

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: P843509

Luminaire Tested: **LD4C25DE010B2750 EU4C25B30 4LBDWWLI**

Issue Date: 5/7/2024

Test Information

Test Method: LM-79-08
Report Number: P843509
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 EU4C25B30 4LBLDWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

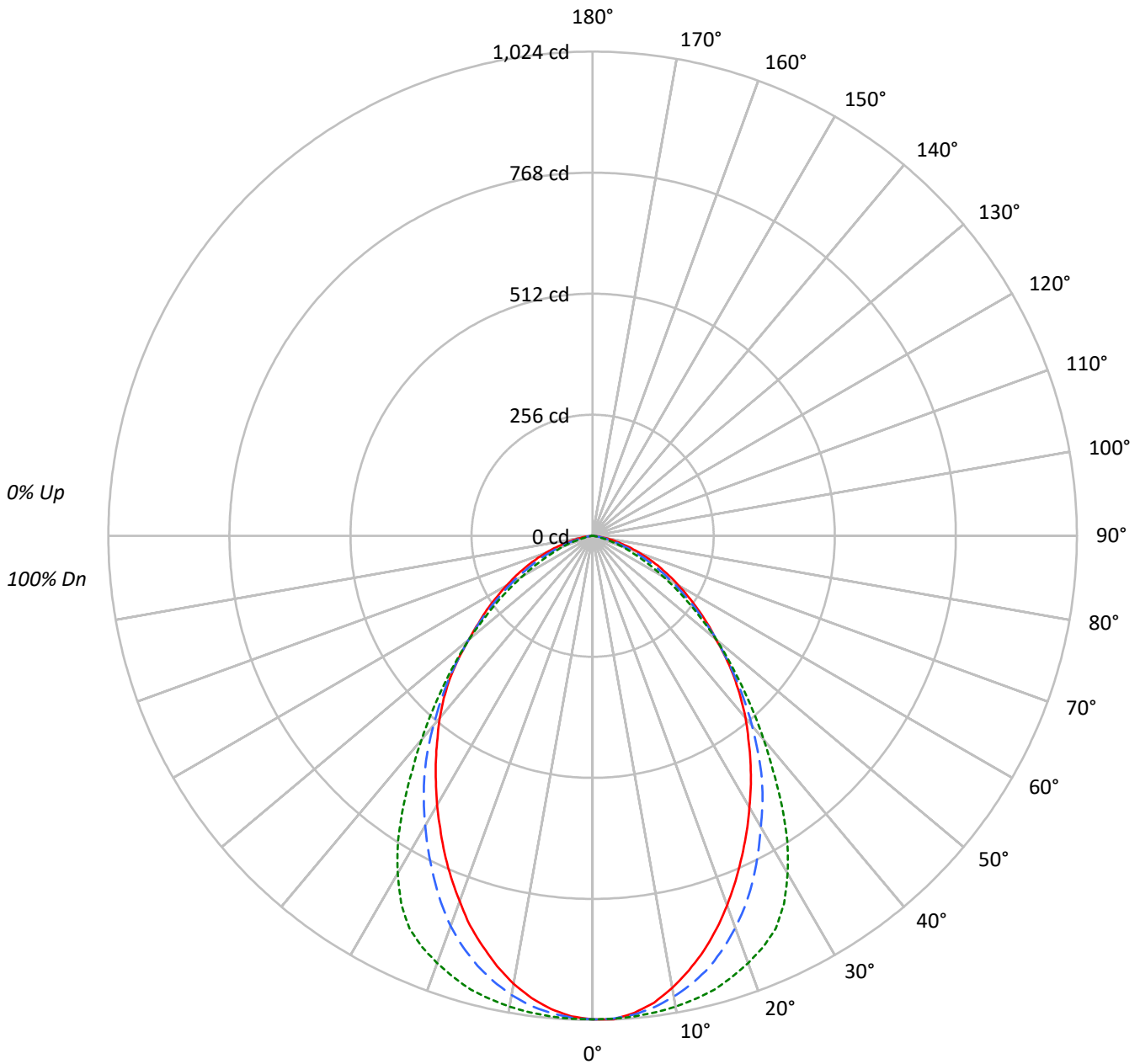
Lumens per Lamp: N/A
Luminaire Lumens: 1878.4 lumens
Efficiency: N/A
Efficacy: 63.0 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	125642	125642	125642
5°	124901	125851	123964
10°	121094	126158	120046
15°	115537	126437	114278
20°	108709	125718	107506
25°	101259	124222	100432
30°	94081	116977	93315
35°	87256	104624	86626
40°	80668	90242	80604
45°	73510	77019	74083
50°	64906	65136	65270
55°	58174	53247	58409
60°	51402	42286	51500
65°	45261	32238	44796
70°	37500	23097	37500
75°	29240	13243	28148
80°	18961	3184	18112
85°	7048	987	5356



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	5.1
10°-20°	265.6	14.1
20°-30°	371.3	19.8
30°-40°	391.7	20.9
40°-50°	333.2	17.7
50°-60°	235.1	12.5
60°-70°	133.3	7.1
70°-80°	47.6	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°	733.0	39.0
0°-40°	1124.6	59.9
0°-60°	1693.0	90.1
0°-90°	1878.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1878.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1023	1023	1023	1023	1023	
5°	1013	1016	1020	1013	1005	95
15°	908	947	994	941	898	255
25°	747	803	916	796	741	344
35°	582	624	698	620	578	364
45°	423	429	443	431	426	325
55°	272	262	249	263	273	244
65°	156	134	111	134	154	154
75°	62	42	28	41	59	67
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°	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7
2.5°	1023.5	1021.6	1021.6	1021.6	1021.6	1021.6	1021.6	1021.6	1021.6	1022.0	1022.0
5°	1012.8	1012.0	1011.6	1011.6	1011.6	1011.6	1012.0	1013.5	1014.4	1015.5	1016.3
7.5°	996.0	994.5	995.2	995.2	996.0	996.7	997.9	999.5	1001.7	1003.3	1005.2
10°	970.7	969.2	971.1	971.9	974.2	975.3	977.3	979.6	984.1	986.5	989.5
12.5°	941.3	940.6	941.3	944.4	946.7	948.2	950.5	955.5	960.0	965.0	970.4
15°	908.4	906.5	907.7	911.5	915.3	917.9	919.8	926.4	932.5	940.1	946.7
17.5°	871.7	869.0	872.0	875.1	880.1	882.4	885.0	892.3	900.8	909.1	916.4
20°	831.5	830.8	832.7	836.9	841.9	844.9	847.2	855.2	862.5	873.9	882.4
22.5°	789.8	790.6	792.2	796.7	800.1	804.3	807.8	815.1	823.5	834.2	844.9
25°	747.0	748.2	750.8	753.9	759.6	761.9	766.1	773.8	781.1	791.0	802.8
27.5°	705.7	706.1	709.1	710.6	716.0	721.0	722.9	730.9	739.3	747.0	757.3
30°	663.2	664.4	666.3	670.5	675.8	677.7	680.1	687.4	693.8	703.4	711.4
32.5°	622.6	621.9	624.2	626.5	632.7	636.1	637.2	645.6	651.4	660.9	668.5
35°	581.8	579.8	583.3	585.6	590.9	594.0	595.6	602.0	607.4	615.4	623.8
37.5°	540.9	542.4	543.8	545.8	548.5	549.2	553.9	555.4	562.2	568.4	572.9
40°	503.0	502.2	501.4	503.3	506.8	508.3	508.7	513.0	514.4	520.6	524.0
42.5°	462.4	462.8	462.4	462.8	464.7	464.7	465.9	468.5	469.7	471.6	475.8
45°	423.1	423.1	421.9	422.2	422.6	422.2	422.6	423.8	426.1	426.1	429.2
47.5°	382.1	381.4	382.9	381.7	381.0	380.5	381.7	380.5	382.9	382.9	383.6
50°	339.6	339.6	341.5	341.2	341.9	340.5	340.8	340.8	341.2	340.8	342.4
52.5°	306.7	306.0	305.2	303.3	304.1	302.6	302.6	302.9	301.7	301.4	299.5
55°	271.6	272.3	271.2	270.4	270.4	268.9	268.5	266.2	264.7	263.6	262.4
57.5°	239.8	240.6	240.2	238.3	236.0	236.4	235.6	233.3	229.8	227.6	225.7
60°	209.2	209.9	209.2	207.3	206.6	205.0	204.7	201.6	198.9	195.9	193.5
62.5°	181.7	181.7	181.3	178.6	176.7	177.0	175.1	172.9	169.4	165.2	161.8
65°	155.7	155.3	153.4	152.2	150.7	148.8	147.6	144.2	141.5	138.1	133.5
67.5°	129.7	128.5	127.8	126.6	123.1	122.8	121.2	118.1	114.3	111.7	107.9
70°	104.4	104.1	102.5	102.5	99.8	98.7	96.4	93.7	90.2	86.4	83.3
72.5°	82.6	81.9	80.3	78.8	76.5	75.7	73.8	71.2	68.1	64.3	60.4
75°	61.6	60.8	60.4	58.5	56.6	54.7	53.9	51.3	48.2	45.5	42.1
77.5°	43.3	42.4	41.4	40.2	39.0	37.9	36.7	34.4	31.7	29.4	26.4
80°	26.8	26.0	25.3	24.9	23.7	23.4	21.8	20.6	18.4	16.8	14.9
82.5°	13.7	13.7	13.0	12.6	11.8	11.4	11.1	9.9	8.8	7.6	6.5
85°	5.0	5.0	4.5	4.2	4.2	3.8	3.8	3.5	2.6	2.6	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°	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7
2.5°	1022.4	1022.0	1022.4	1022.4	1022.7	1022.7	1022.7	1022.4	1022.7	1022.4	1022.4
5°	1016.3	1017.4	1018.2	1018.9	1019.3	1019.7	1019.7	1020.1	1020.5	1020.5	1020.1
7.5°	1006.7	1009.0	1011.3	1012.8	1013.5	1014.4	1015.5	1016.3	1017.0	1016.6	1016.3
10°	994.1	997.9	1000.9	1004.0	1005.5	1006.7	1008.6	1010.1	1010.9	1011.3	1010.1
12.5°	976.1	981.5	986.5	991.4	993.6	995.2	999.0	1001.7	1003.3	1003.3	1002.1
15°	953.6	961.2	968.5	974.9	978.7	981.1	986.8	990.6	992.9	994.1	992.2
17.5°	926.4	935.2	943.9	952.4	956.2	959.7	967.6	973.0	978.0	978.7	976.5
20°	891.6	902.7	912.6	922.9	927.1	932.5	941.7	950.5	958.1	961.6	955.0
22.5°	852.6	864.8	873.9	886.6	892.3	898.0	909.9	921.0	934.4	941.7	930.2
25°	812.1	822.3	833.4	845.7	853.7	859.9	873.6	887.8	905.8	916.4	900.4
27.5°	768.4	777.6	791.0	804.3	810.5	818.1	834.6	849.9	867.0	876.7	864.8
30°	723.3	734.7	747.3	759.6	768.4	775.7	789.1	802.1	816.6	824.6	815.9
32.5°	678.5	689.6	700.4	713.7	718.7	725.2	737.1	748.2	759.3	766.5	756.2
35°	631.5	641.5	651.4	660.5	662.8	670.5	680.1	686.5	691.9	697.6	690.7
37.5°	580.2	587.8	592.8	602.7	606.7	607.7	615.4	620.0	625.7	626.9	626.5
40°	528.2	535.1	539.3	545.4	548.5	548.5	553.9	558.0	562.2	562.7	562.2
42.5°	479.6	483.0	486.5	490.3	489.6	494.1	496.5	498.4	501.4	501.4	502.2
45°	430.7	433.3	436.4	437.2	440.2	440.2	442.2	442.9	444.4	443.3	441.8
47.5°	385.2	386.4	386.7	390.2	390.9	388.3	390.5	390.9	390.5	390.5	389.7
50°	341.9	342.7	342.4	341.2	341.5	342.7	341.5	340.0	340.8	340.8	341.5
52.5°	299.8	298.4	297.6	297.6	296.0	296.0	294.1	293.4	293.0	291.5	293.4
55°	261.2	258.9	255.5	254.8	253.6	253.2	250.9	249.0	248.2	248.6	248.2
57.5°	224.1	220.7	218.4	217.7	216.5	214.2	211.5	209.6	209.2	208.5	208.5
60°	190.5	186.7	183.2	179.8	180.1	178.6	176.0	174.8	173.7	172.1	173.2
62.5°	159.9	155.7	151.9	148.4	146.1	145.0	143.1	141.1	140.0	138.9	140.3
65°	129.7	126.2	122.1	118.6	117.4	116.2	114.3	111.3	110.9	110.9	111.7
67.5°	102.5	98.7	94.9	92.5	91.1	89.5	88.7	87.3	86.1	85.2	85.7
70°	78.8	75.0	71.9	69.6	68.4	68.1	65.4	65.0	64.6	64.3	63.9
72.5°	57.3	54.4	51.6	50.1	48.5	47.4	46.6	45.5	45.2	45.2	45.2
75°	39.3	37.1	34.1	32.2	31.4	30.2	29.1	28.3	27.5	27.9	27.9
77.5°	23.7	21.5	19.5	18.0	17.6	16.5	15.3	14.5	13.4	13.4	13.7
80°	13.0	11.1	9.5	8.5	7.6	7.3	6.1	5.7	5.0	4.5	4.5
82.5°	5.7	4.5	3.8	3.5	3.1	2.6	2.3	1.9	1.9	1.5	1.9
85°	1.9	1.5	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°	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7
2.5°	1022.0	1022.0	1021.6	1021.6	1021.6	1020.8	1020.8	1020.5	1020.1	1019.7	1018.9
5°	1019.3	1018.9	1018.2	1017.8	1017.4	1016.3	1015.1	1014.4	1013.2	1011.6	1010.9
7.5°	1015.5	1014.4	1012.8	1012.0	1010.9	1008.2	1006.3	1004.4	1002.5	999.8	996.7
10°	1009.0	1006.7	1004.4	1002.8	1000.9	997.6	993.6	990.6	986.5	982.5	978.4
12.5°	999.8	997.1	992.6	990.3	987.9	983.0	978.0	971.5	965.7	960.4	955.5
15°	988.4	983.4	978.0	974.9	971.5	963.5	955.8	948.9	941.3	934.7	926.8
17.5°	971.5	964.2	956.6	953.1	948.6	939.4	930.2	920.7	911.8	903.9	893.8
20°	946.3	938.2	928.3	922.9	919.1	906.8	898.0	887.4	878.2	868.2	857.1
22.5°	916.8	905.8	894.7	886.9	882.8	870.5	858.7	849.1	839.1	827.7	819.7
25°	883.5	869.8	856.4	848.8	842.2	829.2	817.8	807.8	795.6	785.6	777.6
27.5°	846.0	830.3	814.7	807.1	800.9	786.8	774.5	764.2	752.3	743.5	735.2
30°	801.3	787.2	772.2	766.1	758.9	744.3	730.2	721.0	708.0	698.8	689.6
32.5°	745.4	736.3	724.4	716.0	712.2	698.8	686.9	675.8	664.7	657.5	648.3
35°	684.3	676.3	666.3	661.7	656.7	648.3	638.7	629.2	620.4	613.5	605.1
37.5°	622.3	614.3	608.1	603.2	600.1	592.5	586.8	579.5	573.3	566.8	562.2
40°	558.0	555.8	549.2	546.9	546.2	537.8	532.8	527.0	523.2	519.4	516.8
42.5°	501.0	497.2	492.2	492.6	490.3	485.8	482.3	478.5	475.8	473.9	471.2
45°	444.8	441.8	439.4	441.4	437.5	436.1	433.3	433.0	431.1	427.6	426.4
47.5°	391.3	390.9	391.3	390.2	389.3	388.6	389.0	387.1	385.2	384.0	382.4
50°	342.4	342.7	343.5	344.6	341.9	343.1	342.7	342.4	342.4	341.2	341.9
52.5°	294.9	295.3	296.0	297.2	297.6	297.6	298.7	299.5	301.0	302.9	302.9
55°	250.1	252.8	254.4	256.3	255.1	257.4	258.6	262.0	263.1	263.1	264.7
57.5°	210.4	213.0	214.2	216.5	217.2	219.1	222.2	224.1	226.9	229.1	231.4
60°	174.0	175.1	178.2	181.7	181.0	185.5	187.8	190.9	194.3	195.9	198.9
62.5°	141.5	143.1	145.3	146.5	149.1	151.5	156.8	159.9	163.0	166.8	169.9
65°	112.4	114.0	116.2	118.6	119.7	123.1	125.9	131.1	133.9	138.1	141.5
67.5°	86.1	88.3	90.2	91.8	92.5	96.0	100.2	102.5	107.5	111.7	114.3
70°	64.3	66.2	68.4	68.1	69.6	72.2	75.3	78.8	82.6	86.4	89.5
72.5°	44.7	46.6	48.2	48.5	50.1	52.0	54.4	57.0	60.1	63.9	68.1
75°	28.3	28.7	30.2	31.0	31.7	34.1	36.0	38.6	41.4	44.4	47.1
77.5°	14.2	15.3	16.1	16.8	17.2	19.1	21.0	23.4	25.6	28.7	31.4
80°	5.4	5.7	6.9	7.3	8.0	9.2	10.7	11.8	13.7	16.1	17.6
82.5°	1.9	2.3	2.6	2.6	3.1	3.8	4.2	5.4	6.5	7.3	8.0
85°	0.7	0.7	0.7	0.7	0.7	1.2	1.2	1.5	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°	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7	1022.7
2.5°	1018.5	1018.5	1018.2	1017.8	1017.8	1017.8	1017.4	1017.4
5°	1009.4	1008.2	1007.8	1007.1	1006.7	1006.3	1005.2	1005.2
7.5°	994.5	992.9	991.7	990.6	989.1	987.9	987.9	986.5
10°	974.6	971.5	970.0	968.5	966.6	964.2	963.5	962.3
12.5°	950.5	944.4	942.8	940.1	937.1	935.6	932.8	932.8
15°	920.7	914.1	910.7	909.1	905.3	902.7	901.5	898.5
17.5°	885.9	880.9	875.5	873.2	869.0	865.6	864.0	863.7
20°	850.7	842.6	839.1	835.7	830.8	827.7	825.4	822.3
22.5°	810.1	802.8	797.9	795.6	791.3	786.0	782.2	782.2
25°	767.2	760.8	758.1	753.1	748.2	746.3	741.6	740.9
27.5°	726.4	719.8	714.4	711.8	706.1	703.4	699.5	698.0
30°	683.9	676.3	672.4	672.0	665.1	662.5	659.4	657.8
32.5°	641.5	634.9	631.1	628.8	625.7	621.1	618.5	616.9
35°	599.4	595.1	591.7	589.0	584.0	581.8	579.5	577.6
37.5°	555.4	551.6	550.0	547.7	545.4	541.2	540.5	538.9
40°	513.0	508.0	508.0	506.4	504.1	503.8	502.6	502.6
42.5°	468.5	466.2	465.9	466.2	464.7	464.0	462.8	465.5
45°	424.5	425.7	423.8	424.2	423.4	425.0	425.0	426.4
47.5°	384.0	382.4	383.3	384.0	385.2	385.2	384.8	384.3
50°	340.8	342.4	343.8	341.9	342.7	343.1	341.2	341.5
52.5°	303.6	304.1	305.2	304.1	305.2	304.8	305.6	304.1
55°	267.7	267.7	269.3	269.7	270.0	271.2	271.6	272.7
57.5°	232.9	234.8	236.8	236.4	237.9	239.4	238.3	239.4
60°	202.7	204.2	206.1	206.9	208.0	208.9	208.9	209.6
62.5°	172.1	175.1	176.7	178.2	178.2	179.8	181.3	181.7
65°	144.6	148.1	149.1	150.3	151.0	152.6	154.5	154.1
67.5°	118.6	120.9	122.4	123.1	125.4	126.2	127.8	129.2
70°	93.0	96.0	97.2	98.7	100.6	102.2	103.6	104.4
72.5°	71.2	73.4	74.2	75.7	77.6	79.2	80.0	81.1
75°	49.7	53.5	53.9	55.1	56.6	58.5	59.7	59.3
77.5°	32.9	35.5	36.0	37.4	39.0	40.5	40.9	41.4
80°	19.5	21.0	21.5	22.2	23.4	24.1	24.9	25.6
82.5°	9.2	9.9	10.7	10.7	11.4	12.3	12.3	12.6
85°	3.1	3.1	3.5	3.5	3.8	3.8	4.2	3.8
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)