

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: P135969

Luminaire Tested: **LD6A30D010TE ERM6A30830 6LM121H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135969
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 ERM6A30830 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 3000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2762.0 lumens
Efficiency: N/A
Efficacy: 60.8 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

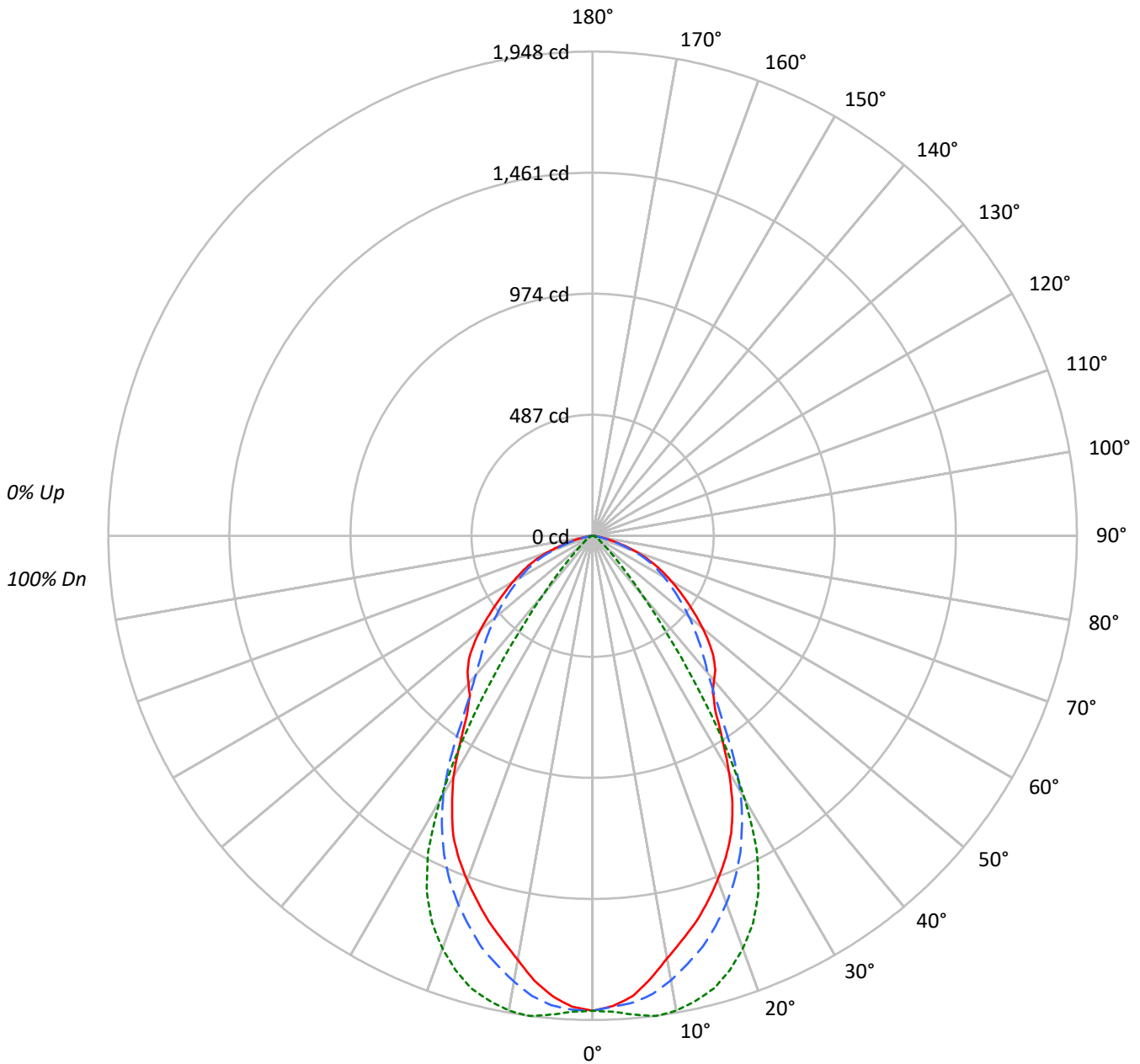
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	124675	124675	124675
5°	121746	126657	121746
10°	114356	128506	114740
15°	108601	127317	108601
20°	102211	122651	102413
25°	94963	113664	95589
30°	82633	92419	84373
35°	68510	55870	70119
40°	64658	26061	66131
45°	63385	12253	64982
50°	58594	6445	59771
55°	52857	4265	53186
60°	47834	3393	48213
65°	42777	2671	44120
70°	35232	2194	36338
75°	23291	1462	23291
80°	12999	1090	12999
85°	8608	0	6512



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.3	6.5
10°-20°	483.6	17.5
20°-30°	646.4	23.4
30°-40°	534.5	19.4
40°-50°	383.5	13.9
50°-60°	281.9	10.2
60°-70°	182.0	6.6
70°-80°	64.5	2.3
80°-90°	7.5	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°	1308.2	47.4
0°-40°	1842.7	66.7
0°-60°	2508.1	90.8
0°-90°	2762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2762.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1911	1911	1911	1911	1911	
5°	1859	1885	1934	1896	1859	173
15°	1608	1712	1885	1718	1608	451
25°	1319	1406	1579	1414	1328	599
35°	860	912	702	921	880	554
45°	687	606	133	615	704	525
55°	465	413	38	419	468	417
65°	277	257	17	260	286	273
75°	92	75	6	75	92	105
85°	12	6	0	6	9	14
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°	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0
2.5°	1893.6	1879.2	1890.7	1879.2	1882.1	1893.6	1896.5	1902.3	1905.2	1896.5	1896.5
5°	1859.0	1844.6	1859.0	1847.4	1853.2	1867.7	1870.5	1882.1	1887.9	1885.0	1890.7
7.5°	1795.5	1783.9	1798.4	1789.7	1798.4	1818.6	1827.2	1841.7	1853.2	1859.0	1867.7
10°	1726.2	1714.7	1729.1	1720.4	1734.9	1758.0	1766.6	1783.9	1801.3	1815.7	1830.1
12.5°	1665.6	1654.0	1662.7	1659.8	1674.2	1694.5	1708.9	1729.1	1749.3	1763.7	1783.9
15°	1607.9	1596.3	1607.9	1602.1	1613.6	1636.7	1651.2	1671.4	1694.5	1711.8	1734.9
17.5°	1541.5	1529.9	1538.6	1535.7	1547.2	1567.4	1581.9	1602.1	1625.2	1645.4	1668.5
20°	1472.2	1460.6	1469.3	1463.5	1475.1	1498.2	1509.7	1532.8	1553.0	1573.2	1593.4
22.5°	1400.0	1388.5	1400.0	1391.4	1408.7	1423.1	1434.7	1457.8	1475.1	1495.3	1512.6
25°	1319.2	1307.6	1316.3	1310.5	1322.1	1339.4	1348.1	1371.2	1385.6	1405.8	1423.1
27.5°	1218.2	1203.7	1221.0	1209.5	1223.9	1238.4	1247.0	1267.2	1284.6	1301.9	1316.3
30°	1096.9	1085.4	1102.7	1094.0	1111.4	1122.9	1134.4	1154.7	1169.1	1189.3	1192.2
32.5°	969.9	964.1	978.6	972.8	990.1	1001.7	1010.3	1030.5	1042.1	1053.6	1045.0
35°	860.2	854.4	868.9	866.0	880.4	889.1	897.7	909.3	909.3	912.2	889.1
37.5°	793.8	790.9	802.5	799.6	811.1	819.8	819.8	822.7	816.9	802.5	767.8
40°	759.2	756.3	765.0	762.1	770.7	773.6	770.7	765.0	747.6	718.8	672.6
42.5°	730.3	724.5	730.3	727.4	733.2	736.1	727.4	718.8	695.7	661.0	606.2
45°	687.0	681.2	689.9	684.1	689.9	689.9	681.2	669.7	643.7	606.2	548.5
47.5°	635.1	629.3	637.9	632.2	637.9	637.9	629.3	617.7	591.8	554.2	496.5
50°	577.3	571.6	577.3	574.4	580.2	583.1	571.6	562.9	539.8	505.2	447.4
52.5°	519.6	513.8	519.6	519.6	522.5	522.5	513.8	508.0	487.8	456.1	404.1
55°	464.7	459.0	467.6	464.7	467.6	467.6	459.0	453.2	438.8	412.8	363.7
57.5°	412.8	409.9	415.7	412.8	412.8	412.8	407.0	404.1	392.6	369.5	329.1
60°	366.6	360.8	363.7	363.7	363.7	366.6	360.8	357.9	349.3	332.0	294.4
62.5°	320.4	317.5	320.4	317.5	317.5	320.4	317.5	314.6	308.9	294.4	262.7
65°	277.1	271.3	277.1	274.2	274.2	274.2	271.3	271.3	265.6	256.9	228.0
67.5°	230.9	228.0	230.9	228.0	225.2	225.2	222.3	222.3	219.4	213.6	187.6
70°	184.7	179.0	181.9	176.1	179.0	173.2	173.2	170.3	167.4	164.5	144.3
72.5°	135.7	132.8	132.8	127.0	127.0	124.1	121.2	121.2	118.4	118.4	103.9
75°	92.4	92.4	89.5	83.7	86.6	80.8	80.8	80.8	77.9	75.1	66.4
77.5°	60.6	57.7	57.7	54.8	54.8	49.1	52.0	49.1	49.1	46.2	40.4
80°	34.6	34.6	34.6	31.8	31.8	28.9	28.9	28.9	26.0	26.0	23.1
82.5°	20.2	20.2	20.2	17.3	17.3	17.3	17.3	14.4	14.4	14.4	11.5
85°	11.5	8.7	8.7	8.7	8.7	8.7	8.7	5.8	5.8	5.8	5.8
87.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	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°	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0
2.5°	1908.1	1905.2	1902.3	1913.8	1916.7	1908.1	1908.1	1916.7	1922.5	1908.1	1905.2
5°	1905.2	1908.1	1908.1	1922.5	1931.2	1925.4	1925.4	1934.0	1939.8	1922.5	1916.7
7.5°	1890.7	1899.4	1905.2	1925.4	1939.8	1936.9	1939.8	1948.5	1951.4	1934.0	1925.4
10°	1859.0	1870.5	1882.1	1908.1	1925.4	1928.3	1931.2	1939.8	1945.6	1922.5	1911.0
12.5°	1815.7	1833.0	1850.3	1879.2	1899.4	1902.3	1911.0	1916.7	1919.6	1899.4	1885.0
15°	1766.6	1789.7	1807.0	1838.8	1861.9	1867.7	1876.3	1885.0	1885.0	1861.9	1847.4
17.5°	1706.0	1726.2	1749.3	1781.1	1807.0	1812.8	1824.4	1833.0	1833.0	1809.9	1789.7
20°	1630.9	1654.0	1674.2	1708.9	1737.8	1746.4	1758.0	1766.6	1766.6	1746.4	1720.4
22.5°	1553.0	1576.1	1596.3	1628.1	1656.9	1665.6	1674.2	1685.8	1682.9	1665.6	1642.5
25°	1460.6	1480.8	1495.3	1527.0	1550.1	1558.8	1570.3	1579.0	1576.1	1558.8	1538.6
27.5°	1348.1	1362.5	1365.4	1385.6	1405.8	1414.5	1423.1	1431.8	1428.9	1414.5	1397.1
30°	1218.2	1215.3	1200.8	1200.8	1209.5	1215.3	1221.0	1226.8	1223.9	1215.3	1203.7
32.5°	1053.6	1033.4	995.9	975.7	967.0	967.0	967.0	972.8	969.9	967.0	967.0
35°	877.5	834.2	776.5	733.2	710.1	701.5	695.7	701.5	698.6	701.5	713.0
37.5°	733.2	669.7	591.8	534.0	496.5	479.2	467.6	470.5	470.5	479.2	499.4
40°	626.4	545.6	459.0	386.8	343.5	320.4	306.0	306.0	308.9	320.4	346.4
42.5°	545.6	456.1	360.8	291.6	239.6	216.5	202.1	199.2	202.1	216.5	242.5
45°	482.1	386.8	291.6	216.5	173.2	147.2	135.7	132.8	135.7	150.1	173.2
47.5°	427.2	332.0	242.5	167.4	124.1	103.9	92.4	89.5	95.3	106.8	127.0
50°	381.0	288.7	199.2	132.8	95.3	75.1	66.4	63.5	66.4	77.9	95.3
52.5°	337.7	251.1	167.4	103.9	72.2	57.7	49.1	46.2	49.1	57.7	75.1
55°	303.1	222.3	144.3	86.6	57.7	46.2	40.4	37.5	40.4	46.2	60.6
57.5°	271.3	196.3	124.1	72.2	49.1	37.5	31.8	31.8	31.8	37.5	49.1
60°	242.5	173.2	106.8	60.6	40.4	31.8	26.0	26.0	26.0	31.8	40.4
62.5°	216.5	153.0	92.4	52.0	34.6	26.0	23.1	23.1	23.1	26.0	34.6
65°	184.7	129.9	77.9	43.3	28.9	23.1	20.2	17.3	20.2	23.1	28.9
67.5°	153.0	106.8	63.5	34.6	23.1	17.3	14.4	14.4	14.4	17.3	23.1
70°	118.4	83.7	49.1	26.0	17.3	14.4	11.5	11.5	11.5	14.4	17.3
72.5°	80.8	57.7	34.6	20.2	14.4	11.5	8.7	8.7	8.7	11.5	14.4
75°	52.0	37.5	23.1	14.4	8.7	8.7	5.8	5.8	5.8	8.7	8.7
77.5°	31.8	23.1	14.4	8.7	5.8	5.8	5.8	5.8	5.8	5.8	5.8
80°	17.3	14.4	8.7	5.8	5.8	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	8.7	8.7	5.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	2.9	2.9	2.9	2.9	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°	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0	1911.0
2.5°	1905.2	1911.0	1913.8	1902.3	1905.2	1908.1	1890.7	1893.6	1885.0	1902.3	1893.6
5°	1913.8	1916.7	1919.6	1902.3	1899.4	1896.5	1876.3	1873.4	1861.9	1876.3	1867.7
7.5°	1916.7	1911.0	1911.0	1885.0	1876.3	1867.7	1841.7	1833.0	1818.6	1824.4	1812.8
10°	1902.3	1890.7	1882.1	1850.3	1835.9	1821.5	1789.7	1778.2	1758.0	1760.8	1746.4
12.5°	1870.5	1856.1	1841.7	1807.0	1789.7	1769.5	1737.8	1720.4	1700.2	1700.2	1682.9
15°	1830.1	1812.8	1795.5	1760.8	1737.8	1717.5	1680.0	1662.7	1642.5	1639.6	1625.2
17.5°	1772.4	1752.2	1734.9	1694.5	1671.4	1648.3	1613.6	1593.4	1573.2	1573.2	1555.9
20°	1703.1	1680.0	1659.8	1622.3	1599.2	1579.0	1538.6	1521.3	1503.9	1501.1	1486.6
22.5°	1622.3	1599.2	1581.9	1547.2	1521.3	1501.1	1466.4	1452.0	1434.7	1431.8	1414.5
25°	1521.3	1501.1	1483.7	1454.9	1431.8	1414.5	1382.7	1365.4	1353.8	1353.8	1339.4
27.5°	1385.6	1368.3	1365.4	1342.3	1325.0	1313.4	1287.4	1275.9	1261.5	1261.5	1244.1
30°	1203.7	1206.6	1218.2	1212.4	1206.6	1200.8	1177.7	1174.9	1157.5	1154.7	1134.4
32.5°	981.5	1001.7	1033.4	1050.7	1059.4	1065.2	1059.4	1053.6	1039.2	1036.3	1013.2
35°	744.8	785.2	837.1	871.8	900.6	920.8	929.5	929.5	923.7	920.8	900.6
37.5°	539.8	600.4	669.7	727.4	773.6	811.1	828.5	840.0	840.0	840.0	831.4
40°	395.5	467.6	548.5	623.5	681.2	730.3	756.3	776.5	782.3	790.9	785.2
42.5°	294.4	372.4	459.0	545.6	612.0	666.8	701.5	724.5	739.0	747.6	747.6
45°	225.2	303.1	392.6	485.0	554.2	614.9	649.5	675.5	689.9	701.5	701.5
47.5°	173.2	248.3	337.7	430.1	502.3	562.9	597.5	620.6	635.1	646.6	646.6
50°	135.7	205.0	291.6	381.0	453.2	510.9	542.7	565.8	577.3	586.0	588.9
52.5°	109.7	173.2	256.9	343.5	409.9	461.9	487.8	508.0	519.6	525.4	528.3
55°	89.5	150.1	228.0	306.0	369.5	418.6	441.7	456.1	464.7	470.5	470.5
57.5°	75.1	129.9	202.1	277.1	337.7	375.3	395.5	407.0	412.8	418.6	418.6
60°	63.5	112.6	179.0	248.3	303.1	337.7	352.2	360.8	366.6	369.5	369.5
62.5°	54.8	95.3	155.9	219.4	268.5	300.2	311.8	317.5	320.4	320.4	323.3
65°	46.2	80.8	132.8	190.5	230.9	259.8	268.5	271.3	271.3	274.2	277.1
67.5°	34.6	63.5	106.8	155.9	190.5	213.6	222.3	222.3	222.3	222.3	225.2
70°	28.9	49.1	80.8	118.4	147.2	164.5	170.3	170.3	170.3	170.3	173.2
72.5°	20.2	34.6	57.7	83.7	106.8	118.4	118.4	121.2	118.4	118.4	124.1
75°	14.4	23.1	37.5	54.8	66.4	75.1	77.9	77.9	77.9	77.9	80.8
77.5°	8.7	14.4	23.1	31.8	43.3	46.2	49.1	49.1	49.1	49.1	52.0
80°	5.8	8.7	14.4	20.2	23.1	26.0	28.9	28.9	28.9	28.9	28.9
82.5°	2.9	5.8	8.7	8.7	11.5	14.4	14.4	14.4	14.4	14.4	17.3
85°	0.0	2.9	2.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8	8.7
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: P135969

CATALOG NUMBER: LD6A30D010TE ERM6A30830 6LM121H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1911.0	1911.0	1911.0	1911.0
2.5°	1876.3	1896.5	1882.1	1896.5
5°	1847.4	1864.8	1847.4	1859.0
7.5°	1789.7	1804.1	1786.8	1804.1
10°	1720.4	1734.9	1717.5	1732.0
12.5°	1656.9	1668.5	1651.2	1668.5
15°	1599.2	1610.7	1593.4	1607.9
17.5°	1532.8	1541.5	1527.0	1541.5
20°	1463.5	1472.2	1460.6	1475.1
22.5°	1394.2	1405.8	1391.4	1405.8
25°	1316.3	1325.0	1310.5	1327.9
27.5°	1223.9	1229.7	1215.3	1223.9
30°	1111.4	1114.2	1102.7	1120.0
32.5°	993.0	993.0	975.7	993.0
35°	883.3	880.4	868.9	880.4
37.5°	814.0	814.0	805.4	811.1
40°	773.6	776.5	765.0	776.5
42.5°	739.0	744.8	736.1	744.8
45°	695.7	701.5	692.8	704.3
47.5°	640.8	646.6	640.8	649.5
50°	580.2	586.0	580.2	588.9
52.5°	519.6	525.4	519.6	525.4
55°	464.7	467.6	461.9	467.6
57.5°	412.8	415.7	409.9	415.7
60°	363.7	369.5	363.7	369.5
62.5°	320.4	323.3	323.3	326.2
65°	274.2	285.8	282.9	285.8
67.5°	228.0	236.7	236.7	239.6
70°	176.1	181.9	187.6	190.5
72.5°	124.1	132.8	135.7	138.6
75°	80.8	89.5	89.5	92.4
77.5°	52.0	57.7	57.7	57.7
80°	31.8	34.6	31.8	34.6
82.5°	17.3	17.3	17.3	20.2
85°	8.7	8.7	8.7	8.7
87.5°	2.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)