

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: P136515

Luminaire Tested: **LD6A15D010TE ERW6A15840 6LW121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136515
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23360)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A15D010TE ERW6A15840 6LW121LI
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1775.0 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.24 / 1.14
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

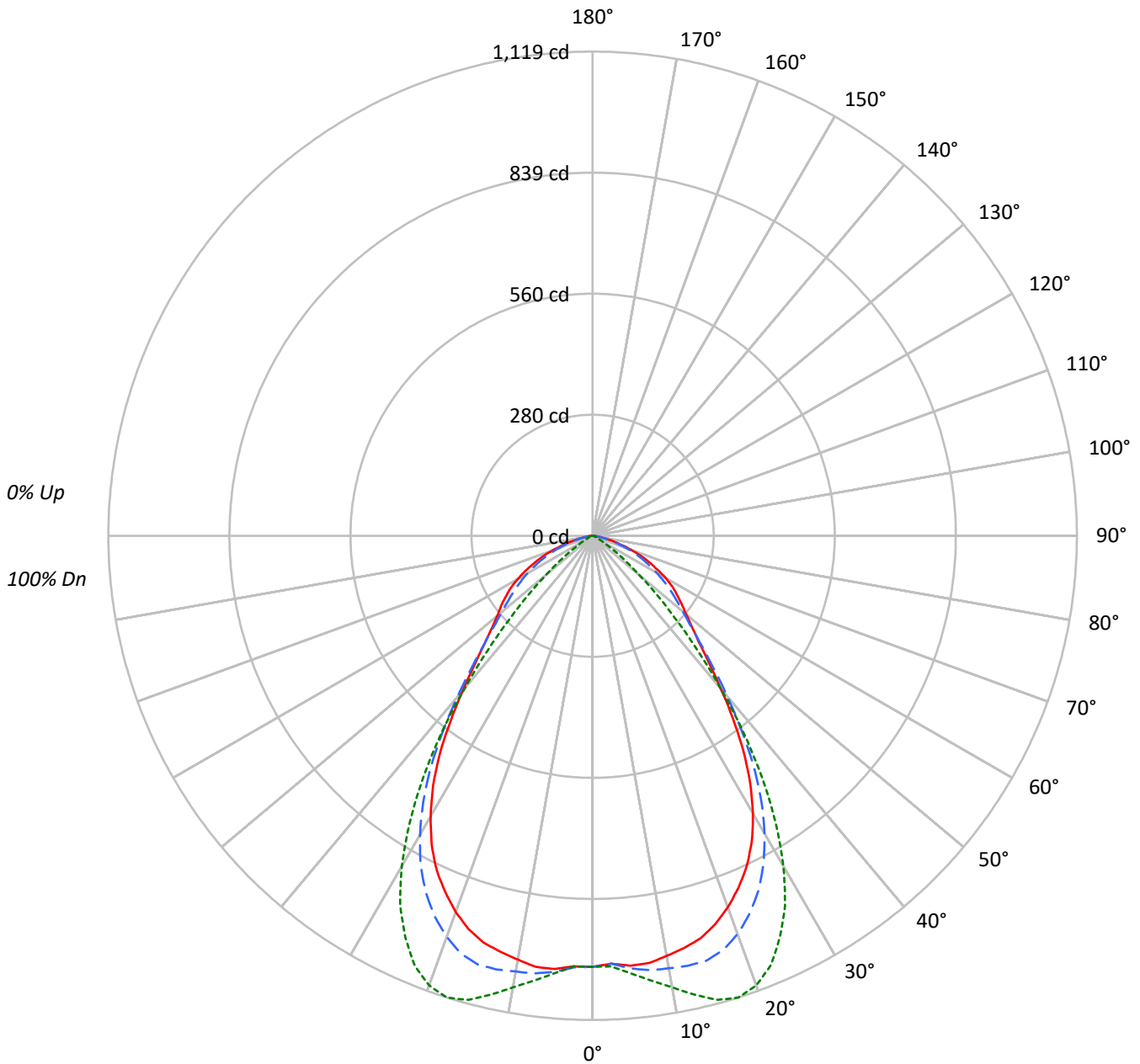
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P136515

CATALOG NUMBER: LD6A15D010TE ERW6A15840 6LW121LI

Luminous Intensity Polar Plot





TEST NUMBER: P136515

CATALOG NUMBER: LD6A15D010TE ERW6A15840 6LW121LI

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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79																			
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70																			
4	90	80	73	67	88	79	72	67	77	71	66	74	69	65	72	68	65	63																			
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56																			
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51																			
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																			
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42																			
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39																			
10	61	49	42	38	60	49	42	38	48	42	38	47	42	37	46	41	37	36																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	64986	64986	64986
5°	65313	66479	65817
10°	65313	70195	65903
15°	65043	74999	65732
20°	63422	76738	64214
25°	60633	73713	61367
30°	55799	66421	56372
35°	48368	54437	49077
40°	39168	39168	39713
45°	31997	24847	32588
50°	28622	14189	29140
55°	27025	7223	27890
60°	25366	3145	26031
65°	22168	1760	22940
70°	17931	1450	18655
75°	12477	958	12805
80°	7627	488	7627
85°	3818	973	3818



TEST NUMBER: P136515

CATALOG NUMBER: LD6A15D010TE ERW6A15840 6LW121LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.9	5.5
10°-20°	290.3	16.4
20°-30°	422.4	23.8
30°-40°	401.4	22.6
40°-50°	260.1	14.7
50°-60°	163.1	9.2
60°-70°	97.6	5.5
70°-80°	38.0	2.1
80°-90°	5.2	0.3
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°	809.6	45.6
0°-40°	1211.0	68.2
0°-60°	1634.2	92.1
0°-90°	1775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1775.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	996	996	996	996	996	
5°	997	1004	1015	1011	1005	95
15°	963	1016	1110	1025	973	270
25°	842	906	1024	911	852	385
35°	607	648	684	650	616	376
45°	347	352	269	353	353	274
55°	238	218	64	221	245	213
65°	144	126	11	128	149	142
75°	50	43	4	44	51	55
85°	5	5	1	5	5	8
90°	0	0	0	0	0	



TEST NUMBER: P136515

CATALOG NUMBER: LD6A15D010TE ERW6A15840 6LW121LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1
2.5°	989.7	983.4	1001.1	991.0	992.2	1005.0	994.8	991.0	1003.7	989.7	996.1
5°	997.3	992.2	1010.0	1001.1	1002.4	1015.1	1006.2	1002.4	1016.4	1003.7	1010.0
7.5°	996.1	992.2	1008.8	1001.1	1002.4	1017.7	1008.8	1007.5	1024.0	1012.6	1021.5
10°	985.9	980.8	998.6	992.2	994.8	1011.3	1003.7	1003.7	1022.7	1015.1	1027.8
12.5°	975.7	970.7	988.4	983.4	985.9	1003.7	998.6	1001.1	1022.7	1017.7	1034.2
15°	963.0	957.9	977.0	971.9	974.5	993.5	991.0	993.5	1017.7	1016.4	1035.4
17.5°	941.4	938.9	955.4	952.9	955.4	974.5	973.2	977.0	1003.7	1003.7	1027.8
20°	913.5	909.7	927.5	924.9	926.2	945.2	945.2	949.1	977.0	979.5	1003.7
22.5°	880.4	877.9	895.7	891.9	894.4	912.2	912.2	916.0	942.7	946.5	971.9
25°	842.3	839.8	856.3	855.0	856.3	874.1	872.8	877.9	903.3	905.9	930.0
27.5°	796.6	792.8	809.3	809.3	810.6	827.1	827.1	829.6	852.5	855.0	877.9
30°	740.7	736.9	752.1	753.4	753.4	769.9	769.9	771.2	792.8	794.1	814.4
32.5°	677.2	677.2	688.6	689.9	689.9	705.1	706.4	706.4	725.4	725.4	742.0
35°	607.3	608.6	617.5	618.7	620.0	634.0	634.0	632.7	649.2	647.9	661.9
37.5°	532.3	532.3	541.2	542.5	542.5	555.2	555.2	553.9	567.9	564.1	574.3
40°	459.9	459.9	467.5	470.1	468.8	479.0	479.0	477.7	487.9	482.8	487.9
42.5°	396.4	398.9	404.0	405.3	404.0	412.9	411.6	410.4	418.0	410.4	411.6
45°	346.8	349.4	353.2	354.5	353.2	359.5	358.3	355.7	359.5	351.9	348.1
47.5°	310.0	311.3	317.6	316.4	315.1	320.2	320.2	315.1	316.4	306.2	298.6
50°	282.0	283.3	288.4	288.4	285.9	290.9	288.4	283.3	282.0	270.6	259.2
52.5°	259.2	260.4	265.5	265.5	263.0	266.8	264.3	256.6	255.4	243.9	230.0
55°	237.6	238.9	243.9	243.9	241.4	243.9	240.1	233.8	231.2	218.5	203.3
57.5°	218.5	217.3	221.1	221.1	218.5	219.8	217.3	210.9	205.8	194.4	179.1
60°	194.4	193.1	195.7	195.7	193.1	194.4	191.8	184.2	181.7	170.2	155.0
62.5°	167.7	167.7	170.2	170.2	167.7	167.7	166.4	158.8	156.3	146.1	133.4
65°	143.6	143.6	146.1	146.1	143.6	144.8	142.3	137.2	134.7	125.8	114.3
67.5°	119.4	119.4	120.7	120.7	119.4	119.4	118.2	114.3	110.5	104.2	94.0
70°	94.0	94.0	95.3	95.3	94.0	94.0	94.0	90.2	88.9	82.6	75.0
72.5°	69.9	69.9	71.1	71.1	71.1	72.4	71.1	68.6	66.1	62.3	55.9
75°	49.5	49.5	49.5	50.8	49.5	49.5	50.8	48.3	47.0	43.2	39.4
77.5°	33.0	33.0	33.0	33.0	33.0	34.3	33.0	33.0	31.8	29.2	26.7
80°	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	19.1	19.1	16.5
82.5°	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	10.2	8.9
85°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	3.8
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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: P136515

CATALOG NUMBER: LD6A15D010TE ERW6A15840 6LW121LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1
2.5°	994.8	996.1	996.1	999.9	1003.7	993.5	998.6	996.1	993.5	1003.7	997.3
5°	1011.3	1012.6	1012.6	1017.7	1022.7	1011.3	1016.4	1015.1	1012.6	1021.5	1015.1
7.5°	1024.0	1027.8	1030.4	1036.7	1043.1	1032.9	1039.3	1036.7	1035.4	1044.3	1035.4
10°	1032.9	1040.5	1044.3	1054.5	1063.4	1053.2	1062.1	1059.6	1058.3	1065.9	1055.8
12.5°	1043.1	1053.2	1063.4	1074.8	1087.5	1078.6	1090.1	1086.3	1086.3	1092.6	1079.9
15°	1049.4	1062.1	1076.1	1092.6	1107.9	1101.5	1114.2	1110.4	1110.4	1115.5	1101.5
17.5°	1043.1	1059.6	1076.1	1095.2	1112.9	1109.1	1123.1	1119.3	1118.0	1123.1	1106.6
20°	1021.5	1040.5	1059.6	1078.6	1099.0	1096.4	1111.7	1105.3	1106.6	1109.1	1092.6
22.5°	987.2	1007.5	1026.6	1046.9	1065.9	1064.7	1078.6	1074.8	1073.6	1077.4	1059.6
25°	946.5	964.3	982.1	999.9	1018.9	1016.4	1030.4	1024.0	1025.3	1026.6	1011.3
27.5°	891.9	908.4	922.4	937.6	955.4	951.6	965.6	963.0	959.2	960.5	947.8
30°	824.5	838.5	848.7	861.4	875.4	871.6	884.3	881.7	879.2	879.2	871.6
32.5°	748.3	758.5	764.8	773.7	783.9	780.1	790.2	787.7	785.2	785.2	780.1
35°	663.2	669.5	669.5	674.6	682.3	675.9	684.8	683.5	679.7	681.0	679.7
37.5°	570.4	573.0	567.9	567.9	573.0	564.1	571.7	571.7	567.9	569.2	569.2
40°	480.2	479.0	468.8	463.7	463.7	454.8	461.2	459.9	457.4	458.6	461.2
42.5°	400.2	392.6	378.6	368.4	365.9	355.7	359.5	358.3	355.7	358.3	362.1
45°	332.9	318.9	299.8	285.9	279.5	269.3	270.6	269.3	268.1	270.6	277.0
47.5°	279.5	260.4	236.3	218.5	209.6	198.2	198.2	196.9	196.9	203.3	207.1
50°	237.6	214.7	186.8	166.4	153.7	143.6	141.0	139.8	141.0	146.1	153.7
52.5°	205.8	177.9	147.4	125.8	111.8	100.4	97.8	96.6	97.8	102.9	110.5
55°	177.9	148.6	116.9	92.7	77.5	67.3	63.5	63.5	63.5	69.9	77.5
57.5°	152.5	123.2	91.5	67.3	53.4	43.2	39.4	38.1	40.7	44.5	52.1
60°	130.9	102.9	72.4	50.8	36.8	28.0	24.1	24.1	24.1	29.2	36.8
62.5°	111.8	86.4	58.4	38.1	26.7	19.1	15.2	15.2	16.5	19.1	26.7
65°	95.3	73.7	49.5	33.0	21.6	15.2	12.7	11.4	12.7	15.2	21.6
67.5°	78.8	61.0	41.9	28.0	19.1	12.7	11.4	10.2	10.2	14.0	17.8
70°	62.3	48.3	34.3	22.9	15.2	10.2	8.9	7.6	8.9	11.4	15.2
72.5°	47.0	36.8	25.4	17.8	11.4	8.9	6.4	6.4	6.4	8.9	11.4
75°	33.0	26.7	19.1	12.7	7.6	5.1	5.1	3.8	5.1	6.4	7.6
77.5°	21.6	17.8	12.7	7.6	5.1	3.8	2.5	2.5	2.5	3.8	5.1
80°	14.0	11.4	7.6	5.1	3.8	2.5	1.3	1.3	1.3	2.5	2.5
82.5°	7.6	6.4	3.8	2.5	2.5	1.3	1.3	1.3	1.3	1.3	1.3
85°	3.8	2.5	2.5	1.3	1.3	1.3	0.0	1.3	1.3	1.3	1.3
87.5°	1.3	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: P136515

CATALOG NUMBER: LD6A15D010TE ERW6A15840 6LW121LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1	996.1
2.5°	998.6	994.8	999.9	1003.7	1002.4	998.6	1005.0	994.8	998.6	994.8	988.4
5°	1016.4	1012.6	1016.4	1018.9	1017.7	1011.3	1016.4	1007.5	1010.0	1005.0	998.6
7.5°	1035.4	1030.4	1031.6	1032.9	1029.1	1020.2	1024.0	1012.6	1013.8	1007.5	999.9
10°	1053.2	1045.6	1044.3	1041.8	1034.2	1022.7	1024.0	1010.0	1008.8	999.9	991.0
12.5°	1076.1	1063.4	1058.3	1053.2	1041.8	1026.6	1024.0	1007.5	1005.0	994.8	984.6
15°	1092.6	1078.6	1069.7	1059.6	1044.3	1025.3	1020.2	1001.1	996.1	984.6	974.5
17.5°	1096.4	1078.6	1065.9	1053.2	1035.4	1012.6	1005.0	984.6	978.3	965.6	955.4
20°	1079.9	1060.9	1046.9	1030.4	1012.6	985.9	978.3	956.7	949.1	937.6	927.5
22.5°	1048.2	1026.6	1012.6	996.1	978.3	952.9	944.0	923.6	916.0	904.6	894.4
25°	1002.4	982.1	968.1	952.9	936.3	910.9	903.3	884.3	877.9	866.5	856.3
27.5°	938.9	919.8	912.2	897.0	881.7	860.1	852.5	836.0	829.6	822.0	810.6
30°	862.7	846.1	842.3	828.4	816.9	797.9	791.5	777.5	771.2	764.8	754.7
32.5°	775.0	762.3	762.3	750.9	743.2	728.0	722.9	711.5	706.4	701.3	692.4
35°	675.9	667.0	672.1	664.5	660.7	650.5	646.7	637.8	634.0	630.2	621.3
37.5°	570.4	564.1	574.3	575.5	575.5	566.6	564.1	559.0	556.5	552.7	545.0
40°	466.3	465.0	480.2	482.8	490.4	485.3	486.6	482.8	480.2	477.7	472.6
42.5°	369.7	374.8	393.9	405.3	412.9	412.9	416.7	415.4	414.2	411.6	407.8
45°	287.1	297.3	320.2	334.1	349.4	353.2	359.5	359.5	360.8	359.5	355.7
47.5°	219.8	235.0	261.7	283.3	299.8	307.5	316.4	318.9	320.2	320.2	317.6
50°	166.4	185.5	216.0	240.1	263.0	273.2	283.3	287.1	292.2	290.9	288.4
52.5°	125.8	147.4	180.4	209.6	233.8	245.2	256.6	261.7	266.8	266.8	265.5
55°	92.7	115.6	151.2	181.7	207.1	221.1	232.5	237.6	243.9	245.2	243.9
57.5°	67.3	90.2	124.5	157.5	181.7	196.9	208.4	213.4	219.8	221.1	221.1
60°	49.5	72.4	105.5	135.9	158.8	174.1	182.9	189.3	194.4	196.9	196.9
62.5°	38.1	58.4	88.9	116.9	137.2	149.9	158.8	163.9	169.0	170.2	171.5
65°	31.8	49.5	75.0	99.1	116.9	128.3	135.9	141.0	144.8	146.1	146.1
67.5°	26.7	41.9	62.3	81.3	96.6	105.5	111.8	115.6	119.4	120.7	120.7
70°	21.6	33.0	49.5	64.8	76.2	83.9	88.9	92.7	95.3	95.3	95.3
72.5°	16.5	25.4	36.8	48.3	57.2	63.5	67.3	68.6	71.1	71.1	71.1
75°	11.4	17.8	26.7	34.3	39.4	44.5	47.0	48.3	49.5	50.8	49.5
77.5°	7.6	11.4	16.5	21.6	26.7	29.2	30.5	31.8	33.0	33.0	33.0
80°	5.1	7.6	10.2	14.0	16.5	17.8	19.1	19.1	20.3	20.3	20.3
82.5°	2.5	3.8	6.4	7.6	8.9	10.2	10.2	10.2	11.4	11.4	10.2
85°	1.3	1.3	2.5	3.8	3.8	5.1	5.1	5.1	5.1	5.1	5.1
87.5°	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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: P136515

CATALOG NUMBER: LD6A15D010TE ERW6A15840 6LW121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	996.1	996.1	996.1	996.1
2.5°	991.0	993.5	983.4	996.1
5°	999.9	1002.4	992.2	1005.0
7.5°	1001.1	1002.4	992.2	1005.0
10°	992.2	992.2	982.1	994.8
12.5°	984.6	983.4	971.9	984.6
15°	973.2	971.9	960.5	973.2
17.5°	954.1	952.9	941.4	952.9
20°	924.9	923.6	913.5	924.9
22.5°	893.2	890.6	880.4	890.6
25°	856.3	853.8	843.6	852.5
27.5°	809.3	806.8	796.6	805.5
30°	753.4	749.6	742.0	748.3
32.5°	689.9	687.3	678.4	686.1
35°	620.0	616.2	609.8	616.2
37.5°	543.8	541.2	534.9	538.7
40°	470.1	468.8	463.7	466.3
42.5°	406.6	404.0	400.2	402.7
45°	355.7	354.5	350.7	353.2
47.5°	317.6	316.4	312.5	315.1
50°	289.7	288.4	285.9	287.1
52.5°	266.8	265.5	263.0	266.8
55°	246.5	245.2	241.4	245.2
57.5°	223.6	222.3	218.5	223.6
60°	198.2	198.2	194.4	199.5
62.5°	172.8	172.8	170.2	174.1
65°	148.6	147.4	146.1	148.6
67.5°	122.0	120.7	120.7	123.2
70°	96.6	95.3	95.3	97.8
72.5°	72.4	71.1	71.1	72.4
75°	50.8	49.5	49.5	50.8
77.5°	33.0	33.0	33.0	33.0
80°	20.3	20.3	20.3	20.3
82.5°	11.4	11.4	10.2	11.4
85°	5.1	5.1	5.1	5.1
87.5°	1.3	1.3	1.3	1.3
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)