

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

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: -

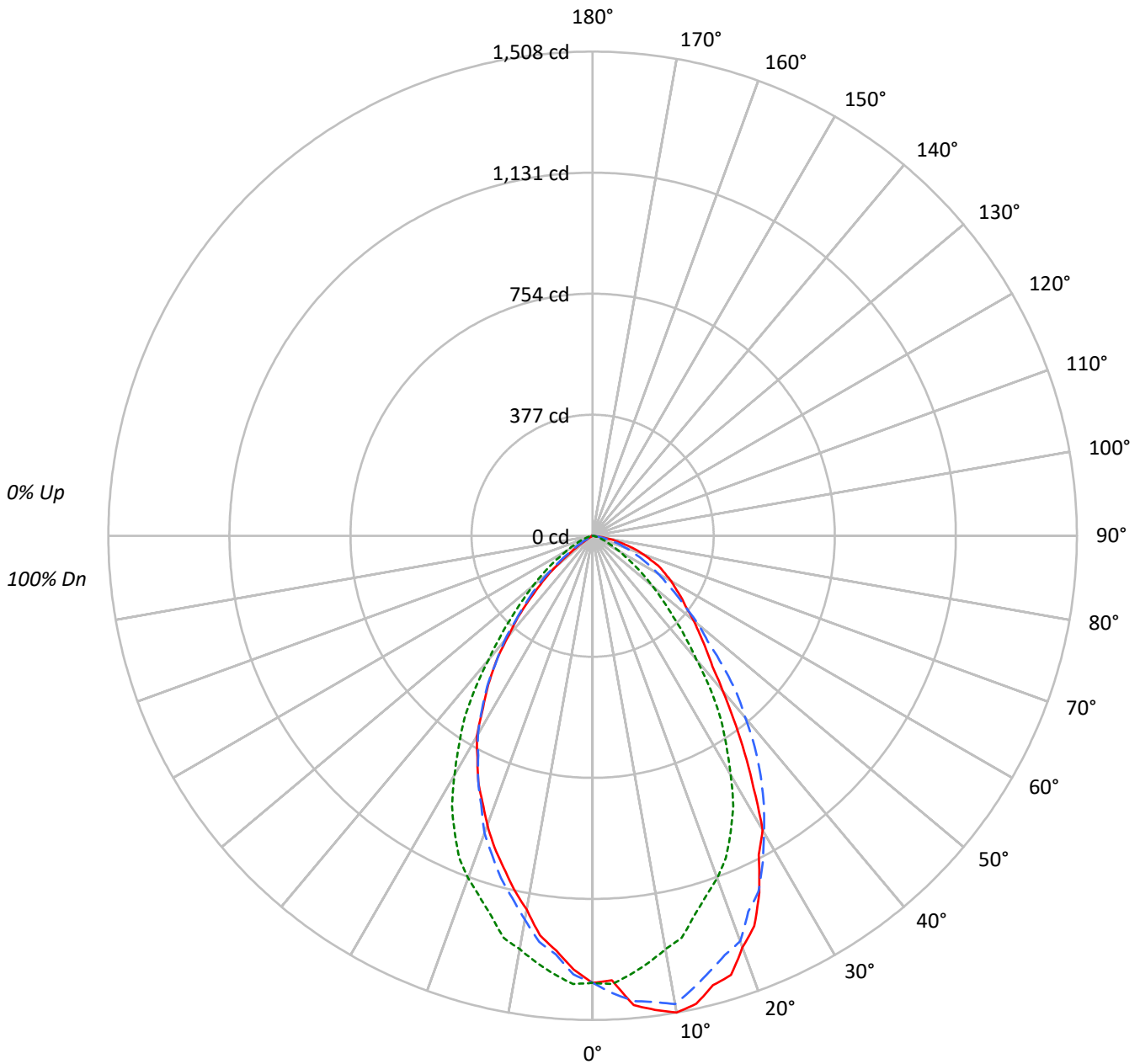
Summary

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)