

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: P735617

Luminaire Tested: **4APN6-34-B2750-W2D-5000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735617
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-5000K
Description: 4FT 3400 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 5000K CCT

Light Source: -
Ballast/Driver: -

Summary

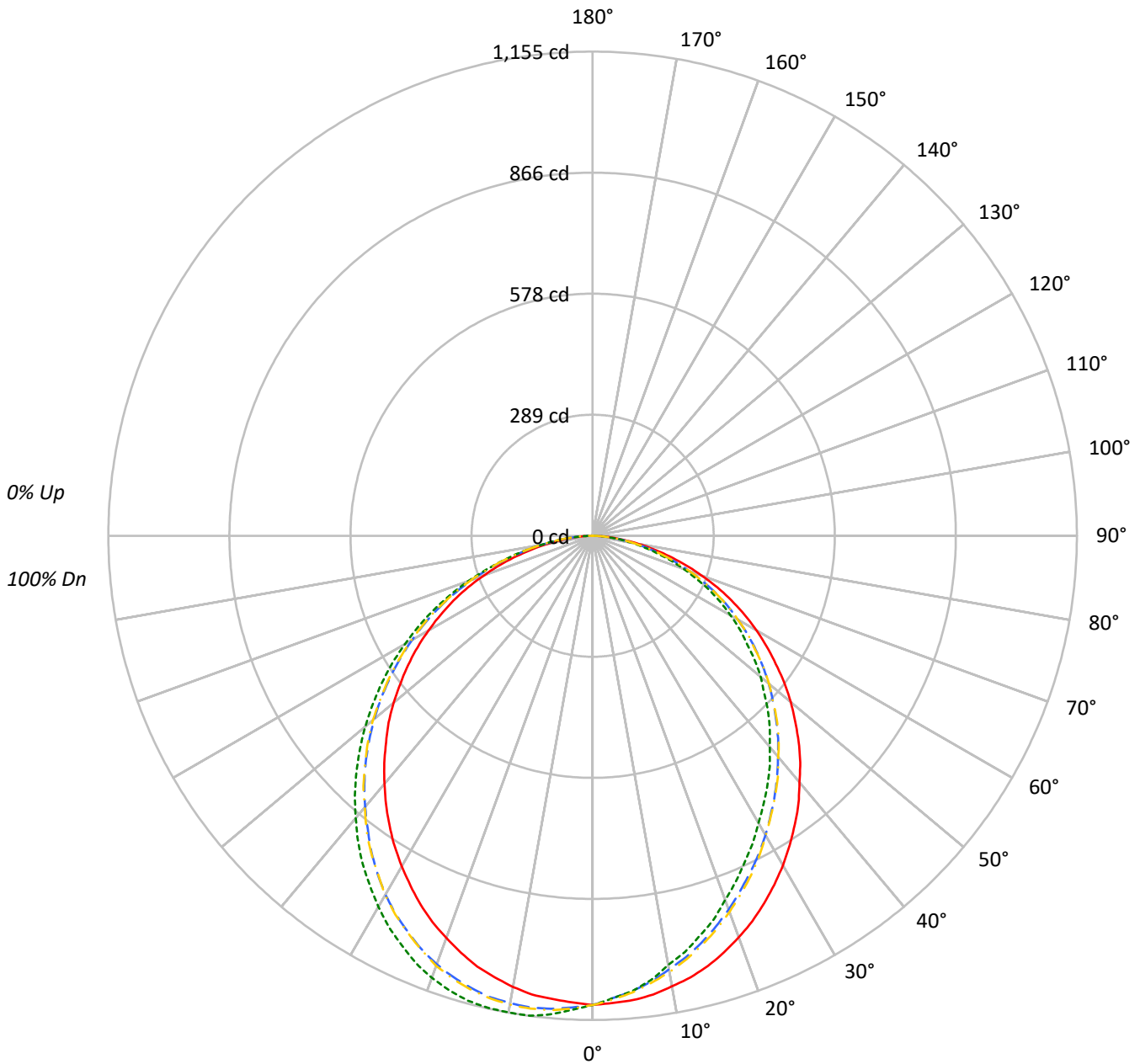
Lumens per Lamp: N/A
Luminaire Lumens: 3002.0 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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°	10327	10327	10327	10327
5°	10297	10097	10273	10614
10°	10225	9740	10238	10818
15°	10147	9434	10160	10969
20°	10009	9076	10021	11015
25°	9848	8740	9886	10970
30°	9671	8431	9699	10886
35°	9469	8186	9512	10768
40°	9241	7914	9303	10583
45°	9070	7716	9088	10391
50°	8852	7505	8886	10159
55°	8574	7230	8635	9880
60°	8316	7010	8342	9533
65°	7988	6717	7988	9123
70°	7445	6218	7413	8503
75°	6769	5643	6680	7632
80°	5855	4846	5653	6530
85°	4563	3620	4298	5367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.8	3.5
10°-20°	300.2	10.0
20°-30°	446.2	14.9
30°-40°	525.9	17.5
40°-50°	535.5	17.8
50°-60°	477.1	15.9
60°-70°	359.4	12.0
70°-80°	199.9	6.7
80°-90°	51.9	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°	852.2	28.4
0°-40°	1378.1	45.9
0°-60°	2390.7	79.6
0°-90°	3002.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3002.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1119	1119	1119	1119	1119	
5°	1112	1090	1109	1146	1112	105
15°	1062	988	1064	1148	1062	299
25°	967	858	971	1078	967	446
35°	841	727	844	956	841	526
45°	695	591	696	796	695	536
55°	533	450	537	614	533	478
65°	366	308	366	418	366	361
75°	190	158	187	214	190	202
85°	43	34	41	51	43	52
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°	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3
2.5°	1115.5	1115.5	1116.7	1111.8	1105.4	1102.9	1101.7	1100.3	1102.9	1104.1	1102.9
5°	1111.8	1109.2	1106.6	1100.3	1092.8	1087.7	1085.1	1083.9	1086.4	1090.2	1086.4
7.5°	1104.1	1099.1	1094.0	1085.1	1076.3	1068.7	1064.9	1062.3	1064.9	1068.7	1066.1
10°	1091.4	1085.1	1077.6	1067.5	1054.8	1045.9	1042.1	1038.4	1039.6	1039.6	1039.6
12.5°	1078.8	1070.0	1061.1	1048.5	1034.4	1024.3	1018.0	1013.0	1015.4	1016.8	1016.8
15°	1062.3	1051.0	1038.4	1024.3	1010.5	999.0	991.5	986.4	987.7	987.7	988.9
17.5°	1042.1	1029.5	1016.8	1000.4	983.8	971.1	962.4	956.0	958.5	959.8	961.0
20°	1019.4	1005.3	991.5	973.7	956.0	942.0	933.1	925.6	924.4	924.4	925.6
22.5°	995.2	980.0	963.6	944.6	925.6	910.4	901.5	893.9	892.7	892.7	893.9
25°	967.4	950.9	934.5	915.5	895.1	880.1	868.6	861.1	859.7	858.5	861.1
27.5°	938.3	921.8	905.4	886.4	864.8	849.6	838.2	830.6	828.1	826.9	829.4
30°	907.8	888.8	871.2	850.8	831.8	816.8	805.3	796.4	794.0	791.4	794.0
32.5°	874.9	856.0	837.0	816.8	797.8	782.5	771.1	762.3	759.8	758.4	761.0
35°	840.7	821.7	804.1	783.7	764.7	749.7	738.2	730.7	728.1	726.8	728.1
37.5°	806.5	787.7	769.9	749.7	730.7	715.5	704.0	696.5	695.1	693.9	695.1
40°	767.3	750.9	733.1	714.1	695.1	680.0	671.1	662.2	659.7	657.1	661.0
42.5°	733.1	716.7	699.0	681.2	662.2	647.0	636.9	629.4	626.8	625.5	626.8
45°	695.1	677.5	659.7	643.2	625.5	611.6	601.5	593.8	592.6	591.4	592.6
47.5°	654.7	639.5	624.3	607.8	590.0	576.2	567.3	559.7	557.2	554.6	557.2
50°	616.7	601.5	586.3	571.0	554.6	541.9	533.0	525.5	524.2	522.9	524.2
52.5°	576.2	560.9	547.1	531.8	517.8	505.2	496.4	490.1	488.7	487.5	488.7
55°	533.0	520.4	507.7	495.1	481.2	469.7	462.2	454.5	452.1	449.5	452.1
57.5°	492.5	481.2	468.5	455.9	443.2	433.1	425.4	419.1	417.9	416.5	417.9
60°	450.7	440.6	429.2	417.9	405.2	395.1	388.8	383.7	381.1	379.9	381.1
62.5°	409.0	398.9	390.0	378.5	367.2	359.5	353.2	348.2	345.7	344.5	345.7
65°	365.9	357.1	348.2	338.1	329.2	321.5	315.2	310.2	308.9	307.7	307.7
67.5°	321.5	314.0	306.5	297.6	287.5	279.8	273.5	269.7	268.5	267.1	268.5
70°	276.0	269.7	262.2	254.5	246.9	240.6	236.8	233.1	231.7	230.5	230.5
72.5°	233.1	227.9	221.6	215.3	208.9	202.6	198.8	196.3	195.1	193.7	193.7
75°	189.9	184.8	181.0	176.1	169.7	165.8	162.1	159.5	158.3	158.3	158.3
77.5°	149.4	145.6	141.9	136.7	133.0	129.2	126.6	125.4	124.1	124.1	124.1
80°	110.2	107.6	105.1	102.5	98.7	95.0	93.8	92.4	91.2	91.2	91.2
82.5°	74.8	73.4	70.9	68.4	65.9	64.5	63.3	62.1	62.1	62.1	62.1
85°	43.1	41.8	40.6	39.2	38.0	38.0	36.8	35.4	34.2	34.2	34.2
87.5°	17.8	17.8	17.8	16.4	15.2	15.2	15.2	15.2	15.2	15.2	15.2
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°	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3
2.5°	1100.3	1102.9	1105.4	1109.2	1113.0	1116.7	1115.5	1114.3	1119.3	1125.6	1127.0
5°	1083.9	1086.4	1090.2	1096.5	1102.9	1108.0	1109.2	1109.2	1119.3	1128.2	1130.8
7.5°	1063.7	1067.5	1072.4	1078.8	1087.7	1095.3	1099.1	1104.1	1114.3	1125.6	1130.8
10°	1038.4	1044.7	1052.2	1061.1	1070.0	1078.8	1086.4	1092.8	1105.4	1118.1	1125.6
12.5°	1015.4	1021.8	1029.5	1039.6	1051.0	1062.3	1070.0	1078.8	1094.0	1109.2	1118.1
15°	990.1	996.5	1005.3	1015.4	1028.1	1040.8	1052.2	1063.7	1078.8	1095.3	1105.4
17.5°	962.4	968.7	977.5	990.1	1004.1	1018.0	1030.7	1043.3	1061.1	1078.8	1090.2
20°	928.2	937.1	948.4	961.0	977.5	994.0	1006.7	1020.6	1039.6	1058.6	1071.2
22.5°	895.1	904.0	916.7	931.9	949.7	967.4	982.6	997.8	1018.0	1037.0	1051.0
25°	863.5	873.7	886.4	901.5	918.1	935.7	953.5	971.1	991.5	1011.7	1025.7
27.5°	831.8	840.7	853.4	868.6	887.6	905.4	923.0	940.8	962.4	983.8	999.0
30°	796.4	806.5	818.0	833.2	853.4	873.7	891.4	910.4	931.9	953.5	968.7
32.5°	763.5	772.4	783.7	799.0	819.2	839.5	858.5	878.7	899.1	920.5	935.7
35°	730.7	739.4	750.9	766.1	786.3	806.5	825.5	844.5	864.8	885.0	900.3
37.5°	697.7	706.6	718.0	733.1	752.1	772.4	790.1	809.1	829.4	849.6	863.5
40°	663.4	672.3	681.2	696.5	715.5	735.7	753.4	772.4	792.6	812.8	826.9
42.5°	629.4	638.1	649.6	664.8	682.4	700.2	718.0	735.7	754.6	773.6	787.7
45°	595.2	602.7	614.2	628.0	645.8	662.2	680.0	696.5	715.5	733.1	747.1
47.5°	559.7	567.3	576.2	590.0	607.8	625.5	643.2	659.7	676.1	693.9	706.6
50°	525.5	533.0	543.1	555.8	572.4	588.8	604.1	619.1	635.7	652.1	663.4
52.5°	490.1	497.6	506.5	519.2	533.0	548.3	562.1	577.4	592.6	607.8	619.1
55°	454.5	459.6	467.2	478.6	493.9	509.1	522.9	536.8	550.8	563.5	574.8
57.5°	419.1	425.4	434.3	444.4	457.1	469.7	482.4	495.1	507.7	520.4	530.5
60°	383.7	388.8	395.1	403.9	416.5	428.0	440.6	452.1	463.4	474.9	483.8
62.5°	346.9	352.0	358.3	367.2	377.3	387.4	398.9	409.0	419.1	429.2	438.1
65°	308.9	314.0	320.3	327.9	336.8	345.7	355.8	365.9	373.6	381.1	390.0
67.5°	269.7	274.8	281.1	287.5	295.0	303.9	312.8	321.5	329.2	336.8	343.1
70°	231.7	235.5	241.8	246.9	253.3	259.6	267.1	274.8	279.8	286.1	293.8
72.5°	195.1	198.8	203.8	208.9	212.7	217.8	225.4	231.7	238.0	245.7	249.5
75°	159.5	162.1	165.8	169.7	173.5	177.3	182.4	187.4	192.5	196.3	201.4
77.5°	124.1	126.6	130.4	133.0	135.5	138.1	141.9	145.6	149.4	152.0	157.1
80°	91.2	93.8	96.2	98.7	101.3	103.9	105.1	106.4	111.4	115.2	117.7
82.5°	62.1	63.3	64.5	67.1	68.4	69.6	70.9	70.9	73.4	76.0	79.7
85°	35.4	36.8	38.0	38.0	38.0	38.0	39.2	40.6	41.8	44.3	46.9
87.5°	13.9	13.9	15.2	15.2	15.2	15.2	15.2	15.2	16.4	19.0	20.2
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3
2.5°	1125.6	1127.0	1129.4	1130.8	1132.0	1132.0	1133.3	1134.5	1132.0	1129.4	1128.2
5°	1132.0	1133.3	1137.1	1140.9	1143.4	1146.0	1144.6	1143.4	1140.9	1137.1	1134.5
7.5°	1133.3	1137.1	1140.9	1146.0	1149.8	1154.7	1152.3	1149.8	1144.6	1139.7	1135.7
10°	1129.4	1134.5	1140.9	1147.2	1151.0	1154.7	1152.3	1149.8	1144.6	1138.3	1133.3
12.5°	1124.4	1130.8	1138.3	1144.6	1148.4	1153.5	1149.8	1146.0	1139.7	1133.3	1127.0
15°	1113.0	1120.7	1129.4	1137.1	1143.4	1148.4	1144.6	1142.1	1134.5	1125.6	1116.7
17.5°	1099.1	1109.2	1118.1	1127.0	1132.0	1137.1	1134.5	1132.0	1123.1	1113.0	1102.9
20°	1082.7	1092.8	1101.7	1110.4	1116.7	1121.9	1118.1	1114.3	1105.4	1096.5	1086.4
22.5°	1062.3	1072.4	1082.7	1091.4	1097.8	1102.9	1097.8	1091.4	1082.7	1073.8	1063.7
25°	1037.0	1048.5	1059.8	1068.7	1072.4	1077.6	1072.4	1067.5	1058.6	1049.7	1038.4
27.5°	1011.7	1023.1	1034.4	1043.3	1047.1	1052.2	1047.1	1042.1	1033.2	1024.3	1013.0
30°	982.6	994.0	1005.3	1014.2	1018.0	1021.8	1016.8	1011.7	1004.1	995.2	983.8
32.5°	949.7	961.0	969.9	978.8	983.8	988.9	983.8	980.0	971.1	959.8	948.4
35°	914.1	925.6	937.1	945.8	950.9	956.0	949.7	943.4	935.7	926.8	916.7
37.5°	874.9	887.6	900.3	910.4	914.1	919.3	914.1	907.8	900.3	891.4	880.1
40°	838.2	849.6	861.1	871.2	874.9	878.7	873.7	868.6	859.7	850.8	839.5
42.5°	800.3	811.6	821.7	830.6	834.4	839.5	834.4	828.1	821.7	814.2	804.1
45°	759.8	771.1	780.0	788.9	792.6	796.4	791.4	785.1	778.8	772.4	762.3
47.5°	718.0	728.1	737.0	745.8	748.3	752.1	747.1	743.3	737.0	730.7	721.8
50°	674.9	685.0	693.9	701.4	704.0	707.8	702.8	697.7	692.7	687.6	680.0
52.5°	630.6	639.5	648.4	655.9	658.5	661.0	655.9	650.8	645.8	640.7	633.1
55°	585.1	593.8	602.7	609.0	611.6	614.2	609.0	605.3	600.1	596.4	588.8
57.5°	539.4	548.3	555.8	562.1	564.7	567.3	562.1	557.2	553.4	549.5	543.1
60°	492.5	501.4	507.7	512.8	515.4	516.6	511.5	507.7	505.2	502.7	496.4
62.5°	447.0	453.3	459.6	463.4	466.0	467.2	463.4	460.8	458.4	455.9	450.7
65°	398.9	406.4	411.5	415.3	416.5	417.9	414.1	411.5	409.0	406.4	402.7
67.5°	350.8	357.1	360.9	364.7	365.9	365.9	365.9	364.7	362.1	358.3	354.6
70°	302.6	307.7	311.4	314.0	315.2	315.2	312.8	310.2	310.2	308.9	306.5
72.5°	253.3	257.0	259.6	262.2	262.2	262.2	262.2	263.4	262.2	259.6	255.8
75°	206.4	210.1	212.7	214.1	214.1	214.1	214.1	215.3	214.1	212.7	210.1
77.5°	162.1	164.6	165.8	167.2	167.2	167.2	168.4	169.7	168.4	167.2	165.8
80°	120.3	121.5	122.9	124.1	122.9	122.9	124.1	126.6	125.4	124.1	122.9
82.5°	82.3	83.5	84.9	84.9	86.1	87.4	87.4	87.4	87.4	86.1	84.9
85°	49.4	50.7	50.7	50.7	50.7	50.7	51.9	53.2	53.2	51.9	51.9
87.5°	22.8	24.1	22.8	21.6	20.2	20.2	22.8	25.3	25.3	24.1	24.1
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: P735617

CATALOG NUMBER: 4APN6-34-B2750-W2D-5000K

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1119.3	1119.3	1119.3	1119.3
2.5°	1129.4	1128.2	1121.9	1115.5
5°	1133.3	1129.4	1120.7	1111.8
7.5°	1133.3	1128.2	1115.5	1104.1
10°	1127.0	1119.3	1105.4	1091.4
12.5°	1119.3	1110.4	1094.0	1078.8
15°	1108.0	1097.8	1080.1	1062.3
17.5°	1091.4	1078.8	1061.1	1042.1
20°	1075.0	1061.1	1039.6	1019.4
22.5°	1052.2	1039.6	1016.8	995.2
25°	1026.9	1013.0	990.1	967.4
27.5°	1000.4	983.8	961.0	938.3
30°	969.9	953.5	930.7	907.8
32.5°	937.1	921.8	899.1	874.9
35°	904.0	887.6	864.8	840.7
37.5°	867.4	852.2	829.4	806.5
40°	828.1	812.8	790.1	767.3
42.5°	791.4	777.4	754.6	733.1
45°	750.9	737.0	715.5	695.1
47.5°	709.1	695.1	674.9	654.7
50°	668.6	654.7	635.7	616.7
52.5°	623.0	611.6	593.8	576.2
55°	578.7	567.3	549.5	533.0
57.5°	534.4	524.2	507.7	492.5
60°	487.5	477.4	464.8	450.7
62.5°	443.2	434.3	421.6	409.0
65°	396.3	388.8	377.3	365.9
67.5°	348.2	341.9	331.8	321.5
70°	300.1	292.5	284.9	276.0
72.5°	252.1	248.1	240.6	233.1
75°	206.4	202.6	196.3	189.9
77.5°	163.4	159.5	154.5	149.4
80°	120.3	117.7	114.0	110.2
82.5°	83.5	81.1	78.5	74.8
85°	50.7	48.1	45.5	43.1
87.5°	22.8	21.6	19.0	17.8
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)