

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: P843524

Luminaire Tested: **LD4C25DE010B35 EU4C25B35 4LBLWWH**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843524
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: LD4C25DE010B35 EU4C25B35 4LBLWWH
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

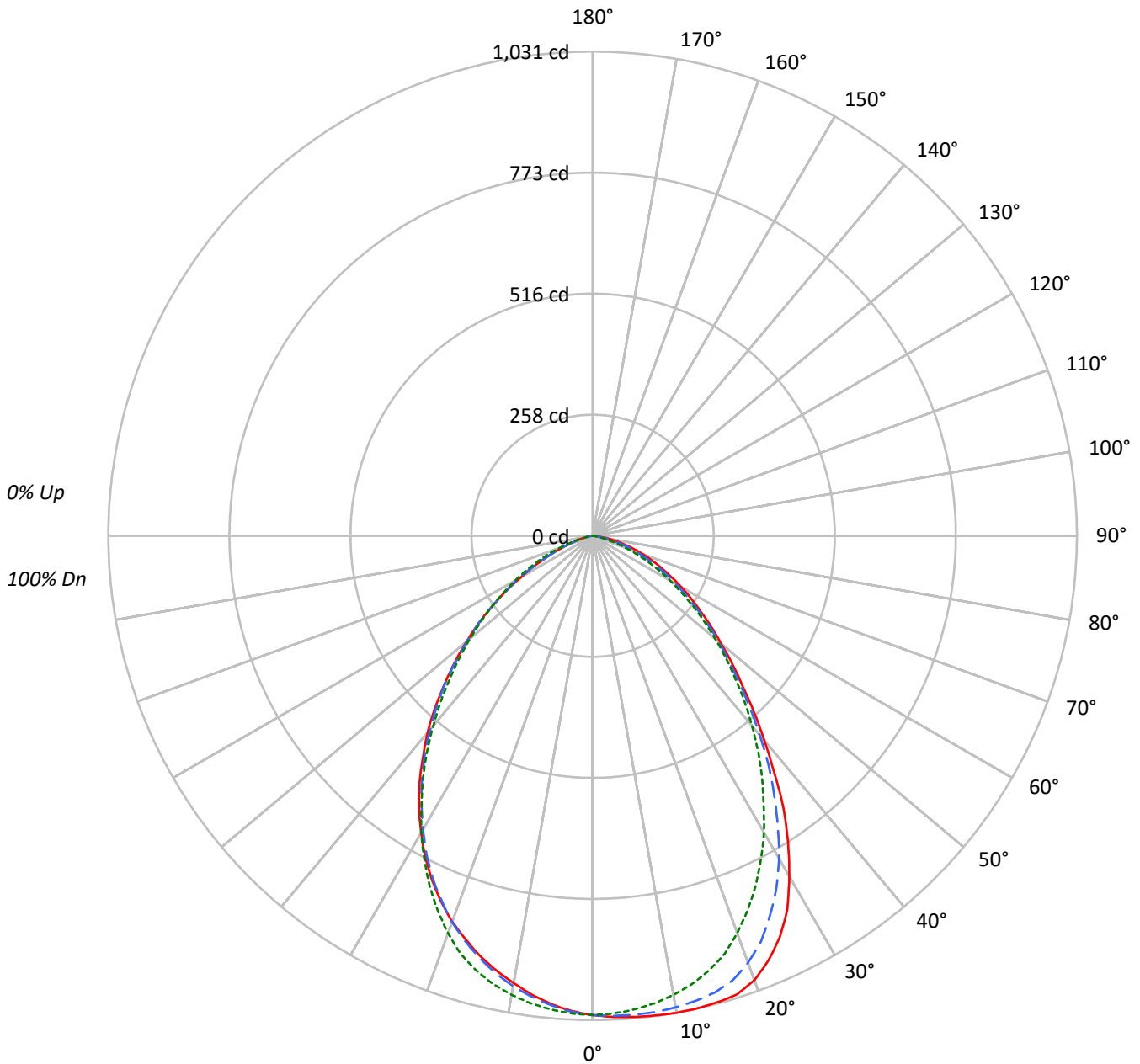
Lumens per Lamp: N/A
Luminaire Lumens: 1923.8 lumens
Efficiency: N/A
Efficacy: 64.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P843524

CATALOG NUMBER: LD4C25DE010B35 EU4C25B35 4LBLWWH

Luminous Intensity Polar Plot





TEST NUMBER: P843524

CATALOG NUMBER: LD4C25DE010B35 EU4C25B35 4LBLWWH

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	48	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°	125409	125409	125409
5°	126813	124877	123520
10°	128666	123826	120682
15°	130787	121845	117801
20°	131614	117703	114304
25°	127841	111344	109636
30°	118793	103500	103543
35°	106333	94335	96330
40°	91044	84565	87660
45°	78375	74570	77367
50°	68136	64906	66875
55°	59973	55839	55346
60°	53343	46586	42925
65°	46802	37325	31046
70°	40194	26365	21013
75°	32610	15284	12294
80°	23347	6650	6155
85°	8739	2819	2819



TEST NUMBER: P843524

CATALOG NUMBER: LD4C25DE010B35 EU4C25B35 4LBLWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.2	5.0
10°-20°	272.3	14.2
20°-30°	388.9	20.2
30°-40°	406.8	21.1
40°-50°	340.9	17.7
50°-60°	238.6	12.4
60°-70°	129.9	6.8
70°-80°	45.1	2.3
80°-90°	5.2	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°	757.4	39.4
0°-40°	1164.2	60.5
0°-60°	1743.7	90.6
0°-90°	1923.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1923.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1021	1021	1021	1021	1021	
5°	1028	1024	1013	1004	1002	98
15°	1028	1007	958	930	926	290
25°	943	893	821	805	809	431
35°	709	674	629	634	642	440
45°	451	441	429	443	445	351
55°	280	270	261	261	258	253
65°	161	147	128	108	107	160
75°	69	56	32	26	26	74
85°	6	4	2	2	2	11
90°	0	0	0	0	0	



TEST NUMBER: P843524

CATALOG NUMBER: LD4C25DE010B35 EU4C25B35 4LBLWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8
2.5°	1025.6	1024.3	1024.7	1024.7	1024.7	1024.3	1024.7	1024.3	1024.3	1024.0	1023.2
5°	1028.3	1027.5	1027.5	1027.5	1027.1	1026.8	1026.8	1026.3	1025.6	1025.2	1023.6
7.5°	1030.2	1029.5	1029.5	1029.1	1028.7	1028.3	1027.9	1026.8	1025.6	1024.7	1022.8
10°	1031.4	1030.2	1030.2	1029.5	1028.7	1028.3	1027.5	1025.9	1024.3	1022.4	1019.7
12.5°	1030.7	1029.5	1029.1	1028.3	1026.8	1025.9	1025.2	1023.2	1020.4	1017.7	1014.2
15°	1028.3	1027.5	1026.8	1025.6	1023.6	1022.4	1021.6	1018.5	1014.9	1011.0	1006.7
17.5°	1023.6	1022.4	1020.8	1019.2	1016.5	1015.3	1013.4	1009.4	1004.3	998.8	992.2
20°	1006.7	1005.9	1004.3	1001.6	997.2	995.7	992.9	987.8	981.2	974.5	967.4
22.5°	978.8	977.7	975.2	972.9	969.0	966.3	963.9	956.8	949.3	942.4	935.6
25°	943.1	941.9	938.8	935.6	931.7	927.0	924.7	919.2	911.7	902.7	892.9
27.5°	897.2	893.3	892.0	888.5	882.6	881.0	877.5	870.4	863.3	855.5	847.3
30°	837.4	837.4	835.1	833.5	828.0	826.4	822.5	815.1	811.2	800.2	793.9
32.5°	774.3	773.4	771.5	770.4	767.2	764.5	760.5	756.6	748.0	742.5	733.8
35°	709.0	704.4	705.1	702.8	700.9	697.7	697.3	693.0	685.1	682.0	674.1
37.5°	634.9	632.9	635.6	632.1	630.1	630.6	627.4	624.6	621.6	616.1	614.5
40°	567.7	569.3	568.9	565.7	567.3	565.4	562.2	559.5	557.9	554.4	553.2
42.5°	507.7	505.3	504.5	504.5	504.9	504.9	503.3	501.4	501.4	497.8	494.3
45°	451.1	451.1	450.3	452.7	449.2	449.2	448.0	447.6	446.0	445.3	440.9
47.5°	402.4	402.0	401.7	401.3	400.8	400.8	398.5	396.5	396.2	393.8	391.4
50°	356.5	358.9	358.1	356.1	355.4	355.7	354.2	352.9	352.6	348.7	349.0
52.5°	318.0	317.6	318.5	317.3	315.3	315.7	314.1	312.5	310.9	309.0	307.5
55°	280.0	281.9	281.1	280.0	279.5	278.8	277.6	275.6	275.2	271.0	270.5
57.5°	248.1	247.7	247.0	244.9	244.6	243.5	243.5	241.9	239.6	237.1	235.2
60°	217.1	217.1	216.0	215.5	214.0	213.6	213.2	211.6	208.9	206.9	203.8
62.5°	187.3	188.0	187.3	186.1	185.0	183.4	182.5	181.4	179.1	177.0	174.3
65°	161.0	160.5	160.2	158.6	158.2	156.6	156.3	153.9	151.6	150.0	146.8
67.5°	135.8	134.6	134.6	133.9	133.1	131.9	131.1	128.8	126.1	124.5	121.3
70°	111.9	111.2	111.2	111.2	109.1	108.0	107.6	106.4	102.5	100.9	97.7
72.5°	89.9	89.5	89.2	88.0	86.7	86.7	85.2	82.8	80.9	78.9	76.6
75°	68.7	69.5	68.7	67.2	66.7	66.0	64.8	62.8	60.8	58.5	55.7
77.5°	50.2	49.5	48.7	48.7	47.9	46.3	45.9	44.3	42.0	40.4	37.7
80°	33.0	32.6	31.8	31.0	30.7	30.2	29.8	28.2	25.9	24.7	22.4
82.5°	18.1	17.7	17.7	17.2	16.1	16.1	15.7	14.2	13.0	12.2	11.0
85°	6.2	6.2	6.2	5.9	5.9	5.9	5.5	5.1	4.8	4.3	3.5
87.5°	0.7	0.4	0.7	0.4	0.7	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



TEST NUMBER: P843524

CATALOG NUMBER: LD4C25DE010B35 EU4C25B35 4LBLWWH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8
2.5°	1022.4	1021.6	1021.3	1020.8	1020.4	1020.1	1019.7	1018.8	1018.5	1018.1	1017.3
5°	1022.4	1020.8	1020.1	1018.8	1018.1	1017.3	1016.2	1014.9	1013.7	1012.6	1011.4
7.5°	1020.8	1018.5	1016.9	1014.6	1013.7	1012.6	1010.3	1008.7	1006.7	1004.3	1001.6
10°	1016.9	1014.2	1011.0	1007.9	1006.7	1004.8	1001.6	998.8	995.7	992.6	989.8
12.5°	1010.7	1006.3	1002.4	998.1	995.7	993.8	989.4	985.5	981.6	978.0	973.3
15°	1001.2	996.1	991.0	985.1	982.3	980.0	973.8	969.0	962.8	958.0	953.4
17.5°	985.9	978.0	971.8	964.2	960.3	957.6	952.1	944.7	938.8	933.7	928.2
20°	959.6	952.1	943.5	935.3	930.9	927.4	919.5	911.7	905.8	900.3	894.4
22.5°	925.0	915.6	909.4	899.1	895.6	891.3	881.9	874.8	868.1	862.6	857.1
25°	883.0	874.8	866.1	856.7	852.3	847.3	839.4	831.9	827.7	821.4	814.7
27.5°	834.7	828.0	817.4	809.2	804.9	800.9	793.5	786.9	780.5	776.2	770.0
30°	783.7	775.9	766.4	757.8	755.5	750.7	744.0	739.0	732.2	729.6	726.8
32.5°	727.5	718.6	711.5	706.0	701.2	697.3	693.8	685.6	684.4	677.3	676.5
35°	666.3	662.4	655.7	651.0	647.1	644.3	638.4	634.5	630.1	629.0	626.2
37.5°	608.6	603.9	597.6	593.2	590.5	590.2	585.8	583.5	580.3	578.7	575.6
40°	548.1	546.2	540.7	539.8	535.6	535.2	532.8	530.1	527.3	527.3	527.7
42.5°	492.3	490.0	487.7	484.9	482.5	482.5	481.3	480.6	479.7	478.6	480.6
45°	440.2	437.0	435.4	432.7	433.8	431.5	430.7	430.7	429.5	429.2	431.9
47.5°	391.4	387.9	386.4	385.6	385.6	385.9	382.4	383.6	383.2	384.0	385.2
50°	347.1	343.9	341.6	341.6	341.9	340.5	338.9	340.0	338.9	339.6	342.4
52.5°	305.9	302.7	301.5	301.5	299.2	298.8	299.6	298.0	298.4	298.8	300.4
55°	267.8	265.8	263.9	261.9	262.3	261.4	260.0	259.5	260.3	260.7	262.7
57.5°	233.6	230.9	228.1	227.3	226.5	226.5	224.5	224.2	225.0	223.1	223.1
60°	201.1	199.5	195.9	194.7	194.7	192.8	191.2	192.0	190.1	189.6	190.1
62.5°	170.8	169.6	167.2	164.9	164.1	163.3	161.4	160.5	159.8	158.2	155.9
65°	144.5	141.7	139.0	137.4	136.2	134.3	133.1	131.6	129.1	128.4	126.1
67.5°	118.1	115.4	112.6	111.5	110.3	109.1	107.1	105.2	102.5	99.3	96.6
70°	95.0	91.5	89.9	86.7	86.0	84.4	81.6	79.7	77.0	73.4	70.6
72.5°	72.7	70.3	67.9	65.2	63.2	62.1	59.7	56.6	53.4	51.4	48.7
75°	52.2	51.1	47.9	44.7	44.0	42.4	39.7	37.7	35.3	32.2	29.8
77.5°	35.3	33.0	31.0	28.2	27.5	25.9	24.3	22.4	20.8	18.8	17.2
80°	20.8	18.8	17.7	15.7	14.9	14.2	13.0	11.4	10.3	9.4	9.0
82.5°	10.3	8.7	8.2	7.1	6.7	6.2	5.5	5.1	4.3	4.3	4.3
85°	3.5	2.7	2.7	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0
87.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	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



TEST NUMBER: P843524

CATALOG NUMBER: LD4C25DE010B35 EU4C25B35 4LBLWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8
2.5°	1016.9	1016.5	1016.2	1015.8	1015.8	1015.3	1015.3	1014.9	1014.9	1014.6	1014.6
5°	1009.8	1008.7	1007.9	1007.1	1007.1	1005.9	1005.2	1004.3	1003.9	1003.9	1003.2
7.5°	1000.0	998.4	996.9	995.7	995.3	993.3	991.7	991.7	990.2	989.4	988.7
10°	987.1	984.3	982.0	980.7	979.3	978.0	976.1	974.9	973.8	971.8	971.3
12.5°	969.4	967.4	963.9	962.3	961.5	959.2	956.1	954.5	954.1	952.5	951.3
15°	949.3	945.1	941.9	939.9	939.9	936.0	934.4	932.1	930.5	929.3	928.9
17.5°	923.4	919.2	916.0	913.3	912.4	909.4	906.9	906.2	904.2	905.0	903.0
20°	890.1	886.5	884.2	880.7	880.7	878.7	877.9	875.9	875.2	874.3	875.2
22.5°	854.4	850.0	846.1	845.7	845.7	842.9	842.6	842.2	840.6	841.8	841.5
25°	812.4	809.2	806.9	806.4	806.4	804.9	803.3	804.1	805.3	804.9	806.0
27.5°	768.8	765.6	764.9	764.5	763.6	763.3	764.0	764.0	765.2	766.8	768.4
30°	721.6	720.9	719.7	719.3	718.6	720.5	721.3	722.5	722.0	724.4	726.0
32.5°	674.6	673.0	672.5	673.4	674.6	674.1	676.5	677.3	678.0	680.8	682.0
35°	627.1	626.6	625.8	625.8	626.2	629.4	629.4	632.1	633.7	634.5	637.6
37.5°	576.0	577.6	578.3	579.5	579.9	581.1	581.9	584.7	586.2	587.7	589.3
40°	529.2	528.5	532.0	529.7	530.4	534.0	535.6	535.2	537.5	539.8	541.4
42.5°	479.4	480.6	481.3	482.2	484.1	484.5	486.5	489.3	490.0	492.8	493.5
45°	431.1	431.5	433.1	434.7	435.9	438.9	439.8	440.9	443.3	443.3	444.4
47.5°	385.6	387.1	387.1	389.5	391.4	391.0	393.8	394.6	394.2	396.2	396.9
50°	341.9	344.4	343.9	345.5	346.3	346.7	349.0	349.9	348.3	350.2	350.6
52.5°	300.4	301.5	303.1	303.5	302.7	304.7	303.9	305.4	305.0	306.6	305.0
55°	262.3	261.9	261.9	262.7	261.9	262.7	263.5	261.9	260.7	262.3	261.9
57.5°	224.2	224.2	223.4	224.5	223.4	222.2	221.8	220.6	219.5	219.5	219.0
60°	188.5	187.6	186.1	185.7	185.7	183.7	183.0	181.4	181.4	179.8	178.2
62.5°	155.0	153.1	152.0	152.0	151.1	149.2	145.6	143.3	142.6	140.1	139.8
65°	123.6	121.7	120.6	118.1	116.2	115.4	111.9	109.1	108.0	105.7	106.0
67.5°	95.0	91.9	88.3	86.7	85.6	82.8	81.6	79.7	78.5	78.5	78.5
70°	68.3	65.6	62.1	60.8	60.1	57.7	56.6	56.2	57.3	56.9	57.3
72.5°	45.9	43.2	41.7	40.8	40.1	38.9	39.7	40.1	39.2	39.7	40.1
75°	27.9	27.1	25.9	25.5	25.5	25.9	25.5	25.5	25.9	25.9	26.3
77.5°	16.1	15.3	15.3	14.9	15.7	15.3	15.3	15.3	15.7	15.7	15.7
80°	8.7	8.7	8.7	8.7	9.0	8.7	9.0	9.0	9.0	9.0	9.0
82.5°	4.3	4.3	4.3	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.3
85°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
87.5°	0.4	0.7	0.7	0.7	0.7	0.7	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



TEST NUMBER: P843524

CATALOG NUMBER: LD4C25DE010B35 EU4C25B35 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8	1020.8
2.5°	1013.7	1013.7	1013.7	1013.0	1013.4	1013.4	1013.0	1013.0
5°	1002.7	1002.4	1001.6	1001.6	1000.8	1001.6	1001.2	1001.6
7.5°	987.8	987.8	986.7	986.7	986.2	985.9	985.5	985.9
10°	970.2	970.2	969.4	969.0	969.4	967.8	967.8	967.4
12.5°	950.6	949.8	949.0	949.3	949.0	947.9	947.4	947.9
15°	927.8	926.6	927.0	925.9	925.9	925.4	926.2	926.2
17.5°	902.7	901.8	901.1	901.5	900.7	901.1	900.7	900.3
20°	874.8	874.3	874.3	872.9	873.2	872.9	873.2	874.3
22.5°	842.6	842.2	842.6	841.5	842.2	842.2	843.4	843.4
25°	807.3	806.9	807.6	808.0	808.5	809.6	808.5	808.8
27.5°	767.9	769.1	770.4	770.7	772.3	771.1	770.4	771.5
30°	728.3	728.3	728.0	729.6	730.7	731.9	729.9	729.9
32.5°	682.8	684.7	684.7	685.1	686.3	686.3	686.3	687.9
35°	639.2	640.4	640.8	639.2	640.0	639.6	642.3	642.3
37.5°	590.5	590.5	590.9	593.6	593.6	592.5	593.2	593.2
40°	544.2	544.6	543.0	543.8	545.7	545.0	545.7	546.6
42.5°	493.5	496.2	494.8	495.5	495.1	495.5	495.9	495.9
45°	445.3	446.0	446.0	446.4	447.2	448.0	445.6	445.3
47.5°	398.1	398.5	399.7	397.8	400.1	397.8	400.1	397.4
50°	350.6	352.2	351.0	351.8	350.6	350.6	350.2	349.9
52.5°	305.4	305.0	305.0	304.7	304.7	305.4	304.7	305.9
55°	260.3	260.7	260.0	259.5	259.1	260.3	259.1	258.4
57.5°	217.6	218.3	216.7	217.6	214.8	216.0	216.3	216.7
60°	177.9	176.7	176.7	175.1	175.1	176.3	174.7	174.7
62.5°	137.8	138.6	137.4	139.0	139.0	140.6	139.8	140.6
65°	105.7	106.0	106.4	106.4	106.4	108.7	108.0	106.8
67.5°	79.7	80.1	80.5	80.1	81.2	80.5	80.5	80.9
70°	57.7	58.1	58.5	58.5	58.1	58.5	58.5	58.5
72.5°	40.1	40.4	40.1	40.4	40.8	40.4	40.4	40.8
75°	26.3	26.3	25.9	25.9	25.9	25.9	26.3	25.9
77.5°	15.3	15.7	15.3	15.7	15.7	15.7	15.7	15.7
80°	9.0	9.0	9.0	8.7	9.0	9.0	9.0	8.7
82.5°	4.8	4.8	4.3	4.3	4.8	4.8	4.8	4.8
85°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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



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













(END OF REPORT)