

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: P#

Luminaire Tested: **LD4C40D010 EX4C409040 4LBSQLWWLI**

Issue Date: 2/18/2022

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C40D010 EX4C409040 4LBSQLWWLI
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

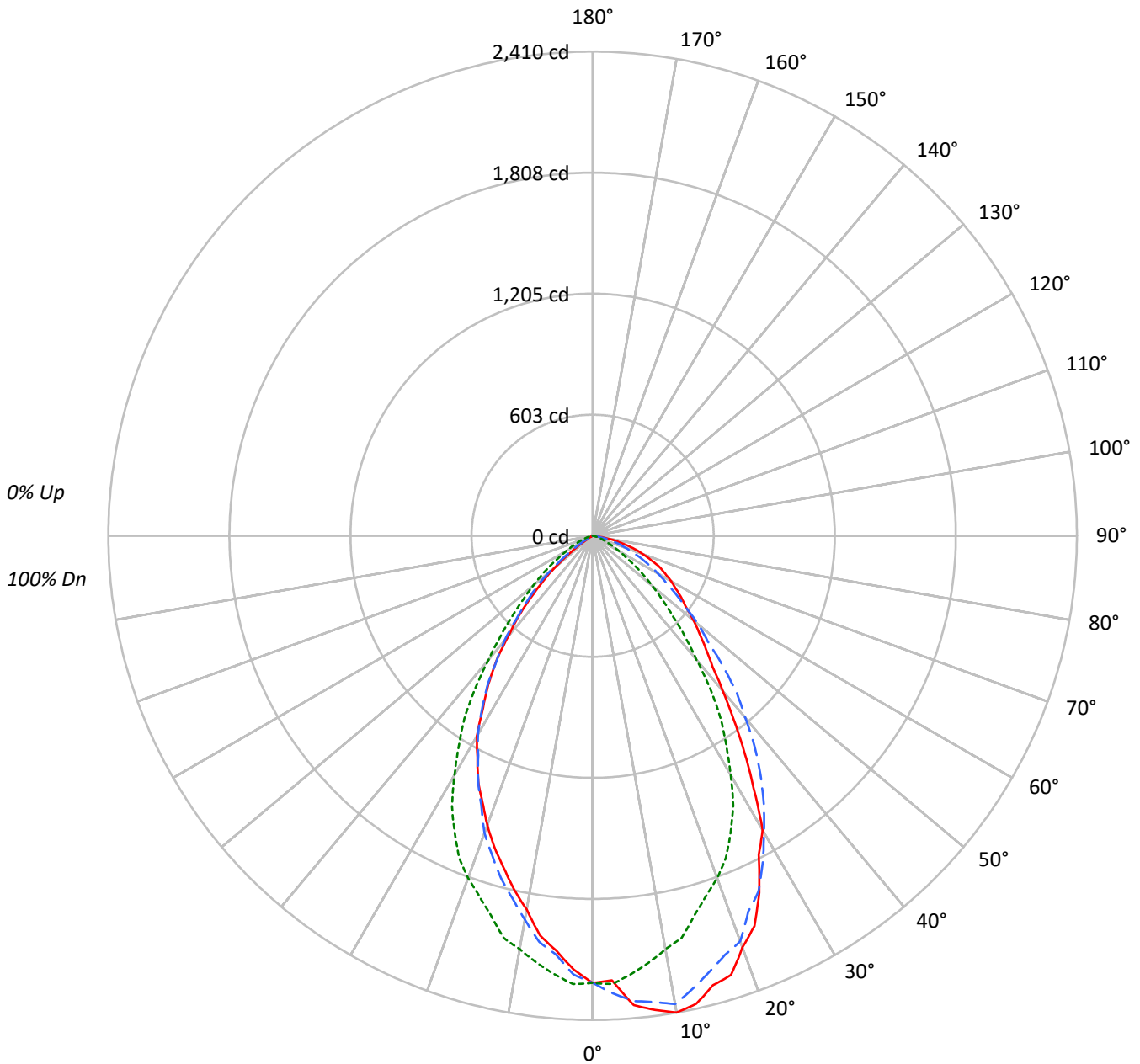
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3190.0 lumens
Efficiency: N/A
Efficacy: 67.9 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 47
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	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	84	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	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	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41																			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	214726	214726	214726
5°	227179	212195	200824
10°	236086	204714	185099
15°	231371	195380	170856
20°	223856	186038	157277
25°	208807	173004	143471
30°	188493	153108	128440
35°	155272	131078	106554
40°	126713	101169	82011
45°	108878	76838	58990
50°	98532	58483	37257
55°	90672	42190	13475
60°	87033	28831	2065
65°	84065	19498	616
70°	75268	13542	762
75°	61699	6971	0
80°	38563	2945	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.5	6.5
10°-20°	561.8	17.6
20°-30°	750.1	23.5
30°-40°	712.1	22.3
40°-50°	492.2	15.4
50°-60°	272.0	8.5
60°-70°	135.0	4.2
70°-80°	53.2	1.7
80°-90°	5.1	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°	1520.4	47.7
0°-40°	2232.5	70.0
0°-60°	2996.7	93.9
0°-90°	3190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3190.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2225	2225	2225	2225	2225	
5°	2346	2324	2191	2092	2073	225
15°	2316	2247	1956	1764	1710	655
25°	1961	1953	1625	1348	1348	894
35°	1318	1457	1113	915	905	826
45°	798	915	563	462	432	622
55°	539	507	251	128	80	485
65°	368	267	85	3	3	357
75°	166	101	19	0	0	176
85°	0	3	0	0	0	15
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°	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4
2.5°	2214.8	2276.1	2281.5	2276.1	2284.2	2281.5	2294.8	2281.5	2297.6	2273.5	2278.8
5°	2345.5	2321.5	2372.2	2345.5	2345.5	2342.9	2334.9	2332.2	2342.9	2308.2	2324.2
7.5°	2380.2	2415.0	2460.3	2404.3	2406.9	2406.9	2390.9	2385.6	2385.6	2321.5	2340.2
10°	2409.6	2388.2	2412.2	2390.9	2409.6	2406.9	2417.6	2382.9	2406.9	2369.6	2366.9
12.5°	2385.6	2377.5	2409.6	2374.9	2364.3	2366.9	2353.6	2345.5	2353.6	2310.8	2308.2
15°	2316.2	2324.2	2372.2	2334.9	2329.5	2324.2	2308.2	2281.5	2302.9	2244.1	2246.8
17.5°	2292.2	2278.8	2286.9	2254.8	2262.8	2257.5	2254.8	2230.9	2225.4	2188.1	2188.1
20°	2180.1	2209.4	2209.4	2188.1	2188.1	2185.5	2150.8	2172.1	2148.1	2137.4	2148.1
22.5°	2102.7	2105.4	2105.4	2086.7	2089.4	2078.7	2060.0	2046.6	2060.0	2046.6	2025.3
25°	1961.3	1966.7	1998.7	1964.0	1958.6	1969.3	1953.3	1945.2	1942.6	1910.6	1953.3
27.5°	1790.5	1843.8	1841.2	1827.8	1843.8	1822.5	1814.6	1817.2	1825.2	1822.5	1833.2
30°	1691.8	1699.8	1707.8	1697.2	1699.8	1691.8	1691.8	1694.4	1715.8	1707.8	1705.1
32.5°	1491.6	1518.3	1539.7	1539.7	1542.3	1550.4	1547.7	1603.7	1617.1	1590.4	1585.1
35°	1318.2	1336.9	1355.5	1358.2	1392.9	1395.6	1398.3	1414.3	1451.6	1459.6	1456.9
37.5°	1152.8	1171.4	1176.7	1200.8	1219.5	1238.1	1259.5	1280.9	1312.9	1339.5	1326.2
40°	1006.0	1014.0	1027.3	1038.0	1075.3	1075.3	1086.0	1128.8	1163.5	1184.8	1182.1
42.5°	883.3	885.9	896.6	915.3	950.0	941.9	950.0	979.4	1030.0	1032.7	1062.1
45°	797.9	795.2	803.2	805.8	827.3	837.9	843.2	864.6	907.2	912.6	915.3
47.5°	720.5	717.8	731.2	736.5	744.5	755.1	755.1	757.8	773.8	787.2	776.5
50°	656.4	656.4	656.4	661.8	675.1	672.4	675.1	685.8	693.8	688.4	685.8
52.5°	587.0	597.7	605.7	608.4	611.1	611.1	613.8	608.4	605.7	597.7	581.7
55°	539.0	549.7	549.7	549.7	549.7	560.4	547.1	549.7	549.7	528.4	507.0
57.5°	491.0	501.7	509.6	499.0	509.6	499.0	493.7	491.0	485.6	464.3	432.3
60°	451.0	456.3	453.6	451.0	456.3	448.3	443.0	432.3	427.0	397.6	376.3
62.5°	405.6	408.2	411.0	405.6	400.3	397.6	386.9	370.9	360.3	336.2	317.5
65°	368.2	360.3	357.5	354.9	349.6	341.5	333.6	314.9	306.8	285.5	266.8
67.5°	312.2	309.6	314.9	306.8	293.6	293.6	285.5	269.5	250.8	237.5	218.8
70°	266.8	264.2	258.8	250.8	248.2	237.5	237.5	218.8	213.5	189.4	173.4
72.5°	218.8	218.8	210.8	202.8	194.8	189.4	186.8	173.4	165.5	152.1	138.7
75°	165.5	165.5	162.8	154.7	149.4	144.1	141.4	130.8	122.7	109.5	101.4
77.5°	117.4	117.4	106.7	101.4	104.0	98.7	93.4	90.7	88.0	80.1	69.4
80°	69.4	66.7	58.8	61.4	58.8	58.8	56.0	53.3	48.0	42.7	37.3
82.5°	18.7	21.3	21.3	21.3	24.0	18.7	18.7	18.7	21.3	21.3	13.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7	2.7
87.5°	2.7	5.3	10.7	10.7	10.7	10.7	10.7	8.0	8.0	8.0	5.3
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°	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4
2.5°	2252.2	2249.5	2252.2	2233.5	2276.1	2244.1	2238.8	2233.5	2252.2	2233.5	2206.8
5°	2300.2	2273.5	2265.5	2257.5	2281.5	2244.1	2236.2	2238.8	2225.4	2190.8	2193.4
7.5°	2316.2	2292.2	2268.2	2217.5	2238.8	2230.9	2209.4	2193.4	2172.1	2142.7	2137.4
10°	2321.5	2294.8	2260.1	2244.1	2212.1	2201.5	2193.4	2166.8	2140.1	2089.4	2076.0
12.5°	2305.5	2273.5	2230.9	2217.5	2193.4	2158.7	2140.1	2113.3	2089.4	2049.4	2020.0
15°	2236.2	2209.4	2196.1	2150.8	2140.1	2118.7	2081.4	2044.0	2009.3	1955.9	1939.9
17.5°	2156.1	2145.4	2132.1	2097.4	2094.7	2073.4	2038.7	2006.6	1961.3	1878.5	1851.9
20°	2073.4	2073.4	2030.7	2017.4	2044.0	2001.3	1974.6	1945.2	1851.9	1811.8	1763.9
22.5°	2012.0	1982.7	1958.6	1937.3	1939.9	1913.3	1875.9	1817.2	1782.5	1734.5	1678.4
25°	1891.9	1902.6	1849.3	1841.2	1849.3	1787.8	1769.2	1721.1	1670.4	1625.0	1582.4
27.5°	1817.2	1787.8	1753.2	1723.8	1723.8	1699.8	1646.5	1635.8	1558.3	1515.7	1462.2
30°	1705.1	1683.8	1654.4	1611.7	1606.4	1587.7	1545.0	1518.3	1438.3	1374.2	1344.8
32.5°	1563.7	1555.7	1531.7	1483.7	1467.7	1446.3	1392.9	1347.6	1310.2	1238.1	1203.5
35°	1462.2	1433.0	1382.3	1342.2	1328.9	1291.5	1248.8	1216.8	1176.7	1112.8	1067.4
37.5°	1310.2	1280.9	1232.8	1184.8	1184.8	1147.5	1088.7	1056.7	1000.7	963.3	925.9
40°	1176.7	1139.4	1091.4	1035.4	1027.3	973.9	950.0	896.6	861.9	803.2	797.9
42.5°	1027.3	992.6	950.0	907.2	875.2	848.6	787.2	747.2	709.9	680.5	672.4
45°	891.2	845.9	808.5	755.1	723.1	691.1	651.1	624.4	595.1	563.1	544.4
47.5°	773.8	736.5	683.1	635.1	603.1	587.0	541.6	512.4	488.3	467.0	453.6
50°	653.8	608.4	579.1	525.6	520.3	483.0	445.7	421.6	408.2	389.6	370.9
52.5°	563.1	520.3	480.3	440.3	418.9	405.6	370.9	346.9	328.3	314.9	304.2
55°	474.9	437.6	405.6	365.6	352.2	333.6	293.6	288.2	269.5	250.8	237.5
57.5°	408.2	373.5	336.2	309.6	285.5	272.2	240.1	218.8	208.1	192.2	178.8
60°	346.9	309.6	280.2	248.2	237.5	218.8	194.8	176.2	162.8	149.4	136.1
62.5°	290.8	258.8	226.9	200.1	184.1	173.4	154.7	138.7	125.5	114.8	104.0
65°	240.1	210.8	184.1	157.4	149.4	136.1	122.7	109.5	98.7	85.4	74.7
67.5°	197.5	170.8	144.1	125.5	117.4	112.1	96.1	82.7	74.7	66.7	56.0
70°	154.7	136.1	114.8	98.7	90.7	82.7	72.0	64.1	53.3	48.0	40.0
72.5°	120.1	104.0	85.4	72.0	66.7	61.4	50.7	42.7	37.3	32.0	26.7
75°	85.4	72.0	61.4	48.0	45.4	42.7	34.7	29.4	24.0	18.7	16.0
77.5°	58.8	48.0	37.3	32.0	29.4	24.0	21.3	16.0	13.4	10.7	8.0
80°	32.0	24.0	18.7	16.0	13.4	10.7	10.7	8.0	5.3	5.3	2.7
82.5°	10.7	8.0	5.3	2.7	2.7	2.7	2.7	2.7	2.7	0.0	2.7
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°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	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°	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4
2.5°	2222.8	2193.4	2201.5	2201.5	2196.1	2196.1	2190.8	2182.8	2185.5	2169.4	2134.8
5°	2198.8	2161.4	2156.1	2161.4	2140.1	2134.8	2124.1	2140.1	2092.0	2110.7	2089.4
7.5°	2129.4	2094.7	2086.7	2105.4	2078.7	2062.6	2060.0	2081.4	2038.7	2017.4	1993.3
10°	2052.0	2038.7	2014.7	2001.3	1993.3	1995.9	1974.6	1948.0	1939.9	1934.6	1913.3
12.5°	1982.7	1953.3	1932.0	1916.0	1910.6	1910.6	1875.9	1870.6	1846.6	1841.2	1809.2
15°	1899.9	1865.3	1851.9	1830.6	1811.8	1822.5	1782.5	1771.8	1763.9	1729.1	1734.5
17.5°	1827.8	1790.5	1758.5	1745.1	1729.1	1713.2	1675.7	1683.8	1665.1	1665.1	1617.1
20°	1734.5	1694.4	1670.4	1643.7	1643.7	1622.4	1595.8	1598.4	1574.3	1550.4	1507.6
22.5°	1635.8	1593.0	1563.7	1553.0	1526.3	1521.0	1489.0	1481.0	1449.0	1451.6	1414.3
25°	1531.7	1489.0	1449.0	1451.6	1427.6	1417.0	1398.3	1360.9	1347.6	1331.6	1320.9
27.5°	1408.9	1379.6	1344.8	1342.2	1296.9	1299.5	1275.5	1264.9	1232.8	1240.8	1216.8
30°	1296.9	1254.2	1222.1	1214.2	1195.5	1190.1	1152.8	1136.7	1142.1	1120.7	1107.4
32.5°	1182.1	1118.1	1104.7	1088.7	1078.1	1064.7	1038.0	1048.7	1024.6	1030.0	1008.6
35°	1030.0	1003.3	968.6	968.6	957.9	947.3	928.7	939.3	915.3	904.6	883.3
37.5°	901.9	878.0	843.2	853.9	835.2	819.2	803.2	805.8	784.5	781.9	760.4
40°	763.2	749.8	725.8	725.8	712.5	712.5	704.4	696.5	683.1	667.1	643.0
42.5°	632.4	621.7	611.1	613.8	595.1	611.1	589.7	603.1	560.4	557.7	541.6
45°	536.3	512.4	515.0	504.3	493.7	499.0	480.3	485.6	461.7	456.3	440.3
47.5°	435.0	427.0	411.0	405.6	405.6	397.6	389.6	386.9	376.3	362.9	341.5
50°	357.5	328.3	322.8	314.9	309.6	309.6	298.9	282.9	285.5	272.2	250.8
52.5°	280.2	256.1	245.5	242.9	232.2	226.9	213.5	202.8	194.8	189.4	176.2
55°	216.1	194.8	181.5	181.5	165.5	165.5	146.8	138.7	128.1	117.4	109.5
57.5°	162.8	152.1	138.7	128.1	122.7	109.5	98.7	85.4	77.4	61.4	50.7
60°	122.7	112.1	98.7	90.7	85.4	72.0	58.8	48.0	29.4	24.0	21.3
62.5°	90.7	80.1	66.7	61.4	56.0	45.4	32.0	16.0	8.0	8.0	8.0
65°	66.7	53.3	42.7	37.3	32.0	24.0	10.7	5.3	2.7	2.7	2.7
67.5°	45.4	34.7	24.0	21.3	16.0	8.0	2.7	2.7	2.7	2.7	2.7
70°	29.4	21.3	10.7	8.0	5.3	2.7	2.7	2.7	2.7	2.7	2.7
72.5°	18.7	10.7	5.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	10.7	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	5.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	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	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7	2.7
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: P#

CATALOG NUMBER: LD4C40D010 EX4C409040 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4	2225.4
2.5°	2172.1	2153.4	2164.0	2140.1	2150.8	2169.4	2156.1	2161.4
5°	2097.4	2086.7	2073.4	2038.7	2065.4	2086.7	2076.0	2073.4
7.5°	2017.4	1979.9	1998.7	1988.0	1982.7	2004.0	1979.9	2006.6
10°	1934.6	1907.9	1905.3	1886.6	1886.6	1902.6	1905.3	1889.2
12.5°	1811.8	1798.6	1798.6	1795.8	1793.1	1809.2	1811.8	1803.9
15°	1723.8	1718.5	1705.1	1702.5	1686.5	1710.4	1713.2	1710.4
17.5°	1617.1	1619.7	1606.4	1606.4	1617.1	1625.0	1603.7	1625.0
20°	1545.0	1531.7	1526.3	1502.3	1515.7	1529.1	1529.1	1531.7
22.5°	1440.9	1419.6	1427.6	1414.3	1406.2	1424.9	1424.9	1433.0
25°	1323.5	1323.5	1328.9	1320.9	1326.2	1336.9	1328.9	1347.6
27.5°	1211.4	1222.1	1222.1	1211.4	1216.8	1248.8	1262.2	1240.8
30°	1107.4	1110.0	1118.1	1112.8	1128.8	1139.4	1136.7	1152.8
32.5°	990.0	1003.3	1008.6	1000.7	1006.0	1030.0	1016.7	1014.0
35°	899.3	875.2	872.6	875.2	885.9	891.2	885.9	904.6
37.5°	768.5	760.4	749.8	752.5	760.4	771.2	776.5	789.8
40°	643.0	632.4	632.4	629.8	621.7	651.1	651.1	651.1
42.5°	533.7	531.0	517.7	517.7	528.4	536.3	531.0	549.7
45°	437.6	427.0	418.9	418.9	427.0	427.0	435.0	432.3
47.5°	344.3	333.6	336.2	328.3	336.2	346.9	333.6	336.2
50°	258.8	258.8	253.5	258.8	256.1	258.8	253.5	248.2
52.5°	176.2	200.1	202.8	192.2	168.1	146.8	133.4	144.1
55°	101.4	90.7	90.7	88.0	82.7	80.1	72.0	80.1
57.5°	50.7	45.4	45.4	45.4	42.7	40.0	34.7	34.7
60°	21.3	18.7	18.7	16.0	13.4	10.7	8.0	10.7
62.5°	8.0	5.3	5.3	5.3	5.3	5.3	5.3	5.3
65°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
67.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
70°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)