

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: P843538

Luminaire Tested: **LD4C25DE010B40 EU4C25B40 4LBLWWH**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843538
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: LD4C25DE010B40 EU4C25B40 4LBLWWH
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

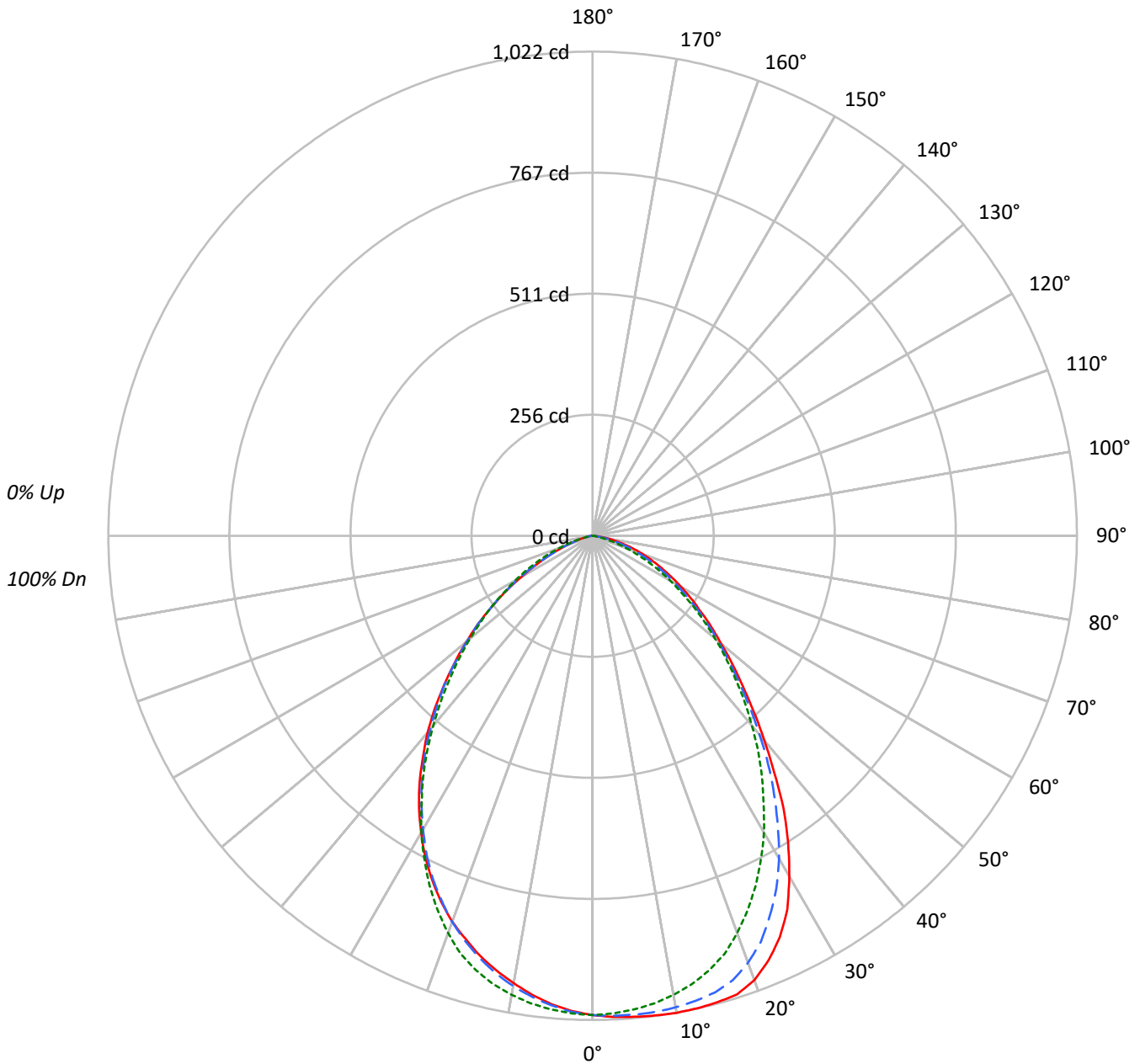
Lumens per Lamp: N/A
Luminaire Lumens: 1906.9 lumens
Efficiency: N/A
Efficacy: 64.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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: P843538

CATALOG NUMBER: LD4C25DE010B40 EU4C25B40 4LBLWWH

Luminous Intensity Polar Plot





TEST NUMBER: P843538

CATALOG NUMBER: LD4C25DE010B40 EU4C25B40 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	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°	124303	124303	124303
5°	125691	123779	122435
10°	127543	122728	119634
15°	129629	120764	116758
20°	130463	116657	113311
25°	126716	110368	108673
30°	117757	102578	102635
35°	105403	93510	95490
40°	90258	83827	86874
45°	77697	73909	76689
50°	67544	64333	66283
55°	59437	55346	54854
60°	52876	46168	42532
65°	46395	36977	30785
70°	39835	26150	20834
75°	32325	15142	12199
80°	23135	6580	6084
85°	8739	2678	2678



TEST NUMBER: P843538

CATALOG NUMBER: LD4C25DE010B40 EU4C25B40 4LBLWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.4	5.0
10°-20°	269.9	14.2
20°-30°	385.5	20.2
30°-40°	403.2	21.1
40°-50°	337.9	17.7
50°-60°	236.5	12.4
60°-70°	128.8	6.8
70°-80°	44.7	2.3
80°-90°	5.1	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°	750.8	39.4
0°-40°	1154.0	60.5
0°-60°	1728.3	90.6
0°-90°	1906.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1906.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1012	1012	1012	1012	1012	
5°	1019	1015	1004	995	993	97
15°	1019	998	950	922	918	288
25°	935	885	814	798	802	427
35°	703	668	624	628	637	436
45°	447	437	425	439	441	348
55°	278	268	258	258	256	251
65°	160	146	127	107	106	159
75°	68	55	32	26	26	73
85°	6	4	2	2	2	11
90°	0	0	0	0	0	



TEST NUMBER: P843538

CATALOG NUMBER: LD4C25DE010B40 EU4C25B40 4LBLWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8
2.5°	1016.5	1015.3	1015.8	1015.8	1015.8	1015.3	1015.8	1015.3	1015.3	1015.0	1014.2
5°	1019.2	1018.5	1018.5	1018.5	1018.1	1017.7	1017.7	1017.3	1016.5	1016.2	1014.6
7.5°	1021.1	1020.4	1020.4	1020.0	1019.7	1019.2	1018.8	1017.7	1016.5	1015.8	1013.8
10°	1022.4	1021.1	1021.1	1020.4	1019.7	1019.2	1018.5	1016.9	1015.3	1013.4	1010.7
12.5°	1021.6	1020.4	1020.0	1019.2	1017.7	1016.9	1016.2	1014.2	1011.4	1008.8	1005.3
15°	1019.2	1018.5	1017.7	1016.5	1014.6	1013.4	1012.7	1009.5	1006.0	1002.1	997.9
17.5°	1014.6	1013.4	1011.8	1010.3	1007.6	1006.4	1004.4	1000.5	995.6	990.1	983.5
20°	997.9	997.0	995.6	992.8	988.5	987.0	984.2	979.2	972.6	965.9	959.0
22.5°	970.2	969.0	966.7	964.4	960.4	957.8	955.5	948.4	941.0	934.0	927.4
25°	934.8	933.7	930.5	927.4	923.5	918.9	916.5	911.0	903.6	894.8	885.0
27.5°	889.3	885.3	884.2	880.7	874.9	873.3	869.8	862.8	855.8	848.0	839.9
30°	830.1	830.1	827.8	826.2	820.7	819.2	815.3	807.9	804.0	793.1	786.9
32.5°	767.4	766.7	764.8	763.6	760.4	757.7	753.9	750.0	741.4	735.9	727.3
35°	702.8	698.1	699.0	696.7	694.7	691.6	691.2	686.9	679.1	676.0	668.2
37.5°	629.3	627.4	630.0	626.5	624.6	625.1	621.9	619.1	616.1	610.6	609.1
40°	562.8	564.4	563.9	560.8	562.3	560.4	557.3	554.6	553.0	549.5	548.4
42.5°	503.2	500.9	500.0	500.0	500.5	500.5	498.9	497.0	497.0	493.5	490.0
45°	447.2	447.2	446.4	448.8	445.3	445.3	444.1	443.7	442.1	441.4	437.0
47.5°	398.9	398.5	398.1	397.8	397.4	397.4	395.0	393.0	392.7	390.4	388.0
50°	353.4	355.7	354.9	352.9	352.2	352.6	351.0	349.9	349.4	345.6	346.0
52.5°	315.3	314.9	315.6	314.4	312.5	312.8	311.4	309.8	308.2	306.3	304.7
55°	277.5	279.4	278.7	277.5	277.1	276.4	275.2	273.2	272.8	268.5	268.1
57.5°	246.0	245.6	244.8	242.8	242.4	241.2	241.2	239.8	237.4	235.1	233.1
60°	215.2	215.2	214.1	213.6	212.1	211.7	211.3	209.7	207.1	205.1	202.0
62.5°	185.6	186.5	185.6	184.5	183.3	181.7	181.0	179.8	177.5	175.6	172.8
65°	159.6	159.2	158.8	157.3	156.8	155.3	154.9	152.5	150.2	148.7	145.5
67.5°	134.6	133.5	133.5	132.7	131.9	130.7	130.0	127.7	124.9	123.3	120.3
70°	110.9	110.1	110.1	110.1	108.2	107.0	106.6	105.4	101.5	100.1	96.9
72.5°	89.2	88.7	88.3	87.1	86.0	86.0	84.4	82.1	80.2	78.3	75.9
75°	68.1	68.9	68.1	66.5	66.2	65.4	64.2	62.3	60.3	58.0	55.3
77.5°	49.8	49.1	48.2	48.2	47.5	45.9	45.6	44.0	41.7	40.1	37.3
80°	32.7	32.3	31.5	30.8	30.4	29.9	29.6	28.0	25.7	24.5	22.2
82.5°	17.9	17.6	17.6	17.1	16.0	16.0	15.5	14.0	12.8	12.1	10.9
85°	6.2	6.2	6.2	5.8	5.8	5.8	5.5	5.1	4.7	4.2	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: P843538

CATALOG NUMBER: LD4C25DE010B40 EU4C25B40 4LBLWWH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8
2.5°	1013.4	1012.7	1012.3	1011.8	1011.4	1011.1	1010.7	1009.9	1009.5	1009.1	1008.3
5°	1013.4	1011.8	1011.1	1009.9	1009.1	1008.3	1007.2	1006.0	1004.9	1003.7	1002.5
7.5°	1011.8	1009.5	1007.9	1005.6	1004.9	1003.7	1001.4	999.8	997.9	995.6	992.8
10°	1007.9	1005.3	1002.1	999.0	997.9	995.9	992.8	990.1	987.0	983.8	981.1
12.5°	1001.7	997.5	993.5	989.3	987.0	985.0	980.7	976.8	972.9	969.4	964.8
15°	992.4	987.3	982.3	976.4	973.8	971.3	965.2	960.4	954.3	949.5	944.9
17.5°	977.3	969.4	963.2	955.8	951.9	949.2	943.7	936.3	930.5	925.4	920.0
20°	951.1	943.7	935.2	927.0	922.8	919.2	911.5	903.6	897.8	892.3	886.5
22.5°	916.9	907.6	901.3	891.2	887.7	883.4	874.1	867.0	860.5	855.0	849.6
25°	875.3	867.0	858.5	849.2	844.9	839.9	832.0	824.6	820.4	814.2	807.5
27.5°	827.4	820.7	810.3	802.1	797.8	794.0	786.6	779.9	773.7	769.4	763.2
30°	776.8	769.0	759.7	751.1	748.8	744.2	737.5	732.4	725.9	723.1	720.4
32.5°	721.1	712.2	705.2	699.7	695.1	691.2	687.7	679.5	678.4	671.3	670.5
35°	660.4	656.6	649.9	645.3	641.3	638.6	632.8	628.9	624.6	623.5	620.7
37.5°	603.2	598.5	592.3	588.0	585.3	585.0	580.6	578.3	575.2	573.7	570.5
40°	543.3	541.3	535.9	535.2	530.8	530.4	528.1	525.4	522.7	522.7	523.0
42.5°	488.0	485.7	483.3	480.6	478.3	478.3	477.1	476.4	475.6	474.5	476.4
45°	436.3	433.1	431.6	428.9	430.0	427.7	427.0	427.0	425.8	425.4	428.1
47.5°	388.0	384.6	383.0	382.1	382.1	382.5	379.1	380.2	379.8	380.6	381.8
50°	344.0	340.9	338.5	338.5	339.0	337.4	335.9	337.1	335.9	336.6	339.4
52.5°	303.1	300.1	298.9	298.9	296.6	296.1	297.0	295.4	295.8	296.1	297.7
55°	265.5	263.5	261.6	259.5	260.0	259.2	257.6	257.2	258.1	258.4	260.4
57.5°	231.5	228.9	226.1	225.4	224.5	224.5	222.6	222.2	222.9	221.0	221.0
60°	199.3	197.7	194.2	193.0	193.0	191.1	189.5	190.3	188.4	187.9	188.4
62.5°	169.3	168.2	165.8	163.4	162.7	161.9	159.9	159.2	158.4	156.8	154.5
65°	143.2	140.5	137.8	136.2	135.1	133.1	131.9	130.4	128.1	127.2	124.9
67.5°	117.2	114.4	111.7	110.5	109.4	108.2	106.3	104.3	101.5	98.5	95.7
70°	94.1	90.6	89.2	86.0	85.2	83.7	80.9	79.0	76.3	72.8	70.0
72.5°	72.0	69.7	67.4	64.6	62.6	61.4	59.1	56.1	52.9	51.0	48.2
75°	51.7	50.6	47.5	44.3	43.6	42.0	39.3	37.3	35.0	31.9	29.6
77.5°	35.0	32.7	30.8	28.0	27.3	25.7	24.1	22.2	20.6	18.7	17.1
80°	20.6	18.7	17.6	15.5	14.8	14.0	12.8	11.3	10.2	9.3	9.0
82.5°	10.2	8.6	8.1	7.0	6.7	6.2	5.5	5.1	4.2	4.2	4.2
85°	3.5	2.7	2.7	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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: P843538

CATALOG NUMBER: LD4C25DE010B40 EU4C25B40 4LBLWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8
2.5°	1007.9	1007.6	1007.2	1006.8	1006.8	1006.4	1006.4	1006.0	1006.0	1005.6	1005.6
5°	1000.9	999.8	999.0	998.2	998.2	997.0	996.3	995.6	995.1	995.1	994.4
7.5°	991.2	989.6	988.1	987.0	986.6	984.7	983.1	983.1	981.5	980.7	979.9
10°	978.4	975.7	973.3	972.2	970.6	969.4	967.5	966.4	965.2	963.2	962.9
12.5°	960.9	959.0	955.5	953.9	953.1	950.7	947.6	946.1	945.7	944.1	943.0
15°	941.0	936.7	933.7	931.7	931.7	927.8	926.3	923.9	922.4	921.2	920.8
17.5°	915.4	911.0	908.0	905.2	904.5	901.3	899.0	898.2	896.2	897.1	895.1
20°	882.3	878.8	876.5	873.0	873.0	871.0	870.2	868.2	867.5	866.7	867.5
22.5°	846.8	842.5	838.7	838.3	838.3	835.5	835.2	834.8	833.2	834.4	834.0
25°	805.2	802.1	799.8	799.4	799.4	797.8	796.3	797.0	798.2	797.8	798.9
27.5°	762.0	758.9	758.1	757.7	756.9	756.5	757.4	757.4	758.5	760.0	761.6
30°	715.3	714.5	713.4	713.0	712.2	714.1	715.0	716.1	715.7	718.0	719.6
32.5°	668.6	667.0	666.6	667.5	668.6	668.2	670.5	671.3	672.1	674.9	676.0
35°	621.5	621.1	620.3	620.3	620.7	623.9	623.9	626.5	628.1	628.9	632.0
37.5°	570.9	572.5	573.2	574.4	574.8	576.0	576.7	579.5	581.1	582.5	584.1
40°	524.6	523.8	527.3	525.0	525.7	529.2	530.8	530.4	532.7	535.2	536.6
42.5°	475.2	476.4	477.1	477.9	479.8	480.3	482.2	484.9	485.7	488.4	489.2
45°	427.3	427.7	429.3	430.8	431.9	435.1	435.9	437.0	439.3	439.3	440.5
47.5°	382.1	383.7	383.7	386.0	388.0	387.6	390.4	391.1	390.7	392.7	393.4
50°	339.0	341.3	340.9	342.5	343.2	343.6	346.0	346.8	345.2	347.1	347.5
52.5°	297.7	298.9	300.5	300.8	300.1	302.0	301.2	302.8	302.4	304.0	302.4
55°	260.0	259.5	259.5	260.4	259.5	260.4	261.1	259.5	258.4	260.0	259.5
57.5°	222.2	222.2	221.5	222.6	221.5	220.3	219.9	218.7	217.6	217.6	217.1
60°	186.8	186.0	184.5	184.0	184.0	182.1	181.4	179.8	179.8	178.2	176.7
62.5°	153.7	151.8	150.6	150.6	149.9	147.9	144.4	142.0	141.3	139.0	138.6
65°	122.6	120.7	119.5	117.2	115.2	114.4	110.9	108.2	107.0	104.7	105.1
67.5°	94.1	91.1	87.6	86.0	84.8	82.1	80.9	79.0	77.8	77.8	77.8
70°	67.7	65.0	61.4	60.3	59.5	57.2	56.1	55.6	56.8	56.5	56.8
72.5°	45.6	42.8	41.2	40.5	39.7	38.5	39.3	39.7	38.9	39.3	39.7
75°	27.6	26.9	25.7	25.3	25.3	25.7	25.3	25.3	25.7	25.7	26.1
77.5°	16.0	15.2	15.2	14.8	15.5	15.2	15.2	15.2	15.5	15.5	15.5
80°	8.6	8.6	8.6	8.6	9.0	8.6	9.0	9.0	9.0	9.0	9.0
82.5°	4.2	4.2	4.2	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.2
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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: P843538

CATALOG NUMBER: LD4C25DE010B40 EU4C25B40 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8	1011.8
2.5°	1004.9	1004.9	1004.9	1004.1	1004.4	1004.4	1004.1	1004.1
5°	994.0	993.5	992.8	992.8	992.0	992.8	992.4	992.8
7.5°	979.2	979.2	978.0	978.0	977.6	977.3	976.8	977.3
10°	961.6	961.6	960.9	960.4	960.9	959.3	959.3	959.0
12.5°	942.1	941.4	940.7	941.0	940.7	939.5	939.1	939.5
15°	919.6	918.4	918.9	917.7	917.7	917.3	918.0	918.0
17.5°	894.8	893.9	893.2	893.6	892.7	893.2	892.7	892.3
20°	867.0	866.7	866.7	865.1	865.6	865.1	865.6	866.7
22.5°	835.2	834.8	835.2	834.0	834.8	834.8	836.0	836.0
25°	800.1	799.8	800.5	800.9	801.3	802.4	801.3	801.7
27.5°	761.2	762.3	763.6	763.9	765.5	764.4	763.6	764.8
30°	721.9	721.9	721.5	723.1	724.3	725.4	723.5	723.5
32.5°	676.8	678.7	678.7	679.1	680.3	680.3	680.3	681.9
35°	633.6	634.8	635.1	633.6	634.4	633.9	636.7	636.7
37.5°	585.3	585.3	585.7	588.5	588.5	587.3	588.0	588.0
40°	539.4	539.8	538.2	539.0	541.0	540.1	541.0	541.7
42.5°	489.2	491.9	490.3	491.2	490.7	491.2	491.5	491.5
45°	441.4	442.1	442.1	442.5	443.3	444.1	441.7	441.4
47.5°	394.6	395.0	396.2	394.3	396.6	394.3	396.6	393.9
50°	347.5	349.1	348.0	348.7	347.5	347.5	347.1	346.8
52.5°	302.8	302.4	302.4	302.0	302.0	302.8	302.0	303.1
55°	258.1	258.4	257.6	257.2	256.9	258.1	256.9	256.1
57.5°	215.7	216.4	214.8	215.7	212.9	214.1	214.5	214.8
60°	176.3	175.1	175.1	173.6	173.6	174.7	173.1	173.1
62.5°	136.6	137.4	136.2	137.8	137.8	139.3	138.6	139.3
65°	104.7	105.1	105.4	105.4	105.4	107.8	107.0	105.9
67.5°	79.0	79.4	79.7	79.4	80.6	79.7	79.7	80.2
70°	57.2	57.6	58.0	58.0	57.6	58.0	58.0	58.0
72.5°	39.7	40.1	39.7	40.1	40.5	40.1	40.1	40.5
75°	26.1	26.1	25.7	25.7	25.7	25.7	26.1	25.7
77.5°	15.2	15.5	15.2	15.5	15.5	15.5	15.5	15.5
80°	9.0	9.0	9.0	8.6	9.0	9.0	9.0	8.6
82.5°	4.7	4.7	4.2	4.2	4.7	4.7	4.7	4.7
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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)