VANTAGE LIGHTING

TEST REPORT

SCOPE OF WORK
LED Performance Testing

MODEL NUMBER
VW44SQLEDMRIU

PROJECT NUMBER
G105471856

REPORT NUMBER
105471856CRT-023

ISSUE DATE
3/26/2025

REVISED DATE
None

TEST DATES
3/5/2025 - 3/18/2025

DOCUMENT CONTROL NUMBER
RTTDS-R-AMER-Test-3407

PAGES
11

REPORT NUMBER
105471856CRT-023

MODEL NUMBER(s)
VW44SQLEDMRIU

REPORT RENDERED TO:
VANTAGE LIGHTING
181 NARAGANSETTE PARK DRIVE
EAST PROVIDENCE, RI 02916
USA

STATEMENT OF LIMITATION

NVLAP Lab Code 100402-0. 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.

AUTHORIZATION

The testing performed was authorized by signed quote number Qu-01343314-0.

TEST STANDARDS

ANSI/IES LM-79-19: Optical and Electrical Measurements of Solid State Lighting Products
ANSI NEMA ANSLG C78.377: 2017: Specifications for the Chromaticity of Solid State Lighting (SSL) Products

In Charge of Testing:

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Reviewer:

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SAMPLE INFORMATION

REPORT NO. 105471856CRT-023

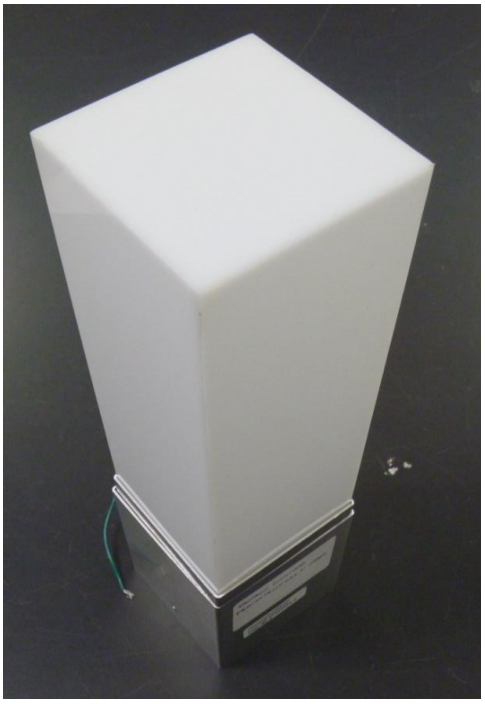
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received Date	Sampling Date
1	CRT2502261353-001	VW44SQLEDMRIU	Wall Sconce	Production	2/26/2025	N/A

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	VW44SQLEDMRIU	1

SAMPLE PHOTOS



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SUMMARY **REPORT NO. 105471856CRT-023**

PRODUCT INFORMATION AND SUMMARY OF DATA

Test Configuration 1	
Product Model No.:	VW44SQLEDMRIU
Product Description:	Wall Sconce
LED Model No.:	Signify
Driver Model No.:	WELED

Criteria	Results	
	Goniophotometer	Integrating Sphere
Light Output (lumens)	1938.9	1997.6
Input Power (W) @ 120 (Vac)	18.40	18.51
Luminous Efficacy (lm/W)	105.4	107.9
Input Power Factor () @ 120 (Vac)	0.995	0.994

Criteria	Results
Input ATHD (%) @ 120 (Vac)	5.26
Correlated Color Temperature (K)	4075
Color Rendering Index - Ra ()	83.6
Color Rendering Index - R9 ()	15.1
Duv ()	0.002
Chromaticity Coordinate (x)	0.379
Chromaticity Coordinate (y)	0.381
Chromaticity Coordinate (u')	0.222
Chromaticity Coordinate (v')	0.503
Input Power (W) @ 277 (Vac)	18.98
Input Power Factor () @ 277 (Vac)	0.943
Input ATHD (%) @ 277 (Vac)	11.59

TEST METHODS

SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS

No seasoning was performed in accordance with ANSI/IES LM-79-19

DUT SAMPLING METHOD

For testing plans, program requirements, or shipments requiring sampling of DUTs or components, the selections for each test were random. All samples are marked with control numbers regardless of being tested.

INTEGRATING SPHERE TESTING

A spectroradiometer and integrating sphere were used to measure the spectral power distribution for photometric and colorimetric data of the DUT. Electrical measurements of the unit were measured using a power analyzer. Each DUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature and relative humidity was measured at 25°C ± 1.2°C and 10-65% respectively at a position inside of the sphere within 1.5m and at equal height of the DUT. Stabilization procedures to LM-79-19 were followed. The DUT was mounted in a 4π configuration.

TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING

A Type C Mirror Goniophotometer system was used to measure the luminous intensity (candela) at each angle of distribution for the DUT. Electrical measurements of the unit were measured using a power analyzer. Each DUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature and relative humidity was measured at 25°C ± 1.2°C and 10-65% respectively at a position within 1.5m and at equal height of the DUT. Stabilization procedures to LM-79-19 were followed. The test distance was ≥ 5x the longest luminous dimension of the DUT.

ANSI/IES Technical Memorandums (TM) reported are not NVLAP accredited

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TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING

REPORT NO. 105471856CRT-023

Test Configuration	Tested Model No.	Pass/Fail/NA
1	VW44SQLEDMRIU	NA

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS

Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Down	120.0	154.1	18.40	0.995

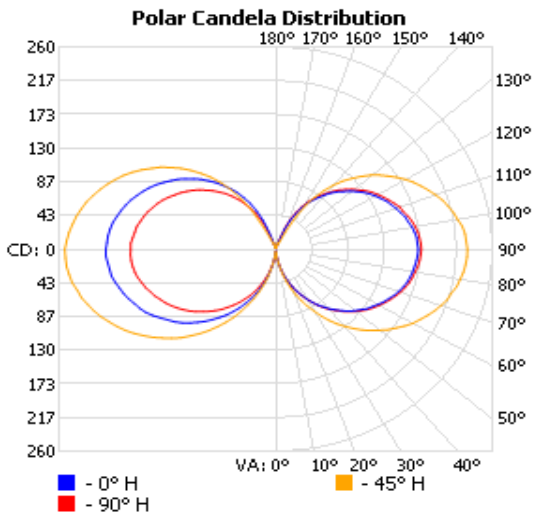
Light Output (lm)	Efficacy (lm/W)
1938.9	105.4

LUMINOUS INTENSITY SUMMARY (candela)

Vertical	Horizontal				
Angle (°)	0	25	45	65	90
0	4	4	4	4	4
5	7	6	6	6	7
10	17	18	18	17	17
15	31	33	35	33	31
20	45	50	54	51	46
25	60	68	73	69	60
30	74	85	92	87	74
35	87	102	112	105	88
40	100	119	130	122	101
45	112	135	147	138	113
50	123	149	162	152	124
55	133	163	176	166	135
60	142	175	190	178	144
65	150	185	201	190	152
70	157	194	211	199	160
75	163	201	218	207	166
80	167	206	225	212	170
85	169	211	229	217	173
90	171	213	230	218	175
95	170	210	228	216	173
100	166	205	221	211	170
105	161	199	214	203	164
110	154	189	204	194	158
115	146	179	192	184	150
120	138	167	180	172	141
125	128	153	164	158	131
130	116	138	148	143	120
135	104	122	129	125	108
140	91	102	107	105	94
145	77	81	82	83	79
150	61	58	49	60	63
155	41	33	11	36	44
160	12	8	6	8	16
165	4	6	4	6	4
170	1	2	4	2	2
175	1	1	1	1	1
180	1	1	1	1	1

Full luminous intensity matrix found in .IES file

Polar Candela Plot



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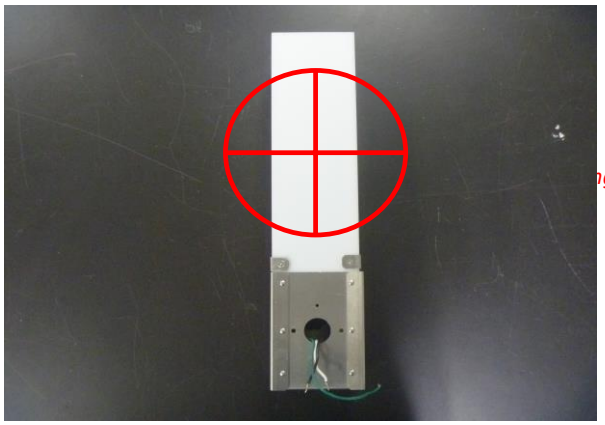
ORIENTATION AND ALIGNMENT OF DUT

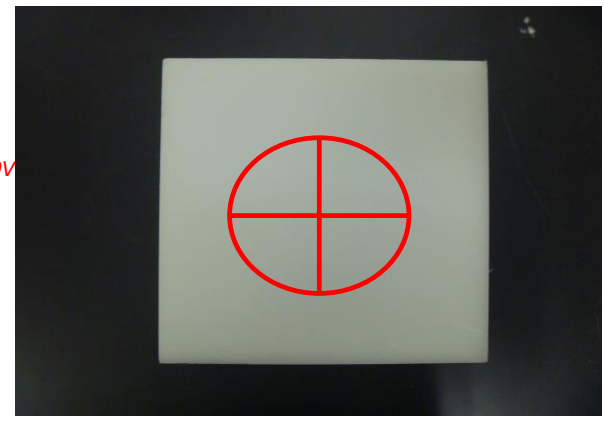
Luminous Opening		
Length (ft)	Width (ft)	Height (ft)
0.31	0.31	0.94
0°-180° H	90°-270° H	0°-180° V

Test Distance (ft)
29.2

PHOTOMETRIC CENTER OF DUT



ng 90V



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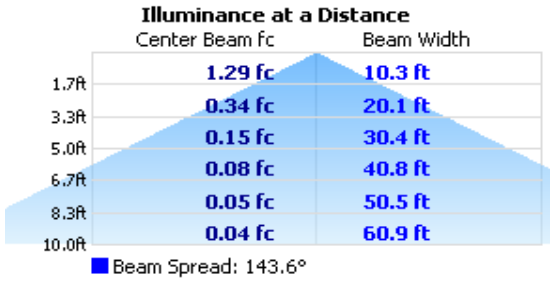
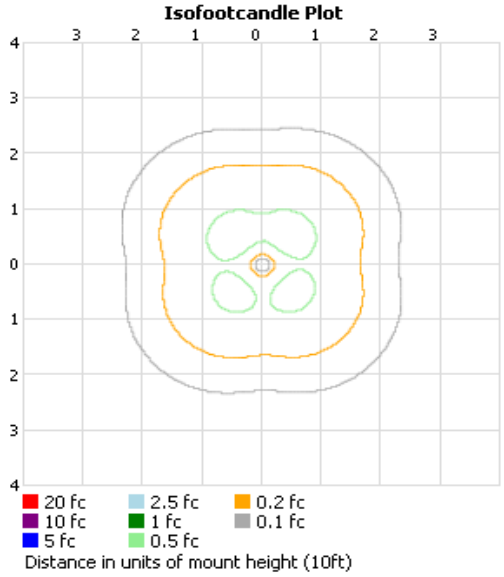
REPORT NO. 105471856CRT-023

ILLUMINANCE SUMMARY

Illuminance - Cone Of Light



Isoillumination Plot



ZONAL LUMENS

Zonal Lumen Summary

Zone (°)	Lumens	Luminaire
0-30	43.7	2.3%
0-40	109.8	5.7%
0-60	364.5	18.8%
60-90	636.8	32.8%
70-100	682.5	35.2%
90-120	626.7	32.3%
0-90	1,001.3	51.6%
90-180	937.6	48.4%
0-180	1,938.9	100.0%

Zone (°)	Lumens	Total	Zone (°)	Lumens	Total
0-10	1.0	0.1%	90-100	232.4	12.0%
10-20	10.2	0.5%	100-110	213.1	11.0%
20-30	32.6	1.7%	110-120	181.2	9.3%
30-40	66.0	3.4%	120-130	141.0	7.3%
40-50	106.3	5.5%	130-140	97.4	5.0%
50-60	148.4	7.7%	140-150	53.9	2.8%
60-70	186.7	9.6%	150-160	16.8	0.9%
70-80	216.6	11.2%	160-170	1.7	0.1%
80-90	233.5	12.0%	170-180	0.2	0.0%

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INTEGRATING SPHERE TESTING **REPORT NO. 105471856CRT-023**

Test Configuration	Tested Model No.	Pass/Fail/NA
1	VW44SQLEDMRIU	NA

PHOTOMETRIC, RADIOMETRIC, COLORIMETRIC, AND ELECTRICAL MEASUREMENTS

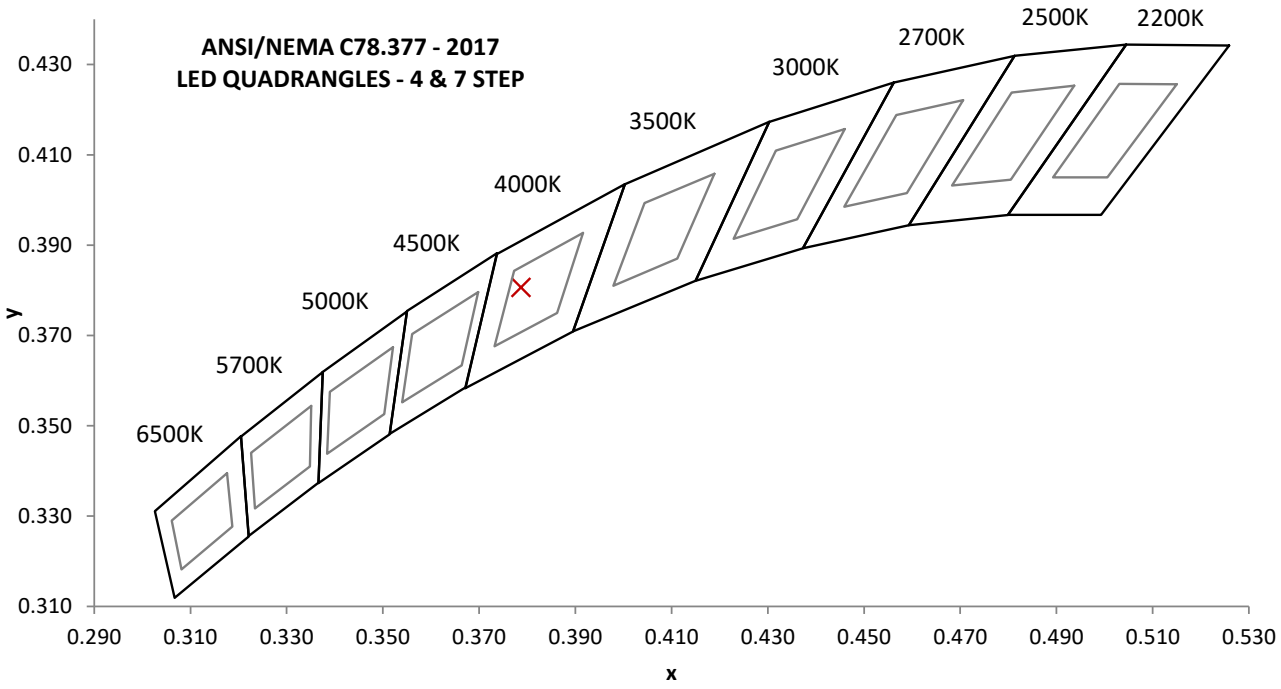
Base Orientation
Down

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()	Input ATHD (%)
120.20	155.0	18.51	0.994	5.26
277.39	72.55	18.98	0.943	11.59

Measured at 120.2(Vac)

Light Output (lm)	Efficacy (lm/W)	CCT (K)	CRI - Ra ()	CRI - R9 ()
1997.6	107.9	4075	83.6	15.1

Duv ()	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
0.0023	0.379	0.381	0.222	0.503



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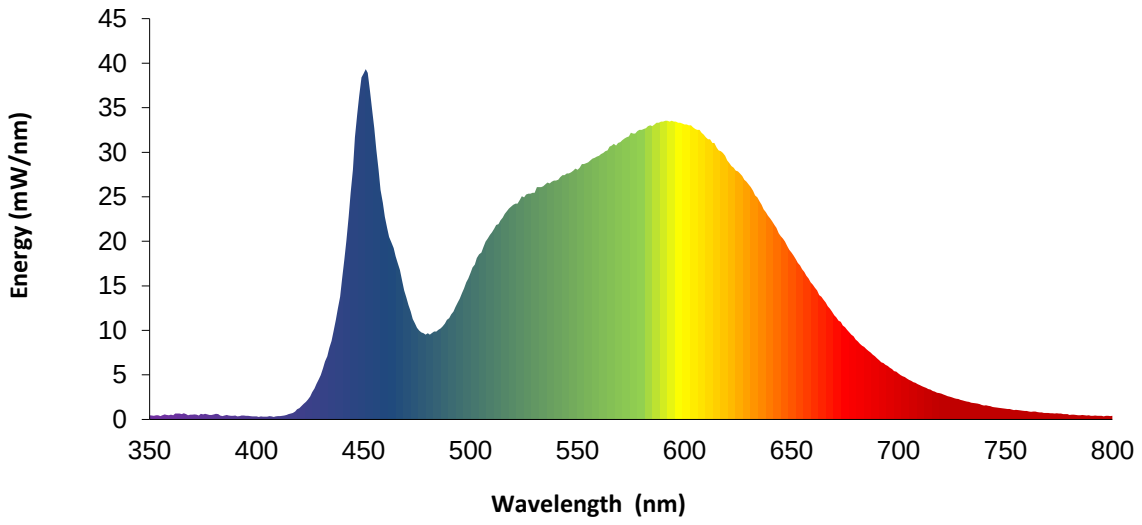
SPECTRAL POWER DISTRIBUTION

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.5		460	22.8		570	31.2		680	9.0
355	0.4		465	18.3		575	32.2		685	7.9
360	0.5		470	13.7		580	32.5		690	6.9
365	0.6		475	10.3		585	32.9		695	6.0
370	0.5		480	9.7		590	33.4		700	5.2
375	0.6		485	10.1		595	33.4		705	4.4
380	0.6		490	11.4		600	33.1		710	3.9
385	0.4		495	13.6		605	32.6		715	3.4
390	0.4		500	16.5		610	31.7		720	2.9
395	0.4		505	18.7		615	30.5		725	2.5
400	0.4		510	21.0		620	29.1		730	2.1
405	0.3		515	22.7		625	27.8		735	1.9
410	0.4		520	24.1		630	26.4		740	1.6
415	0.6		525	24.9		635	24.5		745	1.4
420	1.3		530	25.5		640	22.6		750	1.2
425	2.6		535	26.4		645	20.6		755	1.1
430	5.0		540	26.8		650	18.7		760	1.0
435	8.8		545	27.6		655	16.9		765	0.8
440	15.8		550	28.0		660	15.1		770	0.7
445	28.0		555	28.9		665	13.5		775	0.7
450	38.8		560	29.6		670	11.7		780	0.5
455	32.7		565	30.6		675	10.4		---	---

Spectral radiant flux was measured by 1nm increments. 1nm data is on file.



Portrayed color in graphic is estimated by wavelength (nm) and may not be exact - it is a visual representation only

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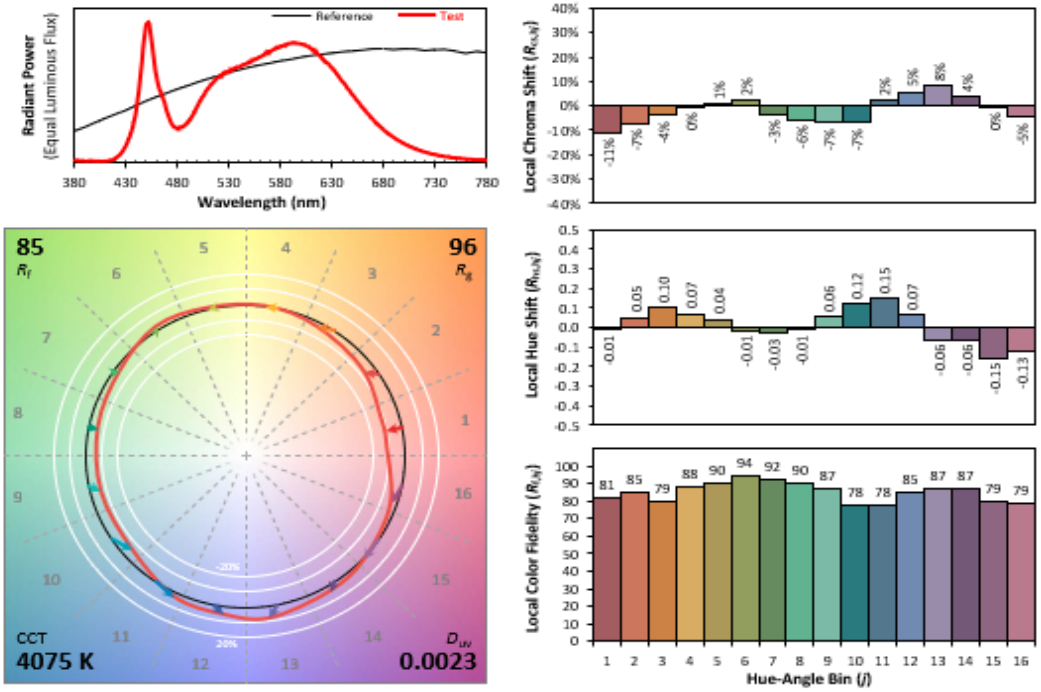
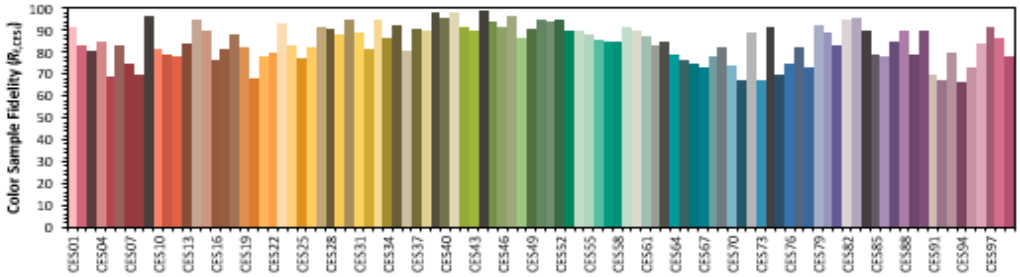
ANNEX A - IES TM-30 CALCULATIONS

REPORT NO. 105471856CRT-023

Test Configuration	Tested Model No.	Pass/Fail/NA
1	VW44SQLEDMRIU	NA

TM-30 REPORT





Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3787
y	0.3806
u'	0.2224
v'	0.5030

CIE 13.3-1995 (CRI)

R_a	84
R_9	15

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

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EQUIPMENT LIST

REPORT NO. 105471856CRT-023

#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	LSI Type C Goniophotometer System	6440	---	1/20/2025	4/20/2025
2	Elgar AC Power Supply	CW1251	---	VBU	VBU
3	Omega Thermometer	DPi8-C24	M263	3/13/2025	3/13/2026
4	Tape Measure	Crescent	L288	12/9/2024	12/9/2027
5	M-D Building Products Digital Level	Smart Tool	L112	8/13/2024	8/13/2025
6	Yokogawa Power Analyzer	WT210	E464	6/12/2024	6/12/2025
7	Traceable Hygrothermometer	4800	L283	4/5/2024	4/5/2025
8	Elgar AC Power Supply	CW1251	---	VBU	VBU
9	Sorenson DC Power Supply	XFR 150-8	---	VBU	VBU
10	Testo Hygrometer	608-H1	L282	4/5/2024	4/5/2025
11	Yokogawa Power Analyzer	WT1600	E536	5/7/2024	5/7/2025
12	Fluke Thermometer	53 II	D587	3/18/2024	3/18/2025
13	3M Integrating Sphere Spectrometer System	CDS800	L231	2/21/2025	5/21/2025

The AC power supplies used for testing have a crest factor capable of 0-3.5

REVISION HISTORY

#	Revision Date	Updated By	Reviewed By	Description of Change
---	None	---	---	---
---	---	---	---	---
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