

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P858635

Luminaire Tested: **LD4C30W2N2050D010 4LBSWNL_4000K**

Issue Date: 11/9/2023



Test Information

Test Method: LM-79-08
Report Number: P858635
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251556)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 11/9/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C30W2N2050D010 4LBSWNLI_4000K
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, W2N2050 LEDS
AND 4LBSWNLI TRIM WITH FINISH

Light Source: -
Ballast/Driver: -

Summary

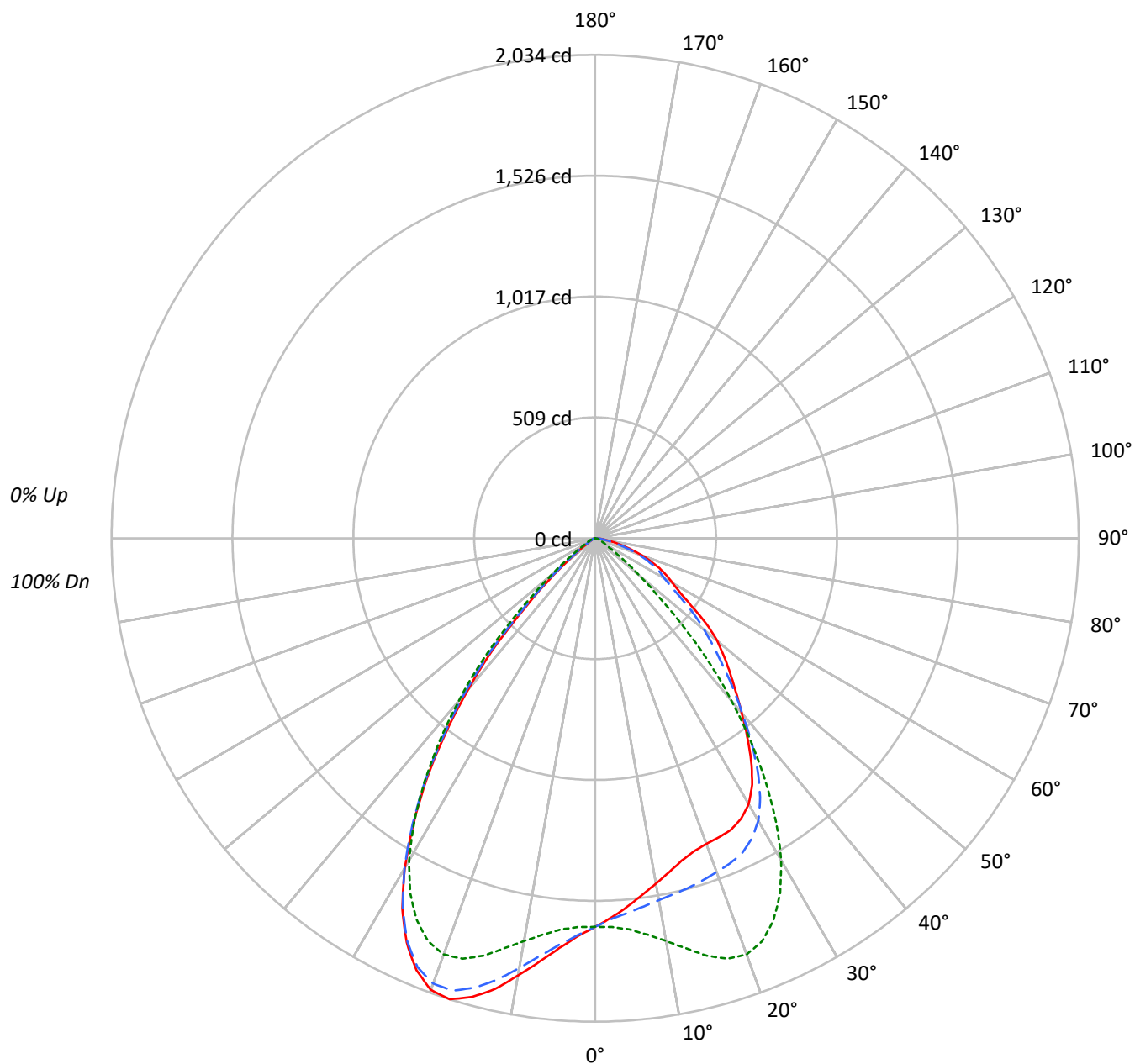
Lumens per Lamp: N/A
Luminaire Lumens: 3017.0 lumens
Efficiency: N/A
Efficacy: 76.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 39.6
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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CATALOG NUMBER: LD4C30W2N2050D010 4LBSWNL1_4000K

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90						
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80						
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72						
4	91	81	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64						
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58						
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53						
7	75	63	56	51	73	62	55	51	61	55	50	60	54	50	58	53	50	48						
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44						
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40						
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39	37						

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	200853	200853	200853
5°	191878	203729	213459
10°	183979	214605	232981
15°	178622	231290	254095
20°	178863	243604	264261
25°	183418	240432	254313
30°	183182	221924	227074
35°	171573	187575	185011
40°	153686	143069	133495
45°	139427	90849	74535
50°	128093	46100	31822
55°	105145	20584	10517
60°	92288	11548	5774
65°	86860	8692	4360
70°	74354	6897	3843
75°	56723	5079	3038
80°	40751	3042	1556
85°	30024	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.8	5.3
10°-20°	494.9	16.4
20°-30°	765.7	25.4
30°-40°	754.5	25.0
40°-50°	463.3	15.4
50°-60°	206.0	6.8
60°-70°	115.1	3.8
70°-80°	49.8	1.7
80°-90°	8.9	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°	1419.5	47.0
0°-40°	2174.0	72.1
0°-60°	2843.2	94.2
0°-90°	3017.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3017.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1635	1635	1635	1635	1635	
5°	1556	1582	1652	1716	1731	146
15°	1404	1522	1818	1957	1998	398
25°	1353	1462	1774	1870	1876	621
35°	1144	1191	1251	1246	1234	710
45°	802	762	523	457	429	622
55°	491	444	96	56	49	451
65°	299	269	30	17	15	293
75°	120	102	11	6	6	131
85°	21	17	0	0	0	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9
2.5°	1596.5	1596.5	1596.5	1596.5	1600.7	1594.4	1600.7	1600.7	1607.2	1609.3	1602.9
5°	1555.9	1553.8	1555.9	1555.9	1560.2	1558.1	1564.4	1568.7	1577.3	1581.6	1581.6
7.5°	1513.3	1513.3	1513.3	1517.5	1523.9	1521.8	1528.1	1534.6	1547.4	1555.9	1562.3
10°	1474.8	1472.7	1479.1	1481.2	1487.6	1487.6	1498.3	1504.7	1519.6	1536.8	1545.3
12.5°	1438.5	1436.4	1440.7	1447.1	1457.7	1457.7	1466.3	1477.0	1498.3	1517.5	1532.4
15°	1404.4	1406.6	1412.9	1417.2	1430.0	1430.0	1440.7	1453.5	1477.0	1500.5	1521.8
17.5°	1380.9	1383.1	1387.3	1393.7	1406.6	1406.6	1417.2	1432.2	1457.7	1483.3	1509.0
20°	1368.1	1370.3	1374.5	1380.9	1391.6	1393.7	1402.3	1419.4	1442.8	1470.5	1494.0
22.5°	1361.7	1366.0	1370.3	1374.5	1385.2	1385.2	1395.9	1408.7	1432.2	1459.9	1481.2
25°	1353.1	1357.4	1359.6	1366.0	1374.5	1374.5	1380.9	1395.9	1417.2	1440.7	1462.0
27.5°	1329.7	1334.0	1336.1	1342.5	1351.0	1348.9	1357.4	1368.1	1387.3	1408.7	1425.7
30°	1291.3	1293.4	1297.7	1299.8	1306.2	1306.2	1312.6	1323.3	1336.1	1355.3	1372.4
32.5°	1229.4	1233.6	1235.8	1237.9	1244.3	1242.2	1244.3	1250.7	1263.5	1280.6	1291.3
35°	1144.0	1152.5	1152.5	1156.8	1159.0	1156.8	1156.8	1165.3	1171.8	1184.6	1191.0
37.5°	1050.1	1056.5	1054.4	1058.6	1060.8	1054.4	1058.6	1060.8	1069.3	1075.7	1077.9
40°	958.3	960.5	960.5	960.5	960.5	958.3	960.5	962.5	969.0	969.0	962.5
42.5°	875.1	877.3	877.3	872.9	877.3	875.1	875.1	875.1	875.1	866.5	860.1
45°	802.5	804.7	804.7	802.5	802.5	798.2	796.1	794.0	787.5	776.9	761.9
47.5°	734.2	738.4	740.6	736.4	734.2	729.9	729.9	717.1	708.6	695.8	674.5
50°	670.2	674.5	674.5	670.2	670.2	663.8	657.4	653.1	640.3	625.4	599.7
52.5°	589.1	595.5	595.5	593.4	593.4	584.8	582.7	574.1	563.4	546.4	525.0
55°	490.9	499.5	497.3	495.2	490.9	490.9	490.9	484.5	478.1	465.3	443.9
57.5°	420.4	422.6	422.6	420.4	420.4	416.2	416.2	409.8	407.6	394.9	377.8
60°	375.6	375.6	377.8	375.6	373.5	371.4	369.3	365.0	358.6	350.0	337.2
62.5°	339.3	341.5	341.5	339.3	337.2	335.1	333.0	328.7	324.4	318.0	305.2
65°	298.8	303.0	300.9	298.8	296.7	294.5	294.5	290.2	286.0	281.7	268.9
67.5°	254.0	256.1	258.2	254.0	254.0	251.9	251.9	247.6	245.4	236.9	228.4
70°	207.0	209.1	209.1	207.0	207.0	204.9	204.9	202.8	200.6	194.2	185.7
72.5°	162.2	164.3	162.2	160.0	160.0	160.0	158.0	155.8	153.7	149.4	143.0
75°	119.5	119.5	121.7	119.5	117.4	117.4	115.2	115.2	111.0	108.9	102.4
77.5°	85.4	87.5	85.4	85.4	83.2	81.1	81.1	78.9	78.9	76.8	72.6
80°	57.6	57.6	59.8	57.6	55.5	57.6	55.5	53.3	53.3	51.3	47.0
82.5°	36.3	38.4	36.3	36.3	36.3	36.3	36.3	34.1	34.1	32.0	29.9
85°	21.3	21.3	21.3	21.3	21.3	21.3	21.3	19.2	19.2	19.2	17.1
87.5°	10.7	10.7	8.5	8.5	10.7	10.7	10.7	8.5	8.5	8.5	8.5
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9
2.5°	1611.4	1613.5	1617.8	1624.2	1624.2	1620.0	1630.7	1630.7	1634.9	1637.0	1645.5
5°	1594.4	1598.6	1607.2	1617.8	1620.0	1617.8	1632.8	1639.2	1645.5	1652.0	1664.8
7.5°	1579.4	1587.9	1602.9	1617.8	1624.2	1624.2	1647.7	1656.3	1669.0	1681.8	1696.8
10°	1570.9	1583.7	1605.0	1628.5	1634.9	1641.3	1669.0	1686.1	1703.2	1720.3	1741.6
12.5°	1560.2	1583.7	1611.4	1641.3	1654.1	1662.6	1701.1	1722.4	1745.9	1767.2	1795.0
15°	1558.1	1585.8	1622.1	1660.5	1677.6	1690.4	1733.1	1763.0	1790.7	1818.5	1846.2
17.5°	1549.6	1583.7	1628.5	1671.2	1692.5	1709.6	1758.7	1795.0	1827.0	1854.8	1886.8
20°	1538.9	1577.3	1626.4	1673.3	1696.8	1713.9	1767.2	1801.4	1837.6	1863.3	1893.1
22.5°	1523.9	1562.3	1611.4	1658.3	1679.7	1694.6	1748.0	1777.9	1809.9	1835.5	1863.3
25°	1498.3	1534.6	1577.3	1615.7	1637.0	1649.8	1696.8	1724.6	1748.0	1773.7	1799.2
27.5°	1462.0	1489.8	1526.1	1553.8	1566.6	1579.4	1617.8	1641.3	1662.6	1684.0	1701.1
30°	1398.0	1419.4	1444.9	1468.4	1481.2	1483.3	1519.6	1532.4	1549.6	1564.4	1577.3
32.5°	1312.6	1329.7	1344.6	1357.4	1366.0	1368.1	1395.9	1400.1	1417.2	1417.2	1436.4
35°	1203.8	1212.3	1222.9	1222.9	1229.4	1222.9	1242.2	1246.4	1248.6	1250.7	1265.7
37.5°	1079.9	1084.2	1090.6	1077.9	1077.9	1071.4	1077.9	1082.1	1073.6	1073.6	1084.2
40°	962.5	954.0	945.5	932.7	926.3	913.5	913.5	902.8	896.4	892.1	894.3
42.5°	849.5	830.3	811.0	783.3	770.5	757.7	744.9	729.9	725.7	715.0	708.6
45°	740.6	712.9	687.3	642.4	616.9	604.0	576.3	546.4	527.2	522.9	505.8
47.5°	648.8	608.2	565.6	512.3	486.7	463.2	422.6	397.0	371.4	358.6	347.9
50°	567.7	531.5	476.0	418.3	386.3	362.8	318.0	288.2	260.4	241.2	228.4
52.5°	497.3	456.7	405.6	339.3	307.4	281.7	232.6	198.5	175.0	155.8	140.9
55°	418.3	386.3	335.1	273.2	241.2	211.3	168.6	132.4	108.9	96.1	85.4
57.5°	360.7	333.0	283.9	224.1	194.2	166.5	123.8	93.9	74.7	61.9	55.5
60°	322.3	296.7	254.0	196.3	168.6	143.0	102.4	74.7	57.6	47.0	42.6
62.5°	290.2	264.7	226.3	172.8	149.4	123.8	87.5	61.9	47.0	38.4	32.0
65°	254.0	230.5	196.3	149.4	128.0	106.7	74.7	51.3	38.4	29.9	25.6
67.5°	215.6	194.2	164.3	123.8	106.7	89.6	59.8	42.6	32.0	25.6	21.3
70°	175.0	158.0	130.2	100.3	85.4	70.4	49.1	34.1	23.5	19.2	17.1
72.5°	134.5	119.5	100.3	76.8	64.1	53.3	36.3	25.6	19.2	15.0	12.8
75°	96.1	85.4	70.4	55.5	47.0	38.4	27.8	19.2	12.8	10.7	8.5
77.5°	66.1	59.8	49.1	38.4	32.0	27.8	19.2	12.8	10.7	8.5	6.4
80°	42.6	38.4	32.0	23.5	19.2	17.1	10.7	8.5	6.4	4.3	4.3
82.5°	25.6	23.5	19.2	12.8	10.7	8.5	6.4	4.3	4.3	2.2	2.2
85°	15.0	12.8	8.5	6.4	6.4	4.3	4.3	2.2	2.2	0.0	0.0
87.5°	6.4	4.3	4.3	2.2	2.2	2.2	2.2	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9
2.5°	1641.3	1652.0	1649.8	1656.3	1654.1	1654.1	1664.8	1660.5	1671.2	1671.2	1673.3
5°	1664.8	1679.7	1679.7	1690.4	1688.3	1692.5	1703.2	1703.2	1716.0	1720.3	1720.3
7.5°	1698.9	1718.1	1722.4	1733.1	1735.2	1743.7	1752.3	1754.4	1771.5	1775.7	1777.9
10°	1745.9	1769.4	1775.7	1786.4	1790.7	1799.2	1809.9	1814.2	1835.5	1837.6	1846.2
12.5°	1803.5	1829.1	1835.5	1848.3	1850.5	1861.1	1876.1	1880.4	1901.7	1908.1	1914.5
15°	1859.0	1882.4	1893.1	1905.9	1908.1	1920.9	1933.7	1938.0	1957.2	1965.7	1972.2
17.5°	1897.4	1925.2	1931.6	1948.7	1948.7	1959.3	1972.2	1976.4	1995.6	2002.0	2006.3
20°	1905.9	1931.6	1940.1	1952.9	1955.0	1961.5	1972.2	1976.4	1993.5	1995.6	2002.0
22.5°	1873.9	1899.6	1903.9	1916.6	1918.7	1925.2	1933.7	1931.6	1952.9	1950.8	1952.9
25°	1805.7	1829.1	1829.1	1844.1	1842.0	1848.3	1852.6	1850.5	1869.6	1869.6	1869.6
27.5°	1707.4	1728.8	1730.9	1741.6	1735.2	1737.4	1741.6	1739.5	1752.3	1752.3	1752.3
30°	1585.8	1602.9	1596.5	1605.0	1600.7	1605.0	1600.7	1598.6	1602.9	1607.2	1605.0
32.5°	1434.2	1447.1	1447.1	1449.2	1449.2	1436.4	1432.2	1432.2	1430.0	1427.9	1427.9
35°	1259.2	1269.9	1265.7	1265.7	1263.5	1250.7	1244.3	1240.1	1246.4	1233.6	1242.2
37.5°	1079.9	1082.1	1075.7	1073.6	1062.9	1062.9	1052.3	1043.7	1047.9	1045.8	1037.3
40°	883.6	892.1	879.3	875.1	881.5	872.9	862.3	851.6	860.1	849.5	853.8
42.5°	691.5	689.4	685.1	685.1	685.1	672.3	670.2	668.0	670.2	661.7	655.2
45°	499.5	493.0	486.7	486.7	478.1	473.8	473.8	467.4	456.7	456.7	443.9
47.5°	337.2	322.3	318.0	315.9	311.7	311.7	307.4	303.0	300.9	290.2	290.2
50°	219.8	204.9	200.6	198.5	200.6	196.3	192.1	187.8	183.5	181.5	177.2
52.5°	132.4	125.9	121.7	119.5	115.2	113.1	111.0	106.7	104.6	104.6	102.4
55°	78.9	72.6	64.1	64.1	64.1	61.9	59.8	57.6	55.5	55.5	53.3
57.5°	49.1	44.8	40.6	38.4	38.4	38.4	36.3	36.3	36.3	36.3	34.1
60°	36.3	32.0	29.9	29.9	29.9	27.8	27.8	27.8	27.8	25.6	25.6
62.5°	27.8	25.6	23.5	23.5	21.3	21.3	21.3	21.3	21.3	21.3	19.2
65°	23.5	19.2	19.2	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
67.5°	17.1	15.0	15.0	15.0	15.0	12.8	12.8	12.8	12.8	12.8	12.8
70°	12.8	12.8	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
72.5°	10.7	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
75°	8.5	8.5	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
77.5°	6.4	6.4	6.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
80°	4.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
82.5°	2.2	2.2	2.2	2.2	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: P858635

CATALOG NUMBER: LD4C30W2N2050D010 4LBSWNL_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9	1634.9
2.5°	1673.3	1684.0	1673.3	1673.3	1679.7	1677.6	1681.8	1675.5
5°	1722.4	1737.4	1726.7	1724.6	1735.2	1733.1	1735.2	1730.9
7.5°	1782.2	1797.2	1786.4	1786.4	1797.2	1795.0	1801.4	1797.2
10°	1850.5	1867.6	1852.6	1854.8	1869.6	1867.6	1867.6	1867.6
12.5°	1920.9	1938.0	1929.4	1929.4	1940.1	1942.2	1944.4	1942.2
15°	1978.5	1995.6	1985.0	1985.0	1999.8	1997.8	1999.8	1997.8
17.5°	2012.6	2029.8	2017.0	2017.0	2029.8	2029.8	2031.9	2034.0
20°	2004.1	2023.3	2012.6	2008.4	2023.3	2023.3	2021.3	2021.3
22.5°	1955.0	1972.2	1963.6	1959.3	1970.0	1965.7	1963.6	1965.7
25°	1869.6	1886.8	1869.6	1869.6	1878.2	1876.1	1878.2	1876.1
27.5°	1754.4	1767.2	1750.2	1748.0	1756.6	1752.3	1750.2	1756.6
30°	1600.7	1613.5	1605.0	1598.6	1609.3	1602.9	1598.6	1600.7
32.5°	1425.7	1434.2	1430.0	1419.4	1425.7	1421.4	1419.4	1421.4
35°	1233.6	1244.3	1227.3	1225.1	1235.8	1227.3	1222.9	1233.6
37.5°	1035.1	1047.9	1033.0	1035.1	1028.8	1030.9	1026.6	1033.0
40°	847.3	845.2	841.0	838.8	841.0	834.5	838.8	832.4
42.5°	644.5	648.8	646.7	644.5	646.7	638.2	633.9	642.4
45°	448.2	446.1	441.8	437.5	437.5	435.4	435.4	429.0
47.5°	288.2	286.0	277.4	279.6	283.9	279.6	273.2	281.7
50°	175.0	172.8	172.8	170.8	175.0	170.8	166.5	166.5
52.5°	98.2	98.2	96.1	96.1	96.1	96.1	93.9	91.8
55°	53.3	51.3	51.3	51.3	49.1	49.1	49.1	49.1
57.5°	34.1	34.1	34.1	34.1	34.1	34.1	32.0	32.0
60°	25.6	25.6	25.6	25.6	23.5	25.6	23.5	23.5
62.5°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
65°	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
67.5°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
70°	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
72.5°	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
75°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
77.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
80°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
82.5°	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
87.5°	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



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)