

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: P136451

Luminaire Tested: **LD6A30D010TE ERW6A30840 6LW111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136451
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23375)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A30D010TE ERW6A30840 6LW111H
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SEMI-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: 2910.0 lumens
Efficiency: N/A
Efficacy: 64.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.17 / 1.12
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

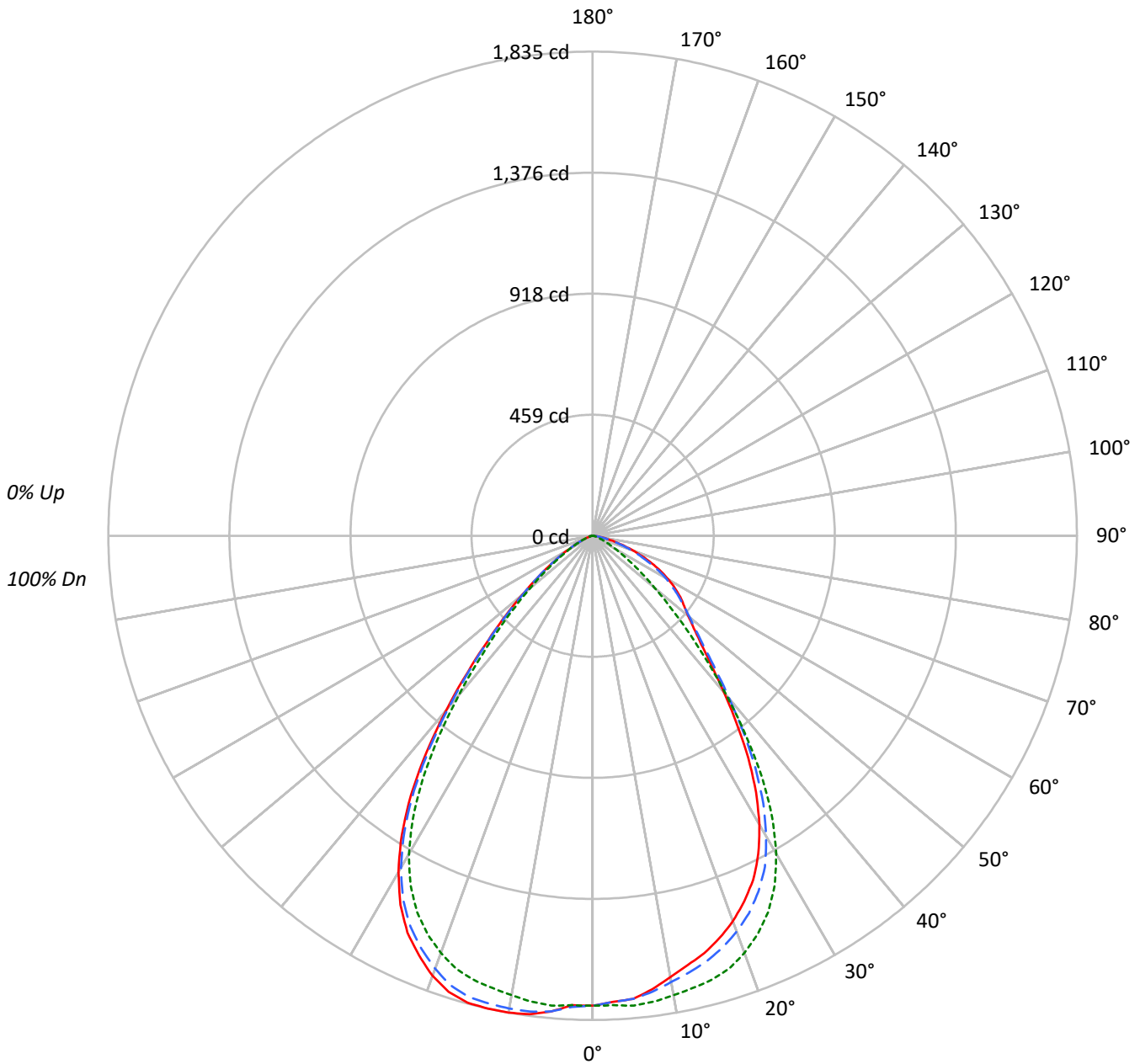
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20	
RC	80				70				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				100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72				72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64				64
5	85	74	67	62	83	73	67	61	71	65	61	70	64	60	68	63	60	58				58
6	79	68	61	56	78	68	61	55	66	60	55	64	59	55	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	48	42	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	116187	116187	116187
5°	115380	117050	118510
10°	112481	117131	121577
15°	110587	117699	123737
20°	107911	116777	123199
25°	103615	113269	119466
30°	95214	104826	110838
35°	81850	89217	95573
40°	65782	67136	73387
45°	53596	46529	51530
50°	47947	31098	35311
55°	46100	20326	23238
60°	43307	12905	14575
65°	38423	7888	8382
70°	31054	4864	4864
75°	21728	3227	3227
80°	14390	2405	2405
85°	7186	2395	2395



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.6	5.8
10°-20°	488.9	16.8
20°-30°	711.9	24.5
30°-40°	690.6	23.7
40°-50°	436.5	15.0
50°-60°	243.1	8.4
60°-70°	120.4	4.1
70°-80°	42.4	1.5
80°-90°	6.7	0.2
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°	1370.4	47.1
0°-40°	2061.0	70.8
0°-60°	2740.5	94.2
0°-90°	2910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2910.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1781	1781	1781	1781	1781	
5°	1762	1762	1787	1810	1810	166
15°	1637	1669	1743	1810	1832	461
25°	1439	1487	1574	1634	1660	657
35°	1028	1076	1120	1181	1200	637
45°	581	597	504	552	558	459
55°	405	396	179	204	204	361
65°	249	230	51	54	54	245
75°	86	80	13	13	13	96
85°	10	10	3	3	3	15
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°	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9
2.5°	1768.1	1752.2	1758.6	1755.4	1758.6	1755.4	1764.9	1755.4	1761.8	1768.1	1755.4
5°	1761.8	1745.8	1749.0	1749.0	1749.0	1749.0	1758.6	1749.0	1755.4	1761.8	1752.2
7.5°	1733.0	1720.3	1723.5	1723.5	1723.5	1723.5	1733.0	1726.6	1733.0	1742.6	1733.0
10°	1697.9	1685.2	1691.5	1691.5	1691.5	1691.5	1704.3	1697.9	1704.3	1717.1	1707.5
12.5°	1666.0	1656.4	1662.8	1662.8	1662.8	1666.0	1675.6	1672.4	1678.8	1694.7	1685.2
15°	1637.3	1627.7	1634.1	1634.1	1634.1	1637.3	1646.9	1650.0	1656.4	1669.2	1662.8
17.5°	1599.0	1589.4	1599.0	1599.0	1595.8	1602.2	1614.9	1614.9	1621.3	1637.3	1634.1
20°	1554.3	1544.7	1554.3	1554.3	1551.1	1557.5	1570.3	1573.5	1579.8	1595.8	1592.6
22.5°	1500.0	1496.9	1500.0	1506.4	1503.2	1506.4	1519.2	1522.4	1528.8	1547.9	1544.7
25°	1439.4	1436.2	1442.6	1445.8	1442.6	1445.8	1458.6	1461.7	1468.1	1487.3	1487.3
27.5°	1359.6	1356.4	1366.0	1366.0	1366.0	1372.4	1382.0	1388.3	1391.5	1413.9	1410.7
30°	1263.9	1260.7	1267.1	1270.3	1270.3	1270.3	1283.0	1292.6	1295.8	1314.9	1314.9
32.5°	1152.2	1152.2	1155.4	1161.7	1158.5	1164.9	1174.5	1180.9	1187.3	1203.2	1203.2
35°	1027.7	1030.9	1034.1	1040.5	1037.3	1040.5	1050.0	1056.4	1059.6	1075.6	1072.4
37.5°	896.8	900.0	903.2	906.4	906.4	909.6	919.2	922.4	925.6	938.3	931.9
40°	772.4	772.4	775.6	781.9	778.7	785.1	791.5	794.7	794.7	804.3	797.9
42.5°	663.8	667.0	670.2	673.4	673.4	676.6	683.0	686.2	686.2	689.4	679.8
45°	580.9	584.1	584.1	590.4	590.4	593.6	596.8	600.0	596.8	596.8	587.3
47.5°	520.2	523.4	526.6	529.8	529.8	533.0	536.2	536.2	533.0	529.8	517.0
50°	472.4	478.7	478.7	481.9	485.1	488.3	488.3	488.3	481.9	478.7	459.6
52.5°	437.2	440.4	443.6	446.8	446.8	450.0	453.2	450.0	443.6	434.1	414.9
55°	405.3	408.5	411.7	414.9	414.9	414.9	414.9	411.7	405.3	395.8	376.6
57.5°	370.2	373.4	376.6	379.8	379.8	379.8	379.8	376.6	370.2	357.5	335.1
60°	331.9	335.1	338.3	341.5	341.5	341.5	338.3	335.1	328.7	319.2	296.8
62.5°	290.4	293.6	296.8	296.8	296.8	293.6	293.6	290.4	284.1	274.5	252.1
65°	248.9	248.9	252.1	252.1	252.1	252.1	248.9	245.8	239.4	229.8	213.8
67.5°	204.3	207.5	207.5	207.5	207.5	207.5	204.3	204.3	197.9	188.3	175.5
70°	162.8	162.8	166.0	166.0	166.0	166.0	162.8	162.8	156.4	150.0	137.2
72.5°	121.3	121.3	121.3	124.5	124.5	124.5	121.3	121.3	118.1	111.7	102.1
75°	86.2	86.2	86.2	89.4	89.4	89.4	89.4	86.2	83.0	79.8	73.4
77.5°	57.4	60.6	57.4	57.4	57.4	60.6	57.4	57.4	57.4	54.3	47.9
80°	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	35.1	35.1	31.9
82.5°	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	19.1	19.1
85°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
87.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
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°	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9
2.5°	1764.9	1771.3	1777.7	1771.3	1761.8	1780.9	1777.7	1780.9	1777.7	1771.3	1790.5
5°	1761.8	1768.1	1777.7	1771.3	1764.9	1784.1	1780.9	1787.3	1787.3	1780.9	1800.1
7.5°	1742.6	1749.0	1764.9	1758.6	1752.2	1771.3	1774.5	1780.9	1784.1	1777.7	1800.1
10°	1720.3	1726.6	1742.6	1739.4	1736.2	1758.6	1761.8	1768.1	1771.3	1768.1	1790.5
12.5°	1697.9	1707.5	1723.5	1720.3	1720.3	1742.6	1745.8	1755.4	1761.8	1758.6	1784.1
15°	1675.6	1688.3	1707.5	1704.3	1704.3	1729.8	1733.0	1742.6	1749.0	1749.0	1774.5
17.5°	1646.9	1659.6	1678.8	1675.6	1682.0	1701.1	1707.5	1720.3	1726.6	1723.5	1752.2
20°	1605.4	1621.3	1640.5	1637.3	1640.5	1666.0	1672.4	1682.0	1688.3	1688.3	1713.9
22.5°	1557.5	1573.5	1592.6	1589.4	1595.8	1614.9	1621.3	1634.1	1640.5	1637.3	1662.8
25°	1500.0	1516.0	1532.0	1532.0	1535.2	1557.5	1563.9	1573.5	1583.0	1579.8	1602.2
27.5°	1423.4	1439.4	1455.4	1452.2	1455.4	1477.7	1484.1	1493.7	1503.2	1500.0	1522.4
30°	1324.5	1340.5	1353.2	1350.0	1353.2	1375.6	1378.8	1391.5	1401.1	1401.1	1420.3
32.5°	1209.6	1225.6	1232.0	1225.6	1232.0	1247.9	1254.3	1267.1	1273.4	1276.6	1295.8
35°	1078.8	1088.3	1091.5	1085.1	1085.1	1101.1	1107.5	1120.2	1126.6	1129.8	1145.8
37.5°	935.1	941.5	935.1	925.6	928.8	935.1	944.7	954.3	963.9	967.0	983.0
40°	794.7	791.5	781.9	766.0	762.8	772.4	778.7	788.3	794.7	801.1	810.7
42.5°	670.2	663.8	644.7	625.6	622.4	622.4	625.6	635.1	641.5	644.7	657.5
45°	571.3	558.5	529.8	507.5	494.7	497.9	497.9	504.3	507.5	513.8	523.4
47.5°	494.7	472.4	437.2	408.5	395.8	392.6	392.6	395.8	398.9	405.3	411.7
50°	434.1	405.3	363.8	331.9	316.0	309.6	309.6	306.4	312.8	316.0	322.3
52.5°	386.2	351.1	303.2	268.1	248.9	242.6	239.4	239.4	239.4	242.6	248.9
55°	341.5	303.2	252.1	217.0	194.7	188.3	181.9	178.7	181.9	185.1	188.3
57.5°	303.2	261.7	210.6	172.3	153.2	143.6	137.2	134.0	134.0	137.2	140.4
60°	264.9	223.4	172.3	137.2	118.1	108.5	102.1	98.9	98.9	102.1	102.1
62.5°	223.4	185.1	140.4	108.5	89.4	79.8	73.4	73.4	70.2	70.2	73.4
65°	188.3	153.2	114.9	86.2	67.0	60.6	54.3	51.1	51.1	47.9	51.1
67.5°	153.2	124.5	92.6	67.0	51.1	44.7	38.3	38.3	35.1	35.1	35.1
70°	121.3	98.9	73.4	51.1	41.5	31.9	28.7	25.5	25.5	25.5	25.5
72.5°	89.4	73.4	54.3	38.3	28.7	25.5	22.3	19.1	16.0	16.0	16.0
75°	63.8	51.1	38.3	28.7	22.3	19.1	16.0	12.8	12.8	12.8	12.8
77.5°	44.7	35.1	28.7	19.1	16.0	12.8	9.6	9.6	9.6	9.6	6.4
80°	28.7	22.3	19.1	12.8	9.6	9.6	6.4	6.4	6.4	6.4	6.4
82.5°	16.0	12.8	9.6	9.6	6.4	6.4	3.2	3.2	3.2	3.2	3.2
85°	6.4	6.4	6.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
87.5°	3.2	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9	1780.9
2.5°	1771.3	1784.1	1784.1	1790.5	1780.9	1787.3	1796.9	1793.7	1784.1	1787.3	1790.5
5°	1784.1	1796.9	1800.1	1809.6	1800.1	1809.6	1822.4	1819.2	1809.6	1816.0	1819.2
7.5°	1784.1	1800.1	1806.4	1816.0	1809.6	1819.2	1835.2	1832.0	1822.4	1828.8	1835.2
10°	1777.7	1793.7	1803.2	1812.8	1806.4	1819.2	1832.0	1832.0	1825.6	1832.0	1841.5
12.5°	1771.3	1787.3	1796.9	1806.4	1800.1	1816.0	1832.0	1828.8	1825.6	1832.0	1841.5
15°	1761.8	1777.7	1787.3	1796.9	1793.7	1809.6	1825.6	1825.6	1819.2	1828.8	1838.4
17.5°	1739.4	1755.4	1768.1	1774.5	1771.3	1787.3	1803.2	1803.2	1796.9	1806.4	1816.0
20°	1701.1	1717.1	1729.8	1736.2	1733.0	1745.8	1761.8	1764.9	1758.6	1768.1	1777.7
22.5°	1653.2	1666.0	1678.8	1685.2	1682.0	1694.7	1710.7	1713.9	1707.5	1717.1	1723.5
25°	1595.8	1605.4	1618.1	1624.5	1621.3	1634.1	1650.0	1650.0	1646.9	1653.2	1659.6
27.5°	1516.0	1528.8	1538.3	1544.7	1544.7	1554.3	1567.1	1570.3	1567.1	1573.5	1583.0
30°	1417.1	1423.4	1436.2	1439.4	1442.6	1452.2	1464.9	1464.9	1461.7	1468.1	1477.7
32.5°	1292.6	1302.2	1311.7	1314.9	1318.1	1327.7	1337.3	1340.5	1337.3	1343.7	1353.2
35°	1145.8	1155.4	1164.9	1168.1	1171.3	1180.9	1190.5	1193.7	1190.5	1196.8	1206.4
37.5°	983.0	989.4	999.0	1002.2	1008.5	1014.9	1021.3	1027.7	1024.5	1030.9	1037.3
40°	817.0	820.2	829.8	833.0	839.4	845.8	852.2	855.3	855.3	858.5	861.7
42.5°	660.7	667.0	673.4	676.6	683.0	686.2	692.6	695.8	695.8	699.0	702.1
45°	526.6	533.0	539.4	542.6	549.0	552.1	555.3	558.5	555.3	555.3	561.7
47.5°	414.9	421.3	427.7	430.9	434.1	437.2	440.4	440.4	440.4	443.6	443.6
50°	325.5	328.7	335.1	335.1	341.5	341.5	344.7	344.7	344.7	344.7	347.9
52.5°	252.1	255.3	261.7	261.7	264.9	268.1	268.1	268.1	268.1	271.3	268.1
55°	191.5	194.7	197.9	197.9	204.3	204.3	204.3	204.3	204.3	204.3	204.3
57.5°	143.6	146.8	150.0	150.0	150.0	153.2	150.0	153.2	153.2	153.2	153.2
60°	105.3	108.5	108.5	108.5	111.7	111.7	111.7	111.7	111.7	111.7	111.7
62.5°	73.4	73.4	76.6	76.6	76.6	79.8	76.6	76.6	79.8	79.8	76.6
65°	51.1	51.1	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3
67.5°	35.1	35.1	35.1	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
70°	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
72.5°	16.0	16.0	16.0	16.0	19.1	19.1	19.1	19.1	19.1	19.1	19.1
75°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
77.5°	6.4	6.4	9.6	9.6	9.6	6.4	6.4	6.4	9.6	9.6	6.4
80°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
82.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
85°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	0.0	3.2	3.2	3.2
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: P136451

CATALOG NUMBER: LD6A30D010TE ERW6A30840 6LW111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1780.9	1780.9	1780.9	1780.9
2.5°	1790.5	1787.3	1790.5	1780.9
5°	1819.2	1816.0	1822.4	1809.6
7.5°	1838.4	1835.2	1841.5	1828.8
10°	1841.5	1841.5	1847.9	1835.2
12.5°	1841.5	1841.5	1847.9	1835.2
15°	1841.5	1838.4	1844.7	1832.0
17.5°	1819.2	1819.2	1825.6	1812.8
20°	1777.7	1777.7	1784.1	1774.5
22.5°	1726.6	1726.6	1729.8	1720.3
25°	1662.8	1659.6	1666.0	1659.6
27.5°	1583.0	1579.8	1583.0	1576.6
30°	1474.5	1471.3	1477.7	1471.3
32.5°	1353.2	1346.8	1353.2	1346.8
35°	1203.2	1196.8	1203.2	1200.0
37.5°	1037.3	1030.9	1037.3	1034.1
40°	861.7	858.5	864.9	861.7
42.5°	702.1	695.8	702.1	699.0
45°	561.7	555.3	561.7	558.5
47.5°	443.6	440.4	446.8	443.6
50°	347.9	344.7	347.9	347.9
52.5°	268.1	264.9	268.1	268.1
55°	204.3	201.1	204.3	204.3
57.5°	153.2	150.0	153.2	153.2
60°	111.7	111.7	111.7	111.7
62.5°	79.8	76.6	79.8	79.8
65°	54.3	54.3	54.3	54.3
67.5°	38.3	38.3	38.3	38.3
70°	25.5	25.5	25.5	25.5
72.5°	19.1	19.1	19.1	16.0
75°	12.8	12.8	12.8	12.8
77.5°	9.6	6.4	9.6	9.6
80°	6.4	6.4	6.4	6.4
82.5°	3.2	3.2	3.2	3.2
85°	3.2	3.2	3.2	3.2
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)