

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: P857129

Luminaire Tested: **LX4C20D010 EX4C209027 4LBSWNH**

Issue Date: 2/18/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P857129  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LX4C20D010 EX4C209027 4LBSWNH  
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS  
AND 4LCSW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

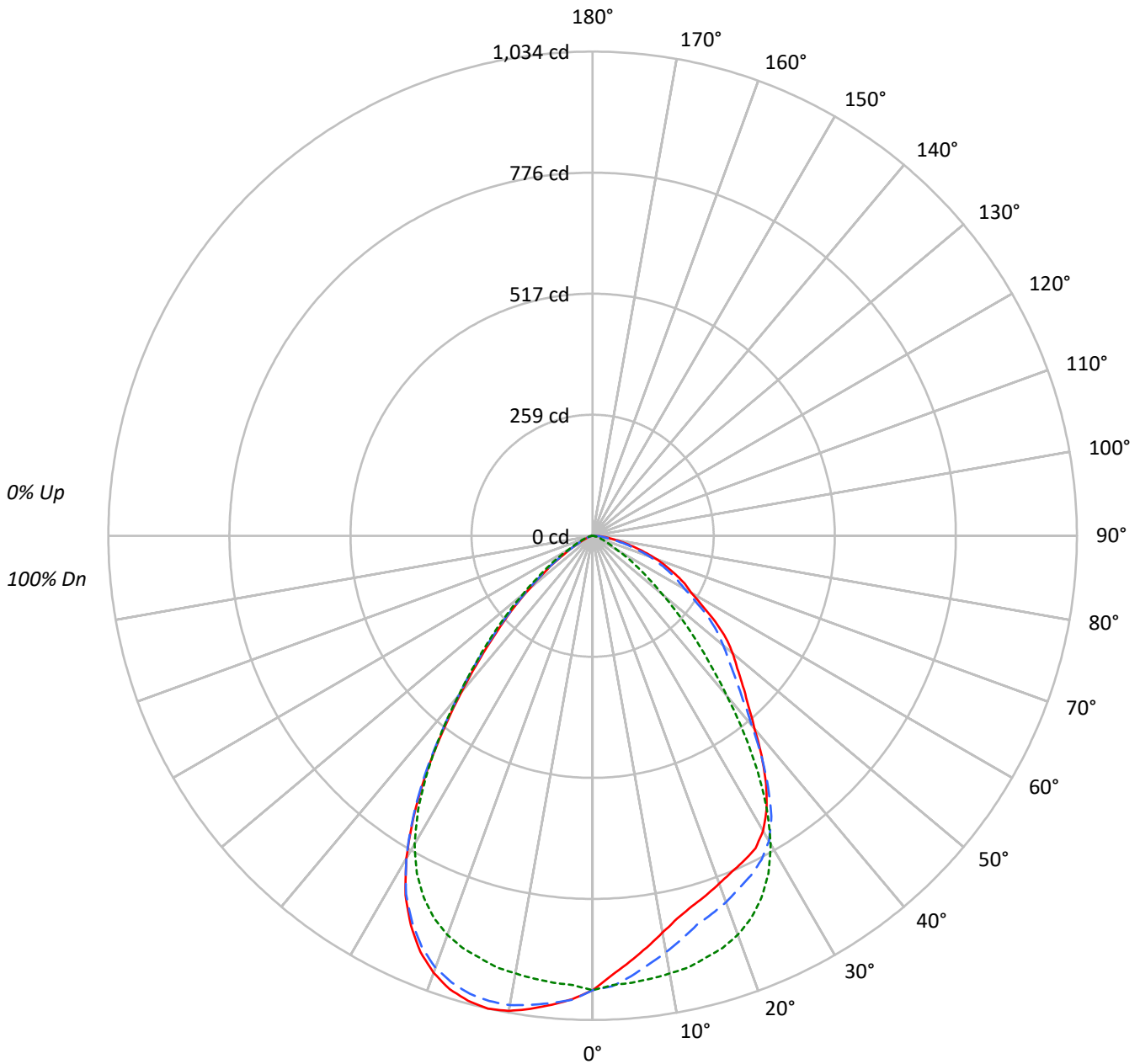
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1701.0 lumens  
Efficiency: N/A  
Efficacy: 78.0 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.8  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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: P857129

CATALOG NUMBER: LX4C20D010 EX4C209027 4LBSWNH

### Luminous Intensity Polar Plot





TEST NUMBER: P857129

CATALOG NUMBER: LX4C20D010 EX4C209027 4LBSWNH

**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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89	89	89	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79	79	79	79
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70	70	70	70
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62	62	62	62
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56	56	56	56
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50	50	50	50
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46	46	46	46
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42	42	42	42
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38	38
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35	35

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	119217	119217	119217
5°	112569	118131	123989
10°	107321	118399	128541
15°	104179	118653	130736
20°	103322	118527	129810
25°	103739	115600	124411
30°	103245	107855	112820
35°	96765	92086	93015
40°	86233	71398	69795
45°	78861	53234	49968
50°	74558	37289	33696
55°	68562	25167	21162
60°	59903	14742	11671
65°	56715	9448	6541
70°	51653	6753	4059
75°	42720	4747	2990
80°	33606	2688	1769
85°	30024	1832	0



TEST NUMBER: P857129

CATALOG NUMBER: LX4C20D010 EX4C209027 4LBSWNH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.7	5.4
10°-20°	263.0	15.5
20°-30°	389.9	22.9
30°-40°	390.4	23.0
40°-50°	272.9	16.0
50°-60°	162.4	9.5
60°-70°	84.7	5.0
70°-80°	37.7	2.2
80°-90°	8.2	0.5
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°	744.6	43.8
0°-40°	1135.1	66.7
0°-60°	1570.3	92.3
0°-90°	1701.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1701.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	970	970	970	970	970	
5°	913	944	958	1002	1005	86
15°	819	860	933	1013	1028	232
25°	765	800	853	912	918	353
35°	645	653	614	625	620	400
45°	454	431	306	296	288	352
55°	320	300	118	102	99	284
65°	195	179	32	24	22	193
75°	90	79	10	6	6	97
85°	21	16	1	1	0	24
90°	0	0	0	0	0	



TEST NUMBER: P857129

CATALOG NUMBER: LX4C20D010 EX4C209027 4LBSWNH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4
2.5°	939.1	950.4	939.1	942.9	957.9	944.1	951.6	951.6	947.9	956.6	962.9
5°	912.8	924.1	912.8	917.8	934.1	920.3	929.1	926.6	927.9	935.4	944.1
7.5°	886.6	895.3	885.3	891.6	906.6	895.3	902.8	902.8	904.1	915.3	922.9
10°	860.3	867.8	860.3	865.3	881.6	871.6	876.6	877.8	881.6	891.6	902.8
12.5°	836.6	842.8	835.3	842.8	856.6	846.6	852.8	854.1	857.8	869.1	881.6
15°	819.1	825.3	817.8	824.1	836.6	829.1	834.1	836.6	839.1	849.1	860.3
17.5°	805.3	810.3	804.1	811.6	821.6	812.8	820.3	820.3	824.1	834.1	846.6
20°	790.3	795.3	790.3	796.6	807.8	800.3	806.6	806.6	810.3	821.6	832.8
22.5°	776.6	779.1	776.6	781.6	792.8	786.6	790.3	791.6	795.3	805.3	815.3
25°	765.3	770.3	767.8	772.8	780.3	774.1	777.8	779.1	782.8	791.6	800.3
27.5°	752.8	755.3	752.8	759.1	765.3	760.3	764.1	762.8	765.3	772.8	780.3
30°	727.8	730.3	730.3	734.0	739.1	736.6	740.3	736.6	739.1	745.3	752.8
32.5°	691.5	692.8	694.0	697.8	701.5	697.8	700.3	700.3	700.3	705.3	710.3
35°	645.2	647.7	646.5	649.0	652.7	651.5	651.5	650.2	647.7	650.2	652.7
37.5°	592.7	589.0	589.0	592.7	595.2	590.2	592.7	590.2	590.2	591.5	591.5
40°	537.7	534.0	537.7	539.0	540.2	537.7	536.5	534.0	530.2	531.5	529.0
42.5°	491.5	488.9	490.2	490.2	491.5	488.9	490.2	485.2	481.4	478.9	475.2
45°	453.9	450.2	453.9	451.4	451.4	450.2	448.9	446.4	441.4	437.7	431.4
47.5°	418.9	418.9	420.1	420.1	420.1	417.6	417.6	412.6	407.6	402.6	393.9
50°	390.1	387.6	392.6	392.6	388.9	387.6	388.9	382.6	378.9	372.6	363.9
52.5°	358.9	358.9	360.1	360.1	358.9	356.4	357.6	352.6	348.9	342.6	333.9
55°	320.1	317.6	321.4	321.4	320.1	318.9	320.1	316.4	312.6	307.6	300.1
57.5°	276.4	275.1	277.6	278.9	276.4	276.4	277.6	273.9	272.6	267.6	260.1
60°	243.8	242.6	245.1	246.4	243.8	243.8	243.8	238.8	236.3	231.3	226.3
62.5°	221.3	220.1	222.6	221.3	220.1	218.8	220.1	215.1	212.6	207.6	202.6
65°	195.1	196.3	197.6	197.6	196.3	195.1	195.1	192.6	190.1	185.1	178.8
67.5°	170.0	170.0	171.3	172.5	171.3	171.3	171.3	167.5	165.0	161.3	153.8
70°	143.8	142.5	146.3	146.3	143.8	145.0	143.8	142.5	140.0	135.0	128.8
72.5°	116.3	116.3	117.5	117.5	116.3	116.3	116.3	115.0	111.3	108.8	102.5
75°	90.0	90.0	91.3	92.5	90.0	90.0	91.3	88.8	86.3	82.5	78.8
77.5°	67.5	66.3	67.5	67.5	66.3	66.3	66.3	65.0	63.8	60.0	56.3
80°	47.5	46.3	47.5	47.5	47.5	46.3	46.3	45.0	45.0	42.5	38.8
82.5°	32.5	31.3	32.5	32.5	32.5	31.3	31.3	31.3	30.0	28.8	26.3
85°	21.3	20.0	20.0	21.3	20.0	20.0	20.0	20.0	18.8	17.5	16.3
87.5°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	8.8	8.8	8.8	7.5
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: P857129

CATALOG NUMBER: LX4C20D010 EX4C209027 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4
2.5°	957.9	955.4	962.9	960.4	961.6	955.4	965.4	960.4	966.6	960.4	972.9
5°	941.6	939.1	950.4	949.1	950.4	945.4	956.6	955.4	962.9	957.9	971.6
7.5°	924.1	921.6	934.1	935.4	937.9	932.9	947.9	947.9	955.4	954.1	969.1
10°	904.1	905.3	917.8	920.3	925.4	922.9	936.6	940.4	950.4	949.1	967.9
12.5°	885.3	885.3	901.6	906.6	910.3	909.1	925.4	930.4	941.6	944.1	961.6
15°	866.6	867.8	882.8	890.3	895.3	894.1	911.6	917.8	931.6	932.9	954.1
17.5°	851.6	850.3	866.6	872.8	880.3	879.1	897.8	905.3	919.1	922.9	942.9
20°	839.1	837.8	852.8	860.3	865.3	864.1	882.8	891.6	904.1	906.6	926.6
22.5°	824.1	821.6	836.6	842.8	847.8	846.6	862.8	869.1	881.6	884.1	902.8
25°	806.6	804.1	817.8	821.6	825.3	822.8	836.6	840.3	850.3	852.8	871.6
27.5°	786.6	780.3	791.6	791.6	794.1	790.3	800.3	804.1	812.8	812.8	830.3
30°	755.3	746.6	752.8	751.6	752.8	747.8	754.1	755.3	761.6	760.3	772.8
32.5°	711.5	699.0	702.8	699.0	695.3	687.8	695.3	692.8	697.8	692.8	704.0
35°	651.5	639.0	637.7	632.7	629.0	622.7	622.7	616.5	617.7	614.0	621.5
37.5°	586.5	570.2	567.7	557.7	551.5	544.0	544.0	539.0	532.7	530.2	536.5
40°	522.7	505.2	499.0	482.7	476.4	468.9	463.9	457.7	455.2	445.2	450.2
42.5°	467.7	448.9	435.2	417.6	411.4	400.1	392.6	385.1	381.4	370.1	375.1
45°	421.4	398.9	383.9	361.4	352.6	340.1	328.9	320.1	311.4	306.4	303.9
47.5°	382.6	358.9	338.9	313.9	300.1	288.9	273.9	265.1	253.9	247.6	243.8
50°	350.1	323.9	301.4	272.6	258.9	246.4	228.8	215.1	205.1	195.1	192.6
52.5°	321.4	293.9	268.9	236.3	220.1	205.1	186.3	171.3	162.5	151.3	150.0
55°	287.6	263.9	236.3	202.6	186.3	171.3	151.3	136.3	125.0	117.5	115.0
57.5°	251.4	228.8	202.6	168.8	152.5	136.3	117.5	103.8	93.8	87.5	86.3
60°	217.6	196.3	171.3	137.5	121.3	107.5	87.5	73.8	65.0	60.0	57.5
62.5°	192.6	172.5	148.8	117.5	102.5	88.8	70.0	57.5	50.0	45.0	42.5
65°	168.8	148.8	127.5	98.8	86.3	73.8	56.3	45.0	37.5	32.5	30.0
67.5°	143.8	126.3	106.3	82.5	70.0	60.0	45.0	35.0	28.8	25.0	22.5
70°	118.8	102.5	86.3	66.3	57.5	47.5	35.0	27.5	21.3	18.8	16.3
72.5°	93.8	81.3	67.5	51.3	43.8	37.5	27.5	20.0	16.3	13.8	11.3
75°	70.0	61.3	50.0	38.8	32.5	27.5	20.0	15.0	12.5	10.0	8.8
77.5°	50.0	42.5	35.0	26.3	23.8	20.0	13.8	11.3	8.8	6.3	5.0
80°	33.8	30.0	23.8	18.8	15.0	13.8	10.0	7.5	5.0	3.8	3.8
82.5°	22.5	18.8	15.0	11.3	10.0	8.8	6.3	5.0	3.8	2.5	2.5
85°	13.8	11.3	8.8	6.3	6.3	5.0	3.8	2.5	1.3	1.3	1.3
87.5°	6.3	5.0	3.8	2.5	2.5	1.3	1.3	1.3	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: P857129

CATALOG NUMBER: LX4C20D010 EX4C209027 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4
2.5°	982.9	975.4	970.4	976.6	979.1	975.4	979.1	985.4	991.7	992.9	975.4
5°	984.2	976.6	974.1	981.6	982.9	981.6	985.4	994.2	1001.7	1004.2	986.7
7.5°	984.2	979.1	977.9	986.7	987.9	986.7	992.9	1002.9	1010.4	1015.4	997.9
10°	981.6	979.1	980.4	987.9	990.4	990.4	999.2	1010.4	1017.9	1022.9	1005.4
12.5°	977.9	977.9	977.9	986.7	989.2	990.4	997.9	1012.9	1017.9	1025.4	1007.9
15°	971.6	971.6	971.6	980.4	984.2	984.2	992.9	1006.7	1012.9	1020.4	1002.9
17.5°	960.4	960.4	961.6	969.1	972.9	972.9	981.6	996.7	1000.4	1009.2	991.7
20°	944.1	944.1	945.4	952.9	956.6	954.1	965.4	977.9	981.6	989.2	971.6
22.5°	920.3	920.3	920.3	927.9	930.4	929.1	940.4	951.6	951.6	961.6	942.9
25°	885.3	887.8	885.3	892.8	895.3	894.1	904.1	914.1	911.6	922.9	904.1
27.5°	842.8	841.6	841.6	847.8	847.8	846.6	854.1	865.3	862.8	870.3	852.8
30°	784.1	787.8	781.6	790.3	786.6	784.1	789.1	799.1	795.3	801.6	787.8
32.5°	716.5	711.5	711.5	711.5	714.0	707.8	712.8	717.8	714.0	720.3	705.3
35°	627.7	629.0	625.2	626.5	627.7	620.2	625.2	630.2	625.2	629.0	615.2
37.5°	539.0	540.2	531.5	536.5	531.5	529.0	534.0	536.5	531.5	535.2	520.2
40°	450.2	447.7	446.4	446.4	447.7	441.4	445.2	448.9	445.2	447.7	433.9
42.5°	372.6	371.4	368.9	370.1	366.4	365.1	366.4	370.1	366.4	368.9	358.9
45°	305.1	302.6	298.9	300.1	300.1	293.9	297.6	300.1	296.4	297.6	288.9
47.5°	242.6	238.8	238.8	237.6	237.6	235.1	238.8	237.6	233.8	236.3	227.6
50°	188.8	186.3	186.3	186.3	186.3	182.5	183.8	186.3	182.5	182.5	177.5
52.5°	147.5	143.8	141.3	141.3	141.3	140.0	140.0	141.3	137.5	137.5	136.3
55°	111.3	110.0	106.3	106.3	106.3	102.5	103.8	103.8	102.5	102.5	98.8
57.5°	82.5	78.8	76.3	76.3	73.8	73.8	72.5	73.8	71.3	71.3	68.8
60°	55.0	52.5	51.3	50.0	50.0	48.8	50.0	48.8	48.8	47.5	46.3
62.5°	40.0	37.5	35.0	35.0	35.0	33.8	33.8	33.8	33.8	33.8	32.5
65°	28.8	26.3	26.3	25.0	25.0	23.8	23.8	23.8	23.8	23.8	22.5
67.5°	20.0	18.8	17.5	17.5	17.5	17.5	17.5	17.5	16.3	16.3	16.3
70°	15.0	13.8	12.5	12.5	12.5	12.5	12.5	11.3	12.5	12.5	11.3
72.5°	10.0	10.0	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
75°	7.5	7.5	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
77.5°	5.0	5.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
80°	3.8	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
82.5°	2.5	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.0
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





TEST NUMBER: P857129

CATALOG NUMBER: LX4C20D010 EX4C209027 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	970.4	970.4	970.4	970.4	970.4	970.4	970.4	970.4
2.5°	994.2	992.9	990.4	994.2	984.2	980.4	979.1	990.4
5°	1007.9	1005.4	1005.4	1009.2	997.9	995.4	992.9	1005.4
7.5°	1020.4	1017.9	1017.9	1021.7	1011.7	1009.2	1006.7	1019.2
10°	1027.9	1027.9	1027.9	1030.4	1021.7	1019.2	1017.9	1030.4
12.5°	1031.7	1031.7	1030.4	1035.4	1024.2	1024.2	1021.7	1034.2
15°	1026.7	1026.7	1026.7	1030.4	1020.4	1017.9	1017.9	1027.9
17.5°	1014.2	1014.2	1012.9	1016.7	1005.4	1005.4	1004.2	1015.4
20°	995.4	995.4	992.9	997.9	986.7	982.9	981.6	992.9
22.5°	965.4	964.1	962.9	965.4	955.4	952.9	951.6	961.6
25°	926.6	925.4	922.9	925.4	914.1	910.3	910.3	917.8
27.5°	871.6	871.6	867.8	871.6	859.1	857.8	856.6	865.3
30°	804.1	799.1	796.6	801.6	789.1	789.1	786.6	795.3
32.5°	720.3	715.3	714.0	716.5	705.3	701.5	706.5	711.5
35°	624.0	625.2	620.2	620.2	610.2	611.5	612.7	620.2
37.5°	531.5	529.0	527.7	529.0	521.5	519.0	516.5	524.0
40°	445.2	438.9	437.7	437.7	431.4	430.2	431.4	435.2
42.5°	363.9	362.6	357.6	360.1	353.9	356.4	355.1	355.1
45°	293.9	295.1	290.1	293.9	288.9	285.1	285.1	287.6
47.5°	232.6	232.6	231.3	231.3	227.6	228.8	226.3	230.1
50°	180.0	180.0	177.5	178.8	176.3	176.3	175.0	176.3
52.5°	137.5	136.3	136.3	135.0	132.5	133.8	135.0	132.5
55°	100.0	101.3	98.8	100.0	97.5	98.8	97.5	98.8
57.5°	68.8	70.0	67.5	70.0	67.5	68.8	67.5	67.5
60°	47.5	47.5	46.3	47.5	46.3	46.3	45.0	47.5
62.5°	32.5	32.5	32.5	32.5	32.5	31.3	32.5	32.5
65°	23.8	22.5	22.5	22.5	22.5	22.5	22.5	22.5
67.5°	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
70°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
72.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
75°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
77.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
80°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
82.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
85°	1.3	1.3	1.3	0.0	1.3	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)