

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: HALO COMMERCIAL

Report Number: P775643

Luminaire Tested: HCDJBL510CSD-HCD42TRC-1000lm-4000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775643
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B049)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD42TRC-1000lm-4000K
Description: 4 INCH ROUND NARROW SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

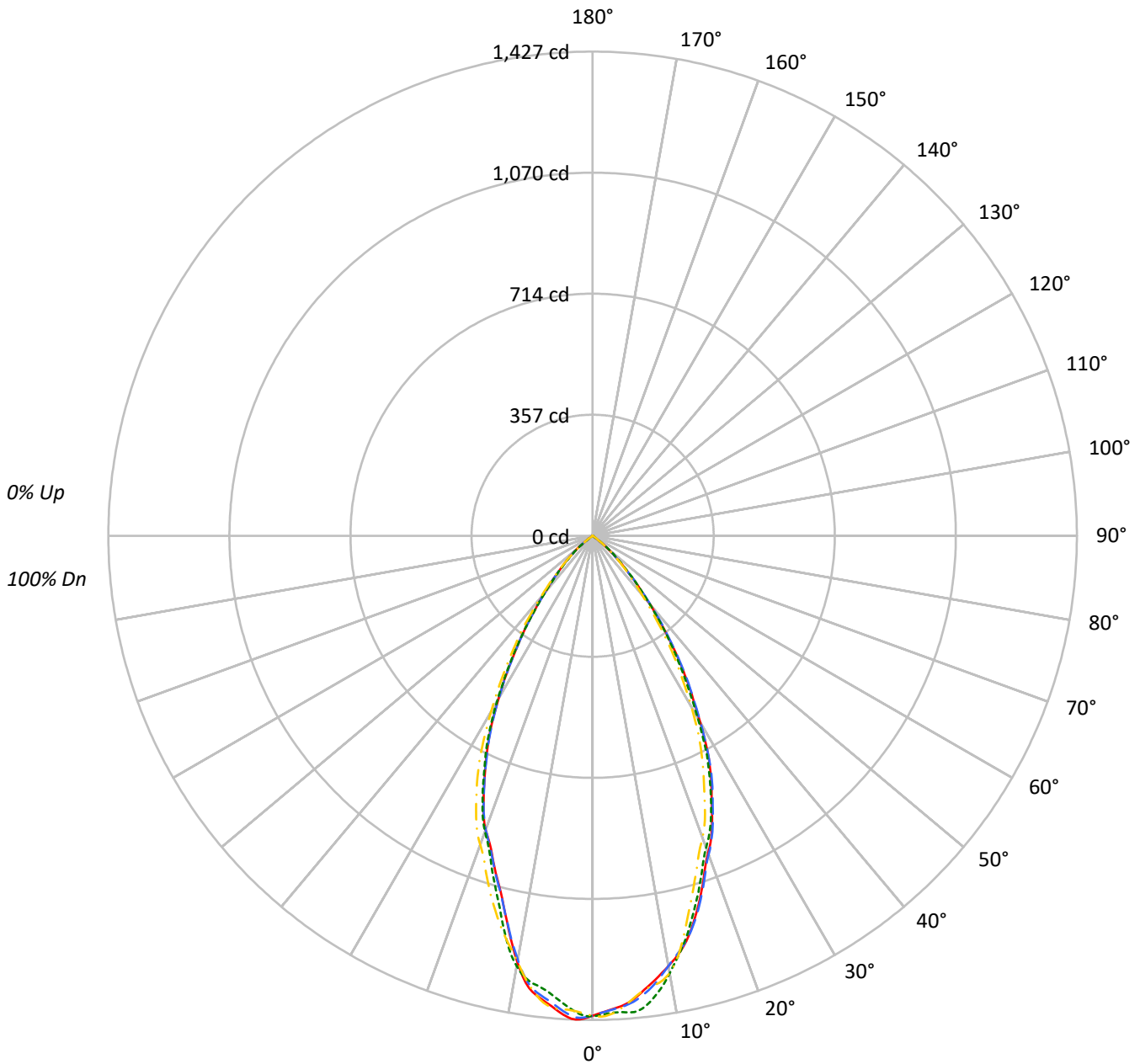
Lumens per Lamp: N/A
Luminaire Lumens: 1164.1 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.84
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 10
Input Voltage (V): NR
Input Current (A_{in}): 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: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100		
	1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93	93	93	93	93	93		
	2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87	87	87	87	87	87		
	3	102	96	91	87	100	95	90	86	92	88	85	89	86	84	87	85	82	81	81	81	81	81	81		
	4	97	90	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75	75	75	75	75	75		
	5	92	84	78	74	90	83	77	73	81	76	73	79	75	72	78	74	71	70	70	70	70	70	70		
	6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	70	66	65	65	65	65	65	65		
	7	83	74	68	63	82	73	67	63	72	67	63	71	66	63	69	65	62	61	61	61	61	61	61		
	8	79	69	63	59	78	69	63	59	68	62	59	67	62	59	66	61	58	57	57	57	57	57	57		
	9	75	65	59	55	74	65	59	55	64	59	55	63	58	55	62	58	55	53	53	53	53	53	53		
	10	72	62	56	52	71	61	56	52	61	55	52	60	55	52	59	55	52	50	50	50	50	50	50		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	178040	178040	178040	178040
5°	173325	178012	175839	171645
10°	164531	167279	163074	164646
15°	151839	149755	139032	142263
20°	133257	130980	123427	124230
25°	115115	114129	103645	104728
30°	91987	89952	80681	81873
35°	67077	65172	56829	57229
40°	42878	42517	36455	35633
45°	23938	24597	21785	21179
50°	10886	11630	10807	10396
55°	636	614	505	570
60°	176	227	201	201
65°	89	119	119	119
70°	74	74	74	74
75°	49	49	49	49
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 24597 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	11.1
10°-20°	312.4	26.8
20°-30°	358.3	30.8
30°-40°	250.5	21.5
40°-50°	102.2	8.8
50°-60°	11.3	1.0
60°-70°	0.4	0.0
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°-30°	799.8	68.7
0°-40°	1050.2	90.2
0°-60°	1163.6	100.0
0°-90°	1164.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1164.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1415	1415	1415	1415	1415	
5°	1372	1409	1392	1359	1372	128
15°	1165	1149	1067	1092	1165	323
25°	829	822	746	754	829	378
35°	437	424	370	372	437	271
45°	134	138	122	119	134	108
55°	3	3	2	3	3	11
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1414.7	1414.7	1414.7	1414.7	1414.7	1414.7	1414.7	1414.7	1414.7	1414.7	1414.7
0.5°	1410.2	1410.1	1410.1	1410.4	1415.4	1415.8	1417.0	1418.3	1418.8	1418.7	1417.4
1°	1406.4	1406.1	1406.6	1407.5	1412.8	1414.6	1417.6	1420.7	1422.8	1422.7	1420.1
1.5°	1402.8	1402.3	1403.3	1405.0	1410.5	1412.4	1416.3	1421.4	1425.7	1425.9	1421.4
2°	1399.3	1398.3	1400.1	1403.2	1408.2	1409.4	1413.0	1419.7	1426.7	1427.6	1420.3
2.5°	1395.9	1394.1	1397.0	1402.1	1406.7	1405.9	1408.0	1415.3	1424.7	1426.7	1416.7
3°	1392.5	1389.2	1394.1	1402.1	1406.2	1402.1	1401.8	1409.1	1420.4	1422.8	1410.9
3.5°	1388.7	1383.5	1391.1	1403.4	1406.6	1398.2	1394.6	1401.7	1414.3	1417.4	1404.0
4°	1384.4	1377.4	1387.8	1405.1	1408.0	1393.9	1386.5	1393.5	1407.3	1410.3	1396.7
4.5°	1378.8	1369.9	1383.8	1407.0	1409.1	1388.9	1377.9	1385.1	1399.7	1403.0	1389.0
5°	1372.0	1361.7	1379.1	1407.7	1409.1	1382.6	1369.4	1376.8	1391.9	1395.7	1381.5
5.5°	1364.0	1353.0	1372.8	1406.2	1406.6	1375.2	1361.1	1369.3	1384.8	1388.2	1374.6
6°	1355.6	1344.4	1365.4	1402.1	1401.4	1366.6	1353.7	1362.7	1378.2	1380.9	1368.3
6.5°	1346.8	1336.7	1357.6	1395.0	1394.1	1358.6	1347.4	1357.2	1371.6	1373.6	1362.1
7°	1338.7	1330.3	1349.4	1385.1	1385.1	1350.8	1342.6	1352.5	1364.4	1365.7	1355.4
7.5°	1330.4	1324.7	1340.6	1372.7	1374.5	1343.4	1339.0	1348.2	1356.3	1355.7	1347.2
8°	1322.5	1319.6	1331.2	1357.9	1363.3	1336.5	1335.5	1343.1	1345.9	1343.2	1336.6
8.5°	1313.5	1315.2	1320.6	1340.7	1351.1	1329.4	1331.8	1336.2	1332.0	1327.7	1323.2
9°	1304.8	1311.1	1309.5	1322.6	1338.3	1321.6	1326.0	1326.9	1315.6	1309.3	1307.6
9.5°	1295.9	1307.2	1298.5	1304.4	1323.8	1313.6	1318.3	1314.7	1296.2	1288.2	1288.9
10°	1287.5	1303.9	1287.5	1286.4	1309.0	1304.7	1308.4	1300.0	1276.1	1265.5	1269.6
10.5°	1278.6	1300.5	1276.8	1270.3	1293.9	1294.6	1295.7	1283.5	1255.0	1240.7	1249.6
11°	1270.0	1296.6	1266.8	1255.5	1278.8	1282.9	1280.8	1265.5	1233.1	1215.7	1229.3
11.5°	1260.4	1290.8	1256.7	1242.4	1264.5	1269.5	1263.2	1246.8	1210.4	1190.6	1208.0
12°	1250.3	1282.2	1246.7	1230.4	1249.6	1254.0	1244.5	1227.6	1188.2	1165.1	1186.4
12.5°	1238.6	1270.4	1236.2	1219.4	1234.4	1236.4	1223.6	1207.6	1165.8	1140.6	1164.3
13°	1226.4	1256.0	1225.6	1208.3	1219.1	1217.8	1202.4	1187.1	1143.5	1117.8	1143.8
13.5°	1212.3	1239.7	1213.3	1196.2	1202.6	1197.3	1180.5	1165.2	1122.2	1096.3	1122.9
14°	1197.7	1222.0	1200.0	1182.8	1185.0	1176.5	1158.8	1145.0	1102.2	1076.8	1103.2
14.5°	1181.9	1203.5	1185.4	1168.8	1167.2	1154.9	1137.4	1124.2	1083.5	1058.4	1085.1
15°	1165.4	1183.9	1170.0	1154.1	1149.4	1134.1	1117.3	1104.9	1067.1	1041.4	1068.9
15.5°	1149.1	1165.4	1153.8	1139.5	1131.5	1114.6	1098.0	1085.9	1050.6	1025.9	1052.9
16°	1132.2	1146.5	1137.2	1124.0	1113.8	1095.5	1078.8	1067.5	1034.7	1010.5	1037.1
16.5°	1114.8	1127.0	1120.0	1107.8	1096.2	1076.4	1059.4	1048.4	1018.1	995.1	1020.6
17°	1096.3	1107.3	1102.2	1090.5	1077.8	1057.3	1041.1	1029.2	1001.8	979.6	1004.4
17.5°	1078.0	1087.0	1084.0	1073.1	1059.1	1038.1	1022.7	1010.3	985.2	964.4	987.9
18°	1059.1	1067.1	1065.1	1055.3	1041.1	1019.0	1004.7	992.6	969.5	950.1	972.6
18.5°	1040.7	1047.8	1046.4	1037.6	1022.9	1001.2	987.6	975.1	955.7	937.4	958.1
19°	1023.6	1030.0	1028.8	1021.1	1006.4	985.0	972.5	960.5	943.6	926.3	946.1
19.5°	1008.5	1014.2	1013.1	1006.8	991.1	971.2	959.2	947.3	932.6	915.8	933.8
20°	995.0	999.9	999.3	994.0	978.0	958.4	946.7	934.4	921.6	904.7	921.6
20.5°	982.8	986.5	986.5	982.4	965.9	945.7	933.6	920.3	908.9	891.7	907.6
21°	968.9	972.2	972.2	970.2	953.6	931.8	918.1	904.4	894.2	876.9	892.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	919.9	923.3	925.0	928.2	911.0	884.8	864.6	846.0	839.3	824.8	839.5
23°	900.5	905.1	906.6	911.4	893.5	867.1	844.8	825.2	820.7	807.8	820.6
23.5°	881.6	887.3	888.6	894.4	875.6	849.9	824.6	806.1	802.1	790.7	801.8
24°	863.3	869.7	870.3	876.2	857.8	833.2	807.3	787.0	783.6	773.6	783.0
24.5°	845.8	853.2	853.3	857.4	839.6	815.6	789.9	767.8	765.0	756.5	764.2
25°	829.0	836.9	835.6	837.4	821.9	798.5	772.6	748.7	746.4	739.4	745.3
25.5°	812.9	821.0	819.1	818.2	803.5	781.6	755.2	730.9	728.6	722.7	726.4
26°	796.0	805.1	801.5	797.7	785.1	764.6	737.9	713.6	711.2	704.8	708.9
26.5°	778.7	788.2	783.7	777.6	766.6	747.6	720.6	696.0	692.8	686.4	690.4
27°	760.5	770.2	764.5	756.3	748.1	727.9	702.8	678.5	674.4	667.5	671.7
27.5°	741.5	751.5	744.7	736.1	729.6	708.5	684.3	660.3	655.4	648.0	652.8
28°	721.1	731.8	723.7	715.0	707.6	688.2	665.4	640.6	636.0	628.2	633.0
28.5°	699.6	711.5	701.7	694.8	685.1	667.5	644.6	620.6	615.5	607.2	612.6
29°	677.0	691.5	679.4	673.9	662.9	647.0	623.7	600.4	595.4	586.3	592.8
29.5°	655.2	670.4	657.2	653.6	640.8	625.8	602.4	579.4	575.3	565.5	572.4
30°	633.0	649.1	635.5	633.2	619.0	604.5	581.4	558.8	555.2	545.8	552.3
30.5°	611.3	627.8	614.3	612.9	597.6	583.5	560.3	539.2	535.3	525.2	532.1
31°	590.2	606.0	593.8	592.0	577.9	563.6	540.0	520.2	515.9	505.5	513.3
31.5°	569.8	585.0	574.4	571.7	556.2	543.4	520.8	501.4	496.8	486.4	494.0
32°	550.2	564.1	555.1	551.3	536.5	523.4	501.7	483.5	477.7	469.1	475.3
32.5°	530.9	543.1	536.2	531.4	516.8	502.7	483.0	465.1	458.2	450.7	456.8
33°	512.3	522.9	517.8	511.8	498.7	483.2	464.3	447.3	439.8	433.2	438.3
33.5°	493.4	502.8	498.6	492.8	478.6	463.4	446.2	429.9	421.2	415.8	420.4
34°	474.6	482.8	479.6	474.3	459.7	444.7	428.0	412.2	404.2	399.7	402.5
34.5°	455.5	462.5	460.4	456.2	441.6	425.3	409.8	393.9	386.7	382.7	385.5
35°	436.6	442.7	441.5	437.8	424.2	406.9	391.1	376.4	369.9	366.4	368.7
35.5°	417.9	423.2	422.7	419.9	406.1	388.7	372.9	359.2	353.6	350.2	352.2
36°	399.3	404.2	403.8	401.7	388.5	371.6	354.7	342.4	337.9	334.8	335.7
36.5°	380.2	385.5	385.5	382.9	371.4	353.3	336.6	325.0	321.6	318.9	319.7
37°	362.7	368.2	367.9	365.4	355.2	336.2	319.0	308.0	305.8	304.4	303.9
37.5°	345.1	350.8	350.4	348.0	337.8	319.4	302.3	292.4	290.4	289.9	288.7
38°	327.6	333.4	333.0	330.4	321.6	303.7	286.0	276.7	275.8	275.8	273.7
38.5°	310.0	316.0	315.4	313.0	305.4	288.0	270.5	261.3	261.6	262.1	259.5
39°	292.5	298.7	297.8	295.5	290.2	272.8	255.5	246.2	247.8	249.1	245.7
39.5°	276.2	282.2	281.3	279.8	273.7	258.3	240.9	231.8	234.4	236.1	232.6
40°	261.0	266.4	265.0	264.5	258.8	244.5	226.8	217.8	221.9	223.8	219.7
40.5°	245.7	251.3	248.8	249.9	244.1	231.0	213.2	204.6	210.0	211.9	207.8
41°	230.6	236.8	233.7	235.4	230.4	218.3	200.5	191.9	198.5	200.7	196.2
41.5°	216.3	222.5	219.2	221.4	216.7	205.9	188.5	180.6	187.6	189.9	185.2
42°	203.5	209.3	205.7	207.8	204.5	194.2	177.3	169.7	176.9	179.6	174.7
42.5°	190.9	196.2	192.4	194.2	192.1	183.1	166.9	160.1	167.1	169.7	164.5
43°	178.7	183.5	179.9	181.6	180.6	172.3	157.2	151.0	157.4	160.2	154.9
43.5°	166.5	170.9	168.1	169.1	169.3	161.9	148.1	142.7	148.1	150.8	145.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	134.5	136.7	135.7	136.2	138.2	133.9	123.6	119.3	122.4	124.6	120.9
45.5°	124.1	126.4	125.7	126.7	129.0	124.8	116.1	112.2	114.7	116.4	113.3
46°	115.2	117.1	116.3	117.6	119.6	116.2	108.8	105.3	107.1	108.5	105.9
46.5°	105.9	107.7	107.2	108.6	111.1	108.3	101.9	98.8	100.2	101.3	99.1
47°	97.6	98.9	98.7	100.3	102.8	101.0	95.2	92.3	93.3	94.3	92.4
47.5°	89.0	90.3	90.3	92.2	95.1	93.6	88.5	85.8	86.4	87.1	85.6
48°	81.5	82.5	82.4	84.3	87.4	86.4	81.8	79.2	79.5	80.0	78.8
48.5°	74.2	75.1	75.1	77.0	79.8	79.0	75.0	72.8	72.6	72.8	72.1
49°	67.9	68.4	68.4	70.1	72.2	71.8	68.9	66.8	66.6	66.9	66.2
49.5°	61.7	61.9	62.0	63.3	65.6	65.4	63.2	61.2	60.7	61.2	60.5
50°	55.6	55.6	55.7	57.0	59.4	59.2	57.0	55.4	55.2	55.5	54.8
50.5°	49.2	49.2	49.1	50.2	52.9	52.7	50.9	49.3	49.3	49.5	48.8
51°	42.2	42.1	41.9	42.9	45.7	45.6	43.9	42.6	42.7	42.7	41.9
51.5°	34.6	34.5	34.4	34.5	38.2	38.0	36.9	35.7	35.8	35.6	35.0
52°	28.3	28.2	28.2	28.3	30.4	30.0	29.1	28.5	28.6	28.2	27.5
52.5°	22.0	21.9	22.1	22.1	23.2	22.6	22.0	21.7	21.4	21.2	20.7
53°	15.7	15.7	15.9	15.8	19.1	18.6	18.0	17.8	17.6	17.4	17.0
53.5°	9.4	9.5	9.8	9.7	15.0	14.6	14.1	13.9	13.8	13.7	13.2
54°	5.7	5.8	6.0	6.0	10.8	10.5	10.2	10.0	10.0	9.9	9.6
54.5°	3.4	3.5	3.7	3.6	6.7	6.5	6.3	6.2	6.2	6.1	5.8
55°	2.9	2.9	3.0	3.0	2.8	2.6	2.4	2.3	2.3	2.3	2.3
55.5°	2.4	2.4	2.5	2.5	2.2	2.1	1.9	1.9	1.8	1.8	1.9
56°	1.9	1.9	2.0	2.1	1.9	1.8	1.7	1.6	1.6	1.6	1.7
56.5°	1.4	1.4	1.5	1.6	1.7	1.6	1.5	1.5	1.4	1.5	1.5
57°	1.3	1.3	1.4	1.5	1.6	1.5	1.4	1.3	1.3	1.3	1.4
57.5°	1.2	1.2	1.3	1.4	1.4	1.4	1.3	1.2	1.2	1.2	1.3
58°	1.1	1.1	1.2	1.3	1.3	1.3	1.2	1.2	1.1	1.1	1.2
58.5°	0.9	0.9	1.1	1.2	1.2	1.2	1.1	1.1	0.9	1.1	1.1
59°	0.8	0.9	0.9	1.1	1.2	1.1	0.9	0.9	0.9	0.9	0.9
59.5°	0.8	0.8	0.9	0.9	1.1	0.9	0.9	0.8	0.8	0.8	0.9
60°	0.7	0.7	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8
60.5°	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7
61°	0.6	0.6	0.7	0.7	0.8	0.7	0.7	0.7	0.6	0.7	0.7
61.5°	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6
62°	0.5	0.5	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
62.5°	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6
63°	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5
63.5°	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64°	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5
64.5°	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4
65°	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
65.5°	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4
66°	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P775643

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
68°	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
68.5°	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2
69°	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
69.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
70°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
70.5°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
71°	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
71.5°	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
72°	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1
72.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
73°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
73.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
76°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
76.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
77°	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
77.5°	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
78°	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775643
CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775643

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1414.7	1414.7	1414.7	1414.7	1414.7	1414.7
0.5°	1415.4	1416.6	1413.6	1412.0	1410.9	1410.2
1°	1416.2	1414.7	1410.7	1408.6	1407.4	1406.4
1.5°	1415.0	1410.8	1407.1	1405.3	1404.2	1402.8
2°	1411.5	1405.4	1402.4	1402.3	1401.6	1399.3
2.5°	1405.5	1398.3	1397.7	1400.2	1399.8	1395.9
3°	1398.1	1390.6	1393.1	1399.0	1398.8	1392.5
3.5°	1389.7	1382.5	1388.4	1398.4	1398.4	1388.7
4°	1381.4	1374.7	1383.4	1398.1	1398.4	1384.4
4.5°	1373.1	1366.7	1377.6	1397.5	1397.8	1378.8
5°	1365.4	1358.7	1371.1	1395.3	1395.6	1372.0
5.5°	1358.4	1351.4	1363.2	1390.5	1391.3	1364.0
6°	1352.2	1345.2	1355.0	1383.3	1384.7	1355.6
6.5°	1347.4	1340.0	1346.6	1374.2	1375.8	1346.8
7°	1343.4	1335.6	1338.4	1363.5	1365.3	1338.7
7.5°	1339.6	1331.6	1330.2	1351.3	1351.6	1330.4
8°	1335.3	1326.8	1321.5	1338.6	1337.9	1322.5
8.5°	1328.8	1320.2	1312.8	1323.8	1321.6	1313.5
9°	1319.8	1311.8	1303.0	1307.8	1305.3	1304.8
9.5°	1307.7	1301.1	1292.4	1291.0	1288.1	1295.9
10°	1293.0	1288.4	1280.9	1275.1	1272.4	1287.5
10.5°	1275.8	1274.6	1268.6	1259.5	1258.0	1278.6
11°	1257.3	1258.3	1255.2	1245.3	1244.6	1270.0
11.5°	1238.2	1239.1	1240.3	1231.4	1232.0	1260.4
12°	1217.5	1218.5	1224.1	1218.0	1220.7	1250.3
12.5°	1196.0	1197.1	1206.6	1204.0	1209.6	1238.6
13°	1174.9	1174.9	1188.5	1190.0	1198.5	1226.4
13.5°	1152.9	1152.7	1168.8	1174.6	1186.5	1212.3
14°	1130.3	1131.3	1148.4	1158.9	1173.8	1197.7
14.5°	1109.3	1111.1	1128.4	1142.8	1160.1	1181.9
15°	1089.2	1091.9	1108.7	1126.9	1146.1	1165.4
15.5°	1070.1	1073.3	1089.7	1110.9	1132.0	1149.1
16°	1051.3	1054.8	1070.6	1094.5	1117.0	1132.2
16.5°	1032.5	1036.8	1051.7	1077.4	1101.2	1114.8
17°	1013.4	1018.6	1033.3	1060.0	1084.4	1096.3
17.5°	994.3	1000.3	1014.4	1042.7	1067.4	1078.0
18°	975.9	982.7	996.1	1025.1	1050.0	1059.1
18.5°	958.7	967.2	979.0	1007.9	1032.7	1040.7
19°	943.8	952.8	964.3	992.7	1016.9	1023.6
19.5°	930.3	940.3	951.2	980.0	1003.6	1008.5
20°	917.3	927.6	938.3	968.7	991.9	995.0
20.5°	903.0	914.7	925.3	957.0	980.3	982.8
21°	887.1	899.9	911.1	944.0	967.6	968.9

TEST NUMBER: P775643

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	832.1	847.8	864.1	897.0	921.3	919.9
23°	813.4	829.0	846.6	878.9	902.7	900.5
23.5°	794.8	810.3	829.3	860.3	884.2	881.6
24°	776.0	791.1	812.0	842.2	865.0	863.3
24.5°	757.4	772.5	794.8	824.2	846.4	845.8
25°	738.7	754.2	776.3	806.3	827.5	829.0
25.5°	722.0	736.8	759.0	788.3	808.6	812.9
26°	704.9	719.3	740.8	769.4	789.0	796.0
26.5°	687.1	701.7	722.4	749.9	769.5	778.7
27°	669.3	683.9	702.6	729.4	748.9	760.5
27.5°	650.2	664.9	683.1	707.9	728.1	741.5
28°	630.9	645.5	662.2	685.0	707.1	721.1
28.5°	610.1	625.4	641.0	663.0	687.3	699.6
29°	589.3	605.3	619.2	640.9	665.9	677.0
29.5°	568.8	583.9	598.0	619.3	645.3	655.2
30°	549.1	563.4	577.2	598.0	624.1	633.0
30.5°	529.8	542.7	556.0	577.6	603.4	611.3
31°	511.6	522.3	535.9	557.0	582.7	590.2
31.5°	493.2	502.4	516.2	537.1	562.3	569.8
32°	476.1	482.6	496.9	517.4	541.8	550.2
32.5°	457.9	463.9	477.7	497.1	521.7	530.9
33°	440.6	445.4	459.1	477.8	502.6	512.3
33.5°	422.6	427.4	440.3	458.9	483.9	493.4
34°	404.5	409.1	421.6	440.3	465.2	474.6
34.5°	386.9	390.5	403.6	422.5	447.0	455.5
35°	369.7	372.5	385.2	404.4	428.7	436.6
35.5°	352.7	355.2	368.4	387.5	411.1	417.9
36°	336.4	337.9	351.6	375.7	392.9	399.3
36.5°	319.9	320.7	334.8	358.2	373.0	380.2
37°	304.7	303.4	318.0	340.4	355.8	362.7
37.5°	288.5	287.3	301.3	322.8	338.6	345.1
38°	272.9	272.3	285.8	305.1	321.4	327.6
38.5°	257.7	257.5	271.0	289.3	304.3	310.0
39°	242.5	243.8	256.9	274.1	288.4	292.5
39.5°	227.7	229.6	243.0	259.2	272.5	276.2
40°	213.8	216.9	229.4	244.4	257.6	261.0
40.5°	200.5	204.1	216.9	230.5	243.0	245.7
41°	188.5	192.6	204.7	217.0	228.9	230.6
41.5°	177.4	181.4	193.2	204.4	215.3	216.3
42°	167.0	170.8	182.8	192.3	201.9	203.5
42.5°	157.6	161.2	172.0	181.0	189.4	190.9
43°	148.8	151.8	161.9	169.4	177.1	178.7
43.5°	140.6	142.9	152.1	158.5	165.3	166.5



TEST NUMBER: P775643

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	118.0	119.0	125.5	128.7	132.8	134.5
45.5°	111.0	111.6	117.1	119.7	123.3	124.1
46°	104.2	104.5	108.9	111.2	114.5	115.2
46.5°	97.6	97.2	100.9	102.8	105.7	105.9
47°	91.2	90.4	93.2	94.7	97.4	97.6
47.5°	84.8	83.7	85.7	87.0	89.5	89.0
48°	78.4	77.1	78.8	79.8	82.0	81.5
48.5°	71.9	71.0	72.2	72.8	74.7	74.2
49°	66.2	65.2	66.2	66.5	68.3	67.9
49.5°	60.5	59.3	60.2	60.2	62.0	61.7
50°	54.7	53.1	54.0	54.1	55.8	55.6
50.5°	48.6	46.6	47.6	47.6	49.3	49.2
51°	41.7	39.3	40.3	40.7	42.4	42.2
51.5°	34.9	33.1	33.9	34.3	34.7	34.6
52°	27.3	26.9	27.5	27.9	28.3	28.3
52.5°	20.9	20.7	21.2	21.4	21.9	22.0
53°	17.1	14.5	14.8	15.0	15.6	15.7
53.5°	13.5	8.3	8.5	8.7	9.1	9.4
54°	9.7	4.9	5.1	5.3	5.6	5.7
54.5°	6.0	2.9	3.2	3.2	3.3	3.4
55°	2.4	2.6	2.7	2.6	2.7	2.9
55.5°	2.0	2.3	2.3	2.3	2.3	2.4
56°	1.8	1.9	1.9	1.9	1.9	1.9
56.5°	1.6	1.6	1.5	1.5	1.4	1.4
57°	1.5	1.4	1.4	1.3	1.3	1.3
57.5°	1.4	1.3	1.3	1.2	1.2	1.2
58°	1.3	1.2	1.2	1.1	1.1	1.1
58.5°	1.2	1.2	1.1	1.1	0.9	0.9
59°	1.1	1.1	0.9	0.9	0.9	0.8
59.5°	0.9	0.9	0.9	0.8	0.8	0.8
60°	0.9	0.8	0.8	0.8	0.7	0.7
60.5°	0.8	0.8	0.8	0.7	0.7	0.7
61°	0.7	0.7	0.7	0.7	0.6	0.6
61.5°	0.7	0.7	0.7	0.6	0.6	0.6
62°	0.6	0.6	0.6	0.6	0.5	0.5
62.5°	0.6	0.6	0.6	0.5	0.5	0.5
63°	0.6	0.6	0.5	0.5	0.5	0.5
63.5°	0.5	0.5	0.5	0.5	0.4	0.4
64°	0.5	0.5	0.5	0.4	0.4	0.4
64.5°	0.5	0.5	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.3	0.3
65.5°	0.4	0.4	0.4	0.3	0.3	0.3
66°	0.4	0.4	0.3	0.3	0.3	0.3



TEST NUMBER: P775643

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.3	0.3	0.3	0.3	0.2	0.2
68°	0.3	0.3	0.3	0.2	0.2	0.2
68.5°	0.3	0.3	0.2	0.2	0.2	0.2
69°	0.2	0.2	0.2	0.2	0.2	0.2
69.5°	0.2	0.2	0.2	0.2	0.2	0.2
70°	0.2	0.2	0.2	0.2	0.2	0.2
70.5°	0.2	0.2	0.2	0.2	0.2	0.1
71°	0.2	0.2	0.2	0.2	0.1	0.1
71.5°	0.2	0.2	0.2	0.1	0.1	0.1
72°	0.2	0.2	0.1	0.1	0.1	0.1
72.5°	0.1	0.1	0.1	0.1	0.1	0.1
73°	0.1	0.1	0.1	0.1	0.1	0.1
73.5°	0.1	0.1	0.1	0.1	0.1	0.1
74°	0.1	0.1	0.1	0.1	0.1	0.1
74.5°	0.1	0.1	0.1	0.1	0.1	0.1
75°	0.1	0.1	0.1	0.1	0.1	0.1
75.5°	0.1	0.1	0.1	0.1	0.1	0.1
76°	0.1	0.1	0.1	0.1	0.1	0.0
76.5°	0.1	0.1	0.1	0.1	0.0	0.0
77°	0.1	0.1	0.1	0.1	0.0	0.0
77.5°	0.1	0.1	0.1	0.0	0.0	0.0
78°	0.1	0.1	0.0	0.0	0.0	0.0
78.5°	0.1	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775643
CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0

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Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°

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21.5°	953.7	957.0	957.3	957.9	940.3	917.3	901.7	886.4	877.4	860.2	875.6
22°	936.8	940.2	941.3	943.9	926.3	901.9	883.9	867.0	858.9	843.0	858.0



44°	155.5	159.1	156.6	157.2	158.5	151.9	139.6	134.2	139.2	141.8	137.2
44.5°	144.9	147.6	145.8	146.3	148.0	142.8	131.7	126.7	130.5	133.1	128.9



66.5°	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
67°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3



89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	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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21.5°	870.3	883.9	896.5	929.7	953.8	953.7
22°	851.6	866.2	880.1	914.4	938.0	936.8



44°	132.6	134.4	143.0	148.1	153.9	155.5
44.5°	125.2	126.6	133.9	138.2	142.9	144.9

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66.5°	0.3	0.3	0.3	0.3	0.3	0.3
67°	0.3	0.3	0.3	0.3	0.3	0.3

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89°	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



(END OF REPORT)