

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: P136427

Luminaire Tested: **LD6A20D010TE ERW6A20840 6LW111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136427
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23375)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A20D010TE ERW6A20840 6LW111H
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED SINGLE 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: 2400.0 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.17 / 1.12
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

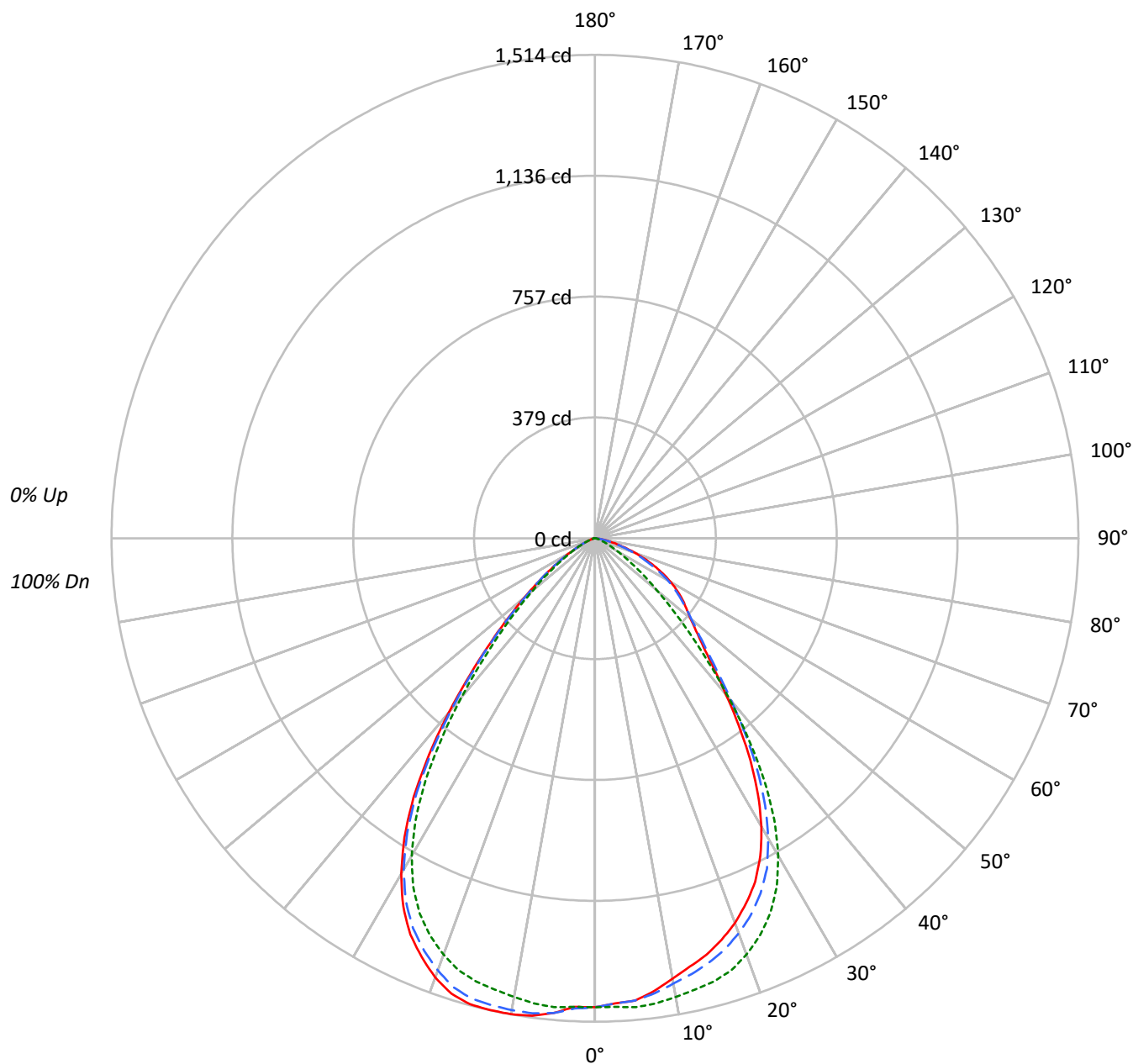
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	112	108	105	102	109	106	103	101		102	100	98		98	96	95		95	93	92
2	104	98	93	89	102	96	92	88		93	89	86		90	87	84		87	84	82
3	97	89	83	78	95	88	82	77		85	80	76		82	78	75		80	76	73
4	91	81	74	69	89	80	74	69		78	72	68		76	71	67		74	69	66
5	85	74	67	62	83	73	67	61		71	65	61		70	64	60		68	63	60
6	79	68	61	56	78	68	61	55		66	60	55		64	59	55		63	58	54
7	74	63	56	51	73	62	55	50		61	55	50		60	54	50		58	53	49
8	70	58	51	46	69	58	51	46		57	50	46		55	50	46		54	49	45
9	66	54	47	42	65	54	47	42		53	46	42		52	46	42		51	46	42
10	62	51	44	39	61	50	43	39		49	43	39		48	43	39		48	42	39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	95825	95825	95825
5°	95157	96539	97744
10°	92766	96608	100265
15°	91202	97071	102049
20°	88999	96310	101607
25°	85453	93415	98533
30°	78528	86460	91417
35°	67506	73583	78824
40°	54250	55375	60527
45°	44204	38373	42497
50°	39543	25648	29119
55°	38024	16766	19166
60°	35726	10647	12017
65°	31693	6499	6900
70°	25599	4025	4025
75°	17922	2647	2647
80°	11872	1991	1991
85°	5914	1946	1946



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.9	5.8
10°-20°	403.2	16.8
20°-30°	587.2	24.5
30°-40°	569.6	23.7
40°-50°	360.0	15.0
50°-60°	200.5	8.4
60°-70°	99.3	4.1
70°-80°	35.0	1.5
80°-90°	5.5	0.2
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°	1130.2	47.1
0°-40°	1699.8	70.8
0°-60°	2260.2	94.2
0°-90°	2400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2400.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1469	1469	1469	1469	1469	
5°	1453	1453	1474	1492	1492	137
15°	1350	1377	1437	1492	1511	380
25°	1187	1227	1298	1348	1369	542
35°	848	887	924	974	990	525
45°	479	492	416	455	461	379
55°	334	326	147	168	168	298
65°	205	190	42	45	45	202
75°	71	66	10	10	10	79
85°	8	8	3	3	3	12
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°	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8
2.5°	1458.3	1445.1	1450.4	1447.7	1450.4	1447.7	1455.6	1447.7	1453.0	1458.3	1447.7
5°	1453.0	1439.8	1442.5	1442.5	1442.5	1442.5	1450.4	1442.5	1447.7	1453.0	1445.1
7.5°	1429.3	1418.8	1421.4	1421.4	1421.4	1421.4	1429.3	1424.0	1429.3	1437.2	1429.3
10°	1400.3	1389.8	1395.1	1395.1	1395.1	1395.1	1405.6	1400.3	1405.6	1416.1	1408.2
12.5°	1374.0	1366.1	1371.4	1371.4	1371.4	1374.0	1381.9	1379.3	1384.6	1397.7	1389.8
15°	1350.3	1342.4	1347.7	1347.7	1347.7	1350.3	1358.2	1360.9	1366.1	1376.7	1371.4
17.5°	1318.7	1310.9	1318.7	1318.7	1316.1	1321.4	1331.9	1331.9	1337.2	1350.3	1347.7
20°	1281.9	1274.0	1281.9	1281.9	1279.3	1284.5	1295.1	1297.7	1303.0	1316.1	1313.5
22.5°	1237.1	1234.5	1237.1	1242.4	1239.8	1242.4	1252.9	1255.6	1260.8	1276.6	1274.0
25°	1187.1	1184.5	1189.8	1192.4	1189.8	1192.4	1202.9	1205.6	1210.8	1226.6	1226.6
27.5°	1121.3	1118.7	1126.6	1126.6	1126.6	1131.9	1139.8	1145.0	1147.7	1166.1	1163.4
30°	1042.4	1039.7	1045.0	1047.6	1047.6	1047.6	1058.2	1066.1	1068.7	1084.5	1084.5
32.5°	950.2	950.2	952.9	958.1	955.5	960.8	968.7	973.9	979.2	992.4	992.4
35°	847.6	850.2	852.8	858.1	855.5	858.1	866.0	871.3	873.9	887.1	884.4
37.5°	739.7	742.3	744.9	747.6	747.6	750.2	758.1	760.7	763.3	773.9	768.6
40°	637.0	637.0	639.6	644.9	642.3	647.5	652.8	655.4	655.4	663.3	658.1
42.5°	547.5	550.1	552.8	555.4	555.4	558.0	563.3	565.9	565.9	568.6	560.7
45°	479.1	481.7	481.7	487.0	487.0	489.6	492.2	494.9	492.2	492.2	484.3
47.5°	429.1	431.7	434.3	437.0	437.0	439.6	442.2	442.2	439.6	437.0	426.4
50°	389.6	394.8	394.8	397.5	400.1	402.7	402.7	402.7	397.5	394.8	379.0
52.5°	360.6	363.2	365.9	368.5	368.5	371.1	373.8	371.1	365.9	358.0	342.2
55°	334.3	336.9	339.6	342.2	342.2	342.2	342.2	339.6	334.3	326.4	310.6
57.5°	305.3	308.0	310.6	313.2	313.2	313.2	313.2	310.6	305.3	294.8	276.4
60°	273.8	276.4	279.0	281.6	281.6	281.6	279.0	276.4	271.1	263.2	244.8
62.5°	239.5	242.2	244.8	244.8	244.8	242.2	242.2	239.5	234.3	226.4	207.9
65°	205.3	205.3	207.9	207.9	207.9	207.9	205.3	202.7	197.4	189.5	176.4
67.5°	168.5	171.1	171.1	171.1	171.1	171.1	168.5	168.5	163.2	155.3	144.8
70°	134.2	134.2	136.9	136.9	136.9	136.9	134.2	134.2	129.0	123.7	113.2
72.5°	100.0	100.0	100.0	102.7	102.7	102.7	100.0	100.0	97.4	92.1	84.2
75°	71.1	71.1	71.1	73.7	73.7	73.7	73.7	71.1	68.4	65.8	60.5
77.5°	47.4	50.0	47.4	47.4	47.4	50.0	47.4	47.4	47.4	44.7	39.5
80°	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	29.0	29.0	26.3
82.5°	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	15.8	15.8
85°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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°	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8
2.5°	1455.6	1460.9	1466.2	1460.9	1453.0	1468.8	1466.2	1468.8	1466.2	1460.9	1476.7
5°	1453.0	1458.3	1466.2	1460.9	1455.6	1471.4	1468.8	1474.1	1474.1	1468.8	1484.6
7.5°	1437.2	1442.5	1455.6	1450.4	1445.1	1460.9	1463.5	1468.8	1471.4	1466.2	1484.6
10°	1418.8	1424.0	1437.2	1434.6	1431.9	1450.4	1453.0	1458.3	1460.9	1458.3	1476.7
12.5°	1400.3	1408.2	1421.4	1418.8	1418.8	1437.2	1439.8	1447.7	1453.0	1450.4	1471.4
15°	1381.9	1392.5	1408.2	1405.6	1405.6	1426.7	1429.3	1437.2	1442.5	1442.5	1463.5
17.5°	1358.2	1368.8	1384.6	1381.9	1387.2	1403.0	1408.2	1418.8	1424.0	1421.4	1445.1
20°	1324.0	1337.2	1353.0	1350.3	1353.0	1374.0	1379.3	1387.2	1392.5	1392.5	1413.5
22.5°	1284.5	1297.7	1313.5	1310.9	1316.1	1331.9	1337.2	1347.7	1353.0	1350.3	1371.4
25°	1237.1	1250.3	1263.5	1263.5	1266.1	1284.5	1289.8	1297.7	1305.6	1303.0	1321.4
27.5°	1174.0	1187.1	1200.3	1197.7	1200.3	1218.7	1224.0	1231.9	1239.8	1237.1	1255.6
30°	1092.4	1105.5	1116.1	1113.4	1116.1	1134.5	1137.1	1147.7	1155.6	1155.6	1171.3
32.5°	997.6	1010.8	1016.0	1010.8	1016.0	1029.2	1034.5	1045.0	1050.3	1052.9	1068.7
35°	889.7	897.6	900.2	895.0	895.0	908.1	913.4	923.9	929.2	931.8	945.0
37.5°	771.2	776.5	771.2	763.3	766.0	771.2	779.1	787.0	794.9	797.6	810.7
40°	655.4	652.8	644.9	631.7	629.1	637.0	642.3	650.2	655.4	660.7	668.6
42.5°	552.8	547.5	531.7	515.9	513.3	513.3	515.9	523.8	529.1	531.7	542.2
45°	471.2	460.6	437.0	418.5	408.0	410.6	410.6	415.9	418.5	423.8	431.7
47.5°	408.0	389.6	360.6	336.9	326.4	323.8	323.8	326.4	329.0	334.3	339.6
50°	358.0	334.3	300.1	273.8	260.6	255.3	255.3	252.7	258.0	260.6	265.9
52.5°	318.5	289.5	250.1	221.1	205.3	200.0	197.4	197.4	197.4	200.0	205.3
55°	281.6	250.1	207.9	179.0	160.6	155.3	150.0	147.4	150.0	152.7	155.3
57.5°	250.1	215.8	173.7	142.1	126.3	118.5	113.2	110.6	110.6	113.2	115.8
60°	218.5	184.3	142.1	113.2	97.4	89.5	84.2	81.6	81.6	84.2	84.2
62.5°	184.3	152.7	115.8	89.5	73.7	65.8	60.5	60.5	57.9	57.9	60.5
65°	155.3	126.3	94.8	71.1	55.3	50.0	44.7	42.1	42.1	39.5	42.1
67.5°	126.3	102.7	76.3	55.3	42.1	36.9	31.6	31.6	29.0	29.0	29.0
70°	100.0	81.6	60.5	42.1	34.2	26.3	23.7	21.1	21.1	21.1	21.1
72.5°	73.7	60.5	44.7	31.6	23.7	21.1	18.4	15.8	13.2	13.2	13.2
75°	52.6	42.1	31.6	23.7	18.4	15.8	13.2	10.5	10.5	10.5	10.5
77.5°	36.9	29.0	23.7	15.8	13.2	10.5	7.9	7.9	7.9	7.9	5.3
80°	23.7	18.4	15.8	10.5	7.9	7.9	5.3	5.3	5.3	5.3	5.3
82.5°	13.2	10.5	7.9	7.9	5.3	5.3	2.6	2.6	2.6	2.6	2.6
85°	5.3	5.3	5.3	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
87.5°	2.6	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°	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8	1468.8
2.5°	1460.9	1471.4	1471.4	1476.7	1468.8	1474.1	1481.9	1479.3	1471.4	1474.1	1476.7
5°	1471.4	1481.9	1484.6	1492.5	1484.6	1492.5	1503.0	1500.4	1492.5	1497.7	1500.4
7.5°	1471.4	1484.6	1489.8	1497.7	1492.5	1500.4	1513.5	1510.9	1503.0	1508.3	1513.5
10°	1466.2	1479.3	1487.2	1495.1	1489.8	1500.4	1510.9	1510.9	1505.6	1510.9	1518.8
12.5°	1460.9	1474.1	1481.9	1489.8	1484.6	1497.7	1510.9	1508.3	1505.6	1510.9	1518.8
15°	1453.0	1466.2	1474.1	1481.9	1479.3	1492.5	1505.6	1505.6	1500.4	1508.3	1516.2
17.5°	1434.6	1447.7	1458.3	1463.5	1460.9	1474.1	1487.2	1487.2	1481.9	1489.8	1497.7
20°	1403.0	1416.1	1426.7	1431.9	1429.3	1439.8	1453.0	1455.6	1450.4	1458.3	1466.2
22.5°	1363.5	1374.0	1384.6	1389.8	1387.2	1397.7	1410.9	1413.5	1408.2	1416.1	1421.4
25°	1316.1	1324.0	1334.5	1339.8	1337.2	1347.7	1360.9	1360.9	1358.2	1363.5	1368.8
27.5°	1250.3	1260.8	1268.7	1274.0	1274.0	1281.9	1292.4	1295.1	1292.4	1297.7	1305.6
30°	1168.7	1174.0	1184.5	1187.1	1189.8	1197.7	1208.2	1208.2	1205.6	1210.8	1218.7
32.5°	1066.1	1074.0	1081.8	1084.5	1087.1	1095.0	1102.9	1105.5	1102.9	1108.2	1116.1
35°	945.0	952.9	960.8	963.4	966.0	973.9	981.8	984.5	981.8	987.1	995.0
37.5°	810.7	816.0	823.9	826.5	831.8	837.1	842.3	847.6	844.9	850.2	855.5
40°	673.9	676.5	684.4	687.0	692.3	697.5	702.8	705.4	705.4	708.1	710.7
42.5°	544.9	550.1	555.4	558.0	563.3	565.9	571.2	573.8	573.8	576.5	579.1
45°	434.3	439.6	444.8	447.5	452.7	455.4	458.0	460.6	458.0	458.0	463.3
47.5°	342.2	347.5	352.7	355.4	358.0	360.6	363.2	363.2	363.2	365.9	365.9
50°	268.5	271.1	276.4	276.4	281.6	281.6	284.3	284.3	284.3	284.3	286.9
52.5°	207.9	210.6	215.8	215.8	218.5	221.1	221.1	221.1	221.1	223.7	221.1
55°	157.9	160.6	163.2	163.2	168.5	168.5	168.5	168.5	168.5	168.5	168.5
57.5°	118.5	121.1	123.7	123.7	123.7	126.3	123.7	126.3	126.3	126.3	126.3
60°	86.9	89.5	89.5	89.5	92.1	92.1	92.1	92.1	92.1	92.1	92.1
62.5°	60.5	60.5	63.2	63.2	63.2	65.8	63.2	63.2	65.8	65.8	63.2
65°	42.1	42.1	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7
67.5°	29.0	29.0	29.0	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6
70°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
72.5°	13.2	13.2	13.2	13.2	15.8	15.8	15.8	15.8	15.8	15.8	15.8
75°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
77.5°	5.3	5.3	7.9	7.9	7.9	5.3	5.3	5.3	7.9	7.9	5.3
80°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
82.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
85°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	0.0	2.6	2.6	2.6
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: P136427

CATALOG NUMBER: LD6A20D010TE ERW6A20840 6LW111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1468.8	1468.8	1468.8	1468.8
2.5°	1476.7	1474.1	1476.7	1468.8
5°	1500.4	1497.7	1503.0	1492.5
7.5°	1516.2	1513.5	1518.8	1508.3
10°	1518.8	1518.8	1524.1	1513.5
12.5°	1518.8	1518.8	1524.1	1513.5
15°	1518.8	1516.2	1521.4	1510.9
17.5°	1500.4	1500.4	1505.6	1495.1
20°	1466.2	1466.2	1471.4	1463.5
22.5°	1424.0	1424.0	1426.7	1418.8
25°	1371.4	1368.8	1374.0	1368.8
27.5°	1305.6	1303.0	1305.6	1300.3
30°	1216.1	1213.5	1218.7	1213.5
32.5°	1116.1	1110.8	1116.1	1110.8
35°	992.4	987.1	992.4	989.7
37.5°	855.5	850.2	855.5	852.8
40°	710.7	708.1	713.3	710.7
42.5°	579.1	573.8	579.1	576.5
45°	463.3	458.0	463.3	460.6
47.5°	365.9	363.2	368.5	365.9
50°	286.9	284.3	286.9	286.9
52.5°	221.1	218.5	221.1	221.1
55°	168.5	165.8	168.5	168.5
57.5°	126.3	123.7	126.3	126.3
60°	92.1	92.1	92.1	92.1
62.5°	65.8	63.2	65.8	65.8
65°	44.7	44.7	44.7	44.7
67.5°	31.6	31.6	31.6	31.6
70°	21.1	21.1	21.1	21.1
72.5°	15.8	15.8	15.8	13.2
75°	10.5	10.5	10.5	10.5
77.5°	7.9	5.3	7.9	7.9
80°	5.3	5.3	5.3	5.3
82.5°	2.6	2.6	2.6	2.6
85°	2.6	2.6	2.6	2.6
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)