

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: P858105

Luminaire Tested: **LX4C45D010 EX4C459027 4LBLWW***

Issue Date: 2/9/2022

Test Information

Test Method: LM-79-08
Report Number: P858105
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)
Test Lab: INNOVATION CENTER
Issue Date: 2/9/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C45D010 EX4C459027 4LBLWW*
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LRLWW TRIM WITH * FINISH
Light Source: -
Ballast/Driver: -

Summary

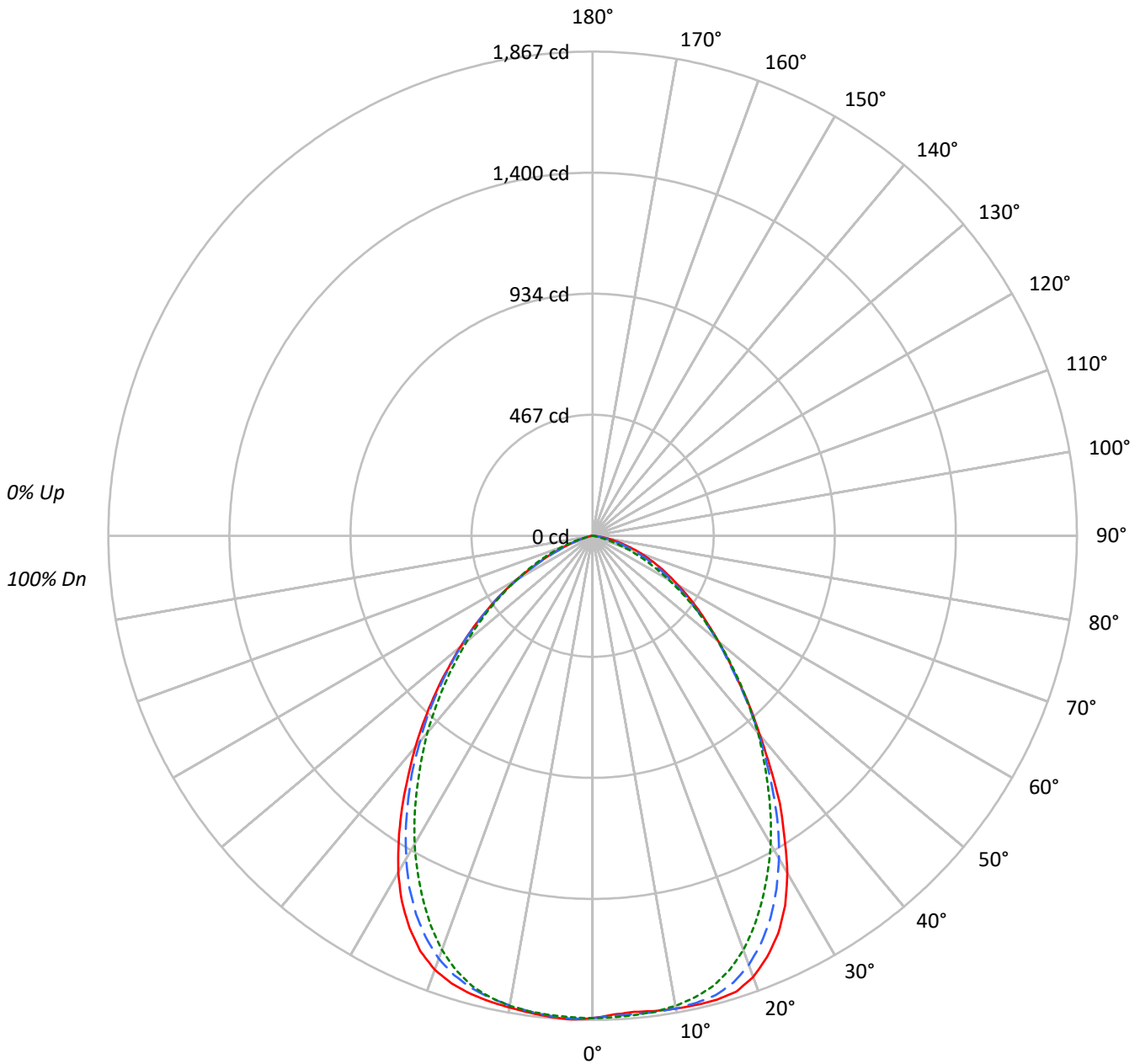
Lumens per Lamp: N/A
Luminaire Lumens: 3566.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 49.6
Input Voltage (V):
Input Current (A_{in}): 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									
RC	80									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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89																			
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78																			
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68																			
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60																			
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54																			
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48																			
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43																			
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39																			
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36																			
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	228507	228507	228507
5°	227235	228776	229639
10°	230985	229600	230461
15°	235500	228581	232397
20°	236688	222176	232766
25°	229411	209810	226280
30°	212930	194701	212533
35°	188550	176612	192120
40°	160743	159059	170381
45°	138107	139670	148410
50°	120543	120811	127214
55°	106516	102039	105466
60°	93369	83246	82902
65°	82645	64564	57471
70°	70511	44397	34124
75°	57008	23876	15569
80°	39053	5943	3962
85°	11841	1973	1973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.8	5.0
10°-20°	511.7	14.4
20°-30°	739.4	20.7
30°-40°	764.4	21.4
40°-50°	631.6	17.7
50°-60°	435.9	12.2
60°-70°	228.2	6.4
70°-80°	71.8	2.0
80°-90°	6.1	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°	1427.9	40.0
0°-40°	2192.3	61.5
0°-60°	3259.8	91.4
0°-90°	3566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3566.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1860	1860	1860	1860	1860	
5°	1843	1852	1855	1859	1862	176
15°	1852	1834	1797	1806	1827	522
25°	1692	1624	1548	1610	1669	773
35°	1257	1215	1178	1239	1281	780
45°	795	791	804	841	854	620
55°	497	482	476	490	492	447
65°	284	258	222	184	198	282
75°	120	94	50	34	33	129
85°	8	4	1	1	1	17
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°	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0
2.5°	1848.1	1848.8	1848.8	1850.2	1850.2	1850.2	1850.9	1850.9	1851.6	1852.3	1853.0
5°	1842.6	1842.6	1844.0	1844.7	1846.1	1846.7	1848.1	1848.8	1850.2	1850.9	1851.6
7.5°	1848.1	1848.1	1848.8	1849.5	1849.5	1850.2	1850.2	1850.9	1851.6	1852.3	1852.3
10°	1851.6	1851.6	1851.6	1851.6	1852.3	1852.3	1852.3	1851.6	1851.6	1851.6	1850.9
12.5°	1853.0	1853.0	1852.3	1851.6	1852.3	1851.6	1851.6	1849.5	1848.1	1846.7	1844.7
15°	1851.6	1851.6	1850.9	1850.2	1849.5	1848.1	1847.4	1844.0	1841.2	1837.0	1834.2
17.5°	1842.6	1841.2	1839.8	1838.4	1835.6	1833.5	1832.1	1825.8	1820.9	1813.9	1806.2
20°	1810.4	1809.0	1806.9	1803.4	1800.0	1797.2	1793.0	1783.9	1779.0	1768.5	1760.8
22.5°	1758.0	1756.6	1757.3	1751.1	1744.1	1739.9	1737.1	1729.4	1721.0	1707.8	1699.4
25°	1692.4	1688.2	1688.2	1678.4	1674.9	1672.1	1668.6	1659.6	1647.0	1635.1	1623.9
27.5°	1607.2	1601.6	1598.8	1597.4	1589.0	1582.7	1577.8	1570.9	1560.4	1549.9	1534.5
30°	1501.0	1500.3	1496.8	1490.5	1484.2	1481.5	1475.9	1464.0	1454.2	1446.5	1436.7
32.5°	1376.0	1375.3	1375.3	1375.3	1371.1	1370.4	1362.0	1355.7	1348.0	1336.2	1329.9
35°	1257.2	1256.5	1257.2	1246.8	1244.0	1241.9	1241.2	1237.0	1226.5	1220.9	1215.3
37.5°	1123.1	1125.2	1123.8	1121.0	1124.5	1118.2	1123.1	1114.1	1109.9	1108.5	1102.2
40°	1002.3	1007.9	1002.3	1003.0	1006.5	1000.2	1000.2	998.8	996.0	994.6	993.2
42.5°	898.9	891.9	896.1	892.6	896.1	894.0	890.5	892.6	893.3	890.5	889.8
45°	794.9	796.3	797.7	795.6	795.6	793.5	799.0	795.6	795.6	796.3	791.4
47.5°	710.3	708.2	709.6	708.2	708.9	707.5	708.9	709.6	708.2	708.2	704.1
50°	630.7	629.3	634.2	630.0	630.0	629.3	630.0	628.6	626.5	626.5	627.9
52.5°	561.6	558.8	558.1	561.6	556.7	556.7	557.4	556.0	553.2	551.8	548.3
55°	497.3	496.6	497.3	494.5	493.1	493.1	489.6	488.2	487.5	484.0	481.9
57.5°	437.2	435.1	435.8	435.1	432.4	431.7	428.9	428.9	426.1	423.3	419.8
60°	380.0	380.0	382.1	379.3	377.2	375.8	374.4	373.0	368.1	363.2	359.0
62.5°	329.0	329.7	329.0	326.9	325.5	324.1	322.7	318.5	314.3	311.5	306.6
65°	284.3	283.6	281.5	280.1	276.6	276.6	273.8	271.7	266.8	262.6	257.7
67.5°	238.2	236.8	236.8	236.8	232.6	231.9	230.5	226.3	222.1	216.5	212.3
70°	196.3	197.7	195.6	193.5	191.4	190.7	188.6	184.4	179.5	173.9	170.4
72.5°	156.5	157.9	155.8	155.1	150.9	149.5	148.8	145.3	139.7	136.2	130.6
75°	120.1	120.8	119.4	118.0	115.2	114.5	111.1	108.3	104.8	99.2	94.3
77.5°	86.6	85.2	85.2	82.4	79.6	79.6	78.9	74.7	69.8	65.7	61.5
80°	55.2	54.5	52.4	51.0	48.9	48.2	47.5	44.0	40.5	37.7	34.9
82.5°	27.9	27.2	26.5	25.8	24.4	23.0	23.7	21.0	19.6	16.8	14.7
85°	8.4	9.1	9.1	8.4	7.7	7.7	7.7	7.0	5.6	4.9	4.2
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0
2.5°	1853.7	1854.4	1855.1	1855.8	1855.8	1856.5	1857.2	1857.9	1858.6	1858.6	1859.3
5°	1852.3	1853.7	1853.7	1854.4	1854.4	1854.4	1855.1	1855.1	1855.1	1855.1	1855.8
7.5°	1853.0	1853.0	1853.0	1852.3	1852.3	1851.6	1851.6	1851.6	1850.2	1850.2	1850.2
10°	1849.5	1848.8	1848.1	1846.7	1846.1	1845.4	1844.0	1842.6	1841.2	1840.5	1839.1
12.5°	1842.6	1839.8	1837.0	1834.2	1832.8	1832.1	1829.3	1827.2	1825.1	1823.0	1821.6
15°	1828.6	1824.4	1819.5	1813.9	1812.5	1811.1	1806.2	1802.0	1799.3	1797.2	1793.7
17.5°	1800.7	1792.3	1786.7	1778.3	1774.8	1773.4	1765.7	1761.5	1756.6	1755.2	1752.5
20°	1751.1	1743.4	1732.9	1725.2	1721.0	1716.8	1710.5	1705.0	1699.4	1699.4	1695.9
22.5°	1688.9	1679.1	1665.8	1656.1	1655.4	1647.0	1641.4	1635.1	1633.0	1628.8	1628.8
25°	1610.7	1602.3	1587.6	1579.2	1575.0	1572.9	1563.9	1555.5	1551.3	1547.8	1550.6
27.5°	1524.1	1511.5	1500.3	1489.8	1486.3	1482.1	1473.8	1470.3	1462.6	1461.9	1461.2
30°	1424.9	1412.3	1401.1	1396.2	1389.3	1385.8	1379.5	1375.3	1372.5	1372.5	1371.1
32.5°	1320.8	1309.6	1304.0	1293.6	1290.1	1285.2	1281.0	1276.8	1278.2	1276.8	1277.5
35°	1208.3	1205.6	1195.1	1188.8	1188.8	1188.1	1181.1	1178.3	1176.9	1177.6	1181.1
37.5°	1101.5	1093.1	1086.1	1081.9	1085.4	1081.2	1080.5	1080.5	1084.7	1081.9	1087.5
40°	987.6	986.9	984.1	985.5	986.2	981.3	982.7	983.4	986.2	991.8	992.5
42.5°	888.5	887.8	887.8	887.8	886.4	883.6	886.4	891.2	890.5	894.7	898.2
45°	792.8	791.4	794.2	792.1	796.3	797.7	795.6	797.0	801.1	803.9	809.5
47.5°	705.5	705.5	706.2	707.5	703.4	706.8	708.2	711.0	713.1	714.5	717.3
50°	624.4	624.4	623.0	623.0	623.0	625.1	622.3	625.8	626.5	632.1	635.6
52.5°	549.7	546.2	548.3	546.9	544.1	542.7	544.1	544.8	549.0	550.4	554.6
55°	478.5	478.5	472.9	471.5	473.6	472.9	472.2	472.2	474.3	476.4	479.8
57.5°	415.6	411.4	407.2	406.5	404.4	405.1	405.1	404.4	403.0	403.7	404.4
60°	356.2	353.4	347.1	347.1	346.4	345.7	342.2	341.6	338.1	338.8	336.0
62.5°	301.7	300.3	292.0	289.2	289.2	287.1	283.6	282.9	278.0	278.0	275.2
65°	252.8	248.7	243.8	238.9	238.9	236.1	234.0	227.7	224.2	222.1	217.9
67.5°	208.1	201.9	197.0	192.8	190.0	189.3	184.4	180.2	174.6	171.1	164.8
70°	164.8	159.9	155.1	150.9	148.1	145.3	140.4	134.1	129.9	123.6	119.4
72.5°	124.3	120.1	115.9	110.4	106.9	104.8	99.9	94.3	87.3	83.1	77.5
75°	89.4	84.5	78.9	74.0	71.9	69.8	64.3	60.1	55.2	50.3	44.7
77.5°	58.0	52.4	48.2	42.6	41.9	40.5	34.9	30.7	27.2	24.4	21.0
80°	30.7	27.9	24.4	21.0	19.6	17.5	14.7	12.6	10.5	8.4	7.0
82.5°	13.3	11.2	9.1	7.7	7.0	6.3	4.9	4.2	3.5	3.5	2.8
85°	3.5	2.8	2.8	2.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4
87.5°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.0	0.7	0.7	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°	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0
2.5°	1860.0	1860.7	1861.4	1861.4	1862.1	1862.8	1862.8	1863.5	1864.2	1864.9	1864.9
5°	1856.5	1856.5	1856.5	1857.2	1857.2	1857.2	1857.2	1858.6	1858.6	1859.3	1860.0
7.5°	1849.5	1849.5	1849.5	1849.5	1848.8	1849.5	1848.8	1848.8	1850.2	1850.9	1851.6
10°	1838.4	1837.7	1837.7	1837.0	1837.0	1837.0	1837.7	1838.4	1839.1	1839.8	1841.9
12.5°	1820.9	1820.2	1820.2	1819.5	1819.5	1820.2	1820.9	1822.3	1825.1	1826.5	1829.3
15°	1793.0	1792.3	1793.0	1793.7	1795.1	1797.2	1799.3	1801.3	1805.5	1809.0	1812.5
17.5°	1752.5	1753.2	1753.9	1755.2	1757.3	1760.1	1765.7	1771.3	1776.2	1781.8	1787.4
20°	1696.6	1699.4	1700.1	1705.0	1706.4	1712.6	1718.9	1727.3	1735.0	1742.0	1749.7
22.5°	1629.5	1631.6	1634.4	1640.0	1643.5	1651.9	1659.6	1669.3	1677.7	1686.8	1698.0
25°	1553.4	1554.1	1562.5	1562.5	1570.9	1577.8	1586.9	1597.4	1610.0	1621.8	1629.5
27.5°	1466.8	1470.3	1476.6	1479.4	1485.6	1496.8	1504.5	1517.1	1529.6	1540.1	1548.5
30°	1376.0	1378.8	1389.3	1390.6	1395.5	1405.3	1415.8	1427.7	1437.4	1449.3	1457.0
32.5°	1280.3	1288.0	1294.3	1299.2	1300.5	1315.2	1320.8	1329.2	1340.4	1352.2	1359.9
35°	1187.4	1190.9	1200.0	1202.8	1207.0	1215.3	1226.5	1233.5	1239.1	1246.8	1255.8
37.5°	1088.9	1099.4	1101.5	1109.9	1111.3	1118.9	1124.5	1132.9	1139.9	1146.9	1148.3
40°	997.4	1000.9	1008.6	1010.7	1012.1	1022.6	1029.5	1031.6	1035.1	1041.4	1049.8
42.5°	904.5	908.0	916.4	914.3	920.6	925.5	929.0	937.3	940.8	942.9	942.9
45°	813.0	814.4	820.0	822.8	826.3	829.1	835.4	839.6	841.0	847.2	849.3
47.5°	725.7	727.1	731.3	736.2	734.8	738.3	745.3	747.4	748.1	752.2	754.3
50°	639.8	643.3	648.9	647.5	651.7	653.8	660.1	661.4	661.4	662.1	662.8
52.5°	559.5	562.3	563.7	565.1	567.2	570.6	573.4	572.0	574.8	577.6	575.5
55°	479.8	481.9	485.4	486.8	486.8	487.5	486.1	492.4	489.6	488.9	489.6
57.5°	407.2	404.4	403.7	407.2	408.6	407.9	405.8	408.6	408.6	407.2	405.1
60°	336.7	334.6	333.9	334.6	331.8	329.7	331.1	329.7	326.2	324.8	325.5
62.5°	272.4	270.3	264.7	264.7	263.3	262.6	257.0	257.7	254.9	250.7	252.1
65°	213.0	207.4	204.7	204.0	199.1	194.9	193.5	188.6	184.4	183.7	184.4
67.5°	159.9	153.7	148.8	146.7	143.9	140.4	135.5	131.3	132.7	132.0	134.8
70°	111.1	106.9	102.0	98.5	99.9	95.7	92.9	92.9	93.6	94.3	95.7
72.5°	74.0	68.4	66.4	64.3	62.9	60.1	61.5	61.5	60.8	61.5	60.1
75°	41.9	39.1	37.0	36.3	34.9	34.9	34.9	34.9	34.2	33.5	33.5
77.5°	18.9	17.5	16.8	16.1	16.1	16.1	15.4	14.7	14.7	14.7	14.0
80°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
82.5°	2.8	2.8	3.5	3.5	3.5	2.8	3.5	3.5	2.8	2.8	3.5
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
87.5°	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.0	0.7	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: P858105

CATALOG NUMBER: LX4C45D010 EX4C459027 4LBLWW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0	1860.0
2.5°	1865.6	1866.3	1866.3	1866.3	1867.0	1867.0	1867.0	1867.0
5°	1860.7	1861.4	1861.4	1861.4	1862.1	1862.1	1862.1	1862.1
7.5°	1852.3	1853.0	1853.0	1853.7	1853.7	1854.4	1854.4	1855.1
10°	1842.6	1844.0	1844.7	1845.4	1846.1	1846.7	1846.7	1847.4
12.5°	1832.1	1833.5	1834.2	1835.6	1837.0	1837.7	1838.4	1839.1
15°	1816.7	1819.5	1820.9	1821.6	1824.4	1825.8	1826.5	1827.2
17.5°	1792.3	1797.9	1800.0	1801.3	1804.1	1806.9	1809.0	1809.7
20°	1757.3	1763.6	1766.4	1769.9	1774.1	1777.6	1779.0	1780.4
22.5°	1708.5	1715.4	1719.6	1723.8	1727.3	1730.8	1736.4	1734.3
25°	1638.6	1650.5	1655.4	1657.5	1665.1	1669.3	1672.1	1669.3
27.5°	1560.4	1567.4	1571.6	1576.4	1582.0	1586.2	1587.6	1591.8
30°	1466.1	1478.0	1477.3	1482.1	1489.1	1493.3	1494.7	1498.2
32.5°	1368.3	1373.9	1378.1	1377.4	1380.2	1387.9	1385.1	1391.3
35°	1264.2	1264.9	1271.9	1271.2	1276.8	1276.8	1276.8	1281.0
37.5°	1153.2	1161.6	1158.1	1166.4	1163.6	1165.7	1165.7	1167.1
40°	1051.9	1054.7	1054.7	1057.5	1059.6	1057.5	1058.9	1062.4
42.5°	947.1	949.9	950.6	949.2	951.3	957.6	952.7	956.9
45°	849.3	851.4	854.2	852.1	855.6	853.5	855.6	854.2
47.5°	757.1	756.4	755.7	761.3	756.4	757.1	759.9	755.0
50°	662.8	667.0	664.2	666.3	667.7	667.7	665.6	665.6
52.5°	579.0	578.3	576.2	578.3	576.9	577.6	579.0	577.6
55°	492.4	495.2	493.8	493.1	493.8	493.8	498.0	492.4
57.5°	407.2	405.8	407.9	412.8	407.9	411.4	413.5	414.2
60°	326.2	326.2	330.4	328.3	332.5	336.0	338.8	337.4
62.5°	248.7	252.1	253.5	254.2	258.4	261.2	261.2	260.5
65°	184.4	189.3	189.3	192.1	193.5	193.5	194.9	197.7
67.5°	136.2	136.2	136.9	138.3	137.6	137.6	139.0	139.7
70°	95.0	93.6	95.7	95.0	95.0	94.3	95.0	95.0
72.5°	60.1	60.1	60.8	60.1	58.7	59.4	59.4	60.8
75°	32.1	33.5	32.1	32.1	32.8	31.4	32.1	32.8
77.5°	13.3	13.3	13.3	13.3	13.3	12.6	12.6	12.6
80°	6.3	6.3	6.3	6.3	6.3	6.3	5.6	5.6
82.5°	2.8	3.5	2.8	3.5	2.8	2.8	2.8	2.8
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
87.5°	0.0	0.7	0.0	0.7	0.0	0.0	0.0	0.7
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)