

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: P302771

Luminaire Tested: **GLNA-AF-02-LED-E1-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302771
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
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-T4W
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12052.2 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-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

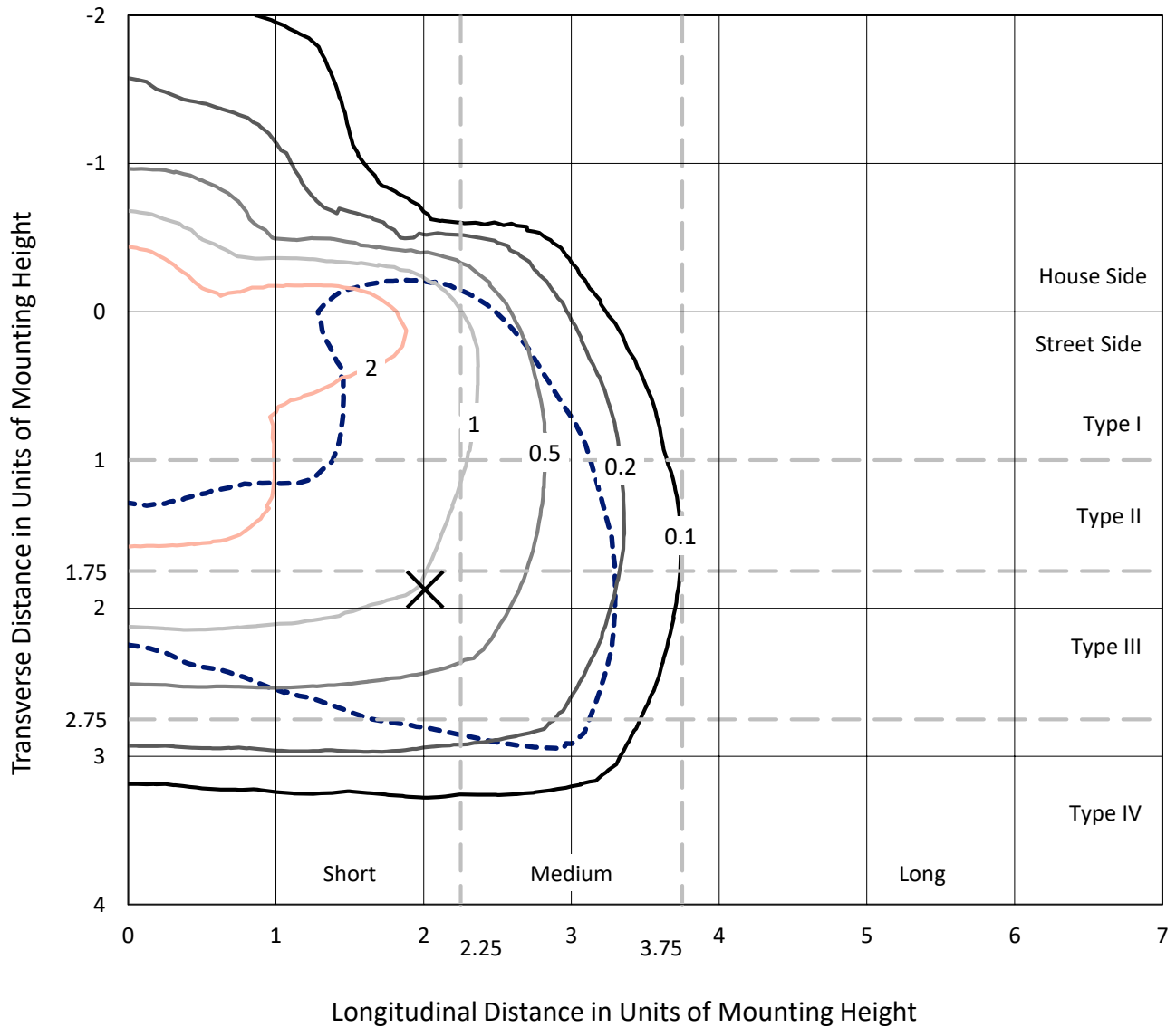


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

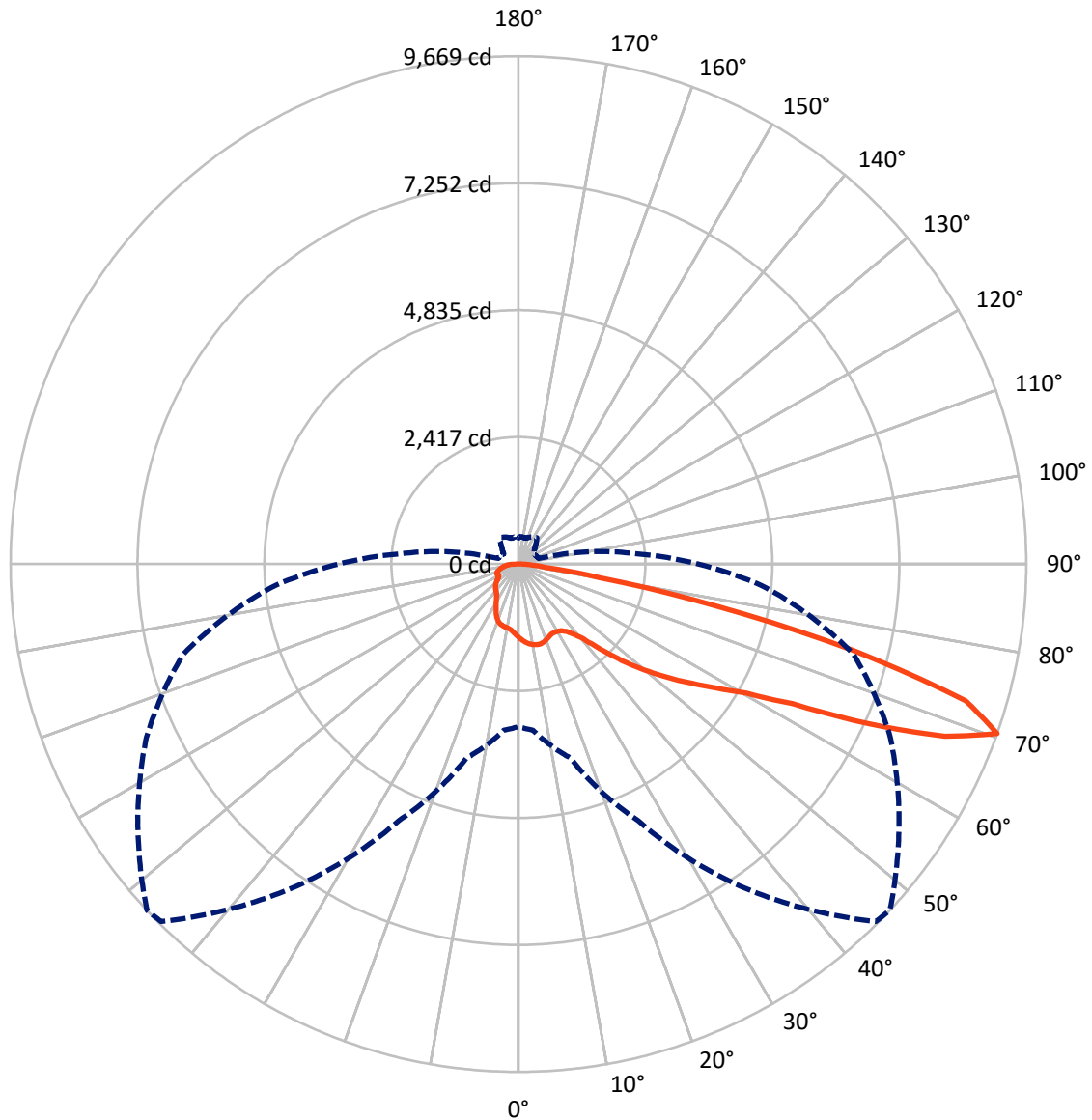


Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2514.3	0.0	2514.3
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	9537.9	0.0	9537.9
	% Fixture	79.1	0.0	79.1
Total	Lumens	12052.2	0.0	12052.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.0	1.1
10°-20°	393.1	3.3
20°-30°	580.5	4.8
30°-40°	843.8	7.0
40°-50°	1518.5	12.6
50°-60°	2630.6	21.8
60°-70°	3754.6	31.2
70°-80°	1927.4	16.0
80°-90°	269.8	2.2
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°	12052.2	100.0
0°-180°	12052.2	100.0



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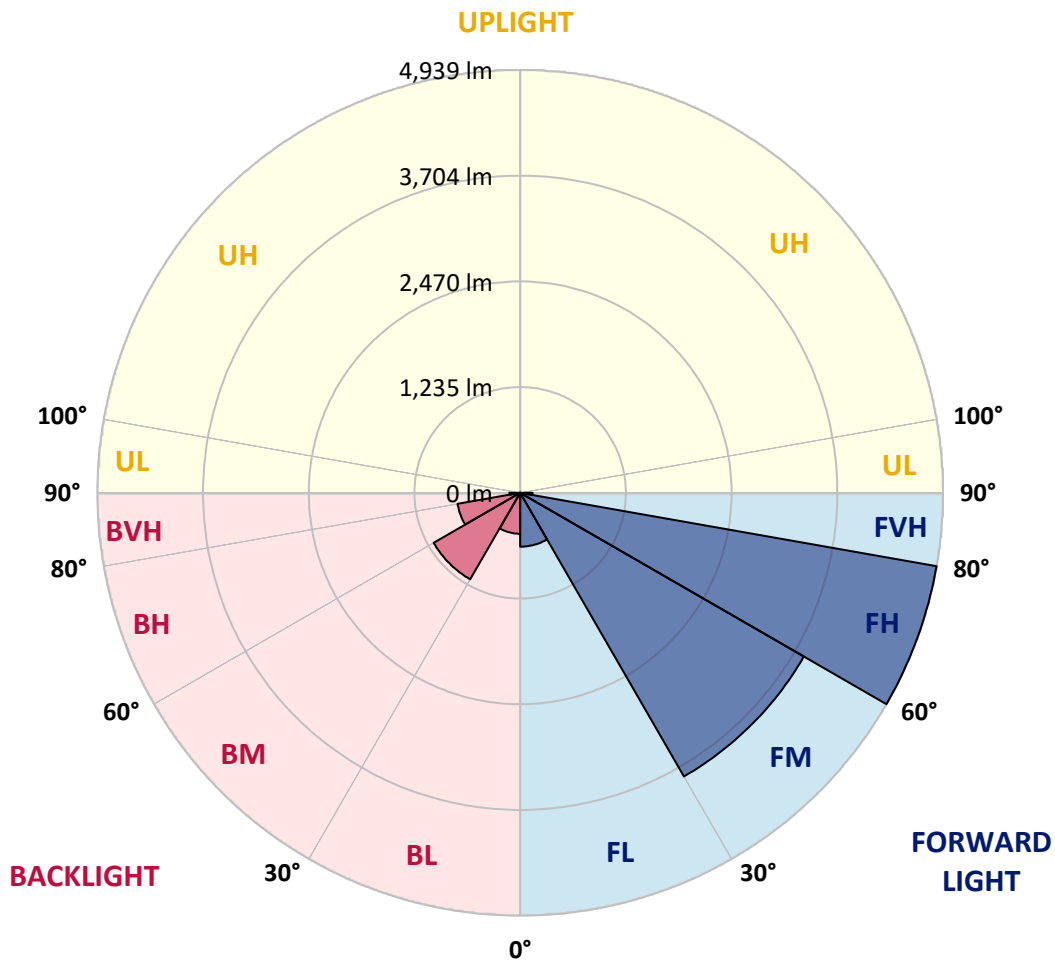
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	628.9	5.2			
FM	(30°-60°)	3825.7	31.7			
FH	(60°-80°)	4939.3	41.0			G2/5000
FVH	(80°-90°)	144.0	1.2			G2/225
BL	(0°-30°)	478.7	4.0	B1/500		
BM	(30°-60°)	1167.1	9.7	B2/2500		
BH	(60°-80°)	742.7	6.2	B2/1000		G2/1000
BVH	(80°-90°)	125.8	1.0			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4
2.5°	1480.6	1477.7	1476.5	1474.2	1471.2	1456.4	1453.5	1443.0	1428.4	1413.0	1397.2
5°	1577.9	1577.4	1570.7	1559.1	1540.4	1508.0	1500.4	1474.7	1440.1	1406.6	1373.3
7.5°	1663.4	1658.2	1645.9	1622.3	1589.6	1545.6	1535.1	1499.3	1451.8	1406.0	1360.8
10°	1726.1	1723.2	1696.3	1664.0	1621.2	1572.5	1560.2	1520.3	1468.1	1410.1	1353.8
12.5°	1762.0	1756.1	1725.0	1686.4	1635.4	1587.9	1575.4	1535.1	1476.5	1410.1	1343.9
15°	1759.6	1755.5	1724.4	1682.1	1630.7	1589.0	1577.9	1537.4	1474.7	1404.2	1331.0
17.5°	1712.7	1714.5	1688.2	1646.5	1604.2	1572.5	1562.6	1525.2	1462.9	1392.6	1315.8
20°	1630.7	1638.9	1621.2	1584.4	1560.8	1539.2	1532.8	1501.0	1444.7	1375.6	1299.3
22.5°	1548.5	1556.1	1549.1	1518.0	1514.5	1501.6	1498.1	1475.3	1429.0	1365.1	1289.3
25°	1488.2	1495.2	1494.0	1466.9	1477.7	1477.1	1474.2	1462.9	1425.5	1365.1	1291.1
27.5°	1471.8	1474.2	1471.8	1447.1	1461.7	1473.6	1471.2	1469.3	1436.0	1382.0	1313.5
30°	1528.1	1524.6	1506.3	1456.4	1470.1	1486.4	1484.1	1485.3	1467.5	1426.6	1363.3
32.5°	1752.6	1736.7	1679.2	1539.2	1503.4	1512.1	1513.3	1532.8	1535.7	1495.2	1440.7
35°	2088.5	2071.0	1996.4	1760.8	1607.2	1576.8	1576.8	1606.0	1623.5	1593.7	1560.8
37.5°	2444.5	2425.0	2385.3	2068.1	1825.3	1688.8	1685.8	1706.3	1731.4	1738.6	1746.8
40°	2849.0	2828.5	2839.6	2412.8	2129.6	1882.7	1841.0	1826.4	1894.4	1939.6	2005.4
42.5°	3291.8	3282.3	3286.4	2796.8	2476.1	2173.1	2113.9	2038.1	2120.3	2200.5	2338.4
45°	3701.5	3709.7	3705.6	3207.9	2862.0	2527.1	2464.4	2317.8	2398.2	2535.9	2760.6
47.5°	4060.4	4026.4	4079.1	3657.0	3294.2	2923.6	2846.1	2649.8	2731.2	2901.2	3281.1
50°	4496.1	4491.4	4414.1	4256.3	3816.4	3321.6	3220.2	2992.7	3119.3	3355.7	3937.4
52.5°	4954.1	4869.0	4798.1	4722.4	4370.7	3729.8	3605.3	3334.5	3575.6	3872.7	4737.2
55°	5047.8	5009.8	5097.6	5225.0	4904.8	4153.7	4008.8	3763.1	4089.3	4463.9	5659.4
57.5°	5248.3	5247.8	5429.6	5656.5	5454.8	4603.4	4457.3	4280.9	4666.7	5141.0	6638.6
60°	5383.9	5421.8	5759.7	6200.0	5994.8	5122.9	4988.6	4878.3	5323.5	5898.0	7550.9
62.5°	5454.8	5506.4	5967.3	6420.5	6758.1	5987.7	5853.6	5694.7	6192.4	6728.3	8084.5
65°	5159.9	5261.2	5935.0	6611.1	7426.7	7389.7	7329.3	7050.2	7278.8	7384.4	7891.7
67.5°	4343.6	4447.4	5232.0	6433.3	7904.0	8741.9	8754.8	8278.0	7947.4	7440.7	6635.1
70°	3094.7	3176.1	3825.4	5393.8	7540.4	9625.4	9669.4	8843.7	7814.2	6598.6	4635.7
72.5°	1469.3	1519.1	2133.7	3510.5	5983.7	8819.2	8904.3	8121.5	6644.4	4885.3	2528.8
75°	540.0	555.2	721.1	1493.4	3470.6	6503.8	6604.1	5821.8	4404.5	2432.3	963.4
77.5°	323.7	333.6	404.7	630.4	1365.1	3717.5	3865.7	3166.2	1925.0	905.3	473.8
80°	226.3	233.3	290.2	392.2	645.0	1416.7	1548.5	1292.3	766.9	572.9	344.7
82.5°	153.1	156.6	204.1	265.0	428.6	505.9	545.8	574.7	517.2	426.3	218.7
85°	100.3	103.8	138.5	174.7	272.6	261.5	267.4	338.3	377.6	289.6	121.3
87.5°	57.4	59.8	83.3	93.3	133.8	110.8	112.0	178.2	241.7	195.3	73.8
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4	1398.4
2.5°	1393.1	1385.5	1368.6	1357.9	1348.0	1345.6	1341.5	1341.0	1340.4	1340.4	1338.6
5°	1362.0	1349.1	1322.8	1308.0	1295.8	1294.6	1294.0	1296.9	1298.1	1299.3	1297.5
7.5°	1342.1	1324.6	1291.7	1270.7	1256.0	1252.3	1258.4	1271.8	1280.6	1284.1	1282.3
10°	1329.9	1308.0	1270.1	1247.1	1234.8	1233.1	1240.7	1256.6	1274.7	1281.8	1281.2
12.5°	1315.8	1291.1	1250.6	1226.6	1219.6	1223.1	1233.1	1247.7	1266.6	1277.7	1278.2
15°	1301.6	1273.0	1231.3	1210.3	1207.4	1212.0	1221.4	1232.5	1247.1	1258.4	1259.6
17.5°	1284.7	1254.7	1213.2	1191.4	1189.1	1191.4	1192.0	1197.8	1207.4	1217.9	1220.8
20°	1266.6	1236.0	1192.6	1170.9	1160.4	1151.1	1140.4	1141.5	1144.5	1155.2	1157.5
22.5°	1253.5	1223.1	1176.8	1146.8	1118.8	1090.5	1069.5	1066.6	1067.7	1076.5	1079.4
25°	1254.7	1222.6	1172.7	1121.1	1059.6	1014.4	986.1	981.5	980.9	987.3	991.6
27.5°	1277.7	1245.3	1187.9	1094.6	995.1	928.1	898.3	894.8	890.1	891.9	896.6
30°	1328.7	1298.7	1224.9	1067.7	925.2	843.8	812.6	809.1	802.7	799.8	803.3
32.5°	1411.8	1387.3	1278.8	1041.8	855.5	771.5	740.0	732.4	728.3	724.8	727.7
35°	1550.3	1539.8	1350.9	1013.8	793.9	715.9	687.2	675.5	669.7	676.1	680.8
37.5°	1767.2	1773.1	1445.3	969.8	746.4	679.0	654.9	641.5	632.7	638.0	643.2
40°	2074.5	2078.6	1549.7	907.7	705.3	657.2	631.5	619.3	606.8	597.5	596.9
42.5°	2477.8	2436.3	1652.3	840.3	657.8	643.8	615.2	599.8	581.1	555.2	549.9
45°	2956.3	2810.4	1730.2	762.8	604.5	627.4	596.9	575.8	546.4	518.4	515.5
47.5°	3507.6	3212.0	1768.4	682.6	554.6	603.3	574.7	541.2	504.2	490.2	488.4
50°	4180.6	3688.7	1786.5	604.5	511.4	571.7	542.3	503.0	472.0	469.1	467.4
52.5°	4947.1	4262.2	1792.5	540.6	475.5	530.7	516.1	477.9	453.2	455.7	455.7
55°	5749.2	4854.4	1712.7	494.2	442.6	488.4	498.3	468.0	447.3	456.9	460.4
57.5°	6485.5	5379.2	1461.7	458.6	411.7	456.3	491.9	477.3	463.3	501.3	503.6
60°	7050.8	5689.2	1091.7	426.3	388.7	445.0	509.0	513.1	516.6	607.4	619.8
62.5°	7169.2	5586.2	750.5	401.2	378.2	454.5	540.0	540.6	536.5	599.8	607.4
65°	6625.7	4933.4	545.8	386.9	369.4	471.5	566.5	554.0	527.2	575.3	561.0
67.5°	5261.8	3716.9	454.5	376.4	356.6	470.3	594.5	566.5	521.9	563.6	540.6
70°	3415.5	2247.5	404.7	367.7	341.2	447.9	610.9	565.3	506.5	524.2	497.2
72.5°	1666.4	1005.0	371.2	354.8	325.4	416.9	610.3	554.6	490.7	489.6	475.0
75°	652.0	460.4	340.6	335.3	298.5	381.7	593.9	539.4	472.0	453.2	447.9
77.5°	381.7	328.3	302.0	306.7	266.2	346.4	570.0	513.1	446.1	423.9	418.1
80°	277.9	245.8	257.4	265.0	227.5	311.4	537.7	480.8	417.5	428.6	420.4
82.5°	178.2	158.3	208.8	216.4	189.5	275.6	502.4	446.7	377.0	342.3	334.2
85°	90.9	100.3	155.4	164.7	146.1	226.3	459.8	401.7	331.2	284.9	289.6
87.5°	51.0	68.5	99.1	110.8	103.2	174.1	372.9	331.2	270.3	219.9	193.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)