

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: P735629

Luminaire Tested: **4APN6-39-B2750-W2D-3000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735629
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-3000K
Description: 4FT 3900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 3000K CCT

Light Source: -
Ballast/Driver: -

Summary

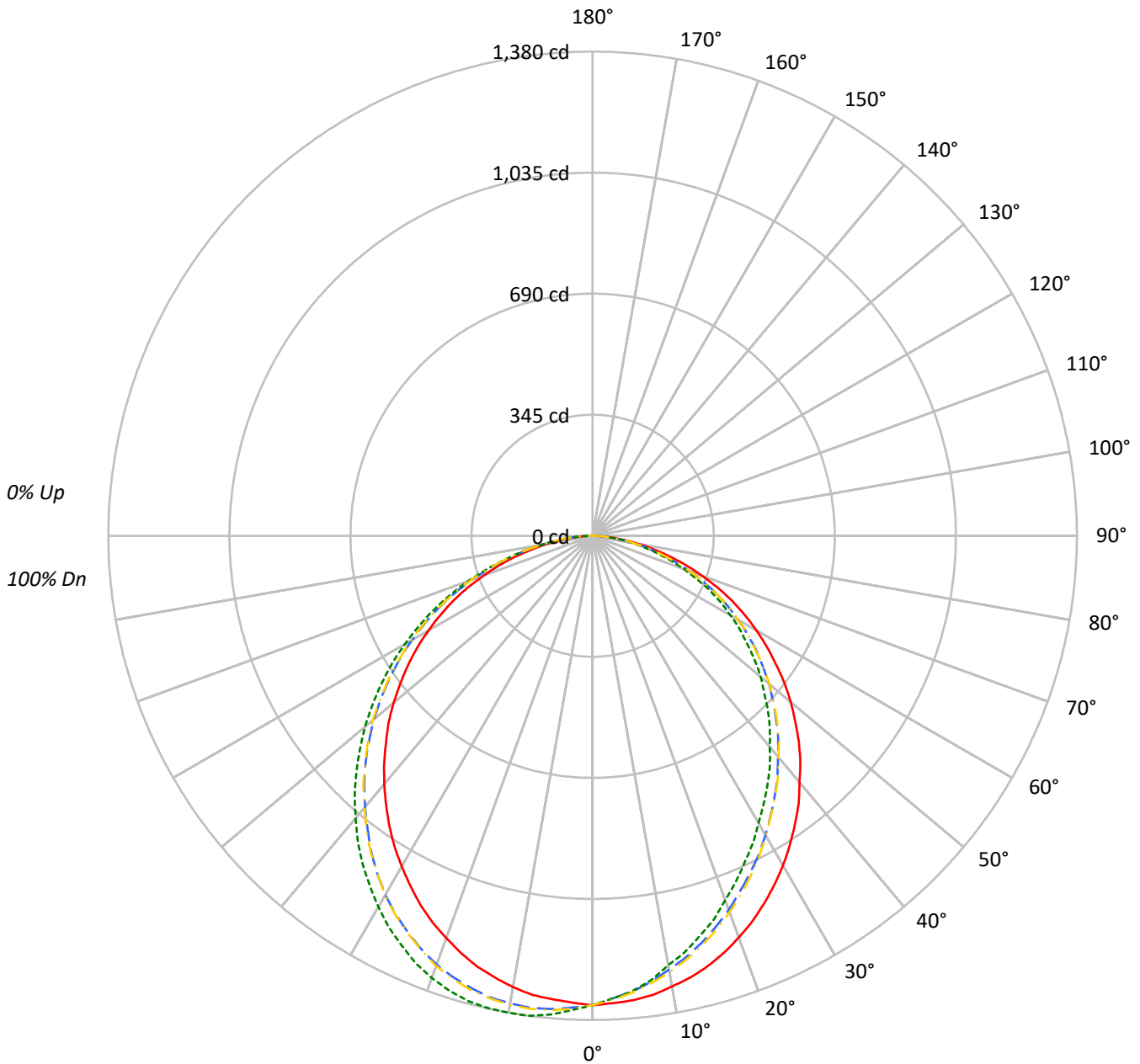
Lumens per Lamp: N/A
Luminaire Lumens: 3588.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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°	12343	12343	12343	12343
5°	12307	12068	12278	12685
10°	12221	11640	12236	12930
15°	12128	11276	12143	13111
20°	11962	10847	11976	13165
25°	11770	10446	11816	13111
30°	11559	10077	11592	13010
35°	11317	9783	11368	12870
40°	11046	9459	11119	12649
45°	10840	9222	10861	12420
50°	10580	8971	10622	12142
55°	10248	8643	10320	11807
60°	9940	8377	9970	11394
65°	9547	8027	9547	10902
70°	8899	7432	8861	10162
75°	8092	6744	7985	9119
80°	6997	5791	6758	7800
85°	5452	4330	5134	6404



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.4	3.5
10°-20°	358.8	10.0
20°-30°	533.4	14.9
30°-40°	628.6	17.5
40°-50°	640.1	17.8
50°-60°	570.2	15.9
60°-70°	429.6	12.0
70°-80°	238.9	6.7
80°-90°	62.1	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°	1018.5	28.4
0°-40°	1647.1	45.9
0°-60°	2857.4	79.6
0°-90°	3588.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3588.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1338	1338	1338	1338	1338	
5°	1329	1303	1326	1370	1329	126
15°	1270	1180	1271	1373	1270	358
25°	1156	1026	1161	1288	1156	533
35°	1005	869	1009	1143	1005	629
45°	831	707	832	952	831	640
55°	637	537	642	734	637	571
65°	437	368	437	499	437	432
75°	227	189	224	256	227	241
85°	52	41	48	60	52	62
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°	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8
2.5°	1333.3	1333.3	1334.7	1328.8	1321.2	1318.2	1316.7	1315.1	1318.2	1319.6	1318.2
5°	1328.8	1325.7	1322.7	1315.1	1306.1	1300.0	1296.9	1295.5	1298.5	1303.0	1298.5
7.5°	1319.6	1313.7	1307.5	1296.9	1286.5	1277.3	1272.8	1269.7	1272.8	1277.3	1274.2
10°	1304.5	1296.9	1287.9	1275.8	1260.7	1250.1	1245.6	1241.0	1242.5	1242.5	1242.5
12.5°	1289.3	1278.9	1268.3	1253.1	1236.4	1224.3	1216.7	1210.8	1213.7	1215.3	1215.3
15°	1269.7	1256.2	1241.0	1224.3	1207.7	1194.0	1185.0	1178.9	1180.5	1180.5	1182.0
17.5°	1245.6	1230.4	1215.3	1195.6	1175.8	1160.7	1150.2	1142.7	1145.6	1147.2	1148.6
20°	1218.3	1201.6	1185.0	1163.8	1142.7	1125.9	1115.3	1106.3	1104.8	1104.8	1106.3
22.5°	1189.5	1171.3	1151.7	1129.0	1106.3	1088.1	1077.5	1068.4	1067.0	1067.0	1068.4
25°	1156.2	1136.5	1116.9	1094.2	1069.9	1051.9	1038.2	1029.2	1027.5	1026.1	1029.2
27.5°	1121.4	1101.8	1082.1	1059.4	1033.7	1015.5	1001.8	992.8	989.7	988.3	991.3
30°	1085.0	1062.3	1041.2	1016.9	994.2	976.2	962.5	951.9	949.0	945.9	949.0
32.5°	1045.7	1023.0	1000.3	976.2	953.5	935.3	921.6	911.1	908.1	906.5	909.5
35°	1004.8	982.1	961.1	936.7	914.0	896.0	882.3	873.3	870.2	868.6	870.2
37.5°	963.9	941.4	920.2	896.0	873.3	855.1	841.4	832.4	830.8	829.3	830.8
40°	917.1	897.5	876.2	853.5	830.8	812.8	802.1	791.5	788.4	785.4	790.1
42.5°	876.2	856.6	835.5	814.2	791.5	773.3	761.2	752.2	749.2	747.5	749.2
45°	830.8	809.7	788.4	768.8	747.5	731.0	718.9	709.7	708.3	706.8	708.3
47.5°	782.5	764.3	746.1	726.5	705.2	688.6	678.0	669.0	665.9	662.9	665.9
50°	737.1	718.9	700.7	682.5	662.9	647.7	637.1	628.1	626.5	625.0	626.5
52.5°	688.6	670.4	653.9	635.7	618.9	603.8	593.3	585.8	584.1	582.7	584.1
55°	637.1	622.0	606.8	591.7	575.1	561.4	552.4	543.2	540.3	537.3	540.3
57.5°	588.6	575.1	560.0	544.9	529.7	517.6	508.5	500.9	499.4	497.8	499.4
60°	538.7	526.7	513.0	499.4	484.3	472.2	464.7	458.5	455.5	454.0	455.5
62.5°	488.8	476.7	466.1	452.4	438.9	429.7	422.2	416.2	413.1	411.7	413.1
65°	437.3	426.8	416.2	404.1	393.5	384.3	376.7	370.8	369.2	367.7	367.7
67.5°	384.3	375.3	366.3	355.7	343.6	334.4	326.8	322.3	320.9	319.3	320.9
70°	329.9	322.3	313.3	304.1	295.1	287.6	283.1	278.6	276.9	275.5	275.5
72.5°	278.6	272.4	264.9	257.3	249.7	242.2	237.7	234.6	233.1	231.5	231.5
75°	227.0	220.9	216.4	210.4	202.9	198.2	193.7	190.6	189.2	189.2	189.2
77.5°	178.6	174.0	169.5	163.4	158.9	154.4	151.3	149.9	148.3	148.3	148.3
80°	131.7	128.6	125.6	122.5	118.0	113.5	112.1	110.4	109.0	109.0	109.0
82.5°	89.4	87.7	84.7	81.8	78.7	77.1	75.7	74.2	74.2	74.2	74.2
85°	51.5	49.9	48.5	46.8	45.4	45.4	44.0	42.3	40.9	40.9	40.9
87.5°	21.3	21.3	21.3	19.6	18.2	18.2	18.2	18.2	18.2	18.2	18.2
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°	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8
2.5°	1315.1	1318.2	1321.2	1325.7	1330.2	1334.7	1333.3	1331.9	1337.8	1345.4	1347.0
5°	1295.5	1298.5	1303.0	1310.6	1318.2	1324.3	1325.7	1325.7	1337.8	1348.4	1351.5
7.5°	1271.3	1275.8	1281.8	1289.3	1300.0	1309.2	1313.7	1319.6	1331.9	1345.4	1351.5
10°	1241.0	1248.6	1257.6	1268.3	1278.9	1289.3	1298.5	1306.1	1321.2	1336.4	1345.4
12.5°	1213.7	1221.2	1230.4	1242.5	1256.2	1269.7	1278.9	1289.3	1307.5	1325.7	1336.4
15°	1183.4	1191.0	1201.6	1213.7	1228.8	1243.9	1257.6	1271.3	1289.3	1309.2	1321.2
17.5°	1150.2	1157.8	1168.3	1183.4	1200.2	1216.7	1231.9	1247.0	1268.3	1289.3	1303.0
20°	1109.3	1120.0	1133.5	1148.6	1168.3	1188.1	1203.2	1219.8	1242.5	1265.2	1280.3
22.5°	1069.9	1080.5	1095.6	1113.8	1135.1	1156.2	1174.4	1192.6	1216.7	1239.4	1256.2
25°	1032.0	1044.3	1059.4	1077.5	1097.3	1118.4	1139.6	1160.7	1185.0	1209.2	1225.9
27.5°	994.2	1004.8	1020.0	1038.2	1060.9	1082.1	1103.2	1124.5	1150.2	1175.8	1194.0
30°	951.9	963.9	977.6	995.8	1020.0	1044.3	1065.4	1088.1	1113.8	1139.6	1157.8
32.5°	912.6	923.2	936.7	954.9	979.1	1003.4	1026.1	1050.2	1074.6	1100.2	1118.4
35°	873.3	883.8	897.5	915.7	939.8	963.9	986.6	1009.3	1033.7	1057.8	1076.0
37.5°	833.9	844.5	858.2	876.2	898.9	923.2	944.3	967.0	991.3	1015.5	1032.0
40°	793.0	803.6	814.2	832.4	855.1	879.3	900.5	923.2	947.4	971.5	988.3
42.5°	752.2	762.7	776.4	794.6	815.7	836.9	858.2	879.3	902.0	924.7	941.4
45°	711.3	720.3	734.0	750.6	771.9	791.5	812.8	832.4	855.1	876.2	893.0
47.5°	669.0	678.0	688.6	705.2	726.5	747.5	768.8	788.4	808.1	829.3	844.5
50°	628.1	637.1	649.2	664.3	684.1	703.8	722.0	740.0	759.8	779.4	793.0
52.5°	585.8	594.8	605.4	620.5	637.1	655.3	671.9	690.1	708.3	726.5	740.0
55°	543.2	549.4	558.4	572.1	590.3	608.5	625.0	641.6	658.4	673.5	687.0
57.5°	500.9	508.5	519.1	531.2	546.3	561.4	576.6	591.7	606.8	622.0	634.0
60°	458.5	464.7	472.2	482.7	497.8	511.5	526.7	540.3	553.9	567.6	578.2
62.5°	414.6	420.7	428.3	438.9	451.0	463.1	476.7	488.8	500.9	513.0	523.6
65°	369.2	375.3	382.9	391.9	402.5	413.1	425.2	437.3	446.5	455.5	466.1
67.5°	322.3	328.5	336.0	343.6	352.6	363.2	373.9	384.3	393.5	402.5	410.1
70°	276.9	281.4	289.0	295.1	302.7	310.3	319.3	328.5	334.4	342.0	351.2
72.5°	233.1	237.7	243.6	249.7	254.2	260.4	269.4	276.9	284.5	293.7	298.2
75°	190.6	193.7	198.2	202.9	207.4	211.9	218.0	224.0	230.1	234.6	240.7
77.5°	148.3	151.3	155.9	158.9	162.0	165.0	169.5	174.0	178.6	181.6	187.7
80°	109.0	112.1	115.0	118.0	121.1	124.1	125.6	127.2	133.1	137.7	140.7
82.5°	74.2	75.7	77.1	80.2	81.8	83.2	84.7	84.7	87.7	90.8	95.3
85°	42.3	44.0	45.4	45.4	45.4	45.4	46.8	48.5	49.9	53.0	56.0
87.5°	16.6	16.6	18.2	18.2	18.2	18.2	18.2	18.2	19.6	22.7	24.1
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°	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8	1337.8
2.5°	1345.4	1347.0	1349.9	1351.5	1352.9	1352.9	1354.6	1356.0	1352.9	1349.9	1348.4
5°	1352.9	1354.6	1359.1	1363.6	1366.6	1369.7	1368.1	1366.6	1363.6	1359.1	1356.0
7.5°	1354.6	1359.1	1363.6	1369.7	1374.2	1380.1	1377.3	1374.2	1368.1	1362.1	1357.4
10°	1349.9	1356.0	1363.6	1371.1	1375.6	1380.1	1377.3	1374.2	1368.1	1360.5	1354.6
12.5°	1343.9	1351.5	1360.5	1368.1	1372.6	1378.7	1374.2	1369.7	1362.1	1354.6	1347.0
15°	1330.2	1339.4	1349.9	1359.1	1366.6	1372.6	1368.1	1365.0	1356.0	1345.4	1334.7
17.5°	1313.7	1325.7	1336.4	1347.0	1352.9	1359.1	1356.0	1352.9	1342.3	1330.2	1318.2
20°	1294.0	1306.1	1316.7	1327.2	1334.7	1340.9	1336.4	1331.9	1321.2	1310.6	1298.5
22.5°	1269.7	1281.8	1294.0	1304.5	1312.0	1318.2	1312.0	1304.5	1294.0	1283.4	1271.3
25°	1239.4	1253.1	1266.6	1277.3	1281.8	1287.9	1281.8	1275.8	1265.2	1254.6	1241.0
27.5°	1209.2	1222.9	1236.4	1247.0	1251.5	1257.6	1251.5	1245.6	1234.9	1224.3	1210.8
30°	1174.4	1188.1	1201.6	1212.2	1216.7	1221.2	1215.3	1209.2	1200.2	1189.5	1175.8
32.5°	1135.1	1148.6	1159.3	1169.9	1175.8	1182.0	1175.8	1171.3	1160.7	1147.2	1133.5
35°	1092.6	1106.3	1120.0	1130.4	1136.5	1142.7	1135.1	1127.5	1118.4	1107.7	1095.6
37.5°	1045.7	1060.9	1076.0	1088.1	1092.6	1098.7	1092.6	1085.0	1076.0	1065.4	1051.9
40°	1001.8	1015.5	1029.2	1041.2	1045.7	1050.2	1044.3	1038.2	1027.5	1016.9	1003.4
42.5°	956.6	970.1	982.1	992.8	997.3	1003.4	997.3	989.7	982.1	973.1	961.1
45°	908.1	921.6	932.2	942.9	947.4	951.9	945.9	938.4	930.8	923.2	911.1
47.5°	858.2	870.2	880.9	891.3	894.4	898.9	893.0	888.4	880.9	873.3	862.7
50°	806.6	818.7	829.3	838.4	841.4	845.9	840.0	833.9	827.9	821.8	812.8
52.5°	753.7	764.3	774.9	783.9	787.0	790.1	783.9	777.8	771.9	765.7	756.7
55°	699.3	709.7	720.3	727.9	731.0	734.0	727.9	723.4	717.3	712.8	703.8
57.5°	644.7	655.3	664.3	671.9	674.9	678.0	671.9	665.9	661.4	656.7	649.2
60°	588.6	599.3	606.8	613.0	616.0	617.5	611.3	606.8	603.8	600.9	593.3
62.5°	534.2	541.8	549.4	553.9	556.9	558.4	553.9	550.8	547.9	544.9	538.7
65°	476.7	485.8	491.9	496.4	497.8	499.4	494.9	491.9	488.8	485.8	481.2
67.5°	419.3	426.8	431.3	435.8	437.3	437.3	437.3	435.8	432.8	428.3	423.8
70°	361.6	367.7	372.2	375.3	376.7	376.7	373.9	370.8	370.8	369.2	366.3
72.5°	302.7	307.2	310.3	313.3	313.3	313.3	313.3	314.8	313.3	310.3	305.8
75°	246.7	251.2	254.2	255.8	255.8	255.8	255.8	257.3	255.8	254.2	251.2
77.5°	193.7	196.8	198.2	199.8	199.8	199.8	201.3	202.9	201.3	199.8	198.2
80°	143.8	145.2	146.8	148.3	146.8	146.8	148.3	151.3	149.9	148.3	146.8
82.5°	98.4	99.8	101.4	101.4	102.9	104.5	104.5	104.5	104.5	102.9	101.4
85°	59.1	60.5	60.5	60.5	60.5	60.5	62.0	63.6	63.6	62.0	62.0
87.5°	27.2	28.8	27.2	25.8	24.1	24.1	27.2	30.3	30.3	28.8	28.8
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: P735629

CATALOG NUMBER: 4APN6-39-B2750-W2D-3000K

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1337.8	1337.8	1337.8	1337.8
2.5°	1349.9	1348.4	1340.9	1333.3
5°	1354.6	1349.9	1339.4	1328.8
7.5°	1354.6	1348.4	1333.3	1319.6
10°	1347.0	1337.8	1321.2	1304.5
12.5°	1337.8	1327.2	1307.5	1289.3
15°	1324.3	1312.0	1291.0	1269.7
17.5°	1304.5	1289.3	1268.3	1245.6
20°	1284.8	1268.3	1242.5	1218.3
22.5°	1257.6	1242.5	1215.3	1189.5
25°	1227.4	1210.8	1183.4	1156.2
27.5°	1195.6	1175.8	1148.6	1121.4
30°	1159.3	1139.6	1112.4	1085.0
32.5°	1120.0	1101.8	1074.6	1045.7
35°	1080.5	1060.9	1033.7	1004.8
37.5°	1036.7	1018.5	991.3	963.9
40°	989.7	971.5	944.3	917.1
42.5°	945.9	929.2	902.0	876.2
45°	897.5	880.9	855.1	830.8
47.5°	847.5	830.8	806.6	782.5
50°	799.1	782.5	759.8	737.1
52.5°	744.7	731.0	709.7	688.6
55°	691.7	678.0	656.7	637.1
57.5°	638.7	626.5	606.8	588.6
60°	582.7	570.6	555.5	538.7
62.5°	529.7	519.1	504.0	488.8
65°	473.7	464.7	451.0	437.3
67.5°	416.2	408.6	396.6	384.3
70°	358.7	349.5	340.5	329.9
72.5°	301.3	296.6	287.6	278.6
75°	246.7	242.2	234.6	227.0
77.5°	195.3	190.6	184.7	178.6
80°	143.8	140.7	136.2	131.7
82.5°	99.8	96.9	93.9	89.4
85°	60.5	57.5	54.4	51.5
87.5°	27.2	25.8	22.7	21.3
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)