

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: P299230

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299230
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-T3-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11932.5 lumens
Efficiency: N/A
Efficacy: 124.3 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

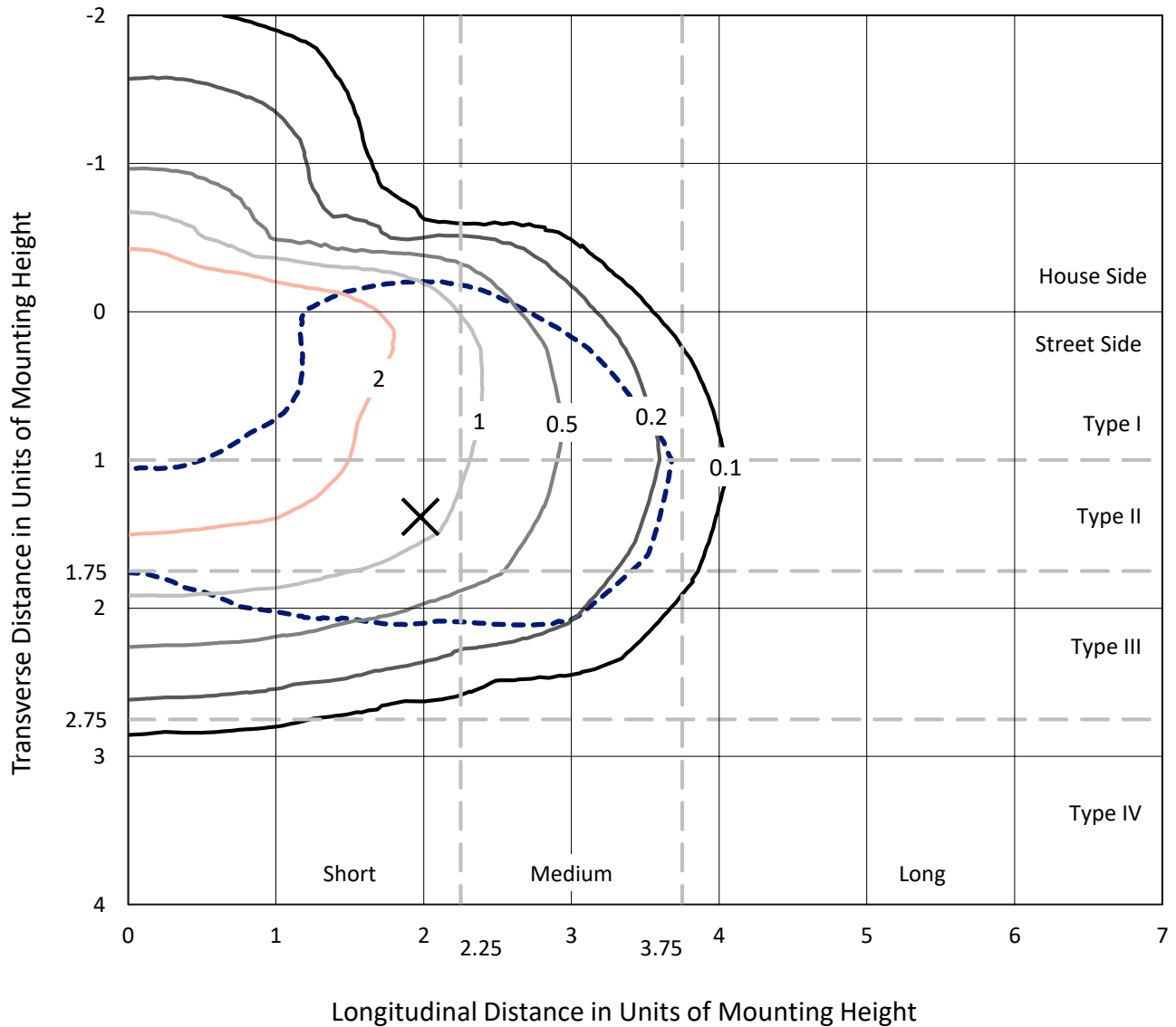


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Iso-Footcandle Lines of Horizontal Illumination

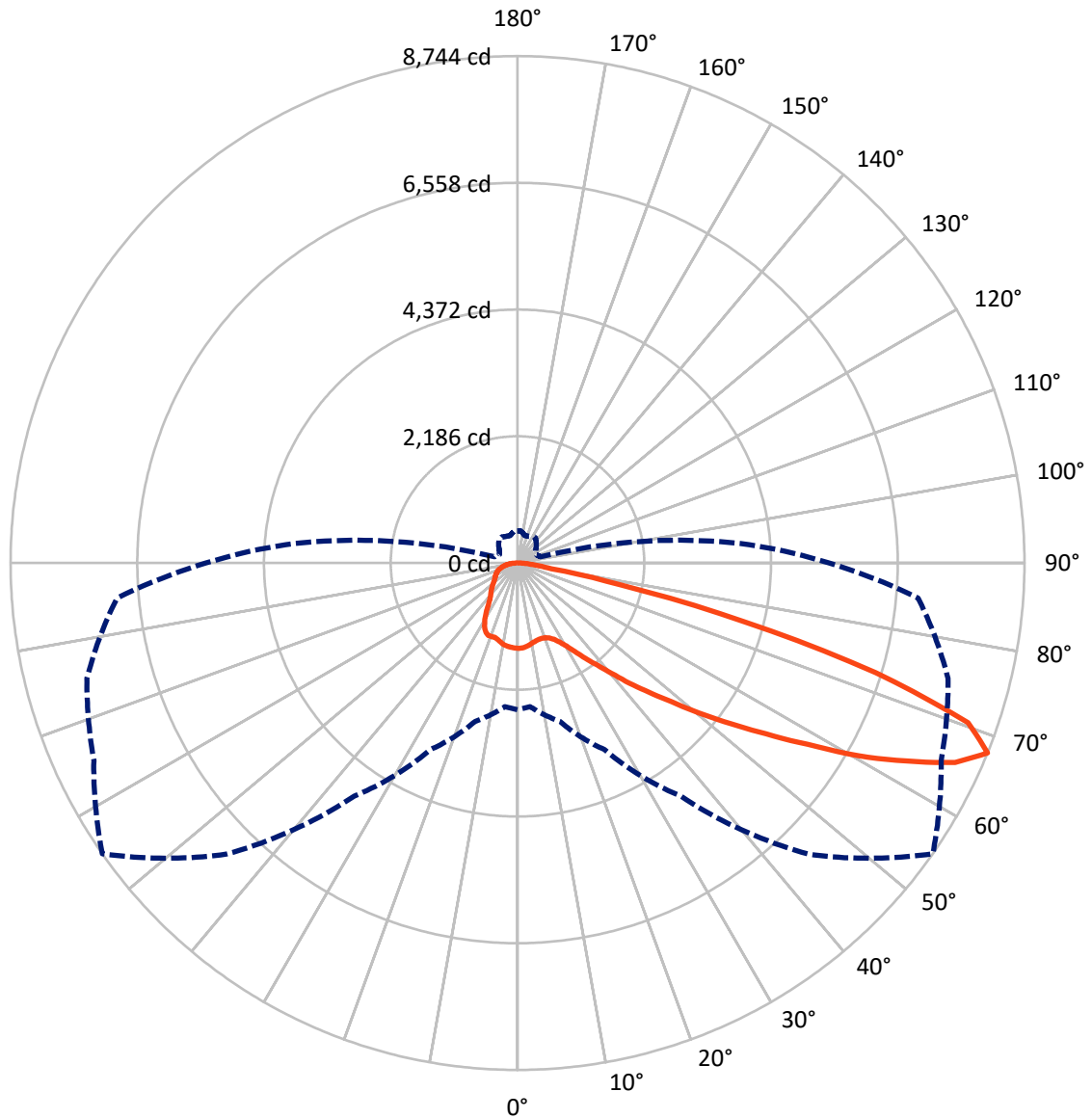
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.8 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	2577.7	0.0	2577.7
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	9354.9	0.0	9354.9
	% Fixture	78.4	0.0	78.4
Total	Lumens	11932.5	0.0	11932.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.3	1.2
10°-20°	389.0	3.3
20°-30°	651.6	5.5
30°-40°	1071.5	9.0
40°-50°	1803.6	15.1
50°-60°	2838.7	23.8
60°-70°	3387.7	28.4
70°-80°	1454.8	12.2
80°-90°	198.3	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°	11932.5	100.0
0°-180°	11932.5	100.0



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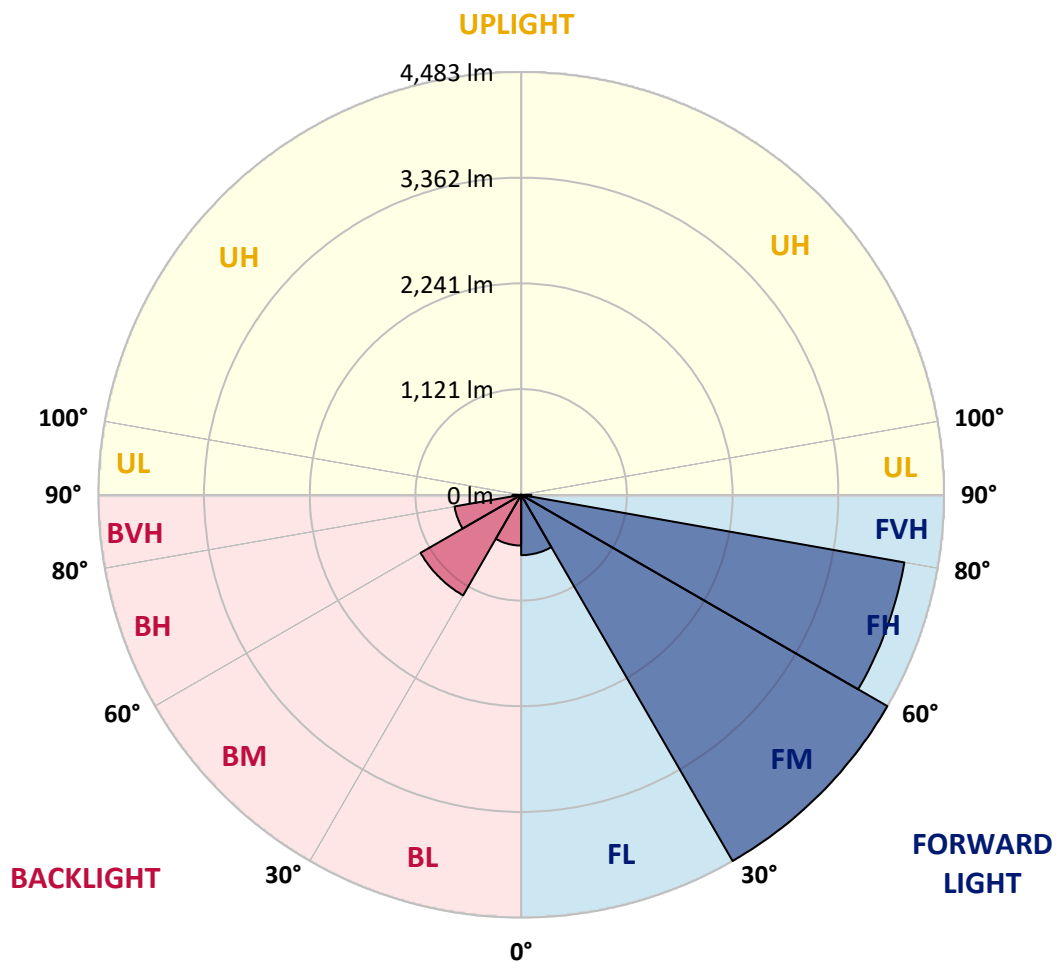
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	639.6	5.4			
FM (30°-60°)	4482.7	37.6			
FH (60°-80°)	4125.1	34.6			G2/5000
FVH (80°-90°)	107.4	0.9			G2/225
BL (0°-30°)	538.3	4.5	B2/1000		
BM (30°-60°)	1231.1	10.3	B2/2500		
BH (60°-80°)	717.4	6.0	B2/1000		G2/1000
BVH (80°-90°)	91.0	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°	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4
2.5°	1458.7	1459.3	1460.5	1465.1	1469.1	1468.0	1468.5	1466.2	1465.6	1462.2	1465.6
5°	1440.3	1442.0	1442.6	1450.1	1454.7	1455.8	1454.1	1451.2	1447.8	1444.3	1446.1
7.5°	1398.2	1402.8	1403.4	1413.8	1421.3	1431.1	1431.6	1432.2	1430.5	1428.2	1431.6
10°	1371.7	1372.9	1372.3	1379.8	1385.5	1396.5	1402.8	1413.8	1418.4	1419.5	1421.8
12.5°	1370.0	1368.8	1367.1	1367.1	1365.4	1370.0	1381.5	1397.1	1408.0	1411.5	1414.4
15°	1388.4	1387.8	1382.1	1373.4	1362.5	1359.0	1368.8	1386.1	1400.5	1408.0	1410.9
17.5°	1429.9	1426.5	1417.2	1397.6	1374.0	1364.8	1365.9	1380.3	1397.1	1406.9	1409.7
20°	1506.0	1506.0	1486.4	1449.5	1407.4	1385.5	1375.2	1383.8	1399.9	1413.2	1417.2
22.5°	1637.4	1638.6	1605.7	1545.2	1474.3	1427.6	1401.7	1399.9	1419.0	1433.9	1438.6
25°	1823.6	1818.9	1772.8	1686.4	1578.6	1501.4	1456.4	1446.1	1462.2	1478.9	1484.7
27.5°	2040.3	2023.5	1968.8	1864.5	1725.0	1612.0	1542.9	1526.2	1541.7	1560.7	1566.5
30°	2254.7	2237.4	2172.2	2058.1	1903.1	1760.2	1661.0	1633.9	1655.8	1682.9	1686.4
32.5°	2469.1	2469.1	2396.4	2263.3	2094.4	1937.1	1818.4	1786.1	1822.4	1855.3	1862.7
35°	2725.5	2726.7	2656.4	2496.2	2314.6	2148.0	2017.2	1993.6	2048.3	2071.4	2089.3
37.5°	3040.8	3047.1	2956.7	2763.0	2564.2	2389.0	2233.3	2201.1	2255.8	2318.6	2376.3
40°	3381.4	3389.5	3289.8	3051.2	2852.3	2669.1	2500.8	2442.6	2533.6	2653.5	2727.8
42.5°	3706.5	3748.0	3651.7	3406.2	3192.4	3002.8	2832.2	2747.4	2861.6	3042.5	3107.1
45°	4176.2	4206.2	4038.5	3816.0	3614.8	3402.7	3176.8	3087.5	3247.1	3475.4	3488.6
47.5°	4489.2	4466.7	4381.4	4243.1	4115.7	3917.4	3577.4	3479.4	3691.5	3960.1	3885.7
50°	4655.7	4662.6	4651.1	4659.2	4663.8	4539.3	4068.4	3934.1	4187.2	4511.6	4340.5
52.5°	4811.3	4765.2	4803.3	4992.3	5220.5	5174.4	4602.7	4462.6	4718.5	5123.7	4821.1
55°	4807.9	4737.6	4861.5	5195.2	5690.3	5743.3	5202.7	5041.3	5280.5	5780.2	5330.6
57.5°	4637.9	4641.3	4832.1	5269.0	6017.6	6278.1	5898.9	5656.8	5876.4	6445.3	5795.7
60°	4403.9	4435.6	4710.5	5256.8	6279.9	6716.7	6753.0	6320.2	6460.3	7049.9	6180.7
62.5°	4026.4	4059.8	4439.0	5131.2	6240.1	7139.2	7525.3	7072.9	7070.6	7416.4	6293.7
65°	3431.0	3421.2	3819.4	4661.5	5906.4	7451.6	8292.5	7723.6	7530.5	7422.2	6066.6
67.5°	2530.2	2486.4	2828.1	3550.3	4909.3	7101.7	8743.7	8062.5	7687.3	6934.0	5372.7
70°	1312.9	1269.1	1545.8	2073.1	3228.7	5542.7	8244.0	7887.3	7340.9	5812.4	4209.1
72.5°	561.4	553.9	666.3	909.5	1561.9	3197.0	6464.3	6826.8	6298.9	4330.7	2893.8
75°	377.5	375.2	417.3	495.7	702.6	1297.4	4045.4	4845.9	4608.5	2685.2	1627.6
77.5°	296.2	293.4	318.1	356.2	455.3	511.8	1795.3	2601.6	2408.0	1168.8	712.4
80°	231.7	229.4	244.9	265.7	327.4	322.8	590.8	1035.1	801.1	447.8	346.4
82.5°	182.7	182.7	195.4	196.0	232.3	220.2	308.3	455.9	400.0	261.1	212.1
85°	167.1	167.1	180.4	146.4	151.6	138.9	191.3	270.3	253.6	107.2	92.2
87.5°	84.1	81.8	151.6	129.7	82.4	73.8	93.4	130.8	140.6	59.4	46.1
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°	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4	1471.4
2.5°	1464.5	1463.9	1465.1	1465.6	1470.3	1476.6	1479.5	1483.5	1485.8	1484.7
5°	1447.2	1448.4	1453.0	1456.4	1464.5	1474.9	1480.6	1485.2	1489.3	1487.5
7.5°	1432.8	1435.7	1442.6	1445.5	1450.1	1453.0	1452.4	1454.1	1457.6	1453.5
10°	1424.7	1428.2	1433.4	1429.3	1418.4	1402.8	1388.4	1380.9	1383.2	1380.3
12.5°	1416.7	1421.3	1417.2	1398.2	1367.7	1347.5	1336.5	1337.7	1342.9	1344.0
15°	1412.0	1413.8	1396.5	1360.8	1329.6	1326.7	1332.5	1331.4	1331.9	1331.9
17.5°	1412.0	1407.4	1375.2	1339.4	1326.2	1321.0	1303.1	1280.6	1270.8	1267.4
20°	1419.5	1407.4	1368.2	1344.6	1315.8	1271.4	1224.2	1182.7	1164.2	1159.0
22.5°	1442.0	1421.3	1387.8	1346.9	1265.1	1190.7	1115.8	1066.2	1032.8	1027.0
25°	1487.5	1464.5	1426.5	1316.4	1184.4	1078.3	993.0	937.7	904.3	899.7
27.5°	1567.1	1552.1	1447.2	1248.9	1077.2	963.6	884.7	842.0	817.3	815.5
30°	1687.0	1679.5	1436.8	1149.2	945.2	852.4	814.4	789.6	771.2	770.6
32.5°	1878.3	1817.8	1402.8	1027.6	824.8	773.5	757.9	742.9	728.5	728.5
35°	2124.4	1929.6	1338.3	897.4	751.6	729.7	710.1	686.4	667.4	666.3
37.5°	2413.7	1998.8	1222.4	792.5	717.0	700.3	671.4	636.3	602.9	597.1
40°	2705.9	2019.5	1059.3	727.9	695.1	670.9	635.7	594.2	561.9	560.2
42.5°	2973.9	1979.7	886.4	683.5	673.2	640.9	604.0	567.1	541.8	541.2
45°	3198.7	1876.6	741.2	641.5	650.1	613.8	581.0	551.0	531.4	527.4
47.5°	3410.2	1730.8	639.2	597.1	627.1	598.8	571.2	542.9	523.9	521.0
50°	3655.8	1573.4	567.7	553.9	606.9	593.6	579.2	549.8	518.1	514.7
52.5°	3953.2	1437.4	511.8	515.8	591.3	600.6	600.0	569.4	514.1	509.5
55°	4285.1	1286.4	469.7	484.7	585.0	613.2	605.2	587.9	517.6	510.6
57.5°	4611.9	1110.0	440.3	461.1	575.8	612.1	580.4	555.6	525.6	515.8
60°	4856.9	873.2	417.9	440.3	555.6	593.1	553.3	520.4	523.9	516.4
62.5°	4873.0	674.9	390.8	422.5	525.1	574.0	535.4	504.9	531.4	524.5
65°	4586.6	510.1	364.8	401.1	492.2	561.9	518.1	496.2	547.0	539.5
67.5°	3861.5	410.4	342.9	379.2	459.3	536.6	502.6	488.2	560.8	547.5
70°	2787.8	349.8	321.6	352.7	430.0	507.8	488.7	473.8	523.3	502.6
72.5°	1716.4	303.2	297.4	317.6	407.5	477.8	468.0	446.7	471.5	454.7
75°	857.0	262.8	270.3	283.0	375.8	443.8	433.4	412.1	415.5	412.1
77.5°	410.4	224.8	238.6	248.4	334.9	405.2	394.2	372.3	368.3	368.9
80°	259.9	187.9	201.1	208.1	299.1	360.2	349.3	327.4	373.5	346.4
82.5°	162.5	152.7	156.2	168.9	260.5	313.5	299.1	279.5	336.6	266.3
85°	89.9	106.6	111.2	122.2	200.6	262.2	247.8	223.0	200.0	196.5
87.5°	53.6	63.4	65.1	73.2	134.9	189.6	167.7	159.1	132.0	131.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)