

PREPARED BY



ECO TECH ELECTRICAL GROUP

ELECTRICAL STUDY & ENGINEERING SUPPORT

LICENSE LIC# EC13012434
PHONE (786) 396-2640
WEBSITE eco-techelectricalgroup.com
OFFICE 12005 SW 110 STREET
 CIR S | MIAMI, FL 33186

CLIENT DELIVERY REPORT

Electrical Load Study Report

Prepared for technical review, planning, and client delivery.

CLIENT First Harvest
PROJECT 1200 S Rogers Circle, Unit 8
 Boca Raton, FL 33487
ASSET Not identified
PANEL Not identified
SCOPE Load Study interpretation
STUDY PERIOD March 24, 2026 at 01:04 PM to April 01, 2026 at 04:49 PM
REPORT DATE April 15, 2026 at 07:56 AM

This report summarizes monitored load profile, demand behavior, phase balance, and planning metrics for the referenced electrical asset. It is intentionally scoped as a load study interpretation unless power-quality channels are explicitly present in the source dataset.

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DATE OF REPORT
April 15, 2026 at 07:56 AM

WEBSITE
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EQUIPMENT USED
Fluke 1736 Power Logger

STUDY PERIOD

March 24, 2026 at 01:04 PM to April 01,
2026 at 04:49 PM

OFFICE

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1. Introduction

This electrical load study was prepared to evaluate three-phase loading behavior, identify demand characteristics, and support engineering decisions related to system utilization and future capacity planning for panel Not identified.

The scope of the analysis covers phase loading, trend review, apparent demand estimation, and high-level system observations derived from the parsed monitoring dataset. Continuous load monitoring is important because it exposes true operating demand, reveals imbalance or peak loading conditions, and supports more reliable design and upgrade decisions than nameplate assumptions alone.

2. Methodology

A Fluke 1736 Power Logger configured as a Load calculation dataset was used to capture continuous electrical measurements over the reported study period for asset Not identified. The monitoring dataset was parsed and reduced for engineering review while preserving the time sequence of the measured intervals.

Data validation included chronological ordering checks, field extraction verification, and consistency review of current, voltage, and power-related channels. Estimated kVA values in this report are derived from the monitored current data and the available nominal line-to-neutral voltage channels when direct kVA channels are not present in the source file.

Load Study Scope

This parsed session is being treated as a load study interpretation under the Fluke 174x manual rules. The report is intended for loading, demand, phase balance, and capacity review rather than formal power-quality compliance conclusions.

Estimated Apparent Demand

Apparent power values in this report are estimated from nominal line-to-neutral voltage and measured current where direct kVA channels are not present. They are useful for planning and comparison, but they should not be presented as direct instrument-measured PQ values.

Power Quality Limits

This dataset does not expose parsed THD, TDD, flicker, harmonic, interharmonic, or event channels in the current workflow. Following the 174x manual, any statements about PQ compliance should be deferred until the relevant 10-minute PQ intervals or event-triggered records are available.

174x Timing Context

The Fluke 174x documentation distinguishes trend, demand, PQ 10-minute, 150/180-cycle, and event-triggered records. This report uses the parsed load-calculation trend-style data and should not be interpreted as if it were a full PQ interval report.

3. Panel and Study Information

Panel Details

Panel Not identified

Monitoring Details

Interpretation Scope Load Study interpretation

4. Executive Summary

OVERALL SYSTEM AVERAGE LOAD

13.74 kVA

PEAK DEMAND

35.92 kVA

PHASE IMBALANCE

6.5%

- The monitored system carried an estimated average apparent load of 13.74 kVA with a peak demand of 35.92 kVA.
- The estimated base load remained around 1884.46 kW, indicating the minimum sustained demand present during the study period.
- The calculated maximum continuous load is 45048.47 kW, using a 125% factor on the maximum average demand.
- Phase loading stayed reasonably balanced, with an estimated average imbalance of 6.5%.
- Observed connected demand remains below the calculated continuous loading threshold, indicating acceptable short-term utilization.

5. AI-Generated Analysis

This section was generated automatically from the monitored dataset to provide an additional narrative interpretation of the study results. The text is constrained to load-study scope and avoids power-quality compliance claims unless those channels exist in the parsed source.

Operational Load Narrative

Not identified and asset Not identified were evaluated from the load calculation dataset dataset. The monitored system carried an estimated average load of 13.74 kVA and reached a peak of 35.92 kVA. The load profile appears strongly variable, indicating that short-duration peaks are notably higher than the system's normal operating load. The estimated base load of 1884.46 kW indicates the minimum sustained demand that remained present during lower-use intervals.

Phase Balance Interpretation

Phase B carried the highest average apparent load at 4.88 kVA, while Phase A carried the lowest at 4.33 kVA. The resulting phase imbalance of 6.5% is considered controlled. This pattern suggests that phase loading remained generally acceptable over the monitored interval.

Capacity and Planning Outlook

The maximum average demand (MAD) was 36038.77 kW, resulting in a maximum continuous load (MCL) estimate of 45048.47 kW. Observed connected demand reached 49761.02 kW, while the projected planning load rises to 57225.17 kW. Relative to the observed peak, the projection adds 57189.25 kVA of planning headroom that should be checked directly against breaker, feeder,

and upstream equipment ratings. This comparison should be confirmed against installed protective device and distribution equipment ratings.

Trend and Variability Review

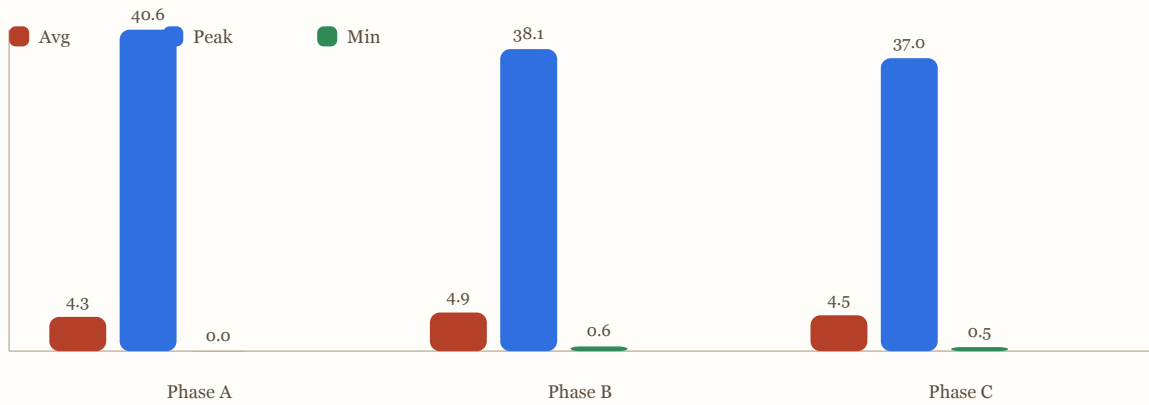
Within the weekly segmentation used in this report, the strongest peak behavior appeared in Mar 30, 2026 - Apr 05, 2026 at 35.92 kVA, while the lightest minimum demand appeared in Mar 30, 2026 - Apr 05, 2026 at 1.25 kVA. This spread helps distinguish recurring operating demand from isolated high-load intervals and identifies the periods most suitable for follow-up monitoring or operational review.

6. Phase Analysis

| Phase | Average kVA | Peak kVA | Minimum kVA |
|---------|-------------|-----------|-------------|
| Phase A | 4.33 kVA | 40.60 kVA | 0.02 kVA |
| Phase B | 4.88 kVA | 38.14 kVA | 0.60 kVA |
| Phase C | 4.53 kVA | 37.00 kVA | 0.51 kVA |

7. Graphs

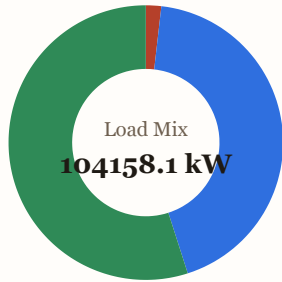
Phase Comparison: Average vs Peak vs Minimum



Weekly Load Trend



Load Distribution



- Base Load: 1884.46 kW
- MCL: 45048.47 kW
- Projected: 57225.17 kW

Interactive Phase Charts

Open this HTML report in a browser to interact with the three phase charts. Use the mouse wheel for zoom and drag horizontally for pan.

INTERACTIVE EXPLORER

Original app chart set

The exported report now includes the same chart groups used in the app: combined phases, per-phase, voltage, totals, and frequency.

3/24/2026, 1:04:55 PM to 4/1/2026, 4:48:28 PM

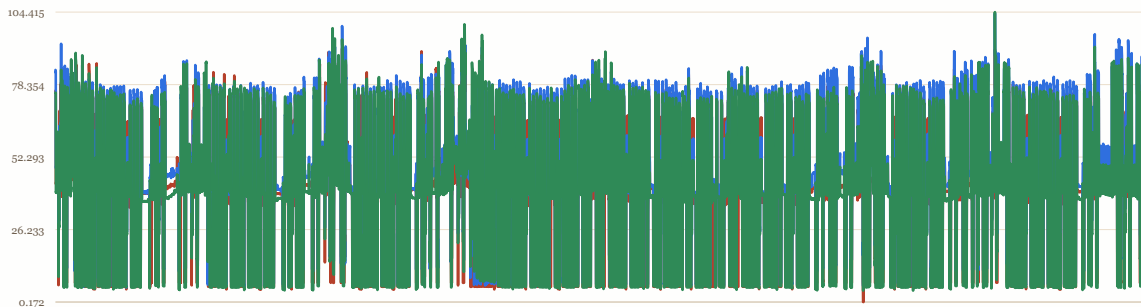
Panel

Preset

Visible window

Table

Start
End



- Phase A
- Phase B
- Phase C

Mouse wheel to zoom, drag to pan, and click legend items to hide or show series.

● Phase A

Min **0.172**
 Max **91.300**
 Avg **36.060**
 Visible **78.115**

● Phase B

Min **5.265**
 Max **103.956**
 Avg **40.643**
 Visible **88.356**

● Phase C

Min **4.277**
 Max **104.415**
 Avg **37.755**
 Visible **85.509**

| Index | Start | Phase A | Phase B | Phase C |
|-------|-----------------------|---------|---------|---------|
| 0 | 3/24/2026, 1:04:55 PM | 76.141 | 83.628 | 75.332 |
| 89 | 3/24/2026, 1:06:24 PM | 76.198 | 82.722 | 75.325 |
| 178 | 3/24/2026, 1:07:53 PM | 75.990 | 83.048 | 75.434 |
| 267 | 3/24/2026, 1:09:22 PM | 42.605 | 48.258 | 39.535 |
| 356 | 3/24/2026, 1:10:51 PM | 42.872 | 48.338 | 39.722 |
| 445 | 3/24/2026, 1:12:20 PM | 43.326 | 49.147 | 40.003 |
| 534 | 3/24/2026, 1:13:49 PM | 43.057 | 48.934 | 39.668 |
| 623 | 3/24/2026, 1:15:18 PM | 43.304 | 49.087 | 39.750 |
| 712 | 3/24/2026, 1:16:47 PM | 43.163 | 49.262 | 39.603 |
| 801 | 3/24/2026, 1:18:16 PM | 43.159 | 49.175 | 39.478 |

Page 1 of 792 · 7918 visible rows

8. Weekly Analysis

| Week | Average kVA | Peak kVA | Minimum kVA |
|-----------------------------|-------------|-----------|-------------|
| Mar 23, 2026 - Mar 29, 2026 | 13.34 kVA | 34.23 kVA | 1.84 kVA |
| Mar 30, 2026 - Apr 05, 2026 | 14.47 kVA | 35.92 kVA | 1.25 kVA |

The weekly trend was reviewed using actual calendar weeks overlapped by the monitored study period. This view highlights the relative stability of the load profile and helps identify demand swings, elevated loading windows, or unusually low-demand periods.

9. Load Calculations

| Metric | Value | Basis |
|-------------------------------|-------------|---|
| Maximum Average Demand (MAD) | 36038.77 kW | Maximum observed total average kW |
| Maximum Continuous Load (MCL) | 45048.47 kW | 125% of MAD |
| Base Load | 1884.46 kW | Minimum observed total average kW |
| Total Connected Load | 49761.02 kW | Maximum observed total peak kW |
| Projected Load | 57225.17 kW | 15% planning adder over the governing load metric |

10. System Evaluation

The monitored electrical system exhibits an estimated phase imbalance of 6.5% based on average phase apparent load. Values above typical balancing targets should be reviewed to reduce conductor heating, neutral loading effects, and uneven utilization of upstream equipment.

Overload risk should be evaluated by comparing the calculated continuous loading threshold and projected demand against the ratings of the serving distribution equipment. The documented panel configuration and installed protective device information were considered qualitatively in this review to highlight potential capacity constraints and coordination considerations.

Capacity observations indicate that the system is best evaluated not only on observed peak behavior but also on sustained loading, since continuous demand often governs design and code compliance more strongly than short-duration peaks. This report does not treat the parsed load-calculation dataset as a substitute for a full power-quality assessment under the Fluke 174x methodology.

11. Recommendations

- Maintain the current phase distribution and verify that future additions preserve the observed phase balance.
- Compare the projected load against feeder, transformer, and overcurrent protective device ratings to confirm adequate future capacity.
- Continue interval-based monitoring during representative operating periods, especially after operational changes or additional connected equipment is introduced.
- Implement preventive review of recurring peak periods to identify process-driven spikes, startup loads, or scheduling opportunities.

12. Conclusion

This load study provides a structured engineering view of the monitored three-phase electrical system using the parsed monitoring dataset. The report identifies characteristic loading levels, estimated apparent demand by phase, weekly trends, and planning metrics intended to support technical decision-making.

Final engineering consideration should include comparison of these results against installed equipment ratings, operating schedules, and any anticipated future load growth before design changes or equipment upgrades are authorized. If harmonic distortion, flicker, voltage events, or compliance questions matter, those conclusions should come from the appropriate Fluke PQ intervals and event records rather than from this load-study export alone.