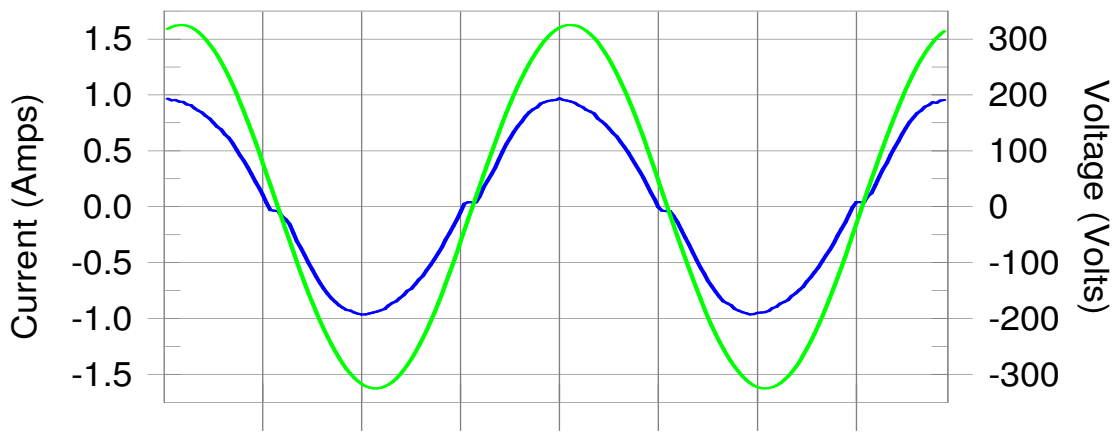


Harmonics – Class-C per Ed. 3.0 (2006)(Run time)

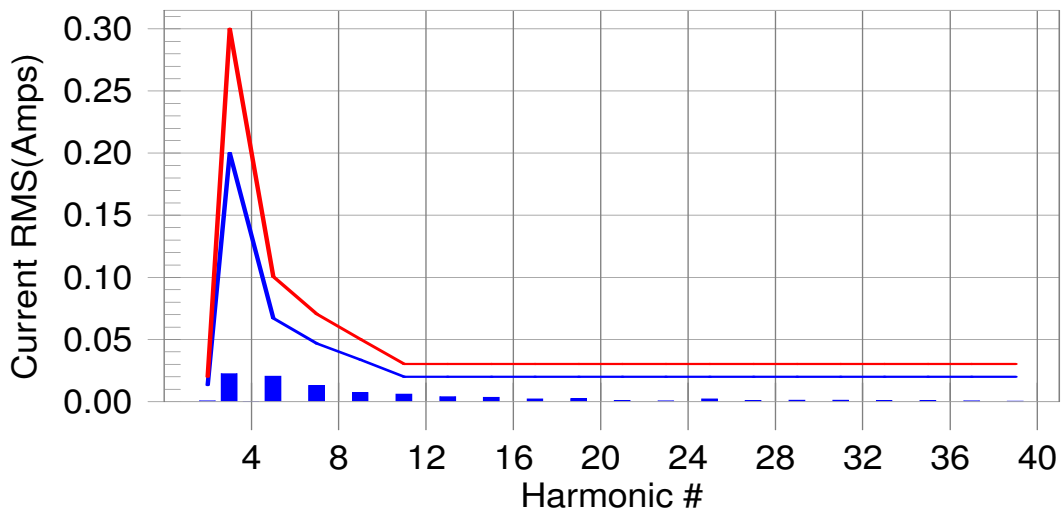
EUT: ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W Tested by: GV
Test category: Class-C per Ed. 3.0 (2006) (European limits) Test Margin: 100
Test date: 17/06/2011 Start time: 10:47:00 End time: 10:57:21
Test duration (min): 10 Data file name: H-000261.cts_data
Comment: Active
Customer: ME Lighting (UK) Ltd

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class C limit line European Limits



Test result: Pass Worst harmonics H5-30.60% of 100% limit, H5-21.8% of 150% limit.

Current Test Result Summary (Run time)

EUT: ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W Tested by: GV
 Test category: Class-C per Ed. 3.0 (2006) (European limits) Test Margin: 100
 Test date: 17/06/2011 Start time: 10:47:00 End time: 10:57:21
 Test duration (min): 10 Data file name: H-000261.cts_data
 Comment: Active
 Customer: ME Lighting (UK) Ltd

Test Result: Pass Source qualification: Normal
 THC(A): 0.03 I-THD(%): 5.41 POHC(A): 0.000 POHC Limit(A): 0.064
 Highest parameter values during test:

V_RMS (Volts): 230.06	Frequency(Hz): 50.00
I_Peak (Amps): 0.975	I_RMS (Amps): 0.671
I_Fund (Amps): 0.670	Crest Factor: 1.481
Power (Watts): 153.6	Power Factor: 0.994

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	0.013	0.0	0.001	0.020	0.00	Pass
3	0.023	0.200	11.3	0.024	0.299	7.92	Pass
4	0.000						
5	0.021	0.067	30.6	0.022	0.100	21.80	Pass
6	0.000						
7	0.013	0.047	28.0	0.014	0.070	20.20	Pass
8	0.000						
9	0.007	0.034	21.7	0.008	0.045	17.56	Pass
10	0.000						
11	0.006	0.020	29.7	0.006	0.030	20.91	Pass
12	0.000						
13	0.004	0.020	28.4	0.005	0.026	19.57	Pass
14	0.000						
15	0.003	0.020	0.0	0.004	0.000	0.00	Pass
16	0.000						
17	0.002	0.020	0.0	0.003	0.026	0.00	Pass
18	0.000						
19	0.002	0.020	0.0	0.003	0.030	0.00	Pass
20	0.000						
21	0.001	0.020	0.0	0.002	0.000	0.00	Pass
22	0.000						
23	0.001	0.020	0.0	0.002	0.027	0.00	Pass
24	0.000						
25	0.002	0.020	0.0	0.003	0.030	0.00	Pass
26	0.000						
27	0.001	0.020	0.0	0.002	0.030	0.00	Pass
28	0.000						
29	0.001	0.020	0.0	0.002	0.028	0.00	Pass
30	0.000						
31	0.001	0.020	0.0	0.002	0.030	0.00	Pass
32	0.000						
33	0.001	0.020	0.0	0.001	0.030	0.00	Pass
34	0.000						
35	0.001	0.020	0.0	0.001	0.029	0.00	Pass
36	0.000						
37	0.001	0.020	0.0	0.001	0.030	0.00	Pass
38	0.000						
39	0.001	0.020	0.0	0.001	0.026	0.00	Pass
40	0.000						

Note: Dynamic limits were applied for this test. The highest harmonics values in the above table may not occur at the same window as the maximum harmonics/limit ratio.

Voltage Source Verification Data (Run time)

EUT: ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W Tested by: GV
 Test category: Class-C per Ed. 3.0 (2006) (European limits) Test Margin: 100
 Test date: 17/06/2011 Start time: 10:47:00 End time: 10:57:21
 Test duration (min): 10 Data file name: H-000261.cts_data
 Comment: Active
 Customer: ME Lighting (UK) Ltd

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 230.06	Frequency(Hz): 50.00
I_Peak (Amps): 0.975	I_RMS (Amps): 0.671
I_Fund (Amps): 0.670	Crest Factor: 1.481
Power (Watts): 153.6	Power Factor: 0.994

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.138	0.460	30.09	OK
3	0.553	2.069	26.71	OK
4	0.039	0.460	8.48	OK
5	0.049	0.920	5.30	OK
6	0.020	0.460	4.39	OK
7	0.041	0.690	6.00	OK
8	0.020	0.460	4.44	OK
9	0.037	0.460	8.00	OK
10	0.015	0.460	3.33	OK
11	0.024	0.230	10.41	OK
12	0.009	0.230	3.91	OK
13	0.017	0.230	7.24	OK
14	0.011	0.230	4.78	OK
15	0.014	0.230	6.17	OK
16	0.016	0.230	6.94	OK
17	0.022	0.230	9.44	OK
18	0.016	0.230	6.97	OK
19	0.014	0.230	6.18	OK
20	0.017	0.230	7.32	OK
21	0.012	0.230	5.22	OK
22	0.008	0.230	3.45	OK
23	0.010	0.230	4.48	OK
24	0.005	0.230	1.99	OK
25	0.015	0.230	6.55	OK
26	0.008	0.230	3.32	OK
27	0.011	0.230	4.88	OK
28	0.005	0.230	2.10	OK
29	0.011	0.230	4.97	OK
30	0.005	0.230	1.99	OK
31	0.006	0.230	2.43	OK
32	0.005	0.230	2.04	OK
33	0.007	0.230	2.95	OK
34	0.005	0.230	2.22	OK
35	0.004	0.230	1.94	OK
36	0.003	0.230	1.34	OK
37	0.005	0.230	2.14	OK
38	0.003	0.230	1.17	OK
39	0.003	0.230	1.49	OK
40	0.011	0.230	4.79	OK

ELECTROMAGNETIC TESTING SERVICES LTD

17 Jun 2011 14:16

Electric Field Radiated Emissions Test - Horizontal Polarisation

EUT: ME Lighting (UK) Ltd - Sylvania ICETRON 150W with RES5-F08 + ferrs
 Manuf: ME Lighting (UK) Ltd - Test File Q122RH2L
 Op Cond: ACTIVE
 Operator: GV
 Test Spec: EN55022 class B
 Comment: Passed case A

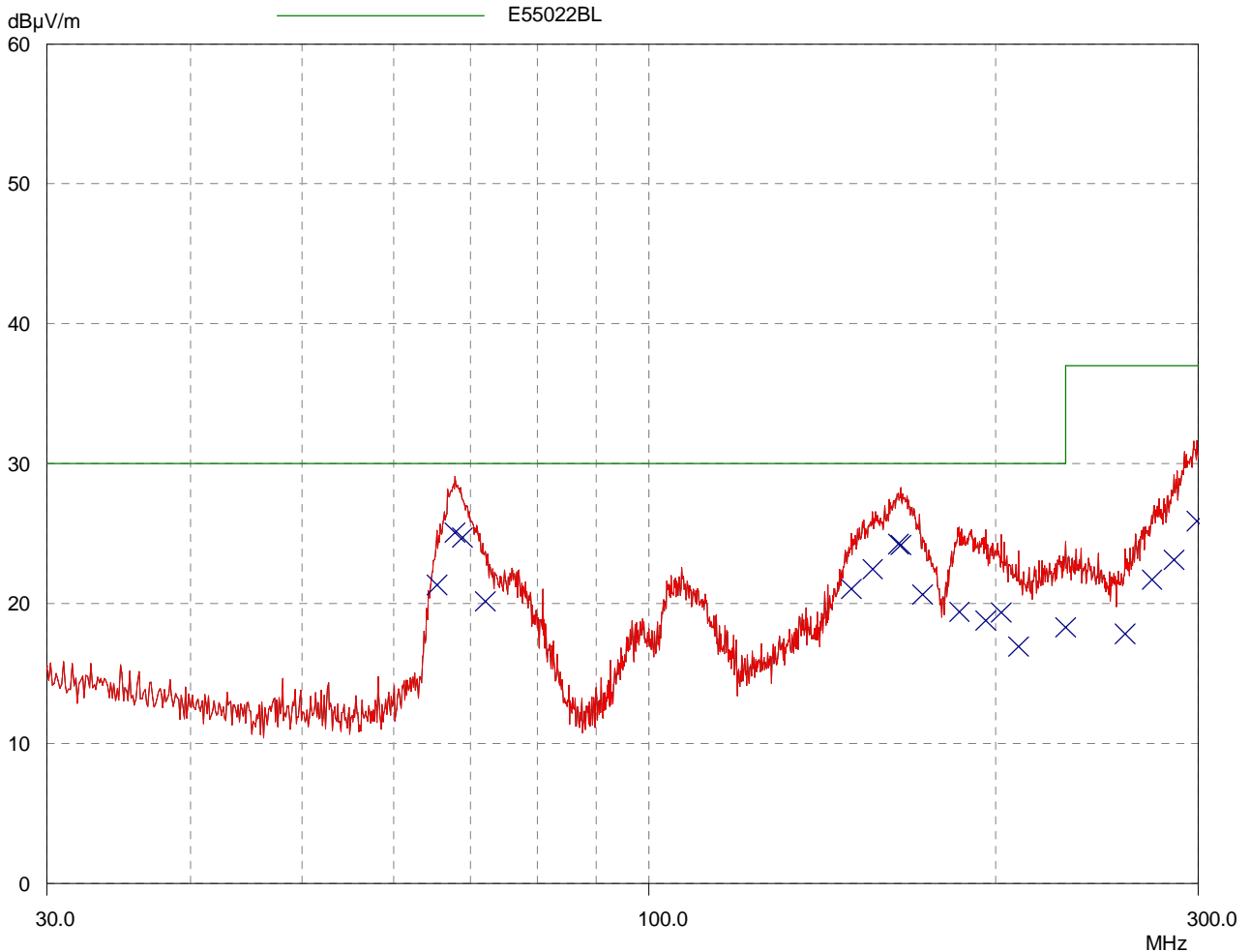
Result File: q122rh3l.dat : ME Lighting (UK) Ltd - Sylvania ICETRON 150W with RES5-F08 + ferrs

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
30MHz	300MHz	110kHz	120kHz	PK	20msec	Auto	ON	60dB

Transducer	No.	Start	Stop	Name
1	16	20MHz	1000MHz	OTESVS10
	21	20MHz	300MHz	HK116_08

Final Measurement: Detector: X QP
 Meas Time: 2sec
 Subranges: 50
 Acc Margin: 25 dB



ELECTROMAGNETIC TESTING SERVICES LTD

17 Jun 2011 14:16

Electric Field Radiated Emissions Test - Horizontal Polarisation

EUT: ME Lighting (UK) Ltd - Sylvania ICETRON 150W withRES5-F08 + ferrs
 Manuf: ME Lighting (UK) Ltd - Test File Q122RH2L
 Op Cond: ACTIVE
 Operator: GV
 Test Spec: EN55022 class B
 Comment: Passed case A

Result File: q122rh3l.dat : ME Lighting (UK) Ltd - Sylvania ICETRON 150W withRES5-F08 + ferrs

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
30MHz	300MHz	110kHz	120kHz	PK	20msec	Auto	ON	60dB

Transducer	No.	Start	Stop	Name
1	16	20MHz	1000MHz	OTESVS10
	21	20MHz	300MHz	HK116_08

Final Measurement: Detector: X QP
 Meas Time: 2sec
 Subranges: 50
 Acc Margin: 25 dB

Final Measurement Results

Frequency MHz	QP Level dBµV/m	QP Limit dBµV/m	QP Delta dB	Ref. Offset dB
299.17	25.89	37.00	11.11	5.74
67.84	25.06	30.00	4.94	4.01
68.83	24.73	30.00	5.27	2.71
164.64	24.25	30.00	5.75	3.63
165.41	24.20	30.00	5.80	4.06
285.53	23.14	37.00	13.86	6.06
156.28	22.46	30.00	7.54	4.10
273.32	21.72	37.00	15.28	4.59
65.42	21.34	30.00	8.66	3.88
149.9	21.05	30.00	8.95	3.95
172.67	20.66	30.00	9.34	4.09
72.02	20.16	30.00	9.84	3.55
185.87	19.42	30.00	10.58	6.05
202.15	19.36	30.00	10.64	5.55
195.99	18.79	30.00	11.21	6.50
229.98	18.30	30.00	11.70	6.15
258.91	17.83	37.00	19.17	6.08
209.41	16.94	30.00	13.06	6.83

* limit exceeded

ELECTROMAGNETIC TESTING SERVICES LTD

17 Jun 2011 14:28

Electric Field Radiated Emissions Test - Vertical Polarisation

EUT: ME Lighting (UK) Ltd - Sylvania ICETRON 150W with RES5-F08 + ferrs
 Manuf: ME Lighting (UK) Ltd - Test File Q117RV3L
 Op Cond: ACTIVE
 Operator: GV
 Test Spec: EN55022 class B
 Comment: Passed case A

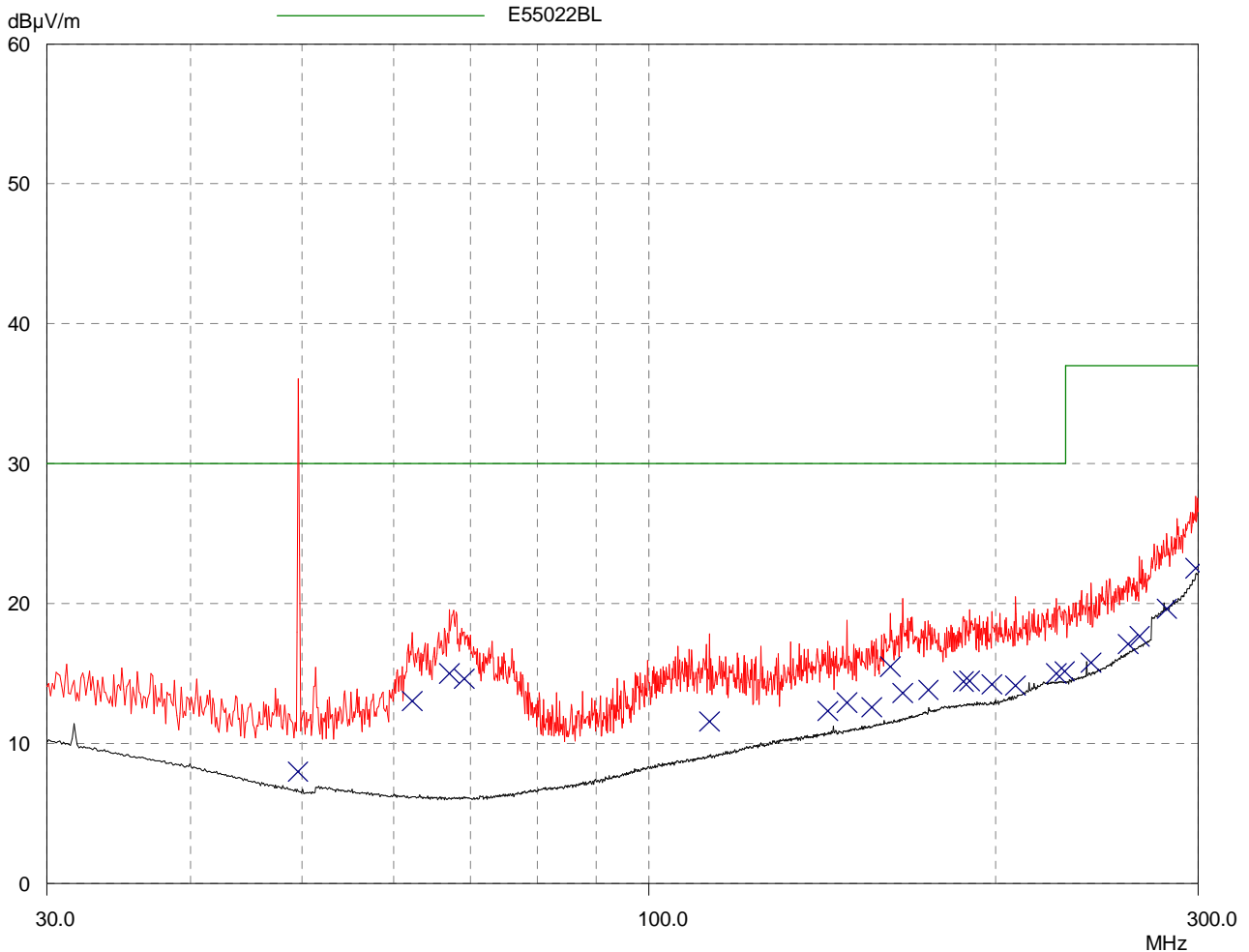
Result File: q122rv3l.dat : ME Lighting (UK) Ltd - Sylvania ICETRON 150W with RES5-F08 + ferrs

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
30MHz	300MHz	110kHz	120kHz	PK	10msec	Auto	ON	60dB

Transducer	No.	Start	Stop	Name
1	16	20MHz	1000MHz	OTESVS10
	21	20MHz	300MHz	HK116_08

Final Measurement: Detector: X QP
 Meas Time: 2sec
 Subranges: 50
 Acc Margin: 25 dB



ELECTROMAGNETIC TESTING SERVICES LTD

17 Jun 2011 14:28

Electric Field Radiated Emissions Test - Vertical Polarisation

EUT: ME Lighting (UK) Ltd - Sylvania ICETRON 150W withRES5-F08 + ferrs
 Manuf: ME Lighting (UK) Ltd - Test File Q117RV3L
 Op Cond: ACTIVE
 Operator: GV
 Test Spec: EN55022 class B
 Comment: Passed case A

Result File: q122rv3l.dat : ME Lighting (UK) Ltd - Sylvania ICETRON 150W withRES5-F08 + ferrs

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
30MHz	300MHz	110kHz	120kHz	PK	10msec	Auto	ON	60dB

Transducer	No.	Start	Stop	Name
1	16	20MHz	1000MHz	OTESVS10
	21	20MHz	300MHz	HK116_08

Final Measurement: Detector: X QP
 Meas Time: 2sec
 Subranges: 50
 Acc Margin: 25 dB

Final Measurement Results

Frequency MHz	QP Level dBµV/m	QP Limit dBµV/m	QP Delta dB	Ref. Offset dB
298.4	22.53	37.00	14.47	-0.47
281.57	19.63	37.00	17.37	-0.13
266.39	17.66	37.00	19.34	-0.72
260.78	17.11	37.00	19.89	-0.73
242.08	15.78	37.00	21.22	-0.91
162.0	15.49	30.00	14.51	-3.98
229.43	15.16	30.00	14.84	-0.78
225.91	15.00	30.00	15.00	-0.65
67.07	15.00	30.00	15.00	-8.92
69.05	14.62	30.00	15.38	-8.44
189.72	14.48	30.00	15.52	-1.78
187.52	14.43	30.00	15.57	-1.75
198.52	14.22	30.00	15.78	-1.37
208.09	14.13	30.00	15.87	-0.88
174.76	13.82	30.00	16.18	-1.61
165.96	13.62	30.00	16.38	-1.92
62.23	13.02	30.00	16.98	-6.83
148.47	12.93	30.00	17.07	-2.06
156.17	12.58	30.00	17.42	-1.42
142.97	12.34	30.00	17.66	-1.62
112.83	11.58	30.00	18.42	-2.43
49.58	8.00	30.00	22.00	-1.40

* limit exceeded

Mains Power Conducted Emissions

EUT: ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W- with filt RES5-F08
 Manuf: ME Lighting (UK) Ltd
 Op Cond: Active
 Operator: PV
 Test Spec: EN55015:2006 + A2 2009 - Live port
 Comment: Passed case A

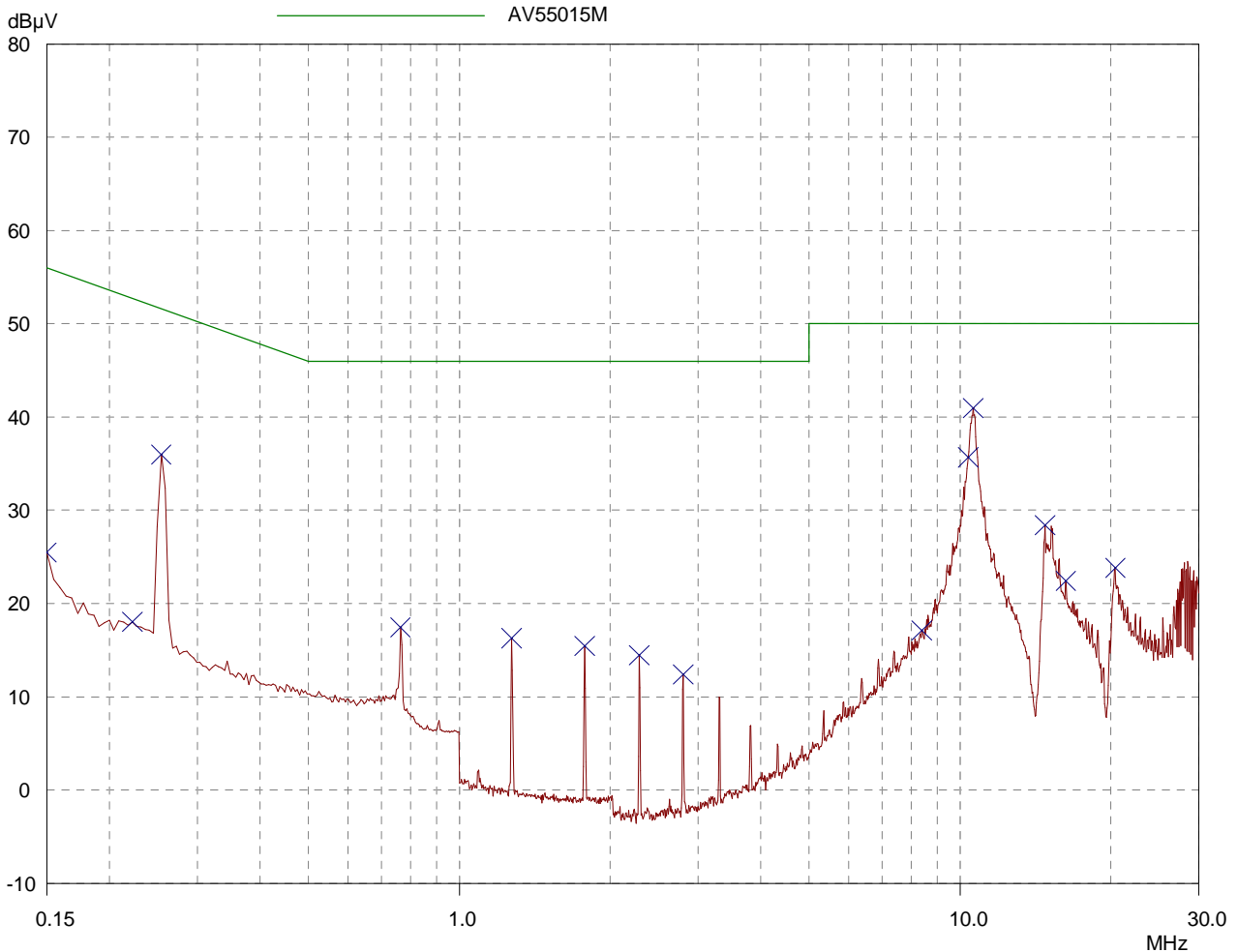
Result File: q122cal2.dat : ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W- with filt RES5-F08

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	OpRge
150kHz	30MHz	4.5kHz	10kHz	AV	10msec	Auto	60dB

Transducer	No.	Start	Stop	Name
1	10	9kHz	30MHz	LISN109
	11	9kHz	30MHz	S9CBCE09

Prescan Measurement: Detector: X AV
 Meas Time: see scan settings
 Subranges: 25
 Acc Margin: 35 dB



Mains Power Conducted Emissions

EUT: ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W- with filt RES5-F08
 Manuf: ME Lighting (UK) Ltd
 Op Cond: Active
 Operator: PV
 Test Spec: EN55015:2006 + A2 2009 - Live port
 Comment: Passed case A

Result File: q122cal2.dat : ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W- with filt RES5-F08

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	OpRge
150kHz	30MHz	4.5kHz	10kHz	AV	10msec	Auto	60dB

Transducer	No.	Start	Stop	Name
1	10	9kHz	30MHz	LISN109
	11	9kHz	30MHz	S9CBCE09

Prescan Measurement: Detector: X AV
 Meas Time: see scan settings
 Subranges: 25
 Acc Margin: 35 dB

Peak Search Results

Frequency MHz	AV Level dBµV	AV Limit dBµV	AV Delta dB	Phase	PE
10.6305	40.97	50.00	9.03	L1	gnd
0.2535	36.00	51.64	15.64	L1	gnd
10.383	35.67	50.00	14.33	L1	gnd
30.0	35.41	50.00	14.59	L1	gnd
14.766	28.39	50.00	21.61	L1	gnd
0.15	25.47	56.00	30.53	L1	gnd
20.3865	23.84	50.00	26.16	L1	gnd
16.2375	22.41	50.00	27.59	L1	gnd
0.222	18.04	52.74	34.70	L1	gnd
0.762	17.46	46.00	28.54	L1	gnd
8.3895	17.13	50.00	32.87	L1	gnd
1.2705	16.30	46.00	29.70	L1	gnd
1.779	15.43	46.00	30.57	L1	gnd
2.2875	14.48	46.00	31.52	L1	gnd
2.796	12.41	46.00	33.59	L1	gnd

* limit exceeded

Indicated Phase/PE shows Configuration of max. Emission

Mains Power Conducted Emissions

EUT: ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W- with filt RES5-F08
 Manuf: ME Lighting (UK) Ltd -
 Op Cond: Active
 Operator: PV
 Test Spec: EN55015:2009 + A2 2009 - Neutral port
 Comment: Passed case A

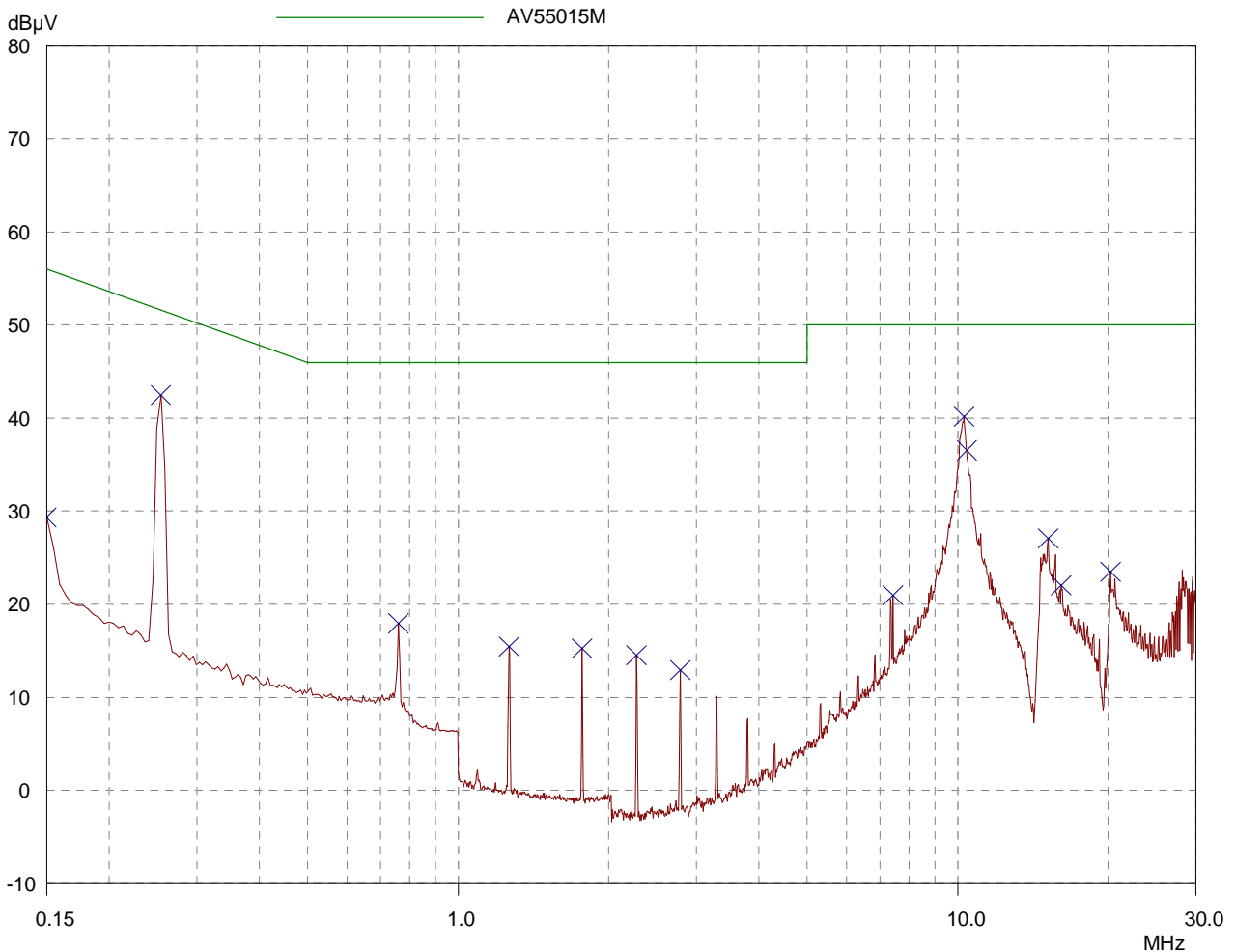
Result File: q122can2.dat : ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W- with filt RES5-F08

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	OpRge	
150kHz	30MHz	4.5kHz	10kHz	AV	10msec	Auto	60dB	

Transducer	No.	Start	Stop	Name
1	10	9kHz	30MHz	LISN109
	11	9kHz	30MHz	S9CBCE09

Prescan Measurement: Detector: X AV
 Meas Time: see scan settings
 Subranges: 25
 Acc Margin: 35 dB



Mains Power Conducted Emissions

EUT: ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W- with filt RES5-F08
 Manuf: ME Lighting (UK) Ltd -
 Op Cond: Active
 Operator: PV
 Test Spec: EN55015:2009 + A2 2009 - Neutral port
 Comment: Passed case A

Result File: q122can2.dat : ME Lighting (UK) Ltd - SYLVANIA ICETRON 150 W- with filt RES5-F08

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	OpRge
150kHz	30MHz	4.5kHz	10kHz	AV	10msec	Auto	60dB

Transducer	No.	Start	Stop	Name
1	10	9kHz	30MHz	LISN109
	11	9kHz	30MHz	S9CBCE09

Prescan Measurement: Detector: X AV
 Meas Time: see scan settings
 Subranges: 25
 Acc Margin: 35 dB

Peak Search Results

Frequency MHz	AV Level dBµV	AV Limit dBµV	AV Delta dB	Phase	PE
0.2535	42.48	51.64	9.16	N	gnd
10.275	40.18	50.00	9.82	N	gnd
30.0	36.66	50.00	13.34	N	gnd
10.41	36.55	50.00	13.45	N	gnd
0.15	29.35	56.00	26.65	N	gnd
15.162	27.09	50.00	22.91	N	gnd
20.2065	23.52	50.00	26.48	N	gnd
16.116	22.05	50.00	27.95	N	gnd
7.413	20.97	50.00	29.03	N	gnd
0.7575	17.96	46.00	28.04	N	gnd
1.2615	15.47	46.00	30.53	N	gnd
1.77	15.28	46.00	30.72	N	gnd
2.274	14.52	46.00	31.48	N	gnd
2.778	12.94	46.00	33.06	N	gnd

* limit exceeded

Indicated Phase/PE shows Configuration of max. Emission