

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



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: -

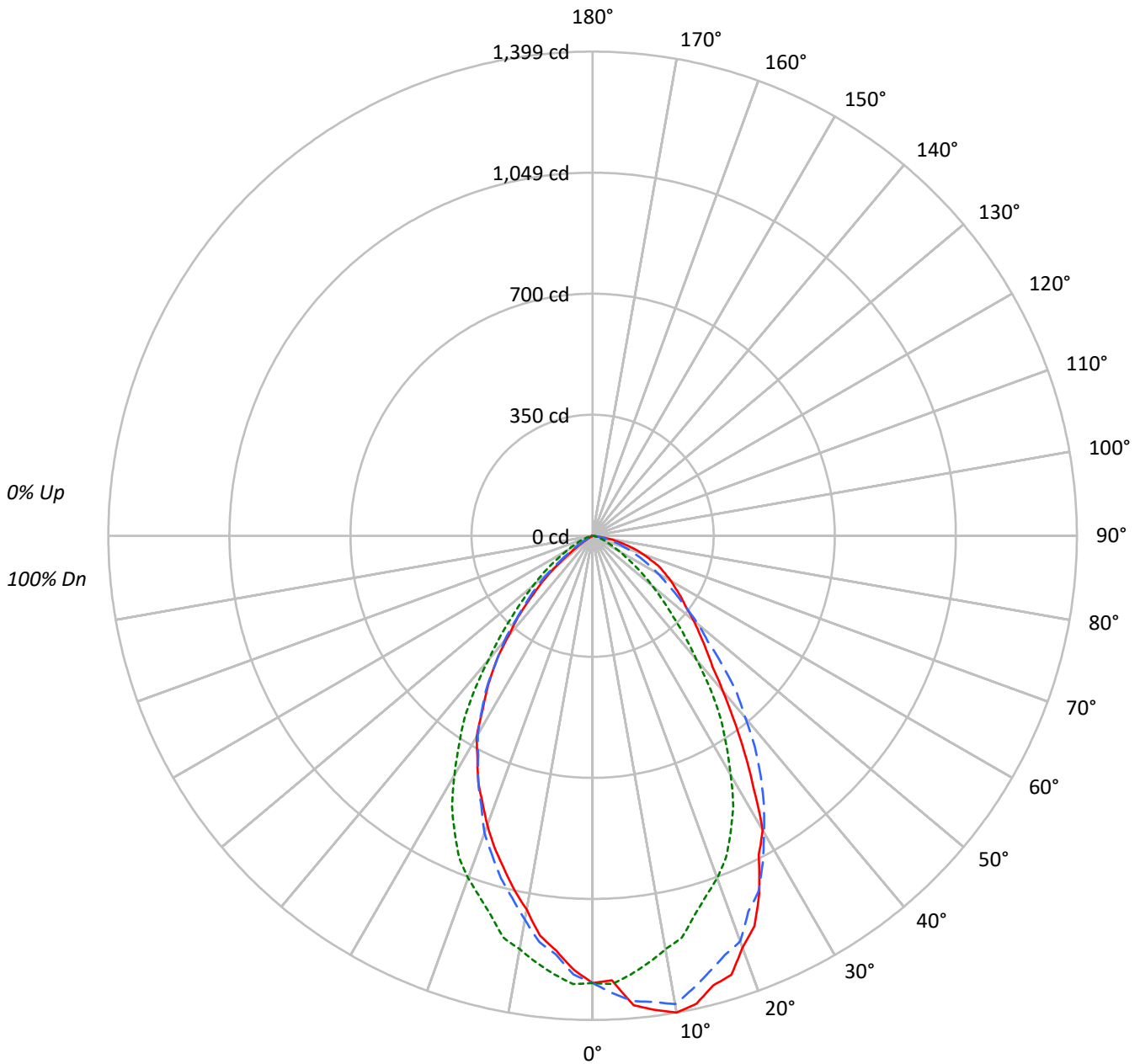
Summary

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 (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: 25 FT

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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	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



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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	



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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



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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



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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)