

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 EX4C409035 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 EX4C409035 4LBSQLWWLI
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

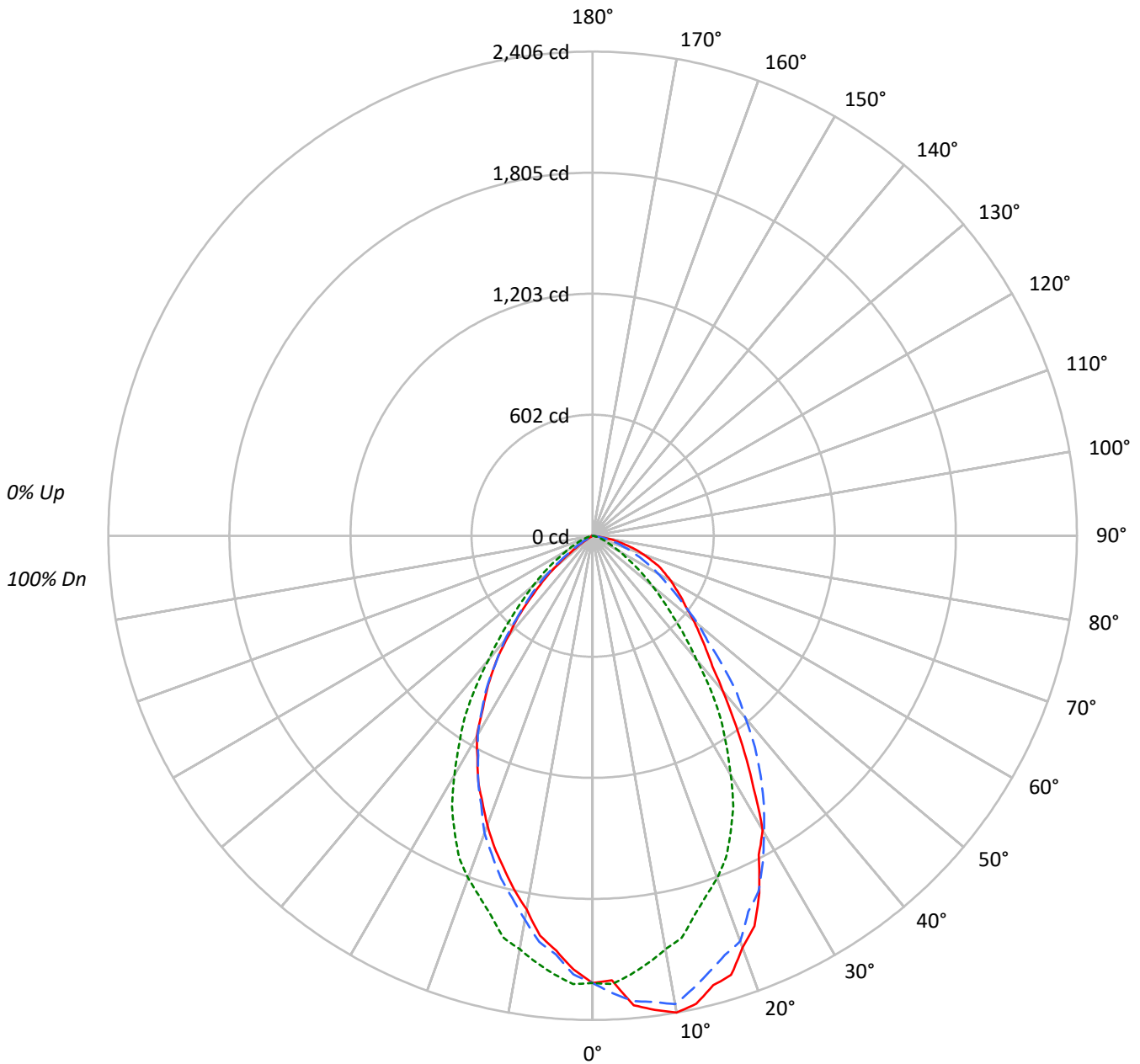
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3185.0 lumens
Efficiency: N/A
Efficacy: 67.8 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°	214389	214389	214389
5°	226830	211866	200514
10°	235714	204391	184805
15°	231002	195070	170597
20°	223506	185751	157031
25°	208488	172737	143247
30°	188204	152874	128240
35°	155025	130866	106389
40°	126512	101005	81885
45°	108701	76716	58894
50°	98382	58393	37197
55°	90538	42123	13458
60°	86898	28792	2046
65°	83928	19475	616
70°	75155	13513	762
75°	61587	6971	0
80°	38507	2945	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.2	6.5
10°-20°	560.9	17.6
20°-30°	748.9	23.5
30°-40°	711.0	22.3
40°-50°	491.4	15.4
50°-60°	271.5	8.5
60°-70°	134.8	4.2
70°-80°	53.1	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°	1518.0	47.7
0°-40°	2229.0	70.0
0°-60°	2992.0	93.9
0°-90°	3185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3185.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2222	2222	2222	2222	2222	
5°	2342	2321	2187	2089	2070	224
15°	2312	2243	1953	1761	1708	654
25°	1958	1950	1622	1346	1346	893
35°	1316	1455	1111	914	903	825
45°	797	914	562	461	432	621
55°	538	506	250	128	80	484
65°	368	266	85	3	3	357
75°	165	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°	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9
2.5°	2211.3	2272.6	2277.9	2272.6	2280.6	2277.9	2291.2	2277.9	2294.0	2269.9	2275.3
5°	2341.9	2317.9	2368.5	2341.9	2341.9	2339.3	2331.2	2328.5	2339.3	2304.6	2320.6
7.5°	2376.5	2411.2	2456.5	2400.5	2403.1	2403.1	2387.2	2381.8	2381.8	2317.9	2336.5
10°	2405.8	2384.4	2408.5	2387.2	2405.8	2403.1	2413.8	2379.1	2403.1	2365.9	2363.2
12.5°	2381.8	2373.8	2405.8	2371.2	2360.5	2363.2	2349.9	2341.9	2349.9	2307.2	2304.6
15°	2312.5	2320.6	2368.5	2331.2	2325.9	2320.6	2304.6	2277.9	2299.3	2240.6	2243.3
17.5°	2288.6	2275.3	2283.3	2251.3	2259.3	2254.0	2251.3	2227.4	2221.9	2184.7	2184.7
20°	2176.7	2206.0	2206.0	2184.7	2184.7	2182.1	2147.4	2168.7	2144.7	2134.0	2144.7
22.5°	2099.4	2102.1	2102.1	2083.4	2086.1	2075.5	2056.8	2043.4	2056.8	2043.4	2022.1
25°	1958.3	1963.6	1995.5	1960.9	1955.6	1966.2	1950.2	1942.2	1939.6	1907.6	1950.2
27.5°	1787.7	1840.9	1838.3	1825.0	1840.9	1819.6	1811.7	1814.3	1822.4	1819.6	1830.3
30°	1689.2	1697.1	1705.1	1694.5	1697.1	1689.2	1689.2	1691.8	1713.1	1705.1	1702.4
32.5°	1489.3	1515.9	1537.3	1537.3	1539.9	1547.9	1545.2	1601.2	1614.5	1587.9	1582.6
35°	1316.1	1334.8	1353.4	1356.1	1390.8	1393.4	1396.1	1412.0	1449.3	1457.3	1454.6
37.5°	1151.0	1169.6	1174.9	1198.9	1217.6	1236.2	1257.6	1278.9	1310.8	1337.4	1324.2
40°	1004.4	1012.4	1025.7	1036.4	1073.6	1073.6	1084.3	1127.0	1161.6	1182.9	1180.2
42.5°	881.9	884.5	895.2	913.8	948.5	940.5	948.5	977.8	1028.3	1031.1	1060.4
45°	796.6	793.9	801.9	804.6	826.0	836.6	841.9	863.2	905.8	911.1	913.8
47.5°	719.4	716.7	730.0	735.4	743.3	753.9	753.9	756.6	772.6	786.0	775.3
50°	655.4	655.4	655.4	660.7	674.1	671.4	674.1	684.7	692.7	687.3	684.7
52.5°	586.1	596.7	604.8	607.5	610.1	610.1	612.8	607.5	604.8	596.7	580.8
55°	538.2	548.8	548.8	548.8	548.8	559.5	546.2	548.8	548.8	527.5	506.2
57.5°	490.3	500.9	508.9	498.2	508.9	498.2	492.9	490.3	484.8	463.5	431.6
60°	450.3	455.6	452.9	450.3	455.6	447.6	442.3	431.6	426.3	397.0	375.7
62.5°	405.0	407.6	410.3	405.0	399.7	397.0	386.3	370.3	359.7	335.7	317.0
65°	367.6	359.7	357.0	354.4	349.0	341.0	333.1	314.4	306.4	285.1	266.4
67.5°	311.7	309.1	314.4	306.4	293.1	293.1	285.1	269.1	250.4	237.2	218.5
70°	266.4	263.8	258.4	250.4	247.8	237.2	237.2	218.5	213.1	189.1	173.2
72.5°	218.5	218.5	210.4	202.5	194.5	189.1	186.5	173.2	165.2	151.9	138.5
75°	165.2	165.2	162.5	154.5	149.2	143.8	141.2	130.6	122.5	109.3	101.2
77.5°	117.2	117.2	106.6	101.2	103.9	98.5	93.2	90.6	87.9	80.0	69.3
80°	69.3	66.6	58.7	61.3	58.7	58.7	55.9	53.2	47.9	42.6	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	10.6	10.6	10.6	10.6	10.6	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°	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9
2.5°	2248.7	2245.9	2248.7	2230.0	2272.6	2240.6	2235.3	2230.0	2248.7	2230.0	2203.3
5°	2296.6	2269.9	2261.9	2254.0	2277.9	2240.6	2232.7	2235.3	2221.9	2187.4	2190.0
7.5°	2312.5	2288.6	2264.6	2214.0	2235.3	2227.4	2206.0	2190.0	2168.7	2139.4	2134.0
10°	2317.9	2291.2	2256.6	2240.6	2208.7	2198.0	2190.0	2163.4	2136.8	2086.1	2072.8
12.5°	2301.9	2269.9	2227.4	2214.0	2190.0	2155.3	2136.8	2110.0	2086.1	2046.2	2016.8
15°	2232.7	2206.0	2192.7	2147.4	2136.8	2115.4	2078.1	2040.8	2006.2	1952.8	1936.9
17.5°	2152.7	2142.1	2128.7	2094.1	2091.5	2070.2	2035.5	2003.5	1958.3	1875.6	1849.0
20°	2070.2	2070.2	2027.5	2014.2	2040.8	1998.1	1971.5	1942.2	1849.0	1809.0	1761.1
22.5°	2008.9	1979.6	1955.6	1934.3	1936.9	1910.3	1873.0	1814.3	1779.7	1731.8	1675.8
25°	1889.0	1899.6	1846.4	1838.3	1846.4	1785.0	1766.4	1718.4	1667.8	1622.5	1579.9
27.5°	1814.3	1785.0	1750.4	1721.1	1721.1	1697.1	1643.9	1633.2	1555.9	1513.3	1460.0
30°	1702.4	1681.1	1651.8	1609.2	1603.9	1585.2	1542.6	1515.9	1436.1	1372.1	1342.7
32.5°	1561.2	1553.3	1529.3	1481.4	1465.4	1444.0	1390.8	1345.5	1308.2	1236.2	1201.6
35°	1460.0	1430.7	1380.1	1340.1	1326.8	1289.5	1246.8	1214.9	1174.9	1111.0	1065.7
37.5°	1308.2	1278.9	1230.8	1182.9	1182.9	1145.7	1087.0	1055.1	999.1	961.8	924.5
40°	1174.9	1137.6	1089.7	1033.8	1025.7	972.4	948.5	895.2	860.5	801.9	796.6
42.5°	1025.7	991.1	948.5	905.8	873.9	847.2	786.0	746.0	708.7	679.4	671.4
45°	889.8	844.5	807.3	753.9	722.0	690.1	650.1	623.5	594.1	562.2	543.5
47.5°	772.6	735.4	682.0	634.1	602.2	586.1	540.8	511.6	487.6	466.3	452.9
50°	652.8	607.5	578.2	524.8	519.5	482.2	445.0	421.0	407.6	389.0	370.3
52.5°	562.2	519.5	479.5	439.6	418.2	405.0	370.3	346.3	327.8	314.4	303.7
55°	474.2	436.9	405.0	365.0	351.7	333.1	293.1	287.8	269.1	250.4	237.2
57.5°	407.6	372.9	335.7	309.1	285.1	271.8	239.8	218.5	207.8	191.8	178.5
60°	346.3	309.1	279.7	247.8	237.2	218.5	194.5	175.9	162.5	149.2	135.9
62.5°	290.4	258.4	226.5	199.8	183.8	173.2	154.5	138.5	125.3	114.6	103.9
65°	239.8	210.4	183.8	157.2	149.2	135.9	122.5	109.3	98.5	85.3	74.6
67.5°	197.2	170.6	143.8	125.3	117.2	111.9	95.9	82.6	74.6	66.6	55.9
70°	154.5	135.9	114.6	98.5	90.6	82.6	71.9	64.0	53.2	47.9	40.0
72.5°	119.9	103.9	85.3	71.9	66.6	61.3	50.6	42.6	37.3	31.9	26.6
75°	85.3	71.9	61.3	47.9	45.3	42.6	34.7	29.3	24.0	18.7	16.0
77.5°	58.7	47.9	37.3	31.9	29.3	24.0	21.3	16.0	13.4	10.6	8.0
80°	31.9	24.0	18.7	16.0	13.4	10.6	10.6	8.0	5.3	5.3	2.7
82.5°	10.6	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°	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9
2.5°	2219.3	2190.0	2198.0	2198.0	2192.7	2192.7	2187.4	2179.3	2182.1	2166.0	2131.4
5°	2195.3	2158.0	2152.7	2158.0	2136.8	2131.4	2120.8	2136.8	2088.7	2107.4	2086.1
7.5°	2126.1	2091.5	2083.4	2102.1	2075.5	2059.4	2056.8	2078.1	2035.5	2014.2	1990.2
10°	2048.8	2035.5	2011.5	1998.1	1990.2	1992.8	1971.5	1944.9	1936.9	1931.5	1910.3
12.5°	1979.6	1950.2	1928.9	1913.0	1907.6	1907.6	1873.0	1867.7	1843.7	1838.3	1806.4
15°	1896.9	1862.3	1849.0	1827.7	1809.0	1819.6	1779.7	1769.0	1761.1	1726.4	1731.8
17.5°	1825.0	1787.7	1755.8	1742.4	1726.4	1710.5	1673.1	1681.1	1662.5	1662.5	1614.5
20°	1731.8	1691.8	1667.8	1641.2	1641.2	1619.9	1593.3	1595.9	1571.9	1547.9	1505.3
22.5°	1633.2	1590.5	1561.2	1550.6	1523.9	1518.6	1486.7	1478.6	1446.7	1449.3	1412.0
25°	1529.3	1486.7	1446.7	1449.3	1425.4	1414.8	1396.1	1358.8	1345.5	1329.5	1318.8
27.5°	1406.7	1377.4	1342.7	1340.1	1294.8	1297.4	1273.5	1262.9	1230.8	1238.9	1214.9
30°	1294.8	1252.2	1220.2	1212.3	1193.6	1188.3	1151.0	1134.9	1140.3	1118.9	1105.7
32.5°	1180.2	1116.3	1103.0	1087.0	1076.4	1063.0	1036.4	1047.0	1023.0	1028.3	1007.1
35°	1028.3	1001.7	967.1	967.1	956.4	945.8	927.2	937.9	913.8	903.2	881.9
37.5°	900.5	876.6	841.9	852.6	833.9	817.9	801.9	804.6	783.3	780.7	759.3
40°	762.0	748.6	724.7	724.7	711.3	711.3	703.3	695.4	682.0	666.0	642.0
42.5°	631.4	620.7	610.1	612.8	594.1	610.1	588.8	602.2	559.5	556.9	540.8
45°	535.5	511.6	514.2	503.5	492.9	498.2	479.5	484.8	460.9	455.6	439.6
47.5°	434.3	426.3	410.3	405.0	405.0	397.0	389.0	386.3	375.7	362.3	341.0
50°	357.0	327.8	322.3	314.4	309.1	309.1	298.4	282.5	285.1	271.8	250.4
52.5°	279.7	255.7	245.1	242.5	231.8	226.5	213.1	202.5	194.5	189.1	175.9
55°	215.8	194.5	181.2	181.2	165.2	165.2	146.5	138.5	127.9	117.2	109.3
57.5°	162.5	151.9	138.5	127.9	122.5	109.3	98.5	85.3	77.2	61.3	50.6
60°	122.5	111.9	98.5	90.6	85.3	71.9	58.7	47.9	29.3	24.0	21.3
62.5°	90.6	80.0	66.6	61.3	55.9	45.3	31.9	16.0	8.0	8.0	8.0
65°	66.6	53.2	42.6	37.3	31.9	24.0	10.6	5.3	2.7	2.7	2.7
67.5°	45.3	34.7	24.0	21.3	16.0	8.0	2.7	2.7	2.7	2.7	2.7
70°	29.3	21.3	10.6	8.0	5.3	2.7	2.7	2.7	2.7	2.7	2.7
72.5°	18.7	10.6	5.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	10.6	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 EX4C409035 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9	2221.9
2.5°	2168.7	2150.0	2160.7	2136.8	2147.4	2166.0	2152.7	2158.0
5°	2094.1	2083.4	2070.2	2035.5	2062.1	2083.4	2072.8	2070.2
7.5°	2014.2	1976.8	1995.5	1984.9	1979.6	2000.9	1976.8	2003.5
10°	1931.5	1904.9	1902.3	1883.6	1883.6	1899.6	1902.3	1886.2
12.5°	1809.0	1795.7	1795.7	1793.0	1790.3	1806.4	1809.0	1801.1
15°	1721.1	1715.8	1702.4	1699.8	1683.9	1707.8	1710.5	1707.8
17.5°	1614.5	1617.2	1603.9	1603.9	1614.5	1622.5	1601.2	1622.5
20°	1542.6	1529.3	1523.9	1499.9	1513.3	1526.7	1526.7	1529.3
22.5°	1438.7	1417.4	1425.4	1412.0	1404.0	1422.7	1422.7	1430.7
25°	1321.4	1321.4	1326.8	1318.8	1324.2	1334.8	1326.8	1345.5
27.5°	1209.6	1220.2	1220.2	1209.6	1214.9	1246.8	1260.2	1238.9
30°	1105.7	1108.3	1116.3	1111.0	1127.0	1137.6	1134.9	1151.0
32.5°	988.5	1001.7	1007.1	999.1	1004.4	1028.3	1015.1	1012.4
35°	897.9	873.9	871.3	873.9	884.5	889.8	884.5	903.2
37.5°	767.3	759.3	748.6	751.3	759.3	770.0	775.3	788.6
40°	642.0	631.4	631.4	628.8	620.7	650.1	650.1	650.1
42.5°	532.9	530.1	516.9	516.9	527.5	535.5	530.1	548.8
45°	436.9	426.3	418.2	418.2	426.3	426.3	434.3	431.6
47.5°	343.7	333.1	335.7	327.8	335.7	346.3	333.1	335.7
50°	258.4	258.4	253.1	258.4	255.7	258.4	253.1	247.8
52.5°	175.9	199.8	202.5	191.8	167.8	146.5	133.2	143.8
55°	101.2	90.6	90.6	87.9	82.6	80.0	71.9	80.0
57.5°	50.6	45.3	45.3	45.3	42.6	40.0	34.7	34.7
60°	21.3	18.7	18.7	16.0	13.4	10.6	8.0	10.6
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)