

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P634742

Luminaire Tested: GWS-SA3C-735-U-SLL-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P634742
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-37)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA3C-735-U-SLL-W
Description: GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS
Light Source: (48) 3500K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12894.8 lumens
Efficiency: N/A
Efficacy: 138.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

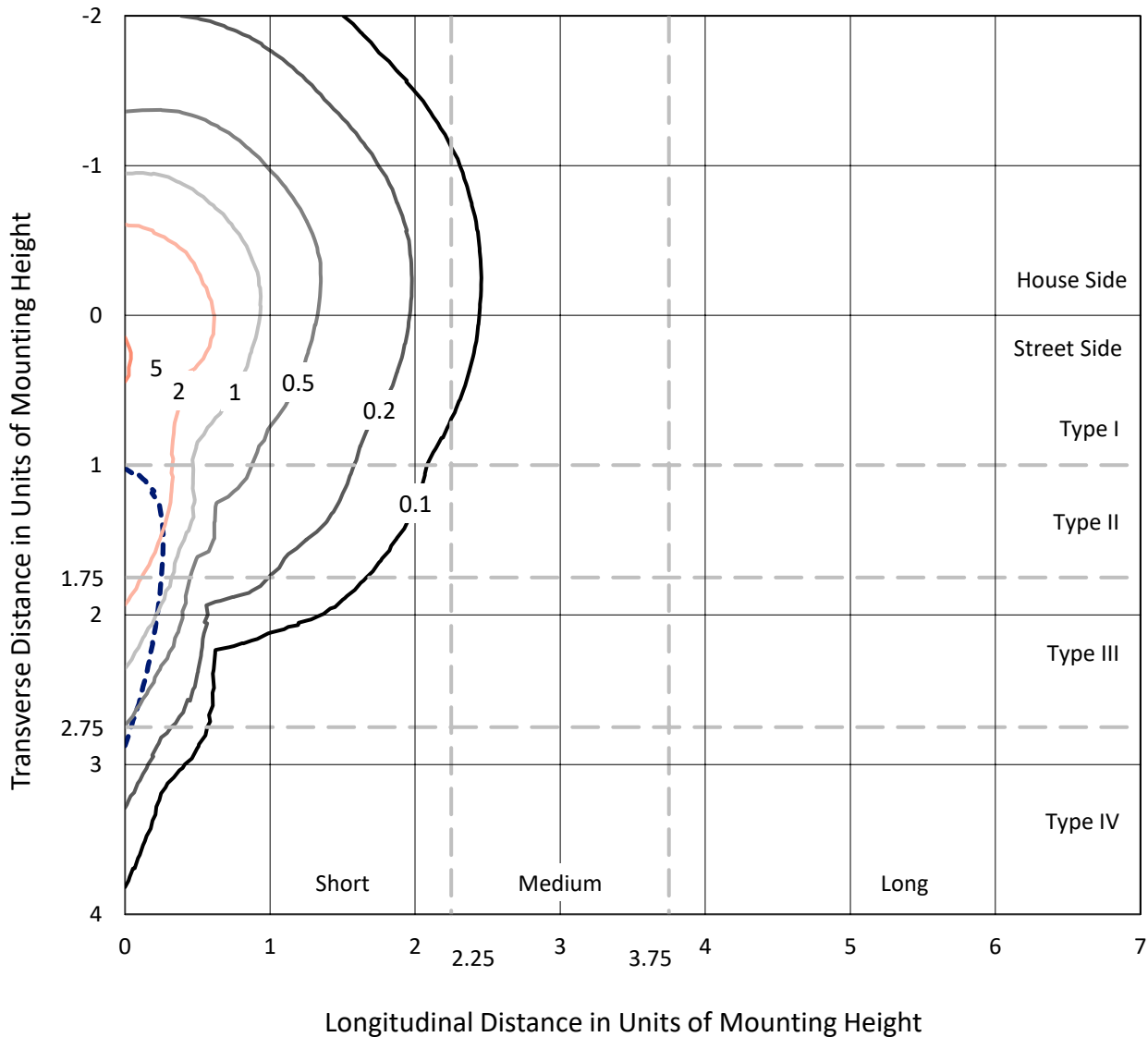
Input Watts (W): 93
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P634742
 CATALOG NUMBER: GWS-SA3C-735-U-SLL-W

Iso-Footcandle Lines of Horizontal Illumination

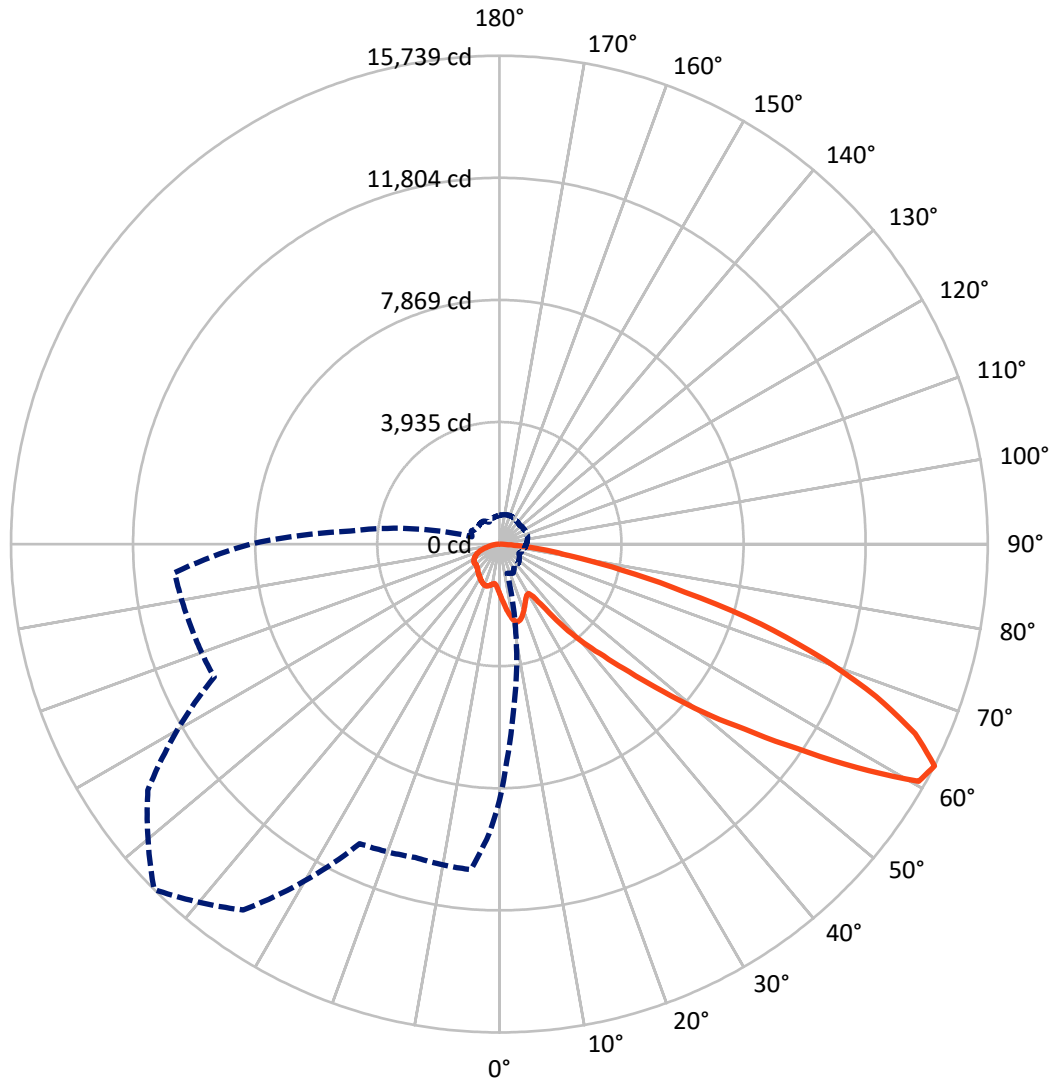
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 fc
 Type III - Short - N/A

REPORT NUMBER: P634742
CATALOG NUMBER: GWS-SA3C-735-U-SLL-W

Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P634742

CATALOG NUMBER: GWS-SA3C-735-U-SLL-W

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3083.2	0.0	3083.2
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	9811.6	0.0	9811.6
	% Fixture	76.1	0.0	76.1
Total	Lumens	12894.8	0.0	12894.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	1.2
10°-20°	514.7	4.0
20°-30°	810.3	6.3
30°-40°	1110.7	8.6
40°-50°	1733.1	13.4
50°-60°	2988.1	23.2
60°-70°	3462.9	26.9
70°-80°	1827.9	14.2
80°-90°	288.7	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°	12894.8	100.0
0°-180°	12894.8	100.0

Coefficient of Utilization



REPORT NUMBER: P634742

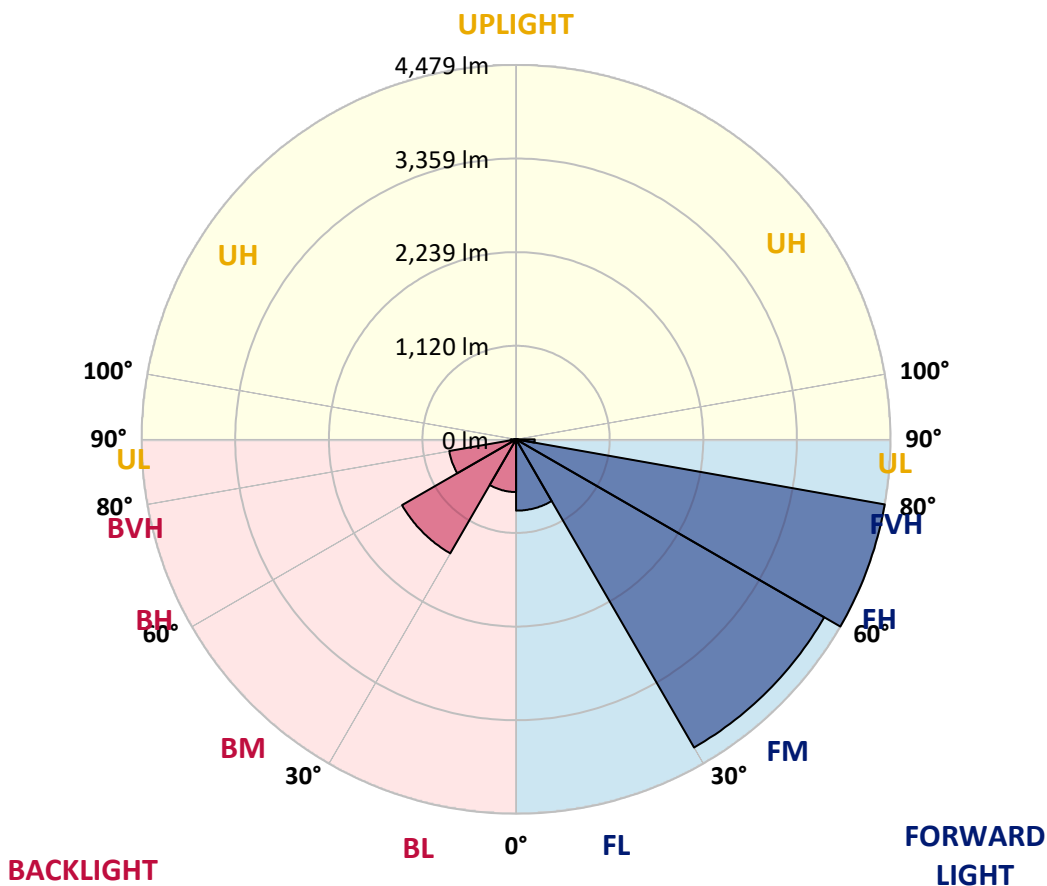
CATALOG NUMBER: GWS-SA3C-735-U-SLL-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	852.8	6.6			
FM (30°-60°)	4257.0	33.0			
FH (60°-80°)	4478.9	34.7			G2/5000
FVH (80°-90°)	222.9	1.7			G2/225
BL (0°-30°)	630.6	4.9	B2/1000		
BM (30°-60°)	1574.9	12.2	B2/2500		
BH (60°-80°)	811.8	6.3	B2/1000		G2/1000
BVH (80°-90°)	65.9	0.5			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





REPORT NUMBER: P634742
 CATALOG NUMBER: GWS-SA3C-735-U-SLL-W

CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7
2.5°	1746.8	1739.9	1730.0	1696.5	1675.8	1652.1	1627.4	1598.8	1566.3	1543.6	1520.9
5°	1894.7	1883.9	1860.2	1780.3	1725.1	1664.9	1614.6	1557.4	1501.2	1462.7	1424.3
7.5°	2036.8	2023.0	1986.5	1864.2	1774.4	1687.6	1611.7	1528.8	1445.0	1387.8	1342.4
10°	2178.8	2150.2	2103.8	1944.1	1825.7	1725.1	1638.3	1536.7	1425.2	1347.3	1299.0
12.5°	2287.3	2260.7	2210.4	2017.0	1877.0	1750.7	1653.1	1559.4	1464.7	1381.8	1332.5
15°	2388.9	2354.4	2297.2	2085.1	1919.4	1749.7	1623.5	1541.6	1527.8	1507.1	1443.0
17.5°	2461.9	2430.3	2371.1	2140.3	1943.1	1719.2	1541.6	1493.3	1555.4	1618.6	1557.4
20°	2526.0	2489.5	2429.3	2178.8	1948.0	1651.1	1442.0	1443.0	1540.6	1627.4	1612.6
22.5°	2580.2	2539.8	2486.5	2222.2	1946.0	1556.4	1355.2	1414.4	1512.0	1580.1	1582.1
25°	2647.3	2613.8	2569.4	2286.3	1946.0	1459.8	1292.1	1379.9	1463.7	1520.9	1518.9
27.5°	2729.2	2706.5	2670.0	2384.0	1963.8	1378.9	1256.6	1335.5	1401.6	1450.9	1449.9
30°	2820.9	2800.2	2772.6	2487.5	1994.4	1318.7	1236.9	1280.3	1328.6	1368.0	1368.0
32.5°	2914.6	2906.7	2877.1	2570.4	1970.7	1300.0	1220.1	1225.0	1250.7	1283.2	1280.3
35°	3044.8	3036.9	2999.4	2634.5	1868.1	1273.3	1193.5	1168.8	1171.8	1192.5	1199.4
37.5°	3235.2	3223.3	3168.1	2709.4	1713.3	1206.3	1150.1	1109.6	1100.7	1109.6	1122.4
40°	3465.0	3447.2	3372.3	2811.0	1534.7	1115.5	1082.0	1048.5	1033.7	1036.6	1051.4
42.5°	3753.0	3715.5	3608.0	2918.5	1358.2	1035.6	1006.1	985.3	968.6	966.6	995.2
45°	4220.5	4117.9	3947.3	3014.2	1209.2	993.2	938.0	923.2	909.4	917.3	950.8
47.5°	5037.2	4847.8	4515.4	3096.1	1118.5	994.2	883.7	868.0	867.0	882.8	920.2
50°	6159.6	5886.4	5373.5	3151.3	1071.2	1006.1	851.2	825.6	844.3	860.1	895.6
52.5°	7234.7	6817.5	6207.0	3150.3	1050.4	1008.0	860.1	786.1	844.3	848.2	881.8
55°	8153.0	7397.5	6431.8	2826.8	1020.8	1000.1	894.6	755.5	833.4	848.2	874.9
57.5°	8882.9	7766.3	6415.1	2283.3	1110.6	956.7	915.3	748.6	801.9	850.2	880.8
60°	8802.0	7597.7	6001.8	1401.6	1101.7	879.8	912.4	761.4	748.6	823.6	873.9
62.5°	8264.4	6993.1	5290.7	972.5	1034.7	835.4	864.0	784.1	699.3	785.1	840.4
65°	7511.9	6212.9	4408.9	745.7	857.1	837.4	782.2	768.3	655.9	724.0	783.1
67.5°	6516.7	5245.3	3480.8	590.8	597.7	725.0	710.2	682.5	615.5	669.7	723.0
70°	4899.1	3827.9	2394.8	475.4	452.7	605.6	638.2	613.5	576.0	591.8	648.0
72.5°	3452.1	2499.4	1311.8	376.8	349.2	465.5	554.3	550.4	508.9	520.8	576.0
75°	2565.4	1768.5	819.6	297.9	284.1	333.4	464.6	476.4	441.9	455.7	498.1
77.5°	1707.3	1145.1	455.7	220.9	220.9	243.6	346.2	401.4	375.8	386.6	416.2
80°	941.9	582.9	227.8	145.0	148.9	167.7	252.5	289.0	290.0	316.6	324.5
82.5°	297.9	185.4	101.6	84.8	79.9	95.7	162.7	207.1	193.3	246.6	226.9
85°	68.1	43.4	18.7	18.7	20.7	31.6	62.1	110.5	141.0	169.6	123.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	43.4	64.1	57.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P634742

CATALOG NUMBER: GWS-SA3C-735-U-SLL-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7
2.5°	1507.1	1487.4	1481.5	1464.7	1462.7	1446.9	1441.0	1441.0	1447.9	1447.9	1454.8
5°	1408.5	1383.8	1370.0	1350.3	1345.4	1333.5	1325.6	1326.6	1335.5	1341.4	1353.2
7.5°	1321.7	1304.9	1295.0	1286.2	1284.2	1282.2	1273.3	1272.4	1275.3	1284.2	1293.1
10°	1285.2	1273.3	1276.3	1283.2	1294.1	1300.0	1292.1	1288.1	1285.2	1291.1	1299.0
12.5°	1320.7	1308.9	1314.8	1326.6	1341.4	1347.3	1344.4	1343.4	1346.3	1369.0	1385.8
15°	1398.6	1375.9	1368.0	1373.0	1384.8	1390.7	1387.8	1391.7	1410.4	1469.6	1512.0
17.5°	1495.3	1440.0	1408.5	1399.6	1404.5	1409.5	1409.5	1419.3	1451.9	1538.7	1591.9
20°	1547.5	1475.5	1422.3	1400.6	1402.6	1407.5	1407.5	1421.3	1457.8	1550.5	1585.0
22.5°	1533.7	1467.7	1402.6	1378.9	1379.9	1383.8	1383.8	1395.7	1428.2	1510.1	1525.8
25°	1479.5	1421.3	1357.2	1336.5	1338.4	1345.4	1343.4	1350.3	1374.9	1442.0	1450.9
27.5°	1414.4	1363.1	1300.0	1284.2	1293.1	1306.9	1295.0	1296.0	1318.7	1374.9	1375.9
30°	1344.4	1302.0	1245.7	1233.9	1250.7	1257.6	1246.7	1246.7	1269.4	1307.9	1306.9
32.5°	1268.4	1241.8	1201.3	1188.5	1207.3	1218.1	1204.3	1206.3	1224.0	1249.7	1239.8
35°	1197.4	1183.6	1164.9	1156.0	1167.8	1177.7	1168.8	1172.7	1189.5	1196.4	1182.6
37.5°	1129.3	1127.4	1129.3	1129.3	1132.3	1135.3	1129.3	1139.2	1154.0	1145.1	1129.3
40°	1070.2	1078.1	1096.8	1091.9	1088.9	1091.9	1087.9	1104.7	1119.5	1103.7	1085.0
42.5°	1020.8	1035.6	1064.2	1064.2	1058.3	1060.3	1058.3	1079.0	1089.9	1068.2	1047.5
45°	978.4	1000.1	1036.6	1041.6	1031.7	1031.7	1035.6	1061.3	1065.2	1035.6	1013.9
47.5°	948.8	975.5	1016.9	1025.8	1011.0	1010.0	1020.8	1048.5	1048.5	1013.9	989.3
50°	928.1	957.7	1007.0	1018.9	1004.1	1000.1	1017.9	1044.5	1038.6	997.2	972.5
52.5°	914.3	944.9	1006.1	1022.8	1013.0	1009.0	1026.8	1045.5	1030.7	986.3	960.7
55°	905.4	939.0	1009.0	1022.8	1012.0	1005.1	1022.8	1039.6	1031.7	980.4	955.8
57.5°	910.4	943.9	1005.1	1012.0	999.2	987.3	1008.0	1031.7	1028.7	982.4	957.7
60°	902.5	933.1	983.4	985.3	963.6	944.9	975.5	1011.0	1011.0	975.5	953.8
62.5°	866.0	896.6	941.0	942.9	918.3	897.6	933.1	975.5	974.5	945.9	923.2
65°	805.8	834.4	884.7	889.7	865.0	843.3	879.8	919.3	922.2	896.6	876.8
67.5°	739.7	765.4	802.9	822.6	801.9	779.2	812.7	850.2	849.2	818.7	797.9
70°	660.8	684.5	719.0	735.8	723.0	701.3	731.9	751.6	742.7	727.9	714.1
72.5°	582.9	605.6	638.2	638.2	624.3	603.6	612.5	648.0	658.9	648.0	639.1
75°	501.1	520.8	543.5	548.4	517.8	480.3	521.8	552.3	565.2	560.2	549.4
77.5°	417.2	432.0	465.5	456.7	399.5	379.7	413.3	458.6	467.5	464.6	449.8
80°	321.5	330.4	365.9	348.2	303.8	291.0	305.8	341.3	343.2	333.4	314.6
82.5°	216.0	227.8	251.5	217.0	216.0	204.2	192.3	196.3	214.0	212.1	199.2
85°	110.5	116.4	139.1	130.2	111.5	96.7	91.7	97.6	87.8	79.9	69.0
87.5°	46.4	50.3	69.0	38.5	11.8	0.0	0.0	5.9	8.9	12.8	13.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P634742
 CATALOG NUMBER: GWS-SA3C-735-U-SLL-W

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7
2.5°	1470.6	1481.5	1508.1	1541.6	1574.2	1607.7	1644.2	1666.9	1694.5	1730.0	1731.0
5°	1368.0	1392.7	1431.2	1482.5	1535.7	1596.9	1667.9	1727.1	1798.1	1854.3	1877.0
7.5°	1304.9	1340.4	1388.7	1453.8	1523.9	1599.8	1692.5	1792.2	1908.5	1983.5	2027.9
10°	1310.8	1365.1	1413.4	1468.6	1531.8	1613.6	1733.0	1865.1	2008.2	2106.8	2162.0
12.5°	1416.4	1473.6	1464.7	1461.7	1504.2	1603.8	1765.5	1939.1	2113.7	2212.3	2278.4
15°	1549.5	1571.2	1487.4	1424.3	1449.9	1568.3	1783.3	2005.2	2201.5	2321.8	2386.9
17.5°	1617.6	1574.2	1472.6	1377.9	1371.0	1514.0	1792.2	2072.3	2300.1	2420.4	2489.5
20°	1586.0	1522.9	1437.1	1347.3	1298.0	1440.0	1787.2	2125.5	2389.9	2524.0	2580.2
22.5°	1518.0	1462.7	1395.7	1309.8	1238.8	1359.2	1774.4	2178.8	2469.8	2604.9	2654.2
25°	1444.0	1402.6	1347.3	1272.4	1205.3	1288.1	1765.5	2249.8	2561.5	2690.7	2722.3
27.5°	1370.0	1339.4	1294.1	1235.9	1197.4	1238.8	1768.5	2342.5	2679.9	2802.2	2789.3
30°	1297.0	1270.4	1238.8	1213.2	1196.4	1227.0	1760.6	2441.2	2810.0	2923.5	2847.5
32.5°	1228.0	1203.3	1183.6	1187.5	1197.4	1231.9	1720.2	2530.9	2929.4	3026.1	2910.7
35°	1168.8	1143.2	1143.2	1157.0	1193.5	1215.2	1615.6	2600.9	3061.6	3158.2	3000.4
37.5°	1113.6	1090.9	1105.7	1128.4	1162.9	1169.8	1481.5	2669.0	3253.9	3344.6	3139.5
40°	1065.2	1042.5	1069.2	1097.8	1115.5	1112.6	1345.4	2763.7	3480.8	3574.5	3323.9
42.5°	1026.8	1006.1	1029.7	1066.2	1069.2	1072.1	1245.7	2854.4	3744.1	3863.4	3641.5
45°	995.2	980.4	992.2	1028.7	1028.7	1074.1	1183.6	2930.4	4140.6	4351.7	4224.4
47.5°	970.5	961.7	967.6	979.4	999.2	1109.6	1144.1	2988.6	4862.6	5276.9	5148.6
50°	956.7	947.9	955.8	931.1	990.3	1127.4	1131.3	3033.0	5814.4	6463.4	6304.6
52.5°	944.9	941.9	946.9	889.7	1010.0	1115.5	1121.5	2973.8	6452.6	7631.2	7788.0
55°	941.0	942.9	919.3	859.1	1033.7	1076.1	1091.9	2550.6	6626.2	8638.3	9611.8
57.5°	942.9	937.0	876.8	862.1	1034.7	997.2	1134.3	1819.8	6373.7	9076.2	11396.0
60°	936.0	906.4	825.6	888.7	989.3	904.5	1103.7	1186.6	5707.9	8739.9	11499.6
62.5°	905.4	862.1	781.2	903.5	908.4	849.2	1002.1	914.3	4820.2	8019.8	10501.4
65°	861.1	802.9	743.7	872.9	826.5	823.6	753.6	732.8	3876.3	7162.7	9554.6
67.5°	788.1	729.9	716.1	802.9	743.7	729.9	605.6	607.6	3093.1	6249.4	8602.8
70°	705.2	647.0	657.9	725.9	661.8	606.6	490.2	506.0	2346.5	5206.8	7319.5
72.5°	651.0	573.1	574.0	639.1	581.9	491.2	403.4	417.2	1489.4	3924.6	5819.3
75°	549.4	505.0	483.3	517.8	494.2	382.7	339.3	336.3	882.8	2813.0	4357.6
77.5°	458.6	424.1	413.3	427.1	368.9	283.1	273.2	268.3	500.1	1802.0	2855.4
80°	332.4	323.5	322.5	329.4	284.1	208.1	208.1	209.1	269.3	978.4	1609.7
82.5°	211.1	230.8	204.2	226.9	193.3	147.9	138.1	156.8	154.9	417.2	678.6
85°	87.8	120.3	112.4	119.3	91.7	80.9	86.8	93.7	89.8	160.8	264.3
87.5°	16.8	19.7	21.7	20.7	20.7	25.6	28.6	34.5	34.5	46.4	79.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P634742
 CATALOG NUMBER: GWS-SA3C-735-U-SLL-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7	1607.7
2.5°	1768.5	1797.1	1791.2	1804.0	1787.2	1793.1	1759.6	1750.7	1744.8	1746.8
5°	1950.0	2008.2	2019.0	2040.7	2025.9	2025.9	1966.7	1922.4	1906.6	1894.7
7.5°	2134.4	2218.3	2273.5	2279.4	2271.5	2255.7	2169.9	2090.0	2061.4	2036.8
10°	2298.1	2398.7	2460.9	2490.5	2475.7	2451.0	2344.5	2235.0	2200.5	2178.8
12.5°	2423.4	2512.2	2553.6	2573.3	2571.4	2562.5	2475.7	2357.3	2320.8	2287.3
15°	2504.3	2548.7	2532.9	2531.9	2545.7	2581.2	2554.6	2461.9	2419.5	2388.9
17.5°	2556.6	2514.1	2444.1	2411.6	2441.2	2525.0	2586.2	2533.9	2495.4	2461.9
20°	2575.3	2424.4	2322.8	2262.6	2297.2	2418.5	2569.4	2586.2	2553.6	2526.0
22.5°	2553.6	2314.9	2176.8	2105.8	2139.3	2284.3	2520.1	2628.6	2606.9	2580.2
25°	2500.3	2200.5	2034.8	1970.7	2007.2	2155.1	2432.3	2668.0	2669.0	2647.3
27.5°	2434.3	2095.0	1935.2	1875.0	1910.5	2048.6	2346.5	2702.5	2737.1	2729.2
30°	2367.2	2031.8	1887.8	1845.4	1872.1	1994.4	2258.7	2738.0	2807.1	2820.9
32.5°	2336.6	2062.4	1999.3	2018.0	1983.5	2025.9	2227.1	2788.3	2891.9	2914.6
35°	2377.1	2333.7	2493.4	2567.4	2445.1	2284.3	2267.6	2864.3	3011.3	3044.8
37.5°	2573.3	2914.6	3153.3	3413.7	3201.6	2847.5	2467.8	2993.5	3181.9	3235.2
40°	3000.4	3421.6	3852.6	4188.9	3868.4	3392.0	2848.5	3185.8	3416.6	3465.0
42.5°	3402.8	3897.0	4490.8	4925.7	4509.5	3836.8	3258.8	3509.4	3726.3	3753.0
45°	3797.4	4363.5	5263.0	5867.7	5302.5	4260.0	3678.0	4055.8	4219.5	4220.5
47.5°	4260.0	4889.2	6231.6	7092.7	6354.9	4728.5	4071.6	4920.8	5148.6	5037.2
50°	4813.3	5412.0	7228.8	8517.9	7638.1	5304.5	4571.6	5975.2	6285.9	6159.6
52.5°	5554.0	5988.0	8327.6	9907.7	9036.7	5960.4	5296.6	7367.9	7470.4	7234.7
55°	6596.6	6819.5	9738.0	11623.9	10598.1	6768.2	6356.9	9115.6	8828.6	8153.0
57.5°	8970.7	8135.2	11548.9	13581.7	12364.6	8235.8	8680.7	11042.9	10022.1	8882.9
60°	10957.1	9733.1	13224.7	15524.8	13878.6	9853.4	10862.4	11378.3	9977.7	8802.0
62.5°	10287.4	10140.4	13829.3	15738.8	14395.5	10649.4	10457.0	10533.0	9326.7	8264.4
65°	9025.9	9354.3	13289.8	14723.9	13822.4	9936.3	9458.9	9751.8	8582.0	7511.9
67.5°	8281.2	8522.9	12330.1	13099.4	12780.8	9165.0	8682.6	8470.6	7426.1	6516.7
70°	7519.8	7720.0	10982.8	11060.7	11156.4	7882.7	7099.6	6468.3	5535.3	4899.1
72.5°	6497.9	6508.8	9279.4	8827.6	9009.1	6168.5	5714.8	4836.0	4029.1	3452.1
75°	5451.4	5153.6	7345.2	6170.5	6534.4	4798.5	4745.2	3644.5	3038.9	2565.4
77.5°	4156.4	3808.2	5365.6	4057.8	4589.4	3195.7	3567.5	2471.7	2138.4	1707.3
80°	2790.3	2573.3	2964.9	2290.3	3002.4	2202.5	2326.7	1400.6	1214.2	941.9
82.5°	1471.6	1256.6	1832.6	1358.2	1810.9	1210.2	872.9	433.0	368.9	297.9
85°	570.1	659.9	898.5	483.3	702.3	432.0	252.5	107.5	89.8	68.1
87.5°	110.5	170.6	93.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)