

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: P735630

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

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735630
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-3500K
Description: 4FT 3900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 3500K CCT

Light Source: -
Ballast/Driver: -

Summary

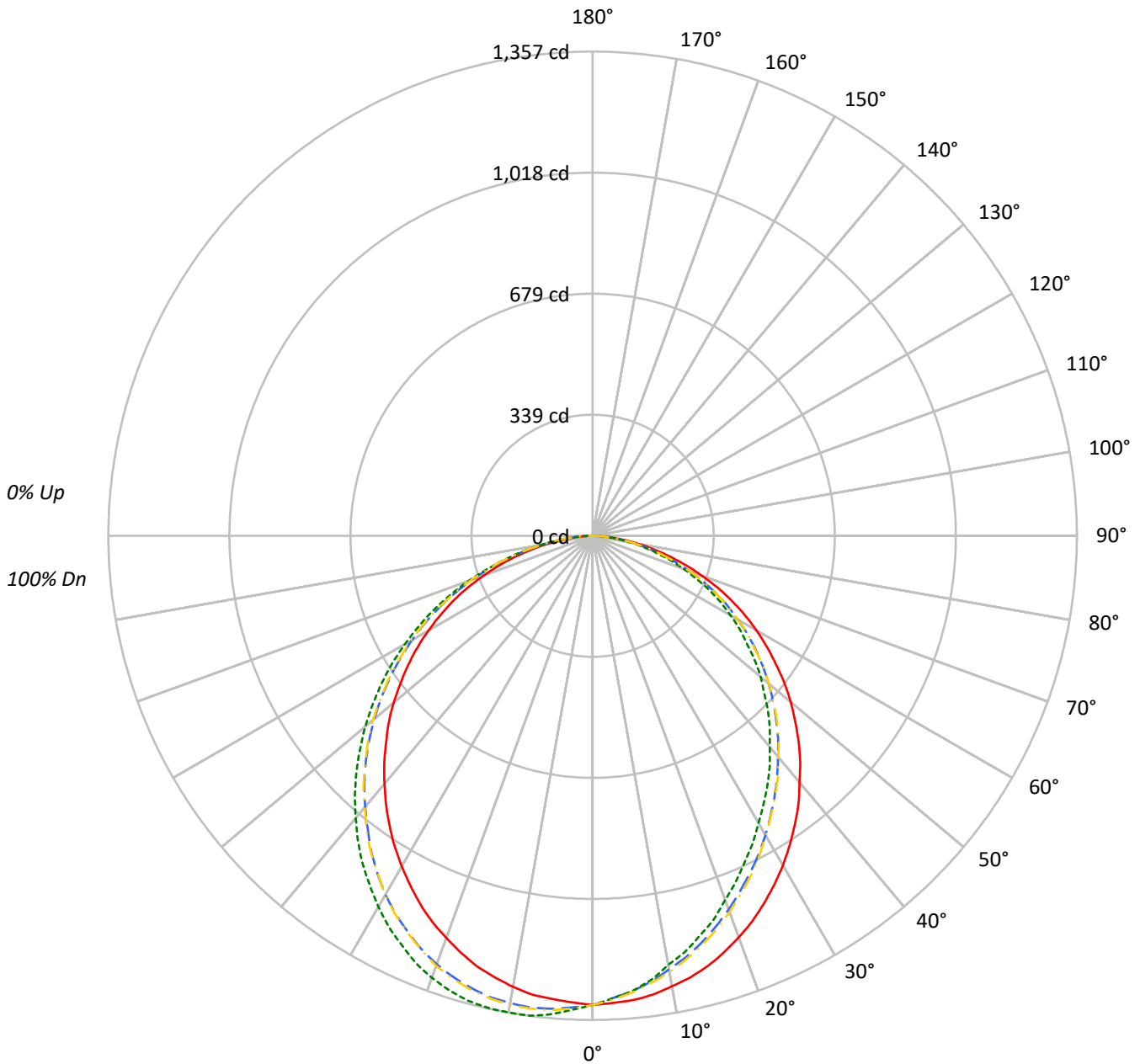
Lumens per Lamp: N/A
Luminaire Lumens: 3527.0 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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°	12133	12133	12133	12133
5°	12097	11863	12070	12470
10°	12013	11443	12028	12710
15°	11921	11084	11937	12887
20°	11758	10664	11773	12942
25°	11570	10269	11615	12888
30°	11363	9906	11395	12790
35°	11126	9618	11175	12651
40°	10858	9298	10930	12434
45°	10656	9066	10677	12209
50°	10400	8819	10441	11935
55°	10074	8495	10145	11607
60°	9772	8235	9802	11201
65°	9385	7892	9385	10719
70°	8748	7305	8710	9989
75°	7956	6630	7850	8965
80°	6881	5696	6641	7667
85°	5367	4256	5039	6299



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.3	3.5
10°-20°	352.7	10.0
20°-30°	524.3	14.9
30°-40°	617.9	17.5
40°-50°	629.2	17.8
50°-60°	560.5	15.9
60°-70°	422.3	12.0
70°-80°	234.8	6.7
80°-90°	61.0	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°	1001.2	28.4
0°-40°	1619.1	45.9
0°-60°	2808.8	79.6
0°-90°	3527.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3527.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1315	1315	1315	1315	1315	
5°	1306	1281	1303	1346	1306	124
15°	1248	1160	1250	1349	1248	352
25°	1136	1009	1141	1266	1136	524
35°	988	854	992	1123	988	618
45°	817	695	818	936	817	629
55°	626	528	631	722	626	561
65°	430	362	430	491	430	424
75°	223	186	220	252	223	237
85°	51	40	48	60	51	61
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°	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1
2.5°	1310.6	1310.6	1312.0	1306.2	1298.8	1295.8	1294.3	1292.7	1295.8	1297.2	1295.8
5°	1306.2	1303.2	1300.2	1292.7	1283.9	1277.9	1274.9	1273.4	1276.4	1280.9	1276.4
7.5°	1297.2	1291.3	1285.3	1274.9	1264.6	1255.6	1251.1	1248.1	1251.1	1255.6	1252.5
10°	1282.3	1274.9	1266.0	1254.1	1239.3	1228.8	1224.4	1220.0	1221.4	1221.4	1221.4
12.5°	1267.4	1257.1	1246.7	1231.8	1215.3	1203.5	1196.0	1190.2	1193.0	1194.6	1194.6
15°	1248.1	1234.8	1220.0	1203.5	1187.2	1173.7	1164.9	1158.8	1160.4	1160.4	1161.9
17.5°	1224.4	1209.5	1194.6	1175.3	1155.8	1141.0	1130.7	1123.2	1126.1	1127.7	1129.1
20°	1197.6	1181.2	1164.9	1144.0	1123.2	1106.8	1096.3	1087.5	1086.1	1086.1	1087.5
22.5°	1169.3	1151.4	1132.1	1109.8	1087.5	1069.6	1059.1	1050.3	1048.9	1048.9	1050.3
25°	1136.5	1117.2	1097.9	1075.6	1051.7	1034.0	1020.5	1011.7	1010.1	1008.7	1011.7
27.5°	1102.3	1083.0	1063.7	1041.4	1016.1	998.2	984.7	975.9	972.9	971.5	974.5
30°	1066.6	1044.3	1023.5	999.6	977.3	959.6	946.1	935.7	932.9	929.8	932.9
32.5°	1028.0	1005.6	983.3	959.6	937.3	919.4	905.9	895.7	892.6	891.1	894.1
35°	987.8	965.4	944.7	920.8	898.5	880.8	867.3	858.5	855.5	853.9	855.5
37.5°	947.6	925.4	904.5	880.8	858.5	840.6	827.1	818.3	816.7	815.2	816.7
40°	901.5	882.2	861.3	839.0	816.7	799.0	788.5	778.1	775.0	772.0	776.6
42.5°	861.3	842.0	821.3	800.4	778.1	760.2	748.3	739.4	736.4	734.8	736.4
45°	816.7	795.9	775.0	755.7	734.8	718.5	706.7	697.6	696.2	694.8	696.2
47.5°	769.2	751.3	733.4	714.1	693.2	676.9	666.5	657.6	654.6	651.6	654.6
50°	724.6	706.7	688.8	670.9	651.6	636.7	626.3	617.4	615.8	614.4	615.8
52.5°	676.9	659.0	642.7	624.9	608.4	593.5	583.2	575.8	574.2	572.8	574.2
55°	626.3	611.4	596.5	581.6	565.3	551.9	543.0	534.0	531.2	528.1	531.2
57.5°	578.6	565.3	550.5	535.6	520.7	508.8	499.8	492.4	491.0	489.4	491.0
60°	529.6	517.7	504.2	491.0	476.1	464.2	456.8	450.8	447.7	446.3	447.7
62.5°	480.5	468.6	458.2	444.7	431.4	422.4	415.0	409.1	406.1	404.7	406.1
65°	429.9	419.6	409.1	397.3	386.8	377.8	370.3	364.5	362.9	361.5	361.5
67.5°	377.8	368.9	360.1	349.6	337.8	328.7	321.3	316.9	315.4	313.8	315.4
70°	324.3	316.9	308.0	299.0	290.1	282.7	278.2	273.8	272.2	270.8	270.8
72.5°	273.8	267.8	260.4	252.9	245.5	238.0	233.6	230.6	229.2	227.6	227.6
75°	223.2	217.1	212.7	206.9	199.4	194.8	190.4	187.4	186.0	186.0	186.0
77.5°	175.5	171.1	166.7	160.6	156.2	151.8	148.8	147.4	145.8	145.8	145.8
80°	129.5	126.5	123.4	120.4	116.0	111.6	110.2	108.6	107.2	107.2	107.2
82.5°	87.8	86.3	83.2	80.4	77.4	75.8	74.4	73.0	73.0	73.0	73.0
85°	50.7	49.1	47.6	46.0	44.6	44.6	43.2	41.6	40.2	40.2	40.2
87.5°	20.9	20.9	20.9	19.3	17.9	17.9	17.9	17.9	17.9	17.9	17.9
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1
2.5°	1292.7	1295.8	1298.8	1303.2	1307.6	1312.0	1310.6	1309.2	1315.1	1322.5	1324.1
5°	1273.4	1276.4	1280.9	1288.3	1295.8	1301.8	1303.2	1303.2	1315.1	1325.5	1328.5
7.5°	1249.7	1254.1	1260.0	1267.4	1277.9	1286.9	1291.3	1297.2	1309.2	1322.5	1328.5
10°	1220.0	1227.4	1236.2	1246.7	1257.1	1267.4	1276.4	1283.9	1298.8	1313.6	1322.5
12.5°	1193.0	1200.5	1209.5	1221.4	1234.8	1248.1	1257.1	1267.4	1285.3	1303.2	1313.6
15°	1163.3	1170.7	1181.2	1193.0	1207.9	1222.8	1236.2	1249.7	1267.4	1286.9	1298.8
17.5°	1130.7	1138.1	1148.4	1163.3	1179.7	1196.0	1210.9	1225.8	1246.7	1267.4	1280.9
20°	1090.5	1100.9	1114.2	1129.1	1148.4	1167.9	1182.8	1199.1	1221.4	1243.7	1258.6
22.5°	1051.7	1062.1	1077.0	1094.9	1115.8	1136.5	1154.4	1172.3	1196.0	1218.4	1234.8
25°	1014.5	1026.5	1041.4	1059.1	1078.6	1099.3	1120.2	1141.0	1164.9	1188.6	1205.1
27.5°	977.3	987.8	1002.6	1020.5	1042.8	1063.7	1084.5	1105.4	1130.7	1155.8	1173.7
30°	935.7	947.6	961.0	978.9	1002.6	1026.5	1047.3	1069.6	1094.9	1120.2	1138.1
32.5°	897.1	907.5	920.8	938.7	962.4	986.3	1008.7	1032.4	1056.3	1081.4	1099.3
35°	858.5	868.7	882.2	900.1	923.8	947.6	969.9	992.2	1016.1	1039.8	1057.7
37.5°	819.7	830.1	843.6	861.3	883.6	907.5	928.2	950.6	974.5	998.2	1014.5
40°	779.5	789.9	800.4	818.3	840.6	864.3	885.2	907.5	931.3	955.0	971.5
42.5°	739.4	749.7	763.2	781.1	801.8	822.7	843.6	864.3	886.6	908.9	925.4
45°	699.2	708.1	721.6	737.9	758.7	778.1	799.0	818.3	840.6	861.3	877.8
47.5°	657.6	666.5	676.9	693.2	714.1	734.8	755.7	775.0	794.3	815.2	830.1
50°	617.4	626.3	638.1	653.0	672.5	691.8	709.7	727.4	746.9	766.2	779.5
52.5°	575.8	584.6	595.1	610.0	626.3	644.2	660.5	678.3	696.2	714.1	727.4
55°	534.0	540.0	548.9	562.3	580.2	598.1	614.4	630.7	647.2	662.0	675.3
57.5°	492.4	499.8	510.3	522.1	537.0	551.9	566.8	581.6	596.5	611.4	623.3
60°	450.8	456.8	464.2	474.5	489.4	502.8	517.7	531.2	544.4	557.9	568.4
62.5°	407.5	413.6	421.0	431.4	443.3	455.2	468.6	480.5	492.4	504.2	514.7
65°	362.9	368.9	376.4	385.2	395.7	406.1	418.0	429.9	438.9	447.7	458.2
67.5°	316.9	322.9	330.3	337.8	346.6	357.1	367.5	377.8	386.8	395.7	403.1
70°	272.2	276.6	284.1	290.1	297.5	305.0	313.8	322.9	328.7	336.2	345.2
72.5°	229.2	233.6	239.5	245.5	249.9	255.9	264.8	272.2	279.7	288.7	293.1
75°	187.4	190.4	194.8	199.4	203.9	208.3	214.3	220.2	226.2	230.6	236.6
77.5°	145.8	148.8	153.2	156.2	159.2	162.2	166.7	171.1	175.5	178.5	184.6
80°	107.2	110.2	113.0	116.0	119.0	122.0	123.4	125.0	130.9	135.3	138.3
82.5°	73.0	74.4	75.8	78.8	80.4	81.8	83.2	83.2	86.3	89.3	93.7
85°	41.6	43.2	44.6	44.6	44.6	44.6	46.0	47.6	49.1	52.1	55.1
87.5°	16.3	16.3	17.9	17.9	17.9	17.9	17.9	17.9	19.3	22.3	23.7
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°	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1	1315.1
2.5°	1322.5	1324.1	1326.9	1328.5	1329.9	1329.9	1331.5	1332.9	1329.9	1326.9	1325.5
5°	1329.9	1331.5	1336.0	1340.4	1343.4	1343.4	1344.8	1343.4	1340.4	1336.0	1332.9
7.5°	1331.5	1336.0	1340.4	1346.4	1350.8	1356.7	1353.8	1350.8	1344.8	1339.0	1334.4
10°	1326.9	1332.9	1340.4	1347.8	1352.3	1356.7	1353.8	1350.8	1344.8	1337.4	1331.5
12.5°	1321.1	1328.5	1337.4	1344.8	1349.2	1355.3	1350.8	1346.4	1339.0	1331.5	1324.1
15°	1307.6	1316.7	1326.9	1336.0	1343.4	1349.2	1344.8	1341.8	1332.9	1322.5	1312.0
17.5°	1291.3	1303.2	1313.6	1324.1	1329.9	1336.0	1332.9	1329.9	1319.5	1307.6	1295.8
20°	1272.0	1283.9	1294.3	1304.6	1312.0	1318.1	1313.6	1309.2	1298.8	1288.3	1276.4
22.5°	1248.1	1260.0	1272.0	1282.3	1289.7	1295.8	1289.7	1282.3	1272.0	1261.6	1249.7
25°	1218.4	1231.8	1245.1	1255.6	1260.0	1266.0	1260.0	1254.1	1243.7	1233.2	1220.0
27.5°	1188.6	1202.1	1215.3	1225.8	1230.2	1236.2	1230.2	1224.4	1213.9	1203.5	1190.2
30°	1154.4	1167.9	1181.2	1191.6	1196.0	1200.5	1194.6	1188.6	1179.7	1169.3	1155.8
32.5°	1115.8	1129.1	1139.5	1150.0	1155.8	1161.9	1155.8	1151.4	1141.0	1127.7	1114.2
35°	1074.0	1087.5	1100.9	1111.2	1117.2	1123.2	1115.8	1108.4	1099.3	1088.9	1077.0
37.5°	1028.0	1042.8	1057.7	1069.6	1074.0	1080.0	1074.0	1066.6	1057.7	1047.3	1034.0
40°	984.7	998.2	1011.7	1023.5	1028.0	1032.4	1026.5	1020.5	1010.1	999.6	986.3
42.5°	940.3	953.6	965.4	975.9	980.3	986.3	980.3	972.9	965.4	956.6	944.7
45°	892.6	905.9	916.4	926.8	931.3	935.7	929.8	922.4	915.0	907.5	895.7
47.5°	843.6	855.5	865.9	876.2	879.2	883.6	877.8	873.3	865.9	858.5	848.0
50°	792.9	804.8	815.2	824.1	827.1	831.5	825.7	819.7	813.8	807.8	799.0
52.5°	740.9	751.3	761.8	770.6	773.6	776.6	770.6	764.6	758.7	752.7	743.9
55°	687.4	697.6	708.1	715.5	718.5	721.6	715.5	711.1	705.1	700.7	691.8
57.5°	633.7	644.2	653.0	660.5	663.5	666.5	660.5	654.6	650.2	645.6	638.1
60°	578.6	589.1	596.5	602.5	605.5	607.0	600.9	596.5	593.5	590.7	583.2
62.5°	525.1	532.6	540.0	544.4	547.5	548.9	544.4	541.4	538.6	535.6	529.6
65°	468.6	477.5	483.5	487.9	489.4	491.0	486.5	483.5	480.5	477.5	473.1
67.5°	412.1	419.6	424.0	428.4	429.9	429.9	429.9	428.4	425.4	421.0	416.6
70°	355.5	361.5	365.9	368.9	370.3	370.3	367.5	364.5	364.5	362.9	360.1
72.5°	297.5	302.0	305.0	308.0	308.0	308.0	308.0	309.4	308.0	305.0	300.6
75°	242.5	246.9	249.9	251.5	251.5	251.5	251.5	252.9	251.5	249.9	246.9
77.5°	190.4	193.4	194.8	196.4	196.4	196.4	197.8	199.4	197.8	196.4	194.8
80°	141.3	142.8	144.3	145.8	144.3	144.3	145.8	148.8	147.4	145.8	144.3
82.5°	96.7	98.1	99.7	99.7	101.1	102.7	102.7	102.7	102.7	101.1	99.7
85°	58.1	59.5	59.5	59.5	59.5	59.5	60.9	62.5	62.5	60.9	60.9
87.5°	26.7	28.3	26.7	25.3	23.7	23.7	26.7	29.8	29.8	28.3	28.3
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: P735630

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

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1315.1	1315.1	1315.1	1315.1
2.5°	1326.9	1325.5	1318.1	1310.6
5°	1331.5	1326.9	1316.7	1306.2
7.5°	1331.5	1325.5	1310.6	1297.2
10°	1324.1	1315.1	1298.8	1282.3
12.5°	1315.1	1304.6	1285.3	1267.4
15°	1301.8	1289.7	1269.0	1248.1
17.5°	1282.3	1267.4	1246.7	1224.4
20°	1263.0	1246.7	1221.4	1197.6
22.5°	1236.2	1221.4	1194.6	1169.3
25°	1206.5	1190.2	1163.3	1136.5
27.5°	1175.3	1155.8	1129.1	1102.3
30°	1139.5	1120.2	1093.5	1066.6
32.5°	1100.9	1083.0	1056.3	1028.0
35°	1062.1	1042.8	1016.1	987.8
37.5°	1019.1	1001.2	974.5	947.6
40°	972.9	955.0	928.2	901.5
42.5°	929.8	913.4	886.6	861.3
45°	882.2	865.9	840.6	816.7
47.5°	833.1	816.7	792.9	769.2
50°	785.5	769.2	746.9	724.6
52.5°	732.0	718.5	697.6	676.9
55°	679.9	666.5	645.6	626.3
57.5°	627.9	615.8	596.5	578.6
60°	572.8	560.9	546.0	529.6
62.5°	520.7	510.3	495.4	480.5
65°	465.6	456.8	443.3	429.9
67.5°	409.1	401.7	389.8	377.8
70°	352.6	343.6	334.7	324.3
72.5°	296.1	291.5	282.7	273.8
75°	242.5	238.0	230.6	223.2
77.5°	192.0	187.4	181.5	175.5
80°	141.3	138.3	133.9	129.5
82.5°	98.1	95.3	92.3	87.8
85°	59.5	56.5	53.5	50.7
87.5°	26.7	25.3	22.3	20.9
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)