

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: P226264

Luminaire Tested: **LD2B15D010 EU2B15WW9035 2LBSW\***

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P226264  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14828)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD2B15D010 EU2B15WW9035 2LBSW\*  
Description: 1500 Lumen, 2inch Portfolio LED Downlight  
WALL WASH OPTIC  
WALL WASH LENSED TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 826.7 lumens  
Efficiency: N/A  
Efficacy: 57.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 0.79 / 1.02  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

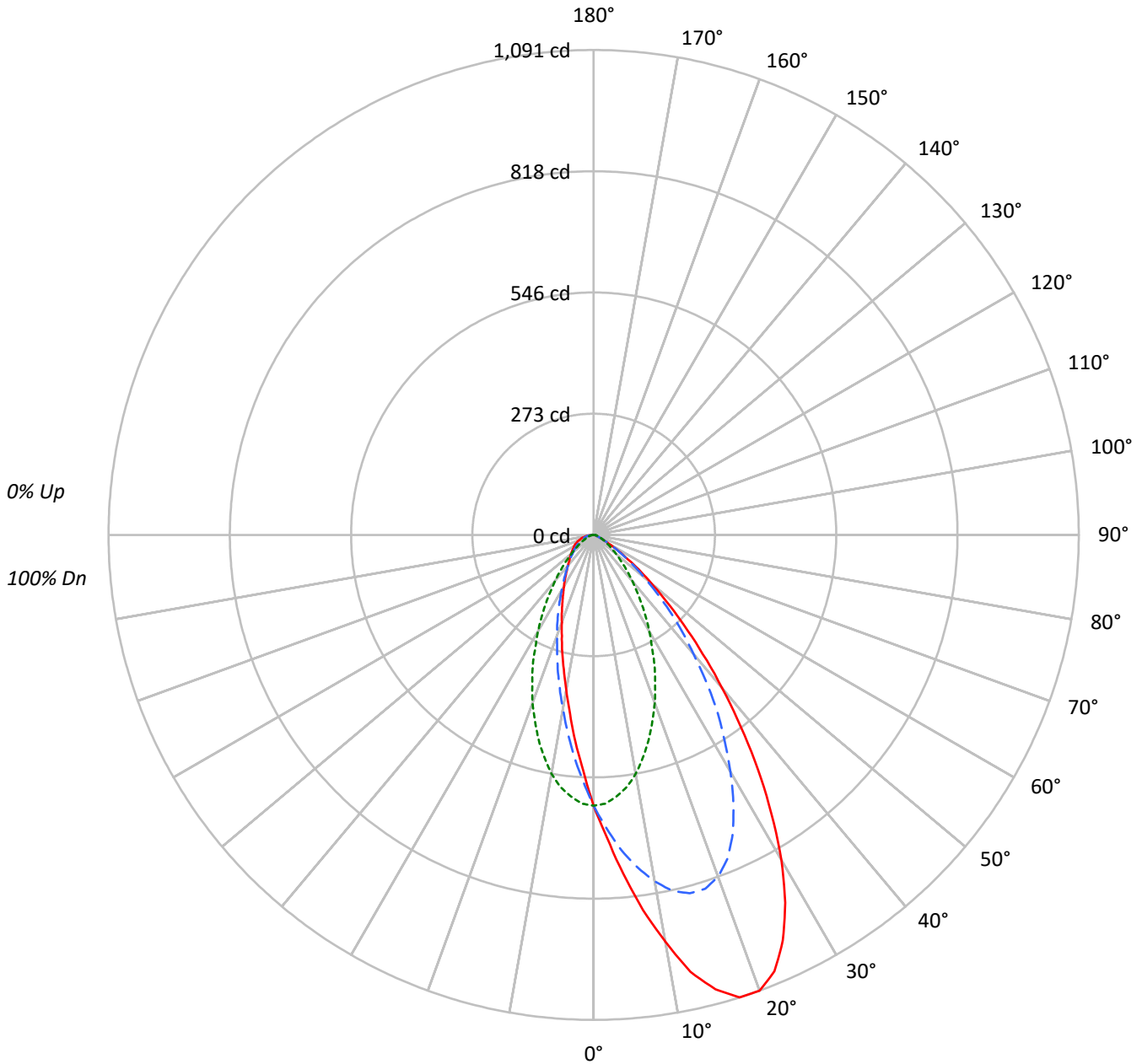
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P226264

CATALOG NUMBER: LD2B15D010 EU2B15WW9035 2LBSW\*

### 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			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	112	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90			90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81			81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73			73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60			60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55			55
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50			50
8	72	60	53	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46			46
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43			43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40			40

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

	0°	90°	180°
0°	235932	235932	235932
5°	297413	229640	181815
10°	365396	214557	139550
15°	424349	191603	109355
20°	449716	165665	86233
25°	430338	138474	70989
30°	377897	111907	59621
35°	304476	88236	51400
40°	227085	68414	45609
45°	157270	51657	41577
50°	101358	38326	39531
55°	59563	29106	38763
60°	31762	23861	39742
65°	15031	18789	39503
70°	7022	16308	39525
75°	9279	15415	42952
80°	9146	13830	41267
85°	9333	18222	36443



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.5	7.0
10°-20°	160.6	19.4
20°-30°	209.5	25.3
30°-40°	181.4	21.9
40°-50°	114.8	13.9
50°-60°	57.5	7.0
60°-70°	26.5	3.2
70°-80°	14.2	1.7
80°-90°	4.6	0.6
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°	427.7	51.7
0°-40°	609.1	73.7
0°-60°	781.4	94.5
0°-90°	826.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	826.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	609	609	609	609	609	
5°	765	712	591	500	468	78
15°	1058	835	478	312	273	298
25°	1007	740	324	187	166	456
35°	644	484	187	113	109	400
45°	287	240	94	74	76	226
55°	88	82	43	49	57	84
65°	16	18	20	35	43	19
75°	6	6	10	20	29	6
85°	2	2	4	6	8	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°	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1
2.5°	680.8	684.9	684.9	687.0	678.8	680.8	680.8	676.7	670.6	666.5	660.3
5°	764.9	764.9	762.9	764.9	758.8	754.7	756.7	748.5	732.1	723.9	711.6
7.5°	851.0	846.9	846.9	844.9	834.6	828.5	826.4	812.1	789.5	773.1	754.7
10°	929.0	929.0	924.9	920.8	906.4	898.2	892.0	869.5	844.9	818.2	791.6
12.5°	1006.9	1002.8	996.6	988.4	967.9	959.7	949.5	922.8	885.9	855.1	820.3
15°	1058.2	1060.2	1049.9	1039.7	1017.1	1004.8	992.5	959.7	916.7	877.7	834.6
17.5°	1091.0	1088.9	1078.7	1066.4	1041.7	1027.4	1013.0	974.1	929.0	881.8	834.6
20°	1091.0	1091.0	1078.7	1066.4	1039.7	1023.3	1008.9	967.9	918.7	869.5	818.2
22.5°	1062.3	1058.2	1049.9	1037.6	1011.0	996.6	980.2	939.2	887.9	840.8	787.5
25°	1006.9	1006.9	996.6	982.3	959.7	943.3	929.0	887.9	838.7	791.6	740.3
27.5°	933.1	931.0	920.8	910.5	885.9	873.6	859.2	820.3	777.2	734.1	680.8
30°	844.9	840.8	836.7	820.3	803.9	793.6	781.3	746.4	703.4	662.4	615.2
32.5°	744.4	750.5	740.3	730.0	715.7	705.4	695.2	668.5	629.6	592.6	547.5
35°	643.9	648.0	641.9	633.7	619.3	613.2	602.9	580.3	551.6	516.8	484.0
37.5°	543.4	543.4	543.4	537.3	529.1	522.9	516.8	496.3	471.7	445.0	414.2
40°	449.1	455.3	447.0	445.0	438.8	436.8	430.6	416.3	395.8	377.3	348.6
42.5°	363.0	363.0	365.0	360.9	358.9	354.8	350.7	342.5	328.1	311.7	293.2
45°	287.1	289.1	291.2	285.0	285.0	285.0	283.0	274.8	262.5	252.2	239.9
47.5°	223.5	223.5	225.6	223.5	223.5	223.5	219.4	219.4	211.2	201.0	190.7
50°	168.2	170.2	172.3	172.3	172.3	170.2	170.2	166.1	162.0	157.9	147.6
52.5°	127.1	127.1	125.1	127.1	127.1	127.1	127.1	125.1	123.0	118.9	112.8
55°	88.2	88.2	90.2	90.2	90.2	92.3	92.3	92.3	90.2	88.2	82.0
57.5°	61.5	61.5	61.5	63.6	65.6	65.6	65.6	65.6	63.6	61.5	59.5
60°	41.0	41.0	41.0	43.1	43.1	43.1	43.1	45.1	43.1	43.1	41.0
62.5°	26.7	26.7	26.7	26.7	26.7	28.7	28.7	28.7	28.7	28.7	26.7
65°	16.4	16.4	16.4	16.4	16.4	16.4	18.5	18.5	18.5	18.5	18.5
67.5°	10.3	10.3	10.3	10.3	10.3	12.3	12.3	12.3	12.3	12.3	12.3
70°	6.2	6.2	6.2	6.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
72.5°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
75°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
77.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	6.2	6.2	6.2
80°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
82.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	4.1	4.1	2.1
85°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
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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CATALOG NUMBER: LD2B15D010 EU2B15WW9035 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1
2.5°	660.3	652.1	648.0	637.8	635.7	627.5	627.5	619.3	609.1	605.0	594.7
5°	703.4	687.0	678.8	660.3	654.2	641.9	635.7	619.3	602.9	590.6	576.2
7.5°	740.3	715.7	699.3	674.7	664.4	646.0	633.7	613.2	590.6	572.1	551.6
10°	769.0	736.2	711.6	678.8	666.5	643.9	625.5	596.7	568.0	545.5	520.9
12.5°	787.5	748.5	713.6	674.7	658.3	633.7	607.0	574.2	541.4	512.7	486.0
15°	795.7	748.5	707.5	660.3	641.9	615.2	584.4	545.5	508.6	477.8	449.1
17.5°	789.5	734.1	691.1	637.8	617.3	586.5	551.6	510.6	471.7	438.8	410.1
20°	769.0	711.6	662.4	607.0	584.4	553.7	514.7	473.7	434.7	401.9	371.2
22.5°	734.1	674.7	623.4	568.0	545.5	514.7	473.7	432.7	393.7	360.9	332.2
25°	691.1	627.5	576.2	522.9	498.3	471.7	430.6	389.6	352.7	324.0	295.3
27.5°	633.7	578.3	527.0	473.7	451.1	426.5	385.5	348.6	311.7	283.0	258.4
30°	572.1	518.8	475.8	424.5	404.0	379.4	344.5	307.6	276.8	250.2	227.6
32.5°	510.6	459.4	418.3	375.3	356.8	332.2	301.5	268.6	239.9	217.4	198.9
35°	447.0	404.0	365.0	324.0	309.7	289.1	260.4	231.7	207.1	186.6	168.2
37.5°	383.5	348.6	313.8	280.9	264.5	248.1	221.5	196.9	174.3	157.9	143.5
40°	326.1	295.3	266.6	235.8	221.5	209.2	186.6	166.1	149.7	135.3	123.0
42.5°	270.7	246.1	221.5	196.9	184.6	174.3	155.9	137.4	123.0	112.8	102.5
45°	221.5	203.0	182.5	160.0	153.8	141.5	127.1	114.8	102.5	94.3	86.1
47.5°	178.4	162.0	145.6	129.2	123.0	114.8	102.5	92.3	84.1	77.9	71.8
50°	139.4	127.1	116.9	102.5	98.4	90.2	82.0	73.8	67.7	63.6	59.5
52.5°	106.6	96.4	88.2	80.0	75.9	71.8	63.6	59.5	55.4	53.3	51.3
55°	77.9	71.8	65.6	59.5	57.4	53.3	49.2	45.1	43.1	43.1	43.1
57.5°	55.4	51.3	47.2	43.1	43.1	41.0	39.0	36.9	34.9	34.9	34.9
60°	39.0	36.9	34.9	32.8	30.8	30.8	28.7	30.8	28.7	30.8	30.8
62.5°	26.7	24.6	24.6	22.6	22.6	22.6	22.6	22.6	24.6	24.6	26.7
65°	16.4	16.4	16.4	16.4	16.4	16.4	18.5	18.5	18.5	20.5	20.5
67.5°	12.3	12.3	12.3	14.4	14.4	14.4	14.4	16.4	16.4	16.4	18.5
70°	8.2	10.3	10.3	10.3	10.3	10.3	12.3	12.3	12.3	14.4	14.4
72.5°	8.2	8.2	8.2	8.2	8.2	8.2	10.3	10.3	10.3	12.3	12.3
75°	6.2	8.2	8.2	8.2	8.2	8.2	8.2	10.3	10.3	10.3	12.3
77.5°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	8.2	8.2	8.2	8.2
80°	4.1	4.1	4.1	6.2	6.2	6.2	6.2	6.2	6.2	6.2	8.2
82.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	6.2
85°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	4.1	2.1	4.1	4.1
87.5°	0.0	0.0	0.0	2.1	0.0	2.1	2.1	2.1	2.1	2.1	2.1
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°	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1
2.5°	590.6	584.4	586.5	574.2	576.2	568.0	563.9	557.8	553.7	547.5	549.6
5°	566.0	555.7	551.6	537.3	539.3	527.0	518.8	508.6	500.4	490.1	488.1
7.5°	535.2	518.8	512.7	498.3	496.3	479.9	469.6	457.3	447.0	436.8	432.7
10°	500.4	481.9	469.6	455.3	453.2	434.7	422.4	410.1	397.8	387.6	383.5
12.5°	463.5	442.9	428.6	412.2	408.1	391.7	377.3	365.0	352.7	342.5	336.3
15°	424.5	401.9	387.6	371.2	367.1	348.6	336.3	322.0	311.7	301.5	297.3
17.5°	385.5	363.0	346.6	332.2	328.1	309.7	295.3	285.0	272.7	266.6	260.4
20°	346.6	324.0	307.6	295.3	289.1	274.8	260.4	250.2	239.9	233.8	227.6
22.5°	307.6	287.1	272.7	260.4	256.3	242.0	229.7	219.4	213.3	205.1	201.0
25°	272.7	252.2	239.9	227.6	223.5	211.2	203.0	192.8	186.6	180.5	176.4
27.5°	239.9	221.5	209.2	198.9	196.9	186.6	176.4	170.2	164.1	160.0	157.9
30°	207.1	192.8	182.5	174.3	172.3	162.0	153.8	149.7	143.5	141.5	139.4
32.5°	182.5	168.2	160.0	151.8	149.7	141.5	137.4	131.2	127.1	125.1	125.1
35°	155.9	145.6	137.4	133.3	131.2	125.1	118.9	116.9	112.8	110.7	110.7
37.5°	133.3	125.1	118.9	112.8	112.8	108.7	104.6	102.5	100.5	100.5	98.4
40°	114.8	106.6	104.6	100.5	98.4	96.4	94.3	92.3	90.2	90.2	90.2
42.5°	96.4	92.3	88.2	86.1	86.1	84.1	82.0	82.0	80.0	82.0	82.0
45°	82.0	77.9	75.9	73.8	75.9	73.8	73.8	71.8	73.8	73.8	73.8
47.5°	69.7	67.7	65.6	65.6	65.6	65.6	65.6	65.6	65.6	67.7	67.7
50°	59.5	57.4	57.4	57.4	57.4	57.4	59.5	59.5	59.5	61.5	61.5
52.5°	49.2	49.2	49.2	49.2	51.3	51.3	53.3	53.3	55.4	55.4	57.4
55°	43.1	43.1	43.1	43.1	45.1	45.1	47.2	49.2	49.2	51.3	53.3
57.5°	36.9	36.9	39.0	39.0	41.0	41.0	43.1	45.1	45.1	47.2	49.2
60°	30.8	32.8	34.9	34.9	34.9	36.9	39.0	41.0	41.0	43.1	45.1
62.5°	26.7	28.7	30.8	30.8	30.8	32.8	34.9	36.9	36.9	39.0	41.0
65°	22.6	24.6	26.7	26.7	26.7	28.7	30.8	32.8	34.9	34.9	36.9
67.5°	20.5	20.5	22.6	22.6	24.6	26.7	26.7	28.7	30.8	32.8	34.9
70°	16.4	18.5	20.5	20.5	20.5	22.6	24.6	26.7	26.7	28.7	30.8
72.5°	14.4	14.4	16.4	16.4	18.5	20.5	20.5	22.6	24.6	24.6	26.7
75°	12.3	14.4	14.4	14.4	16.4	16.4	18.5	20.5	20.5	22.6	22.6
77.5°	10.3	10.3	12.3	12.3	12.3	14.4	14.4	16.4	16.4	18.5	18.5
80°	8.2	8.2	10.3	10.3	10.3	10.3	12.3	12.3	14.4	14.4	14.4
82.5°	6.2	6.2	6.2	6.2	8.2	8.2	8.2	8.2	10.3	10.3	10.3
85°	4.1	4.1	4.1	4.1	4.1	6.2	6.2	6.2	6.2	6.2	8.2
87.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
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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CATALOG NUMBER: LD2B15D010 EU2B15WW9035 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	609.1	609.1	609.1	609.1	609.1	609.1	609.1	609.1
2.5°	543.4	543.4	541.4	539.3	537.3	535.2	533.2	531.1
5°	481.9	484.0	475.8	473.7	473.7	469.6	471.7	467.6
7.5°	424.5	424.5	418.3	416.3	414.2	410.1	408.1	406.0
10°	373.2	371.2	367.1	365.0	360.9	358.9	358.9	354.8
12.5°	328.1	326.1	322.0	319.9	315.8	313.8	311.7	309.7
15°	289.1	287.1	283.0	280.9	278.9	274.8	274.8	272.7
17.5°	252.2	250.2	248.1	244.0	244.0	239.9	237.9	237.9
20°	223.5	221.5	217.4	215.3	215.3	213.3	213.3	209.2
22.5°	196.9	194.8	192.8	190.7	190.7	188.7	186.6	186.6
25°	174.3	172.3	170.2	170.2	168.2	166.1	166.1	166.1
27.5°	153.8	153.8	151.8	151.8	151.8	149.7	149.7	147.6
30°	137.4	137.4	135.3	135.3	135.3	133.3	135.3	133.3
32.5°	123.0	123.0	123.0	123.0	123.0	121.0	121.0	121.0
35°	110.7	110.7	110.7	110.7	110.7	108.7	110.7	108.7
37.5°	98.4	100.5	98.4	98.4	100.5	98.4	98.4	98.4
40°	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
42.5°	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
45°	73.8	75.9	75.9	75.9	75.9	75.9	75.9	75.9
47.5°	69.7	69.7	69.7	69.7	71.8	69.7	71.8	71.8
50°	63.6	63.6	63.6	65.6	65.6	65.6	65.6	65.6
52.5°	59.5	59.5	59.5	59.5	61.5	61.5	61.5	61.5
55°	53.3	55.4	55.4	55.4	57.4	57.4	57.4	57.4
57.5°	51.3	51.3	51.3	53.3	53.3	53.3	55.4	53.3
60°	47.2	47.2	49.2	49.2	49.2	51.3	51.3	51.3
62.5°	43.1	45.1	45.1	45.1	45.1	47.2	47.2	47.2
65°	39.0	41.0	41.0	41.0	43.1	43.1	43.1	43.1
67.5°	34.9	36.9	36.9	39.0	39.0	39.0	39.0	39.0
70°	30.8	32.8	32.8	32.8	34.9	34.9	34.9	34.9
72.5°	28.7	28.7	28.7	30.8	30.8	30.8	32.8	30.8
75°	24.6	26.7	26.7	26.7	26.7	26.7	28.7	28.7
77.5°	20.5	20.5	20.5	20.5	22.6	22.6	22.6	22.6
80°	16.4	16.4	16.4	16.4	18.5	18.5	18.5	18.5
82.5°	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
85°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
87.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
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)