

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: P735613

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

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735613
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-2700K
Description: 4FT 3400 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 2700K CCT

Light Source: -
Ballast/Driver: -

Summary

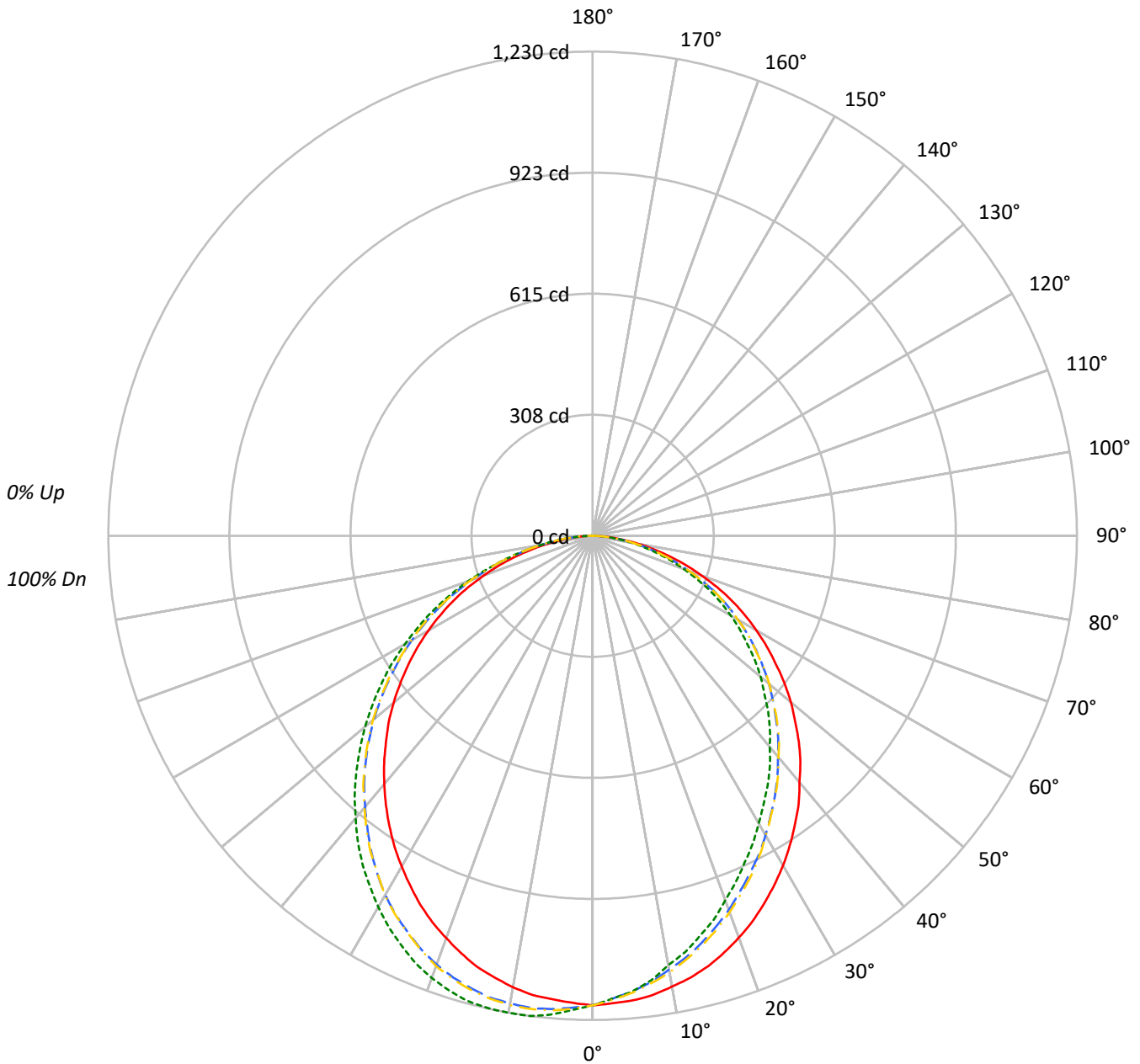
Lumens per Lamp: N/A
Luminaire Lumens: 3199.0 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 42.7
Input Voltage (V): NR
Input Current (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

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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°	11005	11005	11005	11005
5°	10972	10760	10947	11310
10°	10896	10378	10910	11528
15°	10812	10053	10827	11689
20°	10666	9672	10677	11738
25°	10494	9314	10535	11690
30°	10306	8985	10335	11600
35°	10091	8723	10136	11475
40°	9848	8433	9913	11278
45°	9665	8223	9684	11074
50°	9433	7999	9470	10825
55°	9137	7705	9201	10528
60°	8863	7470	8890	10158
65°	8512	7158	8512	9721
70°	7934	6625	7898	9061
75°	7215	6014	7119	8131
80°	6238	5164	6025	6955
85°	4859	3864	4573	5716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.7	3.5
10°-20°	319.9	10.0
20°-30°	475.5	14.9
30°-40°	560.5	17.5
40°-50°	570.7	17.8
50°-60°	508.4	15.9
60°-70°	383.0	12.0
70°-80°	213.0	6.7
80°-90°	55.4	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°	908.1	28.4
0°-40°	1468.6	45.9
0°-60°	2547.6	79.6
0°-90°	3199.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3199.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1193	1193	1193	1193	1193	
5°	1185	1162	1182	1221	1185	112
15°	1132	1052	1134	1224	1132	319
25°	1031	915	1035	1148	1031	475
35°	896	774	900	1019	896	560
45°	741	630	742	849	741	571
55°	568	479	572	654	568	509
65°	390	328	390	445	390	385
75°	202	169	200	228	202	215
85°	46	36	43	54	46	55
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°	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8
2.5°	1188.7	1188.7	1190.0	1184.7	1178.0	1175.3	1174.0	1172.5	1175.3	1176.5	1175.3
5°	1184.7	1182.0	1179.3	1172.5	1164.5	1159.0	1156.3	1155.0	1157.7	1161.8	1157.7
7.5°	1176.5	1171.2	1165.8	1156.3	1147.0	1138.8	1134.8	1132.0	1134.8	1138.8	1136.1
10°	1163.0	1156.3	1148.3	1137.5	1124.0	1114.5	1110.5	1106.5	1107.8	1107.8	1107.8
12.5°	1149.6	1140.2	1130.8	1117.3	1102.3	1091.6	1084.8	1079.5	1082.1	1083.5	1083.5
15°	1132.0	1120.0	1106.5	1091.6	1076.8	1064.6	1056.5	1051.1	1052.5	1052.5	1053.8
17.5°	1110.5	1097.0	1083.5	1066.0	1048.3	1034.9	1025.5	1018.8	1021.4	1022.8	1024.1
20°	1086.3	1071.3	1056.5	1037.6	1018.8	1003.8	994.4	986.3	985.1	985.1	986.3
22.5°	1060.6	1044.3	1026.8	1006.6	986.3	970.1	960.6	952.6	951.3	951.3	952.6
25°	1030.8	1013.3	995.8	975.6	953.9	937.8	925.6	917.6	916.1	914.9	917.6
27.5°	999.8	982.3	964.8	944.6	921.6	905.4	893.2	885.1	882.4	881.1	883.8
30°	967.4	947.1	928.3	906.7	886.4	870.4	858.1	848.7	846.1	843.4	846.1
32.5°	932.4	912.1	891.9	870.4	850.1	833.9	821.7	812.4	809.6	808.2	810.9
35°	895.9	875.7	856.9	835.2	814.9	798.9	786.7	778.6	775.9	774.5	775.9
37.5°	859.4	839.4	820.4	798.9	778.6	762.4	750.2	742.2	740.7	739.4	740.7
40°	817.7	800.2	781.2	761.0	740.7	724.7	715.2	705.7	703.0	700.2	704.4
42.5°	781.2	763.7	744.9	725.9	705.7	689.5	678.7	670.7	667.9	666.5	667.9
45°	740.7	721.9	703.0	685.5	666.5	651.7	641.0	632.8	631.5	630.2	631.5
47.5°	697.7	681.4	665.2	647.7	628.8	614.0	604.5	596.5	593.7	591.0	593.7
50°	657.2	641.0	624.7	608.5	591.0	577.5	568.0	560.0	558.6	557.3	558.6
52.5°	614.0	597.7	583.0	566.7	551.8	538.3	529.0	522.2	520.8	519.5	520.8
55°	568.0	554.5	541.0	527.5	512.8	500.6	492.5	484.3	481.8	479.0	481.8
57.5°	524.8	512.8	499.3	485.8	472.3	461.5	453.3	446.6	445.3	443.9	445.3
60°	480.3	469.6	457.3	445.3	431.8	421.0	414.3	408.8	406.1	404.8	406.1
62.5°	435.8	425.1	415.6	403.4	391.3	383.1	376.4	371.1	368.4	367.1	368.4
65°	389.9	380.6	371.1	360.3	350.8	342.6	335.9	330.6	329.2	327.9	327.9
67.5°	342.6	334.6	326.6	317.1	306.3	298.2	291.4	287.4	286.1	284.7	286.1
70°	294.1	287.4	279.4	271.2	263.1	256.4	252.4	248.4	246.9	245.6	245.6
72.5°	248.4	242.9	236.1	229.4	222.6	215.9	211.9	209.2	207.9	206.4	206.4
75°	202.4	196.9	192.9	187.6	180.9	176.7	172.7	170.0	168.7	168.7	168.7
77.5°	159.2	155.2	151.2	145.7	141.7	137.7	134.9	133.7	132.2	132.2	132.2
80°	117.4	114.7	112.0	109.2	105.2	101.2	99.9	98.5	97.2	97.2	97.2
82.5°	79.7	78.2	75.5	72.9	70.2	68.8	67.5	66.2	66.2	66.2	66.2
85°	45.9	44.5	43.2	41.8	40.5	40.5	39.2	37.8	36.5	36.5	36.5
87.5°	19.0	19.0	19.0	17.5	16.2	16.2	16.2	16.2	16.2	16.2	16.2
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°	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8
2.5°	1172.5	1175.3	1178.0	1182.0	1186.0	1190.0	1188.7	1187.5	1192.8	1199.5	1201.0
5°	1155.0	1157.7	1161.8	1168.5	1175.3	1180.7	1182.0	1182.0	1192.8	1202.2	1205.0
7.5°	1133.5	1137.5	1142.8	1149.6	1159.0	1167.2	1171.2	1176.5	1187.5	1199.5	1205.0
10°	1106.5	1113.2	1121.3	1130.8	1140.2	1149.6	1157.7	1164.5	1178.0	1191.5	1199.5
12.5°	1082.1	1088.8	1097.0	1107.8	1120.0	1132.0	1140.2	1149.6	1165.8	1182.0	1191.5
15°	1055.1	1061.8	1071.3	1082.1	1095.6	1109.1	1121.3	1133.5	1149.6	1167.2	1178.0
17.5°	1025.5	1032.3	1041.6	1055.1	1070.0	1084.8	1098.3	1111.8	1130.8	1149.6	1161.8
20°	989.1	998.5	1010.6	1024.1	1041.6	1059.3	1072.8	1087.5	1107.8	1128.0	1141.5
22.5°	953.9	963.4	976.9	993.1	1012.0	1030.8	1047.1	1063.3	1084.8	1105.1	1120.0
25°	920.2	931.1	944.6	960.6	978.3	997.1	1016.1	1034.9	1056.5	1078.1	1093.0
27.5°	886.4	895.9	909.4	925.6	945.9	964.8	983.6	1002.6	1025.5	1048.3	1064.6
30°	848.7	859.4	871.6	887.9	909.4	931.1	949.9	970.1	993.1	1016.1	1032.3
32.5°	813.6	823.1	835.2	851.4	872.9	894.6	914.9	936.4	958.1	980.9	997.1
35°	778.6	787.9	800.2	816.4	837.9	859.4	879.7	899.9	921.6	943.1	959.4
37.5°	743.4	752.9	765.1	781.2	801.4	823.1	841.9	862.2	883.8	905.4	920.2
40°	707.0	716.5	725.9	742.2	762.4	783.9	802.9	823.1	844.7	866.2	881.1
42.5°	670.7	680.0	692.2	708.4	727.2	746.2	765.1	783.9	804.2	824.4	839.4
45°	634.2	642.2	654.5	669.2	688.2	705.7	724.7	742.2	762.4	781.2	796.1
47.5°	596.5	604.5	614.0	628.8	647.7	666.5	685.5	703.0	720.5	739.4	752.9
50°	560.0	568.0	578.8	592.3	610.0	627.5	643.7	659.8	677.4	694.9	707.0
52.5°	522.2	530.3	539.8	553.2	568.0	584.3	599.0	615.3	631.5	647.7	659.8
55°	484.3	489.8	497.8	510.0	526.3	542.5	557.3	572.0	587.0	600.5	612.5
57.5°	446.6	453.3	462.8	473.6	487.1	500.6	514.1	527.5	541.0	554.5	565.3
60°	408.8	414.3	421.0	430.4	443.9	456.1	469.6	481.8	493.8	506.0	515.5
62.5°	369.6	375.1	381.8	391.3	402.1	412.8	425.1	435.8	446.6	457.3	466.8
65°	329.2	334.6	341.4	349.4	358.9	368.4	379.1	389.9	398.1	406.1	415.6
67.5°	287.4	292.8	299.6	306.3	314.4	323.9	333.3	342.6	350.8	358.9	365.6
70°	246.9	250.9	257.7	263.1	269.9	276.6	284.7	292.8	298.2	304.9	313.1
72.5°	207.9	211.9	217.2	222.6	226.7	232.1	240.2	246.9	253.7	261.8	265.9
75°	170.0	172.7	176.7	180.9	184.9	188.9	194.4	199.7	205.1	209.2	214.6
77.5°	132.2	134.9	139.0	141.7	144.4	147.1	151.2	155.2	159.2	161.9	167.4
80°	97.2	99.9	102.5	105.2	108.0	110.7	112.0	113.4	118.7	122.7	125.5
82.5°	66.2	67.5	68.8	71.5	72.9	74.2	75.5	75.5	78.2	81.0	85.0
85°	37.8	39.2	40.5	40.5	40.5	40.5	41.8	43.2	44.5	47.2	50.0
87.5°	14.8	14.8	16.2	16.2	16.2	16.2	16.2	16.2	17.5	20.2	21.5
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°	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8
2.5°	1199.5	1201.0	1203.5	1205.0	1206.3	1206.3	1207.7	1209.0	1206.3	1203.5	1202.2
5°	1206.3	1207.7	1211.7	1215.7	1218.5	1221.2	1219.8	1218.5	1215.7	1211.7	1209.0
7.5°	1207.7	1211.7	1215.7	1221.2	1225.2	1230.5	1227.9	1225.2	1219.8	1214.5	1210.3
10°	1203.5	1209.0	1215.7	1222.5	1226.5	1230.5	1227.9	1225.2	1219.8	1213.0	1207.7
12.5°	1198.2	1205.0	1213.0	1219.8	1223.8	1229.2	1225.2	1221.2	1214.5	1207.7	1201.0
15°	1186.0	1194.2	1203.5	1211.7	1218.5	1223.8	1219.8	1217.0	1209.0	1199.5	1190.0
17.5°	1171.2	1182.0	1191.5	1201.0	1206.3	1211.7	1209.0	1206.3	1196.8	1186.0	1175.3
20°	1153.7	1164.5	1174.0	1183.3	1190.0	1195.5	1191.5	1187.5	1178.0	1168.5	1157.7
22.5°	1132.0	1142.8	1153.7	1163.0	1169.8	1175.3	1169.8	1163.0	1153.7	1144.2	1133.5
25°	1105.1	1117.3	1129.3	1138.8	1142.8	1148.3	1142.8	1137.5	1128.0	1118.5	1106.5
27.5°	1078.1	1090.3	1102.3	1111.8	1115.8	1121.3	1115.8	1110.5	1101.0	1091.6	1079.5
30°	1047.1	1059.3	1071.3	1080.8	1084.8	1088.8	1083.5	1078.1	1070.0	1060.6	1048.3
32.5°	1012.0	1024.1	1033.6	1043.0	1048.3	1053.8	1048.3	1044.3	1034.9	1022.8	1010.6
35°	974.1	986.3	998.5	1007.9	1013.3	1018.8	1012.0	1005.3	997.1	987.6	976.9
37.5°	932.4	945.9	959.4	970.1	974.1	979.6	974.1	967.4	959.4	949.9	937.8
40°	893.2	905.4	917.6	928.3	932.4	936.4	931.1	925.6	916.1	906.7	894.6
42.5°	852.8	864.9	875.7	885.1	889.2	894.6	889.2	882.4	875.7	867.6	856.9
45°	809.6	821.7	831.2	840.6	844.7	848.7	843.4	836.6	829.9	823.1	812.4
47.5°	765.1	775.9	785.4	794.7	797.4	801.4	796.1	792.1	785.4	778.6	769.2
50°	719.2	730.0	739.4	747.5	750.2	754.2	748.9	743.4	738.1	732.7	724.7
52.5°	672.0	681.4	690.9	699.0	701.7	704.4	699.0	693.5	688.2	682.7	674.7
55°	623.4	632.8	642.2	649.0	651.7	654.5	649.0	645.0	639.5	635.5	627.5
57.5°	574.8	584.3	592.3	599.0	601.8	604.5	599.0	593.7	589.7	585.5	578.8
60°	524.8	534.3	541.0	546.5	549.2	550.5	545.1	541.0	538.3	535.7	529.0
62.5°	476.3	483.0	489.8	493.8	496.5	497.8	493.8	491.1	488.5	485.8	480.3
65°	425.1	433.1	438.6	442.6	443.9	445.3	441.3	438.6	435.8	433.1	429.1
67.5°	373.8	380.6	384.6	388.6	389.9	389.9	389.9	388.6	385.9	381.8	377.8
70°	322.4	327.9	331.9	334.6	335.9	335.9	333.3	330.6	330.6	329.2	326.6
72.5°	269.9	273.9	276.6	279.4	279.4	279.4	279.4	280.6	279.4	276.6	272.6
75°	219.9	223.9	226.7	228.1	228.1	228.1	228.1	229.4	228.1	226.7	223.9
77.5°	172.7	175.4	176.7	178.2	178.2	178.2	179.4	180.9	179.4	178.2	176.7
80°	128.2	129.5	130.9	132.2	130.9	130.9	132.2	134.9	133.7	132.2	130.9
82.5°	87.7	89.0	90.4	90.4	91.7	93.2	93.2	93.2	93.2	91.7	90.4
85°	52.7	54.0	54.0	54.0	54.0	54.0	55.3	56.7	56.7	55.3	55.3
87.5°	24.3	25.7	24.3	23.0	21.5	21.5	24.3	27.0	27.0	25.7	25.7
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: P735613

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

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1192.8	1192.8	1192.8	1192.8
2.5°	1203.5	1202.2	1195.5	1188.7
5°	1207.7	1203.5	1194.2	1184.7
7.5°	1207.7	1202.2	1188.7	1176.5
10°	1201.0	1192.8	1178.0	1163.0
12.5°	1192.8	1183.3	1165.8	1149.6
15°	1180.7	1169.8	1151.0	1132.0
17.5°	1163.0	1149.6	1130.8	1110.5
20°	1145.5	1130.8	1107.8	1086.3
22.5°	1121.3	1107.8	1083.5	1060.6
25°	1094.3	1079.5	1055.1	1030.8
27.5°	1066.0	1048.3	1024.1	999.8
30°	1033.6	1016.1	991.8	967.4
32.5°	998.5	982.3	958.1	932.4
35°	963.4	945.9	921.6	895.9
37.5°	924.3	908.1	883.8	859.4
40°	882.4	866.2	841.9	817.7
42.5°	843.4	828.4	804.2	781.2
45°	800.2	785.4	762.4	740.7
47.5°	755.7	740.7	719.2	697.7
50°	712.4	697.7	677.4	657.2
52.5°	663.9	651.7	632.8	614.0
55°	616.7	604.5	585.5	568.0
57.5°	569.5	558.6	541.0	524.8
60°	519.5	508.8	495.3	480.3
62.5°	472.3	462.8	449.3	435.8
65°	422.3	414.3	402.1	389.9
67.5°	371.1	364.3	353.6	342.6
70°	319.8	311.6	303.6	294.1
72.5°	268.6	264.4	256.4	248.4
75°	219.9	215.9	209.2	202.4
77.5°	174.1	170.0	164.7	159.2
80°	128.2	125.5	121.4	117.4
82.5°	89.0	86.4	83.7	79.7
85°	54.0	51.2	48.5	45.9
87.5°	24.3	23.0	20.2	19.0
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)