



RIVALE WASH

NOISE MEASUREMENTS

AYRTON

1 Test instructions

This test was conducted in the semi-anechoic room of Guangzhou Quality Supervision and Testing Institute, with indoor ambient noise less than 10dB (A).

The test was carried out in accordance with the requirements of Article 9.4.1 of GB/T 6882-2016.

The stage light is placed on the standard test bench of the semi-anechoic room and connected to the power supply of 220V~/50Hz.

The indoor ambient temperature is 25 °C, the relative humidity is 63%, and the air pressure is 101.6kPa. When the stage light is in the set normal working state, the test microphone is 1m away from the outlet of the measured luminaire in four horizontal directions to detect its sound pressure level.

During the test, there is no additional vibration of the ground and surrounding structures.

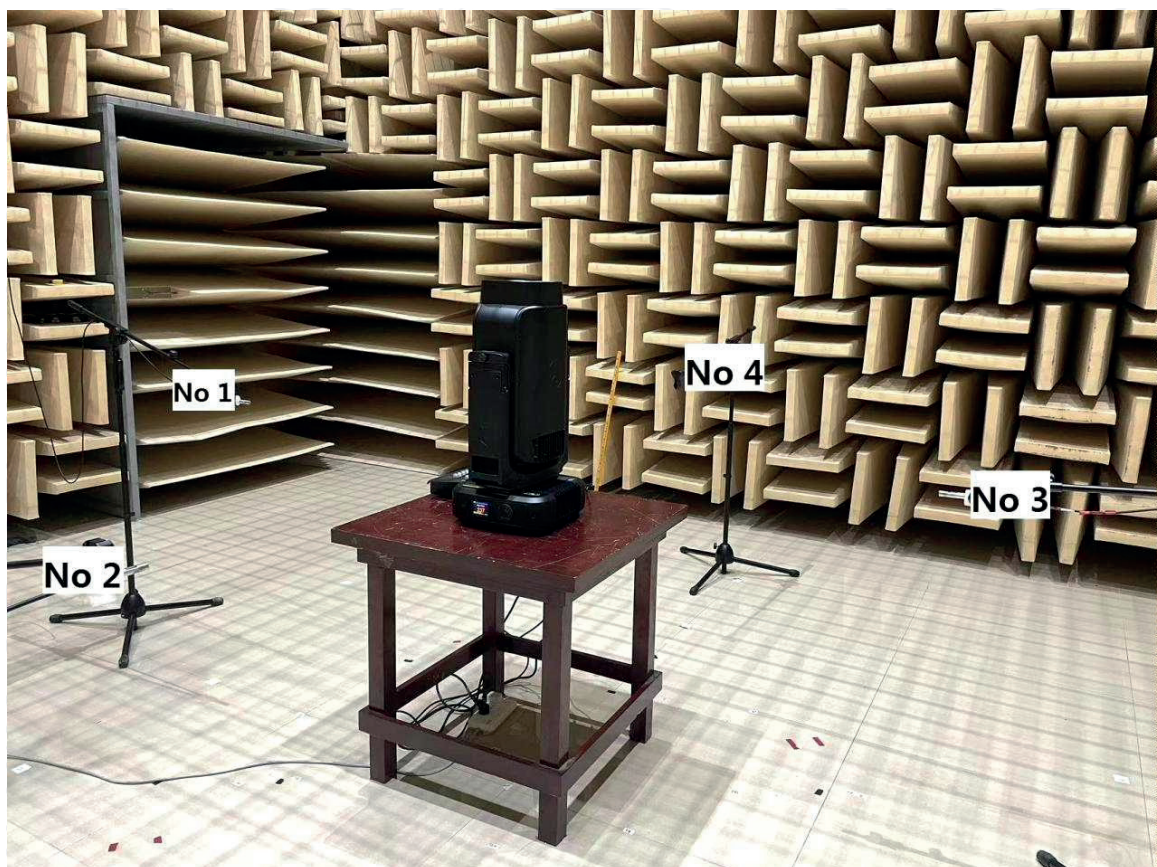


Figure 1 Test setup



Figure 2 Sample serial number information

2 Noise Detection Results of Stage Luminaires (The Auto mode)

Frequency (Hz)	Sound Pressure Level in Auto Mode (dB)							
	Static				Dynamic			
	Input power: 562w				Input power: 613w			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
50	23.1	24.4	25.1	21.3	23.3	24.3	26.1	21.5
63	15.3	15.1	14.9	15.0	19.1	23.0	17.5	20.2
80	16.0	14.9	15.0	15.6	27.1	32.2	26.1	28.3
100	19.3	18.6	17.4	18.1	32.1	30.6	30.9	30.5
125	17.1	14.0	15.8	14.1	29.2	29.1	28.1	27.7
160	15.8	14.1	16.3	13.5	28.2	29.1	27.8	28.4
200	20.6	15.5	20.4	16.1	33.8	36.5	32.2	33.6
250	27.1	24.0	27.6	22.8	34.4	37.2	32.9	33.9
315	21.7	33.1	21.6	31.3	35.1	37.8	36.4	35.5
400	21.3	19.1	20.8	19.0	34.1	34.3	34.7	33.9
500	24.8	24.7	27.6	27.1	37.9	39.2	39.3	38.5
630	23.2	26.3	22.1	27.5	33.2	33.1	32.3	33.0
800	22.4	24.2	22.0	25.3	31.0	34.4	31.3	35.0
1000	20.8	27.3	20.3	28.1	28.6	29.9	28.0	29.9
1250	24.7	28.2	24.3	29.3	29.6	31.1	32.4	30.4
1600	22.3	24.7	22.3	25.4	28.2	28.0	26.4	28.0
2000	20.2	21.0	19.7	20.6	25.8	25.6	25.7	25.9
2500	16.3	18.2	16.0	17.6	22.9	23.1	21.5	22.5
3150	19.9	20.5	19.4	20.2	22.6	23.3	20.8	22.2
4000	12.4	11.9	13.5	12.0	18.9	19.6	20.4	19.5
5000	9.7	10.4	9.2	9.6	15.6	15.5	14.2	16.2
6300	8.5	9.9	8.6	9.5	11.5	11.8	10.7	11.4
8000	9.1	8.8	8.7	8.4	10.1	10.4	9.7	9.7
10000	9.0	8.6	8.3	8.8	9.9	9.6	9.9	10.3
12500	8.2	8.1	8.1	7.7	8.6	8.8	8.8	9.0
16000	14.3	13.3	14.4	13.2	14.3	15.4	16.7	15.1
20000	34.9	33.6	35.1	33.6	33.4	35.5	37.2	34.9

Frequency (Hz)	Sound Pressure Level in Auto Mode (dB)							
	Static				Dynamic			
	Input power: 562w				Input power: 613w			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
Leq	39.7	40.1	39.0	40.1	45.3	46.7	51.7	45.6
A-weighted dB (A)	32.9	35.4	33.0	35.9	40.5	41.9	41.2	41.4
Average sound pressure level dB (A)	34.3				41.3			

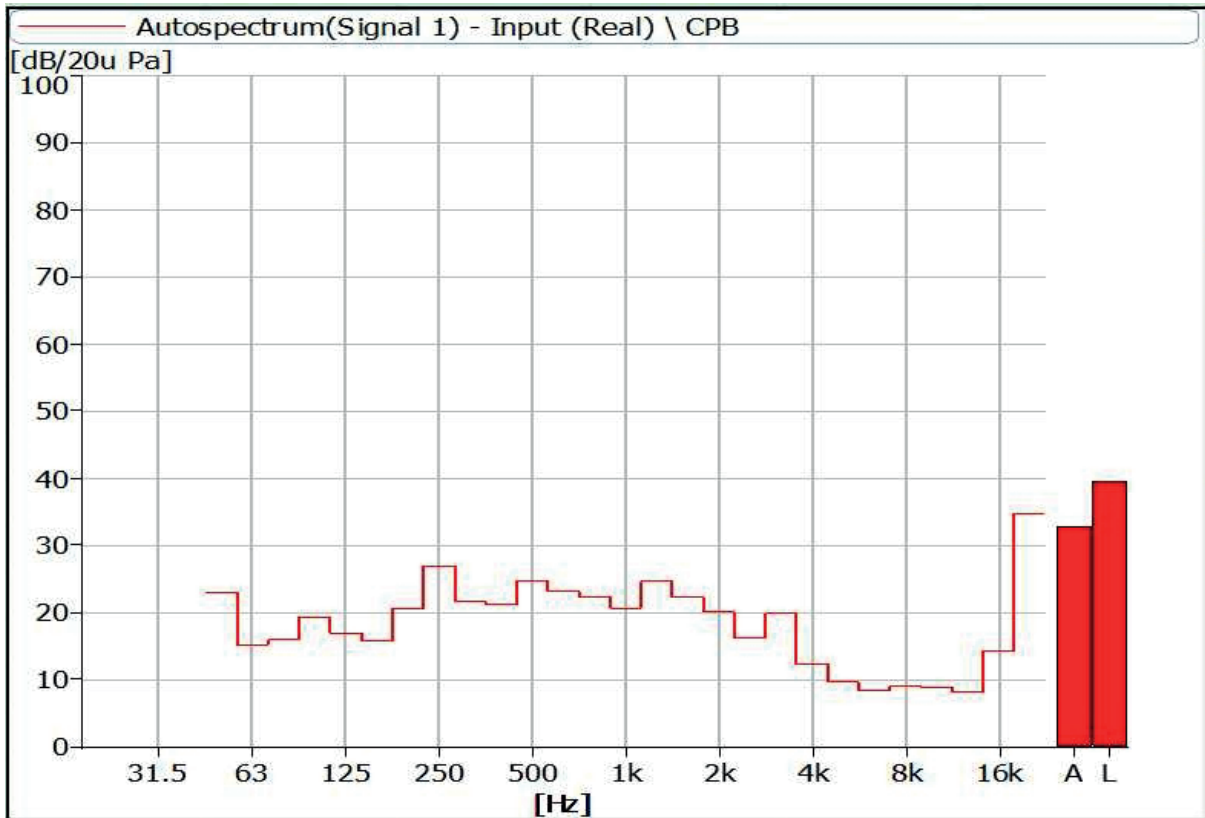


Figure 3 Noise Spectrum of Stage Luminaires (The Auto mode, Static, No 1)

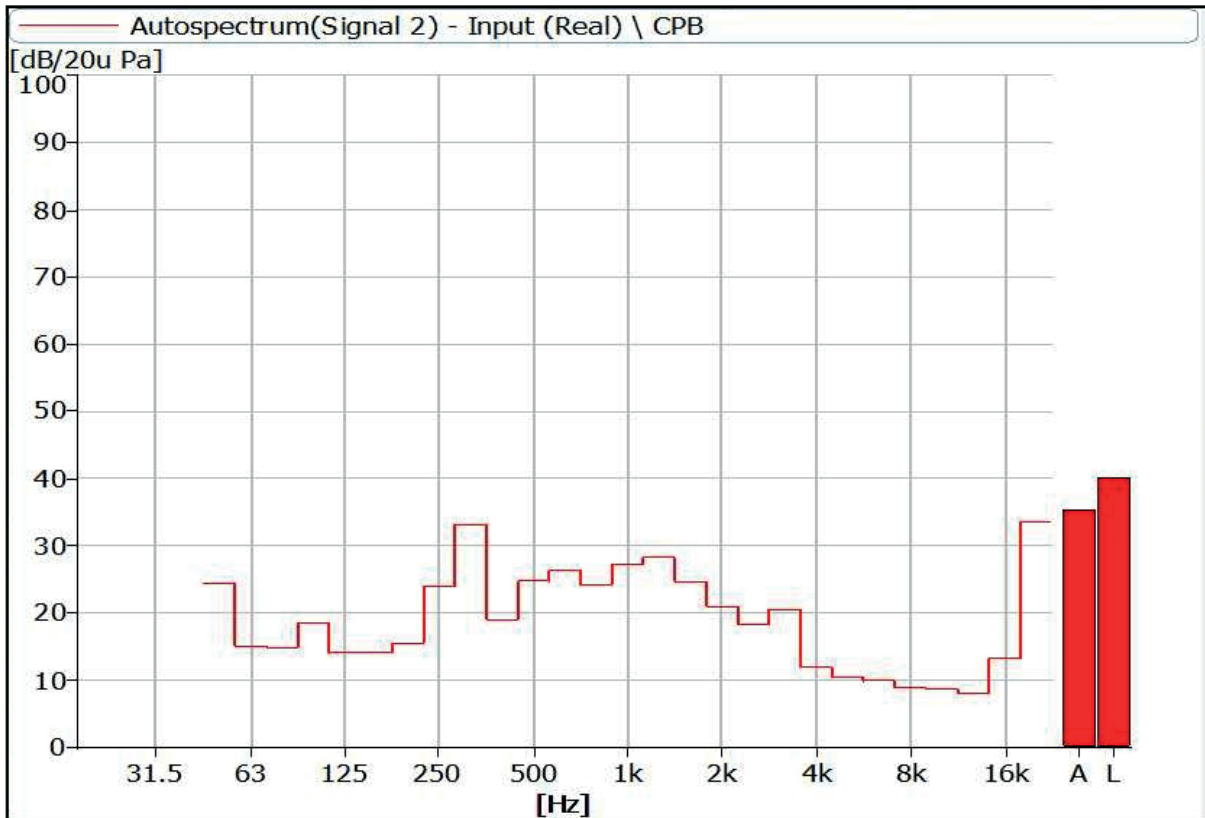


Figure 4 Noise Spectrum of Stage Luminaires (The Auto mode, Static, No 2)

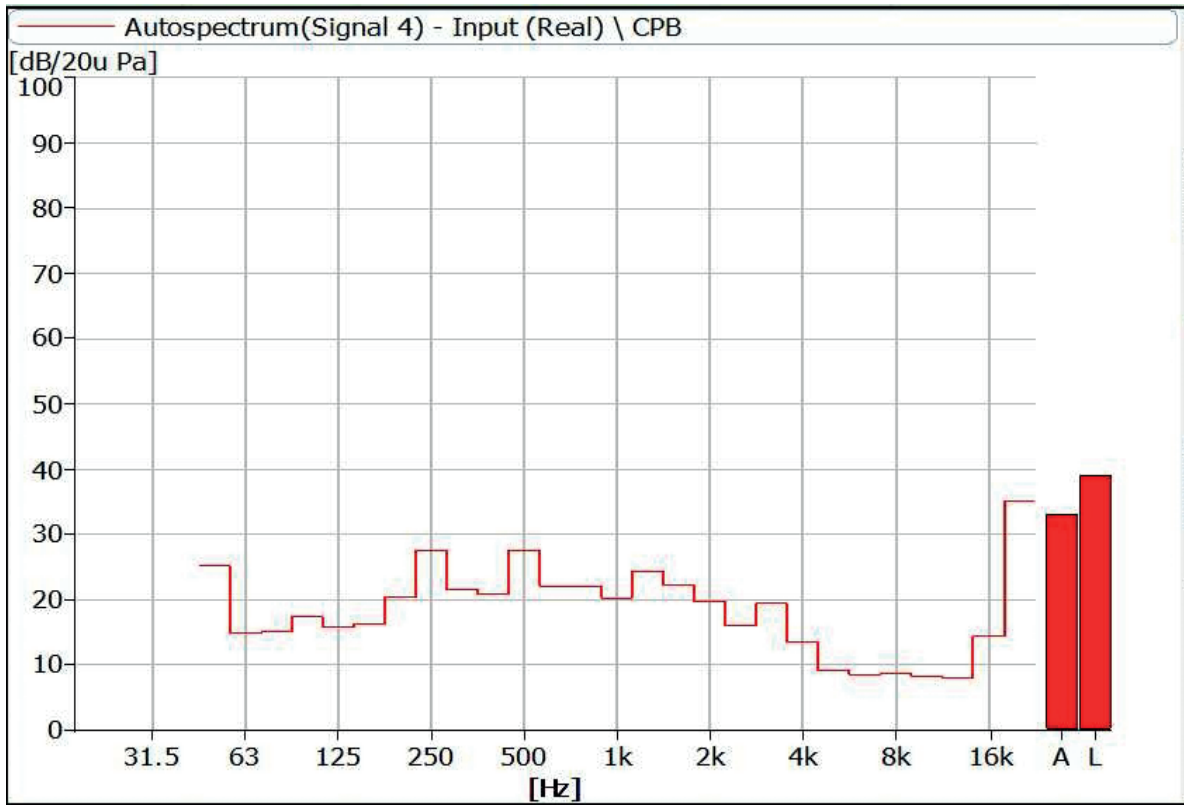


Figure 5 Noise Spectrum of Stage Luminaires (The Auto mode, Static, No 3)

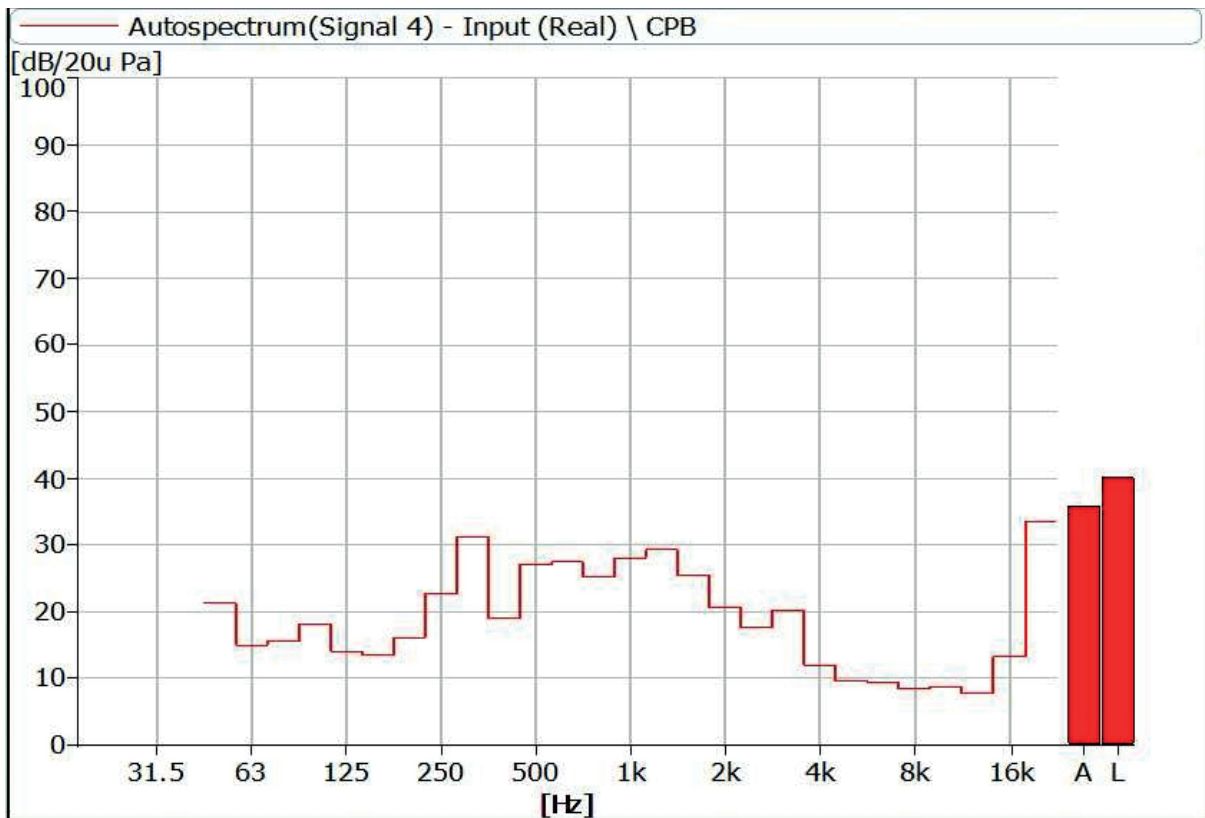


Figure 6 Noise Spectrum of Stage Luminaires (The Auto mode, Static, No 4)

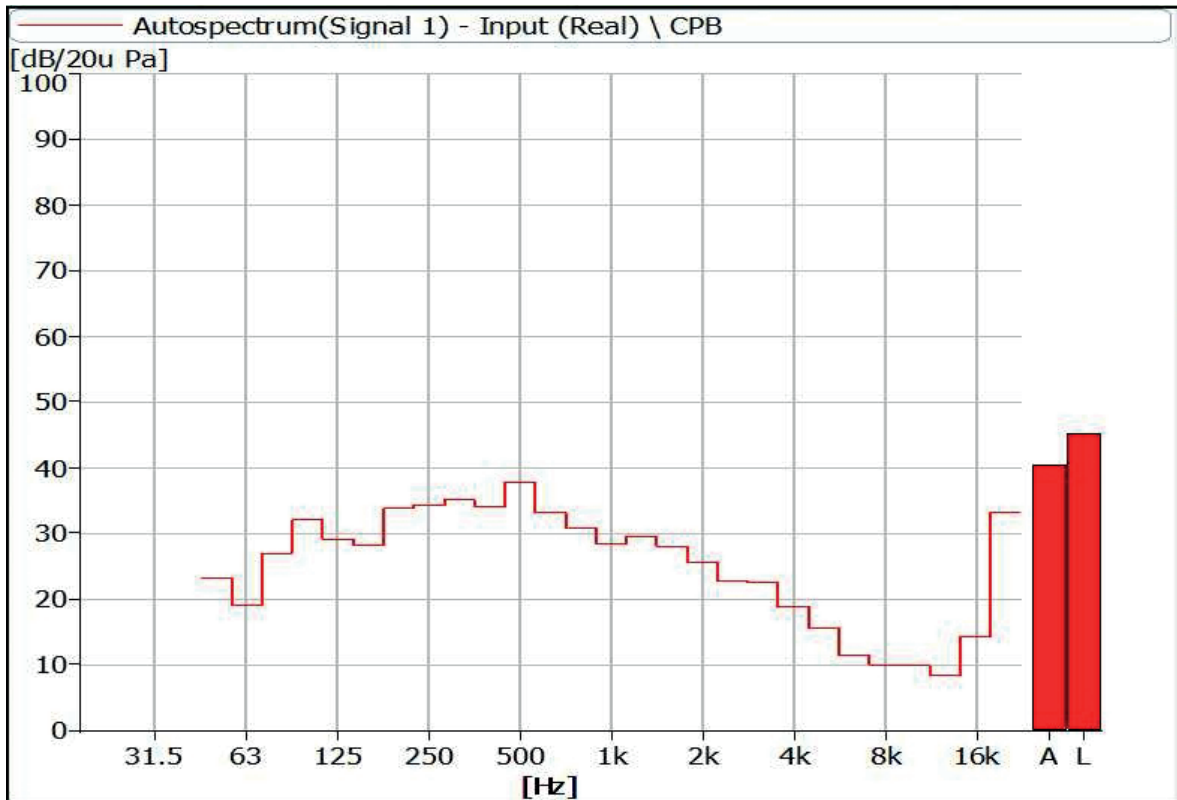


Figure 7 Noise Spectrum of Stage Luminaires (The Auto mode, Dynamic, No 1)

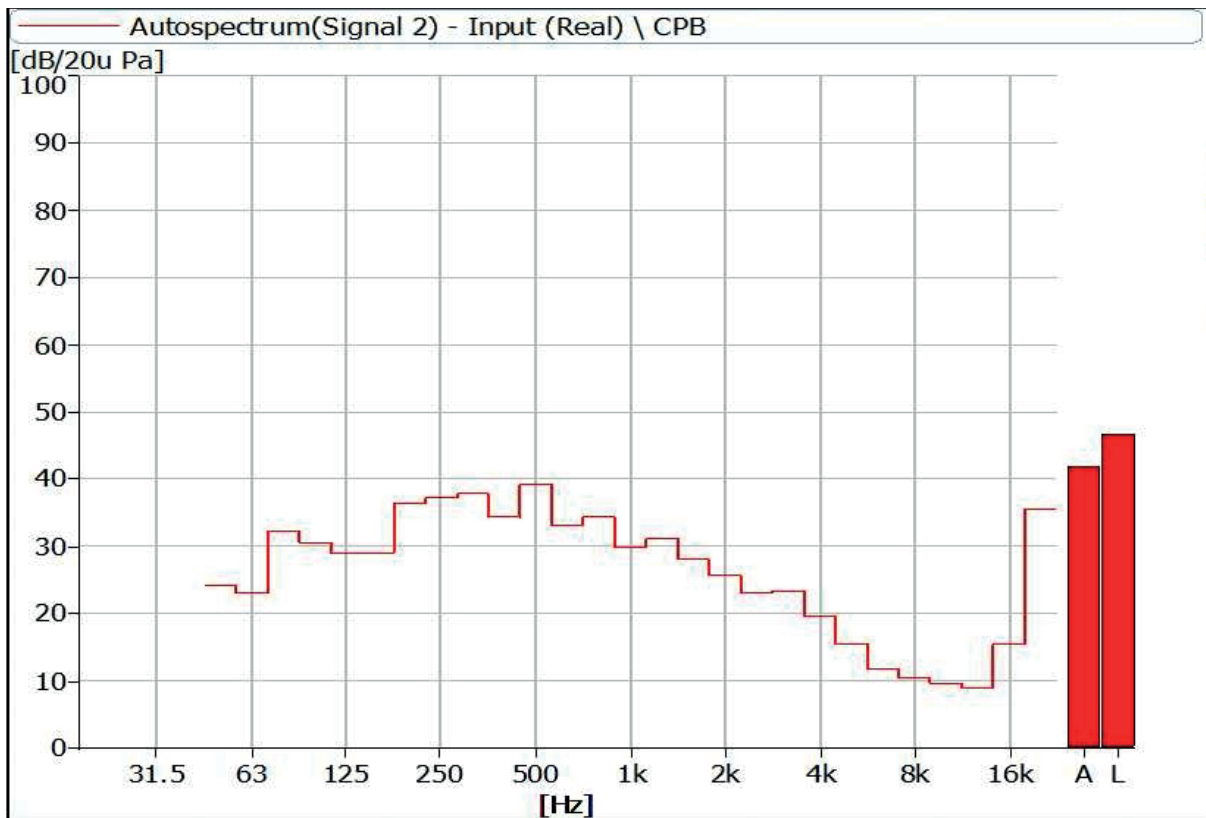


Figure 8 Noise Spectrum of Stage Luminaires (The Auto mode, Dynamic, No 2)

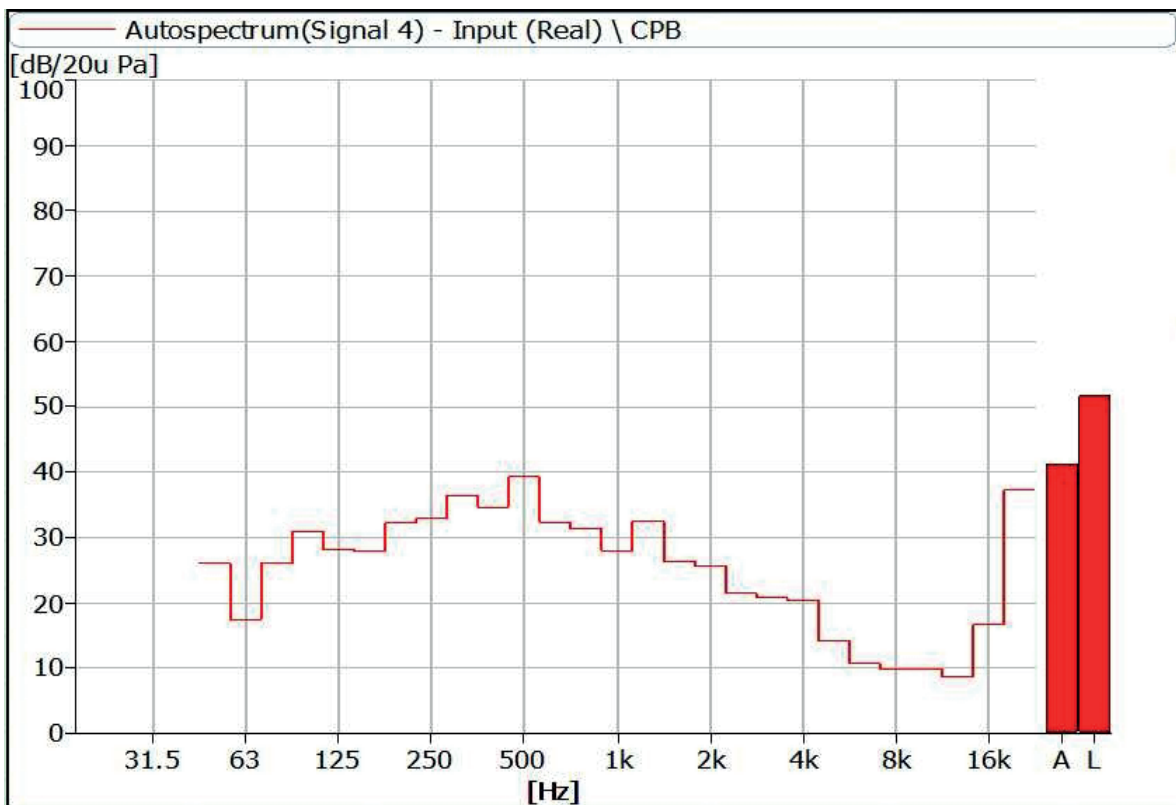


Figure 9 Noise Spectrum of Stage Luminaires (The Auto mode, Dynamic, No 3)

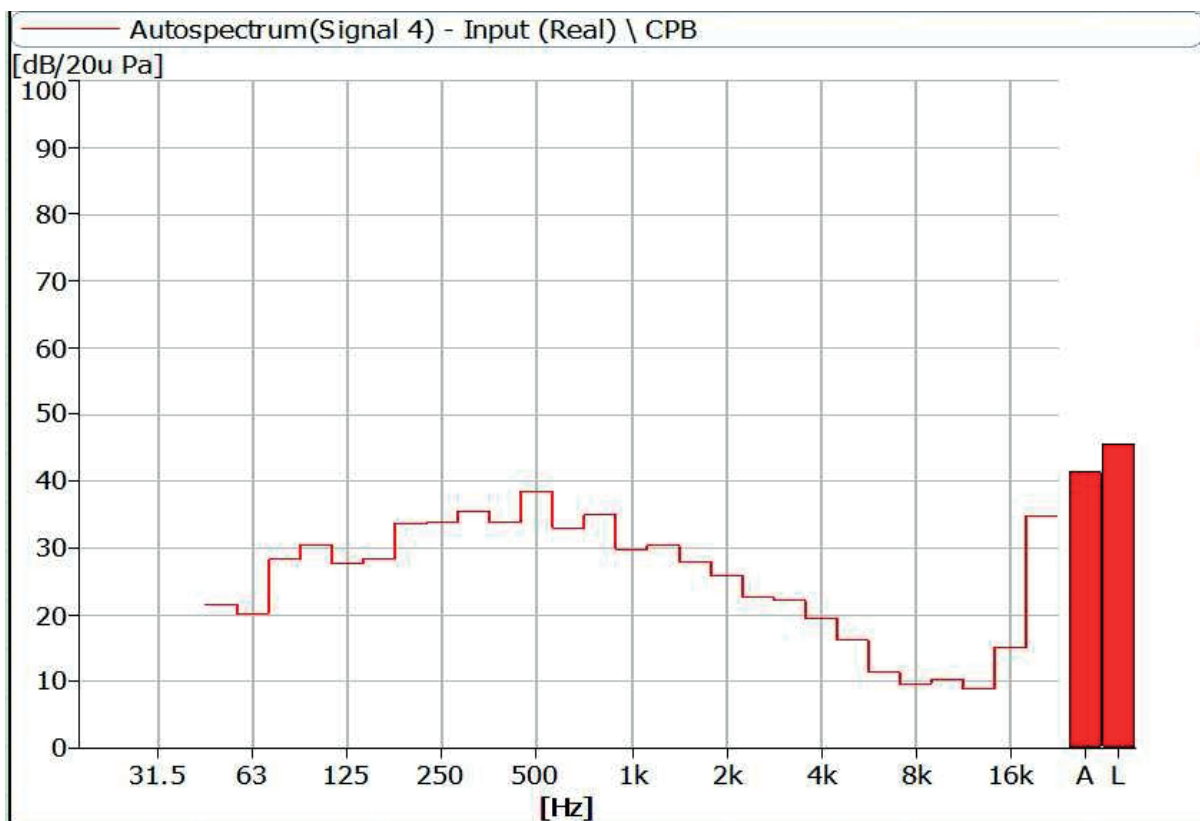


Figure 10 Noise Spectrum of Stage Luminaires (The Auto mode, Dynamic, No 4)

3 Noise Detection Results of Stage Luminaires (The Stage mode)

Frequency (Hz)	Sound Pressure Level in Auto Mode (dB)							
	Static				Dynamic			
	Input power: 563w				Input power: 620w			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
50	22.8	23.7	25.0	20.4	22.6	24.3	24.7	21.1
63	16.8	14.3	16.1	15.3	17.3	19.1	18.6	16.9
80	20.8	22.4	19.7	20.6	25.2	28.7	26.8	24.7
100	23.3	25.0	21.4	22.3	30.4	28.9	31.2	28.4
125	18.9	15.6	19.0	16.6	28.1	27.6	27.1	26.3
160	19.1	13.3	18.6	14.0	27.1	27.7	27.5	27.0
200	22.7	16.2	22.2	16.9	32.6	35.0	32.3	32.1
250	28.1	21.2	28.1	21.2	33.2	35.3	33.8	32.4
315	30.8	26.0	29.6	25.5	34.6	36.5	35.2	34.9
400	24.7	21.1	24.2	20.4	32.9	32.9	33.7	32.8
500	27.6	25.4	29.3	27.2	36.1	37.3	38.5	37.6
630	30.4	28.3	28.4	29.5	32.8	32.2	32.4	32.2
800	28.8	26.4	28.4	27.7	30.7	33.3	31.0	33.8
1000	27.7	30.1	27.4	30.8	29.5	31.1	28.8	30.0
1250	31.2	30.1	29.1	31.1	31.2	33.4	29.8	31.9
1600	29.0	27.1	29.3	27.6	29.2	30.3	27.4	29.3
2000	26.1	24.0	26.7	22.8	26.1	26.3	25.8	25.3
2500	23.0	20.8	23.1	20.2	23.6	23.8	22.6	21.9
3150	22.6	21.3	22.7	20.8	24.0	24.4	21.7	22.1
4000	18.3	14.0	19.8	14.3	20.0	19.2	20.7	18.9
5000	15.2	12.2	14.3	11.2	17.2	15.6	15.5	15.5
6300	12.3	11.4	13.0	10.7	13.2	13.1	11.5	11.3
8000	11.0	9.4	11.3	9.0	10.7	10.6	10.8	10.1
10000	9.0	8.7	10.0	8.7	9.3	9.4	9.6	9.6
12500	8.7	8.3	9.1	7.8	8.4	8.9	8.8	8.8
16000	17.6	15.2	11.9	13.7	14.0	16.2	17.1	15.0
20000	38.8	36.0	31.1	34.3	33.3	36.8	37.9	34.6

Frequency (Hz)	Sound Pressure Level in Auto Mode (dB)							
	Static				Dynamic			
	Input power: 563w				Input power: 620w			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
Leq	42.7	40.7	40.4	40.6	44.3	45.8	45.4	44.7
A-weighted dB(A)	38.6	37.1	37.6	37.6	40.3	41.7	40.7	41.0
Average sound pressure level dB(A)	37.7				40.9			



Figure 11 Noise Spectrum of Stage Luminaires (The Stage mode, Static, No 1)

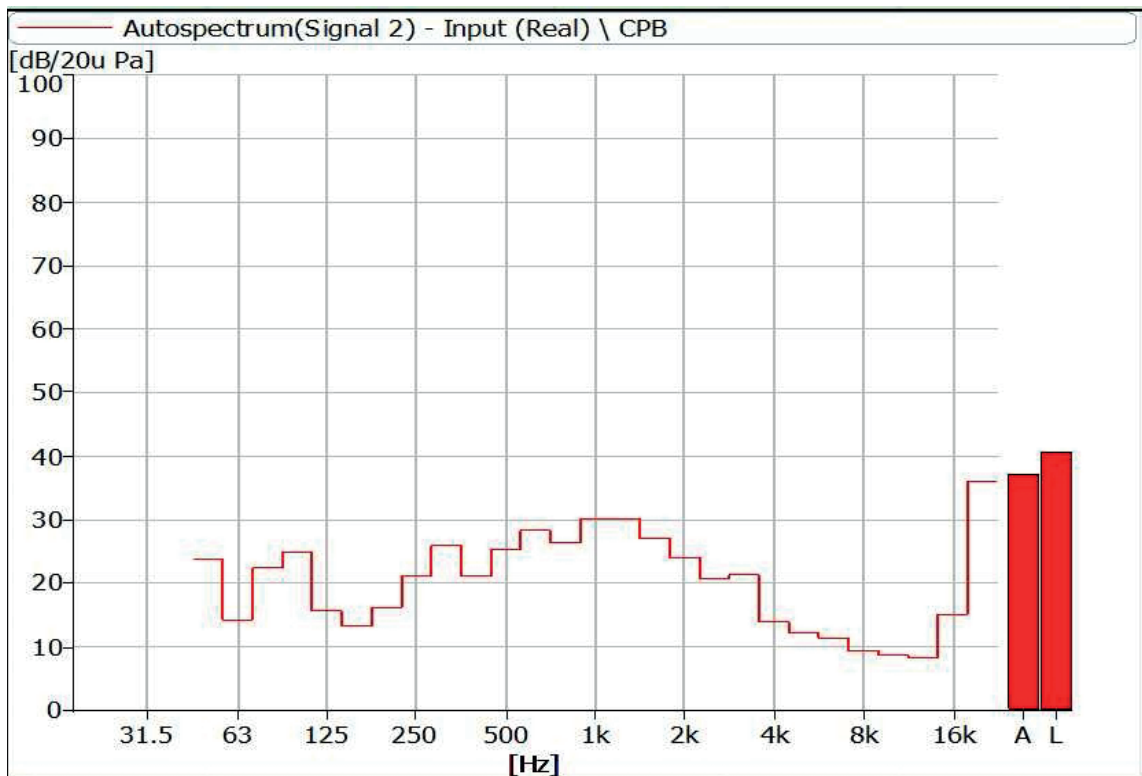


Figure 12 Noise Spectrum of Stage Luminaires (The Stage mode, Static, No 2)

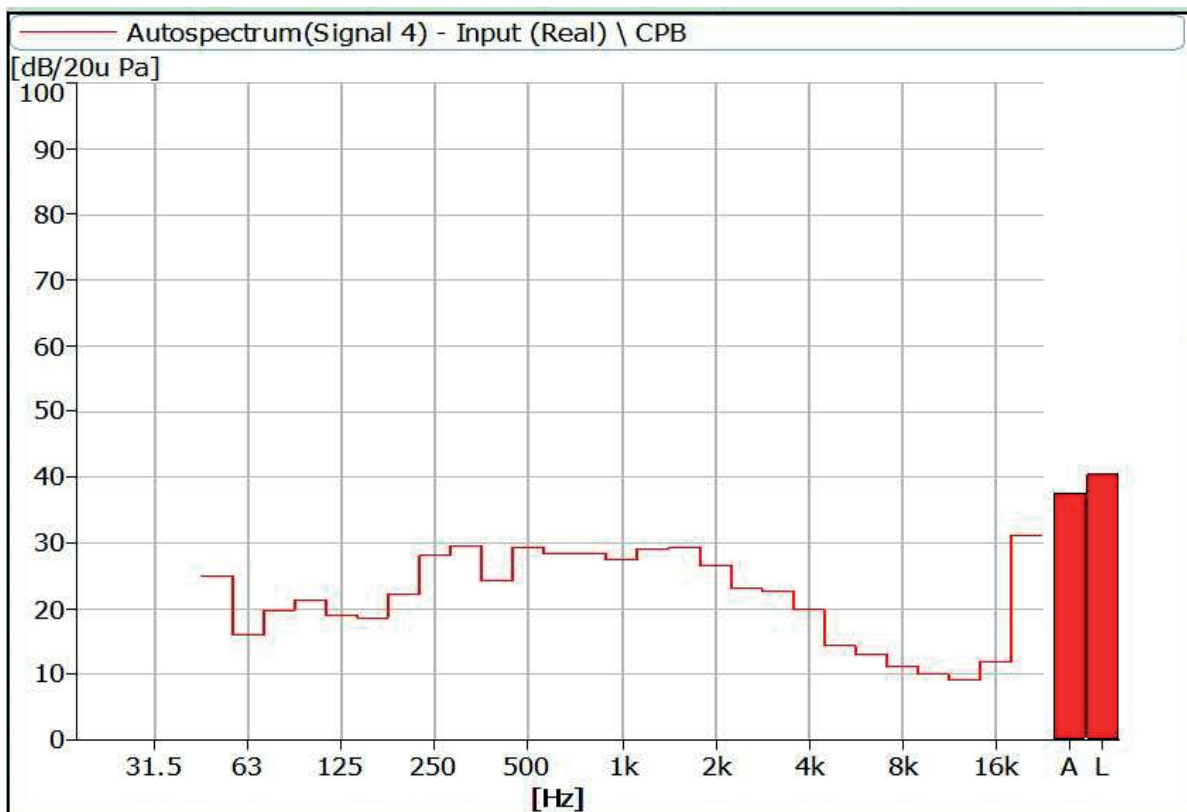


Figure 13 Noise Spectrum of Stage Luminaires (The Stage mode, Static, No 3)

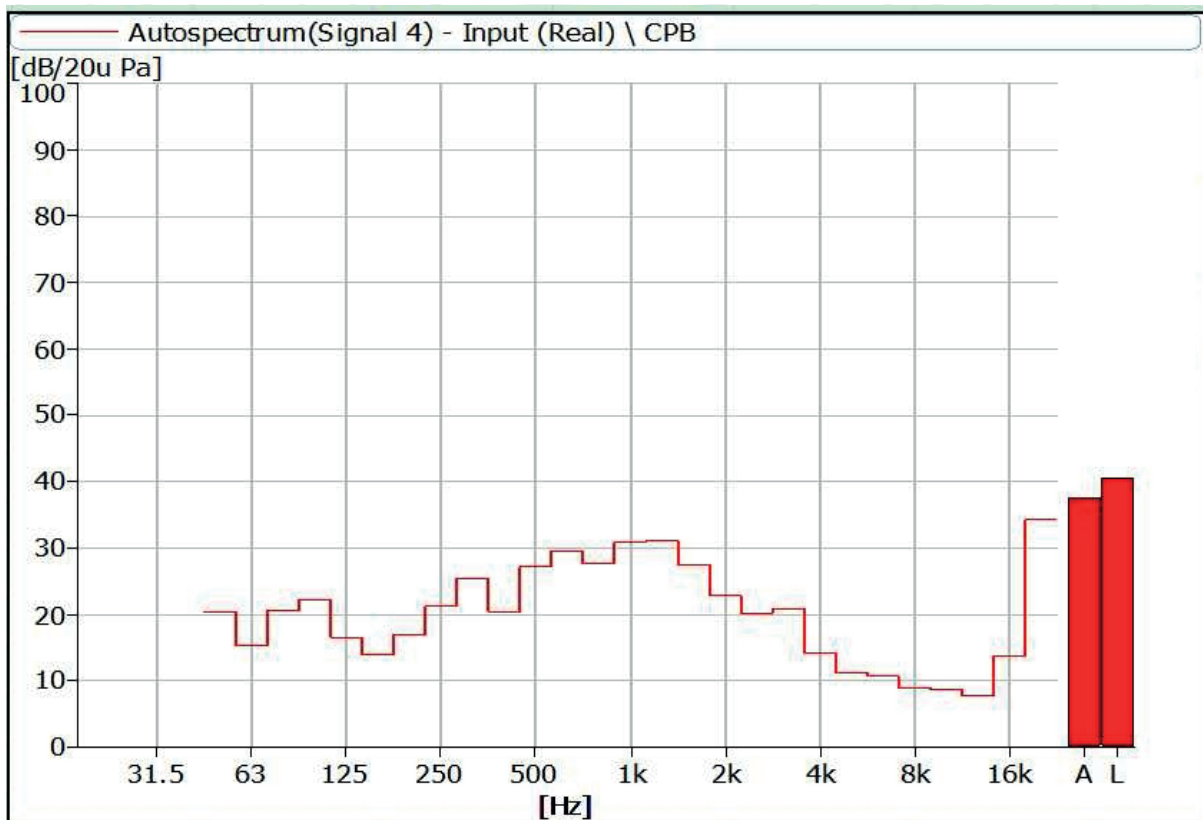


Figure 14 Noise Spectrum of Stage Luminaires (The Stage mode, Static, No 4)

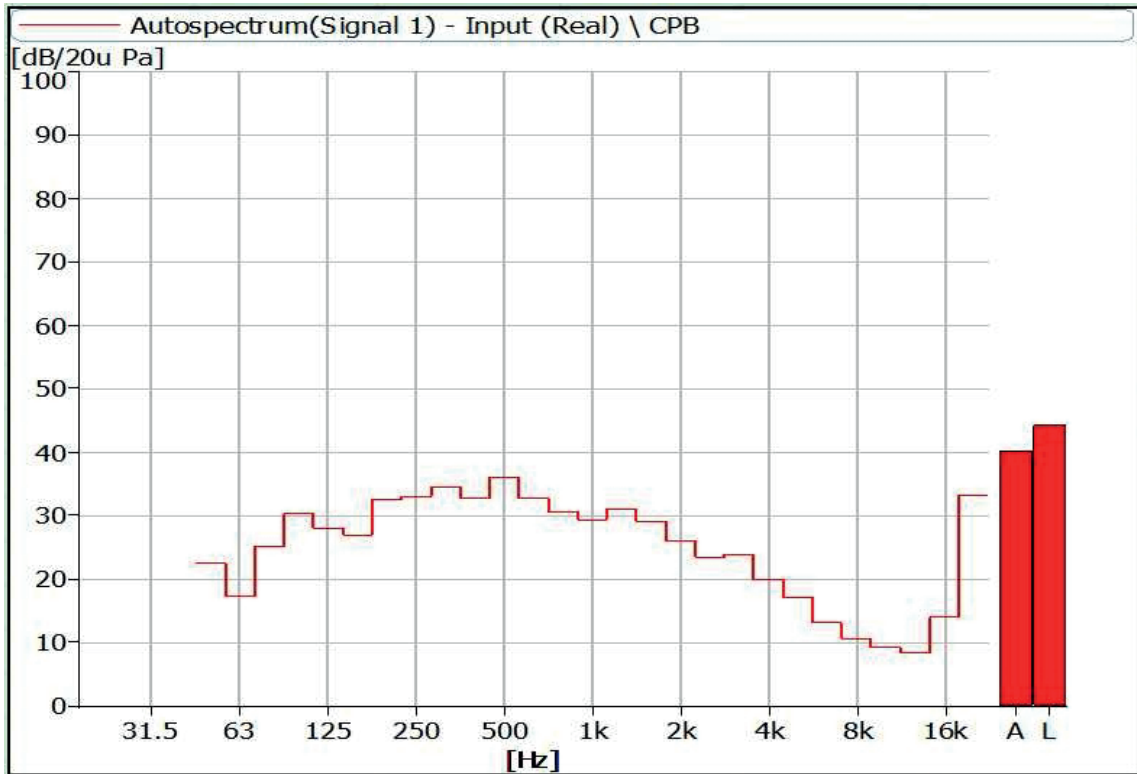


Figure 15 Noise Spectrum of Stage Luminaires (The Stage mode, Dynamic, No 1)

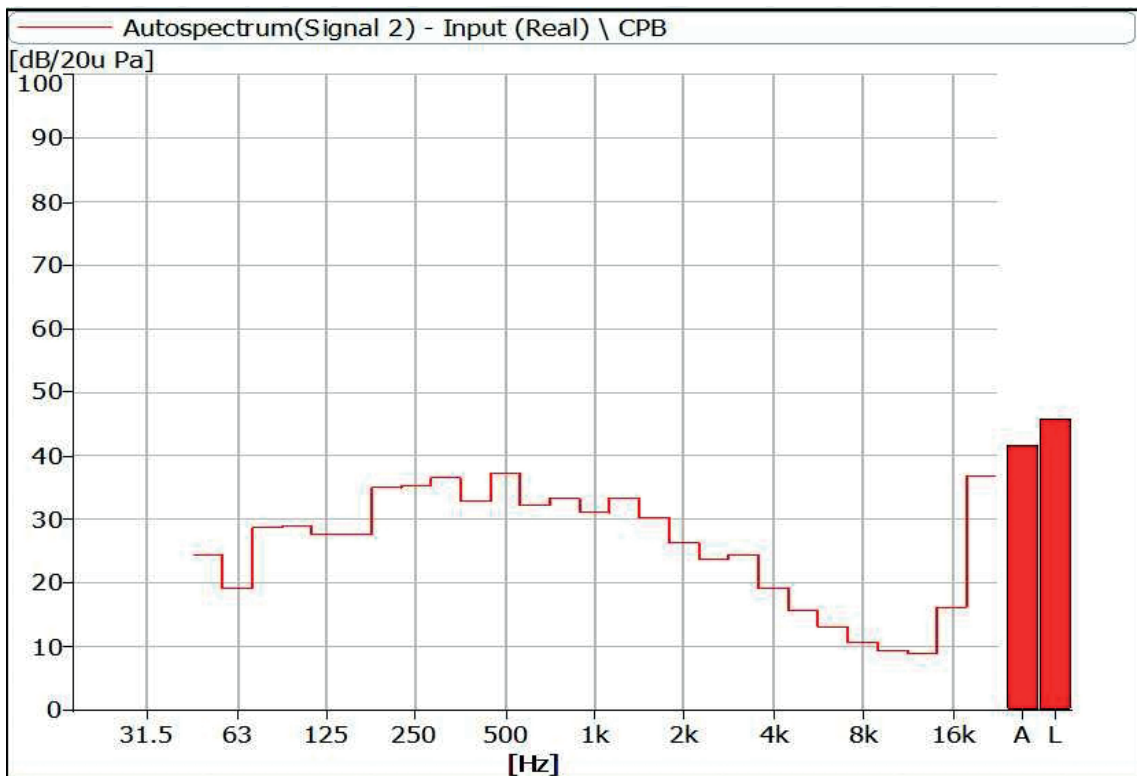


Figure 16 Noise Spectrum of Stage Luminaires (The Stage mode, Dynamic, No 2)

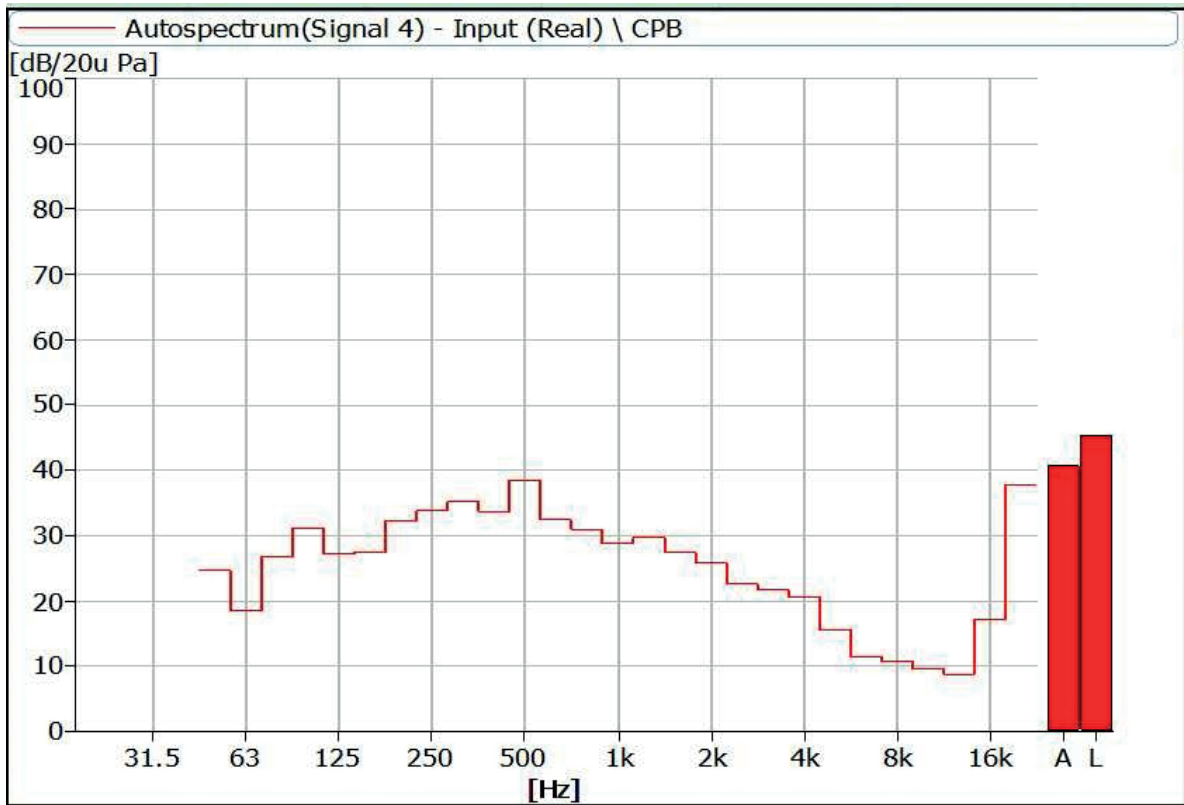


Figure 17 Noise Spectrum of Stage Luminaires (The Stage mode, Dynamic, No 3)

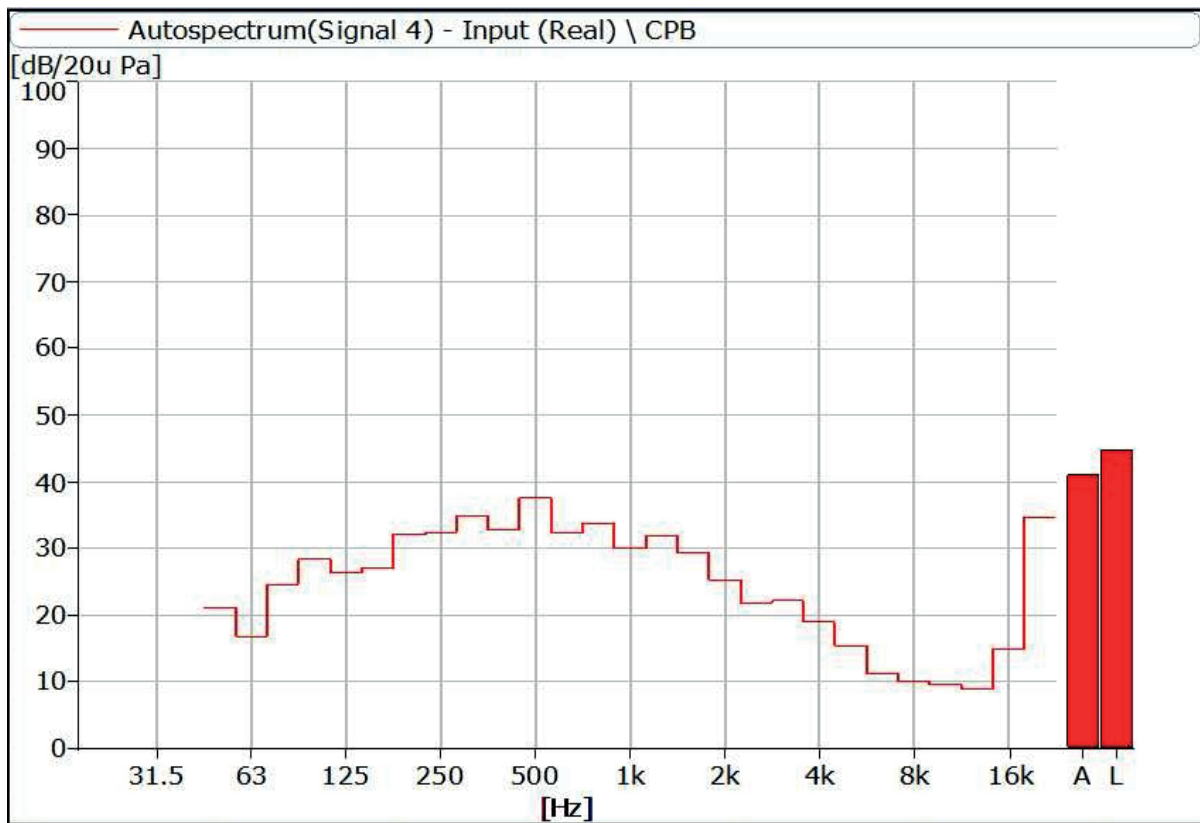


Figure 18 Noise Spectrum of Stage Luminaires (The Stage mode, Dynamic, No 4)

4 Noise Detection Results of Stage Luminaires (The Silence mode)

Frequency (Hz)	Sound Pressure Level in Auto Mode (dB)							
	Static				Dynamic			
	Input Power: 380 W				Input Power: 428 W			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
50	22.7	23.8	25.0	20.6	23.7	23.7	25.4	20.8
63	14.6	13.2	13.7	13.9	17.8	21.8	17.8	18.4
80	13.7	13.0	13.5	14.7	25.6	29.7	26.6	26.4
100	17.6	18.0	14.7	17.0	32.5	30.3	30.6	30.4
125	14.0	12.2	12.9	14.4	28.7	28.4	27.7	27.1
160	12.3	11.1	12.7	12.0	28.4	28.9	27.0	28.9
200	12.9	10.4	12.2	10.8	33.9	36.3	32.2	33.8
250	13.8	13.6	14.3	12.3	34.0	37.5	33.5	33.9
315	17.9	12.6	14.6	10.1	35.1	37.8	36.2	35.2
400	17.5	12.5	15.0	14.7	33.8	34.7	34.9	34.1
500	20.3	21.0	21.3	20.6	38.2	39.3	39.6	38.4
630	14.1	13.9	12.9	13.5	33.0	33.1	32.9	32.3
800	12.6	10.8	11.1	11.1	30.5	34.5	30.9	35.2
1000	11.6	11.7	11.3	11.6	27.0	28.7	27.4	29.0
1250	21.9	18.9	18.4	20.5	27.7	29.3	29.3	29.0
1600	15.3	14.7	15.4	17.1	25.2	25.1	25.8	25.2
2000	12.7	9.8	11.7	12.4	24.1	23.7	25.2	23.9
2500	10.9	9.3	11.5	9.2	21.1	22.3	21.2	21.5
3150	13.5	12.6	13.2	12.1	21.0	22.6	19.5	21.2
4000	8.4	8.1	8.6	7.8	17.5	17.4	18.9	18.0
5000	8.6	9.1	8.4	8.0	14.1	13.6	14.2	14.3
6300	7.8	8.8	8.0	8.2	10.4	10.9	10.7	10.4
8000	8.4	8.5	8.2	8.0	9.4	9.8	9.6	9.6
10000	8.4	8.6	8.1	8.4	11.6	9.2	9.9	10.2
12500	7.8	8.0	7.9	7.6	8.5	8.6	8.5	8.7
16000	11.2	9.5	15.3	12.7	14.1	14.8	15.9	14.8
20000	30.5	26.8	36.2	33.0	32.9	34.5	36.1	34.3

Frequency (Hz)	Sound Pressure Level in Auto Mode (dB)							
	Static				Dynamic			
	Input Power: 380 W				Input Power: 428 W			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
Leq	37.2	35.3	38.3	37.4	45.1	46.5	49.3	45.3
A-weighted dB(A)	27.7	26.1	29.2	27.9	40.0	41.6	40.8	41.0
Average sound pressure level dB(A)	27.7				40.8			

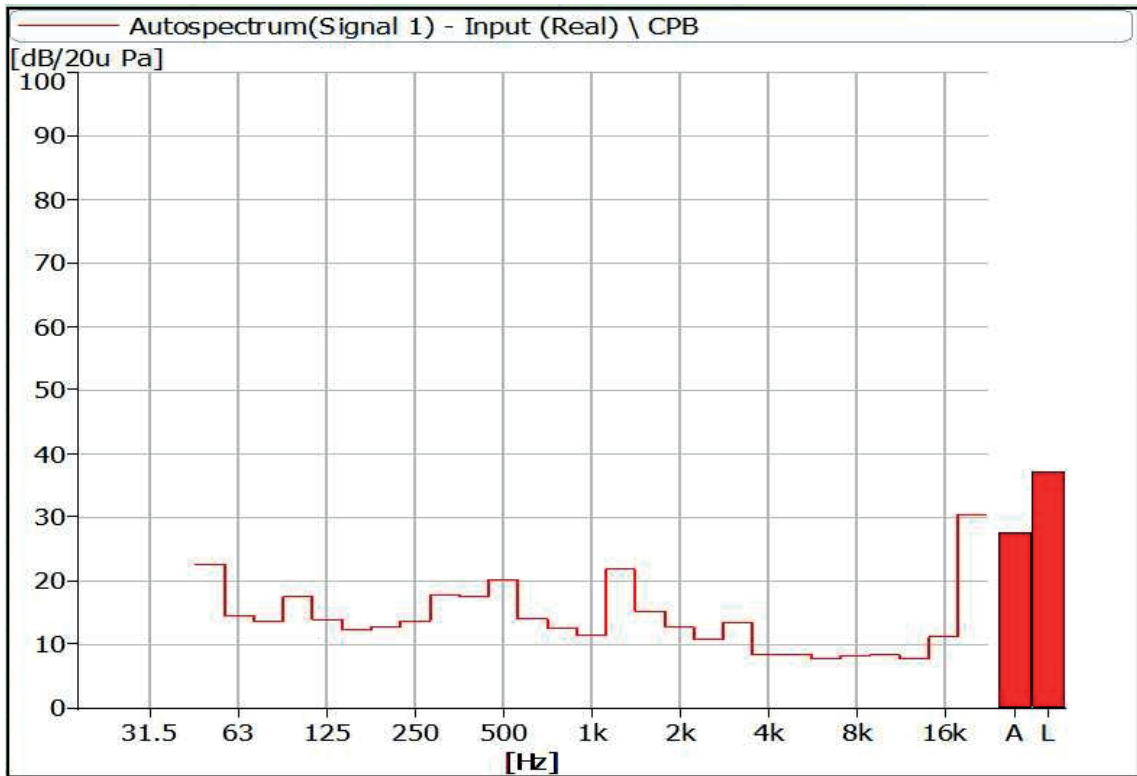


Figure 19 Noise Spectrum of Stage Luminaires (The Silence mode, Static, No 1)

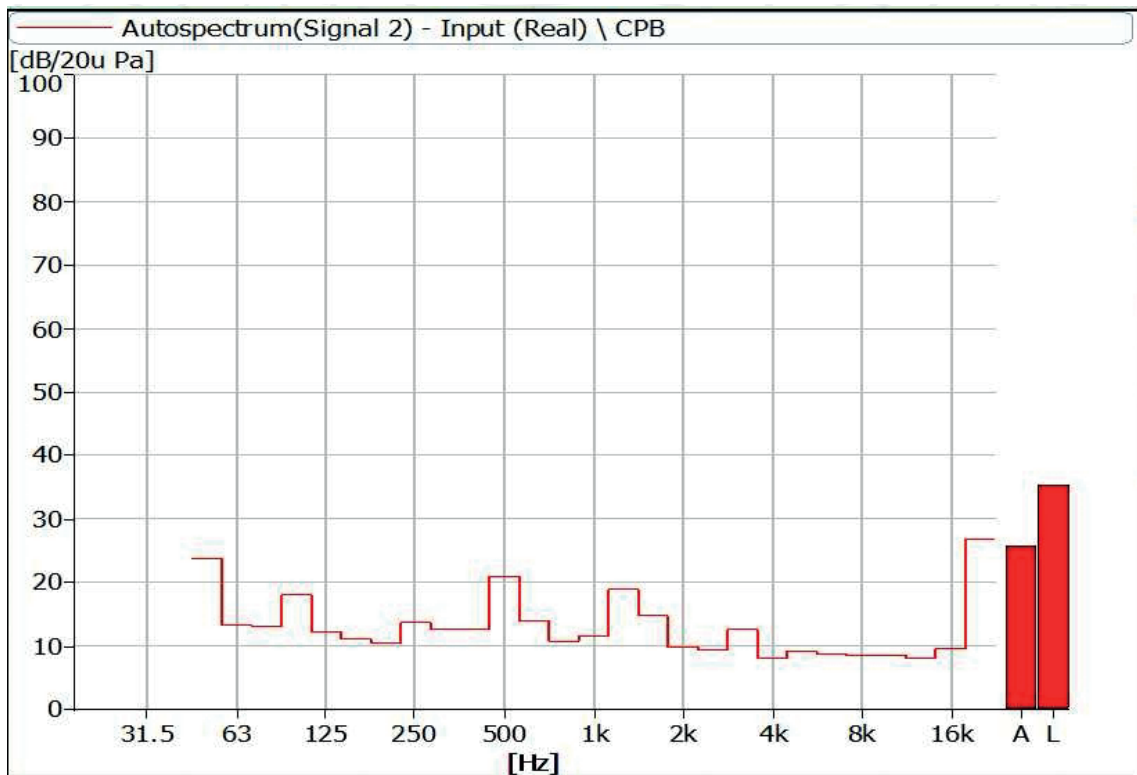


Figure 20 Noise Spectrum of Stage Luminaires (The Silence mode, Static, No 2)

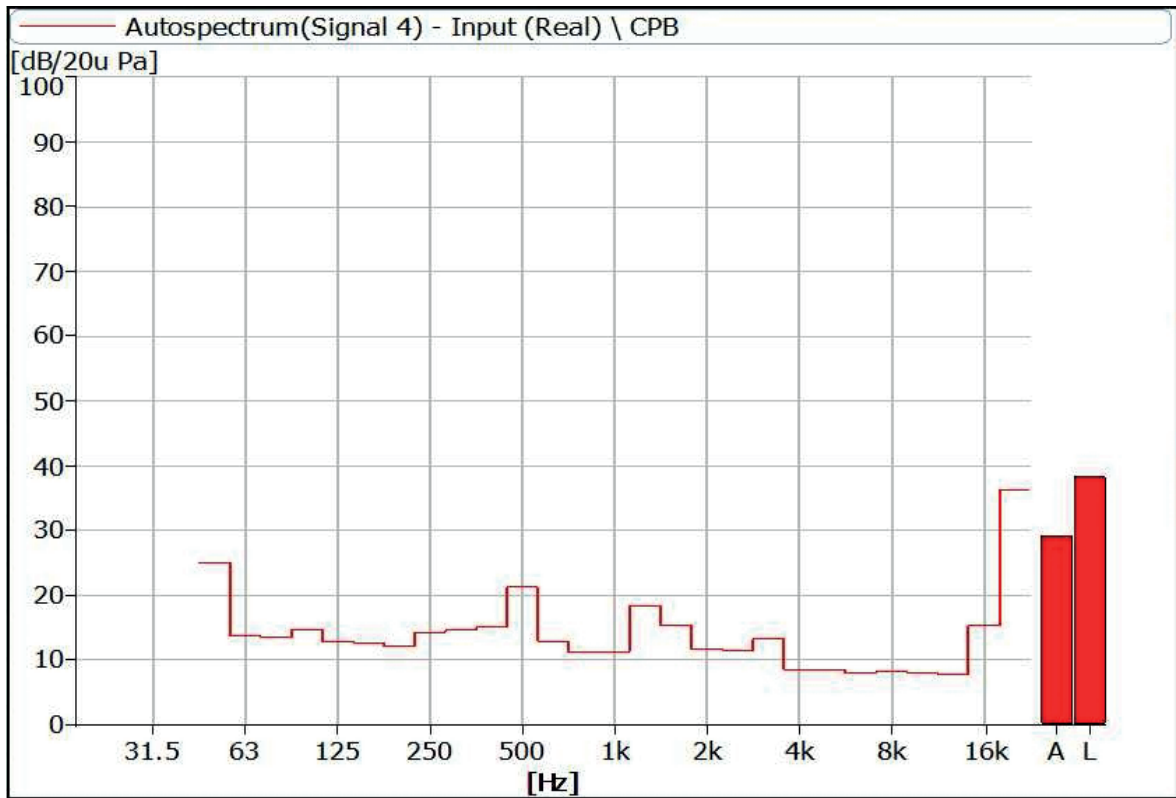


Figure 21 Noise Spectrum of Stage Luminaires (The Silence mode, Static, No 3)

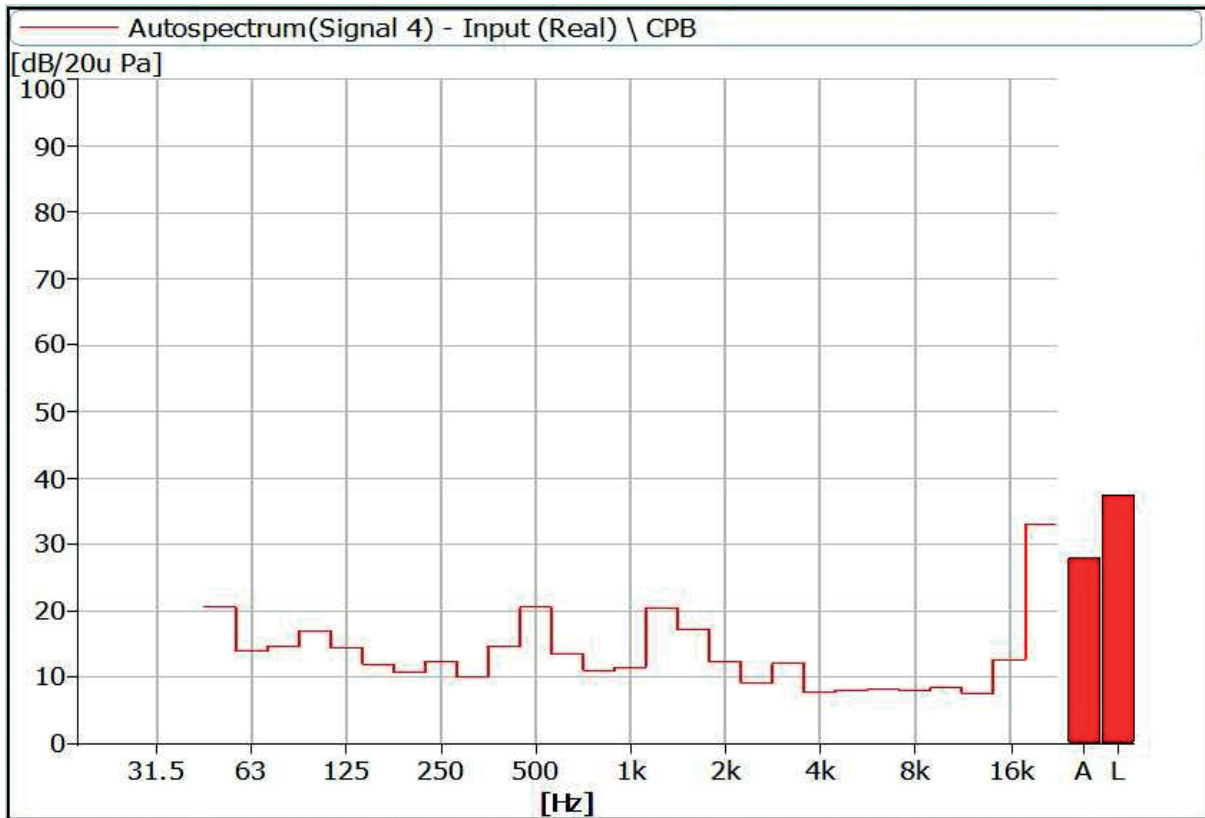


Figure 22 Noise Spectrum of Stage Luminaires (The Silence mode, Static, No 4)

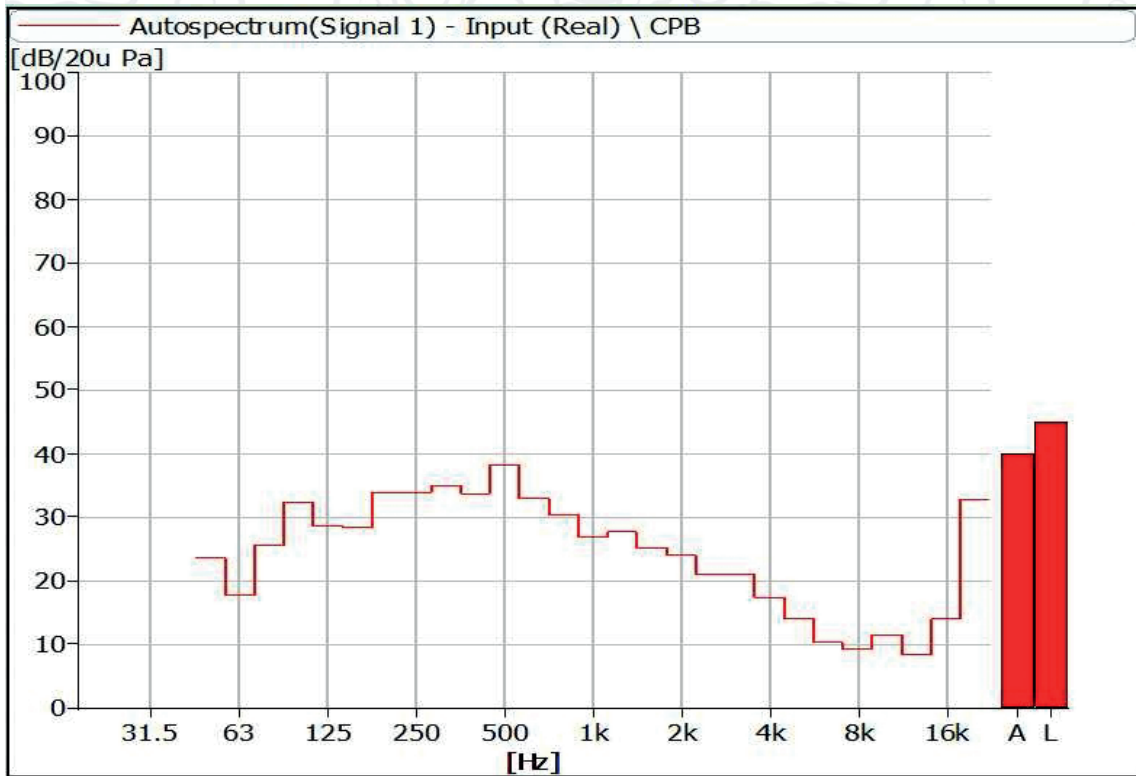


Figure 23 Noise Spectrum of Stage Luminaires (The Silence mode, Dynamic, No 1)

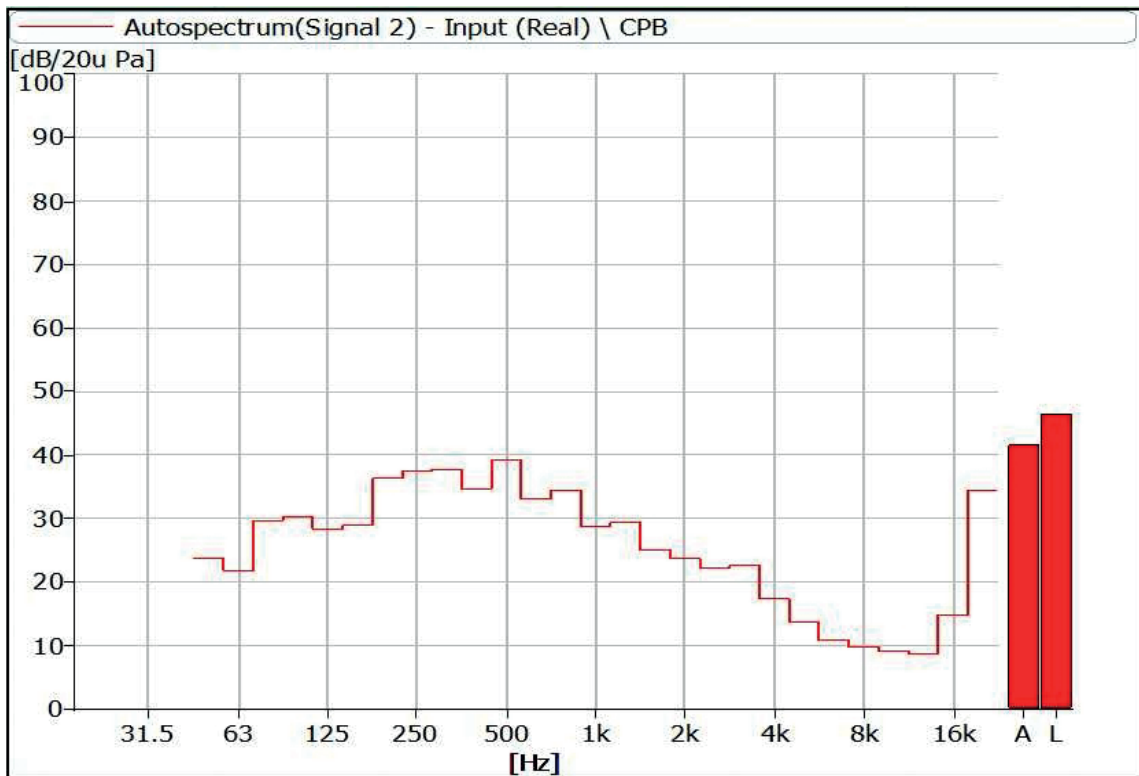


Figure 24 Noise Spectrum of Stage Luminaires (The Silence mode, Dynamic, No 2)

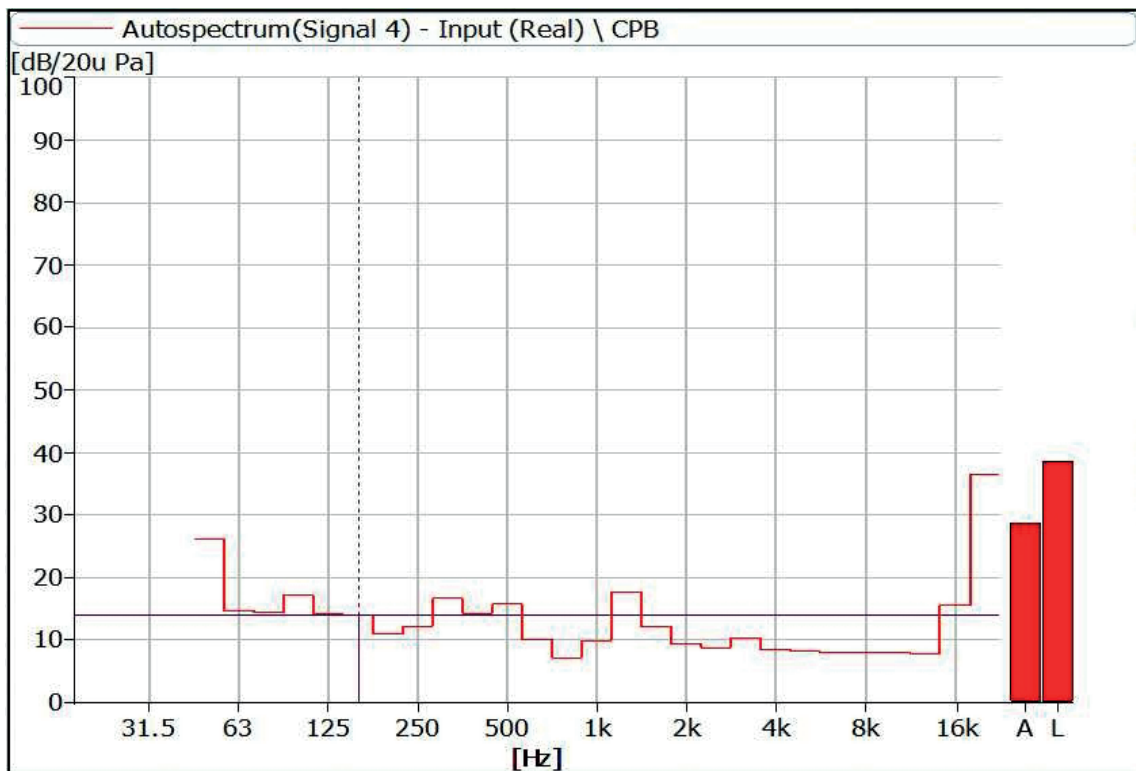


Figure 25 Noise Spectrum of Stage Luminaires (The Silence mode, Dynamic, No 3)

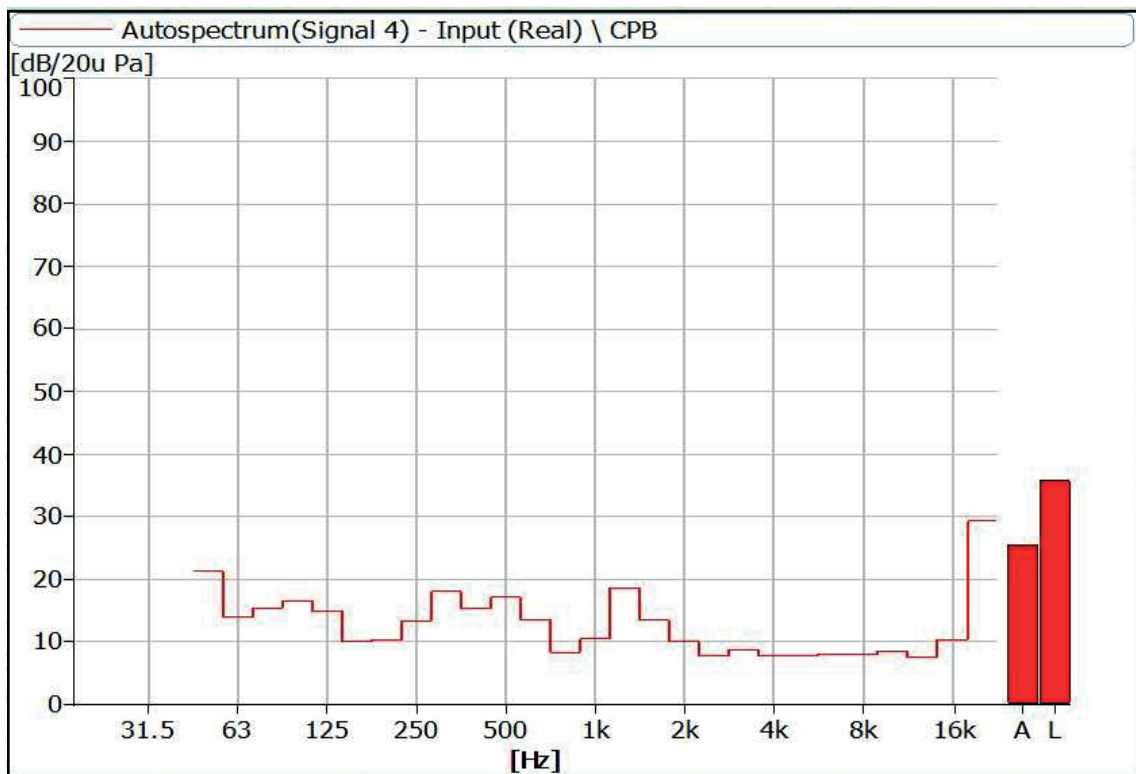


Figure 26 Noise Spectrum of Stage Luminaires (The Silence mode, Dynamic, No 4)

5 Noise Detection Results of Stage Luminaires (The Super Silence mode)

Frequency (Hz)	Sound Pressure Level in Auto Mode (dB)							
	Static				Dynamic			
	Input Power: 359 W				Input Power: 386 W			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
50	23.2	25.0	26.2	21.3	23.8	25.1	25.7	22.0
63	13.5	14.6	14.7	13.9	17.3	21.4	18.0	18.1
80	14.1	14.8	14.3	15.4	26.1	29.8	26.5	25.9
100	18.4	20.3	17.2	16.6	32.7	31.3	32.0	30.9
125	14.4	13.6	14.1	14.9	29.3	29.0	28.9	27.4
160	9.8	14.2	14.0	10.1	28.7	29.1	28.5	29.0
200	9.0	9.7	11.1	10.3	35.7	35.3	35.6	33.9
250	13.8	12.3	12.2	13.4	34.4	36.8	35.6	33.8
315	18.8	15.9	16.7	18.0	36.6	38.6	37.7	35.5
400	18.0	11.9	14.3	15.4	34.3	34.9	35.8	34.8
500	19.8	15.1	15.8	17.1	39.2	40.2	40.3	38.9
630	11.4	10.2	10.1	13.5	33.3	33.5	32.7	33.2
800	7.6	8.2	7.2	8.3	32.0	34.7	32.0	34.4
1000	9.6	8.6	10.0	10.5	28.9	29.1	28.3	29.0
1250	19.6	16.6	17.8	18.7	28.2	28.8	29.2	28.7
1600	11.6	11.8	12.2	13.4	26.2	24.6	25.7	25.2
2000	10.9	8.1	9.3	10.0	24.0	23.0	24.2	22.5
2500	7.9	7.3	8.8	7.7	21.8	21.4	20.7	20.9
3150	9.4	9.6	10.4	8.8	21.4	22.4	18.9	22.2
4000	7.8	8.9	8.4	7.7	18.0	15.7	17.4	17.5
5000	8.2	8.6	8.2	7.9	13.4	13.0	13.2	13.3
6300	8.0	8.9	8.0	8.1	11.1	10.8	10.7	10.6
8000	8.1	8.4	8.0	8.0	9.5	9.8	9.5	9.5
10000	8.2	8.4	8.0	8.5	10.4	9.1	9.5	10.2
12500	7.6	7.9	7.8	7.5	8.3	8.6	8.4	8.9
16000	9.7	10.3	15.6	10.4	14.9	15.2	16.1	15.9
20000	27.7	28.8	36.5	29.3	34.1	35.4	36.1	35.6

Frequency (Hz)	Sound Pressure Level in Auto Mode (dB)							
	Static				Dynamic			
	Input Power: 359 W				Input Power: 386 W			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
Leq	36.4	36.0	38.6	35.7	45.9	46.7	46.4	45.6
A-weighted dB(A)	25.6	24.4	28.7	25.5	40.9	41.9	41.5	41.1
Average sound pressure level dB(A)	26.1				41.3			



Figure 27 Noise Spectrum of Stage Luminaires (The Super Silence mode, Static, No 1)

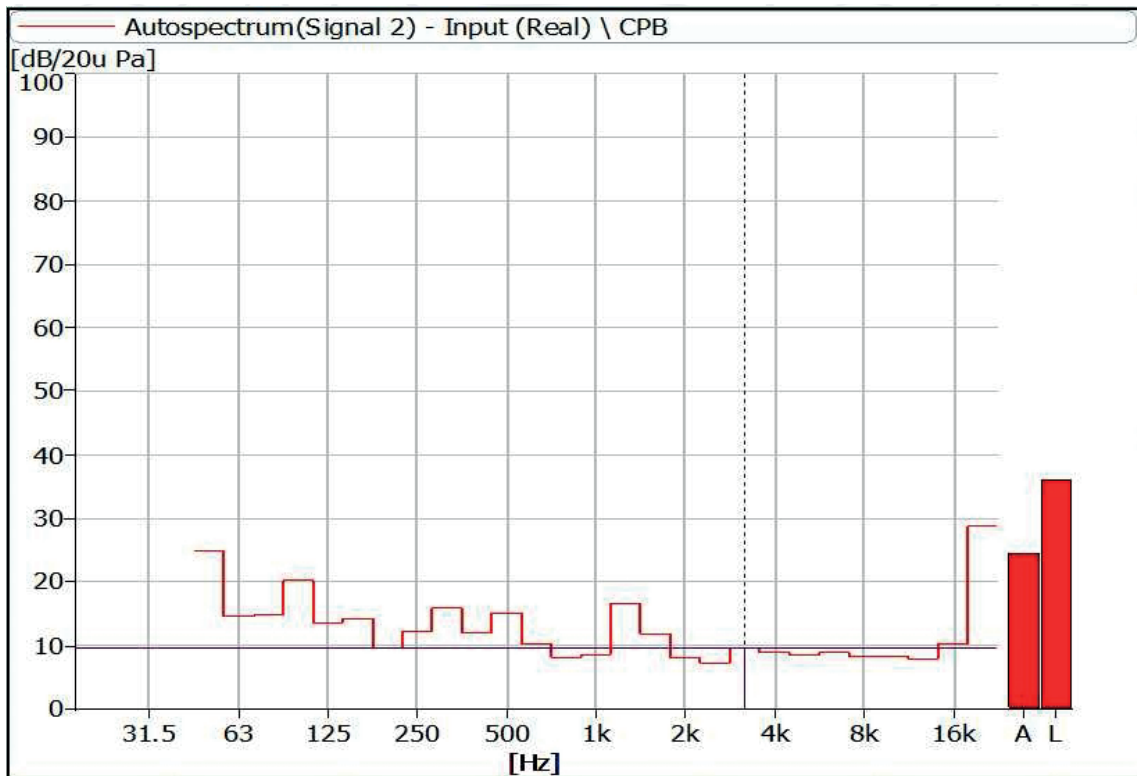


Figure 28 Noise Spectrum of Stage Luminaires (The Super Silence mode, Static, No 2)

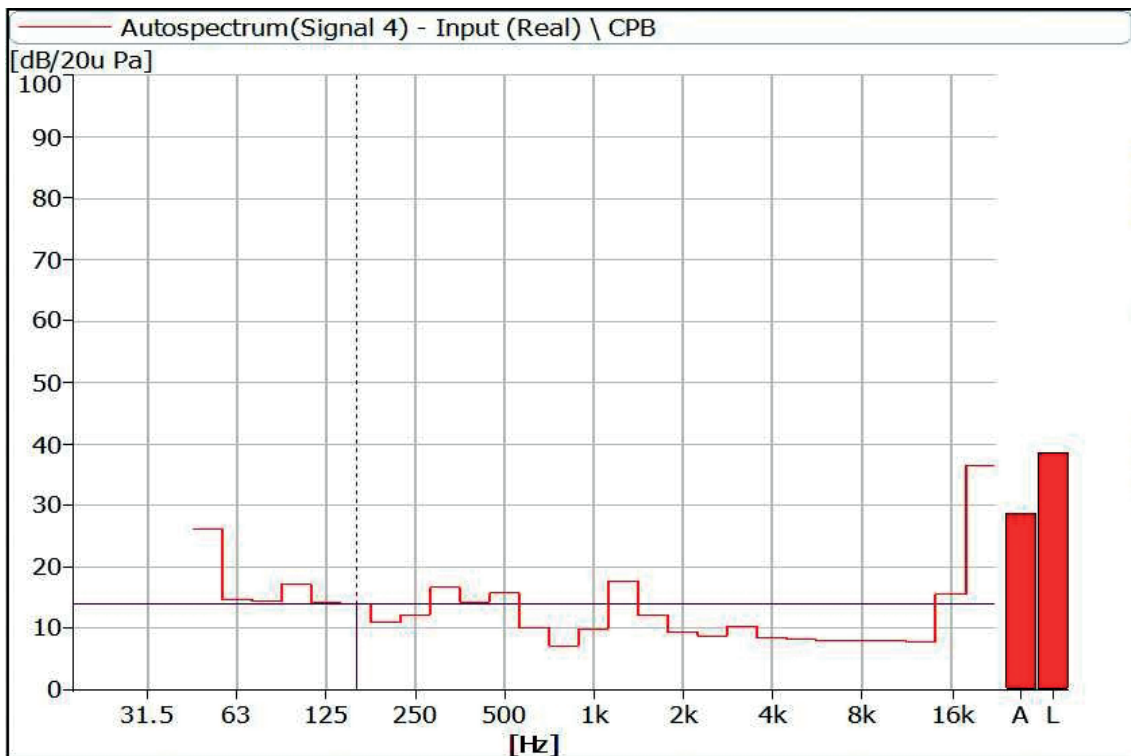


Figure 29 Noise Spectrum of Stage Luminaires (The Super Silence mode, Static, No 3)

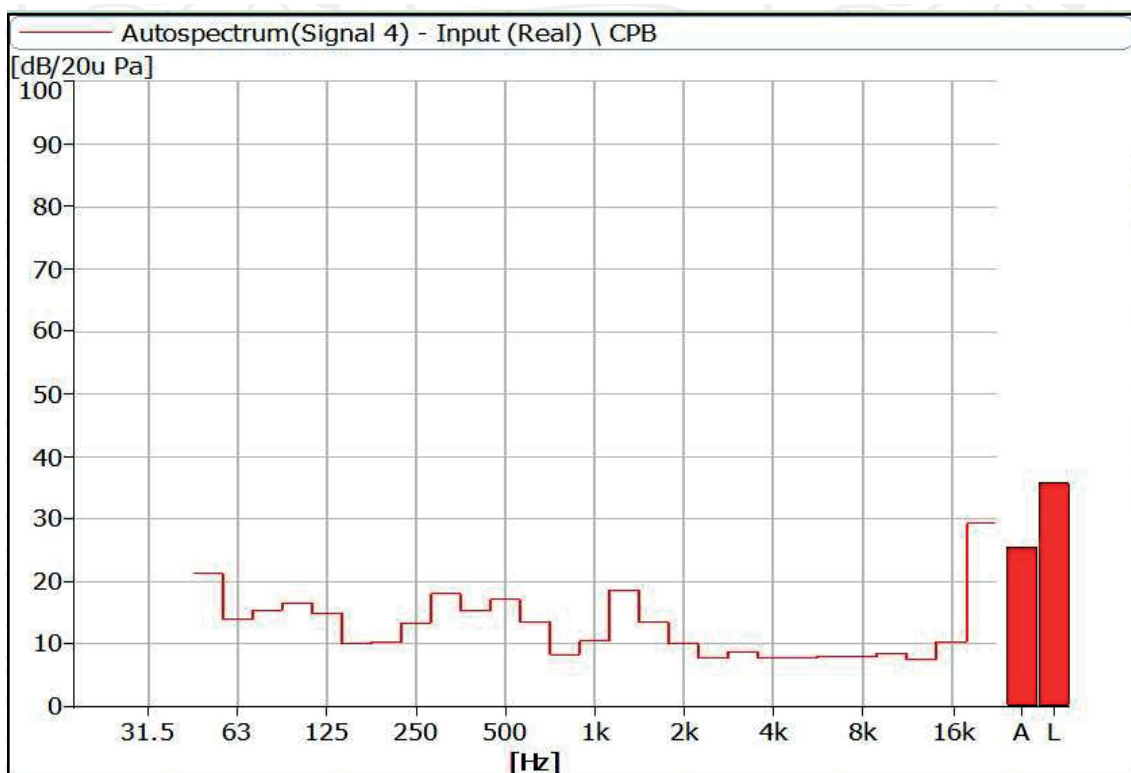


Figure 30 Noise Spectrum of Stage Luminaires (The Super Silence mode, Static, No 4)

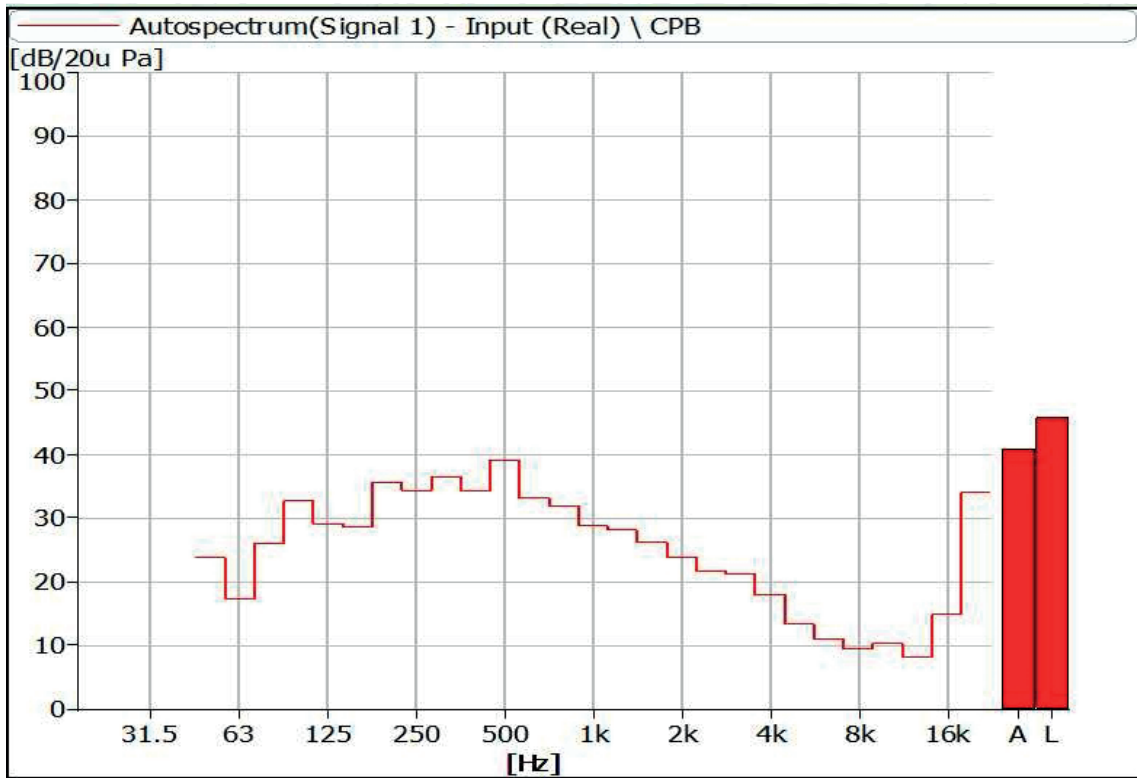


Figure 31 Noise Spectrum of Stage Luminaires (The Super Silence mode, Dynamic, No 1)

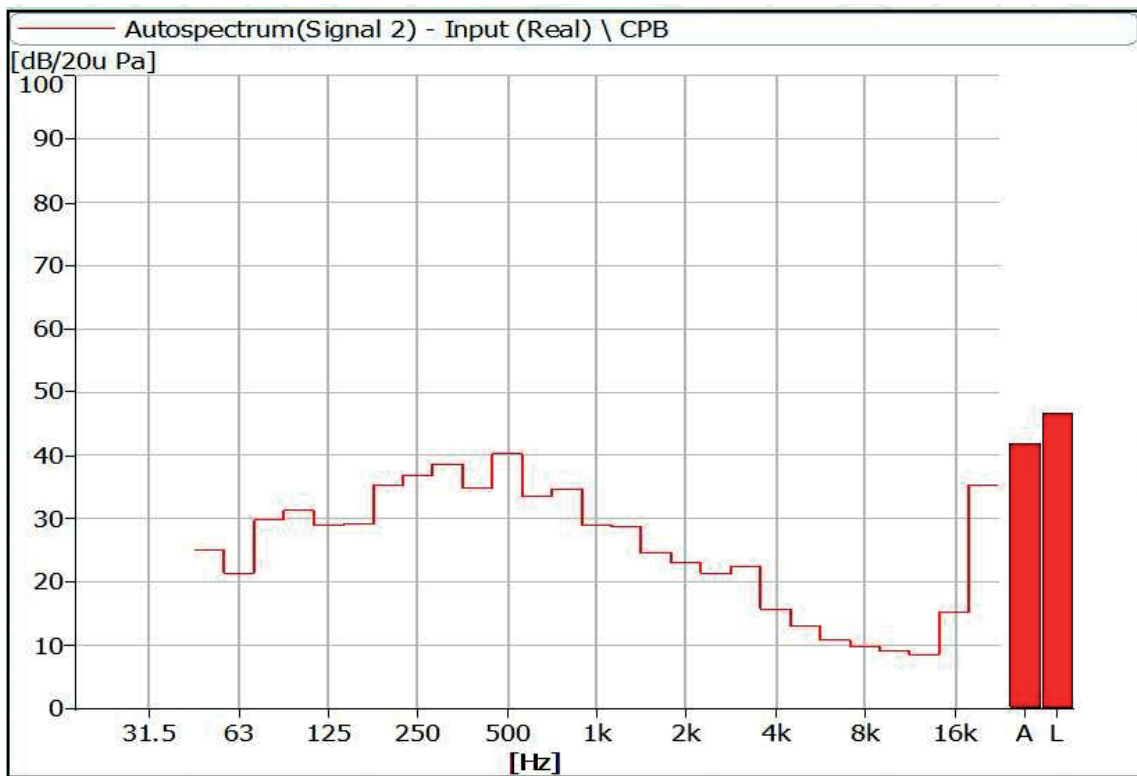


Figure 32 Noise Spectrum of Stage Luminaires (The Super Silence mode, Dynamic, No 2)

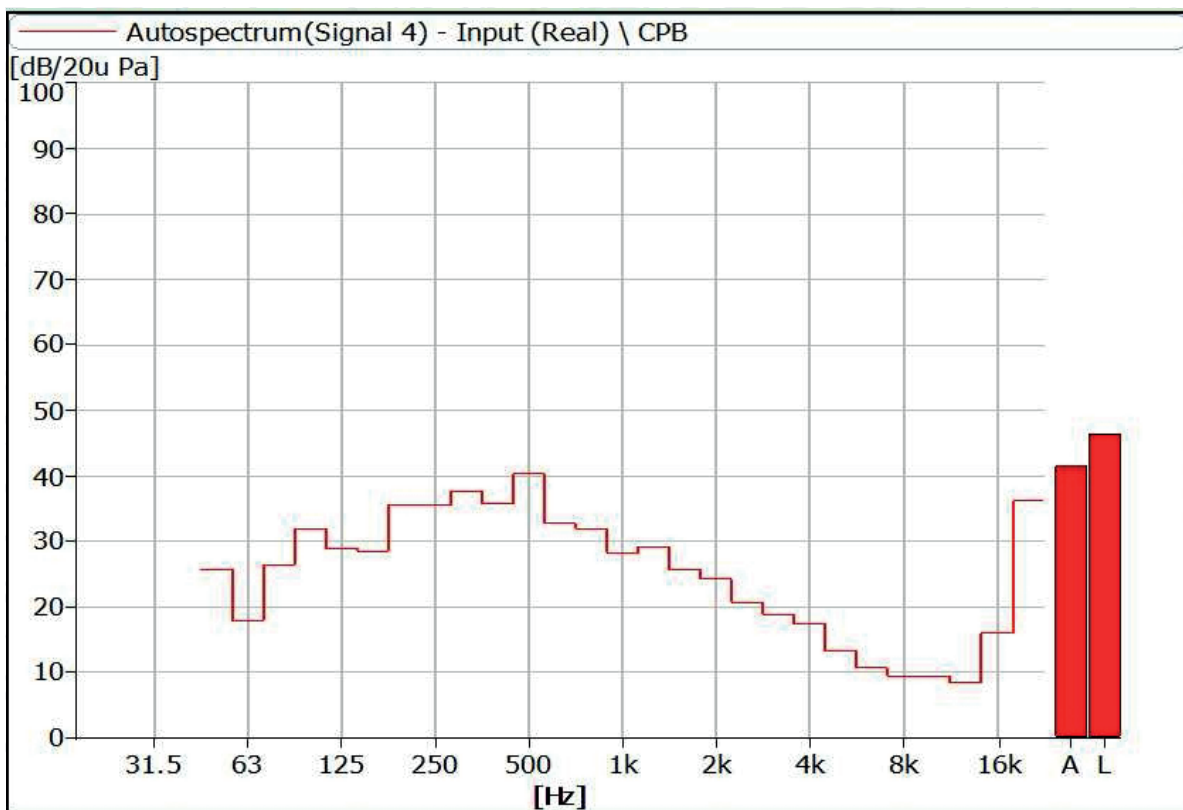


Figure 33 Noise Spectrum of Stage Luminaires (The Super Silence mode, Dynamic, No 3)

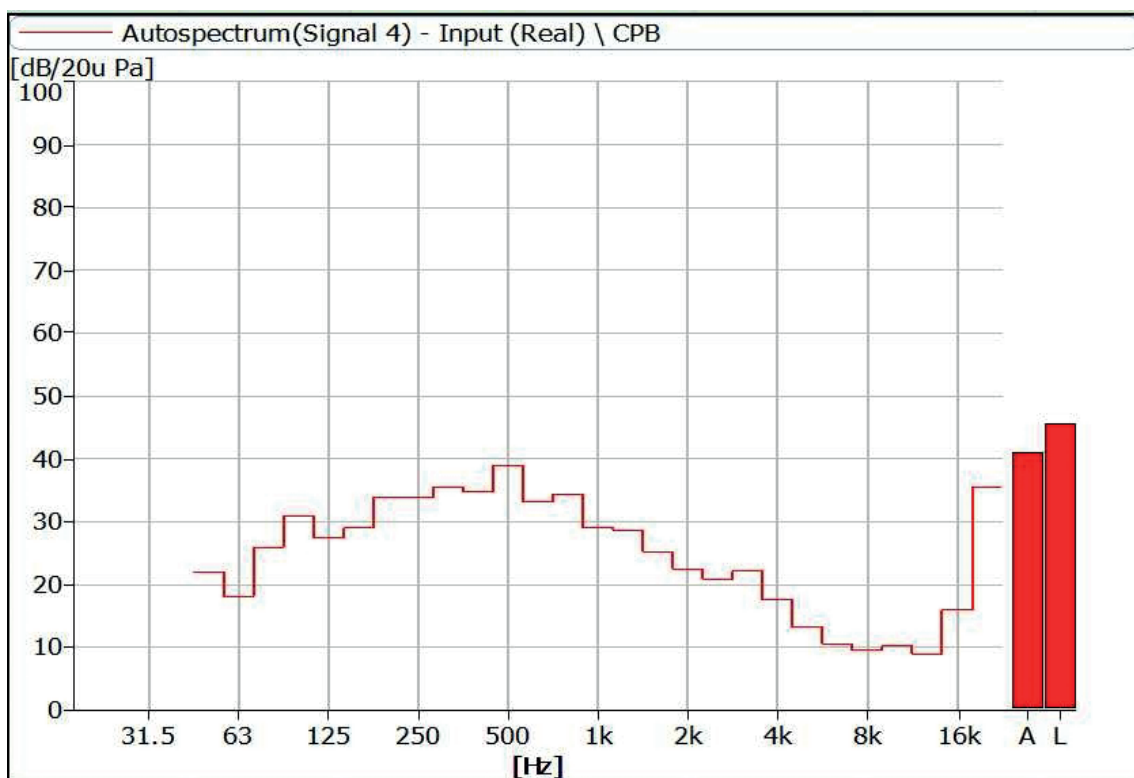


Figure 34 Noise Spectrum of Stage Luminaires (The Super Silence mode, Dynamic, No 4)

Instrumentation

No	Equipment	Type	Number	Calibration Period
1	Anechoicrooms	–	R40010	2026-07-12
2	Noise Analyzer	3160-A-042	R40011-2	2025-06-19
3	Acoustic Calibrator	4231	R40011-1	2025-04-16
4	Gas-Pressure Meter	(970-1050) hPa	T40058-1	2025-05-11
5	Steel Tap	5m	ad040	2025-02-02



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