

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: P299104

Luminaire Tested: **GLNA-AF-02-LED-E1-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299104
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-02-LED-E1-T3
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12139 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - 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

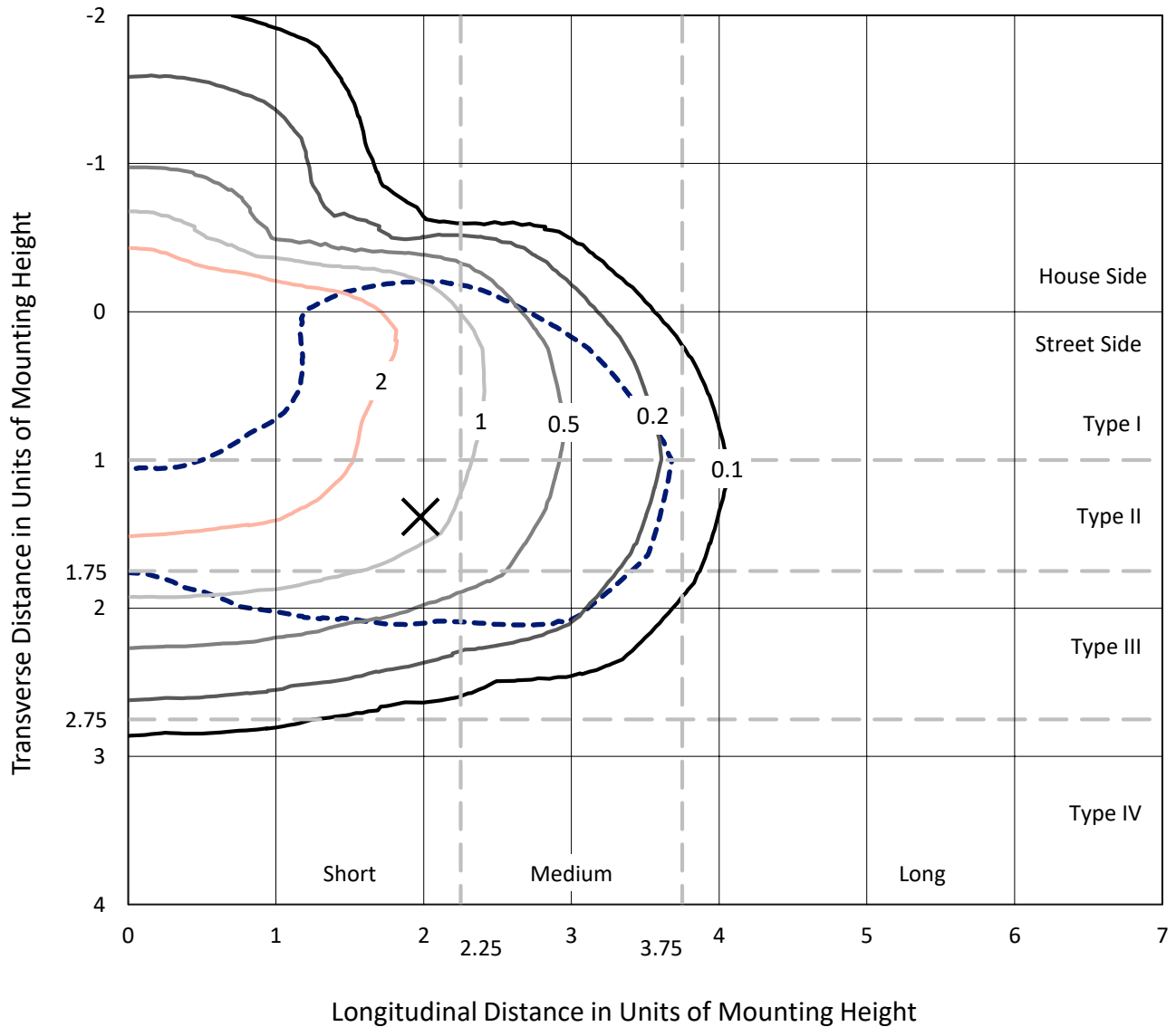


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Iso-Footcandle Lines of Horizontal Illumination

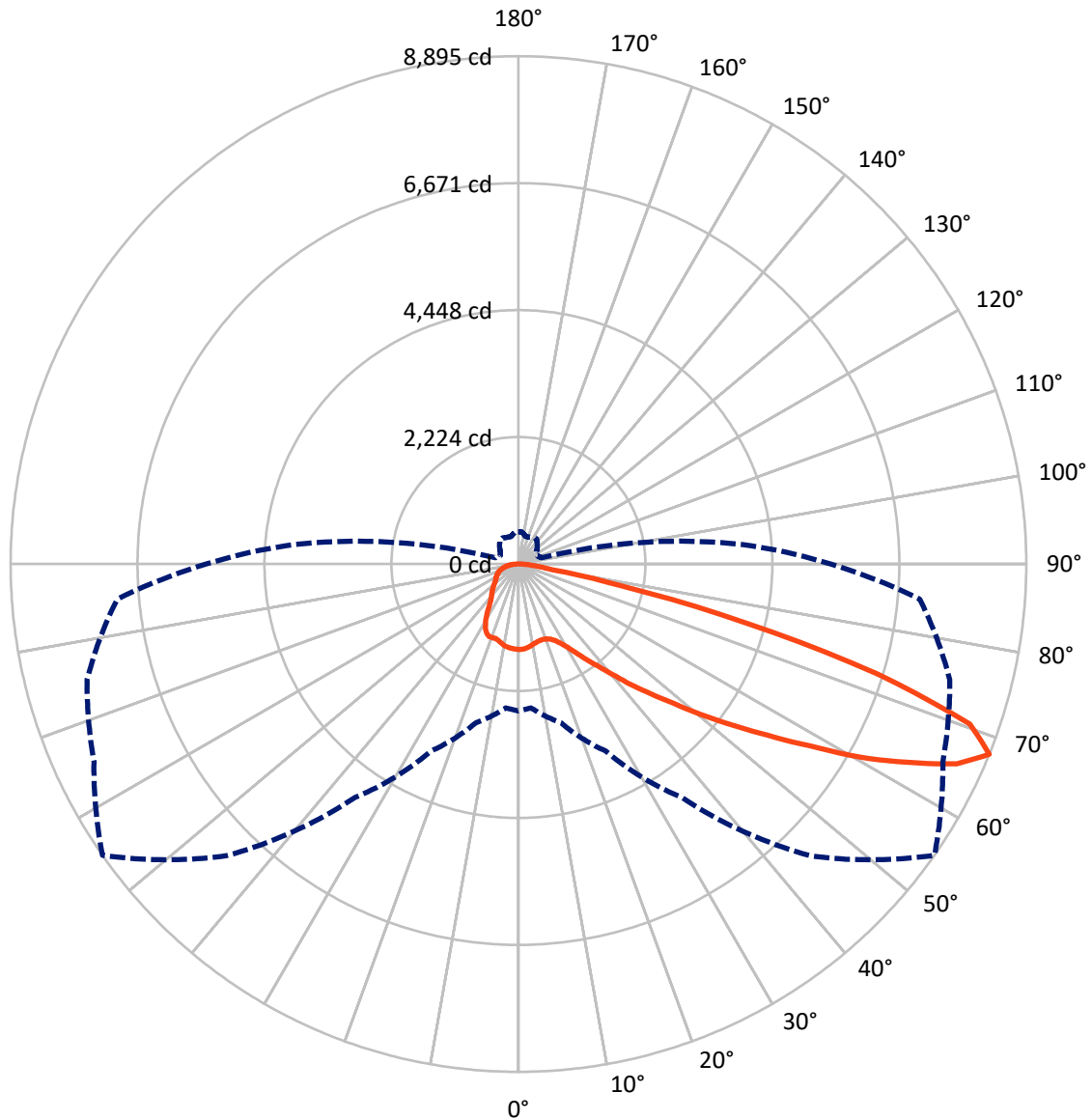
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.9 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	2622.3	0.0	2622.3
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	9516.7	0.0	9516.7
	% Fixture	78.4	0.0	78.4
Total	Lumens	12139.0	0.0	12139.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.7	1.2
10°-20°	395.7	3.3
20°-30°	662.8	5.5
30°-40°	1090.0	9.0
40°-50°	1834.8	15.1
50°-60°	2887.9	23.8
60°-70°	3446.3	28.4
70°-80°	1479.9	12.2
80°-90°	201.8	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°	12139.0	100.0
0°-180°	12139.0	100.0



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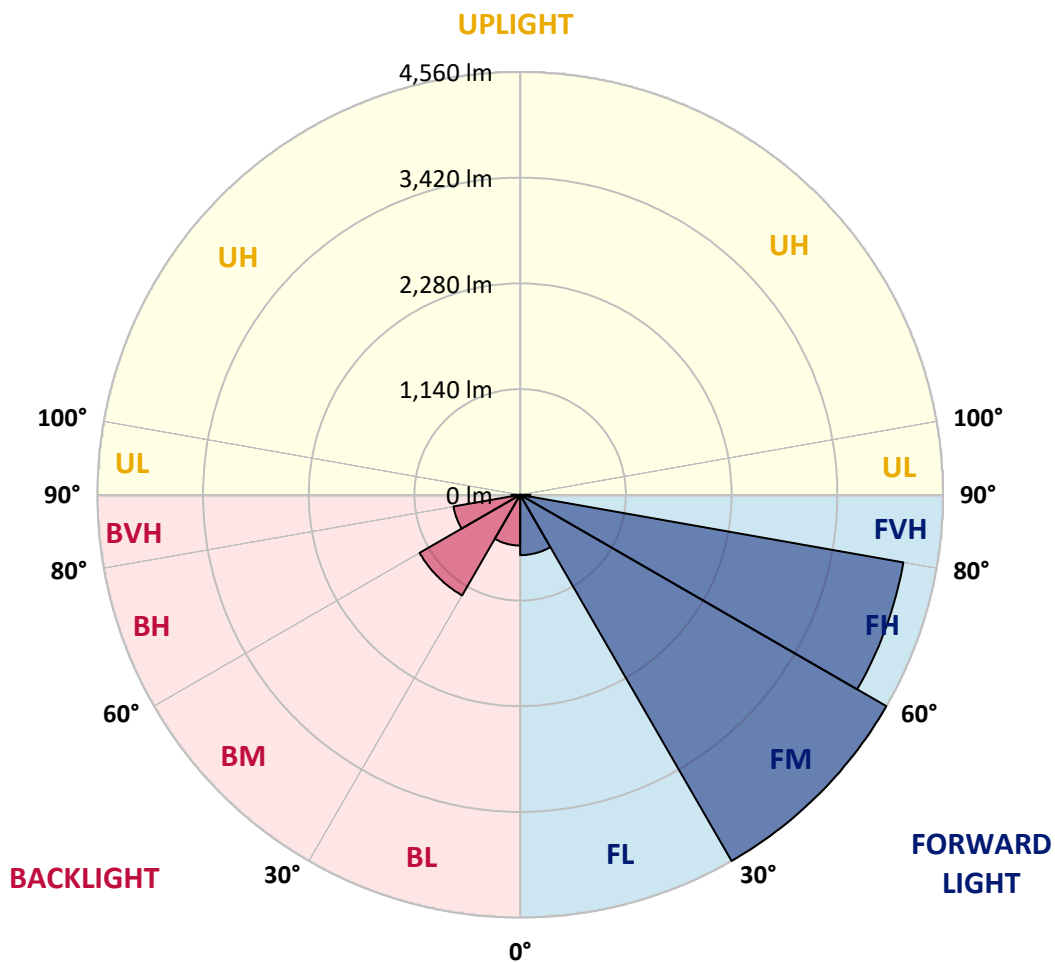
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	650.7	5.4			
FM (30°-60°)	4560.3	37.6			
FH (60°-80°)	4196.5	34.6			G2/5000
FVH (80°-90°)	109.2	0.9			G2/225
BL (0°-30°)	547.6	4.5	B2/1000		
BM (30°-60°)	1252.4	10.3	B2/2500		
BH (60°-80°)	729.8	6.0	B2/1000		G2/1000
BVH (80°-90°)	92.6	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°	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9
2.5°	1484.0	1484.6	1485.7	1490.4	1494.5	1493.4	1493.9	1491.6	1491.0	1487.5	1491.0
5°	1465.2	1467.0	1467.6	1475.2	1479.9	1481.0	1479.3	1476.3	1472.8	1469.3	1471.1
7.5°	1422.4	1427.1	1427.7	1438.2	1445.9	1455.8	1456.4	1457.0	1455.2	1452.9	1456.4
10°	1395.4	1396.6	1396.0	1403.6	1409.5	1420.6	1427.1	1438.2	1442.9	1444.1	1446.4
12.5°	1393.7	1392.5	1390.7	1390.7	1389.0	1393.7	1405.4	1421.2	1432.4	1435.9	1438.8
15°	1412.4	1411.9	1406.0	1397.2	1386.1	1382.5	1392.5	1410.1	1424.8	1432.4	1435.3
17.5°	1454.7	1451.1	1441.8	1421.8	1397.8	1388.4	1389.6	1404.2	1421.2	1431.2	1434.1
20°	1532.0	1532.0	1512.1	1474.6	1431.8	1409.5	1399.0	1407.7	1424.2	1437.7	1441.8
22.5°	1665.7	1666.9	1633.5	1571.9	1499.8	1452.3	1425.9	1424.2	1443.5	1458.8	1463.4
25°	1855.1	1850.4	1803.5	1715.6	1605.9	1527.4	1481.6	1471.1	1487.5	1504.5	1510.4
27.5°	2075.6	2058.6	2002.9	1896.7	1754.8	1639.9	1569.6	1552.6	1568.4	1587.7	1593.6
30°	2293.7	2276.1	2209.8	2093.7	1936.0	1790.6	1689.8	1662.2	1684.5	1712.0	1715.6
32.5°	2511.8	2511.8	2437.9	2302.5	2130.7	1970.6	1849.8	1817.0	1853.9	1887.4	1895.0
35°	2772.7	2773.9	2702.3	2539.3	2354.7	2185.2	2052.1	2028.1	2083.8	2107.2	2125.4
37.5°	3093.4	3099.9	3007.8	2810.8	2608.5	2430.3	2272.0	2239.1	2294.8	2358.8	2417.4
40°	3439.9	3448.1	3346.7	3104.0	2901.7	2715.2	2544.0	2484.8	2577.5	2699.4	2775.0
42.5°	3770.6	3812.8	3714.9	3465.1	3247.6	3054.7	2881.2	2795.0	2911.1	3095.2	3160.8
45°	4248.5	4278.9	4108.3	3882.0	3677.4	3461.6	3231.8	3140.9	3303.3	3535.5	3549.0
47.5°	4566.8	4544.0	4457.2	4316.5	4186.9	3985.2	3639.3	3539.6	3755.4	4028.6	3953.0
50°	4736.3	4743.3	4731.6	4739.8	4744.5	4617.8	4138.8	4002.2	4259.6	4589.7	4415.6
52.5°	4894.6	4847.7	4886.4	5078.7	5310.9	5264.0	4682.3	4539.9	4800.2	5212.4	4904.5
55°	4891.1	4819.5	4945.6	5285.1	5788.7	5842.7	5292.7	5128.5	5371.8	5880.2	5422.9
57.5°	4718.1	4721.6	4915.7	5360.1	6121.7	6386.8	6001.0	5754.7	5978.1	6556.8	5896.0
60°	4480.1	4512.3	4792.0	5347.8	6388.5	6832.9	6869.9	6429.6	6572.0	7171.8	6287.7
62.5°	4096.0	4130.0	4515.8	5220.0	6348.1	7262.7	7655.6	7195.3	7192.9	7544.7	6402.6
65°	3490.3	3480.4	3885.5	4742.1	6008.6	7580.5	8435.9	7857.2	7660.8	7550.6	6171.6
67.5°	2573.9	2529.4	2877.1	3611.7	4994.3	7224.6	8895.0	8202.0	7820.3	7054.0	5465.7
70°	1335.6	1291.1	1572.5	2109.0	3284.6	5638.6	8386.7	8023.8	7467.9	5913.0	4281.9
72.5°	571.1	563.5	677.8	925.2	1588.9	3252.3	6576.1	6944.9	6407.9	4405.6	2943.9
75°	384.0	381.7	424.5	504.2	714.7	1319.8	4115.4	4929.8	4688.2	2731.7	1655.8
77.5°	301.4	298.4	323.6	362.3	463.2	520.7	1826.4	2646.6	2449.6	1189.1	724.7
80°	235.7	233.4	249.2	270.3	333.0	328.3	601.0	1053.0	815.0	455.6	352.4
82.5°	185.9	185.9	198.8	199.3	236.3	224.0	313.7	463.8	406.9	265.6	215.8
85°	170.0	170.0	183.5	148.9	154.2	141.3	194.7	275.0	258.0	109.1	93.8
87.5°	85.6	83.3	154.2	131.9	83.8	75.0	95.0	133.1	143.1	60.4	46.9
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°	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9	1496.9
2.5°	1489.8	1489.2	1490.4	1491.0	1495.7	1502.1	1505.1	1509.2	1511.5	1510.4
5°	1472.2	1473.4	1478.1	1481.6	1489.8	1500.4	1506.3	1510.9	1515.0	1513.3
7.5°	1457.6	1460.5	1467.6	1470.5	1475.2	1478.1	1477.5	1479.3	1482.8	1478.7
10°	1449.4	1452.9	1458.2	1454.1	1442.9	1427.1	1412.4	1404.8	1407.2	1404.2
12.5°	1441.2	1445.9	1441.8	1422.4	1391.3	1370.8	1359.7	1360.8	1366.1	1367.3
15°	1436.5	1438.2	1420.6	1384.3	1352.6	1349.7	1355.6	1354.4	1355.0	1355.0
17.5°	1436.5	1431.8	1399.0	1362.6	1349.1	1343.8	1325.7	1302.8	1292.8	1289.3
20°	1444.1	1431.8	1391.9	1367.9	1338.6	1293.4	1245.3	1203.1	1184.4	1179.1
22.5°	1467.0	1445.9	1411.9	1370.2	1287.0	1211.3	1135.1	1084.7	1050.7	1044.8
25°	1513.3	1489.8	1451.1	1339.1	1204.9	1097.0	1010.2	953.9	919.9	915.2
27.5°	1594.2	1579.0	1472.2	1270.6	1095.8	980.3	900.0	856.6	831.4	829.6
30°	1716.2	1708.5	1461.7	1169.1	961.6	867.2	828.5	803.3	784.5	783.9
32.5°	1910.8	1849.2	1427.1	1045.4	839.0	786.8	771.0	755.8	741.1	741.1
35°	2161.2	1963.0	1361.4	912.9	764.6	742.3	722.3	698.3	679.0	677.8
37.5°	2455.5	2033.3	1243.6	806.2	729.4	712.4	683.1	647.3	613.3	607.4
40°	2752.8	2054.5	1077.7	740.5	707.1	682.5	646.7	604.5	571.7	569.9
42.5°	3025.4	2014.0	901.8	695.4	684.8	652.0	614.5	576.9	551.1	550.6
45°	3254.1	1909.1	754.0	652.6	661.4	624.4	591.0	560.5	540.6	536.5
47.5°	3469.2	1760.7	650.2	607.4	637.9	609.2	581.0	552.3	533.0	530.0
50°	3719.0	1600.6	577.5	563.5	617.4	603.9	589.2	559.3	527.1	523.6
52.5°	4021.6	1462.3	520.7	524.8	601.6	610.9	610.4	579.3	523.0	518.3
55°	4359.3	1308.7	477.8	493.1	595.1	623.8	615.6	598.0	526.5	519.5
57.5°	4691.7	1129.2	447.9	469.1	585.7	622.7	590.4	565.2	534.7	524.8
60°	4940.9	888.3	425.1	447.9	565.2	603.3	562.9	529.4	533.0	525.3
62.5°	4957.3	686.6	397.5	429.8	534.1	584.0	544.7	513.6	540.6	533.5
65°	4665.9	518.9	371.1	408.1	500.7	571.7	527.1	504.8	556.4	548.8
67.5°	3928.3	417.5	348.9	385.8	467.3	545.9	511.3	496.6	570.5	557.0
70°	2836.0	355.9	327.2	358.8	437.4	516.5	497.2	482.0	532.4	511.3
72.5°	1746.1	308.4	302.5	323.1	414.5	486.1	476.1	454.4	479.6	462.6
75°	871.9	267.4	275.0	287.9	382.3	451.5	440.9	419.2	422.7	419.2
77.5°	417.5	228.7	242.7	252.7	340.7	412.2	401.0	378.8	374.7	375.2
80°	264.4	191.1	204.6	211.7	304.3	366.4	355.3	333.0	379.9	352.4
82.5°	165.3	155.4	158.9	171.8	265.0	319.0	304.3	284.4	342.4	270.9
85°	91.5	108.5	113.2	124.3	204.0	266.8	252.1	226.9	203.5	199.9
87.5°	54.5	64.5	66.3	74.5	137.2	192.9	170.6	161.8	134.3	133.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)