

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: P563890

Luminaire Tested: **LD4C08D010 EX4C08D2W 4LBSQLWWH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P563890
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C08D010 EX4C08D2W 4LBSQLWWH
Description: 4 INCH 800 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS AND 4LBSQLWW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

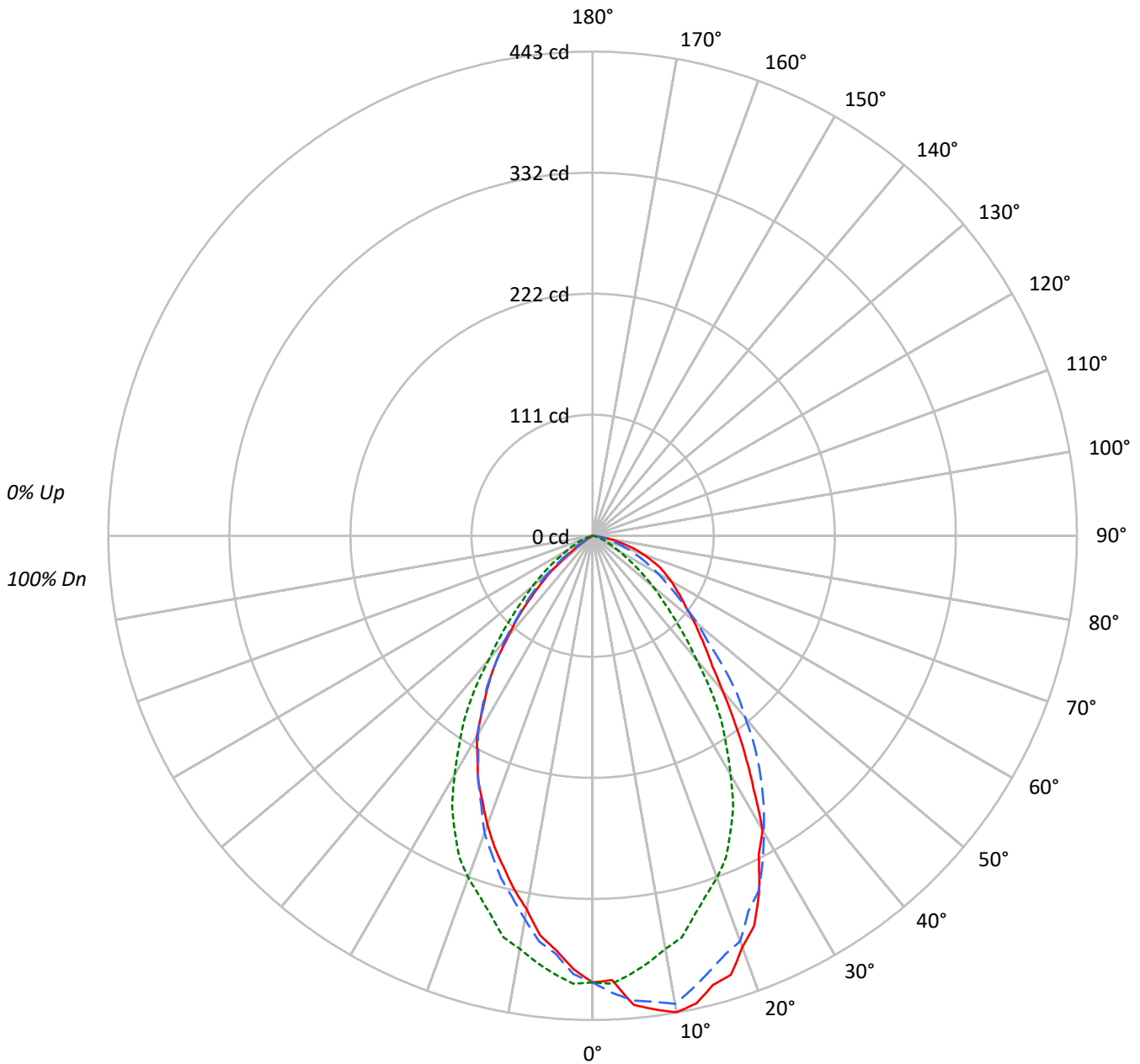
Lumens per Lamp: N/A
Luminaire Lumens: 585.9 lumens
Efficiency: N/A
Efficacy: 59.2 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
Input Voltage (V):
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

TEST NUMBER: P563890

CATALOG NUMBER: LD4C08D010 EX4C08D2W 4LBSQLWWH

Luminous Intensity Polar Plot





TEST NUMBER: P563890

CATALOG NUMBER: LD4C08D010 EX4C08D2W 4LBSQLWWH

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				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	100	100	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90	90	90	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80	80	80	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72	72	72	72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64	64	64	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58	58	58	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53	53	53	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48	48	48	48
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44	44	44	44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41	41	41	41
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38	38	38	38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	39435	39435	39435
5°	41726	38975	36883
10°	43365	37604	33998
15°	42494	35891	31376
20°	41124	34172	28895
25°	38348	31769	26350
30°	34628	28121	23598
35°	28517	24077	19565
40°	23277	18579	15064
45°	20004	14110	10835
50°	18088	10748	6845
55°	16654	7755	2473
60°	15979	5307	367
65°	15434	3585	114
70°	13824	2483	141
75°	11333	1305	0
80°	7057	556	0
85°	0	0	0



TEST NUMBER: P563890

CATALOG NUMBER: LD4C08D010 EX4C08D2W 4LBSQLWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.3	6.5
10°-20°	103.2	17.6
20°-30°	137.8	23.5
30°-40°	130.8	22.3
40°-50°	90.4	15.4
50°-60°	50.0	8.5
60°-70°	24.8	4.2
70°-80°	9.8	1.7
80°-90°	0.9	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°	279.2	47.7
0°-40°	410.0	70.0
0°-60°	550.4	93.9
0°-90°	585.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	585.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	409	409	409	409	409	
5°	431	427	402	384	381	41
15°	425	413	359	324	314	120
25°	360	359	298	248	248	164
35°	242	268	204	168	166	152
45°	147	168	103	85	79	114
55°	99	93	46	24	15	89
65°	68	49	16	0	0	66
75°	30	19	4	0	0	32
85°	0	0	0	0	0	3
90°	0	0	0	0	0	



TEST NUMBER: P563890

CATALOG NUMBER: LD4C08D010 EX4C08D2W 4LBSQLWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7
2.5°	406.8	418.1	419.0	418.1	419.5	419.0	421.5	419.0	422.0	417.6	418.6
5°	430.8	426.4	435.7	430.8	430.8	430.3	428.9	428.3	430.3	424.0	426.9
7.5°	437.2	443.6	451.8	441.6	442.1	442.1	439.1	438.2	438.2	426.4	429.9
10°	442.6	438.6	443.1	439.1	442.6	442.1	444.0	437.7	442.1	435.3	434.8
12.5°	438.2	436.7	442.6	436.2	434.2	434.8	432.3	430.8	432.3	424.5	424.0
15°	425.4	426.9	435.7	428.9	427.8	426.9	424.0	419.0	423.0	412.2	412.7
17.5°	421.0	418.6	420.0	414.1	415.6	414.6	414.1	409.7	408.7	401.9	401.9
20°	400.5	405.8	405.8	401.9	401.9	401.4	395.1	398.9	394.6	392.5	394.6
22.5°	386.2	386.7	386.7	383.3	383.8	381.8	378.4	376.0	378.4	376.0	372.0
25°	360.2	361.2	367.1	360.7	359.8	361.7	358.8	357.2	356.8	350.9	358.8
27.5°	328.9	338.6	338.2	335.7	338.6	334.8	333.2	333.7	335.3	334.8	336.7
30°	310.8	312.2	313.7	311.7	312.2	310.8	310.8	311.3	315.1	313.7	313.2
32.5°	273.9	278.8	282.8	282.8	283.3	284.7	284.3	294.6	297.0	292.1	291.1
35°	242.1	245.6	249.0	249.4	255.8	256.3	256.8	259.8	266.6	268.1	267.6
37.5°	211.8	215.1	216.2	220.5	224.0	227.4	231.3	235.3	241.2	246.1	243.6
40°	184.8	186.2	188.7	190.6	197.5	197.5	199.5	207.3	213.7	217.6	217.1
42.5°	162.2	162.8	164.7	168.1	174.4	173.0	174.4	179.8	189.2	189.7	195.1
45°	146.6	146.1	147.5	148.0	152.0	153.9	154.9	158.8	166.6	167.6	168.1
47.5°	132.3	131.8	134.3	135.3	136.7	138.6	138.6	139.2	142.1	144.5	142.6
50°	120.5	120.5	120.5	121.6	124.0	123.5	124.0	125.9	127.5	126.4	125.9
52.5°	107.8	109.8	111.3	111.8	112.2	112.2	112.7	111.8	111.3	109.8	106.8
55°	99.0	101.0	101.0	101.0	101.0	102.9	100.5	101.0	101.0	97.0	93.2
57.5°	90.2	92.2	93.6	91.6	93.6	91.6	90.6	90.2	89.2	85.2	79.4
60°	82.8	83.8	83.3	82.8	83.8	82.3	81.4	79.4	78.4	73.0	69.1
62.5°	74.5	75.0	75.5	74.5	73.5	73.0	71.1	68.2	66.1	61.7	58.3
65°	67.6	66.1	65.7	65.2	64.2	62.8	61.2	57.9	56.4	52.5	49.0
67.5°	57.4	56.9	57.9	56.4	53.9	53.9	52.5	49.5	46.1	43.6	40.2
70°	49.0	48.5	47.5	46.1	45.6	43.6	43.6	40.2	39.2	34.8	31.8
72.5°	40.2	40.2	38.8	37.2	35.8	34.8	34.3	31.8	30.4	28.0	25.4
75°	30.4	30.4	29.9	28.4	27.5	26.4	25.9	24.0	22.6	20.1	18.6
77.5°	21.6	21.6	19.6	18.6	19.1	18.1	17.2	16.7	16.2	14.7	12.7
80°	12.7	12.2	10.8	11.3	10.8	10.8	10.3	9.8	8.8	7.8	6.8
82.5°	3.5	4.0	4.0	4.0	4.4	3.5	3.5	3.5	4.0	4.0	2.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5
87.5°	0.5	1.0	1.9	1.9	1.9	1.9	1.9	1.5	1.5	1.5	1.0
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: P563890

CATALOG NUMBER: LD4C08D010 EX4C08D2W 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7
2.5°	413.7	413.2	413.7	410.2	418.1	412.2	411.2	410.2	413.7	410.2	405.4
5°	422.4	417.6	416.1	414.6	419.0	412.2	410.7	411.2	408.7	402.4	402.9
7.5°	425.4	421.0	416.6	407.3	411.2	409.7	405.8	402.9	398.9	393.6	392.5
10°	426.4	421.5	415.1	412.2	406.3	404.3	402.9	397.9	393.0	383.8	381.3
12.5°	423.5	417.6	409.7	407.3	402.9	396.5	393.0	388.2	383.8	376.4	371.0
15°	410.7	405.8	403.3	395.1	393.0	389.2	382.3	375.4	369.0	359.3	356.3
17.5°	396.0	394.1	391.6	385.2	384.7	380.8	374.4	368.5	360.2	345.0	340.2
20°	380.8	380.8	373.0	370.6	375.4	367.6	362.6	357.2	340.2	332.8	324.0
22.5°	369.5	364.2	359.8	355.8	356.3	351.4	344.5	333.7	327.3	318.6	308.3
25°	347.5	349.4	339.6	338.2	339.6	328.4	325.0	316.1	306.8	298.4	290.6
27.5°	333.7	328.4	322.0	316.7	316.7	312.2	302.4	300.5	286.2	278.4	268.5
30°	313.2	309.2	303.8	296.0	295.1	291.6	283.8	278.8	264.2	252.4	247.0
32.5°	287.2	285.7	281.4	272.5	269.6	265.6	255.8	247.5	240.7	227.4	221.0
35°	268.5	263.1	253.9	246.6	244.0	237.2	229.4	223.5	216.2	204.4	196.0
37.5°	240.7	235.3	226.4	217.6	217.6	210.8	200.0	194.1	183.8	176.9	170.1
40°	216.2	209.2	200.5	190.2	188.7	178.9	174.4	164.7	158.3	147.5	146.6
42.5°	188.7	182.3	174.4	166.6	160.7	155.8	144.5	137.2	130.4	125.0	123.5
45°	163.7	155.3	148.5	138.6	132.8	126.9	119.6	114.7	109.2	103.4	100.0
47.5°	142.1	135.3	125.4	116.7	110.8	107.8	99.5	94.1	89.7	85.7	83.3
50°	120.1	111.8	106.4	96.5	95.5	88.7	81.9	77.4	75.0	71.6	68.2
52.5°	103.4	95.5	88.2	80.9	76.9	74.5	68.2	63.7	60.3	57.9	55.8
55°	87.3	80.4	74.5	67.1	64.7	61.2	53.9	52.9	49.5	46.1	43.6
57.5°	75.0	68.6	61.7	56.9	52.5	50.0	44.1	40.2	38.2	35.3	32.9
60°	63.7	56.9	51.5	45.6	43.6	40.2	35.8	32.3	29.9	27.5	25.0
62.5°	53.4	47.5	41.7	36.7	33.8	31.8	28.4	25.4	23.1	21.1	19.1
65°	44.1	38.8	33.8	28.9	27.5	25.0	22.6	20.1	18.1	15.7	13.7
67.5°	36.3	31.3	26.4	23.1	21.6	20.5	17.6	15.2	13.7	12.2	10.3
70°	28.4	25.0	21.1	18.1	16.7	15.2	13.2	11.8	9.8	8.8	7.3
72.5°	22.1	19.1	15.7	13.2	12.2	11.3	9.4	7.8	6.8	5.9	4.9
75°	15.7	13.2	11.3	8.8	8.3	7.8	6.4	5.4	4.4	3.5	2.9
77.5°	10.8	8.8	6.8	5.9	5.4	4.4	4.0	2.9	2.4	1.9	1.5
80°	5.9	4.4	3.5	2.9	2.4	1.9	1.9	1.5	1.0	1.0	0.5
82.5°	1.9	1.5	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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



TEST NUMBER: P563890

CATALOG NUMBER: LD4C08D010 EX4C08D2W 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7
2.5°	408.3	402.9	404.3	404.3	403.3	403.3	402.4	400.9	401.4	398.4	392.1
5°	403.8	397.0	396.0	397.0	393.0	392.1	390.1	393.0	384.2	387.7	383.8
7.5°	391.1	384.7	383.3	386.7	381.8	378.8	378.4	382.3	374.4	370.6	366.1
10°	376.9	374.4	370.1	367.6	366.1	366.6	362.6	357.7	356.3	355.3	351.4
12.5°	364.2	358.8	354.8	352.0	350.9	350.9	344.5	343.6	339.1	338.2	332.3
15°	348.9	342.6	340.2	336.2	332.8	334.8	327.3	325.4	324.0	317.6	318.6
17.5°	335.7	328.9	323.0	320.5	317.6	314.6	307.8	309.2	305.9	305.9	297.0
20°	318.6	311.3	306.8	301.9	301.9	297.9	293.1	293.6	289.2	284.7	276.9
22.5°	300.5	292.5	287.2	285.2	280.3	279.3	273.5	272.0	266.1	266.6	259.8
25°	281.4	273.5	266.1	266.6	262.2	260.3	256.8	249.9	247.5	244.5	242.6
27.5°	258.8	253.4	247.0	246.6	238.2	238.6	234.3	232.3	226.4	227.9	223.5
30°	238.2	230.4	224.5	223.0	219.6	218.6	211.8	208.7	209.7	205.9	203.4
32.5°	217.1	205.4	202.9	200.0	198.0	195.5	190.6	192.7	188.2	189.2	185.2
35°	189.2	184.3	177.9	177.9	176.0	173.9	170.6	172.5	168.1	166.1	162.2
37.5°	165.7	161.2	154.9	156.9	153.4	150.4	147.5	148.0	144.1	143.6	139.7
40°	140.2	137.7	133.4	133.4	130.8	130.8	129.4	128.0	125.4	122.6	118.1
42.5°	116.2	114.2	112.2	112.7	109.2	112.2	108.3	110.8	102.9	102.4	99.5
45°	98.5	94.1	94.6	92.7	90.6	91.6	88.2	89.2	84.8	83.8	80.9
47.5°	79.9	78.4	75.5	74.5	74.5	73.0	71.6	71.1	69.1	66.6	62.8
50°	65.7	60.3	59.3	57.9	56.9	56.9	54.9	52.0	52.5	50.0	46.1
52.5°	51.5	47.0	45.1	44.7	42.6	41.7	39.2	37.2	35.8	34.8	32.3
55°	39.7	35.8	33.4	33.4	30.4	30.4	27.0	25.4	23.5	21.6	20.1
57.5°	29.9	28.0	25.4	23.5	22.6	20.1	18.1	15.7	14.2	11.3	9.4
60°	22.6	20.5	18.1	16.7	15.7	13.2	10.8	8.8	5.4	4.4	4.0
62.5°	16.7	14.7	12.2	11.3	10.3	8.3	5.9	2.9	1.5	1.5	1.5
65°	12.2	9.8	7.8	6.8	5.9	4.4	1.9	1.0	0.5	0.5	0.5
67.5°	8.3	6.4	4.4	4.0	2.9	1.5	0.5	0.5	0.5	0.5	0.5
70°	5.4	4.0	1.9	1.5	1.0	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	3.5	1.9	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	1.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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: P563890

CATALOG NUMBER: LD4C08D010 EX4C08D2W 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7
2.5°	398.9	395.5	397.5	393.0	395.1	398.4	396.0	397.0
5°	385.2	383.3	380.8	374.4	379.3	383.3	381.3	380.8
7.5°	370.6	363.6	367.1	365.2	364.2	368.0	363.6	368.5
10°	355.3	350.4	349.9	346.6	346.6	349.4	349.9	347.0
12.5°	332.8	330.4	330.4	329.9	329.4	332.3	332.8	331.3
15°	316.7	315.6	313.2	312.7	309.7	314.1	314.6	314.1
17.5°	297.0	297.5	295.1	295.1	297.0	298.4	294.6	298.4
20°	283.8	281.4	280.3	276.0	278.4	280.8	280.8	281.4
22.5°	264.7	260.7	262.2	259.8	258.3	261.7	261.7	263.1
25°	243.1	243.1	244.0	242.6	243.6	245.6	244.0	247.5
27.5°	222.5	224.5	224.5	222.5	223.5	229.4	231.8	227.9
30°	203.4	203.8	205.4	204.4	207.3	209.2	208.7	211.8
32.5°	181.9	184.3	185.2	183.8	184.8	189.2	186.8	186.2
35°	165.2	160.7	160.3	160.7	162.8	163.7	162.8	166.1
37.5°	141.2	139.7	137.7	138.2	139.7	141.7	142.6	145.1
40°	118.1	116.2	116.2	115.7	114.2	119.6	119.6	119.6
42.5°	98.1	97.5	95.1	95.1	97.0	98.5	97.5	101.0
45°	80.4	78.4	76.9	76.9	78.4	78.4	79.9	79.4
47.5°	63.3	61.2	61.7	60.3	61.7	63.7	61.2	61.7
50°	47.5	47.5	46.6	47.5	47.0	47.5	46.6	45.6
52.5°	32.3	36.7	37.2	35.3	30.9	27.0	24.5	26.4
55°	18.6	16.7	16.7	16.2	15.2	14.7	13.2	14.7
57.5°	9.4	8.3	8.3	8.3	7.8	7.3	6.4	6.4
60°	4.0	3.5	3.5	2.9	2.4	1.9	1.5	1.9
62.5°	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
65°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	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



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)