

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: P274445

Luminaire Tested: **LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWW0H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274445  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-6)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWW0H  
Description: PORTFOLIO 6" W2N RN DOWNLIGHT, LENSED WALLWASH WITH HAZE FINISH  
Light Source: W2N 2000K-5000K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1206.6 lumens  
Efficiency: N/A  
Efficacy: 43.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.02 / 1.12  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

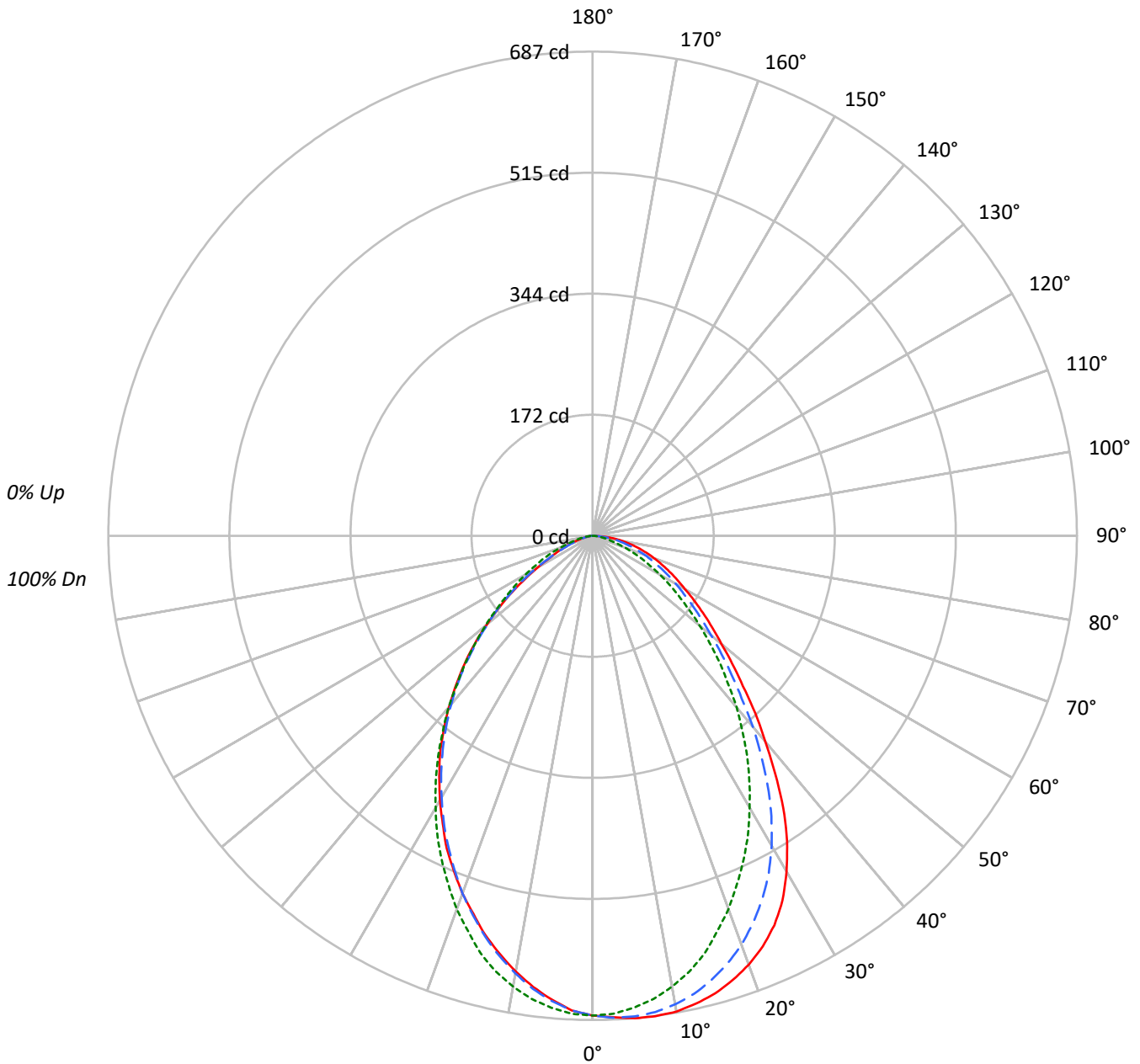
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P274445

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWW0H

### Luminous Intensity Polar Plot





TEST NUMBER: P274445

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWW0H

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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																			
1	111	107	103	100	108	105	101	99	100	98	96	97	95	93	93	91	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	93	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59																			
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53																			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47																			
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	43																			
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39																			
9	63	50	43	38	61	50	43	38	49	42	37	48	42	37	47	41	37	35																			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33																			

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

	0°	90°	180°
0°	44409	44409	44409
5°	45011	44022	43282
10°	45412	43027	41590
15°	45402	41444	39654
20°	44961	39122	37484
25°	43896	36482	35251
30°	41456	33546	32619
35°	37576	30424	30042
40°	32448	27057	26972
45°	27827	23555	23730
50°	24187	20147	19863
55°	21725	16993	15913
60°	19742	14314	11717
65°	18540	11825	8614
70°	17683	9194	6314
75°	16914	6680	4285
80°	15967	4621	2855
85°	14148	2844	1422



TEST NUMBER: P274445

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWW0H

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.7	5.3
10°-20°	174.4	14.5
20°-30°	242.1	20.1
30°-40°	250.8	20.8
40°-50°	206.1	17.1
50°-60°	141.6	11.7
60°-70°	81.4	6.7
70°-80°	37.4	3.1
80°-90°	9.1	0.8
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°	480.2	39.8
0°-40°	731.0	60.6
0°-60°	1078.7	89.4
0°-90°	1206.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1206.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	681	681	681	681	681	
5°	687	684	672	663	661	66
15°	672	652	614	589	587	189
25°	610	569	507	485	490	279
35°	472	433	382	371	377	293
45°	302	279	255	252	257	235
55°	191	173	149	141	140	172
65°	120	105	77	54	56	120
75°	67	53	26	17	17	71
85°	19	13	4	2	2	21
90°	0	0	0	0	0	



TEST NUMBER: P274445

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWW0H

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7
2.5°	683.6	689.2	685.5	684.5	686.4	686.4	686.4	683.6	685.5	682.6	684.5
5°	687.3	692.1	688.3	686.4	688.3	689.2	686.4	684.5	687.3	683.6	684.5
7.5°	687.3	692.1	688.3	687.3	688.3	688.3	687.3	683.6	685.5	681.7	681.7
10°	685.5	689.2	685.5	683.6	684.5	683.6	683.6	678.8	679.8	675.1	675.1
12.5°	679.8	684.5	679.8	677.9	677.9	677.9	675.1	671.3	672.2	666.5	665.6
15°	672.2	676.0	671.3	669.4	669.4	668.4	666.5	660.9	660.9	655.2	652.4
17.5°	660.9	664.7	660.9	658.0	657.1	655.2	653.3	647.6	645.7	639.1	636.3
20°	647.6	650.5	646.7	643.9	642.0	640.1	636.3	630.6	628.7	622.1	617.4
22.5°	630.6	634.4	628.7	625.9	624.0	621.2	617.4	611.7	608.9	600.4	594.7
25°	609.8	611.7	607.0	604.1	600.4	598.5	595.6	588.1	585.2	575.8	569.2
27.5°	583.3	585.2	579.6	577.7	572.9	571.1	567.3	560.7	556.9	547.4	540.8
30°	550.3	552.1	548.4	545.5	541.7	538.0	535.1	528.5	522.8	513.4	507.7
32.5°	513.4	516.2	512.4	508.7	502.0	503.0	498.3	491.6	486.9	478.4	471.8
35°	471.8	473.7	468.9	468.0	464.2	460.4	455.7	451.0	448.1	438.7	433.0
37.5°	425.5	430.2	425.5	421.7	419.8	416.9	414.1	407.5	405.6	399.9	392.4
40°	381.0	383.9	381.0	377.2	374.4	374.4	370.6	366.8	362.1	356.4	353.6
42.5°	341.3	339.4	338.5	336.6	332.8	331.9	330.9	326.2	323.3	317.7	312.9
45°	301.6	302.5	300.7	299.7	296.9	295.0	293.1	289.3	288.4	282.7	278.9
47.5°	268.5	267.6	265.7	265.7	263.8	261.9	260.0	257.2	256.2	251.5	247.7
50°	238.3	239.2	238.3	237.3	234.5	233.5	231.6	229.7	227.9	223.1	219.3
52.5°	213.7	212.7	211.8	211.8	208.9	208.0	206.1	204.2	202.3	197.6	194.8
55°	191.0	191.0	190.0	189.1	186.3	185.3	184.4	182.5	179.6	175.9	173.0
57.5°	170.2	170.2	169.2	168.3	166.4	166.4	164.5	162.6	160.7	156.9	153.2
60°	151.3	152.2	151.3	150.3	148.4	148.4	147.5	144.7	143.7	139.0	136.1
62.5°	135.2	135.2	135.2	134.3	133.3	131.4	131.4	128.6	126.7	123.9	120.1
65°	120.1	120.1	120.1	119.1	117.2	116.3	115.3	113.5	111.6	108.7	104.9
67.5°	105.9	105.9	105.9	104.9	103.1	102.1	101.2	100.2	97.4	94.5	90.8
70°	92.7	92.7	91.7	90.8	89.8	88.9	87.9	86.0	84.1	80.4	77.5
72.5°	79.4	79.4	79.4	77.5	76.6	76.6	74.7	73.7	71.9	68.1	65.2
75°	67.1	66.2	66.2	65.2	64.3	63.3	62.4	61.5	58.6	56.7	52.9
77.5°	54.8	54.8	53.9	52.9	52.9	52.0	51.1	49.2	48.2	45.4	42.5
80°	42.5	42.5	42.5	42.5	41.6	40.7	40.7	38.8	37.8	35.0	33.1
82.5°	32.1	31.2	31.2	31.2	30.3	29.3	29.3	28.4	27.4	25.5	23.6
85°	18.9	18.0	18.0	18.0	17.0	17.0	16.1	16.1	15.1	13.2	13.2
87.5°	5.7	5.7	6.6	6.6	5.7	5.7	5.7	5.7	5.7	4.7	4.7
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: P274445

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWW0H

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7
2.5°	682.6	685.5	681.7	680.7	684.5	682.6	681.7	679.8	680.7	678.8	676.0
5°	681.7	685.5	680.7	677.9	682.6	679.8	677.9	676.0	676.0	672.2	670.3
7.5°	678.8	680.7	676.0	673.2	676.0	673.2	671.3	668.4	667.5	662.8	659.9
10°	671.3	673.2	667.5	663.7	666.5	662.8	659.9	657.1	655.2	649.5	645.7
12.5°	660.9	661.8	655.2	650.5	652.4	649.5	644.8	641.0	639.1	633.5	628.7
15°	646.7	647.6	640.1	633.5	635.3	631.6	625.9	622.1	619.3	613.6	607.0
17.5°	629.7	628.7	620.2	613.6	614.5	609.8	604.1	598.5	594.7	588.1	583.3
20°	610.8	607.9	598.5	590.9	591.9	586.2	579.6	573.9	569.2	563.5	556.9
22.5°	587.1	583.3	574.8	565.4	566.3	561.6	552.1	547.4	542.7	535.1	529.5
25°	561.6	555.9	547.4	538.0	538.0	532.3	524.7	519.1	514.3	506.8	500.1
27.5°	531.3	528.5	517.2	509.6	508.7	503.0	496.4	489.7	484.1	477.5	470.8
30°	498.3	493.5	485.0	476.5	474.6	469.9	463.3	455.7	451.9	445.3	439.6
32.5°	463.3	458.5	449.1	440.6	439.6	435.9	430.2	422.6	418.8	414.1	410.3
35°	423.6	421.7	412.2	405.6	405.6	401.8	396.1	389.5	386.7	382.0	377.2
37.5°	385.7	382.9	374.4	368.7	368.7	364.0	358.3	355.5	352.7	348.9	346.0
40°	346.0	344.1	337.5	331.9	332.8	329.0	325.2	321.5	319.6	317.7	314.8
42.5°	309.2	307.3	302.5	297.8	297.8	295.0	291.2	288.4	286.5	283.6	282.7
45°	276.1	273.2	269.5	264.7	264.7	261.9	260.0	258.1	257.2	255.3	252.4
47.5°	243.9	242.0	238.3	233.5	233.5	233.5	229.7	226.9	226.9	225.0	224.1
50°	216.5	213.7	210.8	207.1	207.1	205.2	202.3	199.5	199.5	198.5	196.7
52.5°	191.0	189.1	185.3	181.5	181.5	179.6	176.8	175.9	174.9	172.1	171.1
55°	169.2	167.3	164.5	159.8	158.8	157.9	155.1	153.2	152.2	149.4	149.4
57.5°	149.4	147.5	142.8	139.9	139.0	137.1	134.3	132.4	131.4	129.5	127.6
60°	132.4	129.5	125.7	122.0	121.0	119.1	116.3	114.4	113.5	109.7	107.8
62.5°	116.3	113.5	109.7	105.9	104.9	103.1	99.3	97.4	95.5	91.7	89.8
65°	101.2	98.3	94.5	90.8	88.9	87.9	84.1	81.3	79.4	76.6	72.8
67.5°	87.0	84.1	80.4	75.6	75.6	72.8	70.0	67.1	64.3	61.5	58.6
70°	73.7	70.9	67.1	63.3	62.4	60.5	57.7	53.9	52.0	48.2	45.4
72.5°	61.5	58.6	54.8	51.1	50.1	48.2	45.4	41.6	38.8	35.9	33.1
75°	50.1	47.3	43.5	40.7	39.7	37.8	35.0	31.2	28.4	26.5	23.6
77.5°	39.7	36.9	34.0	31.2	30.3	28.4	25.5	23.6	20.8	18.9	16.1
80°	30.3	28.4	25.5	23.6	22.7	20.8	18.9	16.1	14.2	12.3	11.3
82.5°	21.7	19.9	18.0	15.1	15.1	13.2	12.3	10.4	8.5	7.6	6.6
85°	12.3	10.4	9.5	8.5	7.6	7.6	6.6	5.7	4.7	3.8	3.8
87.5°	3.8	3.8	2.8	2.8	2.8	2.8	1.9	1.9	1.9	1.9	1.9
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: P274445

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWW0H

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7
2.5°	676.0	676.9	675.1	676.9	675.1	676.0	674.1	676.0	674.1	676.0	672.2
5°	669.4	669.4	666.5	668.4	666.5	667.5	663.7	664.7	662.8	664.7	660.9
7.5°	658.0	659.0	654.3	656.1	653.3	653.3	650.5	651.4	648.6	649.5	646.7
10°	644.8	643.9	639.1	641.0	637.2	637.2	634.4	634.4	630.6	631.6	627.8
12.5°	625.9	624.9	619.3	621.2	617.4	617.4	614.5	614.5	610.8	612.7	608.9
15°	604.1	603.2	597.5	598.5	594.7	594.7	590.9	591.9	589.0	590.9	587.1
17.5°	579.6	578.6	572.9	573.9	569.2	570.1	567.3	566.3	564.4	565.4	562.5
20°	554.0	552.1	546.5	547.4	545.5	542.7	540.8	541.7	539.9	541.7	538.9
22.5°	527.6	523.8	519.1	519.1	517.2	517.2	514.3	516.2	512.4	515.3	513.4
25°	497.3	494.5	490.7	492.6	488.8	488.8	486.0	486.9	485.0	486.9	485.0
27.5°	468.0	466.1	460.4	462.3	459.5	460.4	457.6	458.5	457.6	459.5	457.6
30°	436.8	435.9	432.1	432.1	431.1	430.2	429.2	429.2	428.3	431.1	429.2
32.5°	407.5	404.7	400.9	403.7	399.0	401.8	399.9	401.8	399.9	401.8	400.9
35°	377.2	376.3	371.6	372.5	371.6	371.6	370.6	370.6	370.6	373.5	373.5
37.5°	345.1	344.1	341.3	342.3	340.4	339.4	339.4	341.3	341.3	343.2	343.2
40°	313.9	314.8	312.0	312.0	311.1	311.1	311.1	312.9	312.0	313.9	312.9
42.5°	282.7	282.7	279.9	280.8	279.9	280.8	280.8	282.7	282.7	283.6	282.7
45°	253.4	253.4	252.4	253.4	251.5	252.4	251.5	253.4	252.4	253.4	253.4
47.5°	224.1	224.1	224.1	223.1	223.1	223.1	223.1	223.1	222.2	224.1	223.1
50°	196.7	197.6	196.7	196.7	195.7	196.7	195.7	195.7	193.8	194.8	194.8
52.5°	172.1	172.1	170.2	170.2	170.2	169.2	169.2	169.2	168.3	168.3	166.4
55°	148.4	148.4	146.5	146.5	145.6	144.7	143.7	143.7	140.9	140.9	138.0
57.5°	126.7	125.7	122.9	122.9	121.0	120.1	119.1	118.2	116.3	114.4	113.5
60°	106.8	104.9	103.1	102.1	100.2	98.3	96.4	94.5	92.7	91.7	90.8
62.5°	87.9	85.1	83.2	82.3	80.4	77.5	75.6	73.7	71.9	70.9	69.0
65°	70.9	68.1	65.2	64.3	62.4	60.5	57.7	55.8	53.9	52.9	52.9
67.5°	55.8	52.9	49.2	49.2	47.3	45.4	43.5	41.6	40.7	41.6	41.6
70°	41.6	39.7	36.9	35.9	34.0	32.1	31.2	31.2	31.2	32.1	31.2
72.5°	31.2	28.4	26.5	25.5	24.6	23.6	23.6	23.6	22.7	23.6	23.6
75°	21.7	19.9	18.0	18.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
77.5°	15.1	13.2	12.3	12.3	12.3	11.3	11.3	11.3	11.3	11.3	11.3
80°	9.5	9.5	8.5	8.5	7.6	7.6	7.6	7.6	7.6	7.6	7.6
82.5°	5.7	5.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
85°	2.8	2.8	2.8	2.8	2.8	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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: P274445

CATALOG NUMBER: LD6B20DE010W2N2050 EU6B1020W2N902050 6LBLWW0H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	680.7	680.7	680.7	680.7	680.7	680.7	680.7	680.7
2.5°	672.2	675.1	671.3	674.1	673.2	672.2	670.3	674.1
5°	660.9	661.8	658.0	661.8	660.9	659.0	657.1	660.9
7.5°	644.8	647.6	642.9	646.7	645.7	643.9	642.0	645.7
10°	626.8	629.7	625.9	628.7	628.7	626.8	624.0	627.8
12.5°	607.0	608.9	605.1	608.9	607.9	606.0	605.1	607.9
15°	585.2	588.1	584.3	587.1	586.2	585.2	584.3	587.1
17.5°	561.6	564.4	561.6	564.4	564.4	561.6	560.7	562.5
20°	538.0	539.9	537.0	539.9	538.9	538.9	537.0	539.9
22.5°	511.5	514.3	512.4	514.3	513.4	513.4	512.4	514.3
25°	485.0	487.9	485.0	487.9	486.9	486.9	485.0	489.7
27.5°	458.5	460.4	457.6	461.4	460.4	458.5	459.5	460.4
30°	430.2	432.1	430.2	433.0	433.0	433.0	431.1	433.0
32.5°	401.8	404.7	401.8	404.7	403.7	403.7	402.8	404.7
35°	373.5	374.4	372.5	375.3	375.3	376.3	374.4	377.2
37.5°	344.1	345.1	344.1	345.1	347.0	344.1	346.0	347.0
40°	313.9	315.8	314.8	315.8	315.8	316.7	315.8	316.7
42.5°	283.6	285.5	283.6	286.5	285.5	285.5	286.5	286.5
45°	252.4	255.3	253.4	255.3	256.2	255.3	255.3	257.2
47.5°	223.1	225.0	224.1	225.0	225.0	225.0	225.0	226.9
50°	193.8	194.8	194.8	195.7	195.7	196.7	194.8	195.7
52.5°	164.5	166.4	166.4	166.4	165.5	166.4	166.4	166.4
55°	138.0	139.0	137.1	139.0	139.0	138.0	138.0	139.9
57.5°	112.5	112.5	112.5	112.5	112.5	111.6	112.5	112.5
60°	88.9	89.8	88.9	88.9	88.9	88.9	87.9	89.8
62.5°	69.0	69.0	68.1	69.0	69.0	69.0	70.0	70.0
65°	53.9	54.8	53.9	54.8	54.8	54.8	54.8	55.8
67.5°	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5
70°	32.1	32.1	32.1	33.1	32.1	32.1	32.1	33.1
72.5°	23.6	23.6	23.6	23.6	23.6	23.6	24.6	24.6
75°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
77.5°	11.3	11.3	11.3	12.3	11.3	12.3	11.3	11.3
80°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
82.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	1.9	1.9	1.9	1.9	0.9	0.9	0.9	0.9
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)