

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: P843539

Luminaire Tested: **LD4C25DE010B40 EU4C25B40 4LBLWWLI**

Issue Date: 5/7/2024

Test Information

Test Method: LM-79-08
Report Number: P843539
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C25DE010B40 EU4C25B40 4LBLWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

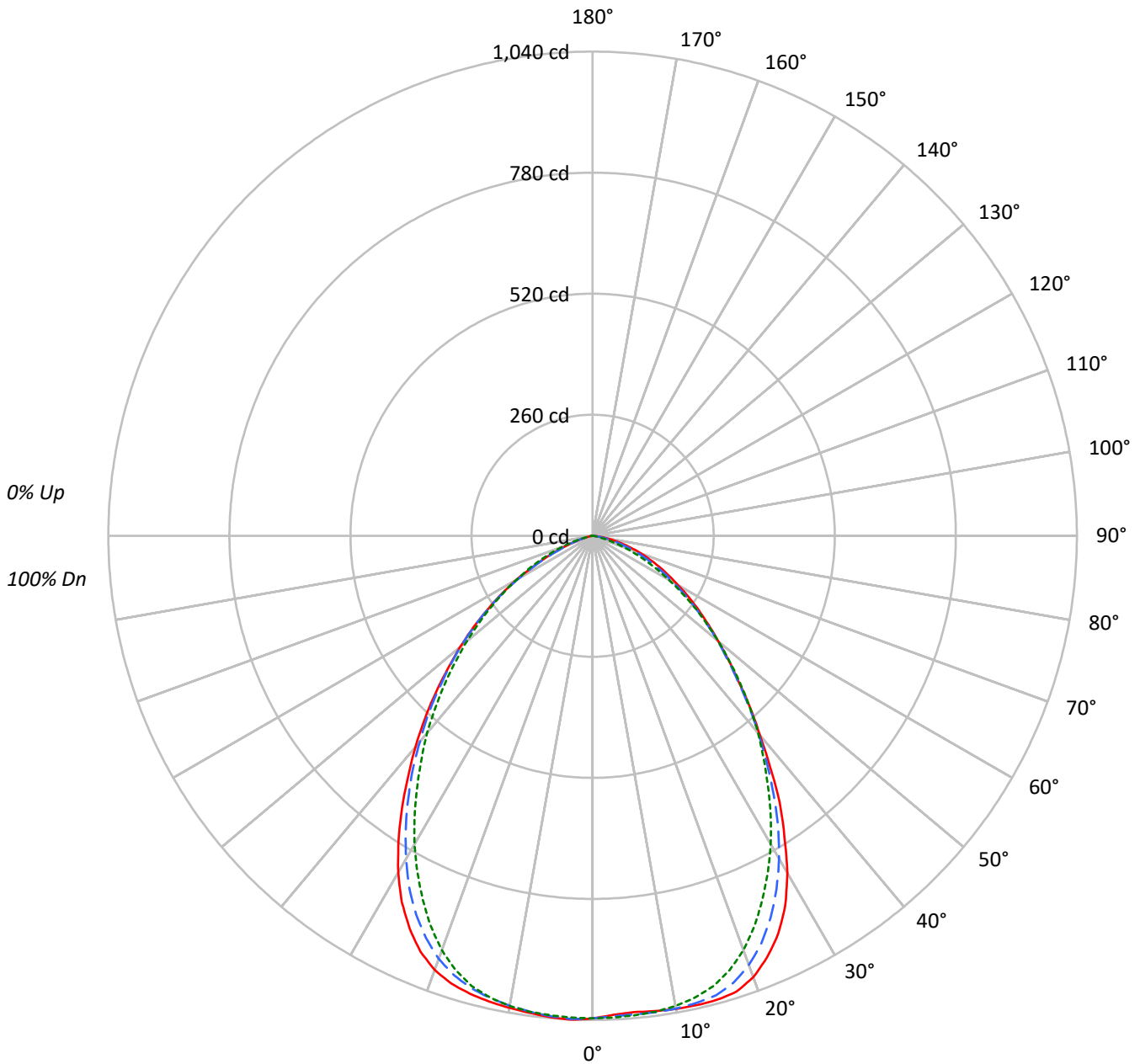
Lumens per Lamp: N/A
Luminaire Lumens: 1987.3 lumens
Efficiency: N/A
Efficacy: 66.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	127350	127350	127350
5°	126640	127491	127984
10°	128728	127955	128441
15°	131245	127391	129515
20°	131915	123809	129718
25°	127854	116929	126106
30°	118665	108508	118438
35°	105088	98430	107068
40°	89569	88639	94957
45°	76950	77836	82701
50°	67181	67334	70889
55°	59352	56867	58795
60°	52016	46389	46193
65°	46046	35959	32035
70°	39296	24749	19038
75°	31755	13291	8686
80°	21791	3325	2193
85°	6625	987	987



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.5	5.0
10°-20°	285.2	14.4
20°-30°	412.1	20.7
30°-40°	426.0	21.4
40°-50°	352.0	17.7
50°-60°	242.9	12.2
60°-70°	127.2	6.4
70°-80°	40.0	2.0
80°-90°	3.4	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°	795.8	40.0
0°-40°	1221.8	61.5
0°-60°	1816.7	91.4
0°-90°	1987.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1987.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1037	1037	1037	1037	1037	
5°	1027	1032	1034	1036	1038	98
15°	1032	1022	1002	1006	1018	291
25°	943	905	863	897	930	431
35°	701	677	656	690	714	435
45°	443	441	448	469	476	345
55°	277	268	266	273	274	249
65°	158	144	124	103	110	157
75°	67	53	28	19	18	72
85°	5	2	1	1	1	10
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°	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6
2.5°	1029.9	1030.3	1030.3	1031.1	1031.1	1031.1	1031.5	1031.5	1031.9	1032.3	1032.7
5°	1026.9	1026.9	1027.6	1028.0	1028.8	1029.2	1029.9	1030.3	1031.1	1031.5	1031.9
7.5°	1029.9	1029.9	1030.3	1030.8	1030.8	1031.1	1031.1	1031.5	1031.9	1032.3	1032.3
10°	1031.9	1031.9	1031.9	1031.9	1032.3	1032.3	1032.3	1031.9	1031.9	1031.9	1031.5
12.5°	1032.7	1032.7	1032.3	1031.9	1032.3	1031.9	1031.9	1030.8	1029.9	1029.2	1028.0
15°	1031.9	1031.9	1031.5	1031.1	1030.8	1029.9	1029.6	1027.6	1026.0	1023.7	1022.2
17.5°	1026.9	1026.0	1025.3	1024.5	1022.9	1021.8	1021.0	1017.4	1014.8	1010.9	1006.5
20°	1009.0	1008.1	1007.0	1005.1	1003.1	1001.6	999.3	994.2	991.4	985.6	981.3
22.5°	979.8	978.9	979.4	975.9	972.0	969.6	968.1	963.8	959.1	951.8	947.0
25°	943.2	940.8	940.8	935.4	933.5	931.9	929.9	924.9	917.8	911.3	905.0
27.5°	895.7	892.5	891.0	890.2	885.6	882.1	879.3	875.4	869.6	863.8	855.2
30°	836.5	836.1	834.2	830.7	827.2	825.6	822.5	815.9	810.5	806.1	800.7
32.5°	766.8	766.5	766.5	766.5	764.1	763.7	759.1	755.6	751.2	744.7	741.1
35°	700.7	700.3	700.7	694.8	693.3	692.1	691.7	689.4	683.5	680.4	677.3
37.5°	625.9	627.1	626.3	624.7	626.6	623.2	625.9	620.8	618.5	617.8	614.3
40°	558.5	561.7	558.5	559.0	560.9	557.4	557.4	556.6	555.0	554.3	553.5
42.5°	501.0	497.1	499.4	497.5	499.4	498.3	496.2	497.5	497.8	496.2	495.9
45°	442.9	443.8	444.5	443.4	443.4	442.2	445.3	443.4	443.4	443.8	441.0
47.5°	395.9	394.7	395.4	394.7	395.1	394.3	395.1	395.4	394.7	394.7	392.4
50°	351.5	350.7	353.5	351.1	351.1	350.7	351.1	350.3	349.1	349.1	350.0
52.5°	313.0	311.4	311.1	313.0	310.2	310.2	310.6	309.9	308.3	307.5	305.6
55°	277.1	276.8	277.1	275.6	274.8	274.8	272.9	272.1	271.7	269.7	268.5
57.5°	243.7	242.5	242.9	242.5	240.9	240.5	239.0	239.0	237.4	235.9	233.9
60°	211.7	211.7	212.9	211.3	210.2	209.4	208.7	207.8	205.2	202.4	200.1
62.5°	183.3	183.7	183.3	182.1	181.4	180.6	179.8	177.5	175.1	173.6	170.9
65°	158.4	158.0	156.8	156.1	154.1	154.1	152.6	151.5	148.7	146.4	143.6
67.5°	132.7	132.0	132.0	132.0	129.7	129.2	128.5	126.1	123.7	120.7	118.3
70°	109.4	110.2	109.0	107.8	106.6	106.3	105.1	102.8	100.1	96.9	95.0
72.5°	87.1	88.0	86.8	86.4	84.1	83.3	82.9	81.0	77.8	75.9	72.8
75°	66.9	67.4	66.5	65.8	64.2	63.9	61.9	60.3	58.4	55.3	52.6
77.5°	48.2	47.5	47.5	45.9	44.4	44.4	44.0	41.7	38.9	36.6	34.3
80°	30.8	30.4	29.2	28.5	27.3	26.9	26.4	24.5	22.5	21.0	19.5
82.5°	15.5	15.2	14.8	14.4	13.6	12.8	13.2	11.6	10.9	9.3	8.1
85°	4.7	5.1	5.1	4.7	4.2	4.2	4.2	3.9	3.1	2.7	2.3
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°	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6
2.5°	1033.1	1033.4	1033.8	1034.3	1034.3	1034.6	1035.0	1035.4	1035.7	1035.7	1036.2
5°	1032.3	1033.1	1033.1	1033.4	1033.4	1033.4	1033.8	1033.8	1033.8	1033.8	1034.3
7.5°	1032.7	1032.7	1032.7	1032.3	1032.3	1031.9	1031.9	1031.9	1031.1	1031.1	1031.1
10°	1030.8	1030.3	1029.9	1029.2	1028.8	1028.4	1027.6	1026.9	1026.0	1025.7	1024.8
12.5°	1026.9	1025.3	1023.7	1022.2	1021.4	1021.0	1019.5	1018.3	1017.1	1016.0	1015.1
15°	1019.0	1016.7	1014.0	1010.9	1010.1	1009.3	1006.5	1004.2	1002.7	1001.6	999.6
17.5°	1003.5	998.8	995.7	991.0	989.1	988.3	984.0	981.7	978.9	978.2	976.6
20°	975.9	971.5	965.7	961.5	959.1	956.7	953.2	950.2	947.0	947.0	945.1
22.5°	941.2	935.8	928.4	922.9	922.5	917.8	914.7	911.3	910.1	907.8	907.8
25°	897.6	893.0	884.7	880.1	877.7	876.6	871.5	866.8	864.5	862.6	864.1
27.5°	849.4	842.3	836.1	830.2	828.3	826.0	821.4	819.3	815.1	814.7	814.3
30°	794.1	787.1	780.9	778.1	774.2	772.3	768.8	766.5	764.9	764.9	764.1
32.5°	736.1	729.9	726.7	720.9	719.0	716.2	713.9	711.6	712.3	711.6	711.9
35°	673.4	671.8	666.0	662.5	662.5	662.1	658.3	656.7	655.8	656.3	658.3
37.5°	613.9	609.2	605.3	603.0	604.9	602.5	602.2	602.2	604.5	603.0	606.0
40°	550.4	550.0	548.5	549.2	549.7	546.9	547.6	548.1	549.7	552.7	553.1
42.5°	495.1	494.8	494.8	494.8	493.9	492.4	493.9	496.7	496.2	498.7	500.6
45°	441.8	441.0	442.6	441.5	443.8	444.5	443.4	444.1	446.4	448.0	451.2
47.5°	393.1	393.1	393.5	394.3	392.0	394.0	394.7	396.3	397.5	398.2	399.8
50°	348.0	348.0	347.2	347.2	347.2	348.4	346.8	348.8	349.1	352.3	354.2
52.5°	306.3	304.4	305.6	304.8	303.2	302.5	303.2	303.6	306.0	306.7	309.0
55°	266.6	266.6	263.6	262.7	263.9	263.6	263.1	263.1	264.3	265.5	267.4
57.5°	231.6	229.3	227.0	226.5	225.4	225.8	225.8	225.4	224.6	225.0	225.4
60°	198.5	196.9	193.4	193.4	193.0	192.7	190.7	190.4	188.4	188.8	187.2
62.5°	168.2	167.4	162.7	161.2	161.2	160.0	158.0	157.7	154.9	154.9	153.4
65°	140.9	138.6	135.8	133.2	133.2	131.6	130.4	126.9	124.9	123.7	121.4
67.5°	116.0	112.5	109.8	107.5	105.9	105.4	102.8	100.5	97.3	95.4	91.9
70°	91.9	89.2	86.4	84.1	82.5	81.0	78.3	74.8	72.4	68.9	66.5
72.5°	69.3	66.9	64.6	61.4	59.5	58.4	55.6	52.6	48.7	46.3	43.3
75°	49.8	47.1	44.0	41.2	40.1	38.9	35.9	33.5	30.8	28.0	25.0
77.5°	32.3	29.2	26.9	23.8	23.4	22.5	19.5	17.1	15.2	13.6	11.6
80°	17.1	15.5	13.6	11.6	10.9	9.7	8.1	7.0	5.8	4.7	3.9
82.5°	7.4	6.2	5.1	4.2	3.9	3.5	2.7	2.3	1.9	1.9	1.6
85°	1.9	1.6	1.6	1.2	0.7	0.7	0.7	0.7	0.7	0.7	0.7
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.4	0.4	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°	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6
2.5°	1036.6	1037.0	1037.3	1037.3	1037.8	1038.2	1038.2	1038.5	1038.9	1039.3	1039.3
5°	1034.6	1034.6	1034.6	1035.0	1035.0	1035.0	1035.0	1035.7	1035.7	1036.2	1036.6
7.5°	1030.8	1030.8	1030.8	1030.8	1030.3	1030.8	1030.3	1030.3	1031.1	1031.5	1031.9
10°	1024.5	1024.1	1024.1	1023.7	1023.7	1023.7	1024.1	1024.5	1024.8	1025.3	1026.4
12.5°	1014.8	1014.4	1014.4	1014.0	1014.0	1014.4	1014.8	1015.5	1017.1	1017.9	1019.5
15°	999.3	998.8	999.3	999.6	1000.4	1001.6	1002.7	1003.9	1006.2	1008.1	1010.1
17.5°	976.6	977.0	977.4	978.2	979.4	981.0	984.0	987.1	989.8	993.0	996.1
20°	945.5	947.0	947.4	950.2	950.9	954.4	957.9	962.7	966.9	970.8	975.0
22.5°	908.1	909.2	910.8	914.0	915.9	920.6	924.9	930.3	934.9	940.0	946.3
25°	865.7	866.1	870.7	870.7	875.4	879.3	884.4	890.2	897.2	903.9	908.1
27.5°	817.4	819.3	822.8	824.4	827.9	834.2	838.5	845.5	852.5	858.3	862.9
30°	766.8	768.4	774.2	775.0	777.7	783.2	789.0	795.7	801.1	807.7	811.9
32.5°	713.5	717.8	721.3	724.0	724.8	732.9	736.1	740.8	747.0	753.6	757.9
35°	661.8	663.7	668.7	670.3	672.7	677.3	683.5	687.5	690.5	694.8	699.8
37.5°	606.9	612.7	613.9	618.5	619.2	623.6	626.6	631.4	635.2	639.1	640.0
40°	555.9	557.8	562.0	563.3	564.0	569.9	573.8	574.9	576.8	580.3	585.1
42.5°	504.1	506.0	510.7	509.6	513.1	515.7	517.7	522.4	524.3	525.5	525.5
45°	453.1	453.8	457.0	458.5	460.5	462.1	465.6	467.9	468.6	472.1	473.3
47.5°	404.4	405.2	407.5	410.3	409.5	411.4	415.3	416.5	416.9	419.2	420.4
50°	356.5	358.5	361.6	360.9	363.2	364.4	367.8	368.6	368.6	369.0	369.4
52.5°	311.8	313.4	314.1	314.9	316.0	318.0	319.6	318.8	320.4	321.9	320.8
55°	267.4	268.5	270.5	271.3	271.3	271.7	271.0	274.5	272.9	272.4	272.9
57.5°	227.0	225.4	225.0	227.0	227.7	227.3	226.1	227.7	227.7	227.0	225.8
60°	187.6	186.5	186.0	186.5	184.9	183.7	184.5	183.7	181.8	181.0	181.4
62.5°	151.8	150.6	147.5	147.5	146.8	146.4	143.2	143.6	142.0	139.7	140.6
65°	118.8	115.6	114.0	113.7	110.9	108.6	107.8	105.1	102.8	102.4	102.8
67.5°	89.2	85.7	82.9	81.8	80.2	78.3	75.5	73.2	73.9	73.6	75.1
70°	61.9	59.5	56.8	54.9	55.6	53.3	51.7	51.7	52.1	52.6	53.3
72.5°	41.2	38.2	37.0	35.9	35.0	33.5	34.3	34.3	33.8	34.3	33.5
75°	23.4	21.8	20.6	20.2	19.5	19.5	19.5	19.5	19.0	18.7	18.7
77.5°	10.5	9.7	9.3	9.0	9.0	9.0	8.6	8.1	8.1	8.1	7.8
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
82.5°	1.6	1.6	1.9	1.9	1.9	1.6	1.9	1.9	1.6	1.6	1.9
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
87.5°	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.0	0.4	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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CATALOG NUMBER: LD4C25DE010B40 EU4C25B40 4LBLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6
2.5°	1039.7	1040.1	1040.1	1040.1	1040.5	1040.5	1040.5	1040.5
5°	1037.0	1037.3	1037.3	1037.3	1037.8	1037.8	1037.8	1037.8
7.5°	1032.3	1032.7	1032.7	1033.1	1033.1	1033.4	1033.4	1033.8
10°	1026.9	1027.6	1028.0	1028.4	1028.8	1029.2	1029.2	1029.6
12.5°	1021.0	1021.8	1022.2	1022.9	1023.7	1024.1	1024.5	1024.8
15°	1012.5	1014.0	1014.8	1015.1	1016.7	1017.4	1017.9	1018.3
17.5°	998.8	1001.9	1003.1	1003.9	1005.4	1007.0	1008.1	1008.6
20°	979.4	982.9	984.4	986.3	988.7	990.7	991.4	992.2
22.5°	952.1	956.0	958.3	960.6	962.7	964.6	967.6	966.5
25°	913.2	919.8	922.5	923.7	928.0	930.3	931.9	930.3
27.5°	869.6	873.5	875.8	878.6	881.6	884.0	884.7	887.1
30°	817.0	823.7	823.3	826.0	829.9	832.3	833.0	834.9
32.5°	762.6	765.6	767.9	767.6	769.1	773.4	771.9	775.4
35°	704.5	704.9	708.8	708.4	711.6	711.6	711.6	713.9
37.5°	642.6	647.3	645.4	650.0	648.5	649.7	649.7	650.4
40°	586.2	587.7	587.7	589.3	590.5	589.3	590.1	592.1
42.5°	527.9	529.3	529.8	529.0	530.2	533.7	530.9	533.3
45°	473.3	474.5	476.0	474.9	476.8	475.6	476.8	476.0
47.5°	422.0	421.6	421.1	424.3	421.6	422.0	423.5	420.7
50°	369.4	371.8	370.2	371.3	372.1	372.1	370.9	370.9
52.5°	322.7	322.3	321.1	322.3	321.5	321.9	322.7	321.9
55°	274.5	275.9	275.2	274.8	275.2	275.2	277.5	274.5
57.5°	227.0	226.1	227.3	230.0	227.3	229.3	230.5	230.8
60°	181.8	181.8	184.1	183.0	185.3	187.2	188.8	188.0
62.5°	138.6	140.6	141.3	141.7	144.0	145.5	145.5	145.2
65°	102.8	105.4	105.4	107.0	107.8	107.8	108.6	110.2
67.5°	75.9	75.9	76.3	77.1	76.7	76.7	77.4	77.8
70°	53.0	52.1	53.3	53.0	53.0	52.6	53.0	53.0
72.5°	33.5	33.5	33.8	33.5	32.7	33.1	33.1	33.8
75°	17.9	18.7	17.9	17.9	18.3	17.6	17.9	18.3
77.5°	7.4	7.4	7.4	7.4	7.4	7.0	7.0	7.0
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.1	3.1
82.5°	1.6	1.9	1.6	1.9	1.6	1.6	1.6	1.6
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
87.5°	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.4
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)