

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: P179898

Luminaire Tested: **LDA6A55935D010TE LARH40FL 6LA1LI 30°**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P179898
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26688)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA6A55935D010TE LARH40FL 6LA1LI 30°
Description: PORTFOLIO 6" Adjustable Reflector, Angle-cut Trim, Self-flanged, 40° Flood, 30° Tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4945.0 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Spacing Criteria (0/90/45): 2.63 / 0.54 / 1.37
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

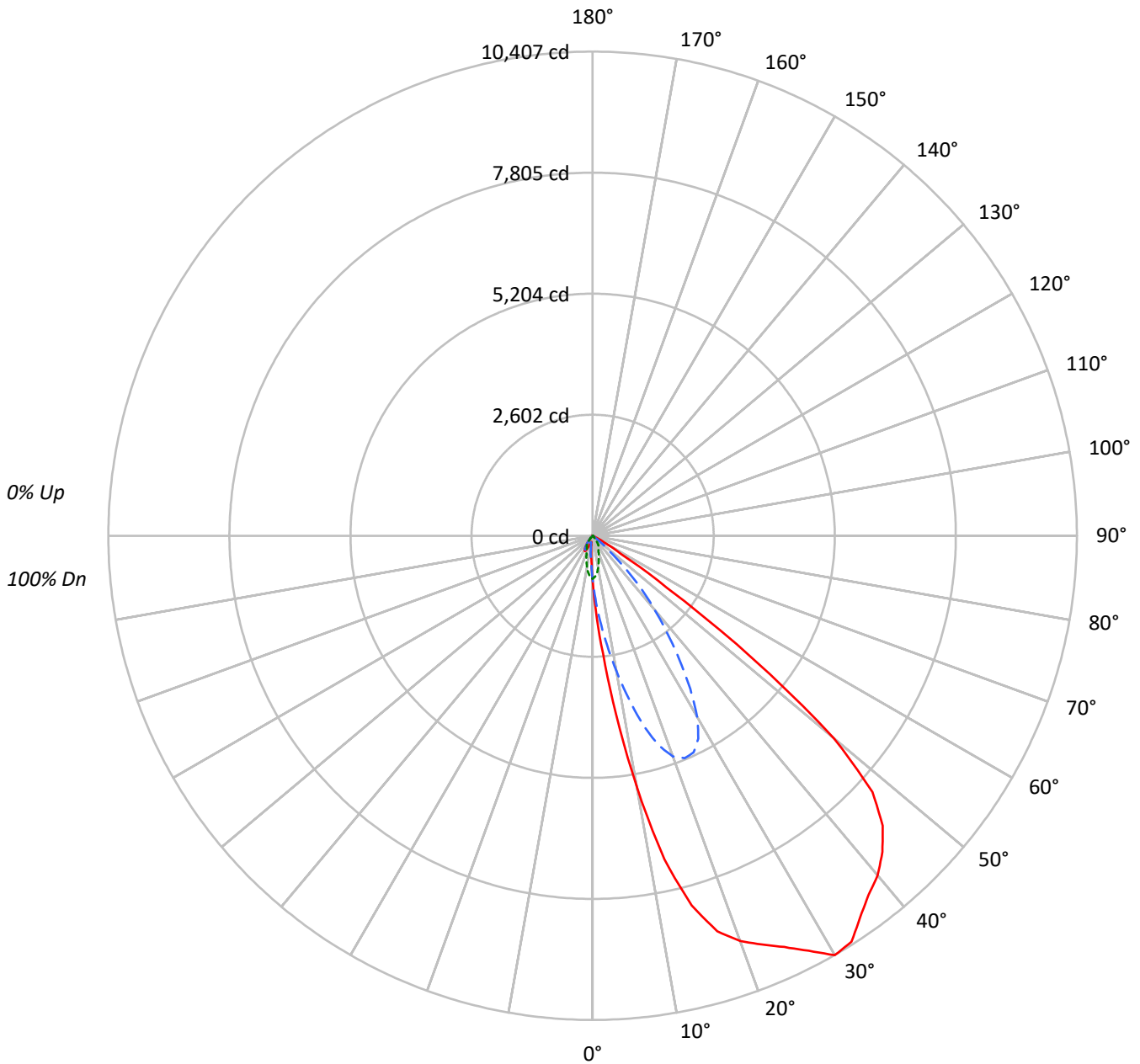
Input Watts (W): 61
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P179898

CATALOG NUMBER: LDA6A55935D010TE LARH40FL 6LA1LI 30°

Luminous Intensity Polar Plot





TEST NUMBER: P179898

CATALOG NUMBER: LDA6A55935D010TE LARH40FL 6LA1LI 30°

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	98	99	97	95	95	94	93	91																			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81																			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73																			
4	91	82	75	70	89	80	74	69	78	73	68	76	71	67	74	70	67	65																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52																			
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	46																			
8	69	57	49	44	67	56	49	44	55	49	44	54	48	44	53	47	44	42																			
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	43	39	38																			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	50807	50807	50807
5°	139450	46814	19101
10°	305589	38309	7281
15°	466779	29160	8541
20°	540815	21696	13266
25°	589951	17844	21413
30°	658791	16180	21864
35°	670288	11103	14991
40°	682064	5260	7586
45°	683172	2186	3310
50°	577559	947	1023
55°	185981	650	162
60°	36938	746	0
65°	3775	882	0
70°	417	1234	0
75°	0	1631	0
80°	0	2683	284
85°	0	5346	566



TEST NUMBER: P179898

CATALOG NUMBER: LDA6A55935D010TE LARH40FL 6LA1LI 30°

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.8	2.5
10°-20°	650.7	13.2
20°-30°	1245.8	25.2
30°-40°	1467.8	29.7
40°-50°	1152.9	23.3
50°-60°	280.9	5.7
60°-70°	12.1	0.2
70°-80°	4.5	0.1
80°-90°	4.5	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°	2022.3	40.9
0°-40°	3490.0	70.6
0°-60°	4923.8	99.6
0°-90°	4945.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4945.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	927	927	927	927	927	
5°	2534	1834	851	445	347	335
15°	8225	4224	514	147	150	2296
25°	9753	5137	295	309	354	4546
35°	10016	3247	166	214	224	6280
45°	8812	1004	28	39	43	6621
55°	1946	37	7	4	2	2316
65°	29	4	7	4	0	77
75°	0	4	8	5	0	0
85°	0	5	8	5	1	0
90°	0	0	0	0	0	



TEST NUMBER: P179898

CATALOG NUMBER: LDA6A55935D010TE LARH40FL 6LA1LI 30°

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8
2.5°	1588.5	1585.1	1562.0	1583.4	1518.4	1515.8	1486.8	1473.9	1436.3	1400.4	1349.1
5°	2534.1	2478.5	2433.2	2434.9	2310.1	2287.0	2222.0	2156.2	2055.3	1961.3	1833.9
7.5°	3862.7	3796.8	3701.1	3660.9	3422.4	3352.3	3218.0	3042.8	2823.1	2604.2	2368.2
10°	5489.7	5499.9	5375.9	5261.4	4900.6	4758.7	4541.5	4196.1	3779.7	3368.5	2950.4
12.5°	7126.9	7120.0	6972.1	6798.6	6354.0	6153.9	5865.0	5434.1	4882.6	4244.8	3590.8
15°	8224.6	8273.4	8211.0	8072.5	7692.9	7463.7	7138.0	6553.2	5881.2	5106.6	4224.3
17.5°	8913.7	8959.9	8937.7	8829.1	8494.0	8249.4	7977.6	7498.8	6721.6	5747.8	4723.6
20°	9270.3	9342.9	9332.7	9214.7	8961.6	8759.0	8458.9	8015.2	7342.3	6193.3	5046.8
22.5°	9507.9	9563.5	9578.9	9445.5	9183.9	8991.5	8771.8	8322.1	7689.4	6465.2	5175.0
25°	9753.3	9851.6	9755.0	9590.9	9350.6	9165.9	8931.7	8500.8	7855.3	6576.3	5136.6
27.5°	10054.2	10101.3	9882.4	9732.8	9466.0	9266.0	9017.2	8604.2	7884.4	6487.4	4916.8
30°	10407.3	10212.4	10059.4	9762.7	9460.1	9265.1	9012.1	8539.3	7731.3	6192.4	4491.1
32.5°	10349.2	10170.5	9997.0	9683.2	9384.0	9190.7	8908.6	8323.0	7369.7	5699.1	3903.7
35°	10015.8	10054.2	9867.0	9607.1	9268.5	9069.3	8761.6	8015.2	6755.8	5018.6	3247.1
37.5°	9734.5	9819.1	9696.9	9456.6	9112.9	8843.6	8428.1	7521.0	5954.7	4155.1	2624.7
40°	9531.0	9558.4	9492.5	9223.2	8810.3	8421.3	7940.8	6633.6	4981.8	3261.6	2071.6
42.5°	9215.5	9288.2	9171.9	8877.8	8252.0	7811.7	7115.8	5608.5	3869.5	2491.3	1559.4
45°	8812.0	8881.2	8737.6	8248.6	7378.2	6732.8	5883.8	4373.1	2862.4	1836.4	1003.7
47.5°	8153.7	8196.4	7918.6	7242.3	5977.0	5369.1	4498.8	3048.8	1844.1	1026.8	488.2
50°	6772.1	6751.6	6178.7	5346.9	3997.8	3360.0	2677.7	1652.6	828.4	486.5	305.2
52.5°	4364.5	4317.5	3750.7	2994.0	2024.5	1544.9	1161.0	713.0	431.8	271.9	120.5
55°	1945.9	1927.9	1578.2	1226.0	828.4	713.0	544.6	349.7	230.0	94.9	36.8
57.5°	721.6	705.3	621.6	521.5	400.1	332.6	264.2	167.6	59.0	31.6	19.7
60°	336.9	336.0	295.8	243.7	169.3	128.2	74.4	39.3	24.8	17.1	11.1
62.5°	107.7	105.2	73.5	53.9	38.5	33.3	26.5	19.7	12.8	9.4	6.8
65°	29.1	29.1	26.5	22.2	18.0	15.4	12.8	9.4	6.0	5.1	4.3
67.5°	11.1	11.1	10.3	9.4	6.8	6.0	5.1	4.3	3.4	4.3	4.3
70°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	3.4	3.4	4.3
72.5°	0.0	0.0	0.9	0.9	1.7	1.7	2.6	2.6	3.4	4.3	4.3
75°	0.0	0.0	0.9	0.9	1.7	1.7	2.6	2.6	3.4	4.3	4.3
77.5°	0.0	0.0	0.9	0.9	1.7	1.7	2.6	2.6	3.4	4.3	4.3
80°	0.0	0.0	0.9	0.9	1.7	1.7	2.6	2.6	3.4	4.3	4.3
82.5°	0.0	0.0	0.9	1.7	1.7	1.7	2.6	3.4	3.4	4.3	5.1
85°	0.0	0.0	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	5.1
87.5°	0.0	0.0	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	5.1
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: P179898

CATALOG NUMBER: LDA6A55935D010TE LARH40FL 6LA1LI 30°

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8
2.5°	1311.5	1255.1	1177.3	1132.0	1120.8	1096.9	1055.0	992.6	941.3	891.7	862.6
5°	1726.1	1592.8	1443.2	1338.0	1295.3	1238.0	1136.2	1031.1	934.5	850.7	784.8
7.5°	2165.6	1945.9	1703.9	1509.0	1438.9	1348.3	1182.4	1025.9	893.4	777.2	689.1
10°	2602.5	2248.5	1920.2	1638.1	1523.5	1400.4	1181.5	978.9	823.3	688.2	590.8
12.5°	3039.4	2530.7	2079.2	1715.9	1567.1	1411.5	1146.5	907.1	734.4	596.8	503.6
15°	3442.9	2755.5	2187.0	1742.4	1562.9	1379.0	1075.5	819.9	641.2	513.8	427.5
17.5°	3743.8	2873.5	2211.8	1702.2	1495.3	1291.8	967.0	717.3	552.3	440.3	352.2
20°	3891.7	2892.3	2152.8	1587.6	1379.0	1167.9	848.1	619.0	476.2	371.9	297.5
22.5°	3891.7	2803.4	2024.5	1444.0	1233.7	1025.1	733.5	537.8	416.4	324.0	261.6
25°	3743.8	2626.4	1852.7	1278.2	1073.8	884.0	634.4	477.1	370.2	295.0	242.8
27.5°	3456.6	2381.9	1632.1	1093.5	916.5	758.3	555.7	421.5	335.1	265.9	266.7
30°	3061.6	2081.8	1379.0	898.6	754.9	623.3	467.7	353.1	268.5	255.6	263.3
32.5°	2605.0	1722.7	1092.6	696.8	584.8	490.7	355.7	249.6	213.7	215.4	224.0
35°	2136.5	1356.0	822.5	516.4	435.2	355.7	233.4	164.2	162.4	165.9	171.8
37.5°	1686.8	1014.8	595.0	377.9	292.4	218.9	125.7	112.9	112.9	116.3	119.7
40°	1263.6	719.9	409.5	224.0	141.9	100.0	79.5	73.5	72.7	73.5	77.8
42.5°	867.8	455.7	243.7	89.8	68.4	58.1	50.4	46.2	45.3	46.2	48.7
45°	487.3	280.4	94.9	47.9	41.0	36.8	31.6	29.1	28.2	28.2	29.9
47.5°	305.2	111.1	42.7	29.9	25.6	23.9	20.5	18.8	18.0	18.0	18.8
50°	117.1	43.6	26.5	19.7	17.1	15.4	13.7	12.0	11.1	11.1	12.0
52.5°	40.2	25.6	17.1	12.8	11.1	10.3	8.5	7.7	7.7	7.7	7.7
55°	22.2	15.4	10.3	7.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8
57.5°	13.7	9.4	6.8	6.0	6.0	6.0	6.0	6.0	6.0	6.8	6.8
60°	7.7	6.0	5.1	5.1	5.1	5.1	6.0	6.0	6.0	6.8	6.8
62.5°	5.1	5.1	5.1	5.1	5.1	5.1	6.0	6.0	6.8	6.8	6.8
65°	4.3	4.3	4.3	5.1	5.1	5.1	6.0	6.0	6.8	6.8	6.8
67.5°	4.3	4.3	5.1	5.1	5.1	6.0	6.0	6.8	6.8	6.8	6.8
70°	4.3	5.1	5.1	6.0	6.0	6.0	6.8	6.8	6.8	7.7	7.7
72.5°	4.3	5.1	5.1	6.0	6.0	6.0	6.8	6.8	7.7	7.7	7.7
75°	5.1	5.1	5.1	6.0	6.0	6.0	6.8	7.7	7.7	7.7	7.7
77.5°	5.1	5.1	6.0	6.0	6.0	6.8	6.8	7.7	7.7	7.7	7.7
80°	5.1	5.1	6.0	6.0	6.8	6.8	7.7	7.7	7.7	8.5	8.5
82.5°	5.1	5.1	6.0	6.8	6.8	6.8	7.7	7.7	8.5	8.5	8.5
85°	5.1	6.0	6.0	6.8	6.8	6.8	7.7	7.7	8.5	8.5	8.5
87.5°	5.1	6.0	6.0	6.8	6.8	6.8	7.7	7.7	8.5	8.5	8.5
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: P179898

CATALOG NUMBER: LDA6A55935D010TE LARH40FL 6LA1LI 30°

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8
2.5°	824.2	788.3	752.4	725.9	713.0	700.2	672.0	635.2	619.8	597.6	584.8
5°	718.2	657.5	609.6	577.9	559.1	534.3	501.9	465.9	445.4	422.3	407.0
7.5°	608.7	537.8	491.6	462.5	443.7	412.9	371.9	329.2	304.4	278.7	260.8
10°	513.0	445.4	393.3	359.9	336.0	300.1	259.1	229.1	207.8	185.5	167.6
12.5°	428.3	355.7	300.1	271.9	255.6	221.4	187.2	153.9	141.1	136.8	136.8
15°	347.1	281.3	234.3	210.3	193.2	156.5	149.6	147.9	147.1	146.2	147.9
17.5°	283.0	227.4	177.8	165.9	164.2	163.3	164.2	164.2	165.0	167.6	171.8
20°	237.7	186.4	183.0	183.8	183.8	187.2	191.5	194.9	198.3	202.6	210.3
22.5°	211.2	210.3	216.3	217.2	221.4	226.6	234.3	239.4	247.9	252.2	263.3
25°	243.7	249.6	260.8	264.2	271.0	279.6	291.5	298.4	308.6	313.8	326.6
27.5°	276.1	285.6	299.2	303.5	309.5	323.2	331.7	337.7	342.8	346.3	354.0
30°	273.6	282.1	295.8	296.7	305.2	314.6	319.8	324.9	328.3	327.4	331.7
32.5°	231.7	239.4	252.2	252.2	261.6	269.3	271.9	276.1	276.1	276.1	277.9
35°	177.8	183.0	191.5	194.1	201.8	206.9	208.6	213.7	213.7	212.0	212.0
37.5°	123.1	130.0	135.9	137.6	142.8	146.2	150.5	151.3	149.6	150.5	150.5
40°	80.4	84.6	88.9	89.8	94.0	96.6	100.9	100.9	101.7	100.9	102.6
42.5°	49.6	53.0	55.6	57.3	59.0	60.7	63.3	64.1	65.0	64.1	65.8
45°	30.8	32.5	34.2	35.1	35.9	36.8	39.3	39.3	39.3	39.3	40.2
47.5°	18.8	19.7	20.5	20.5	21.4	22.2	23.1	23.1	23.1	23.1	23.9
50°	11.1	12.0	12.0	12.0	12.8	12.8	13.7	13.7	13.7	12.8	13.7
52.5°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	6.8	7.7
55°	6.8	6.8	6.0	6.0	6.0	6.0	6.0	5.1	4.3	4.3	3.4
57.5°	6.0	6.0	6.0	6.0	6.0	5.1	5.1	4.3	4.3	3.4	2.6
60°	6.0	6.0	6.0	6.0	6.0	5.1	5.1	4.3	3.4	3.4	2.6
62.5°	6.8	6.0	6.0	6.0	6.0	5.1	5.1	4.3	3.4	3.4	2.6
65°	6.8	6.8	6.0	6.0	6.0	5.1	5.1	4.3	4.3	3.4	2.6
67.5°	6.8	6.8	6.8	6.0	6.8	6.0	5.1	5.1	4.3	3.4	3.4
70°	7.7	6.8	6.8	6.8	6.8	6.0	6.0	5.1	4.3	3.4	3.4
72.5°	7.7	7.7	6.8	6.8	6.8	6.0	6.0	5.1	4.3	4.3	3.4
75°	7.7	7.7	6.8	6.8	6.8	6.0	6.0	5.1	5.1	4.3	3.4
77.5°	7.7	7.7	7.7	6.8	6.8	6.8	6.0	6.0	5.1	4.3	3.4
80°	7.7	7.7	7.7	7.7	7.7	6.8	6.8	6.0	5.1	4.3	3.4
82.5°	8.5	7.7	7.7	7.7	7.7	6.8	6.8	6.0	5.1	4.3	4.3
85°	8.5	8.5	7.7	7.7	7.7	6.8	6.8	6.0	5.1	5.1	4.3
87.5°	8.5	7.7	7.7	7.7	7.7	6.8	6.8	6.0	5.1	4.3	4.3
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: P179898

CATALOG NUMBER: LDA6A55935D010TE LARH40FL 6LA1LI 30°

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	926.8	926.8	926.8	926.8	926.8	926.8	926.8	926.8
2.5°	572.0	565.1	565.1	553.2	551.4	542.0	549.7	544.6
5°	389.9	378.7	375.3	363.4	359.1	348.0	351.4	347.1
7.5°	245.4	234.3	230.8	222.3	217.2	208.6	209.5	206.9
10°	149.6	139.4	136.8	134.2	131.7	130.8	131.7	130.8
12.5°	135.9	135.1	133.4	134.2	132.5	133.4	134.2	133.4
15°	147.9	149.6	147.9	148.8	147.9	149.6	150.5	150.5
17.5°	173.6	177.0	175.3	177.8	177.0	181.2	181.2	181.2
20°	212.9	218.9	217.2	220.6	220.6	225.7	225.7	227.4
22.5°	267.6	275.3	274.4	282.1	280.4	286.4	286.4	288.1
25°	333.4	341.1	342.0	347.1	346.3	352.2	352.2	354.0
27.5°	360.8	365.1	364.2	366.8	367.6	371.0	373.6	371.9
30°	338.6	342.0	341.1	342.8	342.8	345.4	348.0	345.4
32.5°	284.7	287.3	287.3	290.7	288.1	289.0	293.2	290.7
35°	218.0	219.7	218.0	219.7	220.6	220.6	224.9	224.0
37.5°	155.6	156.5	156.5	159.0	156.5	156.5	160.7	161.6
40°	104.3	105.2	104.3	107.7	106.0	106.0	108.6	106.0
42.5°	66.7	67.5	66.7	69.3	67.5	69.3	70.1	71.0
45°	41.0	41.0	40.2	41.9	41.0	41.9	42.7	42.7
47.5°	23.9	23.9	23.1	24.8	23.9	23.9	23.9	24.8
50°	12.8	12.8	12.8	13.7	12.8	12.8	12.8	12.0
52.5°	6.8	6.8	6.0	6.8	6.0	6.0	6.0	6.0
55°	3.4	2.6	2.6	2.6	1.7	1.7	1.7	1.7
57.5°	2.6	1.7	1.7	0.9	0.9	0.9	0.0	0.0
60°	1.7	1.7	0.9	0.9	0.0	0.0	0.0	0.0
62.5°	1.7	1.7	0.9	0.9	0.0	0.0	0.0	0.0
65°	1.7	1.7	0.9	0.9	0.0	0.0	0.0	0.0
67.5°	2.6	1.7	1.7	0.9	0.9	0.0	0.0	0.0
70°	2.6	1.7	1.7	0.9	0.9	0.0	0.0	0.0
72.5°	2.6	1.7	1.7	1.7	0.9	0.9	0.0	0.0
75°	2.6	2.6	1.7	1.7	0.9	0.9	0.0	0.0
77.5°	3.4	2.6	1.7	1.7	0.9	0.9	0.0	0.0
80°	3.4	2.6	1.7	1.7	1.7	0.9	0.9	0.9
82.5°	3.4	2.6	2.6	1.7	1.7	0.9	0.9	0.9
85°	3.4	2.6	2.6	1.7	1.7	0.9	0.9	0.9
87.5°	3.4	2.6	2.6	1.7	1.7	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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













(END OF REPORT)