

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: P302897

Luminaire Tested: **GLNA-AF-03-LED-E1-T4W-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302897
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-03-LED-E1-T4W-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11847.2 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

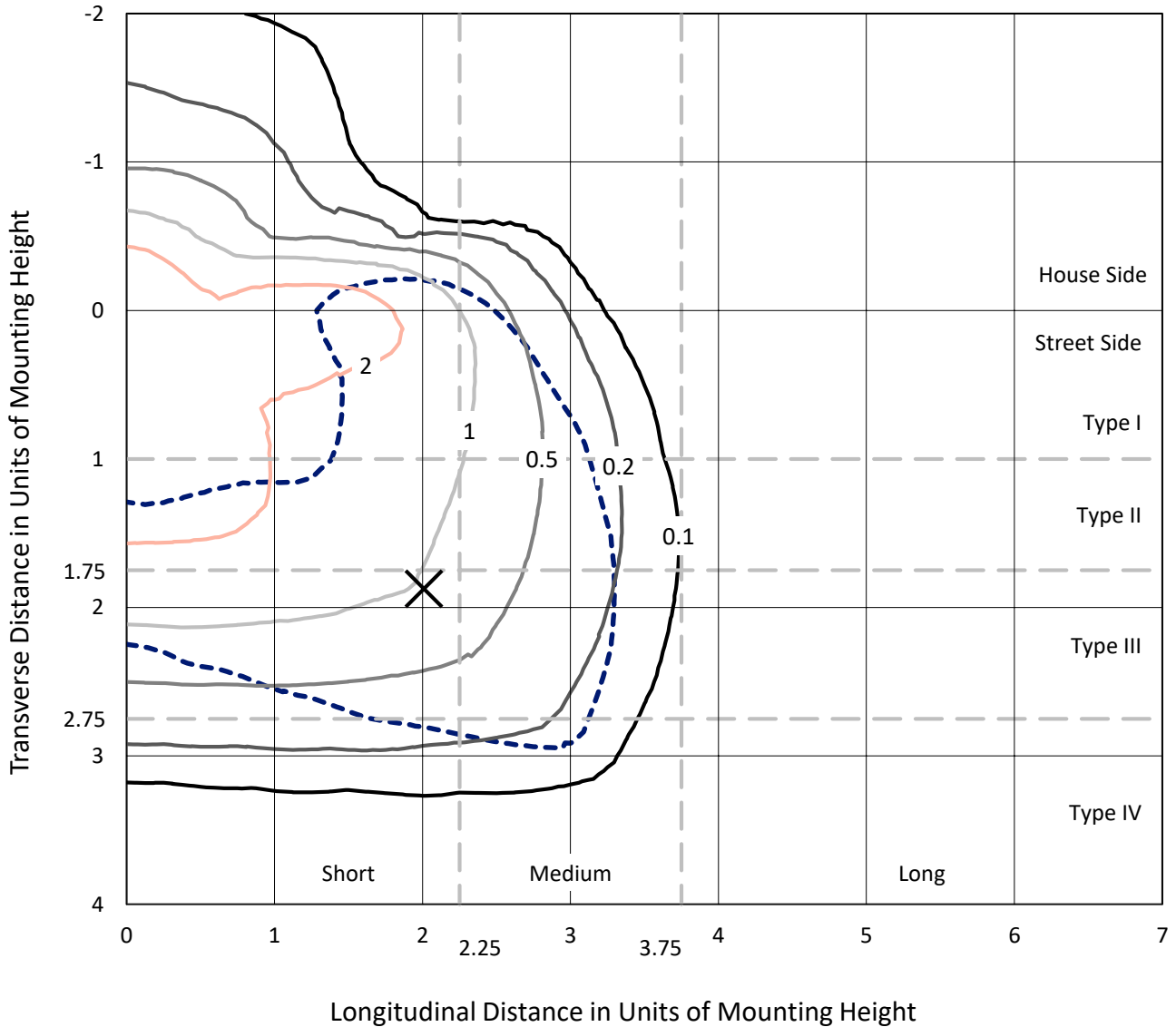
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

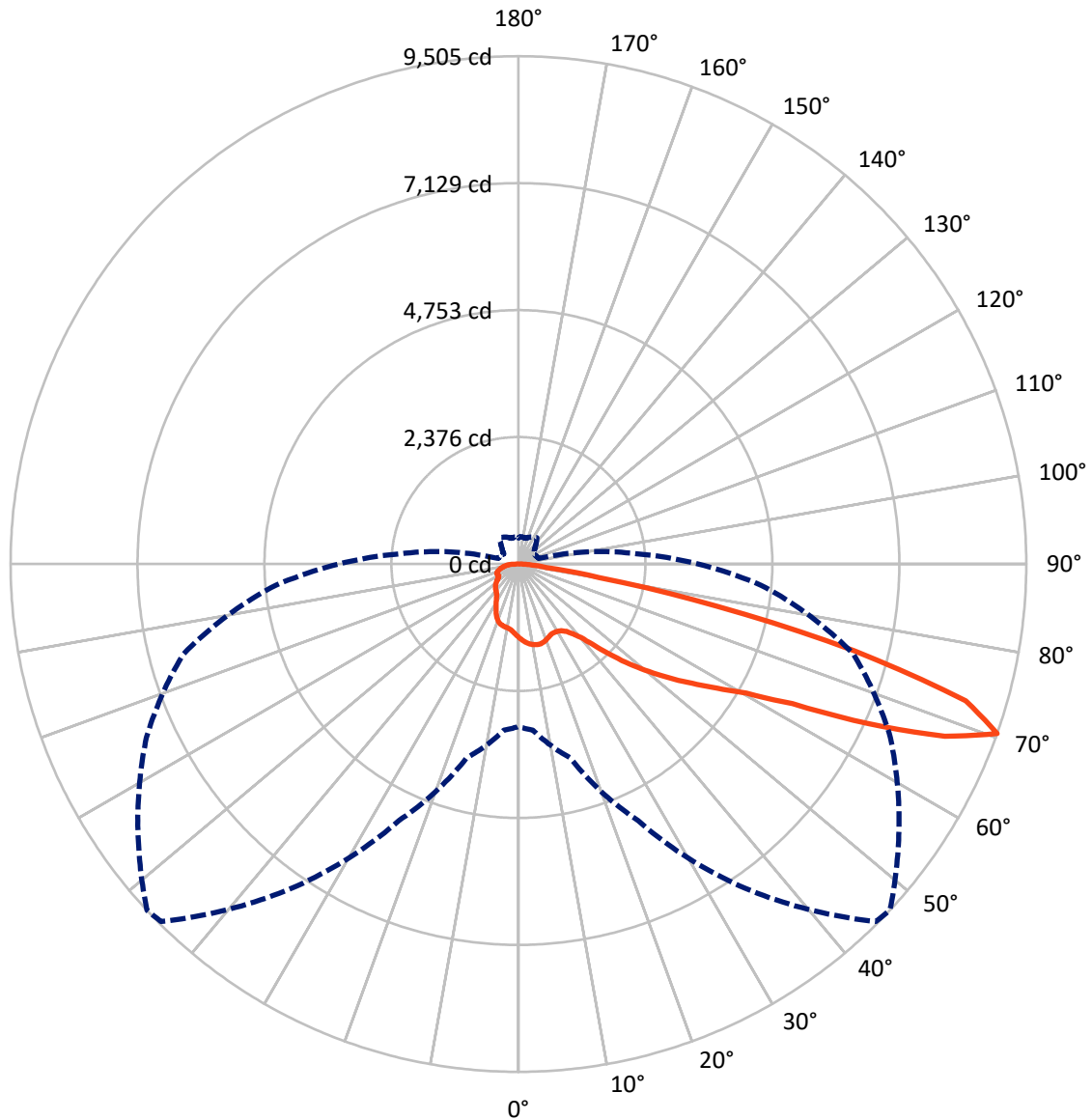
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 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	2471.6	0.0	2471.6
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	9375.7	0.0	9375.7
	% Fixture	79.1	0.0	79.1
Total	Lumens	11847.2	0.0	11847.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	1.1
10°-20°	386.4	3.3
20°-30°	570.6	4.8
30°-40°	829.4	7.0
40°-50°	1492.6	12.6
50°-60°	2585.8	21.8
60°-70°	3690.7	31.2
70°-80°	1894.6	16.0
80°-90°	265.3	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°	11847.2	100.0
0°-180°	11847.2	100.0

Coefficient of Utilization



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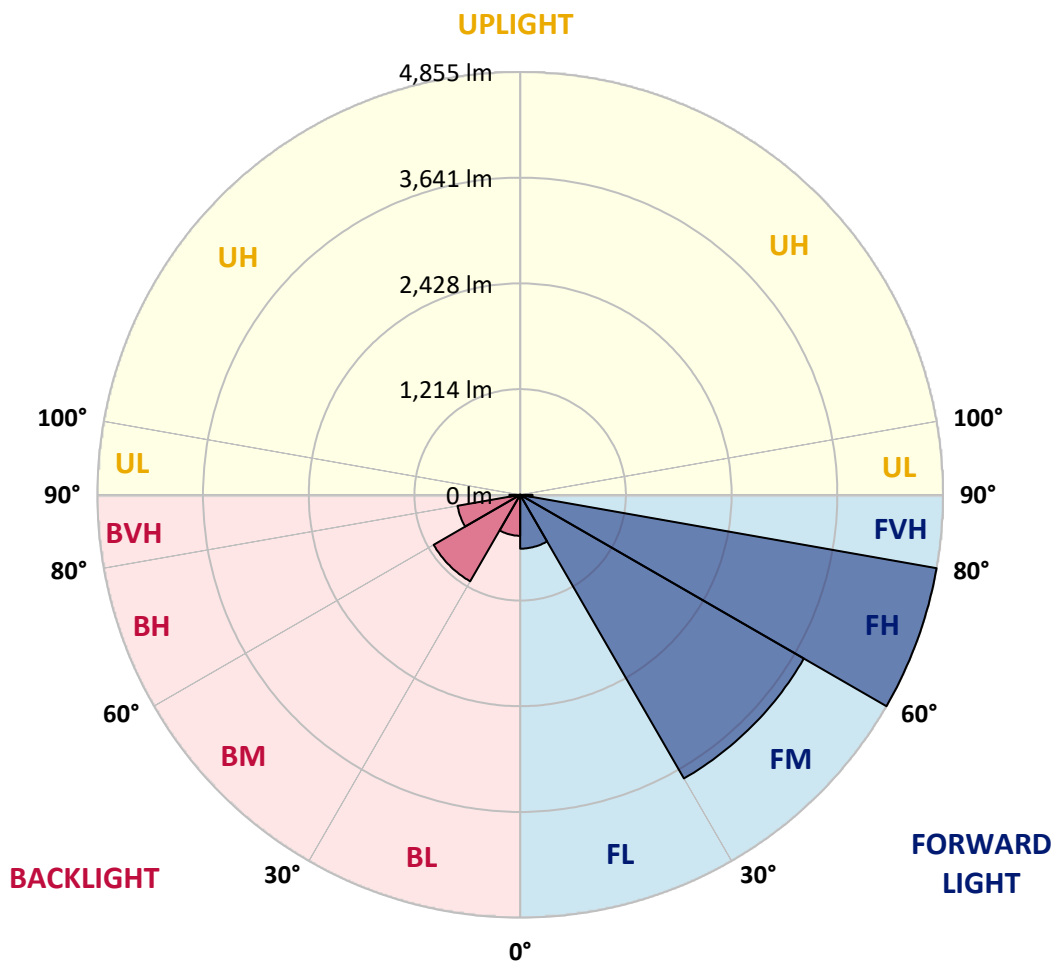
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	618.2	5.2			
FM	(30°-60°)	3760.6	31.7			
FH	(60°-80°)	4855.3	41.0			G2/5000
FVH	(80°-90°)	141.5	1.2			G2/225
BL	(0°-30°)	470.6	4.0	B1/500		
BM	(30°-60°)	1147.2	9.7	B2/2500		
BH	(60°-80°)	730.0	6.2	B2/1000		G2/1000
BVH	(80°-90°)	123.7	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°	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6
2.5°	1455.4	1452.5	1451.4	1449.1	1446.2	1431.7	1428.8	1418.5	1404.1	1389.0	1373.5
5°	1551.1	1550.5	1544.0	1532.5	1514.2	1482.4	1474.9	1449.7	1415.6	1382.7	1349.9
7.5°	1635.1	1630.0	1617.9	1594.8	1562.6	1519.3	1509.0	1473.8	1427.1	1382.1	1337.7
10°	1696.8	1693.9	1667.5	1635.7	1593.6	1545.7	1533.7	1494.4	1443.1	1386.1	1330.8
12.5°	1732.0	1726.3	1695.6	1657.7	1607.6	1560.9	1548.6	1509.0	1451.4	1386.1	1321.0
15°	1729.7	1725.7	1695.1	1653.5	1603.0	1562.0	1551.1	1511.3	1449.7	1380.4	1308.4
17.5°	1683.6	1685.3	1659.5	1618.5	1577.0	1545.7	1536.0	1499.2	1438.0	1368.9	1293.5
20°	1603.0	1611.0	1593.6	1557.4	1534.3	1513.0	1506.7	1475.5	1420.2	1352.2	1277.2
22.5°	1522.2	1529.7	1522.8	1492.2	1488.7	1476.1	1472.6	1450.2	1404.7	1341.9	1267.4
25°	1462.9	1469.8	1468.6	1442.0	1452.5	1452.0	1449.1	1438.0	1401.2	1341.9	1269.1
27.5°	1446.8	1449.1	1446.8	1422.5	1436.8	1448.5	1446.2	1444.3	1411.6	1358.5	1291.2
30°	1502.1	1498.7	1480.7	1431.7	1445.1	1461.1	1458.8	1460.0	1442.6	1402.4	1340.2
32.5°	1722.8	1707.1	1650.6	1513.0	1477.8	1486.4	1487.6	1506.7	1509.6	1469.8	1416.2
35°	2053.0	2035.8	1962.5	1730.9	1579.8	1550.0	1550.0	1578.7	1595.9	1566.6	1534.3
37.5°	2402.9	2383.8	2344.8	2032.9	1794.2	1660.0	1657.2	1677.3	1702.0	1709.0	1717.1
40°	2800.5	2780.4	2791.3	2371.7	2093.4	1850.7	1809.7	1795.4	1862.2	1906.6	1971.3
42.5°	3235.8	3226.5	3230.5	2749.2	2434.0	2136.1	2077.9	2003.4	2084.2	2163.1	2298.6
45°	3638.6	3646.6	3642.6	3153.3	2813.4	2484.1	2422.5	2278.3	2357.4	2492.7	2713.6
47.5°	3991.4	3957.9	4009.8	3594.8	3238.1	2873.8	2797.7	2604.7	2684.7	2851.8	3225.3
50°	4419.6	4415.0	4339.0	4184.0	3751.5	3265.1	3165.4	2941.8	3066.2	3298.6	3870.4
52.5°	4869.8	4786.2	4716.5	4642.0	4296.3	3666.3	3544.0	3277.8	3514.7	3806.9	4656.6
55°	4961.9	4924.6	5010.9	5136.1	4821.4	4083.1	3940.7	3699.1	4019.7	4388.0	5563.2
57.5°	5159.1	5158.5	5337.3	5560.3	5362.0	4525.1	4381.5	4208.1	4587.3	5053.6	6525.6
60°	5292.3	5329.6	5661.8	6094.6	5892.8	5035.8	4903.7	4795.4	5233.0	5797.7	7422.5
62.5°	5362.0	5412.7	5865.8	6311.3	6643.2	5885.9	5754.0	5597.8	6087.1	6613.9	7947.0
65°	5072.2	5171.7	5834.0	6498.7	7300.3	7264.0	7204.6	6930.3	7155.0	7258.8	7757.5
67.5°	4269.7	4371.7	5143.0	6323.9	7769.5	8593.2	8605.9	8137.2	7812.2	7314.1	6522.2
70°	3042.1	3122.1	3760.3	5302.1	7412.1	9461.7	9505.0	8693.3	7681.3	6486.4	4556.9
72.5°	1444.3	1493.3	2097.4	3450.8	5881.9	8669.2	8752.9	7983.3	6531.4	4802.3	2485.8
75°	530.8	545.8	708.8	1468.0	3411.6	6393.2	6491.8	5722.8	4329.6	2390.9	947.0
77.5°	318.1	327.9	397.8	619.6	1341.9	3654.3	3800.0	3112.4	1892.2	889.9	465.7
80°	222.4	229.3	285.2	385.5	634.0	1392.6	1522.2	1270.3	753.8	563.2	338.8
82.5°	150.5	153.9	200.6	260.5	421.3	497.3	536.6	564.9	508.4	419.0	215.0
85°	98.6	102.0	136.1	171.7	268.0	257.1	262.8	332.5	371.2	284.6	119.3
87.5°	56.5	58.8	81.9	91.7	131.5	108.9	110.1	175.2	237.6	192.0	72.5
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°	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6	1374.6
2.5°	1369.4	1362.0	1345.3	1334.8	1325.0	1322.7	1318.7	1318.1	1317.6	1317.6	1315.8
5°	1338.8	1326.2	1300.3	1285.8	1273.7	1272.6	1272.0	1274.9	1276.0	1277.2	1275.5
7.5°	1319.3	1302.1	1269.7	1249.0	1234.7	1231.0	1237.0	1250.2	1258.8	1262.3	1260.5
10°	1307.2	1285.8	1248.5	1225.9	1213.8	1212.1	1219.6	1235.3	1253.1	1260.0	1259.4
12.5°	1293.5	1269.1	1229.3	1205.8	1198.9	1202.3	1212.1	1226.5	1245.0	1255.9	1256.5
15°	1279.5	1251.3	1210.4	1189.7	1186.8	1191.4	1200.6	1211.5	1225.9	1237.0	1238.1
17.5°	1262.8	1233.3	1192.6	1171.1	1168.8	1171.1	1171.7	1177.4	1186.8	1197.2	1200.0
20°	1245.0	1215.0	1172.3	1151.0	1140.7	1131.5	1121.0	1122.1	1125.0	1135.5	1137.8
22.5°	1232.2	1202.3	1156.8	1127.3	1099.7	1072.0	1051.3	1048.4	1049.6	1058.2	1061.1
25°	1233.3	1201.8	1152.8	1102.0	1041.5	997.1	969.4	964.8	964.2	970.5	974.7
27.5°	1255.9	1224.2	1167.7	1076.0	978.2	912.3	883.0	879.6	875.0	876.7	881.3
30°	1306.1	1276.6	1204.1	1049.6	909.5	829.4	798.8	795.4	789.1	786.2	789.6
32.5°	1387.8	1363.7	1257.1	1024.1	840.9	758.4	727.4	719.9	715.9	712.5	715.4
35°	1523.9	1513.6	1327.9	996.6	780.4	703.7	675.5	664.1	658.3	664.6	669.2
37.5°	1737.2	1742.9	1420.7	953.3	733.7	667.5	643.8	630.6	621.9	627.1	632.3
40°	2039.2	2043.3	1523.4	892.2	693.3	646.1	620.8	608.7	596.5	587.3	586.7
42.5°	2435.7	2394.9	1624.2	826.0	646.6	632.8	604.7	589.6	571.2	545.8	540.6
45°	2906.0	2762.6	1700.8	749.8	594.2	616.8	586.7	566.0	537.1	509.6	506.7
47.5°	3447.9	3157.3	1738.3	670.9	545.2	593.0	564.9	532.0	495.6	481.8	480.1
50°	4109.5	3626.0	1756.1	594.2	502.7	562.0	533.1	494.4	464.0	461.1	459.4
52.5°	4862.9	4189.7	1762.1	531.4	467.5	521.6	507.3	469.8	445.4	447.9	447.9
55°	5651.4	4771.8	1683.6	485.8	435.1	480.1	489.9	460.0	439.7	449.1	452.5
57.5°	6375.2	5287.7	1436.8	450.8	404.7	448.5	483.5	469.2	455.4	492.7	495.0
60°	6930.9	5592.5	1073.1	419.0	382.1	437.4	500.4	504.4	507.8	597.1	609.3
62.5°	7047.3	5491.2	737.7	394.3	371.7	446.8	530.8	531.4	527.4	589.6	597.1
65°	6513.0	4849.5	536.6	380.4	363.1	463.4	556.9	544.6	518.2	565.5	551.5
67.5°	5172.3	3653.7	446.8	370.0	350.5	462.3	584.4	556.9	513.0	554.0	531.4
70°	3357.4	2209.2	397.8	361.4	335.4	440.3	600.5	555.7	497.9	515.3	488.7
72.5°	1638.0	987.9	364.9	348.8	319.9	409.8	599.9	545.2	482.4	481.2	466.9
75°	640.9	452.5	334.8	329.6	293.5	375.2	583.8	530.2	464.0	445.4	440.3
77.5°	375.2	322.7	296.9	301.5	261.7	340.5	560.3	504.4	438.6	416.7	411.0
80°	273.2	241.6	253.1	260.5	223.6	306.1	528.5	472.6	410.4	421.3	413.3
82.5°	175.2	155.6	205.2	212.7	186.3	270.9	493.9	439.1	370.6	336.5	328.5
85°	89.4	98.6	152.8	161.9	143.6	222.4	452.0	394.9	325.6	280.1	284.6
87.5°	50.2	67.4	97.4	108.9	101.5	171.1	366.6	325.6	265.7	216.1	190.3
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)