

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: P135974

Luminaire Tested: **LD6A30D010TE ERM6A30935 6LM121H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135974
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 ERM6A30935 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 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2586.5 lumens
Efficiency: N/A
Efficacy: 57.0 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

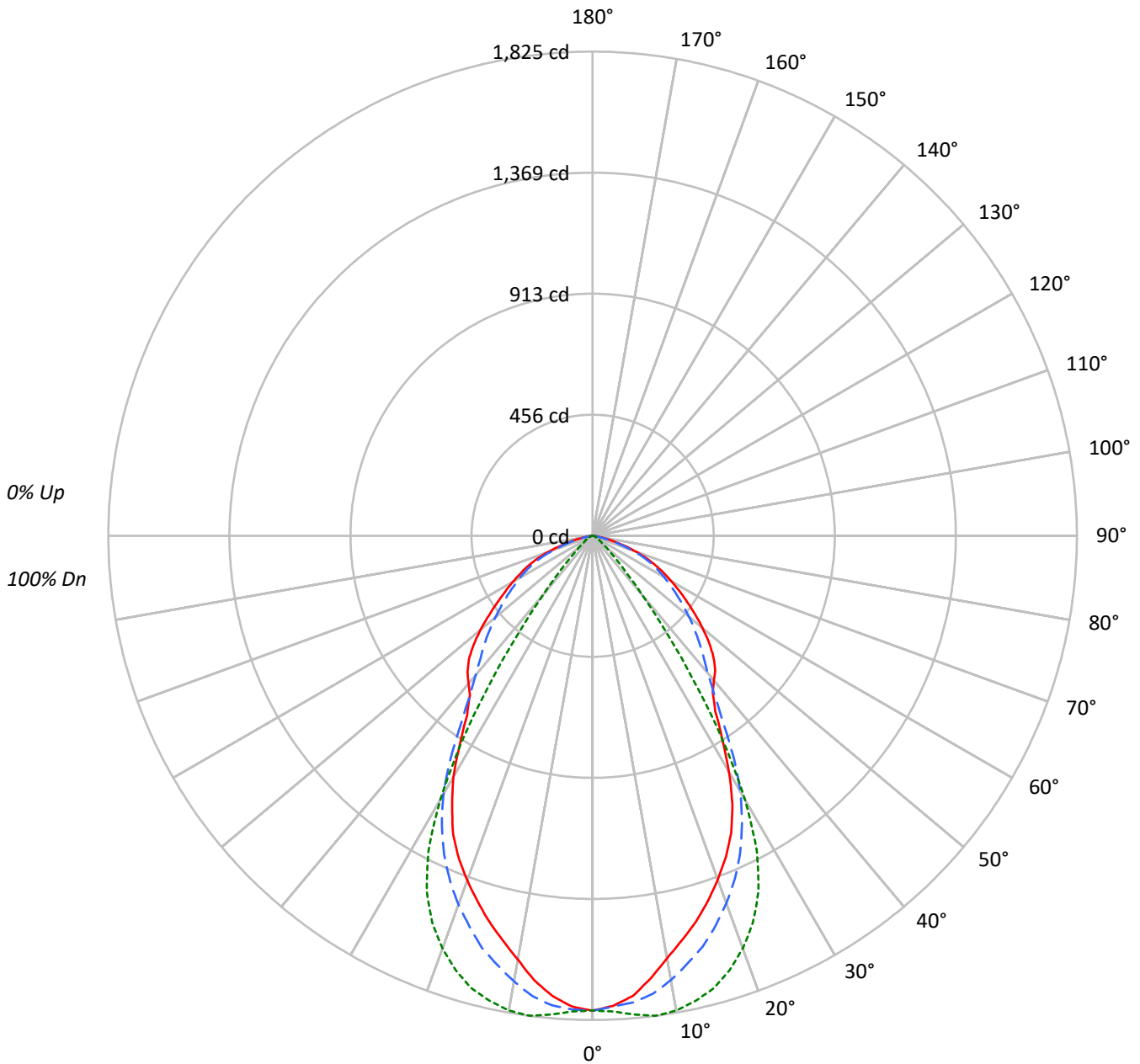
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	116755	116755	116755
5°	114011	118615	114011
10°	107095	120344	107446
15°	101698	119225	101698
20°	95713	114861	95907
25°	88930	106444	89513
30°	77382	86551	79017
35°	64153	52318	65667
40°	60553	24400	61932
45°	59363	11478	60857
50°	54879	6029	55975
55°	49501	4004	49820
60°	44794	3171	45147
65°	40060	2516	41310
70°	33000	2060	34030
75°	21804	1361	21804
80°	12173	1014	12173
85°	8084	0	6063



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.9	6.5
10°-20°	452.8	17.5
20°-30°	605.3	23.4
30°-40°	500.5	19.4
40°-50°	359.2	13.9
50°-60°	264.0	10.2
60°-70°	170.4	6.6
70°-80°	60.4	2.3
80°-90°	7.0	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°	1225.1	47.4
0°-40°	1725.6	66.7
0°-60°	2348.7	90.8
0°-90°	2586.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2586.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1790	1790	1790	1790	1790	
5°	1741	1765	1811	1776	1741	162
15°	1506	1603	1765	1608	1506	422
25°	1235	1316	1479	1325	1244	561
35°	806	854	657	862	824	518
45°	643	568	124	576	660	491
55°	435	387	35	392	438	391
65°	260	241	16	243	268	256
75°	86	70	5	70	86	98
85°	11	5	0	5	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°	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6
2.5°	1773.3	1759.8	1770.7	1759.8	1762.5	1773.3	1776.1	1781.4	1784.2	1776.1	1776.1
5°	1740.9	1727.4	1740.9	1730.0	1735.5	1749.0	1751.7	1762.5	1767.9	1765.2	1770.7
7.5°	1681.4	1670.6	1684.1	1676.0	1684.1	1703.0	1711.1	1724.7	1735.5	1740.9	1749.0
10°	1616.6	1605.7	1619.2	1611.2	1624.7	1646.3	1654.4	1670.6	1686.9	1700.4	1713.9
12.5°	1559.8	1549.0	1557.0	1554.4	1567.9	1586.8	1600.3	1619.2	1638.2	1651.7	1670.6
15°	1505.7	1494.9	1505.7	1500.3	1511.1	1532.7	1546.3	1565.2	1586.8	1603.0	1624.7
17.5°	1443.5	1432.7	1440.8	1438.2	1448.9	1467.8	1481.3	1500.3	1522.0	1540.9	1562.5
20°	1378.6	1367.9	1376.0	1370.5	1381.4	1403.0	1413.8	1435.4	1454.3	1473.3	1492.2
22.5°	1311.1	1300.3	1311.1	1302.9	1319.2	1332.7	1343.5	1365.1	1381.4	1400.3	1416.5
25°	1235.4	1224.6	1232.6	1227.3	1238.1	1254.3	1262.4	1284.0	1297.6	1316.5	1332.7
27.5°	1140.8	1127.3	1143.4	1132.7	1146.2	1159.7	1167.8	1186.7	1203.0	1219.1	1232.6
30°	1027.2	1016.4	1032.6	1024.6	1040.7	1051.6	1062.4	1081.3	1094.8	1113.8	1116.4
32.5°	908.3	902.9	916.4	911.0	927.2	938.0	946.1	965.0	975.9	986.7	978.6
35°	805.5	800.2	813.7	811.0	824.5	832.6	840.7	851.6	851.6	854.2	832.6
37.5°	743.4	740.7	751.5	748.8	759.6	767.7	767.7	770.4	765.0	751.5	719.1
40°	711.0	708.2	716.3	713.7	721.7	724.5	721.7	716.3	700.2	673.1	629.9
42.5°	683.9	678.5	683.9	681.2	686.7	689.3	681.2	673.1	651.5	619.0	567.7
45°	643.4	638.0	646.0	640.7	646.0	646.0	638.0	627.1	602.9	567.7	513.7
47.5°	594.7	589.3	597.4	592.0	597.4	597.4	589.3	578.5	554.2	519.0	465.0
50°	540.7	535.2	540.7	537.9	543.3	546.1	535.2	527.2	505.5	473.0	419.0
52.5°	486.6	481.2	486.6	486.6	489.3	489.3	481.2	475.8	456.9	427.1	378.4
55°	435.2	429.8	438.0	435.2	438.0	438.0	429.8	424.5	410.8	386.6	340.6
57.5°	386.6	383.8	389.3	386.6	386.6	386.6	381.2	378.4	367.7	346.0	308.1
60°	343.3	337.9	340.6	340.6	340.6	343.3	337.9	335.2	327.1	310.9	275.7
62.5°	300.1	297.4	300.1	297.4	297.4	300.1	297.4	294.6	289.2	275.7	246.0
65°	259.5	254.1	259.5	256.8	256.8	256.8	254.1	254.1	248.7	240.6	213.6
67.5°	216.3	213.6	216.3	213.6	210.8	210.8	208.2	208.2	205.4	200.0	175.8
70°	173.0	167.6	170.3	164.9	167.6	162.2	162.2	159.5	156.8	154.1	135.1
72.5°	127.1	124.4	124.4	119.0	119.0	116.2	113.6	113.6	110.8	110.8	97.3
75°	86.5	86.5	83.8	78.4	81.1	75.7	75.7	75.7	72.9	70.3	62.2
77.5°	56.8	54.0	54.0	51.4	51.4	45.9	48.7	45.9	45.9	43.3	37.9
80°	32.4	32.4	32.4	29.8	29.8	27.0	27.0	27.0	24.3	24.3	21.6
82.5°	18.9	18.9	18.9	16.3	16.3	16.3	16.3	13.5	13.5	13.5	10.8
85°	10.8	8.1	8.1	8.1	8.1	8.1	8.1	5.4	5.4	5.4	5.4
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°	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6
2.5°	1786.8	1784.2	1781.4	1792.2	1795.0	1786.8	1786.8	1795.0	1800.3	1786.8	1784.2
5°	1784.2	1786.8	1786.8	1800.3	1808.5	1803.1	1803.1	1811.2	1816.6	1800.3	1795.0
7.5°	1770.7	1778.7	1784.2	1803.1	1816.6	1813.9	1816.6	1824.7	1827.4	1811.2	1803.1
10°	1740.9	1751.7	1762.5	1786.8	1803.1	1805.7	1808.5	1816.6	1822.0	1800.3	1789.6
12.5°	1700.4	1716.5	1732.8	1759.8	1778.7	1781.4	1789.6	1795.0	1797.7	1778.7	1765.2
15°	1654.4	1676.0	1692.2	1722.0	1743.6	1749.0	1757.1	1765.2	1765.2	1743.6	1730.0
17.5°	1597.7	1616.6	1638.2	1667.9	1692.2	1697.6	1708.5	1716.5	1716.5	1694.9	1676.0
20°	1527.4	1549.0	1567.9	1600.3	1627.3	1635.5	1646.3	1654.4	1654.4	1635.5	1611.2
22.5°	1454.3	1476.0	1494.9	1524.6	1551.6	1559.8	1567.9	1578.7	1576.0	1559.8	1538.1
25°	1367.9	1386.8	1400.3	1430.0	1451.7	1459.8	1470.6	1478.7	1476.0	1459.8	1440.8
27.5°	1262.4	1275.9	1278.7	1297.6	1316.5	1324.6	1332.7	1340.8	1338.1	1324.6	1308.3
30°	1140.8	1138.1	1124.5	1124.5	1132.7	1138.1	1143.4	1148.9	1146.2	1138.1	1127.3
32.5°	986.7	967.8	932.6	913.7	905.6	905.6	905.6	911.0	908.3	905.6	905.6
35°	821.8	781.3	727.2	686.7	665.0	656.9	651.5	656.9	654.2	656.9	667.7
37.5°	686.7	627.1	554.2	500.1	465.0	448.7	438.0	440.6	440.6	448.7	467.6
40°	586.6	510.9	429.8	362.3	321.6	300.1	286.5	286.5	289.2	300.1	324.4
42.5°	510.9	427.1	337.9	273.0	224.3	202.8	189.3	186.5	189.3	202.8	227.1
45°	451.5	362.3	273.0	202.8	162.2	137.9	127.1	124.4	127.1	140.6	162.2
47.5°	400.1	310.9	227.1	156.8	116.2	97.3	86.5	83.8	89.2	100.1	119.0
50°	356.8	270.3	186.5	124.4	89.2	70.3	62.2	59.4	62.2	72.9	89.2
52.5°	316.3	235.2	156.8	97.3	67.6	54.0	45.9	43.3	45.9	54.0	70.3
55°	283.9	208.2	135.1	81.1	54.0	43.3	37.9	35.2	37.9	43.3	56.8
57.5°	254.1	183.8	116.2	67.6	45.9	35.2	29.8	29.8	29.8	35.2	45.9
60°	227.1	162.2	100.1	56.8	37.9	29.8	24.3	24.3	24.3	29.8	37.9
62.5°	202.8	143.2	86.5	48.7	32.4	24.3	21.6	21.6	21.6	24.3	32.4
65°	173.0	121.6	72.9	40.5	27.0	21.6	18.9	16.3	18.9	21.6	27.0
67.5°	143.2	100.1	59.4	32.4	21.6	16.3	13.5	13.5	13.5	16.3	21.6
70°	110.8	78.4	45.9	24.3	16.3	13.5	10.8	10.8	10.8	13.5	16.3
72.5°	75.7	54.0	32.4	18.9	13.5	10.8	8.1	8.1	8.1	10.8	13.5
75°	48.7	35.2	21.6	13.5	8.1	8.1	5.4	5.4	5.4	8.1	8.1
77.5°	29.8	21.6	13.5	8.1	5.4	5.4	5.4	5.4	5.4	5.4	5.4
80°	16.3	13.5	8.1	5.4	5.4	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	8.1	8.1	5.4	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°	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6	1789.6
2.5°	1784.2	1789.6	1792.2	1781.4	1784.2	1786.8	1770.7	1773.3	1765.2	1781.4	1773.3
5°	1792.2	1795.0	1797.7	1781.4	1778.7	1776.1	1757.1	1754.4	1743.6	1757.1	1749.0
7.5°	1795.0	1789.6	1789.6	1765.2	1757.1	1749.0	1724.7	1716.5	1703.0	1708.5	1697.6
10°	1781.4	1770.7	1762.5	1732.8	1719.3	1705.8	1676.0	1665.2	1646.3	1649.0	1635.5
12.5°	1751.7	1738.2	1724.7	1692.2	1676.0	1657.1	1627.3	1611.2	1592.2	1592.2	1576.0
15°	1713.9	1697.6	1681.4	1649.0	1627.3	1608.4	1573.3	1557.0	1538.1	1535.5	1522.0
17.5°	1659.8	1640.8	1624.7	1586.8	1565.2	1543.5	1511.1	1492.2	1473.3	1473.3	1457.1
20°	1594.9	1573.3	1554.4	1519.2	1497.6	1478.7	1440.8	1424.6	1408.4	1405.7	1392.1
22.5°	1519.2	1497.6	1481.3	1448.9	1424.6	1405.7	1373.2	1359.7	1343.5	1340.8	1324.6
25°	1424.6	1405.7	1389.5	1362.5	1340.8	1324.6	1294.8	1278.7	1267.8	1267.8	1254.3
27.5°	1297.6	1281.3	1278.7	1257.0	1240.8	1230.0	1205.6	1194.8	1181.3	1181.3	1165.1
30°	1127.3	1129.9	1140.8	1135.4	1129.9	1124.5	1102.9	1100.3	1084.0	1081.3	1062.4
32.5°	919.1	938.0	967.8	983.9	992.1	997.5	992.1	986.7	973.2	970.4	948.9
35°	697.4	735.2	783.9	816.4	843.4	862.3	870.5	870.5	865.1	862.3	843.4
37.5°	505.5	562.3	627.1	681.2	724.5	759.6	775.9	786.6	786.6	786.6	778.5
40°	370.3	438.0	513.7	583.9	638.0	683.9	708.2	727.2	732.6	740.7	735.2
42.5°	275.7	348.7	429.8	510.9	573.1	624.5	656.9	678.5	692.1	700.2	700.2
45°	210.8	283.9	367.7	454.1	519.0	575.8	608.2	632.5	646.0	656.9	656.9
47.5°	162.2	232.4	316.3	402.8	470.4	527.2	559.6	581.2	594.7	605.5	605.5
50°	127.1	191.9	273.0	356.8	424.5	478.5	508.2	529.8	540.7	548.8	551.5
52.5°	102.7	162.2	240.6	321.6	383.8	432.5	456.9	475.8	486.6	492.0	494.7
55°	83.8	140.6	213.6	286.5	346.0	392.0	413.6	427.1	435.2	440.6	440.6
57.5°	70.3	121.6	189.3	259.5	316.3	351.4	370.3	381.2	386.6	392.0	392.0
60°	59.4	105.5	167.6	232.4	283.9	316.3	329.8	337.9	343.3	346.0	346.0
62.5°	51.4	89.2	146.0	205.4	251.4	281.1	292.0	297.4	300.1	300.1	302.8
65°	43.3	75.7	124.4	178.4	216.3	243.3	251.4	254.1	254.1	256.8	259.5
67.5°	32.4	59.4	100.1	146.0	178.4	200.0	208.2	208.2	208.2	208.2	210.8
70°	27.0	45.9	75.7	110.8	137.9	154.1	159.5	159.5	159.5	159.5	162.2
72.5°	18.9	32.4	54.0	78.4	100.1	110.8	110.8	113.6	110.8	110.8	116.2
75°	13.5	21.6	35.2	51.4	62.2	70.3	72.9	72.9	72.9	72.9	75.7
77.5°	8.1	13.5	21.6	29.8	40.5	43.3	45.9	45.9	45.9	45.9	48.7
80°	5.4	8.1	13.5	18.9	21.6	24.3	27.0	27.0	27.0	27.0	27.0
82.5°	2.7	5.4	8.1	8.1	10.8	13.5	13.5	13.5	13.5	13.5	16.3
85°	0.0	2.7	2.7	5.4	5.4	5.4	5.4	5.4	5.4	5.4	8.1
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: P135974

CATALOG NUMBER: LD6A30D010TE ERM6A30935 6LM121H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1789.6	1789.6	1789.6	1789.6
2.5°	1757.1	1776.1	1762.5	1776.1
5°	1730.0	1746.3	1730.0	1740.9
7.5°	1676.0	1689.5	1673.3	1689.5
10°	1611.2	1624.7	1608.4	1621.9
12.5°	1551.6	1562.5	1546.3	1562.5
15°	1497.6	1508.4	1492.2	1505.7
17.5°	1435.4	1443.5	1430.0	1443.5
20°	1370.5	1378.6	1367.9	1381.4
22.5°	1305.7	1316.5	1302.9	1316.5
25°	1232.6	1240.8	1227.3	1243.5
27.5°	1146.2	1151.6	1138.1	1146.2
30°	1040.7	1043.5	1032.6	1048.9
32.5°	929.9	929.9	913.7	929.9
35°	827.2	824.5	813.7	824.5
37.5°	762.4	762.4	754.2	759.6
40°	724.5	727.2	716.3	727.2
42.5°	692.1	697.4	689.3	697.4
45°	651.5	656.9	648.8	659.6
47.5°	600.1	605.5	600.1	608.2
50°	543.3	548.8	543.3	551.5
52.5°	486.6	492.0	486.6	492.0
55°	435.2	438.0	432.5	438.0
57.5°	386.6	389.3	383.8	389.3
60°	340.6	346.0	340.6	346.0
62.5°	300.1	302.8	302.8	305.5
65°	256.8	267.6	265.0	267.6
67.5°	213.6	221.7	221.7	224.3
70°	164.9	170.3	175.8	178.4
72.5°	116.2	124.4	127.1	129.7
75°	75.7	83.8	83.8	86.5
77.5°	48.7	54.0	54.0	54.0
80°	29.8	32.4	29.8	32.4
82.5°	16.3	16.3	16.3	18.9
85°	8.1	8.1	8.1	8.1
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)