

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 EX4C309030 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 EX4C309030 4LBSQLWWH
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

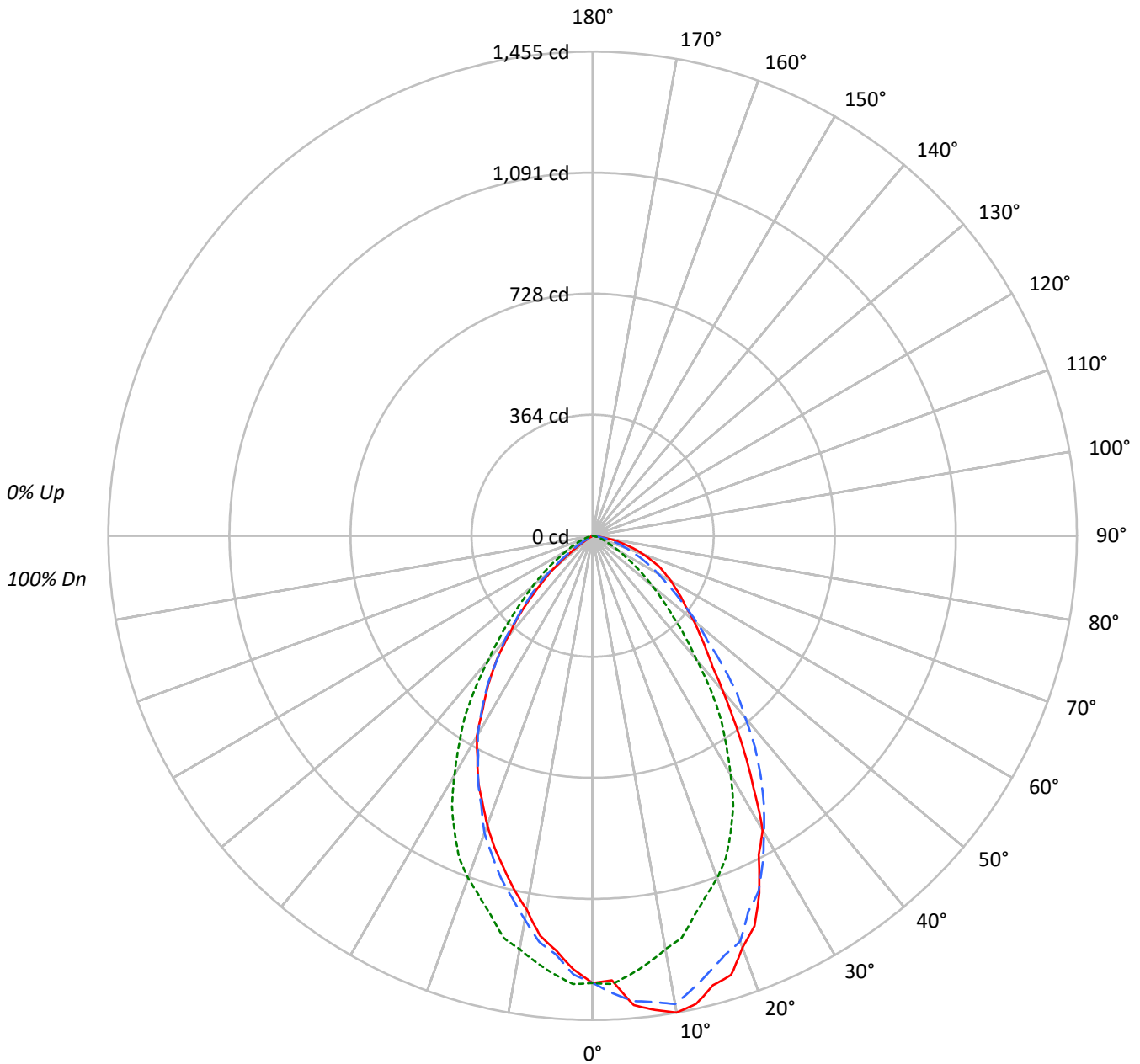
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1926.0 lumens
Efficiency: N/A
Efficacy: 60.9 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°	129642	129642	129642
5°	137160	128113	121246
10°	142538	123598	111753
15°	139690	117963	103159
20°	135159	112323	94960
25°	126074	104452	86619
30°	113811	92442	77545
35°	93750	79132	64338
40°	76506	61077	49514
45°	65731	46395	35615
50°	59489	35306	22486
55°	54740	25469	8125
60°	52548	17407	1235
65°	50754	11781	365
70°	45449	8181	451
75°	37243	4213	0
80°	23282	1778	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.9	6.5
10°-20°	339.2	17.6
20°-30°	452.9	23.5
30°-40°	429.9	22.3
40°-50°	297.2	15.4
50°-60°	164.2	8.5
60°-70°	81.5	4.2
70°-80°	32.1	1.7
80°-90°	3.1	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°	918.0	47.7
0°-40°	1347.9	70.0
0°-60°	1809.3	93.9
0°-90°	1926.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1926.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1344	1344	1344	1344	1344	
5°	1416	1403	1323	1263	1252	136
15°	1398	1357	1181	1065	1033	396
25°	1184	1179	981	814	814	540
35°	796	880	672	553	546	499
45°	482	553	340	279	261	376
55°	325	306	151	77	48	293
65°	222	161	52	2	2	216
75°	100	61	11	0	0	106
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°	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6
2.5°	1337.2	1374.2	1377.5	1374.2	1379.1	1377.5	1385.5	1377.5	1387.2	1372.7	1375.9
5°	1416.1	1401.6	1432.2	1416.1	1416.1	1414.6	1409.7	1408.1	1414.6	1393.6	1403.3
7.5°	1437.1	1458.1	1485.5	1451.6	1453.2	1453.2	1443.5	1440.3	1440.3	1401.6	1412.9
10°	1454.8	1441.9	1456.4	1443.5	1454.8	1453.2	1459.6	1438.7	1453.2	1430.7	1429.0
12.5°	1440.3	1435.5	1454.8	1433.9	1427.4	1429.0	1421.0	1416.1	1421.0	1395.2	1393.6
15°	1398.4	1403.3	1432.2	1409.7	1406.5	1403.3	1393.6	1377.5	1390.4	1354.9	1356.6
17.5°	1384.0	1375.9	1380.7	1361.4	1366.2	1363.0	1361.4	1346.9	1343.6	1321.1	1321.1
20°	1316.3	1334.0	1334.0	1321.1	1321.1	1319.5	1298.6	1311.4	1296.9	1290.5	1296.9
22.5°	1269.5	1271.2	1271.2	1259.9	1261.5	1255.1	1243.8	1235.7	1243.8	1235.7	1222.8
25°	1184.2	1187.4	1206.7	1185.8	1182.5	1189.0	1179.3	1174.5	1172.9	1153.6	1179.3
27.5°	1081.0	1113.2	1111.7	1103.6	1113.2	1100.4	1095.6	1097.1	1102.0	1100.4	1106.8
30°	1021.5	1026.3	1031.1	1024.7	1026.3	1021.5	1021.5	1023.0	1035.9	1031.1	1029.5
32.5°	900.6	916.7	929.6	929.6	931.2	936.1	934.4	968.3	976.3	960.2	957.0
35°	795.9	807.2	818.4	820.0	841.0	842.6	844.2	853.9	876.4	881.3	879.6
37.5°	696.0	707.3	710.5	725.0	736.3	747.5	760.5	773.3	792.7	808.7	800.7
40°	607.4	612.2	620.3	626.7	649.2	649.2	655.7	681.5	702.5	715.3	713.7
42.5°	533.3	534.9	541.3	552.6	573.6	568.7	573.6	591.3	621.9	623.5	641.2
45°	481.7	480.1	484.9	486.5	499.5	505.9	509.1	522.0	547.7	551.0	552.6
47.5°	435.0	433.4	441.5	444.7	449.5	455.9	455.9	457.6	467.2	475.3	468.9
50°	396.3	396.3	396.3	399.5	407.6	406.0	407.6	414.1	418.9	415.6	414.1
52.5°	354.4	360.9	365.7	367.4	368.9	368.9	370.6	367.4	365.7	360.9	351.2
55°	325.4	331.9	331.9	331.9	331.9	338.3	330.3	331.9	331.9	319.0	306.1
57.5°	296.5	302.9	307.7	301.3	307.7	301.3	298.0	296.5	293.2	280.3	261.0
60°	272.3	275.5	273.9	272.3	275.5	270.7	267.4	261.0	257.8	240.0	227.2
62.5°	244.9	246.5	248.1	244.9	241.7	240.0	233.6	223.9	217.5	203.0	191.7
65°	222.3	217.5	215.9	214.3	211.1	206.2	201.4	190.1	185.3	172.4	161.1
67.5°	188.5	186.9	190.1	185.3	177.2	177.2	172.4	162.7	151.4	143.4	132.1
70°	161.1	159.5	156.3	151.4	149.8	143.4	143.4	132.1	128.9	114.4	104.7
72.5°	132.1	132.1	127.2	122.5	117.6	114.4	112.8	104.7	99.9	91.8	83.8
75°	99.9	99.9	98.3	93.4	90.2	87.0	85.4	79.0	74.1	66.1	61.2
77.5°	70.9	70.9	64.4	61.2	62.8	59.6	56.4	54.8	53.1	48.3	41.9
80°	41.9	40.3	35.5	37.1	35.5	35.5	33.8	32.2	29.0	25.8	22.5
82.5°	11.3	12.9	12.9	12.9	14.5	11.3	11.3	11.3	12.9	12.9	8.1
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	3.2	6.4	6.4	6.4	6.4	6.4	4.9	4.9	4.9	3.2
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°	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6
2.5°	1359.8	1358.1	1359.8	1348.5	1374.2	1354.9	1351.7	1348.5	1359.8	1348.5	1332.4
5°	1388.8	1372.7	1367.8	1363.0	1377.5	1354.9	1350.1	1351.7	1343.6	1322.7	1324.3
7.5°	1398.4	1384.0	1369.4	1338.8	1351.7	1346.9	1334.0	1324.3	1311.4	1293.7	1290.5
10°	1401.6	1385.5	1364.6	1354.9	1335.6	1329.2	1324.3	1308.2	1292.1	1261.5	1253.4
12.5°	1392.0	1372.7	1346.9	1338.8	1324.3	1303.4	1292.1	1276.0	1261.5	1237.3	1219.6
15°	1350.1	1334.0	1325.9	1298.6	1292.1	1279.2	1256.6	1234.1	1213.2	1180.9	1171.2
17.5°	1301.8	1295.3	1287.3	1266.3	1264.7	1251.8	1230.9	1211.5	1184.2	1134.2	1118.1
20°	1251.8	1251.8	1226.0	1218.0	1234.1	1208.3	1192.2	1174.5	1118.1	1093.9	1064.9
22.5°	1214.8	1197.1	1182.5	1169.7	1171.2	1155.1	1132.6	1097.1	1076.2	1047.2	1013.4
25°	1142.3	1148.7	1116.5	1111.7	1116.5	1079.4	1068.2	1039.1	1008.5	981.1	955.4
27.5°	1097.1	1079.4	1058.5	1040.8	1040.8	1026.3	994.1	987.6	940.9	915.1	882.9
30°	1029.5	1016.6	998.9	973.1	969.9	958.6	932.8	916.7	868.4	829.7	812.0
32.5°	944.1	939.3	924.8	895.8	886.1	873.2	841.0	813.6	791.1	747.5	726.6
35°	882.9	865.2	834.6	810.4	802.3	779.8	754.0	734.6	710.5	671.8	644.4
37.5°	791.1	773.3	744.3	715.3	715.3	692.8	657.3	638.0	604.2	581.6	559.0
40°	710.5	687.9	659.0	625.1	620.3	588.0	573.6	541.3	520.4	484.9	481.7
42.5°	620.3	599.3	573.6	547.7	528.4	512.3	475.3	451.1	428.6	410.8	406.0
45°	538.1	510.7	488.2	455.9	436.6	417.3	393.1	377.0	359.3	340.0	328.7
47.5°	467.2	444.7	412.4	383.5	364.1	354.4	327.0	309.3	294.8	282.0	273.9
50°	394.7	367.4	349.6	317.4	314.1	291.6	269.1	254.6	246.5	235.2	223.9
52.5°	340.0	314.1	290.0	265.9	252.9	244.9	223.9	209.4	198.2	190.1	183.7
55°	286.8	264.2	244.9	220.7	212.6	201.4	177.2	174.0	162.7	151.4	143.4
57.5°	246.5	225.5	203.0	186.9	172.4	164.4	145.0	132.1	125.7	116.0	107.9
60°	209.4	186.9	169.2	149.8	143.4	132.1	117.6	106.4	98.3	90.2	82.2
62.5°	175.6	156.3	137.0	120.8	111.2	104.7	93.4	83.8	75.7	69.3	62.8
65°	145.0	127.2	111.2	95.1	90.2	82.2	74.1	66.1	59.6	51.6	45.1
67.5°	119.2	103.1	87.0	75.7	70.9	67.7	58.0	49.9	45.1	40.3	33.8
70°	93.4	82.2	69.3	59.6	54.8	49.9	43.5	38.7	32.2	29.0	24.2
72.5°	72.5	62.8	51.6	43.5	40.3	37.1	30.6	25.8	22.5	19.3	16.1
75°	51.6	43.5	37.1	29.0	27.4	25.8	21.0	17.7	14.5	11.3	9.7
77.5°	35.5	29.0	22.5	19.3	17.7	14.5	12.9	9.7	8.1	6.4	4.9
80°	19.3	14.5	11.3	9.7	8.1	6.4	6.4	4.9	3.2	3.2	1.6
82.5°	6.4	4.9	3.2	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°	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6
2.5°	1342.0	1324.3	1329.2	1329.2	1325.9	1325.9	1322.7	1317.9	1319.5	1309.8	1288.9
5°	1327.5	1305.0	1301.8	1305.0	1292.1	1288.9	1282.5	1292.1	1263.1	1274.4	1261.5
7.5°	1285.7	1264.7	1259.9	1271.2	1255.1	1245.3	1243.8	1256.6	1230.9	1218.0	1203.5
10°	1238.9	1230.9	1216.4	1208.3	1203.5	1205.1	1192.2	1176.1	1171.2	1168.0	1155.1
12.5°	1197.1	1179.3	1166.4	1156.8	1153.6	1153.6	1132.6	1129.4	1114.9	1111.7	1092.3
15°	1147.1	1126.2	1118.1	1105.2	1093.9	1100.4	1076.2	1069.7	1064.9	1044.0	1047.2
17.5°	1103.6	1081.0	1061.7	1053.7	1044.0	1034.3	1011.7	1016.6	1005.3	1005.3	976.3
20°	1047.2	1023.0	1008.5	992.4	992.4	979.5	963.5	965.0	950.5	936.1	910.2
22.5°	987.6	961.8	944.1	937.6	921.5	918.3	899.0	894.1	874.8	876.4	853.9
25°	924.8	899.0	874.8	876.4	862.0	855.5	844.2	821.7	813.6	804.0	797.5
27.5°	850.7	832.9	812.0	810.4	783.0	784.6	770.1	763.7	744.3	749.2	734.6
30°	783.0	757.2	737.9	733.1	721.8	718.6	696.0	686.3	689.6	676.6	668.6
32.5°	713.7	675.1	667.0	657.3	650.9	642.8	626.7	633.2	618.6	621.9	609.0
35°	621.9	605.8	584.8	584.8	578.4	571.9	560.7	567.1	552.6	546.2	533.3
37.5°	544.5	530.1	509.1	515.6	504.3	494.6	484.9	486.5	473.6	472.1	459.1
40°	460.8	452.7	438.2	438.2	430.2	430.2	425.3	420.5	412.4	402.8	388.2
42.5°	381.8	375.4	368.9	370.6	359.3	368.9	356.1	364.1	338.3	336.7	327.0
45°	323.8	309.3	310.9	304.5	298.0	301.3	290.0	293.2	278.7	275.5	265.9
47.5°	262.6	257.8	248.1	244.9	244.9	240.0	235.2	233.6	227.2	219.1	206.2
50°	215.9	198.2	194.9	190.1	186.9	186.9	180.5	170.8	172.4	164.4	151.4
52.5°	169.2	154.6	148.2	146.6	140.2	137.0	128.9	122.5	117.6	114.4	106.4
55°	130.5	117.6	109.6	109.6	99.9	99.9	88.6	83.8	77.3	70.9	66.1
57.5°	98.3	91.8	83.8	77.3	74.1	66.1	59.6	51.6	46.7	37.1	30.6
60°	74.1	67.7	59.6	54.8	51.6	43.5	35.5	29.0	17.7	14.5	12.9
62.5°	54.8	48.3	40.3	37.1	33.8	27.4	19.3	9.7	4.9	4.9	4.9
65°	40.3	32.2	25.8	22.5	19.3	14.5	6.4	3.2	1.6	1.6	1.6
67.5°	27.4	21.0	14.5	12.9	9.7	4.9	1.6	1.6	1.6	1.6	1.6
70°	17.7	12.9	6.4	4.9	3.2	1.6	1.6	1.6	1.6	1.6	1.6
72.5°	11.3	6.4	3.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.4	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.2	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 EX4C309030 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6	1343.6
2.5°	1311.4	1300.1	1306.6	1292.1	1298.6	1309.8	1301.8	1305.0
5°	1266.3	1259.9	1251.8	1230.9	1247.0	1259.9	1253.4	1251.8
7.5°	1218.0	1195.4	1206.7	1200.3	1197.1	1209.9	1195.4	1211.5
10°	1168.0	1151.9	1150.4	1139.1	1139.1	1148.7	1150.4	1140.6
12.5°	1093.9	1085.9	1085.9	1084.3	1082.6	1092.3	1093.9	1089.1
15°	1040.8	1037.6	1029.5	1027.9	1018.2	1032.7	1034.3	1032.7
17.5°	976.3	977.9	969.9	969.9	976.3	981.1	968.3	981.1
20°	932.8	924.8	921.5	907.0	915.1	923.2	923.2	924.8
22.5°	870.0	857.1	862.0	853.9	849.0	860.3	860.3	865.2
25°	799.1	799.1	802.3	797.5	800.7	807.2	802.3	813.6
27.5°	731.4	737.9	737.9	731.4	734.6	754.0	762.0	749.2
30°	668.6	670.2	675.1	671.8	681.5	687.9	686.3	696.0
32.5°	597.7	605.8	609.0	604.2	607.4	621.9	613.8	612.2
35°	543.0	528.4	526.9	528.4	534.9	538.1	534.9	546.2
37.5°	464.0	459.1	452.7	454.3	459.1	465.6	468.9	476.9
40°	388.2	381.8	381.8	380.2	375.4	393.1	393.1	393.1
42.5°	322.2	320.6	312.6	312.6	319.0	323.8	320.6	331.9
45°	264.2	257.8	252.9	252.9	257.8	257.8	262.6	261.0
47.5°	207.9	201.4	203.0	198.2	203.0	209.4	201.4	203.0
50°	156.3	156.3	153.1	156.3	154.6	156.3	153.1	149.8
52.5°	106.4	120.8	122.5	116.0	101.5	88.6	80.5	87.0
55°	61.2	54.8	54.8	53.1	49.9	48.3	43.5	48.3
57.5°	30.6	27.4	27.4	27.4	25.8	24.2	21.0	21.0
60°	12.9	11.3	11.3	9.7	8.1	6.4	4.9	6.4
62.5°	4.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2
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)