

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 Milpitas, California with R&D, manufacturing, and sales offices worldwide.

This is the third year that Lumentum is responding to the CDP Supply Chain Questionnaire. During the first year (2017), reporting was based on calendar year 2016. Reporting year has since been changed to fiscal year, to better align with other reported data.

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 2018	June 30 2019	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
Chief Executive Officer (CEO)	Lumentum's CEO and Board have overall responsibility for addressing potential climate change issues. Lumentum's Board of Directors comprises an array of technology and business expertise which is invaluable in leading Lumentum in its mission to be a market leader through delivery of innovative products and services.

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
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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

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).

The Corporate Social Responsibility (CSR) committee lies within the Corporate Engineering & Quality group with sponsorship from the CEO. Currently, Lumentum collects data and determines its GHG and water footprint on an annual basis. Starting in FY19, we have started to set targets for emission reductions.

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	No, not currently but we plan to introduce them in the next two years	

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?

C2.2

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

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	Not relevant, explanation provided	Based on their geographical distribution, Lumentum's facilities are not at substantial risk from an acute climate event.
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

Please select

Primary potential financial impact

Please select

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 compliance with all regulations, any changes in reporting requirements or allowable emissions could result in significant additional costs.

Time horizon

Unknown

Likelihood

Unknown

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

It is not currently possible to estimate the potential financial impact of changing emissions regulations, as the necessary measures to meet future requirements are unknown.

Cost of response to risk

0

Description of response and explanation of cost calculation

We strive to remain in compliance and aware of potential litigation or regulations that could affect our current emissions abatement and reporting requirements.

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

Resource efficiency

Primary climate-related opportunity driver

Other, please specify (Implementation of energy and water efficiency measures at existing locations)

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

Lumentum has experienced significant change and growth (organic and inorganic) in recent years. Based on review of our current facility portfolio, we anticipate that adoption of resource efficiency measures (water and energy) represents one of our stronger opportunities to reduce direct costs, as well as our emissions footprint. As our sustainability program develops, we will be assessing individual operations to best implement energy and water efficiency projects.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The impact has not been quantified financially.

Cost to realize opportunity

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

C3. Business Strategy

C3.1

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

Yes

C3.1a

(C3.1a) 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

C3.1c

(C3.1c) Why does your organization not use climate-related scenario analysis to inform its strategy?

Lumentum has experienced significant growth and change in recent years. Our sustainability program is in its early stages, and we will be further evaluating the potential impact of climate-related risks and opportunities on our business operations, and incorporating them into our business strategy, as our program develops. We anticipate using qualitative analysis to begin, then plan to assess the viability of alignment to quantitative scenarios such as a 2°C scenario.

C3.1d

(C3.1d) 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 for end users in datacenter transmission.
Supply chain and/or value chain	Evaluation in progress	Lumentum has experienced significant change and growth in recent years, and we will be reviewing our current and projected operations to determine the most effective methodology for identification and management of climate-related risks and opportunities. Evaluations are planned to be completed for Fiscal Year 2020 or 2021.
Investment in R&D	Evaluation in progress	Lumentum has experienced significant change and growth in recent years, and we will be reviewing our current and projected operations to determine the most effective methodology for identification and management of climate-related risks and opportunities. Evaluations are in progress for Fiscal Year 2020 or 2021.
Operations	Evaluation in progress	Lumentum has experienced significant change and growth in recent years, and we will be reviewing our current and projected operations to determine the most effective methodology for identification and management of climate-related risks and opportunities.

C3.1e

(C3.1e) 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. While we have remained in compliance with all regulations, any changes in reporting requirements or allowable emissions could result in significant additional costs.

C3.1f

(C3.1f) 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?

No target

C4.1c

(C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

	Primary reason	Five-year forecast	Please explain
Row 1	We are planning to introduce a target in the next two years	Based on review of our operational footprint over the past few years, we have developed the following targets, which will be implemented for Fiscal Year 2020 and beyond: - Corporate Headquarters campus to use 100% renewable electricity by 2023. - Reduce energy consumption at global research and development office sites by 5% by 2023. - Reduce emissions from business air travel by 20% annually. - Reduce water withdrawal by 5% by 2023.	Lumentum has experienced significant organic and inorganic growth over the past few years, and we expect that trend to continue over the next few years, with an expected increase in our energy and emissions footprint. We developed our first targets and will continue to review and monitor our activities and progress towards our proposed goals, and will adjust the targets if further emissions reductions are achievable.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

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.

No

C4.3d

(C4.3d) Why did you not have any emissions reduction initiatives active during the reporting year?

Our emissions monitoring program is in its early stages. However, with data developed over the past few years, we have been reviewing alternatives and anticipate adopting an emission reduction strategy commencing in Fiscal Year 2020.

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)

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)

7075

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

44500

Scope 2, market-based (if applicable)

49898

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

82551

Emissions calculation methodology

Energy and emissions data was obtained from contract manufacturers representing over 70% of Lumentum's spend in this area. The received data was used to estimate emissions from Lumentum's remaining contract manufacturers.

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

70

Please explain

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

11953

Emissions calculation methodology

Lumentum's emissions in this category consist of well-to-tank and transmission & distribution losses for all fuels and purchased energy reported in Scopes 1 and 2. Emissions were calculated following the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

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

0

Please explain

Supplier activities are not relevant to this category.

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2988

Emissions calculation methodology

Lumentum's emissions in this category consist of emissions related to business air travel only. Data regarding other forms of transportation was not available or not relevant. Emissions were calculated following the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

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

0

Please explain

Supplier activities are not relevant to this category.

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

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

Lumentum does not have any leased assets that are not reported in Scope 1 or 2.

Downstream transportation and distribution

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

Processing of sold products

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

Use of sold products

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

End of life treatment of sold products

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

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 leased assets that are not reported in Scope 1 or 2.

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

Other (upstream)

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

Other (downstream)

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

Lumentum's GHG emissions monitoring program is in its early stages. We plan to review to the relevance of all scope 3 categories against our operations, and we anticipate reporting on additional scope 3 categories in reporting year 2020.

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

0.000036398

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

56974

Metric denominator

unit total revenue

Metric denominator: Unit total

1565300000

Scope 2 figure used

Market-based

% change from previous year

3

Direction of change

Decreased

Reason for change

We continue to review our operations and emissions portfolio. However, it is estimated that increased revenues from Lumentum's supply chain have contributed to the decrease in emissions per unit of revenue.

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	5338	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	3	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	3	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	596	IPCC Fifth Assessment Report (AR5 – 100 year)
PFCs	845	IPCC Fifth Assessment Report (AR5 – 100 year)
SF6	290	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	5036
Canada	315
Italy	641
Switzerland	82
Slovenia	4
United Kingdom of Great Britain and Northern Ireland	767
China	43
Japan	90
Taiwan, Greater China	6
Thailand	90

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	2456		
Fremont, USA	2		
Milpitas - 400 McCarthy	102		
Milpitas - 460 McCarthy	150		
Ottawa, CAN	315		
San Jose - Automation 2	163		
Shnz-DesignCtr. CHN	14		
Tokyo F15, JPN	1		
Zurich, CHE	82		
Navanakorn	90		
San Jose - Automation	1204		
United Kingdom-Caswell	698		
United Kingdom-Paignton	69		
Shn-FTZ Futian	28		
Taipei	6		
Japan-Sagamihara	986		
USA - CA - San Jose - Ridder 1	32		
USA - CA - San Jose - Ridder 2	13		
USA - CA - San Jose - Ridder 3	17		
Black House Slovenia	4		
Italy - San Donato	641		

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	7122	3034	31491	
Canada	78	78	4504	
Italy	2377	5416	7072	
France	3	4	15	
Switzerland	19	71	600	
Slovenia	33	101	127	
United Kingdom of Great Britain and Northern Ireland	3535	9860	14315	
China	6642	6642	10615	
Japan	6008	6008	11460	
Republic of Korea	29	29	45	
Taiwan, Greater China	68	68	109	
Thailand	18587	18587	38956	

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	2535	1080
Fremont, USA	12	5
Milan, ITALY	26	53
Milpitas - 400 McCarthy	420	179
Milpitas - 460 McCarthy	490	209
Ottawa, CAN	78	78
Paris, FRA - Regus	3	4
San Jose - Automation 2	676	288
Shnz-DesignCtr. CHN	800	800
Tokyo F15, JPN	14	14
Zurich, CHE	17	68
Zurich, CHE - Storage	2	3
Navanakorn	18587	18587
San Jose-Auto, USA	2986	1272
United Kingdom - Caswell	3405	9497
Paignton, UK	130	363
Shnz-FTZ Futian	5842	5842
Taipei City, Taiwan	68	68
Japan - Sagamihara	5994	5994
USA - CA - San Jose - Ridder 1	2	1
USA - CA - San Jose - Ridder 2	0.18	0.08
USA - CA - San Jose - Ridder 3	1	0.39
Italy - Sarca 226	251	505
Black House, Slovenia	33	101
Seongnam, KOR	29	29
Italy - San Donato	2099	4859

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	500	Decreased	100	A total of 500 metric tonnes of CO2e (sum of difference from 2018-2019) can be attributed to 4 sites that were removed from the portfolio in 2019 through closure or consolidation.
Acquisitions	28857	Increased	100	28,857 metric tonnes of CO2e (sum of difference from 2018-2019) can be attributed to 12 sites that were added to the portfolio in 2019 as part of an acquisition.
Mergers		<Not Applicable>		
Change in output	11674	Increased	165	Navanakorn (Thailand) is a recently developed manufacturing site, and has been increasing production significantly each year since 2017.
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	Yes

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)	0	29892	29892
Consumption of purchased or acquired electricity	<Not Applicable>	0	119308	119308
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>	
Total energy consumption	<Not Applicable>	0	149200	149200

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

29836

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

29836

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

Federal Register (2009) EPA; 40 CFR Parts 86, 87, 89 et al; Mandatory Reporting of Greenhouse Gases; Final Rule, 30Oct09, 261 pp. Tables C-1 and C-2 at FR pp. 56409-56410.

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

55

MWh fuel consumed for self-generation of electricity

55

MWh fuel consumed for self-generation of heat

0

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

10.2427

Unit

kg CO2e per gallon

Emissions factor source

Federal Register (2009) EPA; 40 CFR Parts 86, 87, 89 et al; Mandatory Reporting of Greenhouse Gases; Final Rule, 30Oct09, 261 pp. Tables C-1 and C-2 at FR pp. 56409-56410.

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	6	6		
Heat				
Steam				
Cooling				

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.

Sourcing method

None (no purchases of low-carbon electricity, heat, steam or cooling)

Low-carbon technology type

<Not Applicable>

Country/region of consumption of low-carbon electricity, heat, steam or cooling

<Not Applicable>

MWh consumed accounted for at a zero emission factor

<Not Applicable>

Comment

C9. Additional metrics

C9.1

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

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_2019 CDP_ERM CVS Assurance Statement_FINAL.pdf

Page/ section reference

Page 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_2019 CDP_ERM CVS Assurance Statement_FINAL.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_2019 CDP_ERM CVS Assurance Statement_FINAL.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

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

Page/section reference

1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

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

Other, please specify

% of suppliers by number

40

% total procurement spend (direct and indirect)

70

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

80

Rationale for the coverage of your engagement

Lumentum submitted information requests to all of our contract manufacturers. Responding suppliers account for over 70% of Lumentum's spend in this area.

Impact of engagement, including measures of success

In an attempt to further understand and quantify emissions associated with our supply chain, Lumentum submitted requests to all of our contract manufacturers for data related to energy consumption and emissions of their manufacturing activities attributable to Lumentum's products. Responding suppliers account for over 70% of Lumentum's spend in this area.

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).

Publication

No publications with information about our response to climate-related issues and GHG emissions performance

Status

<Not Applicable>

Attach the document

<Not Applicable>

Page/Section reference

<Not Applicable>

Content elements

<Not Applicable>

Comment

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	Director Workplace Services	Environment/Sustainability manager

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	1565300000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	US	55024U1097

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Cisco Systems, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

643

Uncertainty (±%)

Major sources of emissions

Stationary combustion; fugitive emissions

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Cisco Systems, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

4537

Uncertainty (±%)

10

Major sources of emissions

Purchased electricity

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Cisco Systems, Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

8865

Uncertainty (±%)

10

Major sources of emissions

Purchased Goods & Services; Fuel & Energy Related Activities; Business Travel

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Nokia Group

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

510

Uncertainty (±%)

Major sources of emissions

Stationary combustion; fugitive emissions

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Nokia Group

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

3570

Uncertainty (±%)

10

Major sources of emissions

Purchased electricity

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Nokia Group

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

6975

Uncertainty (±%)

10

Major sources of emissions

Purchased Goods & Services; Fuel & Energy Related Activities; Business Travel

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Fujitsu Limited

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

62

Uncertainty (±%)

Major sources of emissions

Stationary combustion; fugitive emissions

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Fujitsu Limited

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

440

Uncertainty (±%)

10

Major sources of emissions

Purchased electricity

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Fujitsu Limited

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

859

Uncertainty (±%)

10

Major sources of emissions

Purchased Goods & Services; Fuel & Energy Related Activities; Business Travel

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Juniper Networks, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

15

Uncertainty (±%)

Major sources of emissions

Stationary combustion; fugitive emissions

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Juniper Networks, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

108

Uncertainty (±%)

10

Major sources of emissions

Purchased electricity

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Juniper Networks, Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

212

Uncertainty (±%)

10

Major sources of emissions

Purchased Goods & Services; Fuel & Energy Related Activities; Business Travel

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

NEC Corporation

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

46

Uncertainty (±%)

Major sources of emissions

Stationary combustion; fugitive emissions

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

NEC Corporation

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

325

Uncertainty (±%)

10

Major sources of emissions

Purchased electricity

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

NEC Corporation

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

636

Uncertainty (±%)

10

Major sources of emissions

Purchased Goods & Services; Fuel & Energy Related Activities; Business Travel

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Alphabet, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

97

Uncertainty (±%)

Major sources of emissions

Stationary combustion

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Alphabet, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

687

Uncertainty (±%)

10

Major sources of emissions

Purchased electricity

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

Requesting member

Alphabet, Inc.

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

1343

Uncertainty (±%)

10

Major sources of emissions

Purchased Goods & Services; Fuel & Energy Related Activities; Business Travel

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Emissions cannot be allocated by source, but instead were allocated based on the customer's share of total production.

SC1.2**(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).**

No published information has been used in completing SC1.1.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

Lumentum's GHG management program is currently under development. We anticipate that, as our program develops and evolves, so will our abilities to allocate emissions to our customers.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Customers	Public	<Not Applicable>

Please confirm below

I have read and accept the applicable Terms