

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: P880558

Luminaire Tested: **LD4C25D010 EU4259030 4LBDWNH**

Issue Date: 10/4/2024

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: P880558
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251940)
Test Lab: INNOVATION CENTER
Issue Date: 10/4/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C25D010 EU4259030 4LBDWNH
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

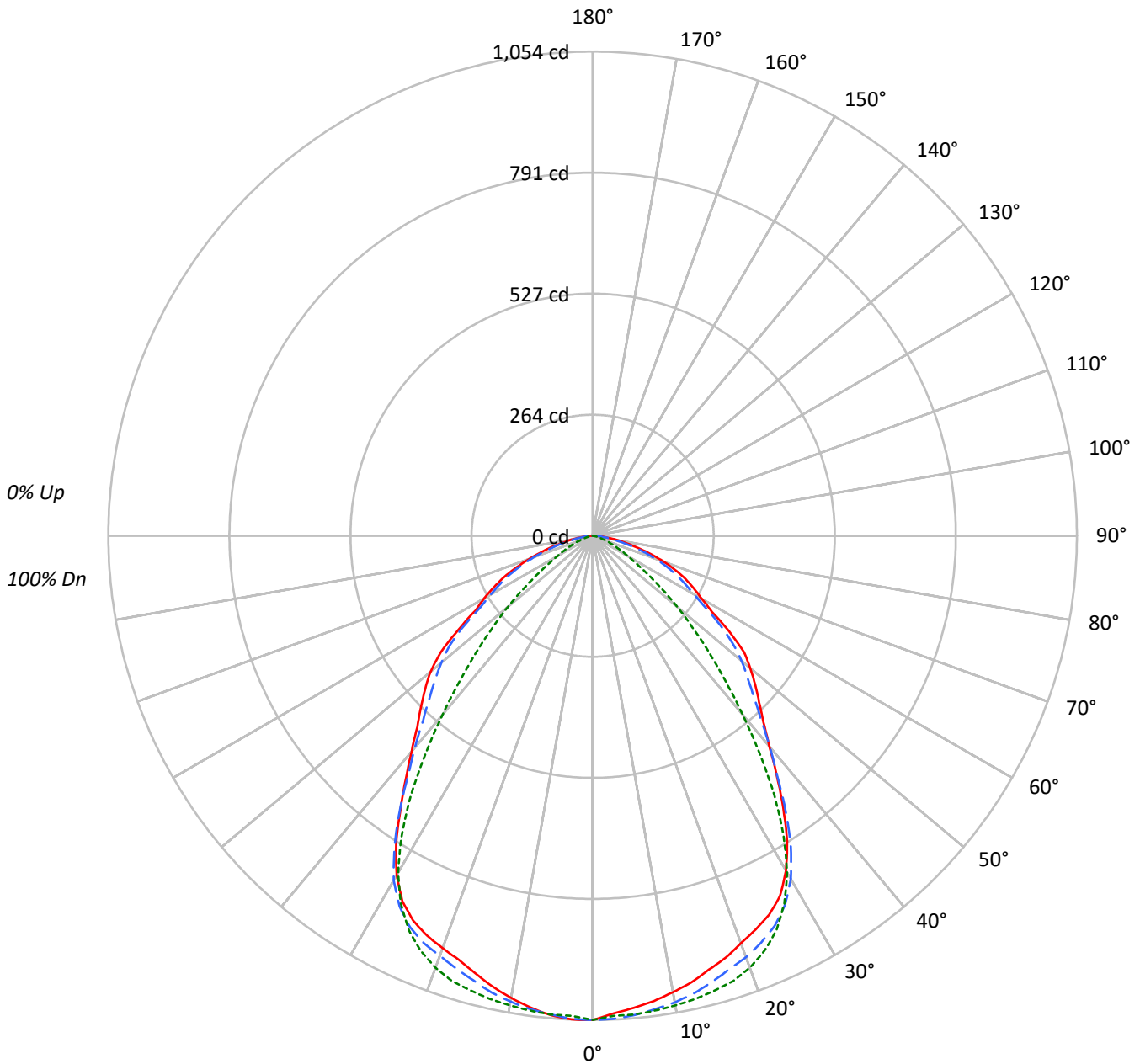
Lumens per Lamp: N/A
Luminaire Lumens: 2145.0 lumens
Efficiency: N/A
Efficacy: 68.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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			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			100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88			88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76			76
3	94	85	78	72	92	84	77	72	81	75	70	78	73	69	76	72	68	66			66
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58			58
5	81	69	61	55	79	68	61	55	66	60	54	64	58	54	63	57	53	51			51
6	75	63	55	49	73	62	55	49	60	54	49	59	53	48	57	52	48	46			46
7	70	58	50	44	68	57	49	44	56	49	44	54	48	43	53	47	43	41			41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37			37
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34			34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	129488	129488	129488
5°	127183	128983	129181
10°	125822	129464	127431
15°	124364	130329	125381
20°	123377	130803	124855
25°	123313	128369	125279
30°	119374	120069	120992
35°	108463	103364	109438
40°	95952	81390	98293
45°	89025	61973	91840
50°	85529	45870	88014
55°	77451	31614	76401
60°	67324	21524	66931
65°	65058	15581	61744
70°	58801	10489	52407
75°	48464	6930	41581
80°	38982	4599	30988
85°	31998	2255	20580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.5	4.6
10°-20°	284.5	13.3
20°-30°	429.8	20.0
30°-40°	449.8	21.0
40°-50°	364.3	17.0
50°-60°	265.0	12.4
60°-70°	163.4	7.6
70°-80°	73.8	3.4
80°-90°	15.0	0.7
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°	813.7	37.9
0°-40°	1263.5	58.9
0°-60°	1892.7	88.2
0°-90°	2145.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2145.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1054	1054	1054	1054	1054	
5°	1031	1048	1046	1046	1048	98
15°	978	1005	1025	1002	986	276
25°	910	937	947	940	924	417
35°	723	733	689	733	730	451
45°	512	496	357	503	529	398
55°	362	339	148	342	357	323
65°	224	201	54	198	212	219
75°	102	88	15	76	88	111
85°	23	18	2	13	15	26
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°	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0
2.5°	1041.0	1041.0	1050.8	1062.0	1052.4	1042.6	1049.1	1045.9	1057.2	1057.2	1052.4
5°	1031.3	1034.5	1042.6	1052.4	1044.3	1034.5	1042.6	1039.4	1050.8	1050.8	1047.5
7.5°	1021.5	1023.1	1032.9	1044.3	1036.1	1026.4	1032.9	1031.3	1041.0	1042.6	1039.4
10°	1008.6	1010.2	1019.9	1031.3	1023.1	1015.1	1021.5	1019.9	1032.9	1032.9	1031.3
12.5°	995.6	997.2	1007.0	1016.7	1008.6	1000.5	1007.0	1007.0	1019.9	1021.5	1019.9
15°	977.8	981.0	989.1	998.8	994.0	984.2	990.7	990.7	1002.1	1005.3	1005.3
17.5°	963.2	964.8	972.9	982.7	976.2	968.0	974.5	974.5	985.8	989.1	989.1
20°	943.7	947.0	955.0	964.8	959.9	953.4	958.3	958.3	971.3	974.5	976.2
22.5°	927.5	930.7	937.2	950.2	942.1	937.2	943.7	942.1	956.7	958.3	958.3
25°	909.7	912.9	921.0	929.1	924.2	919.4	924.2	924.2	935.6	937.2	937.2
27.5°	883.7	885.3	893.4	901.6	896.7	890.2	896.7	895.1	906.4	908.1	906.4
30°	841.5	844.8	848.0	859.4	854.5	849.6	856.1	852.9	864.3	864.3	862.6
32.5°	788.0	788.0	794.6	802.7	796.2	792.9	797.8	799.4	807.5	807.5	802.7
35°	723.2	726.5	731.3	736.1	731.3	728.1	732.9	731.3	741.0	737.7	732.9
37.5°	658.4	660.0	664.8	671.3	664.8	660.0	661.5	660.0	668.0	668.0	660.0
40°	598.3	601.6	604.8	611.3	604.8	601.6	603.2	598.3	608.1	604.8	599.9
42.5°	549.7	551.3	556.1	559.4	553.0	551.3	553.0	549.7	554.5	551.3	541.6
45°	512.4	512.4	514.1	518.8	512.4	510.8	510.8	507.5	512.4	505.9	496.2
47.5°	480.0	481.6	483.2	486.4	481.6	476.8	478.4	471.9	475.1	470.2	457.2
50°	447.5	450.7	452.4	455.6	450.7	447.5	449.1	442.7	442.7	434.6	423.2
52.5°	415.1	416.7	415.1	418.3	415.1	410.3	411.8	405.4	405.4	395.7	384.3
55°	361.6	363.2	364.9	368.1	364.9	360.0	363.2	358.4	358.4	351.8	338.9
57.5°	308.0	309.7	311.3	312.9	312.9	309.7	311.3	308.0	306.4	301.6	291.9
60°	274.0	274.0	274.0	275.6	274.0	272.4	272.4	269.1	269.1	262.7	253.0
62.5°	248.1	249.7	249.7	251.3	249.7	248.1	246.5	243.2	241.6	235.1	227.0
65°	223.8	223.8	222.2	225.4	223.8	222.2	222.2	218.9	215.7	209.2	201.0
67.5°	194.6	196.2	194.6	196.2	196.2	194.6	193.0	189.7	188.1	183.2	173.5
70°	163.7	163.7	163.7	165.4	163.7	163.7	165.4	160.6	159.0	152.4	144.3
72.5°	132.9	134.6	134.6	132.9	134.6	131.3	131.3	131.3	129.7	123.3	115.1
75°	102.1	103.8	103.8	105.4	103.8	102.1	102.1	100.5	98.9	94.0	87.6
77.5°	76.2	76.2	77.8	77.8	77.8	76.2	76.2	73.0	73.0	69.7	63.2
80°	55.1	55.1	53.6	55.1	55.1	53.6	53.6	51.9	51.9	48.7	43.8
82.5°	35.7	37.3	37.3	37.3	37.3	35.7	35.7	35.7	34.0	32.4	29.2
85°	22.7	22.7	22.7	22.7	24.3	22.7	24.3	22.7	22.7	19.4	17.9
87.5°	9.8	9.8	9.8	11.4	11.4	9.8	9.8	9.8	9.8	9.8	8.1
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°	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0
2.5°	1052.4	1054.0	1049.1	1055.5	1050.8	1052.4	1054.0	1052.4	1045.9	1045.9	1063.7
5°	1045.9	1049.1	1044.3	1052.4	1049.1	1049.1	1052.4	1050.8	1044.3	1045.9	1062.0
7.5°	1039.4	1044.3	1041.0	1049.1	1044.3	1044.3	1047.5	1047.5	1041.0	1042.6	1057.2
10°	1029.6	1036.1	1034.5	1042.6	1037.8	1037.8	1042.6	1042.6	1036.1	1037.8	1052.4
12.5°	1021.5	1028.0	1026.4	1034.5	1031.3	1032.9	1034.5	1037.8	1029.6	1032.9	1045.9
15°	1008.6	1015.1	1015.1	1023.1	1019.9	1023.1	1026.4	1031.3	1024.7	1024.7	1037.8
17.5°	994.0	1002.1	1002.1	1008.6	1008.6	1010.2	1016.7	1021.5	1015.1	1016.7	1028.0
20°	977.8	987.5	987.5	995.6	994.0	997.2	1002.1	1007.0	1000.5	1000.5	1013.5
22.5°	961.5	969.7	971.3	976.2	976.2	977.8	982.7	985.8	977.8	977.8	990.7
25°	938.9	947.0	948.5	951.8	948.5	948.5	951.8	955.0	947.0	947.0	958.3
27.5°	908.1	916.1	916.1	914.5	911.3	912.9	911.3	912.9	904.8	903.2	914.5
30°	862.6	867.5	867.5	865.9	861.0	861.0	856.1	857.8	846.4	846.4	856.1
32.5°	801.1	805.8	802.7	799.4	792.9	789.7	786.4	784.8	773.4	773.4	784.8
35°	728.1	731.3	726.5	720.0	711.8	706.9	702.1	695.7	687.5	689.2	695.7
37.5°	653.5	653.5	647.0	634.0	627.5	619.4	611.3	611.3	598.3	596.7	601.6
40°	590.2	583.8	572.4	554.5	543.2	535.1	523.7	517.3	507.5	507.5	515.7
42.5°	533.5	520.5	505.9	481.6	470.2	460.5	446.0	439.5	428.1	426.4	431.3
45°	483.2	470.2	449.1	423.2	408.7	397.3	376.1	368.1	358.4	356.7	360.0
47.5°	442.7	428.1	402.2	368.1	353.5	338.9	317.8	306.4	298.4	293.5	298.4
50°	407.0	387.5	360.0	324.3	304.8	291.9	266.0	254.6	243.2	240.0	241.6
52.5°	368.1	348.6	319.4	282.1	264.3	244.8	220.5	204.3	194.6	189.7	194.6
55°	325.9	306.4	277.3	240.0	220.5	202.7	176.7	163.7	152.4	147.6	152.4
57.5°	280.5	262.7	236.7	199.4	181.6	165.4	141.1	128.1	116.8	113.5	116.8
60°	241.6	227.0	201.0	165.4	150.8	132.9	111.9	98.9	89.2	87.6	89.2
62.5°	215.7	199.4	175.1	141.1	126.4	111.9	92.4	79.5	71.3	69.7	71.3
65°	189.7	171.9	149.2	120.0	105.4	94.0	74.6	63.2	55.1	53.6	55.1
67.5°	160.6	144.3	124.9	98.9	87.6	76.2	60.0	48.7	42.2	40.6	42.2
70°	132.9	118.4	98.9	79.5	68.1	60.0	45.4	37.3	30.8	29.2	30.8
72.5°	105.4	92.4	76.2	60.0	53.6	45.4	35.7	27.5	22.7	21.0	22.7
75°	81.1	71.3	58.3	43.8	38.9	34.0	24.3	19.4	16.3	14.6	16.3
77.5°	56.7	50.3	40.6	32.4	27.5	24.3	17.9	13.0	11.4	9.8	11.4
80°	38.9	34.0	27.5	21.0	17.9	14.6	11.4	8.1	6.5	6.5	6.5
82.5°	25.9	21.0	16.3	13.0	11.4	9.8	6.5	4.9	4.9	3.3	3.3
85°	14.6	13.0	9.8	8.1	6.5	4.9	3.3	3.3	1.6	1.6	1.6
87.5°	6.5	4.9	3.3	3.3	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°	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0
2.5°	1058.8	1054.0	1060.4	1054.0	1050.8	1054.0	1050.8	1060.4	1052.4	1045.9	1052.4
5°	1057.2	1050.8	1057.2	1052.4	1047.5	1049.1	1045.9	1055.5	1045.9	1041.0	1044.3
7.5°	1054.0	1049.1	1052.4	1047.5	1042.6	1044.3	1041.0	1049.1	1039.4	1034.5	1037.8
10°	1049.1	1044.3	1045.9	1042.6	1037.8	1037.8	1034.5	1041.0	1029.6	1023.1	1026.4
12.5°	1042.6	1036.1	1039.4	1034.5	1028.0	1028.0	1024.7	1029.6	1018.3	1011.8	1013.5
15°	1034.5	1028.0	1028.0	1023.1	1016.7	1016.7	1010.2	1015.1	1002.1	995.6	995.6
17.5°	1024.7	1016.7	1016.7	1011.8	1003.7	1002.1	997.2	1002.1	987.5	981.0	981.0
20°	1010.2	1003.7	1002.1	998.8	990.7	989.1	982.7	984.2	972.9	968.0	966.4
22.5°	990.7	984.2	985.8	981.0	974.5	972.9	966.4	971.3	959.9	955.0	956.7
25°	956.7	953.4	956.7	955.0	950.2	950.2	947.0	950.2	940.5	937.2	938.9
27.5°	917.7	916.1	917.7	917.7	914.5	914.5	914.5	919.4	909.7	908.1	908.1
30°	861.0	861.0	862.6	864.3	864.3	867.5	865.9	872.4	865.9	862.6	865.9
32.5°	786.4	792.9	797.8	797.8	797.8	801.1	804.3	809.1	802.7	804.3	804.3
35°	702.1	706.9	710.2	718.3	713.5	724.8	728.1	734.5	732.9	736.1	734.5
37.5°	608.1	614.6	621.1	632.4	630.7	643.7	650.2	663.1	660.0	666.4	669.6
40°	520.5	530.2	540.0	548.1	554.5	567.5	580.5	596.7	601.6	606.4	608.1
42.5°	436.2	446.0	462.1	473.5	483.2	504.3	522.1	541.6	546.5	556.1	559.4
45°	368.1	376.1	395.7	410.3	418.3	449.1	470.2	494.5	502.7	514.1	518.8
47.5°	304.8	319.4	338.9	356.7	368.1	400.5	428.1	454.0	465.4	478.4	484.8
50°	249.7	266.0	291.9	308.0	324.3	360.0	390.8	418.3	429.7	444.3	450.7
52.5°	204.3	222.2	246.5	264.3	282.1	319.4	351.8	377.8	392.4	402.2	411.8
55°	160.6	180.0	204.3	223.8	238.3	278.9	306.4	332.4	342.1	350.2	355.1
57.5°	124.9	139.4	163.7	180.0	197.8	233.4	261.1	280.5	288.6	298.4	301.6
60°	97.3	111.9	134.6	150.8	167.0	201.0	228.7	248.1	256.2	264.3	269.1
62.5°	77.8	92.4	113.5	128.1	142.7	173.5	197.8	217.3	227.0	235.1	240.0
65°	61.6	74.6	92.4	107.0	118.4	145.9	170.2	188.1	197.8	205.9	210.8
67.5°	48.7	60.0	76.2	86.0	97.3	120.0	141.1	157.3	165.4	175.1	180.0
70°	37.3	45.4	60.0	68.1	76.2	95.6	111.9	128.1	136.2	142.7	145.9
72.5°	27.5	34.0	45.4	51.9	56.7	73.0	86.0	97.3	103.8	110.3	113.5
75°	19.4	24.3	32.4	37.3	40.6	51.9	63.2	71.3	76.2	81.1	86.0
77.5°	13.0	16.3	21.0	24.3	27.5	35.7	42.2	48.7	53.6	58.3	60.0
80°	8.1	11.4	14.6	16.3	17.9	22.7	29.2	32.4	35.7	38.9	40.6
82.5°	4.9	6.5	8.1	9.8	11.4	14.6	17.9	21.0	22.7	25.9	27.5
85°	1.6	3.3	3.3	4.9	4.9	8.1	9.8	11.4	13.0	14.6	16.3
87.5°	0.0	0.0	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3	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



TEST NUMBER: P880558

CATALOG NUMBER: LD4C25D010 EU4259030 4LBDWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0	1054.0
2.5°	1058.8	1054.0	1050.8	1049.1	1060.4	1045.9	1052.4	1054.0
5°	1052.4	1047.5	1044.3	1042.6	1052.4	1039.4	1044.3	1047.5
7.5°	1042.6	1039.4	1034.5	1032.9	1042.6	1028.0	1034.5	1036.1
10°	1031.3	1026.4	1023.1	1021.5	1029.6	1015.1	1021.5	1021.5
12.5°	1016.7	1013.5	1007.0	1007.0	1013.5	1000.5	1005.3	1005.3
15°	997.2	994.0	987.5	987.5	994.0	981.0	985.8	985.8
17.5°	981.0	977.8	972.9	971.3	977.8	964.8	969.7	968.0
20°	968.0	964.8	958.3	958.3	963.2	950.2	955.0	955.0
22.5°	956.7	955.0	948.5	948.5	955.0	942.1	945.4	942.1
25°	938.9	937.2	930.7	932.4	935.6	922.6	927.5	924.2
27.5°	909.7	909.7	903.2	901.6	906.4	895.1	898.3	896.7
30°	864.3	865.9	857.8	857.8	859.4	849.6	854.5	852.9
32.5°	802.7	804.3	797.8	796.2	801.1	792.9	796.2	796.2
35°	734.5	736.1	731.3	731.3	736.1	731.3	731.3	729.7
37.5°	666.4	669.6	666.4	668.0	671.3	666.4	669.6	668.0
40°	611.3	614.6	609.7	612.9	616.2	611.3	616.2	612.9
42.5°	561.0	565.9	562.6	565.9	569.1	565.9	569.1	564.3
45°	523.7	527.0	525.3	527.0	530.2	528.6	530.2	528.6
47.5°	488.0	494.5	491.3	494.5	499.4	496.2	499.4	494.5
50°	455.6	460.5	458.9	462.1	463.7	462.1	465.4	460.5
52.5°	413.4	418.3	416.7	416.7	419.9	416.7	419.9	416.7
55°	358.4	360.0	360.0	361.6	360.0	358.4	360.0	356.7
57.5°	304.8	308.0	303.3	308.0	306.4	304.8	304.8	301.6
60°	270.7	275.6	272.4	275.6	274.0	274.0	274.0	272.4
62.5°	243.2	246.5	243.2	244.8	244.8	244.8	243.2	241.6
65°	212.4	217.3	214.0	215.7	214.0	212.4	214.0	212.4
67.5°	181.6	183.2	183.2	181.6	181.6	181.6	181.6	178.4
70°	147.6	149.2	147.6	150.8	149.2	147.6	149.2	145.9
72.5°	115.1	116.8	115.1	116.8	115.1	115.1	115.1	115.1
75°	86.0	87.6	87.6	87.6	87.6	87.6	84.4	87.6
77.5°	61.6	61.6	61.6	63.2	61.6	61.6	61.6	61.6
80°	42.2	42.2	42.2	43.8	42.2	43.8	42.2	43.8
82.5°	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
85°	14.6	16.3	16.3	14.6	14.6	14.6	14.6	14.6
87.5°	3.3	1.6	1.6	1.6	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



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)