

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: P274463

Luminaire Tested: **LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274463  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-9)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0H  
Description: PORTFOLIO 6" W2N RN DOWNLIGHT, DOUBLE WALLWASH WITH HAZE FINISH  
Light Source: W2N 2000K-5000K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1362.1 lumens  
Efficiency: N/A  
Efficacy: 48.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

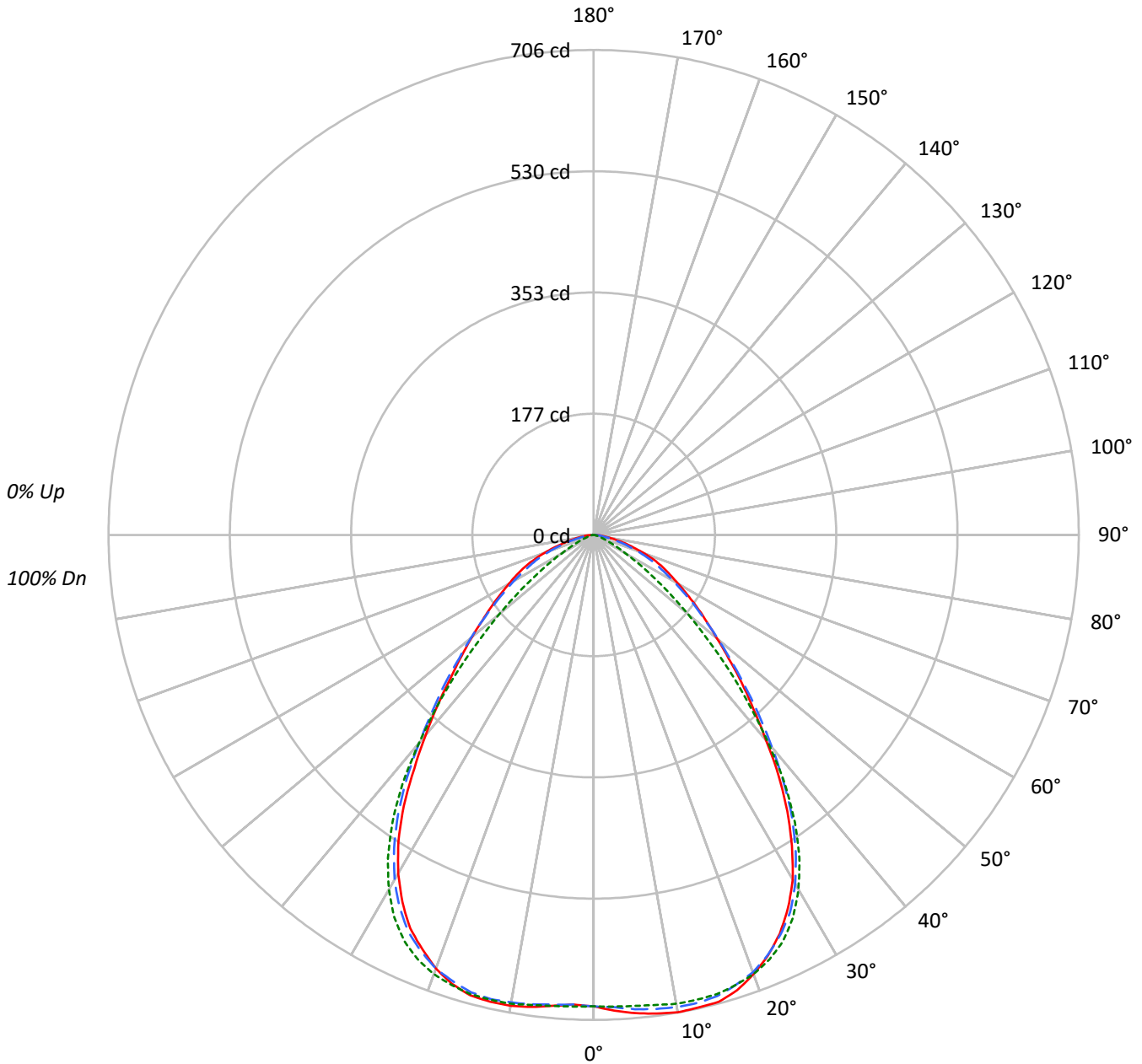
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P274463

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0H

### Luminous Intensity Polar Plot





TEST NUMBER: P274463

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0H

**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	109	105	102	99	101	98	96	97	95	93	94	92	91	89			89
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78			78
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68			68
4	89	78	71	65	87	77	70	65	75	69	64	73	67	63	71	66	62	61			61
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54			54
6	77	65	57	52	75	64	57	51	63	56	51	61	55	51	59	54	50	48			48
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44			44
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40			40
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36			36
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33			33

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	44775	44775	44775
5°	45771	45070	45070
10°	46751	45916	46108
15°	47529	46746	46874
20°	47239	47239	46635
25°	46114	46956	45487
30°	43656	44899	42850
35°	39121	40666	38349
40°	33232	33649	32406
45°	28122	25705	27135
50°	23740	18127	23446
55°	20872	11704	20644
60°	18489	6968	18620
65°	17089	4199	17089
70°	14821	2403	14440
75°	11746	1462	11015
80°	8754	1090	8378
85°	8010	749	7261



TEST NUMBER: P274463

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0H

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.1	4.9
10°-20°	195.5	14.4
20°-30°	294.1	21.6
30°-40°	309.2	22.7
40°-50°	231.0	17.0
50°-60°	143.8	10.6
60°-70°	81.8	6.0
70°-80°	33.7	2.5
80°-90°	7.0	0.5
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°	555.7	40.8
0°-40°	864.9	63.5
0°-60°	1239.7	91.0
0°-90°	1362.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1362.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	686	686	686	686	686	
5°	699	693	688	686	688	67
15°	704	695	692	689	694	198
25°	641	643	652	638	632	293
35°	491	504	511	496	482	305
45°	305	312	279	306	294	236
55°	184	180	103	177	182	165
65°	111	99	27	99	111	109
75°	47	37	6	36	44	51
85°	11	7	1	6	10	12
90°	0	0	0	0	0	



TEST NUMBER: P274463

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0H

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3
2.5°	693.1	692.1	693.1	691.1	690.1	690.1	691.1	689.2	688.2	689.2	688.2
5°	698.9	696.9	697.9	696.9	695.0	695.0	696.0	693.1	693.1	694.0	693.1
7.5°	702.8	702.8	702.8	700.8	699.9	698.9	700.8	697.9	696.9	696.9	696.0
10°	705.7	704.7	705.7	703.7	701.8	700.8	702.8	700.8	698.9	700.8	697.9
12.5°	704.7	704.7	704.7	703.7	701.8	700.8	702.8	699.9	698.9	699.9	697.9
15°	703.7	700.8	701.8	700.8	697.9	697.9	698.9	696.0	694.0	696.9	695.0
17.5°	695.0	693.1	694.0	692.1	690.1	689.2	690.1	689.2	687.2	689.2	687.2
20°	680.4	680.4	681.4	679.5	677.5	676.6	678.5	676.6	674.6	677.5	677.5
22.5°	663.0	663.0	663.0	662.0	661.0	661.0	661.0	660.1	659.1	661.0	662.0
25°	640.6	639.7	640.6	641.6	640.6	639.7	640.6	640.6	638.7	642.6	642.6
27.5°	612.5	612.5	614.4	613.5	613.5	612.5	614.4	614.4	613.5	616.4	619.3
30°	579.5	577.5	579.5	579.5	580.5	580.5	581.4	581.4	581.4	584.3	586.3
32.5°	536.8	537.8	540.7	539.7	538.7	541.6	541.6	543.6	544.5	546.5	547.5
35°	491.2	492.1	492.1	493.1	495.0	493.1	498.0	497.0	498.0	501.8	503.8
37.5°	442.6	439.7	444.6	442.6	443.6	443.6	445.5	446.5	449.4	454.3	454.3
40°	390.2	391.2	393.1	394.1	395.1	395.1	395.1	398.0	398.9	404.8	403.8
42.5°	344.6	344.6	346.5	347.5	347.5	347.5	347.5	350.4	352.4	354.3	356.2
45°	304.8	301.9	303.8	303.8	305.8	304.8	306.7	308.7	309.6	312.6	311.6
47.5°	266.9	266.0	266.9	267.9	266.9	267.9	268.9	269.8	270.8	270.8	270.8
50°	233.9	233.9	234.9	235.9	235.9	235.9	235.9	236.8	236.8	238.8	236.8
52.5°	206.8	207.7	207.7	206.8	207.7	207.7	208.7	208.7	207.7	207.7	204.8
55°	183.5	182.5	183.5	182.5	183.5	183.5	182.5	182.5	181.5	180.5	179.6
57.5°	161.1	161.1	161.1	161.1	160.2	161.1	160.2	159.2	159.2	157.2	154.3
60°	141.7	141.7	141.7	141.7	141.7	140.7	141.7	140.7	138.8	136.9	133.0
62.5°	125.2	124.2	125.2	124.2	124.2	123.3	123.3	122.3	120.4	118.4	114.5
65°	110.7	111.6	110.7	110.7	109.7	108.7	108.7	107.7	104.8	102.9	99.0
67.5°	95.1	94.2	94.2	94.2	93.2	93.2	93.2	91.2	89.3	86.4	82.5
70°	77.7	77.7	77.7	76.7	76.7	75.7	75.7	74.7	72.8	70.9	66.0
72.5°	61.2	61.2	61.2	59.2	60.2	59.2	59.2	57.3	56.3	53.4	50.5
75°	46.6	46.6	45.6	45.6	44.7	43.7	43.7	42.7	41.7	39.8	36.9
77.5°	34.0	34.0	34.0	33.0	32.0	31.1	31.1	30.1	29.1	28.1	26.2
80°	23.3	23.3	23.3	23.3	22.3	21.4	21.4	20.4	20.4	19.4	17.5
82.5°	15.5	15.5	15.5	15.5	14.6	14.6	14.6	13.6	12.6	12.6	10.7
85°	10.7	10.7	9.7	9.7	9.7	9.7	8.7	8.7	7.8	6.8	6.8
87.5°	5.8	5.8	5.8	5.8	4.9	4.9	4.9	4.9	3.9	3.9	2.9
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: P274463

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0H

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3
2.5°	691.1	691.1	690.1	687.2	688.2	687.2	688.2	687.2	684.3	687.2	684.3
5°	695.0	696.0	694.0	690.1	691.1	690.1	690.1	689.2	686.3	688.2	686.3
7.5°	698.9	697.9	696.9	693.1	694.0	693.1	693.1	691.1	688.2	690.1	687.2
10°	700.8	700.8	698.9	695.0	695.0	694.0	695.0	694.0	690.1	693.1	691.1
12.5°	700.8	699.9	699.9	695.0	696.0	695.0	696.0	694.0	691.1	693.1	692.1
15°	697.9	697.9	696.9	692.1	693.1	693.1	694.0	692.1	689.2	692.1	690.1
17.5°	692.1	692.1	691.1	687.2	689.2	689.2	690.1	688.2	685.3	687.2	687.2
20°	680.4	681.4	681.4	678.5	680.4	680.4	681.4	680.4	679.5	680.4	678.5
22.5°	666.8	668.8	668.8	665.9	667.8	667.8	670.7	669.8	667.8	668.8	667.8
25°	646.5	648.4	650.3	648.4	650.3	650.3	653.3	652.3	650.3	652.3	649.4
27.5°	623.2	624.1	626.1	624.1	627.1	626.1	629.0	628.0	625.1	628.0	627.1
30°	590.2	594.0	597.0	594.0	597.0	597.0	598.9	597.9	597.0	596.0	596.0
32.5°	553.3	557.2	557.2	556.2	558.1	558.1	559.1	557.2	556.2	557.2	558.1
35°	507.7	509.6	511.5	510.6	511.5	512.5	511.5	512.5	509.6	510.6	510.6
37.5°	458.2	460.1	460.1	457.2	459.1	459.1	457.2	457.2	455.2	457.2	453.3
40°	405.7	403.8	404.8	402.8	400.9	400.9	399.9	396.0	394.1	395.1	396.0
42.5°	354.3	354.3	351.4	346.5	341.7	341.7	338.8	336.8	332.9	334.9	333.9
45°	310.6	305.8	301.9	294.1	291.2	289.3	284.4	279.6	277.6	278.6	277.6
47.5°	268.9	265.0	255.3	244.6	241.7	238.8	233.0	227.1	225.2	223.3	223.3
50°	233.9	227.1	216.5	204.8	200.0	195.1	187.3	181.5	177.6	178.6	178.6
52.5°	201.9	194.1	181.5	167.0	161.1	155.3	148.5	141.7	138.8	137.8	137.8
55°	173.7	165.0	152.4	135.9	131.0	124.2	115.5	107.7	103.9	102.9	104.8
57.5°	148.5	140.7	126.2	109.7	103.9	97.1	88.3	81.5	76.7	75.7	76.7
60°	128.1	117.5	104.8	89.3	81.5	75.7	66.0	60.2	55.3	53.4	54.4
62.5°	107.7	98.0	85.4	69.9	64.1	58.2	49.5	42.7	38.8	37.9	38.8
65°	92.2	82.5	70.9	57.3	51.4	45.6	37.9	31.1	28.1	27.2	28.1
67.5°	76.7	67.9	58.2	45.6	40.8	35.9	28.1	23.3	19.4	18.4	19.4
70°	62.1	54.4	44.7	35.9	31.1	27.2	21.4	16.5	13.6	12.6	13.6
72.5°	46.6	40.8	34.0	26.2	23.3	20.4	15.5	11.6	9.7	8.7	9.7
75°	34.0	29.1	24.3	18.4	16.5	14.6	10.7	7.8	6.8	5.8	6.8
77.5°	23.3	20.4	16.5	12.6	10.7	9.7	6.8	5.8	4.9	3.9	3.9
80°	15.5	13.6	10.7	8.7	7.8	6.8	4.9	3.9	2.9	2.9	2.9
82.5°	9.7	7.8	6.8	4.9	3.9	3.9	2.9	1.9	1.9	1.9	1.9
85°	5.8	4.9	3.9	2.9	1.9	1.9	1.0	1.0	1.0	1.0	1.0
87.5°	2.9	1.9	1.9	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0
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: P274463

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0H

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3
2.5°	686.3	684.3	684.3	685.3	686.3	687.2	685.3	684.3	684.3	687.2	685.3
5°	686.3	685.3	685.3	685.3	687.2	688.2	686.3	685.3	686.3	689.2	688.2
7.5°	689.2	687.2	688.2	688.2	689.2	691.1	689.2	688.2	689.2	692.1	690.1
10°	691.1	689.2	690.1	689.2	692.1	693.1	691.1	690.1	691.1	695.0	694.0
12.5°	692.1	691.1	691.1	690.1	693.1	694.0	692.1	691.1	692.1	695.0	694.0
15°	690.1	689.2	689.2	689.2	691.1	693.1	690.1	689.2	689.2	692.1	691.1
17.5°	686.3	684.3	684.3	684.3	685.3	686.3	683.4	682.4	681.4	684.3	683.4
20°	679.5	677.5	675.6	675.6	676.6	676.6	674.6	671.7	671.7	672.7	670.7
22.5°	666.8	665.9	663.9	663.0	664.9	663.9	660.1	657.1	656.2	657.1	655.2
25°	649.4	647.4	646.5	645.5	646.5	645.5	641.6	637.7	637.7	637.7	634.8
27.5°	625.1	623.2	622.2	622.2	623.2	621.2	617.3	613.5	611.5	611.5	608.6
30°	594.0	594.0	593.1	592.1	591.1	591.1	585.3	581.4	579.5	580.5	578.5
32.5°	556.2	555.2	554.3	551.3	552.3	551.3	546.5	543.6	540.7	538.7	537.8
35°	507.7	507.7	506.7	506.7	506.7	505.7	500.9	498.0	496.0	495.0	492.1
37.5°	454.3	453.3	452.3	452.3	452.3	452.3	449.4	446.5	446.5	445.5	443.6
40°	394.1	395.1	396.0	395.1	398.0	400.9	397.0	395.1	394.1	397.0	393.1
42.5°	335.9	334.9	339.7	340.7	340.7	345.6	346.5	347.5	346.5	348.5	348.5
45°	279.6	278.6	283.4	285.4	290.2	296.1	299.0	303.8	305.8	307.7	305.8
47.5°	226.2	230.0	233.9	238.8	242.7	252.4	258.2	263.1	265.0	267.9	267.9
50°	181.5	185.4	192.2	196.1	200.9	212.6	222.3	229.1	233.0	235.9	234.9
52.5°	139.8	146.6	155.3	159.2	166.0	179.6	190.3	198.0	202.9	205.8	206.8
55°	107.7	113.6	122.3	128.1	134.9	149.5	163.1	171.8	176.7	180.5	182.5
57.5°	79.6	86.4	96.1	100.9	108.7	125.2	136.9	147.5	153.4	158.2	159.2
60°	58.2	65.0	73.8	79.6	87.4	103.9	117.5	127.2	134.0	137.8	139.8
62.5°	41.7	48.5	57.3	63.1	69.9	84.4	98.0	107.7	114.5	119.4	122.3
65°	30.1	36.9	45.6	50.5	56.3	69.9	82.5	92.2	99.0	104.8	106.8
67.5°	22.3	27.2	34.9	39.8	45.6	56.3	67.0	75.7	82.5	87.4	89.3
70°	16.5	20.4	27.2	30.1	34.0	43.7	52.4	60.2	66.0	69.9	71.8
72.5°	11.6	14.6	19.4	22.3	25.2	33.0	39.8	45.6	49.5	53.4	55.3
75°	7.8	9.7	13.6	15.5	17.5	23.3	28.1	33.0	35.9	38.8	39.8
77.5°	4.9	6.8	9.7	10.7	12.6	15.5	19.4	22.3	24.3	26.2	28.1
80°	2.9	3.9	5.8	6.8	7.8	10.7	12.6	14.6	16.5	18.4	19.4
82.5°	1.9	2.9	3.9	3.9	4.9	5.8	7.8	9.7	10.7	11.6	12.6
85°	1.0	1.0	1.9	1.9	2.9	2.9	3.9	4.9	5.8	6.8	7.8
87.5°	1.0	1.0	1.0	1.0	1.9	1.9	2.9	2.9	2.9	3.9	3.9
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: P274463

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBDW0H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3
2.5°	683.4	686.3	683.4	685.3	684.3	684.3	683.4	684.3
5°	686.3	690.1	686.3	689.2	687.2	687.2	687.2	688.2
7.5°	689.2	693.1	690.1	693.1	692.1	691.1	691.1	693.1
10°	692.1	695.0	693.1	696.0	695.0	694.0	694.0	696.0
12.5°	692.1	696.0	694.0	696.9	696.0	695.0	695.0	696.0
15°	689.2	694.0	691.1	694.0	693.1	692.1	692.1	694.0
17.5°	680.4	684.3	682.4	684.3	684.3	683.4	684.3	685.3
20°	668.8	671.7	669.8	671.7	671.7	669.8	670.7	671.7
22.5°	652.3	655.2	653.3	655.2	654.2	653.3	653.3	652.3
25°	631.9	635.8	632.9	634.8	632.9	630.9	630.9	631.9
27.5°	606.7	609.6	605.7	607.6	605.7	603.8	603.8	602.8
30°	573.7	574.6	571.7	573.7	571.7	570.8	568.8	568.8
32.5°	533.9	534.8	531.9	531.9	530.0	530.0	526.1	529.0
35°	487.3	488.2	487.3	486.3	483.4	482.4	481.5	481.5
37.5°	438.7	438.7	435.8	434.9	432.9	431.0	431.9	429.0
40°	389.2	388.3	385.4	386.3	385.4	382.4	381.5	380.5
42.5°	342.6	342.6	339.7	340.7	338.8	337.8	334.9	335.9
45°	301.9	301.9	299.0	299.0	298.0	295.1	296.1	294.1
47.5°	265.0	265.0	264.0	264.0	261.1	260.1	260.1	260.1
50°	233.0	233.0	233.0	233.0	232.0	231.0	230.0	231.0
52.5°	205.8	207.7	206.8	206.8	205.8	204.8	203.8	203.8
55°	181.5	182.5	182.5	183.5	182.5	181.5	182.5	181.5
57.5°	160.2	162.1	162.1	162.1	162.1	162.1	161.1	160.2
60°	141.7	142.7	142.7	143.7	143.7	143.7	142.7	142.7
62.5°	123.3	125.2	126.2	126.2	127.2	126.2	126.2	126.2
65°	108.7	110.7	111.6	110.7	111.6	111.6	110.7	110.7
67.5°	91.2	93.2	93.2	93.2	93.2	94.2	93.2	93.2
70°	73.8	75.7	74.7	75.7	75.7	75.7	75.7	75.7
72.5°	56.3	57.3	58.2	58.2	59.2	58.2	58.2	58.2
75°	40.8	42.7	42.7	42.7	42.7	43.7	43.7	43.7
77.5°	29.1	30.1	30.1	31.1	31.1	31.1	31.1	32.0
80°	20.4	20.4	21.4	21.4	22.3	22.3	22.3	22.3
82.5°	13.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
85°	7.8	8.7	8.7	8.7	8.7	9.7	9.7	9.7
87.5°	4.9	4.9	4.9	4.9	4.9	4.9	3.9	3.9
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)