



VELOCE PROFILE

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 5dB (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 69%, 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.

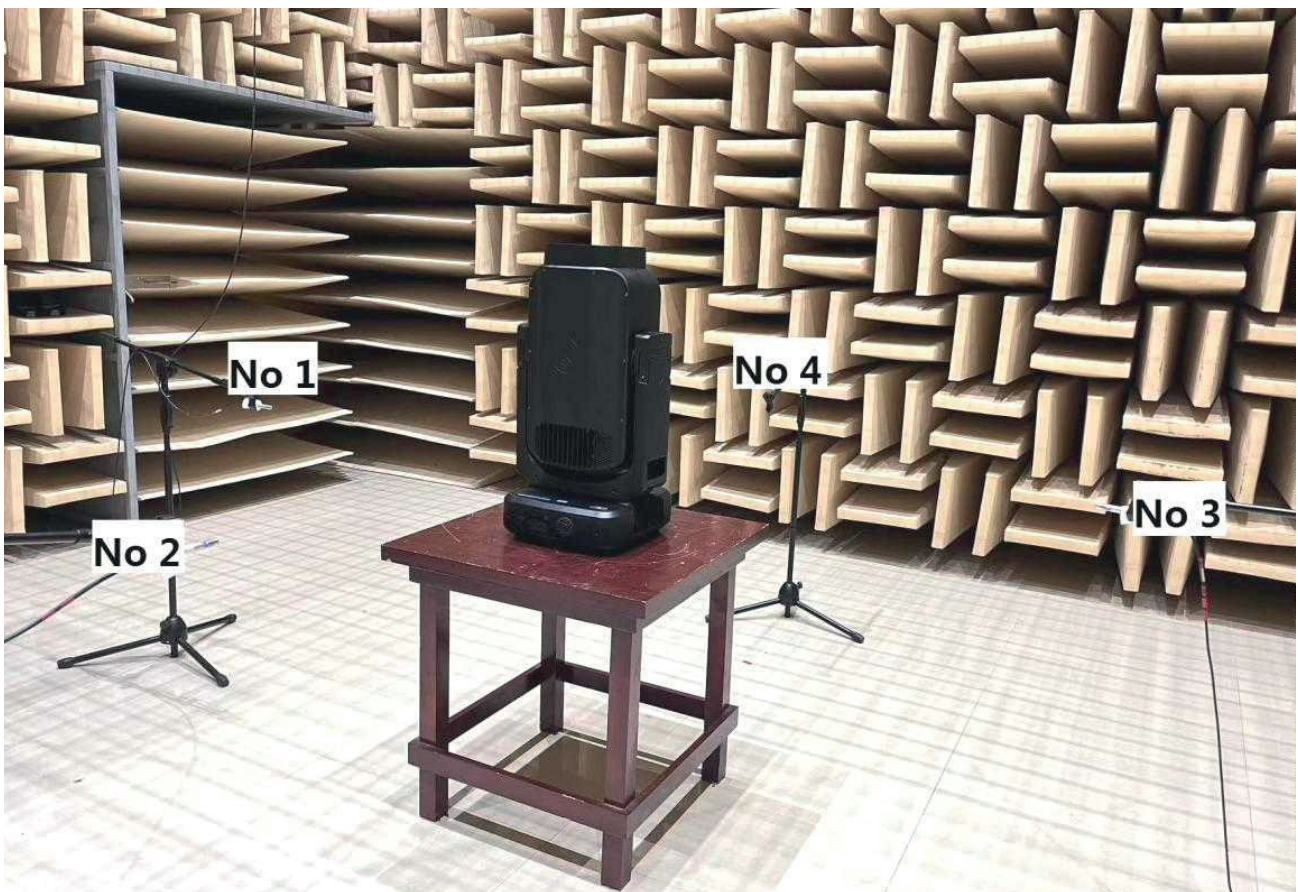


Figure 1 Test setup



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: 1119w				Input power: 1137w			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
50	23.8	24.2	25.7	28.5	25.4	34.0	26.5	24.0
63	16.9	15.9	15.1	27.2	20.1	29.6	17.8	20.2
80	17.1	17.0	15.4	31.5	20.3	25.6	20.1	20.1
100	19.9	18.9	18.7	25.6	23.3	23.6	22.2	22.6
125	19.4	25.5	19.0	21.5	31.9	34.6	34.4	32.5
160	23.5	30.6	22.9	24.9	36.2	38.2	36.7	37.4
200	20.0	22.9	21.6	23.4	38.4	40.4	38.5	39.2
250	28.2	29.8	28.6	29.9	32.5	32.8	32.0	32.5
315	35.4	36.7	35.6	36.9	37.8	37.1	37.4	37.2
400	39.2	40.5	39.6	38.7	40.0	43.6	42.8	42.5
500	29.8	30.1	30.7	30.2	43.7	42.6	43.8	44.1
630	32.5	31.8	33.8	33.5	40.9	39.1	39.5	40.6
800	33.9	28.5	32.8	28.6	35.3	34.9	35.5	36.0
1000	34.0	29.4	33.6	32.7	34.3	33.5	34.4	34.8
1250	31.1	28.6	30.3	28.0	31.9	31.3	32.3	32.7
1600	27.8	30.3	28.5	30.6	30.1	29.6	30.6	31.5
2000	23.8	26.3	23.2	26.7	26.1	25.3	26.4	27.2
2500	21.4	22.4	20.7	23.2	26.3	26.7	23.9	27.3
3150	17.3	21.8	15.5	21.9	20.8	20.8	20.8	20.7
4000	16.3	17.8	14.6	20.4	18.7	17.9	19.7	20.7
5000	13.8	14.8	12.1	17.3	15.6	15.5	15.6	16.7
6300	11.5	12.2	11.4	15.3	13.2	12.9	13.6	13.4
8000	9.3	10.6	8.9	12.0	11.1	10.8	11.6	12.3
10000	8.5	9.6	8.0	11.3	9.2	9.2	9.3	9.4
12500	8.6	9.6	7.6	11.4	8.9	8.9	8.9	9.0
16000	9.3	10.9	9.8	12.5	13.2	13.2	12.4	12.9
20000	26.0	29.0	28.1	31.0	31.8	32.1	30.8	31.5

Frequency (Hz)	Sound Pressure Level in Auto Mode (dB)							
	Static				Dynamic			
	Input power: 1119w				Input power: 1137w			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
Leq	44.8	44.7	44.3	51.1	49.6	62.3	49.4	49.8
A-weighted dB (A)	41.0	40.5	41.0	40.7	45.4	45.2	45.6	46.0
Average sound pressure level dB (A)	40.8				45.6			

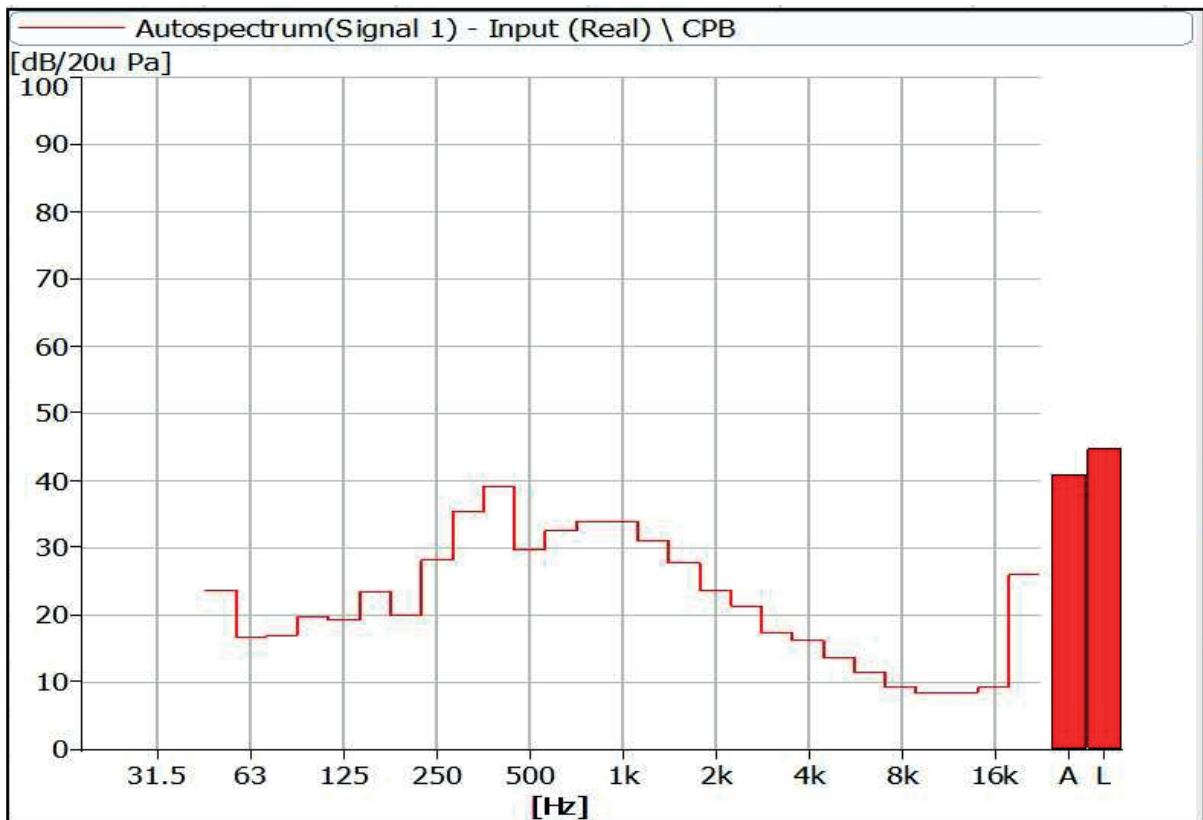


Figure 3 Noise Spectrum of Stage Luminaires (The Auto mode, Static, No 1)

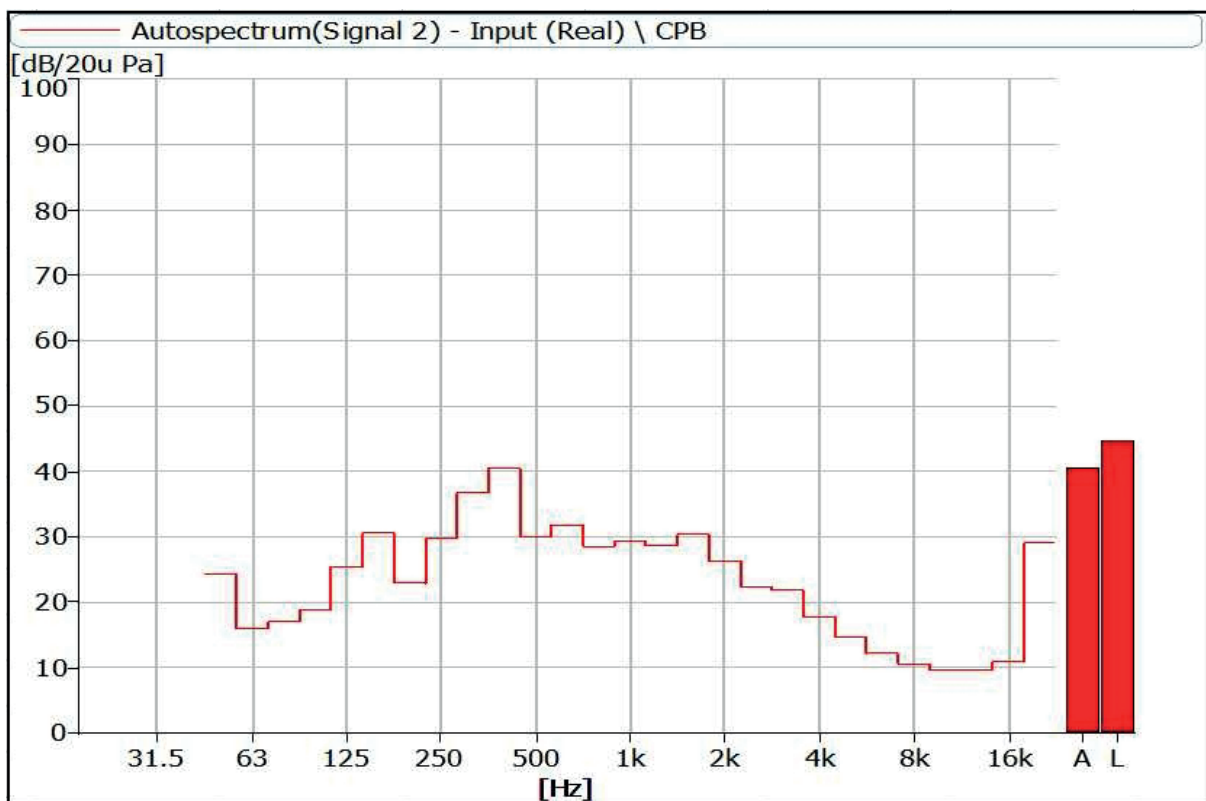


Figure 4 Noise Spectrum of Stage Luminaires (The Auto mode, Static, No 2)

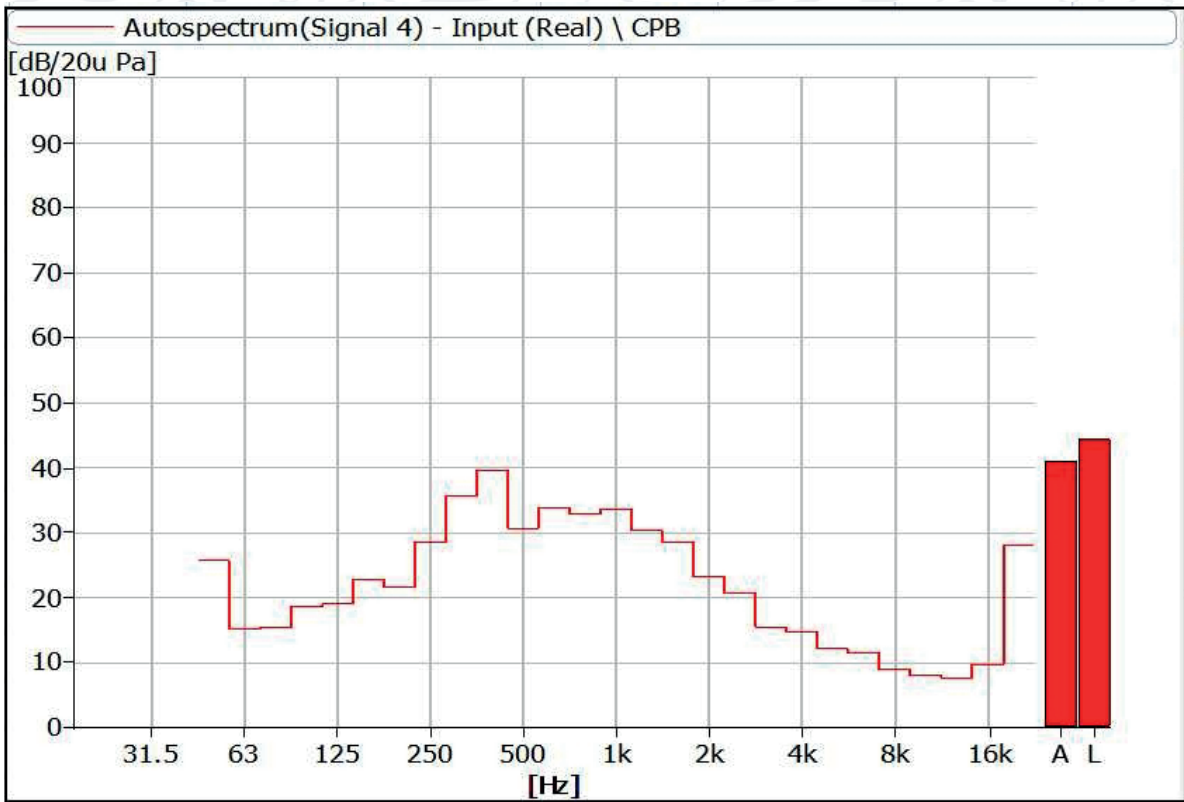


Figure 5 Noise Spectrum of Stage Luminaires (The Auto mode, Static, No 3)

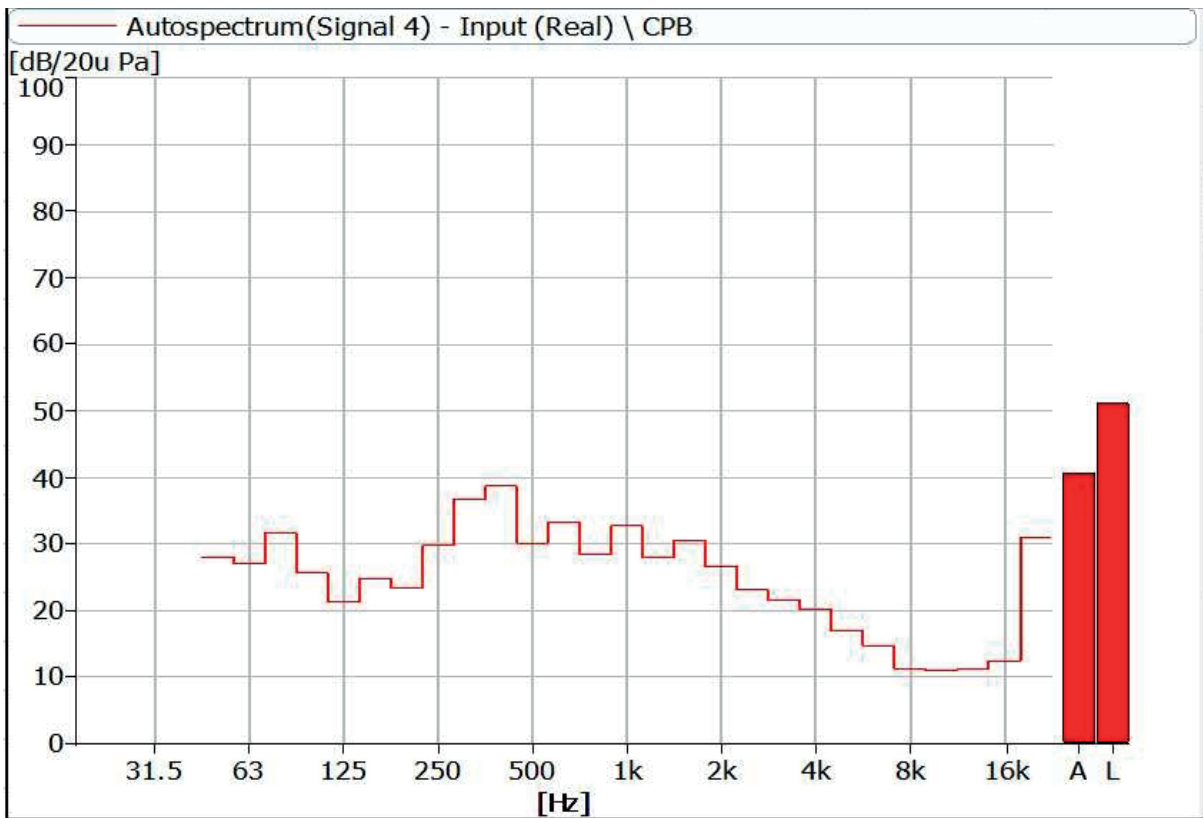


Figure 6 Noise Spectrum of Stage Luminaires (The Auto mode, Static, No 4)

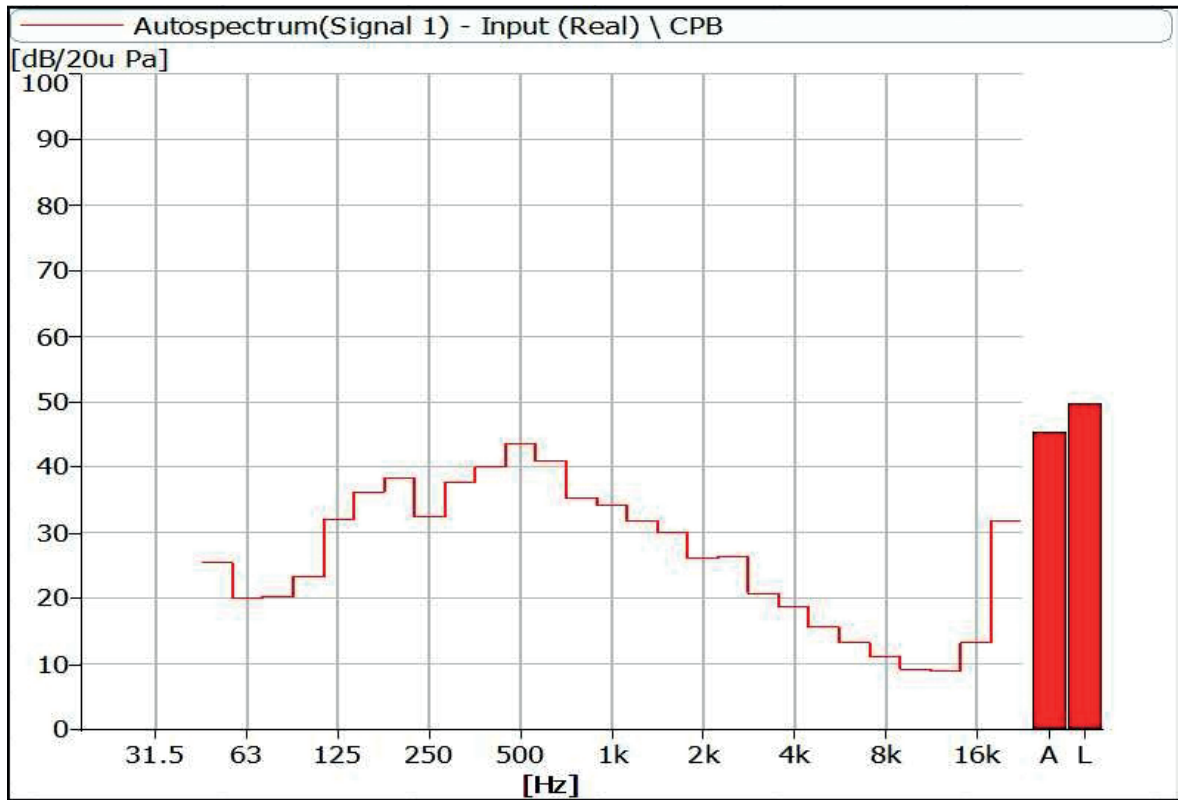


Figure 7 Noise Spectrum of Stage Luminaires (The Auto mode, Dynamic, No 1)

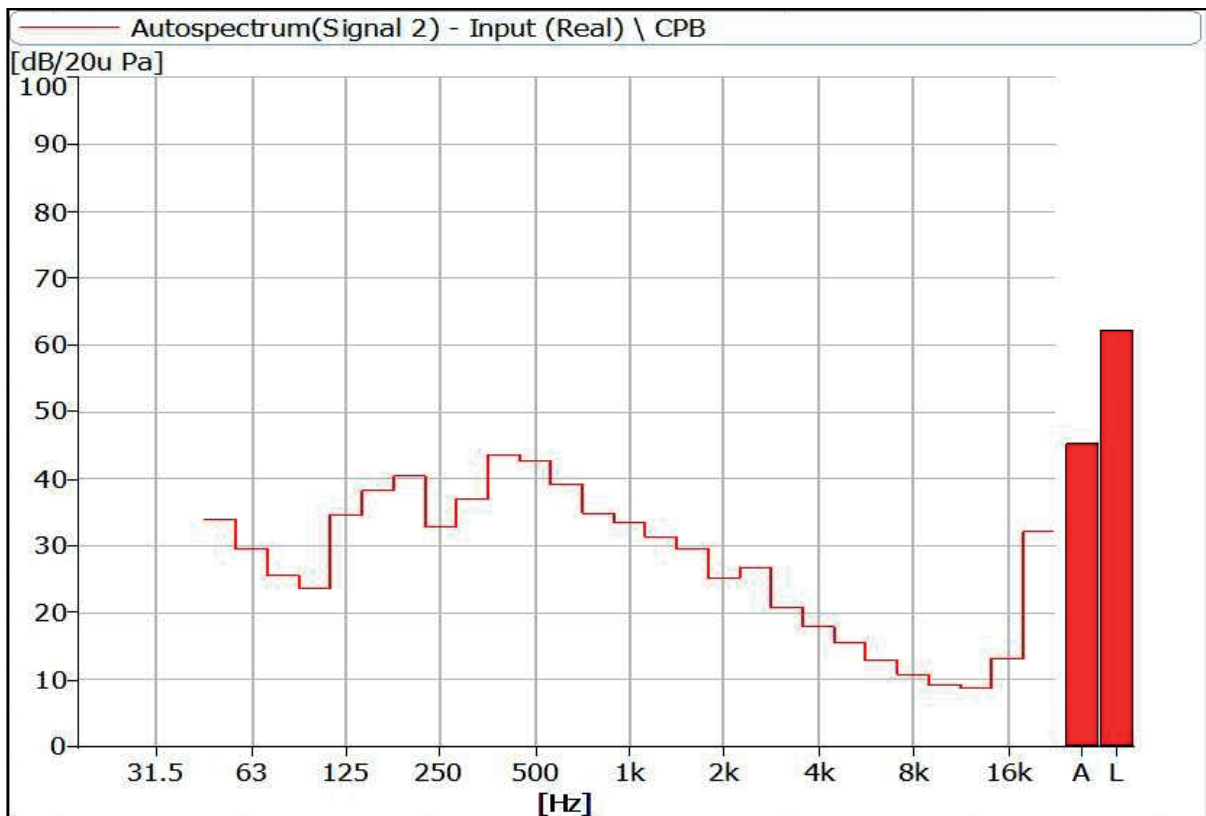


Figure 8 Noise Spectrum of Stage Luminaires (The Auto mode, Dynamic, No 2)

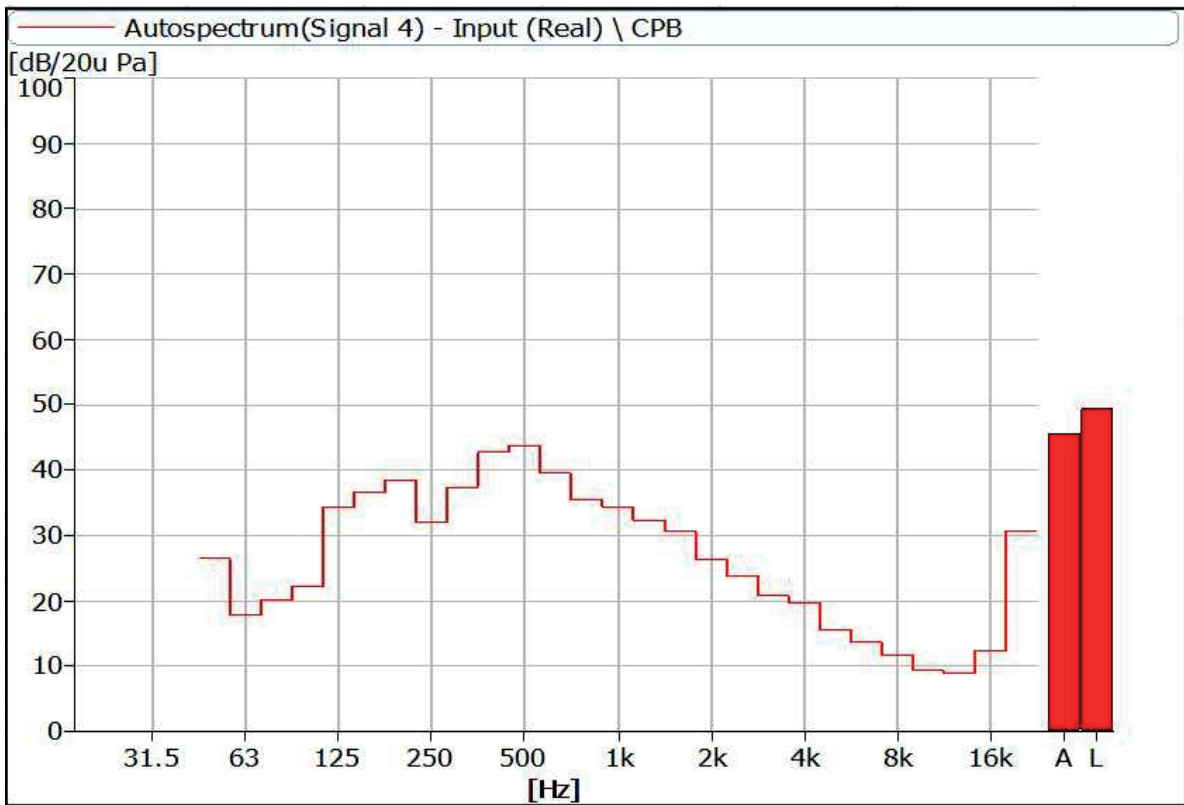


Figure 9 Noise Spectrum of Stage Luminaires (The Auto mode, Dynamic, No 3)

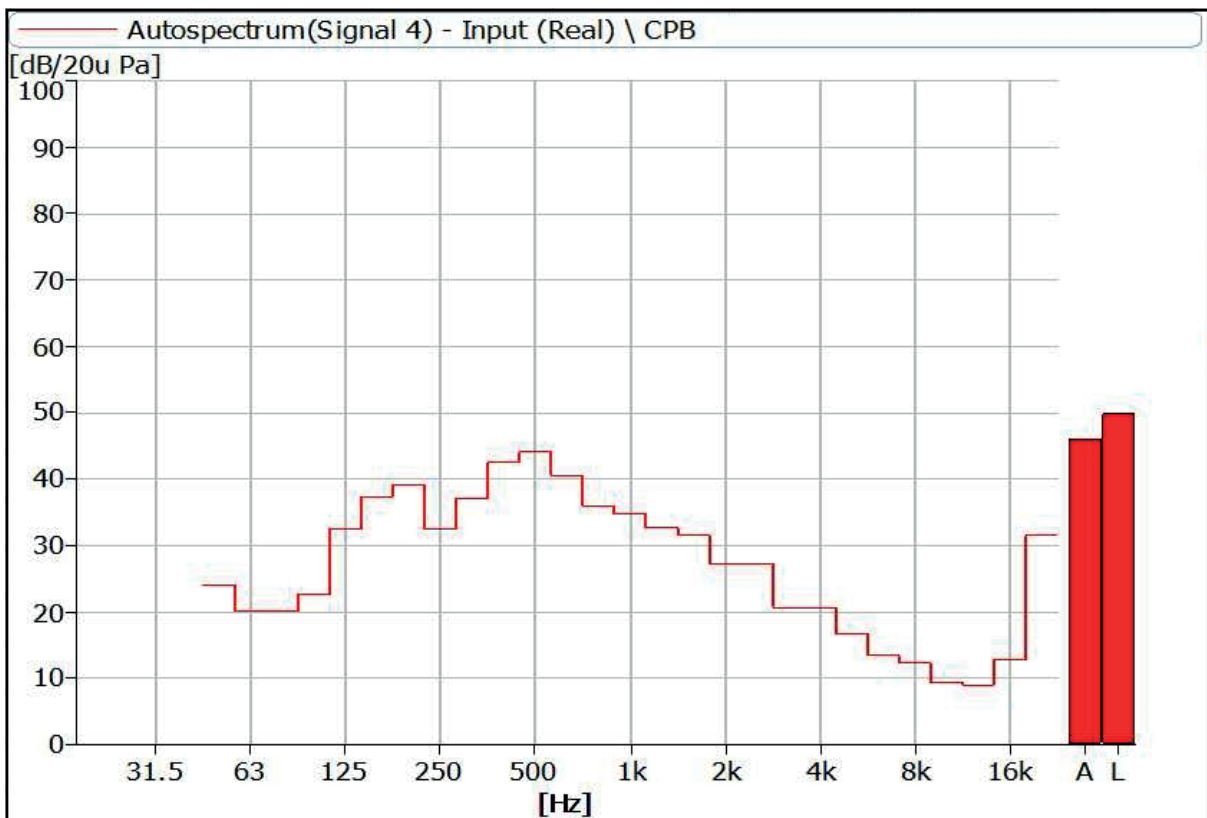


Figure 10 Noise Spectrum of Stage Luminaires (The Auto mode, Dynamic, No 4)

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

Frequency (Hz)	Sound Pressure Level in Stage Mode (dB)							
	Static				Dynamic			
	Input power: 1119w				Input power: 1137w			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
50	24.2	23.0	23.9	23.4	25.4	23.5	28.9	24.2
63	17.6	17.2	18.3	18.5	23.4	20.2	22.6	21.3
80	18.5	18.4	19.0	19.1	20.5	24.5	21.1	21.6
100	21.9	21.4	21.5	21.7	25.0	24.5	22.9	24.6
125	19.7	28.7	24.9	25.0	33.2	37.6	34.5	34.7
160	22.3	32.4	28.6	28.6	37.4	38.5	37.1	38.6
200	23.5	25.1	24.2	25.5	40.0	39.8	40.2	40.2
250	28.9	29.4	31.5	30.6	34.3	35.3	34.1	34.3
315	38.8	39.8	40.1	40.0	39.5	39.2	38.2	40.5
400	37.6	40.2	37.1	36.6	47.8	48.3	47.5	46.8
500	32.4	33.4	32.4	32.3	43.9	48.0	43.7	45.0
630	34.6	35.5	36.7	36.4	42.3	43.2	41.2	43.0
800	36.6	32.6	32.4	32.2	39.0	39.1	39.1	38.7
1000	38.2	33.3	34.1	33.9	37.7	39.1	37.8	37.8
1250	35.7	32.8	32.0	32.2	35.1	36.2	35.0	34.9
1600	32.2	33.8	33.6	33.2	33.4	34.7	33.7	33.6
2000	28.4	30.1	30.0	29.7	29.3	30.8	29.2	28.9
2500	25.4	26.5	26.1	26.1	27.8	28.7	26.6	28.1
3150	20.1	25.6	25.9	25.7	24.2	25.9	23.8	23.4
4000	20.1	22.3	25.2	25.0	22.9	24.4	23.3	23.3
5000	19.4	19.3	20.1	19.8	19.6	21.3	19.0	19.1
6300	16.0	17.0	16.7	16.6	17.1	18.9	17.0	16.3
8000	11.3	13.8	13.1	13.0	13.7	15.4	13.3	13.5
10000	9.3	11.9	11.3	11.2	10.9	11.7	10.6	10.4
12500	9.2	11.5	10.7	10.7	10.3	10.8	9.9	9.7
16000	10.5	12.1	11.0	11.1	14.0	13.5	13.5	13.6
20000	28.9	30.3	28.3	28.4	32.5	31.8	32.1	32.1

Frequency (Hz)	Sound Pressure Level in Stage Mode (dB)							
	Static				Dynamic			
	Input power: 1119w				Input power: 1137w			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
Leq	46.5	46.5	46.3	46.0	56.3	53.4	52.4	52.3
A-weighted dB(A)	44.0	43.3	43.0	42.8	48.4	49.9	48.1	48.4
Average sound pressure level dB(A)	43.3				48.7			



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

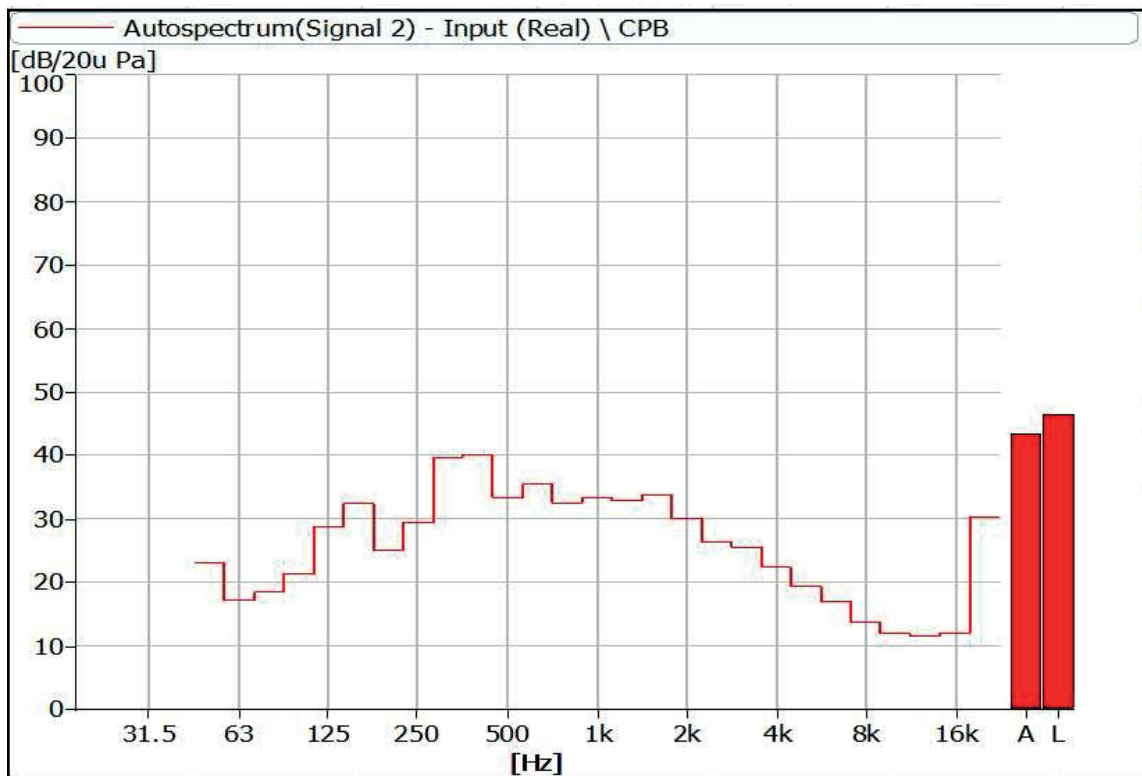


Figure 12 Noise Spectrum of Stage Luminaires (The Stage mode, Static, No 2)

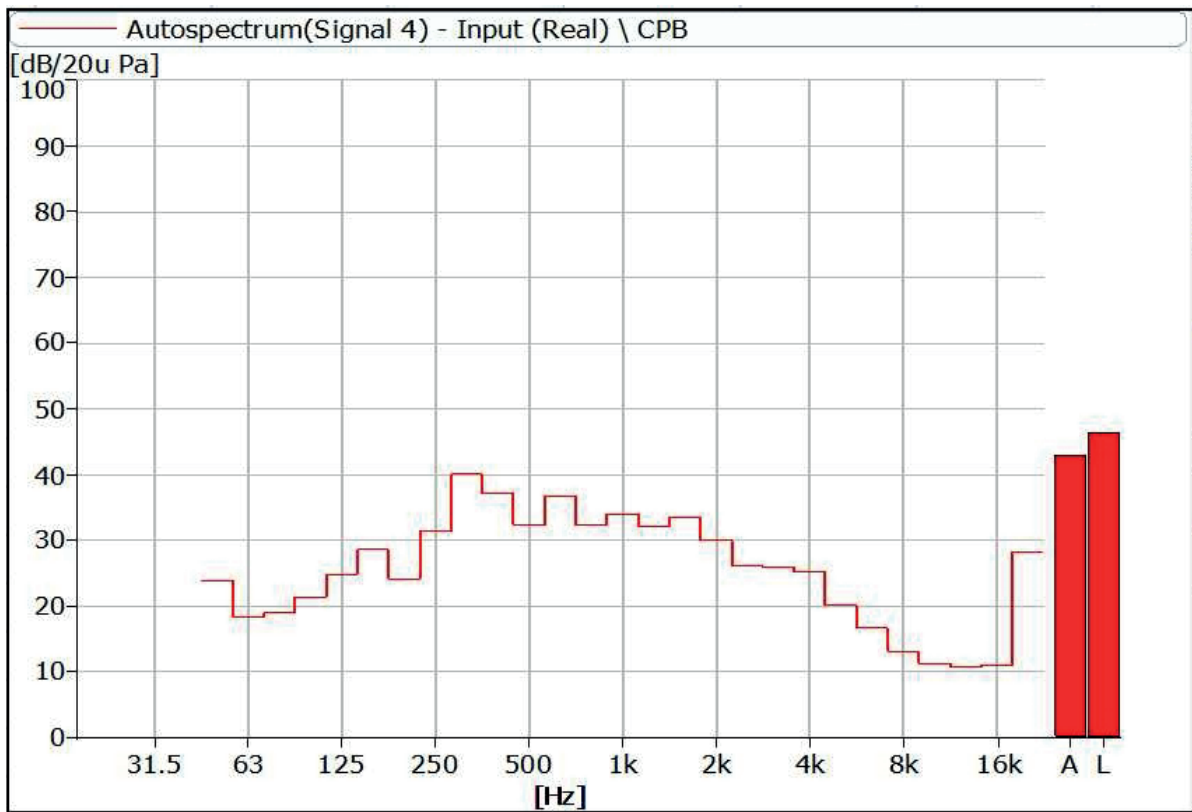


Figure 13 Noise Spectrum of Stage Luminaires (The Stage mode, Static, No 3)

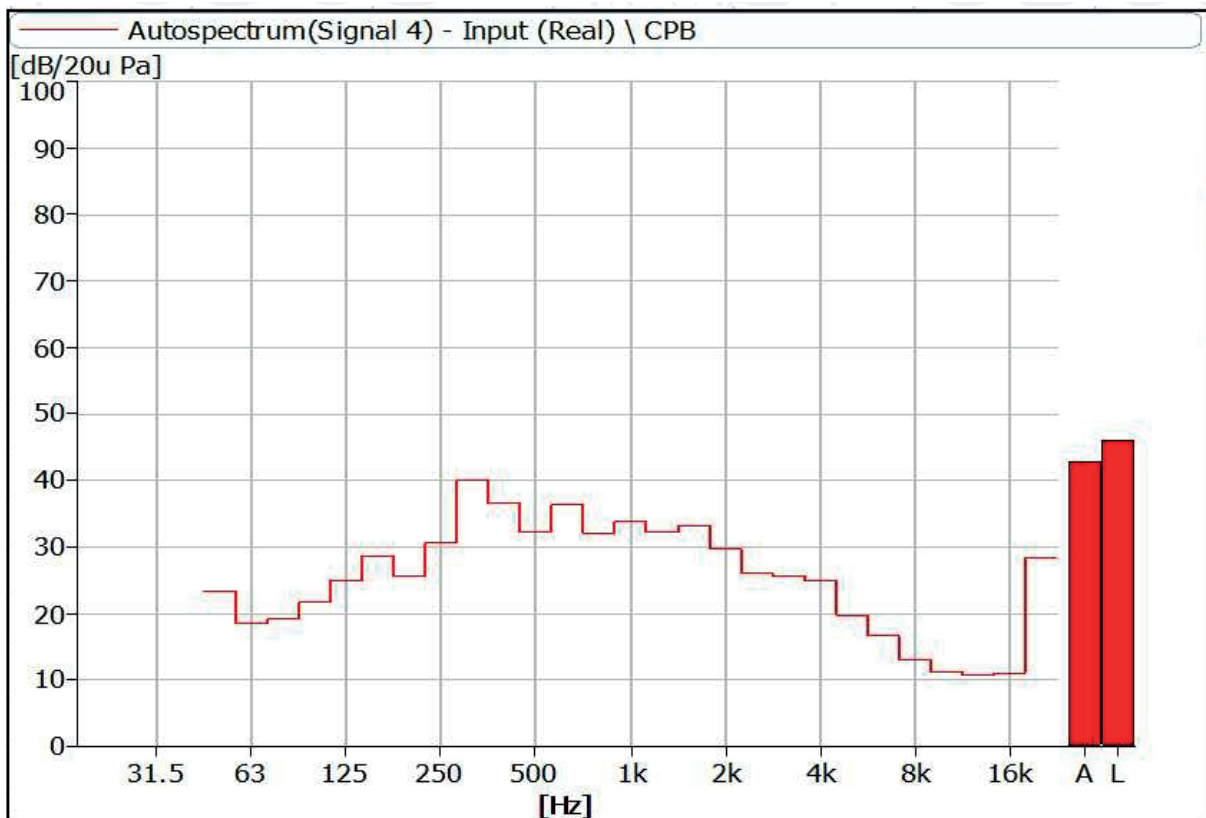


Figure 14 Noise Spectrum of Stage Luminaires (The Stage mode, Static, No 4)

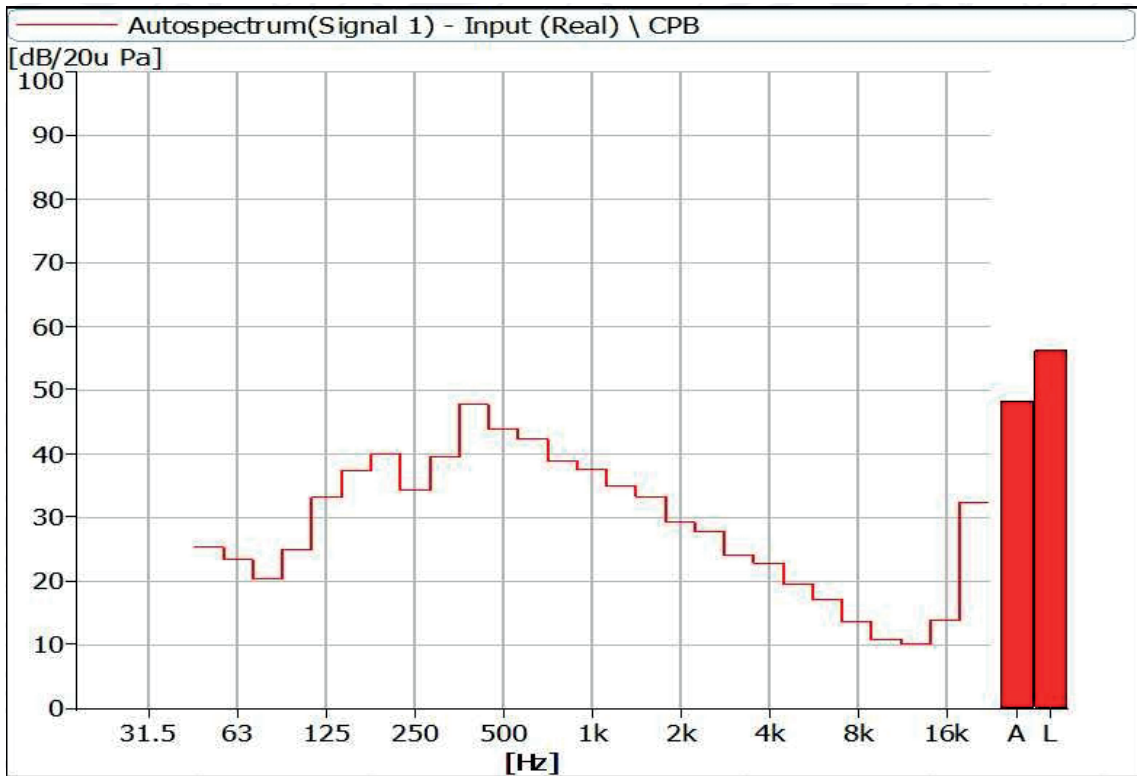


Figure 15 Noise Spectrum of Stage Luminaires (The Stage mode, Dynamic, No 1)

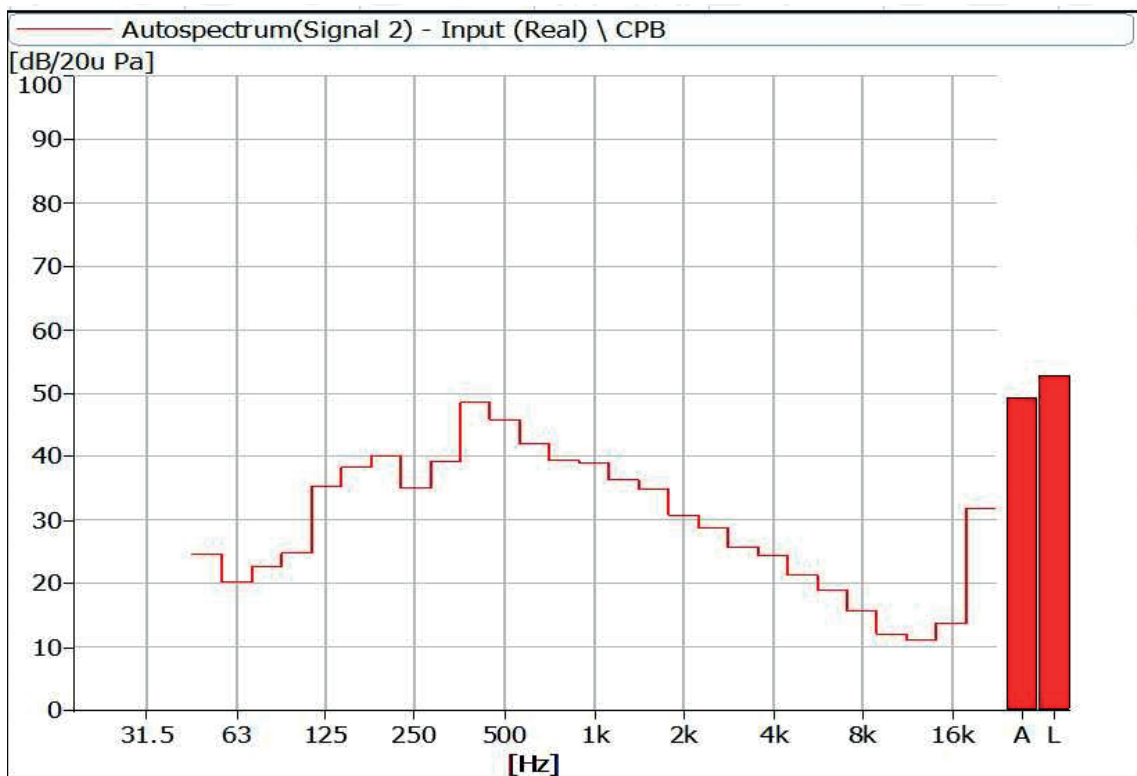


Figure 16 Noise Spectrum of Stage Luminaires (The Stage mode, Dynamic, No 2)

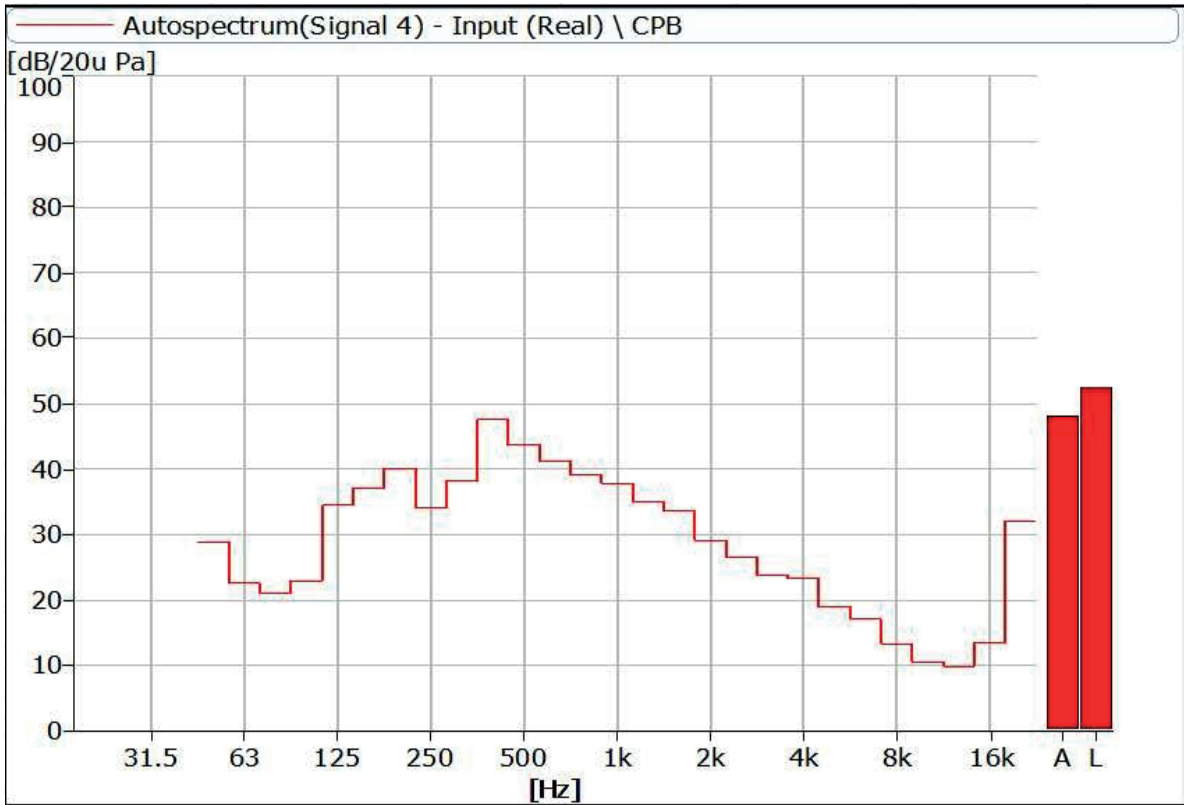


Figure 17 Noise Spectrum of Stage Luminaires (The Stage mode, Dynamic, No 3)

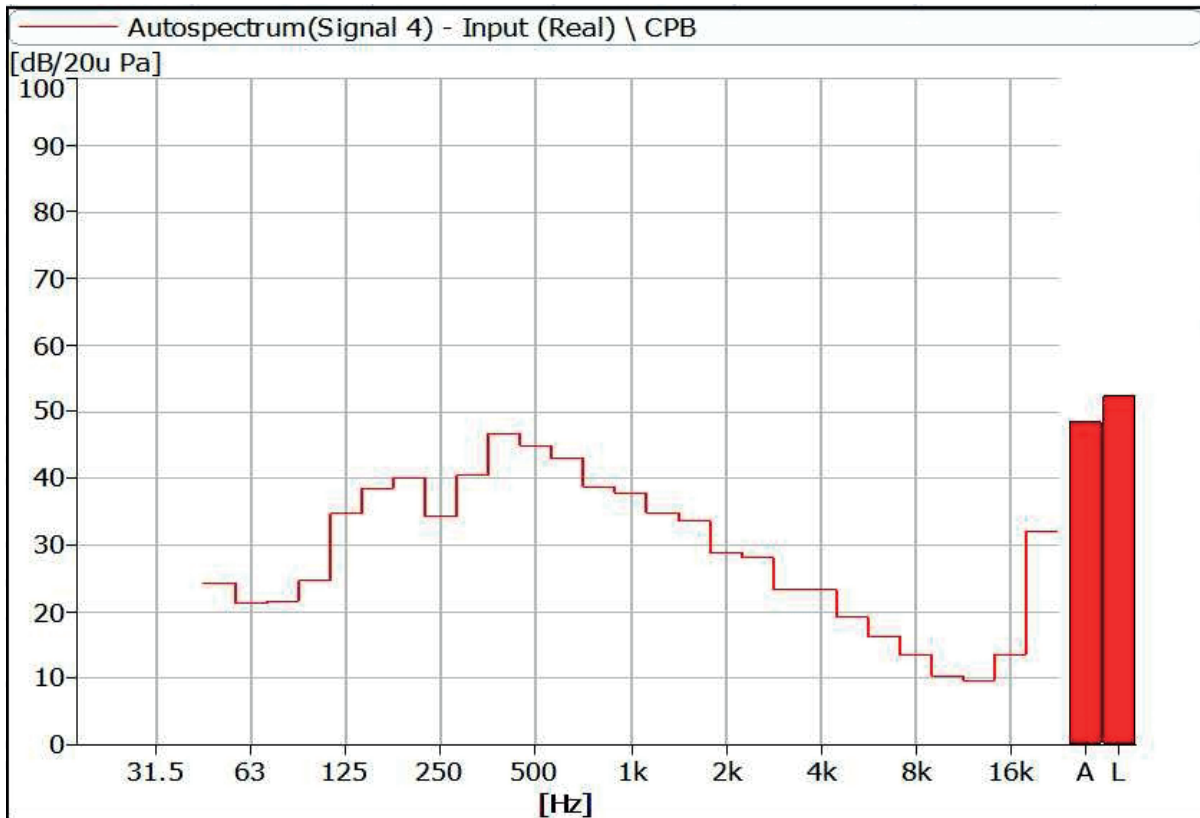


Figure 18 Noise Spectrum of Stage Luminaires (The Stage mode, Dynamic, No 4)

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

Frequency (Hz)	Sound Pressure Level in Silence Mode (dB)							
	Static				Dynamic			
	Input Power: 842 W				Input Power: 855 W			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
50	24.9	23.7	26.4	23.8	25.7	24.2	31.9	29.5
63	15.6	14.4	14.4	14.4	21.6	20.0	20.1	22.4
80	16.4	15.0	14.5	15.2	20.3	24.1	22.1	20.9
100	19.5	19.8	18.9	18.3	23.0	23.1	21.6	22.1
125	19.9	22.4	19.6	19.1	31.0	33.0	32.8	31.9
160	16.6	17.6	16.2	19.9	36.8	38.2	37.4	38.0
200	25.7	29.4	26.9	27.4	39.7	40.2	40.2	39.6
250	29.4	34.0	32.5	32.8	33.3	33.1	32.8	32.5
315	22.6	24.9	24.3	24.2	35.7	35.9	34.7	36.1
400	22.7	27.3	22.6	22.9	45.1	46.4	44.4	44.3
500	29.1	32.2	29.7	27.5	40.3	42.4	40.4	41.2
630	23.7	23.4	23.8	22.7	39.4	38.4	38.5	38.3
800	26.5	31.8	26.2	26.7	35.6	35.0	33.7	34.2
1000	25.8	28.1	25.7	27.0	30.7	30.6	30.3	30.1
1250	24.3	23.6	24.3	22.7	28.4	30.4	28.4	29.9
1600	22.7	26.3	23.2	24.1	26.2	26.9	26.7	26.9
2000	19.4	19.5	16.4	20.6	24.0	24.6	23.2	23.8
2500	24.3	20.4	17.7	17.8	25.3	25.9	23.4	26.3
3150	15.0	16.8	11.6	15.6	18.8	19.8	19.0	18.8
4000	11.7	11.6	10.2	11.7	14.9	15.3	15.5	16.1
5000	11.1	10.9	10.2	9.9	12.3	13.1	13.3	12.3
6300	9.5	9.6	9.4	9.6	10.9	11.5	11.2	11.5
8000	8.4	8.9	8.0	8.2	9.4	10.0	9.2	9.2
10000	8.1	8.8	7.9	8.4	8.8	9.0	8.5	8.6
12500	8.1	8.8	7.5	7.9	8.6	8.7	8.2	8.3
16000	14.0	13.8	10.8	8.8	13.6	13.5	13.2	13.4
20000	34.6	34.1	30.1	24.9	32.7	32.3	32.5	32.6

Frequency (Hz)	Sound Pressure Level in Silence Mode (dB)							
	Static				Dynamic			
	Input Power: 842 W				Input Power: 855 W			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
Leq	41.5	41.8	39.7	41.0	49.7	50.2	56.6	52.5
A-weighted dB(A)	34.8	37.1	34.1	34.2	44.9	45.7	44.3	44.5
Average sound pressure level dB(A)	35.0				44.8			

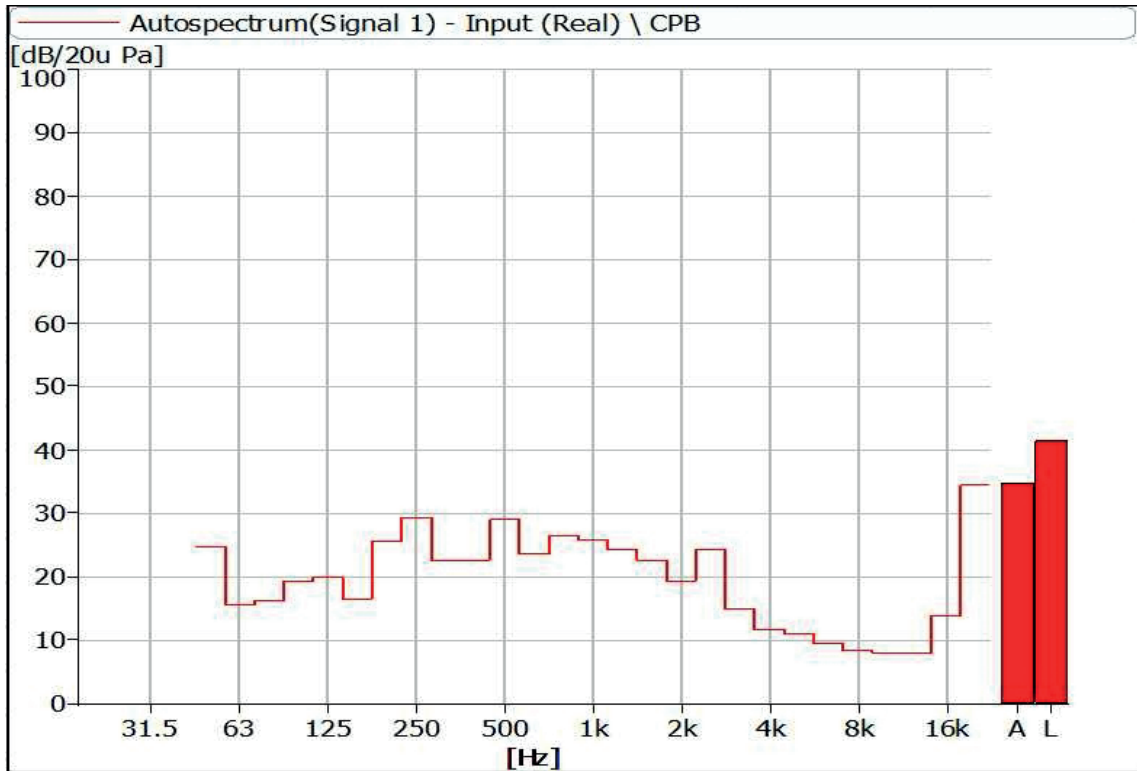


Figure 19 Noise Spectrum of Stage Luminaires (The Silence mode, Static, No 1)

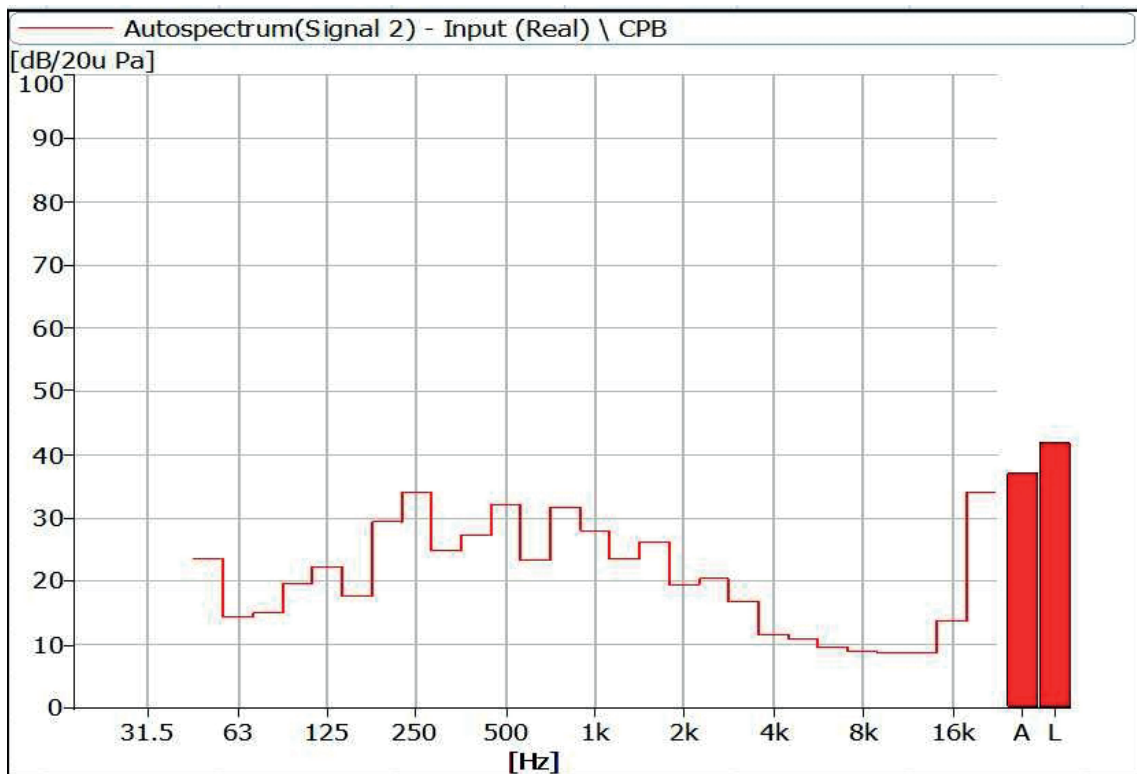


Figure 20 Noise Spectrum of Stage Luminaires (The Silence mode, Static, No 2)

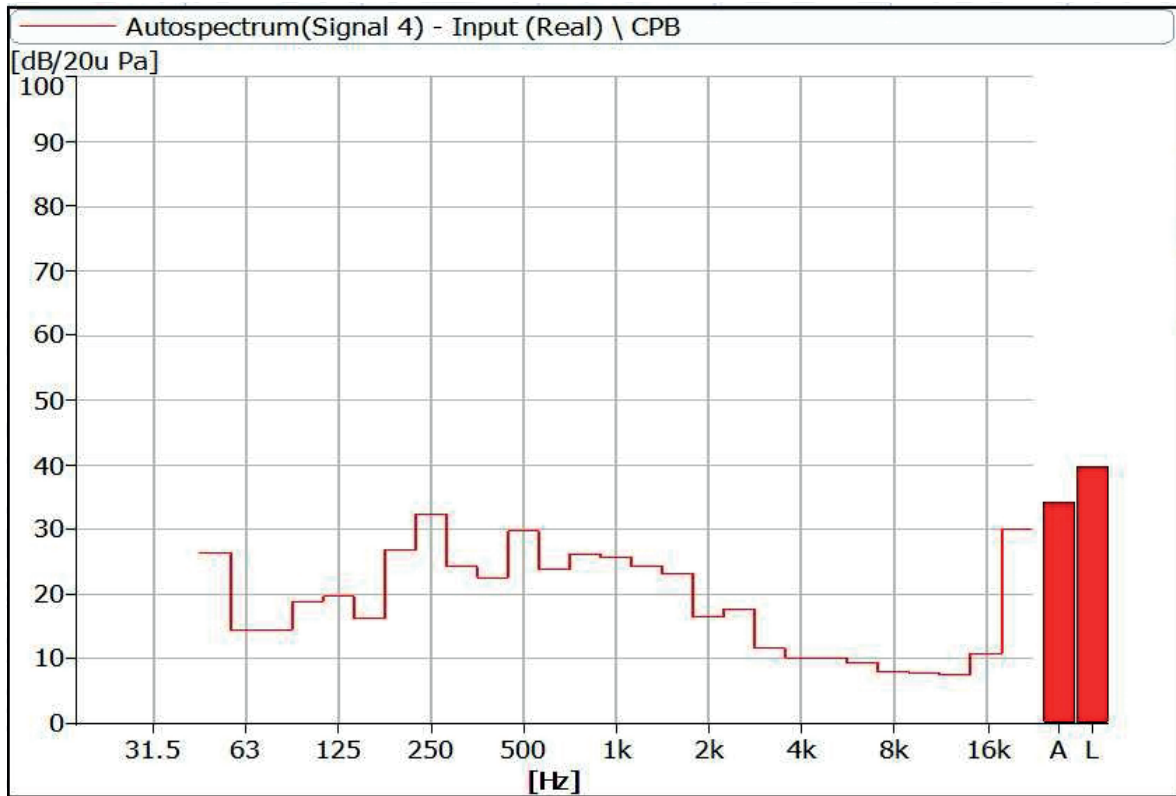


Figure 21 Noise Spectrum of Stage Luminaires (The Silence mode, Static, No 3)

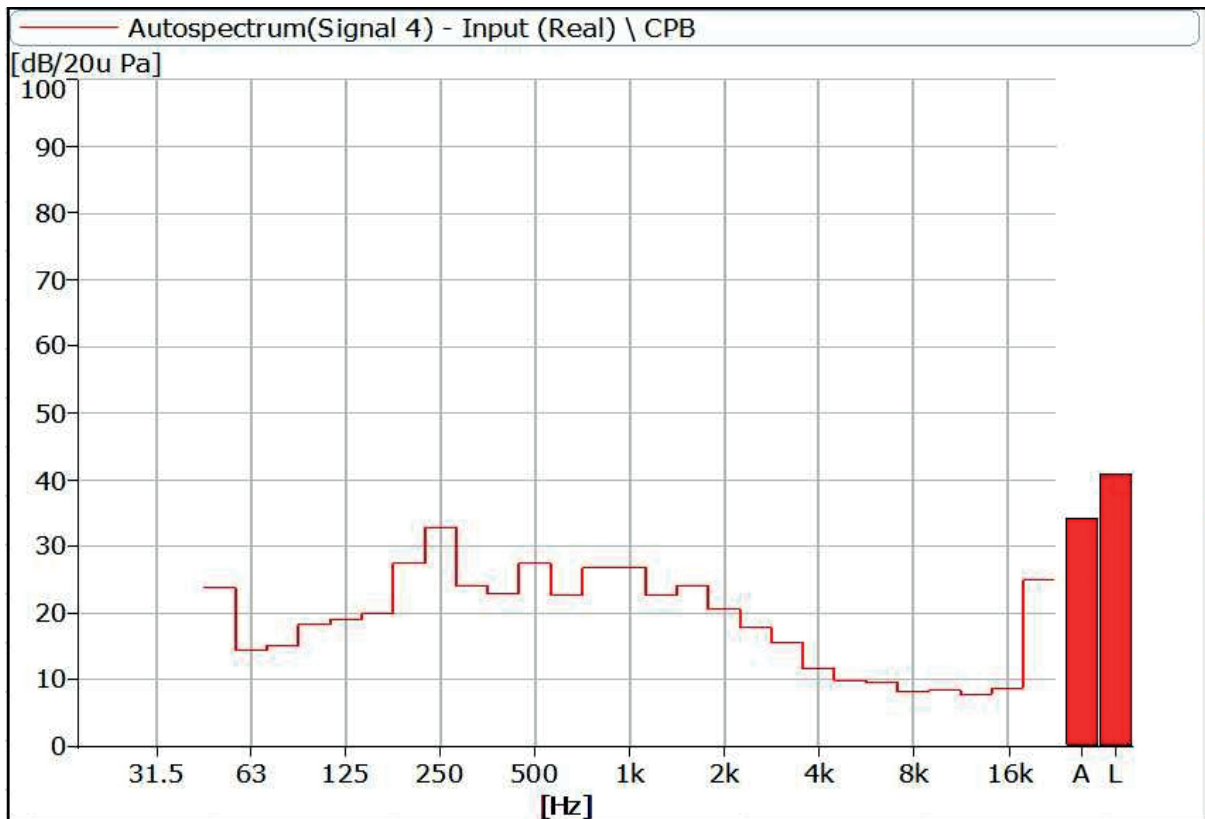


Figure 22 Noise Spectrum of Stage Luminaires (The Silence mode, Static, No 4)

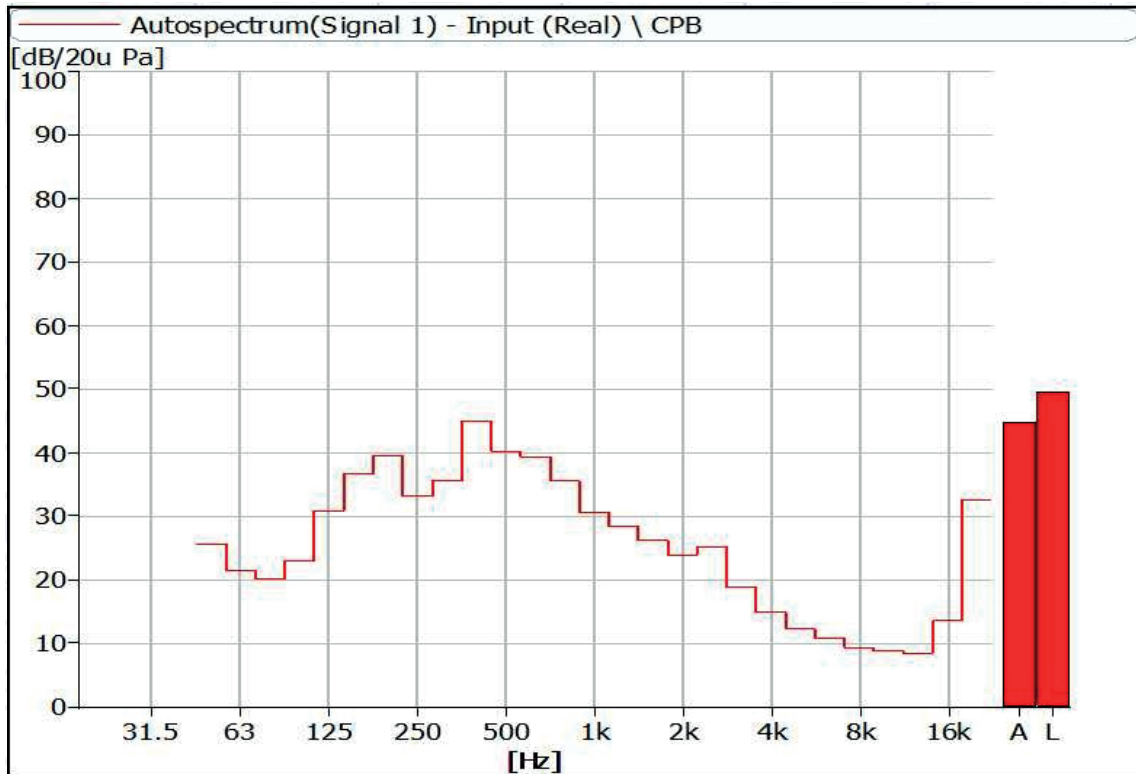


Figure 23 Noise Spectrum of Stage Luminaires (The Silence mode, Dynamic, No 1)

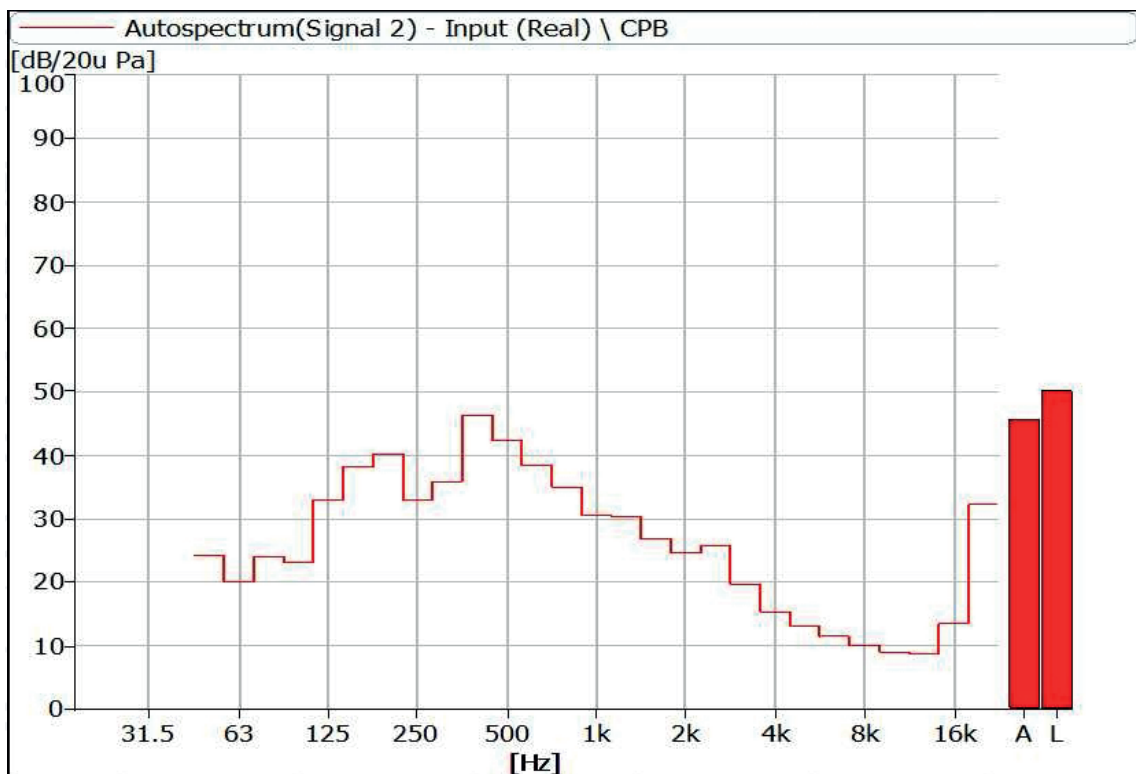


Figure 24 Noise Spectrum of Stage Luminaires (The Silence mode, Dynamic, No 2)

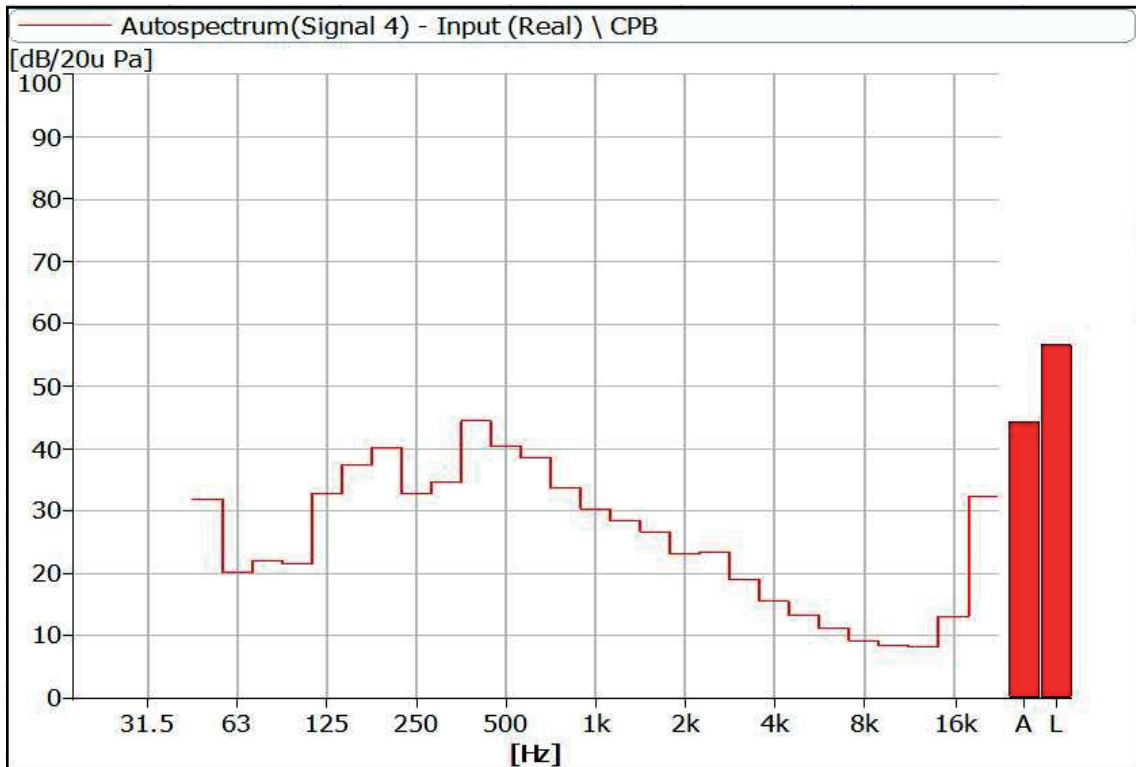


Figure 25 Noise Spectrum of Stage Luminaires (The Silence mode, Dynamic, No 3)

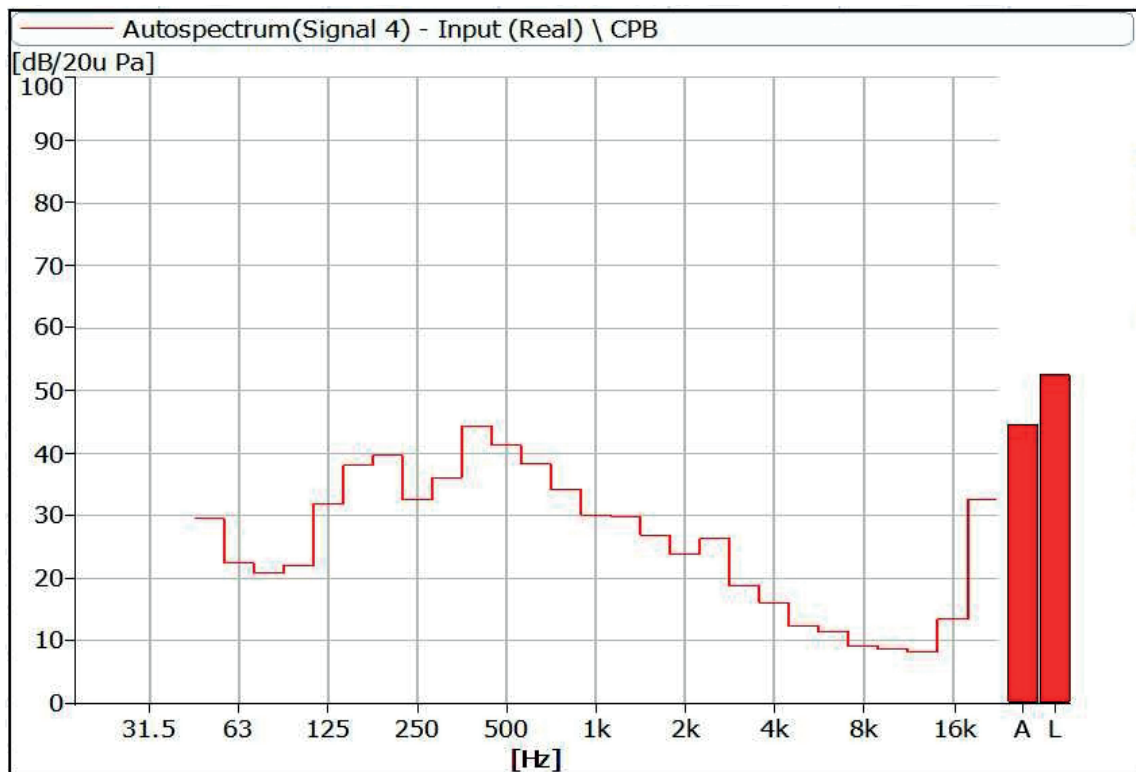


Figure 26 Noise Spectrum of Stage Luminaires (The Silence mode, Dynamic, No 4)

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

Frequency (Hz)	Sound Pressure Level in Super Silence Mode (dB)							
	Static				Dynamic			
	Input power: 654w				Input power: 665w			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
50	24.8	24.0	25.9	24.4	28.3	23.9	26.2	25.2
63	15.7	13.6	14.6	15.5	22.5	20.4	18.7	21.5
80	15.5	14.3	13.8	15.8	20.0	22.3	19.9	21.1
100	22.3	19.7	19.9	20.8	24.8	24.5	24.3	24.3
125	12.0	11.8	11.7	13.5	33.0	35.4	34.1	34.0
160	12.0	12.5	12.7	13.7	37.4	38.8	37.5	38.4
200	16.2	15.1	17.2	16.9	39.5	40.5	40.4	39.8
250	14.9	16.8	16.0	18.1	33.6	34.7	34.0	33.6
315	18.0	22.1	15.5	21.5	39.5	38.6	37.8	38.9
400	20.2	23.5	21.4	22.0	49.0	49.9	48.0	47.6
500	17.4	24.8	24.3	19.9	43.1	45.1	44.0	42.0
630	18.7	20.9	20.3	19.7	42.6	41.8	41.2	42.0
800	29.5	24.1	30.2	20.9	36.6	36.7	35.6	36.8
1000	15.3	18.3	16.6	25.9	32.0	31.9	30.9	32.0
1250	14.7	18.7	18.7	17.2	30.3	31.6	29.7	31.1
1600	19.4	26.6	16.7	23.1	25.3	26.0	25.9	25.6
2000	15.3	15.7	13.0	18.8	22.9	23.2	22.8	22.9
2500	18.0	16.0	16.7	14.7	25.2	25.5	21.8	24.0
3150	11.6	14.5	10.5	12.1	18.0	19.0	18.5	17.6
4000	8.9	9.5	8.3	10.0	14.4	14.8	15.3	15.6
5000	8.9	9.6	8.5	9.4	12.4	12.9	12.8	12.5
6300	8.6	9.3	7.7	9.0	11.1	11.6	11.1	10.8
8000	7.8	7.9	7.6	7.8	9.8	10.1	9.7	9.7
10000	7.7	7.9	7.5	8.5	9.0	9.1	8.7	8.9
12500	7.5	7.8	7.2	7.7	8.8	8.9	8.5	8.6
16000	9.1	14.0	12.6	9.3	13.8	13.7	12.8	13.9
20000	26.5	34.6	33.0	26.7	32.4	32.4	31.5	32.9

Frequency (Hz)	Sound Pressure Level in Super Silence Mode (dB)							
	Static				Dynamic			
	Input power: 654w				Input power: 665w			
	No 1	No 2	No 3	No 4	No 1	No 2	No 3	No 4
Leq	39.1	39.0	38.5	38.9	53.0	52.8	51.4	52.4
A-weighted dB(A)	31.0	32.4	32.1	31.0	47.8	48.5	47.1	46.9
Average sound pressure level dB(A)	31.6				47.6			

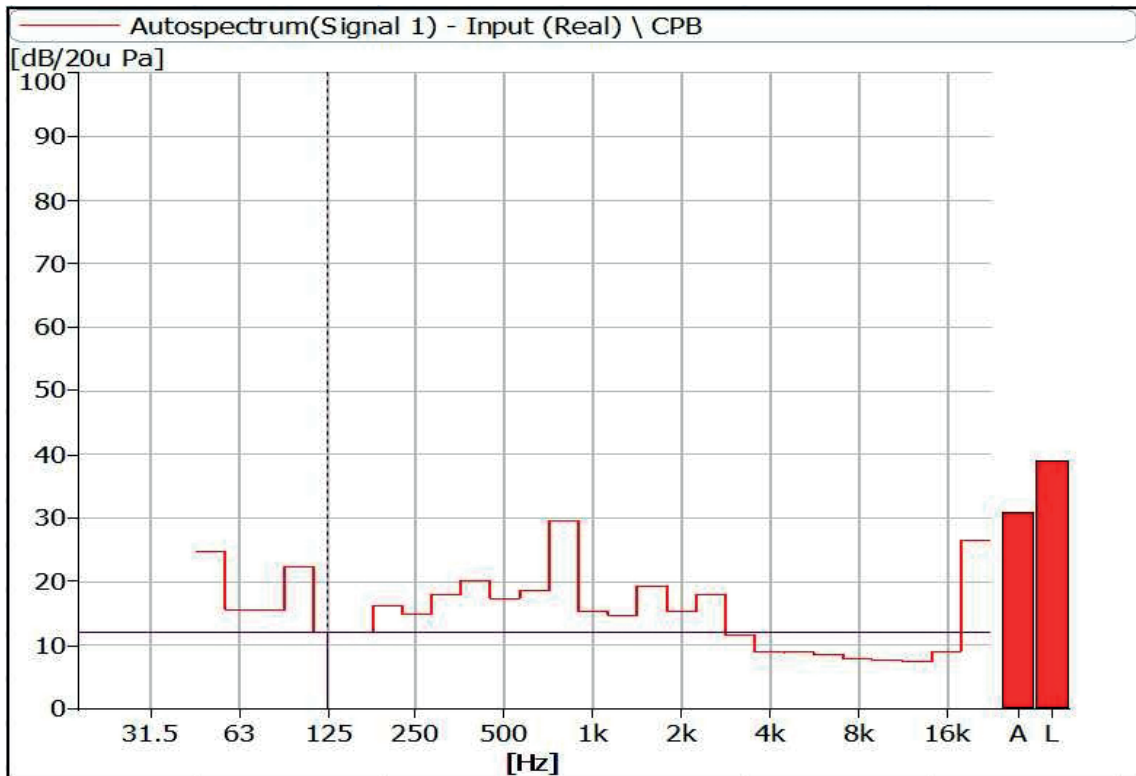


Figure 27 Noise Spectrum of Stage Luminaires (The Super Silence mode, Static, No 1)

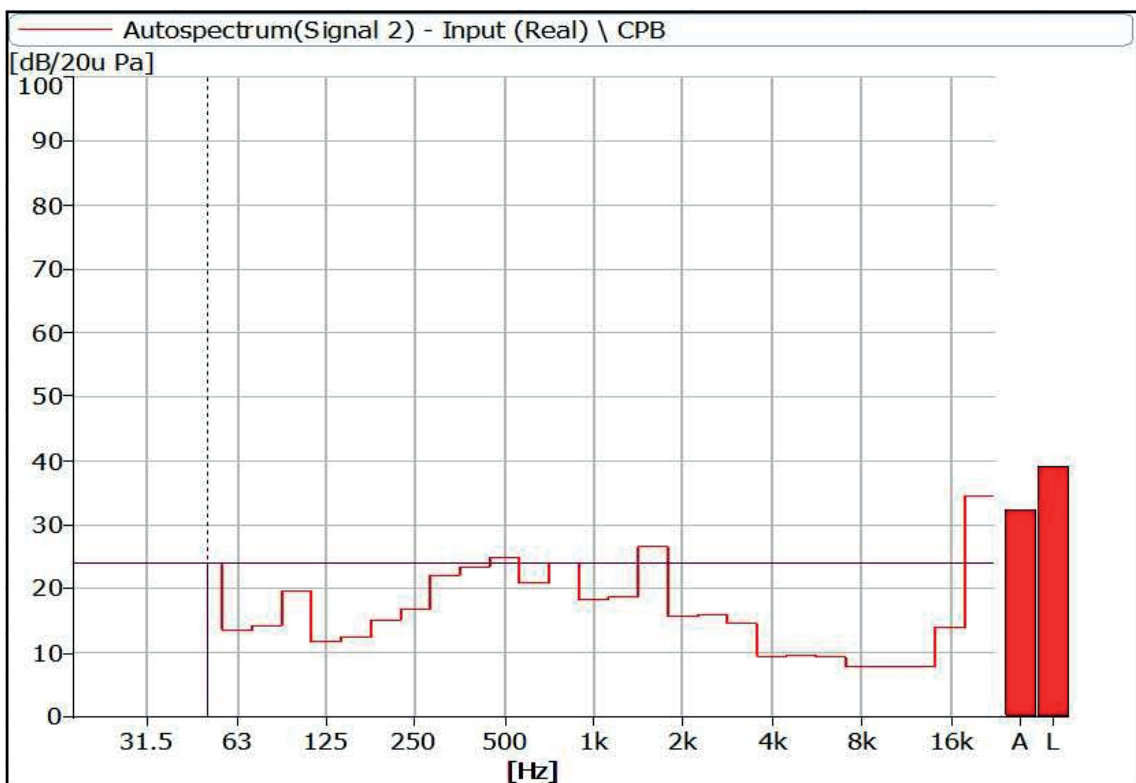


Figure 28 Noise Spectrum of Stage Luminaires (The Super Silence mode, Static, No 2)

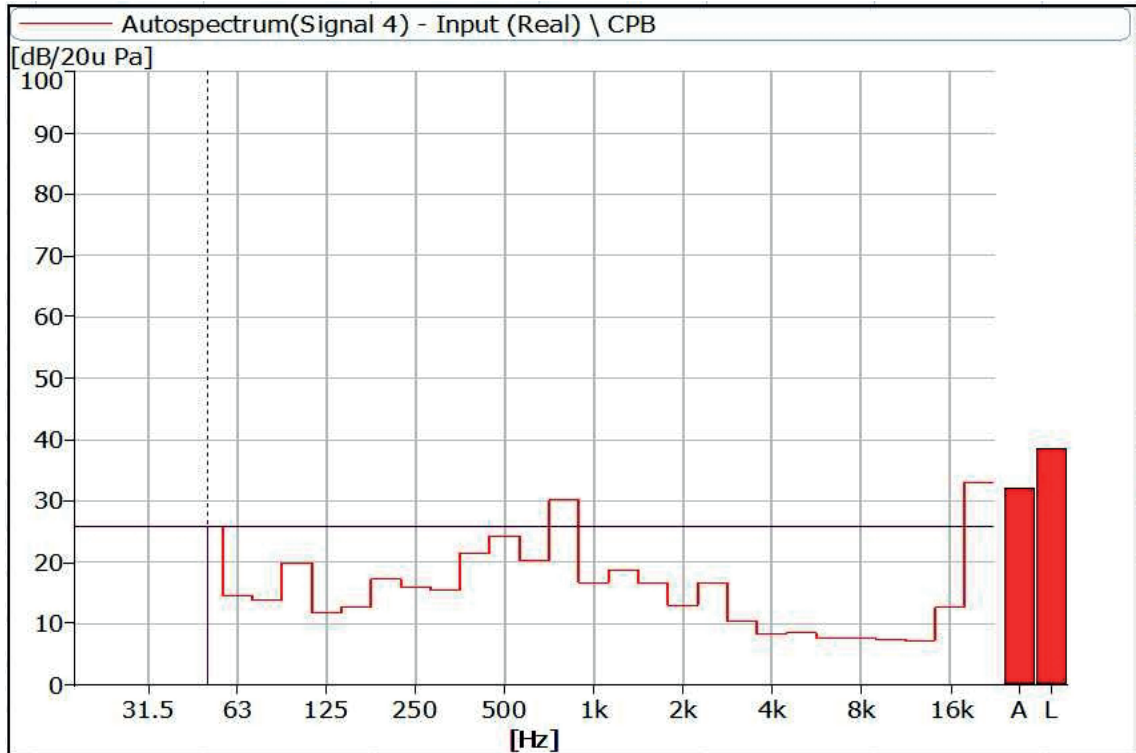


Figure 29 Noise Spectrum of Stage Luminaires (The Super Silence mode, Static, No 3)

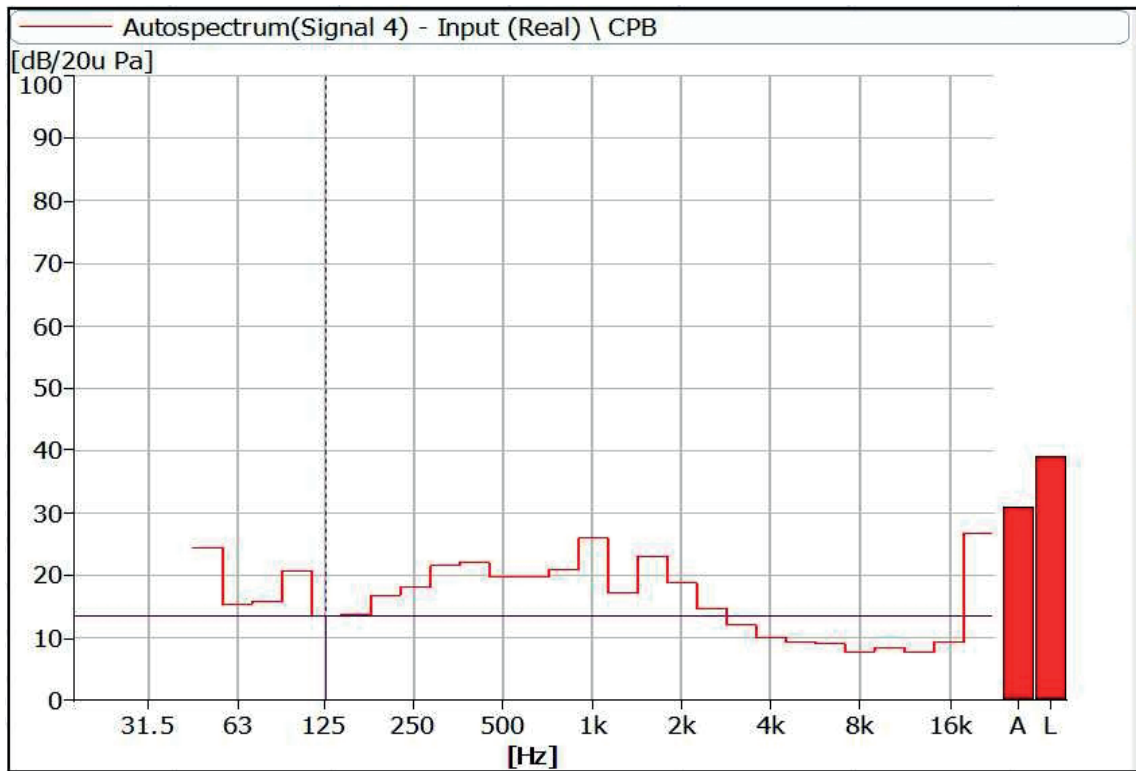


Figure 30 Noise Spectrum of Stage Luminaires (The Super Silence mode, Static, No 4)



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

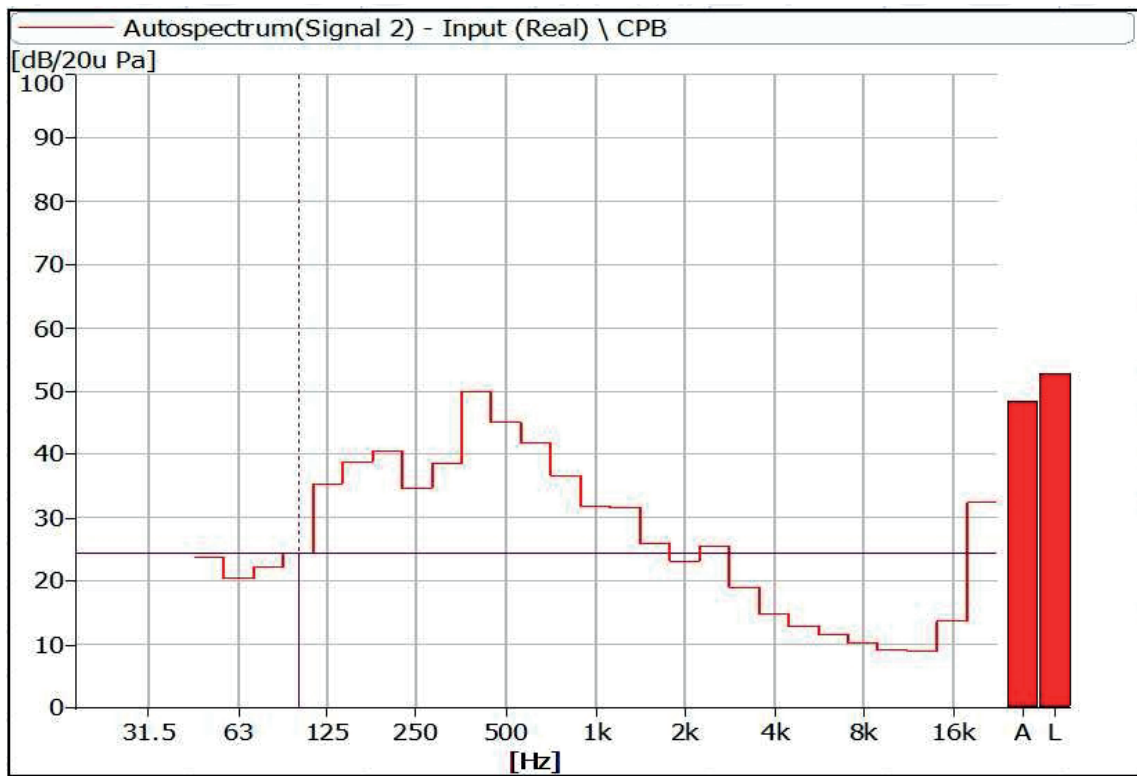


Figure 32 Noise Spectrum of Stage Luminaires (The Super Silence mode, Dynamic, No 2)

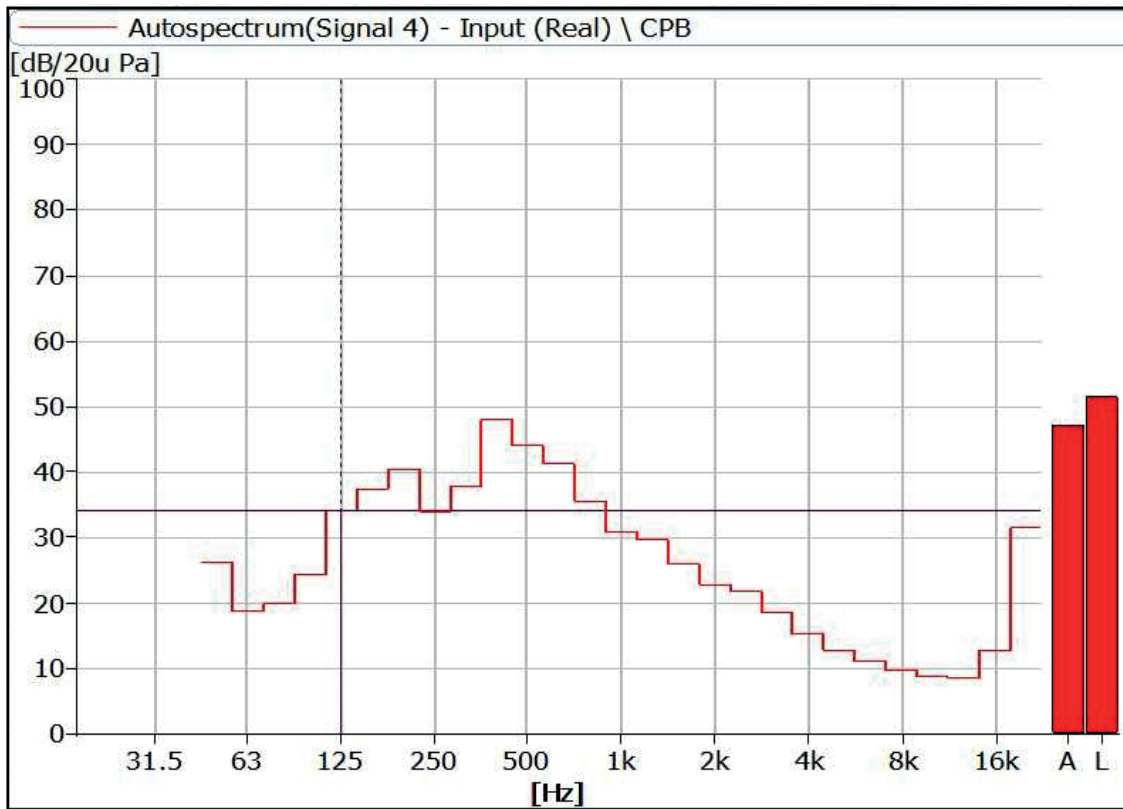


Figure 33 Noise Spectrum of Stage Luminaires (The Super Silence mode, Dynamic, No 3)

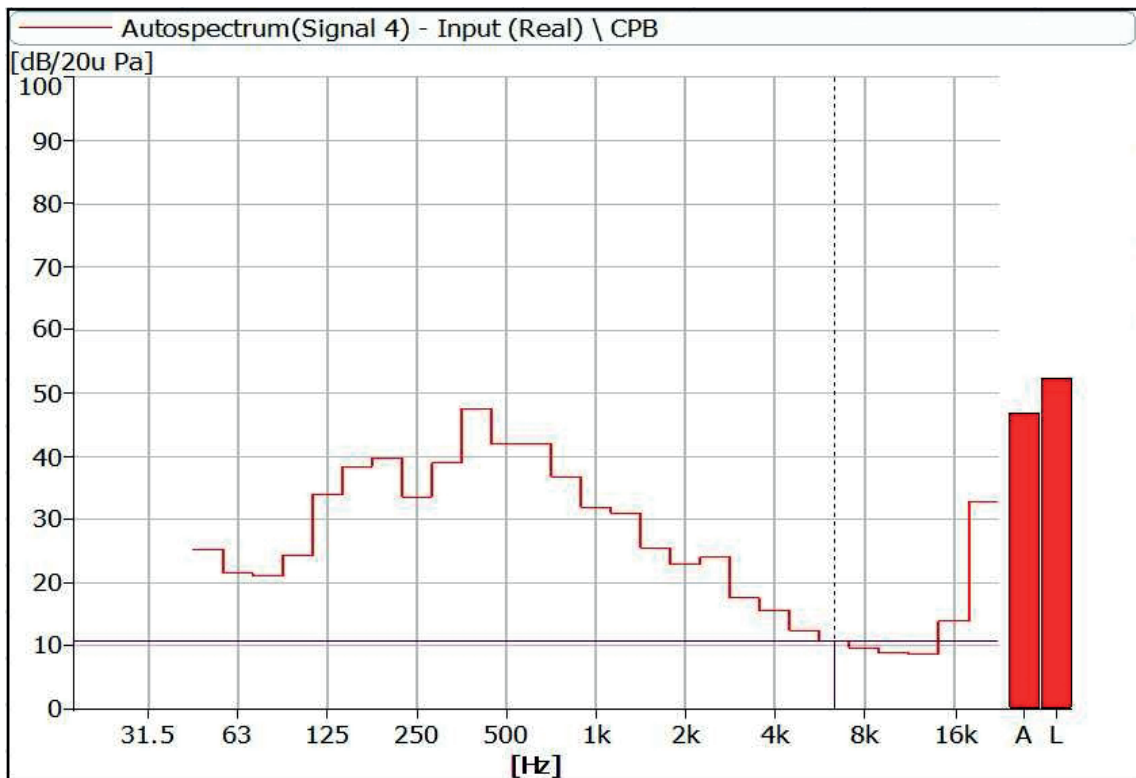


Figure 34 Noise Spectrum of Stage Luminaires (The Super Silence mode, Dynamic, No 4)

Instrumentation

No	Equipment	Type	Number	Calibration Period
1	Anechoicrooms	-	R40010	2029-06-12
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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