

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: P179828

Luminaire Tested: **LDA6A55827D010TE LARH30NF 6LLWW1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P179828
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26684)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA6A55827D010TE LARH30NF 6LLWW1
Description: PORTFOLIO 6" Lensed Wall Wash, Self-flanged, 30° Narrow Flood
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3879.1 lumens
Efficiency: N/A
Efficacy: 63.6 lumens/watt
Spacing Criteria (0/90/45): 2.21 / 1.07 / 1.54
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

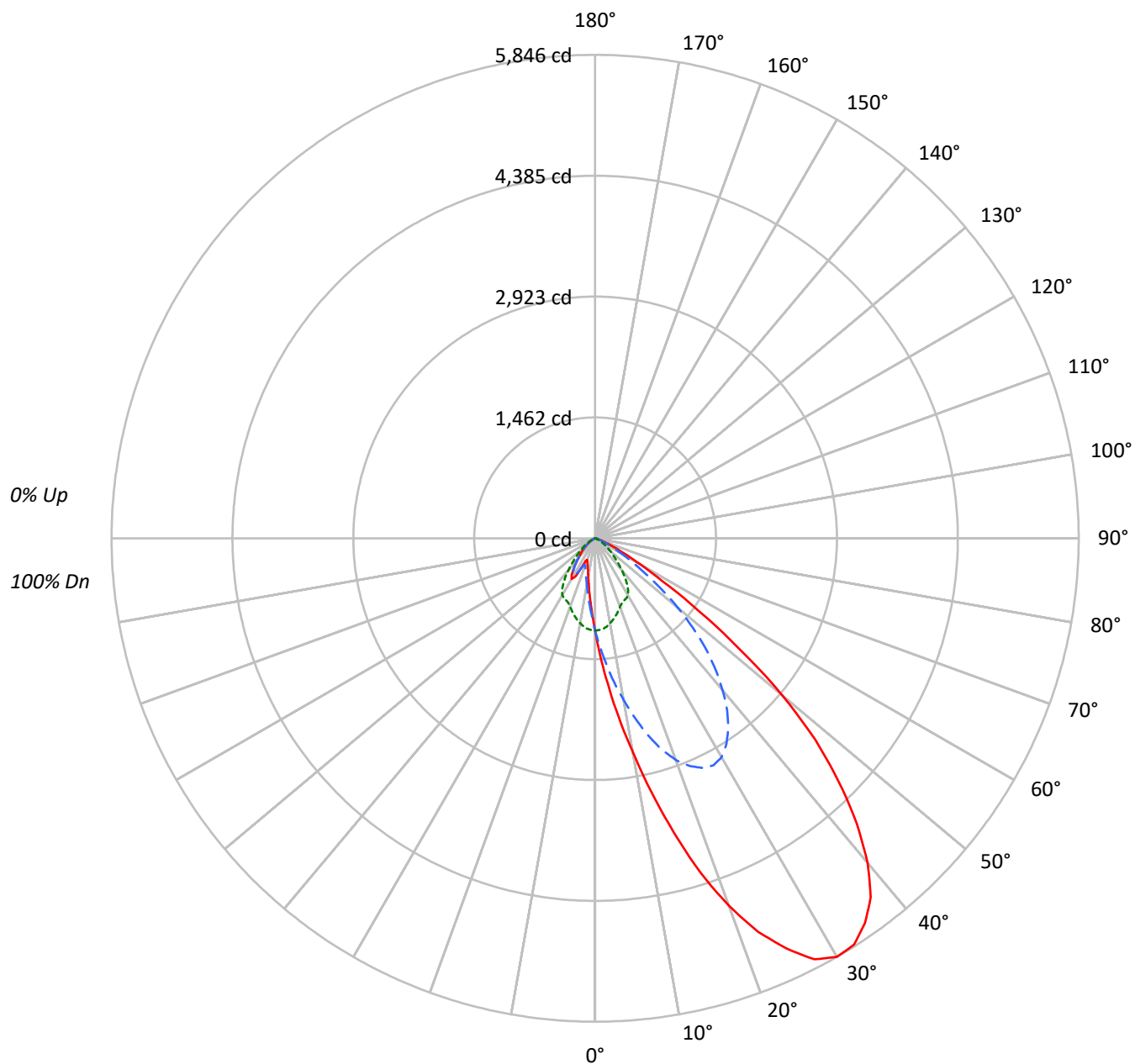
Input Watts (W): 61
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90		
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	84	81	79		
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70		
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61		
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54		
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48		
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43		
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38		
9	62	50	42	37	61	49	42	37	48	41	37	47	41	36	46	40	36	35		
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	61190	61190	61190
5°	97215	60444	39258
10°	145861	57998	26352
15°	209019	54966	19495
20°	275911	51390	16253
25°	331162	50096	23741
30°	370038	50223	35866
35°	380444	44972	30611
40°	366608	35767	22764
45°	323103	26561	17513
50°	251966	19667	12119
55°	145725	14394	7828
60°	68109	10010	3508
65°	31858	5500	1466
70°	14778	2420	1058
75°	6185	1589	1186
80°	2683	1768	1484
85°	566	2956	2390



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.4	3.0
10°-20°	423.7	10.9
20°-30°	838.8	21.6
30°-40°	1084.6	28.0
40°-50°	891.2	23.0
50°-60°	412.0	10.6
60°-70°	94.1	2.4
70°-80°	15.4	0.4
80°-90°	3.9	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°	1378.0	35.5
0°-40°	2462.5	63.5
0°-60°	3765.7	97.1
0°-90°	3879.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3879.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1116	1116	1116	1116	1116	
5°	1767	1519	1098	794	713	195
15°	3683	2463	968	434	344	1076
25°	5475	3064	828	407	392	2521
35°	5685	2805	672	446	457	3520
45°	4168	1894	343	228	226	3172
55°	1525	737	151	97	82	1433
65°	246	151	42	16	11	281
75°	29	17	8	7	6	39
85°	1	3	5	5	4	3
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°	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2
2.5°	1417.4	1395.8	1409.0	1415.5	1381.7	1389.2	1393.0	1366.6	1359.1	1345.0	1303.5
5°	1766.6	1741.2	1751.5	1751.5	1701.7	1704.5	1702.6	1652.7	1625.4	1589.7	1519.1
7.5°	2177.9	2152.5	2154.4	2145.0	2074.4	2069.7	2039.5	1978.4	1924.7	1858.8	1753.4
10°	2620.3	2605.2	2595.8	2572.3	2479.1	2463.1	2418.8	2321.9	2233.4	2132.7	1984.0
12.5°	3139.8	3109.7	3082.4	3044.7	2923.3	2893.2	2831.1	2690.8	2561.0	2419.8	2223.1
15°	3682.9	3659.3	3615.1	3555.8	3400.5	3352.5	3271.6	3083.3	2921.4	2715.3	2463.1
17.5°	4244.7	4201.4	4136.5	4052.7	3865.4	3797.7	3697.0	3456.0	3241.4	2984.5	2679.6
20°	4729.5	4695.6	4606.2	4497.9	4283.3	4193.0	4074.4	3778.9	3516.3	3211.3	2852.7
22.5°	5150.2	5105.0	4994.9	4864.0	4624.0	4512.0	4378.4	4048.0	3728.0	3374.1	2979.8
25°	5474.9	5441.0	5310.2	5157.7	4894.2	4764.3	4616.5	4241.9	3887.1	3498.4	3064.5
27.5°	5739.3	5681.9	5536.0	5363.8	5079.6	4928.0	4771.8	4361.4	3977.4	3561.4	3096.5
30°	5845.7	5786.4	5632.0	5441.0	5139.8	4973.2	4812.3	4374.6	3970.9	3539.8	3057.9
32.5°	5825.9	5759.1	5594.4	5392.0	5084.3	4906.4	4743.6	4289.0	3876.7	3441.9	2953.4
35°	5684.8	5629.2	5458.9	5247.1	4940.3	4753.0	4582.6	4132.7	3719.6	3290.4	2804.7
37.5°	5472.0	5393.0	5233.9	5021.2	4696.5	4522.4	4353.9	3909.7	3505.9	3080.5	2619.3
40°	5122.9	5027.8	4868.7	4683.3	4374.6	4201.4	4048.0	3633.0	3235.8	2838.6	2398.1
42.5°	4683.3	4609.0	4461.2	4270.2	3986.9	3821.2	3683.8	3284.7	2932.7	2564.7	2154.4
45°	4167.6	4096.0	3969.9	3797.7	3541.7	3397.7	3271.6	2916.7	2599.6	2263.5	1893.7
47.5°	3609.4	3538.9	3428.7	3277.2	3048.5	2924.3	2814.1	2523.3	2224.0	1930.4	1605.7
50°	2954.4	2857.4	2797.2	2670.1	2479.1	2373.7	2289.0	2028.3	1807.1	1570.8	1300.7
52.5°	2205.2	2174.1	2087.5	1998.1	1863.5	1785.4	1729.9	1562.4	1378.8	1207.5	1001.4
55°	1524.7	1496.5	1443.8	1389.2	1298.8	1259.3	1217.9	1116.2	993.9	877.2	736.9
57.5°	963.8	984.5	950.6	919.5	864.9	850.8	818.8	759.5	684.2	610.8	523.3
60°	621.2	632.5	610.8	592.9	562.8	551.5	536.5	500.7	455.5	413.2	353.9
62.5°	393.4	399.1	386.8	376.5	359.5	354.8	344.5	323.8	296.5	271.1	233.4
65°	245.6	250.4	241.9	235.3	224.9	225.9	216.5	204.2	188.2	172.2	150.6
67.5°	151.5	154.4	148.7	144.9	138.4	138.4	132.7	125.2	114.8	105.4	91.3
70°	92.2	93.2	89.4	87.5	82.8	81.9	79.1	73.4	66.8	60.2	51.8
72.5°	53.6	54.6	51.8	49.9	47.1	47.1	45.2	42.4	39.5	33.9	29.2
75°	29.2	30.1	28.2	27.3	25.4	26.4	24.5	23.5	20.7	18.8	16.9
77.5°	15.1	16.0	15.1	14.1	14.1	14.1	13.2	12.2	12.2	10.4	10.4
80°	8.5	8.5	8.5	8.5	8.5	7.5	7.5	7.5	7.5	7.5	6.6
82.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.8
85°	0.9	0.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8
87.5°	0.0	0.0	0.9	0.9	0.9	0.9	0.9	1.9	1.9	1.9	2.8
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2
2.5°	1291.3	1290.4	1247.1	1228.2	1213.2	1189.7	1172.7	1154.8	1138.8	1109.7	1085.2
5°	1483.3	1457.0	1385.4	1340.2	1312.0	1274.4	1233.0	1191.5	1151.1	1098.4	1055.1
7.5°	1684.7	1628.2	1521.0	1445.7	1402.4	1349.7	1280.0	1215.1	1149.2	1076.7	1014.6
10°	1876.7	1784.5	1648.0	1533.2	1473.9	1406.1	1310.1	1219.8	1133.2	1041.9	964.7
12.5°	2072.5	1940.7	1762.8	1614.1	1538.8	1455.1	1331.8	1219.8	1112.5	1007.1	915.8
15°	2266.4	2092.3	1871.1	1686.6	1595.3	1495.5	1346.8	1213.2	1087.1	968.5	866.8
17.5°	2432.0	2216.5	1950.1	1736.5	1629.2	1516.2	1345.9	1193.4	1053.2	925.2	816.9
20°	2561.0	2305.9	2005.7	1761.9	1641.4	1518.1	1330.8	1164.2	1014.6	880.9	769.9
22.5°	2648.5	2364.3	2033.9	1766.6	1637.7	1507.8	1307.3	1135.1	979.8	846.1	735.1
25°	2703.1	2393.4	2042.4	1760.0	1624.5	1489.9	1285.7	1109.7	957.2	828.2	724.7
27.5°	2713.4	2385.0	2025.4	1732.7	1593.4	1457.9	1254.6	1085.2	937.4	817.9	724.7
30°	2662.6	2330.4	1968.0	1671.5	1535.1	1402.4	1202.8	1041.0	902.6	793.4	708.7
32.5°	2565.7	2229.7	1873.0	1581.2	1448.5	1324.2	1132.2	977.9	844.2	743.5	667.3
35°	2425.4	2095.1	1749.7	1467.3	1338.4	1222.6	1033.4	892.2	765.2	672.0	601.4
37.5°	2255.1	1933.2	1605.7	1337.4	1215.1	1106.8	926.1	793.4	675.8	588.2	525.2
40°	2048.0	1758.1	1443.8	1194.4	1077.7	979.8	813.2	685.2	574.1	499.8	442.4
42.5°	1831.5	1562.4	1271.5	1034.4	930.8	837.7	689.9	575.1	476.2	415.1	369.9
45°	1608.5	1345.0	1090.8	880.0	801.9	697.4	560.9	467.8	387.8	342.6	306.8
47.5°	1357.2	1134.1	899.8	714.4	632.5	561.9	448.0	372.7	320.9	281.4	254.1
50°	1087.1	909.2	712.5	554.4	486.6	432.9	349.2	297.4	257.9	230.6	209.9
52.5°	835.8	695.5	536.5	406.6	364.2	323.8	272.0	236.2	208.0	187.3	172.2
55°	621.2	507.3	385.9	301.2	271.1	244.7	213.6	185.4	164.7	150.6	138.4
57.5°	437.7	353.9	271.1	218.4	202.4	185.4	161.9	143.1	128.9	117.6	108.2
60°	292.7	240.9	191.1	160.0	148.7	137.4	122.4	109.2	98.8	91.3	81.9
62.5°	196.7	161.9	133.6	114.8	107.3	99.8	89.4	80.0	72.5	64.9	57.4
65°	126.1	107.3	90.4	78.1	72.5	68.7	61.2	54.6	48.9	42.4	36.7
67.5°	77.2	66.8	56.5	48.9	46.1	43.3	38.6	33.9	30.1	25.4	21.6
70°	45.2	39.5	33.9	29.2	28.2	26.4	22.6	19.8	17.9	15.1	13.2
72.5°	26.4	23.5	19.8	17.9	16.9	15.1	14.1	12.2	10.4	9.4	8.5
75°	15.1	13.2	11.3	10.4	10.4	9.4	8.5	8.5	7.5	7.5	6.6
77.5°	9.4	8.5	7.5	7.5	7.5	6.6	6.6	6.6	6.6	5.6	5.6
80°	6.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
82.5°	3.8	3.8	3.8	3.8	3.8	4.7	4.7	4.7	4.7	4.7	5.6
85°	2.8	3.8	3.8	3.8	3.8	3.8	4.7	4.7	4.7	4.7	4.7
87.5°	2.8	3.8	3.8	3.8	3.8	3.8	4.7	4.7	4.7	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2
2.5°	1071.1	1056.0	1009.9	1025.9	996.7	973.2	971.3	957.2	932.7	919.5	912.9
5°	1022.1	988.2	931.8	935.5	901.7	864.9	845.2	826.4	794.4	774.6	761.4
7.5°	961.9	915.8	848.9	844.2	808.5	764.2	736.0	709.7	674.8	649.4	633.4
10°	898.8	842.4	764.2	758.6	720.9	672.9	640.9	610.8	575.1	549.7	532.7
12.5°	840.5	775.5	697.4	683.3	646.6	597.7	562.8	530.8	496.0	474.4	454.6
15°	784.9	714.4	631.5	618.4	582.6	533.7	495.1	466.8	433.9	413.2	395.3
17.5°	729.4	656.9	575.1	560.0	526.1	479.1	445.2	415.1	384.9	365.2	349.2
20°	681.4	608.9	528.9	513.9	482.8	437.7	406.6	378.4	351.1	332.2	319.1
22.5°	650.4	579.8	507.3	494.1	464.9	424.5	395.3	370.8	347.3	329.4	319.1
25°	648.5	587.3	522.4	514.8	490.4	456.5	435.8	420.7	406.6	392.5	388.7
27.5°	659.8	609.9	555.3	553.4	533.7	511.1	501.7	496.9	489.4	484.7	491.3
30°	653.2	610.8	564.7	564.7	549.7	533.7	528.9	527.1	522.4	523.3	530.8
32.5°	618.4	579.8	535.5	536.5	527.1	509.2	506.4	505.4	499.8	498.8	504.5
35°	555.3	519.5	482.8	483.8	476.2	459.3	455.5	453.7	446.1	442.4	446.1
37.5°	482.8	453.7	418.8	418.8	411.3	398.1	394.4	390.6	385.9	382.1	382.1
40°	408.5	384.9	356.7	355.8	350.1	336.9	333.2	330.4	325.6	319.1	320.9
42.5°	345.4	323.8	301.2	299.3	295.5	284.2	280.5	276.7	272.0	266.4	266.4
45°	287.1	272.9	253.2	252.2	248.5	239.1	236.2	231.5	227.8	222.1	222.1
47.5°	239.1	227.8	211.8	210.8	208.0	199.5	196.7	192.9	189.2	185.4	185.4
50°	200.5	189.2	176.0	175.1	173.2	166.6	162.8	160.0	157.2	154.4	152.5
52.5°	164.7	155.3	144.9	144.0	142.1	135.5	132.7	130.8	128.0	123.3	123.3
55°	132.7	125.2	115.8	114.8	112.9	107.3	104.5	100.7	96.9	92.2	91.3
57.5°	103.5	96.9	89.4	88.5	85.6	80.9	76.2	72.5	68.7	64.9	63.1
60°	78.1	70.6	64.0	62.1	60.2	53.6	49.9	46.1	42.4	39.5	37.6
62.5°	52.7	48.0	40.5	39.5	37.6	33.9	29.2	27.3	25.4	23.5	22.6
65°	32.9	29.2	25.4	24.5	22.6	19.8	17.9	16.9	16.0	15.1	14.1
67.5°	19.8	17.9	15.1	15.1	14.1	13.2	11.3	11.3	10.4	10.4	9.4
70°	12.2	11.3	10.4	9.4	9.4	9.4	8.5	8.5	8.5	8.5	8.5
72.5°	8.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
75°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
77.5°	6.6	6.6	5.6	6.6	6.6	6.6	6.6	5.6	6.6	5.6	5.6
80°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
82.5°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	4.7	4.7	4.7	4.7
85°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.8
87.5°	4.7	4.7	4.7	4.7	4.7	3.8	3.8	3.8	3.8	2.8	2.8
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: P179828

CATALOG NUMBER: LDA6A55827D010TE LARH30NF 6LLWW1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2	1116.2
2.5°	914.8	888.5	898.8	883.8	879.1	875.3	869.7	887.5
5°	755.8	727.5	734.1	719.1	712.5	705.9	699.3	713.4
7.5°	624.0	596.7	599.5	586.4	579.8	572.2	565.7	576.9
10°	521.4	496.0	496.9	484.7	478.1	470.6	464.9	473.4
12.5°	443.3	419.8	419.8	410.4	404.7	396.2	391.5	398.1
15°	384.0	363.3	363.3	353.9	349.2	341.7	336.9	343.5
17.5°	338.8	320.0	320.0	313.4	308.7	302.1	298.4	304.0
20°	308.7	292.7	293.6	287.1	283.3	275.8	273.9	278.6
22.5°	311.5	296.5	298.4	293.6	289.9	284.2	282.4	288.9
25°	389.7	378.4	384.9	384.9	386.8	378.4	382.1	392.5
27.5°	500.7	495.1	505.4	501.7	509.2	509.2	512.9	526.1
30°	541.2	536.5	547.8	546.8	554.4	552.5	554.4	566.6
32.5°	512.0	507.3	516.7	515.8	521.4	516.7	517.7	528.0
35°	449.9	445.2	451.8	450.8	454.6	448.9	451.8	457.4
37.5°	384.0	379.3	383.1	382.1	383.1	376.5	380.2	383.1
40°	322.8	317.2	322.8	319.1	320.0	313.4	314.4	318.1
42.5°	270.1	263.5	268.2	268.2	268.2	263.5	264.5	268.2
45°	224.9	220.2	223.1	222.1	223.1	219.3	222.1	225.9
47.5°	186.4	182.6	184.5	183.5	183.5	179.8	180.7	180.7
50°	153.4	149.6	150.6	149.6	146.8	142.1	141.2	142.1
52.5°	121.4	116.7	116.7	114.8	112.9	109.2	109.2	110.1
55°	89.4	85.6	85.6	84.7	82.8	80.0	80.0	81.9
57.5°	60.2	57.4	58.4	57.4	57.4	53.6	55.5	55.5
60°	36.7	34.8	34.8	33.9	32.0	31.1	30.1	32.0
62.5°	21.6	20.7	20.7	19.8	19.8	18.8	18.8	18.8
65°	14.1	13.2	13.2	12.2	12.2	11.3	10.4	11.3
67.5°	9.4	8.5	8.5	8.5	8.5	7.5	7.5	7.5
70°	8.5	7.5	7.5	7.5	7.5	6.6	6.6	6.6
72.5°	7.5	6.6	7.5	6.6	6.6	6.6	6.6	6.6
75°	6.6	6.6	6.6	5.6	5.6	5.6	5.6	5.6
77.5°	5.6	5.6	5.6	5.6	5.6	4.7	4.7	4.7
80°	5.6	4.7	4.7	4.7	4.7	4.7	4.7	4.7
82.5°	4.7	4.7	4.7	4.7	4.7	3.8	3.8	3.8
85°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
87.5°	2.8	2.8	2.8	2.8	2.8	1.9	1.9	1.9
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)