

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: FAIL-SAFE

Report Number: P735623

Luminaire Tested: **4APN6-34-B2750-W2D-CP250-2700K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P735623  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P709119)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4APN6-34-B2750-W2D-CP250-2700K  
Description: 4FT 3400 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 2700K CCT, AND CP250 LENS

Light Source: -  
Ballast/Driver: -

**Summary**

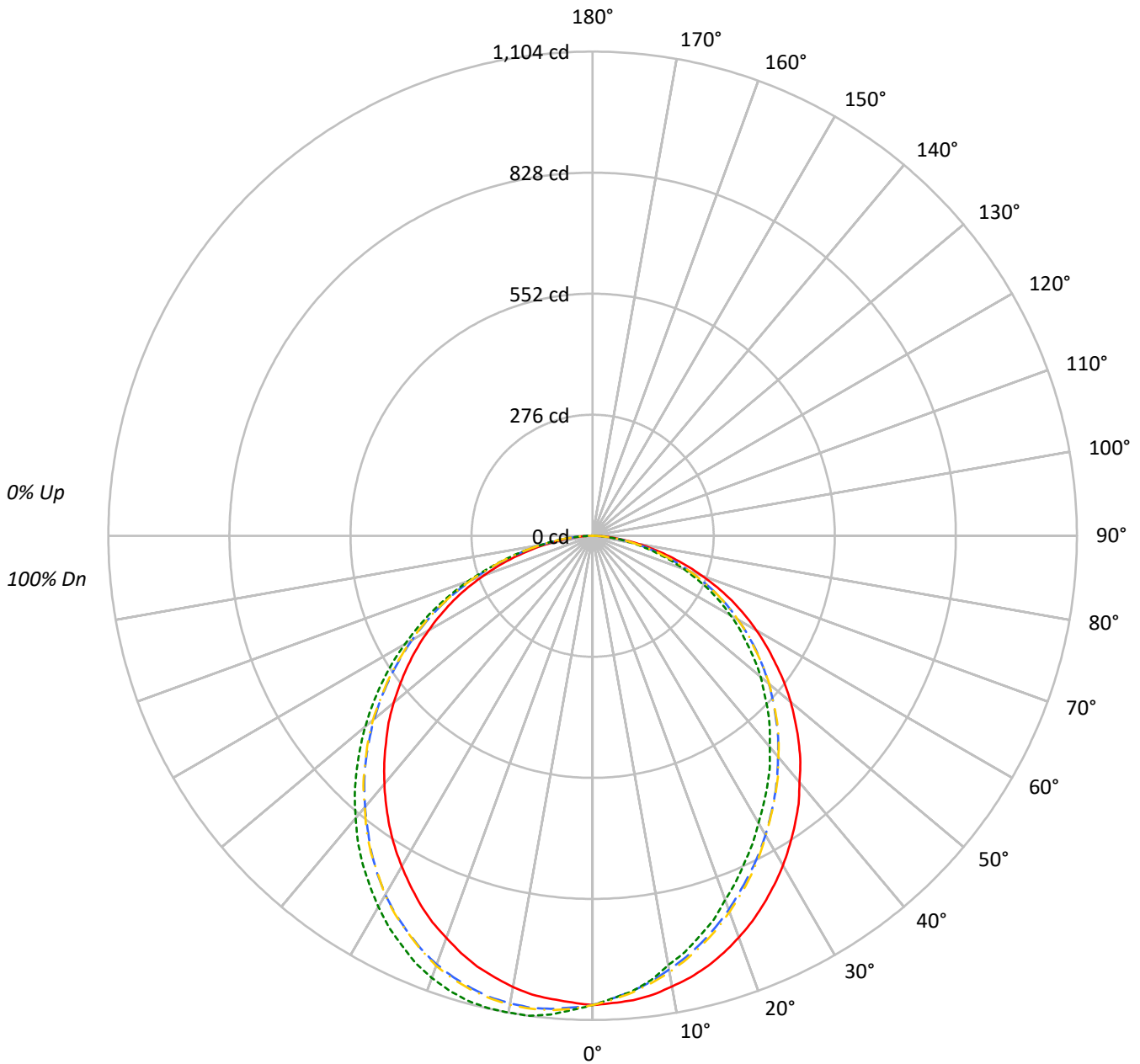
Lumens per Lamp: N/A  
Luminaire Lumens: 2870.0 lumens  
Efficiency: N/A  
Efficacy: 67.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 42.7  
Input Voltage (V): NR  
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									
RC	80									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																			
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84																			
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	70																			
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59																			
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	51																			
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44																			
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	41	38																			
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34																			
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30																			
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27																			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25																			

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

	0°	90°	180°	270°
0°	9873	9873	9873	9873
5°	9844	9653	9821	10147
10°	9775	9311	9787	10343
15°	9701	9020	9713	10487
20°	9568	8676	9580	10530
25°	9414	8356	9451	10487
30°	9246	8060	9272	10406
35°	9053	7826	9094	10294
40°	8835	7566	8894	10118
45°	8670	7377	8687	9935
50°	8463	7177	8496	9712
55°	8197	6914	8255	9444
60°	7951	6702	7975	9114
65°	7637	6421	7637	8722
70°	7119	5945	7086	8130
75°	6474	5393	6384	7297
80°	5600	4633	5403	6243
85°	4361	3462	4107	5124



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.1	3.5
10°-20°	287.0	10.0
20°-30°	426.6	14.9
30°-40°	502.8	17.5
40°-50°	512.0	17.8
50°-60°	456.1	15.9
60°-70°	343.6	12.0
70°-80°	191.1	6.7
80°-90°	49.7	1.7
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°	814.7	28.4
0°-40°	1317.5	45.9
0°-60°	2285.6	79.6
0°-90°	2870.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2870.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1070	1070	1070	1070	1070	
5°	1063	1042	1060	1096	1063	101
15°	1016	944	1017	1098	1016	286
25°	925	821	928	1030	925	426
35°	804	695	807	914	804	503
45°	664	565	666	761	664	512
55°	510	430	513	587	510	457
65°	350	294	350	400	350	345
75°	182	151	179	205	182	193
85°	41	33	39	48	41	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1
2.5°	1066.5	1066.5	1067.6	1062.9	1056.8	1054.4	1053.2	1051.9	1054.4	1055.5	1054.4
5°	1062.9	1060.4	1058.0	1051.9	1044.7	1039.8	1037.4	1036.2	1038.7	1042.3	1038.7
7.5°	1055.5	1050.8	1045.9	1037.4	1029.0	1021.7	1018.1	1015.6	1018.1	1021.7	1019.2
10°	1043.4	1037.4	1030.2	1020.5	1008.4	999.9	996.3	992.7	993.9	993.9	993.9
12.5°	1031.3	1023.0	1014.5	1002.4	989.0	979.3	973.2	968.5	970.8	972.1	972.1
15°	1015.6	1004.8	992.7	979.3	966.0	955.1	947.9	943.0	944.3	944.3	945.4
17.5°	996.3	984.2	972.1	956.4	940.5	928.4	920.1	914.0	916.3	917.6	918.8
20°	974.5	961.1	947.9	930.9	914.0	900.6	892.1	884.9	883.7	883.7	884.9
22.5°	951.5	936.9	921.2	903.1	884.9	870.3	861.8	854.6	853.5	853.5	854.6
25°	924.8	909.1	893.4	875.2	855.8	841.4	830.4	823.2	821.9	820.8	823.2
27.5°	897.0	881.3	865.6	847.4	826.8	812.3	801.3	794.1	791.7	790.5	793.0
30°	867.9	849.7	832.9	813.4	795.3	780.8	769.9	761.4	759.1	756.6	759.1
32.5°	836.5	818.3	800.2	780.8	762.7	748.1	737.2	728.8	726.4	725.1	727.5
35°	803.8	785.6	768.7	749.3	731.1	716.7	705.8	698.6	696.1	694.8	696.1
37.5°	771.0	753.0	736.0	716.7	698.6	684.0	673.0	665.8	664.5	663.4	664.5
40°	733.6	717.9	700.9	682.7	664.5	650.1	641.6	633.1	630.7	628.2	632.0
42.5°	700.9	685.1	668.3	651.3	633.1	618.6	608.9	601.7	599.3	598.0	599.3
45°	664.5	647.7	630.7	615.0	598.0	584.7	575.0	567.7	566.5	565.4	566.5
47.5°	625.9	611.4	596.8	581.1	564.1	550.8	542.3	535.1	532.7	530.2	532.7
50°	589.6	575.0	560.5	545.9	530.2	518.1	509.6	502.4	501.1	500.0	501.1
52.5°	550.8	536.3	523.0	508.5	495.1	482.9	474.6	468.5	467.2	466.1	467.2
55°	509.6	497.5	485.4	473.3	460.0	449.1	441.9	434.5	432.2	429.8	432.2
57.5°	470.8	460.0	447.9	435.8	423.7	414.1	406.7	400.7	399.5	398.2	399.5
60°	430.9	421.3	410.3	399.5	387.4	377.7	371.7	366.8	364.3	363.2	364.3
62.5°	391.0	381.3	372.8	361.9	351.1	343.7	337.7	332.9	330.5	329.3	330.5
65°	349.8	341.4	332.9	323.3	314.8	307.4	301.4	296.6	295.3	294.1	294.1
67.5°	307.4	300.2	293.0	284.5	274.8	267.5	261.4	257.8	256.7	255.4	256.7
70°	263.9	257.8	250.6	243.3	236.1	230.0	226.4	222.8	221.5	220.4	220.4
72.5°	222.8	217.9	211.9	205.8	199.8	193.7	190.1	187.6	186.5	185.2	185.2
75°	181.6	176.7	173.1	168.3	162.3	158.5	154.9	152.5	151.3	151.3	151.3
77.5°	142.8	139.2	135.6	130.7	127.1	123.5	121.1	119.9	118.6	118.6	118.6
80°	105.4	102.9	100.5	98.0	94.4	90.8	89.6	88.3	87.2	87.2	87.2
82.5°	71.5	70.2	67.7	65.4	63.0	61.7	60.5	59.4	59.4	59.4	59.4
85°	41.2	39.9	38.8	37.5	36.3	36.3	35.2	33.9	32.7	32.7	32.7
87.5°	17.0	17.0	17.0	15.7	14.6	14.6	14.6	14.6	14.6	14.6	14.6
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):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1
2.5°	1051.9	1054.4	1056.8	1060.4	1064.0	1067.6	1066.5	1065.3	1070.1	1076.1	1077.4
5°	1036.2	1038.7	1042.3	1048.3	1054.4	1059.3	1060.4	1060.4	1070.1	1078.6	1081.0
7.5°	1016.9	1020.5	1025.3	1031.3	1039.8	1047.2	1050.8	1055.5	1065.3	1076.1	1081.0
10°	992.7	998.8	1006.0	1014.5	1023.0	1031.3	1038.7	1044.7	1056.8	1068.9	1076.1
12.5°	970.8	976.8	984.2	993.9	1004.8	1015.6	1023.0	1031.3	1045.9	1060.4	1068.9
15°	946.6	952.6	961.1	970.8	982.9	995.0	1006.0	1016.9	1031.3	1047.2	1056.8
17.5°	920.1	926.1	934.5	946.6	960.0	973.2	985.4	997.5	1014.5	1031.3	1042.3
20°	887.3	895.9	906.7	918.8	934.5	950.3	962.4	975.7	993.9	1012.0	1024.1
22.5°	855.8	864.3	876.4	891.0	908.0	924.8	939.4	953.9	973.2	991.4	1004.8
25°	825.5	835.3	847.4	861.8	877.7	894.6	911.6	928.4	947.9	967.2	980.6
27.5°	795.3	803.8	815.9	830.4	848.6	865.6	882.4	899.5	920.1	940.5	955.1
30°	761.4	771.0	782.0	796.6	815.9	835.3	852.2	870.3	891.0	911.6	926.1
32.5°	730.0	738.5	749.3	763.8	783.2	802.6	820.8	840.1	859.5	880.0	894.6
35°	698.6	706.9	717.9	732.4	751.7	771.0	789.2	807.4	826.8	846.1	860.7
37.5°	667.0	675.5	686.4	700.9	719.0	738.5	755.3	773.5	793.0	812.3	825.5
40°	634.3	642.8	651.3	665.8	684.0	703.3	720.3	738.5	757.8	777.1	790.5
42.5°	601.7	610.1	621.0	635.6	652.4	669.4	686.4	703.3	721.5	739.6	753.0
45°	569.0	576.2	587.1	600.4	617.4	633.1	650.1	665.8	684.0	700.9	714.3
47.5°	535.1	542.3	550.8	564.1	581.1	598.0	615.0	630.7	646.4	663.4	675.5
50°	502.4	509.6	519.3	531.4	547.2	562.9	577.5	591.9	607.8	623.5	634.3
52.5°	468.5	475.7	484.2	496.4	509.6	524.2	537.4	552.0	566.5	581.1	591.9
55°	434.5	439.4	446.6	457.6	472.1	486.7	500.0	513.2	526.6	538.7	549.5
57.5°	400.7	406.7	415.2	424.9	437.0	449.1	461.2	473.3	485.4	497.5	507.2
60°	366.8	371.7	377.7	386.1	398.2	409.2	421.3	432.2	443.0	454.0	462.5
62.5°	331.6	336.5	342.6	351.1	360.7	370.4	381.3	391.0	400.7	410.3	418.8
65°	295.3	300.2	306.3	313.5	322.0	330.5	340.1	349.8	357.1	364.3	372.8
67.5°	257.8	262.7	268.8	274.8	282.0	290.5	299.0	307.4	314.8	322.0	328.0
70°	221.5	225.1	231.2	236.1	242.1	248.2	255.4	262.7	267.5	273.5	280.9
72.5°	186.5	190.1	194.9	199.8	203.4	208.3	215.5	221.5	227.6	234.9	238.5
75°	152.5	154.9	158.5	162.3	165.9	169.5	174.4	179.1	184.0	187.6	192.5
77.5°	118.6	121.1	124.7	127.1	129.6	132.0	135.6	139.2	142.8	145.3	150.2
80°	87.2	89.6	91.9	94.4	96.8	99.3	100.5	101.7	106.5	110.1	112.6
82.5°	59.4	60.5	61.7	64.1	65.4	66.6	67.7	67.7	70.2	72.6	76.2
85°	33.9	35.2	36.3	36.3	36.3	36.3	37.5	38.8	39.9	42.4	44.8
87.5°	13.3	13.3	14.6	14.6	14.6	14.6	14.6	14.6	15.7	18.2	19.3
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):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1
2.5°	1076.1	1077.4	1079.8	1081.0	1082.2	1082.2	1083.5	1084.7	1082.2	1079.8	1078.6
5°	1082.2	1083.5	1087.1	1090.7	1093.2	1095.6	1094.3	1093.2	1090.7	1087.1	1084.7
7.5°	1083.5	1087.1	1090.7	1095.6	1099.2	1104.0	1101.7	1099.2	1094.3	1089.6	1085.8
10°	1079.8	1084.7	1090.7	1096.8	1100.4	1104.0	1101.7	1099.2	1094.3	1088.3	1083.5
12.5°	1075.0	1081.0	1088.3	1094.3	1097.9	1102.8	1099.2	1095.6	1089.6	1083.5	1077.4
15°	1064.0	1071.4	1079.8	1087.1	1093.2	1097.9	1094.3	1091.9	1084.7	1076.1	1067.6
17.5°	1050.8	1060.4	1068.9	1077.4	1082.2	1087.1	1084.7	1082.2	1073.7	1064.0	1054.4
20°	1035.1	1044.7	1053.2	1061.6	1067.6	1072.5	1068.9	1065.3	1056.8	1048.3	1038.7
22.5°	1015.6	1025.3	1035.1	1043.4	1049.5	1054.4	1049.5	1043.4	1035.1	1026.6	1016.9
25°	991.4	1002.4	1013.2	1021.7	1025.3	1030.2	1025.3	1020.5	1012.0	1003.5	992.7
27.5°	967.2	978.1	989.0	997.5	1001.1	1006.0	1001.1	996.3	987.8	979.3	968.5
30°	939.4	950.3	961.1	969.6	973.2	976.8	972.1	967.2	960.0	951.5	940.5
32.5°	908.0	918.8	927.3	935.8	940.5	945.4	940.5	936.9	928.4	917.6	906.7
35°	873.9	884.9	895.9	904.2	909.1	914.0	908.0	901.9	894.6	886.1	876.4
37.5°	836.5	848.6	860.7	870.3	873.9	878.8	873.9	867.9	860.7	852.2	841.4
40°	801.3	812.3	823.2	832.9	836.5	840.1	835.3	830.4	821.9	813.4	802.6
42.5°	765.1	775.9	785.6	794.1	797.7	802.6	797.7	791.7	785.6	778.4	768.7
45°	726.4	737.2	745.7	754.2	757.8	761.4	756.6	750.6	744.5	738.5	728.8
47.5°	686.4	696.1	704.6	713.0	715.4	719.0	714.3	710.7	704.6	698.6	690.0
50°	645.2	654.9	663.4	670.6	673.0	676.6	671.9	667.0	662.2	657.3	650.1
52.5°	602.9	611.4	619.9	627.1	629.5	632.0	627.1	622.2	617.4	612.5	605.3
55°	559.3	567.7	576.2	582.2	584.7	587.1	582.2	578.6	573.7	570.1	562.9
57.5°	515.7	524.2	531.4	537.4	539.9	542.3	537.4	532.7	529.1	525.3	519.3
60°	470.8	479.3	485.4	490.3	492.7	493.9	489.0	485.4	482.9	480.6	474.6
62.5°	427.3	433.4	439.4	443.0	445.5	446.6	443.0	440.6	438.3	435.8	430.9
65°	381.3	388.5	393.4	397.1	398.2	399.5	395.9	393.4	391.0	388.5	384.9
67.5°	335.4	341.4	345.0	348.6	349.8	349.8	349.8	348.6	346.2	342.6	339.0
70°	289.2	294.1	297.8	300.2	301.4	301.4	299.0	296.6	296.6	295.3	293.0
72.5°	242.1	245.7	248.2	250.6	250.6	250.6	250.6	251.8	250.6	248.2	244.6
75°	197.3	200.9	203.4	204.7	204.7	204.7	204.7	205.8	204.7	203.4	200.9
77.5°	154.9	157.4	158.5	159.8	159.8	159.8	161.0	162.3	161.0	159.8	158.5
80°	115.0	116.2	117.5	118.6	117.5	117.5	118.6	121.1	119.9	118.6	117.5
82.5°	78.7	79.8	81.1	81.1	82.3	83.6	83.6	83.6	83.6	82.3	81.1
85°	47.3	48.4	48.4	48.4	48.4	48.4	49.6	50.9	50.9	49.6	49.6
87.5°	21.8	23.1	21.8	20.6	19.3	19.3	21.8	24.2	24.2	23.1	23.1
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: P735623

CATALOG NUMBER: 4APN6-34-B2750-W2D-CP250-2700K

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	1070.1	1070.1	1070.1	1070.1
2.5°	1079.8	1078.6	1072.5	1066.5
5°	1083.5	1079.8	1071.4	1062.9
7.5°	1083.5	1078.6	1066.5	1055.5
10°	1077.4	1070.1	1056.8	1043.4
12.5°	1070.1	1061.6	1045.9	1031.3
15°	1059.3	1049.5	1032.6	1015.6
17.5°	1043.4	1031.3	1014.5	996.3
20°	1027.7	1014.5	993.9	974.5
22.5°	1006.0	993.9	972.1	951.5
25°	981.7	968.5	946.6	924.8
27.5°	956.4	940.5	918.8	897.0
30°	927.3	911.6	889.8	867.9
32.5°	895.9	881.3	859.5	836.5
35°	864.3	848.6	826.8	803.8
37.5°	829.3	814.7	793.0	771.0
40°	791.7	777.1	755.3	733.6
42.5°	756.6	743.2	721.5	700.9
45°	717.9	704.6	684.0	664.5
47.5°	677.9	664.5	645.2	625.9
50°	639.2	625.9	607.8	589.6
52.5°	595.6	584.7	567.7	550.8
55°	553.3	542.3	525.3	509.6
57.5°	510.9	501.1	485.4	470.8
60°	466.1	456.4	444.3	430.9
62.5°	423.7	415.2	403.1	391.0
65°	378.9	371.7	360.7	349.8
67.5°	332.9	326.9	317.2	307.4
70°	286.9	279.6	272.4	263.9
72.5°	241.0	237.2	230.0	222.8
75°	197.3	193.7	187.6	181.6
77.5°	156.2	152.5	147.7	142.8
80°	115.0	112.6	109.0	105.4
82.5°	79.8	77.5	75.1	71.5
85°	48.4	46.0	43.5	41.2
87.5°	21.8	20.6	18.2	17.0
90°	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - · 135°-315°















(END OF REPORT)