

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: P735616

Luminaire Tested: **4APN6-34-B2750-W2D-4000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735616
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-4000K
Description: 4FT 3400 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 4000K CCT

Light Source: -
Ballast/Driver: -

Summary

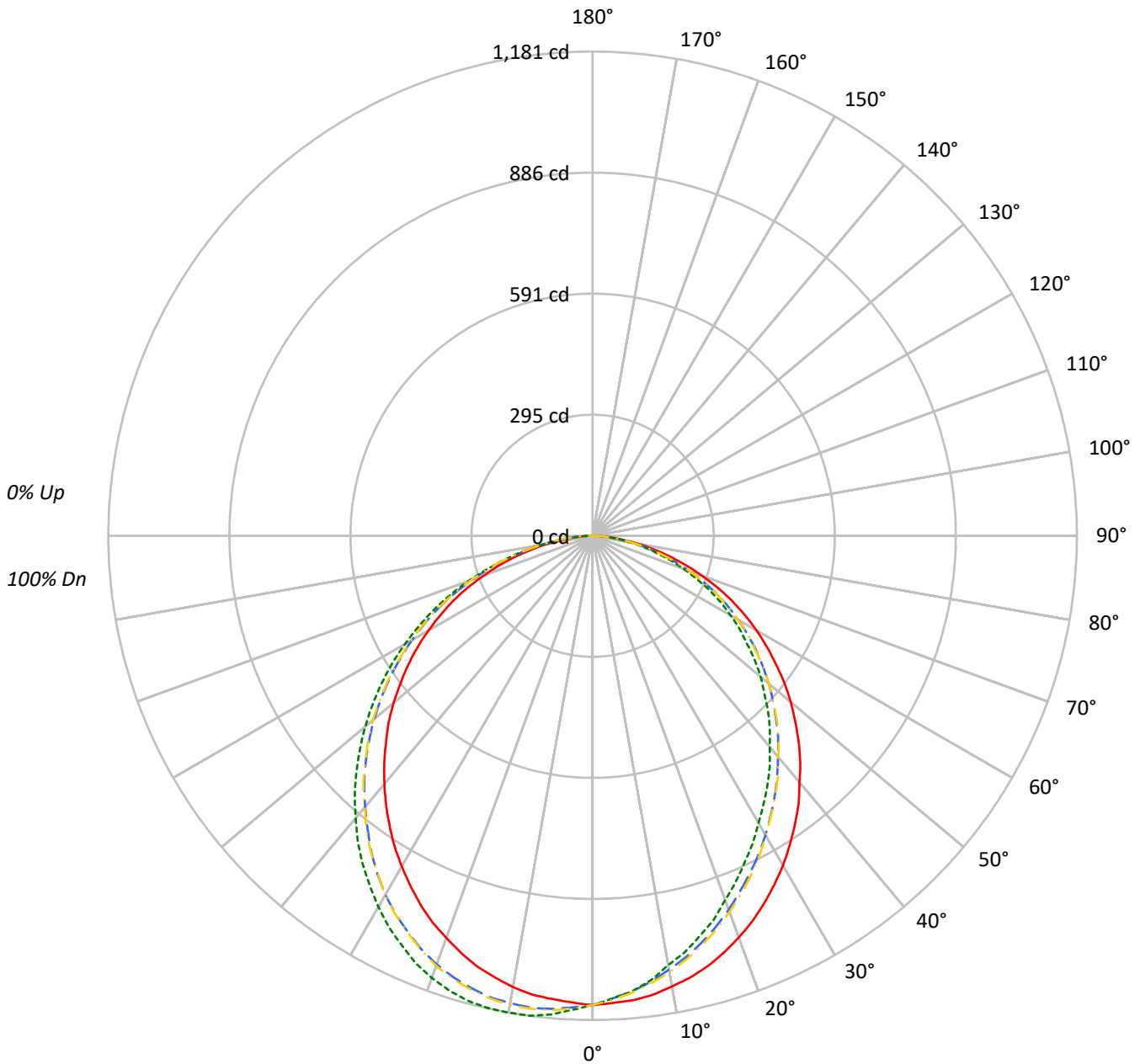
Lumens per Lamp: N/A
Luminaire Lumens: 3070.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P735616

CATALOG NUMBER: 4APN6-34-B2750-W2D-4000K

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°	10561	10561	10561	10561
5°	10530	10326	10505	10854
10°	10456	9960	10469	11063
15°	10377	9648	10390	11217
20°	10236	9281	10247	11265
25°	10071	8938	10110	11218
30°	9891	8623	9918	11132
35°	9684	8371	9727	11012
40°	9451	8094	9514	10823
45°	9274	7891	9293	10626
50°	9053	7676	9089	10389
55°	8768	7394	8831	10103
60°	8505	7169	8531	9748
65°	8169	6868	8169	9328
70°	7615	6358	7580	8697
75°	6923	5771	6830	7803
80°	5988	4957	5781	6673
85°	4668	3705	4393	5483



TEST NUMBER: P735616

CATALOG NUMBER: 4APN6-34-B2750-W2D-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.2	3.5
10°-20°	307.0	10.0
20°-30°	456.4	14.9
30°-40°	537.9	17.5
40°-50°	547.7	17.8
50°-60°	487.9	15.9
60°-70°	367.6	12.0
70°-80°	204.4	6.7
80°-90°	53.1	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°	871.5	28.4
0°-40°	1409.3	45.9
0°-60°	2444.9	79.6
0°-90°	3070.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3070.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1145	1145	1145	1145	1145	
5°	1137	1115	1134	1172	1137	108
15°	1086	1010	1088	1174	1086	306
25°	989	878	993	1102	989	456
35°	860	743	864	978	860	538
45°	711	605	712	814	711	548
55°	545	460	549	628	545	488
65°	374	315	374	427	374	369
75°	194	162	192	219	194	206
85°	44	35	42	52	44	53
90°	0	0	0	0	0	



TEST NUMBER: P735616

CATALOG NUMBER: 4APN6-34-B2750-W2D-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7
2.5°	1140.8	1140.8	1142.0	1137.0	1130.5	1127.9	1126.6	1125.2	1127.9	1129.1	1127.9
5°	1137.0	1134.3	1131.7	1125.2	1117.5	1112.3	1109.7	1108.4	1111.1	1114.9	1111.1
7.5°	1129.1	1124.0	1118.8	1109.7	1100.7	1092.9	1089.0	1086.4	1089.0	1092.9	1090.2
10°	1116.1	1109.7	1102.0	1091.6	1078.7	1069.6	1065.7	1061.9	1063.1	1063.1	1063.1
12.5°	1103.2	1094.3	1085.2	1072.2	1057.9	1047.5	1041.1	1036.0	1038.4	1039.8	1039.8
15°	1086.4	1074.8	1061.9	1047.5	1033.4	1021.6	1013.9	1008.7	1010.1	1010.1	1011.3
17.5°	1065.7	1052.8	1039.8	1023.0	1006.1	993.1	984.2	977.7	980.2	981.6	982.8
20°	1042.5	1028.1	1013.9	995.7	977.7	963.4	954.3	946.6	945.3	945.3	946.6
22.5°	1017.8	1002.2	985.4	966.0	946.6	931.0	921.9	914.2	913.0	913.0	914.2
25°	989.3	972.5	955.7	936.2	915.4	900.0	888.3	880.6	879.2	878.0	880.6
27.5°	959.5	942.7	925.9	906.5	884.4	868.9	857.2	849.4	846.8	845.6	848.2
30°	928.4	908.9	890.9	870.1	850.7	835.3	823.5	814.4	812.0	809.4	812.0
32.5°	894.8	875.3	855.9	835.3	815.8	800.3	788.5	779.6	777.0	775.6	778.2
35°	859.8	840.3	822.3	801.5	782.1	766.7	754.9	747.2	744.6	743.2	744.6
37.5°	824.8	805.5	787.3	766.7	747.2	731.7	719.9	712.2	710.8	709.6	710.8
40°	784.7	767.9	749.7	730.3	710.8	695.4	686.3	677.2	674.6	672.0	676.0
42.5°	749.7	732.9	714.9	696.7	677.2	661.7	651.3	643.6	641.0	639.6	641.0
45°	710.8	692.8	674.6	657.8	639.6	625.4	615.1	607.3	606.0	604.8	606.0
47.5°	669.5	654.0	638.4	621.6	603.4	589.2	580.1	572.4	569.8	567.2	569.8
50°	630.7	615.1	599.5	584.0	567.2	554.2	545.1	537.4	536.0	534.8	536.0
52.5°	589.2	573.6	559.5	543.9	529.6	516.6	507.7	501.2	499.8	498.6	499.8
55°	545.1	532.2	519.2	506.3	492.1	480.4	472.7	464.8	462.3	459.7	462.3
57.5°	503.7	492.1	479.1	466.2	453.2	442.9	435.0	428.6	427.3	426.0	427.3
60°	460.9	450.6	438.9	427.3	414.4	404.1	397.6	392.3	389.7	388.5	389.7
62.5°	418.2	407.9	398.8	387.1	375.5	367.7	361.2	356.1	353.5	352.3	353.5
65°	374.2	365.2	356.1	345.8	336.7	328.8	322.4	317.3	315.9	314.6	314.6
67.5°	328.8	321.1	313.4	304.3	294.0	286.1	279.7	275.8	274.6	273.2	274.6
70°	282.3	275.8	268.1	260.2	252.5	246.0	242.2	238.3	236.9	235.7	235.7
72.5°	238.3	233.1	226.6	220.1	213.7	207.2	203.3	200.7	199.5	198.1	198.1
75°	194.2	189.0	185.2	180.1	173.6	169.6	165.7	163.1	161.9	161.9	161.9
77.5°	152.8	148.9	145.1	139.8	136.0	132.1	129.5	128.3	126.9	126.9	126.9
80°	112.7	110.1	107.5	104.8	101.0	97.1	95.9	94.5	93.3	93.3	93.3
82.5°	76.5	75.1	72.5	70.0	67.4	66.0	64.7	63.5	63.5	63.5	63.5
85°	44.1	42.7	41.5	40.1	38.8	38.8	37.6	36.2	35.0	35.0	35.0
87.5°	18.2	18.2	18.2	16.8	15.6	15.6	15.6	15.6	15.6	15.6	15.6
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: P735616

CATALOG NUMBER: 4APN6-34-B2750-W2D-4000K

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7
2.5°	1125.2	1127.9	1130.5	1134.3	1138.2	1142.0	1140.8	1139.6	1144.7	1151.1	1152.5
5°	1108.4	1111.1	1114.9	1121.4	1127.9	1133.1	1134.3	1134.3	1144.7	1153.8	1156.4
7.5°	1087.8	1091.6	1096.7	1103.2	1112.3	1120.2	1124.0	1129.1	1139.6	1151.1	1156.4
10°	1061.9	1068.4	1076.1	1085.2	1094.3	1103.2	1111.1	1117.5	1130.5	1143.4	1151.1
12.5°	1038.4	1044.9	1052.8	1063.1	1074.8	1086.4	1094.3	1103.2	1118.8	1134.3	1143.4
15°	1012.5	1019.0	1028.1	1038.4	1051.4	1064.3	1076.1	1087.8	1103.2	1120.2	1130.5
17.5°	984.2	990.7	999.6	1012.5	1026.9	1041.1	1054.0	1067.0	1085.2	1103.2	1114.9
20°	949.2	958.3	969.8	982.8	999.6	1016.6	1029.5	1043.7	1063.1	1082.5	1095.5
22.5°	915.4	924.5	937.5	953.0	971.2	989.3	1004.8	1020.4	1041.1	1060.5	1074.8
25°	883.0	893.5	906.5	921.9	938.9	956.9	975.1	993.1	1013.9	1034.6	1048.9
27.5°	850.7	859.8	872.7	888.3	907.7	925.9	943.9	962.1	984.2	1006.1	1021.6
30°	814.4	824.8	836.5	852.1	872.7	893.5	911.6	931.0	953.0	975.1	990.7
32.5°	780.8	789.9	801.5	817.1	837.7	858.5	878.0	898.6	919.4	941.3	956.9
35°	747.2	756.2	767.9	783.5	804.1	824.8	844.2	863.6	884.4	905.1	920.7
37.5°	713.5	722.6	734.3	749.7	769.1	789.9	808.0	827.4	848.2	868.9	883.0
40°	678.5	687.6	696.7	712.2	731.7	752.3	770.5	789.9	810.6	831.3	845.6
42.5°	643.6	652.6	664.3	679.9	697.9	716.1	734.3	752.3	771.7	791.2	805.5
45°	608.6	616.3	628.1	642.2	660.4	677.2	695.4	712.2	731.7	749.7	764.0
47.5°	572.4	580.1	589.2	603.4	621.6	639.6	657.8	674.6	691.4	709.6	722.6
50°	537.4	545.1	555.5	568.4	585.4	602.2	617.7	633.2	650.1	666.9	678.5
52.5°	501.2	508.9	518.0	530.9	545.1	560.7	574.9	590.4	606.0	621.6	633.2
55°	464.8	470.0	477.8	489.5	505.0	520.6	534.8	549.0	563.3	576.3	587.8
57.5°	428.6	435.0	444.1	454.5	467.4	480.4	493.3	506.3	519.2	532.2	542.5
60°	392.3	397.6	404.1	413.0	426.0	437.7	450.6	462.3	473.9	485.6	494.7
62.5°	354.7	360.0	366.4	375.5	385.9	396.2	407.9	418.2	428.6	438.9	448.0
65°	315.9	321.1	327.6	335.3	344.4	353.5	363.8	374.2	382.0	389.7	398.8
67.5°	275.8	281.0	287.5	294.0	301.7	310.8	319.9	328.8	336.7	344.4	350.9
70°	236.9	240.8	247.3	252.5	259.0	265.5	273.2	281.0	286.1	292.6	300.5
72.5°	199.5	203.3	208.4	213.7	217.5	222.8	230.5	236.9	243.4	251.3	255.1
75°	163.1	165.7	169.6	173.6	177.4	181.3	186.5	191.6	196.9	200.7	206.0
77.5°	126.9	129.5	133.4	136.0	138.6	141.2	145.1	148.9	152.8	155.4	160.6
80°	93.3	95.9	98.4	101.0	103.6	106.2	107.5	108.8	113.9	117.8	120.4
82.5°	63.5	64.7	66.0	68.6	70.0	71.2	72.5	72.5	75.1	77.7	81.6
85°	36.2	37.6	38.8	38.8	38.8	38.8	40.1	41.5	42.7	45.3	47.9
87.5°	14.2	14.2	15.6	15.6	15.6	15.6	15.6	15.6	16.8	19.4	20.7
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: P735616

CATALOG NUMBER: 4APN6-34-B2750-W2D-4000K

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7	1144.7
2.5°	1151.1	1152.5	1155.0	1156.4	1157.6	1157.6	1159.0	1160.2	1157.6	1155.0	1153.8
5°	1157.6	1159.0	1162.9	1166.7	1169.3	1172.0	1170.6	1169.3	1166.7	1162.9	1160.2
7.5°	1159.0	1162.9	1166.7	1172.0	1175.8	1180.9	1178.4	1175.8	1170.6	1165.5	1161.5
10°	1155.0	1160.2	1166.7	1173.2	1177.0	1180.9	1178.4	1175.8	1170.6	1164.1	1159.0
12.5°	1149.9	1156.4	1164.1	1170.6	1174.4	1179.7	1175.8	1172.0	1165.5	1159.0	1152.5
15°	1138.2	1146.1	1155.0	1162.9	1169.3	1174.4	1170.6	1167.9	1160.2	1151.1	1142.0
17.5°	1124.0	1134.3	1143.4	1152.5	1157.6	1162.9	1160.2	1157.6	1148.5	1138.2	1127.9
20°	1107.2	1117.5	1126.6	1135.6	1142.0	1147.3	1143.4	1139.6	1130.5	1121.4	1111.1
22.5°	1086.4	1096.7	1107.2	1116.1	1122.6	1127.9	1122.6	1116.1	1107.2	1098.1	1087.8
25°	1060.5	1072.2	1083.8	1092.9	1096.7	1102.0	1096.7	1091.6	1082.5	1073.4	1061.9
27.5°	1034.6	1046.3	1057.9	1067.0	1070.8	1076.1	1070.8	1065.7	1056.6	1047.5	1036.0
30°	1004.8	1016.6	1028.1	1037.2	1041.1	1044.9	1039.8	1034.6	1026.9	1017.8	1006.1
32.5°	971.2	982.8	991.9	1001.0	1006.1	1011.3	1006.1	1002.2	993.1	981.6	969.8
35°	934.8	946.6	958.3	967.2	972.5	977.7	971.2	964.8	956.9	947.8	937.5
37.5°	894.8	907.7	920.7	931.0	934.8	940.1	934.8	928.4	920.7	911.6	900.0
40°	857.2	868.9	880.6	890.9	894.8	898.6	893.5	888.3	879.2	870.1	858.5
42.5°	818.5	830.0	840.3	849.4	853.3	858.5	853.3	846.8	840.3	832.6	822.3
45°	777.0	788.5	797.6	806.7	810.6	814.4	809.4	802.9	796.4	789.9	779.6
47.5°	734.3	744.6	753.7	762.6	765.3	769.1	764.0	760.2	753.7	747.2	738.1
50°	690.2	700.5	709.6	717.3	719.9	723.8	718.7	713.5	708.4	703.1	695.4
52.5°	644.9	654.0	663.1	670.8	673.4	676.0	670.8	665.5	660.4	655.2	647.5
55°	598.3	607.3	616.3	622.8	625.4	628.1	622.8	619.0	613.7	609.9	602.2
57.5°	551.6	560.7	568.4	574.9	577.5	580.1	574.9	569.8	565.9	561.9	555.5
60°	503.7	512.7	519.2	524.5	527.1	528.3	523.1	519.2	516.6	514.1	507.7
62.5°	457.1	463.6	470.0	473.9	476.5	477.8	473.9	471.3	468.8	466.2	460.9
65°	407.9	415.6	420.9	424.7	426.0	427.3	423.5	420.9	418.2	415.6	411.8
67.5°	358.7	365.2	369.1	372.9	374.2	374.2	374.2	372.9	370.3	366.4	362.6
70°	309.4	314.6	318.5	321.1	322.4	322.4	319.9	317.3	317.3	315.9	313.4
72.5°	259.0	262.8	265.5	268.1	268.1	268.1	268.1	269.3	268.1	265.5	261.6
75°	211.1	214.9	217.5	218.9	218.9	218.9	218.9	220.1	218.9	217.5	214.9
77.5°	165.7	168.3	169.6	171.0	171.0	171.0	172.2	173.6	172.2	171.0	169.6
80°	123.0	124.3	125.6	126.9	125.6	125.6	126.9	129.5	128.3	126.9	125.6
82.5°	84.2	85.4	86.8	86.8	88.0	89.4	89.4	89.4	89.4	88.0	86.8
85°	50.6	51.8	51.8	51.8	51.8	51.8	53.0	54.4	54.4	53.0	53.0
87.5°	23.3	24.7	23.3	22.0	20.7	20.7	23.3	25.9	25.9	24.7	24.7
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: P735616

CATALOG NUMBER: 4APN6-34-B2750-W2D-4000K

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1144.7	1144.7	1144.7	1144.7
2.5°	1155.0	1153.8	1147.3	1140.8
5°	1159.0	1155.0	1146.1	1137.0
7.5°	1159.0	1153.8	1140.8	1129.1
10°	1152.5	1144.7	1130.5	1116.1
12.5°	1144.7	1135.6	1118.8	1103.2
15°	1133.1	1122.6	1104.6	1086.4
17.5°	1116.1	1103.2	1085.2	1065.7
20°	1099.3	1085.2	1063.1	1042.5
22.5°	1076.1	1063.1	1039.8	1017.8
25°	1050.2	1036.0	1012.5	989.3
27.5°	1023.0	1006.1	982.8	959.5
30°	991.9	975.1	951.8	928.4
32.5°	958.3	942.7	919.4	894.8
35°	924.5	907.7	884.4	859.8
37.5°	887.1	871.5	848.2	824.8
40°	846.8	831.3	808.0	784.7
42.5°	809.4	795.0	771.7	749.7
45°	767.9	753.7	731.7	710.8
47.5°	725.2	710.8	690.2	669.5
50°	683.7	669.5	650.1	630.7
52.5°	637.2	625.4	607.3	589.2
55°	591.8	580.1	561.9	545.1
57.5°	546.5	536.0	519.2	503.7
60°	498.6	488.2	475.3	460.9
62.5°	453.2	444.1	431.2	418.2
65°	405.3	397.6	385.9	374.2
67.5°	356.1	349.6	339.3	328.8
70°	306.9	299.1	291.4	282.3
72.5°	257.8	253.8	246.0	238.3
75°	211.1	207.2	200.7	194.2
77.5°	167.1	163.1	158.0	152.8
80°	123.0	120.4	116.5	112.7
82.5°	85.4	82.9	80.3	76.5
85°	51.8	49.2	46.6	44.1
87.5°	23.3	22.0	19.4	18.2
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)