

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: P879374

Luminaire Tested: **LD4C15D010 EU4159040 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: P879374
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 EU4159040 4LBLDWWH
Description: 4 INCH 1500 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

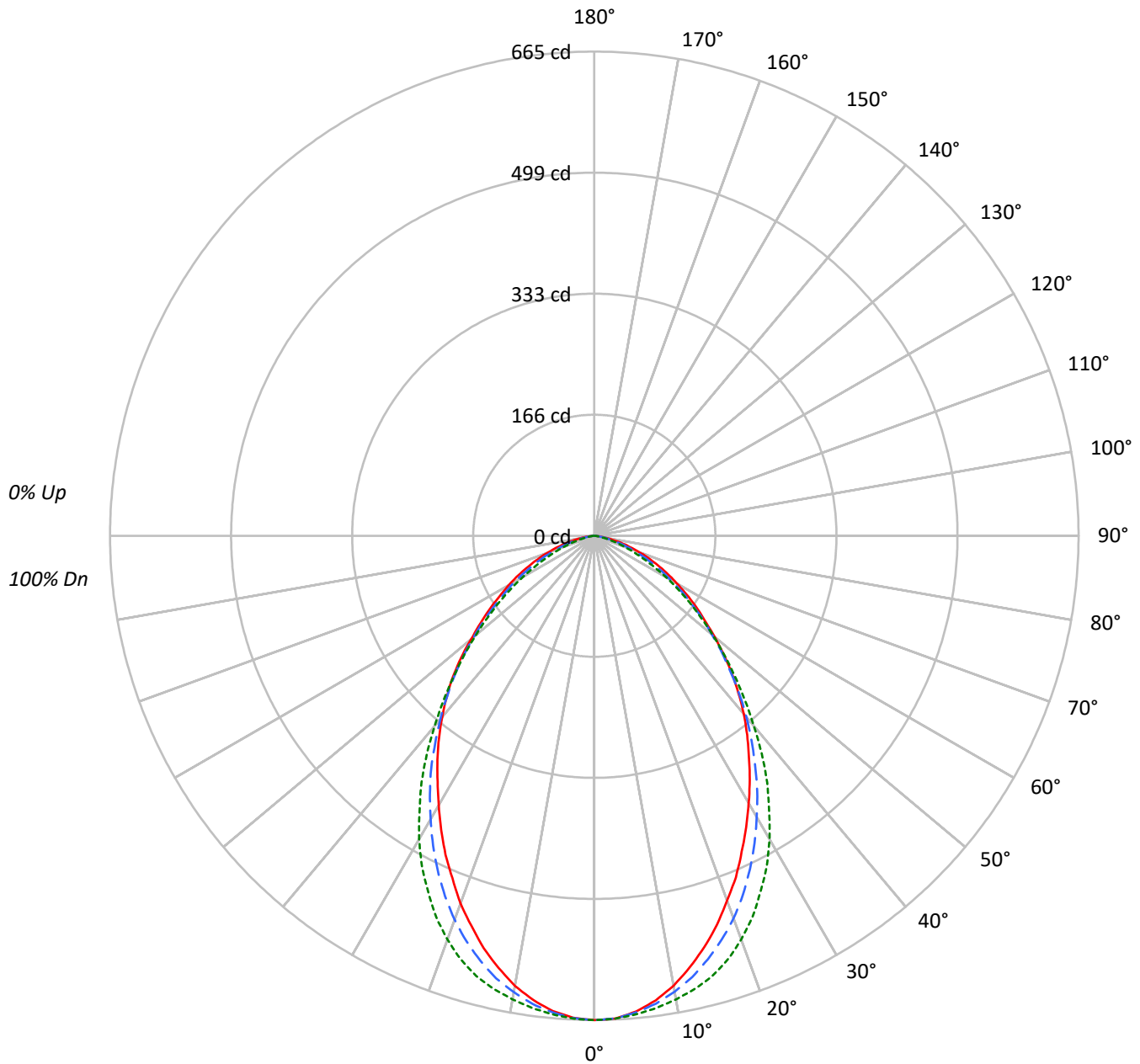
Lumens per Lamp: N/A
Luminaire Lumens: 1190.0 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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: P879374

CATALOG NUMBER: LD4C15D010 EU4159040 4LBLDWWH

Luminous Intensity Polar Plot





TEST NUMBER: P879374

CATALOG NUMBER: LD4C15D010 EU4159040 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°	81734	81734	81734
5°	80900	81356	80813
10°	78267	80650	78305
15°	74366	79619	74608
20°	69696	77109	70272
25°	64917	73158	65513
30°	60134	68248	60588
35°	55476	62030	56316
40°	51175	54655	52121
45°	46354	47379	47761
50°	41092	40576	42124
55°	36626	34163	37462
60°	32065	27740	33269
65°	28052	21453	29041
70°	23599	15697	24821
75°	18417	10205	19461
80°	12098	5377	13301
85°	4088	2396	5497



TEST NUMBER: P879374

CATALOG NUMBER: LD4C15D010 EU4159040 4LBLDWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.1	5.2
10°-20°	169.7	14.3
20°-30°	233.4	19.6
30°-40°	243.5	20.5
40°-50°	208.3	17.5
50°-60°	149.0	12.5
60°-70°	86.5	7.3
70°-80°	33.3	2.8
80°-90°	4.2	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°	465.2	39.1
0°-40°	708.7	59.6
0°-60°	1066.0	89.6
0°-90°	1190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1190.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	665	665	665	665	665	
5°	656	657	660	657	655	62
15°	585	602	626	604	587	164
25°	479	505	540	508	483	220
35°	370	385	414	391	376	232
45°	267	265	273	271	275	206
55°	171	162	160	167	175	153
65°	96	85	74	88	100	96
75°	39	29	22	31	41	42
85°	3	2	2	2	4	6
90°	0	0	0	0	0	



TEST NUMBER: P879374

CATALOG NUMBER: LD4C15D010 EU4159040 4LBLDWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3
2.5°	663.6	663.1	663.4	663.4	663.4	663.1	663.6	663.6	663.4	663.4	663.4
5°	656.0	655.5	655.8	656.0	656.0	656.0	656.3	656.5	656.8	657.0	657.2
7.5°	643.8	643.1	643.8	644.8	644.8	645.0	645.3	645.5	646.3	647.5	648.2
10°	627.4	627.4	627.7	628.4	629.6	629.4	630.1	631.3	632.8	634.5	635.7
12.5°	606.7	607.2	607.9	608.6	609.8	610.6	611.8	613.3	615.7	618.2	620.8
15°	584.7	584.9	585.2	586.9	588.1	589.8	590.8	593.7	595.9	599.3	602.3
17.5°	560.0	559.8	560.5	562.0	564.9	565.6	566.8	570.0	573.2	577.8	581.7
20°	533.1	534.6	535.6	537.5	539.2	541.2	542.2	546.1	549.7	554.1	559.3
22.5°	507.7	506.5	508.2	510.4	511.9	513.3	515.0	519.2	523.1	528.5	533.6
25°	478.9	479.6	480.8	482.5	484.5	486.5	488.4	492.8	495.0	500.6	505.3
27.5°	451.5	452.7	453.2	455.4	457.1	458.6	459.6	464.7	466.7	471.6	476.2
30°	423.9	425.1	425.1	427.6	428.8	430.3	432.7	436.1	439.1	442.5	445.9
32.5°	397.3	397.3	398.3	400.5	401.7	403.4	404.1	406.6	409.5	412.9	416.6
35°	369.9	370.6	371.6	371.6	373.8	374.8	375.8	378.2	380.2	381.6	384.6
37.5°	344.7	344.7	344.0	345.2	346.7	346.5	347.9	349.1	350.4	352.1	354.5
40°	319.1	319.1	318.1	318.8	319.8	319.6	319.1	320.3	321.3	322.5	325.0
42.5°	293.0	292.5	292.2	292.2	292.7	292.2	292.7	293.0	293.0	293.0	294.4
45°	266.8	268.0	266.6	266.1	265.3	264.6	264.4	264.6	265.6	264.4	264.6
47.5°	241.2	241.6	240.7	239.9	239.2	238.7	239.2	237.7	238.2	238.5	237.5
50°	215.0	214.0	214.0	213.3	213.5	213.3	212.8	212.3	212.3	211.1	210.4
52.5°	190.8	191.3	191.8	190.1	190.3	189.1	189.4	188.1	188.1	186.7	187.2
55°	171.0	170.3	170.3	169.6	169.3	168.1	167.9	167.1	165.4	164.4	162.5
57.5°	150.5	150.3	149.3	149.5	148.1	147.8	147.3	146.1	144.9	143.7	141.5
60°	130.5	130.7	130.7	130.2	129.5	128.3	128.5	126.8	125.1	122.9	120.9
62.5°	113.9	113.1	112.9	112.4	110.9	110.9	109.7	108.5	106.8	104.6	102.9
65°	96.5	96.8	96.0	95.3	93.8	93.6	92.6	91.6	89.9	87.7	85.3
67.5°	80.9	80.4	80.1	79.4	77.9	77.7	77.0	74.8	73.3	71.1	69.1
70°	65.7	65.2	65.5	64.3	62.8	62.1	61.8	60.1	57.9	56.2	54.2
72.5°	51.6	51.6	51.3	50.1	49.4	48.9	47.9	45.9	44.7	42.8	41.3
75°	38.8	38.6	38.1	37.4	36.4	35.9	35.4	34.2	32.5	30.3	29.1
77.5°	26.9	27.1	26.6	26.4	25.2	24.4	24.2	23.5	22.0	20.5	19.3
80°	17.1	16.9	16.6	16.1	15.9	15.6	14.9	14.4	12.9	12.2	11.5
82.5°	9.3	8.8	8.8	8.6	8.1	7.8	7.6	7.1	6.8	6.4	5.9
85°	2.9	3.2	2.9	2.9	2.9	2.7	2.7	2.7	2.4	2.4	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: P879374

CATALOG NUMBER: LD4C15D010 EU4159040 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3
2.5°	663.4	663.6	663.6	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8
5°	658.0	658.0	658.5	659.0	659.0	659.0	659.2	659.7	659.7	659.7	659.4
7.5°	649.2	650.2	651.1	652.1	652.4	652.6	653.1	654.1	654.1	654.1	654.1
10°	637.7	639.9	641.1	642.6	643.3	643.8	645.3	645.5	646.3	646.5	646.3
12.5°	623.0	626.0	628.7	631.1	632.1	633.1	634.5	636.0	636.7	637.5	637.2
15°	606.7	609.8	614.0	616.7	618.6	620.1	622.3	624.3	625.5	626.0	626.0
17.5°	586.9	590.8	595.2	599.6	600.8	603.2	605.7	608.4	609.8	610.1	609.8
20°	564.9	569.3	573.0	577.3	580.0	581.3	584.7	588.1	589.6	589.8	589.6
22.5°	538.7	542.9	547.8	552.4	554.6	556.8	560.5	563.9	565.9	567.3	565.9
25°	509.7	515.5	520.2	524.1	527.3	529.5	534.1	536.8	540.0	539.7	540.0
27.5°	481.1	486.0	491.1	495.7	497.7	500.1	503.8	508.2	510.9	512.6	512.4
30°	451.8	455.7	460.1	464.2	467.4	469.4	474.7	476.7	480.1	481.1	480.4
32.5°	420.7	423.4	427.8	433.4	434.7	436.6	440.0	444.9	446.1	446.6	446.9
35°	387.8	392.9	396.5	400.0	400.9	402.7	406.6	410.2	411.5	413.6	412.7
37.5°	357.2	360.1	361.9	365.3	368.2	369.7	371.6	374.1	376.5	377.5	377.2
40°	326.7	328.1	329.6	333.3	333.5	333.5	336.4	339.9	339.9	340.8	340.8
42.5°	295.4	295.6	297.6	299.5	300.0	300.5	303.5	303.9	305.4	306.1	307.1
45°	265.1	266.6	267.8	268.0	269.3	269.5	270.2	271.0	273.2	272.7	273.2
47.5°	237.5	238.2	239.0	239.0	239.7	239.4	240.7	239.9	241.4	241.9	242.6
50°	210.4	211.6	210.9	211.3	211.1	211.8	211.3	211.3	211.3	212.3	213.1
52.5°	185.4	185.7	185.0	185.2	185.2	184.7	185.2	185.0	184.7	184.7	185.0
55°	162.5	161.5	161.0	160.0	158.8	160.3	159.5	159.1	160.0	159.5	160.0
57.5°	140.2	139.0	138.0	137.6	135.8	136.8	135.8	135.4	135.4	135.4	136.6
60°	119.2	118.0	116.8	115.3	115.1	114.6	114.1	112.9	113.1	112.9	113.4
62.5°	100.9	98.5	96.8	95.5	95.3	94.6	93.8	92.6	92.8	92.8	93.1
65°	84.0	81.4	78.9	77.2	77.2	76.0	74.8	74.8	73.3	73.8	74.0
67.5°	67.2	65.0	62.5	61.3	60.6	59.6	58.9	58.4	57.7	57.7	58.2
70°	52.0	49.8	48.6	46.7	46.4	45.7	44.7	44.0	43.7	43.7	43.5
72.5°	39.3	37.4	35.9	34.7	34.0	33.2	32.3	32.0	31.5	31.5	32.0
75°	27.4	26.1	24.9	23.7	23.2	23.0	22.2	21.7	21.7	21.5	21.7
77.5°	18.3	17.1	15.9	15.4	14.9	14.4	14.2	13.9	13.2	13.2	13.2
80°	10.5	10.0	9.5	8.8	8.8	8.6	8.1	7.8	7.6	7.6	7.6
82.5°	5.4	5.1	4.6	4.4	4.4	4.4	4.2	4.2	3.9	3.9	3.9
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: P879374

CATALOG NUMBER: LD4C15D010 EU4159040 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3
2.5°	663.8	663.6	663.6	663.6	663.6	663.6	663.4	663.4	663.1	663.1	663.1
5°	659.7	659.4	659.2	659.0	658.7	658.5	658.2	658.0	657.2	657.0	656.5
7.5°	653.8	653.3	652.6	652.4	651.9	651.1	650.2	649.7	648.7	647.5	647.0
10°	646.0	645.0	644.3	643.1	642.8	641.9	639.4	638.2	636.5	635.0	633.3
12.5°	636.5	635.5	633.8	632.1	631.1	628.9	626.7	624.7	622.6	619.4	616.9
15°	624.7	623.3	619.9	619.4	617.9	614.5	611.6	607.9	604.5	601.0	598.1
17.5°	609.1	605.9	604.2	602.0	600.3	595.9	592.7	588.6	583.9	580.0	575.9
20°	588.6	585.2	582.2	581.0	578.8	574.9	571.0	565.9	561.2	556.3	552.7
22.5°	564.2	562.0	557.6	556.1	553.4	549.5	544.9	540.0	535.6	530.2	525.3
25°	538.0	534.8	531.4	528.5	526.5	522.9	517.0	513.3	508.4	502.6	498.9
27.5°	510.2	506.5	501.6	499.7	497.9	493.1	488.2	483.5	479.6	474.5	471.3
30°	477.9	475.2	472.0	469.6	467.2	463.2	458.8	453.5	449.3	446.9	442.5
32.5°	445.2	443.0	438.8	437.6	434.9	431.7	428.6	424.6	420.2	416.6	413.2
35°	410.2	408.0	405.1	402.9	401.9	399.7	396.3	392.9	390.7	386.5	384.8
37.5°	375.3	374.6	371.6	369.4	368.7	366.0	364.3	361.9	358.7	357.7	355.7
40°	339.4	338.9	337.2	336.9	335.5	334.7	332.3	330.3	328.9	328.1	326.9
42.5°	306.4	305.9	304.4	304.7	303.2	302.7	302.5	300.8	299.5	298.1	298.3
45°	273.9	273.4	272.4	271.9	272.7	272.4	271.9	271.2	271.2	271.4	270.7
47.5°	242.6	243.1	242.1	242.6	242.6	241.9	241.9	242.9	243.1	243.6	244.1
50°	213.1	214.5	214.0	214.8	215.0	215.3	214.5	215.7	215.5	217.7	217.2
52.5°	186.2	186.4	187.4	187.6	187.9	188.1	189.4	190.3	190.6	191.6	193.3
55°	160.3	160.5	162.5	162.5	163.7	163.9	165.7	166.1	166.9	169.6	170.1
57.5°	135.8	137.3	138.3	138.8	139.5	140.7	141.7	143.9	145.1	146.8	148.6
60°	113.9	115.6	116.8	117.3	118.3	119.7	120.9	123.4	125.6	127.5	128.8
62.5°	93.6	95.0	96.0	97.7	97.7	99.0	101.9	103.4	105.8	107.5	109.7
65°	75.5	76.5	78.2	78.2	79.2	81.1	83.6	85.8	88.2	90.6	92.8
67.5°	59.1	59.9	60.8	61.8	62.3	64.7	66.7	69.9	72.1	73.8	76.5
70°	44.7	45.2	46.4	47.4	48.1	49.8	52.0	54.2	56.4	58.4	61.1
72.5°	32.0	33.0	34.2	34.9	35.4	36.6	38.8	41.0	43.0	45.0	46.4
75°	22.0	22.7	23.2	23.9	24.7	25.7	27.1	28.6	30.8	32.7	34.5
77.5°	13.7	14.4	15.1	15.4	15.6	16.6	17.6	19.1	20.5	22.0	23.2
80°	8.1	8.3	8.6	8.8	9.3	10.0	10.5	11.5	12.5	13.4	14.7
82.5°	4.2	4.4	4.6	4.6	4.6	4.9	5.6	6.1	6.4	6.8	7.6
85°	1.7	1.7	1.7	2.0	2.0	2.2	2.2	2.4	2.4	2.7	2.9
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: P879374

CATALOG NUMBER: LD4C15D010 EU4159040 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	665.3	665.3	665.3	665.3	665.3	665.3	665.3	665.3
2.5°	662.9	662.9	662.9	662.6	662.9	662.9	662.9	662.6
5°	656.5	656.0	656.0	655.8	655.5	655.5	655.8	655.3
7.5°	646.0	645.3	644.8	644.8	644.5	644.3	644.3	643.1
10°	632.3	630.9	630.9	630.4	628.4	628.2	627.7	627.7
12.5°	615.2	613.5	612.5	611.3	610.1	609.1	608.9	607.9
15°	594.9	592.7	591.0	590.5	588.6	587.1	587.1	586.6
17.5°	573.0	569.5	568.3	567.1	564.4	564.2	563.7	561.5
20°	548.0	544.9	543.1	541.9	540.2	537.8	537.3	537.5
22.5°	521.9	517.5	516.0	514.8	513.1	510.9	510.9	509.2
25°	494.8	490.9	489.4	487.9	485.2	484.3	483.0	483.3
27.5°	467.2	463.5	462.3	459.6	457.9	456.7	455.4	455.4
30°	438.3	436.4	434.4	434.2	430.8	429.3	428.1	427.1
32.5°	410.5	408.0	407.1	406.1	404.4	402.4	402.2	400.5
35°	383.1	380.7	379.4	378.5	376.5	375.8	375.0	375.5
37.5°	354.3	353.8	353.1	351.8	350.6	350.4	349.4	350.6
40°	325.9	325.7	324.7	325.0	325.0	324.5	325.0	325.0
42.5°	298.6	298.6	297.6	298.1	298.3	298.8	299.5	300.0
45°	271.9	271.7	271.9	272.4	271.9	273.2	274.1	274.9
47.5°	244.6	244.8	245.8	246.0	246.5	248.2	248.2	248.2
50°	218.4	219.7	219.2	220.6	220.4	221.4	220.4	220.4
52.5°	193.5	194.7	195.0	195.2	196.7	196.9	196.9	196.7
55°	171.3	173.0	172.3	173.5	174.2	174.7	175.4	174.9
57.5°	150.8	151.5	152.2	152.5	153.4	153.9	154.4	153.9
60°	130.5	131.9	133.2	133.4	133.9	134.4	134.6	135.4
62.5°	111.4	113.9	114.3	114.6	115.8	116.5	117.0	117.5
65°	94.6	96.3	97.5	98.2	99.2	99.2	99.9	99.9
67.5°	78.2	79.9	80.6	81.1	82.6	82.8	84.0	84.0
70°	63.3	64.5	65.0	65.7	67.2	68.2	68.7	69.1
72.5°	48.9	50.3	51.1	52.0	53.0	53.8	54.0	54.7
75°	35.7	37.9	38.1	39.1	39.8	40.8	41.3	41.0
77.5°	24.9	25.7	26.6	27.1	27.9	28.6	29.3	29.3
80°	15.4	16.4	16.6	16.9	17.8	18.3	18.8	18.8
82.5°	8.1	8.6	9.0	9.3	9.8	9.8	10.0	10.3
85°	3.2	3.4	3.4	3.4	3.7	3.9	3.9	3.9
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)