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ENERGY AUDIT CERTIFICATE

30th MARCH 2024

This is to certify and congratulate **St. Xavier's College Jaipur,** as it has successfully undergone Energy Audit between December 2023 and March 2024. The compliance of the institution with respective regulations, policies and standards were found satisfactory.

DEEPAK
Energy Auditor
(EA-19771)

ST. XAVIER'S COLLEGE JAIPUR

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Energy Audit Report

30th MARCH 2024

St. Xavier's College Jaipur

Nevta-Mahapura Road, Near Nevta Dam,
Tehsil Sanganer, Jaipur – 302029, Rajasthan, India

DEEPAK
Energy Auditor
(EA-19771)

ST. XAVIER'S COLLEGE JAIPUR

Acknowledgement

Sustainergic Tech Pvt. Ltd. is thankful to St. Xavier's College Jaipur for providing us an opportunity to conduct an Energy Audit of their office, we are grateful to St. Xavier's College Jaipur, other officers and staff for showing keen interest in the study and for the help and co-operation extended to EFS team during the study.

We do hope that you will find the recommendations given in this report useful in helping you save energy. While we have made every attempt to adhere to high quality standards, in both data collection and analysis, as well as in presentation through the report, we would welcome any suggestions from your side as to how we can improve further.

Please email at: prateek@sustainergictech.in

Dr. Prateek Srivastava, MD, Sustainergic Tech Pvt. Ltd.

Sustainergic Tech authorized representative for this audit is Mr. Vikrant Pal.

Contents

List of tables

List of Figures

1.0 Introduction

The working details of assignment are as follows:

Project	**Comprehensive Energy Audit**
Client	**St. Xavier's College Jaipur**
College	**St. Xavier's College Jaipur**
Contact	**Prof. Fr. Xavier Savarimuthu, SJ**
Site	**Nevta-Mahapura Road, Near Nevta Dam, Tehsil Sanganer, Jaipur - 302029 Rajasthan, India**
Consultant	**Engineering College Services**
Duration	December 2023 – March 2024
Project Scope	Examination of detail energy audit in the utility and process to assess the loss in the system.
Report	This document gives recommendations, details of findings and the way forward
Consultants involved	Mr. Deepak Bajpai (EA-19771) Dr. Prateek Srivastava, Mr. Vikrant Pal Mr. Avinish Kumar Singh
Notes	- The critical points are marked in red - The assumptions are marked in blue - The suggestions / alternatives in the audit report are based on the present operating conditions of equipment/systems and to the best of our knowledge. - Investment figures are estimated values and recommended to obtain cost from vendors.

1.1 Summary of Energy Conservation Measures

Table 1. Summary of Energy Conservation Measures

S. No	Energy Conservation Measure	Annual Savings Electricity		Investment	Payback
		kWh	Rs. Lakhs	Rs. Lakhs	Month
Payback 0-12 months					
1	Install occupancy sensor in Classroom & Auditorium				
2	During audit we can found that the college used 2 & 3-star AC which consume more power as compare to 5-star AC's. It is recommended to replace all 5-star ACs with 5 Star inverter AC's.				
Payback 12-24 months					
3	Conventional ceiling fan replacement with BLDC fan It is recommended to replace the ceiling fan with BLDC fan	19200	1.7	3.0	21.2
Total		**19200**	**1.70**	**3**	**21.2**

2.0 College description and energy sources

2.1 About St. Xavier's College

The Jaipur Xavier Educational Association (J.X.E.A.) established in 1950, as a registered charitable society managed by the Jesuits, has been pursuing the legacy of St. Francis Xavier of promoting human fulfilment by means of training and education in India. Following the motto of the founder of the Society of Jesus, St. Ignatius of Loyola, the college has been working for "The Greater Glory of God" (*Ad Majorem Dei Gloriam*).

In 2006, Xavier Vocational Institute (X.V.I.) was set up in Jaipur to give vocational training to the weaker sections of the society. In 2010, J.X.E.A. in collaboration with Xavier Alumni/ae and well-wishers of Jaipur under the leadership of Rev. Fr. Varkey Perekkatt, SJ, established St. Xavier's College Jaipur. Since then, the college has grown manifold, serving the educational needs, not only of the people of Jaipur but also of the nation. Over the last 10 years we have grown from a sapling to a huge oak, as every year the college has reached new milestones. In 2014, the college was declared a Christian Minority Jesuit Institution and in the same year, the status of college was elevated to the Postgraduate the level with the initiation of two courses, namely, Masters in English Literature and Human Resource Management. In the year 2017, the college was granted Permanent Affiliation for B.A. Honours in Economics and English Literature from the University of Rajasthan. The following year was a testament to our success as the student strength crossed over 2000, and the number of undergraduate courses rose to six – B.A.(Honours)- English, Economics, Political Science; BBA, BCA and B.Com. and the number of postgraduate programmes turned to 5 – M.A.(English), M.A.(Economics), M.Sc. (IT), M.Com.(EAFM, ABST) and M.H.R.M. Another achievement followed in 2019 when the college got recognition under section 2(f) and 12(B) of UGC Act 1956. In addition to this, in the same year, all the undergraduate departments along with M.A. English Literature got permanent affiliation from the University of Rajasthan, Jaipur (Rajasthan). After a magnificent decade, right in the heart of the city, the college shifted to the new campus at Nevta, Jaipur in the session 2021-22 to provide bigger and better infrastructural and academic possibilities to the students. In 2022- 23, Professional Programmes – MBA and MCA have been introduced by the college through its New Technical Institution - Xavier Institute of Management and Informatics (XIMI) in the same Campus. The Department of English and Business Administration have also been approved as Research Centres for PhD Programme.

College Inspiration

The education offered at St. Xavier's College Jaipur aspires to reach the lofty ideals of St. Ignatius that are encapsulated in the *Magis,* meaning "better than the best". Every activity of the College is in line with the definite stand taken by the Society of Jesus with regard to this ideal in the field of education, all over the world. This stand is inspired and moulded by a document on Jesuit education prepared in 1986, on the occasion of the 400th anniversary of Ratio Studiorum (Plan of studies drawn up by the Jesuits when they entered into the field of education), by the International Commission on the Apostolate of Jesuit Education (ICAJE) and presented to the whole Society by the then General Fr. Peter Hans Kolvenbach, SJ.

The document confers on Jesuit education the following characteristics:

Person Oriented: by paying individual attention to each student and making teaching and learning student-centered.

Integral Formation and Development: by paying special attention to intellectual, effective, imaginative, aesthetic, creative, critical, communicative, physical, cultural, moral, and spiritual aspects of the individual.

Faith in God and Religious Experience: by promoting well-formed and strongly-held beliefs in one's faith, tradition and deepening one's relationship with God.

Value-based Leadership: by ensuring a consistent focus on personal integrity and ethical behaviour in all professions, and the appropriate balance between justice and fairness.

Commitment to Excellence: by practically applying well-learned lessons and skills to achieve new ideas, better solutions and vital answers.

Relevant to the Times: by adapting to the concrete situations, politically, socially, and culturally.

Service that Promotes Justice: by using learning and leadership in open- handed and generous ways to ensure freedom of inquiry, the pursuit of truth, and care for others.

Participative: by encouraging interaction among the pupil, parents, and teachers.

Aim

Like other Jesuit educational institutions, St. Xavier's College Jaipur aims to train young men and women who would contribute to the society as creative leaders and responsible citizens, committed to the service of the people. Every effort is made to see that the students become intellectually equipped, morally upright, socially committed, and spiritually awakened to God's uniting presence in the whole world. The Christian doctrine of love and service well paraphrased by Christ in 'love thy neighbour as thyself' provides the bedrock of education that is offered here, and illuminates and directs all our activities and projects.

The Meaning of the College Emblem

The motto on the college crest: Competence, Character and Compassion encodes the core values sought by the college, and challenges every student who passes through the portals of St. Xavier's College Jaipur is expected to imbibe the high ideals of the college: acquiring personal integrity and excellence in everything.

The burning lamp represents Lord Jesus Christ who said, "I am the light of the world" (John 8:12), and the Wisdom of God. True education leads one from the darkness of ignorance to the light of genuine knowledge and enlightenment.

The open book symbolizes the time tested, quality educational tradition of the Jesuits and their commitment to carry it forward. The inscription "IHS," placed above the open book is taken from the official seal of the Society of Jesus, used by the founder St. Ignatius of Loyola. These are the first three letters of the Latinized Greek word HISOVS, meaning 'Jesus'. The cross shown above the letter 'H' reminds the world that Jesus Christ died on the Cross for the salvation of mankind.

The peacock is the national bird of India. It symbolizes beauty, grace, and pride in the nation, its natural resources and cultural diversity. It inspires a sense of mysticism encouraging us to aim for higher values.

2.2 Energy Sources and Cost

Electricity & Fuel (Diesel) are major energy sources of the College. Electricity is supplied at 11 kV. There are one 1000KVA, 11/0.40 kV LT distribution transformers to cater electricity demand to cater electricity demand. Capacity of DG set is 500 KVA.

The energy cost from various sources of energy is given below:

Table 2. Energy cost component of energy sources

Source of energy	Unit	Cost
Electricity (Grid)	Rs. /kWh	8.50

2.3 Electricity

The energy demand of the College is fulfilled by the electricity from Grid. The annual energy consumption from electricity grid sources is as follows:

Table 3. Month wise electrical energy consumption 2023-24

DETAILS OF ELECTRICITY CONSUMPTION FOR THE 2023-2024								
MONTH	**kWh CONSUMPTION**	**KVAH CONSUMPTION**	**FIXED CHARGE**	**ENERGY CHARGES (INR)**	**PF**	**CONTRACT DEMAND (KVA)**	**MDI (KVA)**	**NET AMOUNT PAYABLE (INR)**
Apr-23	27831.0	32780.9	81000	246304	0.849	400	300	363063
May-23	42043.0	46405.1	92262	372080	0.906	400	341.6	585913
Jun-23	7397.0	8005.4	81000	65053	0.924	400	300	248773
Jul-23	12170.0	14470.9	81000	107705	0.841	400	300	243000
Aug-23	54477.0	59343.1	130734	482121	0.918	400	484	828063
Sep-23	74764.0	80047.1	133380	661661	0.934	400	494	1085745
Oct-23	56846.0	62126.8	172962	503091	0.915	400	641	1178752
Nov-23	12272.5	14575.4	81000	108611	0.842	400	300	234679
Dec-23	10876.0	14124.7	81000	96252	0.770	400	300	221300
Jan-24	4298.0	5808.1	81000	38037	0.740	400	300	151287
Feb-24	6523.0	8449.5	81000	57728	0.772	400	300	175184
Mar-24	779.0	1018.3	81000	6894	0.765	400	300	113420
Avg	**25856.4**	**28929.6**	**98111.5**	**228794.7**	**0.848**	**400**	**363**	**452432**
Max	**74764.0**	**80047.1**	**172962.0**	**661661.0**	**0.934**	**400.0**	**640.6**	**1178752**
Min	**779.0**	**1018.3**	**81000.0**	**6894.0**	**0.740**	**400.0**	**300.0**	**113420**

Figure 1. Graphical Representation of kWh Consumption

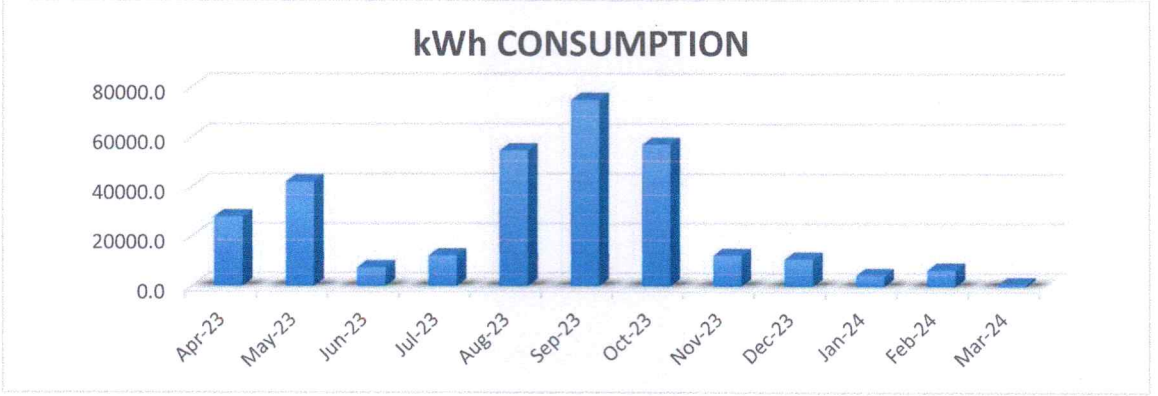


Figure 2. Graphical Representation of kVAh Consumption

Figure 3. Graphical Representation of PF

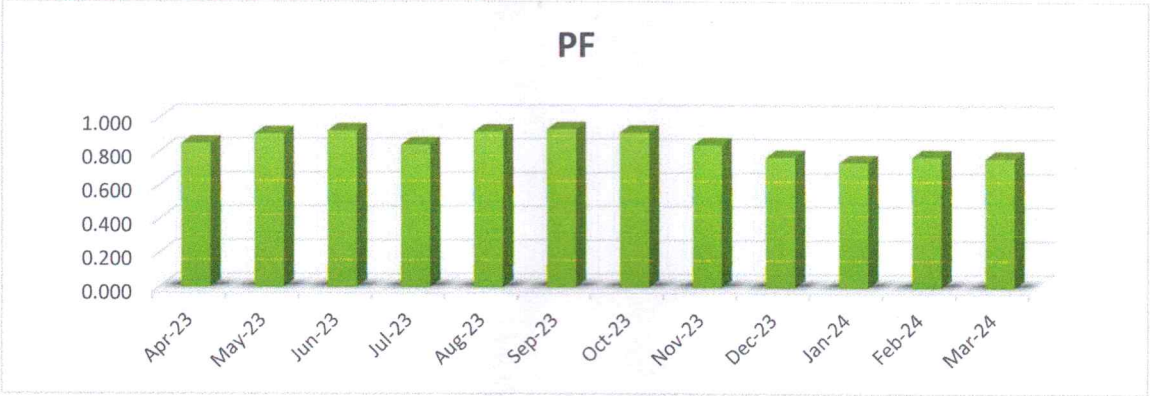
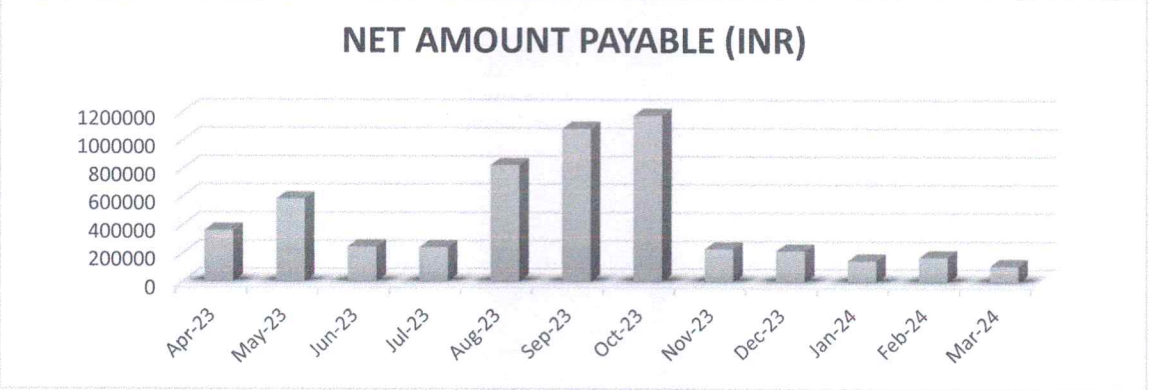


Figure 4. Graphical Representation of Net Amount Payable



2.4 Solar Generation

Details of renewable energy generation projects on organization's property for organization's

The college, situated in Jaipur, has successfully implemented a sustainable initiative with a 300-kW solar rooftop power plant. Operating hits maximum capacity, the campus optimally utilizes clean solar energy, emphasizing environmental responsibility and minimizing carbon footprints. In comparison to traditional methods, where 01unit of electricity production consumes 0.69-0.89 kg of coal and emits 02kg of CO_2, this solar facility significantly reduces pollution. With a total of 560 panels, the college's commitment to eco-friendly practices extends to Operations and Maintenance (O & M) services, ensuring the ongoing efficiency and longevity of this green energy solution.

3.0 Energy Conservation Measures

3.1 Replace BLDC fans with ceiling fans

Background

During energy audit we found that the college uses 60 kW ceiling fans.

Findings

We found that the ceiling fan which is of 60 kW consume more power.

Recommendations

It is recommended to replace the plant ceiling fan with BLDC fan immediately and plan to replace the 100 fans with BLDC fan in first phase.

Benefits

We can replace the existing ceiling fans with the energy efficient BLDC fans. Savings should be taken as when the fan is needed to be changed as when they get faulty. Saving calculation given below.

Table 4. Saving by Ceiling fan replacement with BLDC fan

Parameter	Unit	Value
Average power consumption of the ceiling fan at present	Watt	60
Average power consumption of energy efficient star rated (BLDC) fans	Watt	28
Equivalent Power saving per fan	Watt	32
Numbers of fans to be replaced	Nos	100
Working Hours Per annum	Hr	6000
Overall electric Power Cost	Rs/kWh	8.85
Annual Energy Saving	kWh	19200
Monetary saving	Rs/Year	169920
Investment	Rs	300000
Payback	Month	21

4.0 Observation and analysis

4.1 Electricity supply and Network

Electricity & Fuel (Diesel) are major energy sources of the College. Electricity is supplied at 11 kV. There are one 1000KVA, 11/0.40 kV LT distribution transformers to cater electricity demand to cater electricity demand. Capacity of DG set is 500 KVA.

4.1.1 Energy bill Analysis

Table 5. Electricity bill Analysis 2023-24

DETAILS OF ELECTRICITY CONSUMPTION FOR THE 2023-2024								
MONTH	**kWh CONSUMPTION**	**KVAH CONSUMPTION**	**FIXED CHARGE**	**ENERGY CHARGES (INR)**	**PF**	**CONTRACT DEMAND (KVA)**	**MDI (KVA)**	**NET AMOUNT PAYABLE (INR)**
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Max	**74764.0**	**80047.1**	**172962.0**	**661661.0**	**0.934**	**400.0**	**640.6**	**1178752**
Min	**779.0**	**1018.3**	**81000.0**	**6894.0**	**0.740**	**400.0**	**300.0**	**113420**

Observation:

- The maximum Energy consumption in Sep- 23 was 74764.0 kWh and minimum Energy consumption was 779 kWh in Mar-24.

4.2 List of Electrical Equipment's

Table 6. List of Electrical Equipment's

List of Electrical Equipment's			
S NO.	**Equipment's**	**UOM**	**Qty**
1	Computers	Nos	366
2	Projectors LCD	Nos	58
3	Online UPS	Nos	8
4	Ceiling Fans	Nos	640

4.3 Air conditioners

The College has installed AC for College. The analysis was done to identify the measures that could be undertaken to reduce the energy consumption. The following parameter has studied in each unit.

- Air flow rate
- Air flow cross section area
- Return dry bulb temperature
- Return wet bulb temperature
- Power consumption
- Supply dry bulb temperature
- Supply wet bulb temperature

All AC with two/tree star rating (BEE) are installed in college.

Table 7. Performance Analysis of AC

Parameters	**Units**	**ST. XAVIER'S COLLEGE JAIPUR**				
Location		Room No-40	Room No-41	Waiting Area	Waiting Area	Server Room
Design Capacity	TR	1.5	1.5	1.5	1.5	1.5
Total Area	m^2	0.085	0.085	0.085	0.085	0.085
Measured avg. Velocity	m/s	2.01	1.9	1.9	1.98	2.12
Calculated Flow	m^3/hr	615.1	581.4	581.4	605.9	648.7
Supply Air Dry Bulb Temp.	^oC	25	23	26	26	24
Supply Air Wet Bulb Temp.	^oC	17	17	17	18	19
Enthalpy supply air	KCal/Kg	11.4	11.4	11.4	12.1	12.9
Return Air Dry Bulb Temp.	^oC	27	27	29	28	29
Return Air Wet Bulb Temp.	^oC	24	24	24	24	25
Enthalpy return air	KCal/Kg	17.22	17.3	17.22	17.21	18.19
Density of Air	kg/m^3	1.225	1.225	1.225	1.225	1.225
Calculated Capacity	TR	1.46	1.39	1.38	1.25	1.40
Power Consumption	kW	2.1	2	2.1	2	2.3
kW/TR		1.441	1.434	1.522	1.595	1.648
EER		8.329	8.366	7.887	7.525	7.280

Parameters	Units	ST. XAVIER'S COLLEGE JAIPUR				
COP		2.439	2.450	2.309	2.204	2.132

- **Observation:** AC performance found is satisfactory.

Table 8. Performance Analysis of AC

Parameters	Units	ST. XAVIER'S COLLEGE JAIPUR				
Location		Room No-11	Chapal	Chapal	Hostel Room-1	Hostel Room-1
Design Capacity	TR	1.5	1.5	1.5	1.5	1.5
Total Area	m^2	0.085	0.085	0.085	0.085	0.085
Measured avg. Velocity	m/s	2.12	2.21	2.35	2.12	2.09
Calculated Flow	m^3/hr	648.7	676.3	719.1	648.7	639.5
Supply Air Dry Bulb Temp.	^oC	23	24	26	26	25
Supply Air Wet Bulb Temp.	^oC	17	18	18	17	19
Enthalpy supply air	KCal/Kg	11.4	12.1	12.1	11.4	13.7
Return Air Dry Bulb Temp.	^oC	28	27	29	29	29
Return Air Wet Bulb Temp.	^oC	24	24	24	24	26
Enthalpy return air	KCal/Kg	17.21	17.3	17.2	17.2	19.22
Density of Air	kg/m^3	1.225	1.225	1.225	1.225	1.225
Calculated Capacity	TR	1.53	1.42	1.49	1.52	1.44
Power Consumption	kW	2.2	2.2	2.3	2.2	2.23
kW/TR		1.441	1.547	1.548	1.443	1.554
EER		8.328	7.755	7.751	8.314	7.723
COP		2.439	2.271	2.270	2.434	2.262

- **Observation:** AC performance found is satisfactory.

Table 9. Performance Analysis of AC

Parameters	Units	ST. XAVIER'S COLLEGE JAIPUR				
Location		Hostel Room-2	Hostel Room-2	Hostel Room-3	Hostel Room-3	Warden Room
Design Capacity	TR	1.5	1.5	1.5	1.5	1.5
Total Area	m^2	0.085	0.085	0.085	0.085	0.085
Measured avg. Velocity	m/s	2	1.9	2.2	2.7	2.1
Calculated Flow	m^3/hr	612.0	581.4	673.2	826.2	642.6
Supply Air Dry Bulb Temp.	^oC	26	23	28	24	27
Supply Air Wet Bulb Temp.	^oC	18	17	19	19	18
Enthalpy supply air	KCal/Kg	12.1	11.4	12.9	12.9	12.1
Return Air Dry Bulb Temp.	^oC	29	27	30	29	29
Return Air Wet Bulb Temp.	^oC	24	24	25	25	24
Enthalpy return air	KCal/Kg	17.21	17.3	18.18	18.19	17.21
Density of Air	kg/m^3	1.225	1.225	1.225	1.225	1.225
Calculated Capacity	TR	1.27	1.39	1.45	1.77	1.33
Power Consumption	kW	2.1	2.2	2.25	2.98	2.23
kW/TR		1.658	1.578	1.548	1.683	1.673
EER		7.239	7.605	7.752	7.130	7.172
COP		2.120	2.227	2.270	2.088	2.100

- **Observation:** AC performance found is satisfactory.

Table 10. Performance Analysis of AC

Parameters	Units	ST. XAVIER'S COLLEGE JAIPUR				
Location		Room No-10	Server Room	Studio	Computer Staff Room	Audi Control Room
Design Capacity	TR	1.5	1.5	1.5	1.5	1.5
Total Area	m^2	0.085	0.085	0.085	0.085	0.085
Measured avg. Velocity	m/s	2.1	2.65	2.23	2.25	1.9
Calculated Flow	m^3/hr	642.6	810.9	682.4	688.5	581.4
Supply Air Dry Bulb Temp.	^oC	24	27	25	28	23
Supply Air Wet Bulb Temp.	^oC	16	21	17	19	17
Enthalpy supply air	KCal/Kg	10.7	14.5	11.4	12.9	11.4
Return Air Dry Bulb Temp.	^oC	29	29	29	30	27
Return Air Wet Bulb Temp.	^oC	23	26	24	25	24
Enthalpy return air	KCal/Kg	16.25	19.22	17.2	18.18	17.3
Density of Air	kg/m^3	1.225	1.225	1.225	1.225	1.225
Calculated Capacity	TR	1.46	1.55	1.61	1.49	1.39
Power Consumption	kW	2.42	2.35	2.32	2.33	2.35
kW/TR		1.663	1.516	1.440	1.567	1.685
EER		7.216	7.917	8.336	7.656	7.120
COP		2.113	2.318	2.441	2.242	2.085

- **Observation:** AC performance found is satisfactory.

4.4 VRV Units

Performance analysis of VRV outdoor units of college

The College has installed 14 nos VRV Outdoor units which provide for comfort condition of the college. The performance analysis of the VRV ODU was carried out.

Table 11. Performance Analysis of VRV

Parameters	Units	ST. XAVIER'S COLLEGE JAIPUR						
Location		First Floor	Second Floor	Second Floor	Second Floor	Fourth Floor	Ground Floor	Ground Floor
Total Area	m^2	0.384	0.384	0.384	0.384	0.384	0.384	0.384
Measured avg. Velocity	m/s	12.8	12.9	12.89	13.8	14.3	12.5	12.2
Calculated Flow	m^3/hr	17694.7	17833.0	17819.1	19077.1	19768.3	17280.0	16865.3
Supply Air Dry Bulb Temp.	^oC	35	35	35	35	35	35	35
Supply Air Wet Bulb Temp.	^oC	22	22	22	22	22	22	22
Enthalpy supply air	KCal/Kg	16.0	16.0	16.0	16.0	16.0	16.0	16.0
Return Air Dry Bulb Temp.	^oC	40	40	40	40	40	40	40
Return Air Wet Bulb Temp.	^oC	24	24	24	24	24	24	24
Enthalpy return air	KCal/Kg	17.88	17.88	17.88	17.88	17.88	17.88	17.88
Density of Air	kg/m^3	1.225	1.225	1.225	1.225	1.225	1.225	1.225

Parameters	Units	ST. XAVIER'S COLLEGE JAIPUR						
Calculated Capacity	TR	13.62	13.73	13.71	14.68	15.22	13.30	12.98
Power Consumption	kW	13.4	13.2	12.75	13.7	15.1	12.76	11.89
kW/TR		0.984	0.962	0.930	0.933	0.992	0.959	0.916
EER		12.196	12.478	12.908	12.861	12.092	12.508	13.101
COP		3.571	3.654	3.780	3.766	3.541	3.663	3.836

- VRV performance found satisfactory

Table 12. Performance Analysis of VRV

Parameters	Units	ST. XAVIER'S COLLEGE JAIPUR						
Location		Office VRV	Office VRV	Auditorium	Auditorium	Auditorium Balcony	Auditorium Balcony	XIMI Area
Total Area	m^2	0.384	0.384	0.384	0.384	0.384	0.384	0.384
Measured avg. Velocity	m/s	12.8	12.6	12	12.2	10	11.4	12.2
Calculated Flow	m^3/hr	17694.7	17418.2	16588.8	16865.3	13824.0	15759.4	16865.3
Supply Air Dry Bulb Temp.	^oC	35	35	35	35	35	35	35
Supply Air Wet Bulb Temp.	^oC	22	22	22	22	22	22	22
Enthalpy supply air	KCal/Kg	16.0	16.0	16.0	16.0	16.0	16.0	16.0
Return Air Dry Bulb Temp.	^oC	40	40	40	40	40	40	40
Return Air Wet Bulb Temp.	^oC	24	24	24	24	24	24	24
Enthalpy return air	KCal/Kg	17.88	17.88	17.88	17.88	17.88	17.88	17.88
Density of Air	kg/m^3	1.225	1.225	1.225	1.225	1.225	1.225	1.225
Calculated Capacity	TR	13.62	13.41	12.77	12.98	10.64	12.13	12.98
Power Consumption	kW	12.62	12.68	12.01	11.8	9.76	11.3	11.8
kW/TR		0.927	0.946	0.941	0.909	0.917	0.932	0.909
EER		12.950	12.687	12.757	13.201	13.082	12.881	13.201
COP		3.792	3.715	3.736	3.866	3.831	3.772	3.866

- VRV performance found satisfactory

4.5 Water Pumps

Table 13. Performance Analysis of RO Water Pump

RO Water Pumps				
Description	Unit	Pump -1	Pump -2	Pump -3
Design				
Make		Grundfos	Grundfos	Grundfos
Capacity	m^3/hr	17	17	17
Head	M	40	40	40
Power	kW	4	4	4
Operating Parameter				
Suction head	m	2	2	2
Discharge head	m	33	32	33

RO Water Pumps				
Description	**Unit**	**Pump -1**	**Pump -2**	**Pump -3**
Total Head	m	31	30	31
Flow rate	m^3/hr	14.1	13.2	14.2
Power Consumption	kW	2.10	2.00	2.10
Combined efficiency	%	55%	52%	55%
Pump Efficiency (ŋ Motor=88.5%)	%	62%	59%	63%

- Pump performance found is satisfactory.

Table 14. Performance Analysis of Fire Water Pump

Fire Water Pumps			
Description	**Unit**	**Hydrant Pump**	**Sprinkler Pump**
Design			
Make		Wilo	Wilo
Capacity	m^3/hr	137	10.8
Head	M	70	70
Power	kW	45	11
Operating Parameter			
Suction head	m	1	1
Discharge head	m	56	69
Total Head	m	55	68
Flow rate	m^3/hr	132.4	15
Power Consumption	kW	37.00	5.00
Combined efficiency	%	52%	54%
Pump Efficiency (ŋ Motor=92.5%)	%	56%	60%

- Pump performance found is satisfactory.

5.1 AHU (Air Handling Unit)

The College is air conditioned with Air Handling Units (AHU) for college air conditioning using chilled water generated and supplied from chillers.

The analysis was done to identify the measures that could be undertaken to reduce the energy consumption in AHU and also to enhance the possibilities for better controls in space and to avoid wastages by maintaining required conditions. The following parameter has studied in each unit.

- Air flow rate
- Filter face velocity
- Return temperature
- Fan power consumption
- Ambient conditions
- Supply/Return conditions at AHU

Table 15. Performance Analysis of AHU

Description	Units	Value	Value	Value
Location		AHU No 1	AHU No 2	AHU No 3
Design CFM		5500	5500	5500
Design Power		3.7	3.7	3.7
Air velocity	m/s	2.68	2.60	2.66
Area	m^2	0.96	0.96	0.96
Air flow rate	m^3/sec	2.58	2.51	2.56
	m^3/min	155.01	150.38	153.85
	m^3/hr	9300.67	9023.04	9231.26
	cfm	5474.17	5310.76	5433.32
Ambient air				
DBT	^oC	21.00	25.00	31.00
WBT	^oC	16.00	19.00	20.00
RH	%	60.00	57.00	36.00
Enthalpy	kCal/kg	10.68	12.88	13.63
Density of air	kg/m^3	1.20	1.18	1.16
Supply air				
DBT	^oC	17.00	18.00	22.00
WBT	^oC	13.00	13.00	17.00
RH	%	64.00	57.00	61.00
Enthalpy	kCal/kg	8.73	8.73	11.39
Cooling load on AHU	TR	7.18	14.63	7.92
Motor input power	kW	3.20	3.30	3.00
Motor efficiency	%	0.89	0.89	0.91
kW/TR		0.45	0.23	0.38

- AHU performance found satisfactory

5.2 Lighting system

The College has already implemented energy efficient measures in lighting area. Illumination measured during audit at different places. Recommended value of illumination given as per National Building Code of India, 2005 clause 4.1.3, 4.1.3.2, 4.3.2 and 4.3.2.1

Table 16. Details of LED's installed in college

Name of Item	Quantity
Corridor round Led light 18W	235
Square Light 40 W	57
Tube light 20 W	866
Total	**1158**

Table 17. Details of measured lux in college

S.NO.	Location	Measured LUX Level	Recommended Lux
	Ground Floor		
1	Conference Room	265	200-500
2	College Office	210	200-500
3	Room No. 41	231	200-500

S.NO.	Location	Measured LUX Level	Recommended Lux
4	Room No. 40	223	200-500
5	Room No. 37	205	200-500
6	Computer Lab 3	210	200-500
7	Library	231	200-500
8	Staff Room 1	208	200-500
9	Staff Room 2	205	200-500
	1st Floor		
10	Room No. 113	265	200-500
11	Room No. 112	229	200-500
12	Room No. 111	240	200-500
13	Room No. 110	246	200-500
14	Room No. 107	251	200-500
15	Room No. 106	228	200-500
16	Room No. 105	226	200-500
17	Room No. 104	245	200-500
18	Room No. 117	235	200-500
19	Room No. 116	234	200-500
20	Phsics Lab	244	200-500
21	Room No. 115	266	200-500
22	Room No. 122	240	200-500
23	Room No. 123	258	200-500
24	Studio	320	200-500
25	Room No. 125	260	200-500
26	Room No. 128	245	200-500
27	Room No. 129	263	200-500
28	Room No. 130	261	200-500
29	Room No. 131	270	200-500
30	Room No. 113	270	200-500
	2nd Floor		
31	Room No. 219	272	200-500
32	Room No. 221	276	200-500
33	Room No. 222	279	200-500
34	Room No. 223	272	200-500
35	Room No. 224	296	200-500
36	Room No. 227	298	200-500
37	Room No. 228	288	200-500
38	Room No. 229	293	200-500
39	Room No. 217	288	200-500
40	Room No. 218	286	200-500
41	Room No. 215	289	200-500
42	Room No. 216	279	200-500
43	Room No. 201	289	200-500
44	Room No. 202	295	200-500
45	Room No. 204	268	200-500
46	Room No. 205	270	200-500

S.NO.	Location	Measured LUX Level	Recommended Lux
47	Room No. 206	272	200-500
48	Room No. 207	275	200-500
49	Room No. 211	274	200-500
50	Room No. 210	272	200-500
51	Room No. 212	276	200-500
	3rd Floor		
52	Room No. 324	310	200-500
53	Room No. 326	310	200-500
54	Room No. 327	299	200-500
55	Room No. 328	283	200-500
56	Room No. 329	310	200-500
57	Room No. 332	295	200-500
58	Room No. 333	310	200-500
59	Room No. 334	296	200-500
60	Auditorium	285	200-500
61	Room No. 312	266	200-500
62	Room No. 313	276	200-500
63	Room No. 314	296	200-500
64	Room No. 315	292	200-500
65	Room No. 320	286	200-500
66	Room No. 321	269	200-500
67	Room No. 323	305	200-500
	4th Floor		
68	Room No. 432	285	200-500
69	Room No. 433	276	200-500
70	Room No. 427	268	200-500
71	Room No. 426	288	200-500
72	Room No. 425	290	200-500
73	Room No. 424	292	200-500
74	Room No. 421	286	200-500

Observation: Illumination found satisfactory as per standard.

5.0 Thermography

It is the science of acquisition and analysis of thermal information by using non-contact thermal imaging devices.

Advantages of Thermography:

It is non-contact- uses remote sensing.

Keeps the user out of danger.

Thermal pattern can be visualized for analysis.

It is real time.

Early detect problems in electrical and mechanical systems.

Avoid measure breakdown & production loss.

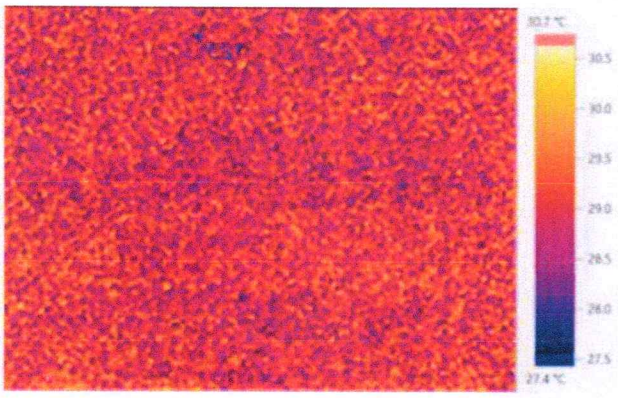
The purpose of an infrared inspection is to survey a number of pieces of electrical & mechanical equipment as selected by you, the customer, with the objective of locating potential problem and determining their priority considering the high cost if electrical system & mechanical equipment fails, Infrared Thermography means substantial saving and since Thermography scansare performed while your equipment is in operation there is no lost production or machine downtime.

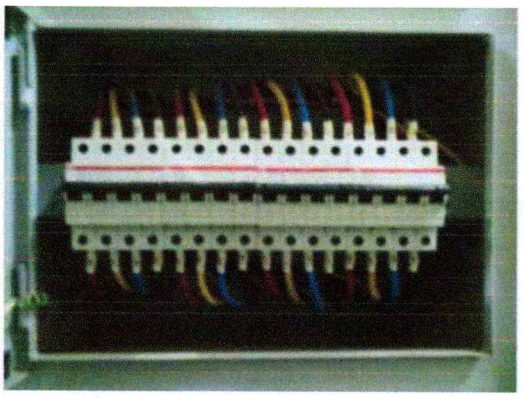
Following is the table for assessing the severity of electrical fault temperature and recommendation as per Bureau of Indian Standards guidelines for Infrared inspection ofelectrical installations (ICS 19.100).

FAULT CATEGORY	TEMPERATURE RISE	RECOMMENDATION
1	> 50°C	Immediate actionrequired
2	25 - 50 °C	Action required
3	10 - 25°C	Satisfactory

Thermography Report

File:	Date:	Time:
Ground Floor Library	04-03-2024	11:40:34





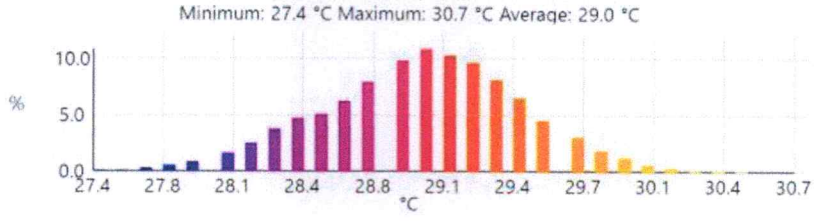
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

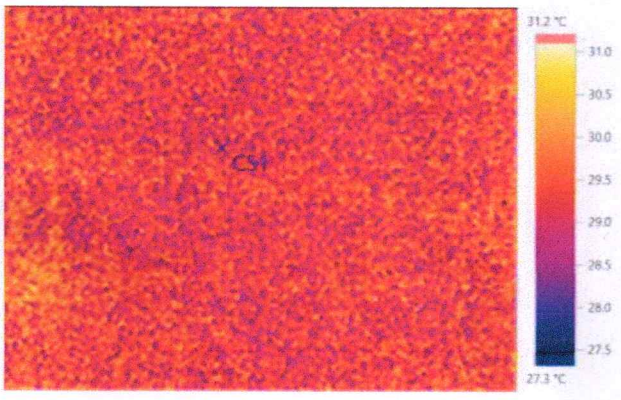
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.4	0.95	20.0	-
Hot spot 1	30.7	0.95	20.0	-

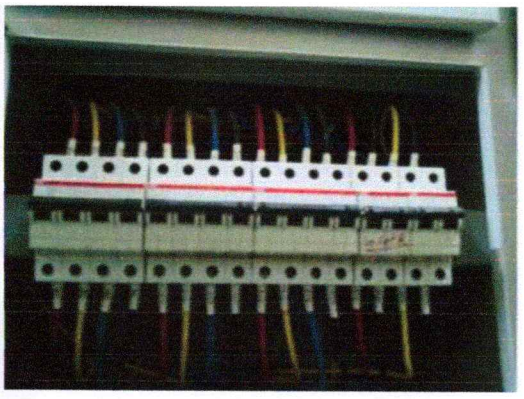
Histogram:



Thermography Report

File:	Date:	Time:
GF UPS Library	04-03-2024	11:41:38





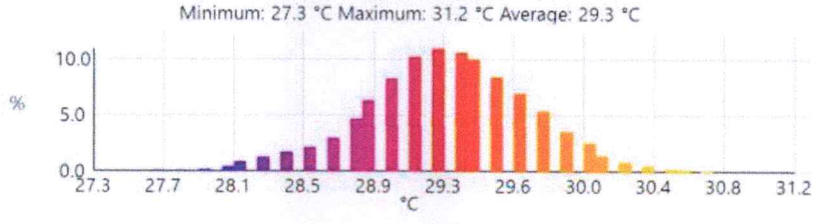
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

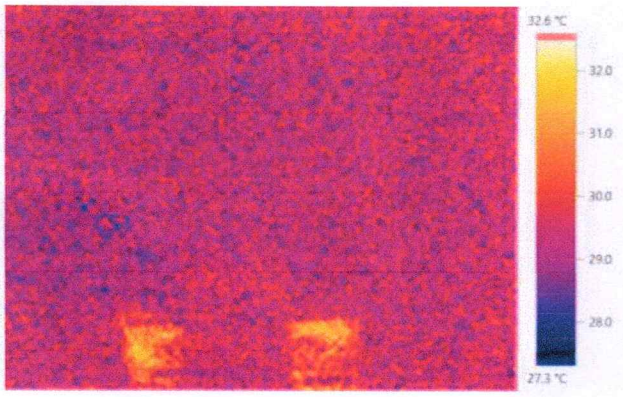
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.3	0.95	20.0	-
Hot spot 1	31.2	0.95	20.0	-

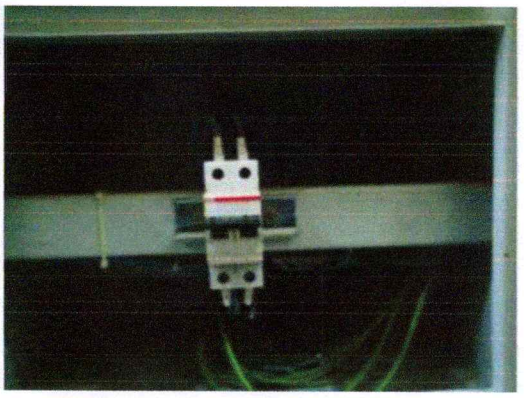
Histogram:



Thermography Report

File:	Date:	Time:
GF Extra	04-03-2024	11:42:42





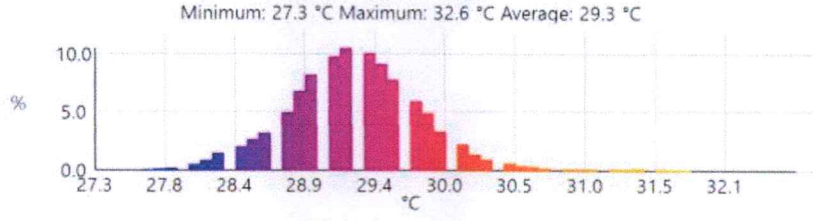
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

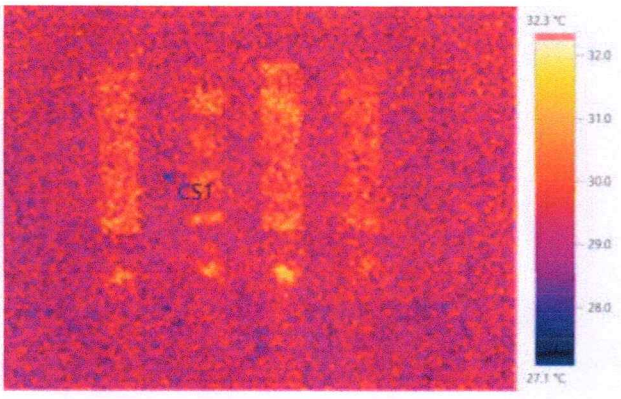
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.3	0.95	20.0	-
Hot spot 1	32.6	0.95	20.0	-

Histogram:



Thermography Report

File:	Date:	Time:
GF Display Operator	04-03-2024	11:43:58



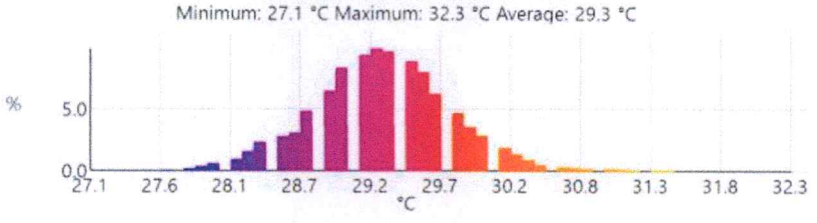
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

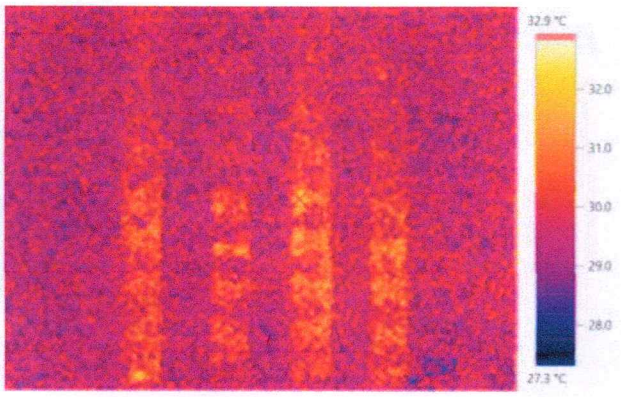
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.1	0.95	20.0	-
Hot spot 1	32.3	0.95	20.0	-

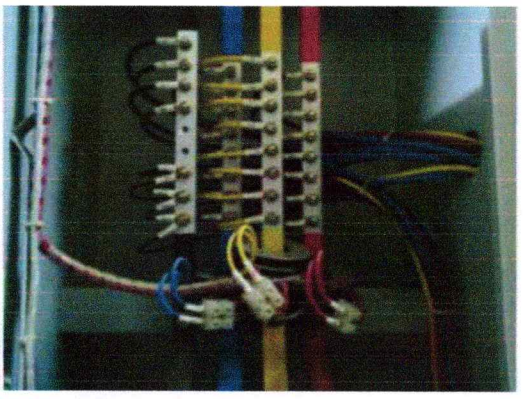
Histogram:



Thermography Report

File:	Date:	Time:
GF Display Operator	04-03-2024	11:45:05





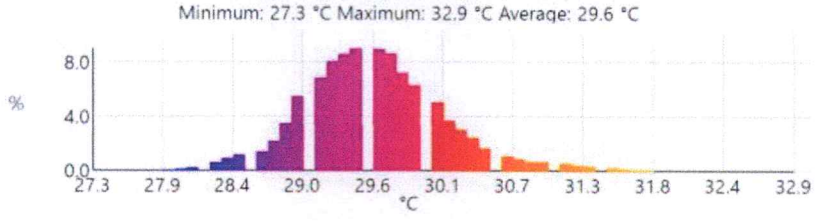
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.3	0.95	20.0	-
Hot spot 1	32.9	0.95	20.0	-

Histogram:

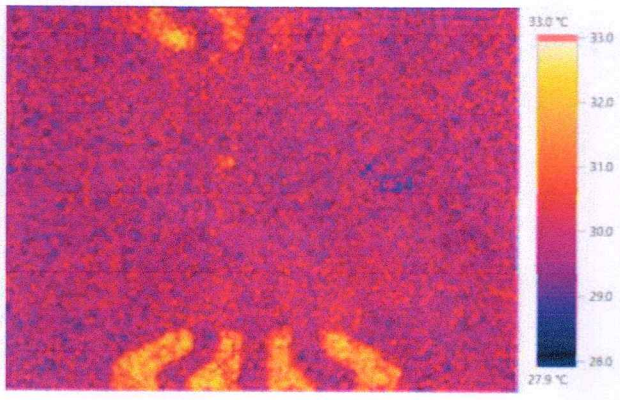


Thermography Report

File:
Ground Floor Panel

Date:
04-03-2024

Time:
11:46:00



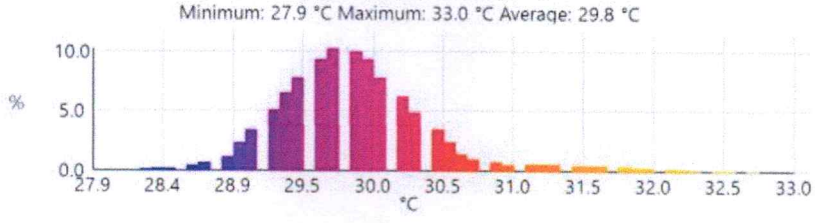
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

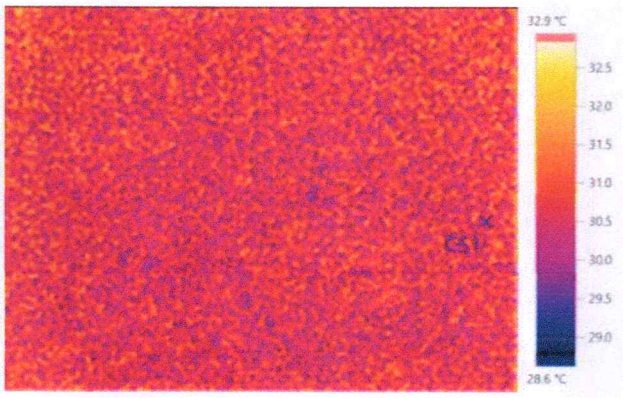
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.9	0.95	20.0	-
Hot spot 1	33.0	0.95	20.0	-

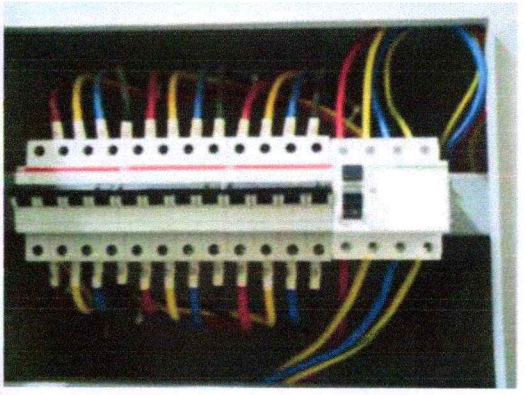
Histogram:



Thermography Report

File:	Date:	Time:
Lower Library HVAC VRV Panel	04-03-2024	12:00:39





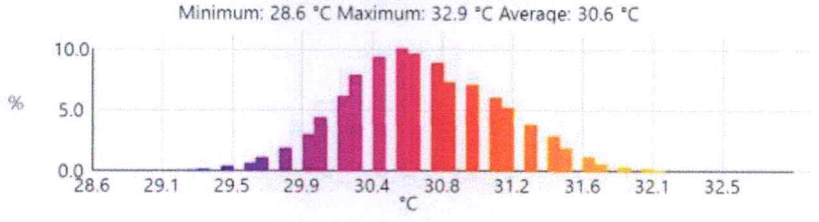
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

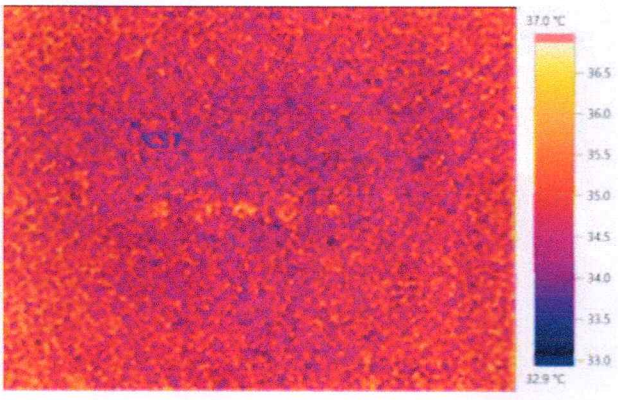
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.6	0.95	20.0	-
Hot spot 1	32.9	0.95	20.0	-

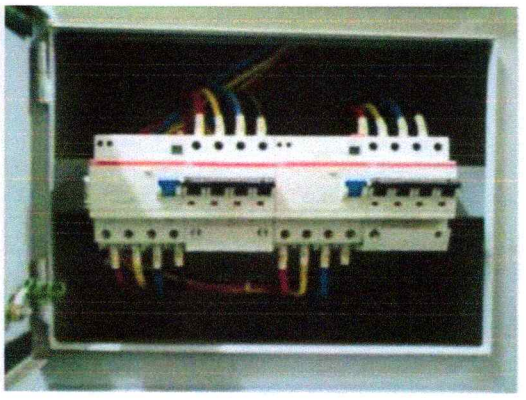
Histogram:



Thermography Report

File:	Date:	Time:
Ground (SP) Room Conference	04-03-2024	12:01:41





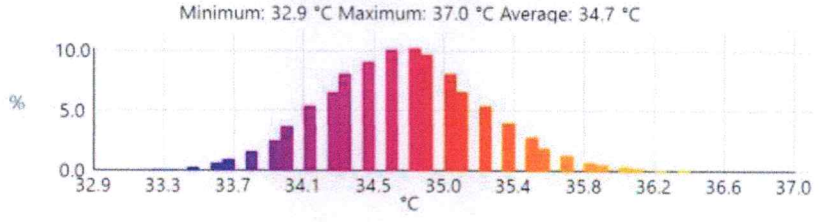
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

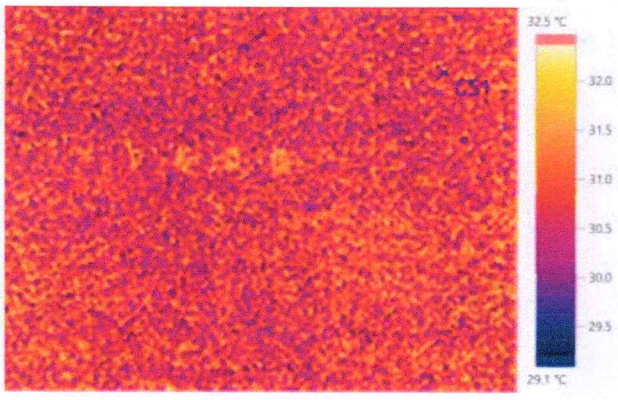
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	32.9	0.95	20.0	-
Hot spot 1	37.0	0.95	20.0	-

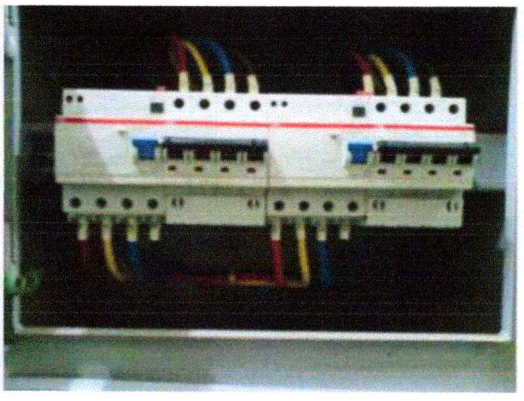
Histogram:



Thermography Report

File:	Date:	Time:
Principal Office 4th Floor	04-03-2024	12:02:23





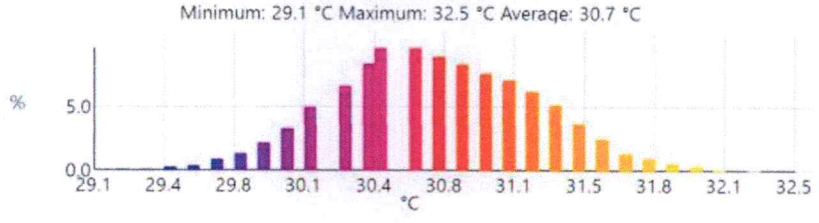
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

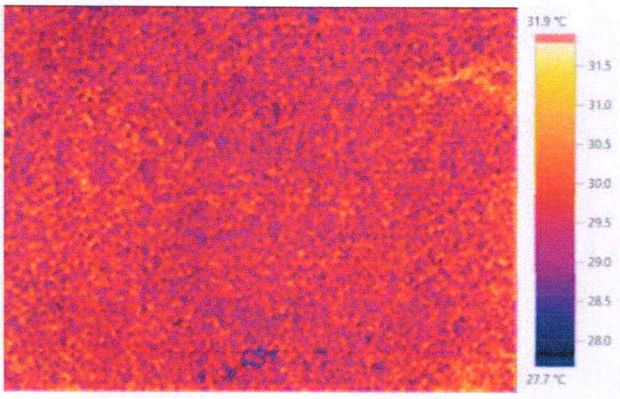
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.1	0.95	20.0	-
Hot spot 1	32.5	0.95	20.0	-

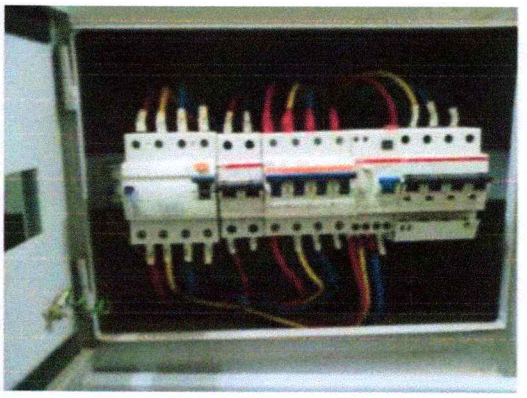
Histogram:



Thermography Report

File:	Date:	Time:
GF Computer Lab	04-03-2024	12:03:18





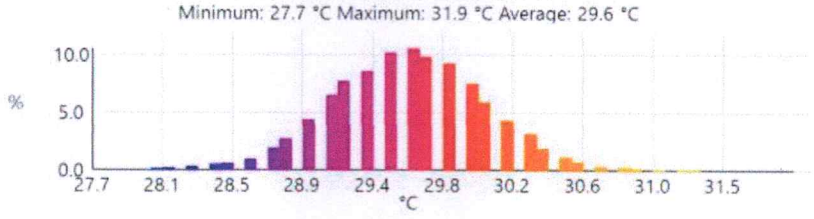
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

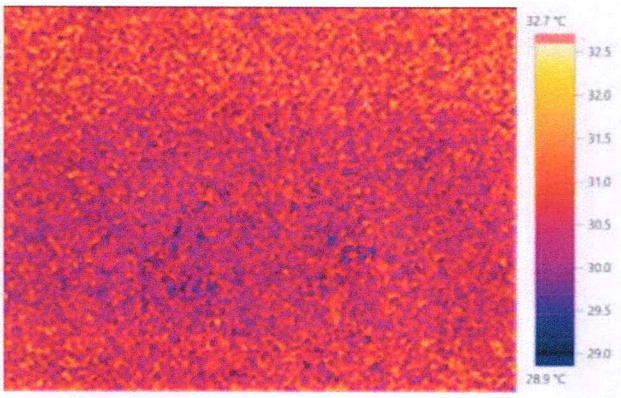
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.7	0.95	20.0	-
Hot spot 1	31.9	0.95	20.0	-

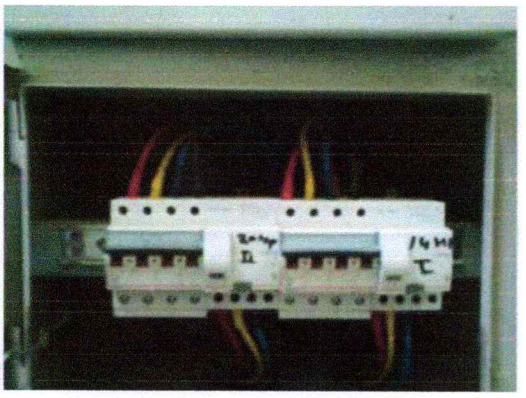
Histogram:



Thermography Report

File:	Date:	Time:
GF Staff	04-03-2024	12:03:49





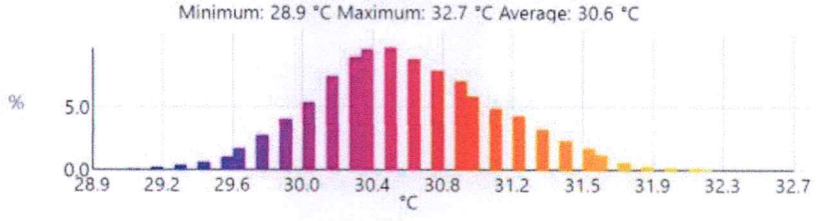
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

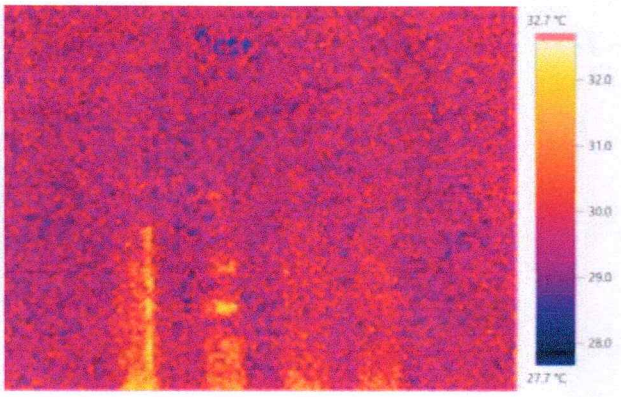
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.9	0.95	20.0	-
Hot spot 1	32.7	0.95	20.0	-

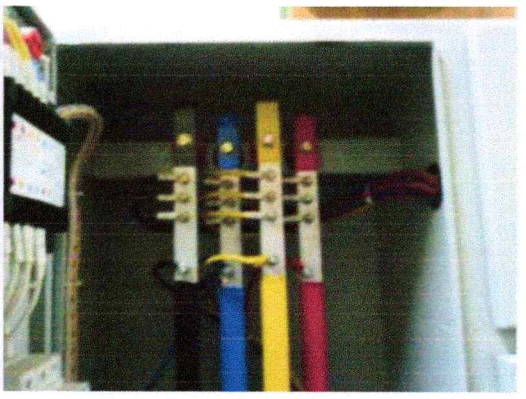
Histogram:



Thermography Report

File:	Date:	Time:
HVAC VRV Panel Display	04-03-2024	12:04:59





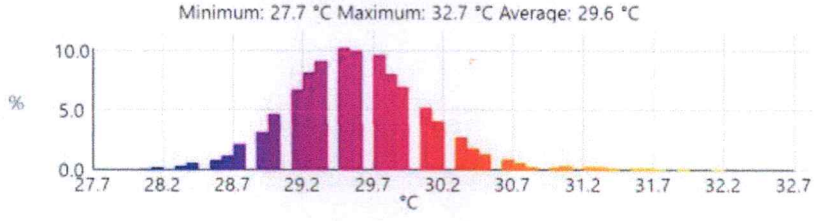
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

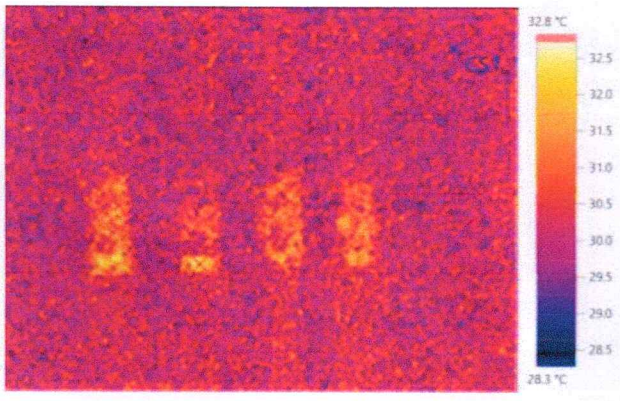
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.7	0.95	20.0	-
Hot spot 1	32.7	0.95	20.0	-

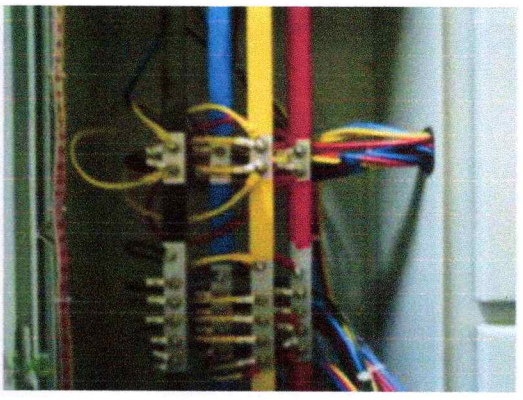
Histogram:



Thermography Report

File:	Date:	Time:
HVAC VRV Panel Display	04-03-2024	12:05:31





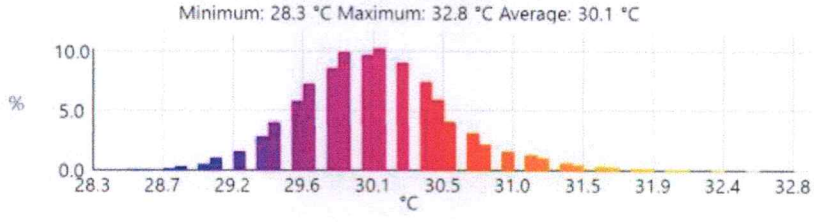
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

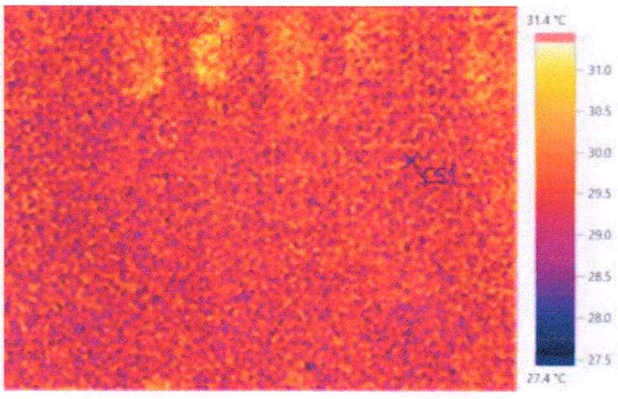
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.3	0.95	20.0	-
Hot spot 1	32.8	0.95	20.0	-

Histogram:



Thermography Report

File:	Date:	Time:
HVAC VRV Panel	04-03-2024	12:06:29



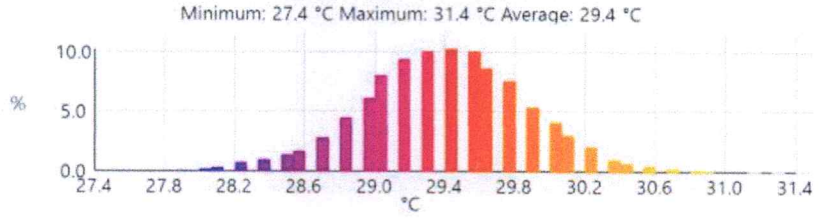
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

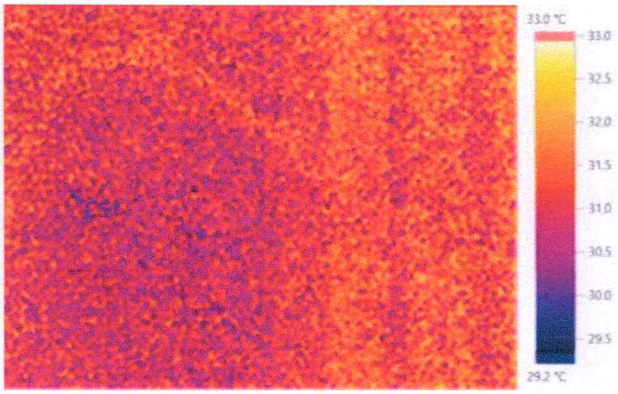
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.4	0.95	20.0	-
Hot spot 1	31.4	0.95	20.0	-

Histogram:



Thermography Report

File:	Date:	Time:
Main Panel Display	04-03-2024	12:28:18



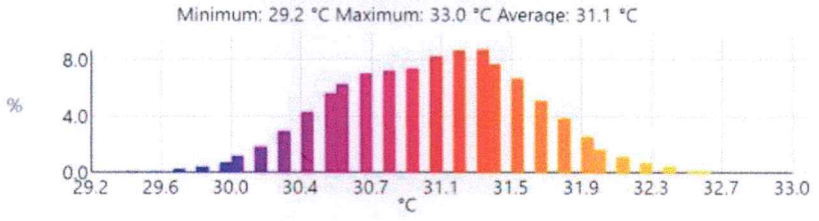
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

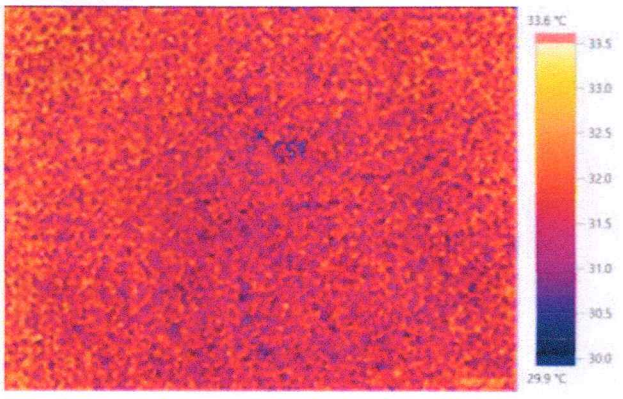
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.2	0.95	20.0	-
Hot spot 1	33.0	0.95	20.0	-

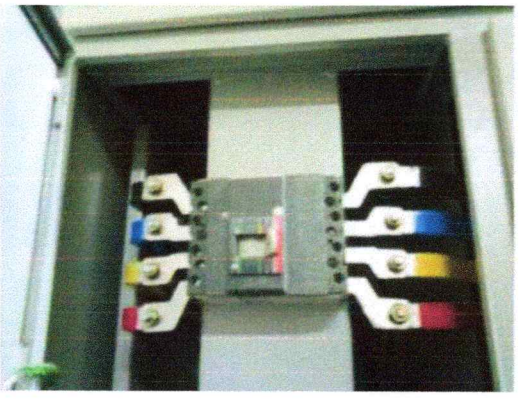
Histogram:



Thermography Report

File:	Date:	Time:
Bus Bar 4th Floor	04-03-2024	12:29:52





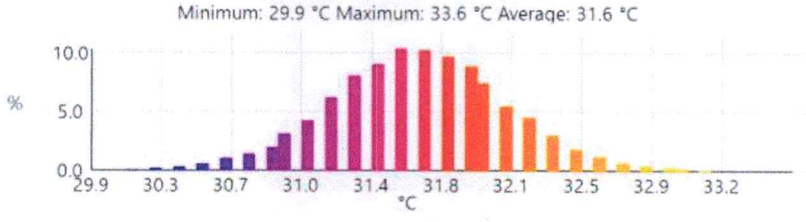
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

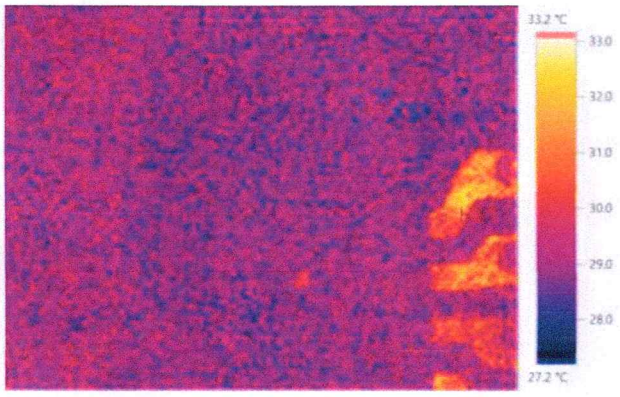
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.9	0.95	20.0	-
Hot spot 1	33.6	0.95	20.0	-

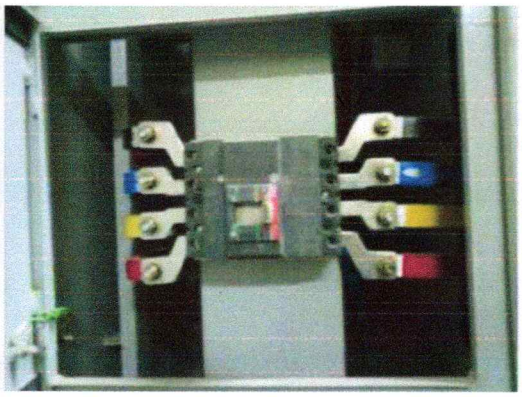
Histogram:



Thermography Report

File:	Date:	Time:
Bas Bar 2nd Floor	04-03-2024	12:30:48





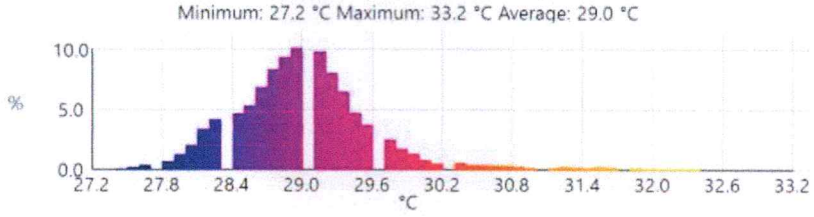
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

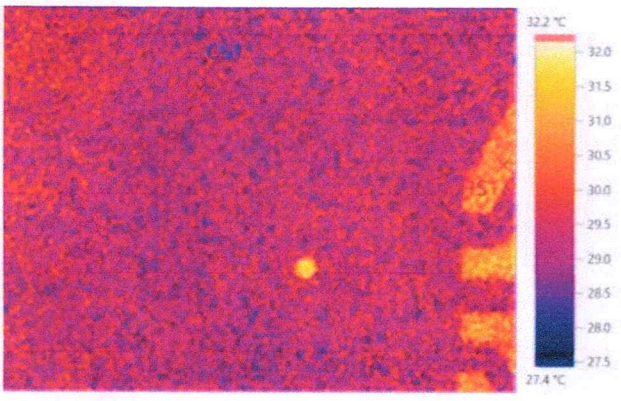
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.2	0.95	20.0	-
Hot spot 1	33.2	0.95	20.0	-

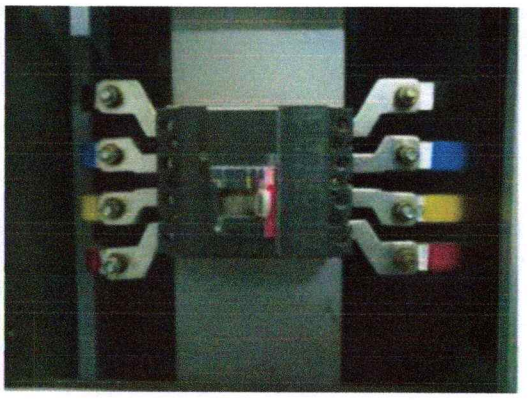
Histogram:



Thermography Report

File:	Date:	Time:
Bas Bar 1st Floor	04-03-2024	12:30:57





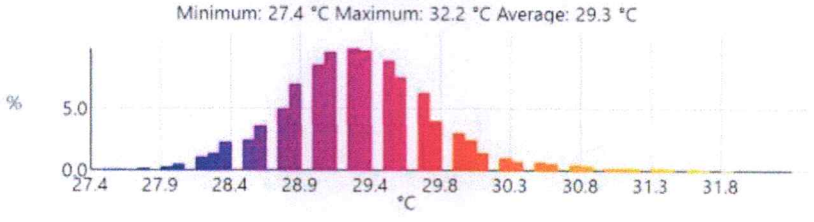
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

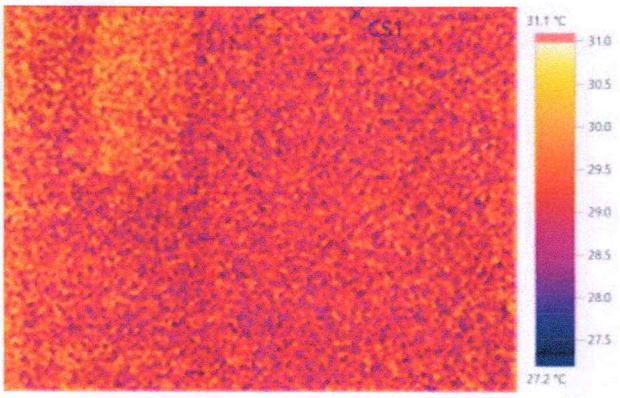
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.4	0.95	20.0	-
Hot spot 1	32.2	0.95	20.0	-

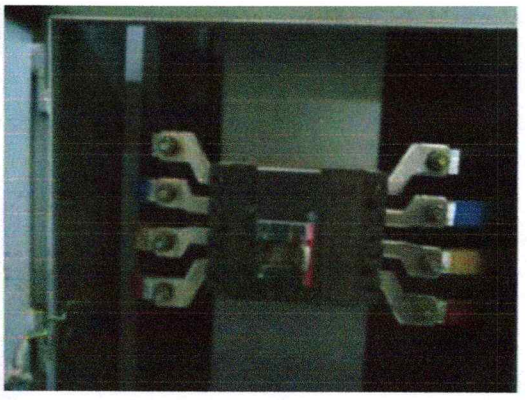
Histogram:



Thermography Report

File:	Date:	Time:
Bas Bar Ground Floor	04-03-2024	12:31:04





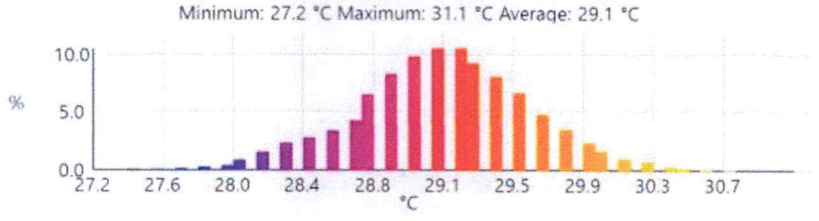
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

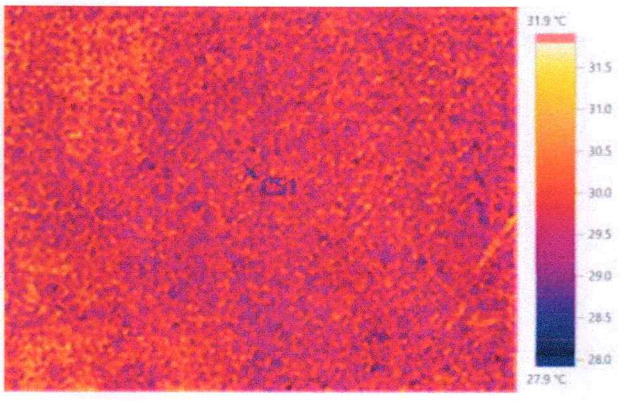
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.2	0.95	20.0	-
Hot spot 1	31.1	0.95	20.0	-

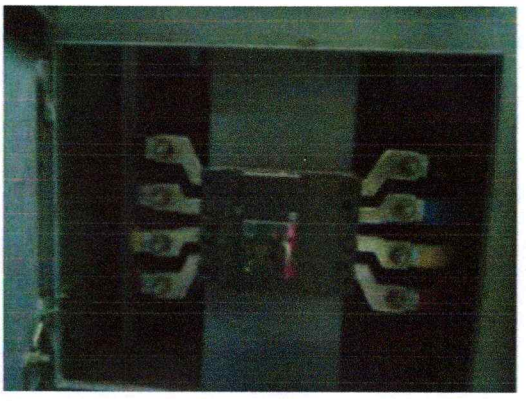
Histogram:



Thermography Report

File:	Date:	Time:
Bas Bar AC	04-03-2024	12:31:12





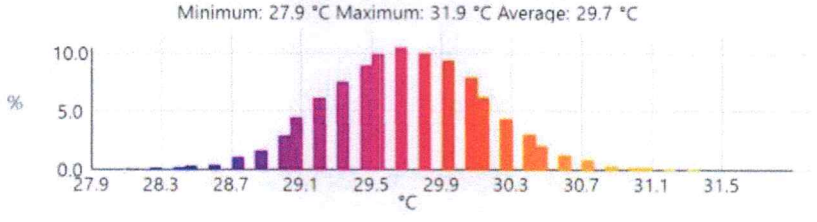
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

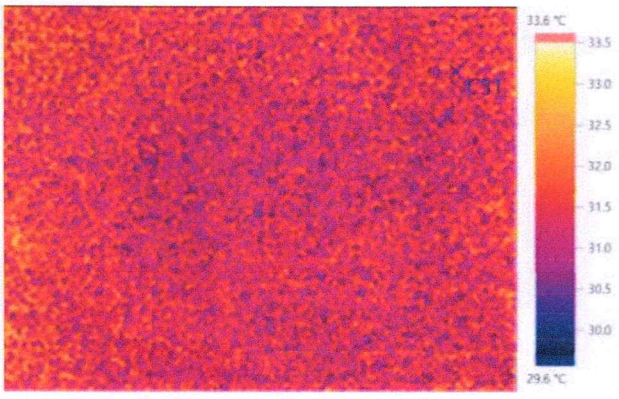
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.9	0.95	20.0	-
Hot spot 1	31.9	0.95	20.0	-

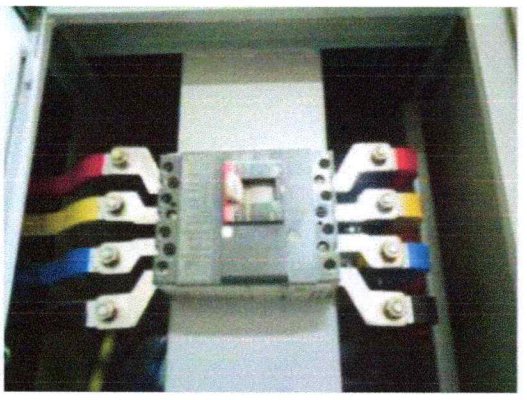
Histogram:



Thermography Report

File:	Date:	Time:
B.B 3rd Floor	04-03-2024	12:41:06





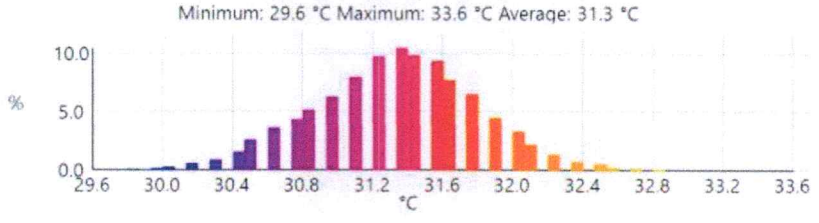
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

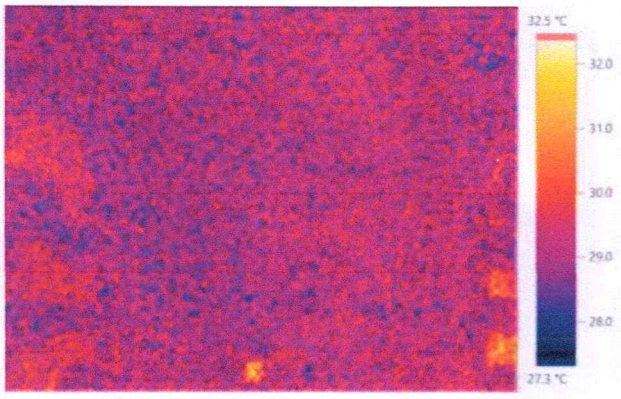
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.6	0.95	20.0	-
Hot spot 1	33.6	0.95	20.0	-

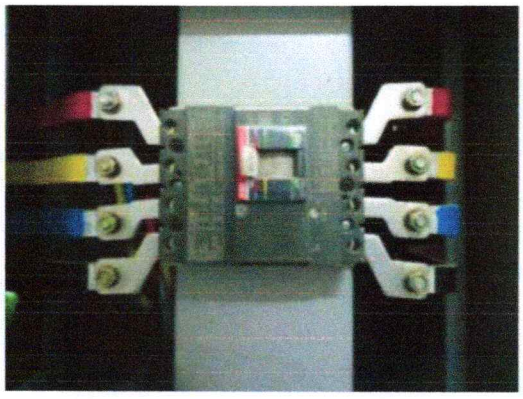
Histogram:



Thermography Report

File:	Date:	Time:
Bus Bar Canteen Side	04-03-2024	12:41:17





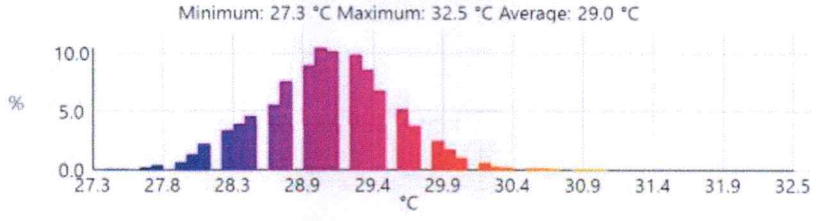
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

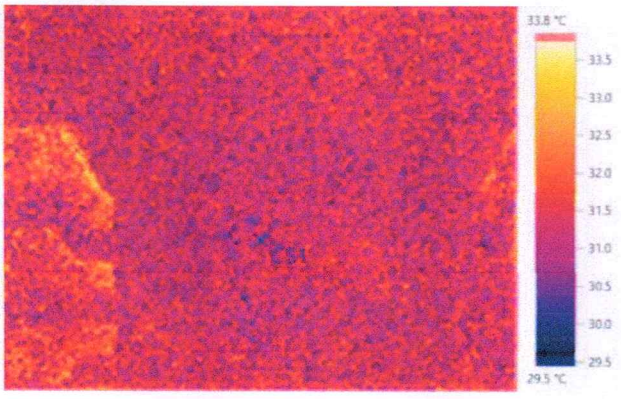
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.3	0.95	20.0	-
Hot spot 1	32.5	0.95	20.0	-

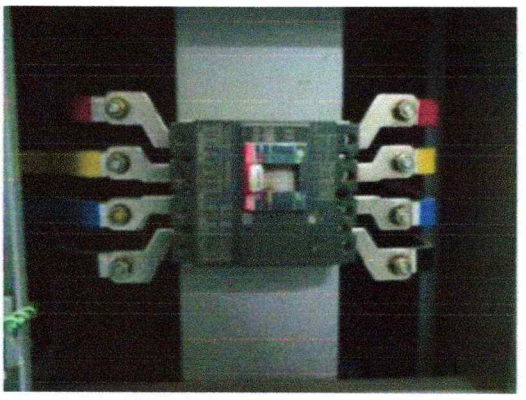
Histogram:



Thermography Report

File:	Date:	Time:
RIFT	04-03-2024	12:41:31





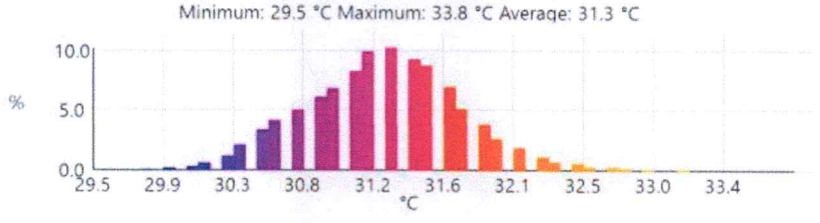
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

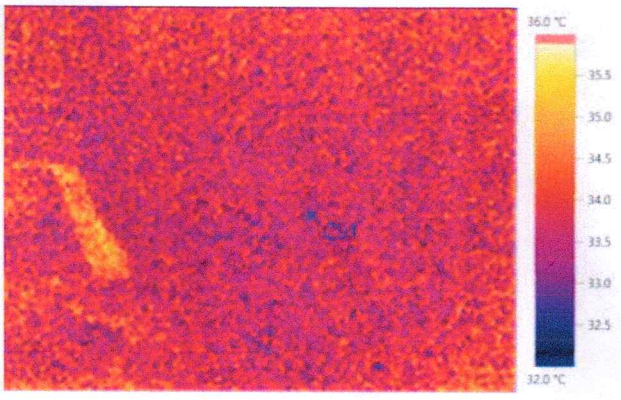
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.5	0.95	20.0	-
Hot spot 1	33.8	0.95	20.0	-

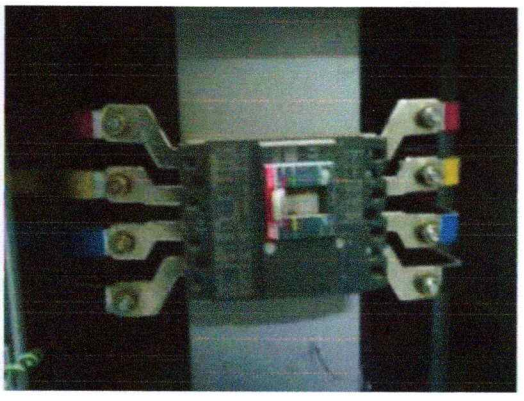
Histogram:



Thermography Report

File:	Date:	Time:
UPS (G.F)	04-03-2024	12:41:48





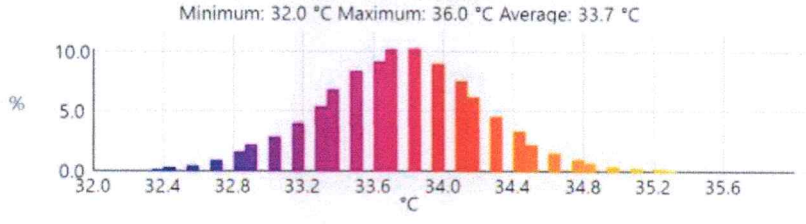
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

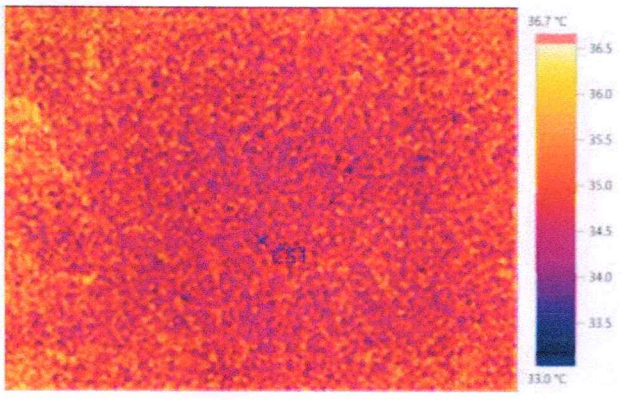
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	32.0	0.95	20.0	-
Hot spot 1	36.0	0.95	20.0	-

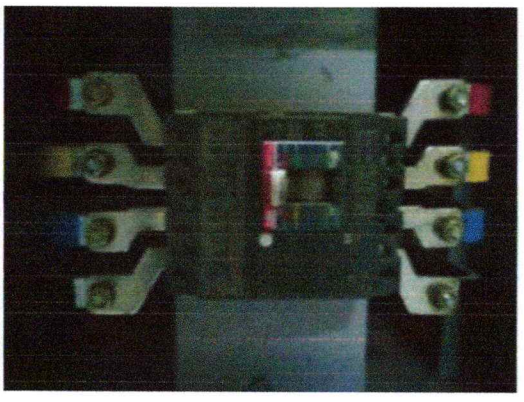
Histogram:



Thermography Report

File:	Date:	Time:
Light Auditorium	04-03-2024	12:42:01





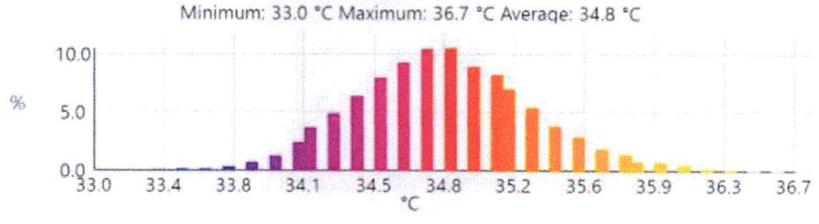
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	33.0	0.95	20.0	-
Hot spot 1	36.7	0.95	20.0	-

Histogram:

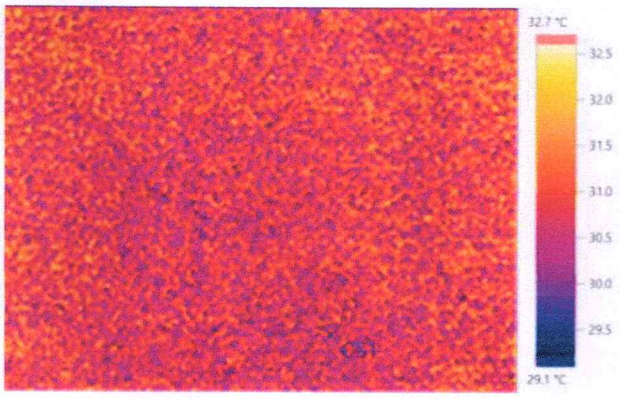


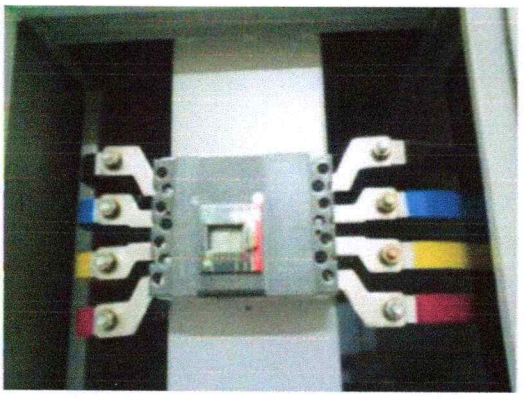
Thermography Report

File:
AC Auditorium

Date:
04-03-2024

Time:
12:42:35





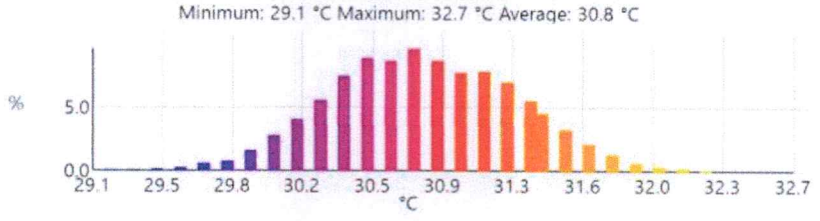
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

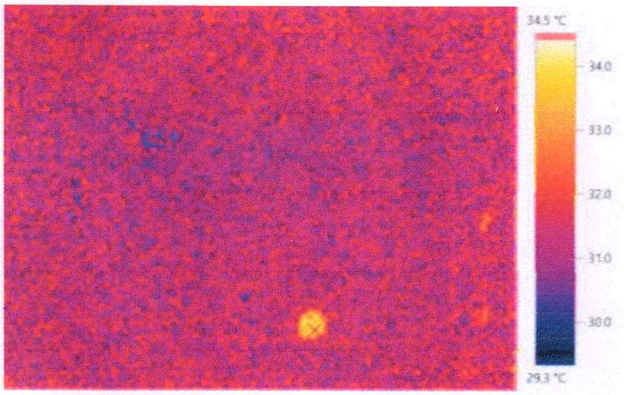
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.1	0.95	20.0	-
Hot spot 1	32.7	0.95	20.0	-

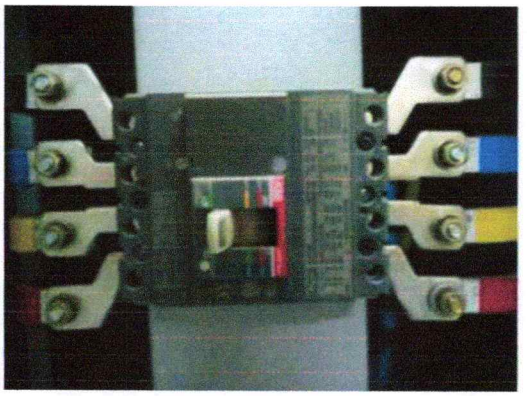
Histogram:



Thermography Report

File:	Date:	Time:
Fire Motor	04-03-2024	12:42:51





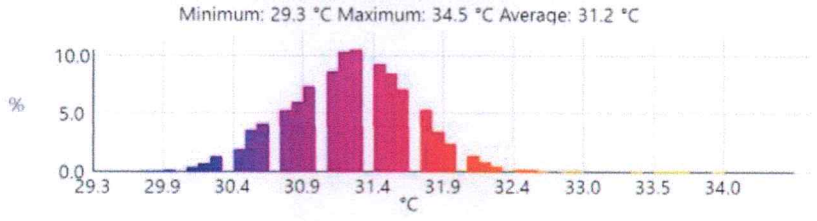
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

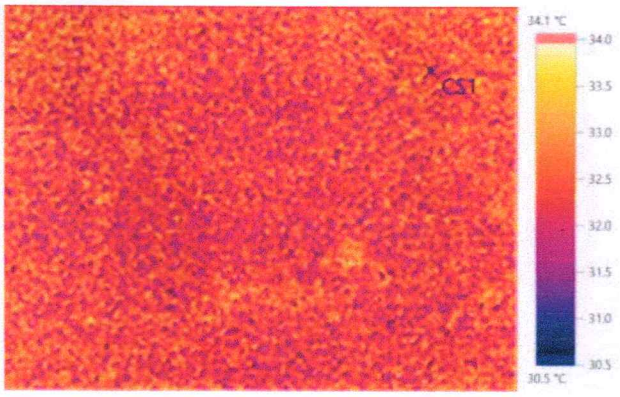
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.3	0.95	20.0	-
Hot spot 1	34.5	0.95	20.0	-

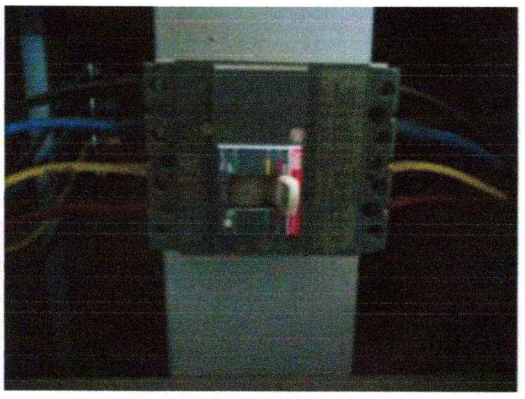
Histogram:



Thermography Report

File:	Date:	Time:
Motor of Water	04-03-2024	12:43:08





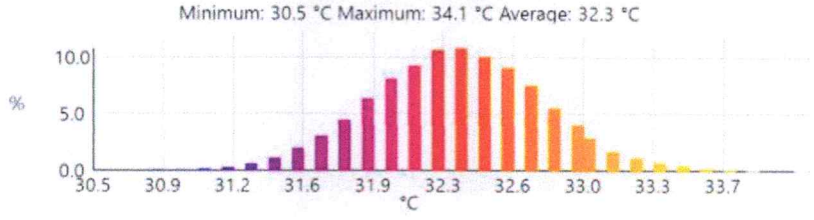
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

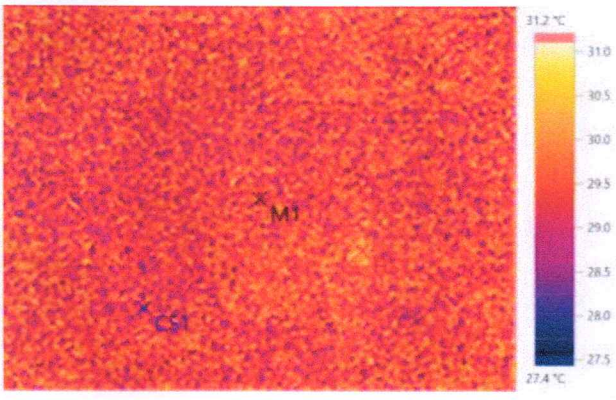
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.5	0.95	20.0	-
Hot spot 1	34.1	0.95	20.0	-

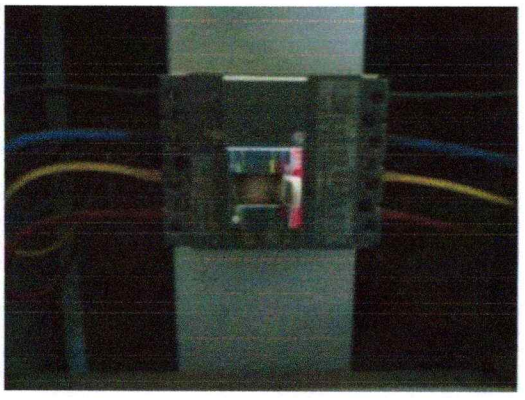
Histogram:



Thermography Report

File:	Date:	Time:
Gate No-2 Ground Poll	04-03-2024	12:43:22





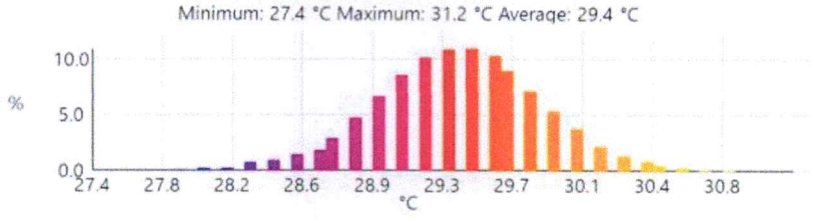
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Measure point 1	29.6	0.95	20.0	CenterSpot
Cold spot 1	27.4	0.95	20.0	-
Hot spot 1	31.2	0.95	20.0	-

Histogram:

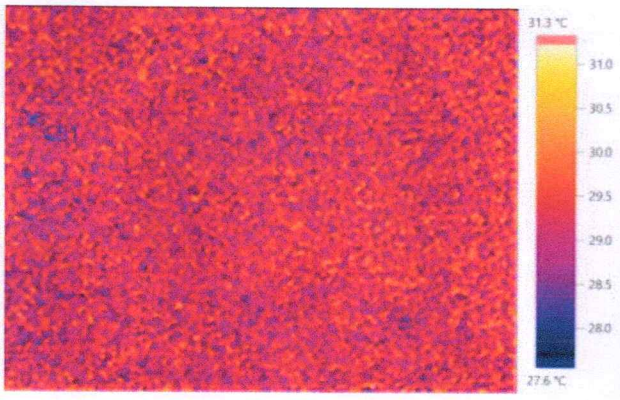


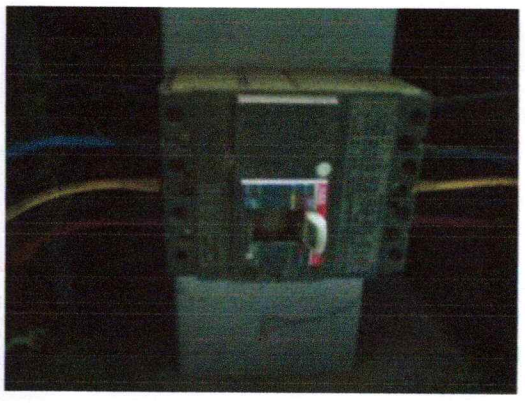
Thermography Report

File:
Light Bank

Date:
04-03-2024

Time:
12:43:32





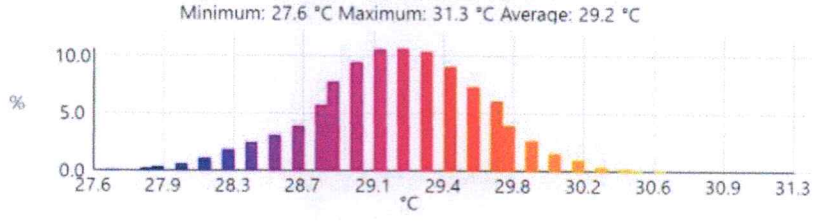
Picture parameters:

Emissivity: 0.95
Refl. temp. [°C]: 20.0

Picture markings:

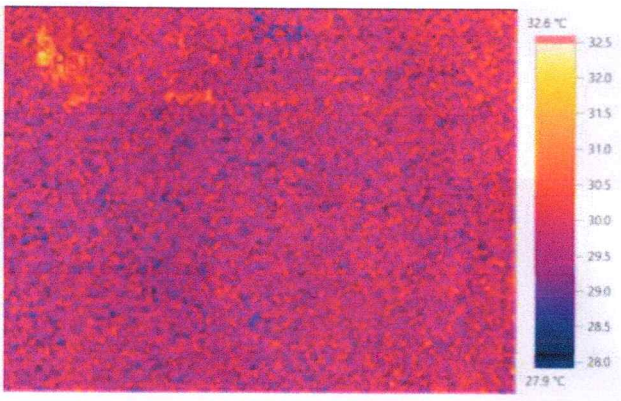
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.6	0.95	20.0	-
Hot spot 1	31.3	0.95	20.0	-

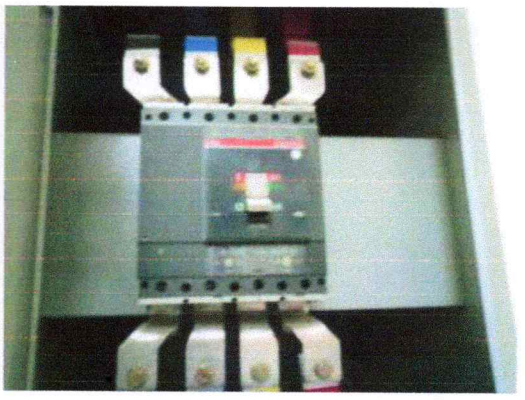
Histogram:



Thermography Report

File:	Date:	Time:
BVS Bar	04-03-2024	12:44:33





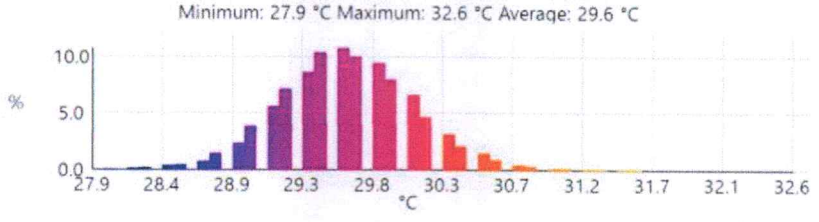
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

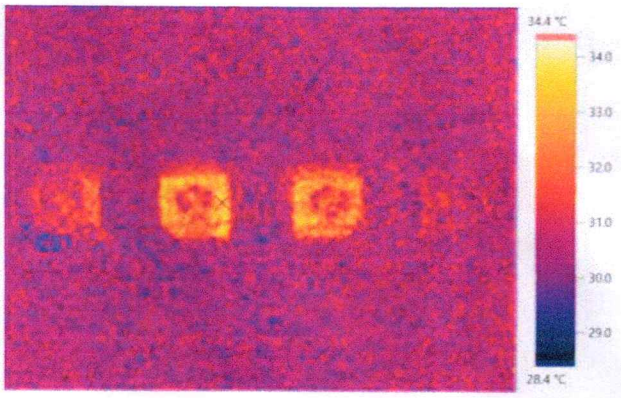
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.9	0.95	20.0	-
Hot spot 1	32.6	0.95	20.0	-

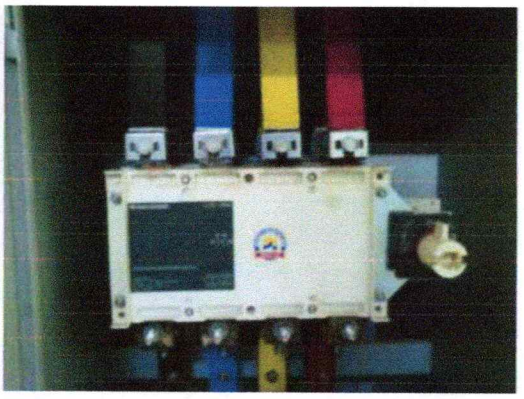
Histogram:



Thermography Report

File:	Date:	Time:
BVS Bar	04-03-2024	12:45:12





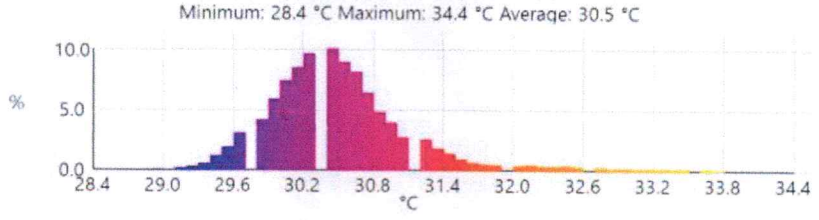
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

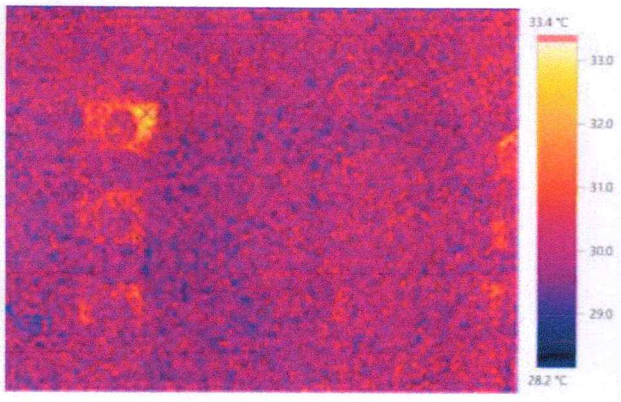
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.4	0.95	20.0	-
Hot spot 1	34.4	0.95	20.0	-

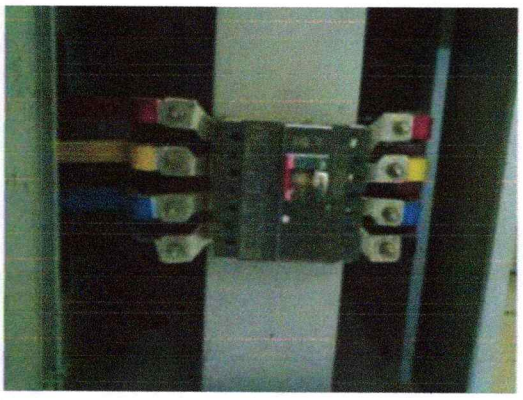
Histogram:



Thermography Report

File:	Date:	Time:
BVS Bar	04-03-2024	12:45:33





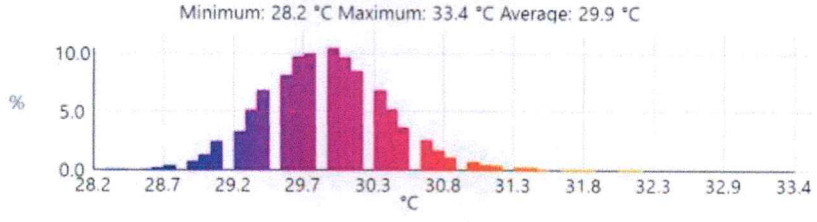
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

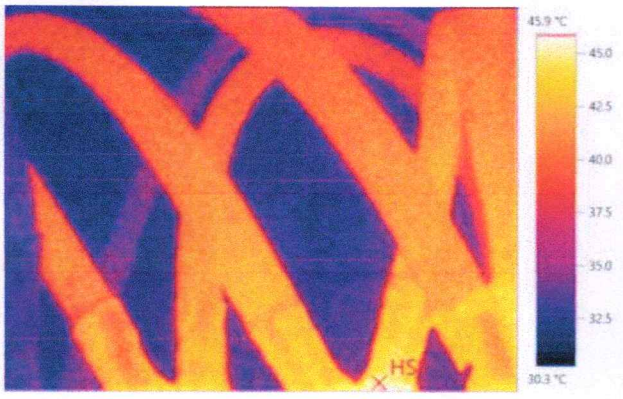
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.2	0.95	20.0	-
Hot spot 1	33.4	0.95	20.0	-

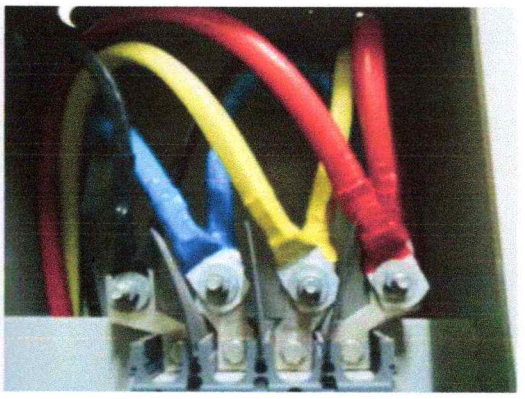
Histogram:



Thermography Report

File:	Date:	Time:
AC DB Box	04-03-2024	12:46:57





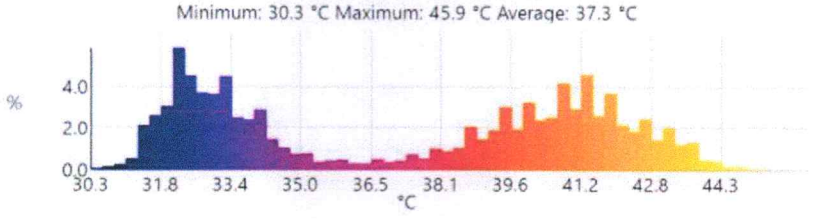
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.3	0.95	20.0	-
Hot spot 1	45.9	0.95	20.0	-

Histogram:

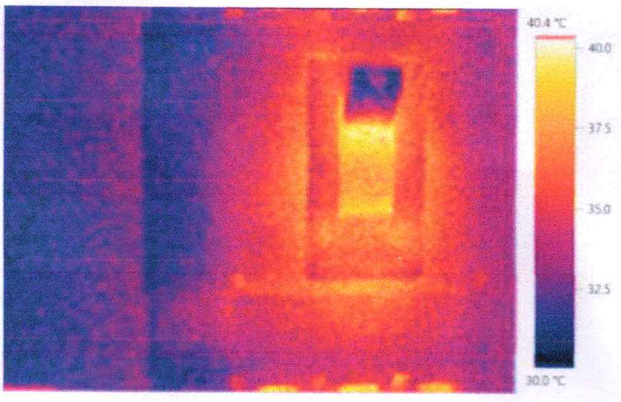


Thermography Report

File:
AC DB Box

Date:
04-03-2024

Time:
12:47:11



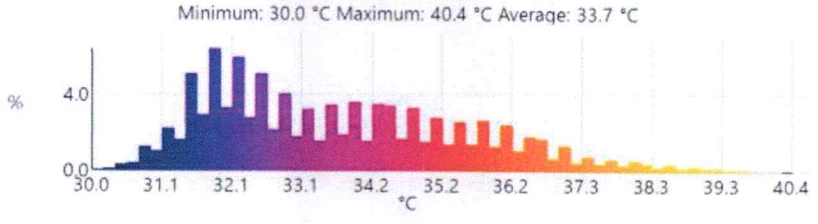
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.0	0.95	20.0	-
Hot spot 1	40.4	0.95	20.0	-

Histogram:

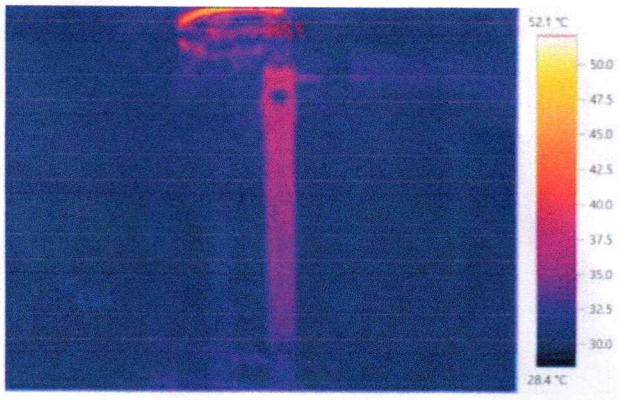


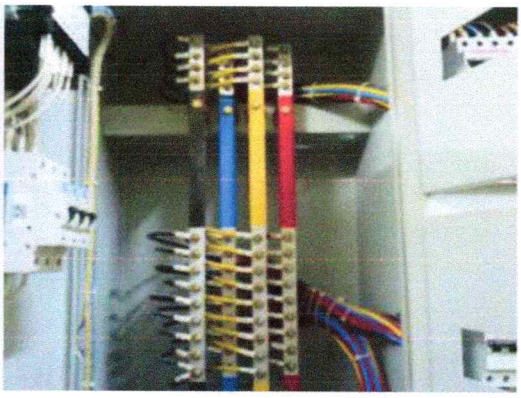
Thermography Report

File:
First Floor Panel Display

Date:
04-03-2024

Time:
13:01:54





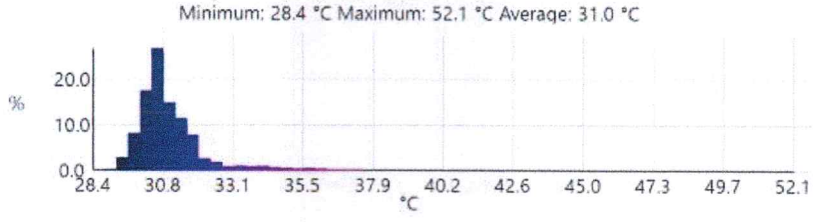
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

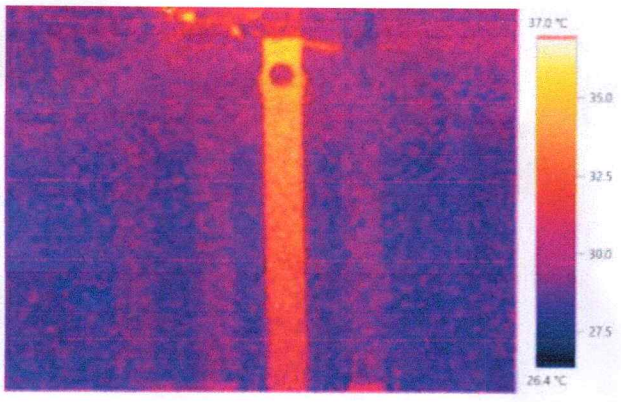
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.4	0.95	20.0	-
Hot spot 1	52.1	0.95	20.0	-

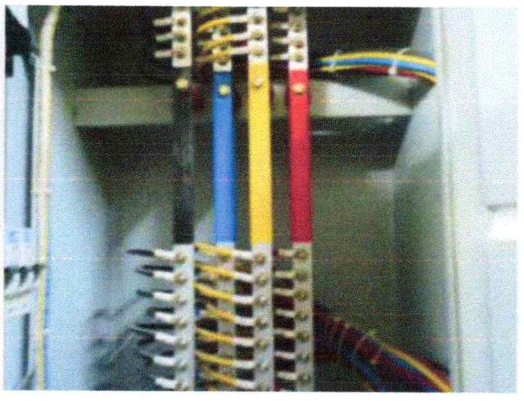
Histogram:



Thermography Report

File:	Date:	Time:
First Floor Panel Display	04-03-2024	13:05:40





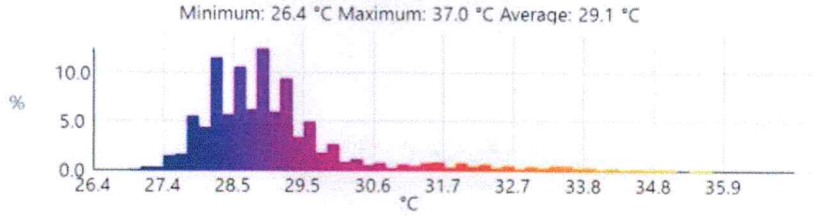
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	26.4	0.95	20.0	-
Hot spot 1	37.0	0.95	20.0	-

Histogram:

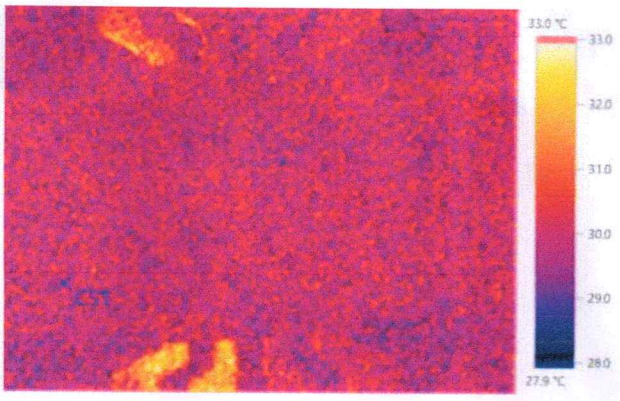


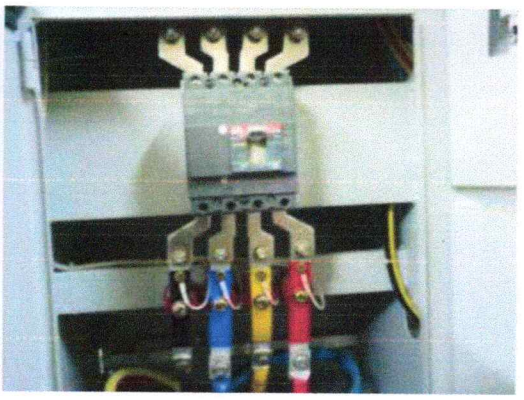
Thermography Report

File:
First Floor Panel Main

Date:
04-03-2024

Time:
13:06:43





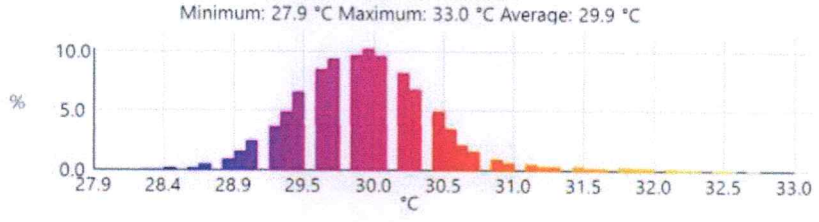
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

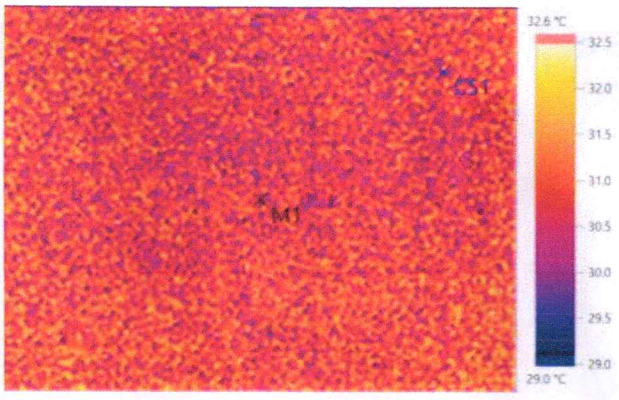
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.9	0.95	20.0	-
Hot spot 1	33.0	0.95	20.0	-

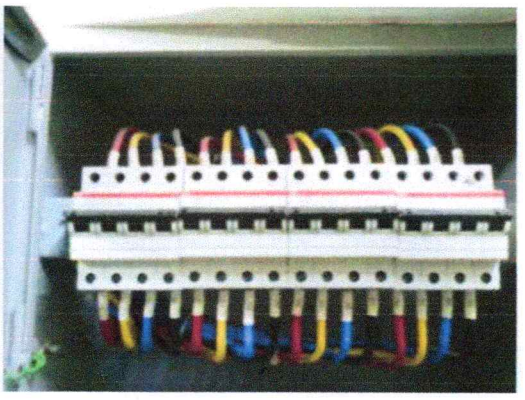
Histogram:



Thermography Report

File:	Date:	Time:
First Floor Left Side	04-03-2024	13:07:26





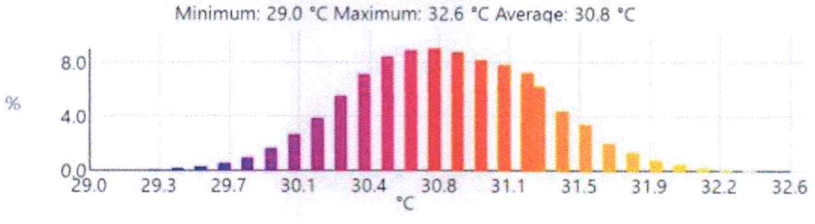
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Measure point 1	30.5	0.95	20.0	CenterSpot
Cold spot 1	29.0	0.95	20.0	-
Hot spot 1	32.6	0.95	20.0	-

Histogram:

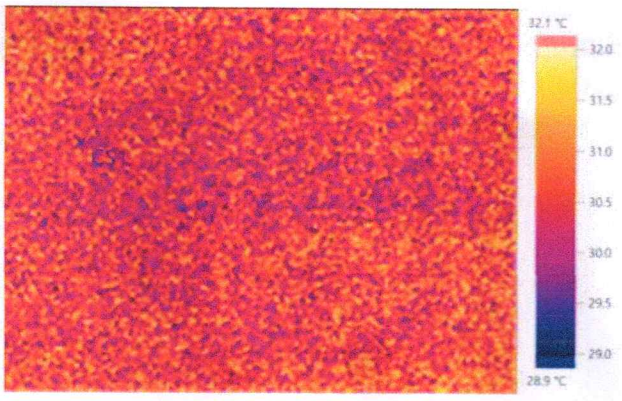


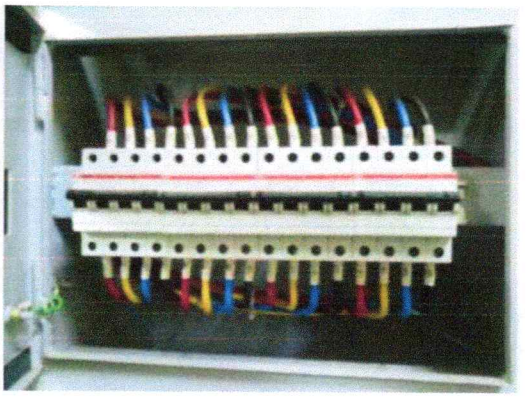
Thermography Report

File:
First Floor Panel Middle Part

Date:
04-03-2024

Time:
13:08:13





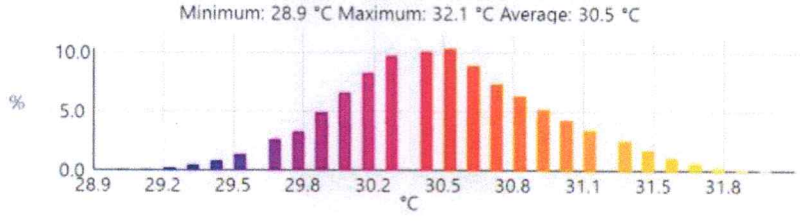
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.9	0.95	20.0	-
Hot spot 1	32.1	0.95	20.0	-

Histogram:

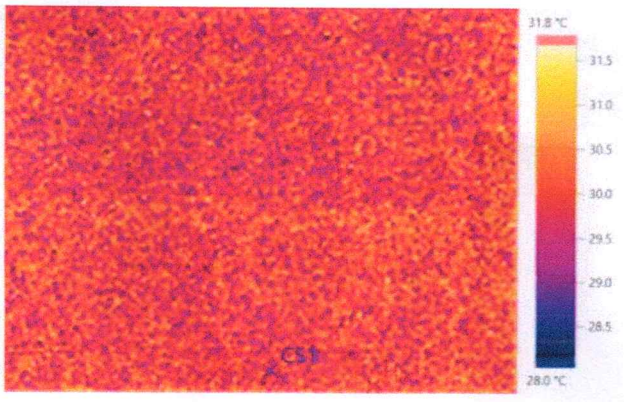


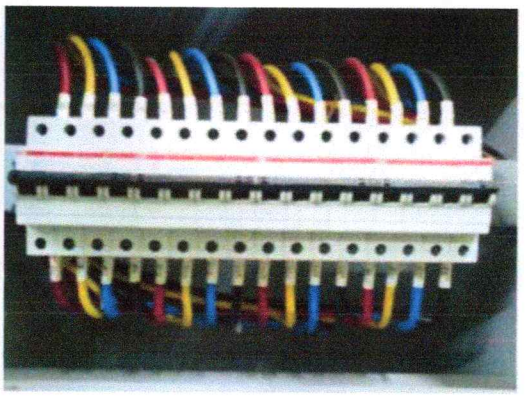
Thermography Report

File:
First Floor Panel Right Side

Date:
04-03-2024

Time:
13:08:25





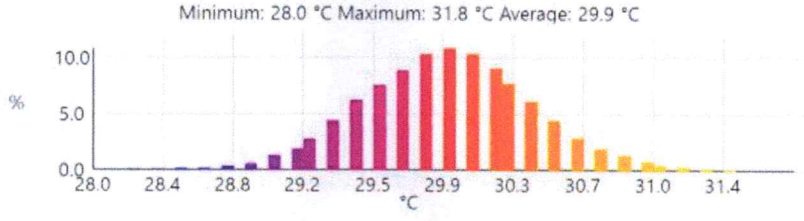
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.0	0.95	20.0	-
Hot spot 1	31.8	0.95	20.0	-

Histogram:

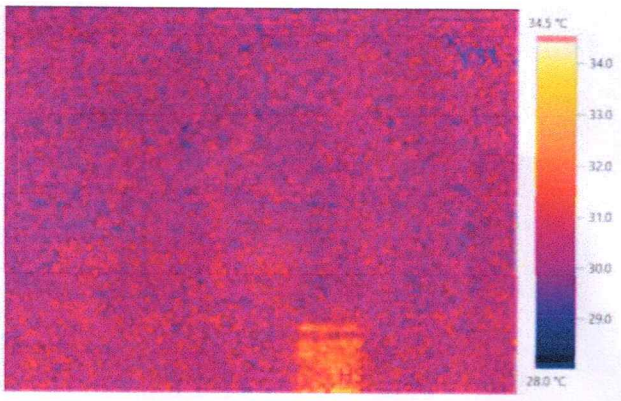


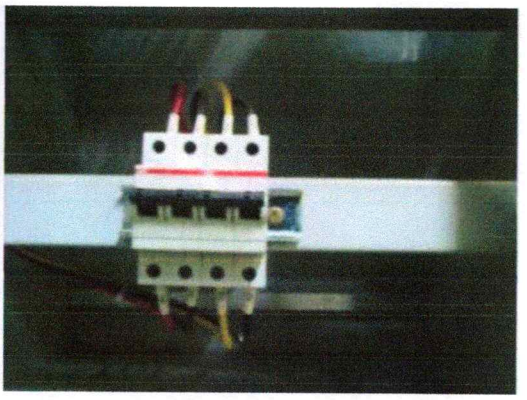
Thermography Report

File:
First Floor Panel Coridoor

Date:
04-03-2024

Time:
13:08:41





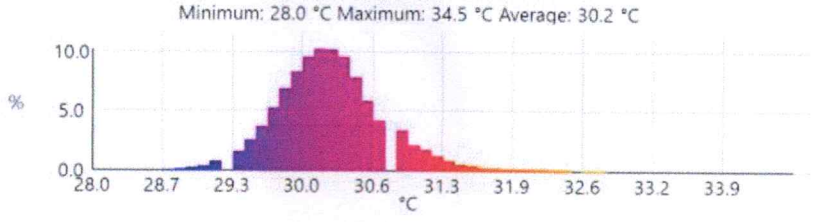
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

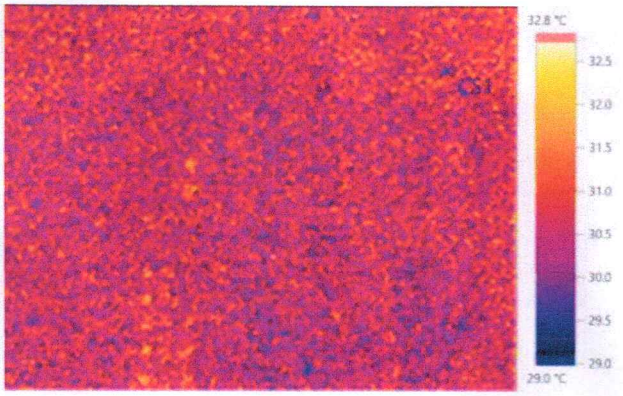
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.0	0.95	20.0	-
Hot spot 1	34.5	0.95	20.0	-

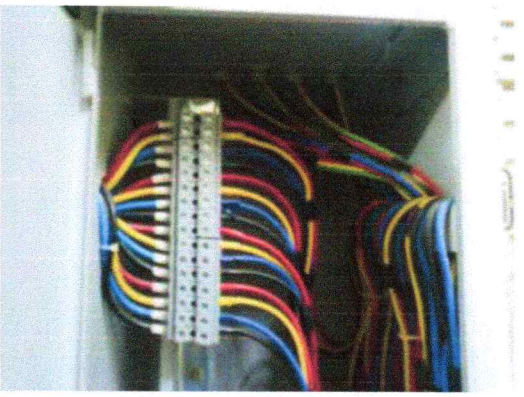
Histogram:



Thermography Report

File:	Date:	Time:
2nd Cable Alley	04-03-2024	13:09:01





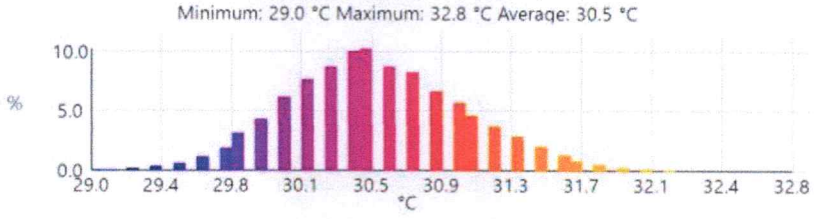
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

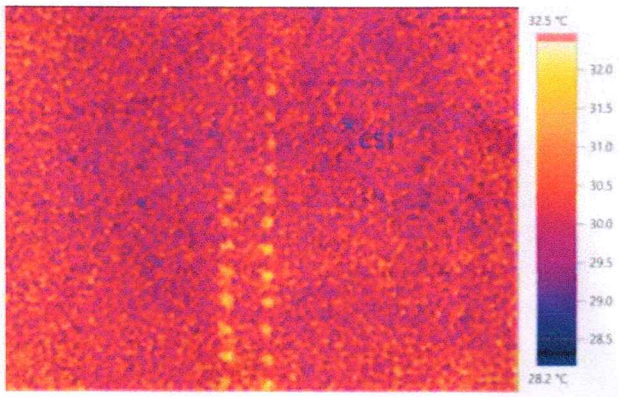
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.0	0.95	20.0	-
Hot spot 1	32.8	0.95	20.0	-

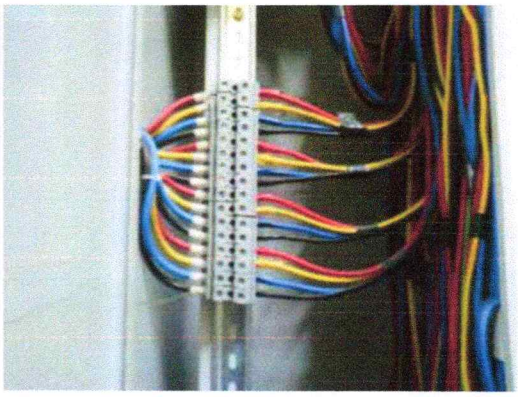
Histogram:



Thermography Report

File:	Date:	Time:
2nd Cable Alley	04-03-2024	13:09:10





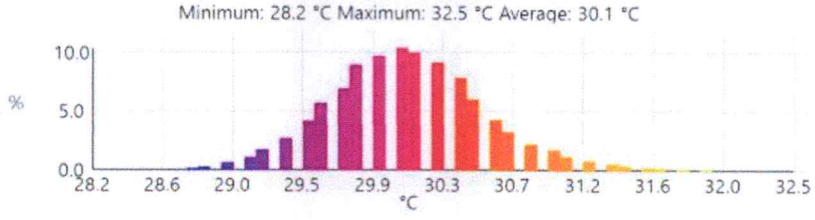
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

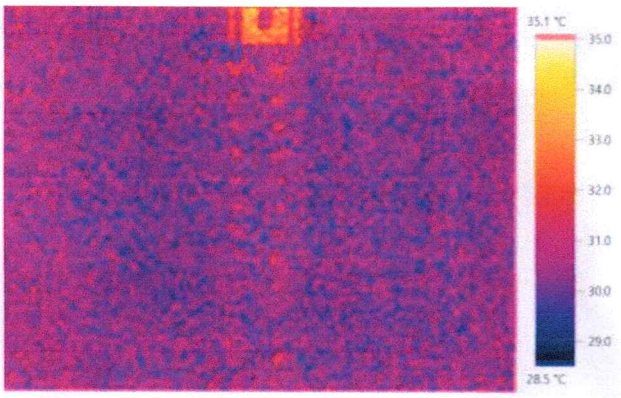
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.2	0.95	20.0	-
Hot spot 1	32.5	0.95	20.0	-

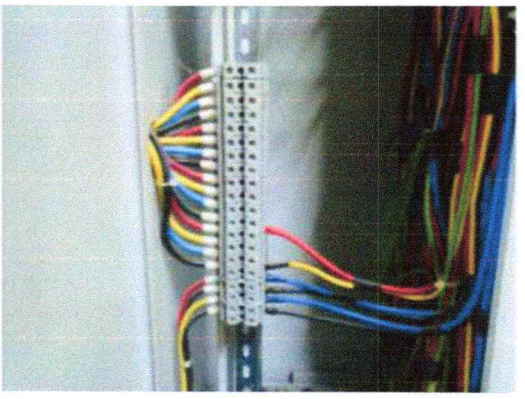
Histogram:



Thermography Report

File:	Date:	Time:
2nd Cable Alley	04-03-2024	13:09:19





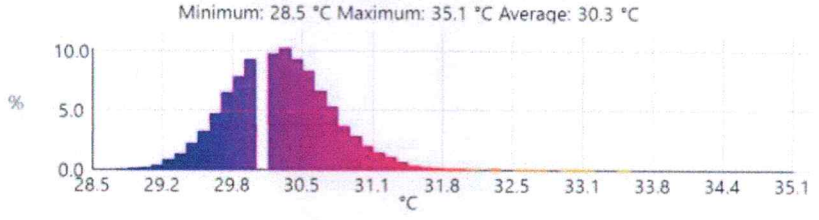
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

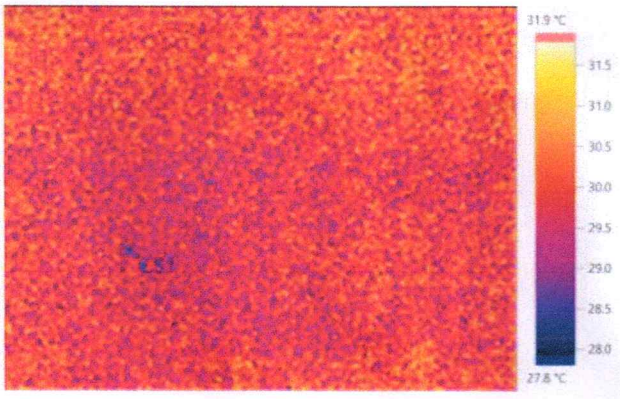
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.5	0.95	20.0	-
Hot spot 1	35.1	0.95	20.0	-

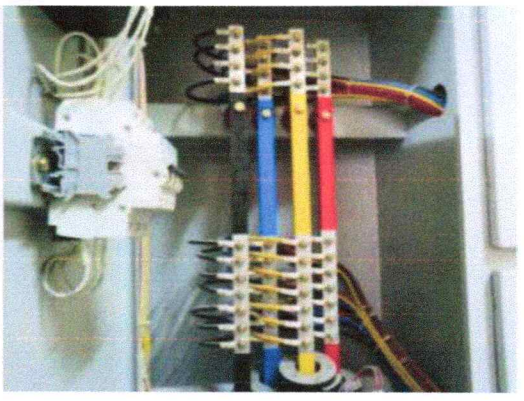
Histogram:



Thermography Report

File:	Date:	Time:
2nd Floor Display	04-03-2024	13:22:05





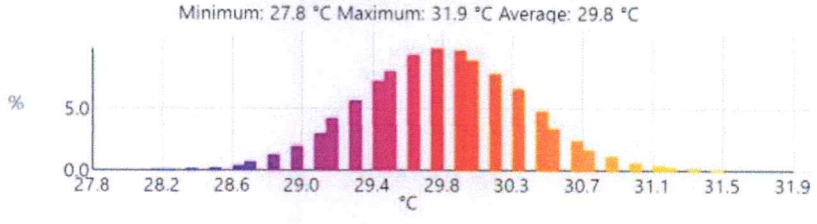
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

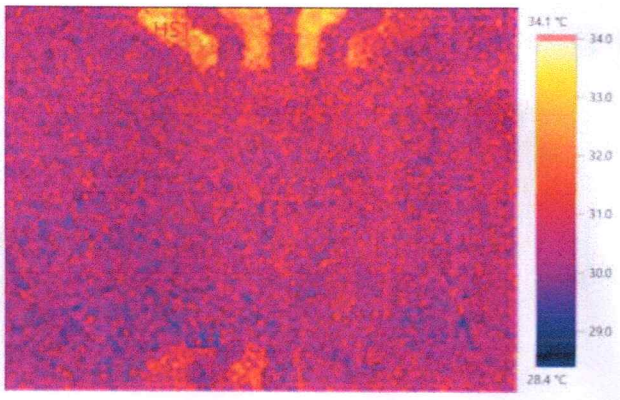
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	27.8	0.95	20.0	-
Hot spot 1	31.9	0.95	20.0	-

Histogram:



Thermography Report

File:	Date:	Time:
2nd Floor Main Panel	04-03-2024	13:22:28



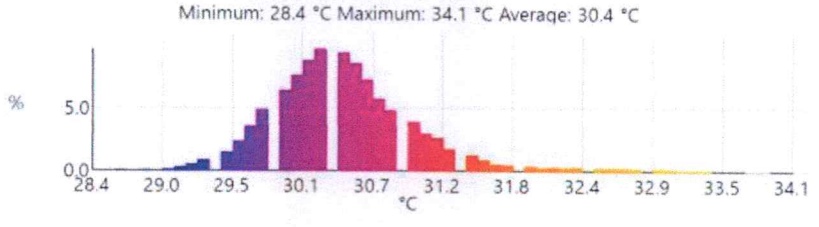
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

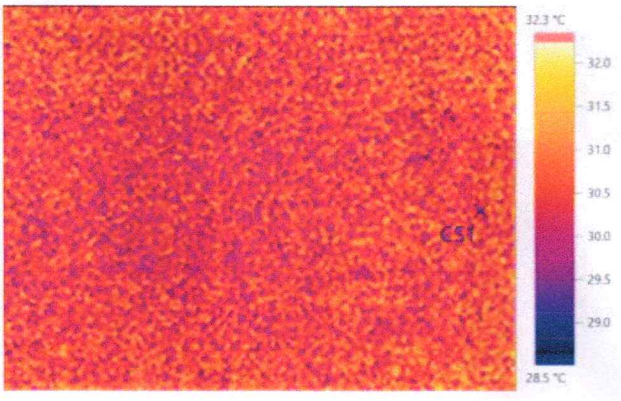
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.4	0.95	20.0	-
Hot spot 1	34.1	0.95	20.0	-

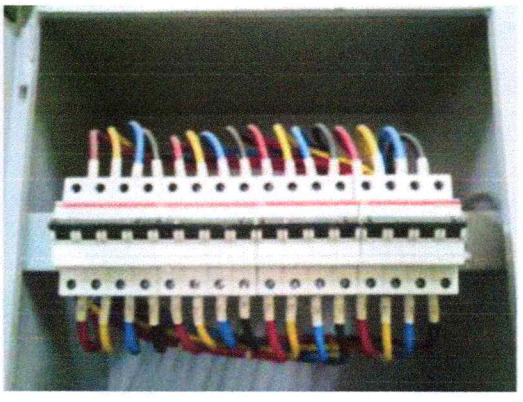
Histogram:



Thermography Report

File:	Date:	Time:
2nd Floor Left MCB	04-03-2024	13:22:42





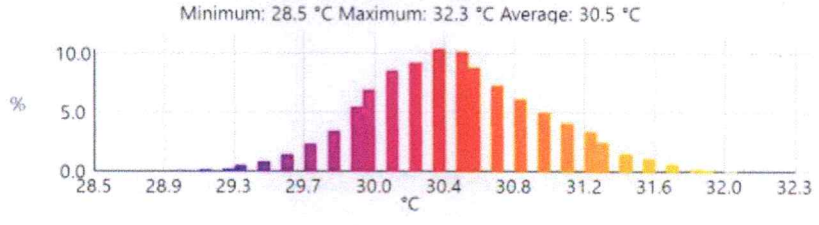
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

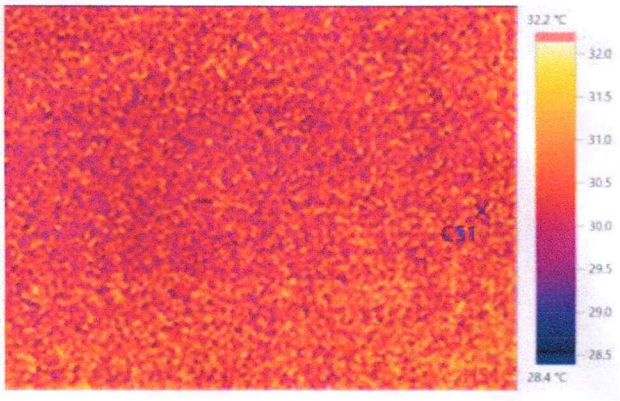
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.5	0.95	20.0	-
Hot spot 1	32.3	0.95	20.0	-

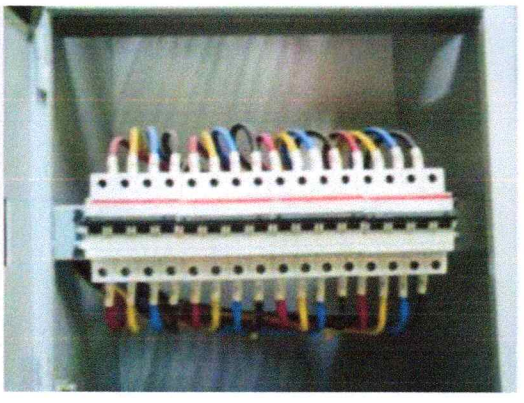
Histogram:



Thermography Report

File:	Date:	Time:
2nd Floor Middle MCB	04-03-2024	13:22:54





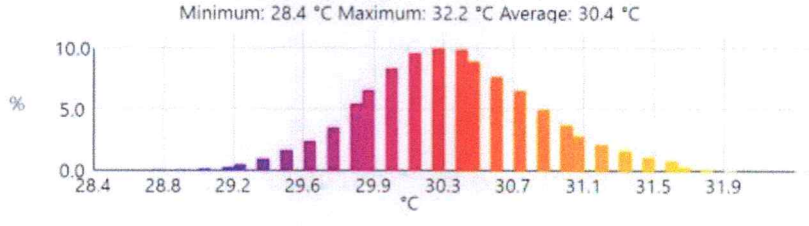
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.4	0.95	20.0	-
Hot spot 1	32.2	0.95	20.0	-

Histogram:

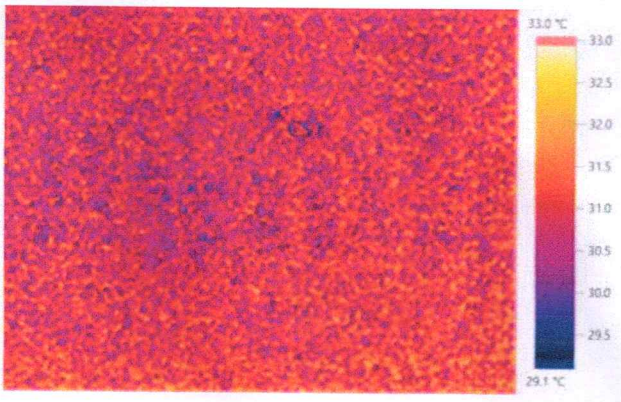


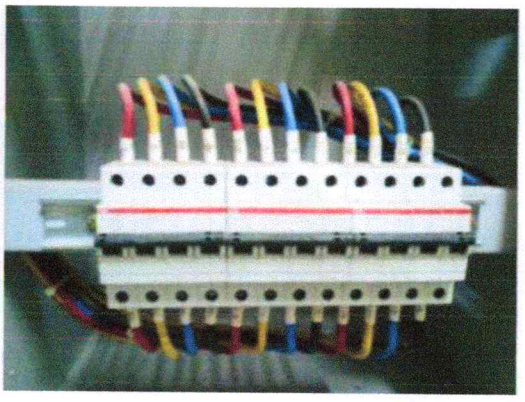
Thermography Report

File:
2nd Floor Right MCB

Date:
04-03-2024

Time:
13:23:13





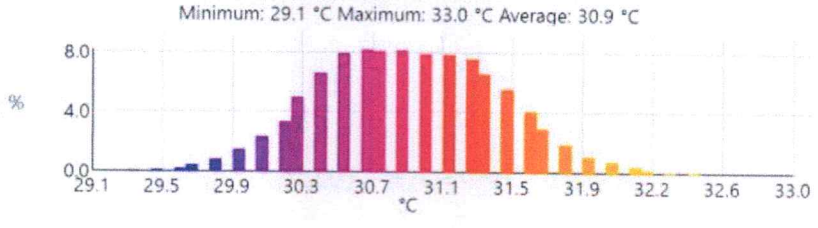
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

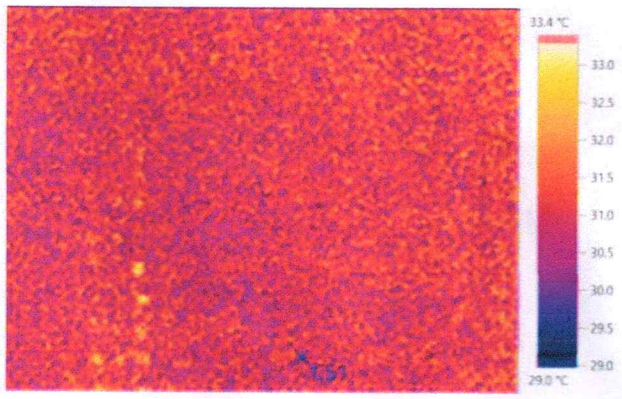
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.1	0.95	20.0	-
Hot spot 1	33.0	0.95	20.0	-

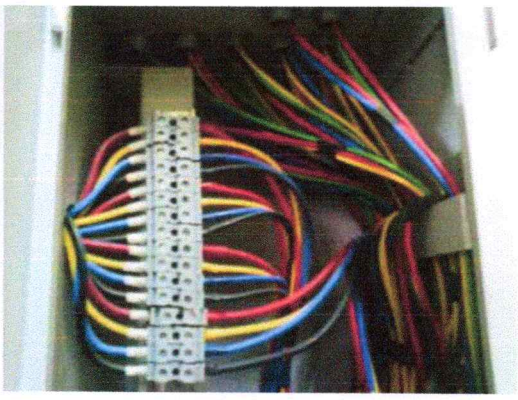
Histogram:



Thermography Report

File:	Date:	Time:
2nd Floor Cable Alley	04-03-2024	13:23:38





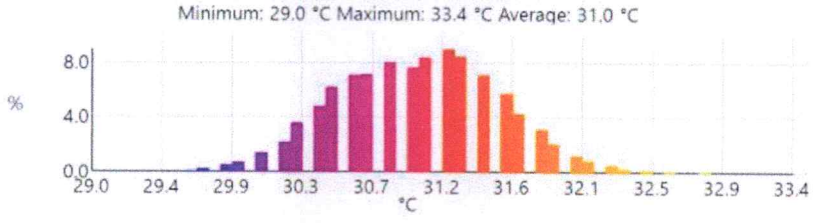
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.0	0.95	20.0	-
Hot spot 1	33.4	0.95	20.0	-

Histogram:

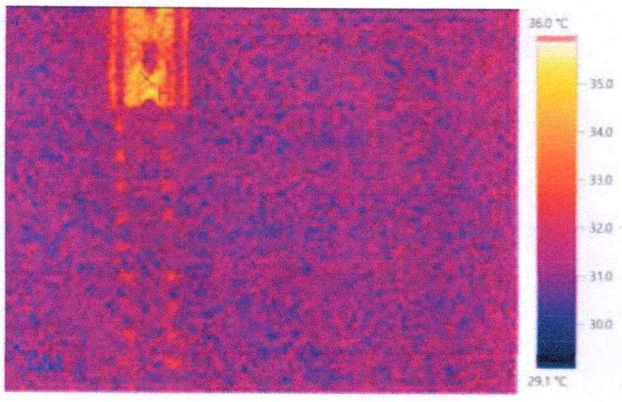


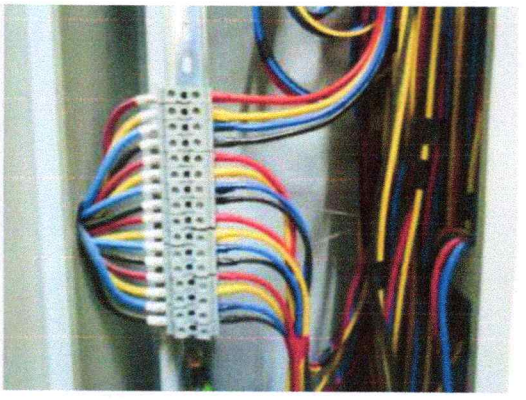
Thermography Report

File:
2nd Floor Cable Alley

Date:
04-03-2024

Time:
13:23:48





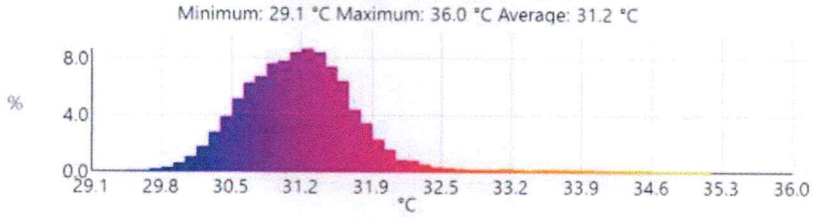
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.1	0.95	20.0	-
Hot spot 1	36.0	0.95	20.0	-

Histogram:

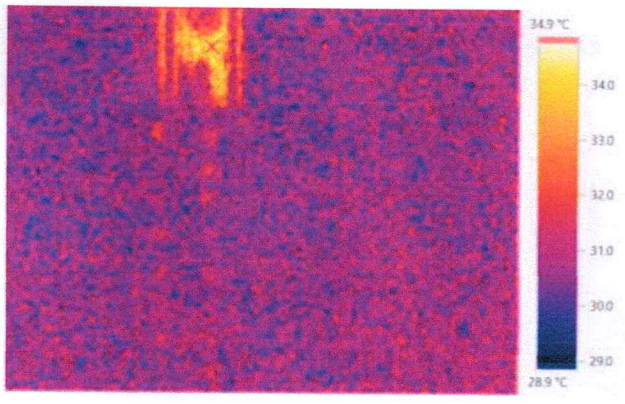


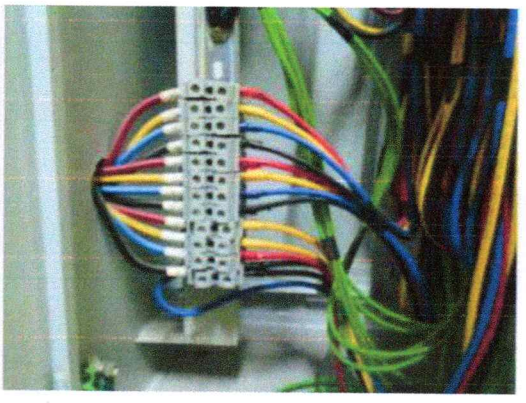
Thermography Report

File:
2nd Floor Cable Alley

Date:
04-03-2024

Time:
13:23:57





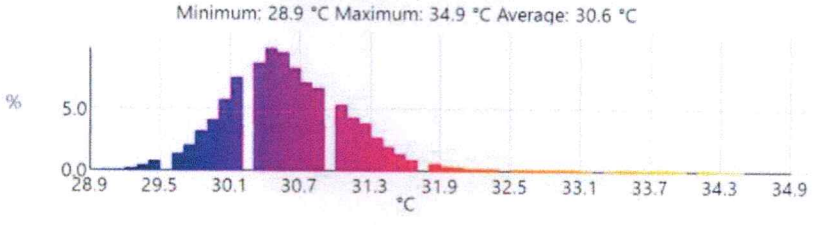
Picture parameters:

Emissivity: 0.95
Refl. temp. [°C]: 20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Hot spot 1	34.9	0.95	20.0	-
Hot spot 2	34.9	0.95	20.0	-

Histogram:

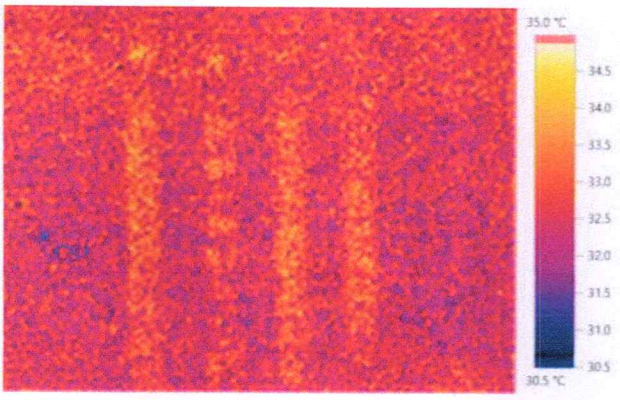


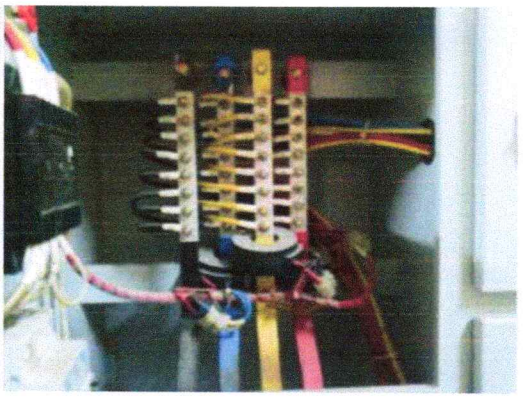
Thermography Report

File:
3rd Floor Display Panel

Date:
04-03-2024

Time:
13:38:51





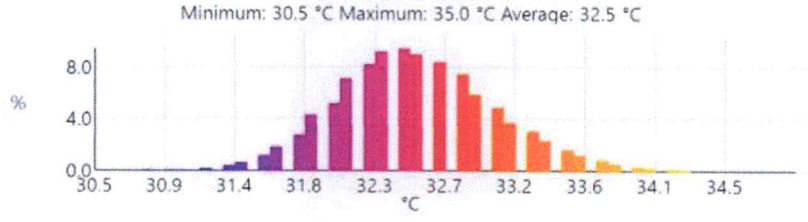
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.5	0.95	20.0	-
Hot spot 1	35.0	0.95	20.0	-

Histogram:

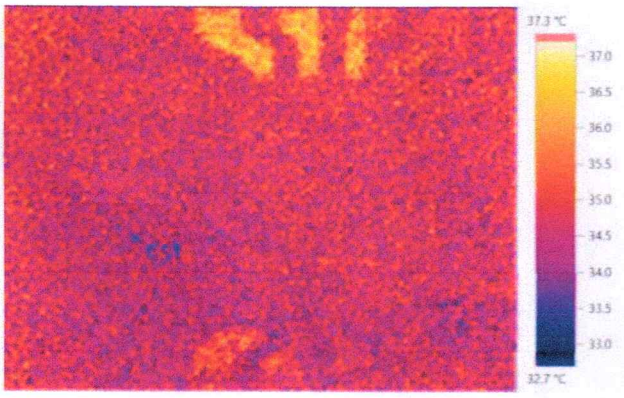


Thermography Report

File:
3rd Floor panel

Date:
04-03-2024

Time:
13:39:06



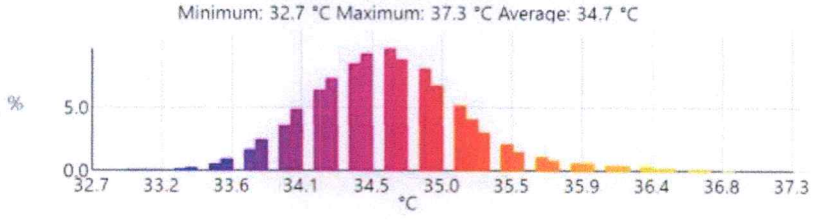
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

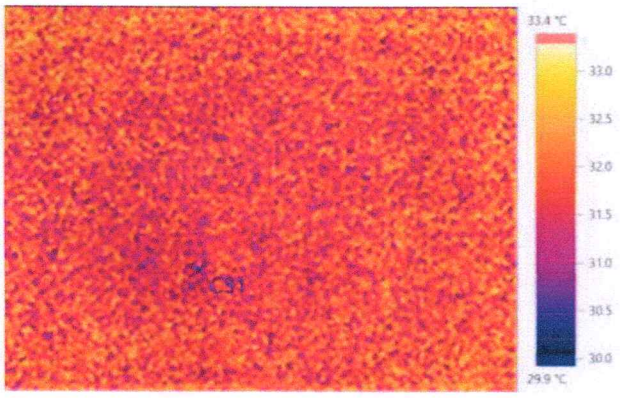
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	32.7	0.95	20.0	-
Hot spot 1	37.3	0.95	20.0	-

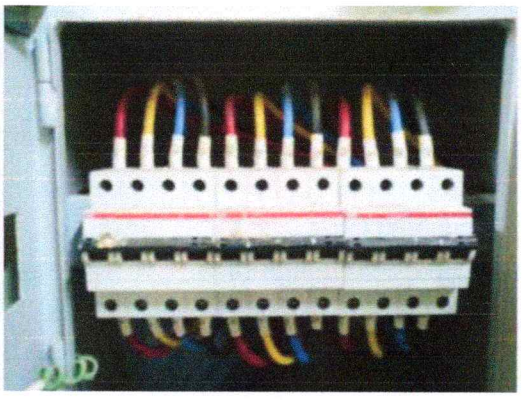
Histogram:



Thermography Report

File:	Date:	Time:
3rd Floor MCB L1	04-03-2024	13:39:20





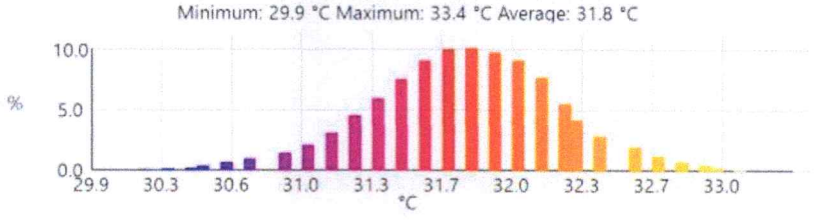
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

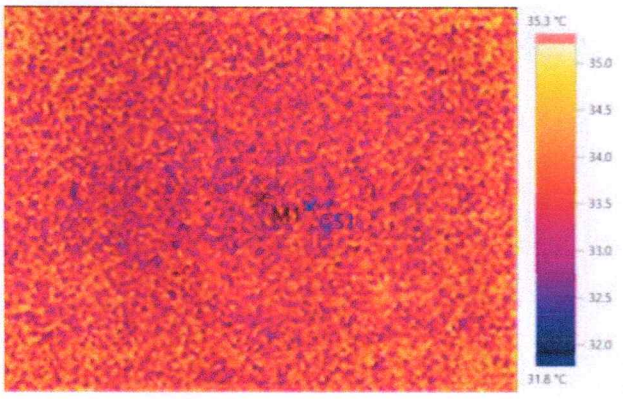
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.9	0.95	20.0	-
Hot spot 1	33.4	0.95	20.0	-

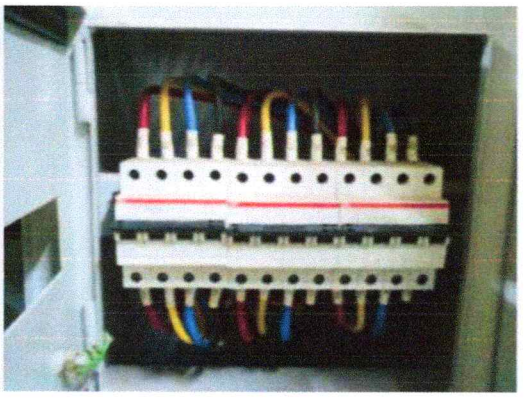
Histogram:



Thermography Report

File:	Date:	Time:
3rd Floor MCB R2	04-03-2024	13:39:37





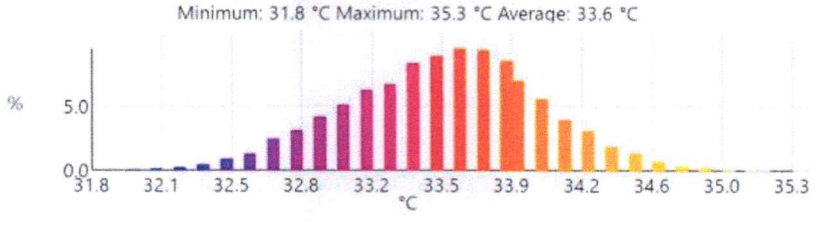
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Measure point 1	33.9	0.95	20.0	CenterSpot
Cold spot 1	31.8	0.95	20.0	-
Hot spot 1	35.3	0.95	20.0	-

Histogram:

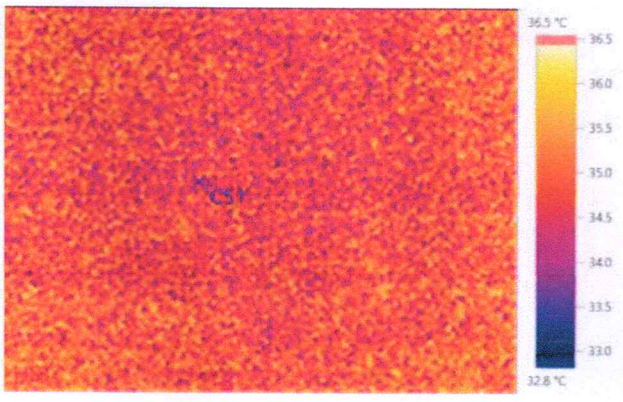


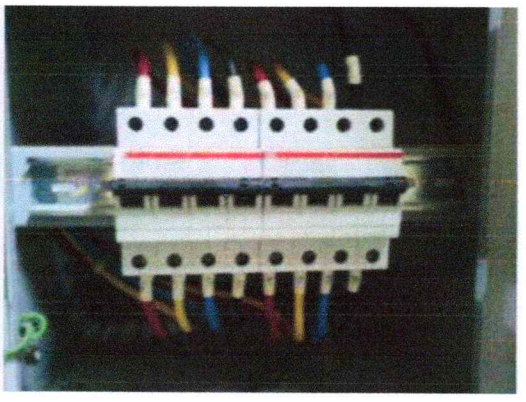
Thermography Report

File:
3rd Floor M-3 MCB

Date:
04-03-2024

Time:
13:39:49





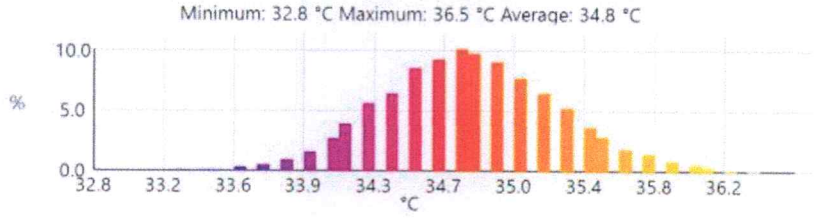
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

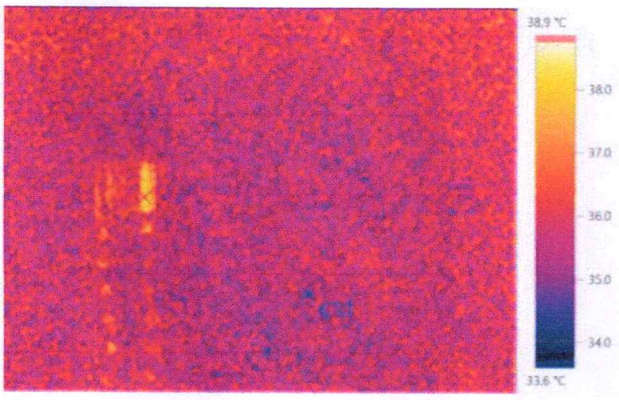
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	32.8	0.95	20.0	-
Hot spot 1	36.5	0.95	20.0	-

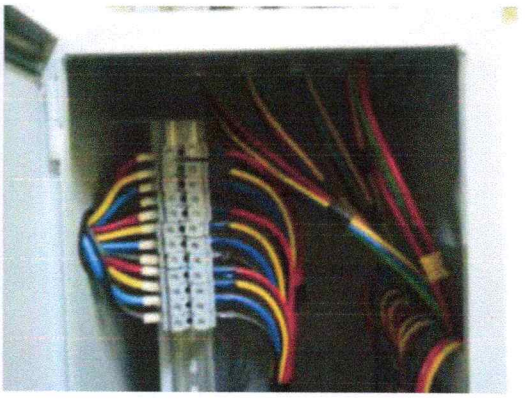
Histogram:



Thermography Report

File:	Date:	Time:
3rd Floor Cable Alley	04-03-2024	13:39:58





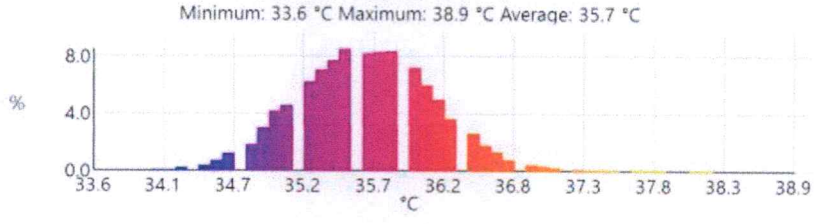
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	33.6	0.95	20.0	-
Hot spot 1	38.9	0.95	20.0	-

Histogram:

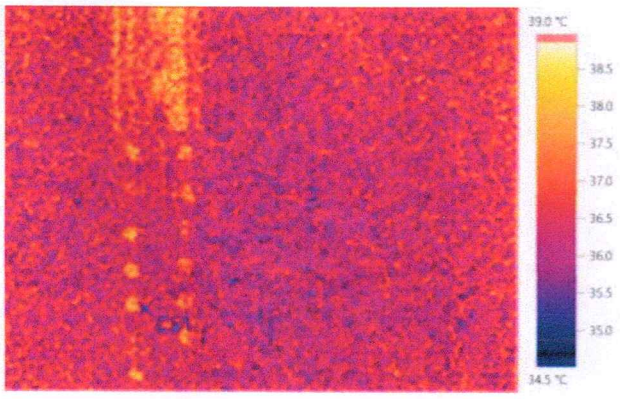


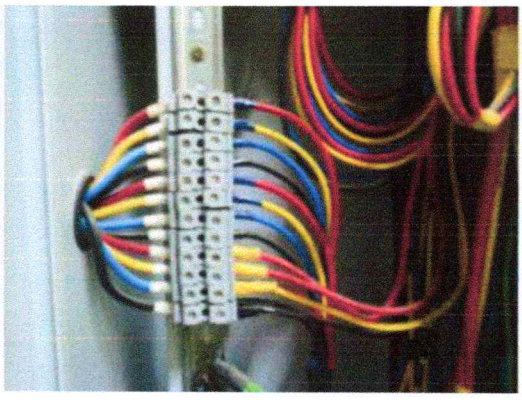
Thermography Report

File:
3rd Floor Cable Alley

Date:
04-03-2024

Time:
13:40:07





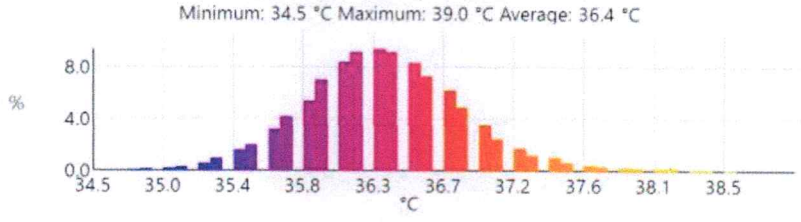
Picture parameters:

Emissivity: 0.95
Refl. temp. [°C]: 20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	34.5	0.95	20.0	-
Hot spot 1	39.0	0.95	20.0	-

Histogram:

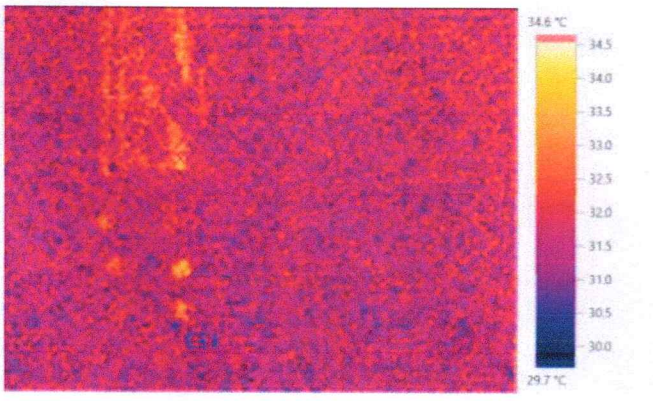


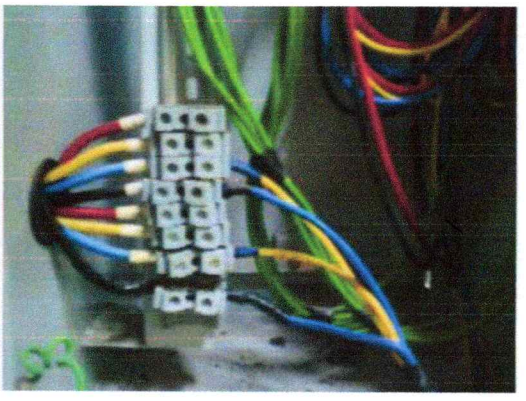
Thermography Report

File:
3rd Floor Cable Alley

Date:
04-03-2024

Time:
13:40:22





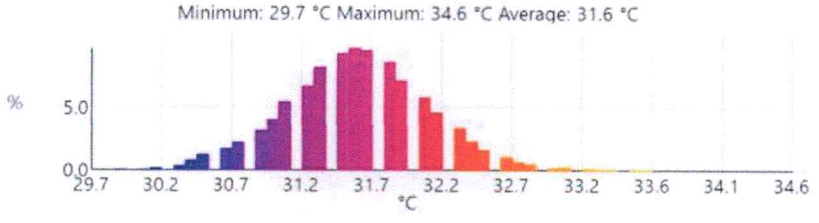
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

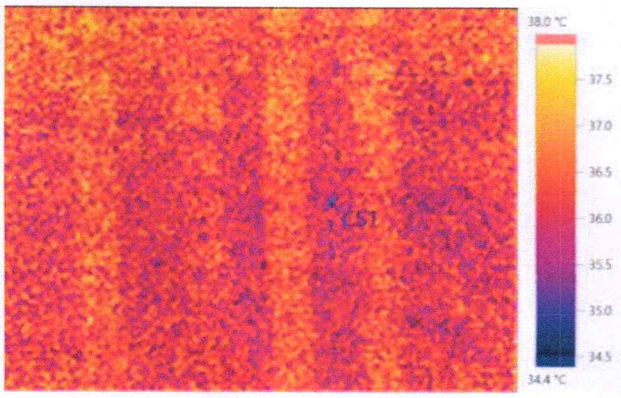
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.7	0.95	20.0	-
Hot spot 1	34.6	0.95	20.0	-

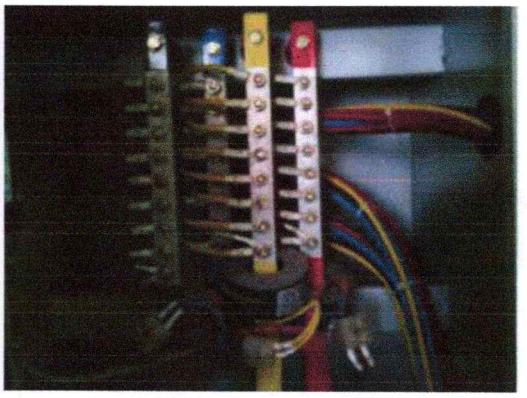
Histogram:



Thermography Report

File:	Date:	Time:
4th Floor Display Panel	04-03-2024	14:22:34





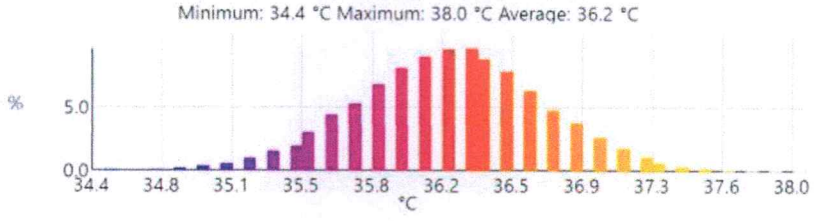
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	34.4	0.95	20.0	-
Hot spot 1	38.0	0.95	20.0	-

Histogram:

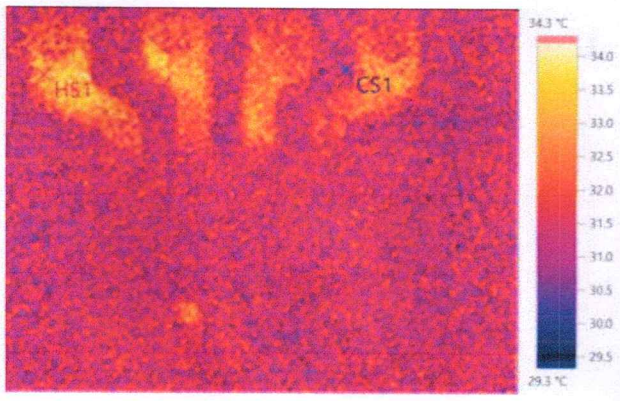


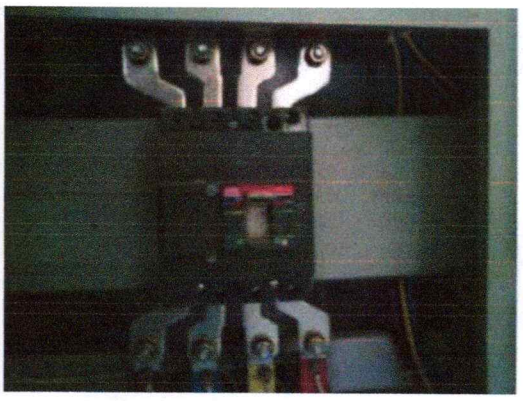
Thermography Report

File:
4th Floor Panel main

Date:
04-03-2024

Time:
14:22:53





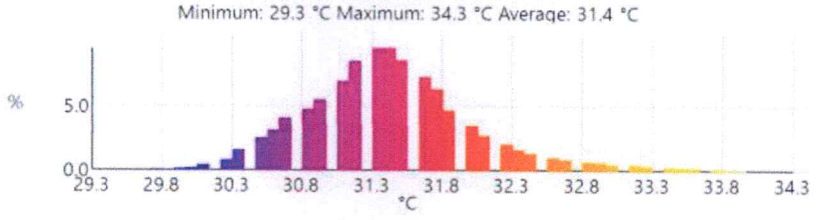
Picture parameters:

Emissivity: 0.95
Refl. temp. [°C]: 20.0

Picture markings:

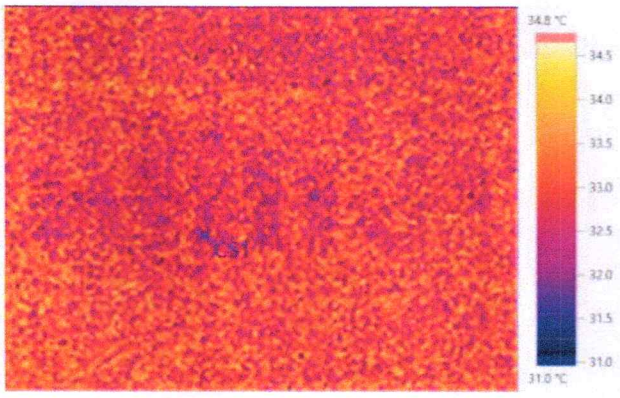
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.3	0.95	20.0	-
Hot spot 1	34.3	0.95	20.0	-

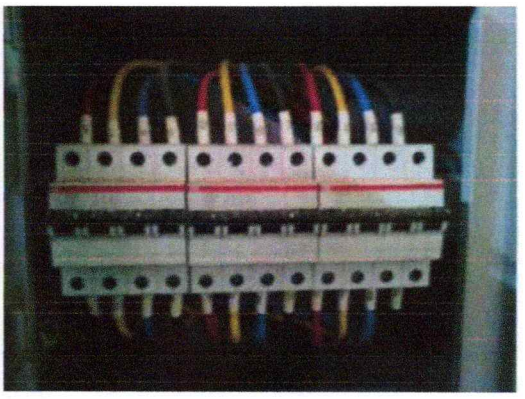
Histogram:



Thermography Report

File:	Date:	Time:
4th Floor L-1 MCB	04-03-2024	14:23:10





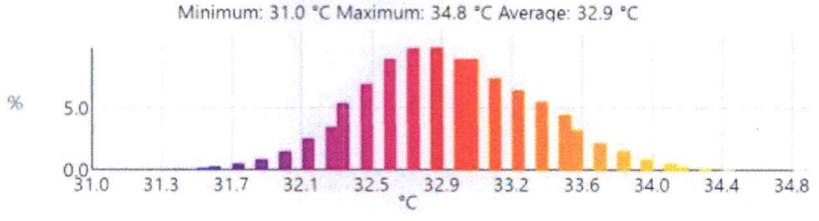
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

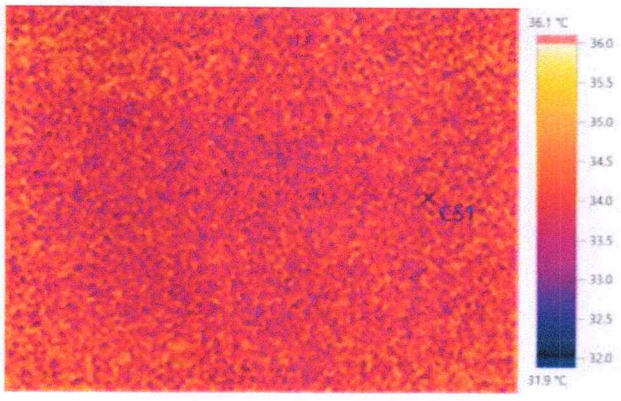
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	31.0	0.95	20.0	-
Hot spot 1	34.8	0.95	20.0	-

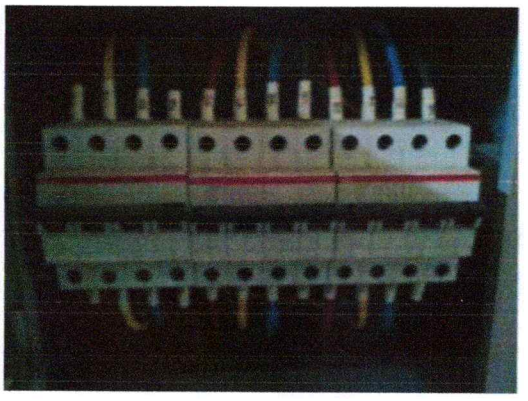
Histogram:



Thermography Report

File:	Date:	Time:
4th Floor L-2 MCB	04-03-2024	14:23:21





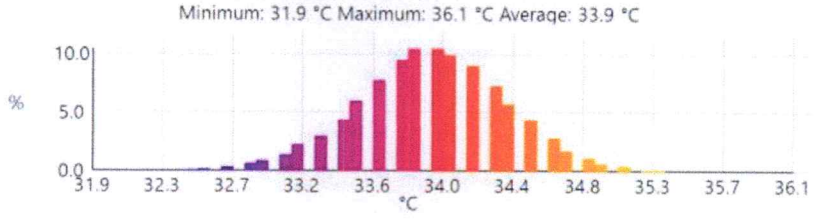
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	31.9	0.95	20.0	-
Hot spot 1	36.1	0.95	20.0	-

Histogram:

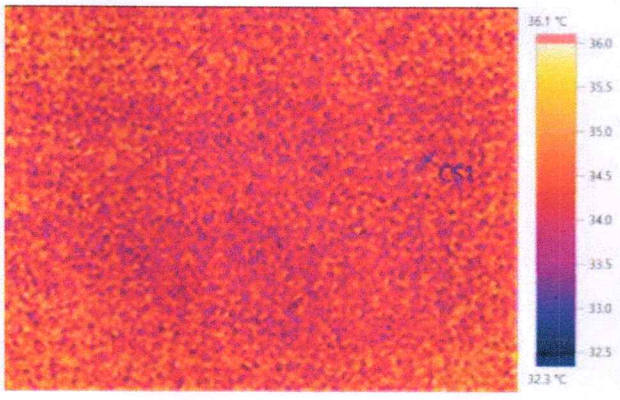


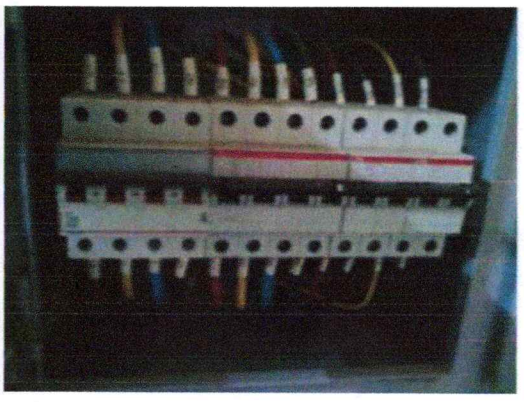
Thermography Report

File:
4TH Floor L-3 MCB

Date:
04-03-2024

Time:
14:23:33





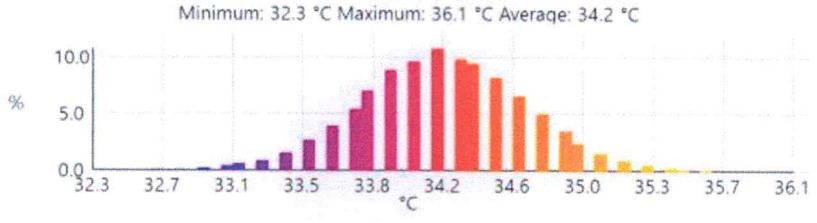
Picture parameters:

Emissivity: 0.95
Refl. temp. [°C]: 20.0

Picture markings:

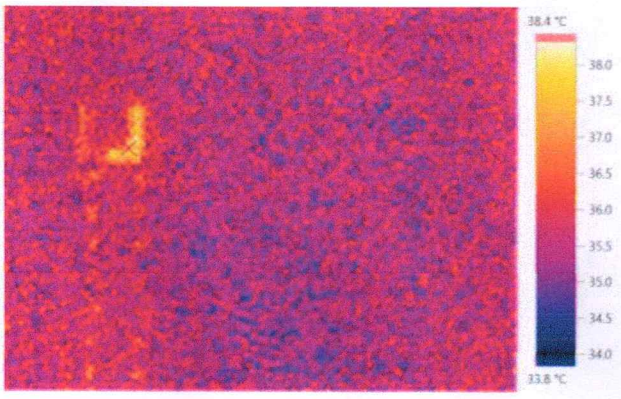
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	32.3	0.95	20.0	-
Hot spot 1	36.1	0.95	20.0	-

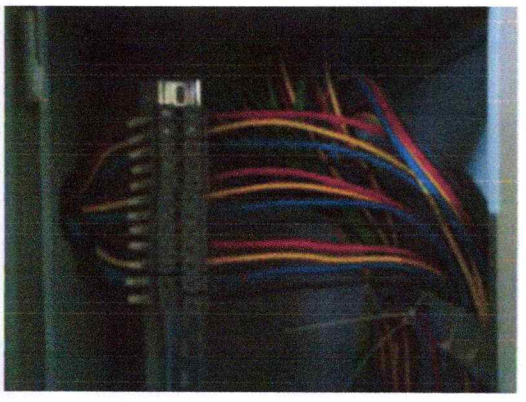
Histogram:



Thermography Report

File:	Date:	Time:
4th Floor Cable Alley	04-03-2024	14:23:47





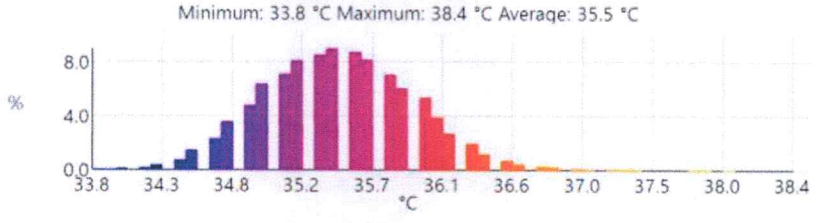
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

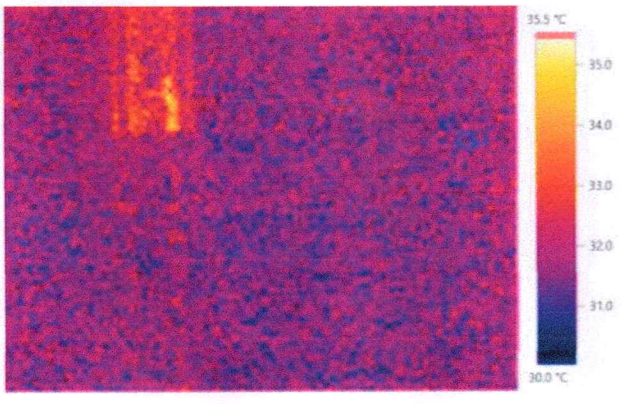
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	33.8	0.95	20.0	-
Hot spot 1	38.4	0.95	20.0	-

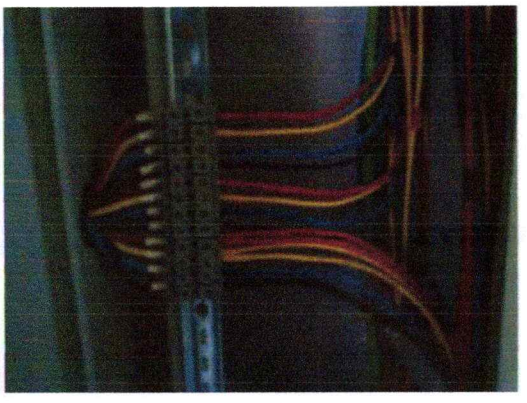
Histogram:



Thermography Report

File:	Date:	Time:
4th Floor Cable Alley	04-03-2024	14:23:55





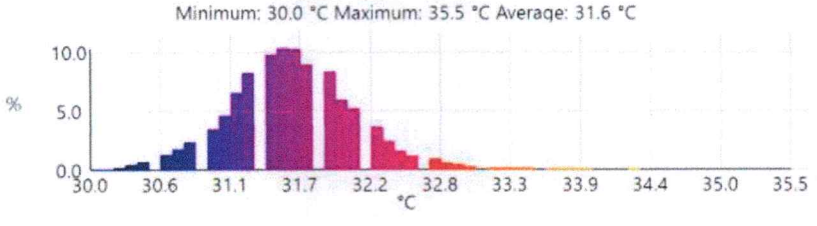
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

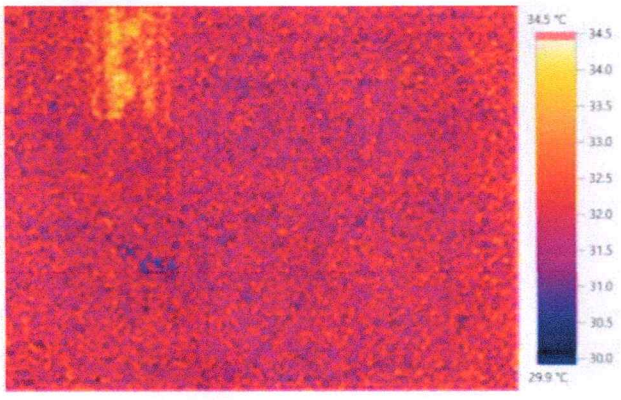
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.0	0.95	20.0	-
Hot spot 1	35.5	0.95	20.0	-

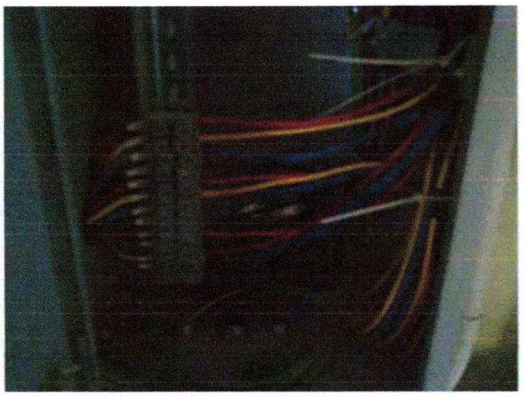
Histogram:



Thermography Report

File:	Date:	Time:
4th Floor Cable Alley	04-03-2024	14:24:01





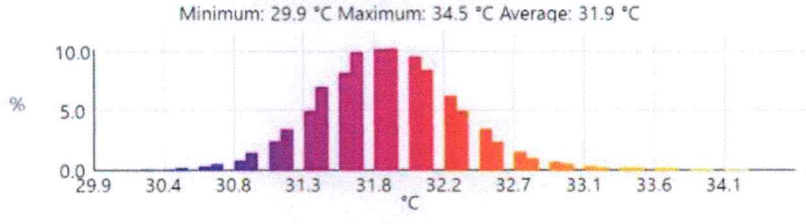
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.9	0.95	20.0	-
Hot spot 1	34.5	0.95	20.0	-

Histogram:

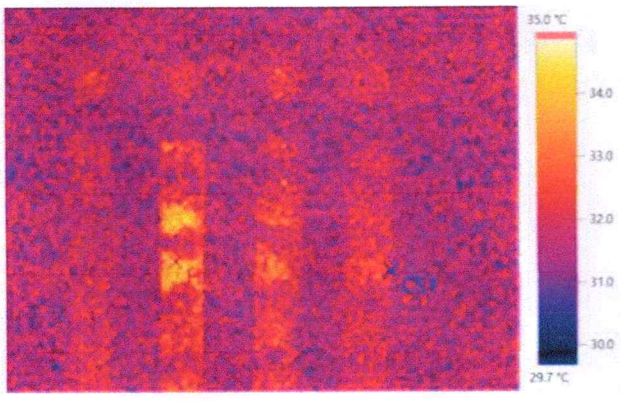


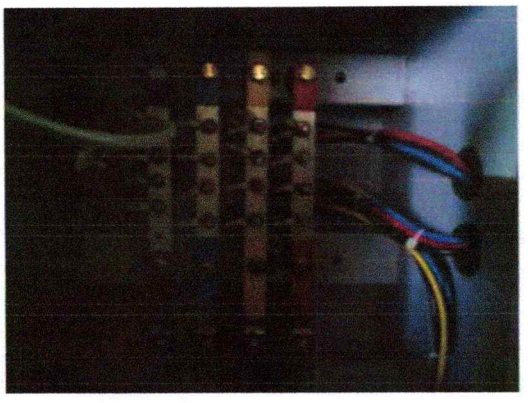
Thermography Report

File:
Lift P.S 4th Floor

Date:
04-03-2024

Time:
14:25:01





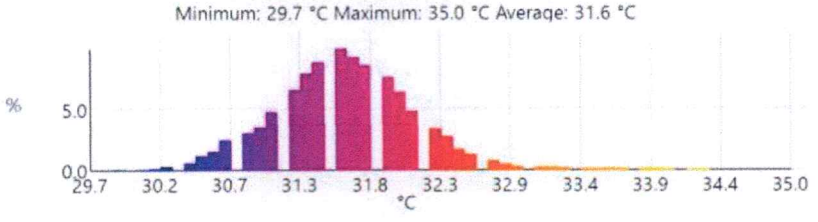
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.7	0.95	20.0	-
Hot spot 1	35.0	0.95	20.0	-

Histogram:

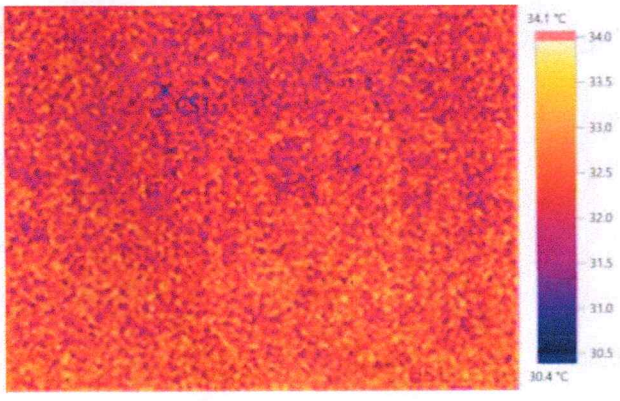


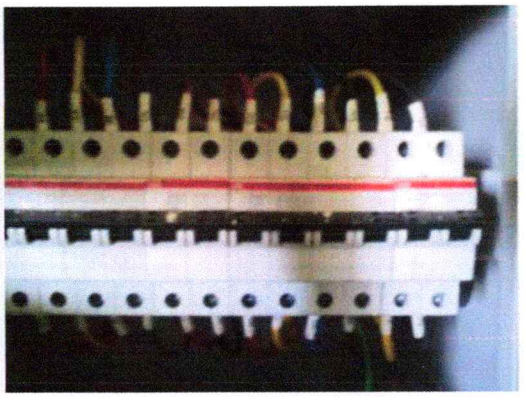
Thermography Report

File:
Lift P.S 4th Floor

Date:
04-03-2024

Time:
14:25:32





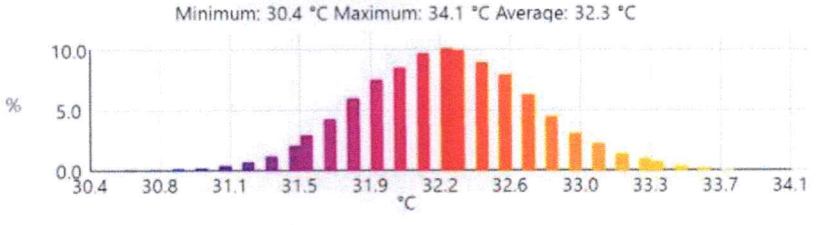
Picture parameters:

Emissivity: 0.95
Refl. temp. [°C]: 20.0

Picture markings:

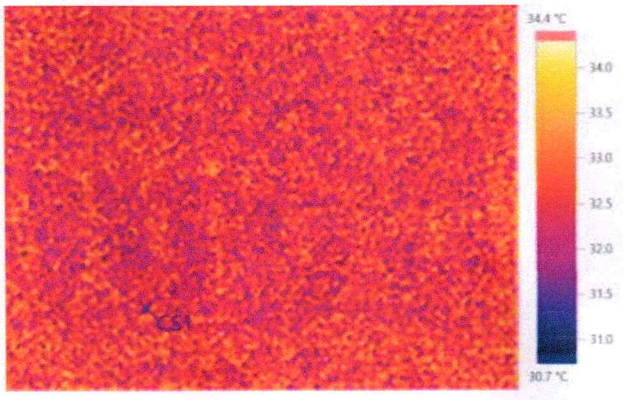
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.4	0.95	20.0	-
Hot spot 1	34.1	0.95	20.0	-

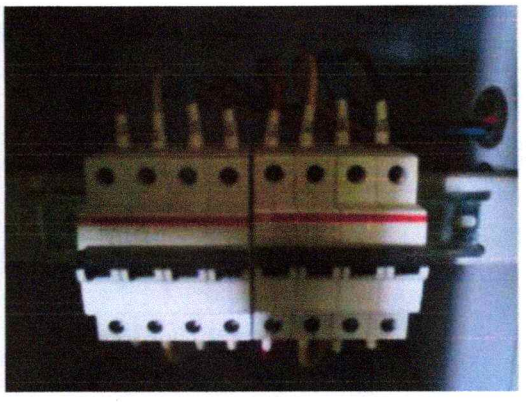
Histogram:



Thermography Report

File:	Date:	Time:
Lift P.S 4th Floor	04-03-2024	14:25:41





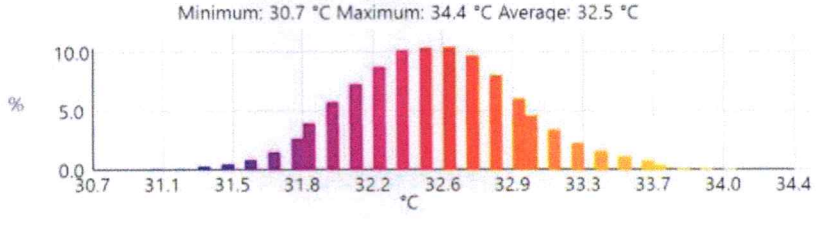
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.7	0.95	20.0	-
Hot spot 1	34.4	0.95	20.0	-

Histogram:

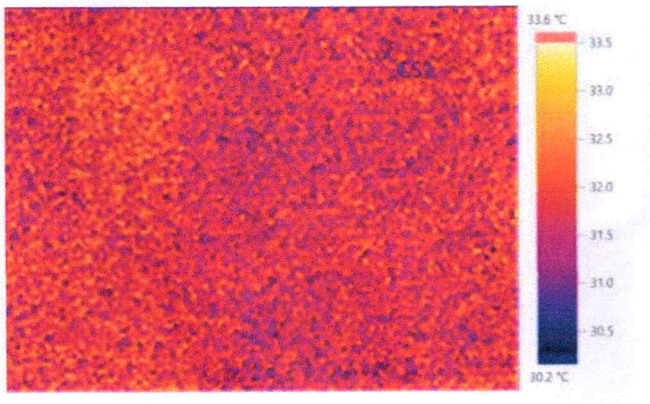


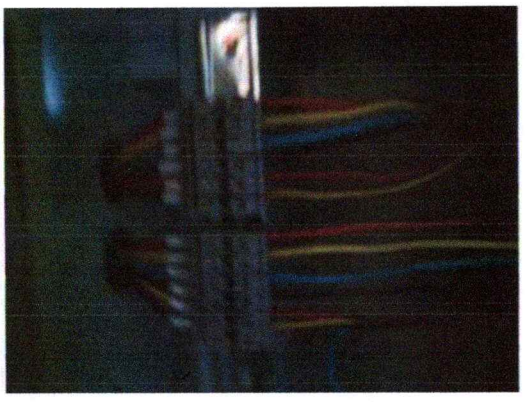
Thermography Report

File:
4th Floor Cable Alley

Date:
04-03-2024

Time:
14:25:52





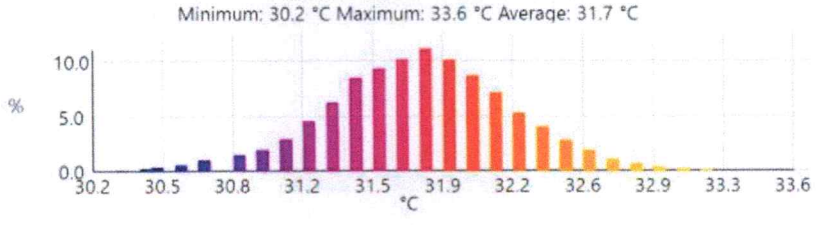
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.2	0.95	20.0	-
Hot spot 1	33.6	0.95	20.0	-

Histogram:

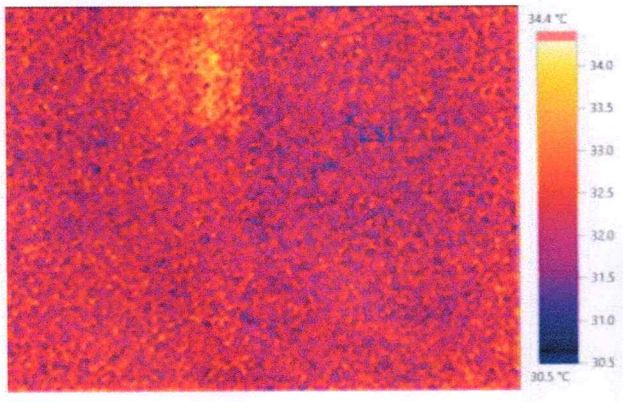


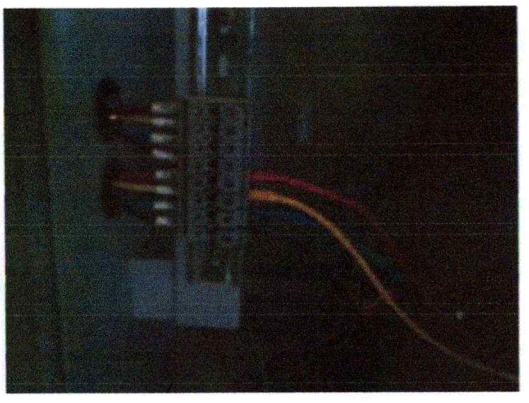
Thermography Report

File:
4th Floor Cable Alley

Date:
04-03-2024

Time:
14:25:58





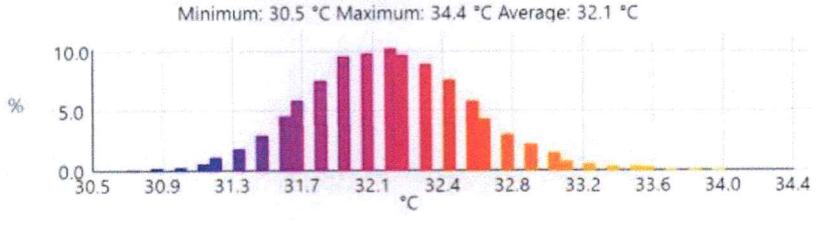
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

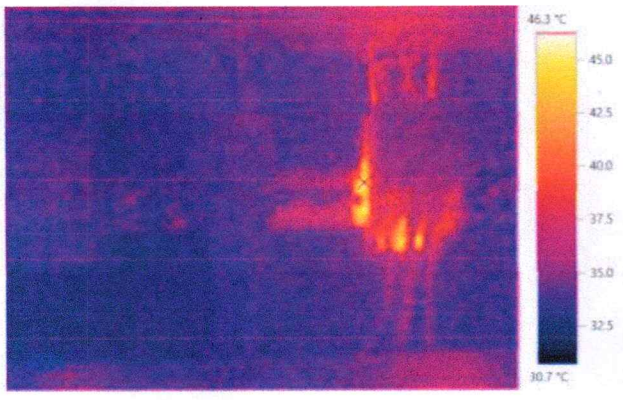
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.5	0.95	20.0	-
Hot spot 1	34.4	0.95	20.0	-

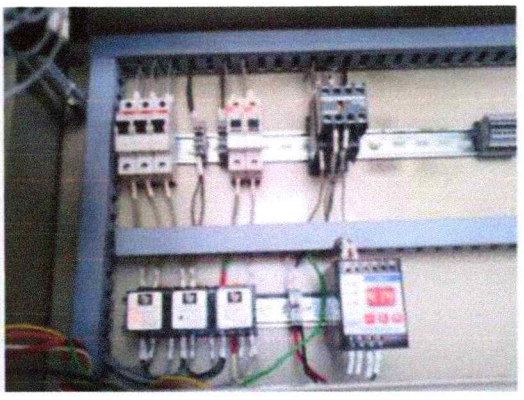
Histogram:



Thermography Report

File:	Date:	Time:
LT Room College RSEB	04-03-2024	14:49:30





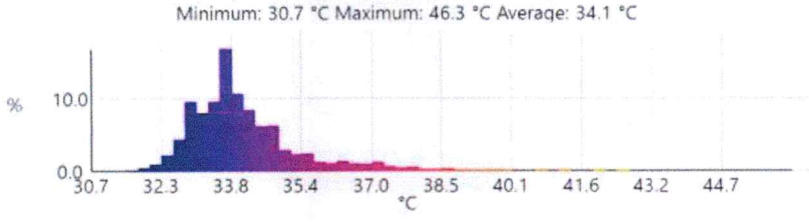
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.7	0.95	20.0	-
Hot spot 1	46.3	0.95	20.0	-

Histogram:

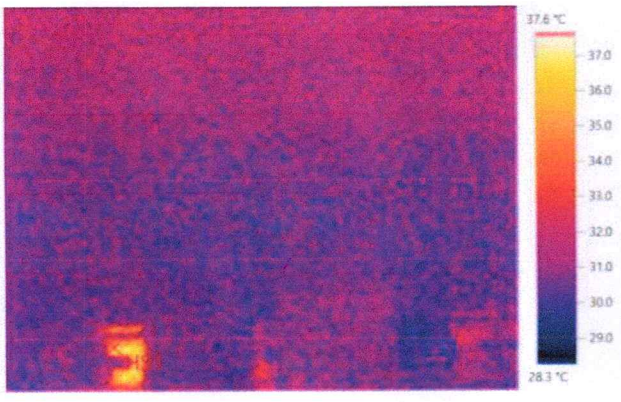


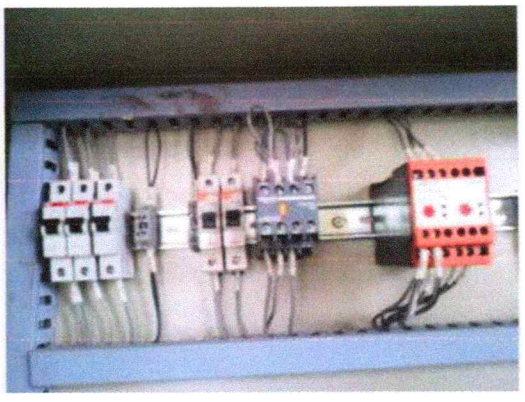
Thermography Report

File:
LT Room College DG-1

Date:
04-03-2024

Time:
14:51:43





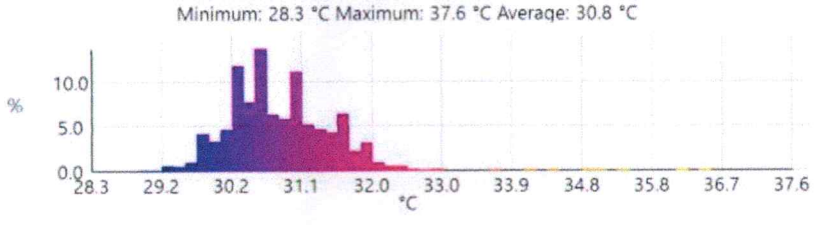
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

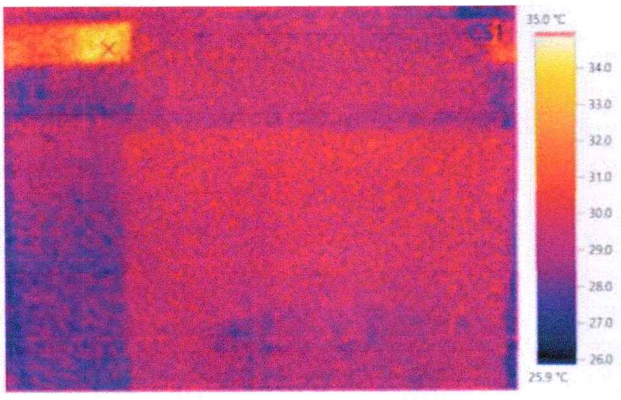
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.3	0.95	20.0	-
Hot spot 1	37.6	0.95	20.0	-

Histogram:



Thermography Report

File:	Date:	Time:
LT Room College DG-1	04-03-2024	14:51:57



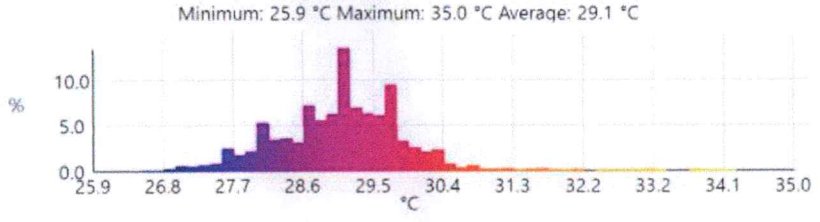
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

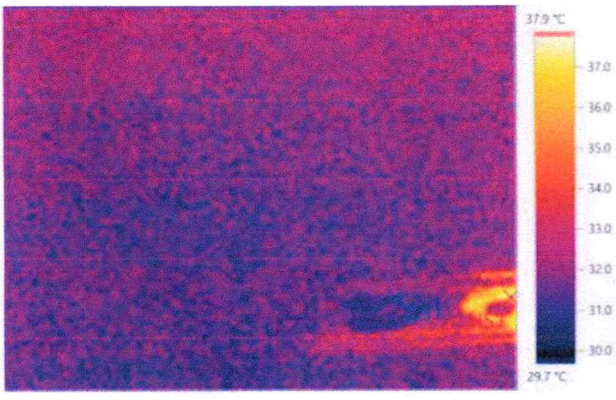
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	25.9	0.95	20.0	-
Hot spot 1	35.0	0.95	20.0	-

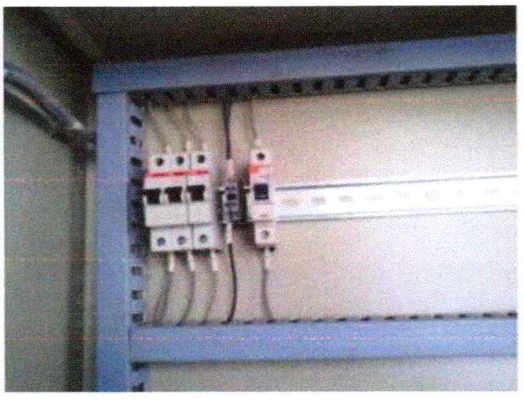
Histogram:



Thermography Report

File:	Date:	Time:
LT Room College Bus Coupler	04-03-2024	14:52:16





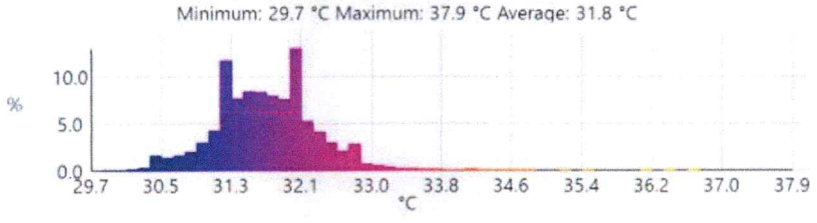
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

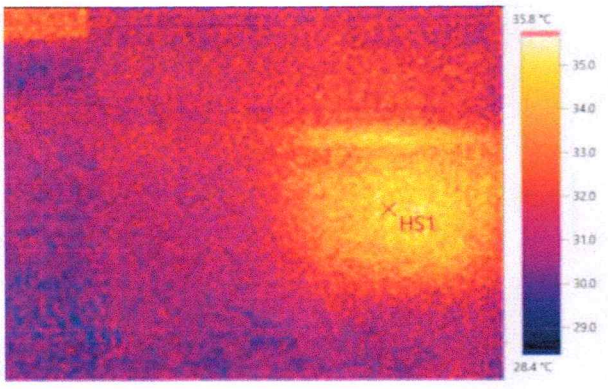
Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	29.7	0.95	20.0	-
Hot spot 1	37.9	0.95	20.0	-

Histogram:



Thermography Report

File:	Date:	Time:
LT Room College Bus Coupler	04-03-2024	14:52:51



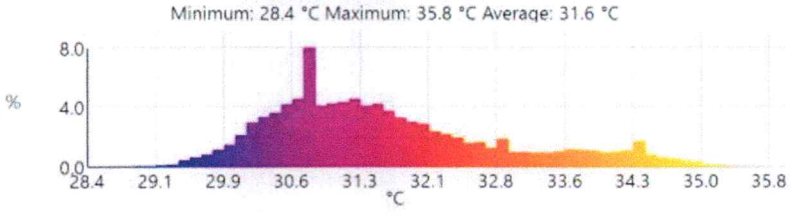
Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	28.4	0.95	20.0	-
Hot spot 1	35.8	0.95	20.0	-

Histogram:

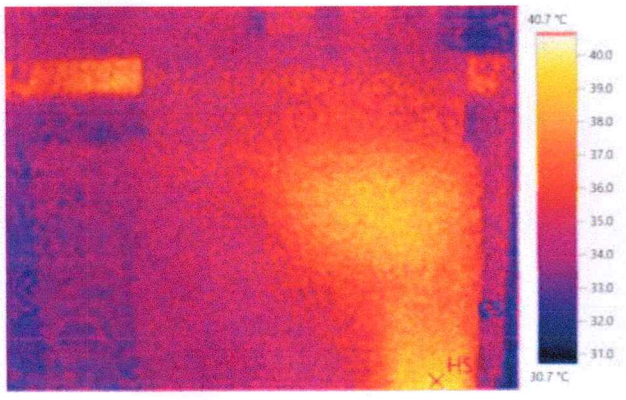


DEEPAK
Energy Auditor
(EA-19771)

Principal
St. Xavier's College Jaipur
Nevta-Mahapura Road, Jaipur

Thermography Report

File:	Date:	Time:
LT Room College RSEB	04-03-2024	14:49:54



Picture parameters:

Emissivity:	0.95
Refl. temp. [°C]:	20.0

Picture markings:

Measurement Objects	Temp. [°C]	Emiss.	Refl. temp. [°C]	Remarks
Cold spot 1	30.7	0.95	20.0	-
Hot spot 1	40.7	0.95	20.0	-

Histogram: