

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: P843552

Luminaire Tested: **LD4C25DE010B50 EU4C25B50 4LBLWWH**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843552
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C25DE010B50 EU4C25B50 4LBLWWH
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

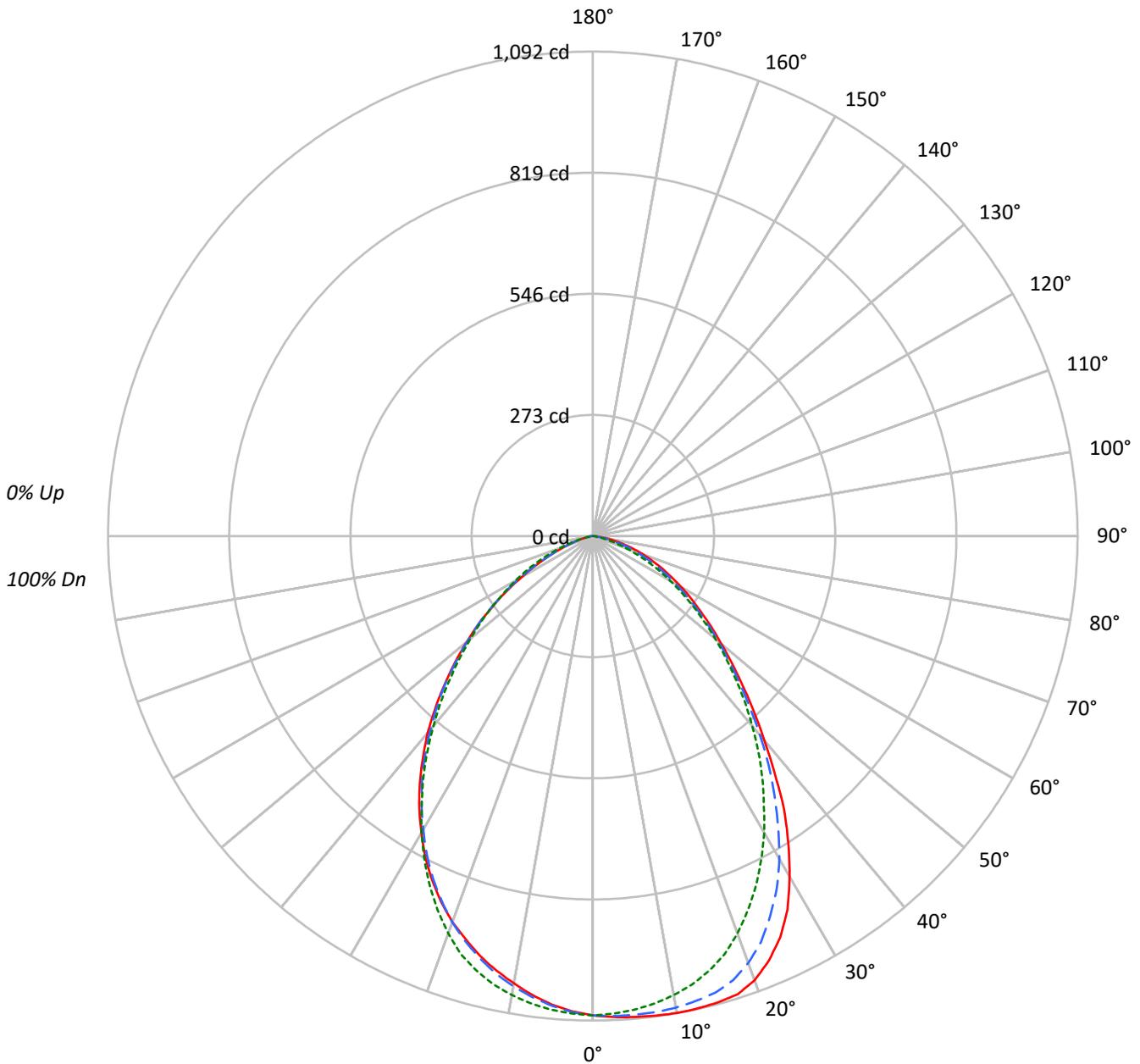
Lumens per Lamp: N/A
Luminaire Lumens: 2035.9 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
Input Voltage (V):
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68			
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60			
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47			
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43			
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39			
9	62	50	43	38	61	50	42	37	49	42	37	47	41	37	47	41	37	35			
10	59	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	132731	132731	132731
5°	134200	132153	130722
10°	136176	131036	127718
15°	138405	128942	124669
20°	139288	124554	120972
25°	135296	117837	116021
30°	125730	109515	109572
35°	112542	99839	101939
40°	96353	89489	92760
45°	82944	78896	81867
50°	72112	68691	70755
55°	63443	59095	58559
60°	56463	49313	45431
65°	49535	39506	32878
70°	42565	27910	22234
75°	34556	16186	13006
80°	24691	7004	6438
85°	9444	2960	2960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.8	5.0
10°-20°	288.2	14.2
20°-30°	411.5	20.2
30°-40°	430.5	21.1
40°-50°	360.7	17.7
50°-60°	252.5	12.4
60°-70°	137.5	6.8
70°-80°	47.7	2.3
80°-90°	5.5	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°	801.6	39.4
0°-40°	1232.1	60.5
0°-60°	1845.3	90.6
0°-90°	2035.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2035.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1080	1080	1080	1080	1080	
5°	1088	1083	1072	1062	1060	104
15°	1088	1065	1014	985	980	307
25°	998	945	869	852	856	456
35°	750	714	666	671	680	465
45°	477	467	454	469	471	371
55°	296	286	276	276	273	268
65°	170	155	136	114	113	170
75°	73	59	34	27	27	78
85°	7	4	2	2	2	12
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°	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4
2.5°	1085.3	1084.1	1084.5	1084.5	1084.5	1084.1	1084.5	1084.1	1084.1	1083.7	1082.8
5°	1088.2	1087.4	1087.4	1087.4	1086.9	1086.5	1086.5	1086.2	1085.3	1084.9	1083.2
7.5°	1090.3	1089.5	1089.5	1089.0	1088.6	1088.2	1087.8	1086.5	1085.3	1084.5	1082.4
10°	1091.6	1090.3	1090.3	1089.5	1088.6	1088.2	1087.4	1085.8	1084.1	1082.0	1079.1
12.5°	1090.7	1089.5	1089.0	1088.2	1086.5	1085.8	1084.9	1082.8	1079.9	1077.0	1073.3
15°	1088.2	1087.4	1086.5	1085.3	1083.2	1082.0	1081.1	1077.8	1074.1	1069.9	1065.4
17.5°	1083.2	1082.0	1080.4	1078.7	1075.7	1074.6	1072.4	1068.3	1062.9	1057.1	1050.0
20°	1065.4	1064.5	1062.9	1060.0	1055.4	1053.7	1050.9	1045.5	1038.4	1031.3	1023.8
22.5°	1035.8	1034.6	1032.1	1029.6	1025.5	1022.5	1020.1	1012.6	1004.8	997.2	990.2
25°	998.1	996.8	993.4	990.2	986.0	981.1	978.5	972.7	964.8	955.3	944.9
27.5°	949.4	945.3	944.0	940.3	934.1	932.4	928.7	921.2	913.7	905.4	896.7
30°	886.3	886.3	883.8	882.2	876.4	874.7	870.5	862.6	858.5	846.8	840.2
32.5°	819.3	818.5	816.5	815.2	811.9	809.0	804.9	800.7	791.5	785.7	776.6
35°	750.4	745.4	746.3	743.7	741.7	738.3	737.9	733.4	725.1	721.7	713.5
37.5°	671.9	669.8	672.8	669.0	666.9	667.3	664.0	661.1	657.7	651.9	650.2
40°	600.8	602.5	602.1	598.7	600.4	598.3	595.0	592.1	590.5	586.7	585.4
42.5°	537.3	534.7	533.9	533.9	534.3	534.3	532.7	530.6	530.6	526.9	523.1
45°	477.4	477.4	476.6	479.1	475.3	475.3	474.1	473.7	472.0	471.2	466.6
47.5°	425.9	425.5	425.1	424.6	424.2	424.2	421.8	419.7	419.2	416.7	414.3
50°	377.3	379.8	379.0	376.8	376.0	376.4	374.8	373.6	373.1	369.0	369.4
52.5°	336.5	336.1	337.0	335.7	333.7	334.1	332.4	330.7	329.0	327.0	325.3
55°	296.2	298.4	297.5	296.2	295.8	295.0	293.8	291.7	291.3	286.7	286.3
57.5°	262.6	262.2	261.3	259.2	258.9	257.6	257.6	255.9	253.4	251.0	248.9
60°	229.8	229.8	228.6	228.1	226.4	226.0	225.6	224.0	221.0	218.9	215.7
62.5°	198.2	199.0	198.2	196.9	195.7	194.1	193.2	192.0	189.4	187.4	184.5
65°	170.4	170.0	169.5	167.8	167.4	165.8	165.4	162.9	160.3	158.8	155.4
67.5°	143.7	142.6	142.6	141.7	140.9	139.6	138.8	136.3	133.4	131.7	128.4
70°	118.5	117.6	117.6	117.6	115.5	114.2	113.8	112.6	108.4	106.8	103.4
72.5°	95.2	94.8	94.3	93.1	91.8	91.8	90.2	87.7	85.6	83.6	81.0
75°	72.8	73.5	72.8	71.1	70.6	69.8	68.5	66.5	64.4	61.9	59.0
77.5°	53.2	52.4	51.5	51.5	50.7	49.1	48.7	47.0	44.4	42.8	39.9
80°	34.9	34.5	33.6	32.8	32.4	32.0	31.6	29.9	27.4	26.2	23.7
82.5°	19.1	18.7	18.7	18.3	17.0	17.0	16.6	14.9	13.7	12.9	11.6
85°	6.7	6.7	6.7	6.2	6.2	6.2	5.8	5.4	5.0	4.5	3.7
87.5°	0.8	0.4	0.8	0.4	0.8	0.4	0.4	0.4	0.4	0.4	0.4
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°	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4
2.5°	1082.0	1081.1	1080.7	1080.4	1079.9	1079.5	1079.1	1078.3	1077.8	1077.4	1076.6
5°	1082.0	1080.4	1079.5	1078.3	1077.4	1076.6	1075.3	1074.1	1072.9	1071.6	1070.3
7.5°	1080.4	1077.8	1076.1	1073.7	1072.9	1071.6	1069.1	1067.5	1065.4	1062.9	1060.0
10°	1076.1	1073.3	1069.9	1066.6	1065.4	1063.2	1060.0	1057.1	1053.7	1050.4	1047.5
12.5°	1069.5	1064.9	1060.8	1056.3	1053.7	1051.6	1047.1	1042.9	1038.8	1035.0	1030.0
15°	1059.5	1054.1	1048.7	1042.5	1039.7	1037.1	1030.5	1025.5	1018.8	1013.8	1008.9
17.5°	1043.4	1035.0	1028.3	1020.5	1016.4	1013.4	1007.6	999.7	993.4	988.0	982.2
20°	1015.5	1007.6	998.5	989.7	985.2	981.4	973.1	964.8	958.5	952.7	946.5
22.5°	978.9	969.0	962.3	951.6	947.7	943.2	933.3	925.7	918.7	912.8	907.0
25°	934.5	925.7	916.7	906.6	902.1	896.7	888.3	880.5	875.9	869.3	862.2
27.5°	883.3	876.4	865.0	856.4	851.8	847.6	839.8	832.7	826.0	821.5	814.8
30°	829.4	821.0	811.1	801.9	799.5	794.5	787.4	782.0	774.9	772.0	769.1
32.5°	770.0	760.3	752.9	747.1	742.1	737.9	734.2	725.4	724.3	716.8	715.9
35°	705.1	701.0	693.9	688.9	684.7	681.9	675.6	671.5	666.9	665.7	662.7
37.5°	644.0	639.0	632.4	627.8	625.0	624.5	620.0	617.4	614.2	612.5	609.1
40°	580.0	578.0	572.2	571.3	566.8	566.4	563.8	561.0	558.0	558.0	558.4
42.5°	521.1	518.6	516.0	513.2	510.6	510.6	509.5	508.6	507.8	506.5	508.6
45°	465.8	462.5	460.8	457.8	459.1	456.7	455.8	455.8	454.6	454.1	457.1
47.5°	414.3	410.6	408.9	408.0	408.0	408.5	404.8	405.9	405.5	406.3	407.6
50°	367.3	364.0	361.5	361.5	361.9	360.2	358.5	359.8	358.5	359.4	362.3
52.5°	323.6	320.4	319.1	319.1	316.7	316.2	317.1	315.4	315.8	316.2	317.8
55°	283.3	281.3	279.2	277.1	277.5	276.7	275.1	274.7	275.5	275.9	277.9
57.5°	247.3	244.3	241.5	240.6	239.8	239.8	237.7	237.2	238.1	236.0	236.0
60°	212.7	211.1	207.3	206.1	206.1	204.0	202.3	203.2	201.1	200.7	201.1
62.5°	180.7	179.5	177.0	174.5	173.7	172.8	170.8	170.0	169.1	167.4	165.0
65°	152.9	150.0	147.1	145.4	144.2	142.1	140.9	139.2	136.8	135.9	133.4
67.5°	125.1	122.2	119.3	118.0	116.8	115.5	113.5	111.4	108.4	105.1	102.2
70°	100.6	96.8	95.2	91.8	91.0	89.4	86.4	84.4	81.4	77.7	74.8
72.5°	76.9	74.4	71.9	69.0	66.9	65.7	63.1	59.9	56.5	54.5	51.5
75°	55.3	54.0	50.7	47.4	46.5	44.8	42.0	39.9	37.4	34.1	31.6
77.5°	37.4	34.9	32.8	29.9	29.1	27.4	25.8	23.7	22.0	20.0	18.3
80°	22.0	20.0	18.7	16.6	15.8	14.9	13.7	12.1	10.8	9.9	9.5
82.5°	10.8	9.1	8.8	7.5	7.1	6.7	5.8	5.4	4.5	4.5	4.5
85°	3.7	3.0	3.0	2.5	2.1	2.1	2.1	2.1	2.1	2.1	2.1
87.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.4
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°	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4
2.5°	1076.1	1075.7	1075.3	1074.9	1074.9	1074.6	1074.6	1074.1	1074.1	1073.7	1073.7
5°	1068.7	1067.5	1066.6	1065.8	1065.8	1064.5	1063.7	1062.9	1062.5	1062.5	1061.7
7.5°	1058.3	1056.7	1055.0	1053.7	1053.3	1051.3	1049.6	1049.6	1047.9	1047.1	1046.2
10°	1044.6	1041.7	1039.2	1038.0	1036.3	1035.0	1033.0	1031.7	1030.5	1028.3	1028.0
12.5°	1025.9	1023.8	1020.1	1018.4	1017.5	1015.1	1011.7	1010.1	1009.7	1008.0	1006.8
15°	1004.8	1000.1	996.8	994.7	994.7	990.6	988.9	986.5	984.8	983.5	983.1
17.5°	977.3	972.7	969.4	966.5	965.6	962.3	959.8	959.0	956.9	957.8	955.7
20°	941.9	938.2	935.7	932.0	932.0	929.9	929.0	927.0	926.2	925.3	926.2
22.5°	904.2	899.6	895.4	895.0	895.0	892.1	891.7	891.3	889.6	890.8	890.4
25°	859.6	856.4	853.8	853.4	853.4	851.8	850.1	851.0	852.2	851.8	853.1
27.5°	813.5	810.3	809.4	809.0	808.1	807.7	808.6	808.6	809.8	811.5	813.1
30°	763.7	762.9	761.6	761.2	760.3	762.4	763.3	764.6	764.1	766.6	768.3
32.5°	713.8	712.2	711.8	712.6	713.8	713.5	715.9	716.8	717.6	720.5	721.7
35°	663.6	663.1	662.3	662.3	662.7	666.1	666.1	669.0	670.6	671.5	674.8
37.5°	609.5	611.2	612.1	613.3	613.7	614.9	615.8	618.7	620.3	622.0	623.7
40°	560.1	559.3	563.0	560.5	561.4	565.1	566.8	566.4	568.8	571.3	573.0
42.5°	507.3	508.6	509.5	510.2	512.3	512.7	514.9	517.7	518.6	521.4	522.3
45°	456.3	456.7	458.3	460.0	461.2	464.5	465.4	466.6	469.1	469.1	470.3
47.5°	408.0	409.7	409.7	412.2	414.3	413.9	416.7	417.6	417.1	419.2	420.1
50°	361.9	364.4	364.0	365.6	366.5	366.9	369.4	370.2	368.6	370.6	371.0
52.5°	317.8	319.1	320.8	321.2	320.4	322.5	321.6	323.2	322.9	324.5	322.9
55°	277.5	277.1	277.1	277.9	277.1	277.9	278.8	277.1	275.9	277.5	277.1
57.5°	237.2	237.2	236.4	237.7	236.4	235.2	234.8	233.5	232.3	232.3	231.8
60°	199.5	198.6	196.9	196.5	196.5	194.5	193.7	192.0	192.0	190.3	188.7
62.5°	164.1	162.0	160.8	160.8	160.0	157.9	154.2	151.7	150.8	148.4	148.0
65°	130.9	128.8	127.6	125.1	123.0	122.2	118.5	115.5	114.2	111.8	112.2
67.5°	100.6	97.2	93.5	91.8	90.5	87.7	86.4	84.4	83.1	83.1	83.1
70°	72.3	69.4	65.7	64.4	63.6	61.1	59.9	59.4	60.7	60.3	60.7
72.5°	48.7	45.7	44.0	43.3	42.4	41.1	42.0	42.4	41.6	42.0	42.4
75°	29.5	28.7	27.4	27.0	27.0	27.4	27.0	27.0	27.4	27.4	27.8
77.5°	17.0	16.2	16.2	15.8	16.6	16.2	16.2	16.2	16.6	16.6	16.6
80°	9.1	9.1	9.1	9.1	9.5	9.1	9.5	9.5	9.5	9.5	9.5
82.5°	4.5	4.5	4.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.5
85°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
87.5°	0.4	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4
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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CATALOG NUMBER: LD4C25DE010B50 EU4C25B50 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4	1080.4
2.5°	1072.9	1072.9	1072.9	1072.0	1072.4	1072.4	1072.0	1072.0
5°	1061.2	1060.8	1060.0	1060.0	1059.1	1060.0	1059.5	1060.0
7.5°	1045.5	1045.5	1044.2	1044.2	1043.8	1043.4	1042.9	1043.4
10°	1026.8	1026.8	1025.9	1025.5	1025.9	1024.2	1024.2	1023.8
12.5°	1005.9	1005.1	1004.3	1004.8	1004.3	1003.1	1002.6	1003.1
15°	981.8	980.6	981.1	979.8	979.8	979.4	980.2	980.2
17.5°	955.3	954.4	953.6	954.0	953.1	953.6	953.1	952.7
20°	925.7	925.3	925.3	923.6	924.1	923.6	924.1	925.3
22.5°	891.7	891.3	891.7	890.4	891.3	891.3	892.5	892.5
25°	854.3	853.8	854.7	855.1	855.5	856.8	855.5	855.9
27.5°	812.7	814.0	815.2	815.6	817.3	816.1	815.2	816.5
30°	770.8	770.8	770.4	772.0	773.2	774.5	772.4	772.4
32.5°	722.6	724.7	724.7	725.1	726.3	726.3	726.3	728.0
35°	676.5	677.7	678.2	676.5	677.3	676.9	679.7	679.7
37.5°	625.0	625.0	625.4	628.2	628.2	627.0	627.8	627.8
40°	575.9	576.3	574.6	575.5	577.6	576.7	577.6	578.4
42.5°	522.3	525.2	523.5	524.4	524.0	524.4	524.8	524.8
45°	471.2	472.0	472.0	472.4	473.3	474.1	471.6	471.2
47.5°	421.4	421.8	422.9	420.9	423.4	420.9	423.4	420.5
50°	371.0	372.7	371.4	372.3	371.0	371.0	370.6	370.2
52.5°	323.2	322.9	322.9	322.5	322.5	323.2	322.5	323.6
55°	275.5	275.9	275.1	274.7	274.2	275.5	274.2	273.4
57.5°	230.1	231.0	229.4	230.1	227.3	228.6	229.0	229.4
60°	188.3	187.0	187.0	185.3	185.3	186.6	184.9	184.9
62.5°	145.8	146.7	145.4	147.1	147.1	148.7	148.0	148.7
65°	111.8	112.2	112.6	112.6	112.6	115.1	114.2	113.1
67.5°	84.4	84.7	85.1	84.7	86.0	85.1	85.1	85.6
70°	61.1	61.4	61.9	61.9	61.4	61.9	61.9	61.9
72.5°	42.4	42.8	42.4	42.8	43.3	42.8	42.8	43.3
75°	27.8	27.8	27.4	27.4	27.4	27.4	27.8	27.4
77.5°	16.2	16.6	16.2	16.6	16.6	16.6	16.6	16.6
80°	9.5	9.5	9.5	9.1	9.5	9.5	9.5	9.1
82.5°	5.0	5.0	4.5	4.5	5.0	5.0	5.0	5.0
85°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
87.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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)