

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: P735628

Luminaire Tested: **4APN6-39-B2750-W2D-2700K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735628
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-2700K
Description: 4FT 3900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 2700K CCT

Light Source: -
Ballast/Driver: -

Summary

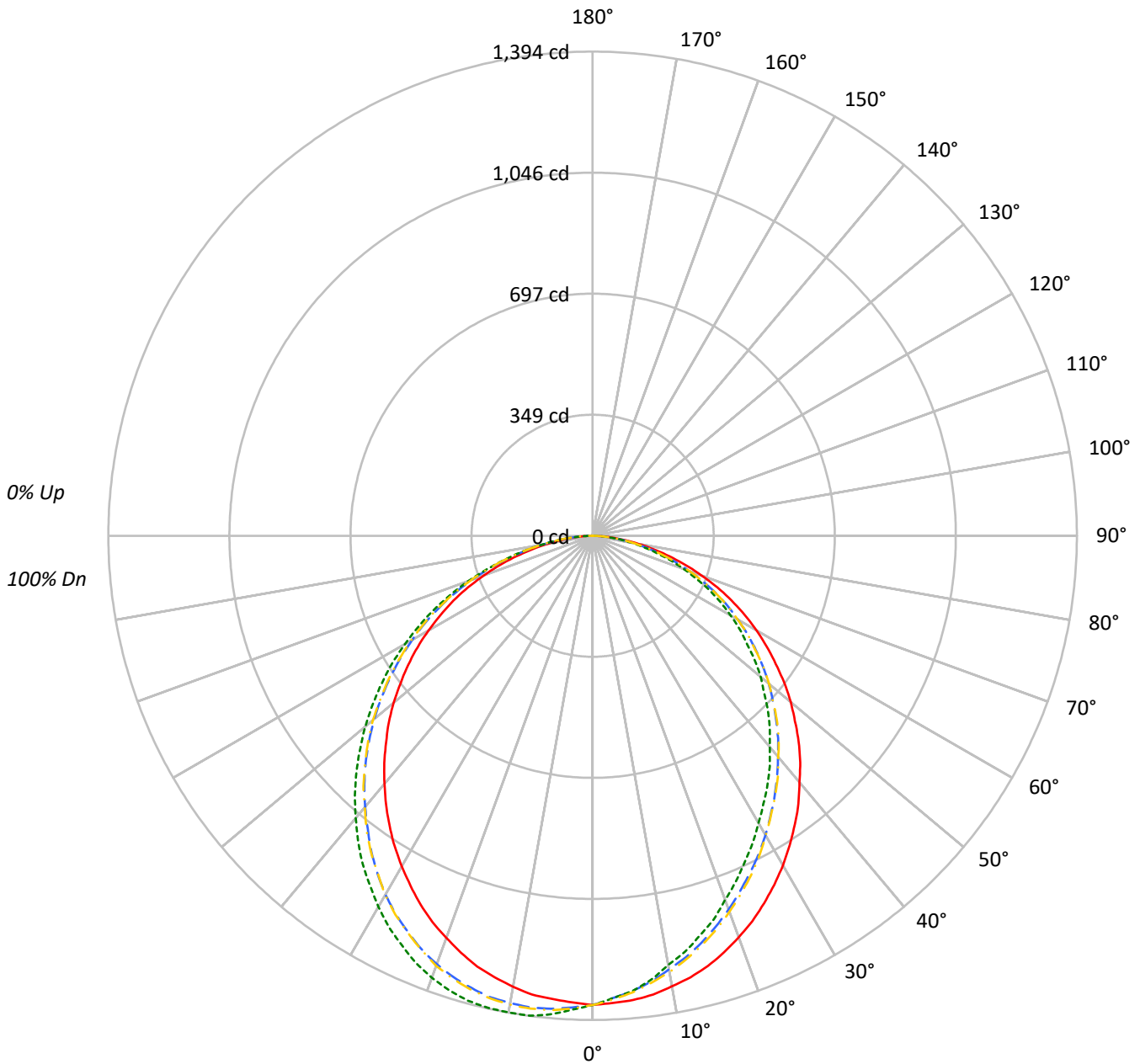
Lumens per Lamp: N/A
Luminaire Lumens: 3623.0 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	12464	12464	12464	12464
5°	12427	12185	12398	12810
10°	12340	11754	12355	13056
15°	12246	11386	12261	13239
20°	12078	10953	12093	13293
25°	11885	10547	11931	13239
30°	11672	10175	11705	13137
35°	11428	9879	11479	12995
40°	11153	9551	11227	12773
45°	10946	9312	10967	12542
50°	10683	9058	10725	12261
55°	10348	8726	10422	11922
60°	10038	8460	10068	11505
65°	9641	8106	9641	11009
70°	8986	7505	8948	10262
75°	8170	6809	8060	9208
80°	7067	5850	6822	7879
85°	5505	4372	5176	6468



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.6	3.5
10°-20°	362.3	10.0
20°-30°	538.6	14.9
30°-40°	634.7	17.5
40°-50°	646.3	17.8
50°-60°	575.8	15.9
60°-70°	433.8	12.0
70°-80°	241.2	6.7
80°-90°	62.7	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°	1028.5	28.4
0°-40°	1663.2	45.9
0°-60°	2885.3	79.6
0°-90°	3623.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3623.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1351	1351	1351	1351	1351	
5°	1342	1316	1339	1383	1342	127
15°	1282	1192	1284	1386	1282	361
25°	1168	1036	1172	1300	1168	538
35°	1015	877	1019	1154	1015	635
45°	839	714	840	961	839	646
55°	643	542	648	741	643	576
65°	442	371	442	504	442	436
75°	229	191	226	258	229	244
85°	52	41	49	61	52	63
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°	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9
2.5°	1346.3	1346.3	1347.8	1341.8	1334.1	1331.0	1329.6	1327.9	1331.0	1332.5	1331.0
5°	1341.8	1338.7	1335.6	1327.9	1318.8	1312.6	1309.6	1308.1	1311.2	1315.7	1311.2
7.5°	1332.5	1326.5	1320.3	1309.6	1299.0	1289.7	1285.2	1282.1	1285.2	1289.7	1286.6
10°	1317.2	1309.6	1300.5	1288.3	1273.0	1262.3	1257.7	1253.2	1254.6	1254.6	1254.6
12.5°	1301.9	1291.4	1280.6	1265.3	1248.4	1236.2	1228.6	1222.6	1225.5	1227.1	1227.1
15°	1282.1	1268.4	1253.2	1236.2	1219.5	1205.7	1196.6	1190.4	1192.0	1192.0	1193.5
17.5°	1257.7	1242.4	1227.1	1207.3	1187.3	1172.0	1161.5	1153.8	1156.7	1158.4	1159.8
20°	1230.2	1213.3	1196.6	1175.1	1153.8	1136.9	1126.2	1117.1	1115.6	1115.6	1117.1
22.5°	1201.1	1182.7	1162.9	1140.0	1117.1	1098.7	1088.0	1078.9	1077.4	1077.4	1078.9
25°	1167.5	1147.6	1127.8	1104.9	1080.3	1062.1	1048.3	1039.2	1037.6	1036.1	1039.2
27.5°	1132.4	1112.5	1092.7	1069.8	1043.8	1025.4	1011.5	1002.5	999.4	997.9	1001.0
30°	1095.6	1072.7	1051.4	1026.8	1003.9	985.7	971.9	961.2	958.2	955.1	958.2
32.5°	1055.9	1033.0	1010.1	985.7	962.8	944.4	930.6	920.0	916.9	915.3	918.4
35°	1014.6	991.7	970.4	945.9	922.9	904.8	890.9	881.8	878.7	877.1	878.7
37.5°	973.3	950.6	929.1	904.8	881.8	863.5	849.6	840.5	838.9	837.4	838.9
40°	926.0	906.2	884.7	861.8	838.9	820.7	810.0	799.2	796.1	793.0	797.8
42.5°	884.7	864.9	843.6	822.2	799.2	780.9	768.7	759.6	756.5	754.8	756.5
45°	838.9	817.6	796.1	776.3	754.8	738.1	725.9	716.6	715.2	713.7	715.2
47.5°	790.1	771.8	753.4	733.6	712.1	695.3	684.6	675.5	672.4	669.3	672.4
50°	744.3	725.9	707.5	689.2	669.3	654.0	643.3	634.2	632.6	631.1	632.6
52.5°	695.3	677.0	660.2	641.9	624.9	609.7	599.1	591.5	589.8	588.4	589.8
55°	643.3	628.0	612.8	597.5	580.7	566.9	557.8	548.5	545.6	542.5	545.6
57.5°	594.4	580.7	565.4	550.2	534.9	522.7	513.4	505.8	504.3	502.7	504.3
60°	544.0	531.8	518.0	504.3	489.0	476.8	469.2	463.0	459.9	458.5	459.9
62.5°	493.6	481.4	470.7	456.8	443.2	433.9	426.3	420.3	417.2	415.7	417.2
65°	441.6	431.0	420.3	408.1	397.3	388.1	380.4	374.4	372.8	371.3	371.3
67.5°	388.1	379.0	369.9	359.1	346.9	337.7	330.0	325.5	324.0	322.4	324.0
70°	333.1	325.5	316.4	307.1	298.0	290.4	285.8	281.3	279.6	278.2	278.2
72.5°	281.3	275.1	267.4	259.8	252.2	244.5	240.0	236.9	235.4	233.8	233.8
75°	229.2	223.1	218.5	212.5	204.9	200.1	195.6	192.5	191.0	191.0	191.0
77.5°	180.3	175.7	171.2	165.0	160.5	155.9	152.8	151.4	149.7	149.7	149.7
80°	133.0	129.9	126.8	123.7	119.2	114.6	113.2	111.5	110.1	110.1	110.1
82.5°	90.2	88.6	85.5	82.6	79.5	77.9	76.4	75.0	75.0	75.0	75.0
85°	52.0	50.4	48.9	47.3	45.8	45.8	44.4	42.8	41.3	41.3	41.3
87.5°	21.5	21.5	21.5	19.8	18.4	18.4	18.4	18.4	18.4	18.4	18.4
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°	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9
2.5°	1327.9	1331.0	1334.1	1338.7	1343.2	1347.8	1346.3	1344.9	1350.9	1358.5	1360.1
5°	1308.1	1311.2	1315.7	1323.4	1331.0	1337.2	1338.7	1338.7	1350.9	1361.6	1364.7
7.5°	1283.7	1288.3	1294.3	1301.9	1312.6	1321.9	1326.5	1332.5	1344.9	1358.5	1364.7
10°	1253.2	1260.8	1269.9	1280.6	1291.4	1301.9	1311.2	1318.8	1334.1	1349.4	1358.5
12.5°	1225.5	1233.1	1242.4	1254.6	1268.4	1282.1	1291.4	1301.9	1320.3	1338.7	1349.4
15°	1194.9	1202.6	1213.3	1225.5	1240.8	1256.1	1269.9	1283.7	1301.9	1321.9	1334.1
17.5°	1161.5	1169.1	1179.7	1194.9	1211.9	1228.6	1243.9	1259.2	1280.6	1301.9	1315.7
20°	1120.2	1130.9	1144.5	1159.8	1179.7	1199.7	1215.0	1231.7	1254.6	1277.5	1292.8
22.5°	1080.3	1091.1	1106.3	1124.7	1146.2	1167.5	1185.8	1204.2	1228.6	1251.5	1268.4
25°	1042.1	1054.5	1069.8	1088.0	1108.0	1129.3	1150.7	1172.0	1196.6	1221.0	1237.9
27.5°	1003.9	1014.6	1029.9	1048.3	1071.2	1092.7	1114.0	1135.4	1161.5	1187.3	1205.7
30°	961.2	973.3	987.2	1005.5	1029.9	1054.5	1075.8	1098.7	1124.7	1150.7	1169.1
32.5°	921.5	932.2	945.9	964.2	988.6	1013.2	1036.1	1060.5	1085.0	1110.9	1129.3
35°	881.8	892.4	906.2	924.6	949.0	973.3	996.3	1019.2	1043.8	1068.1	1086.5
37.5°	842.0	852.7	866.5	884.7	907.7	932.2	953.5	976.4	1001.0	1025.4	1042.1
40°	800.7	811.4	822.2	840.5	863.5	887.8	909.3	932.2	956.6	981.0	997.9
42.5°	759.6	770.1	784.0	802.3	823.6	845.1	866.5	887.8	910.8	933.7	950.6
45°	718.3	727.4	741.2	757.9	779.4	799.2	820.7	840.5	863.5	884.7	901.7
47.5°	675.5	684.6	695.3	712.1	733.6	754.8	776.3	796.1	816.0	837.4	852.7
50°	634.2	643.3	655.5	670.8	690.8	710.6	729.0	747.2	767.2	787.0	800.7
52.5°	591.5	600.6	611.3	626.6	643.3	661.7	678.4	696.8	715.2	733.6	747.2
55°	548.5	554.7	563.8	577.6	596.0	614.4	631.1	647.9	664.8	680.1	693.7
57.5°	505.8	513.4	524.1	536.3	551.6	566.9	582.2	597.5	612.8	628.0	640.2
60°	463.0	469.2	476.8	487.4	502.7	516.5	531.8	545.6	559.3	573.1	583.8
62.5°	418.6	424.8	432.5	443.2	455.4	467.6	481.4	493.6	505.8	518.0	528.7
65°	372.8	379.0	386.6	395.7	406.4	417.2	429.4	441.6	450.8	459.9	470.7
67.5°	325.5	331.7	339.3	346.9	356.0	366.8	377.5	388.1	397.3	406.4	414.1
70°	279.6	284.2	291.8	298.0	305.6	313.3	322.4	331.7	337.7	345.3	354.6
72.5°	235.4	240.0	246.0	252.2	256.7	262.9	272.0	279.6	287.3	296.6	301.1
75°	192.5	195.6	200.1	204.9	209.4	214.0	220.1	226.1	232.3	236.9	243.1
77.5°	149.7	152.8	157.4	160.5	163.6	166.7	171.2	175.7	180.3	183.4	189.6
80°	110.1	113.2	116.1	119.2	122.3	125.4	126.8	128.4	134.4	139.0	142.1
82.5°	75.0	76.4	77.9	81.0	82.6	84.1	85.5	85.5	88.6	91.7	96.2
85°	42.8	44.4	45.8	45.8	45.8	45.8	47.3	48.9	50.4	53.5	56.6
87.5°	16.7	16.7	18.4	18.4	18.4	18.4	18.4	18.4	19.8	22.9	24.4
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°	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9	1350.9
2.5°	1358.5	1360.1	1363.0	1364.7	1366.1	1366.1	1367.8	1369.2	1366.1	1363.0	1361.6
5°	1366.1	1367.8	1372.3	1376.9	1380.0	1383.1	1381.4	1380.0	1376.9	1372.3	1369.2
7.5°	1367.8	1372.3	1376.9	1383.1	1387.6	1393.6	1390.7	1387.6	1381.4	1375.4	1370.7
10°	1363.0	1369.2	1376.9	1384.5	1389.1	1393.6	1390.7	1387.6	1381.4	1373.8	1367.8
12.5°	1357.0	1364.7	1373.8	1381.4	1386.0	1392.2	1387.6	1383.1	1375.4	1367.8	1360.1
15°	1343.2	1352.5	1363.0	1372.3	1380.0	1386.0	1381.4	1378.3	1369.2	1358.5	1347.8
17.5°	1326.5	1338.7	1349.4	1360.1	1366.1	1372.3	1369.2	1366.1	1355.4	1343.2	1331.0
20°	1306.6	1318.8	1329.6	1340.1	1347.8	1353.9	1349.4	1344.9	1334.1	1323.4	1311.2
22.5°	1282.1	1294.3	1306.6	1317.2	1324.8	1331.0	1324.8	1317.2	1306.6	1295.9	1283.7
25°	1251.5	1265.3	1279.0	1289.7	1294.3	1300.5	1294.3	1288.3	1277.5	1266.8	1253.2
27.5°	1221.0	1234.8	1248.4	1259.2	1263.7	1269.9	1263.7	1257.7	1247.0	1236.2	1222.6
30°	1185.8	1199.7	1213.3	1224.0	1228.6	1233.1	1227.1	1221.0	1211.9	1201.1	1187.3
32.5°	1146.2	1159.8	1170.6	1181.3	1187.3	1193.5	1187.3	1182.7	1172.0	1158.4	1144.5
35°	1103.2	1117.1	1130.9	1141.4	1147.6	1153.8	1146.2	1138.5	1129.3	1118.5	1106.3
37.5°	1055.9	1071.2	1086.5	1098.7	1103.2	1109.4	1103.2	1095.6	1086.5	1075.8	1062.1
40°	1011.5	1025.4	1039.2	1051.4	1055.9	1060.5	1054.5	1048.3	1037.6	1026.8	1013.2
42.5°	965.9	979.5	991.7	1002.5	1007.0	1013.2	1007.0	999.4	991.7	982.6	970.4
45°	916.9	930.6	941.3	952.1	956.6	961.2	955.1	947.5	939.9	932.2	920.0
47.5°	866.5	878.7	889.5	900.0	903.1	907.7	901.7	897.1	889.5	881.8	871.1
50°	814.5	826.7	837.4	846.5	849.6	854.2	848.2	842.0	836.0	829.8	820.7
52.5°	761.0	771.8	782.5	791.6	794.7	797.8	791.6	785.4	779.4	773.2	764.1
55°	706.1	716.6	727.4	735.0	738.1	741.2	735.0	730.5	724.3	719.7	710.6
57.5°	651.0	661.7	670.8	678.4	681.5	684.6	678.4	672.4	667.9	663.1	655.5
60°	594.4	605.1	612.8	618.9	622.0	623.5	617.3	612.8	609.7	606.7	599.1
62.5°	539.4	547.1	554.7	559.3	562.4	563.8	559.3	556.2	553.3	550.2	544.0
65°	481.4	490.5	496.7	501.2	502.7	504.3	499.8	496.7	493.6	490.5	485.9
67.5°	423.4	431.0	435.5	440.1	441.6	441.6	441.6	440.1	437.0	432.5	427.9
70°	365.1	371.3	375.9	379.0	380.4	380.4	377.5	374.4	374.4	372.8	369.9
72.5°	305.6	310.2	313.3	316.4	316.4	316.4	316.4	317.8	316.4	313.3	308.7
75°	249.1	253.6	256.7	258.3	258.3	258.3	258.3	259.8	258.3	256.7	253.6
77.5°	195.6	198.7	200.1	201.8	201.8	201.8	203.2	204.9	203.2	201.8	200.1
80°	145.2	146.6	148.3	149.7	148.3	148.3	149.7	152.8	151.4	149.7	148.3
82.5°	99.3	100.8	102.4	102.4	103.9	105.5	105.5	105.5	105.5	103.9	102.4
85°	59.7	61.1	61.1	61.1	61.1	61.1	62.6	64.2	64.2	62.6	62.6
87.5°	27.5	29.1	27.5	26.0	24.4	24.4	27.5	30.6	30.6	29.1	29.1
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: P735628

CATALOG NUMBER: 4APN6-39-B2750-W2D-2700K

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1350.9	1350.9	1350.9	1350.9
2.5°	1363.0	1361.6	1353.9	1346.3
5°	1367.8	1363.0	1352.5	1341.8
7.5°	1367.8	1361.6	1346.3	1332.5
10°	1360.1	1350.9	1334.1	1317.2
12.5°	1350.9	1340.1	1320.3	1301.9
15°	1337.2	1324.8	1303.6	1282.1
17.5°	1317.2	1301.9	1280.6	1257.7
20°	1297.4	1280.6	1254.6	1230.2
22.5°	1269.9	1254.6	1227.1	1201.1
25°	1239.3	1222.6	1194.9	1167.5
27.5°	1207.3	1187.3	1159.8	1132.4
30°	1170.6	1150.7	1123.3	1095.6
32.5°	1130.9	1112.5	1085.0	1055.9
35°	1091.1	1071.2	1043.8	1014.6
37.5°	1046.8	1028.5	1001.0	973.3
40°	999.4	981.0	953.5	926.0
42.5°	955.1	938.2	910.8	884.7
45°	906.2	889.5	863.5	838.9
47.5°	855.8	838.9	814.5	790.1
50°	806.9	790.1	767.2	744.3
52.5°	751.9	738.1	716.6	695.3
55°	698.4	684.6	663.1	643.3
57.5°	645.0	632.6	612.8	594.4
60°	588.4	576.2	560.9	544.0
62.5°	534.9	524.1	508.9	493.6
65°	478.3	469.2	455.4	441.6
67.5°	420.3	412.6	400.4	388.1
70°	362.2	353.0	343.9	333.1
72.5°	304.2	299.5	290.4	281.3
75°	249.1	244.5	236.9	229.2
77.5°	197.2	192.5	186.5	180.3
80°	145.2	142.1	137.5	133.0
82.5°	100.8	97.9	94.8	90.2
85°	61.1	58.0	54.9	52.0
87.5°	27.5	26.0	22.9	21.5
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)