

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: P735642

Luminaire Tested: **4APN6-39-B2750-W2D-CP250-5000K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P735642  
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: 4APN6-39-B2750-W2D-CP250-5000K  
Description: 4FT 3900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 5000K CCT, AND CP250 LENS  
  
Light Source: -  
Ballast/Driver: -

**Summary**

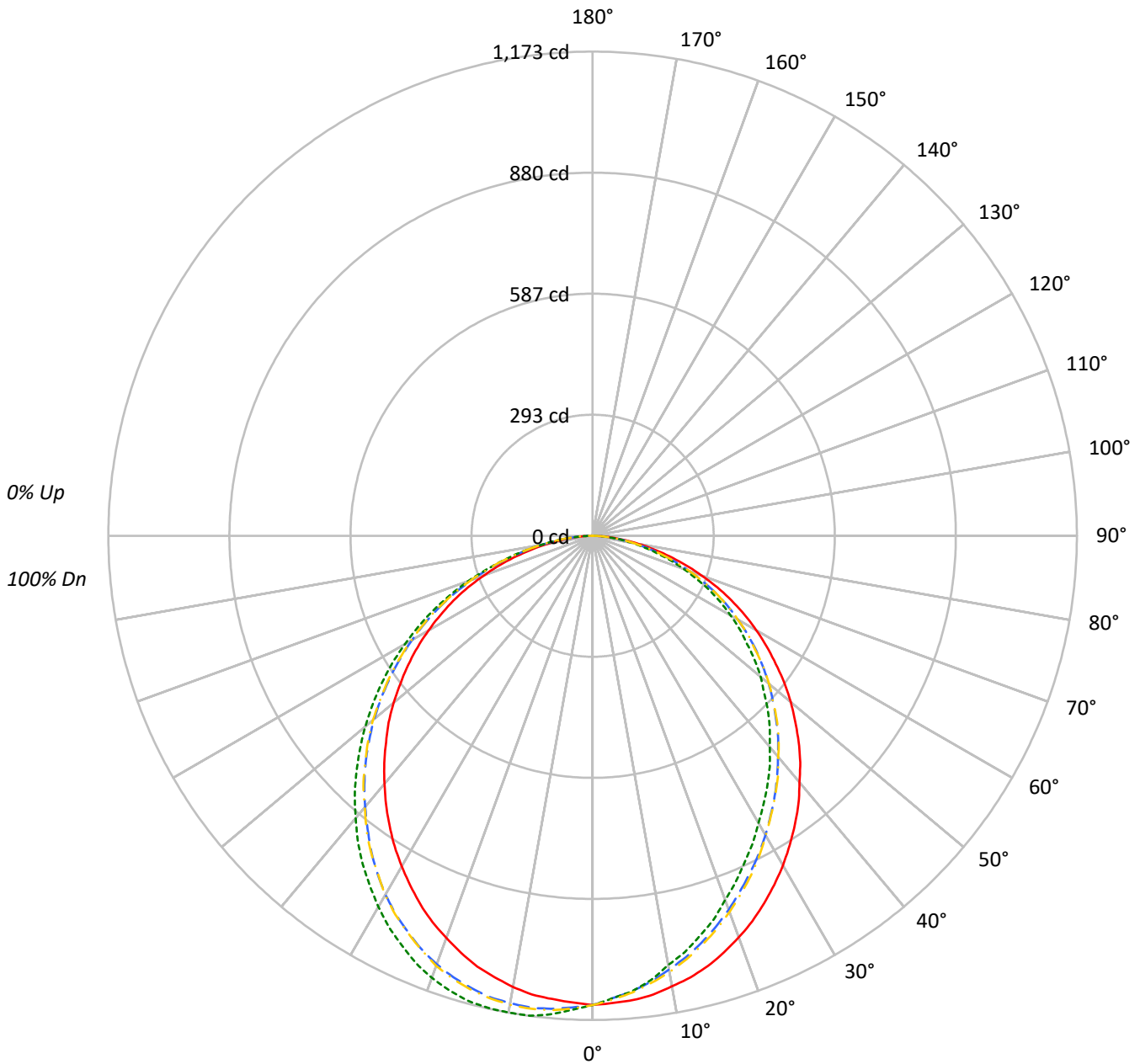
Lumens per Lamp: N/A  
Luminaire Lumens: 3049.0 lumens  
Efficiency: N/A  
Efficacy: 62.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 49.1  
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°	10488	10488	10488	10488
5°	10458	10255	10434	10779
10°	10385	9891	10398	10987
15°	10306	9582	10319	11141
20°	10165	9218	10177	11187
25°	10002	8877	10041	11141
30°	9823	8563	9850	11056
35°	9618	8313	9660	10936
40°	9386	8038	9448	10749
45°	9212	7837	9230	10554
50°	8991	7623	9025	10317
55°	8709	7345	8770	10034
60°	8448	7119	8473	9682
65°	8112	6822	8112	9265
70°	7561	6315	7529	8638
75°	6876	5732	6784	7750
80°	5945	4920	5744	6631
85°	4637	3684	4361	5441



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.4	3.5
10°-20°	304.9	10.0
20°-30°	453.2	14.9
30°-40°	534.2	17.5
40°-50°	543.9	17.8
50°-60°	484.6	15.9
60°-70°	365.1	12.0
70°-80°	203.0	6.7
80°-90°	52.8	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°	865.5	28.4
0°-40°	1399.7	45.9
0°-60°	2428.2	79.6
0°-90°	3049.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3049.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1137	1137	1137	1137	1137	
5°	1129	1107	1127	1164	1129	107
15°	1079	1003	1080	1166	1079	304
25°	982	872	986	1094	982	453
35°	854	738	858	971	854	534
45°	706	601	707	809	706	544
55°	541	457	545	624	541	485
65°	372	312	372	424	372	367
75°	193	161	190	217	193	205
85°	44	35	41	51	44	53
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°	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8
2.5°	1133.0	1133.0	1134.2	1129.2	1122.7	1120.1	1118.9	1117.5	1120.1	1121.4	1120.1
5°	1129.2	1126.6	1124.0	1117.5	1109.9	1104.7	1102.1	1100.9	1103.5	1107.3	1103.5
7.5°	1121.4	1116.3	1111.1	1102.1	1093.2	1085.4	1081.6	1079.0	1081.6	1085.4	1082.8
10°	1108.5	1102.1	1094.4	1084.2	1071.3	1062.3	1058.4	1054.6	1055.8	1055.8	1055.8
12.5°	1095.6	1086.8	1077.7	1064.9	1050.6	1040.4	1033.9	1028.9	1031.3	1032.7	1032.7
15°	1079.0	1067.5	1054.6	1040.4	1026.3	1014.7	1007.0	1001.8	1003.2	1003.2	1004.4
17.5°	1058.4	1045.6	1032.7	1016.0	999.2	986.3	977.4	971.0	973.5	974.8	976.1
20°	1035.3	1021.1	1007.0	988.9	971.0	956.8	947.7	940.1	938.9	938.9	940.1
22.5°	1010.8	995.4	978.7	959.4	940.1	924.6	915.6	907.9	906.7	906.7	907.9
25°	982.5	965.8	949.1	929.8	909.2	893.9	882.2	874.6	873.2	872.0	874.6
27.5°	953.0	936.3	919.6	900.3	878.4	862.9	851.3	843.6	841.0	839.8	842.4
30°	922.0	902.7	884.8	864.1	844.9	829.5	817.9	808.9	806.4	803.8	806.4
32.5°	888.6	869.4	850.1	829.5	810.3	794.8	783.2	774.3	771.7	770.3	772.9
35°	853.9	834.6	816.7	796.0	776.7	761.4	749.8	742.1	739.5	738.1	739.5
37.5°	819.1	800.0	781.9	761.4	742.1	726.7	715.0	707.4	706.0	704.8	706.0
40°	779.3	762.6	744.6	725.3	706.0	690.7	681.6	672.6	670.0	667.4	671.4
42.5°	744.6	727.9	710.0	691.9	672.6	657.1	646.9	639.2	636.6	635.2	636.6
45°	706.0	688.1	670.0	653.3	635.2	621.2	610.9	603.1	601.9	600.6	601.9
47.5°	665.0	649.5	634.0	617.3	599.3	585.2	576.1	568.5	565.9	563.3	565.9
50°	626.4	610.9	595.4	580.0	563.3	550.4	541.4	533.7	532.4	531.1	532.4
52.5°	585.2	569.7	555.6	540.2	525.9	513.1	504.2	497.8	496.4	495.2	496.4
55°	541.4	528.5	515.7	502.8	488.7	477.1	469.4	461.6	459.2	456.6	459.2
57.5°	500.2	488.7	475.9	463.0	450.1	439.9	432.1	425.6	424.4	423.0	424.4
60°	457.8	447.5	435.9	424.4	411.6	401.3	394.9	389.7	387.1	385.8	387.1
62.5°	415.4	405.1	396.1	384.5	373.0	365.2	358.7	353.7	351.1	349.9	351.1
65°	371.6	362.7	353.7	343.4	334.4	326.6	320.2	315.1	313.7	312.5	312.5
67.5°	326.6	318.9	311.3	302.2	292.0	284.2	277.7	273.9	272.7	271.3	272.7
70°	280.3	273.9	266.3	258.4	250.8	244.4	240.5	236.7	235.3	234.1	234.1
72.5°	236.7	231.5	225.1	218.6	212.2	205.8	202.0	199.3	198.1	196.7	196.7
75°	192.9	187.7	183.9	178.8	172.4	168.4	164.6	162.0	160.8	160.8	160.8
77.5°	151.7	147.9	144.1	138.9	135.0	131.2	128.6	127.4	126.0	126.0	126.0
80°	111.9	109.3	106.7	104.1	100.3	96.5	95.2	93.9	92.6	92.6	92.6
82.5°	75.9	74.6	72.0	69.5	66.9	65.5	64.3	63.1	63.1	63.1	63.1
85°	43.8	42.4	41.2	39.8	38.6	38.6	37.4	36.0	34.8	34.8	34.8
87.5°	18.1	18.1	18.1	16.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5
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):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8
2.5°	1117.5	1120.1	1122.7	1126.6	1130.4	1134.2	1133.0	1131.8	1136.8	1143.3	1144.6
5°	1100.9	1103.5	1107.3	1113.7	1120.1	1125.4	1126.6	1126.6	1136.8	1145.9	1148.5
7.5°	1080.3	1084.2	1089.2	1095.6	1104.7	1112.5	1116.3	1121.4	1131.8	1143.3	1148.5
10°	1054.6	1061.0	1068.7	1077.7	1086.8	1095.6	1103.5	1109.9	1122.7	1135.6	1143.3
12.5°	1031.3	1037.8	1045.6	1055.8	1067.5	1079.0	1086.8	1095.6	1111.1	1126.6	1135.6
15°	1005.6	1012.1	1021.1	1031.3	1044.2	1057.1	1068.7	1080.3	1095.6	1112.5	1122.7
17.5°	977.4	983.9	992.8	1005.6	1019.9	1033.9	1046.8	1059.7	1077.7	1095.6	1107.3
20°	942.7	951.7	963.2	976.1	992.8	1009.6	1022.5	1036.5	1055.8	1075.1	1088.0
22.5°	909.2	918.2	931.1	946.5	964.6	982.5	998.0	1013.4	1033.9	1053.2	1067.5
25°	877.0	887.4	900.3	915.6	932.4	950.3	968.4	986.3	1007.0	1027.5	1041.8
27.5°	844.9	853.9	866.8	882.2	901.5	919.6	937.5	955.6	977.4	999.2	1014.7
30°	808.9	819.1	830.8	846.2	866.8	887.4	905.3	924.6	946.5	968.4	983.9
32.5°	775.5	784.5	796.0	811.5	832.0	852.7	872.0	892.5	913.1	934.9	950.3
35°	742.1	751.0	762.6	778.1	798.6	819.1	838.4	857.7	878.4	898.9	914.4
37.5°	708.6	717.6	729.3	744.6	763.9	784.5	802.4	821.7	842.4	862.9	877.0
40°	673.8	682.9	691.9	707.4	726.7	747.2	765.2	784.5	805.0	825.6	839.8
42.5°	639.2	648.1	659.7	675.2	693.1	711.2	729.3	747.2	766.5	785.8	800.0
45°	604.5	612.1	623.8	637.9	655.9	672.6	690.7	707.4	726.7	744.6	758.8
47.5°	568.5	576.1	585.2	599.3	617.3	635.2	653.3	670.0	686.7	704.8	717.6
50°	533.7	541.4	551.7	564.5	581.4	598.0	613.5	628.8	645.7	662.4	673.8
52.5°	497.8	505.4	514.4	527.3	541.4	556.9	570.9	586.4	601.9	617.3	628.8
55°	461.6	466.8	474.5	486.1	501.6	517.0	531.1	545.2	559.5	572.3	583.8
57.5°	425.6	432.1	441.1	451.4	464.2	477.1	489.9	502.8	515.7	528.5	538.8
60°	389.7	394.9	401.3	410.2	423.0	434.7	447.5	459.2	470.7	482.3	491.3
62.5°	352.3	357.5	363.9	373.0	383.2	393.5	405.1	415.4	425.6	435.9	444.9
65°	313.7	318.9	325.4	333.0	342.0	351.1	361.3	371.6	379.4	387.1	396.1
67.5°	273.9	279.1	285.5	292.0	299.6	308.7	317.7	326.6	334.4	342.0	348.5
70°	235.3	239.2	245.6	250.8	257.2	263.7	271.3	279.1	284.2	290.6	298.4
72.5°	198.1	202.0	207.0	212.2	216.0	221.2	228.9	235.3	241.8	249.6	253.4
75°	162.0	164.6	168.4	172.4	176.2	180.1	185.3	190.3	195.5	199.3	204.6
77.5°	126.0	128.6	132.4	135.0	137.6	140.2	144.1	147.9	151.7	154.3	159.5
80°	92.6	95.2	97.7	100.3	102.9	105.5	106.7	108.1	113.1	117.0	119.6
82.5°	63.1	64.3	65.5	68.1	69.5	70.7	72.0	72.0	74.6	77.2	81.0
85°	36.0	37.4	38.6	38.6	38.6	38.6	39.8	41.2	42.4	45.0	47.6
87.5°	14.1	14.1	15.5	15.5	15.5	15.5	15.5	15.5	16.7	19.3	20.5
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°	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8	1136.8
2.5°	1143.3	1144.6	1147.1	1148.5	1149.7	1149.7	1151.1	1152.3	1149.7	1147.1	1145.9
5°	1149.7	1151.1	1154.9	1158.7	1161.3	1163.9	1162.6	1161.3	1158.7	1154.9	1152.3
7.5°	1151.1	1154.9	1158.7	1163.9	1167.8	1172.8	1170.4	1167.8	1162.6	1157.5	1153.5
10°	1147.1	1152.3	1158.7	1165.2	1169.0	1172.8	1170.4	1167.8	1162.6	1156.1	1151.1
12.5°	1142.0	1148.5	1156.1	1162.6	1166.4	1171.6	1167.8	1163.9	1157.5	1151.1	1144.6
15°	1130.4	1138.2	1147.1	1154.9	1161.3	1166.4	1162.6	1160.0	1152.3	1143.3	1134.2
17.5°	1116.3	1126.6	1135.6	1144.6	1149.7	1154.9	1152.3	1149.7	1140.7	1130.4	1120.1
20°	1099.6	1109.9	1118.9	1127.8	1134.2	1139.4	1135.6	1131.8	1122.7	1113.7	1103.5
22.5°	1079.0	1089.2	1099.6	1108.5	1114.9	1120.1	1114.9	1108.5	1099.6	1090.6	1080.3
25°	1053.2	1064.9	1076.4	1085.4	1089.2	1094.4	1089.2	1084.2	1075.1	1066.1	1054.6
27.5°	1027.5	1039.2	1050.6	1059.7	1063.5	1068.7	1063.5	1058.4	1049.4	1040.4	1028.9
30°	998.0	1009.6	1021.1	1030.1	1033.9	1037.8	1032.7	1027.5	1019.9	1010.8	999.2
32.5°	964.6	976.1	985.1	994.1	999.2	1004.4	999.2	995.4	986.3	974.8	963.2
35°	928.5	940.1	951.7	960.6	965.8	971.0	964.6	958.2	950.3	941.3	931.1
37.5°	888.6	901.5	914.4	924.6	928.5	933.7	928.5	922.0	914.4	905.3	893.9
40°	851.3	862.9	874.6	884.8	888.6	892.5	887.4	882.2	873.2	864.1	852.7
42.5°	812.9	824.3	834.6	843.6	847.5	852.7	847.5	841.0	834.6	826.9	816.7
45°	771.7	783.2	792.2	801.2	805.0	808.9	803.8	797.4	791.0	784.5	774.3
47.5°	729.3	739.5	748.6	757.4	760.0	763.9	758.8	755.0	748.6	742.1	733.1
50°	685.5	695.7	704.8	712.4	715.0	718.8	713.8	708.6	703.5	698.3	690.7
52.5°	640.5	649.5	658.5	666.2	668.8	671.4	666.2	661.0	655.9	650.7	643.1
55°	594.2	603.1	612.1	618.6	621.2	623.8	618.6	614.7	609.5	605.7	598.0
57.5°	547.8	556.9	564.5	570.9	573.5	576.1	570.9	565.9	562.1	558.1	551.7
60°	500.2	509.2	515.7	520.9	523.5	524.7	519.5	515.7	513.1	510.6	504.2
62.5°	454.0	460.4	466.8	470.7	473.3	474.5	470.7	468.1	465.6	463.0	457.8
65°	405.1	412.8	418.0	421.8	423.0	424.4	420.6	418.0	415.4	412.8	409.0
67.5°	356.3	362.7	366.5	370.4	371.6	371.6	371.6	370.4	367.8	363.9	360.1
70°	307.3	312.5	316.3	318.9	320.2	320.2	317.7	315.1	315.1	313.7	311.3
72.5°	257.2	261.1	263.7	266.3	266.3	266.3	266.3	267.5	266.3	263.7	259.8
75°	209.6	213.4	216.0	217.4	217.4	217.4	217.4	218.6	217.4	216.0	213.4
77.5°	164.6	167.2	168.4	169.8	169.8	169.8	171.0	172.4	171.0	169.8	168.4
80°	122.2	123.4	124.8	126.0	124.8	124.8	126.0	128.6	127.4	126.0	124.8
82.5°	83.6	84.8	86.2	86.2	87.4	88.8	88.8	88.8	88.8	87.4	86.2
85°	50.2	51.4	51.4	51.4	51.4	51.4	52.7	54.0	54.0	52.7	52.7
87.5°	23.1	24.5	23.1	21.9	20.5	20.5	23.1	25.7	25.7	24.5	24.5
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: P735642

CATALOG NUMBER: 4APN6-39-B2750-W2D-CP250-5000K

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	1136.8	1136.8	1136.8	1136.8
2.5°	1147.1	1145.9	1139.4	1133.0
5°	1151.1	1147.1	1138.2	1129.2
7.5°	1151.1	1145.9	1133.0	1121.4
10°	1144.6	1136.8	1122.7	1108.5
12.5°	1136.8	1127.8	1111.1	1095.6
15°	1125.4	1114.9	1097.0	1079.0
17.5°	1108.5	1095.6	1077.7	1058.4
20°	1091.8	1077.7	1055.8	1035.3
22.5°	1068.7	1055.8	1032.7	1010.8
25°	1043.0	1028.9	1005.6	982.5
27.5°	1016.0	999.2	976.1	953.0
30°	985.1	968.4	945.3	922.0
32.5°	951.7	936.3	913.1	888.6
35°	918.2	901.5	878.4	853.9
37.5°	881.0	865.5	842.4	819.1
40°	841.0	825.6	802.4	779.3
42.5°	803.8	789.6	766.5	744.6
45°	762.6	748.6	726.7	706.0
47.5°	720.2	706.0	685.5	665.0
50°	679.0	665.0	645.7	626.4
52.5°	632.8	621.2	603.1	585.2
55°	587.8	576.1	558.1	541.4
57.5°	542.8	532.4	515.7	500.2
60°	495.2	484.9	472.0	457.8
62.5°	450.1	441.1	428.2	415.4
65°	402.5	394.9	383.2	371.6
67.5°	353.7	347.3	337.0	326.6
70°	304.8	297.0	289.4	280.3
72.5°	256.0	252.0	244.4	236.7
75°	209.6	205.8	199.3	192.9
77.5°	166.0	162.0	156.9	151.7
80°	122.2	119.6	115.8	111.9
82.5°	84.8	82.4	79.8	75.9
85°	51.4	48.8	46.2	43.8
87.5°	23.1	21.9	19.3	18.1
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)