

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: P879414

Luminaire Tested: **LD4C35D010 EU4359040 4LBDWWH**

Issue Date: 10/1/2024

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: P879414
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C35D010 EU4359040 4LBLDWWH
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

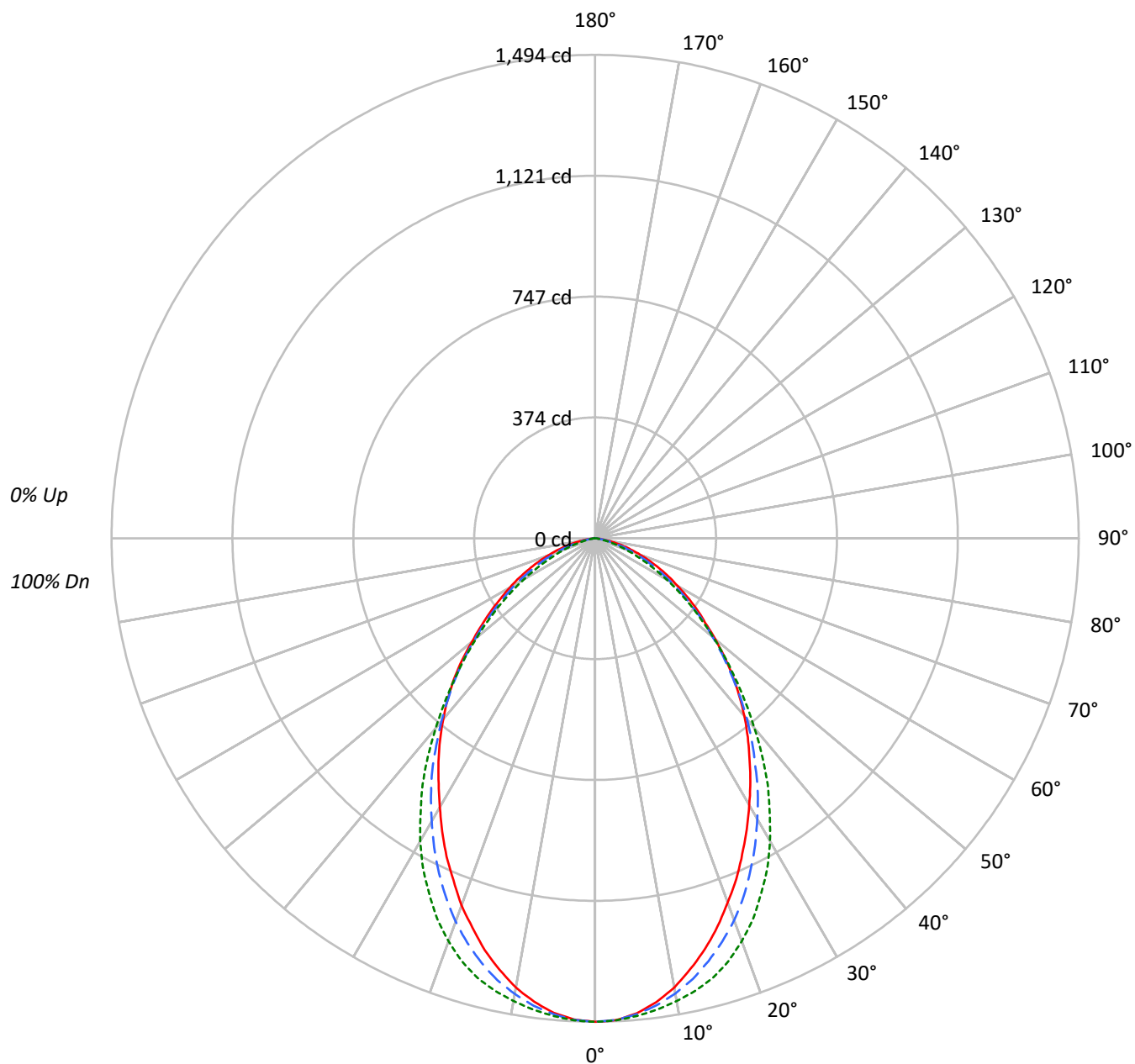
Lumens per Lamp: N/A
Luminaire Lumens: 2673.0 lumens
Efficiency: N/A
Efficacy: 66.2 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
Input Voltage (V): NR
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					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77		
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67		
4	88	77	70	64	86	76	69	63	74	68	63	71	66	62	69	65	61	59		
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52		
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47		
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42		
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38		
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35		
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	183592	183592	183592
5°	181728	182740	181519
10°	175821	181160	175883
15°	167035	178838	167595
20°	156559	173202	157853
25°	145815	164332	147157
30°	135078	153293	136085
35°	124615	139343	126505
40°	114956	122782	117057
45°	104123	106416	107268
50°	92314	91148	94607
55°	82291	76765	84176
60°	72017	62311	74695
65°	63023	48168	65261
70°	53018	35273	55784
75°	41439	22927	43765
80°	27167	12027	29927
85°	9303	5356	12404



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.5	5.2
10°-20°	381.2	14.3
20°-30°	524.2	19.6
30°-40°	546.9	20.5
40°-50°	467.9	17.5
50°-60°	334.7	12.5
60°-70°	194.2	7.3
70°-80°	74.9	2.8
80°-90°	9.5	0.4
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°	1044.9	39.1
0°-40°	1591.8	59.6
0°-60°	2394.4	89.6
0°-90°	2673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2673.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1494	1494	1494	1494	1494	
5°	1474	1476	1482	1476	1472	139
15°	1313	1353	1406	1358	1318	368
25°	1076	1135	1212	1142	1086	495
35°	831	864	929	878	844	520
45°	599	594	612	609	617	462
55°	384	365	358	375	393	344
65°	217	192	166	198	224	216
75°	87	65	48	69	92	94
85°	7	5	4	6	9	13
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°	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4
2.5°	1490.6	1489.5	1490.0	1490.0	1490.0	1489.5	1490.6	1490.6	1490.0	1490.0	1490.0
5°	1473.6	1472.5	1473.0	1473.6	1473.6	1473.6	1474.1	1474.7	1475.2	1475.8	1476.3
7.5°	1446.1	1444.5	1446.1	1448.3	1448.3	1448.9	1449.4	1450.0	1451.6	1454.4	1456.0
10°	1409.4	1409.4	1409.9	1411.6	1414.3	1413.8	1415.4	1418.1	1421.4	1425.3	1428.0
12.5°	1362.7	1363.8	1365.5	1367.1	1369.8	1371.5	1374.2	1377.5	1383.0	1388.5	1394.5
15°	1313.3	1313.9	1314.4	1318.3	1321.0	1324.8	1327.0	1333.6	1338.6	1346.2	1352.8
17.5°	1257.9	1257.3	1259.0	1262.3	1268.9	1270.5	1273.3	1280.4	1287.5	1298.0	1306.7
20°	1197.5	1200.8	1203.0	1207.4	1211.2	1215.6	1217.8	1226.6	1234.8	1244.7	1256.2
22.5°	1140.4	1137.7	1141.5	1146.5	1149.8	1153.1	1156.9	1166.2	1175.0	1187.1	1198.6
25°	1075.7	1077.3	1080.1	1083.9	1088.3	1092.7	1097.1	1107.0	1111.9	1124.5	1135.0
27.5°	1014.2	1017.0	1018.1	1023.0	1026.8	1030.1	1032.3	1043.8	1048.2	1059.2	1069.6
30°	952.2	954.9	954.9	960.4	963.2	966.5	972.0	979.6	986.2	993.9	1001.6
32.5°	892.4	892.4	894.6	899.5	902.3	906.1	907.7	913.2	919.8	927.5	935.7
35°	830.9	832.6	834.7	834.7	839.7	841.9	844.1	849.6	854.0	857.3	863.8
37.5°	774.4	774.4	772.7	775.5	778.8	778.2	781.5	784.3	787.0	790.8	796.3
40°	716.8	716.8	714.6	716.2	718.4	717.9	716.8	719.5	721.7	724.4	729.9
42.5°	658.0	656.9	656.4	656.4	657.5	656.4	657.5	658.0	658.0	658.0	661.3
45°	599.3	602.1	598.8	597.7	596.0	594.4	593.8	594.4	596.6	593.8	594.4
47.5°	541.7	542.8	540.6	538.9	537.3	536.2	537.3	534.0	535.1	535.6	533.4
50°	483.0	480.8	480.8	479.1	479.7	479.1	478.0	476.9	476.9	474.2	472.5
52.5°	428.6	429.7	430.8	427.0	427.5	424.8	425.3	422.6	422.6	419.3	420.4
55°	384.2	382.5	382.5	380.9	380.3	377.6	377.0	375.4	371.5	369.4	365.0
57.5°	338.1	337.5	335.3	335.9	332.6	332.0	330.9	328.2	325.4	322.7	317.8
60°	293.1	293.6	293.6	292.5	290.9	288.1	288.7	284.8	281.0	276.1	271.7
62.5°	255.7	254.1	253.6	252.5	249.2	249.2	246.4	243.7	239.8	234.9	231.1
65°	216.8	217.3	215.7	214.0	210.7	210.2	208.0	205.8	202.0	197.0	191.5
67.5°	181.7	180.6	180.0	178.4	175.1	174.5	172.9	167.9	164.6	159.7	155.3
70°	147.6	146.5	147.1	144.3	141.0	139.4	138.9	135.0	130.1	126.2	121.8
72.5°	115.8	115.8	115.3	112.5	110.9	109.8	107.6	103.2	100.4	96.0	92.7
75°	87.3	86.7	85.6	84.0	81.8	80.7	79.6	76.8	73.0	68.1	65.3
77.5°	60.4	60.9	59.8	59.3	56.5	54.9	54.3	52.7	49.4	46.1	43.4
80°	38.4	37.9	37.3	36.2	35.7	35.1	33.5	32.4	29.1	27.4	25.8
82.5°	20.9	19.8	19.8	19.2	18.1	17.6	17.0	15.9	15.4	14.3	13.2
85°	6.6	7.1	6.6	6.6	6.6	6.0	6.0	6.0	5.5	5.5	4.9
87.5°	0.5	1.1	0.5	0.5	1.1	0.5	0.5	1.1	0.5	0.5	1.1
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°	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4
2.5°	1490.0	1490.6	1490.6	1491.1	1491.1	1491.1	1491.1	1491.1	1491.1	1491.1	1491.1
5°	1478.0	1478.0	1479.1	1480.2	1480.2	1480.2	1480.7	1481.8	1481.8	1481.8	1481.3
7.5°	1458.2	1460.4	1462.6	1464.8	1465.3	1465.9	1467.0	1469.2	1469.2	1469.2	1469.2
10°	1432.4	1437.4	1440.1	1443.4	1445.0	1446.1	1449.4	1450.0	1451.6	1452.2	1451.6
12.5°	1399.5	1406.1	1412.1	1417.6	1419.8	1422.0	1425.3	1428.6	1430.2	1431.9	1431.3
15°	1362.7	1369.8	1379.2	1385.2	1389.6	1392.9	1397.8	1402.2	1405.0	1406.1	1406.1
17.5°	1318.3	1327.0	1336.9	1346.8	1349.5	1355.0	1360.5	1366.6	1369.8	1370.4	1369.8
20°	1268.9	1278.7	1287.0	1296.9	1302.9	1305.6	1313.3	1321.0	1324.3	1324.8	1324.3
22.5°	1210.1	1219.5	1230.4	1240.9	1245.8	1250.8	1259.0	1266.7	1271.1	1274.4	1271.1
25°	1144.8	1158.0	1168.4	1177.2	1184.3	1189.3	1199.7	1205.7	1212.9	1212.3	1212.9
27.5°	1080.6	1091.6	1103.1	1113.5	1117.9	1123.4	1131.7	1141.5	1147.6	1151.4	1150.9
30°	1014.8	1023.5	1033.4	1042.8	1049.9	1054.3	1066.4	1070.7	1078.4	1080.6	1079.0
32.5°	945.1	951.1	961.0	973.6	976.3	980.7	988.4	999.4	1002.1	1003.2	1003.8
35°	871.0	882.5	890.7	898.4	900.6	904.4	913.2	921.5	924.2	929.1	927.0
37.5°	802.4	809.0	812.8	820.5	827.1	830.4	834.7	840.2	845.7	847.9	847.4
40°	733.8	737.1	740.4	748.6	749.1	749.1	755.7	763.4	763.4	765.6	765.6
42.5°	663.5	664.1	668.5	672.8	673.9	675.0	681.6	682.7	686.0	687.7	689.9
45°	595.5	598.8	601.5	602.1	604.8	605.3	607.0	608.6	613.6	612.5	613.6
47.5°	533.4	535.1	536.7	536.7	538.4	537.8	540.6	538.9	542.2	543.3	545.0
50°	472.5	475.3	473.6	474.7	474.2	475.8	474.7	474.7	474.7	476.9	478.6
52.5°	416.6	417.1	415.5	416.0	416.0	414.9	416.0	415.5	414.9	414.9	415.5
55°	365.0	362.8	361.7	359.5	356.7	360.0	358.4	357.3	359.5	358.4	359.5
57.5°	315.0	312.3	310.1	309.0	305.1	307.3	305.1	304.0	304.0	304.0	306.8
60°	267.8	265.1	262.3	259.0	258.5	257.4	256.3	253.6	254.1	253.6	254.7
62.5°	226.7	221.2	217.3	214.6	214.0	212.4	210.7	208.0	208.6	208.6	209.1
65°	188.8	182.8	177.3	173.4	173.4	170.7	167.9	167.9	164.6	165.7	166.3
67.5°	150.9	146.0	140.5	137.8	136.1	133.9	132.3	131.2	129.5	129.5	130.6
70°	116.9	112.0	109.2	104.8	104.3	102.6	100.4	98.8	98.2	98.2	97.7
72.5°	88.4	84.0	80.7	77.9	76.3	74.6	72.4	71.9	70.8	70.8	71.9
75°	61.5	58.7	56.0	53.2	52.1	51.6	49.9	48.8	48.8	48.3	48.8
77.5°	41.2	38.4	35.7	34.6	33.5	32.4	31.8	31.3	29.6	29.6	29.6
80°	23.6	22.5	21.4	19.8	19.8	19.2	18.1	17.6	17.0	17.0	17.0
82.5°	12.1	11.5	10.4	9.9	9.9	9.9	9.3	9.3	8.8	8.8	8.8
85°	4.9	4.4	3.8	3.8	3.8	3.8	3.8	3.8	4.4	3.8	4.4
87.5°	0.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4
2.5°	1491.1	1490.6	1490.6	1490.6	1490.6	1490.6	1490.0	1490.0	1489.5	1489.5	1489.5
5°	1481.8	1481.3	1480.7	1480.2	1479.6	1479.1	1478.5	1478.0	1476.3	1475.8	1474.7
7.5°	1468.6	1467.5	1465.9	1465.3	1464.2	1462.6	1460.4	1459.3	1457.1	1454.4	1453.3
10°	1451.1	1448.9	1447.2	1444.5	1443.9	1441.7	1436.3	1433.5	1429.7	1426.4	1422.5
12.5°	1429.7	1427.5	1423.6	1419.8	1417.6	1412.7	1407.7	1403.3	1398.4	1391.2	1385.8
15°	1403.3	1400.0	1392.3	1391.2	1388.0	1380.3	1373.7	1365.5	1357.8	1350.1	1343.5
17.5°	1368.2	1361.1	1357.2	1352.3	1348.4	1338.6	1331.4	1322.1	1311.7	1302.9	1293.6
20°	1322.1	1314.4	1307.8	1305.1	1300.1	1291.4	1282.6	1271.1	1260.6	1249.7	1241.4
22.5°	1267.2	1262.3	1252.4	1249.1	1243.1	1234.3	1223.9	1212.9	1203.0	1190.9	1180.0
25°	1208.5	1201.4	1193.7	1187.1	1182.7	1174.5	1161.3	1153.1	1142.1	1128.9	1120.7
27.5°	1145.9	1137.7	1126.7	1122.3	1118.5	1107.5	1096.5	1086.1	1077.3	1065.8	1058.7
30°	1073.5	1067.4	1060.3	1054.8	1049.3	1040.6	1030.7	1018.6	1009.3	1003.8	993.9
32.5°	999.9	995.0	985.7	982.9	976.9	969.8	962.6	953.8	944.0	935.7	928.0
35°	921.5	916.5	909.9	905.0	902.8	897.9	890.2	882.5	877.6	868.2	864.4
37.5°	843.0	841.3	834.7	829.8	828.2	822.1	818.3	812.8	805.7	803.5	799.1
40°	762.3	761.2	757.4	756.8	753.5	751.9	746.4	742.0	738.7	737.1	734.3
42.5°	688.2	687.1	683.8	684.4	681.1	680.0	679.4	675.6	672.8	669.6	670.1
45°	615.2	614.1	611.9	610.8	612.5	611.9	610.8	609.2	609.2	609.7	608.1
47.5°	545.0	546.1	543.9	545.0	545.0	543.3	543.3	545.5	546.1	547.2	548.3
50°	478.6	481.9	480.8	482.4	483.0	483.5	481.9	484.6	484.1	489.0	487.9
52.5°	418.2	418.7	420.9	421.5	422.0	422.6	425.3	427.5	428.1	430.3	434.1
55°	360.0	360.6	365.0	365.0	367.7	368.3	372.1	373.2	374.8	380.9	382.0
57.5°	305.1	308.4	310.6	311.7	313.4	316.1	318.3	323.3	326.0	329.8	333.7
60°	255.7	259.6	262.3	263.4	265.6	268.9	271.7	277.2	282.1	286.5	289.2
62.5°	210.2	213.5	215.7	219.5	219.5	222.3	228.9	232.1	237.6	241.5	246.4
65°	169.6	171.8	175.6	175.6	177.8	182.2	187.7	192.6	198.1	203.6	208.6
67.5°	132.8	134.5	136.7	138.9	139.9	145.4	149.8	157.0	161.9	165.7	171.8
70°	100.4	101.5	104.3	106.5	108.1	112.0	116.9	121.8	126.8	131.2	137.2
72.5°	71.9	74.1	76.8	78.5	79.6	82.3	87.3	92.2	96.6	101.0	104.3
75°	49.4	51.0	52.1	53.8	55.4	57.6	60.9	64.2	69.2	73.5	77.4
77.5°	30.7	32.4	34.0	34.6	35.1	37.3	39.5	42.8	46.1	49.4	52.1
80°	18.1	18.7	19.2	19.8	20.9	22.5	23.6	25.8	28.0	30.2	32.9
82.5°	9.3	9.9	10.4	10.4	10.4	11.0	12.6	13.7	14.3	15.4	17.0
85°	3.8	3.8	3.8	4.4	4.4	4.9	4.9	5.5	5.5	6.0	6.6
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P879414

CATALOG NUMBER: LD4C35D010 EU4359040 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4	1494.4
2.5°	1488.9	1488.9	1488.9	1488.4	1488.9	1488.9	1488.9	1488.4
5°	1474.7	1473.6	1473.6	1473.0	1472.5	1472.5	1473.0	1471.9
7.5°	1451.1	1449.4	1448.3	1448.3	1447.8	1447.2	1447.2	1444.5
10°	1420.3	1417.0	1417.0	1415.9	1411.6	1411.0	1409.9	1409.9
12.5°	1381.9	1378.1	1375.9	1373.1	1370.4	1368.2	1367.7	1365.5
15°	1336.4	1331.4	1327.6	1326.5	1322.1	1318.8	1318.8	1317.7
17.5°	1287.0	1279.3	1276.5	1273.8	1267.8	1267.2	1266.1	1261.2
20°	1231.0	1223.9	1220.0	1217.3	1213.4	1207.9	1206.8	1207.4
22.5°	1172.3	1162.4	1159.1	1156.4	1152.5	1147.6	1147.6	1143.7
25°	1111.4	1102.6	1099.3	1096.0	1089.9	1087.8	1085.0	1085.6
27.5°	1049.3	1041.1	1038.4	1032.3	1028.5	1025.7	1023.0	1023.0
30°	984.6	980.2	975.8	975.2	967.6	964.3	961.5	959.3
32.5°	922.0	916.5	914.3	912.1	908.3	903.9	903.4	899.5
35°	860.5	855.1	852.3	850.1	845.7	844.1	842.4	843.5
37.5°	795.8	794.7	793.0	790.3	787.6	787.0	784.8	787.6
40°	732.1	731.6	729.4	729.9	729.9	728.8	729.9	729.9
42.5°	670.7	670.7	668.5	669.6	670.1	671.2	672.8	673.9
45°	610.8	610.3	610.8	611.9	610.8	613.6	615.8	617.4
47.5°	549.4	549.9	552.1	552.7	553.8	557.6	557.6	557.6
50°	490.6	493.4	492.3	495.6	495.0	497.2	495.0	495.0
52.5°	434.7	437.4	438.0	438.5	441.8	442.3	442.3	441.8
55°	384.7	388.6	386.9	389.7	391.3	392.4	394.1	393.0
57.5°	338.6	340.3	341.9	342.5	344.7	345.8	346.9	345.8
60°	293.1	296.4	299.1	299.7	300.8	301.8	302.4	304.0
62.5°	250.3	255.7	256.8	257.4	260.1	261.8	262.9	264.0
65°	212.4	216.2	219.0	220.6	222.8	222.8	224.5	224.5
67.5°	175.6	179.5	181.1	182.2	185.5	186.0	188.8	188.8
70°	142.1	144.9	146.0	147.6	150.9	153.1	154.2	155.3
72.5°	109.8	113.1	114.7	116.9	119.1	120.7	121.3	122.9
75°	80.1	85.1	85.6	87.8	89.5	91.7	92.7	92.2
77.5°	56.0	57.6	59.8	60.9	62.6	64.2	65.9	65.9
80°	34.6	36.8	37.3	37.9	40.1	41.2	42.3	42.3
82.5°	18.1	19.2	20.3	20.9	22.0	22.0	22.5	23.1
85°	7.1	7.7	7.7	7.7	8.2	8.8	8.8	8.8
87.5°	1.1	1.6	1.1	1.1	1.6	1.6	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)