

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: P27012

Luminaire Tested: **FCC-N-4-LD4-1HI-40-UNV-80/86**

Test Date: 11/06/15

**Test Information**

Test Method: LM-79-08  
Report Number: P27012  
Test Lab: INNOVATION CENTER-P2  
Test Date: 11/06/15  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FCC-N-4-LD4-1HI-40-UNV-80/86  
Description: FAILSAFE LED 4' FCC CORNER MOUNT CORRECTIONAL FIXTURE  
Light Source: (84) NICHIA 4000K LEDS  
2UT217042A8404A  
Ballast/Driver: (1) OSRAM ELECTRONIC DRIVER  
OSRAM OT50W

**Summary**

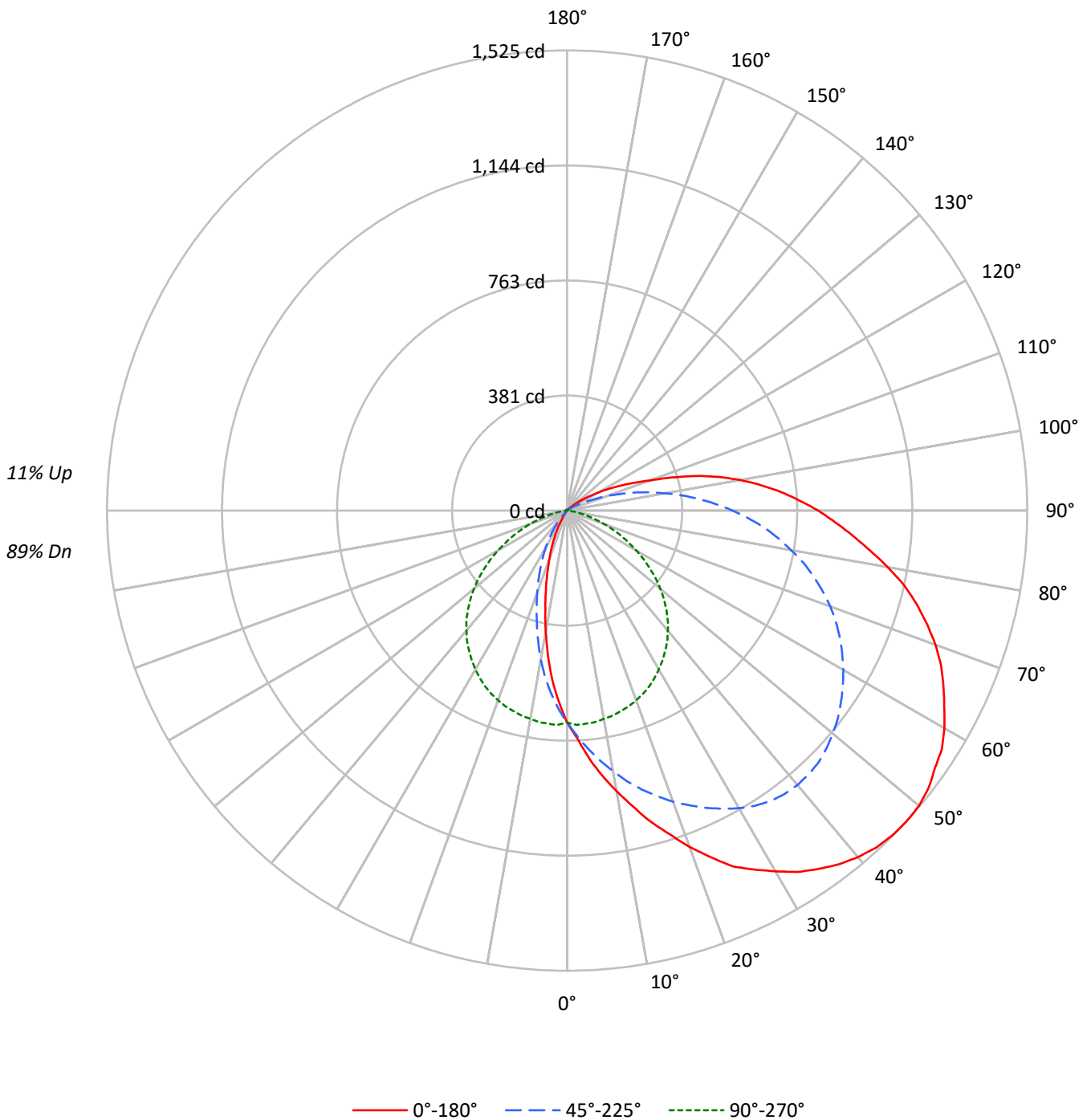
Lumens per Lamp: N/A  
Luminaire Lumens: 3498.9 lumens  
Efficiency: N/A  
Efficacy: 77.2 lumens/watt  
Spacing Criteria (0/90/45): 1.62 / 1.28 / 1.57  
Luminous Opening: Rectangular w/ Sides (W: 3.92' x L: 0.38' x H: 0.52')  
CIE Type: Semi-Direct  
  
Input Watts (W): 45.3  
Input Voltage (V): 120.04  
Input Current (Ain): 0.37865  
Voltage Rise (V): NR  
Power Factor: 0.9993  
Total Harmonic Distortion (THDi): 8.05%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 24 HR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

### Luminous Intensity Polar Plot





TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

**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	0
RCR																		
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	102	96	90	85	98	92	87	82	86	81	77	80	76	73	74	71	69	66
2	91	81	73	66	87	78	70	64	73	66	61	67	62	57	63	58	55	51
3	82	70	60	53	78	67	58	51	62	55	49	58	52	47	54	49	44	41
4	75	61	51	43	71	59	50	42	55	47	41	51	44	39	47	42	37	34
5	68	54	44	36	65	52	43	36	49	40	34	45	38	33	42	36	31	29
6	63	48	38	31	60	46	37	31	43	35	29	41	34	28	38	32	27	25
7	58	43	34	27	55	42	33	27	39	31	26	37	30	25	34	28	24	21
8	54	39	30	24	51	38	29	23	36	28	23	34	27	22	32	26	21	19
9	50	36	27	21	48	35	27	21	33	25	20	31	24	19	29	23	19	17
10	47	33	25	19	45	32	24	19	30	23	18	28	22	18	27	21	17	15

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	5145	5145	5145
5°	5392	5156	3700
10°	5643	5097	2433
15°	5900	5040	1504
20°	6144	4977	891
25°	6385	4896	491
30°	6481	4778	221
35°	6577	4641	68
40°	6623	4467	4
45°	6608	4254	0
50°	6535	3966	0
55°	6372	3597	0
60°	6215	3157	0
65°	5998	2645	0
70°	5780	2056	0
75°	5491	1381	0
80°	5130	722	0
85°	4729	167	0



TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.3	1.9
10°-20°	191.1	5.5
20°-30°	304.9	8.7
30°-40°	400.3	11.4
40°-50°	465.1	13.3
50°-60°	487.8	13.9
60°-70°	468.6	13.4
70°-80°	408.3	11.7
80°-90°	315.2	9.0
90°-100°	213.6	6.1
100°-110°	116.2	3.3
110°-120°	43.9	1.3
120°-130°	13.3	0.4
130°-140°	3.9	0.1
140°-150°	0.3	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	562.4	16.1
0°-40°	962.7	27.5
0°-60°	1915.6	54.7
0°-90°	3107.7	88.8
90°-120°	373.7	10.7
90°-150°	391.2	11.2
90°-180°	391.0	11.2
0°-180°	3498.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	702	702	702	702	702	
5°	822	792	709	608	564	82
15°	1067	957	688	388	272	305
25°	1301	1087	643	208	100	601
35°	1450	1175	567	85	15	910
45°	1523	1179	465	12	0	1176
55°	1488	1108	335	0	0	1335
65°	1376	997	196	0	0	1363
75°	1199	845	73	0	0	1264
85°	949	657	5	0	0	802
90°	832	548	0	0	0	455
95°	710	438	0	0	0	554
105°	443	230	0	0	0	466
115°	195	70	2	1	0	199
125°	67	14	4	3	1	64
135°	14	2	5	4	2	10
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	702	702	702	702	702	702	702	702	702	702	702
2.5°	754	757	757	760	760	758	757	759	758	752	747
5°	822	820	819	820	818	815	812	812	808	798	792
7.5°	885	884	882	882	877	872	869	866	859	845	835
10°	944	945	943	942	936	931	926	920	910	892	877
12.5°	1003	1004	1003	1000	991	986	979	972	959	937	919
15°	1067	1062	1060	1056	1045	1039	1033	1020	1004	980	957
17.5°	1123	1121	1117	1111	1098	1092	1083	1068	1048	1018	992
20°	1186	1180	1175	1166	1151	1143	1134	1113	1089	1056	1027
22.5°	1243	1243	1235	1227	1205	1194	1180	1157	1127	1093	1057
25°	1301	1300	1290	1281	1258	1246	1233	1203	1168	1128	1087
27.5°	1341	1340	1335	1325	1305	1293	1277	1248	1210	1161	1114
30°	1380	1378	1369	1359	1340	1327	1312	1284	1243	1194	1139
32.5°	1420	1415	1407	1393	1370	1355	1339	1307	1268	1217	1160
35°	1450	1446	1435	1419	1394	1379	1363	1329	1287	1235	1175
37.5°	1478	1472	1458	1440	1413	1395	1378	1342	1299	1247	1184
40°	1499	1493	1481	1457	1427	1408	1390	1350	1306	1251	1187
42.5°	1515	1508	1492	1469	1435	1417	1398	1359	1309	1252	1185
45°	1523	1517	1501	1475	1446	1428	1410	1372	1315	1254	1179
47.5°	1525	1518	1503	1474	1438	1418	1395	1348	1298	1237	1166
50°	1522	1515	1497	1468	1432	1409	1387	1337	1283	1220	1149
52.5°	1510	1504	1488	1462	1424	1401	1376	1326	1269	1204	1131
55°	1488	1485	1470	1446	1407	1386	1363	1310	1249	1183	1108
57.5°	1472	1465	1454	1428	1389	1367	1344	1289	1229	1159	1083
60°	1444	1439	1425	1402	1369	1348	1325	1266	1205	1132	1057
62.5°	1409	1408	1395	1375	1343	1321	1298	1241	1177	1104	1028
65°	1376	1372	1364	1345	1313	1289	1267	1212	1146	1072	997
67.5°	1341	1337	1329	1306	1276	1258	1235	1176	1111	1039	964
70°	1299	1297	1285	1264	1236	1217	1194	1139	1073	1003	928
72.5°	1250	1247	1235	1219	1191	1170	1146	1094	1031	963	888
75°	1199	1196	1185	1165	1137	1117	1095	1045	986	920	845
77.5°	1144	1140	1129	1109	1078	1061	1043	993	938	873	803
80°	1079	1079	1063	1045	1019	1004	987	939	888	825	753
82.5°	1012	1011	996	982	958	943	924	883	834	776	706
85°	949	949	934	922	898	883	867	826	779	722	657
87.5°	889	889	878	862	838	823	809	767	721	668	603
90°	832	832	821	804	779	765	752	710	664	611	548
92.5°	770	772	761	745	721	708	693	652	607	554	493
95°	710	712	701	685	663	649	635	594	550	497	438
97.5°	647	647	638	623	602	589	575	536	493	441	384
100°	582	582	573	560	539	527	514	477	435	385	330
102.5°	515	515	507	495	475	468	452	417	378	332	279
105°	443	441	437	425	407	399	387	353	319	278	230
107.5°	364	366	359	350	335	329	318	290	260	224	182
110°	291	292	286	279	267	259	253	229	204	174	138



TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	240	237	233	225	214	208	198	179	157	131	100
115°	195	193	190	182	171	166	156	139	119	96	70
117.5°	156	154	151	144	134	129	122	105	88	68	47
120°	121	119	117	111	102	98	90	76	61	45	29
122.5°	91	90	88	82	75	71	64	53	40	29	18
125°	67	66	63	58	52	49	44	35	26	18	14
127.5°	47	46	44	40	35	32	29	23	18	14	5
130°	31	31	29	26	23	21	19	16	13	4	2
132.5°	20	20	19	18	16	15	14	11	2	2	2
135°	14	14	14	13	9	6	1	1	2	2	2
137.5°	2	1	0	1	1	1	1	2	2	2	3
140°	0	0	0	1	1	1	1	2	2	2	3
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	702	702	702	702	702	702	702	702	702	702	702
2.5°	745	743	738	730	726	724	720	717	716	711	706
5°	784	778	768	755	748	744	735	726	719	709	698
7.5°	822	812	797	779	770	763	749	736	723	707	689
10°	859	844	825	802	791	781	761	742	723	701	678
12.5°	898	876	852	823	809	797	771	746	723	696	667
15°	931	905	877	843	826	810	780	750	721	688	654
17.5°	963	933	900	862	842	824	787	752	718	680	641
20°	991	956	920	877	855	834	793	751	711	669	624
22.5°	1017	978	937	889	865	842	795	749	705	657	608
25°	1043	996	951	899	873	848	797	745	695	643	589
27.5°	1064	1011	962	906	877	849	794	739	683	626	569
30°	1083	1025	971	910	879	849	789	729	670	608	547
32.5°	1098	1035	976	911	879	846	782	718	654	588	525
35°	1110	1041	978	910	875	840	774	706	638	567	500
37.5°	1117	1045	976	905	869	833	762	690	619	545	473
40°	1119	1044	971	897	860	822	748	673	597	519	445
42.5°	1116	1039	964	888	848	808	731	652	574	494	416
45°	1106	1030	952	873	832	793	711	630	548	465	385
47.5°	1093	1017	936	855	813	773	689	604	520	435	353
50°	1076	999	916	834	791	749	663	576	490	403	319
52.5°	1055	978	894	811	767	724	636	547	458	370	286
55°	1031	953	870	784	741	695	604	516	425	335	251
57.5°	1007	925	842	756	712	665	574	483	390	300	217
60°	977	896	813	725	680	634	541	449	356	265	184
62.5°	947	865	781	693	647	602	507	414	321	230	152
65°	916	832	747	657	613	566	471	379	286	196	121
67.5°	882	799	712	623	577	531	435	342	249	163	92
70°	846	761	674	585	537	494	397	304	212	131	66
72.5°	807	723	636	545	498	455	357	265	177	101	44
75°	766	681	595	503	458	412	317	228	144	73	26
77.5°	722	639	553	464	417	372	279	190	112	50	12
80°	676	594	509	420	374	330	239	154	82	30	4
82.5°	630	548	463	376	332	287	202	120	56	15	0
85°	580	499	416	331	289	244	163	89	34	5	0
87.5°	529	450	368	286	245	203	128	63	17	0	0
90°	477	400	321	242	203	164	96	40	6	0	0
92.5°	423	349	274	198	163	127	67	22	1	0	0
95°	370	299	228	158	126	94	43	9	0	0	0
97.5°	319	252	185	121	93	65	25	3	0	0	0
100°	269	206	145	89	64	42	12	1	0	0	0
102.5°	220	164	109	61	42	24	5	0	0	0	0
105°	176	125	78	39	24	13	2	0	0	0	0
107.5°	135	91	52	23	13	7	0	0	0	0	0
110°	98	62	32	12	7	3	0	0	1	1	1





TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	67	39	18	8	4	0	1	1	1	1	1
115°	43	23	11	3	1	1	1	1	2	2	2
117.5°	27	14	7	1	1	1	2	2	2	2	3
120°	17	11	1	2	2	2	2	3	3	3	3
122.5°	12	3	2	2	3	3	3	3	4	4	4
125°	4	2	2	3	3	3	4	4	4	4	5
127.5°	2	2	3	3	3	4	4	4	5	5	5
130°	2	3	3	4	4	4	4	5	5	5	5
132.5°	3	3	3	4	4	4	5	5	5	5	6
135°	3	3	4	4	4	4	5	5	5	5	6
137.5°	3	3	4	4	5	5	5	5	6	6	6
140°	3	4	4	4	5	5	5	5	6	6	6
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	702	702	702	702	702	702	702	702	702	702	702
2.5°	700	693	684	679	676	666	661	657	658	652	647
5°	686	674	659	651	646	631	622	613	608	598	589
7.5°	672	654	634	624	616	598	581	567	557	542	527
10°	656	633	608	594	584	558	537	518	501	481	462
12.5°	639	610	580	563	550	520	492	467	443	420	397
15°	620	587	549	531	516	477	444	416	388	360	337
17.5°	602	562	520	499	480	438	399	367	336	307	285
20°	581	537	488	465	444	396	356	321	289	261	237
22.5°	559	510	459	433	409	357	316	280	247	220	196
25°	536	482	425	399	373	320	276	241	208	180	159
27.5°	512	454	395	365	338	285	240	204	174	146	127
30°	486	425	361	332	304	251	206	171	142	117	97
32.5°	460	396	331	299	271	217	175	140	112	88	70
35°	433	366	299	268	239	186	144	111	85	63	48
37.5°	402	333	267	236	207	156	116	85	61	43	30
40°	373	301	235	205	177	127	90	61	40	26	16
42.5°	342	268	204	174	146	100	66	41	24	13	7
45°	309	235	172	143	117	75	44	24	12	5	3
47.5°	276	202	142	114	90	53	28	12	5	2	0
50°	242	171	113	87	66	34	14	5	2	0	0
52.5°	209	139	86	63	45	19	6	2	0	0	0
55°	176	110	62	42	27	9	3	0	0	0	0
57.5°	144	84	41	25	14	3	0	0	0	0	0
60°	114	58	24	12	5	2	0	0	0	0	0
62.5°	86	39	11	5	3	0	0	0	0	0	0
65°	61	22	4	2	0	0	0	0	0	0	0
67.5°	39	10	2	0	0	0	0	0	0	0	0
70°	23	4	0	0	0	0	0	0	0	0	0
72.5°	11	1	0	0	0	0	0	0	0	0	0
75°	4	0	0	0	0	0	0	0	0	0	0
77.5°	1	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0
92.5°	0	0	0	0	0	0	0	0	0	0	0
95°	0	0	0	0	0	0	0	0	0	0	0
97.5°	0	0	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0	0	0
102.5°	0	0	0	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0	0	0	0
107.5°	0	1	1	1	1	0	0	0	0	0	0
110°	1	1	1	1	1	1	1	1	0	0	0



TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	1	2	1	2	1	1	1	1	1	1	1
115°	2	2	2	2	2	2	2	2	1	1	1
117.5°	3	3	3	3	3	2	2	2	2	2	2
120°	3	3	3	3	3	3	3	3	2	2	2
122.5°	4	4	4	4	4	4	3	3	3	3	2
125°	5	5	4	4	4	4	4	3	3	3	3
127.5°	5	5	5	5	5	4	4	4	3	3	3
130°	5	5	5	5	5	5	4	4	4	3	3
132.5°	5	6	5	5	5	5	5	4	4	4	3
135°	6	6	6	5	5	5	5	4	4	4	3
137.5°	6	6	6	6	6	5	5	5	4	4	4
140°	6	6	6	6	6	6	5	5	4	4	4
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	702	702	702	702	702	702	702	702
2.5°	643	640	638	635	632	630	629	633
5°	582	574	573	570	565	562	562	564
7.5°	517	504	502	498	491	486	484	486
10°	447	433	428	420	414	407	405	407
12.5°	384	368	358	351	343	335	334	334
15°	319	307	297	290	281	275	273	272
17.5°	267	254	244	237	229	221	219	218
20°	219	205	196	190	182	176	173	172
22.5°	178	164	157	151	144	136	135	134
25°	143	130	123	117	109	103	101	100
27.5°	111	98	91	86	79	75	72	71
30°	82	71	65	60	54	50	48	47
32.5°	57	48	43	39	34	31	29	28
35°	37	29	25	22	19	16	15	15
37.5°	21	15	13	11	8	7	6	5
40°	10	6	5	3	2	1	1	1
42.5°	3	2	2	1	0	0	0	0
45°	1	0	0	0	0	0	0	0
47.5°	0	0	0	0	0	0	0	0
50°	0	0	0	0	0	0	0	0
52.5°	0	0	0	0	0	0	0	0
55°	0	0	0	0	0	0	0	0
57.5°	0	0	0	0	0	0	0	0
60°	0	0	0	0	0	0	0	0
62.5°	0	0	0	0	0	0	0	0
65°	0	0	0	0	0	0	0	0
67.5°	0	0	0	0	0	0	0	0
70°	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0
77.5°	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0
92.5°	0	0	0	0	0	0	0	0
95°	0	0	0	0	0	0	0	0
97.5°	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0
102.5°	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0
107.5°	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0



TEST NUMBER: P27012

CATALOG NUMBER: FCC-N-4-LD4-1HI-40-UNV-80/86

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	0	0	0	0	0	0	0	0
115°	1	1	0	0	0	0	0	0
117.5°	1	1	1	1	0	0	0	0
120°	2	1	1	1	1	1	0	0
122.5°	2	2	2	1	1	1	1	0
125°	2	2	2	2	1	1	1	1
127.5°	2	2	2	2	2	1	1	1
130°	3	2	2	2	2	2	2	2
132.5°	3	3	2	2	2	2	2	2
135°	3	3	2	2	2	2	2	2
137.5°	3	3	3	3	2	2	2	2
140°	3	3	3	3	2	2	2	2
142.5°	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0

(END OF REPORT)