

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P212729

Luminaire Tested: **LD4B20D010 EU4B10209727 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212729
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29201)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B20D010 EU4B10209727 4LBSWL1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1312.8 lumens
Efficiency: N/A
Efficacy: 63.1 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.3 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

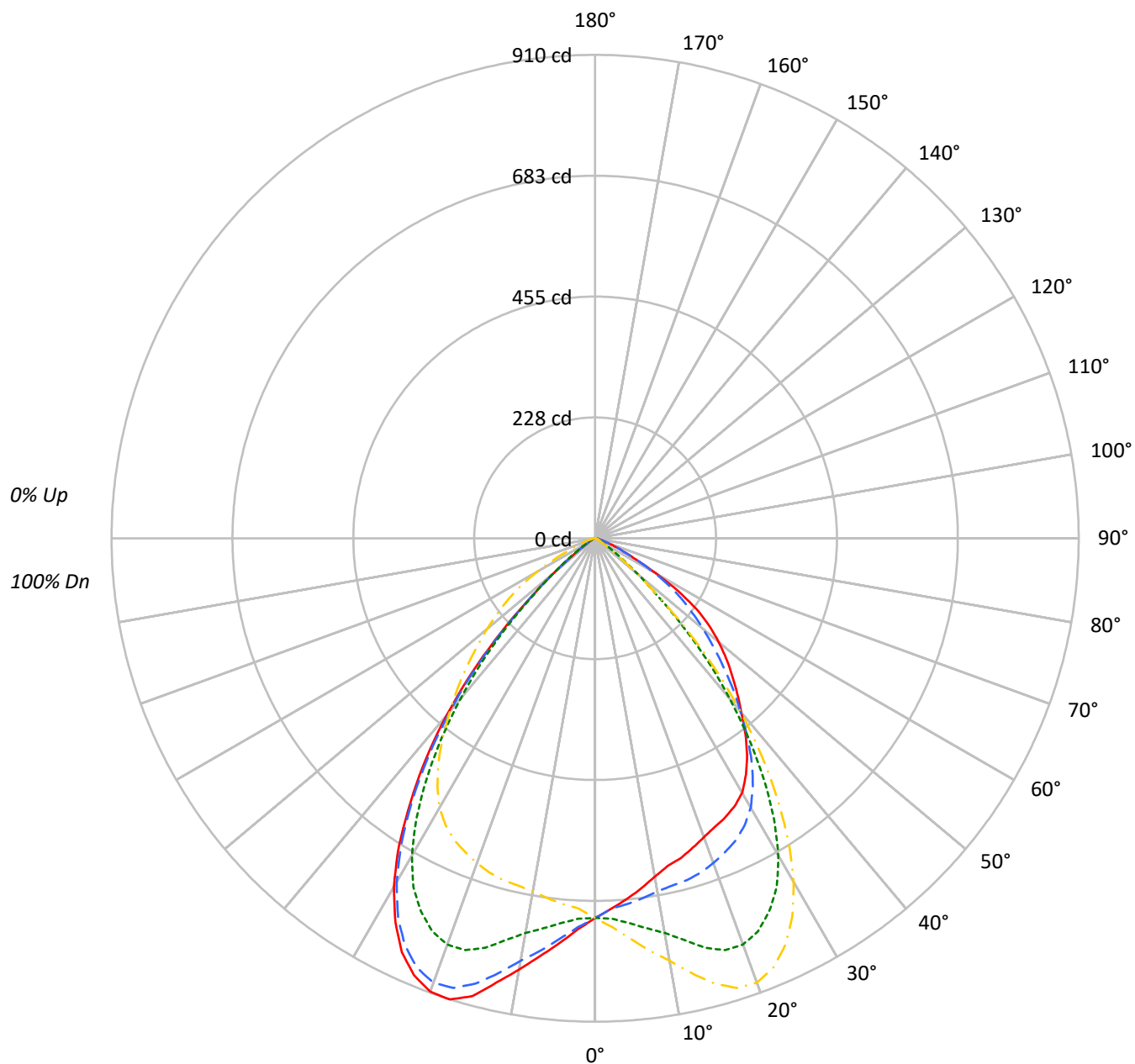
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P212729

CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWL11

Luminous Intensity Polar Plot





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CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWLI1

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	112	109	106	103	110	107	104	102	103	100	99		99	97	96		95
2	105	99	94	90	103	97	93	89	94	90	87		91	88	85		88
3	98	90	84	80	96	89	83	79	86	81	78		84	80	76		81
4	92	83	76	71	90	81	75	70	79	74	69		77	72	69		75
5	86	76	69	63	84	75	68	63	73	67	62		71	66	62		69
6	80	70	62	57	79	69	62	57	67	61	56		66	60	56		64
7	75	64	57	52	74	63	57	52	62	56	51		61	55	51		59
8	71	59	52	47	69	59	52	47	57	51	47		56	51	47		55
9	66	55	48	43	65	54	48	43	53	47	43		52	47	43		52
10	63	51	44	40	62	51	44	40	50	44	40		49	43	39		48

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	88155	88155	88155	88155
5°	84406	90015	94683	90015
10°	80998	94475	103230	94475
15°	79568	101876	113931	101876
20°	78573	106821	119212	106821
25°	78895	105489	117057	105489
30°	78805	98161	107846	98161
35°	75063	83314	91129	83314
40°	68867	63392	69929	63392
45°	63565	40347	43470	40347
50°	58162	19573	19016	19573
55°	50342	8537	6086	8537
60°	32613	4194	2788	4194
65°	17074	2743	2218	2743
70°	9196	2056	1695	2056
75°	4956	1811	1334	1811
80°	3339	1350	639	1350
85°	2689	1274	0	1274



TEST NUMBER: P212729

CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWLI1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.7	5.3
10°-20°	218.0	16.6
20°-30°	338.9	25.8
30°-40°	342.3	26.1
40°-50°	216.7	16.5
50°-60°	91.0	6.9
60°-70°	28.8	2.2
70°-80°	6.6	0.5
80°-90°	0.9	0.1
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°	626.5	47.7
0°-40°	968.8	73.8
0°-60°	1276.4	97.2
0°-90°	1312.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1312.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	715	715	715	715	715	
5°	682	727	765	727	682	64
15°	623	798	892	798	623	176
25°	580	775	860	775	580	267
35°	498	553	605	553	498	310
45°	364	231	249	231	364	281
55°	234	40	28	40	234	202
65°	58	9	8	9	58	65
75°	10	4	3	4	10	13
85°	2	1	0	1	2	2
90°	0	0	0	0	0	



TEST NUMBER: P212729

CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWLI1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	697.7	691.1	696.8	698.6	698.6	697.7	699.6	697.7	694.9	706.2	697.7
5°	681.7	676.9	681.7	683.5	684.5	685.4	687.3	687.3	686.4	696.8	691.1
7.5°	664.7	661.8	665.6	668.4	672.2	671.3	674.1	675.0	676.9	689.2	683.5
10°	646.7	643.9	648.6	650.5	655.2	656.2	658.0	660.9	664.7	676.9	675.0
12.5°	631.6	630.7	633.5	637.3	642.0	642.9	644.8	649.6	655.2	668.4	669.4
15°	623.1	622.2	625.0	628.8	632.6	634.4	636.3	642.9	648.6	662.8	666.5
17.5°	610.8	610.8	613.7	617.5	622.2	624.1	626.9	633.5	641.1	655.2	659.9
20°	598.6	599.5	601.4	605.2	609.9	611.8	614.6	621.2	629.7	643.9	650.5
22.5°	588.2	591.0	592.0	594.8	599.5	602.3	603.3	610.8	618.4	630.7	639.2
25°	579.7	583.5	583.5	585.4	591.0	592.0	592.9	600.5	607.1	618.4	626.9
27.5°	568.4	572.1	572.1	575.0	578.7	580.6	580.6	587.2	593.8	602.3	609.0
30°	553.3	556.1	556.1	557.0	560.8	562.7	561.7	568.4	573.1	578.7	585.4
32.5°	527.8	532.5	530.6	533.4	535.3	537.2	535.3	541.0	544.8	550.4	552.3
35°	498.5	502.3	499.4	501.3	505.1	505.1	504.2	507.9	509.8	512.7	513.6
37.5°	464.5	467.3	465.4	466.4	468.3	469.2	467.3	471.1	471.1	472.1	470.2
40°	427.7	432.4	429.6	429.6	431.5	432.4	429.6	431.5	433.3	428.6	424.9
42.5°	395.6	400.3	397.5	397.5	397.5	398.4	394.6	395.6	395.6	389.0	383.3
45°	364.4	368.2	365.4	362.5	363.5	364.4	360.7	359.7	356.9	349.3	340.8
47.5°	334.2	338.0	334.2	332.3	332.3	332.3	327.6	324.8	321.0	310.6	300.2
50°	303.1	306.8	304.0	302.1	300.2	300.2	296.5	292.7	287.0	276.6	265.3
52.5°	271.0	273.8	271.0	269.1	267.2	267.2	262.5	259.6	253.0	242.6	230.4
55°	234.1	236.0	233.2	231.3	230.4	230.4	226.6	223.8	218.1	209.6	198.3
57.5°	185.0	188.8	184.1	186.0	186.0	185.0	182.2	181.3	179.4	171.8	163.3
60°	132.2	132.2	131.2	135.0	134.1	136.0	134.1	135.0	136.0	130.3	124.6
62.5°	86.9	89.7	87.8	89.7	91.6	91.6	90.6	92.5	94.4	91.6	88.7
65°	58.5	58.5	58.5	59.5	59.5	60.4	59.5	60.4	61.4	60.4	58.5
67.5°	38.7	39.7	38.7	39.7	38.7	39.7	39.7	39.7	40.6	39.7	38.7
70°	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	26.4	25.5	24.5
72.5°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
75°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
77.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
80°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.8	4.7	3.8	3.8
82.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	0.9	1.9	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: P212729

CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	702.4	699.6	713.8	701.5	708.1	707.1	708.1	713.8	713.8	716.6	715.6
5°	698.6	695.8	711.9	702.4	710.0	710.0	712.8	721.3	721.3	727.0	727.9
7.5°	693.0	693.9	710.9	705.3	713.8	714.7	719.4	729.8	732.6	740.2	744.0
10°	686.4	690.1	708.1	706.2	717.5	718.5	727.9	740.2	744.0	754.3	761.0
12.5°	683.5	690.1	710.9	712.8	724.1	728.9	739.2	755.3	761.9	774.2	783.6
15°	682.6	692.0	714.7	721.3	734.5	741.1	755.3	774.2	781.7	797.8	809.1
17.5°	677.9	690.1	714.7	725.1	739.2	745.9	763.8	785.5	794.9	812.9	826.1
20°	669.4	682.6	707.1	720.4	735.5	744.9	762.8	785.5	794.9	813.8	828.9
22.5°	658.0	671.3	694.9	710.0	723.2	733.6	752.5	774.2	782.7	800.6	815.7
25°	643.9	657.1	676.9	692.0	704.3	713.8	729.8	752.5	758.1	775.1	791.2
27.5°	624.1	636.3	651.4	665.6	676.9	684.5	698.6	718.5	723.2	740.2	753.4
30°	597.6	605.2	618.4	627.8	636.3	643.9	654.3	672.2	674.1	689.2	701.5
32.5°	561.7	565.5	575.0	579.7	587.2	590.1	598.6	613.7	611.8	625.9	636.3
35°	518.3	520.2	520.2	525.9	527.8	528.7	535.3	543.8	541.0	553.3	560.8
37.5°	471.1	470.2	464.5	464.5	465.4	462.6	465.4	469.2	465.4	474.9	481.5
40°	423.0	417.3	406.9	401.2	398.4	397.5	391.8	396.5	387.1	393.7	398.4
42.5°	376.7	367.3	351.2	339.9	335.2	330.4	321.0	321.0	308.7	313.4	314.4
45°	329.5	313.4	291.7	281.3	269.1	261.5	249.2	237.0	228.5	231.3	228.5
47.5°	286.1	267.2	241.7	223.8	209.6	199.2	182.2	168.1	159.6	155.8	152.0
50°	248.3	229.4	200.2	177.5	163.3	151.1	134.1	118.0	107.6	102.0	99.1
52.5°	214.3	194.5	166.2	142.6	127.5	116.1	97.2	81.2	69.9	63.3	59.5
55°	182.2	164.3	137.8	116.1	102.0	90.6	71.8	56.6	46.3	39.7	34.9
57.5°	150.1	134.1	112.3	91.6	79.3	68.9	52.9	39.7	31.2	25.5	21.7
60°	115.2	102.9	85.0	68.9	58.5	50.0	37.8	27.4	21.7	17.0	15.1
62.5°	81.2	73.6	60.4	49.1	42.5	35.9	26.4	19.8	15.1	12.3	11.3
65°	54.8	49.1	41.5	33.0	28.3	24.5	18.9	14.2	11.3	9.4	8.5
67.5°	35.9	33.0	27.4	22.7	19.8	17.0	13.2	10.4	8.5	7.6	6.6
70°	23.6	21.7	17.9	15.1	14.2	12.3	9.4	7.6	6.6	5.7	5.7
72.5°	15.1	13.2	12.3	10.4	9.4	8.5	6.6	5.7	4.7	4.7	4.7
75°	9.4	8.5	7.6	6.6	6.6	5.7	4.7	4.7	3.8	3.8	3.8
77.5°	5.7	5.7	4.7	4.7	3.8	3.8	3.8	2.8	2.8	2.8	2.8
80°	3.8	3.8	2.8	2.8	2.8	2.8	1.9	1.9	1.9	1.9	1.9
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	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: P212729

CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	720.4	722.2	720.4	726.0	716.6	727.0	723.2	725.1	732.6	729.8	732.6
5°	734.5	738.3	738.3	744.9	736.4	748.7	744.9	748.7	756.2	756.2	760.0
7.5°	752.5	757.2	759.1	765.7	757.2	772.3	768.5	773.2	782.7	782.7	785.5
10°	771.3	777.0	780.8	788.3	778.9	795.9	792.1	798.7	807.2	808.2	812.9
12.5°	794.9	802.5	807.2	813.8	807.2	824.2	820.4	827.0	838.4	839.3	845.0
15°	821.4	830.8	836.5	844.0	836.5	855.4	851.6	859.1	867.6	871.4	877.1
17.5°	838.4	849.7	854.4	862.9	855.4	874.3	869.5	879.9	887.5	889.4	896.0
20°	841.2	851.6	858.2	864.8	858.2	877.1	872.4	880.9	890.3	892.2	896.9
22.5°	828.9	837.4	845.0	850.6	845.0	863.9	857.3	866.7	875.2	877.1	880.9
25°	800.6	811.0	818.5	823.3	817.6	835.5	829.9	838.4	845.9	849.7	850.6
27.5°	761.0	770.4	778.0	780.8	777.0	794.0	786.4	796.8	803.4	805.3	808.2
30°	707.1	715.6	723.2	725.1	722.2	734.5	730.7	740.2	746.8	748.7	750.6
32.5°	641.1	649.6	654.3	656.2	653.3	665.6	661.8	669.4	676.9	676.9	676.9
35°	566.5	574.0	576.9	582.5	575.9	588.2	584.4	591.0	597.6	597.6	598.6
37.5°	486.2	491.9	493.8	499.4	492.8	504.2	501.3	507.0	512.7	511.7	513.6
40°	400.3	406.0	407.9	412.6	406.9	416.4	414.5	420.1	424.9	424.9	424.9
42.5°	317.2	321.0	321.0	325.7	320.1	328.6	328.6	332.3	337.0	336.1	336.1
45°	230.4	229.4	231.3	230.4	230.4	237.9	237.9	239.8	243.6	241.7	242.6
47.5°	152.9	153.9	150.1	152.9	149.2	155.8	155.8	155.8	158.6	156.7	158.6
50°	97.2	94.4	92.5	92.5	91.6	96.3	94.4	95.4	97.2	95.4	97.2
52.5°	54.8	53.8	51.9	52.9	51.0	51.9	51.9	51.9	52.9	51.9	53.8
55°	32.1	29.3	28.3	28.3	27.4	28.3	27.4	27.4	27.4	26.4	27.4
57.5°	18.9	17.9	17.0	17.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
60°	13.2	12.3	12.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
62.5°	10.4	9.4	9.4	9.4	8.5	8.5	8.5	8.5	8.5	9.4	8.5
65°	7.6	7.6	7.6	7.6	7.6	7.6	6.6	7.6	7.6	7.6	7.6
67.5°	6.6	6.6	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
70°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
72.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
85°	0.0	0.9	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	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: P212729

CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	735.5	731.7	723.2	728.9	729.8	726.0	730.7	736.4	730.7	726.0	729.8
5°	762.8	760.0	752.5	757.2	758.1	757.2	760.0	764.7	760.0	757.2	758.1
7.5°	790.2	788.3	779.8	785.5	787.4	785.5	788.3	793.1	788.3	785.5	787.4
10°	816.7	815.7	807.2	814.8	815.7	813.8	816.7	824.2	816.7	813.8	815.7
12.5°	846.9	848.8	839.3	847.8	848.8	846.9	850.6	856.3	850.6	846.9	848.8
15°	881.8	880.9	873.3	879.9	881.8	879.9	884.6	892.2	884.6	879.9	881.8
17.5°	898.8	898.8	893.1	899.7	900.7	900.7	904.5	910.1	904.5	900.7	900.7
20°	899.7	900.7	894.1	901.6	901.6	901.6	905.4	908.2	905.4	901.6	901.6
22.5°	884.6	885.6	879.0	885.6	885.6	886.5	888.4	890.3	888.4	886.5	885.6
25°	855.4	856.3	850.6	856.3	855.4	855.4	857.3	860.1	857.3	855.4	855.4
27.5°	811.9	812.9	805.3	811.9	811.0	810.1	812.9	813.8	812.9	810.1	811.0
30°	754.3	755.3	748.7	754.3	753.4	752.5	756.2	757.2	756.2	752.5	753.4
32.5°	685.4	683.5	678.8	683.5	682.6	682.6	684.5	687.3	684.5	682.6	682.6
35°	602.3	602.3	599.5	603.3	600.5	604.2	604.2	605.2	604.2	604.2	600.5
37.5°	517.4	517.4	515.5	517.4	516.4	520.2	520.2	523.0	520.2	520.2	516.4
40°	428.6	428.6	426.7	428.6	431.5	431.5	430.5	434.3	430.5	431.5	431.5
42.5°	338.9	338.9	338.0	342.7	342.7	342.7	339.9	343.7	339.9	342.7	342.7
45°	246.4	244.5	243.6	243.6	244.5	248.3	244.5	249.2	244.5	248.3	244.5
47.5°	156.7	157.7	158.6	161.4	159.6	158.6	158.6	161.4	158.6	158.6	159.6
50°	96.3	97.2	97.2	99.1	96.3	98.2	97.2	99.1	97.2	98.2	96.3
52.5°	52.9	52.9	52.9	54.8	52.9	53.8	52.9	54.8	52.9	53.8	52.9
55°	27.4	27.4	27.4	28.3	27.4	27.4	27.4	28.3	27.4	27.4	27.4
57.5°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
60°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
62.5°	9.4	8.5	8.5	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
65°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
67.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
70°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
72.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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	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: P212729

CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	728.9	723.2	731.7	735.5	732.6	729.8	732.6	725.1	723.2	727.0	716.6
5°	757.2	752.5	760.0	762.8	760.0	756.2	756.2	748.7	744.9	748.7	736.4
7.5°	785.5	779.8	788.3	790.2	785.5	782.7	782.7	773.2	768.5	772.3	757.2
10°	814.8	807.2	815.7	816.7	812.9	808.2	807.2	798.7	792.1	795.9	778.9
12.5°	847.8	839.3	848.8	846.9	845.0	839.3	838.4	827.0	820.4	824.2	807.2
15°	879.9	873.3	880.9	881.8	877.1	871.4	867.6	859.1	851.6	855.4	836.5
17.5°	899.7	893.1	898.8	898.8	896.0	889.4	887.5	879.9	869.5	874.3	855.4
20°	901.6	894.1	900.7	899.7	896.9	892.2	890.3	880.9	872.4	877.1	858.2
22.5°	885.6	879.0	885.6	884.6	880.9	877.1	875.2	866.7	857.3	863.9	845.0
25°	856.3	850.6	856.3	855.4	850.6	849.7	845.9	838.4	829.9	835.5	817.6
27.5°	811.9	805.3	812.9	811.9	808.2	805.3	803.4	796.8	786.4	794.0	777.0
30°	754.3	748.7	755.3	754.3	750.6	748.7	746.8	740.2	730.7	734.5	722.2
32.5°	683.5	678.8	683.5	685.4	676.9	676.9	676.9	669.4	661.8	665.6	653.3
35°	603.3	599.5	602.3	602.3	598.6	597.6	597.6	591.0	584.4	588.2	575.9
37.5°	517.4	515.5	517.4	517.4	513.6	511.7	512.7	507.0	501.3	504.2	492.8
40°	428.6	426.7	428.6	428.6	424.9	424.9	424.9	420.1	414.5	416.4	406.9
42.5°	342.7	338.0	338.9	338.9	336.1	336.1	337.0	332.3	328.6	328.6	320.1
45°	243.6	243.6	244.5	246.4	242.6	241.7	243.6	239.8	237.9	237.9	230.4
47.5°	161.4	158.6	157.7	156.7	158.6	156.7	158.6	155.8	155.8	155.8	149.2
50°	99.1	97.2	97.2	96.3	97.2	95.4	97.2	95.4	94.4	96.3	91.6
52.5°	54.8	52.9	52.9	52.9	53.8	51.9	52.9	51.9	51.9	51.9	51.0
55°	28.3	27.4	27.4	27.4	27.4	26.4	27.4	27.4	27.4	28.3	27.4
57.5°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
60°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
62.5°	9.4	8.5	8.5	9.4	8.5	9.4	8.5	8.5	8.5	8.5	8.5
65°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.6	7.6	7.6
67.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
70°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
72.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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	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: P212729

CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	726.0	720.4	722.2	720.4	715.6	716.6	713.8	713.8	708.1	707.1	708.1
5°	744.9	738.3	738.3	734.5	727.9	727.0	721.3	721.3	712.8	710.0	710.0
7.5°	765.7	759.1	757.2	752.5	744.0	740.2	732.6	729.8	719.4	714.7	713.8
10°	788.3	780.8	777.0	771.3	761.0	754.3	744.0	740.2	727.9	718.5	717.5
12.5°	813.8	807.2	802.5	794.9	783.6	774.2	761.9	755.3	739.2	728.9	724.1
15°	844.0	836.5	830.8	821.4	809.1	797.8	781.7	774.2	755.3	741.1	734.5
17.5°	862.9	854.4	849.7	838.4	826.1	812.9	794.9	785.5	763.8	745.9	739.2
20°	864.8	858.2	851.6	841.2	828.9	813.8	794.9	785.5	762.8	744.9	735.5
22.5°	850.6	845.0	837.4	828.9	815.7	800.6	782.7	774.2	752.5	733.6	723.2
25°	823.3	818.5	811.0	800.6	791.2	775.1	758.1	752.5	729.8	713.8	704.3
27.5°	780.8	778.0	770.4	761.0	753.4	740.2	723.2	718.5	698.6	684.5	676.9
30°	725.1	723.2	715.6	707.1	701.5	689.2	674.1	672.2	654.3	643.9	636.3
32.5°	656.2	654.3	649.6	641.1	636.3	625.9	611.8	613.7	598.6	590.1	587.2
35°	582.5	576.9	574.0	566.5	560.8	553.3	541.0	543.8	535.3	528.7	527.8
37.5°	499.4	493.8	491.9	486.2	481.5	474.9	465.4	469.2	465.4	462.6	465.4
40°	412.6	407.9	406.0	400.3	398.4	393.7	387.1	396.5	391.8	397.5	398.4
42.5°	325.7	321.0	321.0	317.2	314.4	313.4	308.7	321.0	321.0	330.4	335.2
45°	230.4	231.3	229.4	230.4	228.5	231.3	228.5	237.0	249.2	261.5	269.1
47.5°	152.9	150.1	153.9	152.9	152.0	155.8	159.6	168.1	182.2	199.2	209.6
50°	92.5	92.5	94.4	97.2	99.1	102.0	107.6	118.0	134.1	151.1	163.3
52.5°	52.9	51.9	53.8	54.8	59.5	63.3	69.9	81.2	97.2	116.1	127.5
55°	28.3	28.3	29.3	32.1	34.9	39.7	46.3	56.6	71.8	90.6	102.0
57.5°	17.0	17.0	17.9	18.9	21.7	25.5	31.2	39.7	52.9	68.9	79.3
60°	11.3	12.3	12.3	13.2	15.1	17.0	21.7	27.4	37.8	50.0	58.5
62.5°	9.4	9.4	9.4	10.4	11.3	12.3	15.1	19.8	26.4	35.9	42.5
65°	7.6	7.6	7.6	7.6	8.5	9.4	11.3	14.2	18.9	24.5	28.3
67.5°	5.7	5.7	6.6	6.6	6.6	7.6	8.5	10.4	13.2	17.0	19.8
70°	4.7	4.7	4.7	4.7	5.7	5.7	6.6	7.6	9.4	12.3	14.2
72.5°	3.8	3.8	3.8	3.8	4.7	4.7	4.7	5.7	6.6	8.5	9.4
75°	2.8	2.8	2.8	2.8	3.8	3.8	3.8	4.7	4.7	5.7	6.6
77.5°	1.9	1.9	1.9	1.9	2.8	2.8	2.8	2.8	3.8	3.8	3.8
80°	0.9	0.9	0.9	1.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9
85°	0.0	0.0	0.9	0.0	0.9	0.9	0.9	0.9	0.9	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: P212729

CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWL11

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	701.5	713.8	699.6	702.4	697.7	706.2	694.9	697.7	699.6	697.7	698.6
5°	702.4	711.9	695.8	698.6	691.1	696.8	686.4	687.3	687.3	685.4	684.5
7.5°	705.3	710.9	693.9	693.0	683.5	689.2	676.9	675.0	674.1	671.3	672.2
10°	706.2	708.1	690.1	686.4	675.0	676.9	664.7	660.9	658.0	656.2	655.2
12.5°	712.8	710.9	690.1	683.5	669.4	668.4	655.2	649.6	644.8	642.9	642.0
15°	721.3	714.7	692.0	682.6	666.5	662.8	648.6	642.9	636.3	634.4	632.6
17.5°	725.1	714.7	690.1	677.9	659.9	655.2	641.1	633.5	626.9	624.1	622.2
20°	720.4	707.1	682.6	669.4	650.5	643.9	629.7	621.2	614.6	611.8	609.9
22.5°	710.0	694.9	671.3	658.0	639.2	630.7	618.4	610.8	603.3	602.3	599.5
25°	692.0	676.9	657.1	643.9	626.9	618.4	607.1	600.5	592.9	592.0	591.0
27.5°	665.6	651.4	636.3	624.1	609.0	602.3	593.8	587.2	580.6	580.6	578.7
30°	627.8	618.4	605.2	597.6	585.4	578.7	573.1	568.4	561.7	562.7	560.8
32.5°	579.7	575.0	565.5	561.7	552.3	550.4	544.8	541.0	535.3	537.2	535.3
35°	525.9	520.2	520.2	518.3	513.6	512.7	509.8	507.9	504.2	505.1	505.1
37.5°	464.5	464.5	470.2	471.1	470.2	472.1	471.1	471.1	467.3	469.2	468.3
40°	401.2	406.9	417.3	423.0	424.9	428.6	433.3	431.5	429.6	432.4	431.5
42.5°	339.9	351.2	367.3	376.7	383.3	389.0	395.6	395.6	394.6	398.4	397.5
45°	281.3	291.7	313.4	329.5	340.8	349.3	356.9	359.7	360.7	364.4	363.5
47.5°	223.8	241.7	267.2	286.1	300.2	310.6	321.0	324.8	327.6	332.3	332.3
50°	177.5	200.2	229.4	248.3	265.3	276.6	287.0	292.7	296.5	300.2	300.2
52.5°	142.6	166.2	194.5	214.3	230.4	242.6	253.0	259.6	262.5	267.2	267.2
55°	116.1	137.8	164.3	182.2	198.3	209.6	218.1	223.8	226.6	230.4	230.4
57.5°	91.6	112.3	134.1	150.1	163.3	171.8	179.4	181.3	182.2	185.0	186.0
60°	68.9	85.0	102.9	115.2	124.6	130.3	136.0	135.0	134.1	136.0	134.1
62.5°	49.1	60.4	73.6	81.2	88.7	91.6	94.4	92.5	90.6	91.6	91.6
65°	33.0	41.5	49.1	54.8	58.5	60.4	61.4	60.4	59.5	60.4	59.5
67.5°	22.7	27.4	33.0	35.9	38.7	39.7	40.6	39.7	39.7	39.7	38.7
70°	15.1	17.9	21.7	23.6	24.5	25.5	26.4	25.5	25.5	25.5	25.5
72.5°	10.4	12.3	13.2	15.1	16.0	16.0	16.0	16.0	16.0	16.0	16.0
75°	6.6	7.6	8.5	9.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
77.5°	4.7	4.7	5.7	5.7	6.6	6.6	6.6	6.6	6.6	6.6	6.6
80°	2.8	2.8	3.8	3.8	3.8	3.8	4.7	3.8	4.7	4.7	4.7
82.5°	1.9	1.9	1.9	1.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8
85°	0.9	0.9	0.9	0.9	0.9	0.9	1.9	0.9	1.9	1.9	1.9
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: P212729

CATALOG NUMBER: LD4B20D010 EU4B10209727 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	714.7	714.7	714.7	714.7
2.5°	698.6	696.8	691.1	697.7
5°	683.5	681.7	676.9	681.7
7.5°	668.4	665.6	661.8	664.7
10°	650.5	648.6	643.9	646.7
12.5°	637.3	633.5	630.7	631.6
15°	628.8	625.0	622.2	623.1
17.5°	617.5	613.7	610.8	610.8
20°	605.2	601.4	599.5	598.6
22.5°	594.8	592.0	591.0	588.2
25°	585.4	583.5	583.5	579.7
27.5°	575.0	572.1	572.1	568.4
30°	557.0	556.1	556.1	553.3
32.5°	533.4	530.6	532.5	527.8
35°	501.3	499.4	502.3	498.5
37.5°	466.4	465.4	467.3	464.5
40°	429.6	429.6	432.4	427.7
42.5°	397.5	397.5	400.3	395.6
45°	362.5	365.4	368.2	364.4
47.5°	332.3	334.2	338.0	334.2
50°	302.1	304.0	306.8	303.1
52.5°	269.1	271.0	273.8	271.0
55°	231.3	233.2	236.0	234.1
57.5°	186.0	184.1	188.8	185.0
60°	135.0	131.2	132.2	132.2
62.5°	89.7	87.8	89.7	86.9
65°	59.5	58.5	58.5	58.5
67.5°	39.7	38.7	39.7	38.7
70°	25.5	25.5	25.5	25.5
72.5°	16.0	16.0	16.0	16.0
75°	10.4	10.4	10.4	10.4
77.5°	6.6	6.6	6.6	6.6
80°	4.7	4.7	4.7	4.7
82.5°	2.8	2.8	2.8	2.8
85°	1.9	1.9	1.9	1.9
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°





















(END OF REPORT)