

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: P735632

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

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735632
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-5000K
Description: 4FT 3900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 5000K CCT

Light Source: -
Ballast/Driver: -

Summary

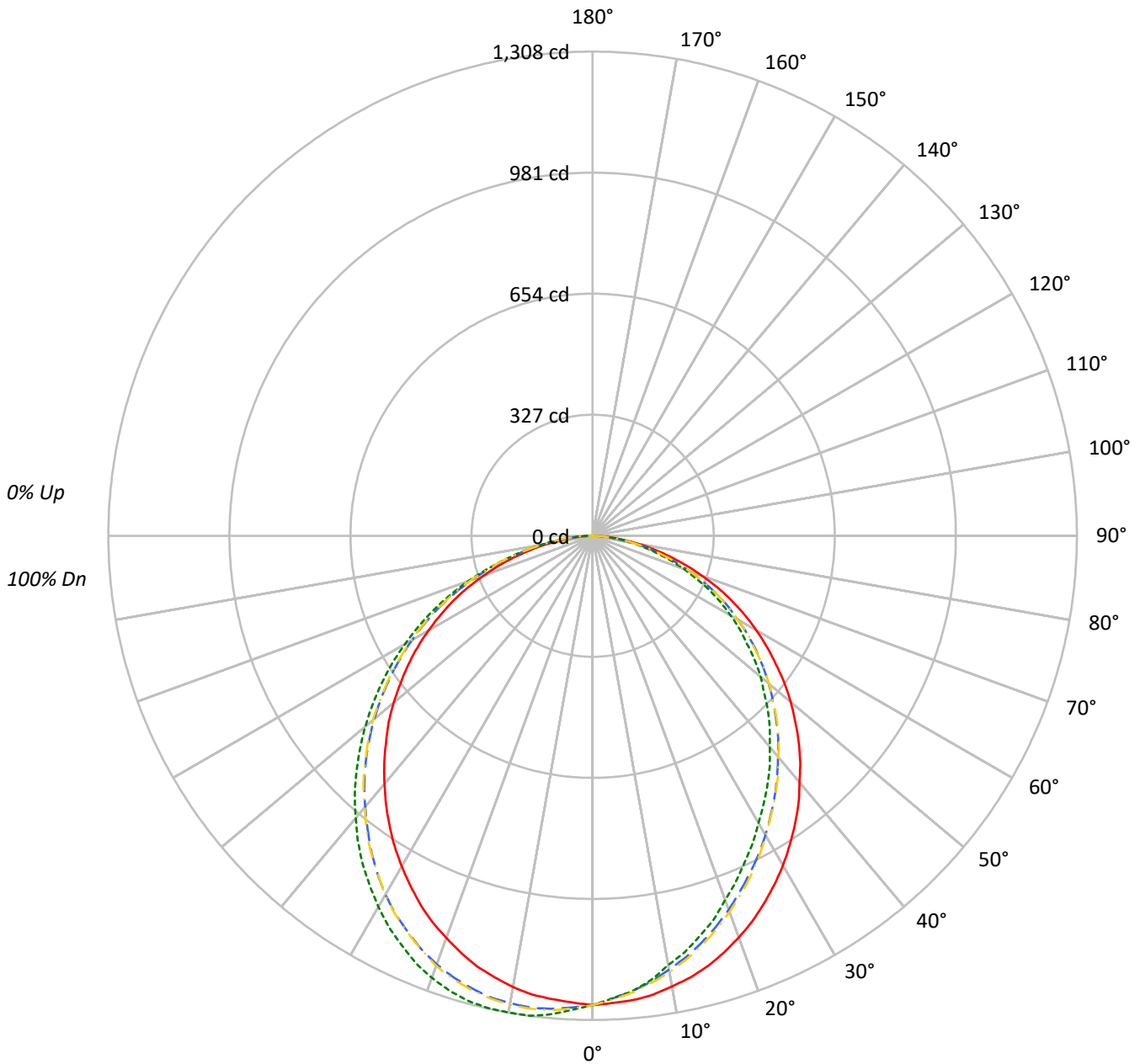
Lumens per Lamp: N/A
Luminaire Lumens: 3400.0 lumens
Efficiency: N/A
Efficacy: 69.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 49.1
Input Voltage (V): NR
Input Current (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					20					
RC	80					70					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°	11696	11696	11696	11696
5°	11662	11436	11635	12020
10°	11580	11031	11595	12252
15°	11493	10685	11507	12424
20°	11335	10279	11349	12475
25°	11153	9898	11197	12424
30°	10954	9550	10985	12328
35°	10725	9271	10773	12196
40°	10466	8963	10536	11986
45°	10273	8739	10292	11769
50°	10026	8502	10065	11506
55°	9711	8189	9780	11189
60°	9420	7940	9448	10797
65°	9047	7608	9047	10333
70°	8433	7043	8395	9630
75°	7668	6392	7564	8641
80°	6631	5488	6402	7391
85°	5166	4107	4859	6076



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.8	3.5
10°-20°	340.0	10.0
20°-30°	505.4	14.9
30°-40°	595.7	17.5
40°-50°	606.5	17.8
50°-60°	540.3	15.9
60°-70°	407.1	12.0
70°-80°	226.4	6.7
80°-90°	58.8	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°	965.2	28.4
0°-40°	1560.8	45.9
0°-60°	2707.7	79.6
0°-90°	3400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3400.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1268	1268	1268	1268	1268	
5°	1259	1235	1256	1298	1259	119
15°	1203	1119	1205	1301	1203	339
25°	1096	972	1100	1220	1096	505
35°	952	823	956	1083	952	596
45°	787	670	789	902	787	607
55°	604	509	608	696	604	541
65°	414	348	414	473	414	409
75°	215	179	212	242	215	229
85°	49	39	46	57	49	59
90°	0	0	0	0	0	



TEST NUMBER: P735632

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7
2.5°	1263.4	1263.4	1264.8	1259.2	1252.0	1249.1	1247.7	1246.2	1249.1	1250.5	1249.1
5°	1259.2	1256.3	1253.4	1246.2	1237.7	1231.9	1229.0	1227.6	1230.5	1234.8	1230.5
7.5°	1250.5	1244.8	1239.0	1229.0	1219.0	1210.3	1206.1	1203.2	1206.1	1210.3	1207.4
10°	1236.1	1229.0	1220.4	1209.0	1194.6	1184.6	1180.3	1176.0	1177.4	1177.4	1177.4
12.5°	1221.8	1211.9	1201.8	1187.5	1171.6	1160.1	1153.0	1147.3	1150.1	1151.6	1151.6
15°	1203.2	1190.4	1176.0	1160.1	1144.4	1131.5	1122.9	1117.1	1118.7	1118.7	1120.0
17.5°	1180.3	1165.9	1151.6	1133.0	1114.2	1099.9	1090.0	1082.8	1085.5	1087.1	1088.4
20°	1154.5	1138.6	1122.9	1102.8	1082.8	1066.9	1056.8	1048.3	1046.9	1046.9	1048.3
22.5°	1127.2	1109.9	1091.3	1069.8	1048.3	1031.1	1021.0	1012.5	1011.1	1011.1	1012.5
25°	1095.6	1077.0	1058.4	1036.9	1013.8	996.8	983.8	975.2	973.7	972.3	975.2
27.5°	1062.7	1044.0	1025.4	1003.9	979.5	962.3	949.3	940.7	937.8	936.5	939.4
30°	1028.2	1006.7	986.7	963.6	942.1	925.0	912.1	902.0	899.3	896.4	899.3
32.5°	990.9	969.4	947.9	925.0	903.5	886.3	873.3	863.4	860.5	859.0	861.9
35°	952.2	930.7	910.7	887.7	866.1	849.1	836.1	827.6	824.7	823.1	824.7
37.5°	913.4	892.1	871.9	849.1	827.6	810.3	797.3	788.8	787.3	785.9	787.3
40°	869.0	850.4	830.3	808.8	787.3	770.2	760.1	750.0	747.1	744.2	748.7
42.5°	830.3	811.7	791.7	771.6	750.0	732.8	721.4	712.8	709.9	708.4	709.9
45°	787.3	767.3	747.1	728.5	708.4	692.7	681.2	672.5	671.2	669.8	671.2
47.5°	741.5	724.3	707.0	688.4	668.3	652.5	642.5	633.9	631.0	628.1	631.0
50°	698.5	681.2	664.0	646.7	628.1	613.8	603.7	595.2	593.6	592.3	593.6
52.5°	652.5	635.3	619.6	602.4	586.5	572.1	562.2	555.1	553.5	552.2	553.5
55°	603.7	589.4	575.0	560.7	545.0	532.0	523.5	514.8	512.0	509.1	512.0
57.5°	557.8	545.0	530.6	516.3	502.0	490.5	481.8	474.6	473.3	471.7	473.3
60°	510.5	499.1	486.1	473.3	458.9	447.5	440.3	434.5	431.6	430.3	431.6
62.5°	463.2	451.8	441.7	428.7	415.9	407.2	400.0	394.4	391.5	390.1	391.5
65°	414.4	404.5	394.4	383.0	372.9	364.2	357.0	351.4	349.8	348.5	348.5
67.5°	364.2	355.6	347.1	337.0	325.6	316.9	309.7	305.4	304.1	302.5	304.1
70°	312.6	305.4	296.9	288.2	279.7	272.5	268.2	264.0	262.4	261.1	261.1
72.5°	264.0	258.2	251.0	243.8	236.6	229.5	225.2	222.3	220.9	219.4	219.4
75°	215.1	209.3	205.1	199.4	192.2	187.8	183.5	180.6	179.3	179.3	179.3
77.5°	169.2	164.9	160.7	154.9	150.6	146.3	143.4	142.1	140.5	140.5	140.5
80°	124.8	121.9	119.0	116.1	111.8	107.6	106.2	104.7	103.3	103.3	103.3
82.5°	84.7	83.1	80.2	77.5	74.6	73.1	71.7	70.3	70.3	70.3	70.3
85°	48.8	47.3	45.9	44.4	43.0	43.0	41.7	40.1	38.8	38.8	38.8
87.5°	20.1	20.1	20.1	18.6	17.2	17.2	17.2	17.2	17.2	17.2	17.2
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°	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7
2.5°	1246.2	1249.1	1252.0	1256.3	1260.5	1264.8	1263.4	1262.1	1267.7	1274.9	1276.4
5°	1227.6	1230.5	1234.8	1241.9	1249.1	1254.9	1256.3	1256.3	1267.7	1277.8	1280.7
7.5°	1204.7	1209.0	1214.6	1221.8	1231.9	1240.6	1244.8	1250.5	1262.1	1274.9	1280.7
10°	1176.0	1183.2	1191.7	1201.8	1211.9	1221.8	1230.5	1237.7	1252.0	1266.3	1274.9
12.5°	1150.1	1157.2	1165.9	1177.4	1190.4	1203.2	1211.9	1221.8	1239.0	1256.3	1266.3
15°	1121.4	1128.6	1138.6	1150.1	1164.4	1178.8	1191.7	1204.7	1221.8	1240.6	1252.0
17.5°	1090.0	1097.1	1107.0	1121.4	1137.3	1153.0	1167.3	1181.7	1201.8	1221.8	1234.8
20°	1051.2	1061.3	1074.1	1088.4	1107.0	1125.8	1140.2	1155.9	1177.4	1198.9	1213.2
22.5°	1013.8	1023.9	1038.2	1055.5	1075.6	1095.6	1112.9	1130.1	1153.0	1174.5	1190.4
25°	978.0	989.6	1003.9	1021.0	1039.8	1059.8	1079.9	1099.9	1122.9	1145.8	1161.7
27.5°	942.1	952.2	966.5	983.8	1005.3	1025.4	1045.4	1065.6	1090.0	1114.2	1131.5
30°	902.0	913.4	926.4	943.7	966.5	989.6	1009.6	1031.1	1055.5	1079.9	1097.1
32.5°	864.8	874.8	887.7	904.9	927.8	950.8	972.3	995.2	1018.3	1042.5	1059.8
35°	827.6	837.5	850.4	867.7	890.6	913.4	934.9	956.5	979.5	1002.4	1019.6
37.5°	790.2	800.2	813.2	830.3	851.8	874.8	894.8	916.3	939.4	962.3	978.0
40°	751.4	761.5	771.6	788.8	810.3	833.2	853.3	874.8	897.7	920.6	936.5
42.5°	712.8	722.7	735.7	752.9	772.9	793.1	813.2	833.2	854.7	876.2	892.1
45°	674.1	682.6	695.6	711.3	731.4	750.0	770.2	788.8	810.3	830.3	846.2
47.5°	633.9	642.5	652.5	668.3	688.4	708.4	728.5	747.1	765.7	785.9	800.2
50°	595.2	603.7	615.2	629.5	648.3	666.9	684.1	701.2	720.0	738.6	751.4
52.5°	555.1	563.6	573.7	588.0	603.7	621.0	636.7	653.9	671.2	688.4	701.2
55°	514.8	520.6	529.1	542.1	559.3	576.6	592.3	608.0	623.9	638.2	651.0
57.5°	474.6	481.8	491.9	503.3	517.7	532.0	546.4	560.7	575.0	589.4	600.8
60°	434.5	440.3	447.5	457.4	471.7	484.7	499.1	512.0	524.8	537.8	547.9
62.5°	392.9	398.7	405.8	415.9	427.3	438.8	451.8	463.2	474.6	486.1	496.2
65°	349.8	355.6	362.8	371.3	381.4	391.5	402.9	414.4	423.1	431.6	441.7
67.5°	305.4	311.2	318.4	325.6	334.1	344.2	354.3	364.2	372.9	381.4	388.6
70°	262.4	266.7	273.9	279.7	286.8	294.0	302.5	311.2	316.9	324.1	332.8
72.5°	220.9	225.2	230.8	236.6	240.9	246.7	255.2	262.4	269.6	278.3	282.6
75°	180.6	183.5	187.8	192.2	196.5	200.8	206.6	212.2	218.0	222.3	228.1
77.5°	140.5	143.4	147.7	150.6	153.5	156.4	160.7	164.9	169.2	172.1	177.9
80°	103.3	106.2	108.9	111.8	114.7	117.6	119.0	120.5	126.2	130.4	133.3
82.5°	70.3	71.7	73.1	76.0	77.5	78.9	80.2	80.2	83.1	86.1	90.3
85°	40.1	41.7	43.0	43.0	43.0	43.0	44.4	45.9	47.3	50.2	53.1
87.5°	15.7	15.7	17.2	17.2	17.2	17.2	17.2	17.2	18.6	21.5	22.9
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°	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7	1267.7
2.5°	1274.9	1276.4	1279.1	1280.7	1282.0	1282.0	1283.6	1285.0	1282.0	1279.1	1277.8
5°	1282.0	1283.6	1287.9	1292.1	1295.0	1297.9	1296.4	1295.0	1292.1	1287.9	1285.0
7.5°	1283.6	1287.9	1292.1	1297.9	1302.2	1307.8	1305.1	1302.2	1296.4	1290.8	1286.3
10°	1279.1	1285.0	1292.1	1299.3	1303.6	1307.8	1305.1	1302.2	1296.4	1289.2	1283.6
12.5°	1273.5	1280.7	1289.2	1296.4	1300.7	1306.5	1302.2	1297.9	1290.8	1283.6	1276.4
15°	1260.5	1269.2	1279.1	1287.9	1295.0	1300.7	1296.4	1293.5	1285.0	1274.9	1264.8
17.5°	1244.8	1256.3	1266.3	1276.4	1282.0	1287.9	1285.0	1282.0	1272.0	1260.5	1249.1
20°	1226.2	1237.7	1247.7	1257.6	1264.8	1270.6	1266.3	1262.1	1252.0	1241.9	1230.5
22.5°	1203.2	1214.6	1226.2	1236.1	1243.3	1249.1	1243.3	1236.1	1226.2	1216.1	1204.7
25°	1174.5	1187.5	1200.3	1210.3	1214.6	1220.4	1214.6	1209.0	1198.9	1188.8	1176.0
27.5°	1145.8	1158.8	1171.6	1181.7	1185.9	1191.7	1185.9	1180.3	1170.2	1160.1	1147.3
30°	1112.9	1125.8	1138.6	1148.7	1153.0	1157.2	1151.6	1145.8	1137.3	1127.2	1114.2
32.5°	1075.6	1088.4	1098.5	1108.6	1114.2	1120.0	1114.2	1109.9	1099.9	1087.1	1074.1
35°	1035.3	1048.3	1061.3	1071.2	1077.0	1082.8	1075.6	1068.5	1059.8	1049.7	1038.2
37.5°	990.9	1005.3	1019.6	1031.1	1035.3	1041.1	1035.3	1028.2	1019.6	1009.6	996.8
40°	949.3	962.3	975.2	986.7	990.9	995.2	989.6	983.8	973.7	963.6	950.8
42.5°	906.4	919.2	930.7	940.7	945.0	950.8	945.0	937.8	930.7	922.1	910.7
45°	860.5	873.3	883.4	893.5	897.7	902.0	896.4	889.2	882.0	874.8	863.4
47.5°	813.2	824.7	834.7	844.6	847.5	851.8	846.2	841.9	834.7	827.6	817.5
50°	764.4	775.8	785.9	794.4	797.3	801.6	796.0	790.2	784.5	778.7	770.2
52.5°	714.2	724.3	734.3	742.9	745.8	748.7	742.9	737.1	731.4	725.6	717.1
55°	662.6	672.5	682.6	689.8	692.7	695.6	689.8	685.5	679.7	675.4	666.9
57.5°	610.9	621.0	629.5	636.7	639.6	642.5	636.7	631.0	626.8	622.3	615.2
60°	557.8	567.9	575.0	580.8	583.7	585.1	579.3	575.0	572.1	569.4	562.2
62.5°	506.2	513.4	520.6	524.8	527.7	529.1	524.8	521.9	519.2	516.3	510.5
65°	451.8	460.3	466.1	470.4	471.7	473.3	469.0	466.1	463.2	460.3	456.0
67.5°	397.3	404.5	408.7	413.0	414.4	414.4	414.4	413.0	410.1	405.8	401.6
70°	342.7	348.5	352.7	355.6	357.0	357.0	354.3	351.4	351.4	349.8	347.1
72.5°	286.8	291.1	294.0	296.9	296.9	296.9	296.9	298.3	296.9	294.0	289.7
75°	233.7	238.0	240.9	242.4	242.4	242.4	242.4	243.8	242.4	240.9	238.0
77.5°	183.5	186.4	187.8	189.3	189.3	189.3	190.7	192.2	190.7	189.3	187.8
80°	136.2	137.6	139.1	140.5	139.1	139.1	140.5	143.4	142.1	140.5	139.1
82.5°	93.2	94.6	96.1	96.1	97.5	99.0	99.0	99.0	99.0	97.5	96.1
85°	56.0	57.4	57.4	57.4	57.4	57.4	58.7	60.3	60.3	58.7	58.7
87.5°	25.8	27.3	25.8	24.4	22.9	22.9	25.8	28.7	28.7	27.3	27.3
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: P735632

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

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1267.7	1267.7	1267.7	1267.7
2.5°	1279.1	1277.8	1270.6	1263.4
5°	1283.6	1279.1	1269.2	1259.2
7.5°	1283.6	1277.8	1263.4	1250.5
10°	1276.4	1267.7	1252.0	1236.1
12.5°	1267.7	1257.6	1239.0	1221.8
15°	1254.9	1243.3	1223.3	1203.2
17.5°	1236.1	1221.8	1201.8	1180.3
20°	1217.5	1201.8	1177.4	1154.5
22.5°	1191.7	1177.4	1151.6	1127.2
25°	1163.0	1147.3	1121.4	1095.6
27.5°	1133.0	1114.2	1088.4	1062.7
30°	1098.5	1079.9	1054.1	1028.2
32.5°	1061.3	1044.0	1018.3	990.9
35°	1023.9	1005.3	979.5	952.2
37.5°	982.4	965.2	939.4	913.4
40°	937.8	920.6	894.8	869.0
42.5°	896.4	880.5	854.7	830.3
45°	850.4	834.7	810.3	787.3
47.5°	803.1	787.3	764.4	741.5
50°	757.2	741.5	720.0	698.5
52.5°	705.6	692.7	672.5	652.5
55°	655.5	642.5	622.3	603.7
57.5°	605.3	593.6	575.0	557.8
60°	552.2	540.7	526.4	510.5
62.5°	502.0	491.9	477.5	463.2
65°	448.9	440.3	427.3	414.4
67.5°	394.4	387.2	375.8	364.2
70°	339.9	331.2	322.7	312.6
72.5°	285.5	281.0	272.5	264.0
75°	233.7	229.5	222.3	215.1
77.5°	185.1	180.6	175.0	169.2
80°	136.2	133.3	129.1	124.8
82.5°	94.6	91.9	89.0	84.7
85°	57.4	54.5	51.6	48.8
87.5°	25.8	24.4	21.5	20.1
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)