

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: P843523

Luminaire Tested: **LD4C25DE010B35 EU4C25B35 4LBDWWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C25DE010B35 EU4C25B35 4LBDWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

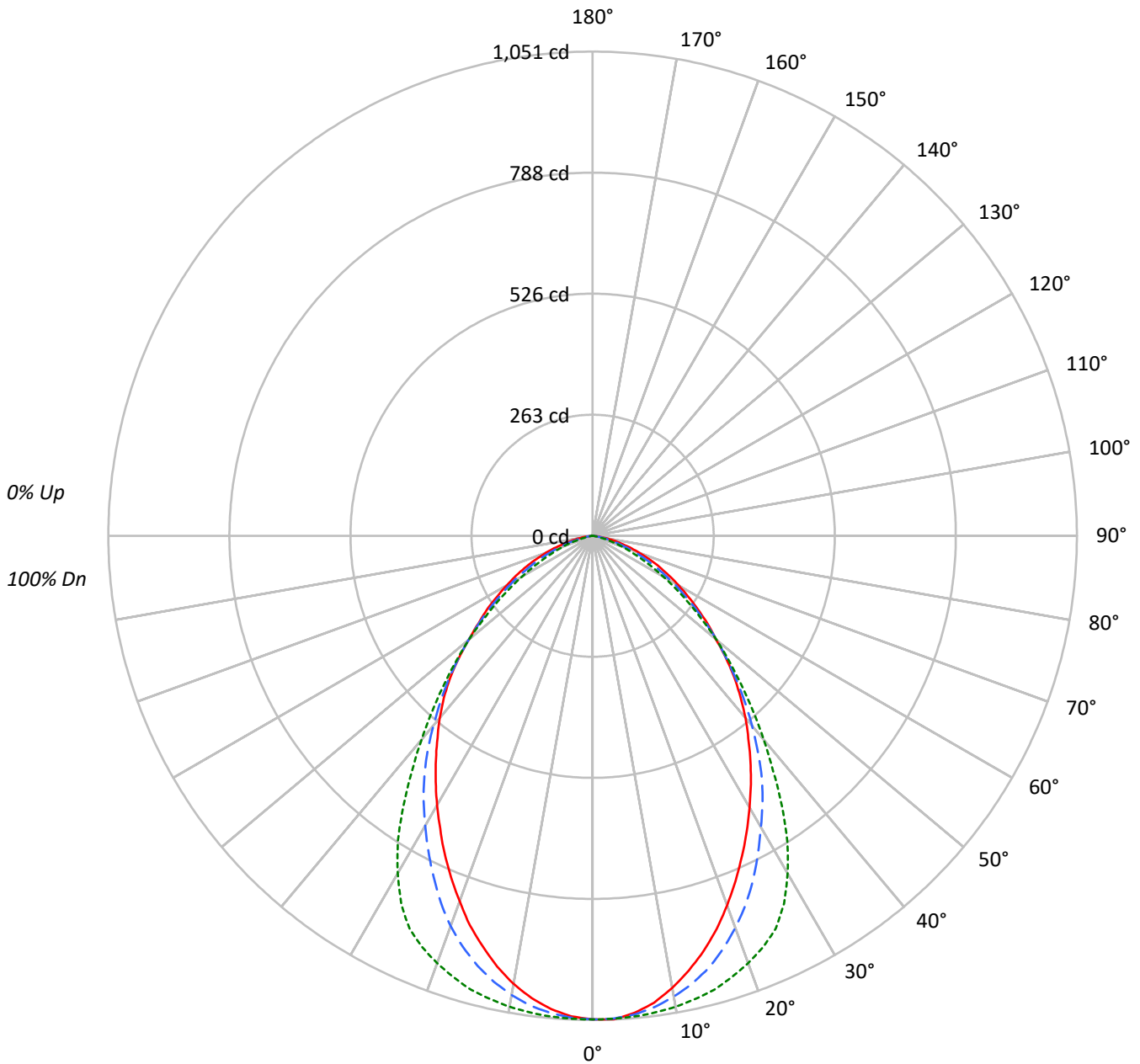
Lumens per Lamp: N/A
Luminaire Lumens: 1928.1 lumens
Efficiency: N/A
Efficacy: 64.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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				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
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77				77
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67				67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59				59
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53				53
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	128972	128972	128972
5°	128219	129181	127232
10°	124300	129502	123227
15°	118589	129782	117305
20°	111585	129038	110356
25°	103943	127515	103075
30°	96578	120069	95797
35°	89551	107398	88906
40°	82785	92616	82737
45°	75456	79052	76064
50°	66627	66856	67009
55°	59716	54661	59973
60°	52778	43392	52852
65°	46453	33110	45988
70°	38470	23707	38470
75°	29999	13623	28860
80°	19456	3396	18607
85°	7189	987	5497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.5	5.1
10°-20°	272.7	14.1
20°-30°	381.1	19.8
30°-40°	402.0	20.9
40°-50°	342.0	17.7
50°-60°	241.3	12.5
60°-70°	136.8	7.1
70°-80°	48.8	2.5
80°-90°	4.7	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°	752.3	39.0
0°-40°	1154.4	59.9
0°-60°	1737.8	90.1
0°-90°	1928.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1928.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1050	1050	1050	1050	1050	
5°	1040	1043	1048	1040	1032	98
15°	932	972	1020	966	922	261
25°	767	824	941	817	760	353
35°	597	640	716	637	593	373
45°	434	440	455	442	438	334
55°	279	269	255	270	280	250
65°	160	137	114	137	158	158
75°	63	43	29	42	61	68
85°	5	2	1	2	4	9
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°	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8
2.5°	1050.7	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1049.1	1049.1
5°	1039.7	1038.8	1038.4	1038.4	1038.4	1038.4	1038.8	1040.4	1041.1	1042.4	1043.1
7.5°	1022.3	1020.7	1021.6	1021.6	1022.3	1023.2	1024.3	1025.9	1028.2	1029.8	1031.7
10°	996.4	994.8	996.8	997.6	1000.0	1001.2	1003.1	1005.5	1010.1	1012.5	1015.6
12.5°	966.1	965.4	966.1	969.3	971.6	973.2	975.7	980.7	985.4	990.6	996.1
15°	932.4	930.5	931.7	935.6	939.5	942.2	944.3	950.9	957.2	965.0	971.6
17.5°	894.8	892.0	895.2	898.2	903.4	905.8	908.5	915.9	924.6	933.3	940.7
20°	853.5	852.8	854.7	859.0	864.1	867.3	869.6	877.8	885.3	897.1	905.8
22.5°	810.7	811.5	813.1	817.8	821.4	825.7	829.2	836.6	845.3	856.3	867.3
25°	766.8	767.9	770.7	773.9	779.7	782.0	786.4	794.3	801.7	811.9	824.1
27.5°	724.4	724.8	727.9	729.4	734.9	740.0	742.0	750.3	758.9	766.8	777.4
30°	680.8	682.0	683.9	688.2	693.7	695.7	698.0	705.5	712.2	722.0	730.2
32.5°	639.1	638.4	640.7	643.0	649.4	652.9	654.0	662.7	668.6	678.4	686.3
35°	597.1	595.2	598.7	601.1	606.6	609.7	611.3	618.0	623.5	631.7	640.3
37.5°	555.2	556.7	558.3	560.2	563.0	563.8	568.5	570.1	577.2	583.4	588.2
40°	516.2	515.5	514.8	516.7	520.3	521.7	522.2	526.5	528.1	534.3	537.9
42.5°	474.7	475.1	474.7	475.1	477.0	477.0	478.2	480.9	482.1	484.1	488.4
45°	434.3	434.3	433.0	433.4	433.8	433.4	433.8	435.0	437.3	437.3	440.5
47.5°	392.2	391.4	393.0	391.9	391.0	390.7	391.9	390.7	393.0	393.0	393.8
50°	348.6	348.6	350.6	350.2	351.0	349.4	349.8	349.8	350.2	349.8	351.3
52.5°	314.9	314.1	313.3	311.4	312.1	310.5	310.5	310.9	309.8	309.4	307.5
55°	278.8	279.5	278.4	277.5	277.5	276.0	275.6	273.3	271.7	270.5	269.3
57.5°	246.1	247.0	246.5	244.6	242.2	242.6	241.9	239.4	236.0	233.6	231.6
60°	214.8	215.5	214.8	212.8	212.1	210.5	210.0	206.9	204.1	201.1	198.6
62.5°	186.5	186.5	186.1	183.4	181.4	181.8	179.8	177.5	173.9	169.6	166.0
65°	159.8	159.4	157.5	156.2	154.7	152.7	151.6	148.0	145.2	141.7	137.1
67.5°	133.1	131.9	131.1	130.0	126.4	126.1	124.5	121.3	117.4	114.6	110.7
70°	107.1	106.8	105.2	105.2	102.5	101.3	98.9	96.1	92.6	88.7	85.6
72.5°	84.8	84.0	82.5	80.9	78.5	77.7	75.7	73.0	69.9	66.0	62.1
75°	63.2	62.4	62.1	60.1	58.1	56.2	55.3	52.6	49.5	46.7	43.2
77.5°	44.3	43.6	42.4	41.2	40.1	38.8	37.7	35.3	32.6	30.2	27.1
80°	27.5	26.7	25.9	25.5	24.3	23.9	22.4	21.2	18.8	17.2	15.3
82.5°	14.2	14.2	13.3	12.9	12.2	11.7	11.4	10.3	9.0	7.8	6.7
85°	5.1	5.1	4.8	4.3	4.3	3.9	3.9	3.5	2.7	2.7	2.0
87.5°	0.4	0.4	0.7	0.4	0.4	0.4	0.4	0.4	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8
2.5°	1049.4	1049.1	1049.4	1049.4	1049.8	1049.8	1049.8	1049.4	1049.8	1049.4	1049.4
5°	1043.1	1044.3	1045.2	1045.9	1046.3	1046.6	1046.6	1047.1	1047.5	1047.5	1047.1
7.5°	1033.3	1035.6	1038.1	1039.7	1040.4	1041.1	1042.4	1043.1	1043.9	1043.6	1043.1
10°	1020.4	1024.3	1027.5	1030.6	1032.1	1033.3	1035.3	1036.9	1037.6	1038.1	1036.9
12.5°	1001.9	1007.4	1012.5	1017.7	1020.0	1021.6	1025.5	1028.2	1029.8	1029.8	1028.7
15°	978.7	986.6	994.1	1000.7	1004.6	1007.1	1012.9	1016.8	1019.2	1020.4	1018.4
17.5°	950.9	959.9	968.9	977.6	981.5	985.1	993.3	998.8	1003.9	1004.6	1002.3
20°	915.2	926.6	936.7	947.3	951.7	957.2	966.6	975.7	983.5	987.0	980.3
22.5°	875.1	887.7	897.1	910.1	915.9	921.8	934.0	945.4	959.2	966.6	954.8
25°	833.5	844.1	855.5	868.0	876.2	882.6	896.7	911.3	929.7	940.7	924.2
27.5°	788.8	798.2	811.9	825.7	831.9	839.8	856.7	872.3	890.0	899.8	887.7
30°	742.5	754.2	767.1	779.7	788.8	796.2	809.9	823.3	838.2	846.4	837.4
32.5°	696.5	707.9	718.9	732.6	737.7	744.4	756.5	767.9	779.3	786.8	776.2
35°	648.2	658.4	668.6	678.0	680.4	688.2	698.0	704.7	710.2	716.1	709.0
37.5°	595.6	603.4	608.6	618.7	622.6	623.9	631.7	636.4	642.3	643.5	643.0
40°	542.1	549.2	553.6	559.8	563.0	563.0	568.5	572.8	577.2	577.5	577.2
42.5°	492.3	495.8	499.4	503.3	502.5	507.2	509.6	511.6	514.8	514.8	515.5
45°	442.1	444.8	447.9	448.8	451.9	451.9	453.8	454.7	456.2	455.0	453.4
47.5°	395.3	396.5	396.9	400.4	401.3	398.5	400.8	401.3	400.8	400.8	400.1
50°	351.0	351.8	351.3	350.2	350.6	351.8	350.6	349.0	349.8	349.8	350.6
52.5°	307.8	306.2	305.4	305.4	303.9	303.9	302.0	301.1	300.7	299.2	301.1
55°	268.1	265.8	262.3	261.4	260.3	259.9	257.5	255.6	254.8	255.2	254.8
57.5°	230.0	226.5	224.2	223.4	222.2	219.9	217.1	215.1	214.8	214.0	214.0
60°	195.6	191.5	188.0	184.6	184.9	183.4	180.6	179.4	178.2	176.6	177.9
62.5°	164.1	159.8	155.9	152.3	150.0	148.8	146.8	144.9	143.7	142.5	144.0
65°	133.1	129.6	125.2	121.7	120.6	119.3	117.4	114.2	113.9	113.9	114.6
67.5°	105.2	101.3	97.4	95.0	93.4	91.9	91.1	89.5	88.3	87.6	88.0
70°	80.9	77.0	73.8	71.5	70.2	69.9	67.2	66.7	66.3	66.0	65.6
72.5°	58.9	55.7	53.0	51.4	49.8	48.7	47.9	46.7	46.3	46.3	46.3
75°	40.4	38.1	34.9	33.0	32.2	31.0	29.8	29.1	28.2	28.7	28.7
77.5°	24.3	22.0	20.0	18.4	18.1	16.9	15.7	14.9	13.7	13.7	14.2
80°	13.3	11.4	9.8	8.7	7.8	7.5	6.2	5.9	5.1	4.8	4.8
82.5°	5.9	4.8	3.9	3.5	3.2	2.7	2.3	2.0	2.0	1.6	2.0
85°	2.0	1.6	1.2	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
87.5°	0.4	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8
2.5°	1049.1	1049.1	1048.6	1048.6	1048.6	1047.9	1047.9	1047.5	1047.1	1046.6	1045.9
5°	1046.3	1045.9	1045.2	1044.7	1044.3	1043.1	1042.0	1041.1	1040.0	1038.4	1037.6
7.5°	1042.4	1041.1	1039.7	1038.8	1037.6	1034.9	1033.0	1031.0	1029.0	1026.2	1023.2
10°	1035.6	1033.3	1031.0	1029.4	1027.5	1023.9	1020.0	1016.8	1012.5	1008.6	1004.3
12.5°	1026.2	1023.5	1018.8	1016.5	1014.1	1009.0	1003.9	997.2	991.3	985.8	980.7
15°	1014.5	1009.4	1003.9	1000.7	997.2	989.0	981.2	974.1	966.1	959.5	951.2
17.5°	997.2	989.7	981.9	978.4	973.7	964.2	954.8	945.0	936.0	927.8	917.5
20°	971.3	963.1	952.8	947.3	943.4	930.8	921.8	910.8	901.4	891.2	879.8
22.5°	941.1	929.7	918.3	910.4	906.2	893.6	881.4	871.6	861.3	849.6	841.3
25°	906.9	892.7	879.0	871.2	864.5	851.2	839.3	829.2	816.6	806.4	798.2
27.5°	868.4	852.3	836.3	828.4	822.1	807.6	795.0	784.4	772.3	763.2	754.6
30°	822.5	807.9	792.7	786.4	778.9	764.0	749.4	740.0	726.7	717.3	707.9
32.5°	765.2	755.8	743.6	734.9	731.0	717.3	705.1	693.7	682.4	674.9	665.5
35°	702.4	694.1	683.9	679.2	674.1	665.5	655.6	645.8	636.8	629.7	621.1
37.5°	638.8	630.6	624.2	619.1	616.0	608.1	602.2	594.8	588.5	581.8	577.2
40°	572.8	570.5	563.8	561.4	560.7	552.0	546.9	541.0	537.1	533.2	530.4
42.5°	514.3	510.4	505.2	505.7	503.3	498.6	495.1	491.2	488.4	486.4	483.7
45°	456.6	453.4	451.1	453.1	449.2	447.6	444.8	444.4	442.5	438.9	437.8
47.5°	401.6	401.3	401.6	400.4	399.7	398.8	399.3	397.4	395.3	394.2	392.6
50°	351.3	351.8	352.5	353.8	351.0	352.2	351.8	351.3	351.3	350.2	351.0
52.5°	302.7	303.1	303.9	305.0	305.4	305.4	306.6	307.5	308.9	310.9	310.9
55°	256.8	259.5	261.1	263.0	261.9	264.2	265.4	269.0	270.1	270.1	271.7
57.5°	216.0	218.7	219.9	222.2	222.9	225.0	228.1	230.0	232.8	235.2	237.5
60°	178.6	179.8	183.0	186.5	185.7	190.4	192.8	195.9	199.5	201.1	204.1
62.5°	145.2	146.8	149.2	150.4	153.1	155.5	161.0	164.1	167.2	171.1	174.3
65°	115.4	117.0	119.3	121.7	122.9	126.4	129.1	134.6	137.4	141.7	145.2
67.5°	88.3	90.6	92.6	94.2	95.0	98.6	102.9	105.2	110.3	114.6	117.4
70°	66.0	67.9	70.2	69.9	71.5	74.2	77.3	80.9	84.8	88.7	91.9
72.5°	45.9	47.9	49.5	49.8	51.4	53.4	55.7	58.5	61.7	65.6	69.9
75°	29.1	29.4	31.0	31.8	32.6	34.9	36.9	39.7	42.4	45.6	48.3
77.5°	14.5	15.7	16.5	17.2	17.7	19.7	21.6	23.9	26.3	29.4	32.2
80°	5.5	5.9	7.1	7.5	8.2	9.4	11.0	12.2	14.2	16.5	18.1
82.5°	2.0	2.3	2.7	2.7	3.2	3.9	4.3	5.5	6.7	7.5	8.2
85°	0.7	0.7	0.7	0.7	0.7	1.2	1.2	1.6	2.0	2.3	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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CATALOG NUMBER: LD4C25DE010B35 EU4C25B35 4LBDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8	1049.8
2.5°	1045.5	1045.5	1045.2	1044.7	1044.7	1044.7	1044.3	1044.3
5°	1036.1	1034.9	1034.5	1033.7	1033.3	1033.0	1031.7	1031.7
7.5°	1020.7	1019.2	1018.0	1016.8	1015.2	1014.1	1014.1	1012.5
10°	1000.3	997.2	995.7	994.1	992.1	989.7	989.0	987.8
12.5°	975.7	969.3	967.7	965.0	961.9	960.3	957.6	957.6
15°	945.0	938.3	934.7	933.3	929.3	926.6	925.3	922.3
17.5°	909.2	904.2	898.7	896.3	892.0	888.4	886.9	886.5
20°	873.2	864.9	861.3	857.8	852.8	849.6	847.3	844.1
22.5°	831.5	824.1	818.9	816.6	812.3	806.8	802.8	802.8
25°	787.5	780.9	778.1	773.0	767.9	765.9	761.3	760.4
27.5°	745.5	738.9	733.4	730.6	724.8	722.0	718.0	716.5
30°	702.0	694.1	690.2	689.8	682.7	680.0	676.9	675.3
32.5°	658.4	651.7	647.8	645.5	642.3	637.5	634.8	633.3
35°	615.2	610.9	607.4	604.6	599.5	597.1	594.8	592.8
37.5°	570.1	566.2	564.6	562.2	559.8	555.6	554.7	553.1
40°	526.5	521.4	521.4	519.8	517.5	517.1	515.9	515.9
42.5°	480.9	478.6	478.2	478.6	477.0	476.3	475.1	477.8
45°	435.7	437.0	435.0	435.4	434.6	436.2	436.2	437.8
47.5°	394.2	392.6	393.4	394.2	395.3	395.3	394.9	394.6
50°	349.8	351.3	352.9	351.0	351.8	352.2	350.2	350.6
52.5°	311.7	312.1	313.3	312.1	313.3	313.0	313.7	312.1
55°	274.8	274.8	276.4	276.8	277.2	278.4	278.8	280.0
57.5°	239.1	241.0	243.0	242.6	244.2	245.8	244.6	245.8
60°	208.0	209.6	211.6	212.4	213.5	214.4	214.4	215.1
62.5°	176.6	179.8	181.4	183.0	183.0	184.6	186.1	186.5
65°	148.4	152.0	153.1	154.3	155.0	156.6	158.6	158.2
67.5°	121.7	124.1	125.6	126.4	128.8	129.6	131.1	132.7
70°	95.4	98.6	99.7	101.3	103.2	104.8	106.4	107.1
72.5°	73.0	75.4	76.1	77.7	79.7	81.2	82.1	83.2
75°	51.1	55.0	55.3	56.6	58.1	60.1	61.2	60.8
77.5°	33.7	36.5	36.9	38.5	40.1	41.6	42.0	42.4
80°	20.0	21.6	22.0	22.7	23.9	24.7	25.5	26.3
82.5°	9.4	10.3	11.0	11.0	11.7	12.6	12.6	12.9
85°	3.2	3.2	3.5	3.5	3.9	3.9	4.3	3.9
87.5°	0.4	0.4	0.0	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)