



PERMISSIVE CHANGE TEST REPORT

Report Number. : 12361331C

Applicant : Philips Lighting North America Corporation
10275 W. Higgins Rd.
Rosemont, IL 60018

Model : SNS300

FCC ID : 2AF2N-SNS400

ISED ID : 20659-SNS400

EUT Description : Ceiling Luminaire Mounted Light Sensor with 2.4GHz radio

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C
ISED RSS-247 ISSUE 2

Date Of Issue:
2018-07-24

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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
1.0	2018-07-24	Original Issue	BM

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Philips Lighting North America

EUT DESCRIPTION: ceiling luminaire mounted light sensor with 2.4GHz radio

MODEL: SNS300

SERIAL NUMBER: see section 5.6

DATE TESTED: 2018-07-02 TO 2018-07-03

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Compliant
ISED RSS-247 Issue 2	Compliant
ISED RSS-GEN Issue 5	Compliant

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL LLC based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. government.

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013, RSS-GEN Issue 5, and RSS-247 Issue 2.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 333 Pfingsten Road, Northbrook, Illinois, USA.

333 Pfingsten Road	
☒	Chamber 10m (ISED:2180A-1)

UL LLC is accredited by NVLAP, Laboratory Code 1004141-0. The full scope of accreditation can be viewed at <https://www.nist.gov/nvlap>.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + *Path Factor (dB)

Example: 28.9dBuV/m = 36.5 dBuV + 18.7 dB/m + (– 27.5) dB

*Path factor may include cable, preamp and attenuators. Positive path factor indicates losses only and negative path factor indicates gain (preamp).

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.84 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.65 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	3.15 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	5.36 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.32 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.45 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. EUT DESCRIPTION

The EUT is a ceiling luminaire mounted light sensor with 2.4GHz ZigBee type radio. All the hardware in SNS300 is electronically identical to hardware in SNS200.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency Range	Mode	Output Power (dBm)	Output Power (mW)
2405 - 2475	TX	2.323	1.71

* power measurements are from the original model SNS201 (UL Test Report # 12361331A)

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an Inverted F PCB antenna, with a maximum gain of 3.3dB.

5.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was: FCC Mode V0.30

The test utility software used during testing was: none

5.5. WORST-CASE CONFIGURATION AND MODE

Radiated Spurious Emissions between 30MHz to 25GHz were performed with the EUT set to transmit at the intended power setting on low, middle and high channels.

The EUT is Luminaire mounted only therefore all radiated spurious emissions were conducted in single orientation.

For testing purposes the EUT was set to 100% duty cycle, however in normal use the worst case pulse train will be approximately 10mS over 100mS period.

5.6. DESCRIPTION OF TEST SETUP

EUT and SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufactu	Model	Serial Number	FCC ID
Radiated Sample	Philips	SNS300	3516420385	2AF2N-SNS400

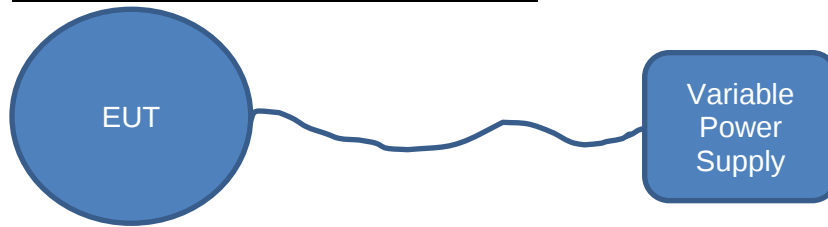
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Input	1	Wire	solid	30cm	-

TEST SETUP

Frequencies and modes of operation are varied by setting the initial input voltage to pre-defined level. Once mode is set the voltage is raised to 20VDC.

SETUP DIAGRAM FOR RADIATED TESTS



6. MEASUREMENT METHOD

Out-of-band emissions in restricted bands: ANSI C63.10, section 7.5 and 11.12.1

Band-edge: ANSI C63.10, section 11.12.1

7. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due Date
Antenna Array	UL	BOMS	EMC4276	01/16/2018	01/31/2019
EMI Test Receiver	Rohde & Schwarz	ESU	EMC4323	12/20/2017	12/31/2018
Spectrum Analyzer	Agilent	N9030A (PXA)	EMC4360	12/28/2017	12/31/2018
EMI Test Receiver	Rohde & Schwarz	ESR	EMC4377	12/23/2017	12/31/2018
Transient Limiter	Electro-Metrics	EM7600-2	EMC4224	N/A	N/A
High Pass Filter	Solar Electronics	2803-150	EMC4327	N/A	N/A
Attenuator	HP	8494B	2831A00838	N/A	N/A
LISN - L1	Solar	8602-50-TS-50-N	EMC4066	12/29/2017	12/31/2018
LISN - L2	Solar	8602-50-TS-50-N	EMC4064	12/29/2017	12/31/2018

8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

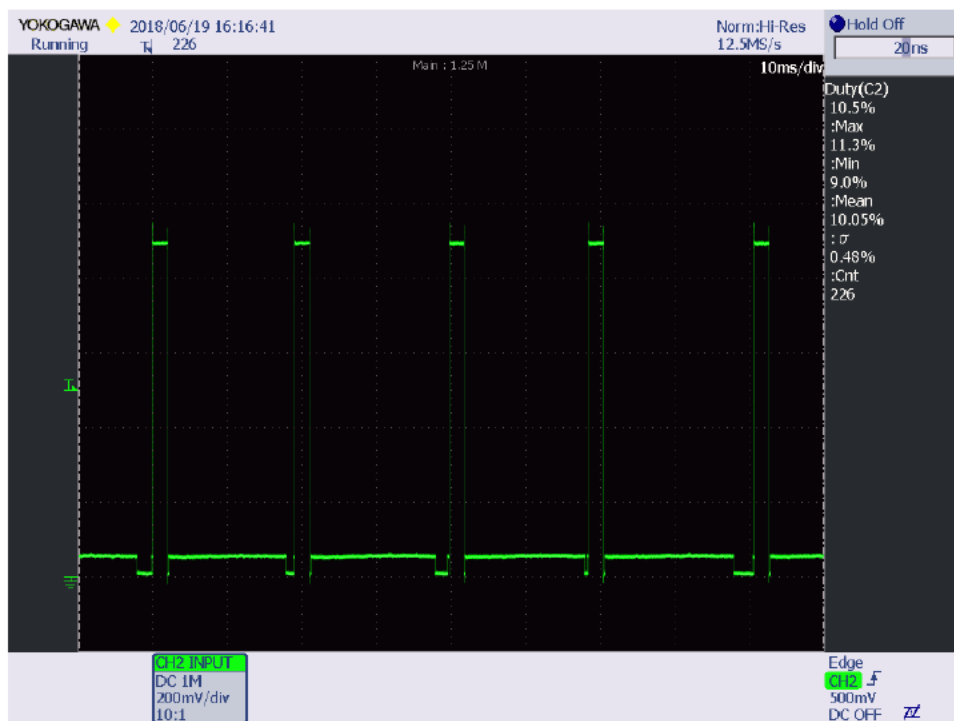
PROCEDURE

ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
*TX Mode	100.000	100.000	1.000	100.00%	0.00	0.010

* For testing purposes the device was set to transmit with 100% duty cycle, however in normal operation the transmit duration is very short and total pulse transmit time is about 11.3%. Per 15.35 duty cycle is used for harmonic measurements above 1GHz.

Measurement:



Over 226 randomly picket events of 100ms long the duty-cycle is average 10.05% (with a stdev=0.48). Max measured duty-cycle is 11.3% (over 100ms period).

Above data is provided by the manufacturer. The samples used for testing in the lab were programmed with special software which only allowed continuous modulated TX with 100% duty cycle.

9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

RSS-GEN, Section 8.9 and 8.10.

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters for frequencies 9kHz-30MHz and 1GHz-25GHz. For frequencies 30MHz-1GHz the antenna distance is 10m. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements. For harmonics in restricted bands duty cycle correction per FCC 15.35 was used.

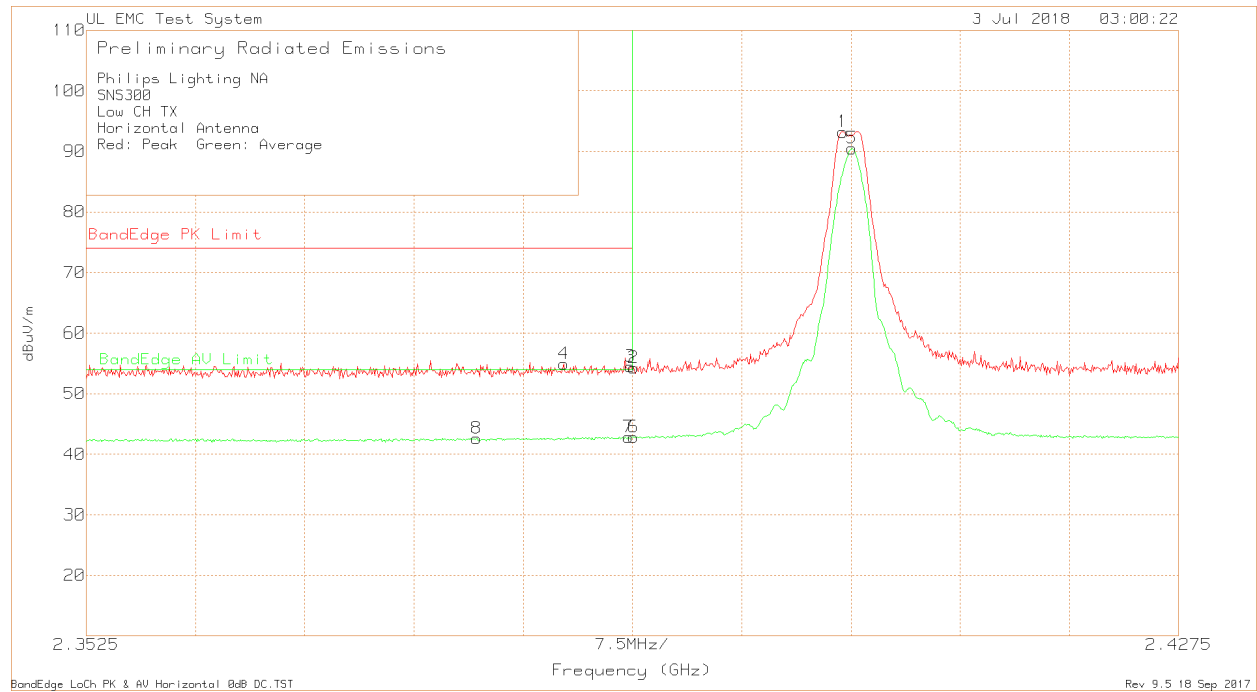
The spectrum from 30MHz to 25 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. For frequencies 9kHz-30MHz random channels was used.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions. For frequencies 9kHz-30MHz no height scan was conducted.

9.2. TRANSMITTER 1GHz – 25GHz

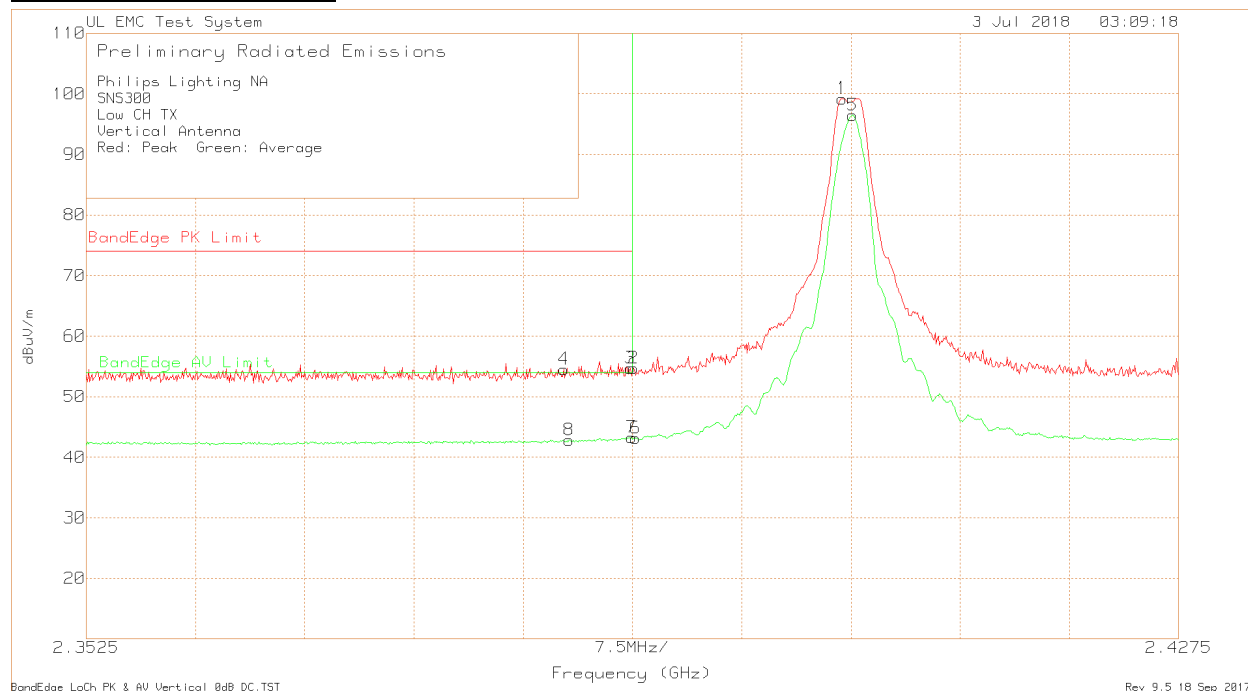
9.2.1. Low Channel

Band Edge Data – Horizontal



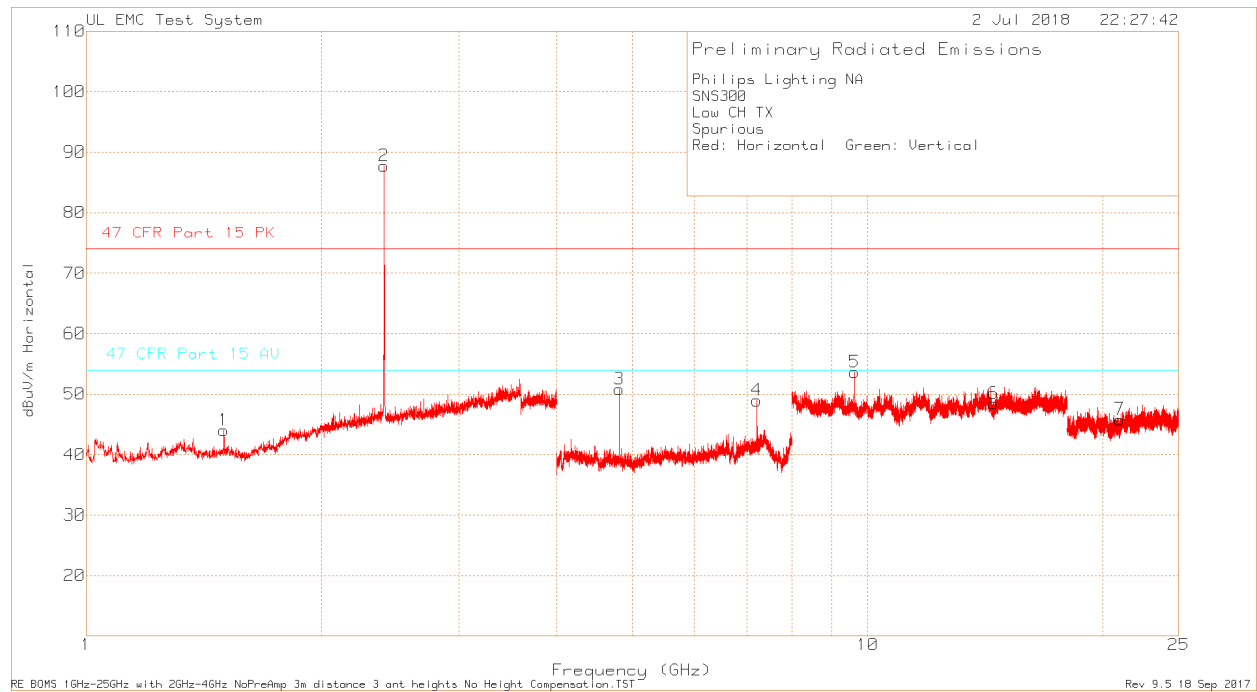
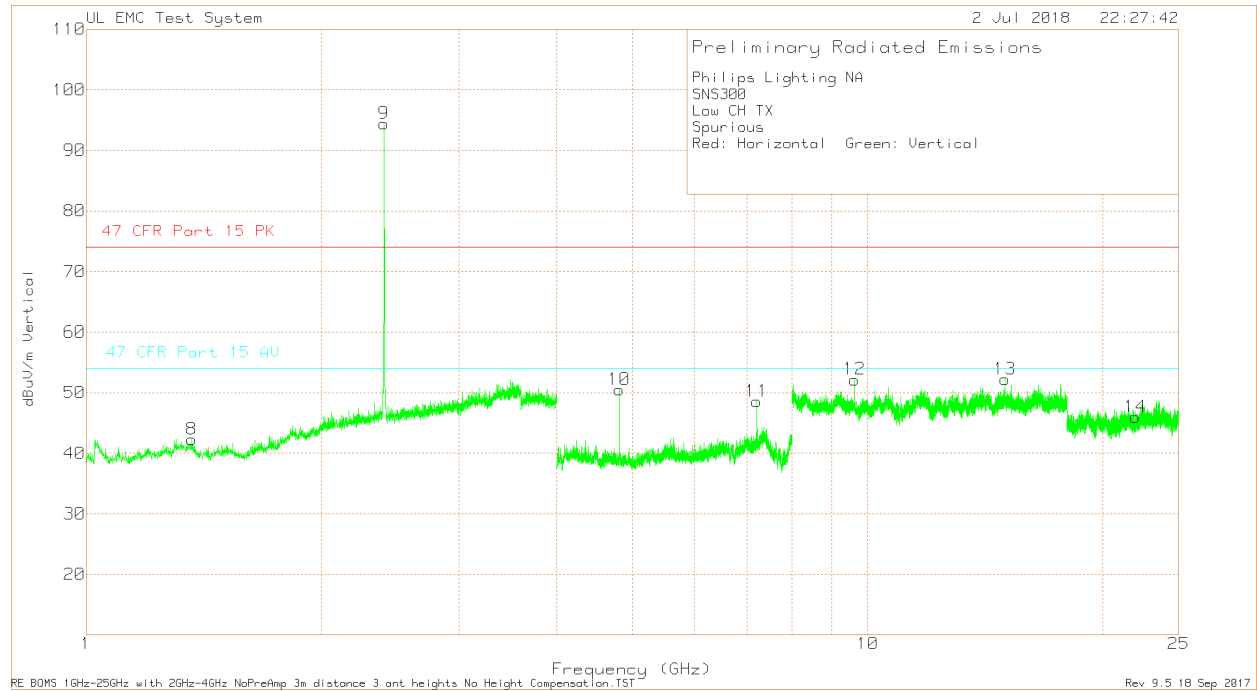
Philips Lighting NA													
SNS300													
Low CH TX													
Horizontal Antenna													
Red: Peak Green: Average													
Trace Markers													
Marker No.	Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Level dBuV/m	BandEdge PK Limit dBuV/m	Margin (dB)	BandEdge AV Limit dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	2.4044	66.64	Pk	21.8	4.75	93.19	-	-	-	-	261	129	H
2	2.3901	27.71	Pk	21.8	4.76	54.27	-	-	-	-	261	129	H
3	2.3899	27.9	Pk	21.8	4.76	54.46	74	-19.54	-	-	261	129	H
4	2.3853	28.4	Pk	21.8	4.69	54.89	74	-19.11	-	-	261	129	H
5	2.4051	63.94	Av	21.8	4.75	90.49	-	-	-	-	261	129	H
6	2.3901	16.24	Av	21.8	4.76	42.8	-	-	-	-	261	129	H
7	2.3897	16.29	Av	21.8	4.76	42.85	74	-31.15	54	-11.15	261	129	H
8	2.3793	16.15	Av	21.8	4.67	42.62	74	-31.38	54	-11.38	261	129	H
Pk - Peak detector													
Av - Average Detector													

Band Edge Data - Vertical



Philips Lighting NA													
SNS300													
Low CH TX													
Vertical Antenna													
Red: Peak Green: Average													
Trace Markers													
Marker No.	Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Level dBuV/m	BandEdge PK Limit dBuV/m	Margin (dB)	BandEdge AV Limit dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	2.4044	72.65	Pk	21.8	4.75	99.2	-	-	-	-	276	144	V
2	2.3901	28.12	Pk	21.8	4.76	54.68	-	-	-	-	276	144	V
3	2.3899	28.11	Pk	21.8	4.76	54.67	74	-19.33	-	-	276	144	V
4	2.3853	28.02	Pk	21.8	4.69	54.51	74	-19.49	-	-	276	144	V
5	2.4051	69.89	Av	21.8	4.75	96.44	-	-	-	-	276	144	V
6	2.3902	16.6	Av	21.8	4.77	43.17	-	-	-	-	276	144	V
7	2.3899	16.72	Av	21.8	4.76	43.28	74	-30.72	54	-10.72	276	144	V
8	2.3857	16.31	Av	21.8	4.7	42.81	74	-31.19	54	-11.19	276	144	V
Pk - Peak detector													
Av - Average detector													

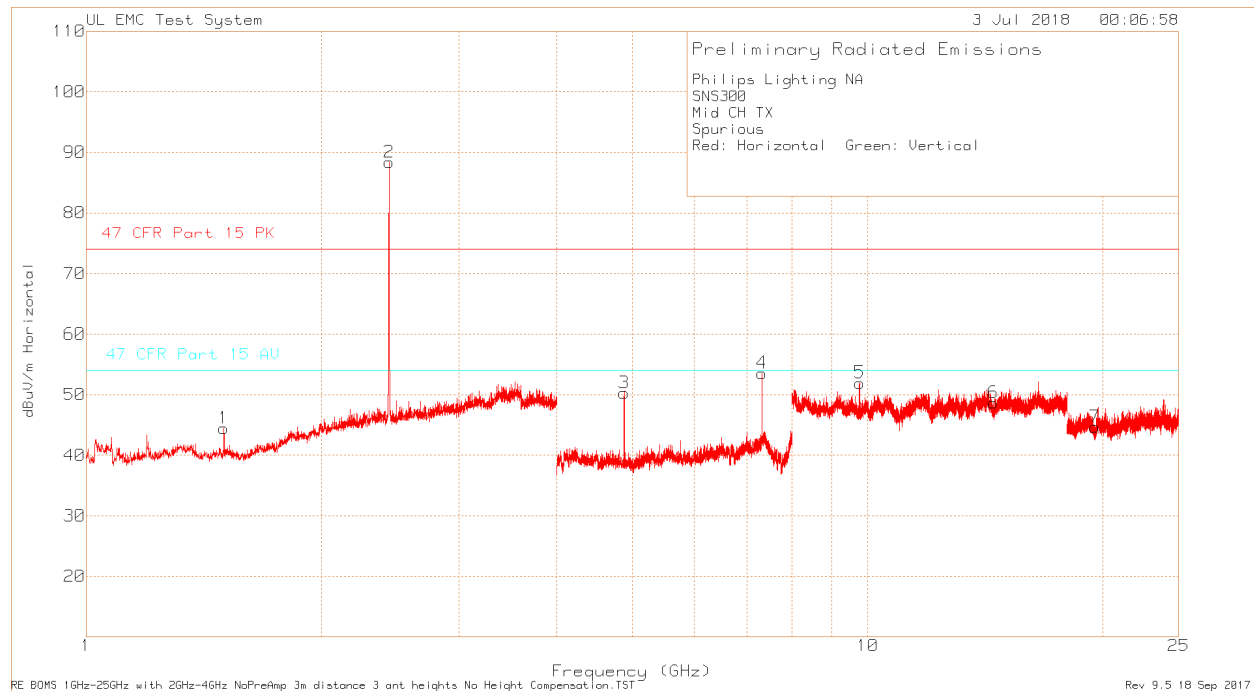
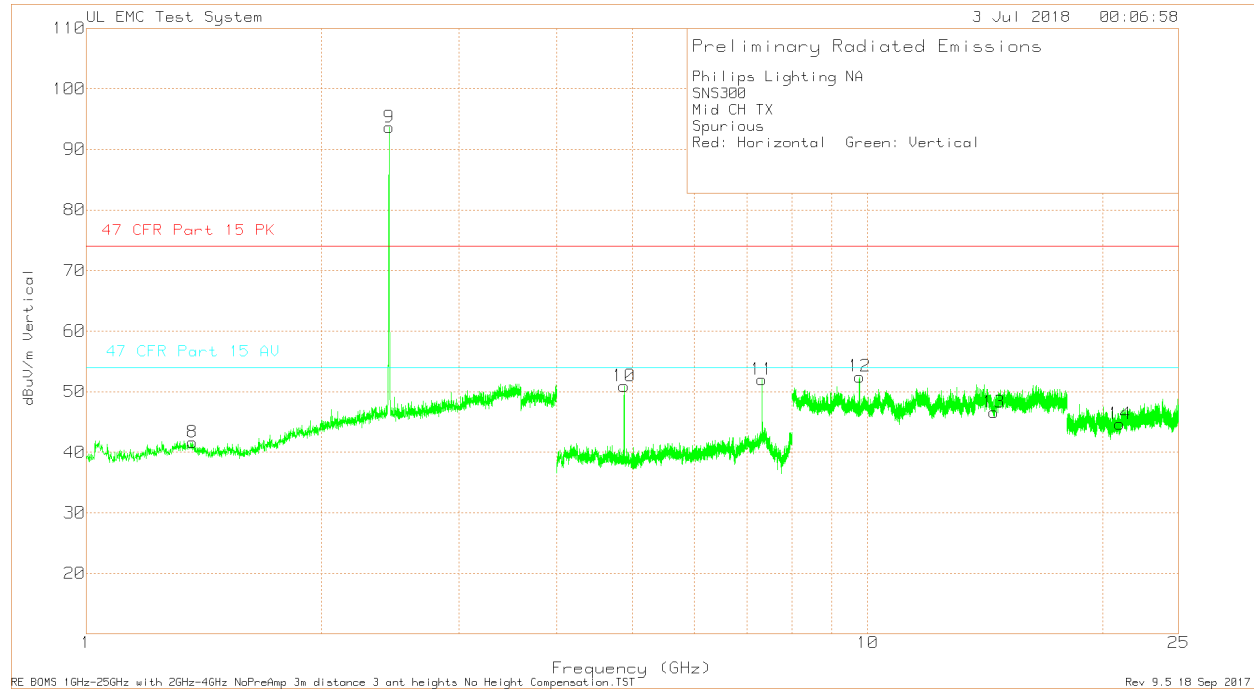
Spurious Emissions 1GHz – 25GHz



Philips Lighting NA														
SNS300														
Low CH TX														
Spurious														
Red: Horizontal Green: Vertical														
Trace Markers														
Marker No.	Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Level dBuV/m	47 CFR Part 15.209 PK dBuV/m	Margin (dB)	47 CFR Part 15.209 AV dBuV/m	Margin (dB)	Azimuth [Deps]	Height [cm]	Polarity	
1	1.5	70.59	Pk	27.8	-54.41	43.98	74	-30.02	54	-10.02	0-360	150	H	
2	2.405	61.15	Pk	21.8	4.75	87.7	74	13.7	54	33.7	0-360	200	H	
3	4.811	74.02	Pk	27.7	-50.88	50.84	74	-23.16	54	-3.16	0-360	100	H	
4	7.217	64.43	Pk	29.8	-45.29	48.94	74	-25.06	54	-5.06	0-360	200	H	
5	9.618	66.52	Pk	36.4	-49.28	53.64	74	-20.36	54	-0.36	0-360	100	H	
6	14.48	49.51	Pk	39.8	-40.87	48.44	74	-25.56	54	-5.56	0-360	150	H	
7	21.034	53.17	Pk	40.1	-47.48	45.79	74	-28.21	54	-8.21	0-360	200	H	
8	1.365	68.63	Pk	28.7	-55.04	42.29	74	-31.71	54	-11.71	0-360	100	V	
9	2.405	67.84	Pk	21.8	4.75	94.39	74	20.39	54	40.39	0-360	150	V	
10	4.811	73.65	Pk	27.7	-50.88	50.47	74	-23.53	54	-3.53	0-360	200	V	
11	7.217	64.03	Pk	29.8	-45.29	48.54	74	-25.46	54	-5.46	0-360	200	V	
12	9.622	65.1	Pk	36.4	-49.34	52.16	74	-21.84	54	-1.84	0-360	150	V	
13	14.994	52.86	Pk	39.8	-40.48	52.18	74	-21.82	54	-1.82	0-360	100	V	
14	22.021	52.32	Pk	40.4	-46.79	45.93	74	-28.07	54	-8.07	0-360	150	V	
Pk - Peak detector														
Radiated Emission Data														
Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Level dBuV/m	DC Factor dB	Av Level with DC dB	47 CFR Part 15.209 PK dBuV/m	Margin (dB)	47 CFR Part 15.209 AV dBuV/m	Margin (dB)	Azimuth [Deps]	Height [cm]	Polarity
4.8098	74.81	Pk	27.7	-50.92	51.59	-18.93	32.66	74	-22.41	54	-21.34	44	100	H
7.2132	65.8	Pk	29.8	-45.3	50.3	-18.93	31.37	74	-23.7	54	-22.63	73	197	H
7.2162	65.11	Pk	29.8	-45.36	49.55	-18.93	30.62	74	-24.45	54	-23.38	68	223	V
4.8109	75.49	Pk	27.7	-50.88	52.31	-18.93	33.38	74	-21.69	54	-20.62	9	253	V
9.6174	67.51	Pk	36.4	-49.28	54.63	-18.93	35.7	74	-19.37	54	-18.3	115	133	H
9.6177	66.61	Pk	36.4	-49.28	53.73	-18.93	34.8	74	-20.27	54	-19.2	147	236	V
14.9939	53.41	Pk	39.8	-40.49	52.72	-18.93	33.79	74	-21.28	54	-20.21	360	100	V
Pk - Peak detector														

9.2.2. Middle Channel

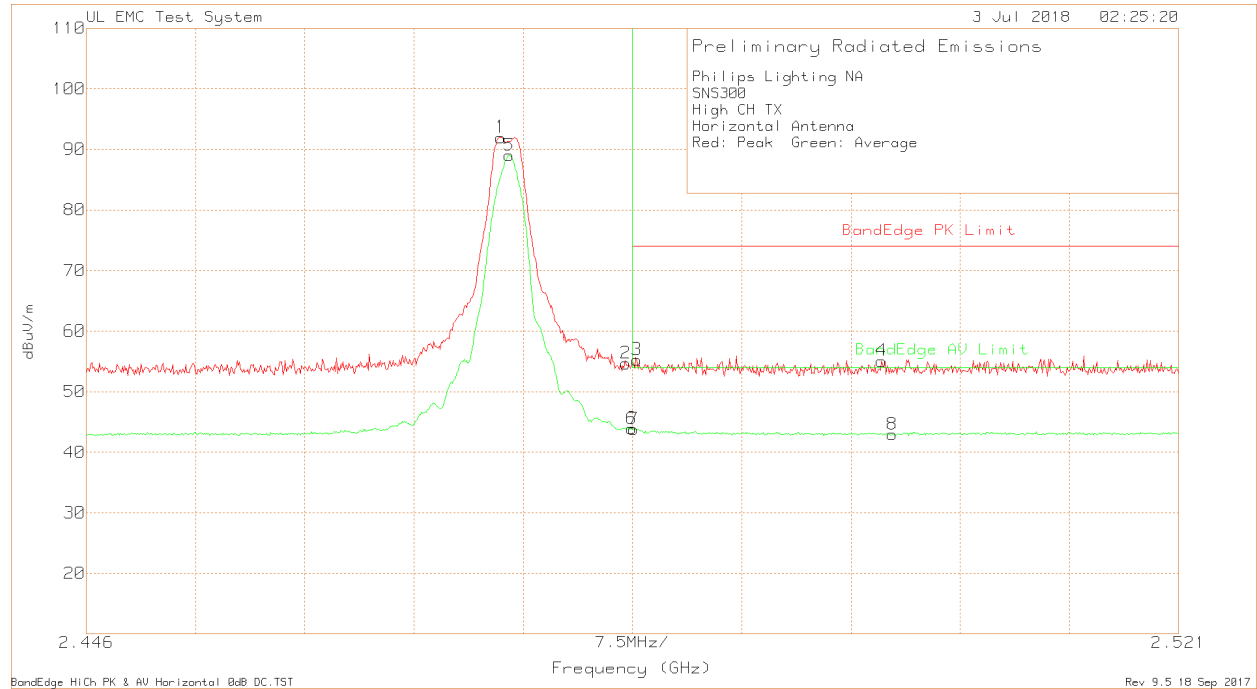
Spurious Emissions 1GHz – 25GHz



Philips Lighting NA														
SNS300														
Mid CH TX														
Spurious														
Red: Horizontal Green: Vertical														
Trace Markers														
Marker No.	Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Level dBuV/m	47 CFR Part 15.209 PK dBuV/m	Margin (dB)	47 CFR Part 15.209 AV dBuV/m	Margin (dB)	Azimuth [Deps]	Height [cm]	Polarity	
1	1.5	71.05	Pk	27.8	-54.41	44.44	74	-29.56	54	-9.56	0-360	150	H	
2	2.44	61.83	Pk	21.9	4.61	88.34	74	14.34	54	34.34	0-360	149	H	
3	4.879	72.74	Pk	27.7	-50.17	50.27	74	-23.73	54	-3.73	0-360	100	H	
4	7.322	67.97	Pk	30.6	-45.03	53.54	74	-20.46	54	-0.46	0-360	200	H	
5	9.763	65.05	Pk	36.4	-49.51	51.94	74	-22.06	54	-2.06	0-360	100	H	
6	14.485	49.87	Pk	39.8	-41.01	48.66	74	-25.34	54	-5.34	0-360	150	H	
7	19.543	55.92	Pk	40.3	-51.59	44.63	74	-29.37	54	-9.37	0-360	150	H	
8	1.366	68.22	Pk	28.7	-55.26	41.66	74	-32.34	54	-12.34	0-360	200	V	
9	2.44	67.12	Pk	21.9	4.61	93.63	74	19.63	54	39.63	0-360	150	V	
10	4.879	73.37	Pk	27.7	-50.17	50.9	74	-23.1	54	-3.1	0-360	199	V	
11	7.319	66.34	Pk	30.6	-44.96	51.98	74	-22.02	54	-2.02	0-360	199	V	
12	9.762	65.69	Pk	36.4	-49.6	52.49	74	-21.51	54	-1.51	0-360	100	V	
13	14.507	47.68	Pk	39.8	-40.9	46.58	74	-27.42	54	-7.42	0-360	200	V	
14	21.033	51.91	Pk	40.1	-47.38	44.63	74	-29.37	54	-9.37	0-360	100	V	
Pk - Peak detector														
Radiated Emission Data														
Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Level dBuV/m	DC Factor dB	Av Level with DC dB	47 CFR Part 15.209 PK dBuV/m	Margin (dB)	47 CFR Part 15.209 AV dBuV/m	Margin (dB)	Azimuth [Deps]	Height [cm]	Polarity
4.8789	73.71	Pk	27.7	-50.16	51.25	-18.93	32.32	74	-22.75	54	-21.68	49	100	H
7.3182	68.59	Pk	30.6	-45.08	54.11	-18.93	35.18	74	-19.89	54	-18.82	68	185	H
7.3213	68.46	Pk	30.6	-45.1	53.96	-18.93	35.03	74	-20.04	54	-18.97	79	249	V
4.8788	73.77	Pk	27.7	-50.16	51.31	-18.93	32.38	74	-22.69	54	-21.62	360	245	V
9.7615	66.66	Pk	36.4	-49.64	53.42	-18.93	34.49	74	-20.58	54	-19.51	211	100	H
9.7617	67.28	Pk	36.4	-49.62	54.06	-18.93	35.13	74	-19.94	54	-18.87	153	108	V
Pk - Peak detector														

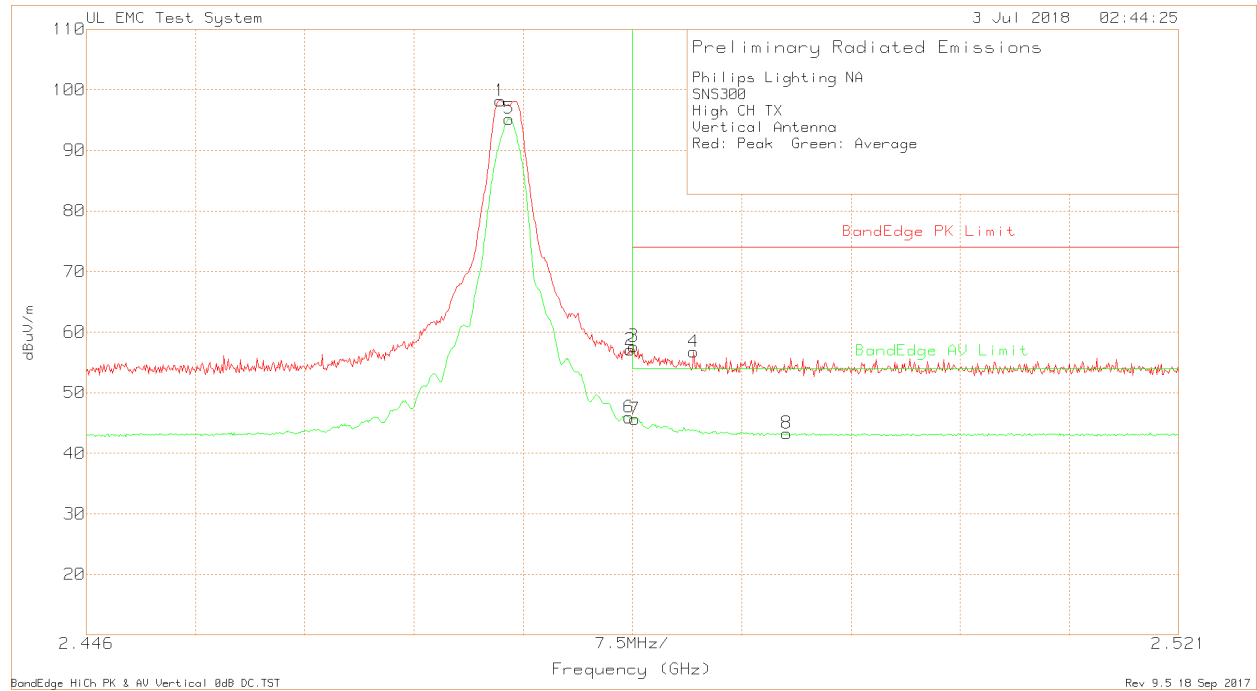
9.2.3. High Channel

Band Edge Data – Horizontal



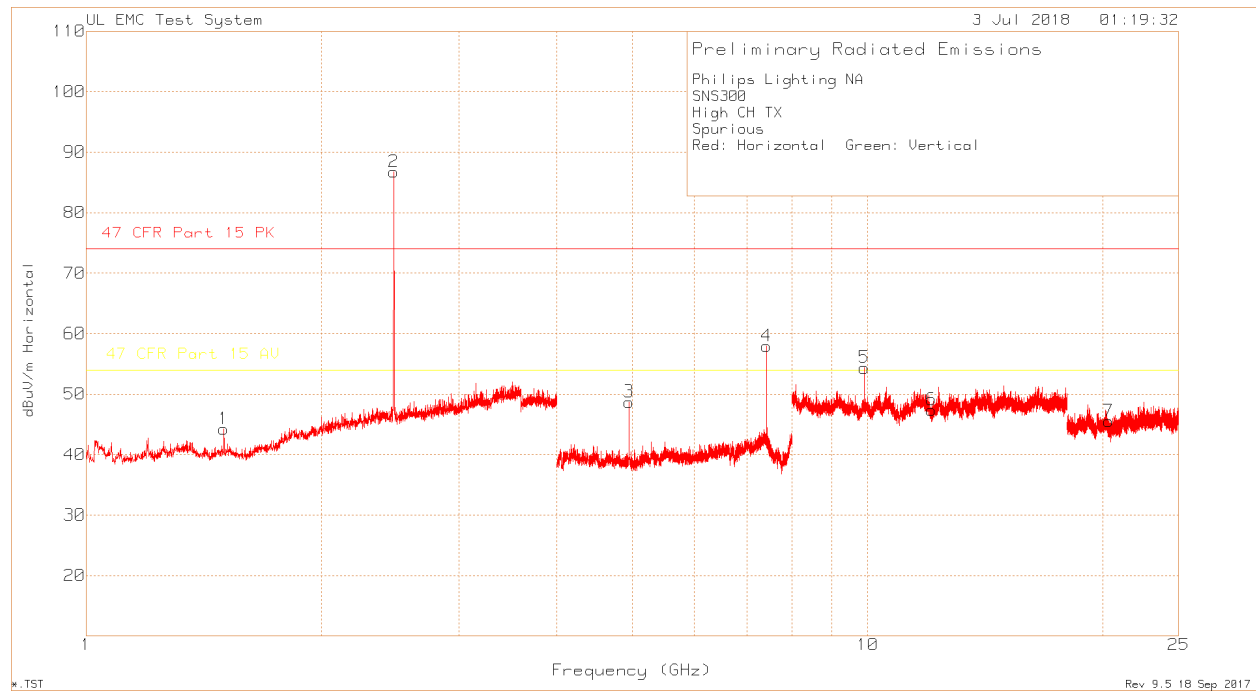
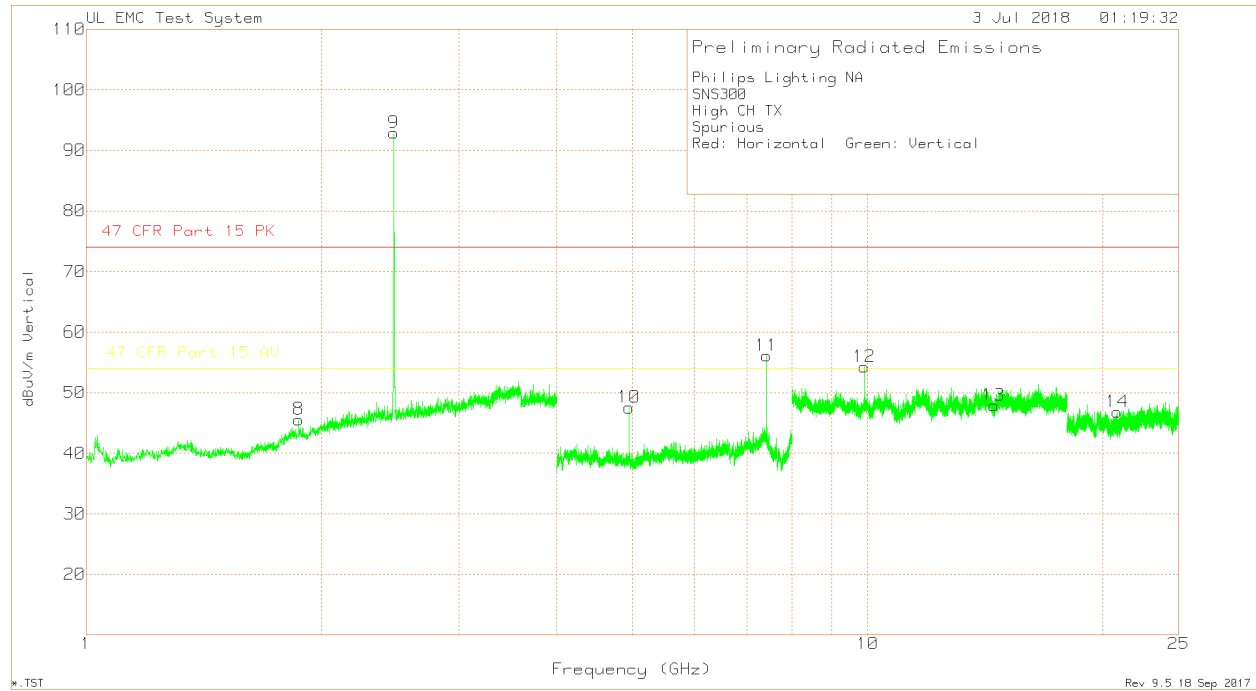
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High CH TX													
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Red: Peak Green: Average													
Trace Markers													
Marker No.	Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Level dBuV/m	BandEdge PK Limit dBuV/m	Margin (dB)	BandEdge AV Limit dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	2.4745	65.42	Pk	22	4.56	91.98	-	-	-	-	259	121	H
2	2.4831	28.14	Pk	22	4.52	54.66	-	-	-	-	259	121	H
3	2.4838	28.64	Pk	22.1	4.53	55.27	74	-18.73	-	-	259	121	H
4	2.5006	28.47	Pk	22.1	4.51	55.08	74	-18.92	-	-	259	121	H
5	2.475	62.49	Av	22	4.54	89.03	-	-	-	-	259	121	H
6	2.4834	17.27	Av	22.1	4.53	43.9	-	-	-	-	259	121	H
7	2.4836	17.17	Av	22.1	4.53	43.8	74	-30.2	54	-10.2	259	121	H
8	2.5014	16.29	Av	22.1	4.51	42.9	74	-31.1	54	-11.1	259	121	H
Pk - Peak detector													
Av - Average detector													

Band Edge Data Vertical



Philips Lighting NA													
SNS300													
High CH TX													
Vertical Antenna													
Red: Peak Green: Average													
Trace Markers													
Marker No.	Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Level dBuV/m	BandEdge PK Limit dBuV/m	Margin (dB)	BandEdge AV Limit dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	2.4744	71.64	Pk	22	4.56	98.2	-	-	-	-	263	128	V
2	2.4834	30.44	Pk	22.1	4.53	57.07	-	-	-	-	263	128	V
3	2.4836	31.02	Pk	22.1	4.53	57.65	74	-16.35	-	-	263	128	V
4	2.4877	30.11	Pk	22.1	4.54	56.75	74	-17.25	-	-	263	128	V
5	2.475	68.68	Av	22	4.54	95.22	-	-	-	-	263	128	V
6	2.4833	19.39	Av	22	4.53	45.92	-	-	-	-	263	128	V
7	2.4837	19.03	Av	22.1	4.53	45.66	74	-28.34	54	-8.34	263	128	V
8	2.4941	16.67	Av	22.1	4.52	43.29	74	-30.71	54	-10.71	263	128	V
Pk - Peak detector													
Av - Average Detector													

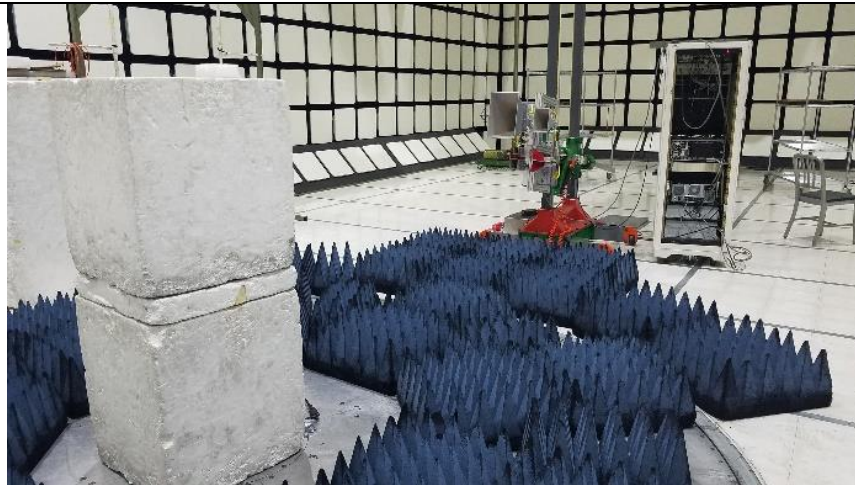
Spurious Emissions 1GHz – 25GHz



Philips Lighting NA														
SNS300														
High CH TX														
Spurious														
Red: Horizontal Green: Vertical														
Trace Markers														
Marker No.	Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Level dBuV/m	47 CFR Part 15.209 PK dBuV/m	Margin (dB)	47 CFR Part 15.209 AV dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity	
1	1.5	70.85	Pk	27.8	-54.41	44.24	74	-29.76	54	-9.76	0-360	150	H	
2	2.475	60.22	Pk	22	4.55	86.77	74	12.77	54	32.77	0-360	150	H	
3	4.949	70.41	Pk	27.8	-49.51	48.7	74	-25.3	54	-5.3	0-360	100	H	
4	7.424	73.48	Pk	30.8	-46.32	57.96	74	-16.04	54	3.96	0-360	150	H	
5	9.902	66.04	Pk	36.4	-48.11	54.33	74	-19.67	54	0.33	0-360	100	H	
6	12.074	54.68	Pk	39.4	-46.67	47.41	74	-26.59	54	-6.59	0-360	200	H	
7	20.346	55.14	Pk	40.2	-49.82	45.52	74	-28.48	54	-8.48	0-360	100	H	
8	1.871	67.95	Pk	31	-53.38	45.57	74	-28.43	54	-8.43	0-360	150	V	
9	2.475	66.33	Pk	22	4.55	92.88	74	18.88	54	38.88	0-360	150	V	
10	4.951	69.15	Pk	27.8	-49.42	47.53	74	-26.47	54	-6.47	0-360	200	V	
11	7.427	71.85	Pk	30.8	-46.58	56.07	74	-17.93	54	2.07	0-360	200	V	
12	9.898	66.12	Pk	36.4	-48.24	54.28	74	-19.72	54	0.28	0-360	100	V	
13	14.497	49.1	Pk	39.8	-41.01	47.89	74	-26.11	54	-6.11	0-360	199	V	
14	20.872	54.93	Pk	40.2	-48.34	46.79	74	-27.21	54	-7.21	0-360	150	V	
Pk - Peak detector														
Radiated Emission Data														
Test Frequency (GHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Level dBuV/m	DC Factor dB	Av Level with DC dB	47 CFR Part 15.209 PK dBuV/m	Margin (dB)	47 CFR Part 15.209 AV dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
4.9488	70.98	Pk	27.8	-49.51	49.27	-18.93	30.34	74	-24.73	54	-23.66	44	100	H
7.4262	74.1	Pk	30.8	-46.52	58.38	-18.93	39.45	74	-15.62	54	-14.55	76	187	H
7.4233	72.65	Pk	30.8	-46.45	57	-18.93	38.07	74	-17	54	-15.93	80	251	V
9.8979	67.16	Pk	36.4	-48.25	55.31	-18.93	36.38	74	-18.69	54	-17.62	216	101	H
9.9016	67.27	Pk	36.4	-48.17	55.5	-18.93	36.57	74	-18.5	54	-17.43	148	241	V
Pk - Peak detector														

10. SETUP PHOTOS

RADIATED RF MEASUREMENT SETUP



1GHz - 25GHz



1GHz – 25GHz closeup

END OF REPORT