

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: P136310

Luminaire Tested: **LD6A20D010TE ERW6A20935 6LW111LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136310
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23359-R2)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A20D010TE ERW6A20935 6LW111LI
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
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: 2298.5 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.19 / 1.1
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

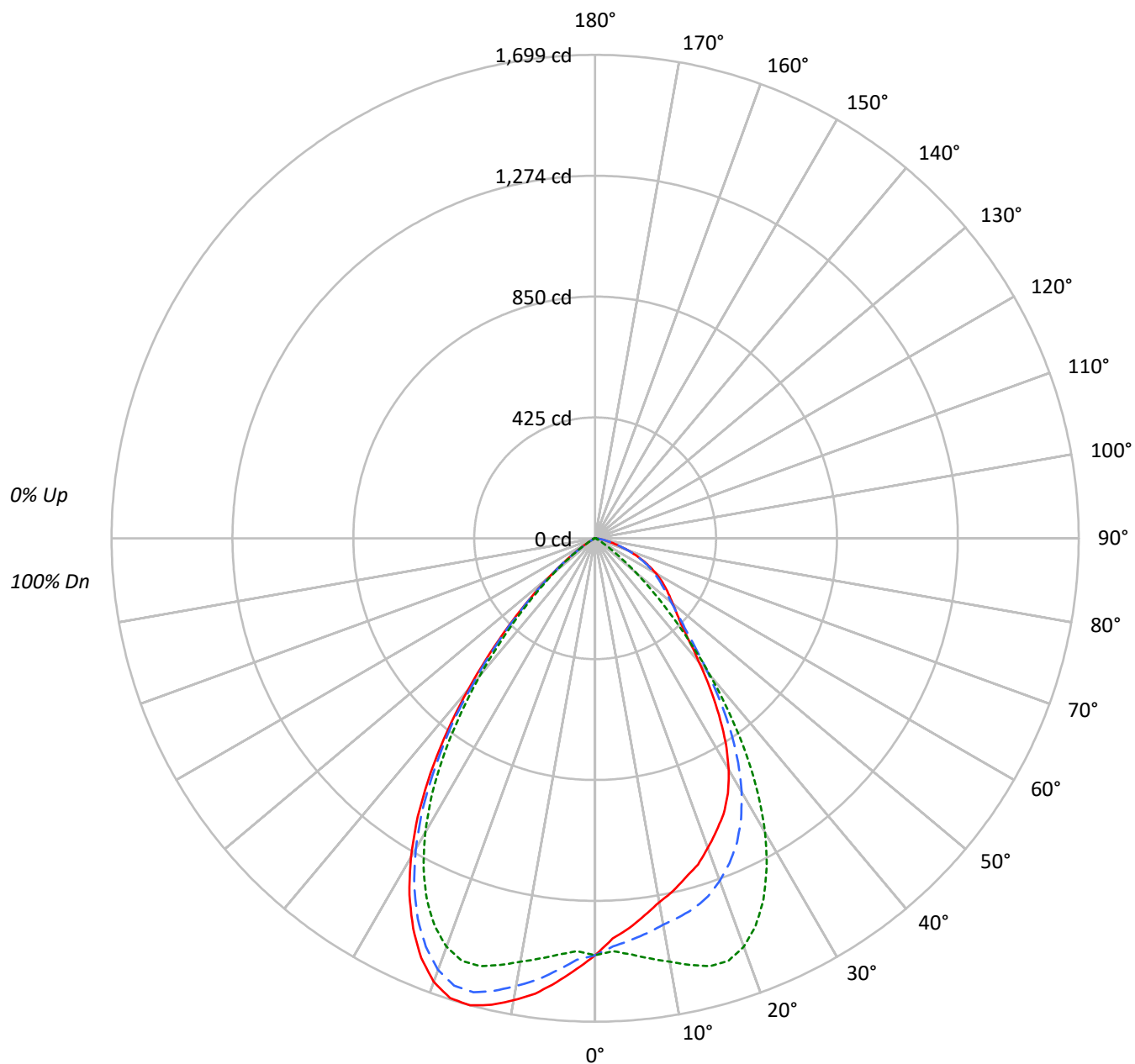
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	112	109	106	103	110	107	104	102	103	100	98		99	97	95		95
2	105	99	94	90	103	97	93	89	94	90	87		91	88	85		88
3	98	91	85	80	96	89	84	79	86	82	78		84	80	77		82
4	92	83	76	71	90	82	76	71	80	74	70		77	73	69		75
5	86	76	69	64	84	75	69	64	73	68	63		72	67	63		70
6	81	70	63	58	79	70	63	58	68	62	57		66	61	57		65
7	76	65	58	53	75	64	58	53	63	57	53		62	56	52		60
8	72	60	53	49	70	60	53	48	59	53	48		58	52	48		56
9	68	56	49	45	66	56	49	45	55	49	44		54	48	44		53
10	64	53	46	41	63	52	46	41	51	45	41		50	45	41		50

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	95597	95597	95597
5°	90068	96178	102609
10°	86022	100113	109208
15°	83286	105156	114767
20°	80383	106051	115132
25°	76880	100772	108892
30°	70715	89941	97459
35°	60434	73591	80361
40°	48331	53348	59054
45°	39388	33796	37874
50°	36021	18594	21081
55°	34225	7621	8929
60°	32216	2779	2779
65°	28775	1513	1266
70°	23100	1240	935
75°	15250	807	807
80°	8003	639	639
85°	3668	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.4	6.2
10°-20°	423.9	18.4
20°-30°	609.8	26.5
30°-40°	560.2	24.4
40°-50°	321.6	14.0
50°-60°	142.1	6.2
60°-70°	69.8	3.0
70°-80°	26.8	1.2
80°-90°	3.0	0.1
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°	1175.0	51.1
0°-40°	1735.2	75.5
0°-60°	2198.9	95.7
0°-90°	2298.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2298.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1465	1465	1465	1465	1465	
5°	1375	1418	1469	1524	1567	129
15°	1233	1346	1557	1652	1699	348
25°	1068	1179	1400	1475	1513	488
35°	759	831	924	976	1009	471
45°	427	445	366	401	410	339
55°	301	286	67	74	78	269
65°	186	180	10	6	8	182
75°	60	64	3	3	3	68
85°	5	5	0	0	0	8
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°	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3
2.5°	1408.1	1416.3	1408.1	1419.5	1426.1	1429.4	1426.1	1417.9	1429.4	1435.9	1434.3
5°	1375.3	1381.9	1375.3	1386.9	1395.0	1403.2	1399.9	1395.0	1408.1	1417.9	1419.5
7.5°	1336.2	1344.3	1339.4	1350.8	1360.7	1370.5	1370.5	1368.8	1385.2	1399.9	1404.9
10°	1298.5	1305.1	1301.8	1313.2	1324.7	1336.2	1339.4	1341.0	1359.0	1378.7	1390.1
12.5°	1269.0	1272.4	1269.0	1282.1	1293.7	1306.7	1313.2	1316.5	1339.4	1363.9	1378.7
15°	1233.1	1241.3	1238.0	1251.1	1264.2	1278.9	1287.1	1293.7	1318.2	1345.9	1367.2
17.5°	1202.0	1205.3	1202.0	1216.8	1228.2	1244.5	1254.4	1262.6	1288.7	1319.8	1342.7
20°	1157.8	1164.4	1162.8	1175.8	1188.9	1203.7	1213.4	1221.6	1249.5	1280.6	1306.7
22.5°	1113.7	1120.2	1120.2	1133.3	1143.2	1159.5	1167.7	1175.8	1202.0	1234.7	1257.6
25°	1068.0	1072.8	1071.2	1082.6	1094.1	1110.5	1117.0	1125.2	1149.7	1179.1	1200.4
27.5°	1010.7	1013.9	1017.2	1027.0	1035.2	1050.0	1054.9	1063.1	1082.6	1110.5	1130.1
30°	938.7	942.0	946.9	955.1	961.6	976.3	979.6	986.2	1005.8	1028.7	1046.7
32.5°	853.7	855.3	863.5	870.0	878.2	888.1	896.2	897.8	912.6	935.5	948.6
35°	758.8	760.5	768.7	773.6	781.8	791.5	798.1	799.7	812.8	830.8	838.9
37.5°	660.7	670.5	668.9	673.8	682.0	690.1	696.7	696.7	706.5	721.2	724.5
40°	567.5	572.4	577.3	580.6	587.1	593.7	598.6	598.6	605.1	614.9	614.9
42.5°	487.4	495.6	495.6	498.8	503.7	510.2	513.6	511.9	515.1	520.1	516.8
45°	426.9	430.1	431.8	436.7	438.3	444.9	446.4	443.2	444.9	444.9	435.0
47.5°	387.6	387.6	387.6	390.8	392.5	397.4	397.4	392.5	390.8	389.3	376.2
50°	354.9	354.9	356.5	359.8	361.4	363.1	363.1	356.5	354.9	348.3	330.4
52.5°	327.1	328.7	328.7	332.0	333.6	335.2	333.6	327.1	322.1	315.6	294.4
55°	300.9	302.5	304.2	307.5	307.5	307.5	305.8	299.3	294.4	286.2	265.0
57.5°	274.8	276.4	276.4	279.6	281.3	281.3	279.6	273.1	268.2	261.7	238.8
60°	246.9	246.9	248.6	251.9	251.9	253.5	251.9	246.9	242.0	233.8	214.3
62.5°	215.8	217.5	219.2	222.4	224.0	224.0	224.0	219.2	215.8	209.3	189.7
65°	186.4	186.4	188.1	191.3	191.3	196.3	193.0	189.7	186.4	179.9	163.6
67.5°	152.1	153.7	153.7	157.0	158.7	160.2	160.2	157.0	155.4	150.5	135.7
70°	121.1	121.1	122.6	124.3	125.9	127.6	127.6	125.9	124.3	119.4	108.0
72.5°	88.3	90.0	90.0	91.6	94.9	96.5	96.5	96.5	93.2	90.0	81.8
75°	60.5	62.1	62.1	63.8	65.5	67.0	67.0	67.0	65.5	63.8	57.3
77.5°	37.6	37.6	39.3	39.3	40.8	42.5	44.2	44.2	42.5	40.8	37.6
80°	21.3	21.3	22.9	22.9	22.9	24.5	26.2	26.2	26.2	24.5	21.3
82.5°	11.4	11.4	11.4	11.4	11.4	13.1	13.1	13.1	13.1	13.1	11.4
85°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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°	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3
2.5°	1434.3	1445.7	1453.9	1440.8	1452.2	1463.7	1476.8	1452.2	1475.1	1462.1	1467.0
5°	1426.1	1439.1	1450.6	1442.5	1457.1	1471.9	1489.9	1468.6	1494.7	1485.0	1493.2
7.5°	1414.6	1432.6	1449.0	1445.7	1465.3	1485.0	1507.8	1489.9	1517.7	1512.7	1522.6
10°	1404.9	1429.4	1450.6	1450.6	1476.8	1499.7	1524.3	1511.2	1543.8	1538.9	1552.0
12.5°	1398.3	1429.4	1457.1	1462.1	1493.2	1519.3	1548.8	1535.7	1571.6	1566.8	1581.4
15°	1391.8	1427.7	1460.4	1470.2	1504.6	1535.7	1566.8	1556.9	1594.5	1589.6	1604.4
17.5°	1370.5	1413.0	1449.0	1462.1	1499.7	1532.4	1565.1	1556.9	1594.5	1589.6	1604.4
20°	1334.5	1377.0	1416.3	1431.0	1468.6	1503.0	1534.0	1527.5	1565.1	1560.2	1573.3
22.5°	1288.7	1329.6	1367.2	1381.9	1417.9	1449.0	1480.1	1473.5	1509.5	1501.3	1516.0
25°	1225.0	1267.5	1303.4	1314.9	1347.6	1378.7	1406.4	1399.9	1434.3	1424.5	1439.1
27.5°	1159.5	1190.6	1220.0	1229.9	1259.3	1285.5	1311.6	1305.1	1337.7	1326.3	1341.0
30°	1071.2	1095.7	1121.9	1126.8	1154.6	1175.8	1198.8	1193.9	1221.6	1211.9	1225.0
32.5°	968.2	989.4	1007.4	1009.0	1032.0	1050.0	1069.5	1066.3	1090.8	1082.6	1092.5
35°	855.3	868.4	879.9	878.2	896.2	909.3	927.3	924.0	946.9	938.7	948.6
37.5°	735.9	742.5	745.7	739.2	752.3	762.1	775.2	773.6	793.2	786.7	796.4
40°	619.9	619.9	614.9	603.4	611.7	616.5	626.4	626.4	641.1	634.5	642.7
42.5°	513.6	507.0	495.6	479.2	480.8	487.4	487.4	487.4	498.8	492.3	507.0
45°	426.9	412.1	394.2	372.9	366.3	369.6	366.3	366.3	374.5	369.6	381.1
47.5°	359.8	341.8	310.7	284.5	273.1	271.4	266.6	266.6	271.4	271.4	276.4
50°	309.1	283.0	245.3	214.3	197.9	193.0	186.4	183.2	188.1	186.4	189.7
52.5°	268.2	235.5	191.3	155.4	139.0	127.6	122.6	116.1	117.7	117.7	119.4
55°	233.8	196.3	148.8	111.2	93.2	80.1	73.6	67.0	67.0	65.5	67.0
57.5°	207.7	168.4	121.1	83.4	63.8	50.7	44.2	37.6	36.0	36.0	36.0
60°	184.8	147.2	99.8	65.5	45.8	32.7	26.2	21.3	19.6	18.0	18.0
62.5°	161.9	127.6	85.0	53.9	34.3	24.5	18.0	13.1	11.4	9.8	9.8
65°	139.0	109.5	73.6	45.8	29.4	19.6	13.1	9.8	8.2	6.5	6.5
67.5°	114.5	90.0	62.1	37.6	24.5	16.3	11.4	8.2	6.5	4.9	4.9
70°	91.6	71.9	49.1	31.1	19.6	13.1	8.2	6.5	4.9	4.9	4.9
72.5°	68.7	53.9	37.6	22.9	14.8	9.8	6.5	4.9	3.2	3.2	3.2
75°	49.1	39.3	26.2	16.3	9.8	6.5	4.9	3.2	3.2	3.2	3.2
77.5°	31.1	24.5	16.3	9.8	6.5	3.2	3.2	1.7	1.7	1.7	1.7
80°	18.0	14.8	9.8	6.5	3.2	1.7	1.7	1.7	1.7	1.7	1.7
82.5°	9.8	6.5	4.9	3.2	1.7	1.7	1.7	0.0	0.0	0.0	0.0
85°	3.2	3.2	1.7	1.7	1.7	1.7	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	1.7	1.7	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°	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3	1465.3
2.5°	1480.1	1476.8	1488.2	1493.2	1489.9	1483.3	1504.6	1509.5	1494.7	1501.3	1501.3
5°	1509.5	1509.5	1524.3	1530.8	1530.8	1524.3	1548.8	1556.9	1542.2	1548.8	1550.3
7.5°	1542.2	1542.2	1560.2	1568.3	1570.0	1565.1	1589.6	1596.2	1586.4	1592.9	1594.5
10°	1571.6	1571.6	1592.9	1601.1	1602.7	1597.8	1622.4	1630.6	1619.0	1625.6	1627.2
12.5°	1602.7	1604.4	1625.6	1633.8	1633.8	1628.9	1653.4	1661.6	1648.5	1656.6	1655.1
15°	1625.6	1627.2	1648.5	1656.6	1658.3	1651.8	1674.6	1684.5	1671.4	1676.3	1676.3
17.5°	1624.0	1625.6	1645.2	1653.4	1653.4	1648.5	1668.1	1679.6	1666.5	1671.4	1669.7
20°	1591.3	1592.9	1614.1	1620.7	1620.7	1614.1	1632.1	1643.6	1630.6	1633.8	1632.1
22.5°	1532.4	1534.0	1553.7	1560.2	1561.9	1553.7	1571.6	1584.7	1570.0	1571.6	1570.0
25°	1455.6	1455.6	1476.8	1476.8	1485.0	1475.1	1488.2	1506.2	1491.5	1491.5	1486.6
27.5°	1355.8	1355.8	1377.0	1377.0	1386.9	1377.0	1398.3	1406.4	1393.4	1391.8	1391.8
30°	1239.6	1239.6	1259.3	1259.3	1267.5	1259.3	1280.6	1288.7	1275.6	1274.0	1275.6
32.5°	1107.1	1107.1	1126.8	1125.2	1135.0	1128.4	1148.1	1154.6	1144.8	1139.9	1143.2
35°	961.6	969.8	981.3	979.6	989.4	976.3	1000.8	1005.8	997.6	999.3	994.4
37.5°	807.9	816.1	824.3	824.3	832.5	829.2	843.9	848.8	842.2	843.9	838.9
40°	654.2	662.4	668.9	668.9	677.0	667.3	686.9	691.8	685.2	678.7	682.0
42.5°	508.6	516.8	523.3	521.7	529.9	528.2	539.6	543.0	538.1	536.4	533.2
45°	382.7	384.3	395.8	400.7	400.7	400.7	408.8	410.5	405.6	405.6	403.9
47.5°	276.4	279.6	287.8	291.1	292.7	291.1	294.4	300.9	296.1	296.1	297.6
50°	191.3	193.0	199.5	202.7	202.7	202.7	204.4	209.3	206.1	206.1	202.7
52.5°	122.6	122.6	127.6	129.2	129.2	129.2	130.8	134.1	130.8	132.5	134.1
55°	68.7	68.7	71.9	73.6	73.6	73.6	75.2	76.9	75.2	76.9	76.9
57.5°	36.0	36.0	37.6	37.6	39.3	39.3	39.3	40.8	40.8	40.8	40.8
60°	18.0	18.0	18.0	19.6	19.6	19.6	19.6	21.3	21.3	21.3	21.3
62.5°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	11.4	11.4	11.4	11.4
65°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
67.5°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	6.5	6.5	6.5
70°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
72.5°	3.2	3.2	3.2	3.2	3.2	3.2	4.9	4.9	4.9	3.2	3.2
75°	1.7	3.2	3.2	1.7	1.7	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	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



TEST NUMBER: P136310

CATALOG NUMBER: LD6A20D010TE ERW6A20935 6LW111LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1465.3	1465.3	1465.3	1465.3
2.5°	1488.2	1489.9	1517.7	1516.0
5°	1537.3	1538.9	1566.8	1566.8
7.5°	1581.4	1583.1	1612.5	1614.1
10°	1614.1	1617.5	1645.2	1648.5
12.5°	1645.2	1645.2	1673.1	1679.6
15°	1664.9	1664.9	1691.0	1699.2
17.5°	1658.3	1658.3	1684.5	1694.3
20°	1622.4	1620.7	1645.2	1658.3
22.5°	1560.2	1561.9	1581.4	1596.2
25°	1481.7	1478.4	1499.7	1512.7
27.5°	1383.6	1385.2	1398.3	1413.0
30°	1265.8	1269.0	1278.9	1293.7
32.5°	1133.3	1138.2	1144.8	1159.5
35°	987.8	992.7	995.9	1009.0
37.5°	830.8	837.4	838.9	852.0
40°	675.5	682.0	682.0	693.4
42.5°	529.9	534.8	533.2	543.0
45°	400.7	403.9	402.3	410.5
47.5°	292.7	296.1	292.7	299.3
50°	202.7	206.1	202.7	207.7
52.5°	130.8	132.5	129.2	134.1
55°	75.2	76.9	75.2	78.5
57.5°	42.5	40.8	39.3	42.5
60°	21.3	21.3	21.3	21.3
62.5°	11.4	11.4	11.4	11.4
65°	6.5	6.5	6.5	8.2
67.5°	6.5	6.5	6.5	6.5
70°	4.9	4.9	4.9	4.9
72.5°	3.2	3.2	3.2	3.2
75°	3.2	3.2	3.2	3.2
77.5°	1.7	1.7	1.7	1.7
80°	0.0	0.0	0.0	1.7
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
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)