

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: P843495

Luminaire Tested: **LD4C25DE010B2750 EU4C25B27 4LBDWWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843495
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: LD4C25DE010B2750 EU4C25B27 4LBLDWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

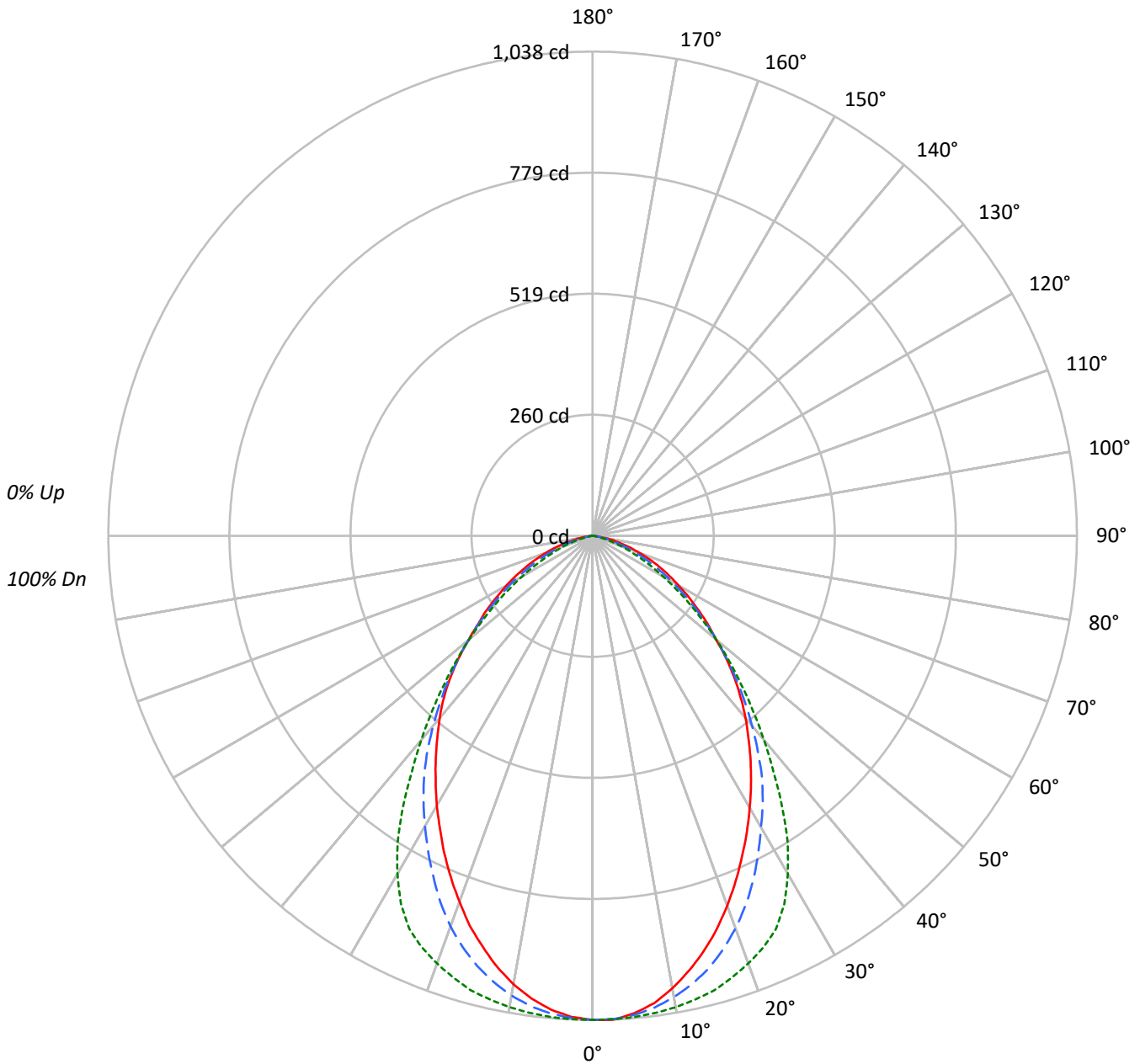
Lumens per Lamp: N/A
Luminaire Lumens: 1905.9 lumens
Efficiency: N/A
Efficacy: 64.0 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	127497	127497	127497
5°	126726	127688	125777
10°	122877	128005	121805
15°	117229	128294	115944
20°	110304	127561	109088
25°	102736	126051	101896
30°	95471	118693	94691
35°	88531	106168	87886
40°	81839	91557	81775
45°	74570	78149	75178
50°	65862	66072	66244
55°	59009	54018	59266
60°	52164	42900	52262
65°	45901	32703	45465
70°	38075	23420	38075
75°	29667	13433	28575
80°	19244	3325	18395
85°	7189	987	5497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.4	5.1
10°-20°	269.5	14.1
20°-30°	376.8	19.8
30°-40°	397.4	20.9
40°-50°	338.1	17.7
50°-60°	238.6	12.5
60°-70°	135.2	7.1
70°-80°	48.3	2.5
80°-90°	4.6	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°	743.7	39.0
0°-40°	1141.1	59.9
0°-60°	1717.8	90.1
0°-90°	1905.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1905.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1038	1038	1038	1038	1038	
5°	1028	1031	1035	1028	1020	97
15°	922	960	1009	955	912	258
25°	758	815	930	807	752	349
35°	590	633	708	630	586	369
45°	429	435	450	437	433	330
55°	276	266	252	267	277	248
65°	158	136	112	136	156	156
75°	62	43	28	42	60	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°	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8
2.5°	1038.5	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.6	1036.9	1036.9
5°	1027.6	1026.9	1026.4	1026.4	1026.4	1026.4	1026.9	1028.4	1029.2	1030.3	1031.1
7.5°	1010.6	1009.0	1009.8	1009.8	1010.6	1011.3	1012.5	1014.1	1016.4	1018.0	1019.9
10°	985.0	983.4	985.3	986.1	988.5	989.6	991.5	993.9	998.5	1000.8	1004.0
12.5°	955.0	954.3	955.0	958.2	960.5	962.0	964.4	969.4	974.1	979.2	984.6
15°	921.7	919.7	920.9	924.8	928.7	931.4	933.4	939.9	946.2	953.9	960.5
17.5°	884.4	881.7	884.8	887.9	893.0	895.3	898.0	905.4	913.9	922.5	929.9
20°	843.7	842.9	844.8	849.1	854.1	857.3	859.6	867.8	875.1	886.7	895.3
22.5°	801.4	802.2	803.7	808.3	811.8	816.2	819.7	827.0	835.5	846.4	857.3
25°	757.9	759.1	761.8	764.9	770.7	773.0	777.4	785.1	792.5	802.5	814.6
27.5°	716.0	716.4	719.5	721.1	726.5	731.6	733.5	741.6	750.2	757.9	768.4
30°	673.0	674.1	676.0	680.3	685.8	687.7	690.0	697.4	704.0	713.7	721.8
32.5°	631.8	631.0	633.3	635.6	641.9	645.4	646.5	655.1	660.9	670.6	678.4
35°	590.3	588.4	591.9	594.2	599.6	602.6	604.2	610.9	616.3	624.4	633.0
37.5°	548.7	550.3	551.9	553.8	556.5	557.3	561.9	563.5	570.5	576.7	581.4
40°	510.3	509.6	508.7	510.7	514.2	515.8	516.1	520.5	521.9	528.2	531.7
42.5°	469.2	469.6	469.2	469.6	471.5	471.5	472.7	475.4	476.6	478.5	482.8
45°	429.2	429.2	428.0	428.4	428.9	428.4	428.9	430.0	432.4	432.4	435.4
47.5°	387.7	386.9	388.5	387.3	386.6	386.1	387.3	386.1	388.5	388.5	389.2
50°	344.6	344.6	346.6	346.2	346.9	345.4	345.7	345.7	346.2	345.7	347.3
52.5°	311.3	310.4	309.7	307.8	308.5	306.9	306.9	307.3	306.2	305.8	303.9
55°	275.5	276.4	275.2	274.4	274.4	272.9	272.4	270.1	268.5	267.4	266.2
57.5°	243.4	244.1	243.7	241.8	239.4	239.9	239.0	236.7	233.2	230.9	229.0
60°	212.3	213.0	212.3	210.4	209.5	208.0	207.6	204.5	201.8	198.7	196.4
62.5°	184.3	184.3	183.9	181.3	179.3	179.7	177.8	175.5	172.0	167.6	164.1
65°	157.9	157.6	155.6	154.4	152.9	150.9	149.8	146.3	143.6	140.1	135.5
67.5°	131.6	130.4	129.7	128.5	125.0	124.6	123.0	119.9	116.0	113.3	109.5
70°	106.0	105.6	104.0	104.0	101.3	100.2	97.8	95.1	91.6	87.7	84.6
72.5°	83.9	83.0	81.5	80.0	77.6	76.9	74.9	72.1	69.1	65.2	61.3
75°	62.5	61.7	61.3	59.3	57.4	55.5	54.7	52.0	48.9	46.2	42.7
77.5°	43.9	43.0	41.9	40.7	39.6	38.4	37.2	34.9	32.3	29.9	26.8
80°	27.2	26.4	25.6	25.3	24.0	23.7	22.1	20.9	18.6	17.0	15.1
82.5°	14.0	14.0	13.2	12.8	12.1	11.6	11.2	10.0	8.9	7.7	6.6
85°	5.1	5.1	4.7	4.2	4.2	3.9	3.9	3.5	2.7	2.7	1.9
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°	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8
2.5°	1037.3	1036.9	1037.3	1037.3	1037.8	1037.8	1037.8	1037.3	1037.8	1037.3	1037.3
5°	1031.1	1032.3	1033.1	1033.8	1034.3	1034.6	1034.6	1035.0	1035.4	1035.4	1035.0
7.5°	1021.5	1023.8	1026.1	1027.6	1028.4	1029.2	1030.3	1031.1	1031.9	1031.5	1031.1
10°	1008.7	1012.5	1015.6	1018.7	1020.3	1021.5	1023.4	1025.0	1025.7	1026.1	1025.0
12.5°	990.4	995.8	1000.8	1005.9	1008.2	1009.8	1013.6	1016.4	1018.0	1018.0	1016.8
15°	967.5	975.2	982.6	989.2	993.1	995.4	1001.3	1005.2	1007.5	1008.7	1006.7
17.5°	939.9	948.9	957.8	966.4	970.2	973.7	981.8	987.3	992.3	993.1	990.8
20°	904.6	915.9	926.0	936.4	940.7	946.2	955.5	964.4	972.2	975.7	969.0
22.5°	865.0	877.4	886.7	899.6	905.4	911.3	923.2	934.5	948.1	955.5	943.8
25°	823.9	834.4	845.6	858.1	866.2	872.4	886.4	900.8	919.0	929.9	913.6
27.5°	779.7	789.0	802.5	816.2	822.3	830.1	846.7	862.3	879.7	889.5	877.4
30°	733.9	745.5	758.3	770.7	779.7	787.0	800.6	813.8	828.6	836.7	827.8
32.5°	688.4	699.7	710.6	724.2	729.2	735.8	747.9	759.1	770.4	777.7	767.2
35°	640.7	650.8	660.9	670.2	672.5	680.3	690.0	696.6	702.1	707.9	700.9
37.5°	588.7	596.5	601.5	611.6	615.5	616.7	624.4	629.1	634.9	636.1	635.6
40°	535.9	542.9	547.2	553.4	556.5	556.5	561.9	566.3	570.5	570.9	570.5
42.5°	486.6	490.1	493.6	497.5	496.8	501.4	503.8	505.7	508.7	508.7	509.6
45°	437.0	439.7	442.8	443.6	446.6	446.6	448.6	449.4	451.0	449.8	448.2
47.5°	390.8	392.0	392.4	395.9	396.6	393.9	396.2	396.6	396.2	396.2	395.4
50°	346.9	347.7	347.3	346.2	346.6	347.7	346.6	345.0	345.7	345.7	346.6
52.5°	304.3	302.7	302.0	302.0	300.4	300.4	298.5	297.6	297.3	295.7	297.6
55°	265.0	262.7	259.2	258.5	257.3	256.9	254.6	252.7	251.8	252.2	251.8
57.5°	227.4	223.9	221.6	220.8	219.7	217.3	214.6	212.7	212.3	211.5	211.5
60°	193.2	189.4	185.9	182.4	182.8	181.3	178.5	177.4	176.2	174.6	175.8
62.5°	162.2	157.9	154.1	150.6	148.3	147.1	145.1	143.2	142.0	140.9	142.5
65°	131.6	128.1	123.8	120.3	119.1	117.9	116.0	113.0	112.5	112.5	113.3
67.5°	104.0	100.2	96.2	93.9	92.3	90.9	90.0	88.5	87.4	86.5	86.9
70°	80.0	76.0	73.0	70.6	69.5	69.1	66.3	66.0	65.6	65.2	64.8
72.5°	58.2	55.1	52.4	50.9	49.3	48.1	47.4	46.2	45.8	45.8	45.8
75°	40.0	37.7	34.6	32.6	31.8	30.7	29.5	28.8	27.9	28.3	28.3
77.5°	24.0	21.7	19.8	18.2	17.9	16.7	15.5	14.7	13.5	13.5	14.0
80°	13.2	11.2	9.7	8.6	7.7	7.4	6.2	5.8	5.1	4.7	4.7
82.5°	5.8	4.7	3.9	3.5	3.1	2.7	2.3	1.9	1.9	1.6	1.9
85°	1.9	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°	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8
2.5°	1036.9	1036.9	1036.6	1036.6	1036.6	1035.7	1035.7	1035.4	1035.0	1034.6	1033.8
5°	1034.3	1033.8	1033.1	1032.7	1032.3	1031.1	1029.9	1029.2	1028.0	1026.4	1025.7
7.5°	1030.3	1029.2	1027.6	1026.9	1025.7	1022.9	1021.0	1019.1	1017.1	1014.5	1011.3
10°	1023.8	1021.5	1019.1	1017.5	1015.6	1012.2	1008.2	1005.2	1000.8	997.0	992.7
12.5°	1014.5	1011.7	1007.1	1004.8	1002.4	997.3	992.3	985.7	979.9	974.5	969.4
15°	1002.8	997.8	992.3	989.2	985.7	977.6	969.9	962.9	955.0	948.5	940.3
17.5°	985.7	978.3	970.6	967.1	962.4	953.1	943.8	934.1	925.2	917.1	906.9
20°	960.1	952.0	941.8	936.4	932.5	920.1	911.3	900.4	891.1	880.9	869.7
22.5°	930.2	919.0	907.8	899.9	895.7	883.2	871.3	861.5	851.5	839.8	831.6
25°	896.5	882.5	869.0	861.1	854.6	841.3	829.7	819.7	807.2	797.1	789.0
27.5°	858.5	842.5	826.6	818.8	812.7	798.3	785.8	775.4	763.4	754.4	745.8
30°	813.0	798.6	783.5	777.4	770.0	755.3	740.9	731.6	718.3	709.0	699.7
32.5°	756.4	747.0	735.1	726.5	722.6	709.0	697.0	685.8	674.5	667.2	657.8
35°	694.2	686.1	676.0	671.4	666.3	657.8	648.1	638.4	629.5	622.5	614.0
37.5°	631.4	623.3	617.0	612.1	608.9	601.2	595.3	587.9	581.7	575.1	570.5
40°	566.3	563.9	557.3	554.9	554.2	545.6	540.6	534.7	530.9	527.0	524.3
42.5°	508.4	504.5	499.4	499.8	497.5	492.9	489.4	485.5	482.8	480.8	478.2
45°	451.3	448.2	445.9	447.8	444.0	442.4	439.7	439.3	437.3	433.8	432.7
47.5°	397.0	396.6	397.0	395.9	395.0	394.3	394.7	392.7	390.8	389.6	388.0
50°	347.3	347.7	348.5	349.7	346.9	348.1	347.7	347.3	347.3	346.2	346.9
52.5°	299.2	299.6	300.4	301.5	302.0	302.0	303.1	303.9	305.4	307.3	307.3
55°	253.8	256.5	258.1	260.0	258.8	261.1	262.3	265.8	266.9	266.9	268.5
57.5°	213.4	216.2	217.3	219.7	220.4	222.4	225.5	227.4	230.1	232.5	234.8
60°	176.6	177.8	180.9	184.3	183.6	188.3	190.6	193.7	197.1	198.7	201.8
62.5°	143.6	145.1	147.4	148.6	151.3	153.7	159.1	162.2	165.3	169.2	172.3
65°	114.1	115.6	117.9	120.3	121.4	125.0	127.7	133.2	135.8	140.1	143.6
67.5°	87.4	89.7	91.6	93.2	93.9	97.4	101.6	104.0	109.0	113.3	116.0
70°	65.2	67.2	69.5	69.1	70.6	73.4	76.5	80.0	83.9	87.7	90.9
72.5°	45.4	47.4	48.9	49.3	50.9	52.8	55.1	57.9	60.9	64.8	69.1
75°	28.8	29.1	30.7	31.4	32.3	34.6	36.5	39.2	41.9	45.1	47.7
77.5°	14.4	15.5	16.3	17.0	17.5	19.4	21.4	23.7	26.0	29.1	31.8
80°	5.4	5.8	7.0	7.4	8.1	9.3	10.9	12.1	14.0	16.3	17.9
82.5°	1.9	2.3	2.7	2.7	3.1	3.9	4.2	5.4	6.6	7.4	8.1
85°	0.7	0.7	0.7	0.7	0.7	1.2	1.2	1.6	1.9	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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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8	1037.8
2.5°	1033.4	1033.4	1033.1	1032.7	1032.7	1032.7	1032.3	1032.3
5°	1024.1	1022.9	1022.6	1021.8	1021.5	1021.0	1019.9	1019.9
7.5°	1009.0	1007.5	1006.3	1005.2	1003.6	1002.4	1002.4	1000.8
10°	988.8	985.7	984.1	982.6	980.6	978.3	977.6	976.4
12.5°	964.4	958.2	956.6	953.9	950.8	949.2	946.5	946.5
15°	934.1	927.5	924.1	922.5	918.6	915.9	914.7	911.6
17.5°	898.8	893.7	888.3	886.0	881.7	878.3	876.7	876.2
20°	863.1	855.0	851.5	847.9	842.9	839.8	837.4	834.4
22.5°	822.0	814.6	809.5	807.2	803.0	797.5	793.6	793.6
25°	778.5	771.9	769.2	764.1	759.1	757.2	752.5	751.7
27.5°	737.0	730.4	724.9	722.3	716.4	713.7	709.8	708.3
30°	693.9	686.1	682.3	681.9	674.9	672.1	669.1	667.5
32.5°	650.8	644.2	640.3	638.0	634.9	630.2	627.5	626.0
35°	608.1	603.8	600.3	597.7	592.6	590.3	587.9	586.0
37.5°	563.5	559.6	558.0	555.7	553.4	549.1	548.4	546.8
40°	520.5	515.4	515.4	513.8	511.5	511.2	509.9	509.9
42.5°	475.4	473.1	472.7	473.1	471.5	470.8	469.6	472.3
45°	430.8	431.9	430.0	430.4	429.6	431.2	431.2	432.7
47.5°	389.6	388.0	388.9	389.6	390.8	390.8	390.4	390.1
50°	345.7	347.3	348.9	346.9	347.7	348.1	346.2	346.6
52.5°	308.1	308.5	309.7	308.5	309.7	309.3	310.1	308.5
55°	271.7	271.7	273.2	273.6	274.0	275.2	275.5	276.7
57.5°	236.4	238.3	240.2	239.9	241.4	242.9	241.8	242.9
60°	205.7	207.2	209.2	209.9	211.1	211.8	211.8	212.7
62.5°	174.6	177.8	179.3	180.9	180.9	182.4	183.9	184.3
65°	146.7	150.2	151.3	152.5	153.3	154.8	156.7	156.4
67.5°	120.3	122.7	124.2	125.0	127.3	128.1	129.7	131.1
70°	94.3	97.4	98.6	100.2	102.1	103.6	105.1	106.0
72.5°	72.1	74.6	75.3	76.9	78.8	80.4	81.1	82.3
75°	50.4	54.4	54.7	55.8	57.4	59.3	60.5	60.2
77.5°	33.4	36.1	36.5	38.1	39.6	41.1	41.6	41.9
80°	19.8	21.4	21.7	22.5	23.7	24.4	25.3	26.0
82.5°	9.3	10.0	10.9	10.9	11.6	12.4	12.4	12.8
85°	3.1	3.1	3.5	3.5	3.9	3.9	4.2	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



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













(END OF REPORT)