# LUMENTUM - Climate Change 2021

## C0. Introduction

### C0.1

**(C0.1) Give a general description and introduction to your organization.**

Lumentum is a market-leading manufacturer of innovative optical and photonic products enabling optical networking and commercial laser customers worldwide. Lumentum's optical components and subsystems are part of virtually every type of telecom, enterprise, and data center network. Lumentum's commercial lasers enable advanced manufacturing techniques and diverse applications including next-generation 3D sensing capabilities. Lumentum is headquartered in San Jose, California with R&D, manufacturing, and sales offices worldwide.

### C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

| | Start date | End date | Indicate if you are providing emissions data for past reporting years | Select the number of past reporting years you will be providing emissions data for |
|---|---|---|---|---|
| Reporting year | July 1 2019 | June 30 2020 | No | <Not Applicable> |

### C0.3

**(C0.3) Select the countries/areas for which you will be supplying data.**

Canada
China
France
Italy
Japan
Republic of Korea
Slovenia
Switzerland
Taiwan, Greater China
Thailand
United Kingdom of Great Britain and Northern Ireland
United States of America

### C0.4

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

### C0.5

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.**

Operational control

## C1. Governance

### C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

### C1.1a

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

| Position of individual(s) | Please explain |
|---|---|
| Board-level committee | The Governance Committee is responsible for oversight consistent of the policies and programs supporting our CSR strategy. This includes energy and emissions strategy and target setting. For example, in FY20 our board requested climate-related goals and accepted our recommendations to implement short-term goals for the procurement of renewable electricity and reduced emissions in certain business activities. In FY21, the board recommended to implement a net-zero target by 2030 for our business operations. |
| Director on board | Lumentum's Board nominated a Board Member as a CSR Liaison who participates in regular meetings of the CSR Council. The CSR Council develops corporate social responsibility strategy and drives performance within Lumentum, including our energy and emissions strategy and targets. The CSR Council activities are reported to the board on a quarterly basis. |

## C1.1b

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

| Frequency with which climate-related issues are a scheduled agenda item | Governance mechanisms into which climate-related issues are integrated | Scope of board-level oversight | Please explain |
|---|---|---|---|
| Scheduled – all meetings | Reviewing and guiding strategy | <Not Applicable> | The Board of Directors nominates a CSR Liaison who works closely with the CSR Council to guide efforts and provide a continuous feedback loop between recommendations of the Board of Directors and implementation by the CSR Council. The CSR Council activities and ESG progress are reviewed quarterly during regular board sessions. |

## C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

| Name of the position(s) and/or committee(s) | Reporting line | Responsibility | Coverage of responsibility | Frequency of reporting to the board on climate-related issues |
|---|---|---|---|---|
| Corporate responsibility committee | <Not Applicable> | Both assessing and managing climate-related risks and opportunities | <Not Applicable> | Quarterly |
| Other C-Suite Officer, please specify (SVP Global Operations and Chief Quality Officer) | <Not Applicable> | Both assessing and managing climate-related risks and opportunities | <Not Applicable> | Quarterly |

## C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

Led by the CSR Council Chair and the Executive Sponsor (our Chief Quality Officer), our cross-functional CSR Council is composed of representatives from all our business departments, including Human Resources; Environment, Health, and Safety (EHS); Supply Chain; Legal; and Quality, as well as leaders from each business unit. Each member serves as a representative of their respective department and is responsible for determining the relevance of emerging topics, developing associated action plans, and disseminating information related to CSR at Lumentum to their team.

CSR Council activities are reported to the CEO and Board of Directors on a quarterly basis. The Governance Committee is responsible for oversight consistent of the policies and programs supporting our CSR strategy. The Board of Directors also nominates a CSR Liaison who works closely with the CSR Council to guide efforts and provide a continuous feedback loop between recommendations of the Board of Directors and implementation by the CSR Council.

## C1.3

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

| | Provide incentives for the management of climate-related issues | Comment |
|---|---|---|
| Row 1 | Yes | Specific employees are evaluated based upon climate-related performance. |

## C1.3a

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

| Entitled to incentive | Type of incentive | Activity inventivized | Comment |
|---|---|---|---|
| Facilities manager | Monetary reward | Energy reduction target | Our Real Estate and Workplace Services team, and its leadership, are responsible for the attainment of our goal to reduce energy consumption from all global R&D facilities by 5% by 2023. This includes annual interim goals set forth through our strategic planning process. Performance against these targets is evaluated as part of the team's performance review. |

## C2. Risks and opportunities

### C2.1

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

### C2.1a

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

| | From (years) | To (years) | Comment |
|---|---|---|---|
| Short-term | 0 | 5 | |
| Medium-term | 5 | 10 | |
| Long-term | 10 | 20 | |

### C2.1b

**(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

Lumentum defines a substantive financial or strategic impact as one that makes it significantly onerous or impossible to conduct our regular business activities such as increased costs or time requirements to procure, manufacture and ship products. A quantifiable indicator for a material impact is one that affects revenue, expenses, or profit by more than $20M or affects 5% of revenue or profit within a business unit.

### C2.2

**(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.**

**Value chain stage(s) covered**

Direct operations
Upstream

**Risk management process**

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

Annually

**Time horizon(s) covered**

Short-term
Medium-term

**Description of process**

Lumentum leverages several tools to evaluate the climate-related risks and opportunities of its value chain. Our annual enterprise risk management assessment includes climate related risks in our risk inventory, such as physical risks associated with natural disasters. In addition, we hold quarterly business reviews with key suppliers and in that review assess supplier responsiveness to certain climate-related information such as GHG emissions and corporate climate-related goals. As part of our Kaizen culture, annual strategic planning includes outlining paths and performance measures to progress towards our climate goals. Teams are responsible to develop and monitor annual action plans against facility-level and corporate-level climate-related objectives. More tactically, over 50% of our manufacturing facilities and 100% of our contract manufacturers are ISO 14001 certified. As part of the certification, we must maintain and perform environmental risk assessments which include climate-related risks, such as the emission of greenhouse gasses. In addition, as a member of the Responsible Business Alliance (RBA), suppliers are audited against RBA's validated audit process. We require our top direct suppliers to complete assessments that evaluate facility risks on labor, environment, health and safety, and ethics. In addition, all contract manufacturers undergo third-party audits covering the full RBA Code of Conduct every two years to evaluate their conformance. 100% of our manufacturing sites complete an annual RBA Self-Assessment Questionnaire (SAQ). The SAQ risk assessment includes evaluation of the environmental performance and management systems of the site and provides a risk rating related to CSR risks and compliance with the RBA Code of Conduct. The RBA Code of Conduct includes the requirement for participants to establish a corporate-wide greenhouse gas reduction goal. Finally, Supply Risk Solutions (SRS) is a third-party cloud-based software that helps us to monitor and assess physical risks and supply chain disruptions. Predictive technology enables us to identify the likelihood of future events through machine learning, global trends, and statistical associations. As part of our business continuity planning, we review potential risks which include those due to extreme weather events that could impact our ability to execute our core business. Those top risks have mitigation plans that are triggered based on these events.

### C2.2a

**(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?**

| | Relevance & inclusion | Please explain |
|---|---|---|
| Current regulation | Relevant, always included | Some of Lumentum's manufacturing processes involve systems or chemicals that are subject to emissions-related regulation. We strive to remain in compliance with all applicable regulations. |
| Emerging regulation | Relevant, always included | Emerging emissions or climate-related regulation is a potential risk. As noted above, some of Lumentum's manufacturing processes involve systems or chemicals that are subject to emissions-related regulation. New regulations or changes to existing regulations may necessitate modifications to our manufacturing processes. |
| Technology | Relevant, always included | Lumentum continuously looks for methods to reduce our carbon impact. Given our current structure, the most likely means of doing so will require new technology. With regard to our own products, we strive to reduce their energy consumption. |
| Legal | Not relevant, explanation provided | Lumentum does not anticipate involvement in any climate-related litigation claims. |
| Market | Relevant, always included | Lumentum recognizes the importance of energy efficiency in the progress towards a lower carbon economy. Therefore, our design teams continually consider energy efficiency as a key metric during design or re-design of our products. |
| Reputation | Relevant, always included | Lumentum recognizes that the perceptions of our clients regarding our commitment to the reduction of climate change can significantly affect our success. Therefore we attempt to respond to and address any and all requests from our customers and key stakeholders. |
| Acute physical | Relevant, always included | Lumentum's global operations and supply chain exposes it to risks related to extreme weather events. Disruptions in our value chain due to extreme weather may make it difficult or impossible to procure materials, manufacture goods, or distribute finished products. The logistics of getting products from point A to point B and the requirements to manufacture products (facilities, energy and people) could be impacted by extreme weather. |
| Chronic physical | Relevant, sometimes included | We are aware that longer term shifts in climate patterns, such as chronic heat waves, could affect our operations to some degree. However, as our operations are conducted entirely indoors, we consider many of these risks to be minimal, or manageable. We continue to evaluate our operations for susceptibility to other potential chronic risks. |

## C2.3

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

## C2.3a

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

| | |
|---|---|
| Emerging regulation | Carbon pricing mechanisms |

**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Our manufacturing processes entail the use of proprietary chemicals which are subject to emissions controls and reporting. While we are currently in Our R&D and manufacturing operations require large amounts of electricity to develop and manufacture our products. We expect to continue to expand our manufacturing capabilities with a significant presence in Thailand where the cost of electricity is relatively low. As we expand our footprint within our existing facility, we will require increased electricity use. In addition, other operations in California and Slovenia are in markets where carbon pricing mechanisms are more likely to be introduced.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

15000000

**Potential financial impact figure – maximum (currency)**

50000000

**Explanation of financial impact figure**
Figures were estimated based on a $50/MT price on carbon on our FY20 emissions up to a $100/MT price on carbon, were our emissions to increase to 100,000 MT/year. This figure is covers a 5-year period, assuming a carbon price in 2025 and our work towards our net zero target by 2030.

**Cost of response to risk**
12500000

**Description of response and explanation of cost calculation**
We are investigating opportunities to source or generate renewable energy across our operating footprint. For example, we've assessed putting a solar array atop our Thailand factory, which would help to mitigate our exposure to increased electricity prices. In addition, we've engaged local utility providers to understand opportunities to procure renewable energy, even for a higher cost. We've tasked our facility managers to pursue energy efficiency opportunities across our operations, however, this cost is built into existing budgets. This figure assumes one-time setup costs for these different initiatives resulting in a 1% increase in SG&A costs per year over a 5-year period.

**Comment**

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**Identifier**
Risk 2

**Where in the value chain does the risk driver occur?**
Upstream

**Risk type & Primary climate-related risk driver**

| | |
|---|---|
| Acute physical | Increased severity and frequency of extreme weather events such as cyclones and floods |

**Primary potential financial impact**
Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**
<Not Applicable>

**Company-specific description**
We operate a complex global supply chain and rely on on-time logistics to manufacture and deliver our products. In some cases, we are exposed to single suppliers for critical inputs that operate in Southeast Asia, an area prone to extreme weather events. An increase in either the severity or frequency of events could lead to our supply partners to shutdown, temporarily or permanently, resulting in a critical supply risk for key components to develop our products.

**Time horizon**
Short-term

**Likelihood**
About as likely as not

**Magnitude of impact**
Medium

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
10000000

**Potential financial impact figure – maximum (currency)**
20000000

**Explanation of financial impact figure**
Should a critical supply partner be unable to provide inputs on time, or shut down operations, this could lead to lost revenue opportunities. Figures are estimated based upon a one-time 0.5% - 1% loss of revenue.

**Cost of response to risk**
100000000

**Description of response and explanation of cost calculation**
We have identified sole source risks and are investigating dual sourcing all critical components. In addition, we are assessing our capability to develop and manufacture critical components for which we cannot identify a suitable supplier. The R&D costs to develop this capability, capital expenditures to set up production lines and operating costs to produce these components could pose a significant cost to the business. Costs are estimated on a 5% increase to our R&D budget and a 5% increase to our SG&A budget over a 5-year period.

**Comment**

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**Identifier**
Risk 3

**Where in the value chain does the risk driver occur?**
Direct operations

**Risk type & Primary climate-related risk driver**

| | |
|---|---|
| Emerging regulation | Mandates on and regulation of existing products and services |

**Primary potential financial impact**
Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**
While we continue to develop and offer components that offer added energy efficiency opportunities to our customers, our products consume significant amounts of energy when in operation. For example, our commercial lasers, which enable precision machining, use multi KW electrical energy. Should our customers, who integrate our components into their products, be exposed to regulations on the efficiency of their products, or carbon intensity of their purchased goods, we will need to ensure our development teams are prepared to stay ahead of the pace of regulation and develop more efficient or low-carbon products.

**Time horizon**
Short-term

**Likelihood**
More likely than not

**Magnitude of impact**
Medium-high

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
100000000

**Potential financial impact figure – maximum (currency)**
500000000

**Explanation of financial impact figure**
Should we not be able to offer our customer a product that meets their energy efficiency requirements or lose business to a competitor that can offer higher efficiency products, this could lead to lost revenue opportunities. Figures are estimated based upon a 1% - 5% loss of revenue over a 5-year period.

**Cost of response to risk**
100000000

**Description of response and explanation of cost calculation**
Our R&D teams continue to pursue energy efficiency as a key design element when introducing new concepts. However, it may require increased capacity in our R&D and development units to continue to offer products that keep pace with emerging regulation and offer solutions to meet the demands for tomorrow's products. If we were to increase our R&D budget 10% for each of the next 5 years this would result in a cumulative cost of approximately $100,000,000 during that period.

**Comment**

## C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**
Yes

## C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**
Opp1

**Where in the value chain does the opportunity occur?**
Direct operations

**Opportunity type**
Products and services

**Primary climate-related opportunity driver**
Development and/or expansion of low emission goods and services

**Primary potential financial impact**
Increased revenues resulting from increased demand for products and services

**Company-specific description**
Lumentum's advances in its products and technologies are helping to increase power efficiency. If the demand for these products increases, we have opportunities to increase our market share of existing products. For example, a comparative analysis was performed on our high-speed coherent optical data transmission modules, which are used in internet backbone applications, on a basis of Watts per Gigabit (W/Gb), from 100 Gigabits per second to 400 Gigabits per second, and from the Generation 1 (Gen1) to Generation 2 (Gen2) modules. We achieved a power efficiency improvement from Gen1 to Gen2 of 64% (W/Gb). Similarly, with the launch of our 100G B5 PAM4 externally modulated laser (EML), the laser power consumption per 100Gbps (Gigabits per second) was reduced by 53% over the preceding 50G B4 PAM4 EML and reduced by 80% from the original 25G B2 EML product, reducing the energy requirements of cloud data centers.

**Time horizon**
Medium-term

**Likelihood**
Likely

**Magnitude of impact**
Medium-high

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
100000000

**Potential financial impact figure – maximum (currency)**
500000000

**Explanation of financial impact figure**
Figures are estimated based on an increase in demand for our products resulting in an increase our revenue of 1% - 5% over a 5-year period.

**Cost to realize opportunity**
100000000

**Strategy to realize opportunity and explanation of cost calculation**
We plan to work with facility managers in reviewing individual operations to determine the most effective measures for implementation at individual locations.

**Comment**
Our R&D teams are essential to driving energy efficiency in our products and efficiency is a key design element when introducing new concepts. Increased capacity in our R&D and development units will help to continue to offer products that offer solutions to meet the demands for tomorrow's products and investigate ways to integrate our technologies into new markets. If we were to increase our R&D budget 10% for each of the next 5 years this would result in a cumulative cost of approximately $100,000,000 during that period.

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**Identifier**
Opp2

**Where in the value chain does the opportunity occur?**
Direct operations

**Opportunity type**
Energy source

**Primary climate-related opportunity driver**
Use of lower-emission sources of energy

**Primary potential financial impact**
Reduced indirect (operating) costs

**Company-specific description**
Lumentum has committed to net zero emissions from direct operations by 2030. As we pursue energy efficiency activities and onsite generation of renewable energy, we will be less exposed to market fluctuations in energy prices and potential carbon pricing schemes. This will improve the predictability, and, presumably, reduce the costs of our energy needs. For example, at our Thailand factory, we are assessing the opportunity to install a solar array reducing our reliance on the grid for electricity. We've also introduced Kaizen initiatives through our Kaizen Promotion Office to pursue energy efficiency activities. This has led to more efficient use of materials leading to a reduced demand for energy.

**Time horizon**
Medium-term

**Likelihood**
About as likely as not

**Magnitude of impact**
Medium-low

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
3125000

**Potential financial impact figure – maximum (currency)**
15625000

**Explanation of financial impact figure**
Figures are estimated assuming energy constitutes 1% - 5% of our SG&A expenses. A 25% decrease in energy expenses over a 5-year period would result in this potential impact range.

**Cost to realize opportunity**
12500000

**Strategy to realize opportunity and explanation of cost calculation**
Our facility managers and Kaizen Promotion Office are mandated to support this effort requiring minimal added costs. However, the procurement and installation of energy efficient equipment, implementation of updated processes that consume less energy, and installation of onsite generation are added costs. This figure assumes one-time setup costs for these different initiatives resulting in a 1% increase in SG&A costs per year over a 5-year period.

**Comment**

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**Identifier**
Opp3

**Where in the value chain does the opportunity occur?**
Downstream

**Opportunity type**
Products and services

**Primary climate-related opportunity driver**
Development of new products or services through R&D and innovation

**Primary potential financial impact**
Increased revenues resulting from increased demand for products and services

**Company-specific description**
Lumentum aims to foster a culture of innovation across the organization – where all are encouraged to find and support new and creative ways to solve problems. Our legacy of innovation is evident in our product leadership positions and extensive intellectual property portfolio. We own nearly 1,000 US patents and 800 foreign patents and have nearly 600 patent applications pending throughout the world. Our patent portfolio is constantly evolving, with strengths in optical switching, 3D sensing, ultrafast lasers, and source lasers. If we can translate our energy efficiency technologies and intellectual property into new products that address needs in new markets, we have significant opportunity for new revenue streams.

**Time horizon**
Long-term

**Likelihood**
Unlikely

**Magnitude of impact**
Medium-high

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
250000000

**Potential financial impact figure – maximum (currency)**
500000000

**Explanation of financial impact figure**
Figures are estimated assuming a 2.5% - 5% increase in annual revenue due to breakthroughs in new markets over a 5-year period.

**Cost to realize opportunity**
400000000

**Strategy to realize opportunity and explanation of cost calculation**
The R&D costs to develop new capabilities, capital expenditures to set up production lines, operating costs to produce these components, and the creation and staffing of a new business unit with the organization could pose a significant cost to the business. Costs are estimated on a 10% increase to our R&D budget and a 25% increase to our SG&A budget over a 5-year period.

**Comment**

## C3. Business Strategy

### C3.1

**(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?**
Yes

### C3.1b

**(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?**

| | Intention to publish a low-carbon transition plan | Intention to include the transition plan as a scheduled resolution item at Annual General Meetings (AGMs) | Comment |
|---|---|---|---|
| Row 1 | Yes, in the next two years | No, we do not intend to include it as a scheduled AGM resolution item | |

### C3.2

**(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?**
No, but we anticipate using qualitative and/or quantitative analysis in the next two years

### C3.2b

**(C3.2b) Why does your organization not use climate-related scenario analysis to inform its strategy?**

In FY20, we established our CSR Council and sustainability program. In FY2021, we will publish our first CSR report. As our program continues to grow, we will dedicate the resources to integrating climate-related scenario analysis into our business strategy, such as product energy efficiency requirements and supply chain risk mapping and optimization.

## C3.3

**(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.**

| | Have climate-related risks and opportunities influenced your strategy in this area? | Description of influence |
|---|---|---|
| Products and services | Evaluation in progress | We are working on wall plug efficiency and power consumption reduction for end users in data centers. |
| Supply chain and/or value chain | Yes | We evaluated our top 80% of spend by commodity to determine where risk exists. We have moved to find alternate sources where certain commodities and current supply base only existed in one geographic location that could be exposed to potential climate-related extreme weather events. |
| Investment in R&D | Evaluation in progress | We are investigating ways to integrate Design for Environment goals into our product development process. |
| Operations | Evaluation in progress | We have started an activity with intent to complete in FY22 to evaluate our internal manufacturing operations for opportunities to reduce risk. |

## C3.4

**(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

| | Financial planning elements that have been influenced | Description of influence |
|---|---|---|
| Row 1 | Direct costs | Our manufacturing processes entail the use of proprietary chemicals which are subject to emissions controls and reporting. We allocated appropriate budget to ensure our operations remain in compliance with all regulations. Any changes in reporting requirements or allowable emissions could result in significant additional costs. |

## C3.4a

**(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

# C4. Targets and performance

## C4.1

**(C4.1) Did you have an emissions target that was active in the reporting year?**

Absolute target

## C4.1a

**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

**Target reference number**
Abs 1

**Year target was set**
2019

**Target coverage**
Please select

**Scope(s) (or Scope 3 category)**
Scope 3: Business travel

**Base year**
2019

**Covered emissions in base year (metric tons CO2e)**
2988

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**
100

**Target year**
2020

**Targeted reduction from base year (%)**
20

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**
2390.4

**Covered emissions in reporting year (metric tons CO2e)**
1250

**% of target achieved [auto-calculated]**
290.829986613119

**Target status in reporting year**
New

**Is this a science-based target?**
No, and we do not anticipate setting one in the next 2 years

**Target ambition**
<Not Applicable>

**Please explain (including target coverage)**
Target to reduce emissions from business air travel by 20% annually

## C4.2

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**
Target(s) to increase low-carbon energy consumption or production
Other climate-related target(s)

## C4.2a

**(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.**

**Target reference number**
Low 1

**Year target was set**
2019

**Target coverage**
Site/facility

**Target type: absolute or intensity**
Absolute

**Target type: energy carrier**
Electricity

**Target type: activity**
Consumption

**Target type: energy source**
Renewable energy source(s) only

**Metric (target numerator if reporting an intensity target)**
Percentage

**Target denominator (intensity targets only)**
<Not Applicable>

**Base year**
2019

**Figure or percentage in base year**
45

**Target year**
2023

**Figure or percentage in target year**
100

**Figure or percentage in reporting year**
45

**% of target achieved [auto-calculated]**
0

**Target status in reporting year**
New

**Is this target part of an emissions target?**
No

**Is this target part of an overarching initiative?**
No, it's not part of an overarching initiative

**Please explain (including target coverage)**
Target set to source 100% renewable electricity at our corporate headquarters campus by 2023.

## C4.2b

**(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.**

**Target reference number**
Oth 1

**Year target was set**
2019

**Target coverage**
Business activity

**Target type: absolute or intensity**
Absolute

**Target type: category & Metric (target numerator if reporting an intensity target)**

| | |
|---|---|
| Energy consumption or efficiency | MWh |

**Target denominator (intensity targets only)**
<Not Applicable>

**Base year**
2019

**Figure or percentage in base year**
14730

**Target year**
2023

**Figure or percentage in target year**
13994

**Figure or percentage in reporting year**
14956

**% of target achieved [auto-calculated]**
-30.7065217391304

**Target status in reporting year**
New

**Is this target part of an emissions target?**
No

**Is this target part of an overarching initiative?**
No, it's not part of an overarching initiative

**Please explain (including target coverage)**
Target set to reduce energy consumption at global research and development office sites by 5% by 2023. Increases in the reporting year are due to the expansion of new facilities.

## C4.3

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**
Yes

## C4.3a

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

| | Number of initiatives | Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *) |
|---|---|---|
| Under investigation | 7 | 16685 |
| To be implemented* | 3 | 1798 |
| Implementation commenced* | 0 | 0 |
| Implemented* | 0 | 0 |
| Not to be implemented | 0 | 0 |

## C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

## C4.3c

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

| Method | Comment |
|---|---|
| Compliance with regulatory requirements/standards | Our manufacturing processes entail the use of proprietary chemicals which are subject to emissions controls and reporting. We allocated appropriate budget to ensure our operations remain in compliance with all regulations. Any changes in reporting requirements or allowable emissions could result in significant additional costs. |

## C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**
No

# C5. Emissions methodology

## C5.1

**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

**Scope 1**

**Base year start**
July 1 2017

**Base year end**
June 30 2018

**Base year emissions (metric tons CO2e)**
8540

**Comment**

**Scope 2 (location-based)**

**Base year start**
July 1 2017

**Base year end**
June 30 2018

**Base year emissions (metric tons CO2e)**
33358

**Comment**

**Scope 2 (market-based)**

**Base year start**
July 1 2017

**Base year end**
June 30 2018

**Base year emissions (metric tons CO2e)**
38446

**Comment**

## C5.2

**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance

# C6. Emissions data

## C6.1

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?**

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**
5750

**Start date**
<Not Applicable>

**End date**
<Not Applicable>

**Comment**

## C6.2

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

**Scope 2, location-based**
We are reporting a Scope 2, location-based figure

**Scope 2, market-based**
We are reporting a Scope 2, market-based figure

**Comment**

## C6.3

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**
46651.4

**Scope 2, market-based (if applicable)**
45168.3

**Start date**
<Not Applicable>

**End date**
<Not Applicable>

**Comment**

## C6.4

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**
No

## C6.5

**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

**Purchased goods and services**

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
45034

**Emissions calculation methodology**
Emissions data was provided by Lumentum's contract manufacturers. Contract manufacturers were asked to allocate emissions associated with the manufacture of Lumentum products.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
100

**Please explain**
All of Lumentum's contract manufacturers provided emissions allocated to the manufacture of Lumentum products.

**Capital goods**

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

**Fuel-and-energy-related activities (not included in Scope 1 or 2)**

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
12191

**Emissions calculation methodology**
Emissions are calculated according to the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, using emissions factors from IEA 2020 (2018 data) for transmission and distribution loss, and DEFRA 2020 for WTT (fuels, elecricity, and grid loss). Calculations include AR5 global warming potentials.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
99

**Please explain**
Emissions calculated based on energy and fuel consumption, only a small portion of which was estimated.

**Upstream transportation and distribution**

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

**Waste generated in operations**

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

**Business travel**

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
1250

**Emissions calculation methodology**
Emissions from business air travel are calculated according to the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, using emissions factors from DEFRA 2020 (non-radiative forcing), which are adjusted to include AR5 global warming potentials.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
100

**Please explain**
All travel data was obtained from Lumentum's travel provider.

### Employee commuting

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

### Upstream leased assets

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
All leased facility are included in Scope 1 & 2.

### Downstream transportation and distribution

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
All product transportation and distribution emissions would be reportable under Upstream T&D.

### Processing of sold products

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

### Use of sold products

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

### End of life treatment of sold products

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

### Downstream leased assets

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
Lumentum does not have any downstream leased assets.

### Franchises

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
Lumentum does not operate franchises.

### Investments

**Evaluation status**
Not evaluated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

### Other (upstream)

**Evaluation status**

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

**Other (downstream)**

**Evaluation status**

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

## C6.7

**(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**
No

## C6.10

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

**Intensity figure**
0.0000303339

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**
50919

**Metric denominator**
unit total revenue

**Metric denominator: Unit total**
1678600000

**Scope 2 figure used**
Market-based

**% change from previous year**
1

**Direction of change**
Decreased

**Reason for change**

---

**Intensity figure**
0.027974471

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**
50919

**Metric denominator**
square foot

**Metric denominator: Unit total**
1820179

**Scope 2 figure used**
Market-based

**% change from previous year**
2

**Direction of change**
Decreased

**Reason for change**

# C7. Emissions breakdowns

## C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**
Yes

## C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

| Greenhouse gas | Scope 1 emissions (metric tons of CO2e) | GWP Reference |
|---|---|---|
| CO2 | 4772 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| CH4 | 2.5 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| N2O | 2.4 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| HFCs | 503.8 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| PFCs | 24 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| SF6 | 445.4 | IPCC Fifth Assessment Report (AR5 – 100 year) |

## C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

| Country/Region | Scope 1 emissions (metric tons CO2e) |
|---|---|
| United States of America | 4488.7 |
| Canada | 311.5 |
| Italy | 603.1 |
| Switzerland | 58.3 |
| Slovenia | 6.7 |
| United Kingdom of Great Britain and Northern Ireland | 52.3 |
| China | 42.7 |
| Japan | 90.3 |
| Republic of Korea | 0.3 |
| Taiwan, Greater China | 6.3 |
| Thailand | 90.1 |

## C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By facility

## C7.3b

**(C7.3b) Break down your total gross global Scope 1 emissions by business facility.**

| Facility | Scope 1 emissions (metric tons CO2e) | Latitude | Longitude |
|---|---|---|---|
| 80 Rose Orchard, USA | 2388.3 | 37.41431 | -121.947988 |
| Fremont, USA | 3.4 | 37.46257 | -121.92121 |
| Italy - Vimercate (Milan) | 4.3 | 45.60208 | 9.36132 |
| Milpitas - 400 McCarthy | 32.7 | 37.43401 | -121.92109 |
| Milpitas - 460 McCarthy | 45.9 | 37.43391 | -121.91958 |
| Ottawa, Canada | 311.5 | 45.29633 | -75.71057 |
| San Jose, Automation 2 | 160 | 37.39468 | -121.88557 |
| Shnz-DesignCtr. CHN | 14.4 | 22.56005 | 113.95217 |
| Tokyo F15, JPN | 1.3 | 35.69407 | 139.68789 |
| Zurich, CHE | 58.3 | 47.40058 | 8.45059 |
| Thailand - Navanakorn | 90.1 | 14.10478 | 100.60187 |
| San Jose - Automation | 1544.9 | 37.39302 | -121.88462 |
| United Kingdom-Caswell | 47.6 | 52.15473 | -1.04839 |
| United Kingdom-Paignton | 4.7 | 50.4144 | -3.59056 |
| Shnz-FTZ Futian | 28.4 | 22.54273 | 114.08543 |
| Taipei City | 6.3 | 25.0133 | 121.4676 |
| Japan - Sagamihara | 88.9 | 35.58318 | 139.37551 |
| USA - CA - San Jose - Ridder 1 | 47 | 37.38363 | -121.90179 |
| USA - CA - San Jose - Ridder 2 | 89.6 | 37.38331 | -121.90274 |
| USA - CA - San Jose - Ridder 3 | 173.4 | 37.38436 | -121.90308 |
| Black House, Slovenia | 6.7 | 45.98273 | 14.57052 |
| Seongnam, Korea | 0.3 | 37.39666 | 127.11005 |
| Italy - San Donato | 598.8 | 45.41176 | 9.26486 |
| USA - CA - San Jose - Charcot 1 | 3.5 | 37.38098 | -121.91816 |

## C7.5

**(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

| Country/Region | Scope 2, location-based (metric tons CO2e) | Scope 2, market-based (metric tons CO2e) | Purchased and consumed electricity, heat, steam or cooling (MWh) | Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh) |
|---|---|---|---|---|
| United States of America | 6829.9 | 2853.8 | 30201.4 | |
| Canada | 74.1 | 74.1 | 4355.9 | |
| Italy | 1402.1 | 2126.9 | 4553.4 | |
| Switzerland | 15.7 | 11.4 | 599.3 | |
| Slovenia | 204.7 | 294.8 | 807.1 | |
| United Kingdom of Great Britain and Northern Ireland | 3215.7 | 4898.2 | 14020.8 | |
| China | 9336.6 | 9336.6 | 15146.6 | |
| Japan | 5940.5 | 5940.5 | 11832.3 | |
| Republic of Korea | 23 | 23 | 42.9 | |
| Taiwan, Greater China | 173.3 | 173.3 | 310.1 | |
| Thailand | 19435.9 | 19435.9 | 40113.2 | |

## C7.6

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By facility

## C7.6b

**(C7.6b) Break down your total gross global Scope 2 emissions by business facility.**

| Facility | Scope 2, location-based (metric tons CO2e) | Scope 2, market-based (metric tons CO2e) |
|---|---|---|
| 80 Rose Orchard, USA | 2539.5 | 1061.1 |
| Fremont, USA | 1.7 | 0.7 |
| Milan, ITALY | 18.3 | 27.7 |
| Milpitas - 400 McCarthy | 156.6 | 65.4 |
| Milpitas - 460 McCarthy | 149.2 | 62.3 |
| Ottawa, CAN | 74.1 | 74.1 |
| Paris, FRA - Velizy | 0 | 0 |
| San Jose - Automation 2 | 688.9 | 287.8 |
| Shnz-DesignCtr. CHN | 756.1 | 756.1 |
| Tokyo F15, JPN | 95.5 | 95.5 |
| Zurich, CHE | 15.3 | 11.1 |
| Zurich, CHE - Storage | 0.4 | 0.3 |
| Navanakorn | 19435.9 | 19435.9 |
| San Jose-Auto, USA | 2758.4 | 1152.6 |
| United Kingdom - Caswell | 3109.7 | 4736.8 |
| Paignton, UK | 106 | 161.4 |
| Shnz-FTZ Futian | 8580.5 | 8580.5 |
| Taipei City, Taiwan | 173.3 | 173.3 |
| Japan - Sagamihara | 5845 | 5845 |
| USA - CA - San Jose - Ridder 1 | 249.9 | 104.4 |
| USA - CA - San Jose - Ridder 2 | 273.1 | 114.1 |
| USA - CA - San Jose - Ridder 3 | 7.3 | 3 |
| Italy - Sarca 226 | 0 | 0 |
| Black House, Slovenia | 204.7 | 294.8 |
| Seongnam, KOR | 23 | 23 |
| Italy - San Donato | 1383.9 | 2099.2 |
| USA - CA - San Jose - Charcot 1 | 5.3 | 2.2 |

## C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

## C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

| | Change in emissions (metric tons CO2e) | Direction of change | Emissions value (percentage) | Please explain calculation |
|---|---|---|---|---|
| Change in renewable energy consumption | | <Not Applicable> | | |
| Other emissions reduction activities | | <Not Applicable> | | |
| Divestment | | <Not Applicable> | | |
| Acquisitions | | <Not Applicable> | | |
| Mergers | | <Not Applicable> | | |
| Change in output | 2900 | Increased | 6 | Lumentum's total Scope 1 & 2 emissions increased slightly due to increased output at the Thailand facility. |
| Change in methodology | | <Not Applicable> | | |
| Change in boundary | | <Not Applicable> | | |
| Change in physical operating conditions | | <Not Applicable> | | |
| Unidentified | | <Not Applicable> | | |
| Other | | <Not Applicable> | | |

## C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Market-based

## C8. Energy

## C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 0% but less than or equal to 5%

## C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

| | Indicate whether your organization undertook this energy-related activity in the reporting year |
|---|---|
| Consumption of fuel (excluding feedstocks) | Yes |
| Consumption of purchased or acquired electricity | Yes |
| Consumption of purchased or acquired heat | No |
| Consumption of purchased or acquired steam | No |
| Consumption of purchased or acquired cooling | No |
| Generation of electricity, heat, steam, or cooling | No |

## C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

| | Heating value | MWh from renewable sources | MWh from non-renewable sources | Total (renewable and non-renewable) MWh |
|---|---|---|---|---|
| Consumption of fuel (excluding feedstock) | HHV (higher heating value) | | 26355.7 | 26355.7 |
| Consumption of purchased or acquired electricity | <Not Applicable> | 0 | 121983 | 121983 |
| Consumption of purchased or acquired heat | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of purchased or acquired steam | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of purchased or acquired cooling | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of self-generated non-fuel renewable energy | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Total energy consumption | <Not Applicable> | | 148338.6 | 148338.6 |

## C8.2b

**(C8.2b) Select the applications of your organization's consumption of fuel.**

| | Indicate whether your organization undertakes this fuel application |
|---|---|
| Consumption of fuel for the generation of electricity | Yes |
| Consumption of fuel for the generation of heat | Yes |
| Consumption of fuel for the generation of steam | No |
| Consumption of fuel for the generation of cooling | No |
| Consumption of fuel for co-generation or tri-generation | No |

## C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Fuels (excluding feedstocks)**
Natural Gas

**Heating value**
HHV (higher heating value)

**Total fuel MWh consumed by the organization**
27742.2

**MWh fuel consumed for self-generation of electricity**

**MWh fuel consumed for self-generation of heat**

**MWh fuel consumed for self-generation of steam**
<Not Applicable>

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Emission factor**
53.1145

**Unit**
kg CO2e per million Btu

**Emissions factor source**
US EPA

**Comment**

---

**Fuels (excluding feedstocks)**
Diesel

**Heating value**
HHV (higher heating value)

**Total fuel MWh consumed by the organization**
12.1

**MWh fuel consumed for self-generation of electricity**

**MWh fuel consumed for self-generation of heat**

**MWh fuel consumed for self-generation of steam**
<Not Applicable>

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Emission factor**
10.24268

**Unit**
kg CO2e per gallon

**Emissions factor source**
US EPA

**Comment**

---

## C8.2e

**(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.**

# C9. Additional metrics

## C9.1

**(C9.1) Provide any additional climate-related metrics relevant to your business.**

**Description**
Energy usage

**Metric value**
148339

**Metric numerator**
Total energy consumption in MWh

**Metric denominator (intensity metric only)**

**% change from previous year**
3

**Direction of change**
Increased

**Please explain**
Increased production in Thailand and energy consumption at recently acquired facilities.

## C10. Verification

### C10.1

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

| | Verification/assurance status |
|---|---|
| Scope 1 | Third-party verification or assurance process in place |
| Scope 2 (location-based or market-based) | Third-party verification or assurance process in place |
| Scope 3 | Third-party verification or assurance process in place |

### C10.1a

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.**

**Verification or assurance cycle in place**
Annual process

**Status in the current reporting year**
Complete

**Type of verification or assurance**
Limited assurance

**Attach the statement**
Lumentum_2020 GHG_ERM CVS Assurance Statement_FINALv2.pdf

**Page/ section reference**
1

**Relevant standard**
ISO14064-3

**Proportion of reported emissions verified (%)**
100

### C10.1b

**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.**

**Scope 2 approach**
Scope 2 location-based

**Verification or assurance cycle in place**
Annual process

**Status in the current reporting year**
Complete

**Type of verification or assurance**
Limited assurance

**Attach the statement**
Lumentum_2020 GHG_ERM CVS Assurance Statement_FINALv2.pdf

**Page/ section reference**
1

**Relevant standard**
ISO14064-3

**Proportion of reported emissions verified (%)**
100

---

**Scope 2 approach**
Scope 2 market-based

**Verification or assurance cycle in place**
Annual process

**Status in the current reporting year**
Complete

**Type of verification or assurance**
Limited assurance

**Attach the statement**
Lumentum_2020 GHG_ERM CVS Assurance Statement_FINALv2.pdf

**Page/ section reference**
1

**Relevant standard**
ISO14064-3

**Proportion of reported emissions verified (%)**
100

---

## C10.1c

**(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

**Scope 3 category**
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

**Verification or assurance cycle in place**
Annual process

**Status in the current reporting year**
Complete

**Type of verification or assurance**
Limited assurance

**Attach the statement**
Lumentum_2020 GHG_ERM CVS Assurance Statement_FINALv2.pdf

**Page/section reference**
1

**Relevant standard**
ISO14064-3

**Proportion of reported emissions verified (%)**
100

---

**Scope 3 category**
Scope 3: Business travel

**Verification or assurance cycle in place**
Annual process

**Status in the current reporting year**
Complete

**Type of verification or assurance**
Limited assurance

**Attach the statement**
Lumentum_2020 GHG_ERM CVS Assurance Statement_FINALv2.pdf

**Page/section reference**
1

**Relevant standard**
ISO14064-3

**Proportion of reported emissions verified (%)**
100

---

**Scope 3 category**
Scope 3: Purchased goods and services

**Verification or assurance cycle in place**
Annual process

**Status in the current reporting year**
No verification or assurance of current reporting year

**Type of verification or assurance**
Not applicable

**Attach the statement**

**Page/section reference**

**Relevant standard**
Please select

**Proportion of reported emissions verified (%)**

---

## C10.2

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**
No, we do not verify any other climate-related information reported in our CDP disclosure

## C11. Carbon pricing

## C11.1

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**
No, and we do not anticipate being regulated in the next three years

## C11.2

**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**
No

## C11.3

**(C11.3) Does your organization use an internal price on carbon?**
No, and we do not currently anticipate doing so in the next two years

# C12. Engagement

## C12.1

**(C12.1) Do you engage with your value chain on climate-related issues?**
Yes, our suppliers

## C12.1a

**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**
Information collection (understanding supplier behavior)

**Details of engagement**
Collect climate change and carbon information at least annually from suppliers

**% of suppliers by number**
0.3

**% total procurement spend (direct and indirect)**
40

**% of supplier-related Scope 3 emissions as reported in C6.5**
100

**Rationale for the coverage of your engagement**
This engagement covers all our contract manufactures which constitute the majority of our scope 3 footprint and contribute significantly to our overall footprint.

**Impact of engagement, including measures of success**
We have improved the data collection process and data quality. We've also increased the usefulness of the data, leveraging this information in our quarterly business reviews with contract manufacturers.

**Comment**

## C12.3

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**
No

## C12.3g

**(C12.3g) Why do you not engage with policy makers on climate-related issues?**

Our GHG Inventory Management Program is currently in its early stages of development. We will re-evaluate potential engagement with policy makers as our program and understanding of our own position evolves.

## C12.4

**(C12.4) Have you published information about your organization’s response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

## C15. Signoff

### C-FI

**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

### C15.1

**(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

| | Job title | Corresponding job category |
|---|---|---|
| Row 1 | Senior Director Workplace Services | Facilities manager |