

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: P879376

Luminaire Tested: **LD4C15D010 EU4159050 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: P879376
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: LD4C15D010 EU4159050 4LBLDWWH
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

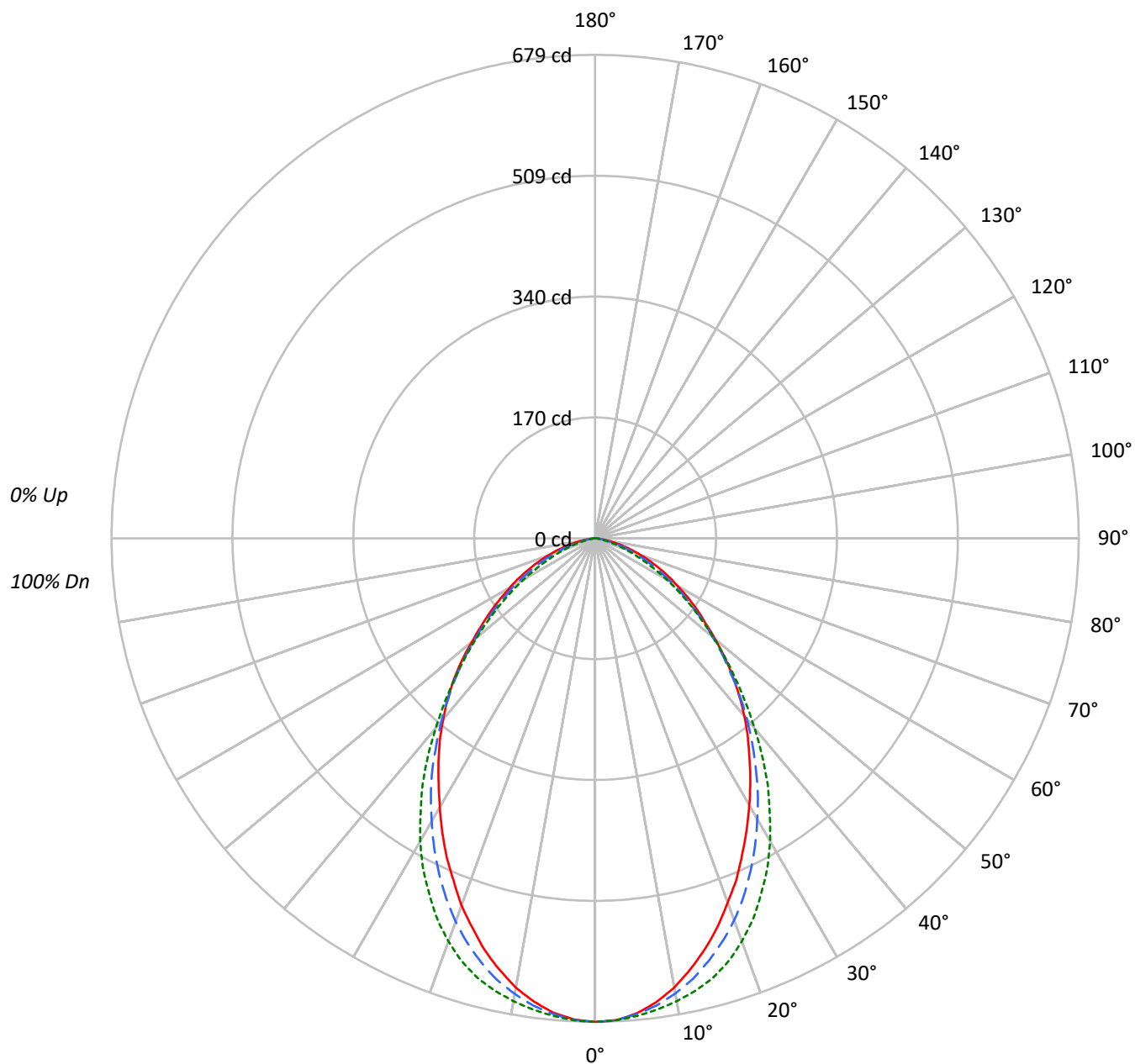
Lumens per Lamp: N/A
Luminaire Lumens: 1215.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 15.8
Input Voltage (V): NR
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: P879376

CATALOG NUMBER: LD4C15D010 EU4159050 4LBLDWWH

Luminous Intensity Polar Plot





TEST NUMBER: P879376

CATALOG NUMBER: LD4C15D010 EU4159050 4LBLDWWH

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	83454	83454	83454
5°	82602	83058	82515
10°	79914	82347	79951
15°	75931	81285	76185
20°	71161	78730	71749
25°	66272	74704	66882
30°	61397	69681	61865
35°	56646	63335	57501
40°	52250	55810	53212
45°	47327	48370	48752
50°	41952	41436	43003
55°	37397	34891	38254
60°	32728	28330	33957
65°	28634	21889	29651
70°	24102	16056	25359
75°	18844	10443	19889
80°	12381	5448	13584
85°	4229	2396	5638



TEST NUMBER: P879376

CATALOG NUMBER: LD4C15D010 EU4159050 4LBLDWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.4	5.2
10°-20°	173.3	14.3
20°-30°	238.3	19.6
30°-40°	248.6	20.5
40°-50°	212.7	17.5
50°-60°	152.1	12.5
60°-70°	88.3	7.3
70°-80°	34.0	2.8
80°-90°	4.3	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°	475.0	39.1
0°-40°	723.6	59.6
0°-60°	1088.4	89.6
0°-90°	1215.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1215.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	679	679	679	679	679	
5°	670	671	674	671	669	63
15°	597	615	639	617	599	167
25°	489	516	551	519	493	225
35°	378	393	422	399	383	237
45°	272	270	278	277	281	210
55°	175	166	163	170	179	156
65°	98	87	75	90	102	98
75°	40	30	22	31	42	43
85°	3	2	2	2	4	6
90°	0	0	0	0	0	



TEST NUMBER: P879376

CATALOG NUMBER: LD4C15D010 EU4159050 4LBLDWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3
2.5°	677.5	677.0	677.3	677.3	677.3	677.0	677.5	677.5	677.3	677.3	677.3
5°	669.8	669.3	669.6	669.8	669.8	669.8	670.1	670.3	670.6	670.8	671.1
7.5°	657.3	656.6	657.3	658.3	658.3	658.6	658.8	659.1	659.8	661.1	661.8
10°	640.6	640.6	640.9	641.6	642.9	642.6	643.4	644.6	646.1	647.9	649.1
12.5°	619.4	619.9	620.7	621.4	622.7	623.4	624.7	626.1	628.6	631.1	633.9
15°	597.0	597.2	597.5	599.2	600.5	602.2	603.2	606.2	608.4	611.9	614.9
17.5°	571.8	571.5	572.3	573.8	576.8	577.5	578.8	582.0	585.2	590.0	594.0
20°	544.3	545.8	546.8	548.8	550.6	552.6	553.6	557.5	561.3	565.8	571.0
22.5°	518.4	517.1	518.9	521.1	522.6	524.1	525.9	530.1	534.1	539.6	544.8
25°	488.9	489.7	490.9	492.7	494.7	496.7	498.7	503.2	505.4	511.1	515.9
27.5°	461.0	462.3	462.8	465.0	466.7	468.2	469.2	474.5	476.5	481.5	486.2
30°	432.8	434.1	434.1	436.6	437.8	439.3	441.8	445.3	448.3	451.8	455.3
32.5°	405.6	405.6	406.6	408.9	410.1	411.9	412.6	415.1	418.1	421.6	425.3
35°	377.7	378.4	379.4	379.4	381.7	382.7	383.7	386.2	388.2	389.7	392.7
37.5°	352.0	352.0	351.2	352.5	354.0	353.7	355.2	356.5	357.7	359.5	362.0
40°	325.8	325.8	324.8	325.5	326.5	326.3	325.8	327.0	328.0	329.3	331.8
42.5°	299.1	298.6	298.4	298.4	298.9	298.4	298.9	299.1	299.1	299.1	300.6
45°	272.4	273.7	272.2	271.7	270.9	270.2	269.9	270.2	271.2	269.9	270.2
47.5°	246.2	246.7	245.7	245.0	244.2	243.7	244.2	242.7	243.2	243.5	242.5
50°	219.5	218.5	218.5	217.8	218.0	217.8	217.3	216.8	216.8	215.5	214.8
52.5°	194.8	195.3	195.8	194.1	194.3	193.1	193.3	192.1	192.1	190.6	191.1
55°	174.6	173.9	173.9	173.1	172.9	171.6	171.4	170.6	168.9	167.9	165.9
57.5°	153.7	153.4	152.4	152.7	151.2	150.9	150.4	149.2	147.9	146.7	144.4
60°	133.2	133.5	133.5	133.0	132.2	131.0	131.2	129.5	127.7	125.5	123.5
62.5°	116.2	115.5	115.3	114.8	113.3	113.3	112.0	110.8	109.0	106.8	105.0
65°	98.5	98.8	98.0	97.3	95.8	95.5	94.5	93.5	91.8	89.6	87.1
67.5°	82.6	82.1	81.8	81.1	79.6	79.3	78.6	76.3	74.8	72.6	70.6
70°	67.1	66.6	66.9	65.6	64.1	63.4	63.1	61.4	59.1	57.4	55.4
72.5°	52.6	52.6	52.4	51.1	50.4	49.9	48.9	46.9	45.7	43.7	42.2
75°	39.7	39.4	38.9	38.2	37.2	36.7	36.2	34.9	33.2	30.9	29.7
77.5°	27.4	27.7	27.2	26.9	25.7	24.9	24.7	23.9	22.5	21.0	19.7
80°	17.5	17.2	17.0	16.5	16.2	16.0	15.2	14.7	13.2	12.5	11.7
82.5°	9.5	9.0	9.0	8.7	8.2	8.0	7.7	7.2	7.0	6.5	6.0
85°	3.0	3.2	3.0	3.0	3.0	2.7	2.7	2.7	2.5	2.5	2.2
87.5°	0.2	0.5	0.2	0.2	0.5	0.2	0.2	0.5	0.2	0.2	0.5
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: P879376

CATALOG NUMBER: LD4C15D010 EU4159050 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3
2.5°	677.3	677.5	677.5	677.8	677.8	677.8	677.8	677.8	677.8	677.8	677.8
5°	671.8	671.8	672.3	672.8	672.8	672.8	673.0	673.5	673.5	673.5	673.3
7.5°	662.8	663.8	664.8	665.8	666.1	666.3	666.8	667.8	667.8	667.8	667.8
10°	651.1	653.3	654.6	656.1	656.8	657.3	658.8	659.1	659.8	660.1	659.8
12.5°	636.1	639.1	641.9	644.4	645.4	646.4	647.9	649.3	650.1	650.8	650.6
15°	619.4	622.7	626.9	629.6	631.6	633.1	635.4	637.4	638.6	639.1	639.1
17.5°	599.2	603.2	607.7	612.2	613.4	615.9	618.4	621.2	622.7	622.9	622.7
20°	576.8	581.2	585.0	589.5	592.2	593.5	597.0	600.5	602.0	602.2	602.0
22.5°	550.1	554.3	559.3	564.0	566.3	568.5	572.3	575.8	577.8	579.3	577.8
25°	520.4	526.4	531.1	535.1	538.3	540.6	545.3	548.1	551.3	551.1	551.3
27.5°	491.2	496.2	501.4	506.2	508.2	510.6	514.4	518.9	521.6	523.4	523.1
30°	461.3	465.2	469.7	474.0	477.2	479.2	484.7	486.7	490.2	491.2	490.4
32.5°	429.6	432.3	436.8	442.5	443.8	445.8	449.3	454.3	455.5	456.0	456.3
35°	395.9	401.1	404.9	408.4	409.4	411.1	415.1	418.8	420.1	422.3	421.3
37.5°	364.7	367.7	369.5	372.9	375.9	377.4	379.4	381.9	384.4	385.4	385.2
40°	333.5	335.0	336.5	340.3	340.5	340.5	343.5	347.0	347.0	348.0	348.0
42.5°	301.6	301.8	303.8	305.8	306.3	306.8	309.8	310.3	311.8	312.6	313.6
45°	270.7	272.2	273.4	273.7	274.9	275.2	275.9	276.7	278.9	278.4	278.9
47.5°	242.5	243.2	244.0	244.0	244.7	244.5	245.7	245.0	246.5	247.0	247.7
50°	214.8	216.0	215.3	215.8	215.5	216.3	215.8	215.8	215.8	216.8	217.5
52.5°	189.3	189.6	188.8	189.1	189.1	188.6	189.1	188.8	188.6	188.6	188.8
55°	165.9	164.9	164.4	163.4	162.2	163.6	162.9	162.4	163.4	162.9	163.4
57.5°	143.2	141.9	140.9	140.4	138.7	139.7	138.7	138.2	138.2	138.2	139.4
60°	121.7	120.5	119.2	117.7	117.5	117.0	116.5	115.3	115.5	115.3	115.8
62.5°	103.0	100.5	98.8	97.5	97.3	96.5	95.8	94.5	94.8	94.8	95.0
65°	85.8	83.1	80.6	78.8	78.8	77.6	76.3	76.3	74.8	75.3	75.6
67.5°	68.6	66.4	63.9	62.6	61.9	60.9	60.1	59.6	58.9	58.9	59.4
70°	53.1	50.9	49.6	47.6	47.4	46.6	45.7	44.9	44.7	44.7	44.4
72.5°	40.2	38.2	36.7	35.4	34.7	33.9	32.9	32.7	32.2	32.2	32.7
75°	27.9	26.7	25.4	24.2	23.7	23.4	22.7	22.2	22.2	22.0	22.2
77.5°	18.7	17.5	16.2	15.7	15.2	14.7	14.5	14.2	13.5	13.5	13.5
80°	10.7	10.2	9.7	9.0	9.0	8.7	8.2	8.0	7.7	7.7	7.7
82.5°	5.5	5.2	4.7	4.5	4.5	4.5	4.2	4.2	4.0	4.0	4.0
85°	2.2	2.0	1.7	1.7	1.7	1.7	1.7	1.7	2.0	1.7	2.0
87.5°	0.2	0.5	0.5	0.5	0.5	0.5	0.5	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	0.0	0.0	0.0



TEST NUMBER: P879376

CATALOG NUMBER: LD4C15D010 EU4159050 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3
2.5°	677.8	677.5	677.5	677.5	677.5	677.5	677.3	677.3	677.0	677.0	677.0
5°	673.5	673.3	673.0	672.8	672.5	672.3	672.1	671.8	671.1	670.8	670.3
7.5°	667.6	667.1	666.3	666.1	665.6	664.8	663.8	663.3	662.3	661.1	660.6
10°	659.6	658.6	657.8	656.6	656.3	655.3	652.8	651.6	649.8	648.4	646.6
12.5°	649.8	648.9	647.1	645.4	644.4	642.1	639.9	637.9	635.6	632.4	629.9
15°	637.9	636.4	632.9	632.4	630.9	627.4	624.4	620.7	617.2	613.7	610.7
17.5°	621.9	618.7	616.9	614.7	612.9	608.4	605.2	601.0	596.2	592.2	588.0
20°	601.0	597.5	594.5	593.2	591.0	587.0	583.0	577.8	573.0	568.0	564.3
22.5°	576.0	573.8	569.3	567.8	565.0	561.0	556.3	551.3	546.8	541.3	536.3
25°	549.3	546.1	542.6	539.6	537.6	533.8	527.9	524.1	519.1	513.1	509.4
27.5°	520.9	517.1	512.1	510.1	508.4	503.4	498.4	493.7	489.7	484.5	481.2
30°	487.9	485.2	482.0	479.5	477.0	473.0	468.5	463.0	458.8	456.3	451.8
32.5°	454.5	452.3	448.0	446.8	444.0	440.8	437.6	433.6	429.1	425.3	421.8
35°	418.8	416.6	413.6	411.4	410.4	408.1	404.6	401.1	398.9	394.6	392.9
37.5°	383.2	382.4	379.4	377.2	376.4	373.7	371.9	369.5	366.2	365.2	363.2
40°	346.5	346.0	344.3	344.0	342.5	341.8	339.3	337.3	335.8	335.0	333.8
42.5°	312.8	312.3	310.8	311.1	309.6	309.1	308.8	307.1	305.8	304.3	304.6
45°	279.6	279.1	278.2	277.7	278.4	278.2	277.7	276.9	276.9	277.2	276.4
47.5°	247.7	248.2	247.2	247.7	247.7	247.0	247.0	248.0	248.2	248.7	249.2
50°	217.5	219.0	218.5	219.3	219.5	219.8	219.0	220.3	220.0	222.3	221.8
52.5°	190.1	190.3	191.3	191.6	191.8	192.1	193.3	194.3	194.6	195.6	197.3
55°	163.6	163.9	165.9	165.9	167.1	167.4	169.1	169.6	170.4	173.1	173.6
57.5°	138.7	140.2	141.2	141.7	142.4	143.7	144.7	146.9	148.2	149.9	151.7
60°	116.2	118.0	119.2	119.7	120.7	122.2	123.5	126.0	128.2	130.2	131.5
62.5°	95.5	97.0	98.0	99.8	99.8	101.0	104.0	105.5	108.0	109.8	112.0
65°	77.1	78.1	79.8	79.8	80.8	82.8	85.3	87.6	90.1	92.6	94.8
67.5°	60.4	61.1	62.1	63.1	63.6	66.1	68.1	71.3	73.6	75.3	78.1
70°	45.7	46.2	47.4	48.4	49.1	50.9	53.1	55.4	57.6	59.6	62.4
72.5°	32.7	33.7	34.9	35.7	36.2	37.4	39.7	41.9	43.9	45.9	47.4
75°	22.5	23.2	23.7	24.4	25.2	26.2	27.7	29.2	31.4	33.4	35.2
77.5°	14.0	14.7	15.5	15.7	16.0	17.0	18.0	19.5	21.0	22.5	23.7
80°	8.2	8.5	8.7	9.0	9.5	10.2	10.7	11.7	12.7	13.7	15.0
82.5°	4.2	4.5	4.7	4.7	4.7	5.0	5.7	6.2	6.5	7.0	7.7
85°	1.7	1.7	1.7	2.0	2.0	2.2	2.2	2.5	2.5	2.7	3.0
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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	0.0	0.0	0.0



TEST NUMBER: P879376

CATALOG NUMBER: LD4C15D010 EU4159050 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3
2.5°	676.8	676.8	676.8	676.5	676.8	676.8	676.8	676.5
5°	670.3	669.8	669.8	669.6	669.3	669.3	669.6	669.1
7.5°	659.6	658.8	658.3	658.3	658.1	657.8	657.8	656.6
10°	645.6	644.1	644.1	643.6	641.6	641.4	640.9	640.9
12.5°	628.1	626.4	625.4	624.2	622.9	621.9	621.7	620.7
15°	607.4	605.2	603.4	602.9	601.0	599.5	599.5	599.0
17.5°	585.0	581.5	580.2	579.0	576.3	576.0	575.5	573.3
20°	559.5	556.3	554.6	553.3	551.6	549.1	548.6	548.8
22.5°	532.9	528.4	526.9	525.6	523.9	521.6	521.6	519.9
25°	505.2	501.2	499.7	498.2	495.4	494.4	493.2	493.4
27.5°	477.0	473.2	472.0	469.2	467.5	466.2	465.0	465.0
30°	447.5	445.5	443.5	443.3	439.8	438.3	437.1	436.1
32.5°	419.1	416.6	415.6	414.6	412.9	410.9	410.6	408.9
35°	391.2	388.7	387.4	386.4	384.4	383.7	382.9	383.4
37.5°	361.7	361.2	360.5	359.2	358.0	357.7	356.7	358.0
40°	332.8	332.5	331.5	331.8	331.8	331.3	331.8	331.8
42.5°	304.8	304.8	303.8	304.3	304.6	305.1	305.8	306.3
45°	277.7	277.4	277.7	278.2	277.7	278.9	279.9	280.6
47.5°	249.7	250.0	251.0	251.2	251.7	253.5	253.5	253.5
50°	223.0	224.3	223.8	225.3	225.0	226.0	225.0	225.0
52.5°	197.6	198.8	199.1	199.3	200.8	201.1	201.1	200.8
55°	174.9	176.6	175.9	177.1	177.9	178.4	179.1	178.6
57.5°	153.9	154.7	155.4	155.7	156.7	157.2	157.7	157.2
60°	133.2	134.7	136.0	136.2	136.7	137.2	137.5	138.2
62.5°	113.8	116.2	116.7	117.0	118.2	119.0	119.5	120.0
65°	96.5	98.3	99.5	100.3	101.3	101.3	102.0	102.0
67.5°	79.8	81.6	82.3	82.8	84.3	84.6	85.8	85.8
70°	64.6	65.9	66.4	67.1	68.6	69.6	70.1	70.6
72.5°	49.9	51.4	52.1	53.1	54.1	54.9	55.1	55.9
75°	36.4	38.7	38.9	39.9	40.7	41.7	42.2	41.9
77.5°	25.4	26.2	27.2	27.7	28.4	29.2	29.9	29.9
80°	15.7	16.7	17.0	17.2	18.2	18.7	19.2	19.2
82.5°	8.2	8.7	9.2	9.5	10.0	10.0	10.2	10.5
85°	3.2	3.5	3.5	3.5	3.7	4.0	4.0	4.0
87.5°	0.5	0.7	0.5	0.5	0.7	0.7	0.7	0.7
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)