Havells India Limited is a leading Fast Moving Electrical Goods (FMEG) Company and a major power distribution equipment manufacturer with a strong global presence. Havells enjoys enviable market dominance across a wide spectrum of products, including Industrial & Domestic Circuit Protection Devices, Cables & Wires, Motors, Fans, Modular Switches, Home Appliances, Air Conditioners, Electric Water Heaters, Power Capacitors, CFL Lamps, Luminaires for Domestic, Commercial and Industrial Applications.

Today, Havells owns some of the most prestigious brands like Havells, Lloyd, Crabtree, Standard and Promptec. Its network constitutes of 4000 professionals, over 7575 dealers and 40 branches in the country. Our products are available in 40 countries. The company has twelve state-of-the-art manufacturing plants in India located at Haridwar, Baddi, Sahibabad, Faridabad, Assam, Alwar and Neemrana, manufacturing globally acclaimed products, synonymous with excellence and precision in the electrical industry.

The company pioneered the concept of exclusive brand showroom in the electrical industry with ‘Havells Galaxy’. Today over 415 Havells Galaxies across the country are helping customers, both domestic and commercial, to choose from a wide variety of products for different applications. Havells became the first FMEG Company to offer door step service via its initiative ‘Havells Connect’. Thanks to the quality of products and quicker service, it has minimum customer complaints and highest customer satisfaction.

Today, Havells alongwith its brands, have earned the distinction of being the preferred choice of electrical products for discerning individuals and industrial consumers both in India and abroad. Havells offers same quality products for both Indian and International markets. It is committed to keep powering the world with its state-of-the-art innovations and energy-efficient solutions. Currently over 90% of its product offerings are energy efficient and manufactured in-house.

Social and environmental responsibility has been at the forefront of Havells Operating Philosophy and as a result the company consistently contributes to socially responsible activities. For instance, the company is providing mid-day meal in government schools in Alwar district, covering more than 57000 students per day. The group company, QRG Healthcare runs a 140 bed hospital in Faridabad. In the past, the company has generously contributed to the society during various national calamities like the Bihar Flood, Tsunami and Kargil National Relief Fund, etc.

The essence of Havells’ success lies in the expertise of its fine team of professionals, strong relationships with associates and the ability to adapt quickly & efficiently, coupled with the vision to always think ahead.
Havells State of the art Luminaire Plant, Neemrana
Havells lighting plant in Neemrana is spread over 30 acres of land with over 2,00,000 square feet of working space under a single roof. The plant has been made keeping in mind the global markets of Europe, US and the Middle East. Setting new benchmarks in the industry, this Havells plant will help bridge the technological divide between Europe and India when it comes to manufacturing high-end lighting luminaries.

Japanese flexible CNC controlled steel fabrication process for the accuracy in sheet punching & bending Italian robotised box bending machines to design complex enclosure shapes without human intervention Automated powder coating paint shop to minimize wastage & fast colour change Eco-friendly zero discharge plant Parabolic rolling machine for replicating complex and accurate forms and shapes Flexible assembly line Modern laboratories

Building customer confidence by providing a wide range of quality products and service through team work
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LED TOCR H-Clean 2x2 26-27

LED CLEAN ROOM TOP OPENING

LED CLEAN ROOM BOTTOM OPENING
<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>TYPE</th>
<th>MOUNTING</th>
<th>WATTAGE</th>
<th>LED</th>
<th>Code of Colour Temp. (CCT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAYBRITESAUCER</td>
<td>HB</td>
<td>P</td>
<td>200 W</td>
<td>LED</td>
<td>757</td>
</tr>
<tr>
<td>ENDURAPEARL</td>
<td>SL</td>
<td>-</td>
<td>15 W</td>
<td>LED</td>
<td>757</td>
</tr>
<tr>
<td>VENUSNEOHE2X2PLR18-42WLED857MOD</td>
<td>PLR</td>
<td>R</td>
<td>34 W</td>
<td>LED</td>
<td>857</td>
</tr>
<tr>
<td>DRIVER</td>
<td>BEAM</td>
<td>DRIVER COMPARTMENT</td>
<td>TYPE OF DIFFUSER</td>
<td>FINISH</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>------------</td>
<td>--------------------</td>
<td>------------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>S-Standard</td>
<td>Asy-Asymmetric</td>
<td>TO-Top Opening</td>
<td>Lens</td>
<td>BLK</td>
<td></td>
</tr>
<tr>
<td>D-Dali</td>
<td>Sym-Symmetric</td>
<td>BO-Botten Opening</td>
<td>PC-Polycarbonate</td>
<td>WHT / WH</td>
<td></td>
</tr>
<tr>
<td>A-Analog</td>
<td>WB-Wide Beam</td>
<td>CG Box</td>
<td>PS-Polystyrene</td>
<td>SS</td>
<td></td>
</tr>
<tr>
<td>P-Potted Driver</td>
<td>NB-Narrow Beam</td>
<td></td>
<td>TG-Toughened glass</td>
<td>MS</td>
<td></td>
</tr>
<tr>
<td>MOD-Lamp Module</td>
<td>24D-24 Degree</td>
<td></td>
<td>PMMA</td>
<td>GRY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>38D-38 Degree</td>
<td></td>
<td>LTG-Lens Toughened glass</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>40D-40 Degree</td>
<td></td>
<td>Glass</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td>45D-45 Degree</td>
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<td></td>
<td>60D-60 Degree</td>
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<td></td>
<td>90D-90 Degree</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LED TOCR 2X2 42 W
TUNABLE WHITE

IP65, dust free & zero maintenance LED Clean Room Top Opening luminaire with Dimming option for hygenic facilities.

Features & Benefits
• Human centric should not be used as we are promoting this as tune-able CCT luminaire
• Provides improved productivity, better moods and overall happier workplaces.
• Controlled by App (Bluetooth connectivity).
• Offers unprecedented control over your interior environment.
• Offers visually comfortable environment
• Optional pre-set color temperatures or adjust to any CCT in the Productivity Range 3000 K - 5700 K
• Long life & photobiologically safe LED’s
• High performance electronic driver ensures zero maintenance
• No harmful UV & IR radiations
• Environment friendly as it does not contain Mercury
• Instant light with low running temperatures
• Operating temperature: -10° C to + 45° C
• Operating voltage range: 140 V - 270 V
• Average life L70B50: 50000 hours

Housing
CRCA powder coated white after phosphochromate treatment provided as standard.

Diffuser
High quality polycarbonate opal diffuser for glare free uniform light distribution.

Electronic driver
Powered by an Integral, Isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other Safety test as per IS:15885 Part 2/Sec 13.

Light source
High efficiency long life LED package in integral module with lumen efficacy of >140 lm/W and viewing angle of 120° to ensure better uniformity.

Mounting
Provision for recess mounting through 4nos. recessed mounting clamps.
Wiring diagram-refer installation instruction.

Note: IP 65 after proper installation
Applications

- Pharmaceutical industry
- Electronic & precision engineering facilities
- Chemical & biological labs
- Semiconductor processing
- Food & beverage industry
- Hospital & veterinary premises

Technical Data

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Luminens (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficacy lm/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOCR2X2R42 W</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>3820</td>
<td>5700 K</td>
<td>≥90</td>
</tr>
</tbody>
</table>

*at full load

Driver code: 1-10V ANALOG DIMMABLE Driver (BIS approved) : LSSCRX1795 - 2 nos

Bluetooth 1-10V Convertor 2CH required- LSSCRX2314
(to be ordered separately)


Technical Drawing

Polar Plot

Accessories - Walkable Tray For Top Opening Clean Room Fixtures

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>Compatible with</th>
<th>Size (l x w) in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSSLOW0074</td>
<td>Walkable Tray 2x2 for TOCR</td>
<td>740 x 740</td>
</tr>
</tbody>
</table>

All dimensions are in mm | Tolerance: ± 5 mm
LED CLEAN ROOM
BOTTOM OPENING 1X1

IP65, dust free & zero maintenance LED Clean Room Bottom Opening luminaire for hygienic facilities.

Note: IP65 after proper installation.

Features & Benefits
- Excellent efficacy & performance suitable for high ceiling areas
- Long life & photobiologically safe LED’s
- High performance electronic driver ensures zero maintenance
- No harmful UV & IR radiations
- Environment friendly as it does not contain Mercury
- Instant light with low running temperatures
- Operating temperature: -10° C to +45° C
- Operating voltage range: 140 V - 270 V
- Average life L70B50: 50000 hours

Housing
CRCA powder coated white after hosphochromate treatment provided as standard.

Diffuser
High quality polycarbonate opal diffuser for glare free uniform light distribution.

Light source
High efficiency long life LED package in integral module with lumen efficacy of >140 lm/W and viewing angle of 120° to ensure better uniformity.

Electronic driver
Powered by an integral, Isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other Safety test as per IS:15885 Part 2/Sec 13.

Mounting
Provision for recess mounting through 4nos. recessed mounting clamps.
TECHNICAL DATA

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Lumens (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficiency lm/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOCR1X1R18WLED857SPCMS</td>
<td>18 W</td>
<td>240</td>
<td>0.080</td>
<td>≥0.90</td>
<td>1260</td>
<td>5700 K</td>
<td>≥70</td>
</tr>
<tr>
<td>BOCR1X1R18WLED857SPCSS*</td>
<td>18 W</td>
<td>240</td>
<td>0.080</td>
<td>≥0.90</td>
<td>1260</td>
<td>5700 K</td>
<td>≥70</td>
</tr>
</tbody>
</table>

Driver code: LSSCRPX1837

*SS top frame available on request.

TECHNICAL DRAWING

POLAR PLOT

Accessories - Walkable Tray For Top Opening Clean Room Fixtures

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>Compatible with</th>
<th>Size (l x w) in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSSLOWX071</td>
<td>Walkable Tray 1x1 for TOCR</td>
<td>440 x 440</td>
</tr>
</tbody>
</table>

All dimensions are in mm | Tolerance: ± 5 mm
**LED CLEAN ROOM BOTTOM OPENING 2X2**

IP65, dust free & zero maintenance LED Clean Room Bottom Opening luminaire for hygenic facilities.

**Features & Benefits**

- Excellent efficacy & performance suitable for high ceiling areas
- Long life & photobiologically safe LED’s
- High performance electronic driver ensures zero maintenance
- No harmful UV & IR radiations
- Environment friendly as it does not contain Mercury
- Instant light with low running temperatures
- Operating temperature: -10° C to +45° C
- Operating voltage range: 140 V - 270 V
- Average life L70B50: 50000 hours

**Housing**
CRCA powder coated white after phosphochromate treatment provided as standard.

**Diffuser**
High quality polycarbonate opal diffuser for glare free uniform light distribution.

**Light source**
High efficiency long life LED package in integral module with lumen efficacy of >140 lm/W and viewing angle of 120° to ensure better uniformity.

**Electronic driver**
Powered by an integral, isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other Safety test as per IS:15885 Part 2/Sec 13.

**Mounting**
Provision for recess mounting through 4nos. recessed mounting clamps.

Note: IP65 after proper installation.
**APPLICATIONS**
- Pharmaceutical industries
- Electronic & precision engineering facilities
- Chemical & biological labs
- Semiconductor fabrication
- Food & beverage industries
- Hospital & veterinary premises

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Lumens (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficacy lm/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOCR2X2R34WLED857SPCMS</td>
<td>34 W</td>
<td>240</td>
<td>0.150</td>
<td>≥0.90</td>
<td>3200</td>
<td>5700 K</td>
<td>≥94</td>
</tr>
<tr>
<td>BOCR2X2R42WLED857SPCMS</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>3990</td>
<td>5700 K</td>
<td>≥95</td>
</tr>
<tr>
<td>BOCR2X2R60WLED857SPCMS</td>
<td>60 W</td>
<td>240</td>
<td>0.270</td>
<td>≥0.90</td>
<td>5280</td>
<td>5700 K</td>
<td>≥88</td>
</tr>
<tr>
<td>BOCR2X2R80WLED857SPCMS</td>
<td>80 W</td>
<td>240</td>
<td>0.350</td>
<td>≥0.90</td>
<td>7020</td>
<td>5700 K</td>
<td>≥87</td>
</tr>
<tr>
<td>BOCR2X2R34WLED857SPCSS*</td>
<td>34 W</td>
<td>240</td>
<td>0.150</td>
<td>≥0.90</td>
<td>3200</td>
<td>5700 K</td>
<td>≥94</td>
</tr>
<tr>
<td>BOCR2X2R42WLED857SPCSS*</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>3990</td>
<td>5700 K</td>
<td>≥95</td>
</tr>
<tr>
<td>BOCR2X2R60WLED857SPCSS*</td>
<td>60 W</td>
<td>240</td>
<td>0.270</td>
<td>≥0.90</td>
<td>5280</td>
<td>5700 K</td>
<td>≥88</td>
</tr>
<tr>
<td>BOCR2X2R80WLED857SPCSS*</td>
<td>80 W</td>
<td>240</td>
<td>0.350</td>
<td>≥0.90</td>
<td>7020</td>
<td>5700 K</td>
<td>≥87</td>
</tr>
</tbody>
</table>

Driver code: LSSCRX1789 for 34 W, LSSCRX1791 for 42 W, LSSCRX1789, LSSCRX2118 for 60 W, LSSCRX1791 for 80 W.

**TECHNICAL DRAWING**

**POLAR PLOT**

Accessories - Walkable Tray For Top Opening Clean Room Fixtures

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>Compatible with</th>
<th>Size (l x w) in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSSLOW0074</td>
<td>Walkable Tray 2x2 for TOCR</td>
<td>740 x 740</td>
</tr>
</tbody>
</table>

All dimensions are in mm | Tolerance: ± 5 mm
LED CLEAN ROOM
BOTTOM OPENING 4X1

IP65, dust free & zero maintenance
4x1 LED Clean Room Bottom Opening luminaire for hygienic facilities.

Features & Benefits
- Excellent efficacy & performance suitable for high ceiling areas
- Long life & photobiologically safe LED's
- High performance electronic driver ensures zero maintenance
- No harmful UV & IR radiations
- Environment friendly as it does not contain Mercury
- Instant light with low running temperatures
- Operating temperature: -10° C to +45° C
- Operating voltage range: 140 V - 270 V
- Average life L_{70,B_{50}}: 50000 hours

Housing
CRCA powder coated white after hosphochromate treatment provided as standard.

Diffuser
High quality polycarbonate opal diffuser for glare free uniform light distribution.

Light source
High efficiency long life LED package in integral module with lumen efficacy of >140 lm/W and viewing angle of 120° to ensure better uniformity.

Electronic driver
Powered by an integral, Isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other Safety test as per IS:15885 Part 2/Sec 13.

Mounting
Provision for recess mounting through 4nos. recessed mounting clamps.

Note: IP65 after proper installation.
### TECHNICAL DATA

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Lumens (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficacy lm/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOCR4X1R34WLED857SPCMS</td>
<td>34 W</td>
<td>240</td>
<td>0.150</td>
<td>≥0.90</td>
<td>3200</td>
<td>5700 K</td>
<td>≥94</td>
</tr>
<tr>
<td>BOCR4X1R42WLED857SPCMS</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>3600</td>
<td>5700 K</td>
<td>≥85</td>
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<tr>
<td>BOCR4X1R60WLED857SPCMS</td>
<td>60 W</td>
<td>240</td>
<td>0.270</td>
<td>≥0.90</td>
<td>5400</td>
<td>5700 K</td>
<td>≥90</td>
</tr>
<tr>
<td>BOCR4X1R80WLED857SPCMS</td>
<td>80 W</td>
<td>240</td>
<td>0.350</td>
<td>≥0.90</td>
<td>6600</td>
<td>5700 K</td>
<td>≥82</td>
</tr>
<tr>
<td>BOCR2X1R34WLED857SPCSS*</td>
<td>34 W</td>
<td>240</td>
<td>0.150</td>
<td>≥0.90</td>
<td>3200</td>
<td>5700 K</td>
<td>≥94</td>
</tr>
<tr>
<td>BOCR2X1R42WLED857SPCSS*</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>3600</td>
<td>5700 K</td>
<td>≥85</td>
</tr>
<tr>
<td>BOCR4X1R60WLED857SPCSS*</td>
<td>60 W</td>
<td>240</td>
<td>0.270</td>
<td>≥0.90</td>
<td>5400</td>
<td>5700 K</td>
<td>≥90</td>
</tr>
<tr>
<td>BOCR4X1R80WLED857SPCSS*</td>
<td>80 W</td>
<td>240</td>
<td>0.350</td>
<td>≥0.90</td>
<td>6600</td>
<td>5700 K</td>
<td>≥82</td>
</tr>
</tbody>
</table>

Driver code: LSSCRX1789 for 34 W, LSSCRX1791 for 42 W, LSSCRX1789, LSSCRX2118 for 60 W, LSSCRX1791 for 80 W.

### TECHNICAL DRAWING

![Diagram](image)

### POLAR PLOT

- **Accessories - Walkable Tray For Top Opening Clean Room Fixtures**
  - **Ordering Code**: LSSLOW0073
  - Compatible with: Walkable Tray 4x1 for TOCR
  - Size (l x w) in mm: 1340 x 440

All dimensions are in mm | Tolerance: ± 5 mm
LED CLEAN ROOM BOTTOM OPENING 2X1

IP65, dust free & zero maintenance
2x1 LED Clean Room Bottom Opening luminaire for hygenic facilities.

Features & Benefits
- Excellent efficacy & performance suitable for high ceiling areas
- Long life & photobiologically safe LED’s
- High performance electronic driver ensures zero maintenance
- No harmful UV & IR radiations
- Environment friendly as it does not contain Mercury
- Instant light with low running temperatures
- Operating temperature: -10°C to +45°C
- Operating voltage range: 140 V - 270 V
- Average life L70B50: 50000 hours

Housing
CRCA powder coated white after phosphochromate treatment provided as standard.

Diffuser
High quality polycarbonate opal diffuser for glare free uniform light distribution.

Light source
High efficiency long life LED package in integral module with lumen efficacy of >140 lm/W and viewing angle of 120° to ensure better uniformity.

Electronic driver
Powered by an integral, isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other Safety test as per IS:15885 Part 2/Sec 13.

Mounting
Provision for recess mounting through 4nos. recessed mounting clamps.

Note: IP65 after proper installation.
APPLICATIONS

- Pharmaceutical industry
- Electronic & precision engineering facilities
- Chemical & biological labs
- Semiconductor fabrication
- Food & beverage industry
- Hospital & veterinary premises

LED | 34 W / 42 W | Life 50000 hours | High Efficiency

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Luminous (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficacy lm/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOCR2X1R34WLED857SPCMS</td>
<td>34 W</td>
<td>240</td>
<td>0.160</td>
<td>≥0.90</td>
<td>2720</td>
<td>5700 K</td>
<td>≥80</td>
</tr>
<tr>
<td>BOCR2X1R42WLED857SPCMS</td>
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<td>240</td>
<td>0.180</td>
<td>≥0.90</td>
<td>3100</td>
<td>5700 K</td>
<td>≥73</td>
</tr>
<tr>
<td>BOCR2X1R34WLED857SPCSS*</td>
<td>34 W</td>
<td>240</td>
<td>0.160</td>
<td>≥0.90</td>
<td>2720</td>
<td>5700 K</td>
<td>≥80</td>
</tr>
<tr>
<td>BOCR2X1R42WLED857SPCSS*</td>
<td>42 W</td>
<td>240</td>
<td>0.180</td>
<td>≥0.90</td>
<td>3100</td>
<td>5700 K</td>
<td>≥73</td>
</tr>
</tbody>
</table>

Driver code: LSSCRX1789 for 34 W, LSSCRX1791 for 42 W.

Driver code: LSSCRX1789 for 34 W, LSSCRX1791 for 42 W.

TECHNICAL DRAWING

Cutout

POLAR PLOT

Accessories - Walkable Tray For Top Opening Clean Room Fixtures

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>Compatible with</th>
<th>Size (L x W) in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSSLOW0072</td>
<td>Walkable Tray 2x1 for TOCR</td>
<td>740 x 440</td>
</tr>
</tbody>
</table>

All dimensions are in mm | Tolerance: ± 5 mm
LED CLEAN ROOM
TOP OPENING 1X1

IP65, dust free & zero maintenance LED Clean Room Top Opening luminaire for hygenic facilities.

Features & Benefits
- Excellent efficacy & performance suitable for high ceiling areas
- Long life & photobiologically safe LED’s
- High performance electronic driver ensures zero maintenance
- No harmful UV & IR radiations
- Environment friendly as it does not contain Mercury
- Instant light with low running temperatures
- Operating temperature: -10° C to +45° C
- Operating voltage range: 140 V - 270 V
- Average life L70B50: 50000 hours

Housing
CRCA powder coated white after phosphochromate treatment provided as standard.

Diffuser
High quality polycarbonate opal diffuser for glare free uniform light distribution.

Light source
High efficiency long life LED package in integral module with lumen efficacy of >140 lm/W and viewing angle of 120° to ensure better uniformity.

Electronic driver
Powered by an Integral, Isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other Safety test as per IS:15885 Part 2/Sec 13.

Mounting
Provision for recess mounting through 2nos. recessed mounting clamps.
### APPLICATIONS
- Pharmaceutical industry
- Electronic & precision engineering facilities
- Chemical & biological labs
- Semiconductor fabrication
- Food & beverage industry
- Hospital & veterinary premises

### TECHNICAL DATA

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Luminens (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficacy lm/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOCR1X1R18WLED857SPCMS</td>
<td>18 W</td>
<td>240</td>
<td>0.080</td>
<td>≥0.90</td>
<td>1350</td>
<td>5700 K</td>
<td>≥75</td>
</tr>
</tbody>
</table>

Driver code: LSSCRX1837

### TECHNICAL DRAWING

### POLAR PLOT

#### Accessories - Walkable Tray For Top Opening Clean Room Fixtures

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>Compatible with</th>
<th>Size (l x w) in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSSLOW0071</td>
<td>Walkable Tray 1x1 for TOCR</td>
<td>440 x 440</td>
</tr>
</tbody>
</table>

All dimensions are in mm | Tolerance: ± 5 mm
LED CLEAN ROOM
TOP OPENING 2X1

IP65, dust free & zero maintenance 2x1 LED Clean Room Top Opening luminaire for hygenic facilities.

Note: IP65 after proper installation.

Features & Benefits
- Excellent efficacy & performance suitable for high ceiling areas
- Long life & photobiologically safe LED’s
- High performance electronic driver ensures zero maintenance
- No harmful UV & IR radiations
- Environment friendly as it does not contain Mercury
- Instant light with low running temperatures
- Operating temperature: -10°C to +45°C
- Operating voltage range: 140 V - 270 V
- Average life L_{70B50}: 50000 hours

Housing
CRCA powder coated white after phosphochromate treatment provided as standard.

Diffuser
High quality polycarbonate opal diffuser for glare free uniform light distribution.

Light source
High efficiency long life LED package in integral module with lumen efficacy of >140 lm/W and viewing angle of 120° to ensure better uniformity.

Electronic driver
Powered by an Integral, Isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other Safety test as per IS:15885 Part 2/Sec 13.

Mounting
Provision for recess mounting through 4nos. recessed mounting clamps.
**APPLICATIONS**
- Pharmaceutical industry
- Electronic & precision engineering facilities
- Chemical & biological labs
- Semiconductor fabrication
- Food & beverage industry
- Hospital & veterinary premises

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Luminens (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficacy lm/ W</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOCR2X1R34WLED857SPCMS</td>
<td>34 W</td>
<td>240</td>
<td>0.160</td>
<td>≥0.90</td>
<td>2822</td>
<td>5700 K</td>
<td>≥83</td>
</tr>
<tr>
<td>TOCR2X1R42WLED857SPCMS</td>
<td>42 W</td>
<td>240</td>
<td>0.180</td>
<td>≥0.90</td>
<td>3300</td>
<td>5700 K</td>
<td>≥78</td>
</tr>
<tr>
<td>TOCR2X1R34WLED857SPCSS</td>
<td>34 W</td>
<td>240</td>
<td>0.160</td>
<td>≥0.90</td>
<td>2822</td>
<td>5700 K</td>
<td>≥83</td>
</tr>
<tr>
<td>TOCR2X1R42WLED857SPCSS</td>
<td>42 W</td>
<td>240</td>
<td>0.180</td>
<td>≥0.90</td>
<td>3300</td>
<td>5700 K</td>
<td>≥78</td>
</tr>
</tbody>
</table>

Driver code: LSSCRX1789 for 34 W, LSSCRX1791 for 42 W.

**TECHNICAL DRAWING**

**POLAR PLOT**

**ACCESSORIES**
- Walkable Tray For Top Opening Clean Room Fixtures

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>Compatible with</th>
<th>Size (l x w) in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSSLOW0072</td>
<td>Walkable Tray 2x1 for TOCR</td>
<td>740 x 440</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

<table>
<thead>
<tr>
<th>System Power</th>
<th>Length (mm)</th>
<th>Width (mm)</th>
<th>Height (mm)</th>
<th>Cutout Size (in mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 W</td>
<td>640</td>
<td>340</td>
<td>125</td>
<td>600 x 300</td>
</tr>
<tr>
<td>42 W</td>
<td>640</td>
<td>340</td>
<td>125</td>
<td>600 x 300</td>
</tr>
</tbody>
</table>

All dimensions are in mm | Tolerance: ± 5 mm
LED CLEAN ROOM
TOP OPENING 2X2

IP65, dust free & zero maintenance LED Clean Room Top Opening luminaire for hygenic facilities.

Features & Benefits
- Excellent efficacy & performance suitable for high ceiling areas
- Long life & photobiologically safe LED’s
- High performance electronic driver ensures zero maintenance
- No harmful UV & IR radiations
- Environment friendly as it does not contain Mercury
- Instant light with low running temperatures
- Operating temperature: -10°C to +45°C
- Operating voltage range: 140 V - 270 V
- Average life L70B50: 50000 hours

Housing
CRCA powder coated white after phosphochromate treatment provided as standard.

Diffuser
High quality polycarbonate opal diffuser for glare free uniform light distribution.

Light source
High efficiency long life LED package in integral module with lumen efficacy of >140 lm/W and viewing angle of 120° to ensure better uniformity.

Electronic driver
Powered by an independent, isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other Safety test as per IS:15885 Part 2/Sec 13.

Mounting
Provision for recess mounting through 4nos. recessed mounting clamps.

Note: IP65 after proper installation.
### TECHNICAL DATA

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Luminens (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficacy lm/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOCR2X2R34WLED857SPCMS</td>
<td>34 W</td>
<td>240</td>
<td>0.150</td>
<td>≥0.90</td>
<td>3400</td>
<td>5700 K</td>
<td>≥100</td>
</tr>
<tr>
<td>TOCR2X2R42WLED857SPCMS</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>3990</td>
<td>5700 K</td>
<td>≥95</td>
</tr>
<tr>
<td>TOCR2X2R42WLED857SPCMS</td>
<td>60 W</td>
<td>240</td>
<td>0.270</td>
<td>≥0.90</td>
<td>5880</td>
<td>5700 K</td>
<td>≥98</td>
</tr>
<tr>
<td>TOCR2X2R80WLED857SPCMS</td>
<td>80 W</td>
<td>240</td>
<td>0.350</td>
<td>≥0.90</td>
<td>7200</td>
<td>5700 K</td>
<td>≥90</td>
</tr>
<tr>
<td>TOCR2X2R34WLED857SPCSS</td>
<td>34 W</td>
<td>240</td>
<td>0.150</td>
<td>≥0.90</td>
<td>3400</td>
<td>5700 K</td>
<td>≥100</td>
</tr>
<tr>
<td>TOCR2X2R42WLED857SPCSS</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>3990</td>
<td>5700 K</td>
<td>≥95</td>
</tr>
<tr>
<td>TOCR2X2R60WLED857SPCSS</td>
<td>60 W</td>
<td>240</td>
<td>0.270</td>
<td>≥0.90</td>
<td>5880</td>
<td>5700 K</td>
<td>≥98</td>
</tr>
<tr>
<td>TOCR2X2R80WLED857SPCSS</td>
<td>80 W</td>
<td>240</td>
<td>0.350</td>
<td>≥0.90</td>
<td>7200</td>
<td>5700 K</td>
<td>≥90</td>
</tr>
</tbody>
</table>

Driver code: LSSCRX1789 for 34 W, LSSCRX1791 for 42 W, CELDOX0231 for 60 W, LSSCRX1791 for 80 W.

### APPLICATIONS
- Pharmaceutical industry
- Electronic & precision engineering facilities
- Chemical & biological labs
- Semiconductor fabrication
- Food & beverage industry
- Hospital & veterinary premises

### TECHNICAL DRAWING

![Technical Drawing](image)

### POLAR PLOT

![Polar Plot](image)

### Accessories - Walkable Tray For Top Opening Clean Room Fixtures

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>Compatible with</th>
<th>Size (L x W) in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSSLOW0074</td>
<td>Walkable Tray 2x2 for TOCR</td>
<td>740 x 740</td>
</tr>
</tbody>
</table>

All dimensions are in mm | Tolerance: ±5 mm
LED CLEAN ROOM
TOP OPENING 4X1

IP65, dust-free & zero maintenance LED Clean Room Top Opening luminaires for hygenic facilities.

Features & Benefits
- Excellent efficacy & performance suitable for high ceiling areas
- Long life & photobiologically safe LED’s
- High performance electronic driver ensures zero maintenance
- No harmful UV & IR radiations
- Environment friendly as it does not contain Mercury
- Instant light with low running temperatures
- Operating temperature: -10° C to +45° C
- Operating voltage range: 140 V - 270 V
- Average life L₇₀B₅₀: 50000 hours

Housing
CRCA powder coated white after phosphochromate treatment provided as standard.

Diffuser
High quality polycarbonate opal diffuser for glare free uniform light distribution.

Light source
High efficiency long life LED package in integral module with lumen efficacy of >140 lm/W and viewing angle of 120° to ensure better uniformity.

Electronic driver
Powered by an independent, isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other Safety test as per IS:15885 Part 2/Sec 13.

Mounting
Provision for recess mounting through 4nos. recessed mounting clamps.

Note: IP65 after proper installation.
**APPLICATIONS**
- Pharmaceutical industry
- Electronic & precision engineering facilities
- Chemical & biological labs
- Semiconductor fabrication
- Food & beverage industry
- Hospital & veterinary premises

### TECHNICAL DATA

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Luminens (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficacy lm/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOCR4X1R34WLED857PCMS</td>
<td>34 W</td>
<td>240</td>
<td>0.150</td>
<td>≥0.90</td>
<td>3200</td>
<td>5700 K</td>
<td>≥94</td>
</tr>
<tr>
<td>TOCR4X1R42WLED857PCMS</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>3600</td>
<td>5700 K</td>
<td>≥85</td>
</tr>
<tr>
<td>TOCR4X1R60WLED857PCMS</td>
<td>60 W</td>
<td>240</td>
<td>0.270</td>
<td>≥0.90</td>
<td>5400</td>
<td>5700 K</td>
<td>≥90</td>
</tr>
<tr>
<td>TOCR4X1R80WLED857PCMS</td>
<td>80 W</td>
<td>240</td>
<td>0.350</td>
<td>≥0.90</td>
<td>6600</td>
<td>5700 K</td>
<td>≥82</td>
</tr>
<tr>
<td>TOCR4X1R34WLED857PCSS</td>
<td>34 W</td>
<td>240</td>
<td>0.150</td>
<td>≥0.90</td>
<td>3200</td>
<td>5700 K</td>
<td>≥94</td>
</tr>
<tr>
<td>TOCR4X1R42WLED857PCSS</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>3600</td>
<td>5700 K</td>
<td>≥85</td>
</tr>
<tr>
<td>TOCR4X1R60WLED857PCSS</td>
<td>60 W</td>
<td>240</td>
<td>0.270</td>
<td>≥0.90</td>
<td>5400</td>
<td>5700 K</td>
<td>≥90</td>
</tr>
<tr>
<td>TOCR4X1R80WLED857PCSS</td>
<td>80 W</td>
<td>240</td>
<td>0.350</td>
<td>≥0.90</td>
<td>6600</td>
<td>5700 K</td>
<td>≥82</td>
</tr>
</tbody>
</table>

Driver code: LSSCRX1789 for 34 W, LSSCRX1791 for 42 W, CELDOX0231 for 60 W, LSSCRX1791 for 80 W.

### TECHNICAL DRAWING

![Technical Drawing]

### POLAR PLOT

![Polar Plot]

### Accessories - Walkable Tray For Top Opening Clean Room Fixtures

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>Compatible with</th>
<th>Size (l x w) in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSSLOW0703</td>
<td>Walkable Tray 4x1 for TOCR</td>
<td>1340 x 440</td>
</tr>
</tbody>
</table>

All dimensions are in mm | Tolerance: ± 5 mm
LED TOCR H-CLEAN 2X2
(With Separate Diffuser)

IP65, dust free & zero maintenance 2x2 LED H-Clean Room Top Opening luminaire for hygenic facilities.

Features & Benefits
- Excellent efficacy & performance suitable for high ceiling areas
- Long life & photobiologically safe LED's
- High performance electronic driver ensures zero maintenance
- No harmful UV & IR radiations
- Environment friendly as it does not contain Mercury
- Instant light with low running temperatures
- Operating temperature: -10°C to +45°C
- Operating voltage range: 140 V - 270 V
- Average life L70:B50: 50000 hours

Housing
CRCA powder coated white after phosphochromate treatment provided as standard.

Diffuser
High quality polycarbonate opal diffuser for glare free uniform light distribution.

Light source
High efficiency long life LED package in integral module with lumen efficacy of >140 lm/W and viewing angle of 120° to ensure better uniformity.

Electronic driver
Powered by an independent, isolated, SELV Output electronic LED driver (SMPS based constant current supply) with Output Short-circuit protection, Surge protection & other Safety test as per IS:15885 Part 2/Sec 13.

Mounting
Provision for recess mounting through screws.

Note: IP65 after proper installation.
**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Luminens (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficacy lm/ W</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOCRW/OFRAME2X2R42WCBLED857SPCMS</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>4200</td>
<td>5700 K</td>
<td>≥95</td>
</tr>
<tr>
<td>TOCRW/OFRAME2X2R60WCBLED857SPCMS</td>
<td>60 W</td>
<td>240</td>
<td>0.270</td>
<td>≥0.90</td>
<td>6000</td>
<td>5700 K</td>
<td>≥98</td>
</tr>
</tbody>
</table>

Driver code: LSSCRX1791 for 42 W, LSSCRX2118+LSSCRX1789 for 60 W.

**APPLICATIONS**
- Pharmaceutical industry
- Electronic & precision engineering facilities
- Chemical & biological labs
- Semiconductor fabrication
- Food & beverage industry
- Hospital & veterinary premises

**TECHNICAL DRAWING**

**POLAR PLOT**

**Accessories - Walkable Tray For Top Opening Clean Room Fixtures**

- **Ordering Code**: LSSLOW0074
- **Compatible with**: TOCRW
- **Size (l x w) in mm**: 740 x 740

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>Compatible with</th>
<th>Size (l x w) in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSSLOW0074</td>
<td>TOCRW</td>
<td>740 x 740</td>
</tr>
</tbody>
</table>

All dimensions are in mm | Tolerance: ± 5 mm
LED CLEAN ROOM
BOTTOM OPENING SCREW LESS

IP65, dust free & zero maintenance LED
Clean Room Bottom Opening luminaire for
hygienic facilities.

Features & Benefits
- Excellent efficacy & performance suitable
  for high ceiling areas
- Long life & photobiologically safe LED's
- High performance electronic driver
  ensures zero maintenance
- No harmful UV & IR radiations
- Environment friendly as it does not
  contain Mercury
- Instant light with low running
  temperatures
- Operating temperature: -10°C to +45°C
- Operating voltage range: 140 V - 270 V
- Average life L70B50: 50000 hours

Housing
CRCA powder coated white after
phosphochromate treatment provided
as standard. Aesthetically designed
Screwless Bottom frame.

Diffuser
High quality polycarbonate opal diffuser for
glare free uniform light distribution.

Light source
High efficiency long life LED package in
integral module with lumen efficacy of
>140 lm/W and viewing angle of 120°
to ensure better uniformity.

Electronic driver
Powered by an integral, Isolated, SELV Output
electronic LED driver (SMPS based constant
current supply) with Output Short-circuit
protection, Surge protection & other Safety
test as per IS:15885 Part 2/Sec 13.

Mounting
Provision for recess mounting through
4nos. recessed mounting clamps.

Note: IP65 after proper installation.
**APPLICATIONS**

- Pharmaceutical industries
- Electronic & precision engineering facilities
- Chemical & biological labs
- Semiconductor fabrication
- Food & beverage industries
- Hospital & veterinary premises

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**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Ordering Code</th>
<th>System Power (W)</th>
<th>Nominal Voltage (V)</th>
<th>Mains Current (A)</th>
<th>Power Factor</th>
<th>System Lumens (lm)</th>
<th>Colour Temp. (CCT)</th>
<th>System Luminous Efficacy lm/W</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOCR2X2R34Wuled857SPCMSSL</td>
<td>34 W</td>
<td>240</td>
<td>0.150</td>
<td>≥0.90</td>
<td>3200</td>
<td>5700 K</td>
<td>≥94</td>
</tr>
<tr>
<td>BOCR2X2R42Wuled857SPCMSSL</td>
<td>42 W</td>
<td>240</td>
<td>0.185</td>
<td>≥0.90</td>
<td>3990</td>
<td>5700 K</td>
<td>≥95</td>
</tr>
<tr>
<td>BOCR2X2R60Wuled857SPCMSSL</td>
<td>60 W</td>
<td>240</td>
<td>0.270</td>
<td>≥0.90</td>
<td>5280</td>
<td>5700 K</td>
<td>≥88</td>
</tr>
<tr>
<td>BOCR2X2R80Wuled857SPCMSSL</td>
<td>80 W</td>
<td>240</td>
<td>0.350</td>
<td>≥0.90</td>
<td>7020</td>
<td>5700 K</td>
<td>≥87</td>
</tr>
</tbody>
</table>

Driver code: LSSCRX1789 for 34 W, LSSCRX1791 for 42 W, LSSCRX1789, LSSCRX2118 for 60 W, LSSCRX1791 for 80 W.

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**TECHNICAL DRAWING**

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**TECHNICAL DRAWING FOR 18 W**

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**POLAR PLOT**

All dimensions are in mm | Tolerance: ± 5 mm
Havells India Ltd.

REPRESENTATIVE OFFICES:


WEST - REGIONAL OFFICE: Mumbai: 1271, Solitaire Corporate Park, Bldg. No. 12, 7th Floor, Andheri - Ghatkopar Link Road, Chakala, Andheri (East), Mumbai-400093, Ph.: 022 - 67298600-602, Ahmedabad: Tel: 079-4006111, 4006738-740, Indore: Tel: 0731-2572340-41, 4009998 (Airtel), Rajkot: Tel: 0281-2481112, 2921212, Nagpur: 0712-240932, 2242692, 2242699 Pune: Tel: 020-64016413 / 14, Raipur: Tel: 0771-4243400 / 01, Surat: Tel: 0261-2350137, 9979890137, Jabalpur: 0761-4064491


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QRG Towers, 2D, Sector -126, Expressway, Noida - 201 304 (UP), Ph. +91-120-3331000, E-mail: marketing@havells.com, www.havells.com

Consumer Care No.: 1800 11 0303, 1800 103 1313 (All Connections), 011-4166 0303 (Landline)

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CIN - L31900DL1983PLC016304.