

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: P880559

Luminaire Tested: **LD4C25D010 EU4259035 4LBDWNH**

Issue Date: 10/4/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P880559
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251940)
Test Lab: INNOVATION CENTER
Issue Date: 10/4/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C25D010 EU4259035 4LBDWNH
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

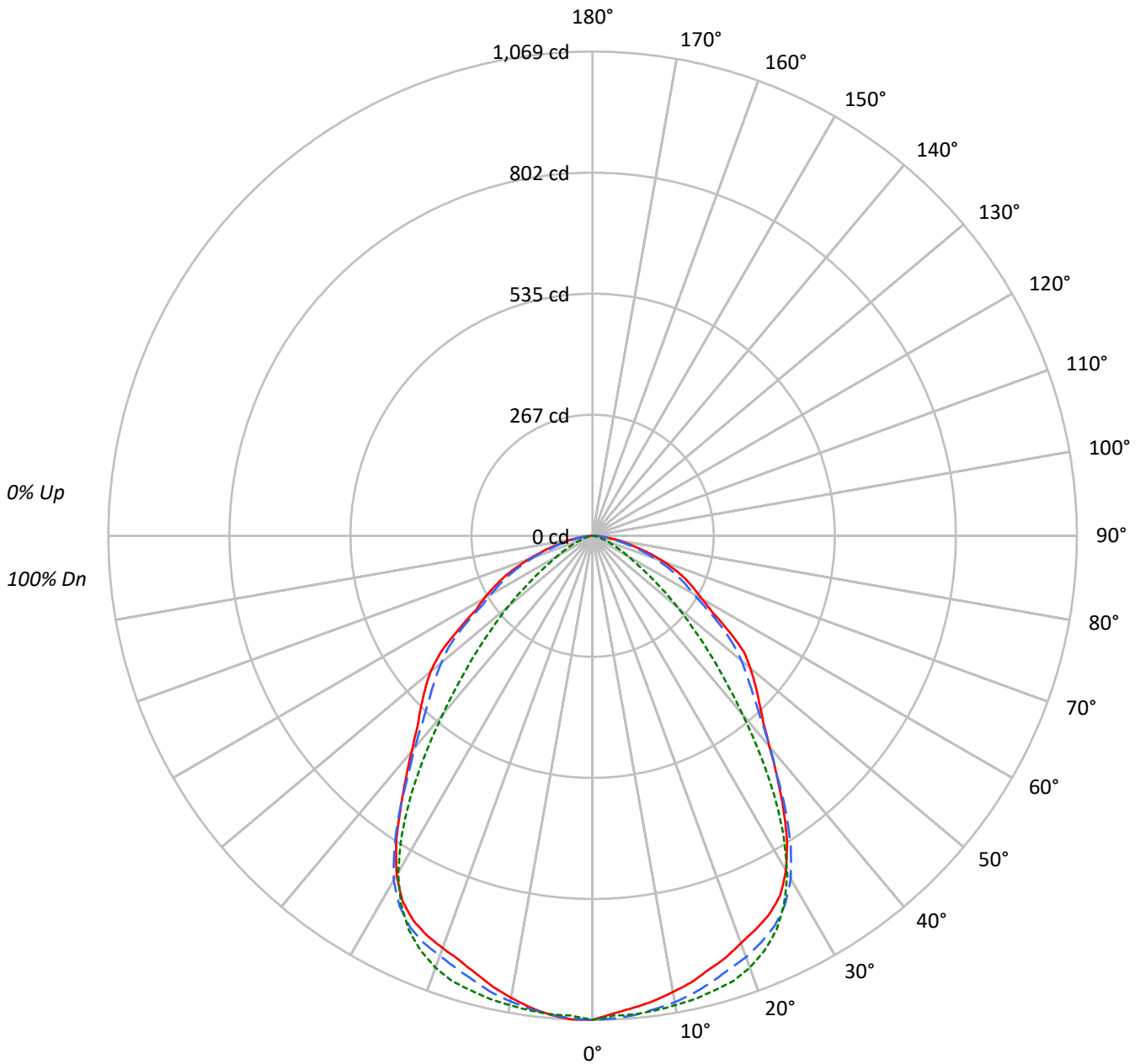
Lumens per Lamp: N/A
Luminaire Lumens: 2175.0 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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	100	100	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88	88	88	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76	76	76	76
3	94	85	78	72	92	84	77	72	81	75	70	78	73	69	76	72	68	66	66	66	66
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58	58	58	58
5	81	69	61	55	79	68	61	55	66	60	54	64	58	54	63	57	53	51	51	51	51
6	75	63	55	49	73	62	55	49	60	54	49	59	53	48	57	52	48	46	46	46	46
7	70	58	50	44	68	57	49	44	56	49	44	54	48	43	53	47	43	41	41	41	41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37	37	37	37
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34	34	34	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31	31	31	31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	131294	131294	131294
5°	128959	130784	130981
10°	127580	131273	129215
15°	126093	132160	127136
20°	125103	132634	126607
25°	125035	130159	127027
30°	121048	121758	122680
35°	109978	104804	110968
40°	97299	82528	99672
45°	90258	62842	93125
50°	86733	46520	89256
55°	78522	32064	77472
60°	68282	21819	67864
65°	65959	15785	62616
70°	59627	10632	53126
75°	49128	7025	42151
80°	39548	4669	31412
85°	32561	2255	20862



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	4.6
10°-20°	288.4	13.3
20°-30°	435.8	20.0
30°-40°	456.1	21.0
40°-50°	369.4	17.0
50°-60°	268.7	12.4
60°-70°	165.7	7.6
70°-80°	74.9	3.4
80°-90°	15.2	0.7
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°	825.1	37.9
0°-40°	1281.2	58.9
0°-60°	1919.2	88.2
0°-90°	2175.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2175.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1069	1069	1069	1069	1069	
5°	1046	1062	1060	1060	1062	99
15°	991	1019	1039	1016	1000	280
25°	922	950	960	954	937	423
35°	733	743	699	743	740	457
45°	520	503	362	510	536	404
55°	367	344	150	347	362	327
65°	227	204	54	201	215	222
75°	104	89	15	77	89	112
85°	23	18	2	13	15	26
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°	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7
2.5°	1055.5	1055.5	1065.5	1076.9	1067.1	1057.2	1063.7	1060.5	1072.0	1072.0	1067.1
5°	1045.7	1049.0	1057.2	1067.1	1058.9	1049.0	1057.2	1053.9	1065.5	1065.5	1062.1
7.5°	1035.8	1037.4	1047.4	1058.9	1050.6	1040.8	1047.4	1045.7	1055.5	1057.2	1053.9
10°	1022.7	1024.3	1034.2	1045.7	1037.4	1029.3	1035.8	1034.2	1047.4	1047.4	1045.7
12.5°	1009.5	1011.2	1021.1	1030.9	1022.7	1014.5	1021.1	1021.1	1034.2	1035.8	1034.2
15°	991.4	994.7	1003.0	1012.8	1007.9	998.0	1004.6	1004.6	1016.1	1019.3	1019.3
17.5°	976.7	978.3	986.5	996.4	989.8	981.5	988.1	988.1	999.6	1003.0	1003.0
20°	956.9	960.2	968.4	978.3	973.3	966.8	971.7	971.7	984.9	988.1	989.8
22.5°	940.5	943.7	950.3	963.5	955.2	950.3	956.9	955.2	970.1	971.7	971.7
25°	922.4	925.7	933.9	942.1	937.1	932.3	937.1	937.1	948.7	950.3	950.3
27.5°	896.1	897.7	905.9	914.2	909.2	902.7	909.2	907.6	919.0	920.8	919.0
30°	853.3	856.7	859.9	871.4	866.5	861.5	868.1	864.8	876.4	876.4	874.7
32.5°	799.0	799.0	805.7	813.9	807.3	804.0	808.9	810.5	818.8	818.8	813.9
35°	733.3	736.6	741.5	746.4	741.5	738.2	743.2	741.5	751.4	748.1	743.2
37.5°	667.6	669.2	674.1	680.7	674.1	669.2	670.8	669.2	677.4	677.4	669.2
40°	606.7	610.0	613.3	619.8	613.3	610.0	611.6	606.7	616.6	613.3	608.3
42.5°	557.3	559.0	563.9	567.3	560.7	559.0	560.7	557.3	562.3	559.0	549.2
45°	519.5	519.5	521.3	526.1	519.5	517.9	517.9	514.6	519.5	513.0	503.2
47.5°	486.7	488.3	490.0	493.2	488.3	483.4	485.1	478.5	481.7	476.8	463.6
50°	453.8	457.0	458.8	462.0	457.0	453.8	455.4	448.9	448.9	440.7	429.1
52.5°	420.9	422.6	420.9	424.2	420.9	416.0	417.6	411.0	411.0	401.2	389.7
55°	366.6	368.3	370.0	373.2	370.0	365.0	368.3	363.4	363.4	356.7	343.6
57.5°	312.3	314.1	315.7	317.3	317.3	314.1	315.7	312.3	310.7	305.8	296.0
60°	277.9	277.9	277.9	279.5	277.9	276.2	276.2	272.9	272.9	266.3	256.5
62.5°	251.6	253.2	253.2	254.8	253.2	251.6	250.0	246.6	245.0	238.4	230.1
65°	226.9	226.9	225.3	228.5	226.9	225.3	225.3	221.9	218.7	212.1	203.8
67.5°	197.3	198.9	197.3	198.9	198.9	197.3	195.7	192.3	190.7	185.7	175.9
70°	166.0	166.0	166.0	167.8	166.0	166.0	167.8	162.8	161.2	154.5	146.3
72.5°	134.8	136.5	136.5	134.8	136.5	133.2	133.2	133.2	131.6	125.0	116.7
75°	103.5	105.3	105.3	106.9	105.3	103.5	103.5	101.9	100.3	95.4	88.8
77.5°	77.3	77.3	78.9	78.9	78.9	77.3	77.3	74.0	74.0	70.7	64.1
80°	55.9	55.9	54.3	55.9	55.9	54.3	54.3	52.6	52.6	49.3	44.4
82.5°	36.2	37.8	37.8	37.8	37.8	36.2	36.2	36.2	34.5	32.9	29.6
85°	23.1	23.1	23.1	23.1	24.7	23.1	24.7	23.1	23.1	19.7	18.1
87.5°	9.9	9.9	9.9	11.5	11.5	9.9	9.9	9.9	9.9	9.9	8.2
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°	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7
2.5°	1067.1	1068.7	1063.7	1070.3	1065.5	1067.1	1068.7	1067.1	1060.5	1060.5	1078.6
5°	1060.5	1063.7	1058.9	1067.1	1063.7	1063.7	1067.1	1065.5	1058.9	1060.5	1076.9
7.5°	1053.9	1058.9	1055.5	1063.7	1058.9	1058.9	1062.1	1062.1	1055.5	1057.2	1072.0
10°	1044.0	1050.6	1049.0	1057.2	1052.3	1052.3	1057.2	1057.2	1050.6	1052.3	1067.1
12.5°	1035.8	1042.4	1040.8	1049.0	1045.7	1047.4	1049.0	1052.3	1044.0	1047.4	1060.5
15°	1022.7	1029.3	1029.3	1037.4	1034.2	1037.4	1040.8	1045.7	1039.1	1039.1	1052.3
17.5°	1007.9	1016.1	1016.1	1022.7	1022.7	1024.3	1030.9	1035.8	1029.3	1030.9	1042.4
20°	991.4	1001.3	1001.3	1009.5	1007.9	1011.2	1016.1	1021.1	1014.5	1014.5	1027.6
22.5°	975.0	983.2	984.9	989.8	989.8	991.4	996.4	999.6	991.4	991.4	1004.6
25°	952.0	960.2	961.8	965.1	961.8	961.8	965.1	968.4	960.2	960.2	971.7
27.5°	920.8	929.0	929.0	927.3	924.0	925.7	924.0	925.7	917.4	915.8	927.3
30°	874.7	879.6	879.6	878.0	873.0	873.0	868.1	869.8	858.3	858.3	868.1
32.5°	812.3	817.1	813.9	810.5	804.0	800.7	797.4	795.8	784.3	784.3	795.8
35°	738.2	741.5	736.6	730.1	721.8	716.8	712.0	705.4	697.1	698.8	705.4
37.5°	662.6	662.6	656.0	642.9	636.3	628.0	619.8	619.8	606.7	605.1	610.0
40°	598.5	591.9	580.4	562.3	550.8	542.6	531.1	524.5	514.6	514.6	522.9
42.5°	541.0	527.8	513.0	488.3	476.8	467.0	452.2	445.6	434.1	432.4	437.3
45°	490.0	476.8	455.4	429.1	414.4	402.8	381.4	373.2	363.4	361.7	365.0
47.5°	448.9	434.1	407.8	373.2	358.5	343.6	322.3	310.7	302.5	297.6	302.5
50°	412.7	392.9	365.0	328.8	309.1	296.0	269.7	258.1	246.6	243.4	245.0
52.5°	373.2	353.5	323.9	286.1	268.0	248.2	223.6	207.2	197.3	192.3	197.3
55°	330.4	310.7	281.2	243.4	223.6	205.6	179.2	166.0	154.5	149.7	154.5
57.5°	284.4	266.3	240.0	202.2	184.1	167.8	143.1	129.9	118.4	115.1	118.4
60°	245.0	230.1	203.8	167.8	152.9	134.8	113.5	100.3	90.4	88.8	90.4
62.5°	218.7	202.2	177.6	143.1	128.2	113.5	93.7	80.6	72.3	70.7	72.3
65°	192.3	174.3	151.3	121.6	106.9	95.4	75.6	64.1	55.9	54.3	55.9
67.5°	162.8	146.3	126.6	100.3	88.8	77.3	60.9	49.3	42.8	41.2	42.8
70°	134.8	120.0	100.3	80.6	69.1	60.9	46.0	37.8	31.2	29.6	31.2
72.5°	106.9	93.7	77.3	60.9	54.3	46.0	36.2	27.9	23.1	21.3	23.1
75°	82.2	72.3	59.2	44.4	39.4	34.5	24.7	19.7	16.5	14.8	16.5
77.5°	57.5	51.0	41.2	32.9	27.9	24.7	18.1	13.1	11.5	9.9	11.5
80°	39.4	34.5	27.9	21.3	18.1	14.8	11.5	8.2	6.6	6.6	6.6
82.5°	26.3	21.3	16.5	13.1	11.5	9.9	6.6	5.0	5.0	3.3	3.3
85°	14.8	13.1	9.9	8.2	6.6	5.0	3.3	3.3	1.6	1.6	1.6
87.5°	6.6	5.0	3.3	3.3	1.6	1.6	1.6	1.6	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°	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7
2.5°	1073.6	1068.7	1075.3	1068.7	1065.5	1068.7	1065.5	1075.3	1067.1	1060.5	1067.1
5°	1072.0	1065.5	1072.0	1067.1	1062.1	1063.7	1060.5	1070.3	1060.5	1055.5	1058.9
7.5°	1068.7	1063.7	1067.1	1062.1	1057.2	1058.9	1055.5	1063.7	1053.9	1049.0	1052.3
10°	1063.7	1058.9	1060.5	1057.2	1052.3	1052.3	1049.0	1055.5	1044.0	1037.4	1040.8
12.5°	1057.2	1050.6	1053.9	1049.0	1042.4	1042.4	1039.1	1044.0	1032.5	1025.9	1027.6
15°	1049.0	1042.4	1042.4	1037.4	1030.9	1030.9	1024.3	1029.3	1016.1	1009.5	1009.5
17.5°	1039.1	1030.9	1030.9	1025.9	1017.7	1016.1	1011.2	1016.1	1001.3	994.7	994.7
20°	1024.3	1017.7	1016.1	1012.8	1004.6	1003.0	996.4	998.0	986.5	981.5	979.9
22.5°	1004.6	998.0	999.6	994.7	988.1	986.5	979.9	984.9	973.3	968.4	970.1
25°	970.1	966.8	970.1	968.4	963.5	963.5	960.2	963.5	953.6	950.3	952.0
27.5°	930.6	929.0	930.6	930.6	927.3	927.3	927.3	932.3	922.4	920.8	920.8
30°	873.0	873.0	874.7	876.4	876.4	879.6	878.0	884.6	878.0	874.7	878.0
32.5°	797.4	804.0	808.9	808.9	808.9	812.3	815.5	820.5	813.9	815.5	815.5
35°	712.0	716.8	720.1	728.3	723.5	734.9	738.2	744.8	743.2	746.4	744.8
37.5°	616.6	623.2	629.7	641.3	639.6	652.7	659.3	672.4	669.2	675.8	679.0
40°	527.8	537.6	547.5	555.7	562.3	575.4	588.6	605.1	610.0	614.9	616.6
42.5°	442.3	452.2	468.6	480.1	490.0	511.3	529.4	549.2	554.1	563.9	567.3
45°	373.2	381.4	401.2	416.0	424.2	455.4	476.8	501.4	509.7	521.3	526.1
47.5°	309.1	323.9	343.6	361.7	373.2	406.1	434.1	460.4	471.9	485.1	491.6
50°	253.2	269.7	296.0	312.3	328.8	365.0	396.3	424.2	435.7	450.5	457.0
52.5°	207.2	225.3	250.0	268.0	286.1	323.9	356.7	383.1	397.9	407.8	417.6
55°	162.8	182.5	207.2	226.9	241.7	282.8	310.7	337.0	346.9	355.1	360.1
57.5°	126.6	141.4	166.0	182.5	200.6	236.7	264.7	284.4	292.6	302.5	305.8
60°	98.7	113.5	136.5	152.9	169.4	203.8	231.9	251.6	259.8	268.0	272.9
62.5°	78.9	93.7	115.1	129.9	144.7	175.9	200.6	220.3	230.1	238.4	243.4
65°	62.5	75.6	93.7	108.5	120.0	147.9	172.6	190.7	200.6	208.8	213.8
67.5°	49.3	60.9	77.3	87.2	98.7	121.6	143.1	159.5	167.8	177.6	182.5
70°	37.8	46.0	60.9	69.1	77.3	97.0	113.5	129.9	138.1	144.7	147.9
72.5°	27.9	34.5	46.0	52.6	57.5	74.0	87.2	98.7	105.3	111.8	115.1
75°	19.7	24.7	32.9	37.8	41.2	52.6	64.1	72.3	77.3	82.2	87.2
77.5°	13.1	16.5	21.3	24.7	27.9	36.2	42.8	49.3	54.3	59.2	60.9
80°	8.2	11.5	14.8	16.5	18.1	23.1	29.6	32.9	36.2	39.4	41.2
82.5°	5.0	6.6	8.2	9.9	11.5	14.8	18.1	21.3	23.1	26.3	27.9
85°	1.6	3.3	3.3	5.0	5.0	8.2	9.9	11.5	13.1	14.8	16.5
87.5°	0.0	0.0	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
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: P880559

CATALOG NUMBER: LD4C25D010 EU4259035 4LBDWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7	1068.7
2.5°	1073.6	1068.7	1065.5	1063.7	1075.3	1060.5	1067.1	1068.7
5°	1067.1	1062.1	1058.9	1057.2	1067.1	1053.9	1058.9	1062.1
7.5°	1057.2	1053.9	1049.0	1047.4	1057.2	1042.4	1049.0	1050.6
10°	1045.7	1040.8	1037.4	1035.8	1044.0	1029.3	1035.8	1035.8
12.5°	1030.9	1027.6	1021.1	1021.1	1027.6	1014.5	1019.3	1019.3
15°	1011.2	1007.9	1001.3	1001.3	1007.9	994.7	999.6	999.6
17.5°	994.7	991.4	986.5	984.9	991.4	978.3	983.2	981.5
20°	981.5	978.3	971.7	971.7	976.7	963.5	968.4	968.4
22.5°	970.1	968.4	961.8	961.8	968.4	955.2	958.6	955.2
25°	952.0	950.3	943.7	945.4	948.7	935.5	940.5	937.1
27.5°	922.4	922.4	915.8	914.2	919.0	907.6	910.9	909.2
30°	876.4	878.0	869.8	869.8	871.4	861.5	866.5	864.8
32.5°	813.9	815.5	808.9	807.3	812.3	804.0	807.3	807.3
35°	744.8	746.4	741.5	741.5	746.4	741.5	741.5	739.9
37.5°	675.8	679.0	675.8	677.4	680.7	675.8	679.0	677.4
40°	619.8	623.2	618.2	621.5	624.8	619.8	624.8	621.5
42.5°	568.9	573.8	570.5	573.8	577.1	573.8	577.1	572.2
45°	531.1	534.4	532.7	534.4	537.6	536.0	537.6	536.0
47.5°	494.9	501.4	498.2	501.4	506.4	503.2	506.4	501.4
50°	462.0	467.0	465.3	468.6	470.2	468.6	471.9	467.0
52.5°	419.2	424.2	422.6	422.6	425.8	422.6	425.8	422.6
55°	363.4	365.0	365.0	366.6	365.0	363.4	365.0	361.7
57.5°	309.1	312.3	307.5	312.3	310.7	309.1	309.1	305.8
60°	274.5	279.5	276.2	279.5	277.9	277.9	277.9	276.2
62.5°	246.6	250.0	246.6	248.2	248.2	248.2	246.6	245.0
65°	215.4	220.3	217.0	218.7	217.0	215.4	217.0	215.4
67.5°	184.1	185.7	185.7	184.1	184.1	184.1	184.1	180.9
70°	149.7	151.3	149.7	152.9	151.3	149.7	151.3	147.9
72.5°	116.7	118.4	116.7	118.4	116.7	116.7	116.7	116.7
75°	87.2	88.8	88.8	88.8	88.8	88.8	85.5	88.8
77.5°	62.5	62.5	62.5	64.1	62.5	62.5	62.5	62.5
80°	42.8	42.8	42.8	44.4	42.8	44.4	42.8	44.4
82.5°	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9
85°	14.8	16.5	16.5	14.8	14.8	14.8	14.8	14.8
87.5°	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)