

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: P843511

Luminaire Tested: **LD4C25DE010B2750 EU4C25B30 4LBLWWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843511
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: LD4C25DE010B2750 EU4C25B30 4LBLWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

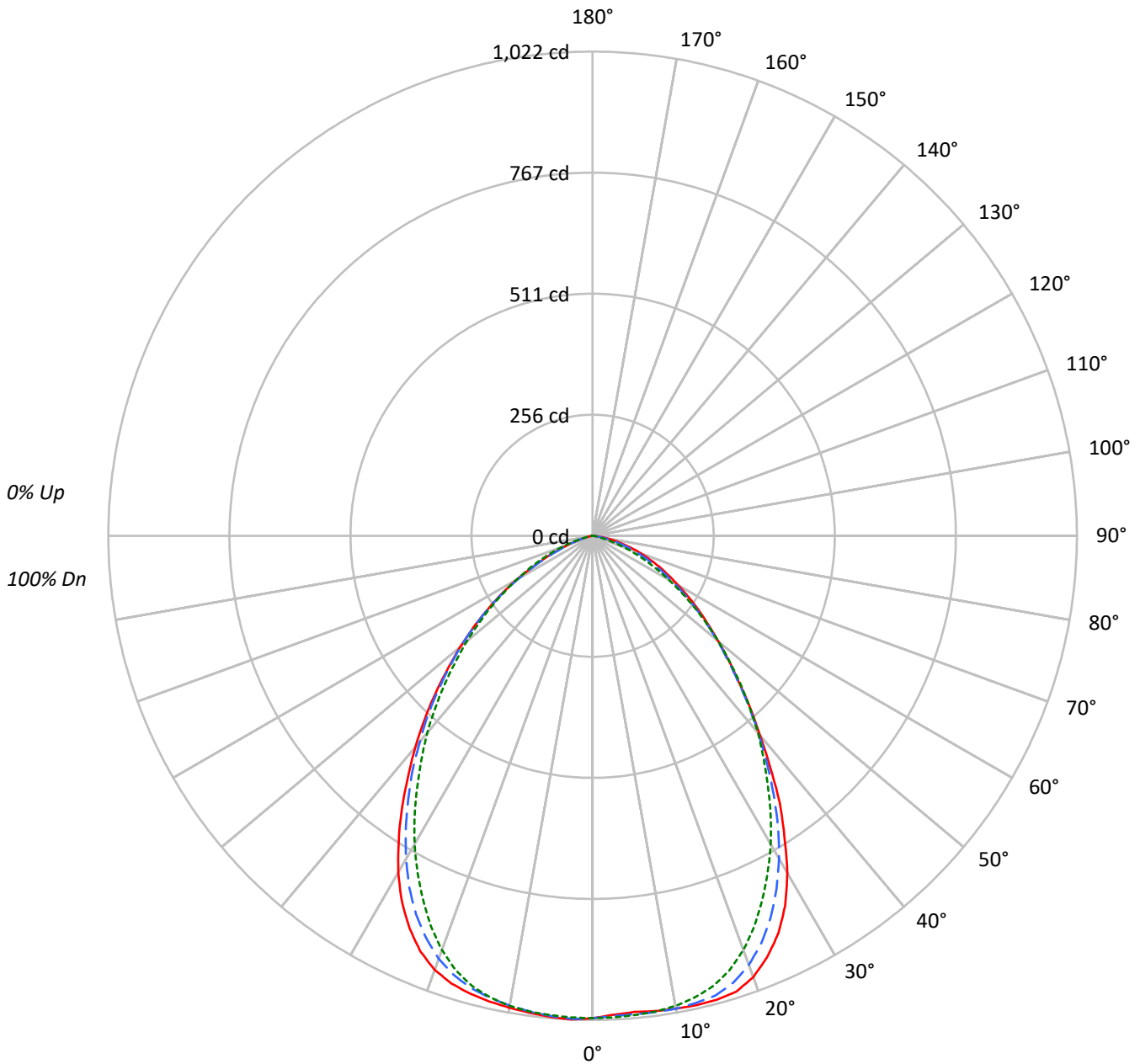
Lumens per Lamp: N/A
Luminaire Lumens: 1952.4 lumens
Efficiency: N/A
Efficacy: 65.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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									
RC	80									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°	125114	125114	125114
5°	124408	125247	125740
10°	126458	125697	126183
15°	128930	125140	127238
20°	129587	121639	127443
25°	125604	114868	123896
30°	116580	106593	116367
35°	103229	96690	105178
40°	88013	87083	93289
45°	75612	76481	81259
50°	65996	66149	69665
55°	58302	55860	57745
60°	51107	45579	45382
65°	45261	35349	31453
70°	38614	24318	18678
75°	31233	13053	8544
80°	21366	3184	2193
85°	6343	987	987



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.8	5.0
10°-20°	280.2	14.4
20°-30°	404.8	20.7
30°-40°	418.5	21.4
40°-50°	345.8	17.7
50°-60°	238.7	12.2
60°-70°	124.9	6.4
70°-80°	39.3	2.0
80°-90°	3.3	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°	781.8	40.0
0°-40°	1200.3	61.5
0°-60°	1784.8	91.4
0°-90°	1952.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1952.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1018	1018	1018	1018	1018	
5°	1009	1014	1016	1018	1020	97
15°	1014	1004	984	989	1000	286
25°	927	889	847	881	914	423
35°	688	665	645	678	701	427
45°	435	433	440	460	468	339
55°	272	264	261	268	270	245
65°	156	141	122	101	108	154
75°	66	52	28	19	18	71
85°	4	2	1	1	1	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°	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4
2.5°	1011.8	1012.3	1012.3	1013.0	1013.0	1013.0	1013.4	1013.4	1013.7	1014.2	1014.6
5°	1008.8	1008.8	1009.6	1009.9	1010.7	1011.1	1011.8	1012.3	1013.0	1013.4	1013.7
7.5°	1011.8	1011.8	1012.3	1012.6	1012.6	1013.0	1013.0	1013.4	1013.7	1014.2	1014.2
10°	1013.7	1013.7	1013.7	1013.7	1014.2	1014.2	1014.2	1013.7	1013.7	1013.7	1013.4
12.5°	1014.6	1014.6	1014.2	1013.7	1014.2	1013.7	1013.7	1012.6	1011.8	1011.1	1009.9
15°	1013.7	1013.7	1013.4	1013.0	1012.6	1011.8	1011.5	1009.6	1008.0	1005.7	1004.2
17.5°	1008.8	1008.0	1007.3	1006.5	1005.0	1003.8	1003.1	999.7	996.9	993.1	988.9
20°	991.2	990.5	989.3	987.4	985.5	983.9	981.7	976.7	974.0	968.3	964.0
22.5°	962.6	961.8	962.1	958.7	954.8	952.6	951.0	946.9	942.2	934.9	930.4
25°	926.6	924.3	924.3	919.0	917.1	915.5	913.6	908.6	901.7	895.2	889.2
27.5°	880.0	876.9	875.3	874.6	870.0	866.5	863.9	860.1	854.4	848.5	840.2
30°	821.8	821.5	819.6	816.1	812.6	811.1	808.0	801.6	796.2	792.0	786.7
32.5°	753.4	752.9	752.9	752.9	750.7	750.3	745.7	742.2	738.0	731.6	728.1
35°	688.3	688.0	688.3	682.6	681.1	680.0	679.5	677.2	671.5	668.4	665.4
37.5°	614.9	616.1	615.3	613.7	615.6	612.3	614.9	609.9	607.6	606.9	603.5
40°	548.8	551.9	548.8	549.1	551.0	547.6	547.6	546.9	545.3	544.6	543.8
42.5°	492.1	488.3	490.6	488.7	490.6	489.5	487.6	488.7	489.2	487.6	487.1
45°	435.2	436.0	436.7	435.5	435.5	434.4	437.4	435.5	435.5	436.0	433.3
47.5°	388.9	387.7	388.6	387.7	388.2	387.4	388.2	388.6	387.7	387.7	385.5
50°	345.3	344.6	347.2	344.9	344.9	344.6	344.9	344.2	343.0	343.0	343.8
52.5°	307.5	306.0	305.6	307.5	304.8	304.8	305.1	304.4	302.9	302.1	300.2
55°	272.2	271.9	272.2	270.8	270.0	270.0	268.1	267.3	266.9	265.0	263.9
57.5°	239.3	238.3	238.6	238.3	236.7	236.4	234.8	234.8	233.3	231.7	229.8
60°	208.0	208.0	209.2	207.6	206.5	205.7	205.0	204.2	201.5	198.8	196.5
62.5°	180.1	180.5	180.1	179.0	178.2	177.5	176.6	174.4	172.1	170.6	167.8
65°	155.7	155.3	154.1	153.4	151.5	151.5	149.9	148.8	146.1	143.8	141.1
67.5°	130.4	129.7	129.7	129.7	127.3	126.9	126.2	123.8	121.6	118.6	116.2
70°	107.5	108.2	107.0	106.0	104.8	104.4	103.2	101.0	98.3	95.2	93.3
72.5°	85.7	86.4	85.2	84.9	82.6	81.9	81.4	79.5	76.5	74.6	71.5
75°	65.8	66.2	65.4	64.6	63.1	62.7	60.8	59.2	57.3	54.3	51.6
77.5°	47.4	46.6	46.6	45.2	43.6	43.6	43.3	40.9	38.3	36.0	33.6
80°	30.2	29.8	28.7	27.9	26.8	26.3	26.0	24.1	22.2	20.6	19.1
82.5°	15.3	14.9	14.5	14.2	13.4	12.6	13.0	11.4	10.7	9.2	8.0
85°	4.5	5.0	5.0	4.5	4.2	4.2	4.2	3.8	3.1	2.6	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°	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4
2.5°	1014.9	1015.3	1015.6	1016.1	1016.1	1016.5	1016.8	1017.2	1017.5	1017.5	1018.0
5°	1014.2	1014.9	1014.9	1015.3	1015.3	1015.3	1015.6	1015.6	1015.6	1015.6	1016.1
7.5°	1014.6	1014.6	1014.6	1014.2	1014.2	1013.7	1013.7	1013.7	1013.0	1013.0	1013.0
10°	1012.6	1012.3	1011.8	1011.1	1010.7	1010.4	1009.6	1008.8	1008.0	1007.6	1006.9
12.5°	1008.8	1007.3	1005.7	1004.2	1003.5	1003.1	1001.6	1000.4	999.3	998.1	997.3
15°	1001.2	998.8	996.2	993.1	992.4	991.6	988.9	986.7	985.1	983.9	982.0
17.5°	985.8	981.3	978.2	973.7	971.8	970.9	966.8	964.5	961.8	961.0	959.5
20°	958.7	954.5	948.8	944.6	942.2	939.9	936.5	933.5	930.4	930.4	928.5
22.5°	924.7	919.3	912.1	906.7	906.3	901.7	898.7	895.2	894.1	891.8	891.8
25°	881.9	877.3	869.3	864.6	862.3	861.2	856.3	851.6	849.4	847.4	849.0
27.5°	834.5	827.5	821.5	815.6	813.7	811.5	806.9	805.0	800.7	800.4	800.0
30°	780.1	773.2	767.1	764.5	760.7	758.7	755.3	752.9	751.4	751.4	750.7
32.5°	723.1	717.1	714.0	708.2	706.3	703.6	701.3	699.1	699.8	699.1	699.4
35°	661.5	660.1	654.4	650.9	650.9	650.4	646.6	645.2	644.4	644.7	646.6
37.5°	603.1	598.5	594.6	592.4	594.3	592.0	591.6	591.6	593.9	592.4	595.4
40°	540.8	540.3	538.9	539.6	539.9	537.3	538.0	538.4	539.9	543.0	543.4
42.5°	486.4	486.1	486.1	486.1	485.2	483.8	485.2	488.0	487.6	489.9	491.8
45°	434.1	433.3	434.8	433.6	436.0	436.7	435.5	436.4	438.6	440.2	443.3
47.5°	386.2	386.2	386.7	387.4	385.1	387.0	387.7	389.3	390.5	391.2	392.7
50°	341.8	341.8	341.1	341.1	341.1	342.3	340.8	342.7	343.0	346.1	348.0
52.5°	301.0	299.1	300.2	299.4	297.9	297.1	297.9	298.3	300.6	301.3	303.6
55°	262.0	262.0	258.9	258.2	259.2	258.9	258.5	258.5	259.6	260.8	262.7
57.5°	227.5	225.3	222.9	222.5	221.5	221.8	221.8	221.5	220.6	221.0	221.5
60°	195.0	193.5	190.1	190.1	189.6	189.3	187.4	187.0	185.1	185.5	183.9
62.5°	165.2	164.5	159.8	158.3	158.3	157.2	155.3	154.8	152.2	152.2	150.7
65°	138.4	136.1	133.5	130.8	130.8	129.2	128.1	124.7	122.8	121.6	119.3
67.5°	113.9	110.5	107.9	105.6	104.0	103.6	101.0	98.7	95.6	93.7	90.2
70°	90.2	87.6	84.9	82.6	81.1	79.5	76.9	73.4	71.2	67.7	65.4
72.5°	68.1	65.8	63.5	60.4	58.5	57.3	54.7	51.6	47.8	45.5	42.4
75°	49.0	46.3	43.3	40.5	39.3	38.3	35.2	32.9	30.2	27.5	24.4
77.5°	31.7	28.7	26.3	23.4	23.0	22.2	19.1	16.8	14.9	13.4	11.4
80°	16.8	15.3	13.4	11.4	10.7	9.5	8.0	6.9	5.7	4.5	3.8
82.5°	7.3	6.1	5.0	4.2	3.8	3.5	2.6	2.3	1.9	1.9	1.5
85°	1.9	1.5	1.5	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°	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4
2.5°	1018.4	1018.7	1019.1	1019.1	1019.6	1019.9	1019.9	1020.3	1020.6	1021.0	1021.0
5°	1016.5	1016.5	1016.5	1016.8	1016.8	1016.8	1016.8	1017.5	1017.5	1018.0	1018.4
7.5°	1012.6	1012.6	1012.6	1012.6	1012.3	1012.6	1012.3	1012.3	1013.0	1013.4	1013.7
10°	1006.5	1006.1	1006.1	1005.7	1005.7	1005.7	1006.1	1006.5	1006.9	1007.3	1008.5
12.5°	996.9	996.6	996.6	996.2	996.2	996.6	996.9	997.7	999.3	1000.0	1001.6
15°	981.7	981.3	981.7	982.0	982.8	983.9	985.1	986.2	988.6	990.5	992.4
17.5°	959.5	959.8	960.2	961.0	962.1	963.7	966.8	969.9	972.5	975.6	978.6
20°	928.9	930.4	930.8	933.5	934.2	937.7	941.1	945.7	949.9	953.8	957.9
22.5°	892.2	893.3	894.9	897.9	899.8	904.4	908.6	914.0	918.6	923.5	929.7
25°	850.4	850.9	855.4	855.4	860.1	863.9	868.8	874.6	881.4	888.0	892.2
27.5°	803.1	805.0	808.5	809.9	813.4	819.6	823.7	830.6	837.4	843.3	847.8
30°	753.4	754.8	760.7	761.4	764.0	769.4	775.1	781.7	787.0	793.5	797.7
32.5°	701.0	705.1	708.6	711.3	712.1	720.0	723.1	727.8	733.9	740.3	744.6
35°	650.1	652.0	657.0	658.5	660.8	665.4	671.5	675.3	678.4	682.6	687.6
37.5°	596.2	601.9	603.1	607.6	608.5	612.6	615.6	620.3	624.1	627.9	628.7
40°	546.1	548.0	552.2	553.4	554.1	559.8	563.7	564.8	566.8	570.2	574.7
42.5°	495.2	497.1	501.7	500.6	504.1	506.7	508.6	513.2	515.1	516.2	516.2
45°	445.2	445.9	449.0	450.4	452.3	453.9	457.3	459.6	460.4	463.9	465.0
47.5°	397.4	398.1	400.4	403.1	402.3	404.2	408.0	409.2	409.5	411.8	413.0
50°	350.3	352.2	355.3	354.5	356.7	357.9	361.4	362.1	362.1	362.6	362.9
52.5°	306.3	307.9	308.6	309.4	310.5	312.4	314.0	313.2	314.8	316.2	315.1
55°	262.7	263.9	265.8	266.5	266.5	266.9	266.2	269.6	268.1	267.7	268.1
57.5°	222.9	221.5	221.0	222.9	223.7	223.4	222.2	223.7	223.7	222.9	221.8
60°	184.3	183.2	182.8	183.2	181.6	180.5	181.3	180.5	178.6	177.8	178.2
62.5°	149.1	148.0	144.9	144.9	144.2	143.8	140.8	141.1	139.6	137.3	138.0
65°	116.7	113.6	112.0	111.7	108.9	106.7	106.0	103.2	101.0	100.6	101.0
67.5°	87.6	84.1	81.4	80.3	78.8	76.9	74.1	71.9	72.7	72.2	73.8
70°	60.8	58.5	55.8	53.9	54.7	52.4	50.9	50.9	51.3	51.6	52.4
72.5°	40.5	37.4	36.3	35.2	34.4	32.9	33.6	33.6	33.3	33.6	32.9
75°	23.0	21.4	20.3	19.9	19.1	19.1	19.1	19.1	18.7	18.4	18.4
77.5°	10.4	9.5	9.2	8.8	8.8	8.8	8.5	8.0	8.0	8.0	7.6
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°	1.5	1.5	1.9	1.9	1.9	1.5	1.9	1.9	1.5	1.5	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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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4
2.5°	1021.5	1021.8	1021.8	1021.8	1022.2	1022.2	1022.2	1022.2
5°	1018.7	1019.1	1019.1	1019.1	1019.6	1019.6	1019.6	1019.6
7.5°	1014.2	1014.6	1014.6	1014.9	1014.9	1015.3	1015.3	1015.6
10°	1008.8	1009.6	1009.9	1010.4	1010.7	1011.1	1011.1	1011.5
12.5°	1003.1	1003.8	1004.2	1005.0	1005.7	1006.1	1006.5	1006.9
15°	994.7	996.2	996.9	997.3	998.8	999.7	1000.0	1000.4
17.5°	981.3	984.3	985.5	986.2	987.7	989.3	990.5	990.8
20°	962.1	965.6	967.1	969.0	971.3	973.2	974.0	974.8
22.5°	935.4	939.2	941.5	943.8	945.7	947.6	950.7	949.5
25°	897.2	903.6	906.3	907.4	911.7	914.0	915.5	914.0
27.5°	854.4	858.2	860.4	863.1	866.2	868.4	869.3	871.5
30°	802.6	809.2	808.8	811.5	815.3	817.6	818.4	820.3
32.5°	749.1	752.2	754.5	754.1	755.7	759.8	758.3	761.8
35°	692.1	692.5	696.3	696.0	699.1	699.1	699.1	701.3
37.5°	631.4	636.0	634.1	638.6	637.1	638.3	638.3	639.0
40°	575.9	577.5	577.5	578.9	580.1	578.9	579.7	581.7
42.5°	518.6	520.0	520.5	519.7	520.9	524.3	521.6	524.0
45°	465.0	466.2	467.7	466.5	468.4	467.3	468.4	467.7
47.5°	414.5	414.2	413.7	416.8	414.2	414.5	416.1	413.4
50°	362.9	365.2	363.7	364.8	365.6	365.6	364.5	364.5
52.5°	317.0	316.7	315.5	316.7	315.9	316.2	317.0	316.2
55°	269.6	271.2	270.3	270.0	270.3	270.3	272.7	269.6
57.5°	222.9	222.2	223.4	226.0	223.4	225.3	226.4	226.8
60°	178.6	178.6	180.9	179.7	182.0	183.9	185.5	184.7
62.5°	136.1	138.0	138.9	139.2	141.5	143.0	143.0	142.7
65°	101.0	103.6	103.6	105.1	106.0	106.0	106.7	108.2
67.5°	74.6	74.6	75.0	75.7	75.3	75.3	76.1	76.5
70°	52.0	51.3	52.4	52.0	52.0	51.6	52.0	52.0
72.5°	32.9	32.9	33.3	32.9	32.2	32.5	32.5	33.3
75°	17.6	18.4	17.6	17.6	18.0	17.2	17.6	18.0
77.5°	7.3	7.3	7.3	7.3	7.3	6.9	6.9	6.9
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.1	3.1
82.5°	1.5	1.9	1.5	1.9	1.5	1.5	1.5	1.5
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)