

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: P735640

Luminaire Tested: **4APN6-39-B2750-W2D-CP250-3500K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735640
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-CP250-3500K
Description: 4FT 3900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 3500K CCT, AND CP250 LENS

Light Source: -
Ballast/Driver: -

Summary

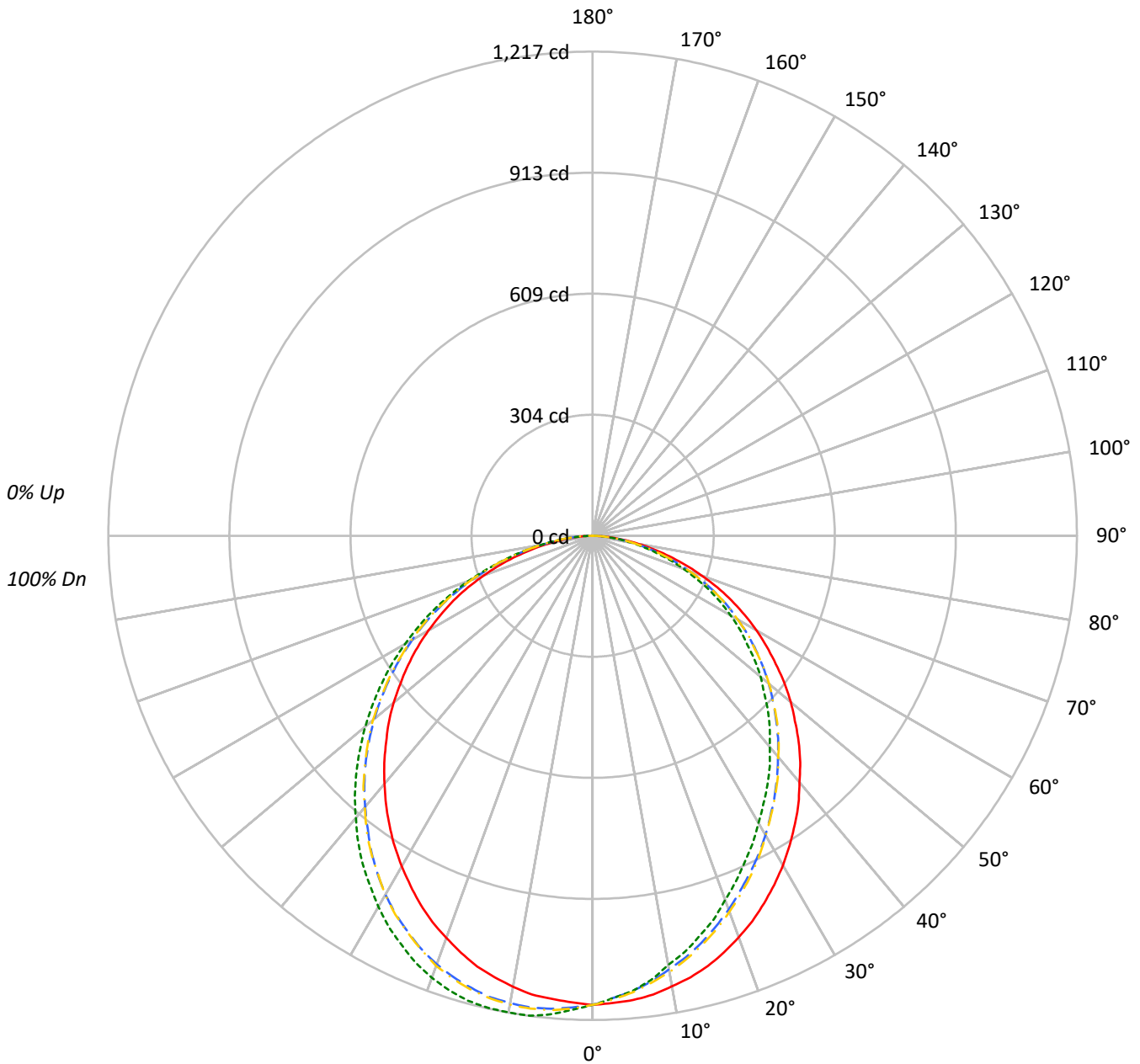
Lumens per Lamp: N/A
Luminaire Lumens: 3163.0 lumens
Efficiency: N/A
Efficacy: 64.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	10880	10880	10880	10880
5°	10849	10639	10824	11183
10°	10774	10261	10787	11399
15°	10691	9940	10705	11558
20°	10545	9563	10558	11605
25°	10375	9209	10416	11557
30°	10190	8884	10219	11470
35°	9977	8624	10022	11345
40°	9738	8339	9803	11150
45°	9556	8130	9574	10948
50°	9327	7909	9363	10703
55°	9034	7618	9098	10409
60°	8763	7386	8789	10044
65°	8416	7078	8416	9612
70°	7845	6552	7812	8959
75°	7133	5946	7037	8038
80°	6169	5106	5956	6875
85°	4806	3822	4520	5653



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.4	3.5
10°-20°	316.3	10.0
20°-30°	470.2	14.9
30°-40°	554.2	17.5
40°-50°	564.3	17.8
50°-60°	502.7	15.9
60°-70°	378.7	12.0
70°-80°	210.6	6.7
80°-90°	54.7	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°	897.9	28.4
0°-40°	1452.0	45.9
0°-60°	2519.0	79.6
0°-90°	3163.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3163.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1179	1179	1179	1179	1179	
5°	1171	1149	1169	1208	1171	111
15°	1119	1041	1121	1210	1119	315
25°	1019	905	1023	1135	1019	470
35°	886	766	890	1007	886	554
45°	732	623	734	839	732	564
55°	562	474	566	647	562	503
65°	386	324	386	440	386	381
75°	200	167	197	226	200	213
85°	45	36	43	53	45	55
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°	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3
2.5°	1175.4	1175.4	1176.6	1171.4	1164.7	1162.0	1160.8	1159.3	1162.0	1163.3	1162.0
5°	1171.4	1168.7	1166.0	1159.3	1151.4	1146.0	1143.3	1142.0	1144.7	1148.7	1144.7
7.5°	1163.3	1158.1	1152.7	1143.3	1134.1	1126.0	1122.0	1119.3	1122.0	1126.0	1123.3
10°	1150.0	1143.3	1135.3	1124.7	1111.4	1102.0	1098.0	1094.0	1095.3	1095.3	1095.3
12.5°	1136.6	1127.4	1118.0	1104.7	1089.9	1079.3	1072.6	1067.4	1069.9	1071.3	1071.3
15°	1119.3	1107.4	1094.0	1079.3	1064.7	1052.6	1044.6	1039.2	1040.7	1040.7	1041.9
17.5°	1098.0	1084.7	1071.3	1054.0	1036.5	1023.2	1014.0	1007.3	1009.9	1011.3	1012.6
20°	1074.0	1059.3	1044.6	1025.9	1007.3	992.6	983.2	975.2	974.0	974.0	975.2
22.5°	1048.6	1032.6	1015.3	995.3	975.2	959.2	949.8	941.9	940.6	940.6	941.9
25°	1019.2	1001.9	984.6	964.6	943.2	927.3	915.2	907.3	905.8	904.6	907.3
27.5°	988.6	971.3	954.0	933.9	911.2	895.2	883.1	875.2	872.5	871.2	873.9
30°	956.5	936.5	917.9	896.5	876.4	860.6	848.5	839.1	836.6	833.9	836.6
32.5°	921.9	901.9	881.8	860.6	840.5	824.5	812.4	803.2	800.5	799.1	801.8
35°	885.8	865.8	847.2	825.8	805.8	789.9	777.8	769.9	767.2	765.7	767.2
37.5°	849.8	829.9	811.2	789.9	769.9	753.8	741.8	733.8	732.4	731.1	732.4
40°	808.5	791.2	772.4	752.4	732.4	716.5	707.1	697.8	695.1	692.4	696.5
42.5°	772.4	755.1	736.5	717.8	697.8	681.7	671.1	663.1	660.4	659.0	660.4
45°	732.4	713.8	695.1	677.7	659.0	644.4	633.7	625.6	624.4	623.1	624.4
47.5°	689.8	673.8	657.7	640.4	621.7	607.1	597.7	589.7	587.0	584.3	587.0
50°	649.8	633.7	617.7	601.7	584.3	571.0	561.6	553.7	552.3	551.0	552.3
52.5°	607.1	591.0	576.4	560.4	545.6	532.3	523.0	516.4	514.9	513.7	514.9
55°	561.6	548.3	535.0	521.6	507.0	494.9	487.0	478.9	476.3	473.6	476.3
57.5°	518.9	507.0	493.7	480.3	467.0	456.3	448.2	441.6	440.3	438.9	440.3
60°	474.9	464.3	452.2	440.3	426.9	416.3	409.6	404.2	401.5	400.3	401.5
62.5°	430.9	420.3	410.9	398.8	386.9	378.8	372.1	366.9	364.2	362.9	364.2
65°	385.5	376.3	366.9	356.3	346.9	338.8	332.1	326.9	325.5	324.2	324.2
67.5°	338.8	330.9	322.9	313.5	302.9	294.8	288.1	284.2	282.9	281.5	282.9
70°	290.8	284.2	276.2	268.1	260.2	253.5	249.5	245.6	244.1	242.9	242.9
72.5°	245.6	240.2	233.5	226.8	220.1	213.5	209.5	206.8	205.5	204.1	204.1
75°	200.1	194.7	190.8	185.5	178.8	174.7	170.7	168.0	166.8	166.8	166.8
77.5°	157.4	153.4	149.5	144.1	140.1	136.1	133.4	132.1	130.7	130.7	130.7
80°	116.1	113.4	110.7	108.0	104.0	100.1	98.8	97.4	96.1	96.1	96.1
82.5°	78.8	77.4	74.7	72.1	69.4	68.0	66.7	65.4	65.4	65.4	65.4
85°	45.4	44.0	42.7	41.3	40.0	40.0	38.8	37.3	36.1	36.1	36.1
87.5°	18.7	18.7	18.7	17.3	16.0	16.0	16.0	16.0	16.0	16.0	16.0
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3
2.5°	1159.3	1162.0	1164.7	1168.7	1172.7	1176.6	1175.4	1174.1	1179.3	1186.0	1187.4
5°	1142.0	1144.7	1148.7	1155.4	1162.0	1167.4	1168.7	1168.7	1179.3	1188.7	1191.4
7.5°	1120.7	1124.7	1129.9	1136.6	1146.0	1154.1	1158.1	1163.3	1174.1	1186.0	1191.4
10°	1094.0	1100.7	1108.7	1118.0	1127.4	1136.6	1144.7	1151.4	1164.7	1178.1	1186.0
12.5°	1069.9	1076.6	1084.7	1095.3	1107.4	1119.3	1127.4	1136.6	1152.7	1168.7	1178.1
15°	1043.2	1049.9	1059.3	1069.9	1083.2	1096.6	1108.7	1120.7	1136.6	1154.1	1164.7
17.5°	1014.0	1020.7	1029.9	1043.2	1058.0	1072.6	1085.9	1099.3	1118.0	1136.6	1148.7
20°	977.9	987.3	999.2	1012.6	1029.9	1047.3	1060.7	1075.3	1095.3	1115.3	1128.7
22.5°	943.2	952.5	965.9	981.9	1000.7	1019.2	1035.3	1051.3	1072.6	1092.6	1107.4
25°	909.8	920.6	933.9	949.8	967.3	985.9	1004.6	1023.2	1044.6	1065.9	1080.7
27.5°	876.4	885.8	899.2	915.2	935.2	954.0	972.5	991.3	1014.0	1036.5	1052.6
30°	839.1	849.8	861.8	877.9	899.2	920.6	939.2	959.2	981.9	1004.6	1020.7
32.5°	804.5	813.9	825.8	841.8	863.1	884.5	904.6	925.8	947.3	969.8	985.9
35°	769.9	779.1	791.2	807.2	828.5	849.8	869.8	889.8	911.2	932.5	948.6
37.5°	735.1	744.5	756.5	772.4	792.4	813.9	832.4	852.5	873.9	895.2	909.8
40°	699.0	708.4	717.8	733.8	753.8	775.1	793.9	813.9	835.1	856.4	871.2
42.5°	663.1	672.3	684.4	700.5	719.0	737.8	756.5	775.1	795.1	815.1	829.9
45°	627.1	635.0	647.1	661.7	680.4	697.8	716.5	733.8	753.8	772.4	787.2
47.5°	589.7	597.7	607.1	621.7	640.4	659.0	677.7	695.1	712.4	731.1	744.5
50°	553.7	561.6	572.3	585.6	603.1	620.4	636.4	652.3	669.8	687.1	699.0
52.5°	516.4	524.3	533.7	547.0	561.6	577.7	592.3	608.3	624.4	640.4	652.3
55°	478.9	484.3	492.2	504.3	520.3	536.4	551.0	565.6	580.4	593.7	605.6
57.5°	441.6	448.2	457.6	468.2	481.6	494.9	508.3	521.6	535.0	548.3	558.9
60°	404.2	409.6	416.3	425.5	438.9	450.9	464.3	476.3	488.3	500.3	509.7
62.5°	365.5	370.9	377.5	386.9	397.6	408.2	420.3	430.9	441.6	452.2	461.6
65°	325.5	330.9	337.5	345.5	354.8	364.2	374.8	385.5	393.6	401.5	410.9
67.5°	284.2	289.6	296.2	302.9	310.8	320.2	329.6	338.8	346.9	354.8	361.5
70°	244.1	248.1	254.8	260.2	266.8	273.5	281.5	289.6	294.8	301.5	309.6
72.5°	205.5	209.5	214.7	220.1	224.1	229.5	237.5	244.1	250.8	258.9	262.9
75°	168.0	170.7	174.7	178.8	182.8	186.8	192.2	197.4	202.8	206.8	212.2
77.5°	130.7	133.4	137.4	140.1	142.8	145.5	149.5	153.4	157.4	160.1	165.5
80°	96.1	98.8	101.3	104.0	106.7	109.4	110.7	112.1	117.4	121.3	124.0
82.5°	65.4	66.7	68.0	70.7	72.1	73.4	74.7	74.7	77.4	80.1	84.0
85°	37.3	38.8	40.0	40.0	40.0	40.0	41.3	42.7	44.0	46.7	49.4
87.5°	14.6	14.6	16.0	16.0	16.0	16.0	16.0	16.0	17.3	20.0	21.3
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°	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3	1179.3
2.5°	1186.0	1187.4	1190.0	1191.4	1192.7	1192.7	1194.1	1195.4	1192.7	1190.0	1188.7
5°	1192.7	1194.1	1198.1	1202.1	1204.8	1207.5	1206.0	1204.8	1202.1	1198.1	1195.4
7.5°	1194.1	1198.1	1202.1	1207.5	1211.4	1216.7	1214.1	1211.4	1206.0	1200.8	1196.7
10°	1190.0	1195.4	1202.1	1208.7	1212.7	1216.7	1214.1	1211.4	1206.0	1199.4	1194.1
12.5°	1184.7	1191.4	1199.4	1206.0	1210.0	1215.4	1211.4	1207.5	1200.8	1194.1	1187.4
15°	1172.7	1180.8	1190.0	1198.1	1204.8	1210.0	1206.0	1203.3	1195.4	1186.0	1176.6
17.5°	1158.1	1168.7	1178.1	1187.4	1192.7	1198.1	1195.4	1192.7	1183.3	1172.7	1162.0
20°	1140.7	1151.4	1160.8	1170.0	1176.6	1182.0	1178.1	1174.1	1164.7	1155.4	1144.7
22.5°	1119.3	1129.9	1140.7	1150.0	1156.6	1162.0	1156.6	1150.0	1140.7	1131.4	1120.7
25°	1092.6	1104.7	1116.6	1126.0	1129.9	1135.3	1129.9	1124.7	1115.3	1106.0	1094.0
27.5°	1065.9	1078.0	1089.9	1099.3	1103.3	1108.7	1103.3	1098.0	1088.6	1079.3	1067.4
30°	1035.3	1047.3	1059.3	1068.6	1072.6	1076.6	1071.3	1065.9	1058.0	1048.6	1036.5
32.5°	1000.7	1012.6	1021.9	1031.3	1036.5	1041.9	1036.5	1032.6	1023.2	1011.3	999.2
35°	963.2	975.2	987.3	996.5	1001.9	1007.3	1000.7	994.0	985.9	976.5	965.9
37.5°	921.9	935.2	948.6	959.2	963.2	968.6	963.2	956.5	948.6	939.2	927.3
40°	883.1	895.2	907.3	917.9	921.9	925.8	920.6	915.2	905.8	896.5	884.5
42.5°	843.2	855.2	865.8	875.2	879.1	884.5	879.1	872.5	865.8	857.9	847.2
45°	800.5	812.4	821.8	831.2	835.1	839.1	833.9	827.2	820.5	813.9	803.2
47.5°	756.5	767.2	776.5	785.8	788.5	792.4	787.2	783.2	776.5	769.9	760.5
50°	711.1	721.7	731.1	739.1	741.8	745.7	740.5	735.1	729.8	724.4	716.5
52.5°	664.4	673.8	683.1	691.1	693.8	696.5	691.1	685.7	680.4	675.0	667.1
55°	616.4	625.6	635.0	641.7	644.4	647.1	641.7	637.7	632.3	628.3	620.4
57.5°	568.3	577.7	585.6	592.3	595.0	597.7	592.3	587.0	583.1	578.9	572.3
60°	518.9	528.3	535.0	540.4	543.1	544.3	538.9	535.0	532.3	529.7	523.0
62.5°	470.9	477.6	484.3	488.3	491.0	492.2	488.3	485.6	483.0	480.3	474.9
65°	420.3	428.2	433.6	437.6	438.9	440.3	436.3	433.6	430.9	428.2	424.2
67.5°	369.6	376.3	380.2	384.2	385.5	385.5	385.5	384.2	381.5	377.5	373.6
70°	318.8	324.2	328.2	330.9	332.1	332.1	329.6	326.9	326.9	325.5	322.9
72.5°	266.8	270.8	273.5	276.2	276.2	276.2	276.2	277.5	276.2	273.5	269.5
75°	217.4	221.4	224.1	225.5	225.5	225.5	225.5	226.8	225.5	224.1	221.4
77.5°	170.7	173.4	174.7	176.1	176.1	176.1	177.4	178.8	177.4	176.1	174.7
80°	126.7	128.0	129.4	130.7	129.4	129.4	130.7	133.4	132.1	130.7	129.4
82.5°	86.7	88.0	89.4	89.4	90.7	92.1	92.1	92.1	92.1	90.7	89.4
85°	52.1	53.4	53.4	53.4	53.4	53.4	54.6	56.1	56.1	54.6	54.6
87.5°	24.0	25.4	24.0	22.7	21.3	21.3	24.0	26.7	26.7	25.4	25.4
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: P735640

CATALOG NUMBER: 4APN6-39-B2750-W2D-CP250-3500K

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1179.3	1179.3	1179.3	1179.3
2.5°	1190.0	1188.7	1182.0	1175.4
5°	1194.1	1190.0	1180.8	1171.4
7.5°	1194.1	1188.7	1175.4	1163.3
10°	1187.4	1179.3	1164.7	1150.0
12.5°	1179.3	1170.0	1152.7	1136.6
15°	1167.4	1156.6	1138.0	1119.3
17.5°	1150.0	1136.6	1118.0	1098.0
20°	1132.6	1118.0	1095.3	1074.0
22.5°	1108.7	1095.3	1071.3	1048.6
25°	1082.0	1067.4	1043.2	1019.2
27.5°	1054.0	1036.5	1012.6	988.6
30°	1021.9	1004.6	980.6	956.5
32.5°	987.3	971.3	947.3	921.9
35°	952.5	935.2	911.2	885.8
37.5°	913.9	897.9	873.9	849.8
40°	872.5	856.4	832.4	808.5
42.5°	833.9	819.1	795.1	772.4
45°	791.2	776.5	753.8	732.4
47.5°	747.2	732.4	711.1	689.8
50°	704.4	689.8	669.8	649.8
52.5°	656.5	644.4	625.6	607.1
55°	609.8	597.7	578.9	561.6
57.5°	563.1	552.3	535.0	518.9
60°	513.7	503.0	489.7	474.9
62.5°	467.0	457.6	444.3	430.9
65°	417.6	409.6	397.6	385.5
67.5°	366.9	360.2	349.6	338.8
70°	316.2	308.1	300.2	290.8
72.5°	265.6	261.4	253.5	245.6
75°	217.4	213.5	206.8	200.1
77.5°	172.2	168.0	162.8	157.4
80°	126.7	124.0	120.1	116.1
82.5°	88.0	85.5	82.8	78.8
85°	53.4	50.7	48.0	45.4
87.5°	24.0	22.7	20.0	18.7
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)