

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 EX4C309050 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 EX4C309050 4LBSQLWWH
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

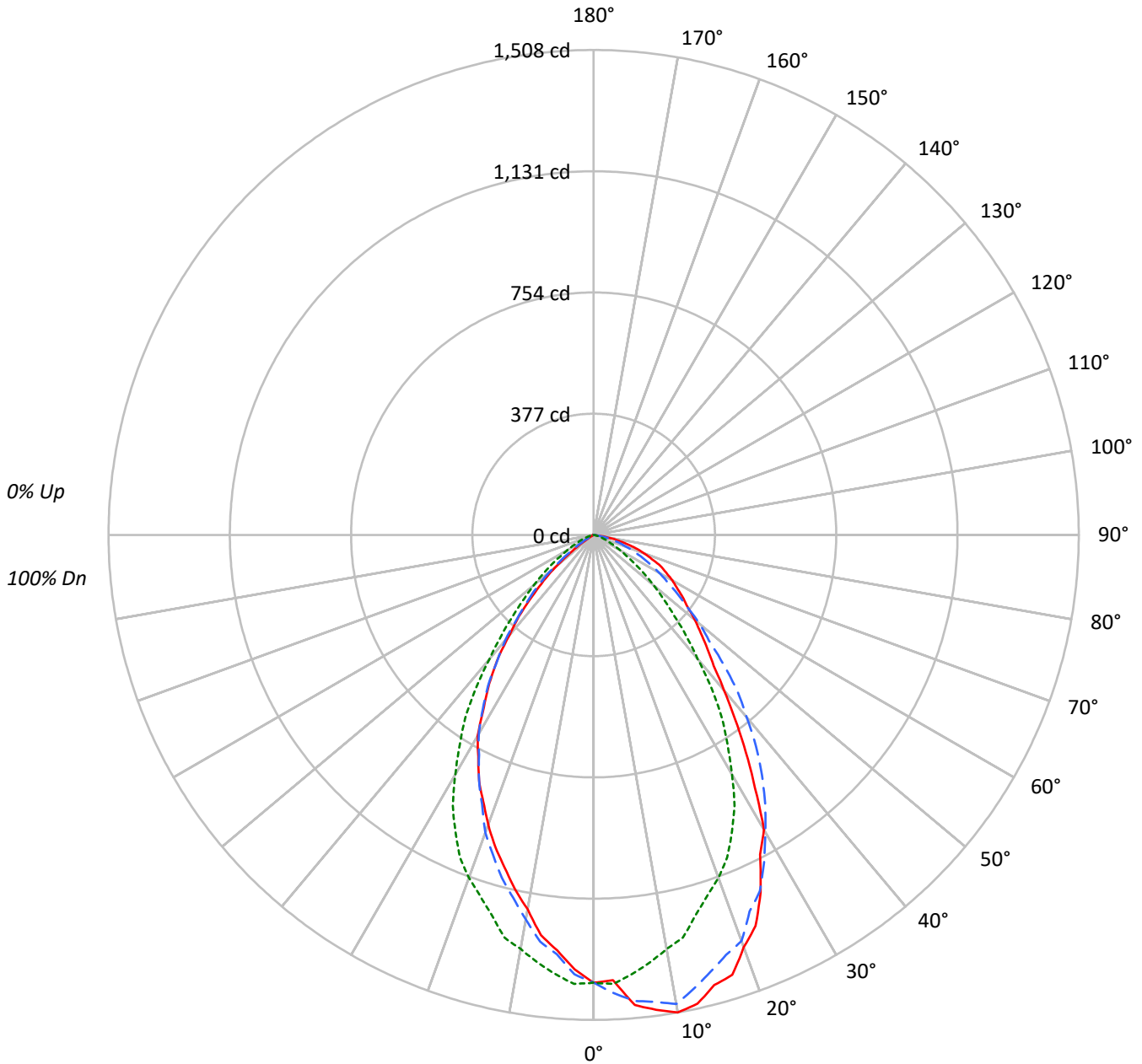
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1996.0 lumens
Efficiency: N/A
Efficacy: 63.2 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									
RC	80									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°	134361	134361	134361
5°	142148	132772	125653
10°	147721	128096	115819
15°	144764	122249	106905
20°	140068	116410	98410
25°	130652	108252	89770
30°	117945	95806	80364
35°	97154	82018	66670
40°	79290	63306	51315
45°	68119	48073	36911
50°	61650	36597	23312
55°	56742	26394	8428
60°	54458	18043	1293
65°	52603	12192	388
70°	47085	8463	480
75°	38585	4362	0
80°	24116	1834	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.5	6.5
10°-20°	351.5	17.6
20°-30°	469.4	23.5
30°-40°	445.6	22.3
40°-50°	308.0	15.4
50°-60°	170.2	8.5
60°-70°	84.5	4.2
70°-80°	33.3	1.7
80°-90°	3.2	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°	951.3	47.7
0°-40°	1396.9	70.0
0°-60°	1875.0	93.9
0°-90°	1996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1996.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1392	1392	1392	1392	1392	
5°	1468	1454	1371	1309	1297	141
15°	1449	1406	1224	1104	1070	410
25°	1227	1222	1017	843	843	559
35°	825	912	696	573	566	517
45°	499	573	352	289	270	389
55°	337	317	157	80	50	304
65°	230	167	53	2	2	224
75°	104	64	12	0	0	110
85°	0	2	0	0	0	10
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°	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5
2.5°	1385.8	1424.2	1427.5	1424.2	1429.2	1427.5	1435.9	1427.5	1437.6	1422.5	1425.9
5°	1467.6	1452.6	1484.3	1467.6	1467.6	1466.0	1460.9	1459.2	1466.0	1444.3	1454.3
7.5°	1489.3	1511.0	1539.4	1504.4	1506.0	1506.0	1496.0	1492.7	1492.7	1452.6	1464.3
10°	1507.7	1494.3	1509.3	1496.0	1507.7	1506.0	1512.7	1491.0	1506.0	1482.7	1481.0
12.5°	1492.7	1487.6	1507.7	1486.0	1479.3	1481.0	1472.7	1467.6	1472.7	1445.9	1444.3
15°	1449.2	1454.3	1484.3	1460.9	1457.6	1454.3	1444.3	1427.5	1440.9	1404.2	1405.9
17.5°	1434.3	1425.9	1430.9	1410.8	1415.9	1412.5	1410.8	1395.9	1392.5	1369.1	1369.1
20°	1364.1	1382.4	1382.4	1369.1	1369.1	1367.5	1345.8	1359.1	1344.0	1337.4	1344.0
22.5°	1315.7	1317.4	1317.4	1305.7	1307.4	1300.7	1289.0	1280.6	1289.0	1280.6	1267.3
25°	1227.2	1230.6	1250.6	1228.9	1225.5	1232.2	1222.2	1217.1	1215.5	1195.5	1222.2
27.5°	1120.3	1153.7	1152.1	1143.7	1153.7	1140.4	1135.4	1137.0	1142.1	1140.4	1147.0
30°	1058.6	1063.6	1068.6	1061.9	1063.6	1058.6	1058.6	1060.2	1073.6	1068.6	1066.9
32.5°	933.3	950.0	963.4	963.4	965.0	970.1	968.4	1003.4	1011.8	995.1	991.8
35°	824.8	836.5	848.2	849.9	871.6	873.2	874.9	884.9	908.3	913.3	911.6
37.5°	721.3	733.0	736.3	751.3	763.0	774.7	788.1	801.4	821.5	838.1	829.8
40°	629.5	634.4	642.8	649.5	672.8	672.8	679.5	706.3	728.0	741.3	739.6
42.5°	552.7	554.3	561.0	572.7	594.4	589.4	594.4	612.8	644.5	646.2	664.5
45°	499.2	497.5	502.6	504.2	517.6	524.3	527.6	541.0	567.7	571.0	572.7
47.5°	450.8	449.1	457.5	460.8	465.8	472.5	472.5	474.2	484.2	492.6	485.9
50°	410.7	410.7	410.7	414.1	422.4	420.7	422.4	429.1	434.1	430.7	429.1
52.5°	367.3	374.0	379.0	380.7	382.3	382.3	384.0	380.7	379.0	374.0	364.0
55°	337.3	343.9	343.9	343.9	343.9	350.6	342.3	343.9	343.9	330.6	317.3
57.5°	307.2	313.9	318.9	312.2	318.9	312.2	308.9	307.2	303.8	290.5	270.5
60°	282.2	285.5	283.8	282.2	285.5	280.5	277.2	270.5	267.1	248.8	235.4
62.5°	253.8	255.4	257.1	253.8	250.5	248.8	242.1	232.1	225.4	210.4	198.7
65°	230.4	225.4	223.7	222.1	218.7	213.7	208.7	197.0	192.0	178.6	166.9
67.5°	195.3	193.7	197.0	192.0	183.7	183.7	178.6	168.6	156.9	148.6	136.9
70°	166.9	165.3	162.0	156.9	155.3	148.6	148.6	136.9	133.6	118.5	108.5
72.5°	136.9	136.9	131.9	126.9	121.9	118.5	116.9	108.5	103.5	95.2	86.8
75°	103.5	103.5	101.8	96.8	93.5	90.1	88.5	81.8	76.8	68.5	63.5
77.5°	73.5	73.5	66.8	63.5	65.1	61.8	58.4	56.8	55.1	50.1	43.4
80°	43.4	41.7	36.8	38.4	36.8	36.8	35.1	33.4	30.0	26.7	23.4
82.5°	11.7	13.3	13.3	13.3	15.0	11.7	11.7	11.7	13.3	13.3	8.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	1.7
87.5°	1.7	3.3	6.7	6.7	6.7	6.7	6.7	5.0	5.0	5.0	3.3
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°	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5
2.5°	1409.2	1407.5	1409.2	1397.5	1424.2	1404.2	1400.8	1397.5	1409.2	1397.5	1380.8
5°	1439.2	1422.5	1417.5	1412.5	1427.5	1404.2	1399.2	1400.8	1392.5	1370.8	1372.4
7.5°	1449.2	1434.3	1419.2	1387.5	1400.8	1395.9	1382.4	1372.4	1359.1	1340.7	1337.4
10°	1452.6	1435.9	1414.2	1404.2	1384.1	1377.5	1372.4	1355.8	1339.1	1307.4	1299.0
12.5°	1442.6	1422.5	1395.9	1387.5	1372.4	1350.7	1339.1	1322.3	1307.4	1282.3	1263.9
15°	1399.2	1382.4	1374.1	1345.8	1339.1	1325.7	1302.3	1279.0	1257.2	1223.8	1213.8
17.5°	1349.1	1342.4	1334.0	1312.3	1310.7	1297.3	1275.6	1255.5	1227.2	1175.4	1158.7
20°	1297.3	1297.3	1270.6	1262.3	1279.0	1252.2	1235.5	1217.1	1158.7	1133.7	1103.7
22.5°	1258.9	1240.6	1225.5	1212.2	1213.8	1197.1	1173.8	1137.0	1115.3	1085.3	1050.2
25°	1183.8	1190.5	1157.1	1152.1	1157.1	1118.6	1107.0	1076.9	1045.2	1016.8	990.1
27.5°	1137.0	1118.6	1097.0	1078.6	1078.6	1063.6	1030.2	1023.5	975.1	948.4	914.9
30°	1066.9	1053.5	1035.2	1008.5	1005.1	993.4	966.7	950.0	900.0	859.9	841.5
32.5°	978.4	973.4	958.4	928.3	918.3	904.9	871.6	843.2	819.8	774.7	753.0
35°	914.9	896.6	864.9	839.8	831.5	808.1	781.4	761.3	736.3	696.3	667.9
37.5°	819.8	801.4	771.4	741.3	741.3	718.0	681.2	661.2	626.1	602.7	579.4
40°	736.3	712.9	682.9	647.9	642.8	609.4	594.4	561.0	539.3	502.6	499.2
42.5°	642.8	621.1	594.4	567.7	547.6	531.0	492.6	467.5	444.2	425.8	420.7
45°	557.6	529.3	505.9	472.5	452.5	432.4	407.4	390.7	372.3	352.3	340.6
47.5°	484.2	460.8	427.4	397.4	377.4	367.3	338.9	320.6	305.5	292.2	283.8
50°	409.1	380.7	362.3	328.9	325.6	302.2	278.9	263.8	255.4	243.8	232.1
52.5°	352.3	325.6	300.5	275.5	262.1	253.8	232.1	217.0	205.4	197.0	190.4
55°	297.2	273.8	253.8	228.8	220.4	208.7	183.7	180.3	168.6	156.9	148.6
57.5°	255.4	233.7	210.4	193.7	178.6	170.3	150.3	136.9	130.2	120.2	111.9
60°	217.0	193.7	175.3	155.3	148.6	136.9	121.9	110.2	101.8	93.5	85.2
62.5°	182.0	162.0	141.9	125.2	115.2	108.5	96.8	86.8	78.5	71.8	65.1
65°	150.3	131.9	115.2	98.5	93.5	85.2	76.8	68.5	61.8	53.4	46.8
67.5°	123.6	106.9	90.1	78.5	73.5	70.1	60.1	51.7	46.8	41.7	35.1
70°	96.8	85.2	71.8	61.8	56.8	51.7	45.1	40.1	33.4	30.0	25.1
72.5°	75.2	65.1	53.4	45.1	41.7	38.4	31.7	26.7	23.4	20.0	16.7
75°	53.4	45.1	38.4	30.0	28.4	26.7	21.7	18.4	15.0	11.7	10.0
77.5°	36.8	30.0	23.4	20.0	18.4	15.0	13.3	10.0	8.4	6.7	5.0
80°	20.0	15.0	11.7	10.0	8.4	6.7	6.7	5.0	3.3	3.3	1.7
82.5°	6.7	5.0	3.3	1.7	1.7	1.7	1.7	1.7	1.7	0.0	1.7
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°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	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°	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5
2.5°	1390.8	1372.4	1377.5	1377.5	1374.1	1374.1	1370.8	1365.8	1367.5	1357.4	1335.7
5°	1375.8	1352.4	1349.1	1352.4	1339.1	1335.7	1329.1	1339.1	1309.0	1320.7	1307.4
7.5°	1332.4	1310.7	1305.7	1317.4	1300.7	1290.6	1289.0	1302.3	1275.6	1262.3	1247.2
10°	1283.9	1275.6	1260.6	1252.2	1247.2	1248.9	1235.5	1218.8	1213.8	1210.5	1197.1
12.5°	1240.6	1222.2	1208.8	1198.8	1195.5	1195.5	1173.8	1170.4	1155.4	1152.1	1132.0
15°	1188.8	1167.1	1158.7	1145.4	1133.7	1140.4	1115.3	1108.6	1103.7	1081.9	1085.3
17.5°	1143.7	1120.3	1100.3	1091.9	1081.9	1071.9	1048.5	1053.5	1041.8	1041.8	1011.8
20°	1085.3	1060.2	1045.2	1028.5	1028.5	1015.2	998.5	1000.1	985.1	970.1	943.3
22.5°	1023.5	996.8	978.4	971.7	955.0	951.7	931.7	926.6	906.6	908.3	884.9
25°	958.4	931.7	906.6	908.3	893.3	886.6	874.9	851.6	843.2	833.2	826.5
27.5°	881.6	863.2	841.5	839.8	811.5	813.1	798.1	791.4	771.4	776.4	761.3
30°	811.5	784.8	764.7	759.7	748.0	744.7	721.3	711.2	714.6	701.2	692.9
32.5°	739.6	699.6	691.2	681.2	674.5	666.2	649.5	656.2	641.1	644.5	631.1
35°	644.5	627.8	606.1	606.1	599.4	592.7	581.1	587.7	572.7	566.0	552.7
37.5°	564.3	549.3	527.6	534.3	522.6	512.6	502.6	504.2	490.9	489.2	475.8
40°	477.5	469.1	454.2	454.2	445.8	445.8	440.8	435.8	427.4	417.4	402.4
42.5°	395.7	389.0	382.3	384.0	372.3	382.3	369.0	377.4	350.6	349.0	338.9
45°	335.6	320.6	322.2	315.6	308.9	312.2	300.5	303.8	288.9	285.5	275.5
47.5°	272.2	267.1	257.1	253.8	253.8	248.8	243.8	242.1	235.4	227.0	213.7
50°	223.7	205.4	202.0	197.0	193.7	193.7	187.0	177.0	178.6	170.3	156.9
52.5°	175.3	160.3	153.6	152.0	145.3	141.9	133.6	126.9	121.9	118.5	110.2
55°	135.2	121.9	113.6	113.6	103.5	103.5	91.8	86.8	80.1	73.5	68.5
57.5°	101.8	95.2	86.8	80.1	76.8	68.5	61.8	53.4	48.4	38.4	31.7
60°	76.8	70.1	61.8	56.8	53.4	45.1	36.8	30.0	18.4	15.0	13.3
62.5°	56.8	50.1	41.7	38.4	35.1	28.4	20.0	10.0	5.0	5.0	5.0
65°	41.7	33.4	26.7	23.4	20.0	15.0	6.7	3.3	1.7	1.7	1.7
67.5°	28.4	21.7	15.0	13.3	10.0	5.0	1.7	1.7	1.7	1.7	1.7
70°	18.4	13.3	6.7	5.0	3.3	1.7	1.7	1.7	1.7	1.7	1.7
72.5°	11.7	6.7	3.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.7	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.7	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	1.7	1.7	1.7
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 EX4C309050 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5	1392.5
2.5°	1359.1	1347.4	1354.1	1339.1	1345.8	1357.4	1349.1	1352.4
5°	1312.3	1305.7	1297.3	1275.6	1292.3	1305.7	1299.0	1297.3
7.5°	1262.3	1238.9	1250.6	1243.9	1240.6	1253.9	1238.9	1255.5
10°	1210.5	1193.8	1192.2	1180.5	1180.5	1190.5	1192.2	1182.1
12.5°	1133.7	1125.4	1125.4	1123.7	1122.0	1132.0	1133.7	1128.7
15°	1078.6	1075.3	1066.9	1065.3	1055.2	1070.2	1071.9	1070.2
17.5°	1011.8	1013.4	1005.1	1005.1	1011.8	1016.8	1003.4	1016.8
20°	966.7	958.4	955.0	940.0	948.4	956.7	956.7	958.4
22.5°	901.6	888.2	893.3	884.9	879.9	891.6	891.6	896.6
25°	828.1	828.1	831.5	826.5	829.8	836.5	831.5	843.2
27.5°	758.0	764.7	764.7	758.0	761.3	781.4	789.7	776.4
30°	692.9	694.6	699.6	696.3	706.3	712.9	711.2	721.3
32.5°	619.5	627.8	631.1	626.1	629.5	644.5	636.1	634.4
35°	562.7	547.6	546.0	547.6	554.3	557.6	554.3	566.0
37.5°	480.9	475.8	469.1	470.8	475.8	482.6	485.9	494.2
40°	402.4	395.7	395.7	394.1	389.0	407.4	407.4	407.4
42.5°	333.9	332.2	323.9	323.9	330.6	335.6	332.2	343.9
45°	273.8	267.1	262.1	262.1	267.1	267.1	272.2	270.5
47.5°	215.4	208.7	210.4	205.4	210.4	217.0	208.7	210.4
50°	162.0	162.0	158.6	162.0	160.3	162.0	158.6	155.3
52.5°	110.2	125.2	126.9	120.2	105.2	91.8	83.5	90.1
55°	63.5	56.8	56.8	55.1	51.7	50.1	45.1	50.1
57.5°	31.7	28.4	28.4	28.4	26.7	25.1	21.7	21.7
60°	13.3	11.7	11.7	10.0	8.4	6.7	5.0	6.7
62.5°	5.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3
65°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
67.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
70°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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)