

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: P135975

Luminaire Tested: **LD6A30D010TE ERM6A30940 6LM121H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135975
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23373)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A30D010TE ERM6A30940 6LM121H
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE 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: 2639.5 lumens
Efficiency: N/A
Efficacy: 58.1 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 1.06 / 1.01
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

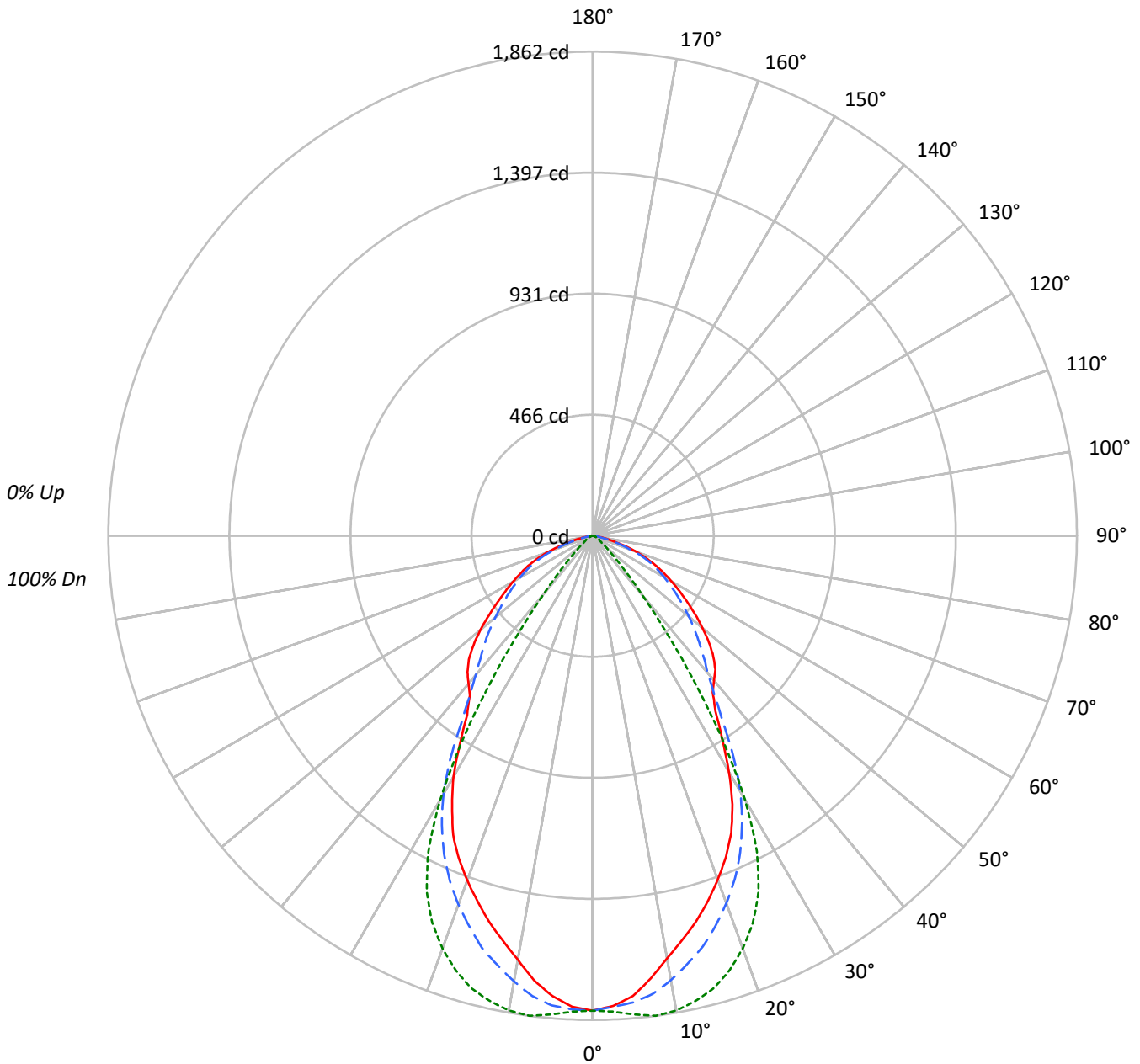
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79			79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70			70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62			62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56			56
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51			51
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	47			47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43			43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36			36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	119142	119142	119142
5°	116343	121045	116343
10°	109281	122809	109652
15°	103785	121664	103785
20°	97671	117208	97872
25°	90752	108618	91349
30°	78972	88321	80629
35°	65475	53385	67005
40°	61788	24902	63201
45°	60571	11708	62103
50°	55996	6161	57122
55°	50525	4083	50832
60°	45708	3236	46073
65°	40893	2547	42159
70°	33687	2098	34736
75°	22258	1386	22258
80°	12436	1014	12436
85°	8234	0	6213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.4	6.5
10°-20°	462.1	17.5
20°-30°	617.7	23.4
30°-40°	510.8	19.4
40°-50°	366.5	13.9
50°-60°	269.4	10.2
60°-70°	173.9	6.6
70°-80°	61.6	2.3
80°-90°	7.1	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°	1250.2	47.4
0°-40°	1760.9	66.7
0°-60°	2396.8	90.8
0°-90°	2639.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2639.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1826	1826	1826	1826	1826	
5°	1776	1801	1848	1812	1776	165
15°	1537	1636	1801	1641	1537	431
25°	1261	1344	1509	1352	1269	573
35°	822	872	670	880	841	529
45°	656	579	127	588	673	502
55°	444	394	36	400	447	399
65°	265	246	16	248	273	261
75°	88	72	6	72	88	100
85°	11	6	0	6	8	13
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°	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2
2.5°	1809.7	1795.9	1806.9	1795.9	1798.6	1809.7	1812.4	1817.9	1820.7	1812.4	1812.4
5°	1776.5	1762.7	1776.5	1765.5	1771.0	1784.8	1787.6	1798.6	1804.1	1801.3	1806.9
7.5°	1715.8	1704.8	1718.6	1710.3	1718.6	1737.9	1746.2	1760.0	1771.0	1776.5	1784.8
10°	1649.6	1638.6	1652.4	1644.1	1657.9	1680.0	1688.2	1704.8	1721.4	1735.2	1748.9
12.5°	1591.7	1580.7	1589.0	1586.2	1599.9	1619.3	1633.1	1652.4	1671.7	1685.5	1704.8
15°	1536.6	1525.5	1536.6	1531.0	1542.1	1564.2	1577.9	1597.2	1619.3	1635.8	1657.9
17.5°	1473.1	1462.1	1470.3	1467.6	1478.6	1498.0	1511.7	1531.0	1553.1	1572.4	1594.5
20°	1406.8	1395.9	1404.1	1398.6	1409.7	1431.7	1442.7	1464.8	1484.1	1503.4	1522.7
22.5°	1337.9	1326.9	1337.9	1329.6	1346.2	1360.0	1371.1	1393.1	1409.7	1428.9	1445.5
25°	1260.7	1249.6	1257.9	1252.4	1263.4	1280.0	1288.2	1310.3	1324.1	1343.5	1360.0
27.5°	1164.2	1150.3	1166.9	1155.9	1169.6	1183.4	1191.7	1211.0	1227.5	1244.1	1257.9
30°	1048.3	1037.3	1053.8	1045.5	1062.1	1073.0	1084.1	1103.5	1117.2	1136.5	1139.3
32.5°	926.9	921.4	935.2	929.6	946.2	957.2	965.5	984.9	995.8	1006.9	998.6
35°	822.1	816.6	830.4	827.5	841.3	849.6	857.9	869.0	869.0	871.7	849.6
37.5°	758.6	755.9	766.9	764.1	775.1	783.4	783.4	786.2	780.7	766.9	733.8
40°	725.5	722.7	731.0	728.3	736.5	739.3	736.5	731.0	714.5	686.8	642.8
42.5°	697.9	692.4	697.9	695.2	700.7	703.5	695.2	686.8	664.8	631.7	579.3
45°	656.5	651.1	659.3	653.8	659.3	659.3	651.1	640.0	615.2	579.3	524.2
47.5°	606.9	601.4	609.6	604.1	609.6	609.6	601.4	590.3	565.5	529.6	474.5
50°	551.7	546.2	551.7	549.0	554.5	557.2	546.2	537.9	515.8	482.8	427.6
52.5°	496.6	491.0	496.6	496.6	499.3	499.3	491.0	485.5	466.2	435.9	386.2
55°	444.2	438.6	446.9	444.2	446.9	446.9	438.6	433.1	419.3	394.5	347.6
57.5°	394.5	391.7	397.2	394.5	394.5	394.5	388.9	386.2	375.2	353.1	314.4
60°	350.3	344.8	347.6	347.6	347.6	350.3	344.8	342.1	333.8	317.3	281.4
62.5°	306.2	303.5	306.2	303.5	303.5	306.2	303.5	300.7	295.2	281.4	251.1
65°	264.9	259.3	264.9	262.0	262.0	262.0	259.3	259.3	253.8	245.5	217.9
67.5°	220.7	217.9	220.7	217.9	215.2	215.2	212.5	212.5	209.6	204.1	179.3
70°	176.6	171.0	173.8	168.3	171.0	165.5	165.5	162.8	160.0	157.2	138.0
72.5°	129.6	126.9	126.9	121.3	121.3	118.6	115.9	115.9	113.1	113.1	99.3
75°	88.3	88.3	85.5	80.0	82.7	77.2	77.2	77.2	74.5	71.8	63.5
77.5°	58.0	55.1	55.1	52.4	52.4	46.9	49.7	46.9	46.9	44.1	38.6
80°	33.1	33.1	33.1	30.3	30.3	27.6	27.6	27.6	24.8	24.8	22.1
82.5°	19.4	19.4	19.4	16.5	16.5	16.5	16.5	13.8	13.8	13.8	11.0
85°	11.0	8.3	8.3	8.3	8.3	8.3	8.3	5.5	5.5	5.5	5.5
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2
2.5°	1823.4	1820.7	1817.9	1828.9	1831.7	1823.4	1823.4	1831.7	1837.2	1823.4	1820.7
5°	1820.7	1823.4	1823.4	1837.2	1845.5	1840.0	1840.0	1848.3	1853.8	1837.2	1831.7
7.5°	1806.9	1815.1	1820.7	1840.0	1853.8	1851.0	1853.8	1862.1	1864.8	1848.3	1840.0
10°	1776.5	1787.6	1798.6	1823.4	1840.0	1842.7	1845.5	1853.8	1859.3	1837.2	1826.2
12.5°	1735.2	1751.7	1768.3	1795.9	1815.1	1817.9	1826.2	1831.7	1834.5	1815.1	1801.3
15°	1688.2	1710.3	1726.8	1757.3	1779.3	1784.8	1793.0	1801.3	1801.3	1779.3	1765.5
17.5°	1630.3	1649.6	1671.7	1702.0	1726.8	1732.4	1743.5	1751.7	1751.7	1729.7	1710.3
20°	1558.6	1580.7	1599.9	1633.1	1660.7	1669.0	1680.0	1688.2	1688.2	1669.0	1644.1
22.5°	1484.1	1506.2	1525.5	1555.8	1583.4	1591.7	1599.9	1611.0	1608.2	1591.7	1569.6
25°	1395.9	1415.2	1428.9	1459.3	1481.3	1489.7	1500.7	1508.9	1506.2	1489.7	1470.3
27.5°	1288.2	1302.0	1304.8	1324.1	1343.5	1351.7	1360.0	1368.2	1365.5	1351.7	1335.2
30°	1164.2	1161.3	1147.5	1147.5	1155.9	1161.3	1166.9	1172.4	1169.6	1161.3	1150.3
32.5°	1006.9	987.6	951.7	932.4	924.1	924.1	924.1	929.6	926.9	924.1	924.1
35°	838.6	797.2	742.1	700.7	678.6	670.3	664.8	670.3	667.6	670.3	681.4
37.5°	700.7	640.0	565.5	510.4	474.5	458.0	446.9	449.7	449.7	458.0	477.2
40°	598.7	521.4	438.6	369.7	328.3	306.2	292.4	292.4	295.2	306.2	331.1
42.5°	521.4	435.9	344.8	278.6	229.0	206.9	193.1	190.4	193.1	206.9	231.7
45°	460.7	369.7	278.6	206.9	165.5	140.7	129.6	126.9	129.6	143.4	165.5
47.5°	408.3	317.3	231.7	160.0	118.6	99.3	88.3	85.5	91.0	102.1	121.3
50°	364.1	275.8	190.4	126.9	91.0	71.8	63.5	60.7	63.5	74.5	91.0
52.5°	322.7	240.0	160.0	99.3	68.9	55.1	46.9	44.1	46.9	55.1	71.8
55°	289.7	212.5	138.0	82.7	55.1	44.1	38.6	35.9	38.6	44.1	58.0
57.5°	259.3	187.6	118.6	68.9	46.9	35.9	30.3	30.3	30.3	35.9	46.9
60°	231.7	165.5	102.1	58.0	38.6	30.3	24.8	24.8	24.8	30.3	38.6
62.5°	206.9	146.2	88.3	49.7	33.1	24.8	22.1	22.1	22.1	24.8	33.1
65°	176.6	124.2	74.5	41.4	27.6	22.1	19.4	16.5	19.4	22.1	27.6
67.5°	146.2	102.1	60.7	33.1	22.1	16.5	13.8	13.8	13.8	16.5	22.1
70°	113.1	80.0	46.9	24.8	16.5	13.8	11.0	11.0	11.0	13.8	16.5
72.5°	77.2	55.1	33.1	19.4	13.8	11.0	8.3	8.3	8.3	11.0	13.8
75°	49.7	35.9	22.1	13.8	8.3	8.3	5.5	5.5	5.5	8.3	8.3
77.5°	30.3	22.1	13.8	8.3	5.5	5.5	5.5	5.5	5.5	5.5	5.5
80°	16.5	13.8	8.3	5.5	5.5	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	8.3	8.3	5.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
85°	2.7	2.7	2.7	2.7	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2
2.5°	1820.7	1826.2	1828.9	1817.9	1820.7	1823.4	1806.9	1809.7	1801.3	1817.9	1809.7
5°	1828.9	1831.7	1834.5	1817.9	1815.1	1812.4	1793.0	1790.3	1779.3	1793.0	1784.8
7.5°	1831.7	1826.2	1826.2	1801.3	1793.0	1784.8	1760.0	1751.7	1737.9	1743.5	1732.4
10°	1817.9	1806.9	1798.6	1768.3	1754.4	1740.6	1710.3	1699.3	1680.0	1682.8	1669.0
12.5°	1787.6	1773.8	1760.0	1726.8	1710.3	1691.1	1660.7	1644.1	1624.8	1624.8	1608.2
15°	1748.9	1732.4	1715.8	1682.8	1660.7	1641.4	1605.5	1589.0	1569.6	1566.9	1553.1
17.5°	1693.8	1674.4	1657.9	1619.3	1597.2	1575.2	1542.1	1522.7	1503.4	1503.4	1486.9
20°	1627.6	1605.5	1586.2	1550.4	1528.3	1508.9	1470.3	1453.8	1437.2	1434.5	1420.7
22.5°	1550.4	1528.3	1511.7	1478.6	1453.8	1434.5	1401.4	1387.6	1371.1	1368.2	1351.7
25°	1453.8	1434.5	1417.9	1390.3	1368.2	1351.7	1321.4	1304.8	1293.8	1293.8	1280.0
27.5°	1324.1	1307.6	1304.8	1282.8	1266.1	1255.2	1230.4	1219.3	1205.5	1205.5	1188.9
30°	1150.3	1153.1	1164.2	1158.6	1153.1	1147.5	1125.5	1122.7	1106.2	1103.5	1084.1
32.5°	937.9	957.2	987.6	1004.1	1012.4	1017.9	1012.4	1006.9	993.1	990.3	968.2
35°	711.7	750.3	800.0	833.1	860.7	879.9	888.3	888.3	882.8	879.9	860.7
37.5°	515.8	573.8	640.0	695.2	739.3	775.1	791.8	802.7	802.7	802.7	794.5
40°	377.9	446.9	524.2	595.8	651.1	697.9	722.7	742.1	747.6	755.9	750.3
42.5°	281.4	355.9	438.6	521.4	584.8	637.3	670.3	692.4	706.2	714.5	714.5
45°	215.2	289.7	375.2	463.4	529.6	587.6	620.7	645.5	659.3	670.3	670.3
47.5°	165.5	237.2	322.7	411.0	480.0	537.9	571.0	593.1	606.9	617.9	617.9
50°	129.6	195.8	278.6	364.1	433.1	488.3	518.6	540.7	551.7	560.0	562.8
52.5°	104.8	165.5	245.5	328.3	391.7	441.3	466.2	485.5	496.6	502.1	504.8
55°	85.5	143.4	217.9	292.4	353.1	400.0	422.1	435.9	444.2	449.7	449.7
57.5°	71.8	124.2	193.1	264.9	322.7	358.6	377.9	388.9	394.5	400.0	400.0
60°	60.7	107.6	171.0	237.2	289.7	322.7	336.5	344.8	350.3	353.1	353.1
62.5°	52.4	91.0	149.0	209.6	256.6	286.9	297.9	303.5	306.2	306.2	309.0
65°	44.1	77.2	126.9	182.1	220.7	248.2	256.6	259.3	259.3	262.0	264.9
67.5°	33.1	60.7	102.1	149.0	182.1	204.1	212.5	212.5	212.5	212.5	215.2
70°	27.6	46.9	77.2	113.1	140.7	157.2	162.8	162.8	162.8	162.8	165.5
72.5°	19.4	33.1	55.1	80.0	102.1	113.1	113.1	115.9	113.1	113.1	118.6
75°	13.8	22.1	35.9	52.4	63.5	71.8	74.5	74.5	74.5	74.5	77.2
77.5°	8.3	13.8	22.1	30.3	41.4	44.1	46.9	46.9	46.9	46.9	49.7
80°	5.5	8.3	13.8	19.4	22.1	24.8	27.6	27.6	27.6	27.6	27.6
82.5°	2.7	5.5	8.3	8.3	11.0	13.8	13.8	13.8	13.8	13.8	16.5
85°	0.0	2.7	2.7	5.5	5.5	5.5	5.5	5.5	5.5	5.5	8.3
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: P135975

CATALOG NUMBER: LD6A30D010TE ERM6A30940 6LM121H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1826.2	1826.2	1826.2	1826.2
2.5°	1793.0	1812.4	1798.6	1812.4
5°	1765.5	1782.1	1765.5	1776.5
7.5°	1710.3	1724.1	1707.6	1724.1
10°	1644.1	1657.9	1641.4	1655.2
12.5°	1583.4	1594.5	1577.9	1594.5
15°	1528.3	1539.3	1522.7	1536.6
17.5°	1464.8	1473.1	1459.3	1473.1
20°	1398.6	1406.8	1395.9	1409.7
22.5°	1332.4	1343.5	1329.6	1343.5
25°	1257.9	1266.1	1252.4	1269.0
27.5°	1169.6	1175.1	1161.3	1169.6
30°	1062.1	1064.8	1053.8	1070.3
32.5°	949.0	949.0	932.4	949.0
35°	844.2	841.3	830.4	841.3
37.5°	778.0	778.0	769.7	775.1
40°	739.3	742.1	731.0	742.1
42.5°	706.2	711.7	703.5	711.7
45°	664.8	670.3	662.0	673.1
47.5°	612.4	617.9	612.4	620.7
50°	554.5	560.0	554.5	562.8
52.5°	496.6	502.1	496.6	502.1
55°	444.2	446.9	441.3	446.9
57.5°	394.5	397.2	391.7	397.2
60°	347.6	353.1	347.6	353.1
62.5°	306.2	309.0	309.0	311.7
65°	262.0	273.1	270.3	273.1
67.5°	217.9	226.2	226.2	229.0
70°	168.3	173.8	179.3	182.1
72.5°	118.6	126.9	129.6	132.4
75°	77.2	85.5	85.5	88.3
77.5°	49.7	55.1	55.1	55.1
80°	30.3	33.1	30.3	33.1
82.5°	16.5	16.5	16.5	19.4
85°	8.3	8.3	8.3	8.3
87.5°	2.7	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)