

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: P735625

Luminaire Tested: **4APN6-34-B2750-W2D-CP250-3500K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735625
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-CP250-3500K
Description: 4FT 3400 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 3500K CCT, AND CP250 LENS

Light Source: -
Ballast/Driver: -

Summary

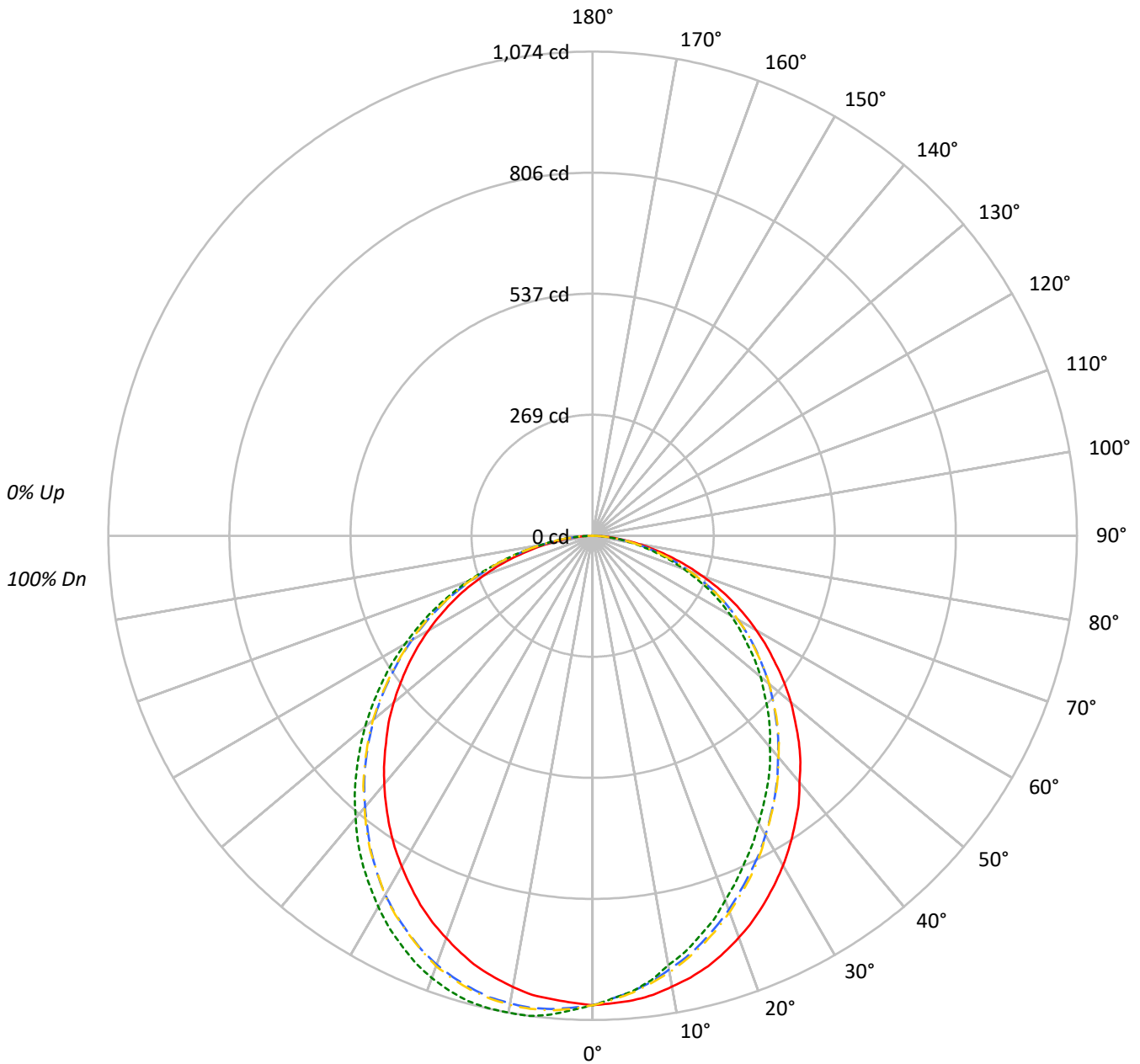
Lumens per Lamp: N/A
Luminaire Lumens: 2793.0 lumens
Efficiency: N/A
Efficacy: 65.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 42.7
Input Voltage (V): NR
Input Current (A_{in}): 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°	9608	9608	9608	9608
5°	9580	9394	9558	9875
10°	9513	9061	9525	10065
15°	9441	8777	9452	10206
20°	9312	8444	9322	10248
25°	9162	8131	9198	10205
30°	8998	7844	9024	10127
35°	8810	7616	8849	10019
40°	8598	7364	8656	9846
45°	8438	7179	8455	9668
50°	8236	6983	8268	9452
55°	7977	6727	8033	9191
60°	7739	6521	7761	8868
65°	7431	6250	7431	8488
70°	6927	5784	6898	7912
75°	6299	5251	6213	7101
80°	5446	4511	5260	6073
85°	4245	3366	3991	4986



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.4	3.5
10°-20°	279.3	10.0
20°-30°	415.2	14.9
30°-40°	489.3	17.5
40°-50°	498.3	17.8
50°-60°	443.9	15.9
60°-70°	334.4	12.0
70°-80°	186.0	6.7
80°-90°	48.3	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°	792.8	28.4
0°-40°	1282.2	45.9
0°-60°	2224.3	79.6
0°-90°	2793.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2793.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1041	1041	1041	1041	1041	
5°	1034	1014	1032	1066	1034	98
15°	988	919	990	1068	988	278
25°	900	799	904	1002	900	415
35°	782	676	786	890	782	489
45°	647	550	648	741	647	498
55°	496	418	499	571	496	444
65°	340	286	340	389	340	336
75°	177	147	174	199	177	188
85°	40	32	38	47	40	48
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°	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4
2.5°	1037.9	1037.9	1039.0	1034.4	1028.5	1026.1	1025.0	1023.7	1026.1	1027.2	1026.1
5°	1034.4	1032.0	1029.6	1023.7	1016.7	1011.9	1009.5	1008.4	1010.8	1014.3	1010.8
7.5°	1027.2	1022.6	1017.8	1009.5	1001.4	994.3	990.8	988.4	990.8	994.3	991.9
10°	1015.4	1009.5	1002.5	993.1	981.4	973.1	969.6	966.1	967.2	967.2	967.2
12.5°	1003.7	995.5	987.2	975.5	962.4	953.0	947.1	942.5	944.7	946.0	946.0
15°	988.4	977.8	966.1	953.0	940.1	929.5	922.4	917.7	918.9	918.9	920.1
17.5°	969.6	957.8	946.0	930.7	915.3	903.5	895.4	889.5	891.7	893.0	894.1
20°	948.4	935.4	922.4	905.9	889.5	876.4	868.2	861.2	860.0	860.0	861.2
22.5°	926.0	911.8	896.5	878.8	861.2	847.0	838.7	831.7	830.6	830.6	831.7
25°	900.0	884.7	869.4	851.8	832.8	818.8	808.1	801.1	799.9	798.7	801.1
27.5°	872.9	857.7	842.4	824.7	804.6	790.5	779.8	772.8	770.4	769.3	771.7
30°	844.6	826.9	810.5	791.6	773.9	759.9	749.2	741.0	738.7	736.3	738.7
32.5°	814.0	796.4	778.7	759.9	742.2	728.1	717.4	709.3	706.9	705.6	708.0
35°	782.2	764.5	748.1	729.2	711.5	697.5	686.8	679.8	677.4	676.2	677.4
37.5°	750.4	732.8	716.3	697.5	679.8	665.6	655.0	648.0	646.7	645.6	646.7
40°	713.9	698.6	682.1	664.4	646.7	632.7	624.4	616.1	613.8	611.4	615.0
42.5°	682.1	666.8	650.4	633.8	616.1	602.0	592.6	585.6	583.2	581.9	583.2
45°	646.7	630.3	613.8	598.5	581.9	569.0	559.6	552.5	551.3	550.2	551.3
47.5°	609.1	595.0	580.8	565.5	549.0	536.0	527.8	520.8	518.4	516.0	518.4
50°	573.8	559.6	545.4	531.3	516.0	504.2	495.9	488.9	487.7	486.5	487.7
52.5°	536.0	521.9	509.0	494.8	481.8	470.0	461.9	456.0	454.7	453.6	454.7
55°	495.9	484.2	472.4	460.6	447.7	437.0	430.0	422.9	420.6	418.2	420.6
57.5°	458.2	447.7	435.9	424.1	412.3	402.9	395.8	389.9	388.8	387.5	388.8
60°	419.4	410.0	399.3	388.8	377.0	367.6	361.7	356.9	354.6	353.4	354.6
62.5°	380.5	371.1	362.8	352.2	341.7	334.5	328.6	324.0	321.6	320.5	321.6
65°	340.4	332.3	324.0	314.6	306.3	299.2	293.3	288.6	287.4	286.3	286.3
67.5°	299.2	292.1	285.1	276.9	267.5	260.3	254.4	250.9	249.8	248.5	249.8
70°	256.8	250.9	243.9	236.7	229.7	223.8	220.3	216.8	215.6	214.4	214.4
72.5°	216.8	212.1	206.2	200.3	194.4	188.5	185.0	182.6	181.5	180.2	180.2
75°	176.7	172.0	168.4	163.8	157.9	154.3	150.8	148.4	147.3	147.3	147.3
77.5°	139.0	135.5	132.0	127.2	123.7	120.2	117.8	116.7	115.4	115.4	115.4
80°	102.5	100.1	97.8	95.4	91.9	88.4	87.2	86.0	84.9	84.9	84.9
82.5°	69.6	68.3	65.9	63.7	61.3	60.0	58.9	57.8	57.8	57.8	57.8
85°	40.1	38.9	37.7	36.5	35.3	35.3	34.2	33.0	31.8	31.8	31.8
87.5°	16.5	16.5	16.5	15.3	14.2	14.2	14.2	14.2	14.2	14.2	14.2
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°	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4
2.5°	1023.7	1026.1	1028.5	1032.0	1035.5	1039.0	1037.9	1036.8	1041.4	1047.3	1048.5
5°	1008.4	1010.8	1014.3	1020.2	1026.1	1030.9	1032.0	1032.0	1041.4	1049.7	1052.0
7.5°	989.6	993.1	997.8	1003.7	1011.9	1019.1	1022.6	1027.2	1036.8	1047.3	1052.0
10°	966.1	972.0	979.0	987.2	995.5	1003.7	1010.8	1016.7	1028.5	1040.3	1047.3
12.5°	944.7	950.6	957.8	967.2	977.8	988.4	995.5	1003.7	1017.8	1032.0	1040.3
15°	921.2	927.1	935.4	944.7	956.5	968.3	979.0	989.6	1003.7	1019.1	1028.5
17.5°	895.4	901.3	909.4	921.2	934.2	947.1	958.9	970.7	987.2	1003.7	1014.3
20°	863.5	871.8	882.3	894.1	909.4	924.8	936.6	949.5	967.2	984.9	996.6
22.5°	832.8	841.1	852.9	867.0	883.6	900.0	914.2	928.3	947.1	964.8	977.8
25°	803.4	812.9	824.7	838.7	854.1	870.6	887.1	903.5	922.4	941.2	954.3
27.5°	773.9	782.2	794.0	808.1	825.8	842.4	858.8	875.3	895.4	915.3	929.5
30°	741.0	750.4	761.0	775.2	794.0	812.9	829.3	847.0	867.0	887.1	901.3
32.5°	710.4	718.7	729.2	743.3	762.1	781.1	798.7	817.5	836.5	856.4	870.6
35°	679.8	687.9	698.6	712.8	731.6	750.4	768.0	785.7	804.6	823.4	837.6
37.5°	649.1	657.4	668.0	682.1	699.7	718.7	735.1	752.7	771.7	790.5	803.4
40°	617.3	625.5	633.8	648.0	665.6	684.4	701.0	718.7	737.5	756.2	769.3
42.5°	585.6	593.7	604.4	618.5	634.9	651.5	668.0	684.4	702.1	719.8	732.8
45°	553.7	560.7	571.4	584.3	600.8	616.1	632.7	648.0	665.6	682.1	695.1
47.5°	520.8	527.8	536.0	549.0	565.5	581.9	598.5	613.8	629.0	645.6	657.4
50°	488.9	495.9	505.3	517.1	532.5	547.8	562.0	576.0	591.5	606.7	617.3
52.5°	456.0	463.0	471.3	483.0	495.9	510.1	523.0	537.2	551.3	565.5	576.0
55°	422.9	427.6	434.6	445.3	459.5	473.6	486.5	499.4	512.5	524.3	534.8
57.5°	389.9	395.8	404.1	413.5	425.2	437.0	448.8	460.6	472.4	484.2	493.6
60°	356.9	361.7	367.6	375.7	387.5	398.2	410.0	420.6	431.1	441.8	450.1
62.5°	322.7	327.5	333.4	341.7	351.1	360.5	371.1	380.5	389.9	399.3	407.6
65°	287.4	292.1	298.0	305.1	313.3	321.6	331.0	340.4	347.5	354.6	362.8
67.5°	250.9	255.7	261.6	267.5	274.5	282.8	291.0	299.2	306.3	313.3	319.2
70°	215.6	219.1	225.0	229.7	235.6	241.5	248.5	255.7	260.3	266.2	273.4
72.5°	181.5	185.0	189.6	194.4	197.9	202.7	209.7	215.6	221.5	228.6	232.1
75°	148.4	150.8	154.3	157.9	161.4	164.9	169.7	174.3	179.1	182.6	187.4
77.5°	115.4	117.8	121.3	123.7	126.1	128.5	132.0	135.5	139.0	141.4	146.1
80°	84.9	87.2	89.5	91.9	94.3	96.6	97.8	99.0	103.6	107.2	109.5
82.5°	57.8	58.9	60.0	62.4	63.7	64.8	65.9	65.9	68.3	70.7	74.2
85°	33.0	34.2	35.3	35.3	35.3	35.3	36.5	37.7	38.9	41.2	43.6
87.5°	12.9	12.9	14.2	14.2	14.2	14.2	14.2	14.2	15.3	17.7	18.8
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4	1041.4
2.5°	1047.3	1048.5	1050.8	1052.0	1053.2	1053.2	1054.4	1055.6	1053.2	1050.8	1049.7
5°	1053.2	1054.4	1057.9	1061.4	1063.8	1066.2	1064.9	1063.8	1061.4	1057.9	1055.6
7.5°	1054.4	1057.9	1061.4	1066.2	1069.7	1074.3	1072.1	1069.7	1064.9	1060.3	1056.7
10°	1050.8	1055.6	1061.4	1067.3	1070.8	1074.3	1072.1	1069.7	1064.9	1059.1	1054.4
12.5°	1046.2	1052.0	1059.1	1064.9	1068.5	1073.2	1069.7	1066.2	1060.3	1054.4	1048.5
15°	1035.5	1042.6	1050.8	1057.9	1063.8	1068.5	1064.9	1062.6	1055.6	1047.3	1039.0
17.5°	1022.6	1032.0	1040.3	1048.5	1053.2	1057.9	1055.6	1053.2	1044.9	1035.5	1026.1
20°	1007.3	1016.7	1025.0	1033.1	1039.0	1043.8	1040.3	1036.8	1028.5	1020.2	1010.8
22.5°	988.4	997.8	1007.3	1015.4	1021.3	1026.1	1021.3	1015.4	1007.3	999.0	989.6
25°	964.8	975.5	986.0	994.3	997.8	1002.5	997.8	993.1	984.9	976.6	966.1
27.5°	941.2	951.9	962.4	970.7	974.2	979.0	974.2	969.6	961.3	953.0	942.5
30°	914.2	924.8	935.4	943.6	947.1	950.6	946.0	941.2	934.2	926.0	915.3
32.5°	883.6	894.1	902.4	910.7	915.3	920.1	915.3	911.8	903.5	893.0	882.3
35°	850.5	861.2	871.8	880.0	884.7	889.5	883.6	877.7	870.6	862.3	852.9
37.5°	814.0	825.8	837.6	847.0	850.5	855.3	850.5	844.6	837.6	829.3	818.8
40°	779.8	790.5	801.1	810.5	814.0	817.5	812.9	808.1	799.9	791.6	781.1
42.5°	744.6	755.1	764.5	772.8	776.3	781.1	776.3	770.4	764.5	757.5	748.1
45°	706.9	717.4	725.7	733.9	737.5	741.0	736.3	730.4	724.6	718.7	709.3
47.5°	668.0	677.4	685.7	693.8	696.2	699.7	695.1	691.6	685.7	679.8	671.5
50°	627.9	637.3	645.6	652.6	655.0	658.5	653.9	649.1	644.5	639.7	632.7
52.5°	586.7	595.0	603.2	610.2	612.6	615.0	610.2	605.5	600.8	596.1	589.1
55°	544.3	552.5	560.7	566.6	569.0	571.4	566.6	563.1	558.4	554.8	547.8
57.5°	501.8	510.1	517.1	523.0	525.4	527.8	523.0	518.4	514.9	511.2	505.3
60°	458.2	466.5	472.4	477.1	479.5	480.6	475.9	472.4	470.0	467.7	461.9
62.5°	415.9	421.7	427.6	431.1	433.5	434.6	431.1	428.8	426.5	424.1	419.4
65°	371.1	378.1	382.9	386.4	387.5	388.8	385.3	382.9	380.5	378.1	374.6
67.5°	326.4	332.3	335.8	339.3	340.4	340.4	340.4	339.3	336.9	333.4	329.9
70°	281.5	286.3	289.8	292.1	293.3	293.3	291.0	288.6	288.6	287.4	285.1
72.5°	235.6	239.1	241.5	243.9	243.9	243.9	243.9	245.0	243.9	241.5	238.0
75°	192.0	195.5	197.9	199.2	199.2	199.2	199.2	200.3	199.2	197.9	195.5
77.5°	150.8	153.2	154.3	155.5	155.5	155.5	156.7	157.9	156.7	155.5	154.3
80°	111.9	113.0	114.3	115.4	114.3	114.3	115.4	117.8	116.7	115.4	114.3
82.5°	76.6	77.7	79.0	79.0	80.1	81.3	81.3	81.3	81.3	80.1	79.0
85°	46.0	47.1	47.1	47.1	47.1	47.1	48.2	49.5	49.5	48.2	48.2
87.5°	21.2	22.4	21.2	20.1	18.8	18.8	21.2	23.6	23.6	22.4	22.4
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: P735625

CATALOG NUMBER: 4APN6-34-B2750-W2D-CP250-3500K

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1041.4	1041.4	1041.4	1041.4
2.5°	1050.8	1049.7	1043.8	1037.9
5°	1054.4	1050.8	1042.6	1034.4
7.5°	1054.4	1049.7	1037.9	1027.2
10°	1048.5	1041.4	1028.5	1015.4
12.5°	1041.4	1033.1	1017.8	1003.7
15°	1030.9	1021.3	1004.9	988.4
17.5°	1015.4	1003.7	987.2	969.6
20°	1000.1	987.2	967.2	948.4
22.5°	979.0	967.2	946.0	926.0
25°	955.4	942.5	921.2	900.0
27.5°	930.7	915.3	894.1	872.9
30°	902.4	887.1	865.9	844.6
32.5°	871.8	857.7	836.5	814.0
35°	841.1	825.8	804.6	782.2
37.5°	807.0	792.9	771.7	750.4
40°	770.4	756.2	735.1	713.9
42.5°	736.3	723.3	702.1	682.1
45°	698.6	685.7	665.6	646.7
47.5°	659.8	646.7	627.9	609.1
50°	622.0	609.1	591.5	573.8
52.5°	579.7	569.0	552.5	536.0
55°	538.4	527.8	511.2	495.9
57.5°	497.2	487.7	472.4	458.2
60°	453.6	444.2	432.4	419.4
62.5°	412.3	404.1	392.3	380.5
65°	368.7	361.7	351.1	340.4
67.5°	324.0	318.1	308.7	299.2
70°	279.2	272.1	265.1	256.8
72.5°	234.5	230.9	223.8	216.8
75°	192.0	188.5	182.6	176.7
77.5°	152.0	148.4	143.8	139.0
80°	111.9	109.5	106.0	102.5
82.5°	77.7	75.5	73.1	69.6
85°	47.1	44.7	42.4	40.1
87.5°	21.2	20.1	17.7	16.5
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)