award winning

energy efficient light fixture

to complement your energy efficient lamps

improve power density performance

use fewer luminaires

lower operating expense

meet desired illuminance level



Your Most Energy Efficient Lighting Fixture

Your Most Energy Efficient Lighting Fixture - Nanoflex®

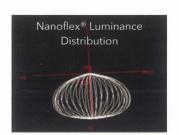
Breakthrough in Sustainable Illumination for Built Environment

A quality light source, be it LED, fluorescent, induction or OLED technology, means nothing for lighting applications if you install inefficient lighting fixtures. Typical light fixtures are between 40% to 70% efficient, meaning light loss of 30% to 60% when installed.

Nanoflex® defines energy efficient illumination by incorporating **Lambertian optical technology** with design. The result - highly energy efficient luminaires that provide volumetric brightness by enhancing visual clarity and comfort. **Nanoflex**® minimize luminance wastage, a vital feature in today's sustainable workplace environment.

More Energy Efficient

Nanoflex® luminaires improve power density performance by allowing you to use fewer luminaires to achieve the desired illuminance level, meaning lower capital and operational expenses.





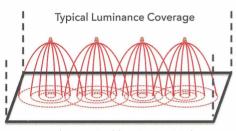
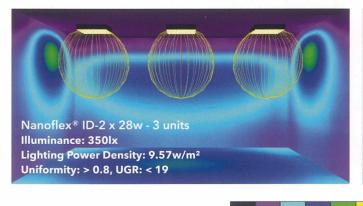
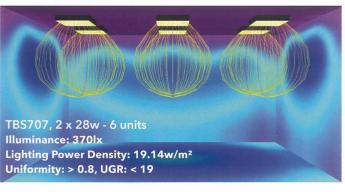


Illustration of luminance distribution of **Nanoflex®** Luminaire (centre, blue) as compared to typical luminaire (right, red) shows how **Nanoflex®** Luminaire can cover the same space with brightness more efficiently than typical luminaire. This is possible with the unique luminance distribution of **Nanoflex®** Luminaire (left, black).

Volumetric Quality Brightness with Less Fixtures Required

The luminance distribution from **Nanoflex**® luminaires allow wider distance between luminaires complying with illuminance, light uniformity and glare guidelines from **EN-12464-1** and well within energy performance standards of **ANSI/ASHRAE/IESNA**. **Dialux** simulation below with **IESNA** format data clearly shows the **Nanoflex**® advantage over a global brand name luminaire by lowering capital and operating expenses with fewer luminaires installed, less energy consumed, and giving you unequalled illumination.





DIAL

Nanoflex® achieve quality illuminance level with 50% LESS LIGHTING ENERGY!

Visual Comfort Leading to Higher Workplace Productivity

The direct link between visual comfort and productivity is clear - 90% of our daily activities rely on the eyes.

Recent study by Rocky Mountain Institute and US

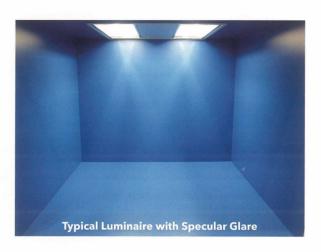
Department of Energy conclude that quality illumination can raise productivity **up to 16%**. The benefits are substantial as human resources make up the biggest expense in any organization.

Nanoflex® luminaires minimize eye fatigue by giving:

- ✔ Better lighting uniformity which reduces glare
- ✓ Visual comfort that comes from soft, volumetric brightness

Prolonged activities requiring the use of the eyes become less of a strain, and productivity increases.





Safe, Durable, Green & Sustainable

All Nanoflex® luminaires are built to withstand the most stringent requirement for indoor and outdoor environment. It was engineered to meet British Standard 476

Part 6 & 7 for fire safety and complies with EU 2002/95 standard for RoHS.

To ensure compliance to construction industry requirements in most Asian countries, Nanoflex® was further tested under Japan Industrial Standard for Adhesion, Impact Resistance, Crazing Resistance and High-Low

Temperature Resistance. Apart from its robust construction, the

Lambertian optical material was also categorized as a Hong

Kong Green Label product by Green Council of Hong Kong.

Nanoflex® is also a member organization of Hong Kong

Green Purchasing Charter.







Merit Award 優異

Building Product Category 建築產品類別

Leader in Green Building Illumination

At the Hong Kong Green Building Award 2012, The Nanoflex® Indirect Luminaire was accorded Merit Award in the Products category, making it the ONLY lighting product to be accredited.

Nanoflex® was also recognized and presented at the International Green Building Conference 2012 in Singapore, as well as Cleantech San Francisco 2012 as a Hong Kong Innovation Showcase for energy efficient lighting.

Innovation through Partnership

Nanoflex® strive for innovation excellence through continued partnership with industry leaders. As a member organization of Zhaga, a global consortium of LED stakeholders, Nanoflex® is well positioned to ensure sustainable LED solution for the future.









Partnering the prestiges California Lighting Technology Centre, Nanoflex® uses cutting edge lighting technology and continues to innovate, comply and possibly set future standards in sustainable illumination for the Built Environment.

For further information on **Nanoflex***, please contact <u>info@nanoflex.info</u> or Skype <u>nanoflex.info</u>

Authorized Distributor



香 港 Hong Kong

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Guangzhou, China



Nanoflex® Direct-Indirect System Hutchison Telecoms, Hong Kong



Nanoflex® Ceiling Lighting System INERGI Group, Hong Kong

Block B, 3/F., East Sun Industrial Centre, 16 Shing Yip Street, Kwun Tong, Kowloon, Hong Kong. P: +852 3102 3192 F: +852 3101 9613

NFX-ID Series

Indirect Recessed Luminaire



Features

The NFX-ID series combines the best of surface reflectance and design to deliver indirect and soft light for comfortable glare-free illumination with excellent color rendering qualities. It reflects lights off Nanoflex® Lambertian surface to minimize light loss while generating more than 60% efficiencies. This high efficient indirect fluorescent luminaire series is perfect for generating lighting in offices, schools, hospitals, reception areas, meeting rooms and corridors, while meeting ASHRAE/USGBC/IESNA and Beam Plus standards and guidelines in Green Building illumination.

Optics

Recessed reflector system combines with lined diffuser obscures the light source while delivering volumetric brightness. The luminaire render the interior space, objects and occupants in a soft, glare-free luminous environment with excellent light uniformity and color rendering qualities, while consuming minimal energy.

Electrical

The luminaire are designed to complement high efficient T-5 tubes with high frequency electronic ballast of power factor equal or greater than 0.95. Models for T-8 tubes, LED or other sizes are available upon requests.

Note:

Please refer to manufacturer's product catalogs for respective lamps and ballasts requirements.

Construction

Rugged polyester powder coated white steel housing with Nanoflex® reflective surfaces. Available in various sizes(please refer to specification overleaf). Luminaires may be recessed mounted or suspended individually or end-to-end continuously lined.

Accreditation

Optical Surface

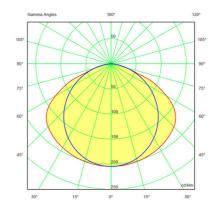
- · Certified Lambertian Reflectance
- · Green Label Certified
- · RoHS Compliant
- · Compliant to JIS Standards for Construction Material Grade
- · Compliant to British Standard 476 Part 6 and 7 for Fire Safety

Construction & Electrical Configuration

- · Compliant to CCC, CE and CB Standards
- · Compliant to Zhaga Interchangeable Design







NFX-ID 600 Polar Diagram



Render / Lighting Effect



NFX-ID Series

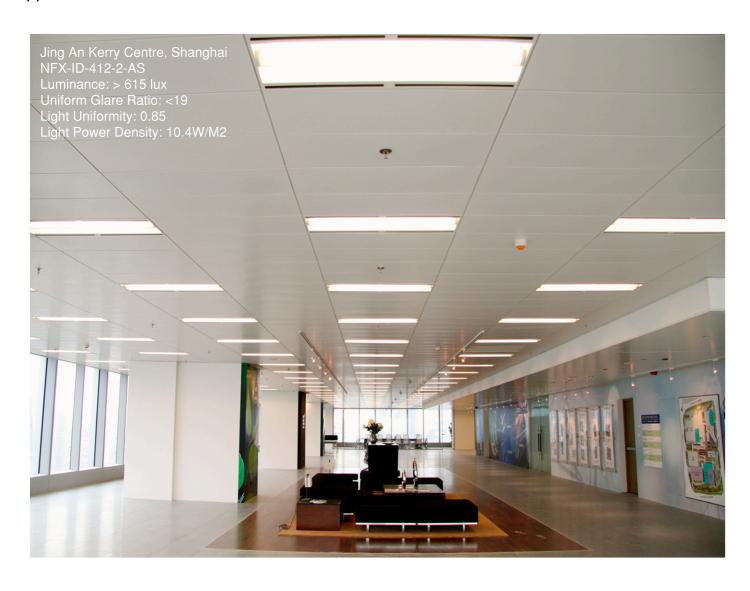
Indirect Recessed Luminaire



	Light source (2)	Length (mm)	Width (mm)	Height (mm)	L.O.R.
NFX-ID-300 Series			285-300		
NFX-ID-400 Series	T5 or LED (3)	585-600, 1185-1200	385-400	75-100	60% min.
NFX-ID-600 Series			585-600		

- (1) Custom made version available upon request.
- (2) Light source and driver based on Philips or Osram specifications.
- (3) LED based on Zhaga compliant linear module.
- (4) Controls and sensor controls available.
- (5) Air slot version available.























General Specifications

Type : **NFX-LED-XXX**

Ligth Source : Philips Fortimo LEDLine
Driver : Xitanium Driver (Built-in)

*** Zhaga compatible ***

Mains Voltage : AC 220-240 V~; 50/60 Hz

Rated Power : 0.08A; 0.16A (dependant on configuration)
Power Comsumption : 18W; 35W (dependant on configuration)

Luminous Flux : 2150*lm* ; 4300*lm* (dependant on configuration) Luminaire Efficacy : over 65% (dependant on configuration)

(light output ratio)

Bean Angle : 100° to 130° (dependant on configuration)

(Alpha = from 55° to 65°; Beta = from 50° to 60°)

Correlated Color : 3000k ; 4000k

Color Rendering Index: > 80

Ligth Source Maintenance at 25°C:

Maintenance of lumen output L90 : 25000 hrs

(Median useful life L90B50)

Maintenance of lumen output L70 : 50000 hrs

(Median useful life L70B50)

Average ambient temperature : 25°C

Operating temperature range : 10° to 40°C

Safety complied : IEC 60598

Housing : metal-steel with white powder coating

Typical ceiling width for recessed type : 300mm; 400mm; 600mm

Typical ceiling length for recessed type : 600mm; 1200mm

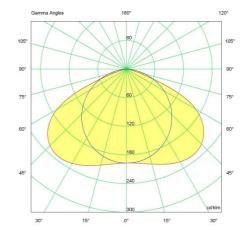
Standard Model List

Model	Typical size (w) x (l) x (h)	Light source	Light	P	Available in	
Wodei	mm	flux intensity	output ratio	Suspended	Recessed	Air-Slot
NFX-LED-306 (18W)	300 x 600 x 100	2150 <i>lm</i>	> 65%	•	•	×
NFX-LED-312 (35W)	300 x 1200 x 100	4300 <i>lm</i>	> 65%	•	•	×
NFX-LED-406 (18W)	400 x 600 x 100	2150 <i>lm</i>	> 67%	•	•	•
NFX-LED-412 (35W)	400 x 1200 x 100	4300 <i>lm</i>	> 67%	•	•	•
NFX-LED-606 (18W)	600 x 600 x 100	2150 <i>lm</i>	> 70%	•	•	•
NFX-LED-612 (35W)	600 x 1200 x 100	4300 <i>lm</i>	> 70%	•	•	•

Other Options : Air-Slot version; Dimmable version ; Emergency lighting with battery-kit







NFX LED Series 2

High Intensity Model List

Model	Typical size (w) x (l) x (h)	Light source	Light output	F	Available in	
Wodei	mm	flux intensity	y ratio	Suspended	Recessed	Air-Slot
NFX-LED-306 (28W)	300 x 600 x 100	3440 <i>lm</i>	> 65%	•	•	×
NFX-LED-312 (55W)	300 x 1200 x 100	6880 <i>lm</i>	> 65%	•	•	×
NFX-LED-406 (28W)	400 x 600 x 100	3440 <i>lm</i>	> 67%	•	•	•
NFX-LED-412 (55W)	400 x 1200 x 100	6880 <i>lm</i>	> 67%	•	•	•
NFX-LED-606 (28W)	600 x 600 x 100	3440 <i>lm</i>	> 70%	•	•	•
NFX-LED-612 (55W)	600 x 1200 x 100	6880 <i>lm</i>	> 70%	•	•	•

^{***} The above models are applied with "Philips Fortimo LEDLine High Flux" as Light Source ***

Advance Control of Energy Saving

Dimming Type	Corresponding LED Driver	Energy Saving Index	Comfort Index	Other Advised Control Extension: (device or system)
Non-Dimmable	Xitanium Driver (Fixed output)		N.A.	⊚
1-10V Dimmable	Xitanium Driver (1-10V Dimmable)			•
DALI Dimmable & programmable	Xitanium Driver (DALI Dimmable)			⊚
Flicker-free Dimming Range from 1% to 100%	Lutron Driver (Hi-lume A-Series) ©LUTRON .			© EcoSystem. Compatible

^{***} Please contact our sales for further enquiry ***

NFX-DR Series

Direct Recessed Luminaire



Features

The NFX-DR series combines the best of surface reflectance and design to deliver direct and soft light for comfortable glare-free illumination with excellent color rendering qualities. It reflects lights off Nanoflex® Lambertian surface to minimize light loss while generating more than 80% efficiencies. This high efficient direct fluorescent luminaire series is perfect for generating lighting in offices, schools, hospitals, reception areas, meeting rooms and corridors, while meeting ASHRAE/USGBC/IESNA and Beam Plus standards and guidelines in Green Building illumination.



Optics

Recessed reflector system delivers volumetric illumination from Lambertian surfaces with 95% total reflectance. The luminaire render the interior space, objects and occupants in a soft, glare-free luminous environment with excellent light uniformity and color rendering qualities, while consuming minimal energy.

Electrical

The luminaire are designed to complement high efficient T-5 tubes with high frequency electronic ballast of power factor equal or greater than 0.95. Models for T-8 tubes, LED or other sizes are available upon requests.

Note:

Please refer to manufacturer's product catalogs for respective lamps and ballasts requirements.

Construction

Rugged polyester powder coated white steel housing with Nanoflex® reflective surfaces. Available in various sizes (please refer to specification overleaf). Luminaires may be recessed mounted or suspended individually or end-to-end continuously lined.

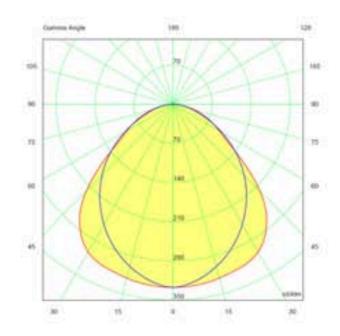
Accreditation

Optical Surface

- Certified Lambertian Reflectance
- · Green Label Certified
- RoHS Compliant
- · Compliant to JIS Standards for Construction Material Grade
- Compliant to British Standard 476 Part 6 and 7 for Fire Safety

Construction & Electrical Configuration

· Compliant to CCC, CE and CB Standards



NFX-DR 600 Polar Diagram



Render / Lighting Effect

NFX-DR Series

Direct Recessed Luminaire



	Light source (2)	Length (mm)	Width (mm)	Height (mm)	L.O.R.
NFX-DR-300 Series			285-300		
NFX-DR-400 Series	T5	585-600, 1185-1200	385-400 60-100	60-100	80% min.
NFX-DR-600 Series		585-600			

- (1) Custom made version available upon request.
- (2) Light source and driver based on Philips or Osram specifications.
- (3) Controls and sensor controls available.





















NFX-DN Series

Compact Fluorescent Downlight



Features

The NFX-DN series combines the best of surface reflectance and design to deliver direct and soft light for comfortable glare-free illumination with excellent color rendering qualities. It reflects lights off Nanoflex® Lambertian surface to minimize light loss while generating more than 70% efficiencies. This high efficient compact fluorescent downlight series is perfect for generating lighting in offices, schools, hospitals, reception areas, meeting rooms and corridors, while meeting ASHRAE/USGBC/IESNA and Beam Plus standards and guidelines in Green Building illumination.



Optics

Recessed reflector system delivers volumetric illumination from Lambertain surfaces with 95% total reflectance. The luminaire render the interior space, objects and occupants in a soft, glare-free luminous environment with excellent light uniformity and color rendering qualities, while consuming minimal energy.

Electrical

The downlight are designed to complement high efficient CFL 13W, 18W and 26W with high frequency electronic ballast of power factor equal or greater than 0.95. Models for other sizes are available upon requests.

Note:

Please refer to manufacturer's product catalogs for respective lamps and ballasts requirements.

25. 75. 6. 14. 20.

NFX-DN-8 Polar Diagram

Construction

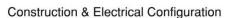
Rugged polyester powder coated white steel housing with Nanoflex® reflective surfaces.

Available in various sizes (please refer to specification overleaf). Luminaires are recessed mounted.

Accreditation

Optical Surface

- · Certified Lambertian Reflectance
- · Green Label Certified
- · RoHS Compliant
- · Compliant to JIS Standards for Construction Material Grade
- · Compliant to British Standard 476 Part 6 and 7 for Fire Safety



· Compliant to CCC, CE and CB Standards



Render / Lighting Effect

電話 Tel: (852) 2619-8817 | 傳真 Fax: (852) 2481-2870 | 電郵 E-mail: rgt@rec-eng.com | 網址 Website: www.rec-gt.com

NFX-DN Series

Compact Fluorescent Downlight



	Light source (2)	Ø (mm)	Length (mm)	Height (mm)	L.O.R.
NFX-DN-5	1 / 2 × 13W	Ø 175	328	100	
NFX-DN-6	1 / 2 x 13W, 1 / 2 x 18W	Ø 193	335	105	70% min.
NFX-DN-8	1 / 2 x 18W, 1 / 2 x 26W	Ø 227	408	126	

- (1) Custom made version available upon request.
- (2) Light source and driver based on Philips or Osram specifications.
- (3) Controls and sensor controls available.





















NFX-DR Series (UD Version)

Direct Pendant Luminaire



Features

The NFX-DR series combines the best of surface reflectance and design to deliver direct and soft light for comfortable glare-free illumination with excellent color rendering qualities. It reflects lights off Nanoflex® Lambertian surface to minimize light loss while generating more than 85% efficiencies. This high efficient direct fluorescent luminaire series is perfect for generating lighting in offices, schools, hospitals, reception areas, meeting rooms and corridors, while meeting ASHRAE/USGBC/IESNA and Beam Plus standards and guidelines in Green Building illumination.

Optics

Recessed reflector system delivers volumetric illumination from Lambertian surfaces with 95% total reflectance. The luminaire render the interior space, objects and occupants in a soft, glare-free luminous environment with excellent light uniformity and color rendering qualities, while consuming minimal energy.

Electrical

The luminaire are designed to complement high efficient T-5 tubes with high frequency electronic ballast of power factor equal or greater than 0.95.

Note:

Please refer to manufacturer's product catalogs for respective lamps and ballasts requirements.

Construction

Rugged polyester powder coated white steel housing with Nanoflex® reflective surfaces. Available in various sizes (please refer to specification overleaf). Luminaires may be recessed mounted or suspended individually or end-to-end continuously lined.

Accreditation

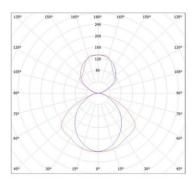
Optical Surface

- · Certified Lambertian Reflectance
- · Green Label Certified
- · RoHS Compliant
- · Compliant to JIS Standards for Construction Material Grade
- · Compliant to British Standard 476 Part 6 and 7 for Fire Safety

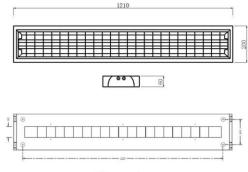
Construction & Electrical Configuration

· Compliant to CCC, CE and CB Standards





NFX-DR-212 Polar Diagram



Dimension

NFX-DR Series (UD Version)

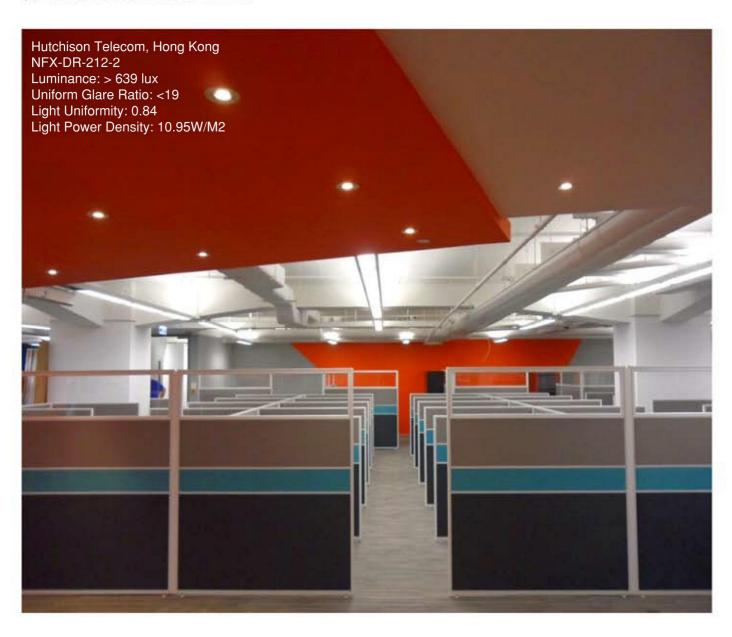
Direct Pendant Luminaire



	Light source (2)	Length (mm)	Width (mm)	Height (mm)	L.O.R.
NFX-DR-212 Series	Т5	610 - 1210	200	60	85% min.

- (1) Custom made version available upon request.
- (2) Light source and driver based on Philips or Osram specifications.
- (3) Controls and sensor controls available.





















NFX-HIF Series

High Intensity Fluorescent Luminaire



Features

The NFX-HIF series combines the best of reflectance and design to deliver direct and soft light for comfortable glare-free illumination with excellent color rendering qualities. It reflects lights off Nanoflex® Lambertian surface to minimize light loss while generating more than 85% efficiencies. This high efficient direct fluorescent luminaire series is perfect for generating lighting in industrial facilities, warehouses, schools gymnasium and utility area while meeting the highest standards in Green Building illumination.

Recessed reflector system delivers volumetric illumination from Lambertian surfaces with 95% total reflectance.

The luminaire render the interior space, objects and occupants in a soft, glare-free luminous environment with excellent light uniformity and color rendering qualities for better visual acuity, while consuming minimal energy.



Optics

The luminaire are designed to complement high efficient T-5 tubes with high frequency electronic ballast of power factor equal or greater than 0.95. Models for T-5 tubes, LED or other sizes are available upon requests.

Note:

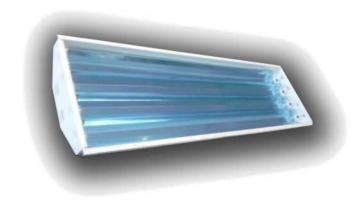
Please refer to manufacturers' product catalogs for respective lamps and ballasts requirements.

Construction

Rugged polyester powder coated steel housing with white Nanoflex® aluminum reflector and diffuser. Available in various sizes (please refer to specification overleaf). Luminaires may be recessed mounted or suspended individually or end-to-end continuously lined.

Accreditation

- · Green Label Certified with compliance to EU RoHS directives
- · Certified Lambertian Reflectance
- · Compliant to JIS Standards for construction use material
- Compliant to British Standard 476 Part 6 and 7 for Fire Safety
- · Compliant to CCC, CE and CB Standards















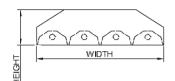




NFX-HIF Series

High Intensity Fluorescent Luminaire

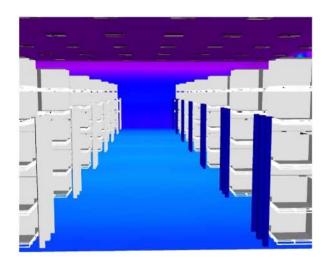


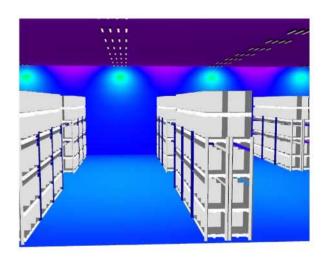


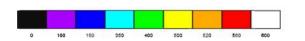
	LENGTH	

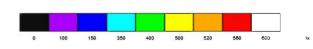
Reference Specification

SERIES	LIGHT SOURCE	LENGTH (MM)	WIDTH (MM)	HEIGHT	EFFICIENCY
NFX-HIF-4-4	T5 4 x 54W	1250	415	102	>85%
NFX-HIF-4-5	T5 5 x 54W	1250	415	102	>85%









False Color Rendering 1

False Color Rendering 2













NFX-DR Series (PN Version)

Surface / Pendant Mounted Luminaire



Features

The NFX-DR series combines the best of surface reflectance and design to deliver direct and soft light for comfortable glare-free illumination with excellent color rendering qualities. It reflects lights off Nanoflex® Lambertian surface to minimize light loss while generating more than 80% efficiencies. This high efficient direct fluorescent luminaire series is perfect for generating lighting in offices, schools, hospitals, reception areas, meeting rooms and corridors, while meeting ASHRAE/USGBC/IESNA and Beam Plus standards and guidelines in Green Building illumination.

Optics

Recessed reflector system delivers volumetric illumination from Lambertian surfaces with 95% total reflectance. The luminaire render the interior space, objects and occupants in a soft, glare-free luminous environment with excellent light uniformity and color rendering qualities, while consuming minimal energy.

Electrical

The luminaire are designed to complement high efficient T-5 tubes with high frequency electronic ballast of power factor equal or greater than 0.95. Models for T-8 tubes, or other sizes are available upon requests.

Note:

Please refer to manufacturer's product catalogs for respective lamps and ballasts requirements.

Construction

Rugged polyester powder coated white steel housing with Nanoflex® reflective surfaces.

Available in various sizes (please refer to specification overleaf). Luminaires may be suspended individually or end-to-end continuously lined.

Accreditation

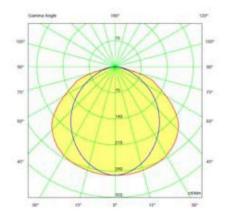
Optical Surface

- · Certified Lambertian Reflectance
- · Green Label Certified
- RoHS Compliant
- Compliant to JIS Standards for Construction Material Grade
- Compliant to British Standard 476 Part 6 and 7 for Fire Safety

Construction & Electrical Configuration

· Compliant to CCC, CE and CB Standards





NFX-DR Polar Diagram



Render / Lighting Effect

NFX-DR Series (PN Version)

Surface / Pendant Mounted Luminaire



	Light source (2)	Length (mm)	Width (mm)	Height (mm)	L.O.R.
NFX-DR-306 Series	T5 -	593		60	80% min.
NFX-DR-309 Series		886	050		
NFX-DR-312 Series		1186	253		
NFX-DR-315 Series		1486			

- (1) Custom made version available upon request.
- (2) Light source and driver based on Philips or Osram specifications.
- (3) Controls and sensor controls available.



