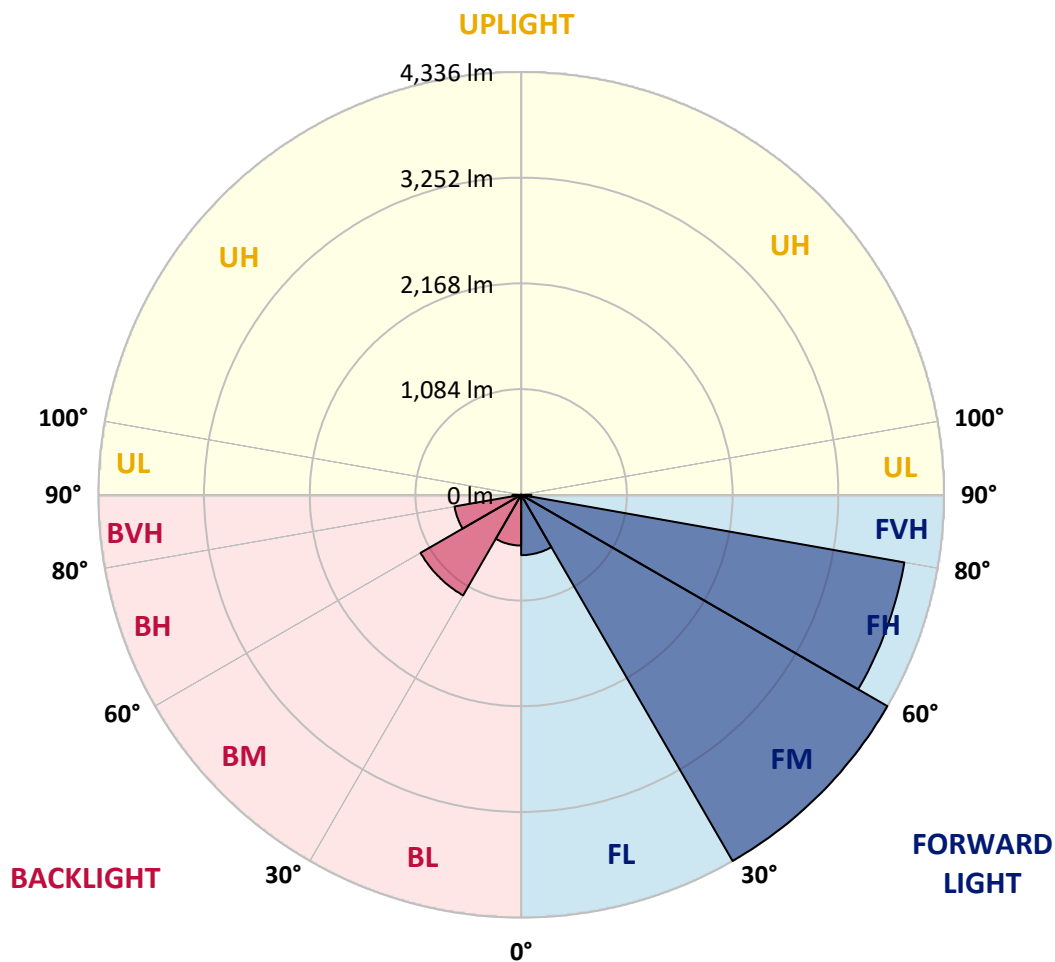
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	618.7	5.4			
FM	(30°-60°)	4336.1	37.6			
FH	(60°-80°)	3990.2	34.6			G2/5000
FVH	(80°-90°)	103.9	0.9			G2/225
BL	(0°-30°)	520.7	4.5	B2/1000		
BM	(30°-60°)	1190.8	10.3	B2/2500		
BH	(60°-80°)	693.9	6.0	B2/1000		G2/1000
BVH	(80°-90°)	88.0	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3
2.5°	1411.0	1411.6	1412.7	1417.1	1421.0	1419.9	1420.5	1418.2	1417.7	1414.3	1417.7
5°	1393.2	1394.8	1395.4	1402.6	1407.1	1408.2	1406.5	1403.8	1400.4	1397.1	1398.7
7.5°	1352.5	1356.9	1357.5	1367.5	1374.8	1384.2	1384.8	1385.4	1383.7	1381.5	1384.8
10°	1326.8	1327.9	1327.4	1334.6	1340.2	1350.8	1356.9	1367.5	1372.0	1373.1	1375.3
12.5°	1325.1	1324.0	1322.4	1322.4	1320.7	1325.1	1336.3	1351.3	1361.9	1365.3	1368.1
15°	1343.0	1342.4	1336.9	1328.5	1317.9	1314.6	1324.0	1340.8	1354.7	1361.9	1364.7
17.5°	1383.1	1379.8	1370.9	1351.9	1329.0	1320.1	1321.2	1335.2	1351.3	1360.8	1363.6
20°	1456.7	1456.7	1437.8	1402.1	1361.4	1340.2	1330.2	1338.5	1354.1	1367.0	1370.9
22.5°	1583.8	1584.9	1553.2	1494.6	1426.1	1380.9	1355.8	1354.1	1372.5	1387.0	1391.5
25°	1763.9	1759.4	1714.8	1631.2	1527.0	1452.3	1408.8	1398.7	1414.3	1430.5	1436.1
27.5°	1973.5	1957.3	1904.4	1803.5	1668.6	1559.3	1492.4	1476.2	1491.3	1509.7	1515.3
30°	2180.9	2164.2	2101.2	1990.8	1840.8	1702.6	1606.7	1580.5	1601.7	1627.9	1631.2
32.5°	2388.3	2388.3	2318.0	2189.3	2025.9	1873.7	1758.9	1727.7	1762.8	1794.6	1801.8
35°	2636.4	2637.5	2569.5	2414.5	2238.9	2077.8	1951.2	1928.3	1981.3	2003.6	2020.9
37.5°	2941.3	2947.4	2859.9	2672.6	2480.3	2310.8	2160.3	2129.0	2182.0	2242.8	2298.5
40°	3270.8	3278.6	3182.1	2951.3	2759.0	2581.7	2418.9	2362.6	2450.7	2566.7	2638.6
42.5°	3585.2	3625.3	3532.2	3294.7	3087.9	2904.5	2739.5	2657.5	2767.9	2943.0	3005.4
45°	4039.6	4068.5	3906.3	3691.1	3496.6	3291.4	3072.9	2986.5	3140.9	3361.6	3374.5
47.5°	4342.3	4320.5	4238.0	4104.2	3981.0	3789.2	3460.3	3365.6	3570.7	3830.5	3758.6
50°	4503.4	4510.1	4498.9	4506.7	4511.2	4390.8	3935.3	3805.4	4050.1	4364.0	4198.4
52.5°	4653.9	4609.3	4646.1	4829.0	5049.7	5005.1	4452.1	4316.6	4564.1	4956.1	4663.4
55°	4650.6	4582.5	4702.4	5025.2	5504.1	5555.4	5032.4	4876.3	5107.7	5591.0	5156.2
57.5°	4486.1	4489.4	4674.0	5096.5	5820.7	6072.7	5705.9	5471.7	5684.1	6234.4	5606.1
60°	4259.8	4290.4	4556.3	5084.8	6074.4	6497.0	6532.1	6113.4	6248.9	6819.2	5978.5
62.5°	3894.6	3926.9	4293.8	4963.3	6035.9	6905.6	7279.1	6841.5	6839.3	7173.7	6087.8
65°	3318.7	3309.2	3694.5	4509.0	5713.1	7207.8	8021.1	7470.9	7284.1	7179.3	5868.1
67.5°	2447.4	2405.0	2735.6	3434.1	4748.7	6869.4	8457.6	7798.7	7435.8	6707.1	5196.9
70°	1270.0	1227.6	1495.2	2005.3	3123.0	5361.4	7974.3	7629.2	7100.7	5622.3	4071.3
72.5°	543.0	535.7	644.5	879.7	1510.8	3092.4	6252.8	6603.4	6092.8	4189.0	2799.1
75°	365.2	362.9	403.6	479.4	679.6	1254.9	3913.0	4687.4	4457.7	2597.3	1574.3
77.5°	286.5	283.8	307.7	344.5	440.4	495.0	1736.6	2516.5	2329.2	1130.6	689.1
80°	224.1	221.9	236.9	257.0	316.7	312.2	571.4	1001.2	774.9	433.2	335.0
82.5°	176.7	176.7	189.0	189.5	224.7	213.0	298.3	441.0	386.9	252.5	205.2
85°	161.7	161.7	174.5	141.6	146.6	134.4	185.1	261.5	245.3	103.7	89.2
87.5°	81.4	79.2	146.6	125.4	79.7	71.4	90.3	126.5	136.0	57.4	44.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3	1423.3
2.5°	1416.6	1416.0	1417.1	1417.7	1422.1	1428.3	1431.1	1435.0	1437.2	1436.1
5°	1399.9	1401.0	1405.4	1408.8	1416.6	1426.6	1432.2	1436.6	1440.5	1438.9
7.5°	1385.9	1388.7	1395.4	1398.2	1402.6	1405.4	1404.9	1406.5	1409.9	1406.0
10°	1378.1	1381.5	1386.5	1382.6	1372.0	1356.9	1343.0	1335.7	1338.0	1335.2
12.5°	1370.3	1374.8	1370.9	1352.5	1322.9	1303.4	1292.8	1293.9	1298.9	1300.1
15°	1365.8	1367.5	1350.8	1316.2	1286.1	1283.3	1288.9	1287.8	1288.4	1288.4
17.5°	1365.8	1361.4	1330.2	1295.6	1282.8	1277.8	1260.5	1238.7	1229.3	1225.9
20°	1373.1	1361.4	1323.5	1300.6	1272.7	1229.8	1184.1	1144.0	1126.1	1121.1
22.5°	1394.8	1374.8	1342.4	1302.8	1223.7	1151.8	1079.3	1031.4	999.0	993.4
25°	1438.9	1416.6	1379.8	1273.3	1145.6	1043.1	960.6	907.0	874.7	870.2
27.5°	1515.8	1501.3	1399.9	1208.1	1041.9	932.1	855.7	814.5	790.5	788.8
30°	1631.8	1624.5	1389.8	1111.6	914.3	824.5	787.7	763.8	745.9	745.4
32.5°	1816.9	1758.3	1356.9	994.0	797.8	748.1	733.1	718.6	704.7	704.7
35°	2054.9	1866.5	1294.5	868.0	727.0	705.8	686.8	664.0	645.6	644.5
37.5°	2334.8	1933.4	1182.4	766.5	693.5	677.3	649.5	615.5	583.1	577.6
40°	2617.4	1953.4	1024.7	704.1	672.3	648.9	614.9	574.8	543.5	541.9
42.5°	2876.6	1915.0	857.4	661.2	651.1	619.9	584.2	548.6	524.0	523.5
45°	3094.1	1815.2	716.9	620.5	628.8	593.7	561.9	533.0	514.0	510.1
47.5°	3298.7	1674.1	618.3	577.6	606.5	579.2	552.5	525.2	506.8	504.0
50°	3536.1	1521.9	549.1	535.7	587.0	574.2	560.3	531.8	501.2	497.8
52.5°	3823.8	1390.4	495.0	499.0	572.0	580.9	580.3	550.8	497.3	492.8
55°	4144.9	1244.3	454.4	468.8	565.8	593.2	585.4	568.6	500.6	493.9
57.5°	4461.0	1073.7	425.9	446.0	556.9	592.1	561.4	537.4	508.4	499.0
60°	4697.9	844.6	404.2	425.9	537.4	573.7	535.2	503.4	506.8	499.5
62.5°	4713.6	652.8	378.0	408.6	507.9	555.3	517.9	488.4	514.0	507.3
65°	4436.5	493.4	352.9	388.0	476.1	543.5	501.2	480.0	529.1	521.8
67.5°	3735.2	396.9	331.7	366.8	444.3	519.0	486.1	472.2	542.4	529.6
70°	2696.6	338.4	311.1	341.2	415.9	491.1	472.7	458.3	506.2	486.1
72.5°	1660.2	293.2	287.7	307.2	394.1	462.2	452.7	432.1	456.0	439.9
75°	829.0	254.2	261.5	273.7	363.5	429.3	419.2	398.6	401.9	398.6
77.5°	396.9	217.4	230.8	240.3	323.9	391.9	381.3	360.1	356.2	356.8
80°	251.4	181.7	194.6	201.3	289.3	348.4	337.8	316.7	361.3	335.0
82.5°	157.2	147.7	151.1	163.3	252.0	303.3	289.3	270.4	325.6	257.6
85°	87.0	103.1	107.6	118.2	194.0	253.7	239.7	215.7	193.4	190.1
87.5°	51.8	61.3	63.0	70.8	130.5	183.4	162.2	153.9	127.7	127.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)