

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: PORTFOLIO

Report Number: P#

Luminaire Tested: **LD4C30D010 EX4C309027 4LBSQLWWH**

Issue Date: 2/18/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C30D010 EX4C309027 4LBSQLWWH
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

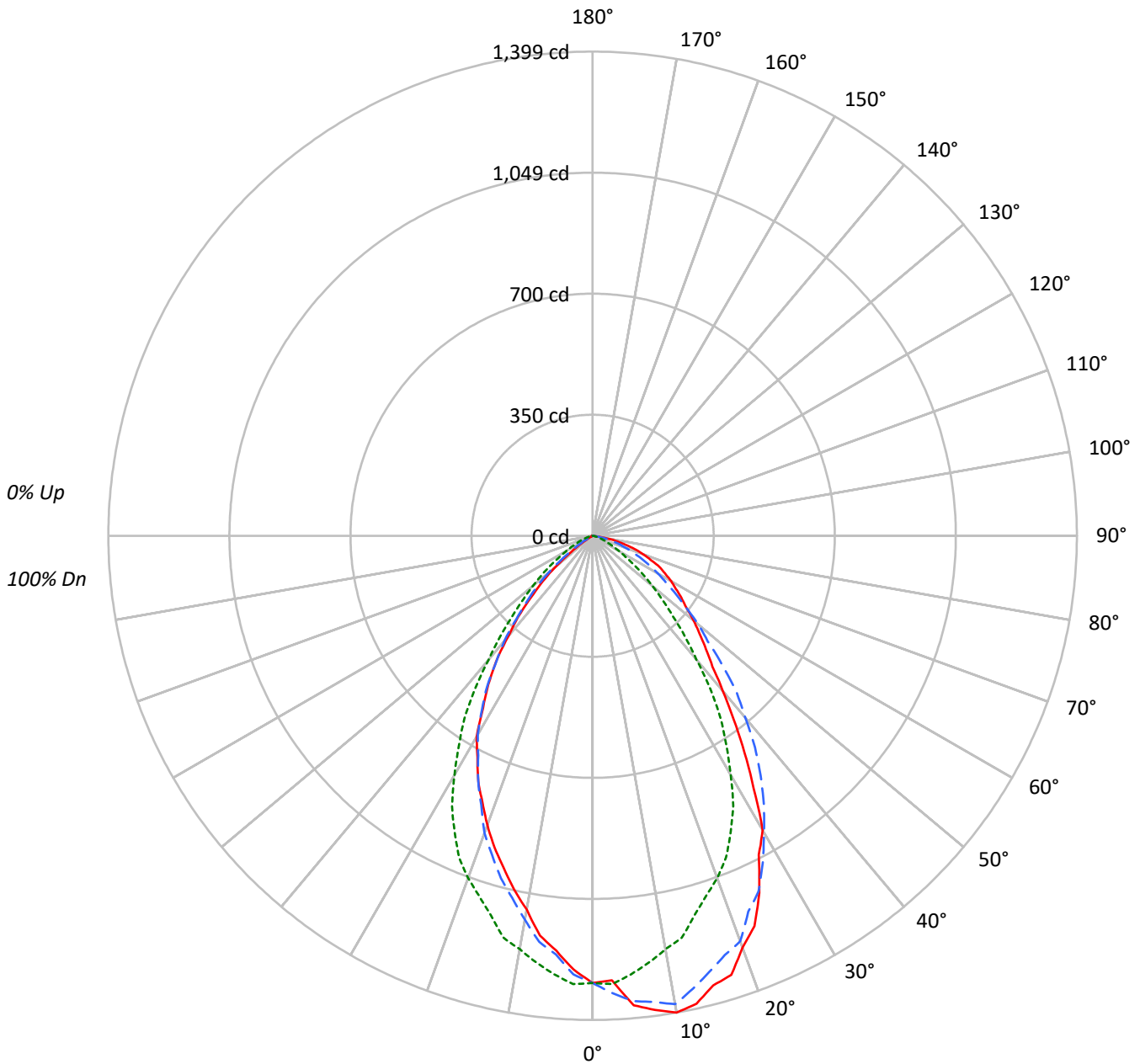
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1852.0 lumens
Efficiency: N/A
Efficacy: 58.6 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
Input Voltage (V):
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

TEST NUMBER: P#
CATALOG NUMBER: LD4C30D010 EX4C309027 4LBSQLWWH

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	124664	124664	124664
5°	131891	123193	116587
10°	137061	118847	107462
15°	134326	113428	99193
20°	129964	108010	91304
25°	121230	100438	83287
30°	109433	88888	74571
35°	90146	76093	61864
40°	73572	58734	47612
45°	63206	44607	34250
50°	57207	33955	21631
55°	52637	24493	7822
60°	50522	16731	1196
65°	48813	11324	365
70°	43700	7871	451
75°	35827	4064	0
80°	22393	1723	0
85°	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309027 4LBSQLWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.1	6.5
10°-20°	326.1	17.6
20°-30°	435.5	23.5
30°-40°	413.4	22.3
40°-50°	285.8	15.4
50°-60°	157.9	8.5
60°-70°	78.4	4.2
70°-80°	30.9	1.7
80°-90°	2.9	0.2
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°-30°	882.7	47.7
0°-40°	1296.1	70.0
0°-60°	1739.8	93.9
0°-90°	1852.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1852.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1292	1292	1292	1292	1292	
5°	1362	1349	1272	1215	1204	130
15°	1345	1304	1136	1024	993	380
25°	1139	1134	943	782	782	519
35°	765	846	646	531	525	479
45°	463	531	327	268	251	361
55°	313	294	146	74	46	282
65°	214	155	50	2	2	207
75°	96	59	11	0	0	102
85°	0	2	0	0	0	9
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309027 4LBSQLWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0
2.5°	1285.8	1321.4	1324.5	1321.4	1326.1	1324.5	1332.3	1324.5	1333.9	1319.9	1323.0
5°	1361.7	1347.8	1377.2	1361.7	1361.7	1360.2	1355.5	1354.0	1360.2	1340.1	1349.4
7.5°	1381.9	1402.0	1428.4	1395.8	1397.4	1397.4	1388.1	1385.0	1385.0	1347.8	1358.6
10°	1398.9	1386.5	1400.5	1388.1	1398.9	1397.4	1403.6	1383.4	1397.4	1375.7	1374.1
12.5°	1385.0	1380.3	1398.9	1378.8	1372.6	1374.1	1366.4	1361.7	1366.4	1341.6	1340.1
15°	1344.7	1349.4	1377.2	1355.5	1352.4	1349.4	1340.1	1324.5	1337.0	1302.9	1304.4
17.5°	1330.8	1323.0	1327.7	1309.1	1313.7	1310.6	1309.1	1295.2	1292.0	1270.3	1270.3
20°	1265.7	1282.7	1282.7	1270.3	1270.3	1268.8	1248.7	1261.0	1247.1	1240.9	1247.1
22.5°	1220.7	1222.3	1222.3	1211.5	1213.0	1206.8	1196.0	1188.2	1196.0	1188.2	1175.8
25°	1138.7	1141.8	1160.4	1140.2	1137.1	1143.3	1134.0	1129.3	1127.8	1109.2	1134.0
27.5°	1039.5	1070.5	1068.9	1061.2	1070.5	1058.1	1053.5	1055.0	1059.7	1058.1	1064.3
30°	982.2	986.8	991.5	985.3	986.8	982.2	982.2	983.7	996.1	991.5	989.9
32.5°	866.0	881.5	893.9	893.9	895.4	900.1	898.5	931.0	938.8	923.3	920.2
35°	765.3	776.2	787.0	788.5	808.7	810.2	811.8	821.1	842.7	847.4	845.8
37.5°	669.3	680.1	683.2	697.1	708.0	718.8	731.2	743.6	762.2	777.7	770.0
40°	584.1	588.7	596.4	602.6	624.3	624.3	630.5	655.3	675.5	687.8	686.3
42.5°	512.8	514.3	520.5	531.4	551.5	546.9	551.5	568.6	598.0	599.5	616.6
45°	463.2	461.6	466.3	467.8	480.3	486.5	489.6	501.9	526.7	529.8	531.4
47.5°	418.3	416.7	424.5	427.6	432.2	438.4	438.4	440.0	449.3	457.0	450.8
50°	381.1	381.1	381.1	384.2	392.0	390.4	392.0	398.2	402.8	399.7	398.2
52.5°	340.8	347.0	351.7	353.2	354.8	354.8	356.3	353.2	351.7	347.0	337.7
55°	312.9	319.1	319.1	319.1	319.1	325.3	317.6	319.1	319.1	306.7	294.4
57.5°	285.1	291.3	295.9	289.7	295.9	289.7	286.6	285.1	281.9	269.5	251.0
60°	261.8	264.9	263.4	261.8	264.9	260.3	257.2	251.0	247.9	230.8	218.4
62.5°	235.5	237.0	238.6	235.5	232.4	230.8	224.6	215.3	209.2	195.2	184.3
65°	213.8	209.2	207.6	206.1	203.0	198.3	193.7	182.8	178.1	165.8	154.9
67.5°	181.2	179.7	182.8	178.1	170.4	170.4	165.8	156.5	145.6	137.9	127.0
70°	154.9	153.4	150.3	145.6	144.1	137.9	137.9	127.0	123.9	110.0	100.7
72.5°	127.0	127.0	122.4	117.7	113.1	110.0	108.5	100.7	96.1	88.3	80.5
75°	96.1	96.1	94.5	89.8	86.7	83.6	82.1	75.9	71.3	63.5	58.9
77.5°	68.2	68.2	62.0	58.9	60.4	57.3	54.2	52.7	51.1	46.5	40.3
80°	40.3	38.7	34.1	35.6	34.1	34.1	32.5	31.0	27.9	24.8	21.7
82.5°	10.9	12.4	12.4	12.4	14.0	10.9	10.9	10.9	12.4	12.4	7.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6
87.5°	1.6	3.1	6.2	6.2	6.2	6.2	6.2	4.7	4.7	4.7	3.1
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: P#

CATALOG NUMBER: LD4C30D010 EX4C309027 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0
2.5°	1307.5	1306.0	1307.5	1296.7	1321.4	1302.9	1299.8	1296.7	1307.5	1296.7	1281.2
5°	1335.4	1319.9	1315.2	1310.6	1324.5	1302.9	1298.2	1299.8	1292.0	1271.9	1273.4
7.5°	1344.7	1330.8	1316.8	1287.4	1299.8	1295.2	1282.7	1273.4	1261.0	1244.0	1240.9
10°	1347.8	1332.3	1312.1	1302.9	1284.3	1278.1	1273.4	1257.9	1242.5	1213.0	1205.3
12.5°	1338.5	1319.9	1295.2	1287.4	1273.4	1253.3	1242.5	1226.9	1213.0	1189.8	1172.7
15°	1298.2	1282.7	1275.0	1248.7	1242.5	1230.0	1208.4	1186.7	1166.5	1135.5	1126.2
17.5°	1251.8	1245.6	1237.8	1217.6	1216.1	1203.7	1183.6	1165.0	1138.7	1090.6	1075.1
20°	1203.7	1203.7	1178.9	1171.2	1186.7	1161.9	1146.4	1129.3	1075.1	1051.9	1024.0
22.5°	1168.1	1151.1	1137.1	1124.7	1126.2	1110.8	1089.1	1055.0	1034.8	1007.0	974.4
25°	1098.4	1104.6	1073.6	1068.9	1073.6	1037.9	1027.1	999.2	969.8	943.4	918.7
27.5°	1055.0	1037.9	1017.8	1000.8	1000.8	986.8	955.9	949.7	904.7	879.9	848.9
30°	989.9	977.5	960.5	935.7	932.6	921.8	897.0	881.5	835.0	797.8	780.8
32.5°	907.8	903.2	889.2	861.4	852.1	839.6	808.7	782.3	760.7	718.8	698.7
35°	848.9	831.9	802.5	779.3	771.5	749.8	725.0	706.4	683.2	646.0	619.7
37.5°	760.7	743.6	715.7	687.8	687.8	666.2	632.1	613.5	581.0	559.2	537.6
40°	683.2	661.5	633.6	601.1	596.4	565.4	551.5	520.5	500.4	466.3	463.2
42.5°	596.4	576.3	551.5	526.7	508.1	492.7	457.0	433.8	412.1	395.1	390.4
45°	517.4	491.1	469.4	438.4	419.8	401.2	378.0	362.5	345.5	326.9	316.0
47.5°	449.3	427.6	396.6	368.7	350.1	340.8	314.5	297.5	283.5	271.1	263.4
50°	379.6	353.2	336.2	305.2	302.1	280.4	258.7	244.8	237.0	226.2	215.3
52.5°	326.9	302.1	278.8	255.6	243.2	235.5	215.3	201.4	190.6	182.8	176.6
55°	275.7	254.1	235.5	212.2	204.5	193.7	170.4	167.3	156.5	145.6	137.9
57.5°	237.0	216.9	195.2	179.7	165.8	158.0	139.4	127.0	120.8	111.6	103.8
60°	201.4	179.7	162.7	144.1	137.9	127.0	113.1	102.3	94.5	86.7	79.0
62.5°	168.9	150.3	131.7	116.2	106.9	100.7	89.8	80.5	72.8	66.6	60.4
65°	139.4	122.4	106.9	91.4	86.7	79.0	71.3	63.5	57.3	49.6	43.4
67.5°	114.7	99.2	83.6	72.8	68.2	65.1	55.8	48.0	43.4	38.7	32.5
70°	89.8	79.0	66.6	57.3	52.7	48.0	41.8	37.2	31.0	27.9	23.2
72.5°	69.7	60.4	49.6	41.8	38.7	35.6	29.4	24.8	21.7	18.6	15.5
75°	49.6	41.8	35.6	27.9	26.3	24.8	20.2	17.1	14.0	10.9	9.3
77.5°	34.1	27.9	21.7	18.6	17.1	14.0	12.4	9.3	7.8	6.2	4.7
80°	18.6	14.0	10.9	9.3	7.8	6.2	6.2	4.7	3.1	3.1	1.6
82.5°	6.2	4.7	3.1	1.6	1.6	1.6	1.6	1.6	1.6	0.0	1.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	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	0.0



TEST NUMBER: P#

CATALOG NUMBER: LD4C30D010 EX4C309027 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0
2.5°	1290.5	1273.4	1278.1	1278.1	1275.0	1275.0	1271.9	1267.2	1268.8	1259.5	1239.4
5°	1276.5	1254.9	1251.8	1254.9	1242.5	1239.4	1233.2	1242.5	1214.6	1225.4	1213.0
7.5°	1236.3	1216.1	1211.5	1222.3	1206.8	1197.5	1196.0	1208.4	1183.6	1171.2	1157.3
10°	1191.3	1183.6	1169.6	1161.9	1157.3	1158.8	1146.4	1130.9	1126.2	1123.1	1110.8
12.5°	1151.1	1134.0	1121.6	1112.3	1109.2	1109.2	1089.1	1086.0	1072.0	1068.9	1050.4
15°	1103.0	1082.9	1075.1	1062.8	1051.9	1058.1	1034.8	1028.6	1024.0	1003.9	1007.0
17.5°	1061.2	1039.5	1020.9	1013.2	1003.9	994.6	972.9	977.5	966.7	966.7	938.8
20°	1007.0	983.7	969.8	954.3	954.3	941.9	926.4	928.0	914.0	900.1	875.3
22.5°	949.7	924.9	907.8	901.6	886.1	883.0	864.5	859.8	841.2	842.7	821.1
25°	889.2	864.5	841.2	842.7	828.8	822.6	811.8	790.1	782.3	773.1	766.9
27.5°	818.0	800.9	780.8	779.3	752.9	754.4	740.5	734.3	715.7	720.4	706.4
30°	752.9	728.1	709.5	704.9	694.0	690.9	669.3	659.9	663.1	650.6	642.9
32.5°	686.3	649.1	641.4	632.1	625.9	618.1	602.6	608.8	594.9	598.0	585.6
35°	598.0	582.5	562.3	562.3	556.1	550.0	539.1	545.3	531.4	525.2	512.8
37.5°	523.6	509.7	489.6	495.8	484.9	475.6	466.3	467.8	455.4	453.9	441.5
40°	443.1	435.3	421.4	421.4	413.6	413.6	409.0	404.3	396.6	387.3	373.3
42.5°	367.1	360.9	354.8	356.3	345.5	354.8	342.4	350.1	325.3	323.8	314.5
45°	311.4	297.5	299.0	292.8	286.6	289.7	278.8	281.9	268.0	264.9	255.6
47.5°	252.5	247.9	238.6	235.5	235.5	230.8	226.2	224.6	218.4	210.7	198.3
50°	207.6	190.6	187.4	182.8	179.7	179.7	173.5	164.2	165.8	158.0	145.6
52.5°	162.7	148.7	142.5	141.0	134.8	131.7	123.9	117.7	113.1	110.0	102.3
55°	125.5	113.1	105.4	105.4	96.1	96.1	85.2	80.5	74.4	68.2	63.5
57.5°	94.5	88.3	80.5	74.4	71.3	63.5	57.3	49.6	44.9	35.6	29.4
60°	71.3	65.1	57.3	52.7	49.6	41.8	34.1	27.9	17.1	14.0	12.4
62.5°	52.7	46.5	38.7	35.6	32.5	26.3	18.6	9.3	4.7	4.7	4.7
65°	38.7	31.0	24.8	21.7	18.6	14.0	6.2	3.1	1.6	1.6	1.6
67.5°	26.3	20.2	14.0	12.4	9.3	4.7	1.6	1.6	1.6	1.6	1.6
70°	17.1	12.4	6.2	4.7	3.1	1.6	1.6	1.6	1.6	1.6	1.6
72.5°	10.9	6.2	3.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.2	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.6	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
85°	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	1.6	1.6	1.6
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: P#

CATALOG NUMBER: LD4C30D010 EX4C309027 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0
2.5°	1261.0	1250.2	1256.4	1242.5	1248.7	1259.5	1251.8	1254.9
5°	1217.6	1211.5	1203.7	1183.6	1199.1	1211.5	1205.3	1203.7
7.5°	1171.2	1149.5	1160.4	1154.2	1151.1	1163.4	1149.5	1165.0
10°	1123.1	1107.7	1106.2	1095.3	1095.3	1104.6	1106.2	1096.8
12.5°	1051.9	1044.2	1044.2	1042.6	1041.0	1050.4	1051.9	1047.3
15°	1000.8	997.7	989.9	988.4	979.1	993.0	994.6	993.0
17.5°	938.8	940.3	932.6	932.6	938.8	943.4	931.0	943.4
20°	897.0	889.2	886.1	872.2	879.9	887.7	887.7	889.2
22.5°	836.5	824.2	828.8	821.1	816.4	827.3	827.3	831.9
25°	768.4	768.4	771.5	766.9	770.0	776.2	771.5	782.3
27.5°	703.3	709.5	709.5	703.3	706.4	725.0	732.8	720.4
30°	642.9	644.5	649.1	646.0	655.3	661.5	659.9	669.3
32.5°	574.8	582.5	585.6	581.0	584.1	598.0	590.3	588.7
35°	522.1	508.1	506.6	508.1	514.3	517.4	514.3	525.2
37.5°	446.2	441.5	435.3	436.9	441.5	447.7	450.8	458.5
40°	373.3	367.1	367.1	365.6	360.9	378.0	378.0	378.0
42.5°	309.8	308.3	300.6	300.6	306.7	311.4	308.3	319.1
45°	254.1	247.9	243.2	243.2	247.9	247.9	252.5	251.0
47.5°	199.9	193.7	195.2	190.6	195.2	201.4	193.7	195.2
50°	150.3	150.3	147.2	150.3	148.7	150.3	147.2	144.1
52.5°	102.3	116.2	117.7	111.6	97.6	85.2	77.4	83.6
55°	58.9	52.7	52.7	51.1	48.0	46.5	41.8	46.5
57.5°	29.4	26.3	26.3	26.3	24.8	23.2	20.2	20.2
60°	12.4	10.9	10.9	9.3	7.8	6.2	4.7	6.2
62.5°	4.7	3.1	3.1	3.1	3.1	3.1	3.1	3.1
65°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
67.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
70°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	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
82.5°	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
87.5°	0.0	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



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)