

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 EX4C309040 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 EX4C309040 4LBSQLWWH  
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS  
AND 4LBSQLWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

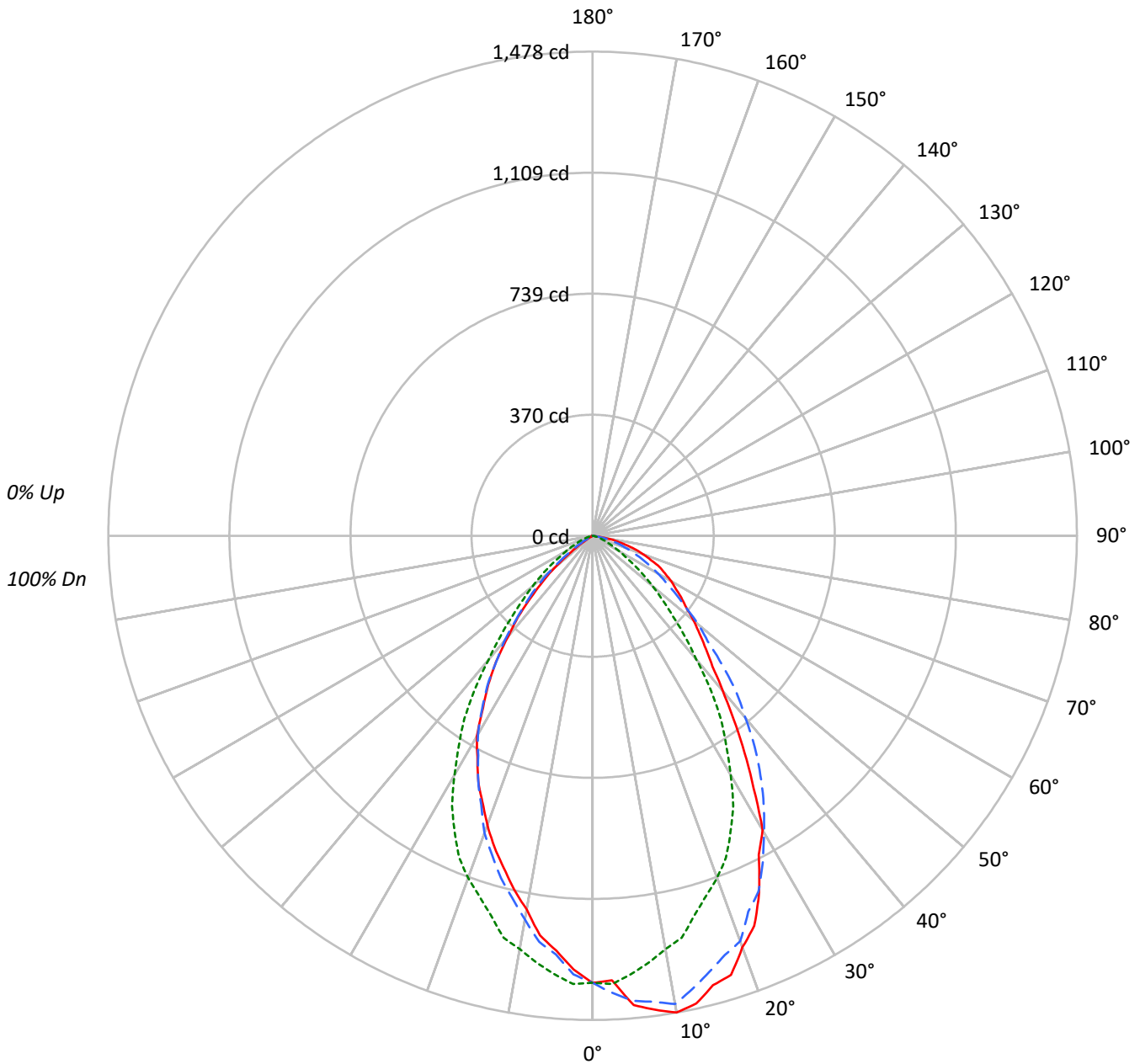
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1956.0 lumens  
Efficiency: N/A  
Efficacy: 61.9 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<sub>in</sub>): 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°	131669	131669	131669
5°	139300	130109	123135
10°	144762	125529	113497
15°	141868	119801	104767
20°	137264	114079	96438
25°	128033	106080	87971
30°	115583	93879	78760
35°	95211	80369	65339
40°	77703	62034	50282
45°	66754	47118	36174
50°	60419	35861	22847
55°	55598	25873	8260
60°	53358	17677	1254
65°	51553	11964	388
70°	46154	8294	480
75°	37840	4287	0
80°	23671	1834	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.9	6.5
10°-20°	344.5	17.6
20°-30°	460.0	23.5
30°-40°	436.6	22.3
40°-50°	301.8	15.4
50°-60°	166.8	8.5
60°-70°	82.8	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°	932.3	47.7
0°-40°	1368.9	70.0
0°-60°	1837.5	93.9
0°-90°	1956.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1956.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1365	1365	1365	1365	1365	
5°	1438	1425	1343	1283	1271	138
15°	1420	1378	1199	1082	1049	402
25°	1203	1198	996	826	826	548
35°	808	893	682	561	555	506
45°	489	561	345	283	265	382
55°	330	311	154	78	49	297
65°	226	164	52	2	2	219
75°	102	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°	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6
2.5°	1358.0	1395.6	1398.9	1395.6	1400.6	1398.9	1407.1	1398.9	1408.8	1394.0	1397.3
5°	1438.2	1423.5	1454.6	1438.2	1438.2	1436.6	1431.7	1430.0	1436.6	1415.3	1425.1
7.5°	1459.5	1480.8	1508.6	1474.2	1475.8	1475.8	1466.0	1462.8	1462.8	1423.5	1434.9
10°	1477.5	1464.4	1479.1	1466.0	1477.5	1475.8	1482.4	1461.1	1475.8	1452.9	1451.3
12.5°	1462.8	1457.8	1477.5	1456.2	1449.7	1451.3	1443.1	1438.2	1443.1	1416.9	1415.3
15°	1420.2	1425.1	1454.6	1431.7	1428.4	1425.1	1415.3	1398.9	1412.1	1376.0	1377.7
17.5°	1405.5	1397.3	1402.2	1382.6	1387.5	1384.2	1382.6	1367.9	1364.6	1341.7	1341.7
20°	1336.8	1354.7	1354.7	1341.7	1341.7	1340.1	1318.8	1331.9	1317.1	1310.6	1317.1
22.5°	1289.3	1291.0	1291.0	1279.5	1281.2	1274.6	1263.1	1254.9	1263.1	1254.9	1241.9
25°	1202.6	1205.9	1225.5	1204.2	1201.0	1207.5	1197.7	1192.8	1191.2	1171.5	1197.7
27.5°	1097.9	1130.6	1129.0	1120.8	1130.6	1117.5	1112.6	1114.2	1119.2	1117.5	1124.0
30°	1037.4	1042.2	1047.2	1040.6	1042.2	1037.4	1037.4	1039.0	1052.1	1047.2	1045.5
32.5°	914.6	931.0	944.1	944.1	945.7	950.6	949.0	983.3	991.5	975.2	971.9
35°	808.3	819.7	831.2	832.8	854.1	855.7	857.4	867.2	890.1	895.0	893.3
37.5°	706.9	718.3	721.5	736.3	747.8	759.2	772.3	785.4	805.0	821.3	813.2
40°	616.9	621.7	629.9	636.5	659.4	659.4	665.9	692.1	713.4	726.5	724.8
42.5°	541.6	543.2	549.7	561.2	582.5	577.6	582.5	600.5	631.5	633.2	651.2
45°	489.2	487.6	492.5	494.1	507.2	513.8	517.1	530.1	556.3	559.6	561.2
47.5°	441.8	440.1	448.3	451.6	456.5	463.0	463.0	464.7	474.5	482.7	476.2
50°	402.5	402.5	402.5	405.8	414.0	412.3	414.0	420.5	425.4	422.1	420.5
52.5°	359.9	366.5	371.4	373.1	374.7	374.7	376.3	373.1	371.4	366.5	356.7
55°	330.5	337.1	337.1	337.1	337.1	343.6	335.4	337.1	337.1	324.0	310.9
57.5°	301.1	307.6	312.5	306.0	312.5	306.0	302.7	301.1	297.8	284.7	265.1
60°	276.5	279.8	278.1	276.5	279.8	274.9	271.6	265.1	261.8	243.8	230.7
62.5°	248.7	250.3	252.0	248.7	245.4	243.8	237.2	227.4	220.9	206.2	194.7
65°	225.8	220.9	219.2	217.6	214.4	209.4	204.6	193.1	188.1	175.1	163.6
67.5°	191.4	189.8	193.1	188.1	180.0	180.0	175.1	165.3	153.8	145.6	134.2
70°	163.6	162.0	158.7	153.8	152.2	145.6	145.6	134.2	130.9	116.2	106.3
72.5°	134.2	134.2	129.2	124.4	119.4	116.2	114.6	106.3	101.5	93.3	85.1
75°	101.5	101.5	99.8	94.9	91.6	88.3	86.7	80.2	75.3	67.1	62.2
77.5°	72.0	72.0	65.4	62.2	63.8	60.5	57.2	55.6	54.0	49.1	42.6
80°	42.6	40.9	36.0	37.6	36.0	36.0	34.4	32.7	29.4	26.2	22.9
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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CATALOG NUMBER: LD4C30D010 EX4C309040 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6
2.5°	1381.0	1379.3	1381.0	1369.5	1395.6	1376.0	1372.8	1369.5	1381.0	1369.5	1353.1
5°	1410.4	1394.0	1389.1	1384.2	1398.9	1376.0	1371.2	1372.8	1364.6	1343.3	1344.9
7.5°	1420.2	1405.5	1390.8	1359.7	1372.8	1367.9	1354.7	1344.9	1331.9	1313.8	1310.6
10°	1423.5	1407.1	1385.8	1376.0	1356.4	1349.9	1344.9	1328.6	1312.2	1281.2	1272.9
12.5°	1413.7	1394.0	1367.9	1359.7	1344.9	1323.7	1312.2	1295.8	1281.2	1256.6	1238.6
15°	1371.2	1354.7	1346.6	1318.8	1312.2	1299.1	1276.2	1253.3	1232.1	1199.3	1189.5
17.5°	1322.1	1315.5	1307.3	1286.0	1284.4	1271.3	1250.1	1230.4	1202.6	1151.9	1135.5
20°	1271.3	1271.3	1245.1	1237.0	1253.3	1227.1	1210.8	1192.8	1135.5	1111.0	1081.5
22.5°	1233.7	1215.7	1201.0	1187.9	1189.5	1173.1	1150.3	1114.2	1092.9	1063.5	1029.2
25°	1160.1	1166.6	1133.9	1129.0	1133.9	1096.2	1084.8	1055.3	1024.2	996.4	970.3
27.5°	1114.2	1096.2	1075.0	1057.0	1057.0	1042.2	1009.6	1003.0	955.5	929.4	896.6
30°	1045.5	1032.4	1014.4	988.3	985.0	973.5	947.4	931.0	881.9	842.6	824.6
32.5°	958.8	953.9	939.2	909.7	899.9	886.8	854.1	826.3	803.4	759.2	737.9
35°	896.6	878.7	847.6	823.0	814.8	791.9	765.7	746.1	721.5	682.3	654.5
37.5°	803.4	785.4	755.9	726.5	726.5	703.6	667.6	647.9	613.6	590.6	567.8
40°	721.5	698.7	669.2	634.9	629.9	597.2	582.5	549.7	528.5	492.5	489.2
42.5°	629.9	608.7	582.5	556.3	536.7	520.3	482.7	458.1	435.3	417.2	412.3
45°	546.5	518.7	495.8	463.0	443.4	423.8	399.2	382.9	364.9	345.3	333.8
47.5°	474.5	451.6	418.8	389.4	369.8	359.9	332.1	314.2	299.4	286.3	278.1
50°	400.9	373.1	355.1	322.3	319.0	296.2	273.3	258.5	250.3	238.9	227.4
52.5°	345.3	319.0	294.5	270.0	256.9	248.7	227.4	212.7	201.3	193.1	186.5
55°	291.2	268.3	248.7	224.2	216.0	204.6	180.0	176.7	165.3	153.8	145.6
57.5°	250.3	229.0	206.2	189.8	175.1	166.9	147.2	134.2	127.6	117.8	109.6
60°	212.7	189.8	171.8	152.2	145.6	134.2	119.4	108.0	99.8	91.6	83.5
62.5°	178.3	158.7	139.1	122.7	112.9	106.3	94.9	85.1	76.9	70.4	63.8
65°	147.2	129.2	112.9	96.5	91.6	83.5	75.3	67.1	60.5	52.4	45.8
67.5°	121.1	104.7	88.3	76.9	72.0	68.7	58.9	50.7	45.8	40.9	34.4
70°	94.9	83.5	70.4	60.5	55.6	50.7	44.2	39.3	32.7	29.4	24.6
72.5°	73.7	63.8	52.4	44.2	40.9	37.6	31.1	26.2	22.9	19.6	16.3
75°	52.4	44.2	37.6	29.4	27.8	26.2	21.3	18.0	14.7	11.5	9.8
77.5°	36.0	29.4	22.9	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



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6
2.5°	1362.9	1344.9	1349.9	1349.9	1346.6	1346.6	1343.3	1338.4	1340.1	1330.2	1309.0
5°	1348.2	1325.3	1322.1	1325.3	1312.2	1309.0	1302.4	1312.2	1282.8	1294.2	1281.2
7.5°	1305.7	1284.4	1279.5	1291.0	1274.6	1264.7	1263.1	1276.2	1250.1	1237.0	1222.2
10°	1258.2	1250.1	1235.3	1227.1	1222.2	1223.8	1210.8	1194.4	1189.5	1186.2	1173.1
12.5°	1215.7	1197.7	1184.6	1174.8	1171.5	1171.5	1150.3	1147.0	1132.2	1129.0	1109.4
15°	1164.9	1143.7	1135.5	1122.4	1111.0	1117.5	1092.9	1086.4	1081.5	1060.3	1063.5
17.5°	1120.8	1097.9	1078.3	1070.1	1060.3	1050.4	1027.5	1032.4	1021.0	1021.0	991.5
20°	1063.5	1039.0	1024.2	1007.9	1007.9	994.8	978.5	980.1	965.3	950.6	924.4
22.5°	1003.0	976.8	958.8	952.2	935.9	932.6	913.0	908.1	888.5	890.1	867.2
25°	939.2	913.0	888.5	890.1	875.4	868.8	857.4	834.5	826.3	816.5	809.9
27.5°	863.9	845.9	824.6	823.0	795.2	796.8	782.1	775.6	755.9	760.8	746.1
30°	795.2	769.0	749.4	744.5	733.0	729.7	706.9	697.0	700.3	687.2	679.0
32.5°	724.8	685.6	677.4	667.6	661.0	652.8	636.5	643.0	628.3	631.5	618.5
35°	631.5	615.2	593.9	593.9	587.4	580.8	569.4	576.0	561.2	554.7	541.6
37.5°	553.0	538.3	517.1	523.6	512.1	502.3	492.5	494.1	481.0	479.4	466.3
40°	467.9	459.7	445.1	445.1	436.9	436.9	431.9	427.1	418.8	409.0	394.3
42.5°	387.8	381.2	374.7	376.3	364.9	374.7	361.6	369.8	343.6	342.0	332.1
45°	328.8	314.2	315.8	309.2	302.7	306.0	294.5	297.8	283.1	279.8	270.0
47.5°	266.7	261.8	252.0	248.7	248.7	243.8	238.9	237.2	230.7	222.5	209.4
50°	219.2	201.3	197.9	193.1	189.8	189.8	183.3	173.5	175.1	166.9	153.8
52.5°	171.8	157.1	150.5	148.9	142.4	139.1	130.9	124.4	119.4	116.2	108.0
55°	132.5	119.4	111.3	111.3	101.5	101.5	90.0	85.1	78.5	72.0	67.1
57.5°	99.8	93.3	85.1	78.5	75.3	67.1	60.5	52.4	47.4	37.6	31.1
60°	75.3	68.7	60.5	55.6	52.4	44.2	36.0	29.4	18.0	14.7	13.1
62.5°	55.6	49.1	40.9	37.6	34.4	27.8	19.6	9.8	4.9	4.9	4.9
65°	40.9	32.7	26.2	22.9	19.6	14.7	6.5	3.3	1.7	1.7	1.7
67.5°	27.8	21.3	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 EX4C309040 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6	1364.6
2.5°	1331.9	1320.4	1326.9	1312.2	1318.8	1330.2	1322.1	1325.3
5°	1286.0	1279.5	1271.3	1250.1	1266.4	1279.5	1272.9	1271.3
7.5°	1237.0	1214.0	1225.5	1219.0	1215.7	1228.8	1214.0	1230.4
10°	1186.2	1169.9	1168.3	1156.8	1156.8	1166.6	1168.3	1158.4
12.5°	1111.0	1102.8	1102.8	1101.2	1099.5	1109.4	1111.0	1106.1
15°	1057.0	1053.7	1045.5	1043.9	1034.1	1048.8	1050.4	1048.8
17.5°	991.5	993.1	985.0	985.0	991.5	996.4	983.3	996.4
20°	947.4	939.2	935.9	921.2	929.4	937.6	937.6	939.2
22.5°	883.5	870.4	875.4	867.2	862.2	873.7	873.7	878.7
25°	811.5	811.5	814.8	809.9	813.2	819.7	814.8	826.3
27.5°	742.8	749.4	749.4	742.8	746.1	765.7	773.9	760.8
30°	679.0	680.6	685.6	682.3	692.1	698.7	697.0	706.9
32.5°	607.1	615.2	618.5	613.6	616.9	631.5	623.4	621.7
35°	551.4	536.7	535.1	536.7	543.2	546.5	543.2	554.7
37.5°	471.2	466.3	459.7	461.4	466.3	472.9	476.2	484.3
40°	394.3	387.8	387.8	386.2	381.2	399.2	399.2	399.2
42.5°	327.2	325.6	317.4	317.4	324.0	328.8	325.6	337.1
45°	268.3	261.8	256.9	256.9	261.8	261.8	266.7	265.1
47.5°	211.1	204.6	206.2	201.3	206.2	212.7	204.6	206.2
50°	158.7	158.7	155.4	158.7	157.1	158.7	155.4	152.2
52.5°	108.0	122.7	124.4	117.8	103.1	90.0	81.8	88.3
55°	62.2	55.6	55.6	54.0	50.7	49.1	44.2	49.1
57.5°	31.1	27.8	27.8	27.8	26.2	24.6	21.3	21.3
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)