

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: P857151

Luminaire Tested: **LX4C20D010 EX4C209030 4LBSWNH**

Issue Date: 2/18/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P857151  
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 EX4C209030 4LBSWNH  
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LCSW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

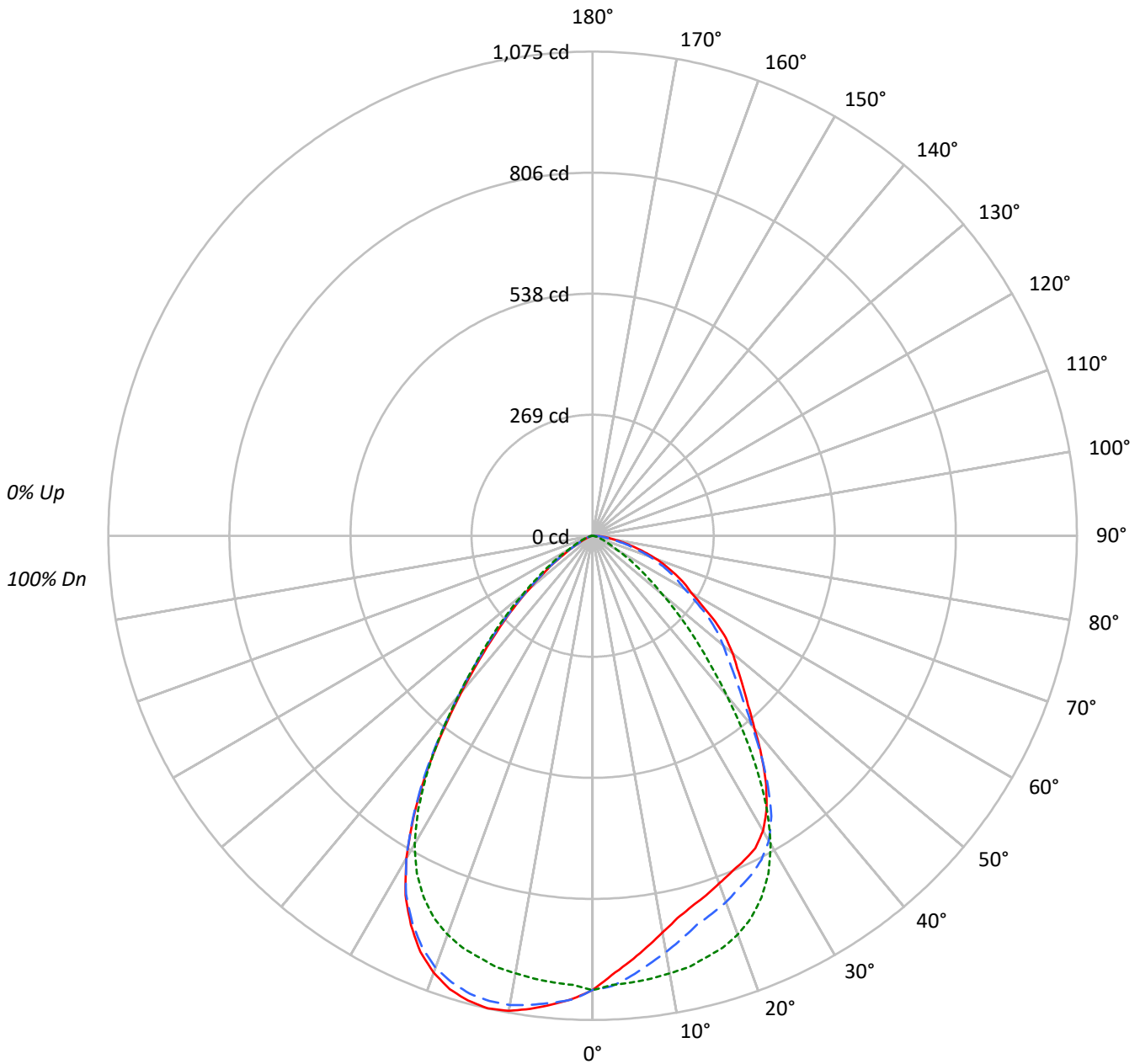
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1768.0 lumens  
Efficiency: N/A  
Efficacy: 81.1 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

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### Luminous Intensity Polar Plot





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**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°	123910	123910	123910
5°	117009	122780	128872
10°	111550	123065	133606
15°	108275	123321	135887
20°	107388	123194	134922
25°	107820	120155	129318
30°	107316	112097	117261
35°	100589	95715	96690
40°	89633	74205	72537
45°	81971	55319	51931
50°	77502	38760	35033
55°	71282	26174	21997
60°	62262	15332	12138
65°	58953	9826	6802
70°	53700	7004	4203
75°	44429	4937	3085
80°	34950	2759	1839
85°	31152	1832	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.3	5.4
10°-20°	273.4	15.5
20°-30°	405.3	22.9
30°-40°	405.8	23.0
40°-50°	283.6	16.0
50°-60°	168.8	9.5
60°-70°	88.1	5.0
70°-80°	39.2	2.2
80°-90°	8.5	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°	774.0	43.8
0°-40°	1179.8	66.7
0°-60°	1632.2	92.3
0°-90°	1768.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1768.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1009	1009	1009	1009	1009	
5°	949	981	996	1041	1045	89
15°	851	894	970	1053	1068	241
25°	795	832	886	948	954	366
35°	671	678	638	650	645	416
45°	472	448	318	308	299	366
55°	333	312	122	107	103	295
65°	203	186	34	25	23	201
75°	94	82	10	6	6	101
85°	22	17	1	1	0	25
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°	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6
2.5°	976.1	987.8	976.1	980.0	995.6	981.3	989.1	989.1	985.2	994.3	1000.8
5°	948.8	960.5	948.8	954.0	970.9	956.6	965.7	963.1	964.4	972.2	981.3
7.5°	921.5	930.6	920.2	926.7	942.3	930.6	938.4	938.4	939.7	951.4	959.2
10°	894.2	902.0	894.2	899.4	916.3	906.0	911.1	912.4	916.3	926.7	938.4
12.5°	869.5	876.0	868.2	876.0	890.3	879.9	886.4	887.7	891.6	903.4	916.3
15°	851.3	857.9	850.1	856.5	869.5	861.7	866.9	869.5	872.1	882.5	894.2
17.5°	837.1	842.3	835.7	843.5	853.9	844.9	852.7	852.7	856.5	866.9	879.9
20°	821.4	826.6	821.4	827.9	839.7	831.9	838.3	838.3	842.3	853.9	865.7
22.5°	807.2	809.8	807.2	812.4	824.0	817.6	821.4	822.8	826.6	837.1	847.5
25°	795.4	800.6	798.0	803.2	811.0	804.6	808.4	809.8	813.6	822.8	831.9
27.5°	782.4	785.0	782.4	789.0	795.4	790.2	794.2	792.8	795.4	803.2	811.0
30°	756.5	759.1	759.1	762.9	768.2	765.6	769.5	765.6	768.2	774.7	782.4
32.5°	718.8	720.1	721.4	725.3	729.2	725.3	727.9	727.9	727.9	733.1	738.3
35°	670.7	673.3	672.0	674.6	678.5	677.2	677.2	675.9	673.3	675.9	678.5
37.5°	616.1	612.2	612.2	616.1	618.7	613.5	616.1	613.5	613.5	614.8	614.8
40°	558.9	555.0	558.9	560.2	561.5	558.9	557.6	555.0	551.1	552.4	549.8
42.5°	510.8	508.2	509.5	509.5	510.8	508.2	509.5	504.3	500.4	497.8	493.9
45°	471.8	467.9	471.8	469.2	469.2	467.9	466.6	464.0	458.8	454.9	448.4
47.5°	435.4	435.4	436.7	436.7	436.7	434.1	434.1	428.9	423.7	418.5	409.4
50°	405.5	402.9	408.1	408.1	404.2	402.9	404.2	397.7	393.8	387.3	378.2
52.5°	373.0	373.0	374.3	374.3	373.0	370.4	371.7	366.5	362.6	356.1	347.0
55°	332.8	330.2	334.0	334.0	332.8	331.4	332.8	328.8	325.0	319.8	311.9
57.5°	287.3	285.9	288.5	289.9	287.3	287.3	288.5	284.7	283.3	278.1	270.3
60°	253.4	252.2	254.8	256.1	253.4	253.4	253.4	248.2	245.6	240.4	235.2
62.5°	230.0	228.8	231.4	230.0	228.8	227.4	228.8	223.6	221.0	215.8	210.6
65°	202.8	204.1	205.4	205.4	204.1	202.8	202.8	200.2	197.6	192.4	185.9
67.5°	176.7	176.7	178.1	179.3	178.1	178.1	178.1	174.1	171.6	167.7	159.9
70°	149.5	148.2	152.1	152.1	149.5	150.8	149.5	148.2	145.6	140.4	133.9
72.5°	120.9	120.9	122.2	122.2	120.9	120.9	120.9	119.6	115.7	113.1	106.6
75°	93.6	93.6	94.9	96.2	93.6	93.6	94.9	92.3	89.7	85.8	81.9
77.5°	70.2	68.9	70.2	70.2	68.9	68.9	68.9	67.6	66.3	62.4	58.5
80°	49.4	48.1	49.4	49.4	49.4	48.1	48.1	46.8	46.8	44.2	40.3
82.5°	33.8	32.5	33.8	33.8	33.8	32.5	32.5	32.5	31.2	29.9	27.3
85°	22.1	20.8	20.8	22.1	20.8	20.8	20.8	20.8	19.5	18.2	16.9
87.5°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	9.1	9.1	9.1	7.8
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°	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6
2.5°	995.6	993.0	1000.8	998.2	999.5	993.0	1003.4	998.2	1004.7	998.2	1011.2
5°	978.7	976.1	987.8	986.5	987.8	982.6	994.3	993.0	1000.8	995.6	1009.9
7.5°	960.5	957.9	970.9	972.2	974.8	969.6	985.2	985.2	993.0	991.7	1007.3
10°	939.7	941.0	954.0	956.6	961.8	959.2	973.5	977.4	987.8	986.5	1006.0
12.5°	920.2	920.2	937.1	942.3	946.2	944.9	961.8	967.0	978.7	981.3	999.5
15°	900.8	902.0	917.6	925.4	930.6	929.3	947.5	954.0	968.3	969.6	991.7
17.5°	885.1	883.8	900.8	907.2	915.0	913.7	933.2	941.0	955.3	959.2	980.0
20°	872.1	870.8	886.4	894.2	899.4	898.2	917.6	926.7	939.7	942.3	963.1
22.5°	856.5	853.9	869.5	876.0	881.2	879.9	896.8	903.4	916.3	918.9	938.4
25°	838.3	835.7	850.1	853.9	857.9	855.3	869.5	873.4	883.8	886.4	906.0
27.5°	817.6	811.0	822.8	822.8	825.3	821.4	831.9	835.7	844.9	844.9	863.1
30°	785.0	776.0	782.4	781.2	782.4	777.3	783.8	785.0	791.6	790.2	803.2
32.5°	739.5	726.6	730.5	726.6	722.7	714.9	722.7	720.1	725.3	720.1	731.8
35°	677.2	664.2	662.9	657.7	653.8	647.3	647.3	640.8	642.1	638.2	646.0
37.5°	609.6	592.7	590.1	579.7	573.2	565.4	565.4	560.2	553.7	551.1	557.6
40°	543.3	525.1	518.6	501.7	495.2	487.4	482.2	475.7	473.1	462.7	467.9
42.5°	486.1	466.6	452.3	434.1	427.6	415.9	408.1	400.3	396.4	384.7	389.9
45°	438.0	414.6	399.0	375.6	366.5	353.5	341.8	332.8	323.6	318.4	315.8
47.5°	397.7	373.0	352.2	326.2	311.9	300.3	284.7	275.5	263.9	257.4	253.4
50°	363.9	336.6	313.2	283.3	269.1	256.1	237.8	223.6	213.2	202.8	200.2
52.5°	334.0	305.4	279.5	245.6	228.8	213.2	193.7	178.1	169.0	157.3	156.0
55°	298.9	274.3	245.6	210.6	193.7	178.1	157.3	141.7	130.0	122.2	119.6
57.5°	261.3	237.8	210.6	175.5	158.6	141.7	122.2	107.9	97.5	91.0	89.7
60°	226.2	204.1	178.1	143.0	126.1	111.8	91.0	76.7	67.6	62.4	59.8
62.5°	200.2	179.3	154.7	122.2	106.6	92.3	72.8	59.8	52.0	46.8	44.2
65°	175.5	154.7	132.6	102.7	89.7	76.7	58.5	46.8	39.0	33.8	31.2
67.5°	149.5	131.3	110.5	85.8	72.8	62.4	46.8	36.4	29.9	26.0	23.4
70°	123.5	106.6	89.7	68.9	59.8	49.4	36.4	28.6	22.1	19.5	16.9
72.5°	97.5	84.5	70.2	53.3	45.5	39.0	28.6	20.8	16.9	14.3	11.7
75°	72.8	63.7	52.0	40.3	33.8	28.6	20.8	15.6	13.0	10.4	9.1
77.5°	52.0	44.2	36.4	27.3	24.7	20.8	14.3	11.7	9.1	6.5	5.2
80°	35.1	31.2	24.7	19.5	15.6	14.3	10.4	7.8	5.2	3.9	3.9
82.5°	23.4	19.5	15.6	11.7	10.4	9.1	6.5	5.2	3.9	2.6	2.6
85°	14.3	11.7	9.1	6.5	6.5	5.2	3.9	2.6	1.3	1.3	1.3
87.5°	6.5	5.2	3.9	2.6	2.6	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



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6
2.5°	1021.6	1013.8	1008.6	1015.1	1017.7	1013.8	1017.7	1024.2	1030.7	1032.0	1013.8
5°	1022.9	1015.1	1012.5	1020.3	1021.6	1020.3	1024.2	1033.3	1041.1	1043.7	1025.5
7.5°	1022.9	1017.7	1016.4	1025.5	1026.8	1025.5	1032.0	1042.4	1050.2	1055.4	1037.2
10°	1020.3	1017.7	1019.0	1026.8	1029.4	1029.4	1038.5	1050.2	1058.0	1063.2	1045.0
12.5°	1016.4	1016.4	1016.4	1025.5	1028.1	1029.4	1037.2	1052.8	1058.0	1065.8	1047.6
15°	1009.9	1009.9	1009.9	1019.0	1022.9	1022.9	1032.0	1046.3	1052.8	1060.6	1042.4
17.5°	998.2	998.2	999.5	1007.3	1011.2	1011.2	1020.3	1035.9	1039.8	1048.9	1030.7
20°	981.3	981.3	982.6	990.4	994.3	991.7	1003.4	1016.4	1020.3	1028.1	1009.9
22.5°	956.6	956.6	956.6	964.4	967.0	965.7	977.4	989.1	989.1	999.5	980.0
25°	920.2	922.8	920.2	928.0	930.6	929.3	939.7	950.1	947.5	959.2	939.7
27.5°	876.0	874.7	874.7	881.2	881.2	879.9	887.7	899.4	896.8	904.6	886.4
30°	815.0	818.8	812.4	821.4	817.6	815.0	820.2	830.5	826.6	833.1	818.8
32.5°	744.7	739.5	739.5	739.5	742.1	735.7	740.9	746.1	742.1	748.7	733.1
35°	652.5	653.8	649.9	651.2	652.5	644.7	649.9	655.1	649.9	653.8	639.5
37.5°	560.2	561.5	552.4	557.6	552.4	549.8	555.0	557.6	552.4	556.3	540.7
40°	467.9	465.3	464.0	464.0	465.3	458.8	462.7	466.6	462.7	465.3	451.0
42.5°	387.3	386.1	383.5	384.7	380.8	379.5	380.8	384.7	380.8	383.5	373.0
45°	317.1	314.5	310.6	311.9	311.9	305.4	309.3	311.9	308.0	309.3	300.3
47.5°	252.2	248.2	248.2	247.0	247.0	244.4	248.2	247.0	243.0	245.6	236.6
50°	196.3	193.7	193.7	193.7	193.7	189.7	191.1	193.7	189.7	189.7	184.5
52.5°	153.4	149.5	146.9	146.9	146.9	145.6	145.6	146.9	143.0	143.0	141.7
55°	115.7	114.4	110.5	110.5	110.5	106.6	107.9	107.9	106.6	106.6	102.7
57.5°	85.8	81.9	79.3	79.3	76.7	76.7	75.4	76.7	74.1	74.1	71.5
60°	57.2	54.6	53.3	52.0	52.0	50.7	52.0	50.7	50.7	49.4	48.1
62.5°	41.6	39.0	36.4	36.4	36.4	35.1	35.1	35.1	35.1	35.1	33.8
65°	29.9	27.3	27.3	26.0	26.0	24.7	24.7	24.7	24.7	24.7	23.4
67.5°	20.8	19.5	18.2	18.2	18.2	18.2	18.2	18.2	16.9	16.9	16.9
70°	15.6	14.3	13.0	13.0	13.0	13.0	13.0	11.7	13.0	13.0	11.7
72.5°	10.4	10.4	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
75°	7.8	7.8	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
77.5°	5.2	5.2	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
80°	3.9	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	2.6	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





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CATALOG NUMBER: LX4C20D010 EX4C209030 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6	1008.6
2.5°	1033.3	1032.0	1029.4	1033.3	1022.9	1019.0	1017.7	1029.4
5°	1047.6	1045.0	1045.0	1048.9	1037.2	1034.6	1032.0	1045.0
7.5°	1060.6	1058.0	1058.0	1061.9	1051.5	1048.9	1046.3	1059.3
10°	1068.4	1068.4	1068.4	1071.0	1061.9	1059.3	1058.0	1071.0
12.5°	1072.3	1072.3	1071.0	1076.2	1064.5	1064.5	1061.9	1074.9
15°	1067.1	1067.1	1067.1	1071.0	1060.6	1058.0	1058.0	1068.4
17.5°	1054.1	1054.1	1052.8	1056.7	1045.0	1045.0	1043.7	1055.4
20°	1034.6	1034.6	1032.0	1037.2	1025.5	1021.6	1020.3	1032.0
22.5°	1003.4	1002.1	1000.8	1003.4	993.0	990.4	989.1	999.5
25°	963.1	961.8	959.2	961.8	950.1	946.2	946.2	954.0
27.5°	906.0	906.0	902.0	906.0	892.9	891.6	890.3	899.4
30°	835.7	830.5	827.9	833.1	820.2	820.2	817.6	826.6
32.5°	748.7	743.5	742.1	744.7	733.1	729.2	734.4	739.5
35°	648.6	649.9	644.7	644.7	634.3	635.6	636.9	644.7
37.5°	552.4	549.8	548.5	549.8	542.0	539.4	536.8	544.6
40°	462.7	456.2	454.9	454.9	448.4	447.1	448.4	452.3
42.5°	378.2	376.9	371.7	374.3	367.8	370.4	369.1	369.1
45°	305.4	306.7	301.5	305.4	300.3	296.3	296.3	298.9
47.5°	241.8	241.8	240.4	240.4	236.6	237.8	235.2	239.2
50°	187.1	187.1	184.5	185.9	183.3	183.3	181.9	183.3
52.5°	143.0	141.7	141.7	140.4	137.8	139.1	140.4	137.8
55°	104.0	105.3	102.7	104.0	101.4	102.7	101.4	102.7
57.5°	71.5	72.8	70.2	72.8	70.2	71.5	70.2	70.2
60°	49.4	49.4	48.1	49.4	48.1	48.1	46.8	49.4
62.5°	33.8	33.8	33.8	33.8	33.8	32.5	33.8	33.8
65°	24.7	23.4	23.4	23.4	23.4	23.4	23.4	23.4
67.5°	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
70°	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
72.5°	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
75°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
77.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
80°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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)