

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: P879364

Luminaire Tested: **LD4C10D010 EU4109040 4LBDWWH**

Issue Date: 10/1/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P879364
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C10D010 EU4109040 4LBLDWWH
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

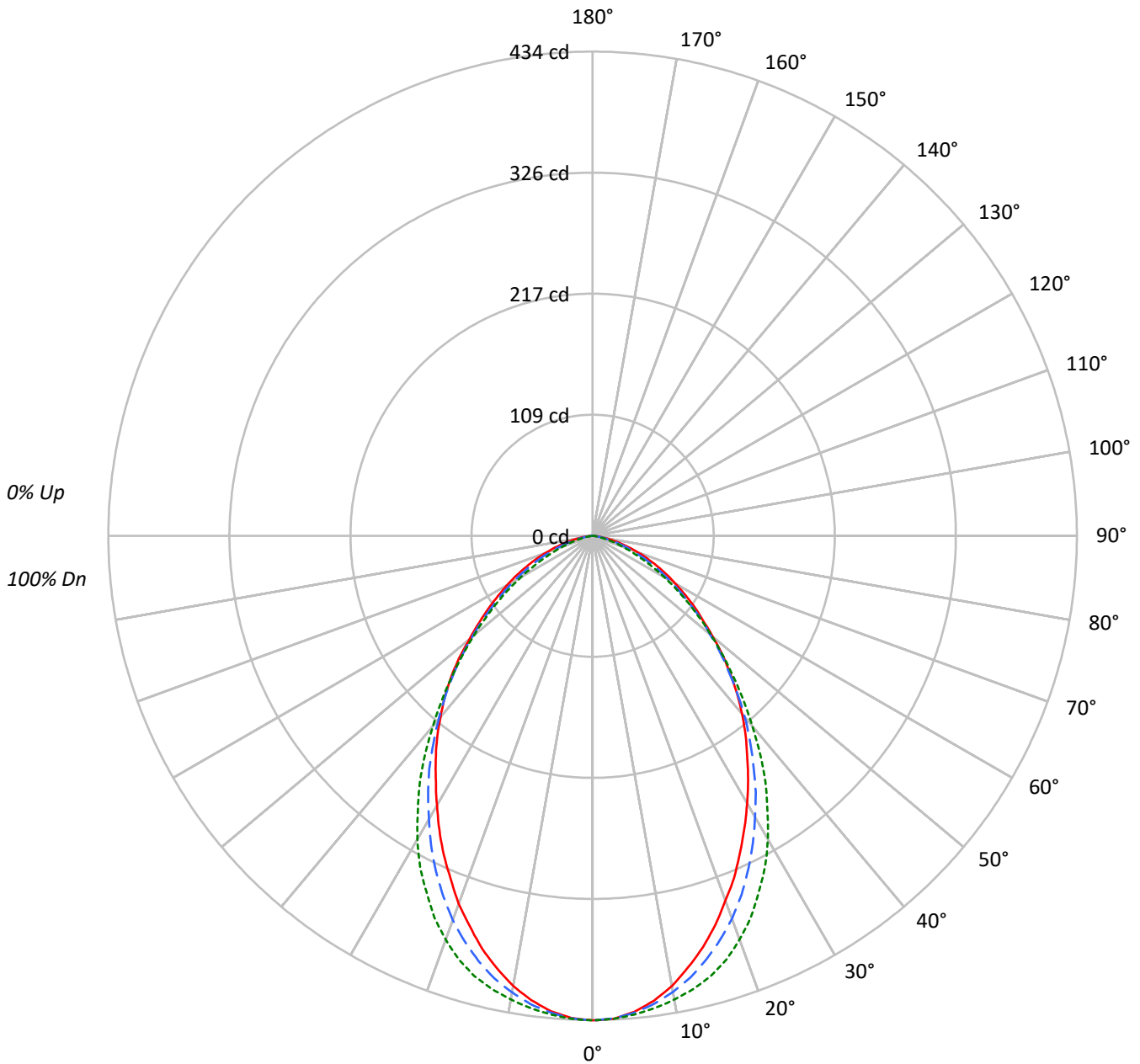
Lumens per Lamp: N/A
Luminaire Lumens: 777.0 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.75
Input Voltage (V): NR
Input Current (A_{in}): 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	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	77	70	64	86	76	69	63	74	68	63	71	66	62	69	65	61	59																			
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52																			
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	44	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°	53368	53368	53368
5°	52819	53115	52770
10°	51110	52656	51122
15°	48560	51981	48713
20°	45510	50347	45889
25°	42388	47769	42781
30°	39267	44558	39564
35°	36219	40509	36774
40°	33406	35683	34031
45°	30266	30926	31187
50°	26834	26490	27503
55°	23925	22318	24460
60°	20934	18109	21720
65°	18314	14012	18953
70°	15410	10273	16200
75°	12057	6645	12721
80°	7924	3467	8702
85°	2678	1551	3665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.6	5.2
10°-20°	110.8	14.3
20°-30°	152.4	19.6
30°-40°	159.0	20.5
40°-50°	136.0	17.5
50°-60°	97.3	12.5
60°-70°	56.5	7.3
70°-80°	21.8	2.8
80°-90°	2.8	0.4
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°	303.7	39.1
0°-40°	462.7	59.6
0°-60°	696.0	89.6
0°-90°	777.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	777.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	434	434	434	434	434	
5°	428	429	431	429	428	40
15°	382	393	409	395	383	107
25°	313	330	352	332	316	144
35°	242	251	270	255	245	151
45°	174	173	178	177	180	134
55°	112	106	104	109	114	100
65°	63	56	48	58	65	63
75°	25	19	14	20	27	27
85°	2	1	1	2	3	4
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°	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4
2.5°	433.3	433.0	433.1	433.1	433.1	433.0	433.3	433.3	433.1	433.1	433.1
5°	428.3	428.0	428.2	428.3	428.3	428.3	428.5	428.7	428.8	429.0	429.1
7.5°	420.4	419.9	420.4	421.0	421.0	421.2	421.3	421.5	422.0	422.8	423.2
10°	409.7	409.7	409.8	410.3	411.1	411.0	411.4	412.2	413.2	414.3	415.1
12.5°	396.1	396.4	396.9	397.4	398.2	398.7	399.5	400.4	402.0	403.6	405.4
15°	381.8	381.9	382.1	383.2	384.0	385.1	385.7	387.7	389.1	391.3	393.2
17.5°	365.6	365.5	366.0	366.9	368.8	369.3	370.1	372.2	374.3	377.3	379.8
20°	348.1	349.1	349.7	351.0	352.1	353.4	354.0	356.6	358.9	361.8	365.2
22.5°	331.5	330.7	331.8	333.3	334.2	335.2	336.3	339.0	341.6	345.1	348.4
25°	312.7	313.2	314.0	315.1	316.4	317.6	318.9	321.8	323.2	326.9	329.9
27.5°	294.8	295.6	295.9	297.4	298.5	299.4	300.1	303.4	304.7	307.9	310.9
30°	276.8	277.6	277.6	279.2	280.0	280.9	282.5	284.8	286.7	288.9	291.1
32.5°	259.4	259.4	260.0	261.5	262.3	263.4	263.9	265.5	267.4	269.6	272.0
35°	241.5	242.0	242.6	242.6	244.1	244.7	245.4	247.0	248.2	249.2	251.1
37.5°	225.1	225.1	224.6	225.4	226.4	226.2	227.2	228.0	228.8	229.9	231.5
40°	208.3	208.3	207.7	208.2	208.8	208.7	208.3	209.1	209.8	210.6	212.2
42.5°	191.3	191.0	190.8	190.8	191.1	190.8	191.1	191.3	191.3	191.3	192.2
45°	174.2	175.0	174.0	173.7	173.3	172.8	172.6	172.8	173.4	172.6	172.8
47.5°	157.5	157.8	157.1	156.7	156.2	155.9	156.2	155.2	155.5	155.7	155.1
50°	140.4	139.8	139.8	139.3	139.4	139.3	139.0	138.6	138.6	137.8	137.4
52.5°	124.6	124.9	125.2	124.1	124.3	123.5	123.6	122.8	122.8	121.9	122.2
55°	111.7	111.2	111.2	110.7	110.6	109.8	109.6	109.1	108.0	107.4	106.1
57.5°	98.3	98.1	97.5	97.6	96.7	96.5	96.2	95.4	94.6	93.8	92.4
60°	85.2	85.3	85.3	85.0	84.6	83.8	83.9	82.8	81.7	80.2	79.0
62.5°	74.3	73.9	73.7	73.4	72.4	72.4	71.6	70.8	69.7	68.3	67.2
65°	63.0	63.2	62.7	62.2	61.3	61.1	60.5	59.8	58.7	57.3	55.7
67.5°	52.8	52.5	52.3	51.8	50.9	50.7	50.3	48.8	47.9	46.4	45.1
70°	42.9	42.6	42.8	42.0	41.0	40.5	40.4	39.2	37.8	36.7	35.4
72.5°	33.7	33.7	33.5	32.7	32.2	31.9	31.3	30.0	29.2	27.9	27.0
75°	25.4	25.2	24.9	24.4	23.8	23.5	23.1	22.3	21.2	19.8	19.0
77.5°	17.5	17.7	17.4	17.2	16.4	16.0	15.8	15.3	14.4	13.4	12.6
80°	11.2	11.0	10.8	10.5	10.4	10.2	9.7	9.4	8.5	8.0	7.5
82.5°	6.1	5.7	5.7	5.6	5.3	5.1	4.9	4.6	4.5	4.1	3.8
85°	1.9	2.1	1.9	1.9	1.9	1.8	1.8	1.8	1.6	1.6	1.4
87.5°	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3
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°	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4
2.5°	433.1	433.3	433.3	433.4	433.4	433.4	433.4	433.4	433.4	433.4	433.4
5°	429.6	429.6	429.9	430.3	430.3	430.3	430.4	430.7	430.7	430.7	430.6
7.5°	423.9	424.5	425.2	425.8	426.0	426.1	426.4	427.1	427.1	427.1	427.1
10°	416.4	417.8	418.6	419.6	420.0	420.4	421.3	421.5	422.0	422.1	422.0
12.5°	406.8	408.7	410.5	412.1	412.7	413.3	414.3	415.3	415.7	416.2	416.1
15°	396.1	398.2	400.9	402.7	403.9	404.9	406.3	407.6	408.4	408.7	408.7
17.5°	383.2	385.7	388.6	391.5	392.3	393.9	395.5	397.2	398.2	398.4	398.2
20°	368.8	371.7	374.1	377.0	378.7	379.5	381.8	384.0	385.0	385.1	385.0
22.5°	351.8	354.5	357.7	360.7	362.1	363.6	366.0	368.2	369.5	370.4	369.5
25°	332.8	336.6	339.6	342.2	344.3	345.7	348.7	350.5	352.6	352.4	352.6
27.5°	314.1	317.3	320.7	323.7	325.0	326.6	329.0	331.8	333.6	334.7	334.5
30°	295.0	297.5	300.4	303.1	305.2	306.5	310.0	311.2	313.5	314.1	313.6
32.5°	274.7	276.5	279.3	283.0	283.8	285.1	287.3	290.5	291.3	291.6	291.8
35°	253.2	256.5	258.9	261.2	261.8	262.9	265.5	267.9	268.7	270.1	269.5
37.5°	233.2	235.2	236.3	238.5	240.4	241.4	242.6	244.2	245.8	246.5	246.3
40°	213.3	214.3	215.2	217.6	217.8	217.8	219.7	221.9	221.9	222.5	222.5
42.5°	192.9	193.0	194.3	195.6	195.9	196.2	198.1	198.5	199.4	199.9	200.5
45°	173.1	174.0	174.8	175.0	175.8	176.0	176.4	176.9	178.4	178.0	178.4
47.5°	155.1	155.5	156.0	156.0	156.5	156.3	157.1	156.7	157.6	157.9	158.4
50°	137.4	138.2	137.7	138.0	137.8	138.3	138.0	138.0	138.0	138.6	139.1
52.5°	121.1	121.2	120.8	120.9	120.9	120.6	120.9	120.8	120.6	120.6	120.8
55°	106.1	105.5	105.1	104.5	103.7	104.7	104.2	103.9	104.5	104.2	104.5
57.5°	91.6	90.8	90.1	89.8	88.7	89.3	88.7	88.4	88.4	88.4	89.2
60°	77.9	77.1	76.3	75.3	75.1	74.8	74.5	73.7	73.9	73.7	74.0
62.5°	65.9	64.3	63.2	62.4	62.2	61.7	61.3	60.5	60.6	60.6	60.8
65°	54.9	53.1	51.5	50.4	50.4	49.6	48.8	48.8	47.9	48.2	48.3
67.5°	43.9	42.4	40.8	40.0	39.6	38.9	38.4	38.1	37.6	37.6	38.0
70°	34.0	32.5	31.7	30.5	30.3	29.8	29.2	28.7	28.6	28.6	28.4
72.5°	25.7	24.4	23.5	22.7	22.2	21.7	21.1	20.9	20.6	20.6	20.9
75°	17.9	17.1	16.3	15.5	15.2	15.0	14.5	14.2	14.2	14.0	14.2
77.5°	12.0	11.2	10.4	10.1	9.7	9.4	9.3	9.1	8.6	8.6	8.6
80°	6.9	6.5	6.2	5.7	5.7	5.6	5.3	5.1	4.9	4.9	4.9
82.5°	3.5	3.4	3.0	2.9	2.9	2.9	2.7	2.7	2.6	2.6	2.6
85°	1.4	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.3	1.1	1.3
87.5°	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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°	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4
2.5°	433.4	433.3	433.3	433.3	433.3	433.3	433.1	433.1	433.0	433.0	433.0
5°	430.7	430.6	430.4	430.3	430.1	429.9	429.8	429.6	429.1	429.0	428.7
7.5°	426.9	426.6	426.1	426.0	425.6	425.2	424.5	424.2	423.6	422.8	422.4
10°	421.8	421.2	420.7	419.9	419.7	419.1	417.5	416.7	415.6	414.6	413.5
12.5°	415.6	414.9	413.8	412.7	412.1	410.6	409.2	407.9	406.5	404.4	402.8
15°	407.9	407.0	404.7	404.4	403.5	401.2	399.3	396.9	394.7	392.4	390.5
17.5°	397.7	395.6	394.5	393.1	392.0	389.1	387.0	384.3	381.3	378.7	376.0
20°	384.3	382.1	380.2	379.4	377.9	375.4	372.8	369.5	366.4	363.3	360.9
22.5°	368.4	366.9	364.1	363.1	361.3	358.8	355.8	352.6	349.7	346.2	343.0
25°	351.3	349.2	347.0	345.1	343.8	341.4	337.6	335.2	332.0	328.2	325.8
27.5°	333.1	330.7	327.5	326.2	325.1	321.9	318.7	315.7	313.2	309.8	307.7
30°	312.0	310.3	308.2	306.6	305.0	302.5	299.6	296.1	293.4	291.8	288.9
32.5°	290.7	289.2	286.5	285.7	284.0	281.9	279.8	277.3	274.4	272.0	269.8
35°	267.9	266.4	264.5	263.1	262.4	261.0	258.8	256.5	255.1	252.4	251.3
37.5°	245.0	244.6	242.6	241.2	240.7	239.0	237.9	236.3	234.2	233.6	232.3
40°	221.6	221.3	220.2	220.0	219.0	218.6	217.0	215.7	214.7	214.3	213.5
42.5°	200.1	199.7	198.8	198.9	198.0	197.7	197.5	196.4	195.6	194.6	194.8
45°	178.8	178.5	177.9	177.6	178.0	177.9	177.6	177.1	177.1	177.2	176.8
47.5°	158.4	158.7	158.1	158.4	158.4	157.9	157.9	158.6	158.7	159.1	159.4
50°	139.1	140.1	139.8	140.2	140.4	140.5	140.1	140.9	140.7	142.1	141.8
52.5°	121.6	121.7	122.4	122.5	122.7	122.8	123.6	124.3	124.4	125.1	126.2
55°	104.7	104.8	106.1	106.1	106.9	107.0	108.2	108.5	109.0	110.7	111.0
57.5°	88.7	89.7	90.3	90.6	91.1	91.9	92.5	94.0	94.8	95.9	97.0
60°	74.3	75.5	76.3	76.6	77.2	78.2	79.0	80.6	82.0	83.3	84.1
62.5°	61.1	62.1	62.7	63.8	63.8	64.6	66.5	67.5	69.1	70.2	71.6
65°	49.3	49.9	51.1	51.1	51.7	53.0	54.6	56.0	57.6	59.2	60.6
67.5°	38.6	39.1	39.7	40.4	40.7	42.3	43.6	45.6	47.1	48.2	49.9
70°	29.2	29.5	30.3	30.9	31.4	32.5	34.0	35.4	36.9	38.1	39.9
72.5°	20.9	21.5	22.3	22.8	23.1	23.9	25.4	26.8	28.1	29.4	30.3
75°	14.4	14.8	15.2	15.6	16.1	16.8	17.7	18.7	20.1	21.4	22.5
77.5°	8.9	9.4	9.9	10.1	10.2	10.8	11.5	12.4	13.4	14.4	15.2
80°	5.3	5.4	5.6	5.7	6.1	6.5	6.9	7.5	8.1	8.8	9.6
82.5°	2.7	2.9	3.0	3.0	3.0	3.2	3.7	4.0	4.1	4.5	4.9
85°	1.1	1.1	1.1	1.3	1.3	1.4	1.4	1.6	1.6	1.8	1.9
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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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CATALOG NUMBER: LD4C10D010 EU4109040 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	434.4	434.4	434.4	434.4	434.4	434.4	434.4	434.4
2.5°	432.8	432.8	432.8	432.7	432.8	432.8	432.8	432.7
5°	428.7	428.3	428.3	428.2	428.0	428.0	428.2	427.9
7.5°	421.8	421.3	421.0	421.0	420.8	420.7	420.7	419.9
10°	412.9	411.9	411.9	411.6	410.3	410.2	409.8	409.8
12.5°	401.7	400.6	399.9	399.2	398.4	397.7	397.6	396.9
15°	388.5	387.0	385.9	385.6	384.3	383.4	383.4	383.0
17.5°	374.1	371.9	371.1	370.3	368.5	368.4	368.0	366.6
20°	357.8	355.8	354.6	353.8	352.7	351.1	350.8	351.0
22.5°	340.8	337.9	336.9	336.1	335.0	333.6	333.6	332.5
25°	323.1	320.5	319.5	318.6	316.8	316.2	315.4	315.6
27.5°	305.0	302.6	301.8	300.1	299.0	298.2	297.4	297.4
30°	286.2	284.9	283.6	283.5	281.3	280.3	279.5	278.9
32.5°	268.0	266.4	265.8	265.1	264.0	262.7	262.6	261.5
35°	250.1	248.6	247.8	247.1	245.8	245.4	244.9	245.2
37.5°	231.3	231.0	230.5	229.7	228.9	228.8	228.1	228.9
40°	212.8	212.7	212.0	212.2	212.2	211.9	212.2	212.2
42.5°	194.9	194.9	194.3	194.6	194.8	195.1	195.6	195.9
45°	177.6	177.4	177.6	177.9	177.6	178.4	179.0	179.5
47.5°	159.7	159.9	160.5	160.6	161.0	162.1	162.1	162.1
50°	142.6	143.4	143.1	144.1	143.9	144.5	143.9	143.9
52.5°	126.3	127.1	127.3	127.5	128.4	128.6	128.6	128.4
55°	111.8	112.9	112.5	113.3	113.7	114.1	114.5	114.2
57.5°	98.4	98.9	99.4	99.5	100.2	100.5	100.8	100.5
60°	85.2	86.1	86.9	87.1	87.4	87.7	87.9	88.4
62.5°	72.7	74.3	74.7	74.8	75.6	76.1	76.4	76.7
65°	61.7	62.9	63.7	64.1	64.8	64.8	65.2	65.2
67.5°	51.1	52.2	52.6	53.0	53.9	54.1	54.9	54.9
70°	41.3	42.1	42.4	42.9	43.9	44.5	44.8	45.1
72.5°	31.9	32.9	33.3	34.0	34.6	35.1	35.3	35.7
75°	23.3	24.7	24.9	25.5	26.0	26.6	27.0	26.8
77.5°	16.3	16.8	17.4	17.7	18.2	18.7	19.1	19.1
80°	10.1	10.7	10.8	11.0	11.6	12.0	12.3	12.3
82.5°	5.3	5.6	5.9	6.1	6.4	6.4	6.5	6.7
85°	2.1	2.2	2.2	2.2	2.4	2.6	2.6	2.6
87.5°	0.3	0.5	0.3	0.3	0.5	0.5	0.5	0.5
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)