

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: P212726

Luminaire Tested: **LD4B20D010 EU4B10209035 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212726
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 EU4B10209035 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1592.4 lumens
Efficiency: N/A
Efficacy: 76.6 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

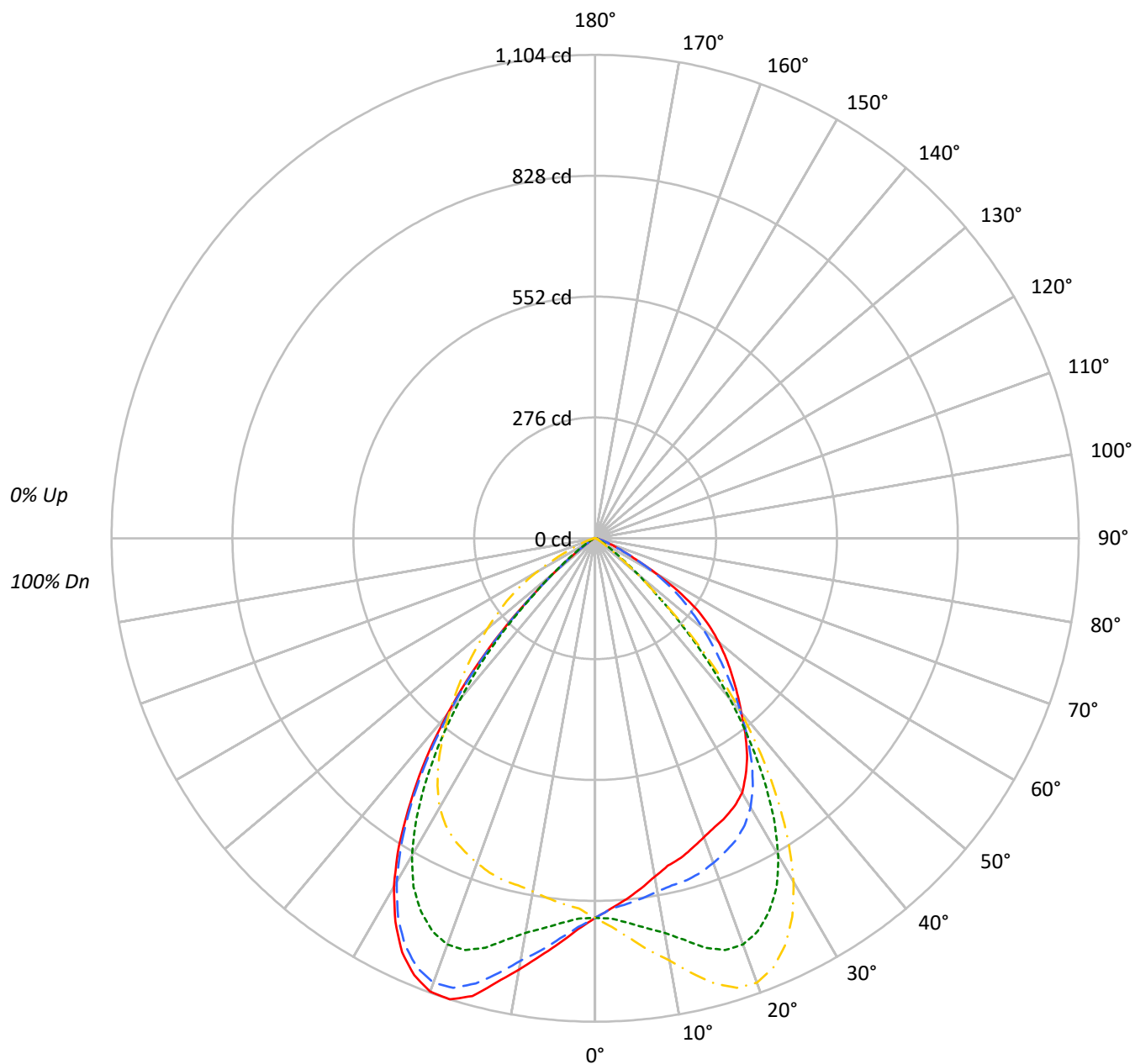
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	109	106	103	110	107	104	102	103	100	99	99	97	96	95	94	93	91		
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82		
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73		
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66		
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60		
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54		
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49		
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45		
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	52	46	43	41		
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	106928	106928	106928	106928
5°	102372	109182	114852	109182
10°	98257	114602	125223	114602
15°	96513	123572	138193	123572
20°	95309	129582	144611	129582
25°	95703	127958	141990	127958
30°	95583	119069	130819	119069
35°	91054	101052	110539	101052
40°	83535	76885	84823	76885
45°	77101	48947	52732	48947
50°	70539	23737	23065	23737
55°	61073	10344	7398	10344
60°	39545	5082	3380	5082
65°	20722	3356	2685	3356
70°	11144	2488	2056	2488
75°	6005	2192	1620	2192
80°	4049	1634	781	1634
85°	3255	1557	0	1557



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.5	5.3
10°-20°	264.4	16.6
20°-30°	411.0	25.8
30°-40°	415.2	26.1
40°-50°	262.9	16.5
50°-60°	110.3	6.9
60°-70°	35.0	2.2
70°-80°	8.0	0.5
80°-90°	1.1	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°	759.9	47.7
0°-40°	1175.1	73.8
0°-60°	1548.3	97.2
0°-90°	1592.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1592.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	867	867	867	867	867	
5°	827	882	928	882	827	78
15°	756	968	1082	968	756	213
25°	703	940	1043	940	703	324
35°	605	671	734	671	605	376
45°	442	281	302	281	442	341
55°	284	48	34	48	284	245
65°	71	12	9	12	71	78
75°	13	5	3	5	13	15
85°	2	1	0	1	2	2
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°	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9
2.5°	846.3	838.3	845.2	847.4	847.4	846.3	848.6	846.3	842.9	856.6	846.3
5°	826.8	821.1	826.8	829.1	830.3	831.4	833.7	833.7	832.6	845.2	838.3
7.5°	806.2	802.8	807.4	810.8	815.4	814.2	817.7	818.8	821.1	836.0	829.1
10°	784.5	781.0	786.8	789.0	794.8	795.9	798.2	801.6	806.2	821.1	818.8
12.5°	766.1	765.0	768.4	773.0	778.7	779.9	782.2	787.9	794.8	810.8	811.9
15°	755.8	754.7	758.1	762.7	767.3	769.6	771.9	779.9	786.8	803.9	808.5
17.5°	740.9	740.9	744.4	749.0	754.7	757.0	760.4	768.4	777.6	794.8	800.5
20°	726.1	727.2	729.5	734.1	739.8	742.1	745.5	753.5	763.8	781.0	789.0
22.5°	713.5	716.9	718.0	721.5	727.2	730.6	731.8	740.9	750.1	765.0	775.3
25°	703.2	707.7	707.7	710.0	716.9	718.0	719.2	728.3	736.4	750.1	760.4
27.5°	689.4	694.0	694.0	697.4	702.0	704.3	704.3	712.3	720.3	730.6	738.7
30°	671.1	674.5	674.5	675.7	680.2	682.5	681.4	689.4	695.1	702.0	710.0
32.5°	640.2	645.9	643.6	647.0	649.3	651.6	649.3	656.2	660.8	667.7	669.9
35°	604.7	609.2	605.8	608.1	612.7	612.7	611.5	616.1	618.4	621.8	623.0
37.5°	563.4	566.9	564.6	565.7	568.0	569.2	566.9	571.5	571.5	572.6	570.3
40°	518.8	524.5	521.1	521.1	523.4	524.5	521.1	523.4	525.6	519.9	515.3
42.5°	479.8	485.6	482.1	482.1	482.1	483.3	478.7	479.8	479.8	471.8	465.0
45°	442.0	446.6	443.2	439.8	440.9	442.0	437.5	436.3	432.9	423.7	413.4
47.5°	405.4	410.0	405.4	403.1	403.1	403.1	397.4	393.9	389.4	376.8	364.2
50°	367.6	372.2	368.8	366.5	364.2	364.2	359.6	355.0	348.1	335.5	321.8
52.5°	328.7	332.1	328.7	326.4	324.1	324.1	318.4	314.9	306.9	294.3	279.4
55°	284.0	286.3	282.9	280.6	279.4	279.4	274.8	271.4	264.5	254.2	240.5
57.5°	224.5	229.0	223.3	225.6	225.6	224.5	221.0	219.9	217.6	208.4	198.1
60°	160.3	160.3	159.2	163.8	162.6	164.9	162.6	163.8	164.9	158.0	151.2
62.5°	105.4	108.8	106.5	108.8	111.1	111.1	109.9	112.2	114.5	111.1	107.6
65°	71.0	71.0	71.0	72.1	72.1	73.3	72.1	73.3	74.4	73.3	71.0
67.5°	47.0	48.1	47.0	48.1	47.0	48.1	48.1	48.1	49.2	48.1	47.0
70°	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	32.1	30.9	29.8
72.5°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
75°	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
77.5°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
80°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	4.6	5.7	4.6	4.6
82.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
85°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.1	2.3	1.1	1.1
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9
2.5°	852.0	848.6	865.8	850.9	858.9	857.8	858.9	865.8	865.8	869.2	868.1
5°	847.4	844.0	863.5	852.0	861.2	861.2	864.6	874.9	874.9	881.8	882.9
7.5°	840.6	841.7	862.3	855.5	865.8	866.9	872.6	885.2	888.7	897.8	902.4
10°	832.6	837.1	858.9	856.6	870.4	871.5	882.9	897.8	902.4	915.0	923.0
12.5°	829.1	837.1	862.3	864.6	878.4	884.1	896.7	916.2	924.2	939.1	950.5
15°	828.0	839.4	866.9	874.9	891.0	899.0	916.2	939.1	948.2	967.7	981.4
17.5°	822.3	837.1	866.9	879.5	896.7	904.7	926.5	952.8	964.3	986.0	1002.1
20°	811.9	828.0	857.8	873.8	892.1	903.6	925.3	952.8	964.3	987.2	1005.5
22.5°	798.2	814.2	842.9	861.2	877.2	889.8	912.7	939.1	949.4	971.1	989.5
25°	781.0	797.1	821.1	839.4	854.3	865.8	885.2	912.7	919.6	940.2	959.7
27.5°	757.0	771.9	790.2	807.4	821.1	830.3	847.4	871.5	877.2	897.8	913.9
30°	724.9	734.1	750.1	761.6	771.9	781.0	793.6	815.4	817.7	836.0	850.9
32.5°	681.4	686.0	697.4	703.2	712.3	715.8	726.1	744.4	742.1	759.3	771.9
35°	628.7	631.0	631.0	637.9	640.2	641.3	649.3	659.6	656.2	671.1	680.2
37.5°	571.5	570.3	563.4	563.4	564.6	561.1	564.6	569.2	564.6	576.0	584.1
40°	513.0	506.2	493.6	486.7	483.3	482.1	475.3	481.0	469.5	477.5	483.3
42.5°	456.9	445.5	426.0	412.3	406.5	400.8	389.4	389.4	374.5	380.2	381.4
45°	399.7	380.2	353.9	341.3	326.4	317.2	302.3	287.4	277.1	280.6	277.1
47.5°	347.0	324.1	293.2	271.4	254.2	241.6	221.0	203.8	193.5	189.0	184.4
50°	301.2	278.3	242.8	215.3	198.1	183.2	162.6	143.2	130.6	123.7	120.2
52.5°	260.0	235.9	201.6	172.9	154.6	140.9	118.0	98.5	84.7	76.7	72.1
55°	221.0	199.3	167.2	140.9	123.7	109.9	87.0	68.7	56.1	48.1	42.4
57.5°	182.1	162.6	136.3	111.1	96.2	83.6	64.1	48.1	37.8	30.9	26.3
60°	139.7	124.8	103.1	83.6	71.0	60.7	45.8	33.2	26.3	20.6	18.3
62.5°	98.5	89.3	73.3	59.6	51.5	43.5	32.1	24.0	18.3	14.9	13.7
65°	66.4	59.6	50.4	40.1	34.4	29.8	22.9	17.2	13.7	11.5	10.3
67.5°	43.5	40.1	33.2	27.5	24.0	20.6	16.0	12.6	10.3	9.2	8.0
70°	28.6	26.3	21.8	18.3	17.2	14.9	11.5	9.2	8.0	6.9	6.9
72.5°	18.3	16.0	14.9	12.6	11.5	10.3	8.0	6.9	5.7	5.7	5.7
75°	11.5	10.3	9.2	8.0	8.0	6.9	5.7	5.7	4.6	4.6	4.6
77.5°	6.9	6.9	5.7	5.7	4.6	4.6	4.6	3.4	3.4	3.4	3.4
80°	4.6	4.6	3.4	3.4	3.4	3.4	2.3	2.3	2.3	2.3	2.3
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9
2.5°	873.8	876.1	873.8	880.7	869.2	881.8	877.2	879.5	888.7	885.2	888.7
5°	891.0	895.5	895.5	903.6	893.3	908.1	903.6	908.1	917.3	917.3	921.9
7.5°	912.7	918.5	920.7	928.8	918.5	936.8	932.2	937.9	949.4	949.4	952.8
10°	935.6	942.5	947.1	956.2	944.8	965.4	960.8	968.8	979.1	980.3	986.0
12.5°	964.3	973.4	979.1	987.2	979.1	999.8	995.2	1003.2	1016.9	1018.1	1025.0
15°	996.3	1007.8	1014.6	1023.8	1014.6	1037.6	1033.0	1042.1	1052.4	1057.0	1063.9
17.5°	1016.9	1030.7	1036.4	1046.7	1037.6	1060.5	1054.7	1067.3	1076.5	1078.8	1086.8
20°	1020.4	1033.0	1041.0	1049.0	1041.0	1063.9	1058.2	1068.5	1079.9	1082.2	1087.9
22.5°	1005.5	1015.8	1025.0	1031.8	1025.0	1047.9	1039.8	1051.3	1061.6	1063.9	1068.5
25°	971.1	983.7	992.9	998.6	991.7	1013.5	1006.6	1016.9	1026.1	1030.7	1031.8
27.5°	923.0	934.5	943.6	947.1	942.5	963.1	954.0	966.5	974.6	976.9	980.3
30°	857.8	868.1	877.2	879.5	876.1	891.0	886.4	897.8	905.9	908.1	910.4
32.5°	777.6	787.9	793.6	795.9	792.5	807.4	802.8	811.9	821.1	821.1	821.1
35°	687.1	696.3	699.7	706.6	698.6	713.5	708.9	716.9	724.9	724.9	726.1
37.5°	589.8	596.6	598.9	605.8	597.8	611.5	608.1	615.0	621.8	620.7	623.0
40°	485.6	492.4	494.7	500.5	493.6	505.0	502.7	509.6	515.3	515.3	515.3
42.5°	384.8	389.4	389.4	395.1	388.2	398.5	398.5	403.1	408.8	407.7	407.7
45°	279.4	278.3	280.6	279.4	279.4	288.6	288.6	290.9	295.5	293.2	294.3
47.5°	185.5	186.7	182.1	185.5	180.9	189.0	189.0	189.0	192.4	190.1	192.4
50°	118.0	114.5	112.2	112.2	111.1	116.8	114.5	115.7	118.0	115.7	118.0
52.5°	66.4	65.3	63.0	64.1	61.8	63.0	63.0	63.0	64.1	63.0	65.3
55°	38.9	35.5	34.4	34.4	33.2	34.4	33.2	33.2	33.2	32.1	33.2
57.5°	22.9	21.8	20.6	20.6	19.5	19.5	19.5	19.5	19.5	19.5	19.5
60°	16.0	14.9	14.9	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
62.5°	12.6	11.5	11.5	11.5	10.3	10.3	10.3	10.3	10.3	11.5	10.3
65°	9.2	9.2	9.2	9.2	9.2	9.2	8.0	9.2	9.2	9.2	9.2
67.5°	8.0	8.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
70°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
72.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
75°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80°	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	0.0	1.1	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



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9
2.5°	892.1	887.5	877.2	884.1	885.2	880.7	886.4	893.3	886.4	880.7	885.2
5°	925.3	921.9	912.7	918.5	919.6	918.5	921.9	927.6	921.9	918.5	919.6
7.5°	958.5	956.2	945.9	952.8	955.1	952.8	956.2	962.0	956.2	952.8	955.1
10°	990.6	989.5	979.1	988.3	989.5	987.2	990.6	999.8	990.6	987.2	989.5
12.5°	1027.2	1029.5	1018.1	1028.4	1029.5	1027.2	1031.8	1038.7	1031.8	1027.2	1029.5
15°	1069.6	1068.5	1059.3	1067.3	1069.6	1067.3	1073.1	1082.2	1073.1	1067.3	1069.6
17.5°	1090.2	1090.2	1083.4	1091.4	1092.5	1092.5	1097.1	1104.0	1097.1	1092.5	1092.5
20°	1091.4	1092.5	1084.5	1093.7	1093.7	1093.7	1098.2	1101.7	1098.2	1093.7	1093.7
22.5°	1073.1	1074.2	1066.2	1074.2	1074.2	1075.3	1077.6	1079.9	1077.6	1075.3	1074.2
25°	1037.6	1038.7	1031.8	1038.7	1037.6	1037.6	1039.8	1043.3	1039.8	1037.6	1037.6
27.5°	984.9	986.0	976.9	984.9	983.7	982.6	986.0	987.2	986.0	982.6	983.7
30°	915.0	916.2	908.1	915.0	913.9	912.7	917.3	918.5	917.3	912.7	913.9
32.5°	831.4	829.1	823.4	829.1	828.0	828.0	830.3	833.7	830.3	828.0	828.0
35°	730.6	730.6	727.2	731.8	728.3	732.9	732.9	734.1	732.9	732.9	728.3
37.5°	627.6	627.6	625.3	627.6	626.4	631.0	631.0	634.4	631.0	631.0	626.4
40°	519.9	519.9	517.6	519.9	523.4	523.4	522.2	526.8	522.2	523.4	523.4
42.5°	411.1	411.1	410.0	415.7	415.7	415.7	412.3	416.9	412.3	415.7	415.7
45°	298.9	296.6	295.5	295.5	296.6	301.2	296.6	302.3	296.6	301.2	296.6
47.5°	190.1	191.2	192.4	195.8	193.5	192.4	192.4	195.8	192.4	192.4	193.5
50°	116.8	118.0	118.0	120.2	116.8	119.1	118.0	120.2	118.0	119.1	116.8
52.5°	64.1	64.1	64.1	66.4	64.1	65.3	64.1	66.4	64.1	65.3	64.1
55°	33.2	33.2	33.2	34.4	33.2	33.2	33.2	34.4	33.2	33.2	33.2
57.5°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
60°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
62.5°	11.5	10.3	10.3	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
65°	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
67.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
70°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
72.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
75°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P212726

CATALOG NUMBER: LD4B20D010 EU4B10209035 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9
2.5°	884.1	877.2	887.5	892.1	888.7	885.2	888.7	879.5	877.2	881.8	869.2
5°	918.5	912.7	921.9	925.3	921.9	917.3	917.3	908.1	903.6	908.1	893.3
7.5°	952.8	945.9	956.2	958.5	952.8	949.4	949.4	937.9	932.2	936.8	918.5
10°	988.3	979.1	989.5	990.6	986.0	980.3	979.1	968.8	960.8	965.4	944.8
12.5°	1028.4	1018.1	1029.5	1027.2	1025.0	1018.1	1016.9	1003.2	995.2	999.8	979.1
15°	1067.3	1059.3	1068.5	1069.6	1063.9	1057.0	1052.4	1042.1	1033.0	1037.6	1014.6
17.5°	1091.4	1083.4	1090.2	1090.2	1086.8	1078.8	1076.5	1067.3	1054.7	1060.5	1037.6
20°	1093.7	1084.5	1092.5	1091.4	1087.9	1082.2	1079.9	1068.5	1058.2	1063.9	1041.0
22.5°	1074.2	1066.2	1074.2	1073.1	1068.5	1063.9	1061.6	1051.3	1039.8	1047.9	1025.0
25°	1038.7	1031.8	1038.7	1037.6	1031.8	1030.7	1026.1	1016.9	1006.6	1013.5	991.7
27.5°	984.9	976.9	986.0	984.9	980.3	976.9	974.6	966.5	954.0	963.1	942.5
30°	915.0	908.1	916.2	915.0	910.4	908.1	905.9	897.8	886.4	891.0	876.1
32.5°	829.1	823.4	829.1	831.4	821.1	821.1	821.1	811.9	802.8	807.4	792.5
35°	731.8	727.2	730.6	730.6	726.1	724.9	724.9	716.9	708.9	713.5	698.6
37.5°	627.6	625.3	627.6	627.6	623.0	620.7	621.8	615.0	608.1	611.5	597.8
40°	519.9	517.6	519.9	519.9	515.3	515.3	515.3	509.6	502.7	505.0	493.6
42.5°	415.7	410.0	411.1	411.1	407.7	407.7	408.8	403.1	398.5	398.5	388.2
45°	295.5	295.5	296.6	298.9	294.3	293.2	295.5	290.9	288.6	288.6	279.4
47.5°	195.8	192.4	191.2	190.1	192.4	190.1	192.4	189.0	189.0	189.0	180.9
50°	120.2	118.0	118.0	116.8	118.0	115.7	118.0	115.7	114.5	116.8	111.1
52.5°	66.4	64.1	64.1	64.1	65.3	63.0	64.1	63.0	63.0	63.0	61.8
55°	34.4	33.2	33.2	33.2	33.2	32.1	33.2	33.2	33.2	34.4	33.2
57.5°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
60°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
62.5°	11.5	10.3	10.3	11.5	10.3	11.5	10.3	10.3	10.3	10.3	10.3
65°	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	8.0	9.2	9.2
67.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
70°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
72.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
75°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P212726

CATALOG NUMBER: LD4B20D010 EU4B10209035 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9
2.5°	880.7	873.8	876.1	873.8	868.1	869.2	865.8	865.8	858.9	857.8	858.9
5°	903.6	895.5	895.5	891.0	882.9	881.8	874.9	874.9	864.6	861.2	861.2
7.5°	928.8	920.7	918.5	912.7	902.4	897.8	888.7	885.2	872.6	866.9	865.8
10°	956.2	947.1	942.5	935.6	923.0	915.0	902.4	897.8	882.9	871.5	870.4
12.5°	987.2	979.1	973.4	964.3	950.5	939.1	924.2	916.2	896.7	884.1	878.4
15°	1023.8	1014.6	1007.8	996.3	981.4	967.7	948.2	939.1	916.2	899.0	891.0
17.5°	1046.7	1036.4	1030.7	1016.9	1002.1	986.0	964.3	952.8	926.5	904.7	896.7
20°	1049.0	1041.0	1033.0	1020.4	1005.5	987.2	964.3	952.8	925.3	903.6	892.1
22.5°	1031.8	1025.0	1015.8	1005.5	989.5	971.1	949.4	939.1	912.7	889.8	877.2
25°	998.6	992.9	983.7	971.1	959.7	940.2	919.6	912.7	885.2	865.8	854.3
27.5°	947.1	943.6	934.5	923.0	913.9	897.8	877.2	871.5	847.4	830.3	821.1
30°	879.5	877.2	868.1	857.8	850.9	836.0	817.7	815.4	793.6	781.0	771.9
32.5°	795.9	793.6	787.9	777.6	771.9	759.3	742.1	744.4	726.1	715.8	712.3
35°	706.6	699.7	696.3	687.1	680.2	671.1	656.2	659.6	649.3	641.3	640.2
37.5°	605.8	598.9	596.6	589.8	584.1	576.0	564.6	569.2	564.6	561.1	564.6
40°	500.5	494.7	492.4	485.6	483.3	477.5	469.5	481.0	475.3	482.1	483.3
42.5°	395.1	389.4	389.4	384.8	381.4	380.2	374.5	389.4	389.4	400.8	406.5
45°	279.4	280.6	278.3	279.4	277.1	280.6	277.1	287.4	302.3	317.2	326.4
47.5°	185.5	182.1	186.7	185.5	184.4	189.0	193.5	203.8	221.0	241.6	254.2
50°	112.2	112.2	114.5	118.0	120.2	123.7	130.6	143.2	162.6	183.2	198.1
52.5°	64.1	63.0	65.3	66.4	72.1	76.7	84.7	98.5	118.0	140.9	154.6
55°	34.4	34.4	35.5	38.9	42.4	48.1	56.1	68.7	87.0	109.9	123.7
57.5°	20.6	20.6	21.8	22.9	26.3	30.9	37.8	48.1	64.1	83.6	96.2
60°	13.7	14.9	14.9	16.0	18.3	20.6	26.3	33.2	45.8	60.7	71.0
62.5°	11.5	11.5	11.5	12.6	13.7	14.9	18.3	24.0	32.1	43.5	51.5
65°	9.2	9.2	9.2	9.2	10.3	11.5	13.7	17.2	22.9	29.8	34.4
67.5°	6.9	6.9	8.0	8.0	8.0	9.2	10.3	12.6	16.0	20.6	24.0
70°	5.7	5.7	5.7	5.7	6.9	6.9	8.0	9.2	11.5	14.9	17.2
72.5°	4.6	4.6	4.6	4.6	5.7	5.7	5.7	6.9	8.0	10.3	11.5
75°	3.4	3.4	3.4	3.4	4.6	4.6	4.6	5.7	5.7	6.9	8.0
77.5°	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4	4.6	4.6	4.6
80°	1.1	1.1	1.1	2.3	2.3	2.3	2.3	2.3	2.3	3.4	3.4
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.3	2.3
85°	0.0	0.0	1.1	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P212726

CATALOG NUMBER: LD4B20D010 EU4B10209035 4LBSWL11

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9
2.5°	850.9	865.8	848.6	852.0	846.3	856.6	842.9	846.3	848.6	846.3	847.4
5°	852.0	863.5	844.0	847.4	838.3	845.2	832.6	833.7	833.7	831.4	830.3
7.5°	855.5	862.3	841.7	840.6	829.1	836.0	821.1	818.8	817.7	814.2	815.4
10°	856.6	858.9	837.1	832.6	818.8	821.1	806.2	801.6	798.2	795.9	794.8
12.5°	864.6	862.3	837.1	829.1	811.9	810.8	794.8	787.9	782.2	779.9	778.7
15°	874.9	866.9	839.4	828.0	808.5	803.9	786.8	779.9	771.9	769.6	767.3
17.5°	879.5	866.9	837.1	822.3	800.5	794.8	777.6	768.4	760.4	757.0	754.7
20°	873.8	857.8	828.0	811.9	789.0	781.0	763.8	753.5	745.5	742.1	739.8
22.5°	861.2	842.9	814.2	798.2	775.3	765.0	750.1	740.9	731.8	730.6	727.2
25°	839.4	821.1	797.1	781.0	760.4	750.1	736.4	728.3	719.2	718.0	716.9
27.5°	807.4	790.2	771.9	757.0	738.7	730.6	720.3	712.3	704.3	704.3	702.0
30°	761.6	750.1	734.1	724.9	710.0	702.0	695.1	689.4	681.4	682.5	680.2
32.5°	703.2	697.4	686.0	681.4	669.9	667.7	660.8	656.2	649.3	651.6	649.3
35°	637.9	631.0	631.0	628.7	623.0	621.8	618.4	616.1	611.5	612.7	612.7
37.5°	563.4	563.4	570.3	571.5	570.3	572.6	571.5	571.5	566.9	569.2	568.0
40°	486.7	493.6	506.2	513.0	515.3	519.9	525.6	523.4	521.1	524.5	523.4
42.5°	412.3	426.0	445.5	456.9	465.0	471.8	479.8	479.8	478.7	483.3	482.1
45°	341.3	353.9	380.2	399.7	413.4	423.7	432.9	436.3	437.5	442.0	440.9
47.5°	271.4	293.2	324.1	347.0	364.2	376.8	389.4	393.9	397.4	403.1	403.1
50°	215.3	242.8	278.3	301.2	321.8	335.5	348.1	355.0	359.6	364.2	364.2
52.5°	172.9	201.6	235.9	260.0	279.4	294.3	306.9	314.9	318.4	324.1	324.1
55°	140.9	167.2	199.3	221.0	240.5	254.2	264.5	271.4	274.8	279.4	279.4
57.5°	111.1	136.3	162.6	182.1	198.1	208.4	217.6	219.9	221.0	224.5	225.6
60°	83.6	103.1	124.8	139.7	151.2	158.0	164.9	163.8	162.6	164.9	162.6
62.5°	59.6	73.3	89.3	98.5	107.6	111.1	114.5	112.2	109.9	111.1	111.1
65°	40.1	50.4	59.6	66.4	71.0	73.3	74.4	73.3	72.1	73.3	72.1
67.5°	27.5	33.2	40.1	43.5	47.0	48.1	49.2	48.1	48.1	48.1	47.0
70°	18.3	21.8	26.3	28.6	29.8	30.9	32.1	30.9	30.9	30.9	30.9
72.5°	12.6	14.9	16.0	18.3	19.5	19.5	19.5	19.5	19.5	19.5	19.5
75°	8.0	9.2	10.3	11.5	12.6	12.6	12.6	12.6	12.6	12.6	12.6
77.5°	5.7	5.7	6.9	6.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0
80°	3.4	3.4	4.6	4.6	4.6	4.6	5.7	4.6	5.7	5.7	5.7
82.5°	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4
85°	1.1	1.1	1.1	1.1	1.1	1.1	2.3	1.1	2.3	2.3	2.3
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: P212726

CATALOG NUMBER: LD4B20D010 EU4B10209035 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	866.9	866.9	866.9	866.9
2.5°	847.4	845.2	838.3	846.3
5°	829.1	826.8	821.1	826.8
7.5°	810.8	807.4	802.8	806.2
10°	789.0	786.8	781.0	784.5
12.5°	773.0	768.4	765.0	766.1
15°	762.7	758.1	754.7	755.8
17.5°	749.0	744.4	740.9	740.9
20°	734.1	729.5	727.2	726.1
22.5°	721.5	718.0	716.9	713.5
25°	710.0	707.7	707.7	703.2
27.5°	697.4	694.0	694.0	689.4
30°	675.7	674.5	674.5	671.1
32.5°	647.0	643.6	645.9	640.2
35°	608.1	605.8	609.2	604.7
37.5°	565.7	564.6	566.9	563.4
40°	521.1	521.1	524.5	518.8
42.5°	482.1	482.1	485.6	479.8
45°	439.8	443.2	446.6	442.0
47.5°	403.1	405.4	410.0	405.4
50°	366.5	368.8	372.2	367.6
52.5°	326.4	328.7	332.1	328.7
55°	280.6	282.9	286.3	284.0
57.5°	225.6	223.3	229.0	224.5
60°	163.8	159.2	160.3	160.3
62.5°	108.8	106.5	108.8	105.4
65°	72.1	71.0	71.0	71.0
67.5°	48.1	47.0	48.1	47.0
70°	30.9	30.9	30.9	30.9
72.5°	19.5	19.5	19.5	19.5
75°	12.6	12.6	12.6	12.6
77.5°	8.0	8.0	8.0	8.0
80°	5.7	5.7	5.7	5.7
82.5°	3.4	3.4	3.4	3.4
85°	2.3	2.3	2.3	2.3
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)