

REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 104708816

Date: June 25, 2021

REPORT NO. 104708816CRT-001

SOUND OUTPUT MEASUREMENTS ON A VL1600ALPHA1008205 LIGHT FIXTURE

RENDERED TO

VARI-LITE 10911 PETAL STREET DALLAS, TX 75238

INTRODUCTION

This report gives the results of sound output measurements of 1 light fixture. The sample was supplied to the acoustical laboratory by the client and received at the laboratories on June 14, 2021. The sample appeared to be in good, used condition.

AUTHORIZATION

Signed Intertek Quotation No. Qu-01175811-1

TEST METHOD

The laboratory method used in conducting these tests is in accordance with ANSI S1.13-2010, "Measurement of Sound Pressure Levels in Air".

Data was obtained on a Bruel & Kjaer Pulse 2270 sound level meter. Intertek Testing Services Acoustical Facilities utilizes a 4,320 ft³ hemi-anechoic chamber. The sound pressure level was measured at 1 meter from the side and face (connections panel) of the unit in four modes.

EQUIPMENT

Equipment	Calibration	Due Date	S/N	Model	Brand	Asset
	Date					
Sound Level Meter	5/7/2021	5/7/2022	2706893	2270	Brüel and Kjær	A270
Microphone Calibrator	9/8/2020	9/8/2021	2130586	4231	Brüel and Kjær	A227
Microphone	9/8/2020	9/8/2021	3042645	4955-A	Brüel and Kjær	

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DESCRIPTION OF TEST SPECIMEN

The test specimen consisted of a light fixture. The sample was identified as a VL1600ALPHA1008205. A photograph of the sample is shown below. The fixture was powered with 230 VAC, 60 Hz power.



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RESULTS OF TESTS

VL1600ALPHA1008205 LIGHT FIXTURE

<u>1/3 Octave Band</u>	Cound Dressure Louis at 1 Mater in dD, referenced to 20 missions and								
	26.0	40.0		42 G		42 0		<u>5</u> 150	41.2
	20.0	40.9	40.0	42.0	40.0	45.0	40.4	45.2	41.2
LZEQ 63HZ	38.0	39.3	42.4	45.3	37.8	41.1	37.4	44.0	40.5
LZEQ 80HZ	37.7	39.3	37.0	40.4	38.8	39.6	38.8	39.7	40.4
LZeq 100Hz	30.5	30.6	31.3	31.6	30.5	31.2	37.4	33.7	34.9
LZeq 125Hz	27.3	28.2	27.5	27.6	26.6	28.0	27.1	27.1	26.0
LZeq 160Hz	27.1	27.4	24.6	25.8	24.6	24.8	20.5	21.3	21.7
LZeq 200Hz	32.3	33.9	30.0	32.5	27.4	29.2	17.4	16.9	18.2
LZeq 250Hz	38.0	39.5	34.4	36.7	36.2	37.3	13.9	14.9	14.2
LZeq 315Hz	34.0	38.3	38.7	42.8	28.7	29.4	8.6	10.2	8.6
LZeq 400Hz	36.3	47.2	29.4	33.1	23.5	28.3	9.2	9.2	3.6
LZeq 500Hz	33.7	35.3	29.8	31.3	26.2	27.2	9.9	6.7	0.3
LZeq 630Hz	37.4	40.1	33.1	36.3	26.7	28.2	8.7	10.5	1.0
LZeq 800Hz	39.5	41.2	31.6	34.0	26.8	28.4	4.9	11.2	-3.3
LZeq 1kHz	38.3	33.8	33.9	30.4	26.3	22.1	3.8	3.6	-4.5
LZeq 1.25kHz	38.6	36.7	31.4	29.9	22.0	23.8	3.6	5.6	-6.0
LZeq 1.6kHz	31.1	38.2	26.0	31.1	20.8	25.1	-0.3	0.5	-4.9
LZeq 2kHz	31.1	36.4	27.1	30.6	20.3	23.6	0.3	-0.5	-3.8
LZeq 2.5kHz	31.3	34.4	25.9	27.6	15.8	18.4	-1.6	-2.1	-5.2
LZeq 3.15kHz	31.2	32.2	24.1	25.3	15.8	16.4	-1.5	-2.6	-5.8
LZeq 4kHz	27.7	30.9	21.9	23.0	14.4	14.1	4.8	0.5	-5.3
LZeq 5kHz	24.5	28.1	18.1	20.2	10.7	12.6	-0.9	-0.9	-5.1
LZeq 6.3kHz	21.2	25.1	14.8	17.8	11.0	12.8	8.0	5.8	-4.8
LZeq 8kHz	16.5	20.9	11.8	13.8	8.5	9.9	8.1	3.7	-4.1
LZeq 10kHz	12.5	21.0	7.0	13.5	3.8	7.9	1.0	2.5	-3.6
LZeq 12.5kHz	9.6	16.6	6.8	10.5	5.8	8.5	4.2	4.5	-3.6
LZeq 16kHz	10.2	12.9	9.1	11.0	8.8	9.6	9.1	7.6	-1.7
LZeq 20kHz	21.8	19.5	20.1	17.9	20.1	19.2	20.6	18.5	2.0
Overall, dBA	45.7	48.3	40.7	42.6	34.7	36.1	25.0	25.2	22.6
Test Location	Side	Front	Side	Front	Side	Front	Side	Front	N/A
Test Mode	Standard	Standard	Studio	Studio	Whisper	Whisper	Silent	Silent	Background



CONCLUSION

The test method employed for this test has no pass-fail criteria; therefore, the evaluation of the test results is left to the discretion of the client.

Date of Tests: June 23, 2021

Report Approved by:

Driven Cy

Brian Cyr Engineer Acoustical Testing

Report Reviewed By:

James R. Kline

James R. Kline Engineer/Quality Supervisor Acoustical Testing