

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: P879359

Luminaire Tested: **LD4C10D010 EU4109027 4LBLDWWLI**

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: P879359
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C10D010 EU4109027 4LBLDWWLI
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

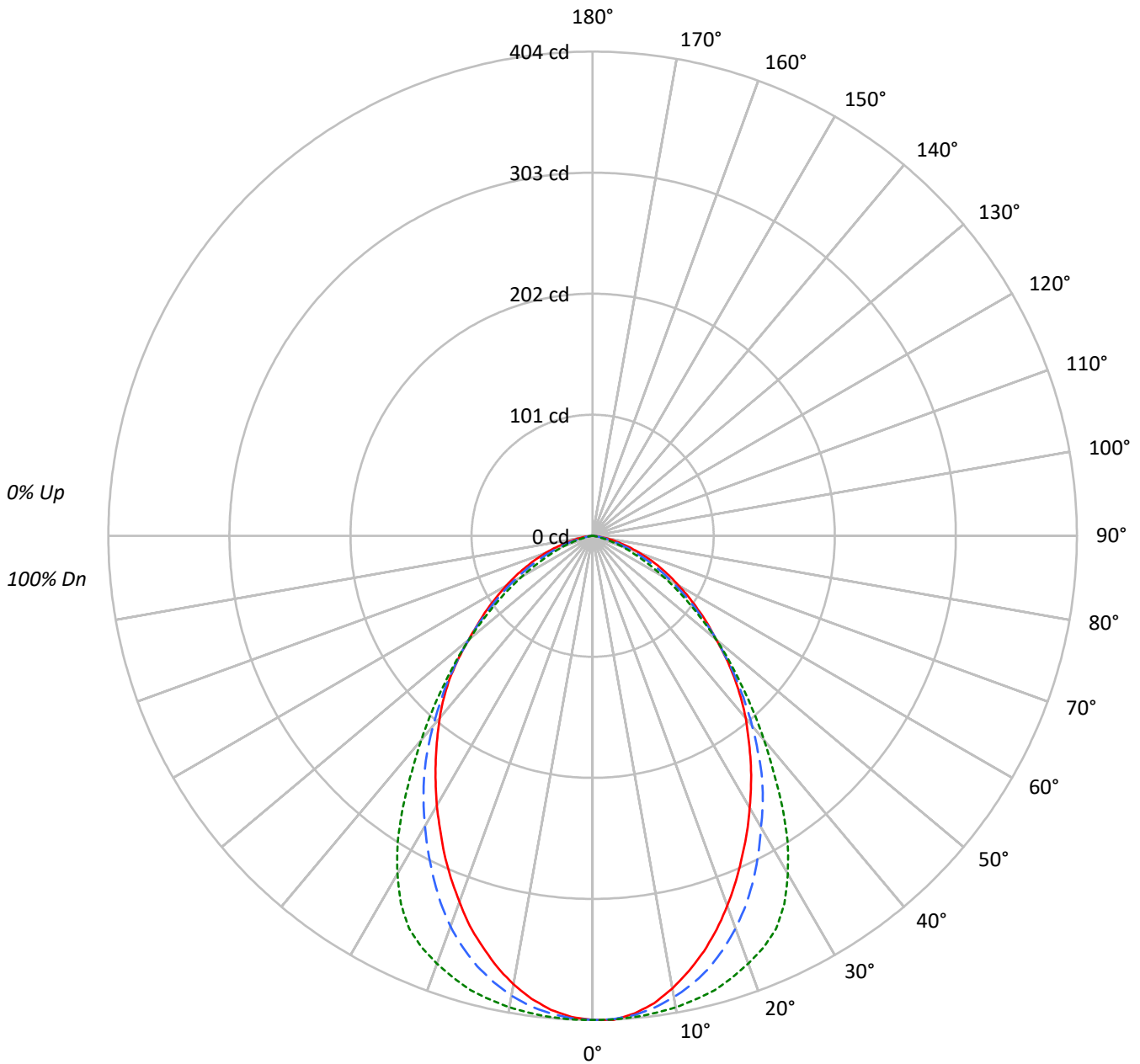
Lumens per Lamp: N/A
Luminaire Lumens: 742.0 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.75
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

TEST NUMBER: P879359

CATALOG NUMBER: LD4C10D010 EU4109027 4LBLDWWLI

Luminous Intensity Polar Plot





TEST NUMBER: P879359

CATALOG NUMBER: LD4C10D010 EU4109027 4LBLDWWLI

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	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			77
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			59
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			53
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	49633	49633	49633
5°	49341	49711	48971
10°	47841	49837	47417
15°	45635	49946	45139
20°	42947	49654	42464
25°	40002	49070	39677
30°	37167	46203	36869
35°	34465	41333	34210
40°	31866	35651	31834
45°	29032	30422	29275
50°	25649	25726	25783
55°	22982	21033	23068
60°	20295	16708	20345
65°	17878	12732	17703
70°	14799	9124	14799
75°	11534	5221	11107
80°	7499	1273	7146
85°	2819	423	2114



TEST NUMBER: P879359

CATALOG NUMBER: LD4C10D010 EU4109027 4LBLDWWLI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.9	5.1
10°-20°	104.9	14.1
20°-30°	146.7	19.8
30°-40°	154.7	20.9
40°-50°	131.6	17.7
50°-60°	92.9	12.5
60°-70°	52.7	7.1
70°-80°	18.8	2.5
80°-90°	1.8	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°	289.5	39.0
0°-40°	444.3	59.9
0°-60°	668.8	90.1
0°-90°	742.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	742.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	404	404	404	404	404	
5°	400	401	403	400	397	38
15°	359	374	393	372	355	101
25°	295	317	362	314	293	136
35°	230	246	276	245	228	144
45°	167	170	175	170	168	128
55°	107	104	98	104	108	96
65°	62	53	44	53	61	61
75°	24	17	11	16	23	26
85°	2	1	0	1	2	4
90°	0	0	0	0	0	



TEST NUMBER: P879359

CATALOG NUMBER: LD4C10D010 EU4109027 4LBLDWWLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0
2.5°	404.3	403.6	403.6	403.6	403.6	403.6	403.6	403.6	403.6	403.7	403.7
5°	400.1	399.8	399.6	399.6	399.6	399.6	399.8	400.4	400.7	401.1	401.4
7.5°	393.4	392.8	393.1	393.1	393.4	393.7	394.2	394.8	395.7	396.3	397.1
10°	383.5	382.9	383.6	383.9	384.8	385.3	386.0	386.9	388.8	389.7	390.9
12.5°	371.8	371.5	371.8	373.0	373.9	374.6	375.5	377.4	379.2	381.2	383.3
15°	358.8	358.1	358.5	360.0	361.6	362.6	363.4	365.9	368.4	371.4	373.9
17.5°	344.3	343.3	344.5	345.7	347.7	348.6	349.6	352.5	355.8	359.1	362.0
20°	328.5	328.2	328.9	330.6	332.5	333.8	334.7	337.8	340.7	345.2	348.6
22.5°	312.0	312.3	312.9	314.7	316.1	317.7	319.1	322.0	325.3	329.5	333.8
25°	295.1	295.5	296.6	297.8	300.1	301.0	302.6	305.7	308.5	312.5	317.1
27.5°	278.8	278.9	280.1	280.7	282.8	284.8	285.6	288.7	292.1	295.1	299.2
30°	262.0	262.4	263.2	264.9	267.0	267.7	268.6	271.5	274.1	277.9	281.0
32.5°	246.0	245.7	246.6	247.5	249.9	251.3	251.7	255.0	257.3	261.1	264.1
35°	229.8	229.1	230.4	231.3	233.4	234.6	235.2	237.8	239.9	243.1	246.4
37.5°	213.6	214.2	214.8	215.6	216.7	217.0	218.8	219.4	222.1	224.5	226.3
40°	198.7	198.4	198.1	198.8	200.2	200.8	200.9	202.6	203.2	205.6	207.0
42.5°	182.7	182.8	182.7	182.8	183.6	183.6	184.0	185.1	185.5	186.3	188.0
45°	167.1	167.1	166.7	166.8	167.0	166.8	167.0	167.4	168.3	168.3	169.5
47.5°	150.9	150.6	151.2	150.8	150.5	150.3	150.8	150.3	151.2	151.2	151.5
50°	134.2	134.2	134.9	134.8	135.1	134.5	134.6	134.6	134.8	134.6	135.2
52.5°	121.2	120.9	120.6	119.8	120.1	119.5	119.5	119.7	119.2	119.1	118.3
55°	107.3	107.6	107.1	106.8	106.8	106.2	106.1	105.2	104.6	104.1	103.6
57.5°	94.7	95.0	94.9	94.1	93.2	93.4	93.1	92.2	90.8	89.9	89.1
60°	82.6	82.9	82.6	81.9	81.6	81.0	80.8	79.6	78.6	77.4	76.5
62.5°	71.8	71.8	71.6	70.6	69.8	70.0	69.2	68.3	66.9	65.3	63.9
65°	61.5	61.3	60.6	60.1	59.5	58.8	58.3	57.0	55.9	54.5	52.7
67.5°	51.2	50.8	50.5	50.0	48.7	48.5	47.9	46.7	45.2	44.1	42.6
70°	41.2	41.1	40.5	40.5	39.4	39.0	38.1	37.0	35.7	34.1	32.9
72.5°	32.6	32.3	31.7	31.1	30.2	29.9	29.2	28.1	26.9	25.4	23.9
75°	24.3	24.0	23.9	23.1	22.4	21.6	21.3	20.2	19.0	18.0	16.6
77.5°	17.1	16.8	16.3	15.9	15.4	15.0	14.5	13.6	12.5	11.6	10.4
80°	10.6	10.3	10.0	9.8	9.4	9.2	8.6	8.2	7.3	6.6	5.9
82.5°	5.4	5.4	5.1	5.0	4.7	4.5	4.4	3.9	3.5	3.0	2.6
85°	2.0	2.0	1.8	1.7	1.7	1.5	1.5	1.4	1.1	1.1	0.8
87.5°	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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: P879359

CATALOG NUMBER: LD4C10D010 EU4109027 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0
2.5°	403.9	403.7	403.9	403.9	404.0	404.0	404.0	403.9	404.0	403.9	403.9
5°	401.4	401.9	402.2	402.5	402.7	402.8	402.8	403.0	403.1	403.1	403.0
7.5°	397.7	398.6	399.5	400.1	400.4	400.7	401.1	401.4	401.7	401.6	401.4
10°	392.7	394.2	395.4	396.6	397.2	397.7	398.4	399.0	399.3	399.5	399.0
12.5°	385.6	387.7	389.7	391.6	392.5	393.1	394.6	395.7	396.3	396.3	395.9
15°	376.7	379.7	382.6	385.1	386.6	387.5	389.8	391.3	392.2	392.7	391.9
17.5°	365.9	369.4	372.9	376.2	377.7	379.1	382.3	384.4	386.3	386.6	385.7
20°	352.2	356.6	360.5	364.6	366.2	368.4	372.0	375.5	378.5	379.8	377.3
22.5°	336.8	341.6	345.2	350.2	352.5	354.8	359.4	363.8	369.1	372.0	367.5
25°	320.8	324.8	329.2	334.1	337.2	339.7	345.1	350.7	357.8	362.0	355.7
27.5°	303.5	307.2	312.5	317.7	320.2	323.2	329.7	335.7	342.5	346.3	341.6
30°	285.7	290.2	295.2	300.1	303.5	306.4	311.7	316.8	322.6	325.7	322.3
32.5°	268.0	272.4	276.6	281.9	283.9	286.5	291.2	295.5	299.9	302.8	298.7
35°	249.4	253.4	257.3	260.9	261.8	264.9	268.6	271.2	273.3	275.6	272.9
37.5°	229.2	232.2	234.2	238.1	239.6	240.1	243.1	244.9	247.2	247.6	247.5
40°	208.7	211.4	213.0	215.5	216.7	216.7	218.8	220.4	222.1	222.3	222.1
42.5°	189.5	190.8	192.2	193.7	193.4	195.2	196.1	196.9	198.1	198.1	198.4
45°	170.1	171.2	172.4	172.7	173.9	173.9	174.7	175.0	175.6	175.1	174.5
47.5°	152.1	152.6	152.8	154.1	154.4	153.4	154.3	154.4	154.3	154.3	154.0
50°	135.1	135.4	135.2	134.8	134.9	135.4	134.9	134.3	134.6	134.6	134.9
52.5°	118.5	117.9	117.5	117.5	116.9	116.9	116.2	115.9	115.7	115.1	115.9
55°	103.2	102.3	100.9	100.6	100.2	100.0	99.1	98.4	98.1	98.2	98.1
57.5°	88.5	87.2	86.3	86.0	85.5	84.6	83.6	82.8	82.6	82.3	82.3
60°	75.2	73.7	72.4	71.0	71.2	70.6	69.5	69.0	68.6	68.0	68.4
62.5°	63.2	61.5	60.0	58.6	57.7	57.3	56.5	55.8	55.3	54.8	55.5
65°	51.2	49.9	48.2	46.8	46.4	45.9	45.2	44.0	43.8	43.8	44.1
67.5°	40.5	39.0	37.5	36.6	36.0	35.4	35.1	34.4	34.0	33.7	33.8
70°	31.1	29.6	28.4	27.5	27.0	26.9	25.8	25.7	25.5	25.4	25.2
72.5°	22.7	21.5	20.4	19.8	19.2	18.7	18.4	18.0	17.8	17.8	17.8
75°	15.6	14.7	13.4	12.7	12.4	11.9	11.5	11.2	10.9	11.0	11.0
77.5°	9.4	8.5	7.7	7.1	7.0	6.5	6.0	5.7	5.3	5.3	5.4
80°	5.1	4.4	3.8	3.3	3.0	2.9	2.4	2.3	2.0	1.8	1.8
82.5°	2.3	1.8	1.5	1.4	1.2	1.1	0.9	0.8	0.8	0.6	0.8
85°	0.8	0.6	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.2	0.0	0.0	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	0.0	0.0	0.0



TEST NUMBER: P879359

CATALOG NUMBER: LD4C10D010 EU4109027 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0
2.5°	403.7	403.7	403.6	403.6	403.6	403.3	403.3	403.1	403.0	402.8	402.5
5°	402.7	402.5	402.2	402.1	401.9	401.4	401.0	400.7	400.2	399.6	399.3
7.5°	401.1	400.7	400.1	399.8	399.3	398.3	397.5	396.8	396.0	394.9	393.7
10°	398.6	397.7	396.8	396.2	395.4	394.0	392.5	391.3	389.7	388.2	386.5
12.5°	394.9	393.9	392.1	391.2	390.3	388.3	386.3	383.8	381.5	379.4	377.4
15°	390.4	388.5	386.3	385.1	383.8	380.6	377.6	374.9	371.8	369.3	366.1
17.5°	383.8	380.9	377.9	376.5	374.7	371.1	367.5	363.7	360.2	357.0	353.1
20°	373.8	370.6	366.7	364.6	363.1	358.2	354.8	350.5	346.9	343.0	338.6
22.5°	362.2	357.8	353.4	350.4	348.7	343.9	339.2	335.4	331.5	327.0	323.8
25°	349.0	343.6	338.3	335.3	332.7	327.6	323.0	319.1	314.3	310.3	307.2
27.5°	334.2	328.0	321.8	318.8	316.4	310.8	306.0	301.9	297.2	293.7	290.4
30°	316.5	310.9	305.1	302.6	299.8	294.0	288.4	284.8	279.7	276.0	272.4
32.5°	294.5	290.8	286.2	282.8	281.3	276.0	271.4	267.0	262.6	259.7	256.1
35°	270.3	267.1	263.2	261.4	259.4	256.1	252.3	248.5	245.1	242.3	239.0
37.5°	245.8	242.7	240.2	238.3	237.1	234.0	231.8	228.9	226.5	223.9	222.1
40°	220.4	219.5	217.0	216.1	215.8	212.4	210.5	208.2	206.7	205.2	204.1
42.5°	197.9	196.4	194.5	194.6	193.7	191.9	190.5	189.0	188.0	187.2	186.1
45°	175.7	174.5	173.6	174.4	172.8	172.2	171.2	171.0	170.3	168.9	168.5
47.5°	154.6	154.4	154.6	154.1	153.8	153.5	153.7	152.9	152.1	151.7	151.1
50°	135.2	135.4	135.7	136.1	135.1	135.5	135.4	135.2	135.2	134.8	135.1
52.5°	116.5	116.6	116.9	117.4	117.5	117.5	118.0	118.3	118.9	119.7	119.7
55°	98.8	99.9	100.5	101.2	100.8	101.7	102.1	103.5	103.9	103.9	104.6
57.5°	83.1	84.2	84.6	85.5	85.8	86.6	87.8	88.5	89.6	90.5	91.4
60°	68.7	69.2	70.4	71.8	71.5	73.3	74.2	75.4	76.8	77.4	78.6
62.5°	55.9	56.5	57.4	57.9	58.9	59.8	61.9	63.2	64.4	65.9	67.1
65°	44.4	45.0	45.9	46.8	47.3	48.7	49.7	51.8	52.9	54.5	55.9
67.5°	34.0	34.9	35.7	36.3	36.6	37.9	39.6	40.5	42.5	44.1	45.2
70°	25.4	26.1	27.0	26.9	27.5	28.6	29.8	31.1	32.6	34.1	35.4
72.5°	17.7	18.4	19.0	19.2	19.8	20.5	21.5	22.5	23.7	25.2	26.9
75°	11.2	11.3	11.9	12.2	12.5	13.4	14.2	15.3	16.3	17.5	18.6
77.5°	5.6	6.0	6.3	6.6	6.8	7.6	8.3	9.2	10.1	11.3	12.4
80°	2.1	2.3	2.7	2.9	3.2	3.6	4.2	4.7	5.4	6.3	7.0
82.5°	0.8	0.9	1.1	1.1	1.2	1.5	1.7	2.1	2.6	2.9	3.2
85°	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.6	0.8	0.9	0.9
87.5°	0.0	0.0	0.0	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	0.0	0.0	0.0



TEST NUMBER: P879359

CATALOG NUMBER: LD4C10D010 EU4109027 4LBDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	404.0	404.0	404.0	404.0	404.0	404.0	404.0	404.0
2.5°	402.4	402.4	402.2	402.1	402.1	402.1	401.9	401.9
5°	398.7	398.3	398.1	397.8	397.7	397.5	397.1	397.1
7.5°	392.8	392.2	391.8	391.3	390.7	390.3	390.3	389.7
10°	385.0	383.8	383.2	382.6	381.8	380.9	380.6	380.1
12.5°	375.5	373.0	372.4	371.4	370.2	369.6	368.5	368.5
15°	363.7	361.1	359.7	359.1	357.6	356.6	356.1	354.9
17.5°	349.9	348.0	345.8	344.9	343.3	341.9	341.3	341.2
20°	336.0	332.9	331.5	330.1	328.2	327.0	326.1	324.8
22.5°	320.0	317.1	315.2	314.3	312.6	310.5	309.0	309.0
25°	303.1	300.5	299.5	297.5	295.5	294.8	293.0	292.7
27.5°	286.9	284.4	282.2	281.2	278.9	277.9	276.3	275.7
30°	270.1	267.1	265.6	265.5	262.7	261.7	260.5	259.9
32.5°	253.4	250.8	249.3	248.4	247.2	245.4	244.3	243.7
35°	236.8	235.1	233.7	232.7	230.7	229.8	228.9	228.1
37.5°	219.4	217.9	217.3	216.4	215.5	213.8	213.5	212.9
40°	202.6	200.6	200.6	200.0	199.1	199.0	198.5	198.5
42.5°	185.1	184.2	184.0	184.2	183.6	183.3	182.8	183.9
45°	167.7	168.2	167.4	167.6	167.3	167.9	167.9	168.5
47.5°	151.7	151.1	151.4	151.7	152.1	152.1	152.0	151.8
50°	134.6	135.2	135.8	135.1	135.4	135.5	134.8	134.9
52.5°	120.0	120.1	120.6	120.1	120.6	120.4	120.7	120.1
55°	105.8	105.8	106.4	106.5	106.7	107.1	107.3	107.7
57.5°	92.0	92.8	93.5	93.4	94.0	94.6	94.1	94.6
60°	80.1	80.7	81.4	81.7	82.2	82.5	82.5	82.8
62.5°	68.0	69.2	69.8	70.4	70.4	71.0	71.6	71.8
65°	57.1	58.5	58.9	59.4	59.7	60.3	61.0	60.9
67.5°	46.8	47.7	48.3	48.7	49.6	49.9	50.5	51.1
70°	36.7	37.9	38.4	39.0	39.7	40.3	40.9	41.2
72.5°	28.1	29.0	29.3	29.9	30.7	31.3	31.6	32.0
75°	19.6	21.2	21.3	21.8	22.4	23.1	23.6	23.4
77.5°	13.0	14.1	14.2	14.8	15.4	16.0	16.2	16.3
80°	7.7	8.3	8.5	8.8	9.2	9.5	9.8	10.1
82.5°	3.6	3.9	4.2	4.2	4.5	4.8	4.8	5.0
85°	1.2	1.2	1.4	1.4	1.5	1.5	1.7	1.5
87.5°	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2
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)