FLUXWERX®

12/04/2018

LIVING BUILDING CHALLENGE℠

RED LIST DECLARATION

FLUXWERX. Fold | Arch Endcap | Clear Anodized

FOLD

PRODUCT CODE: FD1-A-D-D-40-A-12-D-E1-M-06

Transparent, vertical optics engineered specifically for LED sources are integrated with minimalist design and architectural materials to create a broad range of solutions with superior optical and energy performance.

Life expectancy: >200,000 to L_{70}

The estimated number of hours that a product under normal wear and tear conditions can be used as intended before lumen output is 70% of initial lumen output.[2]

Standard(s) for Safety:

- UL 1598 - Luminaires
- UL 8750 - Light Emitting Diode (LED) Equipment for Use in
- CSA C22.2 No. 250.0-08 - Luminaires

Location of Final Manufacturing Facility:

- **City:** Surrey
- **State/Province:** British Columbia
- **Country:** Canada

Volatile Organic Compound (VOC) Information: Not applicable

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[1] Please refer to the specifications sheets on the website: https://fluxwerx.com/
[2] Based on TM-21 calculations. TM-21 is used to project for lumen degradation of an LED package, array or module based on data collected according to LM-80. Product has a 5 year warranty.

FLUXWERX FOLD SPOKE

Product Contents in Order of Quantity Used by Mass

Red list	RoHS	Component	Ingredient name	%[2]	City	State/Province	Country
No	Note 1	Housing, end caps and joiners	Aluminum 6063	65%	Portland	Oregon	USA
No	Note 1	Enclosures & Mounts	Steel 1018, Satin Coat	11%	Metro Vancouver	BC	Canada
No	N/A	Primary Lenses	Virgin Acrylic, Optical Grade[3]	10%	Gunzburg	Bavaria	Germany
No	YES	Drivers	Electronics Component	4%	Guadalupe		Mexico
No	N/A	Secondary Lenses	Virgin Acrylic, Optical Grade[3]	<4%	Metro Vancouver	BC	Canada
Yes	YES	Wiring	Small Electronics[4]	<4%	Various	Various	Various
No	YES	Fasteners	Fasteners	<2%	Various	Various	Various
No	YES	Printed Circuit Boards	Small Electronics	<2%	Various	Various	Various
No	YES	LEDs	Small Electronics	<2%	Various	Various	Various

Note 1 - Based on a letter of good faith diligent inquiry from vendors
Note 2 - Percentages based on weight measurements of typical product configurations. No life cycle analysis or environmental declaration available.
Note 3 - CAS # 9011-14-7
Note 4 - Wire insulation contains PVC and meets RoHS requirements

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FLUXWERX™

We have designed our patented anidolic extraction optics and minimalist industrial design product around the highly efficient LED as the light source. We want to provide designers with differentiated product that enables them to complement their unique designs with our product to reduce do more with less, for example:

- o Wide batwing optics enables the amount of product needed to be reduced by maximizing on center spacing
- o Reduce energy usage of luminaires with efficacious fixtures and the use of fewer fixtures
- o Our product has a very long life evidenced by our lumen maintenance

  - ≥ L90 @ 60,000h or L70 ≥ 200,000h (approx. 50 years)

- o At their rated end of life, products can be returned to our facility for proper recycling as the acrylic, aluminum and steel components are all recyclable and we work with our vendors to properly recycle drivers and LED components.

While Fluxwerx does not directly subscribe to Declare, or similar programs, we strive to be an ethical manufacturer that minimizes our impact on the environment and all living creatures. Where possible, we source materials and services from local vendors to minimize transportation and the related impact on the environment.

The quality and source of the materials we use along with our vendor selection, is very important.

Based upon a good faith diligent inquiry, we have identified that many of our vendors have RoHS certification and other vendors have confirmed, to the best of their knowledge, that they do not use materials or processes that are contrary to RoHS directives. While we do not yet have every detail from every vendor, we continue to pursue further information from the vendors who've yet to provide clarification.

To date, we can confirm that the vendors that provide our drivers, printed circuit boards, LEDs, low voltage power cord, aluminum extrusion, anodizing and steel fabrication processes are either RoHS certified, or if not certified, declare that to the best of their knowledge that none of their processes would cause non-compliance. We can provide copies of the RoHS certifications and declarations upon request. Further, we do not have any reason to believe that processes completed in our facility would cause any non-compliance with the RoHS Directive in effect as of the date of this statement.

Because of the above facts, our product has been successfully installed in Living Building Challenge (LBC), LEED and WELL Building projects across North America.

Attached are examples of the documents provided on LBC projects that can provide details about the quality and source (distances) of our materials. All forming, machining and finishing of the aluminum and steel components, and assembly or finishing of other components are completed in the Fraser Valley (within a few kilometers of our facility) or in our own facility.

Please let me know how we can help you and your clients be successful with their projects.

Fluxwerx Illumination Inc.

David Alkalay
Regional Sales Manager

RED LIST DECLARATION

GENERAL FLUXWERX PRODUCT INFORMATION

Location of Final Manufacturing Facility

City: Metro Vancouver

State/Province: British Columbia

Country: Canada

Product Life Expectancy

5 Year Warranty

>200,000 hrs to L_{70}

The estimated number of hours that a product can be used as intended under normal wear and tear conditions before lumen output falls to 70% of initial lumen output.

Lumen degradation of the LED modules per TM-21 Projected Methodology based on LM-80 test data.

Safety Certification(s)

- UL 1598 - Luminaires
- UL 8750 - Light Emitting Diode (LED) Equipment for Use in Lighting Products
- CSA C22.2 No. 250.0-08 – Luminaires

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LISTED

Product Contents Table Notes Reference

Volatile Organic Compound (VOC) Information: Not applicable

[1] Based on a letter of good faith diligent inquiry from vendors

[2] Percentages based on weight measurements of typical product configurations. No life cycle analysis or environmental declaration available

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December 2018

RED LIST DECLARATION

PRODUCT FAMILY: NOTCH 2

Typical Catalog #:   NT1-L-G1-B-B-35-F2-M-xx

Description

Transparent, vertical optics engineered specifically for LED sources are integrated with minimalist design and architectural materials to create a recessed linear luminaire with superior optical and energy performance.

Product Contents in Order of Quantity Used by Mass

Red List	RoHS	Component	Ingredient name	Mass % [2]	City	State/ Province	Country
No	Note 1	Housing, Endcaps & Joiners	Steel 1018, Satin Coat	37%	Metro Vancouver	BC	Canada
No	Note 1	Trim, Covers	Aluminum 6063	35%	Portland	Oregon	USA
No	N/A	Primary lenses	Virgin Acrylic, Optical Grade	14%	Gunzburg	Bavaria	Germany
No	Note 1	Optic Reflectors	Aluminum 3003	4%	Ennepetal	N. Rhine-Westphalia	Germany
No	Yes	Wiring	Small Electronics	<4%	Various	Various	Various
No	Yes	Fasteners	Fasteners	<4%	Various	Various	Various
No	Yes	Printed Circuit Boards	Small Electronics	<2%	Various	Various	Various
No	Yes	LEDs	Small Electronics	<2%	Various	Various	Various
No	Yes	Drivers	Electronics Component	1%	Guadalupe	Nuevo León	Mexico

RED LIST DECLARATION

PRODUCT FAMILY: VIEW SUSPENDED

Typical Catalog #: VU1-B-B-B-35-A-xx-S-F2-M-03

Description

Transparent, vertical optics engineered specifically for LED sources are integrated with minimalist design and architectural materials to create a suspended linear luminaire with superior optical and energy performance.

Product Contents in Order of Quantity Used by Mass

Red List	RoHS	Component	Ingredient name	Mass % [2]	City	State/ Province	Country
No	Note 1	Housing, end caps & joiners	Aluminum 6063	38%	Portland	Oregon	USA
No	Note 1	Enclosures & Mounts	Steel 1018, Satin Coat	20%	Metro Vancouver	BC	Canada
No	N/A	Primary Lenses	Virgin Acrylic, Optical Grade	15%	Metro Vancouver	BC	Canada
No	N/A	Secondary Lenses	Virgin Acrylic, Optical Grade	14%	Metro Vancouver	BC	Canada
No	Yes	Drivers	Electronics Component	8%	Guadalupe		Mexico
No	Yes	Wiring	Small Electronics	<4%	Various	Various	Various
No	Yes	Fasteners	Fasteners	<2%	Various	Various	Various
No	Yes	Printed Circuit Boards	Small Electronics	<2%	Various	Various	Various
No	Yes	LEDs	Small Electronics	<2%	Various	Various	Various

RED LIST DECLARATION

PRODUCT FAMILY: PROFILE SPOKE

Typical Catalog #:   PS1-F-D-D-35-A-S3-S-F2-M-03

Description

Transparent, vertical optics engineered specifically for LED sources are integrated with minimalist design and architectural materials to create a suspended linear luminaire with superior optical and energy performance.

Product Contents in Order of Quantity Used by Mass

Red List	RoHS	Component	Ingredient name	Mass % ²	City	State/ Province	Country
No	Note 1	Housing, end caps and joiners	Aluminum 6063	59%	Portland	Oregon	USA
No	Note 1	Enclosures & Mounts	Steel 1018, Satin Coat	15%	Metro Vancouver	BC	Canada
No	N/A	Primary Lenses	Virgin Acrylic, Optical Grade	13%	Gunzburg	Bavaria	Germany
No	YES	Drivers	Electronics Component	6%	Guadalupe		Mexico
No	N/A	Secondary Lenses	Virgin Acrylic, Optical Grade	<4%	Metro Vancouver	BC	Canada
No	YES	Wiring	Small Electronics	<4%	Various	Various	Various
No	YES	Fasteners	Fasteners	<2%	Various	Various	Various
No	YES	Printed Circuit Boards	Small Electronics	<2%	Various	Various	Various
No	YES	LEDs	Small Electronics	<2%	Various	Various	Various