

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: P735641

Luminaire Tested: **4APN6-39-B2750-W2D-CP250-4000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735641
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-CP250-4000K
Description: 4FT 3900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 4000K CCT, AND CP250 LENS

Light Source: -
Ballast/Driver: -

Summary

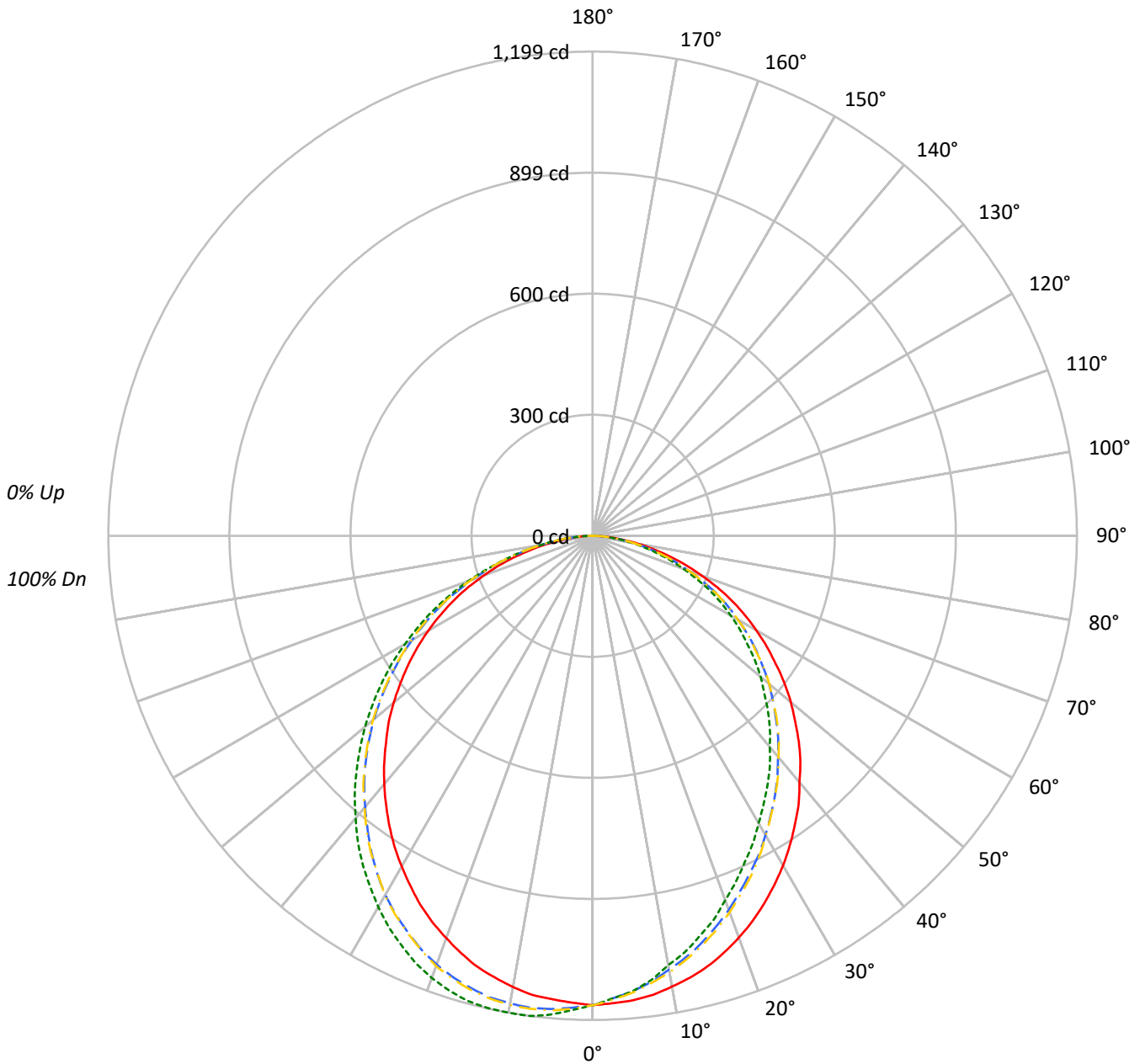
Lumens per Lamp: N/A
Luminaire Lumens: 3118.0 lumens
Efficiency: N/A
Efficacy: 63.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 49.1
Input Voltage (V): NR
Input Current (A_{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°	10726	10726	10726	10726
5°	10694	10487	10670	11024
10°	10620	10115	10633	11237
15°	10539	9799	10553	11393
20°	10396	9427	10407	11440
25°	10228	9077	10269	11393
30°	10045	8757	10074	11307
35°	9835	8501	9879	11184
40°	9599	8220	9663	10993
45°	9421	8014	9439	10793
50°	9193	7797	9229	10551
55°	8905	7510	8969	10261
60°	8639	7281	8665	9902
65°	8296	6977	8296	9475
70°	7734	6458	7699	8832
75°	7033	5860	6937	7924
80°	6084	5032	5871	6780
85°	4742	3758	4457	5568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.9	3.5
10°-20°	311.8	10.0
20°-30°	463.5	14.9
30°-40°	546.3	17.5
40°-50°	556.2	17.8
50°-60°	495.5	15.9
60°-70°	373.3	12.0
70°-80°	207.6	6.7
80°-90°	54.0	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°	885.1	28.4
0°-40°	1431.4	45.9
0°-60°	2483.1	79.6
0°-90°	3118.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3118.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1163	1163	1163	1163	1163	
5°	1155	1132	1152	1190	1155	110
15°	1103	1026	1105	1193	1103	311
25°	1005	892	1009	1119	1005	463
35°	873	755	877	993	873	546
45°	722	614	723	827	722	556
55°	554	467	558	638	554	496
65°	380	320	380	434	380	375
75°	197	164	195	222	197	210
85°	45	36	42	53	45	54
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°	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6
2.5°	1158.6	1158.6	1159.9	1154.7	1148.2	1145.5	1144.2	1142.8	1145.5	1146.7	1145.5
5°	1154.7	1152.1	1149.4	1142.8	1135.0	1129.7	1127.0	1125.8	1128.4	1132.3	1128.4
7.5°	1146.7	1141.6	1136.3	1127.0	1117.9	1110.0	1106.0	1103.4	1106.0	1110.0	1107.3
10°	1133.6	1127.0	1119.2	1108.7	1095.5	1086.3	1082.4	1078.5	1079.7	1079.7	1079.7
12.5°	1120.4	1111.4	1102.1	1089.0	1074.4	1063.9	1057.3	1052.2	1054.7	1056.1	1056.1
15°	1103.4	1091.6	1078.5	1063.9	1049.5	1037.6	1029.8	1024.5	1025.9	1025.9	1027.1
17.5°	1082.4	1069.2	1056.1	1039.0	1021.8	1008.7	999.6	993.0	995.5	996.9	998.2
20°	1058.8	1044.2	1029.8	1011.3	993.0	978.4	969.2	961.4	960.1	960.1	961.4
22.5°	1033.7	1017.9	1000.8	981.1	961.4	945.6	936.3	928.5	927.2	927.2	928.5
25°	1004.7	987.7	970.6	950.9	929.7	914.1	902.2	894.4	892.9	891.7	894.4
27.5°	974.5	957.5	940.4	920.7	898.3	882.5	870.6	862.7	860.1	858.8	861.5
30°	942.9	923.2	904.8	883.7	864.0	848.3	836.4	827.2	824.7	822.0	824.7
32.5°	908.8	889.0	869.3	848.3	828.6	812.8	800.9	791.8	789.1	787.7	790.4
35°	873.2	853.5	835.2	814.0	794.3	778.6	766.7	758.9	756.3	754.8	756.3
37.5°	837.7	818.1	799.6	778.6	758.9	743.1	731.2	723.4	722.0	720.7	722.0
40°	797.0	779.9	761.4	741.7	722.0	706.3	697.1	687.8	685.2	682.5	686.6
42.5°	761.4	744.4	726.0	707.6	687.8	672.0	661.5	653.7	651.0	649.6	651.0
45°	722.0	703.6	685.2	668.1	649.6	635.2	624.7	616.7	615.5	614.2	615.5
47.5°	680.0	664.2	648.4	631.3	612.8	598.4	589.2	581.4	578.7	576.0	578.7
50°	640.5	624.7	608.9	593.1	576.0	562.9	553.6	545.8	544.4	543.2	544.4
52.5°	598.4	582.6	568.2	552.4	537.8	524.7	515.6	509.0	507.6	506.4	507.6
55°	553.6	540.5	527.3	514.2	499.8	487.9	480.1	472.1	469.6	466.9	469.6
57.5°	511.5	499.8	486.6	473.5	460.3	449.8	441.9	435.3	434.0	432.6	434.0
60°	468.2	457.7	445.8	434.0	420.9	410.4	403.8	398.5	395.8	394.6	395.8
62.5°	424.8	414.3	405.1	393.2	381.4	373.4	366.9	361.7	359.0	357.8	359.0
65°	380.0	370.9	361.7	351.2	342.0	334.0	327.4	322.2	320.8	319.6	319.6
67.5°	334.0	326.1	318.3	309.1	298.6	290.6	284.0	280.1	278.9	277.4	278.9
70°	286.7	280.1	272.3	264.3	256.5	249.9	246.0	242.1	240.7	239.4	239.4
72.5°	242.1	236.7	230.2	223.6	217.0	210.4	206.5	203.9	202.6	201.2	201.2
75°	197.3	192.0	188.0	182.9	176.3	172.2	168.3	165.7	164.4	164.4	164.4
77.5°	155.2	151.3	147.3	142.0	138.1	134.2	131.5	130.3	128.9	128.9	128.9
80°	114.5	111.8	109.1	106.5	102.6	98.6	97.4	96.0	94.7	94.7	94.7
82.5°	77.7	76.3	73.6	71.1	68.4	67.0	65.8	64.5	64.5	64.5	64.5
85°	44.8	43.4	42.1	40.7	39.5	39.5	38.2	36.8	35.5	35.5	35.5
87.5°	18.5	18.5	18.5	17.1	15.8	15.8	15.8	15.8	15.8	15.8	15.8
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6
2.5°	1142.8	1145.5	1148.2	1152.1	1156.0	1159.9	1158.6	1157.4	1162.6	1169.1	1170.5
5°	1125.8	1128.4	1132.3	1138.9	1145.5	1150.8	1152.1	1152.1	1162.6	1171.8	1174.5
7.5°	1104.8	1108.7	1113.9	1120.4	1129.7	1137.7	1141.6	1146.7	1157.4	1169.1	1174.5
10°	1078.5	1085.1	1092.9	1102.1	1111.4	1120.4	1128.4	1135.0	1148.2	1161.3	1169.1
12.5°	1054.7	1061.3	1069.2	1079.7	1091.6	1103.4	1111.4	1120.4	1136.3	1152.1	1161.3
15°	1028.4	1035.0	1044.2	1054.7	1067.8	1081.0	1092.9	1104.8	1120.4	1137.7	1148.2
17.5°	999.6	1006.1	1015.2	1028.4	1042.9	1057.3	1070.5	1083.6	1102.1	1120.4	1132.3
20°	964.0	973.3	985.0	998.2	1015.2	1032.4	1045.6	1060.0	1079.7	1099.5	1112.6
22.5°	929.7	939.0	952.1	967.9	986.4	1004.7	1020.5	1036.4	1057.3	1077.1	1091.6
25°	896.9	907.5	920.7	936.3	953.5	971.9	990.3	1008.7	1029.8	1050.8	1065.3
27.5°	864.0	873.2	886.4	902.2	921.9	940.4	958.7	977.2	999.6	1021.8	1037.6
30°	827.2	837.7	849.6	865.4	886.4	907.5	925.8	945.6	967.9	990.3	1006.1
32.5°	793.0	802.3	814.0	829.8	850.8	872.0	891.7	912.7	933.8	956.0	971.9
35°	758.9	768.0	779.9	795.7	816.7	837.7	857.4	877.1	898.3	919.2	935.1
37.5°	724.6	733.9	745.8	761.4	781.1	802.3	820.6	840.3	861.5	882.5	896.9
40°	689.1	698.3	707.6	723.4	743.1	764.1	782.6	802.3	823.3	844.2	858.8
42.5°	653.7	662.8	674.7	690.5	708.8	727.3	745.8	764.1	783.8	803.5	818.1
45°	618.2	626.0	637.9	652.3	670.8	687.8	706.3	723.4	743.1	761.4	776.0
47.5°	581.4	589.2	598.4	612.8	631.3	649.6	668.1	685.2	702.2	720.7	733.9
50°	545.8	553.6	564.1	577.3	594.5	611.6	627.4	643.0	660.3	677.3	689.1
52.5°	509.0	516.9	526.1	539.2	553.6	569.5	583.9	599.7	615.5	631.3	643.0
55°	472.1	477.4	485.2	497.1	512.9	528.8	543.2	557.6	572.1	585.3	597.0
57.5°	435.3	441.9	451.1	461.6	474.7	487.9	501.0	514.2	527.3	540.5	551.0
60°	398.5	403.8	410.4	419.5	432.6	444.5	457.7	469.6	481.3	493.2	502.4
62.5°	360.3	365.6	372.2	381.4	391.9	402.4	414.3	424.8	435.3	445.8	455.0
65°	320.8	326.1	332.7	340.5	349.8	359.0	369.5	380.0	388.0	395.8	405.1
67.5°	280.1	285.4	292.0	298.6	306.4	315.7	324.9	334.0	342.0	349.8	356.4
70°	240.7	244.6	251.1	256.5	263.0	269.6	277.4	285.4	290.6	297.2	305.2
72.5°	202.6	206.5	211.7	217.0	220.9	226.2	234.1	240.7	247.2	255.2	259.1
75°	165.7	168.3	172.2	176.3	180.2	184.1	189.5	194.6	199.9	203.9	209.2
77.5°	128.9	131.5	135.4	138.1	140.8	143.4	147.3	151.3	155.2	157.8	163.2
80°	94.7	97.4	99.9	102.6	105.2	107.9	109.1	110.5	115.7	119.6	122.3
82.5°	64.5	65.8	67.0	69.7	71.1	72.3	73.6	73.6	76.3	78.9	82.8
85°	36.8	38.2	39.5	39.5	39.5	39.5	40.7	42.1	43.4	46.0	48.7
87.5°	14.4	14.4	15.8	15.8	15.8	15.8	15.8	15.8	17.1	19.7	21.0
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°	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6	1162.6
2.5°	1169.1	1170.5	1173.1	1174.5	1175.7	1175.7	1177.1	1178.4	1175.7	1173.1	1171.8
5°	1175.7	1177.1	1181.0	1185.0	1187.6	1190.3	1188.9	1187.6	1185.0	1181.0	1178.4
7.5°	1177.1	1181.0	1185.0	1190.3	1194.2	1199.4	1196.9	1194.2	1188.9	1183.7	1179.6
10°	1173.1	1178.4	1185.0	1191.5	1195.4	1199.4	1196.9	1194.2	1188.9	1182.3	1177.1
12.5°	1167.9	1174.5	1182.3	1188.9	1192.8	1198.1	1194.2	1190.3	1183.7	1177.1	1170.5
15°	1156.0	1164.0	1173.1	1181.0	1187.6	1192.8	1188.9	1186.2	1178.4	1169.1	1159.9
17.5°	1141.6	1152.1	1161.3	1170.5	1175.7	1181.0	1178.4	1175.7	1166.5	1156.0	1145.5
20°	1124.5	1135.0	1144.2	1153.3	1159.9	1165.2	1161.3	1157.4	1148.2	1138.9	1128.4
22.5°	1103.4	1113.9	1124.5	1133.6	1140.2	1145.5	1140.2	1133.6	1124.5	1115.3	1104.8
25°	1077.1	1089.0	1100.7	1110.0	1113.9	1119.2	1113.9	1108.7	1099.5	1090.2	1078.5
27.5°	1050.8	1062.7	1074.4	1083.6	1087.6	1092.9	1087.6	1082.4	1073.2	1063.9	1052.2
30°	1020.5	1032.4	1044.2	1053.4	1057.3	1061.3	1056.1	1050.8	1042.9	1033.7	1021.8
32.5°	986.4	998.2	1007.4	1016.6	1021.8	1027.1	1021.8	1017.9	1008.7	996.9	985.0
35°	949.5	961.4	973.3	982.3	987.7	993.0	986.4	979.8	971.9	962.6	952.1
37.5°	908.8	921.9	935.1	945.6	949.5	954.8	949.5	942.9	935.1	925.8	914.1
40°	870.6	882.5	894.4	904.8	908.8	912.7	907.5	902.2	892.9	883.7	872.0
42.5°	831.3	843.0	853.5	862.7	866.6	872.0	866.6	860.1	853.5	845.7	835.2
45°	789.1	800.9	810.1	819.4	823.3	827.2	822.0	815.4	808.9	802.3	791.8
47.5°	745.8	756.3	765.5	774.6	777.2	781.1	776.0	772.1	765.5	758.9	749.7
50°	701.0	711.5	720.7	728.5	731.2	735.1	729.9	724.6	719.5	714.1	706.3
52.5°	654.9	664.2	673.4	681.3	683.9	686.6	681.3	675.9	670.8	665.4	657.6
55°	607.7	616.7	626.0	632.6	635.2	637.9	632.6	628.6	623.3	619.4	611.6
57.5°	560.2	569.5	577.3	583.9	586.5	589.2	583.9	578.7	574.8	570.7	564.1
60°	511.5	520.8	527.3	532.7	535.3	536.6	531.3	527.3	524.7	522.2	515.6
62.5°	464.2	470.8	477.4	481.3	484.0	485.2	481.3	478.6	476.1	473.5	468.2
65°	414.3	422.1	427.4	431.4	432.6	434.0	430.1	427.4	424.8	422.1	418.2
67.5°	364.3	370.9	374.8	378.8	380.0	380.0	380.0	378.8	376.1	372.2	368.3
70°	314.2	319.6	323.5	326.1	327.4	327.4	324.9	322.2	322.2	320.8	318.3
72.5°	263.0	267.0	269.6	272.3	272.3	272.3	272.3	273.5	272.3	269.6	265.7
75°	214.3	218.3	220.9	222.3	222.3	222.3	222.3	223.6	222.3	220.9	218.3
77.5°	168.3	171.0	172.2	173.6	173.6	173.6	174.9	176.3	174.9	173.6	172.2
80°	124.9	126.2	127.6	128.9	127.6	127.6	128.9	131.5	130.3	128.9	127.6
82.5°	85.5	86.7	88.2	88.2	89.4	90.8	90.8	90.8	90.8	89.4	88.2
85°	51.4	52.6	52.6	52.6	52.6	52.6	53.9	55.3	55.3	53.9	53.9
87.5°	23.6	25.1	23.6	22.4	21.0	21.0	23.6	26.3	26.3	25.1	25.1
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: P735641

CATALOG NUMBER: 4APN6-39-B2750-W2D-CP250-4000K

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1162.6	1162.6	1162.6	1162.6
2.5°	1173.1	1171.8	1165.2	1158.6
5°	1177.1	1173.1	1164.0	1154.7
7.5°	1177.1	1171.8	1158.6	1146.7
10°	1170.5	1162.6	1148.2	1133.6
12.5°	1162.6	1153.3	1136.3	1120.4
15°	1150.8	1140.2	1121.9	1103.4
17.5°	1133.6	1120.4	1102.1	1082.4
20°	1116.5	1102.1	1079.7	1058.8
22.5°	1092.9	1079.7	1056.1	1033.7
25°	1066.6	1052.2	1028.4	1004.7
27.5°	1039.0	1021.8	998.2	974.5
30°	1007.4	990.3	966.7	942.9
32.5°	973.3	957.5	933.8	908.8
35°	939.0	921.9	898.3	873.2
37.5°	900.9	885.1	861.5	837.7
40°	860.1	844.2	820.6	797.0
42.5°	822.0	807.5	783.8	761.4
45°	779.9	765.5	743.1	722.0
47.5°	736.5	722.0	701.0	680.0
50°	694.4	680.0	660.3	640.5
52.5°	647.1	635.2	616.7	598.4
55°	601.1	589.2	570.7	553.6
57.5°	555.1	544.4	527.3	511.5
60°	506.4	495.9	482.7	468.2
62.5°	460.3	451.1	437.9	424.8
65°	411.6	403.8	391.9	380.0
67.5°	361.7	355.1	344.6	334.0
70°	311.7	303.8	295.9	286.7
72.5°	261.8	257.7	249.9	242.1
75°	214.3	210.4	203.9	197.3
77.5°	169.7	165.7	160.5	155.2
80°	124.9	122.3	118.4	114.5
82.5°	86.7	84.2	81.6	77.7
85°	52.6	49.9	47.3	44.8
87.5°	23.6	22.4	19.7	18.5
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)