

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: P212707

Luminaire Tested: **LD4B15D010 EU4B10208035 4LBSWLI1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P212707  
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: LD4B15D010 EU4B10208035 4LBSWLI1  
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1391.0 lumens  
Efficiency: N/A  
Efficacy: 96.7 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

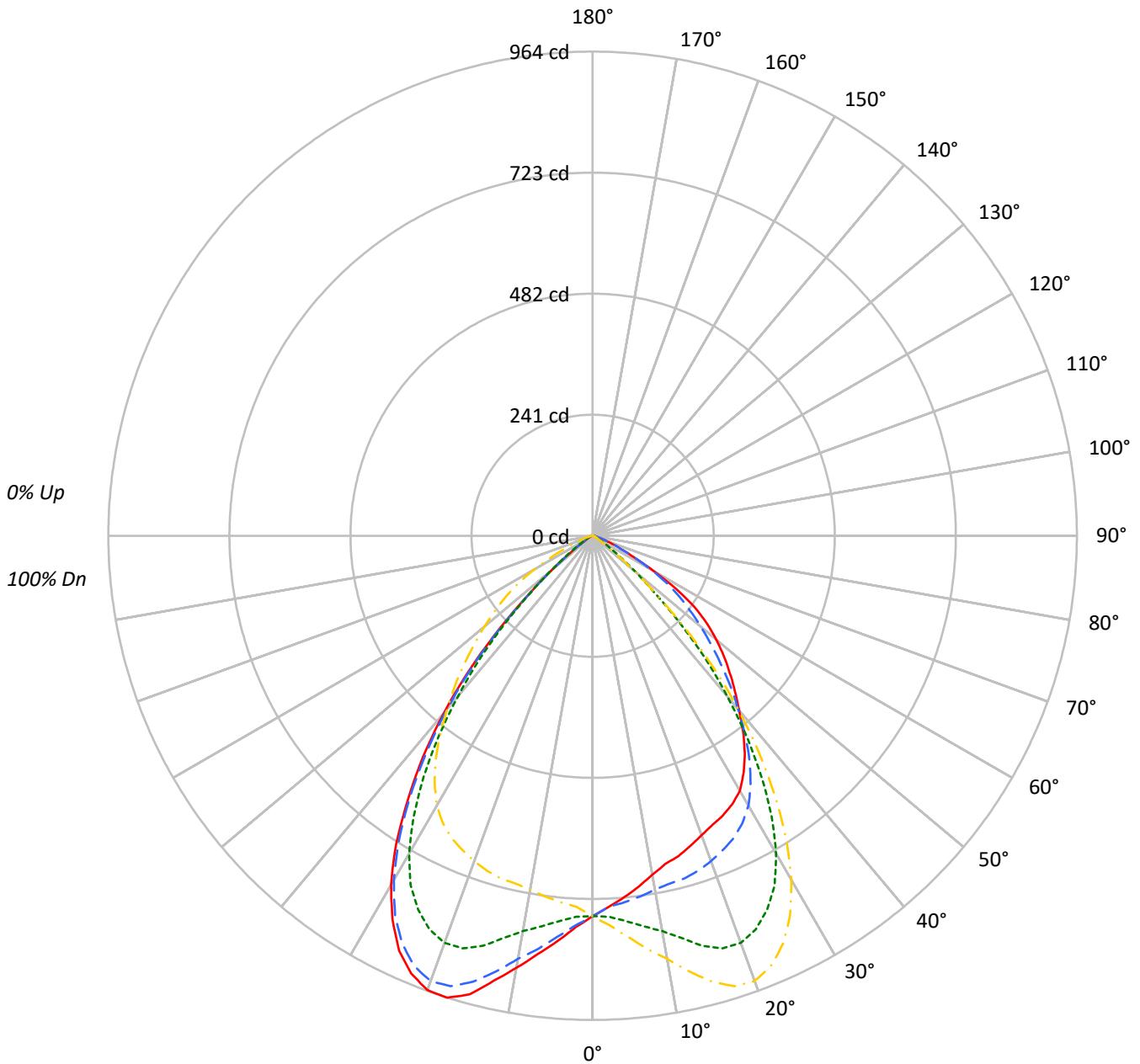
Input Watts (W): 14.39  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWL11

### Luminous Intensity Polar Plot





TEST NUMBER: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWLI1

**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	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°	93410	93410	93410	93410
5°	89433	95376	100329	95376
10°	85820	100111	109379	100111
15°	84305	107942	120712	107942
20°	83246	113187	126313	113187
25°	83591	111776	124025	111776
30°	83491	104015	114269	104015
35°	79535	88268	96550	88268
40°	72973	67160	74100	67160
45°	67350	42755	46069	42755
50°	61616	20724	20149	20724
55°	53353	9032	6451	9032
60°	34537	4440	2960	4440
65°	18095	2919	2335	2919
70°	9737	2164	1803	2164
75°	5242	1906	1430	1906
80°	3552	1421	710	1421
85°	2830	1415	0	1415



TEST NUMBER: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWLI1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.8	5.3
10°-20°	230.9	16.6
20°-30°	359.1	25.8
30°-40°	362.7	26.1
40°-50°	229.6	16.5
50°-60°	96.4	6.9
60°-70°	30.5	2.2
70°-80°	7.0	0.5
80°-90°	1.0	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°	663.8	47.7
0°-40°	1026.5	73.8
0°-60°	1352.5	97.2
0°-90°	1391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1391.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	757	757	757	757	757	
5°	722	770	810	770	722	68
15°	660	845	945	845	660	186
25°	614	821	911	821	614	283
35°	528	586	641	586	528	328
45°	386	245	264	245	386	298
55°	248	42	30	42	248	214
65°	62	10	8	10	62	68
75°	11	4	3	4	11	13
85°	2	1	0	1	2	2
90°	0	0	0	0	0	



TEST NUMBER: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWLI1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3
2.5°	739.3	732.3	738.3	740.3	740.3	739.3	741.3	739.3	736.3	748.3	739.3
5°	722.3	717.2	722.3	724.3	725.3	726.3	728.3	728.3	727.3	738.3	732.3
7.5°	704.2	701.2	705.2	708.2	712.2	711.2	714.2	715.2	717.2	730.3	724.3
10°	685.2	682.2	687.2	689.2	694.2	695.2	697.2	700.2	704.2	717.2	715.2
12.5°	669.2	668.2	671.2	675.2	680.2	681.2	683.2	688.2	694.2	708.2	709.2
15°	660.2	659.2	662.2	666.2	670.2	672.2	674.2	681.2	687.2	702.2	706.2
17.5°	647.2	647.2	650.2	654.2	659.2	661.2	664.2	671.2	679.2	694.2	699.2
20°	634.2	635.2	637.2	641.2	646.2	648.2	651.2	658.2	667.2	682.2	689.2
22.5°	623.2	626.2	627.2	630.2	635.2	638.2	639.2	647.2	655.2	668.2	677.2
25°	614.2	618.2	618.2	620.2	626.2	627.2	628.2	636.2	643.2	655.2	664.2
27.5°	602.2	606.2	606.2	609.2	613.2	615.2	615.2	622.2	629.2	638.2	645.2
30°	586.2	589.2	589.2	590.2	594.2	596.2	595.2	602.2	607.2	613.2	620.2
32.5°	559.2	564.2	562.2	565.2	567.2	569.2	567.2	573.2	577.2	583.2	585.2
35°	528.2	532.2	529.2	531.2	535.2	535.2	534.2	538.2	540.2	543.2	544.2
37.5°	492.2	495.2	493.2	494.2	496.2	497.2	495.2	499.2	499.2	500.2	498.2
40°	453.2	458.2	455.2	455.2	457.2	458.2	455.2	457.2	459.2	454.2	450.2
42.5°	419.1	424.1	421.1	421.1	421.1	422.1	418.1	419.1	419.1	412.1	406.1
45°	386.1	390.1	387.1	384.1	385.1	386.1	382.1	381.1	378.1	370.1	361.1
47.5°	354.1	358.1	354.1	352.1	352.1	352.1	347.1	344.1	340.1	329.1	318.1
50°	321.1	325.1	322.1	320.1	318.1	318.1	314.1	310.1	304.1	293.1	281.1
52.5°	287.1	290.1	287.1	285.1	283.1	283.1	278.1	275.1	268.1	257.1	244.1
55°	248.1	250.1	247.1	245.1	244.1	244.1	240.1	237.1	231.1	222.1	210.1
57.5°	196.1	200.1	195.1	197.1	197.1	196.1	193.1	192.1	190.1	182.1	173.1
60°	140.0	140.0	139.0	143.0	142.0	144.1	142.0	143.0	144.1	138.0	132.0
62.5°	92.0	95.0	93.0	95.0	97.0	97.0	96.0	98.0	100.0	97.0	94.0
65°	62.0	62.0	62.0	63.0	63.0	64.0	63.0	64.0	65.0	64.0	62.0
67.5°	41.0	42.0	41.0	42.0	41.0	42.0	42.0	42.0	43.0	42.0	41.0
70°	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	28.0	27.0	26.0
72.5°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
75°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
77.5°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
80°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	4.0	4.0
82.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	1.0	1.0
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: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3
2.5°	744.3	741.3	756.3	743.3	750.3	749.3	750.3	756.3	756.3	759.3	758.3
5°	740.3	737.3	754.3	744.3	752.3	752.3	755.3	764.3	764.3	770.3	771.3
7.5°	734.3	735.3	753.3	747.3	756.3	757.3	762.3	773.3	776.3	784.3	788.3
10°	727.3	731.3	750.3	748.3	760.3	761.3	771.3	784.3	788.3	799.3	806.3
12.5°	724.3	731.3	753.3	755.3	767.3	772.3	783.3	800.3	807.3	820.3	830.3
15°	723.3	733.3	757.3	764.3	778.3	785.3	800.3	820.3	828.3	845.3	857.3
17.5°	718.2	731.3	757.3	768.3	783.3	790.3	809.3	832.3	842.3	861.3	875.3
20°	709.2	723.3	749.3	763.3	779.3	789.3	808.3	832.3	842.3	862.3	878.3
22.5°	697.2	711.2	736.3	752.3	766.3	777.3	797.3	820.3	829.3	848.3	864.3
25°	682.2	696.2	717.2	733.3	746.3	756.3	773.3	797.3	803.3	821.3	838.3
27.5°	661.2	674.2	690.2	705.2	717.2	725.3	740.3	761.3	766.3	784.3	798.3
30°	633.2	641.2	655.2	665.2	674.2	682.2	693.2	712.2	714.2	730.3	743.3
32.5°	595.2	599.2	609.2	614.2	622.2	625.2	634.2	650.2	648.2	663.2	674.2
35°	549.2	551.2	551.2	557.2	559.2	560.2	567.2	576.2	573.2	586.2	594.2
37.5°	499.2	498.2	492.2	492.2	493.2	490.2	493.2	497.2	493.2	503.2	510.2
40°	448.2	442.2	431.1	425.1	422.1	421.1	415.1	420.1	410.1	417.1	422.1
42.5°	399.1	389.1	372.1	360.1	355.1	350.1	340.1	340.1	327.1	332.1	333.1
45°	349.1	332.1	309.1	298.1	285.1	277.1	264.1	251.1	242.1	245.1	242.1
47.5°	303.1	283.1	256.1	237.1	222.1	211.1	193.1	178.1	169.1	165.1	161.1
50°	263.1	243.1	212.1	188.1	173.1	160.1	142.0	125.0	114.0	108.0	105.0
52.5°	227.1	206.1	176.1	151.1	135.0	123.0	103.0	86.0	74.0	67.0	63.0
55°	193.1	174.1	146.1	123.0	108.0	96.0	76.0	60.0	49.0	42.0	37.0
57.5°	159.1	142.0	119.0	97.0	84.0	73.0	56.0	42.0	33.0	27.0	23.0
60°	122.0	109.0	90.0	73.0	62.0	53.0	40.0	29.0	23.0	18.0	16.0
62.5°	86.0	78.0	64.0	52.0	45.0	38.0	28.0	21.0	16.0	13.0	12.0
65°	58.0	52.0	44.0	35.0	30.0	26.0	20.0	15.0	12.0	10.0	9.0
67.5°	38.0	35.0	29.0	24.0	21.0	18.0	14.0	11.0	9.0	8.0	7.0
70°	25.0	23.0	19.0	16.0	15.0	13.0	10.0	8.0	7.0	6.0	6.0
72.5°	16.0	14.0	13.0	11.0	10.0	9.0	7.0	6.0	5.0	5.0	5.0
75°	10.0	9.0	8.0	7.0	7.0	6.0	5.0	5.0	4.0	4.0	4.0
77.5°	6.0	6.0	5.0	5.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0
80°	4.0	4.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3
2.5°	763.3	765.3	763.3	769.3	759.3	770.3	766.3	768.3	776.3	773.3	776.3
5°	778.3	782.3	782.3	789.3	780.3	793.3	789.3	793.3	801.3	801.3	805.3
7.5°	797.3	802.3	804.3	811.3	802.3	818.3	814.3	819.3	829.3	829.3	832.3
10°	817.3	823.3	827.3	835.3	825.3	843.3	839.3	846.3	855.3	856.3	861.3
12.5°	842.3	850.3	855.3	862.3	855.3	873.3	869.3	876.3	888.3	889.3	895.3
15°	870.3	880.3	886.3	894.3	886.3	906.3	902.3	910.3	919.3	923.3	929.3
17.5°	888.3	900.3	905.3	914.3	906.3	926.3	921.3	932.3	940.3	942.3	949.3
20°	891.3	902.3	909.3	916.3	909.3	929.3	924.3	933.3	943.3	945.3	950.3
22.5°	878.3	887.3	895.3	901.3	895.3	915.3	908.3	918.3	927.3	929.3	933.3
25°	848.3	859.3	867.3	872.3	866.3	885.3	879.3	888.3	896.3	900.3	901.3
27.5°	806.3	816.3	824.3	827.3	823.3	841.3	833.3	844.3	851.3	853.3	856.3
30°	749.3	758.3	766.3	768.3	765.3	778.3	774.3	784.3	791.3	793.3	795.3
32.5°	679.2	688.2	693.2	695.2	692.2	705.2	701.2	709.2	717.2	717.2	717.2
35°	600.2	608.2	611.2	617.2	610.2	623.2	619.2	626.2	633.2	633.2	634.2
37.5°	515.2	521.2	523.2	529.2	522.2	534.2	531.2	537.2	543.2	542.2	544.2
40°	424.1	430.1	432.2	437.2	431.1	441.2	439.2	445.2	450.2	450.2	450.2
42.5°	336.1	340.1	340.1	345.1	339.1	348.1	348.1	352.1	357.1	356.1	356.1
45°	244.1	243.1	245.1	244.1	244.1	252.1	252.1	254.1	258.1	256.1	257.1
47.5°	162.1	163.1	159.1	162.1	158.1	165.1	165.1	165.1	168.1	166.1	168.1
50°	103.0	100.0	98.0	98.0	97.0	102.0	100.0	101.0	103.0	101.0	103.0
52.5°	58.0	57.0	55.0	56.0	54.0	55.0	55.0	55.0	56.0	55.0	57.0
55°	34.0	31.0	30.0	30.0	29.0	30.0	29.0	29.0	29.0	28.0	29.0
57.5°	20.0	19.0	18.0	18.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
60°	14.0	13.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
62.5°	11.0	10.0	10.0	10.0	9.0	9.0	9.0	9.0	9.0	10.0	9.0
65°	8.0	8.0	8.0	8.0	8.0	8.0	7.0	8.0	8.0	8.0	8.0
67.5°	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
70°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	0.0	1.0	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: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3
2.5°	779.3	775.3	766.3	772.3	773.3	769.3	774.3	780.3	774.3	769.3	773.3
5°	808.3	805.3	797.3	802.3	803.3	802.3	805.3	810.3	805.3	802.3	803.3
7.5°	837.3	835.3	826.3	832.3	834.3	832.3	835.3	840.3	835.3	832.3	834.3
10°	865.3	864.3	855.3	863.3	864.3	862.3	865.3	873.3	865.3	862.3	864.3
12.5°	897.3	899.3	889.3	898.3	899.3	897.3	901.3	907.3	901.3	897.3	899.3
15°	934.3	933.3	925.3	932.3	934.3	932.3	937.3	945.3	937.3	932.3	934.3
17.5°	952.3	952.3	946.3	953.3	954.3	954.3	958.3	964.3	958.3	954.3	954.3
20°	953.3	954.3	947.3	955.3	955.3	955.3	959.3	962.3	959.3	955.3	955.3
22.5°	937.3	938.3	931.3	938.3	938.3	939.3	941.3	943.3	941.3	939.3	938.3
25°	906.3	907.3	901.3	907.3	906.3	906.3	908.3	911.3	908.3	906.3	906.3
27.5°	860.3	861.3	853.3	860.3	859.3	858.3	861.3	862.3	861.3	858.3	859.3
30°	799.3	800.3	793.3	799.3	798.3	797.3	801.3	802.3	801.3	797.3	798.3
32.5°	726.3	724.3	719.2	724.3	723.3	723.3	725.3	728.3	725.3	723.3	723.3
35°	638.2	638.2	635.2	639.2	636.2	640.2	640.2	641.2	640.2	640.2	636.2
37.5°	548.2	548.2	546.2	548.2	547.2	551.2	551.2	554.2	551.2	551.2	547.2
40°	454.2	454.2	452.2	454.2	457.2	457.2	456.2	460.2	456.2	457.2	457.2
42.5°	359.1	359.1	358.1	363.1	363.1	363.1	360.1	364.1	360.1	363.1	363.1
45°	261.1	259.1	258.1	258.1	259.1	263.1	259.1	264.1	259.1	263.1	259.1
47.5°	166.1	167.1	168.1	171.1	169.1	168.1	168.1	171.1	168.1	168.1	169.1
50°	102.0	103.0	103.0	105.0	102.0	104.0	103.0	105.0	103.0	104.0	102.0
52.5°	56.0	56.0	56.0	58.0	56.0	57.0	56.0	58.0	56.0	57.0	56.0
55°	29.0	29.0	29.0	30.0	29.0	29.0	29.0	30.0	29.0	29.0	29.0
57.5°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
60°	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
62.5°	10.0	9.0	9.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
65°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
67.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
70°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3
2.5°	772.3	766.3	775.3	779.3	776.3	773.3	776.3	768.3	766.3	770.3	759.3
5°	802.3	797.3	805.3	808.3	805.3	801.3	801.3	793.3	789.3	793.3	780.3
7.5°	832.3	826.3	835.3	837.3	832.3	829.3	829.3	819.3	814.3	818.3	802.3
10°	863.3	855.3	864.3	865.3	861.3	856.3	855.3	846.3	839.3	843.3	825.3
12.5°	898.3	889.3	899.3	897.3	895.3	889.3	888.3	876.3	869.3	873.3	855.3
15°	932.3	925.3	933.3	934.3	929.3	923.3	919.3	910.3	902.3	906.3	886.3
17.5°	953.3	946.3	952.3	952.3	949.3	942.3	940.3	932.3	921.3	926.3	906.3
20°	955.3	947.3	954.3	953.3	950.3	945.3	943.3	933.3	924.3	929.3	909.3
22.5°	938.3	931.3	938.3	937.3	933.3	929.3	927.3	918.3	908.3	915.3	895.3
25°	907.3	901.3	907.3	906.3	901.3	900.3	896.3	888.3	879.3	885.3	866.3
27.5°	860.3	853.3	861.3	860.3	856.3	853.3	851.3	844.3	833.3	841.3	823.3
30°	799.3	793.3	800.3	799.3	795.3	793.3	791.3	784.3	774.3	778.3	765.3
32.5°	724.3	719.2	724.3	726.3	717.2	717.2	717.2	709.2	701.2	705.2	692.2
35°	639.2	635.2	638.2	638.2	634.2	633.2	633.2	626.2	619.2	623.2	610.2
37.5°	548.2	546.2	548.2	548.2	544.2	542.2	543.2	537.2	531.2	534.2	522.2
40°	454.2	452.2	454.2	454.2	450.2	450.2	450.2	445.2	439.2	441.2	431.1
42.5°	363.1	358.1	359.1	359.1	356.1	356.1	357.1	352.1	348.1	348.1	339.1
45°	258.1	258.1	259.1	261.1	257.1	256.1	258.1	254.1	252.1	252.1	244.1
47.5°	171.1	168.1	167.1	166.1	168.1	166.1	168.1	165.1	165.1	165.1	158.1
50°	105.0	103.0	103.0	102.0	103.0	101.0	103.0	101.0	100.0	102.0	97.0
52.5°	58.0	56.0	56.0	56.0	57.0	55.0	56.0	55.0	55.0	55.0	54.0
55°	30.0	29.0	29.0	29.0	29.0	28.0	29.0	29.0	29.0	30.0	29.0
57.5°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
60°	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
62.5°	10.0	9.0	9.0	10.0	9.0	10.0	9.0	9.0	9.0	9.0	9.0
65°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.0	8.0	8.0
67.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
70°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3
2.5°	769.3	763.3	765.3	763.3	758.3	759.3	756.3	756.3	750.3	749.3	750.3
5°	789.3	782.3	782.3	778.3	771.3	770.3	764.3	764.3	755.3	752.3	752.3
7.5°	811.3	804.3	802.3	797.3	788.3	784.3	776.3	773.3	762.3	757.3	756.3
10°	835.3	827.3	823.3	817.3	806.3	799.3	788.3	784.3	771.3	761.3	760.3
12.5°	862.3	855.3	850.3	842.3	830.3	820.3	807.3	800.3	783.3	772.3	767.3
15°	894.3	886.3	880.3	870.3	857.3	845.3	828.3	820.3	800.3	785.3	778.3
17.5°	914.3	905.3	900.3	888.3	875.3	861.3	842.3	832.3	809.3	790.3	783.3
20°	916.3	909.3	902.3	891.3	878.3	862.3	842.3	832.3	808.3	789.3	779.3
22.5°	901.3	895.3	887.3	878.3	864.3	848.3	829.3	820.3	797.3	777.3	766.3
25°	872.3	867.3	859.3	848.3	838.3	821.3	803.3	797.3	773.3	756.3	746.3
27.5°	827.3	824.3	816.3	806.3	798.3	784.3	766.3	761.3	740.3	725.3	717.2
30°	768.3	766.3	758.3	749.3	743.3	730.3	714.2	712.2	693.2	682.2	674.2
32.5°	695.2	693.2	688.2	679.2	674.2	663.2	648.2	650.2	634.2	625.2	622.2
35°	617.2	611.2	608.2	600.2	594.2	586.2	573.2	576.2	567.2	560.2	559.2
37.5°	529.2	523.2	521.2	515.2	510.2	503.2	493.2	497.2	493.2	490.2	493.2
40°	437.2	432.2	430.1	424.1	422.1	417.1	410.1	420.1	415.1	421.1	422.1
42.5°	345.1	340.1	340.1	336.1	333.1	332.1	327.1	340.1	340.1	350.1	355.1
45°	244.1	245.1	243.1	244.1	242.1	245.1	242.1	251.1	264.1	277.1	285.1
47.5°	162.1	159.1	163.1	162.1	161.1	165.1	169.1	178.1	193.1	211.1	222.1
50°	98.0	98.0	100.0	103.0	105.0	108.0	114.0	125.0	142.0	160.1	173.1
52.5°	56.0	55.0	57.0	58.0	63.0	67.0	74.0	86.0	103.0	123.0	135.0
55°	30.0	30.0	31.0	34.0	37.0	42.0	49.0	60.0	76.0	96.0	108.0
57.5°	18.0	18.0	19.0	20.0	23.0	27.0	33.0	42.0	56.0	73.0	84.0
60°	12.0	13.0	13.0	14.0	16.0	18.0	23.0	29.0	40.0	53.0	62.0
62.5°	10.0	10.0	10.0	11.0	12.0	13.0	16.0	21.0	28.0	38.0	45.0
65°	8.0	8.0	8.0	8.0	9.0	10.0	12.0	15.0	20.0	26.0	30.0
67.5°	6.0	6.0	7.0	7.0	7.0	8.0	9.0	11.0	14.0	18.0	21.0
70°	5.0	5.0	5.0	5.0	6.0	6.0	7.0	8.0	10.0	13.0	15.0
72.5°	4.0	4.0	4.0	4.0	5.0	5.0	5.0	6.0	7.0	9.0	10.0
75°	3.0	3.0	3.0	3.0	4.0	4.0	4.0	5.0	5.0	6.0	7.0
77.5°	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0
80°	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
85°	0.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3	757.3
2.5°	743.3	756.3	741.3	744.3	739.3	748.3	736.3	739.3	741.3	739.3	740.3
5°	744.3	754.3	737.3	740.3	732.3	738.3	727.3	728.3	728.3	726.3	725.3
7.5°	747.3	753.3	735.3	734.3	724.3	730.3	717.2	715.2	714.2	711.2	712.2
10°	748.3	750.3	731.3	727.3	715.2	717.2	704.2	700.2	697.2	695.2	694.2
12.5°	755.3	753.3	731.3	724.3	709.2	708.2	694.2	688.2	683.2	681.2	680.2
15°	764.3	757.3	733.3	723.3	706.2	702.2	687.2	681.2	674.2	672.2	670.2
17.5°	768.3	757.3	731.3	718.2	699.2	694.2	679.2	671.2	664.2	661.2	659.2
20°	763.3	749.3	723.3	709.2	689.2	682.2	667.2	658.2	651.2	648.2	646.2
22.5°	752.3	736.3	711.2	697.2	677.2	668.2	655.2	647.2	639.2	638.2	635.2
25°	733.3	717.2	696.2	682.2	664.2	655.2	643.2	636.2	628.2	627.2	626.2
27.5°	705.2	690.2	674.2	661.2	645.2	638.2	629.2	622.2	615.2	615.2	613.2
30°	665.2	655.2	641.2	633.2	620.2	613.2	607.2	602.2	595.2	596.2	594.2
32.5°	614.2	609.2	599.2	595.2	585.2	583.2	577.2	573.2	567.2	569.2	567.2
35°	557.2	551.2	551.2	549.2	544.2	543.2	540.2	538.2	534.2	535.2	535.2
37.5°	492.2	492.2	498.2	499.2	498.2	500.2	499.2	499.2	495.2	497.2	496.2
40°	425.1	431.1	442.2	448.2	450.2	454.2	459.2	457.2	455.2	458.2	457.2
42.5°	360.1	372.1	389.1	399.1	406.1	412.1	419.1	419.1	418.1	422.1	421.1
45°	298.1	309.1	332.1	349.1	361.1	370.1	378.1	381.1	382.1	386.1	385.1
47.5°	237.1	256.1	283.1	303.1	318.1	329.1	340.1	344.1	347.1	352.1	352.1
50°	188.1	212.1	243.1	263.1	281.1	293.1	304.1	310.1	314.1	318.1	318.1
52.5°	151.1	176.1	206.1	227.1	244.1	257.1	268.1	275.1	278.1	283.1	283.1
55°	123.0	146.1	174.1	193.1	210.1	222.1	231.1	237.1	240.1	244.1	244.1
57.5°	97.0	119.0	142.0	159.1	173.1	182.1	190.1	192.1	193.1	196.1	197.1
60°	73.0	90.0	109.0	122.0	132.0	138.0	144.1	143.0	142.0	144.1	142.0
62.5°	52.0	64.0	78.0	86.0	94.0	97.0	100.0	98.0	96.0	97.0	97.0
65°	35.0	44.0	52.0	58.0	62.0	64.0	65.0	64.0	63.0	64.0	63.0
67.5°	24.0	29.0	35.0	38.0	41.0	42.0	43.0	42.0	42.0	42.0	41.0
70°	16.0	19.0	23.0	25.0	26.0	27.0	28.0	27.0	27.0	27.0	27.0
72.5°	11.0	13.0	14.0	16.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
75°	7.0	8.0	9.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
77.5°	5.0	5.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
80°	3.0	3.0	4.0	4.0	4.0	4.0	5.0	4.0	5.0	5.0	5.0
82.5°	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0	2.0	2.0
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: P212707

CATALOG NUMBER: LD4B15D010 EU4B10208035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	345°	350°	355°	360°
0°	757.3	757.3	757.3	757.3
2.5°	740.3	738.3	732.3	739.3
5°	724.3	722.3	717.2	722.3
7.5°	708.2	705.2	701.2	704.2
10°	689.2	687.2	682.2	685.2
12.5°	675.2	671.2	668.2	669.2
15°	666.2	662.2	659.2	660.2
17.5°	654.2	650.2	647.2	647.2
20°	641.2	637.2	635.2	634.2
22.5°	630.2	627.2	626.2	623.2
25°	620.2	618.2	618.2	614.2
27.5°	609.2	606.2	606.2	602.2
30°	590.2	589.2	589.2	586.2
32.5°	565.2	562.2	564.2	559.2
35°	531.2	529.2	532.2	528.2
37.5°	494.2	493.2	495.2	492.2
40°	455.2	455.2	458.2	453.2
42.5°	421.1	421.1	424.1	419.1
45°	384.1	387.1	390.1	386.1
47.5°	352.1	354.1	358.1	354.1
50°	320.1	322.1	325.1	321.1
52.5°	285.1	287.1	290.1	287.1
55°	245.1	247.1	250.1	248.1
57.5°	197.1	195.1	200.1	196.1
60°	143.0	139.0	140.0	140.0
62.5°	95.0	93.0	95.0	92.0
65°	63.0	62.0	62.0	62.0
67.5°	42.0	41.0	42.0	41.0
70°	27.0	27.0	27.0	27.0
72.5°	17.0	17.0	17.0	17.0
75°	11.0	11.0	11.0	11.0
77.5°	7.0	7.0	7.0	7.0
80°	5.0	5.0	5.0	5.0
82.5°	3.0	3.0	3.0	3.0
85°	2.0	2.0	2.0	2.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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

























(END OF REPORT)