

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: P880561

Luminaire Tested: **LD4C25D010 EU4259050 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: P880561
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 EU4259050 4LBDWNH
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

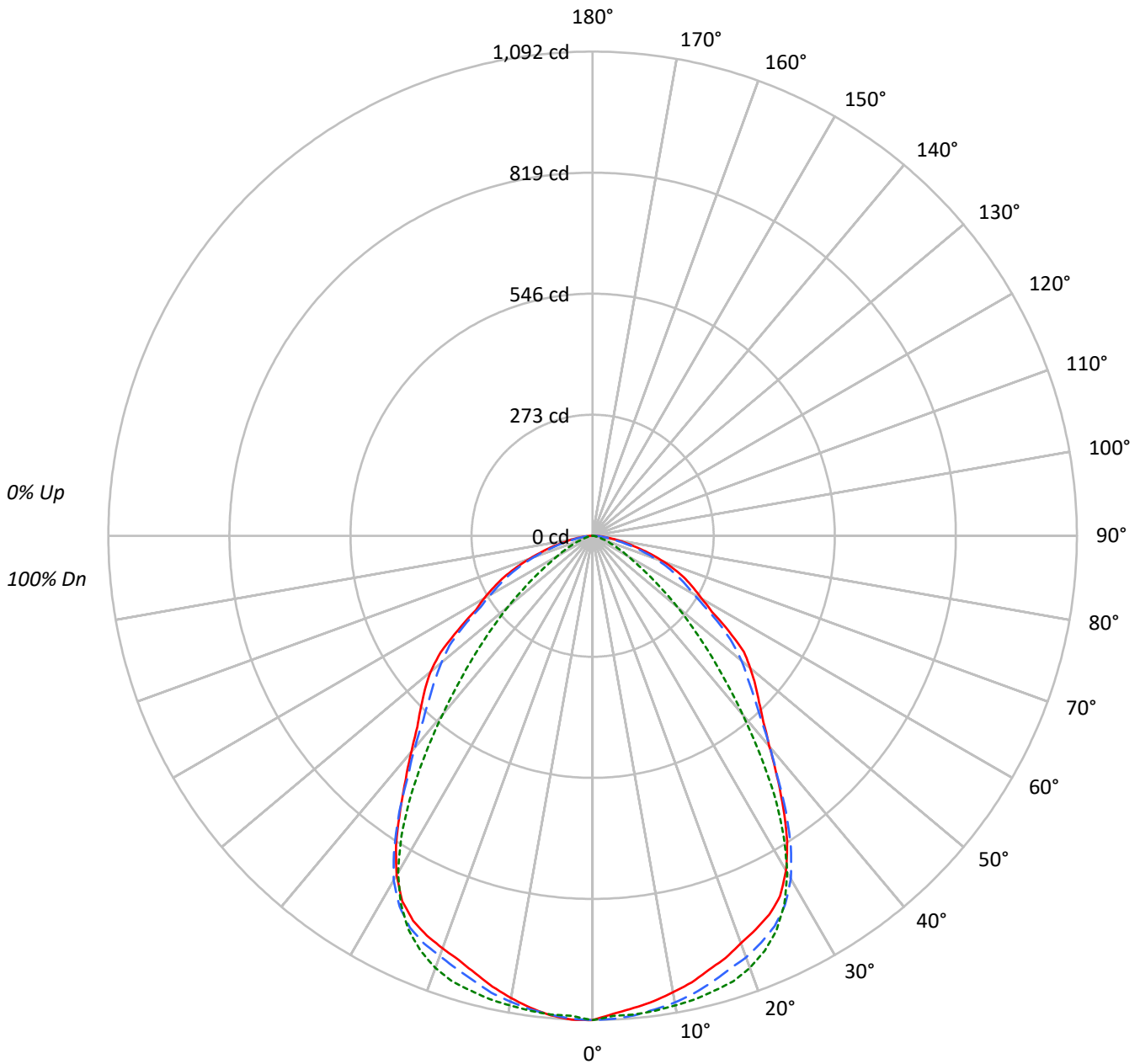
Lumens per Lamp: N/A
Luminaire Lumens: 2223.0 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
Input Voltage (V): NR
Input Current (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					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°	134193	134193	134193
5°	131807	133670	133879
10°	130400	134167	132071
15°	128879	135073	129947
20°	127862	135562	129404
25°	127787	133033	129833
30°	123715	124439	125389
35°	112407	107113	113412
40°	99448	84341	101869
45°	92256	64232	95175
50°	88644	47552	91224
55°	80256	32771	79185
60°	69781	22286	69363
65°	67412	16134	63982
70°	60956	10884	54311
75°	50220	7168	43053
80°	40468	4740	32120
85°	33266	2396	21285



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	4.6
10°-20°	294.8	13.3
20°-30°	445.4	20.0
30°-40°	466.1	21.0
40°-50°	377.5	17.0
50°-60°	274.6	12.4
60°-70°	169.4	7.6
70°-80°	76.5	3.4
80°-90°	15.6	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°	843.3	37.9
0°-40°	1309.5	58.9
0°-60°	1961.6	88.2
0°-90°	2223.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2223.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1092	1092	1092	1092	1092	
5°	1069	1086	1084	1084	1086	101
15°	1013	1042	1062	1038	1022	286
25°	943	971	981	975	958	432
35°	750	760	714	760	756	467
45°	531	514	370	521	548	413
55°	375	351	153	355	370	334
65°	232	208	56	205	220	227
75°	106	91	15	79	91	115
85°	24	18	2	13	15	27
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°	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3
2.5°	1078.8	1078.8	1089.0	1100.6	1090.6	1080.5	1087.2	1083.9	1095.7	1095.7	1090.6
5°	1068.8	1072.1	1080.5	1090.6	1082.3	1072.1	1080.5	1077.2	1089.0	1089.0	1085.6
7.5°	1058.7	1060.3	1070.5	1082.3	1073.8	1063.8	1070.5	1068.8	1078.8	1080.5	1077.2
10°	1045.3	1046.9	1057.0	1068.8	1060.3	1052.0	1058.7	1057.0	1070.5	1070.5	1068.8
12.5°	1031.8	1033.5	1043.6	1053.6	1045.3	1036.9	1043.6	1043.6	1057.0	1058.7	1057.0
15°	1013.3	1016.6	1025.1	1035.1	1030.2	1020.0	1026.8	1026.8	1038.5	1041.8	1041.8
17.5°	998.2	999.9	1008.3	1018.4	1011.7	1003.2	1009.9	1009.9	1021.7	1025.1	1025.1
20°	978.0	981.4	989.8	999.9	994.8	988.1	993.2	993.2	1006.6	1009.9	1011.7
22.5°	961.2	964.5	971.3	984.8	976.3	971.3	978.0	976.3	991.5	993.2	993.2
25°	942.7	946.1	954.5	962.9	957.8	952.9	957.8	957.8	969.6	971.3	971.3
27.5°	915.9	917.5	925.9	934.4	929.3	922.6	929.3	927.6	939.3	941.1	939.3
30°	872.1	875.6	878.9	890.6	885.6	880.5	887.2	883.9	895.7	895.7	894.0
32.5°	816.6	816.6	823.5	831.8	825.1	821.7	826.8	828.4	836.9	836.9	831.8
35°	749.5	752.9	757.8	762.9	757.8	754.5	759.6	757.8	768.0	764.6	759.6
37.5°	682.3	684.0	689.0	695.7	689.0	684.0	685.6	684.0	692.3	692.3	684.0
40°	620.1	623.5	626.8	633.5	626.8	623.5	625.1	620.1	630.2	626.8	621.7
42.5°	569.7	571.3	576.4	579.8	573.1	571.3	573.1	569.7	574.7	571.3	561.3
45°	531.0	531.0	532.8	537.7	531.0	529.3	529.3	525.9	531.0	524.3	514.3
47.5°	497.4	499.1	500.8	504.1	499.1	494.1	495.8	489.0	492.3	487.3	473.8
50°	463.8	467.1	468.9	472.2	467.1	463.8	465.5	458.8	458.8	450.4	438.6
52.5°	430.2	431.9	430.2	433.5	430.2	425.2	426.8	420.1	420.1	410.1	398.3
55°	374.7	376.4	378.1	381.5	378.1	373.1	376.4	371.4	371.4	364.6	351.2
57.5°	319.2	321.0	322.7	324.3	324.3	321.0	322.7	319.2	317.6	312.5	302.5
60°	284.0	284.0	284.0	285.7	284.0	282.3	282.3	278.9	278.9	272.2	262.2
62.5°	257.1	258.8	258.8	260.4	258.8	257.1	255.5	252.1	250.4	243.7	235.2
65°	231.9	231.9	230.3	233.6	231.9	230.3	230.3	226.8	223.5	216.8	208.3
67.5°	201.6	203.3	201.6	203.3	203.3	201.6	200.0	196.6	194.9	189.8	179.8
70°	169.7	169.7	169.7	171.5	169.7	169.7	171.5	166.4	164.7	157.9	149.5
72.5°	137.8	139.5	139.5	137.8	139.5	136.1	136.1	136.1	134.5	127.7	119.3
75°	105.8	107.6	107.6	109.2	107.6	105.8	105.8	104.2	102.5	97.5	90.7
77.5°	79.0	79.0	80.6	80.6	80.6	79.0	79.0	75.7	75.7	72.2	65.5
80°	57.2	57.2	55.5	57.2	57.2	55.5	55.5	53.7	53.7	50.4	45.4
82.5°	37.0	38.7	38.7	38.7	38.7	37.0	37.0	37.0	35.2	33.6	30.3
85°	23.6	23.6	23.6	23.6	25.2	23.6	25.2	23.6	23.6	20.2	18.5
87.5°	10.1	10.1	10.1	11.8	11.8	10.1	10.1	10.1	10.1	10.1	8.4
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°	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3
2.5°	1090.6	1092.3	1087.2	1093.9	1089.0	1090.6	1092.3	1090.6	1083.9	1083.9	1102.4
5°	1083.9	1087.2	1082.3	1090.6	1087.2	1087.2	1090.6	1089.0	1082.3	1083.9	1100.6
7.5°	1077.2	1082.3	1078.8	1087.2	1082.3	1082.3	1085.6	1085.6	1078.8	1080.5	1095.7
10°	1067.1	1073.8	1072.1	1080.5	1075.5	1075.5	1080.5	1080.5	1073.8	1075.5	1090.6
12.5°	1058.7	1065.4	1063.8	1072.1	1068.8	1070.5	1072.1	1075.5	1067.1	1070.5	1083.9
15°	1045.3	1052.0	1052.0	1060.3	1057.0	1060.3	1063.8	1068.8	1062.0	1062.0	1075.5
17.5°	1030.2	1038.5	1038.5	1045.3	1045.3	1046.9	1053.6	1058.7	1052.0	1053.6	1065.4
20°	1013.3	1023.4	1023.4	1031.8	1030.2	1033.5	1038.5	1043.6	1036.9	1036.9	1050.3
22.5°	996.5	1004.9	1006.6	1011.7	1011.7	1013.3	1018.4	1021.7	1013.3	1013.3	1026.8
25°	973.0	981.4	983.0	986.4	983.0	983.0	986.4	989.8	981.4	981.4	993.2
27.5°	941.1	949.5	949.5	947.8	944.4	946.1	944.4	946.1	937.7	936.0	947.8
30°	894.0	899.0	899.0	897.4	892.3	892.3	887.2	889.0	877.2	877.2	887.2
32.5°	830.2	835.1	831.8	828.4	821.7	818.4	815.0	813.3	801.6	801.6	813.3
35°	754.5	757.8	752.9	746.2	737.7	732.6	727.7	721.0	712.5	714.2	721.0
37.5°	677.2	677.2	670.5	657.1	650.4	641.9	633.5	633.5	620.1	618.4	623.5
40°	611.7	605.0	593.2	574.7	562.9	554.6	542.8	536.1	525.9	525.9	534.4
42.5°	552.9	539.5	524.3	499.1	487.3	477.3	462.2	455.5	443.7	441.9	447.0
45°	500.8	487.3	465.5	438.6	423.5	411.7	389.8	381.5	371.4	369.7	373.1
47.5°	458.8	443.7	416.8	381.5	366.4	351.2	329.4	317.6	309.2	304.2	309.2
50°	421.8	401.6	373.1	336.1	315.9	302.5	275.6	263.8	252.1	248.8	250.4
52.5°	381.5	361.3	331.0	292.4	273.9	253.7	228.5	211.8	201.6	196.6	201.6
55°	337.7	317.6	287.4	248.8	228.5	210.1	183.1	169.7	157.9	153.0	157.9
57.5°	290.7	272.2	245.3	206.7	188.2	171.5	146.2	132.8	121.0	117.6	121.0
60°	250.4	235.2	208.3	171.5	156.3	137.8	116.0	102.5	92.4	90.7	92.4
62.5°	223.5	206.7	181.5	146.2	131.0	116.0	95.8	82.4	73.9	72.2	73.9
65°	196.6	178.2	154.6	124.3	109.2	97.5	77.3	65.5	57.2	55.5	57.2
67.5°	166.4	149.5	129.4	102.5	90.7	79.0	62.2	50.4	43.7	42.1	43.7
70°	137.8	122.7	102.5	82.4	70.6	62.2	47.0	38.7	31.9	30.3	31.9
72.5°	109.2	95.8	79.0	62.2	55.5	47.0	37.0	28.5	23.6	21.8	23.6
75°	84.0	73.9	60.5	45.4	40.3	35.2	25.2	20.2	16.8	15.1	16.8
77.5°	58.8	52.1	42.1	33.6	28.5	25.2	18.5	13.4	11.8	10.1	11.8
80°	40.3	35.2	28.5	21.8	18.5	15.1	11.8	8.4	6.7	6.7	6.7
82.5°	26.9	21.8	16.8	13.4	11.8	10.1	6.7	5.1	5.1	3.4	3.4
85°	15.1	13.4	10.1	8.4	6.7	5.1	3.4	3.4	1.7	1.7	1.7
87.5°	6.7	5.1	3.4	3.4	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°	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3
2.5°	1097.3	1092.3	1099.0	1092.3	1089.0	1092.3	1089.0	1099.0	1090.6	1083.9	1090.6
5°	1095.7	1089.0	1095.7	1090.6	1085.6	1087.2	1083.9	1093.9	1083.9	1078.8	1082.3
7.5°	1092.3	1087.2	1090.6	1085.6	1080.5	1082.3	1078.8	1087.2	1077.2	1072.1	1075.5
10°	1087.2	1082.3	1083.9	1080.5	1075.5	1075.5	1072.1	1078.8	1067.1	1060.3	1063.8
12.5°	1080.5	1073.8	1077.2	1072.1	1065.4	1065.4	1062.0	1067.1	1055.3	1048.6	1050.3
15°	1072.1	1065.4	1065.4	1060.3	1053.6	1053.6	1046.9	1052.0	1038.5	1031.8	1031.8
17.5°	1062.0	1053.6	1053.6	1048.6	1040.2	1038.5	1033.5	1038.5	1023.4	1016.6	1016.6
20°	1046.9	1040.2	1038.5	1035.1	1026.8	1025.1	1018.4	1020.0	1008.3	1003.2	1001.5
22.5°	1026.8	1020.0	1021.7	1016.6	1009.9	1008.3	1001.5	1006.6	994.8	989.8	991.5
25°	991.5	988.1	991.5	989.8	984.8	984.8	981.4	984.8	974.7	971.3	973.0
27.5°	951.1	949.5	951.1	951.1	947.8	947.8	947.8	952.9	942.7	941.1	941.1
30°	892.3	892.3	894.0	895.7	895.7	899.0	897.4	904.1	897.4	894.0	897.4
32.5°	815.0	821.7	826.8	826.8	826.8	830.2	833.5	838.6	831.8	833.5	833.5
35°	727.7	732.6	736.0	744.4	739.4	751.1	754.5	761.3	759.6	762.9	761.3
37.5°	630.2	636.9	643.6	655.4	653.7	667.1	673.8	687.3	684.0	690.7	694.0
40°	539.5	549.5	559.6	568.0	574.7	588.1	601.6	618.4	623.5	628.5	630.2
42.5°	452.0	462.2	478.9	490.7	500.8	522.6	541.1	561.3	566.3	576.4	579.8
45°	381.5	389.8	410.1	425.2	433.5	465.5	487.3	512.5	521.0	532.8	537.7
47.5°	315.9	331.0	351.2	369.7	381.5	415.0	443.7	470.5	482.3	495.8	502.5
50°	258.8	275.6	302.5	319.2	336.1	373.1	405.0	433.5	445.3	460.4	467.1
52.5°	211.8	230.3	255.5	273.9	292.4	331.0	364.6	391.6	406.7	416.8	426.8
55°	166.4	186.5	211.8	231.9	247.0	289.1	317.6	344.5	354.6	363.0	368.0
57.5°	129.4	144.5	169.7	186.5	205.0	241.9	270.6	290.7	299.1	309.2	312.5
60°	100.9	116.0	139.5	156.3	173.1	208.3	237.0	257.1	265.5	273.9	278.9
62.5°	80.6	95.8	117.6	132.8	147.9	179.8	205.0	225.2	235.2	243.7	248.8
65°	63.9	77.3	95.8	110.9	122.7	151.2	176.4	194.9	205.0	213.4	218.5
67.5°	50.4	62.2	79.0	89.1	100.9	124.3	146.2	163.0	171.5	181.5	186.5
70°	38.7	47.0	62.2	70.6	79.0	99.1	116.0	132.8	141.2	147.9	151.2
72.5°	28.5	35.2	47.0	53.7	58.8	75.7	89.1	100.9	107.6	114.3	117.6
75°	20.2	25.2	33.6	38.7	42.1	53.7	65.5	73.9	79.0	84.0	89.1
77.5°	13.4	16.8	21.8	25.2	28.5	37.0	43.7	50.4	55.5	60.5	62.2
80°	8.4	11.8	15.1	16.8	18.5	23.6	30.3	33.6	37.0	40.3	42.1
82.5°	5.1	6.7	8.4	10.1	11.8	15.1	18.5	21.8	23.6	26.9	28.5
85°	1.7	3.4	3.4	5.1	5.1	8.4	10.1	11.8	13.4	15.1	16.8
87.5°	0.0	0.0	1.7	1.7	1.7	1.7	3.4	3.4	3.4	3.4	3.4
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: P880561

CATALOG NUMBER: LD4C25D010 EU4259050 4LBDWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3	1092.3
2.5°	1097.3	1092.3	1089.0	1087.2	1099.0	1083.9	1090.6	1092.3
5°	1090.6	1085.6	1082.3	1080.5	1090.6	1077.2	1082.3	1085.6
7.5°	1080.5	1077.2	1072.1	1070.5	1080.5	1065.4	1072.1	1073.8
10°	1068.8	1063.8	1060.3	1058.7	1067.1	1052.0	1058.7	1058.7
12.5°	1053.6	1050.3	1043.6	1043.6	1050.3	1036.9	1041.8	1041.8
15°	1033.5	1030.2	1023.4	1023.4	1030.2	1016.6	1021.7	1021.7
17.5°	1016.6	1013.3	1008.3	1006.6	1013.3	999.9	1004.9	1003.2
20°	1003.2	999.9	993.2	993.2	998.2	984.8	989.8	989.8
22.5°	991.5	989.8	983.0	983.0	989.8	976.3	979.7	976.3
25°	973.0	971.3	964.5	966.3	969.6	956.2	961.2	957.8
27.5°	942.7	942.7	936.0	934.4	939.3	927.6	931.0	929.3
30°	895.7	897.4	889.0	889.0	890.6	880.5	885.6	883.9
32.5°	831.8	833.5	826.8	825.1	830.2	821.7	825.1	825.1
35°	761.3	762.9	757.8	757.8	762.9	757.8	757.8	756.2
37.5°	690.7	694.0	690.7	692.3	695.7	690.7	694.0	692.3
40°	633.5	636.9	631.9	635.2	638.6	633.5	638.6	635.2
42.5°	581.4	586.5	583.1	586.5	589.8	586.5	589.8	584.8
45°	542.8	546.2	544.4	546.2	549.5	547.8	549.5	547.8
47.5°	505.8	512.5	509.2	512.5	517.6	514.3	517.6	512.5
50°	472.2	477.3	475.6	478.9	480.6	478.9	482.3	477.3
52.5°	428.5	433.5	431.9	431.9	435.2	431.9	435.2	431.9
55°	371.4	373.1	373.1	374.7	373.1	371.4	373.1	369.7
57.5°	315.9	319.2	314.3	319.2	317.6	315.9	315.9	312.5
60°	280.6	285.7	282.3	285.7	284.0	284.0	284.0	282.3
62.5°	252.1	255.5	252.1	253.7	253.7	253.7	252.1	250.4
65°	220.1	225.2	221.8	223.5	221.8	220.1	221.8	220.1
67.5°	188.2	189.8	189.8	188.2	188.2	188.2	188.2	184.9
70°	153.0	154.6	153.0	156.3	154.6	153.0	154.6	151.2
72.5°	119.3	121.0	119.3	121.0	119.3	119.3	119.3	119.3
75°	89.1	90.7	90.7	90.7	90.7	90.7	87.4	90.7
77.5°	63.9	63.9	63.9	65.5	63.9	63.9	63.9	63.9
80°	43.7	43.7	43.7	45.4	43.7	45.4	43.7	45.4
82.5°	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5
85°	15.1	16.8	16.8	15.1	15.1	15.1	15.1	15.1
87.5°	3.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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)