

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: P858678

Luminaire Tested: **LD4C30W2N2765D010 4LBSWNL1_6500K**

Issue Date: 11/9/2023



Test Information

Test Method: LM-79-08
Report Number: P858678
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_6500K
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 6500K, W2N2765 LEDS
AND 4LBSWNLI TRIM WITH FINISH

Light Source: -
Ballast/Driver: -

Summary

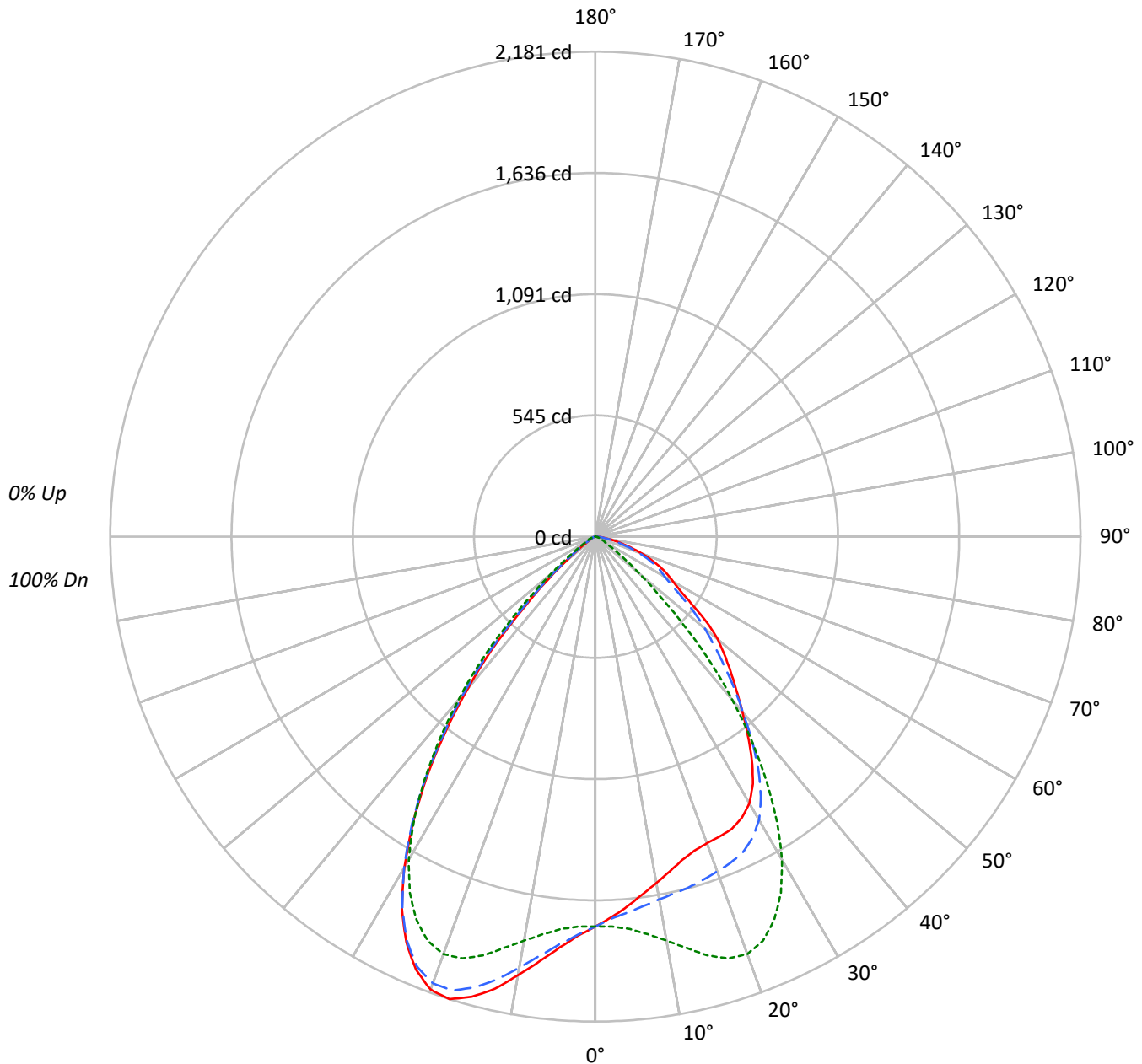
Lumens per Lamp: N/A
Luminaire Lumens: 3235.0 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	215374	215374	215374
5°	205739	218454	228887
10°	197278	230111	249809
15°	191531	248002	272448
20°	191793	261201	283348
25°	196675	257796	272680
30°	196418	237968	243487
35°	183976	201133	198389
40°	164784	153414	143150
45°	149504	97417	79921
50°	137343	49425	34116
55°	112749	22061	11266
60°	98971	12384	6192
65°	93139	9302	4651
70°	79742	7400	4131
75°	60805	5459	3275
80°	43723	3254	1627
85°	32280	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.3	5.3
10°-20°	530.7	16.4
20°-30°	821.1	25.4
30°-40°	809.0	25.0
40°-50°	496.8	15.4
50°-60°	220.9	6.8
60°-70°	123.4	3.8
70°-80°	53.4	1.7
80°-90°	9.5	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°	1522.1	47.0
0°-40°	2331.0	72.1
0°-60°	3048.7	94.2
0°-90°	3235.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3235.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1753	1753	1753	1753	1753	
5°	1668	1696	1771	1840	1856	157
15°	1506	1632	1950	2099	2142	427
25°	1451	1568	1902	2005	2012	666
35°	1227	1277	1341	1336	1323	761
45°	860	817	561	490	460	666
55°	526	476	103	60	53	484
65°	320	288	32	18	16	314
75°	128	110	12	7	7	141
85°	23	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°	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1
2.5°	1711.8	1711.8	1711.8	1711.8	1716.4	1709.6	1716.4	1716.4	1723.3	1725.5	1718.7
5°	1668.3	1666.1	1668.3	1668.3	1672.9	1670.7	1677.5	1682.1	1691.3	1695.9	1695.9
7.5°	1622.6	1622.6	1622.6	1627.2	1634.0	1631.8	1638.6	1645.5	1659.2	1668.3	1675.2
10°	1581.4	1579.1	1585.9	1588.3	1595.1	1595.1	1606.6	1613.5	1629.4	1647.8	1656.9
12.5°	1542.4	1540.2	1544.8	1551.7	1563.1	1563.1	1572.2	1583.7	1606.6	1627.2	1643.1
15°	1505.9	1508.2	1515.0	1519.6	1533.3	1533.3	1544.8	1558.5	1583.7	1608.9	1631.8
17.5°	1480.7	1483.0	1487.6	1494.4	1508.2	1508.2	1519.6	1535.6	1563.1	1590.5	1618.0
20°	1467.0	1469.3	1473.9	1480.7	1492.1	1494.4	1503.6	1521.9	1547.0	1576.8	1602.0
22.5°	1460.1	1464.7	1469.3	1473.9	1485.2	1485.2	1496.7	1510.4	1535.6	1565.4	1588.3
25°	1450.9	1455.5	1457.8	1464.7	1473.9	1473.9	1480.7	1496.7	1519.6	1544.8	1567.6
27.5°	1425.8	1430.4	1432.6	1439.5	1448.7	1446.3	1455.5	1467.0	1487.6	1510.4	1528.7
30°	1384.6	1386.9	1391.5	1393.7	1400.6	1400.6	1407.4	1418.9	1432.6	1453.2	1471.5
32.5°	1318.2	1322.8	1325.1	1327.4	1334.3	1331.9	1334.3	1341.1	1354.8	1373.2	1384.6
35°	1226.7	1235.8	1235.8	1240.4	1242.7	1240.4	1240.4	1249.5	1256.4	1270.1	1277.1
37.5°	1126.0	1132.9	1130.5	1135.1	1137.4	1130.5	1135.1	1137.4	1146.6	1153.4	1155.7
40°	1027.5	1029.9	1029.9	1029.9	1029.9	1027.5	1029.9	1032.1	1039.0	1039.0	1032.1
42.5°	938.3	940.6	940.6	936.0	940.6	938.3	938.3	938.3	938.3	929.2	922.3
45°	860.5	862.8	862.8	860.5	860.5	855.9	853.7	851.3	844.4	833.0	817.0
47.5°	787.2	791.8	794.1	789.6	787.2	782.7	782.7	768.9	759.8	746.1	723.2
50°	718.6	723.2	723.2	718.6	718.6	711.7	704.9	700.3	686.5	670.6	643.1
52.5°	631.7	638.5	638.5	636.2	636.2	627.1	624.8	615.6	604.1	585.8	563.0
55°	526.4	535.5	533.2	531.0	526.4	526.4	526.4	519.5	512.6	498.9	476.0
57.5°	450.8	453.2	453.2	450.8	450.8	446.2	446.2	439.4	437.1	423.4	405.1
60°	402.8	402.8	405.1	402.8	400.5	398.2	395.9	391.4	384.5	375.3	361.6
62.5°	363.8	366.2	366.2	363.8	361.6	359.3	357.0	352.5	347.9	341.0	327.3
65°	320.4	324.9	322.7	320.4	318.1	315.8	315.8	311.2	306.6	302.1	288.4
67.5°	272.3	274.6	276.9	272.3	272.3	270.1	270.1	265.5	263.2	254.0	244.9
70°	222.0	224.2	224.2	222.0	222.0	219.7	219.7	217.4	215.1	208.3	199.1
72.5°	173.9	176.2	173.9	171.6	171.6	171.6	169.4	167.0	164.8	160.2	153.3
75°	128.1	128.1	130.5	128.1	125.9	125.9	123.6	123.6	119.0	116.7	109.8
77.5°	91.5	93.8	91.5	91.5	89.2	87.0	87.0	84.6	84.6	82.4	77.8
80°	61.8	61.8	64.1	61.8	59.5	61.8	59.5	57.2	57.2	55.0	50.4
82.5°	38.9	41.2	38.9	38.9	38.9	38.9	38.9	36.6	36.6	34.3	32.0
85°	22.9	22.9	22.9	22.9	22.9	22.9	22.9	20.6	20.6	20.6	18.3
87.5°	11.5	11.5	9.1	9.1	11.5	11.5	11.5	9.1	9.1	9.1	9.1
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°	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1
2.5°	1727.9	1730.1	1734.7	1741.6	1741.6	1737.0	1748.5	1748.5	1753.1	1755.3	1764.5
5°	1709.6	1714.2	1723.3	1734.7	1737.0	1734.7	1750.7	1757.6	1764.5	1771.4	1785.1
7.5°	1693.5	1702.7	1718.7	1734.7	1741.6	1741.6	1766.8	1775.9	1789.6	1803.4	1819.4
10°	1684.4	1698.1	1721.0	1746.2	1753.1	1759.9	1789.6	1807.9	1826.2	1844.6	1867.5
12.5°	1672.9	1698.1	1727.9	1759.9	1773.6	1782.7	1824.0	1846.9	1872.0	1894.9	1924.7
15°	1670.7	1700.4	1739.3	1780.5	1798.8	1812.5	1858.3	1890.3	1920.1	1949.9	1979.6
17.5°	1661.5	1698.1	1746.2	1792.0	1814.8	1833.1	1885.8	1924.7	1959.0	1988.8	2023.1
20°	1650.0	1691.3	1743.9	1794.2	1819.4	1837.7	1894.9	1931.6	1970.4	1997.9	2029.9
22.5°	1634.0	1675.2	1727.9	1778.2	1801.1	1817.1	1874.3	1906.4	1940.7	1968.2	1997.9
25°	1606.6	1645.5	1691.3	1732.4	1755.3	1769.0	1819.4	1849.2	1874.3	1901.8	1929.3
27.5°	1567.6	1597.4	1636.3	1666.1	1679.8	1693.5	1734.7	1759.9	1782.7	1805.7	1824.0
30°	1499.0	1521.9	1549.4	1574.5	1588.3	1590.5	1629.4	1643.1	1661.5	1677.5	1691.3
32.5°	1407.4	1425.8	1441.8	1455.5	1464.7	1467.0	1496.7	1501.3	1519.6	1519.6	1540.2
35°	1290.8	1299.9	1311.3	1311.3	1318.2	1311.3	1331.9	1336.5	1338.8	1341.1	1357.1
37.5°	1158.0	1162.6	1169.5	1155.7	1155.7	1148.8	1155.7	1160.3	1151.2	1151.2	1162.6
40°	1032.1	1023.0	1013.8	1000.1	993.3	979.5	979.5	968.1	961.2	956.6	958.9
42.5°	910.9	890.3	869.6	839.9	826.1	812.4	798.7	782.7	778.1	766.7	759.8
45°	794.1	764.4	736.9	688.9	661.4	647.6	617.9	585.8	565.3	560.7	542.4
47.5°	695.7	652.2	606.5	549.3	521.8	496.6	453.2	425.7	398.2	384.5	373.0
50°	608.7	569.9	510.4	448.6	414.2	389.0	341.0	309.0	279.2	258.6	244.9
52.5°	533.2	489.7	434.9	363.8	329.6	302.1	249.4	212.9	187.7	167.0	151.1
55°	448.6	414.2	359.3	292.9	258.6	226.6	180.8	141.9	116.7	103.0	91.5
57.5°	386.8	357.0	304.4	240.3	208.3	178.5	132.7	100.7	80.1	66.3	59.5
60°	345.6	318.1	272.3	210.5	180.8	153.3	109.8	80.1	61.8	50.4	45.7
62.5°	311.2	283.8	242.6	185.3	160.2	132.7	93.8	66.3	50.4	41.2	34.3
65°	272.3	247.2	210.5	160.2	137.3	114.4	80.1	55.0	41.2	32.0	27.4
67.5°	231.1	208.3	176.2	132.7	114.4	96.1	64.1	45.7	34.3	27.4	22.9
70°	187.7	169.4	139.6	107.6	91.5	75.5	52.6	36.6	25.2	20.6	18.3
72.5°	144.2	128.1	107.6	82.4	68.7	57.2	38.9	27.4	20.6	16.0	13.7
75°	103.0	91.5	75.5	59.5	50.4	41.2	29.8	20.6	13.7	11.5	9.1
77.5°	70.9	64.1	52.6	41.2	34.3	29.8	20.6	13.7	11.5	9.1	6.9
80°	45.7	41.2	34.3	25.2	20.6	18.3	11.5	9.1	6.9	4.6	4.6
82.5°	27.4	25.2	20.6	13.7	11.5	9.1	6.9	4.6	4.6	2.3	2.3
85°	16.0	13.7	9.1	6.9	6.9	4.6	4.6	2.3	2.3	0.0	0.0
87.5°	6.9	4.6	4.6	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°	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1
2.5°	1759.9	1771.4	1769.0	1775.9	1773.6	1773.6	1785.1	1780.5	1792.0	1792.0	1794.2
5°	1785.1	1801.1	1801.1	1812.5	1810.3	1814.8	1826.2	1826.2	1840.0	1844.6	1844.6
7.5°	1821.7	1842.3	1846.9	1858.3	1860.6	1869.7	1879.0	1881.2	1899.5	1904.1	1906.4
10°	1872.0	1897.2	1904.1	1915.5	1920.1	1929.3	1940.7	1945.3	1968.2	1970.4	1979.6
12.5°	1933.8	1961.3	1968.2	1981.9	1984.2	1995.6	2011.6	2016.2	2039.1	2046.0	2052.8
15°	1993.4	2018.5	2029.9	2043.7	2046.0	2059.7	2073.4	2078.0	2098.6	2107.8	2114.7
17.5°	2034.5	2064.3	2071.2	2089.5	2089.5	2100.9	2114.7	2119.2	2139.8	2146.7	2151.3
20°	2043.7	2071.2	2080.3	2094.0	2096.3	2103.2	2114.7	2119.2	2137.5	2139.8	2146.7
22.5°	2009.3	2036.8	2041.4	2055.1	2057.4	2064.3	2073.4	2071.2	2094.0	2091.7	2094.0
25°	1936.2	1961.3	1961.3	1977.3	1975.1	1981.9	1986.5	1984.2	2004.7	2004.7	2004.7
27.5°	1830.8	1853.8	1856.0	1867.5	1860.6	1862.9	1867.5	1865.1	1879.0	1879.0	1879.0
30°	1700.4	1718.7	1711.8	1721.0	1716.4	1721.0	1716.4	1714.2	1718.7	1723.3	1721.0
32.5°	1537.9	1551.7	1551.7	1553.9	1553.9	1540.2	1535.6	1535.6	1533.3	1531.1	1531.1
35°	1350.2	1361.7	1357.1	1357.1	1354.8	1341.1	1334.3	1329.7	1336.5	1322.8	1331.9
37.5°	1158.0	1160.3	1153.4	1151.2	1139.7	1139.7	1128.3	1119.1	1123.6	1121.4	1112.3
40°	947.5	956.6	942.9	938.3	945.2	936.0	924.6	913.1	922.3	910.9	915.4
42.5°	741.5	739.2	734.6	734.6	734.6	720.9	718.6	716.3	718.6	709.5	702.6
45°	535.5	528.6	521.8	521.8	512.6	508.0	508.0	501.2	489.7	489.7	476.0
47.5°	361.6	345.6	341.0	338.7	334.2	334.2	329.6	324.9	322.7	311.2	311.2
50°	235.7	219.7	215.1	212.9	215.1	210.5	206.0	201.4	196.8	194.6	190.0
52.5°	141.9	135.0	130.5	128.1	123.6	121.3	119.0	114.4	112.2	112.2	109.8
55°	84.6	77.8	68.7	68.7	68.7	66.3	64.1	61.8	59.5	59.5	57.2
57.5°	52.6	48.1	43.5	41.2	41.2	41.2	38.9	38.9	38.9	38.9	36.6
60°	38.9	34.3	32.0	32.0	32.0	29.8	29.8	29.8	29.8	27.4	27.4
62.5°	29.8	27.4	25.2	25.2	22.9	22.9	22.9	22.9	22.9	22.9	20.6
65°	25.2	20.6	20.6	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
67.5°	18.3	16.0	16.0	16.0	16.0	13.7	13.7	13.7	13.7	13.7	13.7
70°	13.7	13.7	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
72.5°	11.5	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
75°	9.1	9.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
77.5°	6.9	6.9	6.9	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
80°	4.6	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: P858678

CATALOG NUMBER: LD4C30W2N2765D010 4LBSWNL1_6500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1	1753.1
2.5°	1794.2	1805.7	1794.2	1794.2	1801.1	1798.8	1803.4	1796.6
5°	1846.9	1862.9	1851.4	1849.2	1860.6	1858.3	1860.6	1856.0
7.5°	1911.0	1927.0	1915.5	1915.5	1927.0	1924.7	1931.6	1927.0
10°	1984.2	2002.5	1986.5	1988.8	2004.7	2002.5	2002.5	2002.5
12.5°	2059.7	2078.0	2068.9	2068.9	2080.3	2082.6	2084.9	2082.6
15°	2121.5	2139.8	2128.4	2128.4	2144.3	2142.1	2144.3	2142.1
17.5°	2158.1	2176.4	2162.7	2162.7	2176.4	2176.4	2178.7	2181.0
20°	2148.9	2169.5	2158.1	2153.5	2169.5	2169.5	2167.3	2167.3
22.5°	2096.3	2114.7	2105.4	2100.9	2112.3	2107.8	2105.4	2107.8
25°	2004.7	2023.1	2004.7	2004.7	2013.9	2011.6	2013.9	2011.6
27.5°	1881.2	1894.9	1876.6	1874.3	1883.5	1879.0	1876.6	1883.5
30°	1716.4	1730.1	1721.0	1714.2	1725.5	1718.7	1714.2	1716.4
32.5°	1528.7	1537.9	1533.3	1521.9	1528.7	1524.2	1521.9	1524.2
35°	1322.8	1334.3	1316.0	1313.6	1325.1	1316.0	1311.3	1322.8
37.5°	1109.9	1123.6	1107.7	1109.9	1103.1	1105.3	1100.8	1107.7
40°	908.5	906.3	901.7	899.4	901.7	894.8	899.4	892.6
42.5°	691.1	695.7	693.4	691.1	693.4	684.3	679.7	688.9
45°	480.6	478.3	473.8	469.1	469.1	466.9	466.9	460.0
47.5°	309.0	306.6	297.5	299.8	304.4	299.8	292.9	302.1
50°	187.7	185.3	185.3	183.1	187.7	183.1	178.5	178.5
52.5°	105.3	105.3	103.0	103.0	103.0	103.0	100.7	98.4
55°	57.2	55.0	55.0	55.0	52.6	52.6	52.6	52.6
57.5°	36.6	36.6	36.6	36.6	36.6	36.6	34.3	34.3
60°	27.4	27.4	27.4	27.4	25.2	27.4	25.2	25.2
62.5°	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
65°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
67.5°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
70°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
72.5°	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
75°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
77.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
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)