

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: P858674

Luminaire Tested: **LD4C30W2N2765D010 4LBSWNL1_3000K**

Issue Date: 11/9/2023



Test Information

Test Method: LM-79-08
Report Number: P858674
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: LD4C30W2N2765D010 4LBSWNLI_3000K
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, W2N2765 LEDS
AND 4LBSWNLI TRIM WITH FINISH

Light Source: -
Ballast/Driver: -

Summary

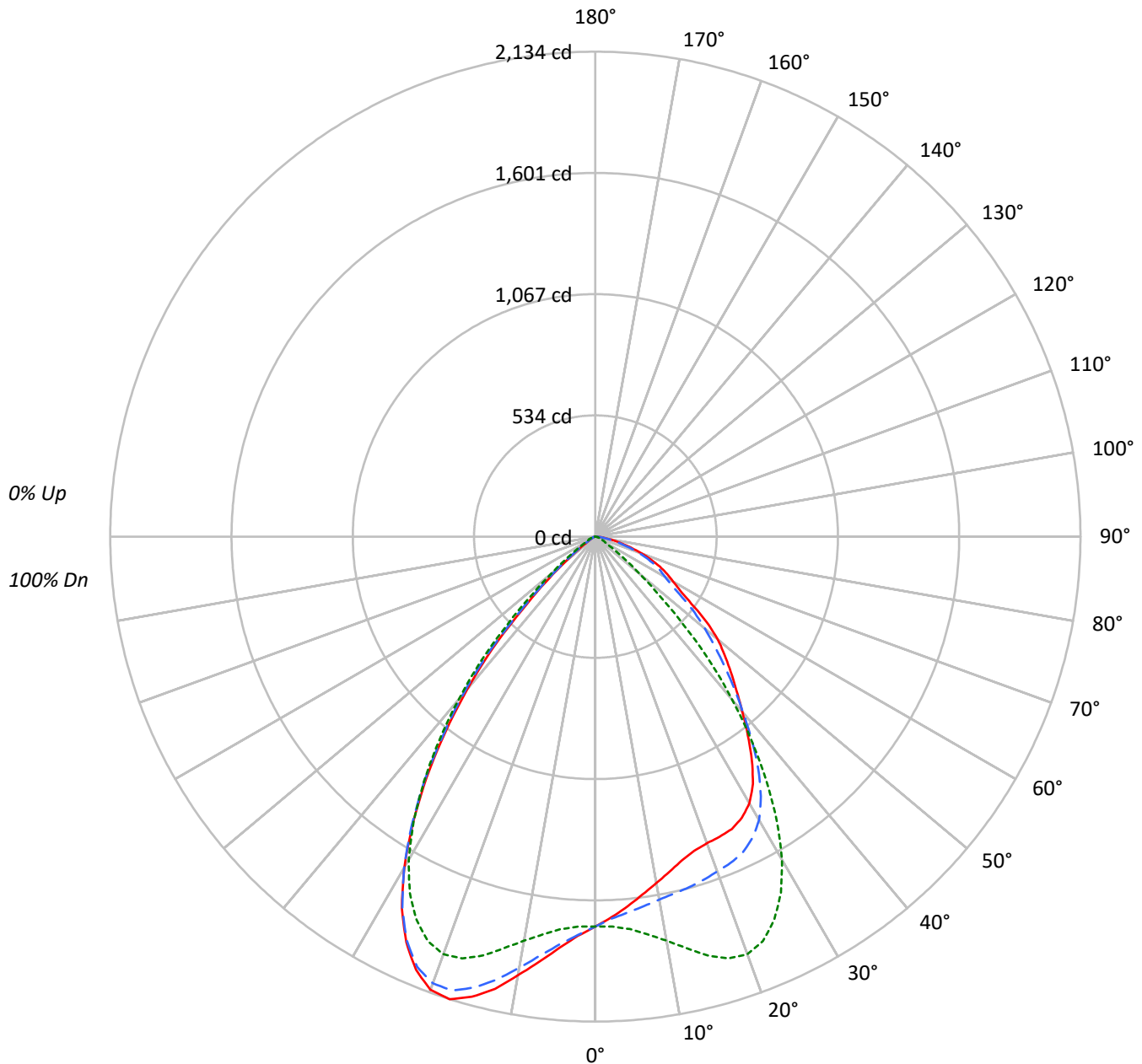
Lumens per Lamp: N/A
Luminaire Lumens: 3166.0 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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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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°	210780	210780	210780
5°	201361	213792	224003
10°	193061	225209	244482
15°	187436	242711	266635
20°	187700	255632	277308
25°	192486	252293	266865
30°	192219	232890	238295
35°	180047	196844	194159
40°	161272	150142	140087
45°	146307	95332	78218
50°	134419	48374	33390
55°	110350	21590	11031
60°	96858	12113	6069
65°	91133	9099	4564
70°	78054	7256	4023
75°	59524	5316	3228
80°	42803	3184	1627
85°	31575	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.7	5.3
10°-20°	519.4	16.4
20°-30°	803.6	25.4
30°-40°	791.7	25.0
40°-50°	486.2	15.4
50°-60°	216.2	6.8
60°-70°	120.7	3.8
70°-80°	52.3	1.7
80°-90°	9.4	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°	1489.6	47.0
0°-40°	2281.3	72.1
0°-60°	2983.7	94.2
0°-90°	3166.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3166.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1716	1716	1716	1716	1716	
5°	1633	1660	1734	1801	1816	153
15°	1474	1597	1908	2054	2096	418
25°	1420	1534	1861	1962	1969	652
35°	1200	1250	1312	1308	1295	745
45°	842	800	549	479	450	652
55°	515	466	101	58	52	473
65°	314	282	31	18	16	307
75°	125	108	11	7	7	138
85°	22	18	0	0	0	28
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°	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7
2.5°	1675.3	1675.3	1675.3	1675.3	1679.8	1673.1	1679.8	1679.8	1686.5	1688.7	1682.1
5°	1632.8	1630.6	1632.8	1632.8	1637.2	1635.0	1641.7	1646.2	1655.2	1659.7	1659.7
7.5°	1588.0	1588.0	1588.0	1592.5	1599.1	1596.9	1603.6	1610.4	1623.8	1632.8	1639.5
10°	1547.6	1545.4	1552.1	1554.4	1561.1	1561.1	1572.3	1579.0	1594.7	1612.7	1621.6
12.5°	1509.6	1507.4	1511.8	1518.6	1529.7	1529.7	1538.7	1549.9	1572.3	1592.5	1608.1
15°	1473.7	1476.0	1482.7	1487.2	1500.6	1500.6	1511.8	1525.3	1549.9	1574.6	1596.9
17.5°	1449.1	1451.4	1455.8	1462.5	1476.0	1476.0	1487.2	1502.9	1529.7	1556.6	1583.5
20°	1435.7	1437.9	1442.4	1449.1	1460.3	1462.5	1471.6	1489.5	1514.0	1543.2	1567.8
22.5°	1429.0	1433.5	1437.9	1442.4	1453.6	1453.6	1464.8	1478.2	1502.9	1532.0	1554.4
25°	1420.0	1424.4	1426.7	1433.5	1442.4	1442.4	1449.1	1464.8	1487.2	1511.8	1534.2
27.5°	1395.4	1399.9	1402.1	1408.8	1417.8	1415.5	1424.4	1435.7	1455.8	1478.2	1496.1
30°	1355.0	1357.3	1361.8	1364.0	1370.7	1370.7	1377.4	1388.6	1402.1	1422.2	1440.1
32.5°	1290.1	1294.6	1296.8	1299.0	1305.8	1303.5	1305.8	1312.5	1325.9	1343.9	1355.0
35°	1200.5	1209.4	1209.4	1213.9	1216.2	1213.9	1213.9	1222.9	1229.6	1243.1	1249.8
37.5°	1102.0	1108.7	1106.4	1110.9	1113.2	1106.4	1110.9	1113.2	1122.1	1128.8	1131.1
40°	1005.6	1007.9	1007.9	1007.9	1007.9	1005.6	1007.9	1010.1	1016.8	1016.8	1010.1
42.5°	918.3	920.6	920.6	916.0	920.6	918.3	918.3	918.3	918.3	909.3	902.6
45°	842.1	844.4	844.4	842.1	842.1	837.7	835.5	833.2	826.4	815.3	799.6
47.5°	770.4	774.9	777.2	772.7	770.4	766.0	766.0	752.5	743.6	730.2	707.8
50°	703.3	707.8	707.8	703.3	703.3	696.6	689.9	685.3	671.9	656.3	629.3
52.5°	618.2	624.9	624.9	622.7	622.7	613.7	611.4	602.5	591.3	573.4	551.0
55°	515.2	524.1	521.8	519.7	515.2	515.2	515.2	508.4	501.7	488.2	465.9
57.5°	441.2	443.5	443.5	441.2	441.2	436.7	436.7	430.1	427.8	414.4	396.5
60°	394.2	394.2	396.5	394.2	392.0	389.7	387.5	383.0	376.3	367.3	353.9
62.5°	356.1	358.4	358.4	356.1	353.9	351.6	349.4	344.9	340.5	333.7	320.3
65°	313.5	318.0	315.8	313.5	311.3	309.1	309.1	304.6	300.1	295.6	282.2
67.5°	266.5	268.8	271.0	266.5	266.5	264.3	264.3	259.8	257.5	248.6	239.6
70°	217.3	219.5	219.5	217.3	217.3	215.0	215.0	212.8	210.5	203.8	194.9
72.5°	170.2	172.4	170.2	168.0	168.0	168.0	165.8	163.5	161.3	156.8	150.1
75°	125.4	125.4	127.7	125.4	123.2	123.2	120.9	120.9	116.4	114.2	107.5
77.5°	89.6	91.8	89.6	89.6	87.3	85.1	85.1	82.8	82.8	80.6	76.2
80°	60.5	60.5	62.7	60.5	58.3	60.5	58.3	56.0	56.0	53.8	49.3
82.5°	38.1	40.3	38.1	38.1	38.1	38.1	38.1	35.8	35.8	33.6	31.3
85°	22.4	22.4	22.4	22.4	22.4	22.4	22.4	20.2	20.2	20.2	17.9
87.5°	11.2	11.2	9.0	9.0	11.2	11.2	11.2	9.0	9.0	9.0	9.0
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7
2.5°	1691.0	1693.2	1697.7	1704.4	1704.4	1700.0	1711.2	1711.2	1715.7	1717.9	1726.8
5°	1673.1	1677.6	1686.5	1697.7	1700.0	1697.7	1713.4	1720.1	1726.8	1733.6	1747.0
7.5°	1657.4	1666.4	1682.1	1697.7	1704.4	1704.4	1729.1	1738.0	1751.5	1764.9	1780.6
10°	1648.5	1661.9	1684.3	1708.9	1715.7	1722.3	1751.5	1769.4	1787.3	1805.3	1827.6
12.5°	1637.2	1661.9	1691.0	1722.3	1735.8	1744.7	1785.1	1807.5	1832.1	1854.5	1883.6
15°	1635.0	1664.2	1702.2	1742.5	1760.4	1773.9	1818.7	1850.0	1879.2	1908.3	1937.4
17.5°	1626.1	1661.9	1708.9	1753.8	1776.1	1794.0	1845.5	1883.6	1917.2	1946.4	1980.0
20°	1614.8	1655.2	1706.7	1756.0	1780.6	1798.5	1854.5	1890.4	1928.4	1955.3	1986.6
22.5°	1599.1	1639.5	1691.0	1740.2	1762.7	1778.3	1834.3	1865.7	1899.3	1926.2	1955.3
25°	1572.3	1610.4	1655.2	1695.5	1717.9	1731.3	1780.6	1809.7	1834.3	1861.2	1888.1
27.5°	1534.2	1563.3	1601.4	1630.6	1644.0	1657.4	1697.7	1722.3	1744.7	1767.2	1785.1
30°	1467.0	1489.5	1516.3	1541.0	1554.4	1556.6	1594.7	1608.1	1626.1	1641.7	1655.2
32.5°	1377.4	1395.4	1411.0	1424.4	1433.5	1435.7	1464.8	1469.3	1487.2	1487.2	1507.4
35°	1263.2	1272.2	1283.3	1283.3	1290.1	1283.3	1303.5	1308.0	1310.3	1312.5	1328.2
37.5°	1133.3	1137.8	1144.5	1131.1	1131.1	1124.3	1131.1	1135.6	1126.6	1126.6	1137.8
40°	1010.1	1001.1	992.2	978.8	972.1	958.6	958.6	947.4	940.7	936.2	938.5
42.5°	891.4	871.3	851.1	821.9	808.5	795.1	781.7	766.0	761.5	750.3	743.6
45°	777.2	748.1	721.2	674.2	647.3	633.8	604.8	573.4	553.3	548.7	530.8
47.5°	680.8	638.3	593.5	537.6	510.7	486.0	443.5	416.6	389.7	376.3	365.0
50°	595.7	557.7	499.5	439.0	405.4	380.7	333.7	302.4	273.3	253.1	239.6
52.5°	521.8	479.3	425.6	356.1	322.6	295.6	244.1	208.3	183.7	163.5	147.9
55°	439.0	405.4	351.6	286.7	253.1	221.7	176.9	138.9	114.2	100.8	89.6
57.5°	378.6	349.4	297.9	235.2	203.8	174.7	129.9	98.5	78.4	64.9	58.3
60°	338.2	311.3	266.5	206.0	176.9	150.1	107.5	78.4	60.5	49.3	44.8
62.5°	304.6	277.7	237.4	181.4	156.8	129.9	91.8	64.9	49.3	40.3	33.6
65°	266.5	241.9	206.0	156.8	134.3	112.0	78.4	53.8	40.3	31.3	26.9
67.5°	226.2	203.8	172.4	129.9	112.0	94.1	62.7	44.8	33.6	26.9	22.4
70°	183.7	165.8	136.6	105.3	89.6	73.9	51.5	35.8	24.7	20.2	17.9
72.5°	141.1	125.4	105.3	80.6	67.2	56.0	38.1	26.9	20.2	15.7	13.4
75°	100.8	89.6	73.9	58.3	49.3	40.3	29.1	20.2	13.4	11.2	9.0
77.5°	69.4	62.7	51.5	40.3	33.6	29.1	20.2	13.4	11.2	9.0	6.8
80°	44.8	40.3	33.6	24.7	20.2	17.9	11.2	9.0	6.8	4.5	4.5
82.5°	26.9	24.7	20.2	13.4	11.2	9.0	6.8	4.5	4.5	2.3	2.3
85°	15.7	13.4	9.0	6.8	6.8	4.5	4.5	2.3	2.3	0.0	0.0
87.5°	6.8	4.5	4.5	2.3	2.3	2.3	2.3	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°	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7
2.5°	1722.3	1733.6	1731.3	1738.0	1735.8	1735.8	1747.0	1742.5	1753.8	1753.8	1756.0
5°	1747.0	1762.7	1762.7	1773.9	1771.7	1776.1	1787.3	1787.3	1800.8	1805.3	1805.3
7.5°	1782.8	1803.0	1807.5	1818.7	1820.9	1829.8	1838.9	1841.1	1859.0	1863.4	1865.7
10°	1832.1	1856.8	1863.4	1874.7	1879.2	1888.1	1899.3	1903.8	1926.2	1928.4	1937.4
12.5°	1892.6	1919.4	1926.2	1939.6	1941.9	1953.0	1968.7	1973.2	1995.6	2002.4	2009.0
15°	1950.8	1975.4	1986.6	2000.1	2002.4	2015.8	2029.2	2033.7	2053.9	2062.8	2069.6
17.5°	1991.1	2020.3	2027.0	2044.9	2044.9	2056.1	2069.6	2074.0	2094.1	2100.9	2105.4
20°	2000.1	2027.0	2036.0	2049.4	2051.6	2058.3	2069.6	2074.0	2091.9	2094.1	2100.9
22.5°	1966.5	1993.4	1997.9	2011.3	2013.5	2020.3	2029.2	2027.0	2049.4	2047.1	2049.4
25°	1894.9	1919.4	1919.4	1935.1	1932.9	1939.6	1944.1	1941.9	1962.0	1962.0	1962.0
27.5°	1791.8	1814.2	1816.4	1827.6	1820.9	1823.2	1827.6	1825.4	1838.9	1838.9	1838.9
30°	1664.2	1682.1	1675.3	1684.3	1679.8	1684.3	1679.8	1677.6	1682.1	1686.5	1684.3
32.5°	1505.1	1518.6	1518.6	1520.8	1520.8	1507.4	1502.9	1502.9	1500.6	1498.4	1498.4
35°	1321.4	1332.6	1328.2	1328.2	1325.9	1312.5	1305.8	1301.3	1308.0	1294.6	1303.5
37.5°	1133.3	1135.6	1128.8	1126.6	1115.4	1115.4	1104.2	1095.2	1099.7	1097.5	1088.5
40°	927.2	936.2	922.8	918.3	925.1	916.0	904.9	893.6	902.6	891.4	895.9
42.5°	725.7	723.4	718.9	718.9	718.9	705.5	703.3	701.0	703.3	694.4	687.6
45°	524.1	517.4	510.7	510.7	501.7	497.2	497.2	490.5	479.3	479.3	465.9
47.5°	353.9	338.2	333.7	331.5	327.0	327.0	322.6	318.0	315.8	304.6	304.6
50°	230.7	215.0	210.5	208.3	210.5	206.0	201.6	197.1	192.6	190.4	185.9
52.5°	138.9	132.2	127.7	125.4	120.9	118.7	116.4	112.0	109.8	109.8	107.5
55°	82.8	76.2	67.2	67.2	67.2	64.9	62.7	60.5	58.3	58.3	56.0
57.5°	51.5	47.0	42.6	40.3	40.3	40.3	38.1	38.1	38.1	38.1	35.8
60°	38.1	33.6	31.3	31.3	31.3	29.1	29.1	29.1	29.1	26.9	26.9
62.5°	29.1	26.9	24.7	24.7	22.4	22.4	22.4	22.4	22.4	22.4	20.2
65°	24.7	20.2	20.2	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
67.5°	17.9	15.7	15.7	15.7	15.7	13.4	13.4	13.4	13.4	13.4	13.4
70°	13.4	13.4	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
72.5°	11.2	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
75°	9.0	9.0	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
77.5°	6.8	6.8	6.8	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
80°	4.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
82.5°	2.3	2.3	2.3	2.3	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: P858674

CATALOG NUMBER: LD4C30W2N2765D010 4LBSWNL1_3000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7	1715.7
2.5°	1756.0	1767.2	1756.0	1756.0	1762.7	1760.4	1764.9	1758.2
5°	1807.5	1823.2	1811.9	1809.7	1820.9	1818.7	1820.9	1816.4
7.5°	1870.2	1885.9	1874.7	1874.7	1885.9	1883.6	1890.4	1885.9
10°	1941.9	1959.8	1944.1	1946.4	1962.0	1959.8	1959.8	1959.8
12.5°	2015.8	2033.7	2024.7	2024.7	2036.0	2038.2	2040.4	2038.2
15°	2076.2	2094.1	2083.0	2083.0	2098.6	2096.4	2098.6	2096.4
17.5°	2112.0	2130.0	2116.6	2116.6	2130.0	2130.0	2132.2	2134.5
20°	2103.1	2123.3	2112.0	2107.6	2123.3	2123.3	2121.1	2121.1
22.5°	2051.6	2069.6	2060.5	2056.1	2067.3	2062.8	2060.5	2062.8
25°	1962.0	1980.0	1962.0	1962.0	1970.9	1968.7	1970.9	1968.7
27.5°	1841.1	1854.5	1836.6	1834.3	1843.3	1838.9	1836.6	1843.3
30°	1679.8	1693.2	1684.3	1677.6	1688.7	1682.1	1677.6	1679.8
32.5°	1496.1	1505.1	1500.6	1489.5	1496.1	1491.6	1489.5	1491.6
35°	1294.6	1305.8	1287.9	1285.6	1296.8	1287.9	1283.3	1294.6
37.5°	1086.2	1099.7	1084.1	1086.2	1079.6	1081.8	1077.3	1084.1
40°	889.2	887.0	882.5	880.2	882.5	875.7	880.2	873.5
42.5°	676.4	680.8	678.7	676.4	678.7	669.7	665.2	674.2
45°	470.3	468.1	463.7	459.1	459.1	456.9	456.9	450.2
47.5°	302.4	300.1	291.2	293.4	297.9	293.4	286.7	295.6
50°	183.7	181.4	181.4	179.2	183.7	179.2	174.7	174.7
52.5°	103.0	103.0	100.8	100.8	100.8	100.8	98.5	96.3
55°	56.0	53.8	53.8	53.8	51.5	51.5	51.5	51.5
57.5°	35.8	35.8	35.8	35.8	35.8	35.8	33.6	33.6
60°	26.9	26.9	26.9	26.9	24.7	26.9	24.7	24.7
62.5°	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
65°	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
67.5°	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
70°	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
72.5°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
75°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
77.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
80°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)