

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: P135971

Luminaire Tested: **LD6A30D010TE ERM6A30840 6LM121H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135971
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 ERM6A30840 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: 2891.0 lumens
Efficiency: N/A
Efficacy: 63.7 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

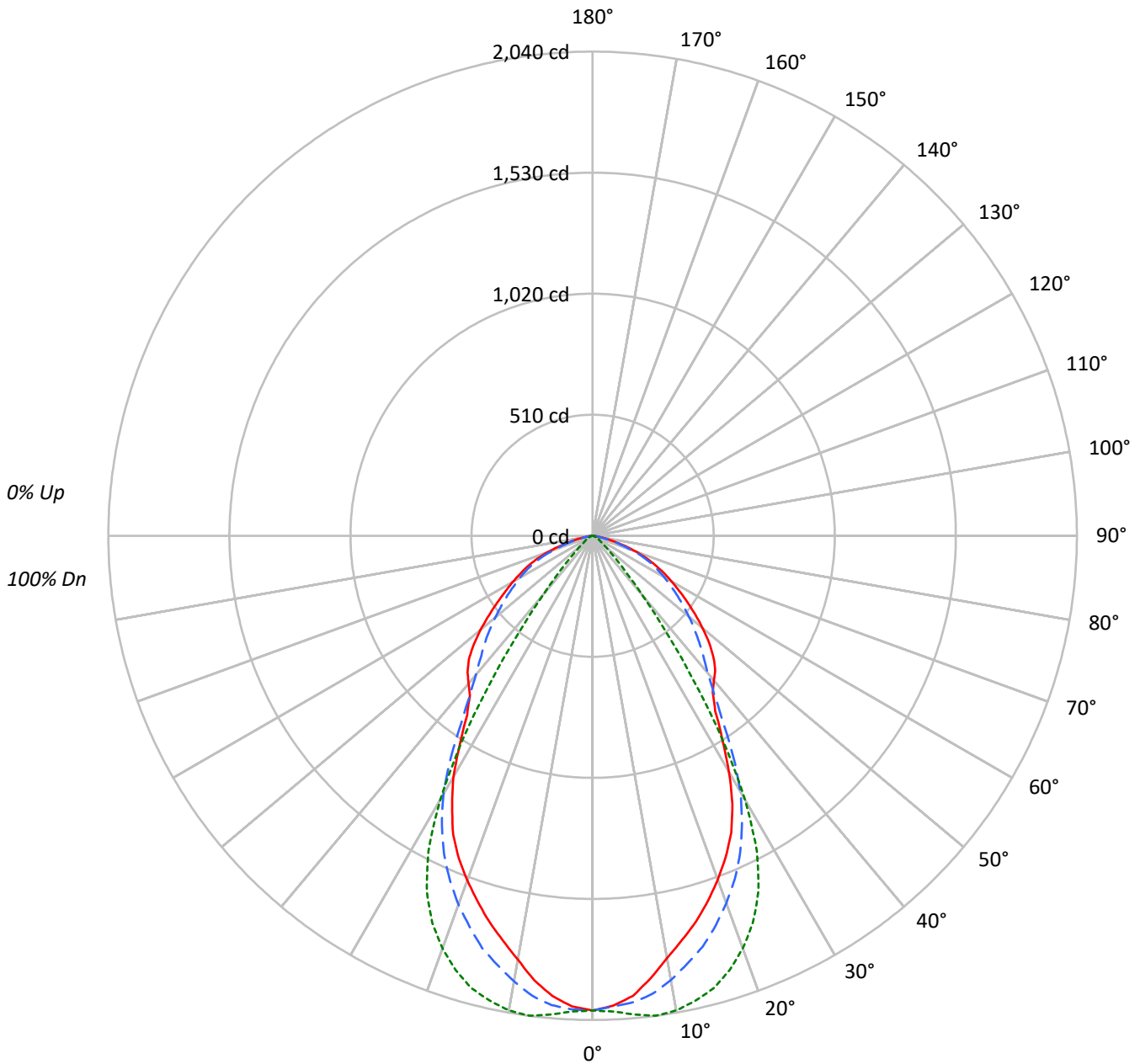
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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								
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79								
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70								
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62								
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56								
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51								
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	47								
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43								
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39								
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	130494	130494	130494
5°	127430	132578	127430
10°	119695	134508	120099
15°	113673	133260	113673
20°	106981	128379	107196
25°	99397	118970	100052
30°	86498	96736	88313
35°	71712	58475	73392
40°	67673	27279	69223
45°	66347	12825	68017
50°	61334	6750	62562
55°	55336	4470	55677
60°	50066	3549	50457
65°	44783	2794	46173
70°	36891	2308	38036
75°	24375	1512	24375
80°	13638	1127	13638
85°	9057	0	6812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.6	6.5
10°-20°	506.1	17.5
20°-30°	676.6	23.4
30°-40°	559.4	19.4
40°-50°	401.4	13.9
50°-60°	295.0	10.2
60°-70°	190.5	6.6
70°-80°	67.5	2.3
80°-90°	7.8	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°	1369.3	47.4
0°-40°	1928.7	66.7
0°-60°	2625.2	90.8
0°-90°	2891.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2891.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2000	2000	2000	2000	2000	
5°	1946	1973	2024	1985	1946	181
15°	1683	1792	1973	1798	1683	472
25°	1381	1472	1653	1480	1390	627
35°	900	955	734	964	922	579
45°	719	634	139	644	737	549
55°	486	432	39	438	490	437
65°	290	269	18	272	299	286
75°	97	79	6	79	97	110
85°	12	6	0	6	9	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°	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2
2.5°	1982.1	1967.0	1979.1	1967.0	1970.0	1982.1	1985.1	1991.1	1994.2	1985.1	1985.1
5°	1945.8	1930.7	1945.8	1933.7	1939.8	1954.9	1957.9	1970.0	1976.0	1973.0	1979.1
7.5°	1879.3	1867.3	1882.4	1873.3	1882.4	1903.5	1912.6	1927.7	1939.8	1945.8	1954.9
10°	1806.8	1794.7	1809.9	1800.8	1815.9	1840.1	1849.1	1867.3	1885.4	1900.5	1915.6
12.5°	1743.4	1731.3	1740.4	1737.3	1752.4	1773.6	1788.7	1809.9	1831.0	1846.1	1867.3
15°	1683.0	1670.9	1683.0	1676.9	1689.0	1713.2	1728.3	1749.4	1773.6	1791.7	1815.9
17.5°	1613.5	1601.4	1610.4	1607.4	1619.5	1640.7	1655.8	1676.9	1701.1	1722.2	1746.4
20°	1540.9	1528.9	1537.9	1531.9	1544.0	1568.1	1580.2	1604.4	1625.5	1646.7	1667.8
22.5°	1465.4	1453.3	1465.4	1456.3	1474.5	1489.6	1501.7	1525.8	1544.0	1565.1	1583.2
25°	1380.8	1368.7	1377.8	1371.7	1383.8	1402.0	1411.0	1435.2	1450.3	1471.5	1489.6
27.5°	1275.1	1259.9	1278.1	1266.0	1281.1	1296.2	1305.3	1326.4	1344.5	1362.7	1377.8
30°	1148.2	1136.1	1154.2	1145.1	1163.3	1175.3	1187.4	1208.6	1223.7	1244.8	1247.9
32.5°	1015.2	1009.2	1024.3	1018.2	1036.4	1048.4	1057.5	1078.7	1090.7	1102.8	1093.8
35°	900.4	894.4	909.5	906.4	921.5	930.6	939.7	951.8	951.8	954.8	930.6
37.5°	830.9	827.9	840.0	836.9	849.0	858.1	858.1	861.1	855.1	840.0	803.7
40°	794.6	791.6	800.7	797.7	806.7	809.8	806.7	800.7	782.6	752.3	704.0
42.5°	764.4	758.4	764.4	761.4	767.5	770.5	761.4	752.3	728.2	691.9	634.5
45°	719.1	713.1	722.1	716.1	722.1	722.1	713.1	701.0	673.8	634.5	574.1
47.5°	664.7	658.7	667.7	661.7	667.7	667.7	658.7	646.6	619.4	580.1	519.7
50°	604.3	598.2	604.3	601.3	607.3	610.3	598.2	589.2	565.0	528.8	468.3
52.5°	543.9	537.8	543.9	543.9	546.9	546.9	537.8	531.8	510.6	477.4	423.0
55°	486.5	480.4	489.5	486.5	489.5	489.5	480.4	474.4	459.3	432.1	380.7
57.5°	432.1	429.0	435.1	432.1	432.1	432.1	426.0	423.0	410.9	386.7	344.4
60°	383.7	377.7	380.7	380.7	380.7	383.7	377.7	374.7	365.6	347.5	308.2
62.5°	335.4	332.4	335.4	332.4	332.4	335.4	332.4	329.3	323.3	308.2	275.0
65°	290.1	284.0	290.1	287.0	287.0	287.0	284.0	284.0	278.0	268.9	238.7
67.5°	241.7	238.7	241.7	238.7	235.7	235.7	232.7	232.7	229.6	223.6	196.4
70°	193.4	187.3	190.4	184.3	187.3	181.3	181.3	178.3	175.2	172.2	151.1
72.5°	142.0	139.0	139.0	132.9	132.9	129.9	126.9	126.9	123.9	123.9	108.8
75°	96.7	96.7	93.7	87.6	90.6	84.6	84.6	84.6	81.6	78.6	69.5
77.5°	63.5	60.4	60.4	57.4	57.4	51.4	54.4	51.4	51.4	48.3	42.3
80°	36.3	36.3	36.3	33.2	33.2	30.2	30.2	30.2	27.2	27.2	24.2
82.5°	21.2	21.2	21.2	18.1	18.1	18.1	18.1	15.1	15.1	15.1	12.1
85°	12.1	9.1	9.1	9.1	9.1	9.1	9.1	6.0	6.0	6.0	6.0
87.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2
2.5°	1997.2	1994.2	1991.1	2003.2	2006.2	1997.2	1997.2	2006.2	2012.3	1997.2	1994.2
5°	1994.2	1997.2	1997.2	2012.3	2021.4	2015.3	2015.3	2024.4	2030.4	2012.3	2006.2
7.5°	1979.1	1988.1	1994.2	2015.3	2030.4	2027.4	2030.4	2039.5	2042.5	2024.4	2015.3
10°	1945.8	1957.9	1970.0	1997.2	2015.3	2018.3	2021.4	2030.4	2036.5	2012.3	2000.2
12.5°	1900.5	1918.6	1936.8	1967.0	1988.1	1991.1	2000.2	2006.2	2009.3	1988.1	1973.0
15°	1849.1	1873.3	1891.4	1924.7	1948.8	1954.9	1963.9	1973.0	1973.0	1948.8	1933.7
17.5°	1785.7	1806.8	1831.0	1864.2	1891.4	1897.5	1909.6	1918.6	1918.6	1894.5	1873.3
20°	1707.1	1731.3	1752.4	1788.7	1818.9	1828.0	1840.1	1849.1	1849.1	1828.0	1800.8
22.5°	1625.5	1649.7	1670.9	1704.1	1734.3	1743.4	1752.4	1764.5	1761.5	1743.4	1719.2
25°	1528.9	1550.0	1565.1	1598.4	1622.5	1631.6	1643.7	1652.7	1649.7	1631.6	1610.4
27.5°	1411.0	1426.1	1429.1	1450.3	1471.5	1480.5	1489.6	1498.6	1495.6	1480.5	1462.4
30°	1275.1	1272.0	1256.9	1256.9	1266.0	1272.0	1278.1	1284.1	1281.1	1272.0	1259.9
32.5°	1102.8	1081.7	1042.4	1021.3	1012.2	1012.2	1012.2	1018.2	1015.2	1012.2	1012.2
35°	918.5	873.2	812.8	767.5	743.3	734.2	728.2	734.2	731.2	734.2	746.3
37.5°	767.5	701.0	619.4	559.0	519.7	501.6	489.5	492.5	492.5	501.6	522.7
40°	655.7	571.1	480.4	404.9	359.6	335.4	320.3	320.3	323.3	335.4	362.6
42.5°	571.1	477.4	377.7	305.2	250.8	226.6	211.5	208.5	211.5	226.6	253.8
45°	504.6	404.9	305.2	226.6	181.3	154.1	142.0	139.0	142.0	157.1	181.3
47.5°	447.2	347.5	253.8	175.2	129.9	108.8	96.7	93.7	99.7	111.8	132.9
50°	398.8	302.1	208.5	139.0	99.7	78.6	69.5	66.5	69.5	81.6	99.7
52.5°	353.5	262.9	175.2	108.8	75.5	60.4	51.4	48.3	51.4	60.4	78.6
55°	317.3	232.7	151.1	90.6	60.4	48.3	42.3	39.3	42.3	48.3	63.5
57.5°	284.0	205.5	129.9	75.5	51.4	39.3	33.2	33.2	33.2	39.3	51.4
60°	253.8	181.3	111.8	63.5	42.3	33.2	27.2	27.2	27.2	33.2	42.3
62.5°	226.6	160.1	96.7	54.4	36.3	27.2	24.2	24.2	24.2	27.2	36.3
65°	193.4	136.0	81.6	45.3	30.2	24.2	21.2	18.1	21.2	24.2	30.2
67.5°	160.1	111.8	66.5	36.3	24.2	18.1	15.1	15.1	15.1	18.1	24.2
70°	123.9	87.6	51.4	27.2	18.1	15.1	12.1	12.1	12.1	15.1	18.1
72.5°	84.6	60.4	36.3	21.2	15.1	12.1	9.1	9.1	9.1	12.1	15.1
75°	54.4	39.3	24.2	15.1	9.1	9.1	6.0	6.0	6.0	9.1	9.1
77.5°	33.2	24.2	15.1	9.1	6.0	6.0	6.0	6.0	6.0	6.0	6.0
80°	18.1	15.1	9.1	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	9.1	9.1	6.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	3.0	3.0	3.0	3.0	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2
2.5°	1994.2	2000.2	2003.2	1991.1	1994.2	1997.2	1979.1	1982.1	1973.0	1991.1	1982.1
5°	2003.2	2006.2	2009.3	1991.1	1988.1	1985.1	1963.9	1960.9	1948.8	1963.9	1954.9
7.5°	2006.2	2000.2	2000.2	1973.0	1963.9	1954.9	1927.7	1918.6	1903.5	1909.6	1897.5
10°	1991.1	1979.1	1970.0	1936.8	1921.6	1906.5	1873.3	1861.2	1840.1	1843.1	1828.0
12.5°	1957.9	1942.8	1927.7	1891.4	1873.3	1852.2	1818.9	1800.8	1779.6	1779.6	1761.5
15°	1915.6	1897.5	1879.3	1843.1	1818.9	1797.8	1758.5	1740.4	1719.2	1716.2	1701.1
17.5°	1855.2	1834.0	1815.9	1773.6	1749.4	1725.3	1689.0	1667.8	1646.7	1646.7	1628.6
20°	1782.7	1758.5	1737.3	1698.1	1673.9	1652.7	1610.4	1592.3	1574.2	1571.2	1556.1
22.5°	1698.1	1673.9	1655.8	1619.5	1592.3	1571.2	1534.9	1519.8	1501.7	1498.6	1480.5
25°	1592.3	1571.2	1553.0	1522.8	1498.6	1480.5	1447.3	1429.1	1417.1	1417.1	1402.0
27.5°	1450.3	1432.2	1429.1	1405.0	1386.8	1374.8	1347.6	1335.5	1320.4	1320.4	1302.2
30°	1259.9	1263.0	1275.1	1269.0	1263.0	1256.9	1232.8	1229.7	1211.6	1208.6	1187.4
32.5°	1027.3	1048.4	1081.7	1099.8	1108.9	1114.9	1108.9	1102.8	1087.7	1084.7	1060.5
35°	779.5	821.8	876.2	912.5	942.7	963.8	972.9	972.9	966.9	963.8	942.7
37.5°	565.0	628.5	701.0	761.4	809.8	849.0	867.2	879.2	879.2	879.2	870.2
40°	413.9	489.5	574.1	652.6	713.1	764.4	791.6	812.8	818.8	827.9	821.8
42.5°	308.2	389.8	480.4	571.1	640.5	698.0	734.2	758.4	773.5	782.6	782.6
45°	235.7	317.3	410.9	507.6	580.1	643.6	679.8	707.0	722.1	734.2	734.2
47.5°	181.3	259.8	353.5	450.2	525.7	589.2	625.4	649.6	664.7	676.8	676.8
50°	142.0	214.5	305.2	398.8	474.4	534.8	568.0	592.2	604.3	613.4	616.4
52.5°	114.8	181.3	268.9	359.6	429.0	483.4	510.6	531.8	543.9	549.9	552.9
55°	93.7	157.1	238.7	320.3	386.7	438.1	462.3	477.4	486.5	492.5	492.5
57.5°	78.6	136.0	211.5	290.1	353.5	392.8	413.9	426.0	432.1	438.1	438.1
60°	66.5	117.8	187.3	259.8	317.3	353.5	368.6	377.7	383.7	386.7	386.7
62.5°	57.4	99.7	163.2	229.6	281.0	314.2	326.3	332.4	335.4	335.4	338.4
65°	48.3	84.6	139.0	199.4	241.7	271.9	281.0	284.0	284.0	287.0	290.1
67.5°	36.3	66.5	111.8	163.2	199.4	223.6	232.7	232.7	232.7	232.7	235.7
70°	30.2	51.4	84.6	123.9	154.1	172.2	178.3	178.3	178.3	178.3	181.3
72.5°	21.2	36.3	60.4	87.6	111.8	123.9	123.9	126.9	123.9	123.9	129.9
75°	15.1	24.2	39.3	57.4	69.5	78.6	81.6	81.6	81.6	81.6	84.6
77.5°	9.1	15.1	24.2	33.2	45.3	48.3	51.4	51.4	51.4	51.4	54.4
80°	6.0	9.1	15.1	21.2	24.2	27.2	30.2	30.2	30.2	30.2	30.2
82.5°	3.0	6.0	9.1	9.1	12.1	15.1	15.1	15.1	15.1	15.1	18.1
85°	0.0	3.0	3.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	9.1
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: P135971

CATALOG NUMBER: LD6A30D010TE ERM6A30840 6LM121H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2000.2	2000.2	2000.2	2000.2
2.5°	1963.9	1985.1	1970.0	1985.1
5°	1933.7	1951.9	1933.7	1945.8
7.5°	1873.3	1888.4	1870.3	1888.4
10°	1800.8	1815.9	1797.8	1812.9
12.5°	1734.3	1746.4	1728.3	1746.4
15°	1673.9	1686.0	1667.8	1683.0
17.5°	1604.4	1613.5	1598.4	1613.5
20°	1531.9	1540.9	1528.9	1544.0
22.5°	1459.4	1471.5	1456.3	1471.5
25°	1377.8	1386.8	1371.7	1389.9
27.5°	1281.1	1287.1	1272.0	1281.1
30°	1163.3	1166.3	1154.2	1172.3
32.5°	1039.4	1039.4	1021.3	1039.4
35°	924.6	921.5	909.5	921.5
37.5°	852.1	852.1	843.0	849.0
40°	809.8	812.8	800.7	812.8
42.5°	773.5	779.5	770.5	779.5
45°	728.2	734.2	725.1	737.2
47.5°	670.8	676.8	670.8	679.8
50°	607.3	613.4	607.3	616.4
52.5°	543.9	549.9	543.9	549.9
55°	486.5	489.5	483.4	489.5
57.5°	432.1	435.1	429.0	435.1
60°	380.7	386.7	380.7	386.7
62.5°	335.4	338.4	338.4	341.4
65°	287.0	299.1	296.1	299.1
67.5°	238.7	247.8	247.8	250.8
70°	184.3	190.4	196.4	199.4
72.5°	129.9	139.0	142.0	145.0
75°	84.6	93.7	93.7	96.7
77.5°	54.4	60.4	60.4	60.4
80°	33.2	36.3	33.2	36.3
82.5°	18.1	18.1	18.1	21.2
85°	9.1	9.1	9.1	9.1
87.5°	3.0	3.0	3.0	3.0
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)