

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: P136306

Luminaire Tested: **LD6A20D010TE ERW6A20835 6LW111LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136306
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23359-R2)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A20D010TE ERW6A20835 6LW111LI
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2493.0 lumens
Efficiency: N/A
Efficacy: 76.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.19 / 1.1
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

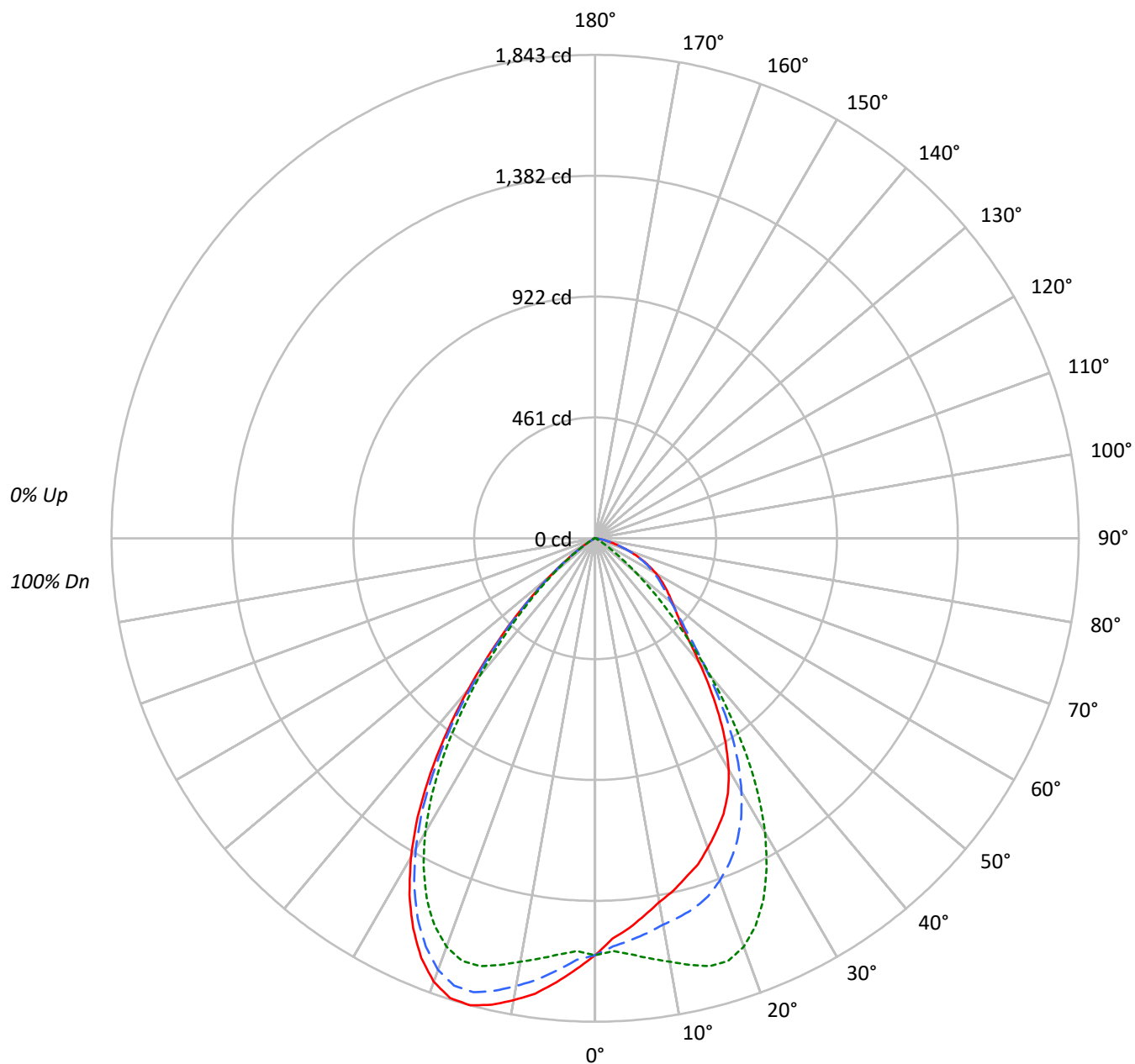
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
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	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	86	83	82		
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74		
4	92	83	76	71	90	82	76	71	80	74	70	77	73	69	75	71	68	66		
5	86	76	69	64	84	75	69	64	73	68	63	72	67	63	70	66	62	60		
6	81	70	63	58	79	70	63	58	68	62	57	66	61	57	65	60	57	55		
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	60	56	52	50		
8	72	60	53	49	70	60	53	48	59	53	48	58	52	48	56	51	48	46		
9	68	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	43		
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	103687	103687	103687
5°	97691	104312	111287
10°	93302	108579	118450
15°	90331	114052	124480
20°	87187	115021	124873
25°	83380	109295	118106
30°	76697	97549	105700
35°	65547	79819	87163
40°	52419	57862	64053
45°	42718	36657	41076
50°	39066	20167	22867
55°	37126	8269	9680
60°	34943	3014	3014
65°	31214	1636	1374
70°	25046	1354	1011
75°	16536	882	882
80°	8679	676	676
85°	3967	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	6.2
10°-20°	459.7	18.4
20°-30°	661.4	26.5
30°-40°	607.5	24.4
40°-50°	348.8	14.0
50°-60°	154.1	6.2
60°-70°	75.7	3.0
70°-80°	29.0	1.2
80°-90°	3.3	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°	1274.4	51.1
0°-40°	1882.0	75.5
0°-60°	2384.9	95.7
0°-90°	2493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2493.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1589	1589	1589	1589	1589	
5°	1492	1538	1593	1653	1699	140
15°	1337	1460	1689	1792	1843	377
25°	1158	1279	1518	1600	1641	529
35°	823	901	1002	1059	1094	510
45°	463	482	397	435	445	368
55°	326	310	73	80	85	292
65°	202	195	11	7	9	198
75°	66	69	4	4	4	73
85°	5	5	0	0	0	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3
2.5°	1527.2	1536.1	1527.2	1539.6	1546.7	1550.3	1546.7	1537.9	1550.3	1557.4	1555.6
5°	1491.7	1498.8	1491.7	1504.2	1513.0	1521.9	1518.3	1513.0	1527.2	1537.9	1539.6
7.5°	1449.2	1458.0	1452.7	1465.1	1475.8	1486.4	1486.4	1484.6	1502.4	1518.3	1523.7
10°	1408.4	1415.5	1411.9	1424.3	1436.8	1449.2	1452.7	1454.5	1474.0	1495.3	1507.7
12.5°	1376.4	1380.0	1376.4	1390.6	1403.1	1417.2	1424.3	1427.9	1452.7	1479.3	1495.3
15°	1337.4	1346.3	1342.7	1356.9	1371.1	1387.1	1396.0	1403.1	1429.7	1459.8	1482.9
17.5°	1303.7	1307.3	1303.7	1319.7	1332.1	1349.8	1360.5	1369.4	1397.7	1431.4	1456.3
20°	1255.8	1262.9	1261.2	1275.3	1289.5	1305.5	1316.1	1325.0	1355.2	1388.9	1417.2
22.5°	1207.9	1215.0	1215.0	1229.2	1239.9	1257.6	1266.5	1275.3	1303.7	1339.2	1364.0
25°	1158.3	1163.6	1161.8	1174.2	1186.7	1204.4	1211.5	1220.4	1247.0	1278.9	1301.9
27.5°	1096.2	1099.7	1103.3	1113.9	1122.8	1138.8	1144.1	1153.0	1174.2	1204.4	1225.7
30°	1018.1	1021.7	1027.0	1035.9	1043.0	1058.9	1062.5	1069.6	1090.9	1115.7	1135.2
32.5°	925.9	927.7	936.6	943.6	952.5	963.2	972.0	973.8	989.8	1014.6	1028.8
35°	823.0	824.8	833.7	839.0	847.9	858.5	865.6	867.4	881.6	901.1	909.9
37.5°	716.6	727.2	725.5	730.8	739.7	748.5	755.6	755.6	766.3	782.2	785.8
40°	615.5	620.8	626.1	629.7	636.8	643.9	649.2	649.2	656.3	666.9	666.9
42.5°	528.6	537.5	537.5	541.0	546.3	553.4	557.0	555.2	558.7	564.1	560.5
45°	463.0	466.5	468.3	473.6	475.4	482.5	484.2	480.7	482.5	482.5	471.8
47.5°	420.4	420.4	420.4	423.9	425.7	431.0	431.0	425.7	423.9	422.2	408.0
50°	384.9	384.9	386.7	390.2	392.0	393.8	393.8	386.7	384.9	377.8	358.3
52.5°	354.8	356.5	356.5	360.1	361.8	363.6	361.8	354.8	349.4	342.3	319.3
55°	326.4	328.1	329.9	333.5	333.5	333.5	331.7	324.6	319.3	310.4	287.4
57.5°	298.0	299.8	299.8	303.3	305.1	305.1	303.3	296.2	290.9	283.8	259.0
60°	267.8	267.8	269.6	273.2	273.2	274.9	273.2	267.8	262.5	253.6	232.4
62.5°	234.1	235.9	237.7	241.2	243.0	243.0	243.0	237.7	234.1	227.0	205.8
65°	202.2	202.2	204.0	207.5	207.5	212.9	209.3	205.8	202.2	195.1	177.4
67.5°	165.0	166.7	166.7	170.3	172.1	173.8	173.8	170.3	168.5	163.2	147.2
70°	131.3	131.3	133.0	134.8	136.6	138.4	138.4	136.6	134.8	129.5	117.1
72.5°	95.8	97.6	97.6	99.3	102.9	104.7	104.7	104.7	101.1	97.6	88.7
75°	65.6	67.4	67.4	69.2	71.0	72.7	72.7	72.7	71.0	69.2	62.1
77.5°	40.8	40.8	42.6	42.6	44.3	46.1	47.9	47.9	46.1	44.3	40.8
80°	23.1	23.1	24.8	24.8	24.8	26.6	28.4	28.4	28.4	26.6	23.1
82.5°	12.4	12.4	12.4	12.4	12.4	14.2	14.2	14.2	14.2	14.2	12.4
85°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
87.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3
2.5°	1555.6	1568.0	1576.9	1562.7	1575.1	1587.5	1601.7	1575.1	1599.9	1585.8	1591.1
5°	1546.7	1560.9	1573.3	1564.5	1580.4	1596.4	1615.9	1592.8	1621.2	1610.6	1619.5
7.5°	1534.3	1553.8	1571.6	1568.0	1589.3	1610.6	1635.4	1615.9	1646.1	1640.7	1651.4
10°	1523.7	1550.3	1573.3	1573.3	1601.7	1626.6	1653.2	1639.0	1674.4	1669.1	1683.3
12.5°	1516.6	1550.3	1580.4	1585.8	1619.5	1647.8	1679.8	1665.6	1704.6	1699.3	1715.2
15°	1509.5	1548.5	1584.0	1594.6	1631.9	1665.6	1699.3	1688.6	1729.4	1724.1	1740.1
17.5°	1486.4	1532.5	1571.6	1585.8	1626.6	1662.0	1697.5	1688.6	1729.4	1724.1	1740.1
20°	1447.4	1493.5	1536.1	1552.1	1592.8	1630.1	1663.8	1656.7	1697.5	1692.2	1706.4
22.5°	1397.7	1442.1	1482.9	1498.8	1537.9	1571.6	1605.3	1598.2	1637.2	1628.3	1644.3
25°	1328.6	1374.7	1413.7	1426.1	1461.6	1495.3	1525.4	1518.3	1555.6	1545.0	1560.9
27.5°	1257.6	1291.3	1323.2	1333.9	1365.8	1394.2	1422.6	1415.5	1450.9	1438.5	1454.5
30°	1161.8	1188.4	1216.8	1222.1	1252.3	1275.3	1300.2	1294.9	1325.0	1314.4	1328.6
32.5°	1050.1	1073.1	1092.6	1094.4	1119.3	1138.8	1160.0	1156.5	1183.1	1174.2	1184.9
35°	927.7	941.9	954.3	952.5	972.0	986.2	1005.7	1002.2	1027.0	1018.1	1028.8
37.5°	798.2	805.3	808.8	801.7	815.9	826.6	840.8	839.0	860.3	853.2	863.8
40°	672.3	672.3	666.9	654.5	663.4	668.7	679.4	679.4	695.3	688.2	697.1
42.5°	557.0	549.9	537.5	519.7	521.5	528.6	528.6	528.6	541.0	533.9	549.9
45°	463.0	447.0	427.5	404.4	397.3	400.9	397.3	397.3	406.2	400.9	413.3
47.5°	390.2	370.7	337.0	308.6	296.2	294.4	289.1	289.1	294.4	294.4	299.8
50°	335.2	306.9	266.1	232.4	214.6	209.3	202.2	198.7	204.0	202.2	205.8
52.5°	290.9	255.4	207.5	168.5	150.8	138.4	133.0	125.9	127.7	127.7	129.5
55°	253.6	212.9	161.4	120.6	101.1	86.9	79.8	72.7	72.7	71.0	72.7
57.5°	225.3	182.7	131.3	90.5	69.2	55.0	47.9	40.8	39.0	39.0	39.0
60°	200.4	159.6	108.2	71.0	49.7	35.5	28.4	23.1	21.3	19.5	19.5
62.5°	175.6	138.4	92.2	58.5	37.2	26.6	19.5	14.2	12.4	10.6	10.6
65°	150.8	118.8	79.8	49.7	31.9	21.3	14.2	10.6	8.9	7.1	7.1
67.5°	124.2	97.6	67.4	40.8	26.6	17.7	12.4	8.9	7.1	5.3	5.3
70°	99.3	78.0	53.2	33.7	21.3	14.2	8.9	7.1	5.3	5.3	5.3
72.5°	74.5	58.5	40.8	24.8	16.0	10.6	7.1	5.3	3.5	3.5	3.5
75°	53.2	42.6	28.4	17.7	10.6	7.1	5.3	3.5	3.5	3.5	3.5
77.5°	33.7	26.6	17.7	10.6	7.1	3.5	3.5	1.8	1.8	1.8	1.8
80°	19.5	16.0	10.6	7.1	3.5	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	10.6	7.1	5.3	3.5	1.8	1.8	1.8	0.0	0.0	0.0	0.0
85°	3.5	3.5	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0
87.5°	1.8	1.8	1.8	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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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3	1589.3
2.5°	1605.3	1601.7	1614.1	1619.5	1615.9	1608.8	1631.9	1637.2	1621.2	1628.3	1628.3
5°	1637.2	1637.2	1653.2	1660.3	1660.3	1653.2	1679.8	1688.6	1672.7	1679.8	1681.5
7.5°	1672.7	1672.7	1692.2	1701.0	1702.8	1697.5	1724.1	1731.2	1720.6	1727.7	1729.4
10°	1704.6	1704.6	1727.7	1736.5	1738.3	1733.0	1759.6	1768.5	1756.0	1763.1	1764.9
12.5°	1738.3	1740.1	1763.1	1772.0	1772.0	1766.7	1793.3	1802.2	1788.0	1796.8	1795.1
15°	1763.1	1764.9	1788.0	1796.8	1798.6	1791.5	1816.3	1827.0	1812.8	1818.1	1818.1
17.5°	1761.4	1763.1	1784.4	1793.3	1793.3	1788.0	1809.2	1821.7	1807.5	1812.8	1811.0
20°	1725.9	1727.7	1750.7	1757.8	1757.8	1750.7	1770.2	1782.6	1768.5	1772.0	1770.2
22.5°	1662.0	1663.8	1685.1	1692.2	1694.0	1685.1	1704.6	1718.8	1702.8	1704.6	1702.8
25°	1578.7	1578.7	1601.7	1601.7	1610.6	1599.9	1614.1	1633.6	1617.7	1617.7	1612.4
27.5°	1470.5	1470.5	1493.5	1493.5	1504.2	1493.5	1516.6	1525.4	1511.3	1509.5	1509.5
30°	1344.5	1344.5	1365.8	1365.8	1374.7	1365.8	1388.9	1397.7	1383.5	1381.8	1383.5
32.5°	1200.8	1200.8	1222.1	1220.4	1231.0	1223.9	1245.2	1252.3	1241.6	1236.3	1239.9
35°	1043.0	1051.8	1064.3	1062.5	1073.1	1058.9	1085.5	1090.9	1082.0	1083.8	1078.5
37.5°	876.2	885.1	894.0	894.0	902.9	899.3	915.3	920.6	913.5	915.3	909.9
40°	709.5	718.4	725.5	725.5	734.3	723.7	745.0	750.3	743.2	736.1	739.7
42.5°	551.6	560.5	567.6	565.8	574.7	572.9	585.3	588.9	583.6	581.8	578.3
45°	415.1	416.8	429.3	434.6	434.6	434.6	443.4	445.2	439.9	439.9	438.1
47.5°	299.8	303.3	312.2	315.7	317.5	315.7	319.3	326.4	321.1	321.1	322.8
50°	207.5	209.3	216.4	219.9	219.9	219.9	221.7	227.0	223.5	223.5	219.9
52.5°	133.0	133.0	138.4	140.1	140.1	140.1	141.9	145.4	141.9	143.7	145.4
55°	74.5	74.5	78.0	79.8	79.8	79.8	81.6	83.4	81.6	83.4	83.4
57.5°	39.0	39.0	40.8	40.8	42.6	42.6	42.6	44.3	44.3	44.3	44.3
60°	19.5	19.5	19.5	21.3	21.3	21.3	21.3	23.1	23.1	23.1	23.1
62.5°	10.6	10.6	10.6	10.6	10.6	10.6	10.6	12.4	12.4	12.4	12.4
65°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
67.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	7.1	7.1	7.1
70°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
72.5°	3.5	3.5	3.5	3.5	3.5	3.5	5.3	5.3	5.3	3.5	3.5
75°	1.8	3.5	3.5	1.8	1.8	3.5	3.5	3.5	3.5	3.5	3.5
77.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P136306

CATALOG NUMBER: LD6A20D010TE ERW6A20835 6LW111LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1589.3	1589.3	1589.3	1589.3
2.5°	1614.1	1615.9	1646.1	1644.3
5°	1667.3	1669.1	1699.3	1699.3
7.5°	1715.2	1717.0	1748.9	1750.7
10°	1750.7	1754.3	1784.4	1788.0
12.5°	1784.4	1784.4	1814.6	1821.7
15°	1805.7	1805.7	1834.1	1843.0
17.5°	1798.6	1798.6	1827.0	1837.6
20°	1759.6	1757.8	1784.4	1798.6
22.5°	1692.2	1694.0	1715.2	1731.2
25°	1607.0	1603.5	1626.6	1640.7
27.5°	1500.6	1502.4	1516.6	1532.5
30°	1372.9	1376.4	1387.1	1403.1
32.5°	1229.2	1234.5	1241.6	1257.6
35°	1071.4	1076.7	1080.2	1094.4
37.5°	901.1	908.2	909.9	924.1
40°	732.6	739.7	739.7	752.1
42.5°	574.7	580.0	578.3	588.9
45°	434.6	438.1	436.3	445.2
47.5°	317.5	321.1	317.5	324.6
50°	219.9	223.5	219.9	225.3
52.5°	141.9	143.7	140.1	145.4
55°	81.6	83.4	81.6	85.1
57.5°	46.1	44.3	42.6	46.1
60°	23.1	23.1	23.1	23.1
62.5°	12.4	12.4	12.4	12.4
65°	7.1	7.1	7.1	8.9
67.5°	7.1	7.1	7.1	7.1
70°	5.3	5.3	5.3	5.3
72.5°	3.5	3.5	3.5	3.5
75°	3.5	3.5	3.5	3.5
77.5°	1.8	1.8	1.8	1.8
80°	0.0	0.0	0.0	1.8
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)