

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 EX4C309035 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 EX4C309035 4LBSQLWWH  
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS  
AND 4LBSQLWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

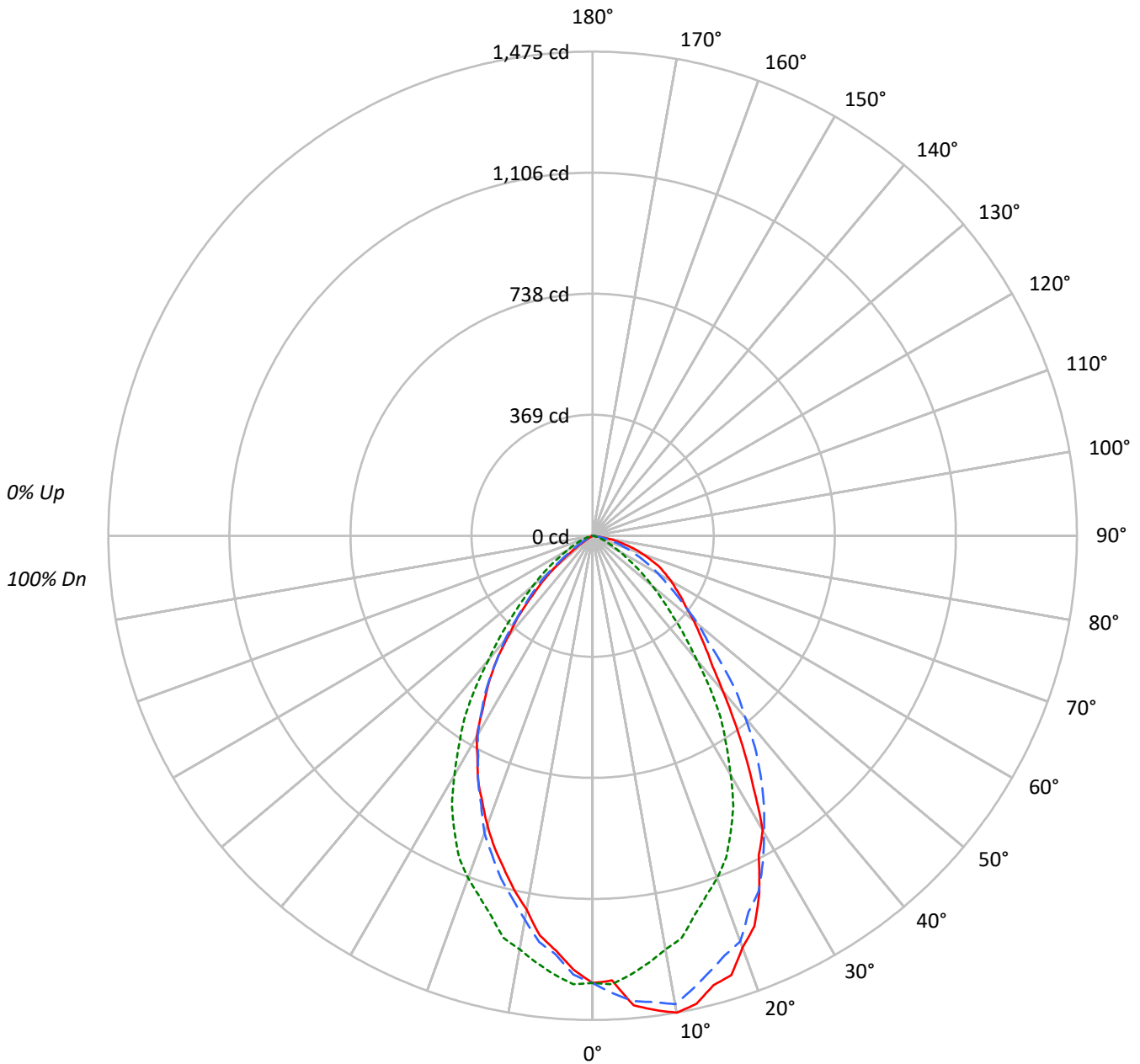
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1953.0 lumens  
Efficiency: N/A  
Efficacy: 61.8 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

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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°	131466	131466	131466
5°	139087	129915	122951
10°	144536	125333	113321
15°	141648	119621	104608
20°	137049	113904	96284
25°	127842	105921	87833
30°	115404	93734	78637
35°	95057	80251	65233
40°	77577	61933	50207
45°	66659	47036	36120
50°	60329	35801	22802
55°	55514	25822	8243
60°	53281	17657	1254
65°	51462	11941	388
70°	46069	8294	480
75°	37765	4287	0
80°	23615	1834	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.7	6.5
10°-20°	343.9	17.6
20°-30°	459.2	23.5
30°-40°	436.0	22.3
40°-50°	301.4	15.4
50°-60°	166.5	8.5
60°-70°	82.7	4.2
70°-80°	32.6	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°	930.8	47.7
0°-40°	1366.8	70.0
0°-60°	1834.6	93.9
0°-90°	1953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1953.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1362	1362	1362	1362	1362	
5°	1436	1423	1341	1281	1269	137
15°	1418	1376	1198	1080	1047	401
25°	1201	1196	995	825	825	547
35°	807	892	681	560	554	506
45°	488	560	345	283	265	381
55°	330	310	154	78	49	297
65°	225	163	52	2	2	219
75°	101	62	12	0	0	108
85°	0	2	0	0	0	9
90°	0	0	0	0	0	



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5
2.5°	1355.9	1393.5	1396.8	1393.5	1398.4	1396.8	1405.0	1396.8	1406.6	1391.9	1395.2
5°	1436.0	1421.3	1452.3	1436.0	1436.0	1434.4	1429.5	1427.8	1434.4	1413.1	1422.9
7.5°	1457.2	1478.5	1506.3	1472.0	1473.6	1473.6	1463.8	1460.5	1460.5	1421.3	1432.7
10°	1475.2	1462.1	1476.8	1463.8	1475.2	1473.6	1480.1	1458.8	1473.6	1450.7	1449.1
12.5°	1460.5	1455.6	1475.2	1454.0	1447.5	1449.1	1440.9	1436.0	1440.9	1414.7	1413.1
15°	1418.0	1422.9	1452.3	1429.5	1426.2	1422.9	1413.1	1396.8	1409.9	1373.9	1375.6
17.5°	1403.4	1395.2	1400.1	1380.4	1385.4	1382.1	1380.4	1365.8	1362.5	1339.6	1339.6
20°	1334.7	1352.7	1352.7	1339.6	1339.6	1338.0	1316.8	1329.8	1315.1	1308.6	1315.1
22.5°	1287.3	1289.0	1289.0	1277.5	1279.2	1272.7	1261.2	1253.0	1261.2	1253.0	1240.0
25°	1200.8	1204.0	1223.6	1202.4	1199.1	1205.6	1195.9	1190.9	1189.3	1169.7	1195.9
27.5°	1096.2	1128.8	1127.2	1119.0	1128.8	1115.8	1110.9	1112.5	1117.4	1115.8	1122.3
30°	1035.8	1040.6	1045.6	1039.0	1040.6	1035.8	1035.8	1037.4	1050.4	1045.6	1043.9
32.5°	913.2	929.5	942.7	942.7	944.3	949.2	947.5	981.8	990.0	973.7	970.4
35°	807.0	818.5	829.9	831.5	852.8	854.4	856.1	865.8	888.7	893.6	892.0
37.5°	705.8	717.2	720.4	735.2	746.6	758.0	771.1	784.2	803.8	820.1	812.0
40°	615.9	620.8	629.0	635.5	658.3	658.3	664.9	691.1	712.3	725.4	723.7
42.5°	540.8	542.4	548.9	560.4	581.6	576.7	581.6	599.6	630.6	632.2	650.2
45°	488.5	486.8	491.7	493.3	506.5	513.0	516.3	529.3	555.4	558.7	560.4
47.5°	441.1	439.5	447.6	450.9	455.8	462.3	462.3	464.0	473.8	482.0	475.4
50°	401.9	401.9	401.9	405.1	413.3	411.7	413.3	419.9	424.7	421.5	419.9
52.5°	359.4	365.9	370.8	372.5	374.1	374.1	375.8	372.5	370.8	365.9	356.1
55°	330.0	336.5	336.5	336.5	336.5	343.1	334.9	336.5	336.5	323.5	310.4
57.5°	300.6	307.2	312.0	305.5	312.0	305.5	302.2	300.6	297.3	284.2	264.7
60°	276.1	279.4	277.7	276.1	279.4	274.5	271.2	264.7	261.4	243.4	230.4
62.5°	248.3	249.9	251.6	248.3	245.1	243.4	236.9	227.1	220.6	205.8	194.4
65°	225.4	220.6	218.9	217.3	214.0	209.1	204.2	192.8	187.9	174.8	163.3
67.5°	191.1	189.5	192.8	187.9	179.7	179.7	174.8	165.0	153.5	145.4	134.0
70°	163.3	161.7	158.5	153.5	151.9	145.4	145.4	134.0	130.7	116.0	106.2
72.5°	134.0	134.0	129.0	124.2	119.2	116.0	114.4	106.2	101.3	93.1	84.9
75°	101.3	101.3	99.7	94.7	91.5	88.2	86.6	80.1	75.1	67.0	62.1
77.5°	71.9	71.9	65.3	62.1	63.7	60.4	57.2	55.6	53.9	49.0	42.5
80°	42.5	40.8	36.0	37.6	36.0	36.0	34.3	32.6	29.4	26.1	22.8
82.5°	11.5	13.1	13.1	13.1	14.7	11.5	11.5	11.5	13.1	13.1	8.2
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	6.5	6.5	6.5	6.5	6.5	4.9	4.9	4.9	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°	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5
2.5°	1378.8	1377.2	1378.8	1367.4	1393.5	1373.9	1370.7	1367.4	1378.8	1367.4	1351.1
5°	1408.2	1391.9	1387.0	1382.1	1396.8	1373.9	1369.0	1370.7	1362.5	1341.3	1342.9
7.5°	1418.0	1403.4	1388.6	1357.6	1370.7	1365.8	1352.7	1342.9	1329.8	1311.8	1308.6
10°	1421.3	1405.0	1383.7	1373.9	1354.3	1347.8	1342.9	1326.6	1310.2	1279.2	1271.0
12.5°	1411.5	1391.9	1365.8	1357.6	1342.9	1321.6	1310.2	1293.8	1279.2	1254.7	1236.7
15°	1369.0	1352.7	1344.5	1316.8	1310.2	1297.1	1274.3	1251.4	1230.2	1197.5	1187.7
17.5°	1320.0	1313.5	1305.3	1284.1	1282.5	1269.4	1248.1	1228.5	1200.8	1150.1	1133.8
20°	1269.4	1269.4	1243.2	1235.1	1251.4	1225.2	1208.9	1190.9	1133.8	1109.3	1079.9
22.5°	1231.8	1213.8	1199.1	1186.1	1187.7	1171.3	1148.5	1112.5	1091.3	1061.9	1027.6
25°	1158.3	1164.8	1132.2	1127.2	1132.2	1094.5	1083.1	1053.7	1022.7	994.9	968.8
27.5°	1112.5	1094.5	1073.4	1055.4	1055.4	1040.6	1008.0	1001.5	954.0	927.9	895.2
30°	1043.9	1030.9	1012.9	986.8	983.5	972.0	945.9	929.5	880.6	841.3	823.4
32.5°	957.3	952.4	937.7	908.3	898.6	885.4	852.8	825.0	802.2	758.0	736.8
35°	895.2	877.3	846.3	821.7	813.6	790.7	764.5	744.9	720.4	681.3	653.5
37.5°	802.2	784.2	754.7	725.4	725.4	702.5	666.5	647.0	612.6	589.7	566.9
40°	720.4	697.6	668.2	633.9	629.0	596.3	581.6	548.9	527.7	491.7	488.5
42.5°	629.0	607.7	581.6	555.4	535.8	519.5	482.0	457.4	434.6	416.6	411.7
45°	545.6	517.9	495.0	462.3	442.7	423.1	398.6	382.3	364.3	344.7	333.3
47.5°	473.8	450.9	418.2	388.8	369.2	359.4	331.6	313.7	299.0	285.9	277.7
50°	400.3	372.5	354.5	321.8	318.5	295.7	272.8	258.1	249.9	238.5	227.1
52.5°	344.7	318.5	294.0	269.6	256.5	248.3	227.1	212.4	201.0	192.8	186.3
55°	290.8	267.9	248.3	223.8	215.6	204.2	179.7	176.5	165.0	153.5	145.4
57.5°	249.9	228.7	205.8	189.5	174.8	166.7	147.0	134.0	127.4	117.6	109.4
60°	212.4	189.5	171.5	151.9	145.4	134.0	119.2	107.8	99.7	91.5	83.3
62.5°	178.1	158.5	138.9	122.5	112.7	106.2	94.7	84.9	76.8	70.3	63.7
65°	147.0	129.0	112.7	96.4	91.5	83.3	75.1	67.0	60.4	52.3	45.8
67.5°	120.9	104.6	88.2	76.8	71.9	68.6	58.8	50.6	45.8	40.8	34.3
70°	94.7	83.3	70.3	60.4	55.6	50.6	44.1	39.2	32.6	29.4	24.5
72.5°	73.5	63.7	52.3	44.1	40.8	37.6	31.0	26.1	22.8	19.6	16.3
75°	52.3	44.1	37.6	29.4	27.8	26.1	21.2	18.0	14.7	11.5	9.8
77.5°	36.0	29.4	22.8	19.6	18.0	14.7	13.1	9.8	8.2	6.5	4.9
80°	19.6	14.7	11.5	9.8	8.2	6.5	6.5	4.9	3.3	3.3	1.7
82.5°	6.5	4.9	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°	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5
2.5°	1360.9	1342.9	1347.8	1347.8	1344.5	1344.5	1341.3	1336.3	1338.0	1328.2	1307.0
5°	1346.1	1323.3	1320.0	1323.3	1310.2	1307.0	1300.4	1310.2	1280.8	1292.2	1279.2
7.5°	1303.7	1282.5	1277.5	1289.0	1272.7	1262.8	1261.2	1274.3	1248.1	1235.1	1220.4
10°	1256.3	1248.1	1233.4	1225.2	1220.4	1222.0	1208.9	1192.6	1187.7	1184.4	1171.3
12.5°	1213.8	1195.9	1182.8	1173.0	1169.7	1169.7	1148.5	1145.2	1130.5	1127.2	1107.7
15°	1163.1	1142.0	1133.8	1120.7	1109.3	1115.8	1091.3	1084.7	1079.9	1058.6	1061.9
17.5°	1119.0	1096.2	1076.6	1068.4	1058.6	1048.8	1025.9	1030.9	1019.4	1019.4	990.0
20°	1061.9	1037.4	1022.7	1006.3	1006.3	993.3	977.0	978.6	963.8	949.2	923.0
22.5°	1001.5	975.3	957.3	950.8	934.5	931.2	911.6	906.7	887.1	888.7	865.8
25°	937.7	911.6	887.1	888.7	874.0	867.5	856.1	833.2	825.0	815.2	808.7
27.5°	862.6	844.6	823.4	821.7	794.0	795.6	780.9	774.4	754.7	759.7	744.9
30°	794.0	767.9	748.2	743.3	731.9	728.6	705.8	695.9	699.2	686.1	678.0
32.5°	723.7	684.5	676.3	666.5	660.0	651.8	635.5	642.0	627.3	630.6	617.5
35°	630.6	614.2	593.0	593.0	586.5	579.9	568.5	575.1	560.4	553.8	540.8
37.5°	552.2	537.5	516.3	522.8	511.3	501.5	491.7	493.3	480.3	478.7	465.6
40°	467.2	459.0	444.4	444.4	436.2	436.2	431.3	426.4	418.2	408.4	393.7
42.5°	387.2	380.6	374.1	375.8	364.3	374.1	361.0	369.2	343.1	341.5	331.6
45°	328.3	313.7	315.3	308.8	302.2	305.5	294.0	297.3	282.6	279.4	269.6
47.5°	266.3	261.4	251.6	248.3	248.3	243.4	238.5	236.9	230.4	222.2	209.1
50°	218.9	201.0	197.6	192.8	189.5	189.5	183.0	173.2	174.8	166.7	153.5
52.5°	171.5	156.8	150.3	148.7	142.2	138.9	130.7	124.2	119.2	116.0	107.8
55°	132.3	119.2	111.1	111.1	101.3	101.3	89.9	84.9	78.4	71.9	67.0
57.5°	99.7	93.1	84.9	78.4	75.1	67.0	60.4	52.3	47.4	37.6	31.0
60°	75.1	68.6	60.4	55.6	52.3	44.1	36.0	29.4	18.0	14.7	13.1
62.5°	55.6	49.0	40.8	37.6	34.3	27.8	19.6	9.8	4.9	4.9	4.9
65°	40.8	32.6	26.1	22.8	19.6	14.7	6.5	3.3	1.7	1.7	1.7
67.5°	27.8	21.2	14.7	13.1	9.8	4.9	1.7	1.7	1.7	1.7	1.7
70°	18.0	13.1	6.5	4.9	3.3	1.7	1.7	1.7	1.7	1.7	1.7
72.5°	11.5	6.5	3.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	6.5	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 EX4C309035 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5	1362.5
2.5°	1329.8	1318.4	1324.9	1310.2	1316.8	1328.2	1320.0	1323.3
5°	1284.1	1277.5	1269.4	1248.1	1264.5	1277.5	1271.0	1269.4
7.5°	1235.1	1212.2	1223.6	1217.1	1213.8	1226.9	1212.2	1228.5
10°	1184.4	1168.1	1166.5	1155.0	1155.0	1164.8	1166.5	1156.6
12.5°	1109.3	1101.1	1101.1	1099.5	1097.8	1107.7	1109.3	1104.4
15°	1055.4	1052.1	1043.9	1042.3	1032.5	1047.2	1048.8	1047.2
17.5°	990.0	991.6	983.5	983.5	990.0	994.9	981.8	994.9
20°	945.9	937.7	934.5	919.7	927.9	936.1	936.1	937.7
22.5°	882.2	869.1	874.0	865.8	860.9	872.4	872.4	877.3
25°	810.3	810.3	813.6	808.7	812.0	818.5	813.6	825.0
27.5°	741.7	748.2	748.2	741.7	744.9	764.5	772.7	759.7
30°	678.0	679.6	684.5	681.3	691.1	697.6	695.9	705.8
32.5°	606.1	614.2	617.5	612.6	615.9	630.6	622.4	620.8
35°	550.6	535.8	534.2	535.8	542.4	545.6	542.4	553.8
37.5°	470.5	465.6	459.0	460.7	465.6	472.2	475.4	483.6
40°	393.7	387.2	387.2	385.6	380.6	398.6	398.6	398.6
42.5°	326.7	325.1	316.9	316.9	323.5	328.3	325.1	336.5
45°	267.9	261.4	256.5	256.5	261.4	261.4	266.3	264.7
47.5°	210.8	204.2	205.8	201.0	205.8	212.4	204.2	205.8
50°	158.5	158.5	155.2	158.5	156.8	158.5	155.2	151.9
52.5°	107.8	122.5	124.2	117.6	102.9	89.9	81.7	88.2
55°	62.1	55.6	55.6	53.9	50.6	49.0	44.1	49.0
57.5°	31.0	27.8	27.8	27.8	26.1	24.5	21.2	21.2
60°	13.1	11.5	11.5	9.8	8.2	6.5	4.9	6.5
62.5°	4.9	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)