

# SDI | RADII XPERT

PROFESSIONAL LED CURING LIGHT

## SMARTER DESIGN. OPTIMAL CURE EVERY TIME.

- Deep cure collimated LED
- 360° rotating head
- Smart interface
- Full power at low battery
- Easy recharge dock



**WITH MULTIWAVE**  
For extra broad spectrum curing



TARGET ASSIST  
PRECISION CURING



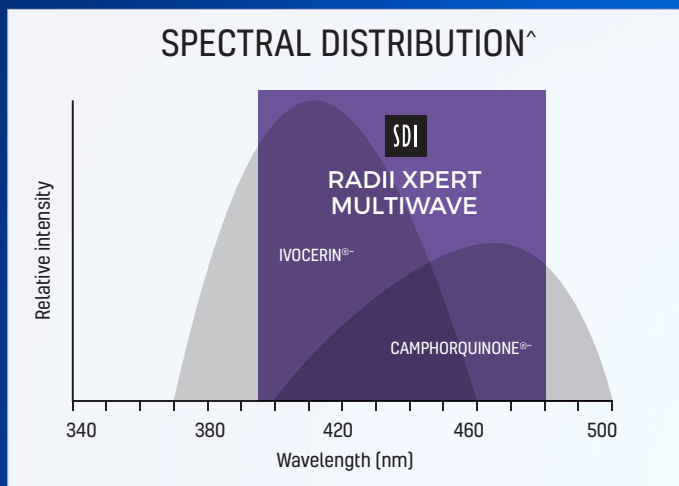
COLLIMATED  
LIGHT



SMART TECHNOLOGY  
FOR EASE OF USE



ERGONOMICALLY  
WELL-BALANCED GRIP



~ Not registered trademarks of SDI Ltd.

<sup>^</sup> Timothy S. Menees et al, (2015), 'Depth of cure of bulk fill composites with monowave and polywave curing lights', American Journal of Dentistry, 28(6): 357-361



# SMARTER DESIGN. OPTIMAL CURE EVERY TIME.



## BROAD SPECTRUM MULTIWAVE TIP

The Radii Xpert Multiwave LED attachment provides a wavelength range of 395 - 480 nm, making it suitable for polymerizing a variety of restorative materials. The wavelength range of the Multiwave LED attachment covers the absorbance spectrum of composites containing camphorquinone in combination with phenyl-propanedione (PPD), acyl phosphine oxide (e.g. Lucirin TPO®) or Ivocerin®



## OPTIMALLY COLLIMATED BEAM

Radii Xpert is the ideal choice for restorations of all sizes, including bulk fill restorations that require a deep cure. The collimated beam ensures light intensity is maintained on the restoration being cured. Achieve a predictable cure, every time with Radii Xpert.



## SMART TECHNOLOGY FOR EASE OF USE

Smart technology improves the efficiency of your dental appointment. An LCD display with countdown timer eliminates estimation and provides accuracy during a curing cycle. Radii Xpert gives you the ability to save your favourite setting and the multi-coloured status rings offer a visual representation when you need to charge or when curing is in progress.



## ERGONOMICALLY WELL-BALANCED GRIP

Radii Xpert's ergonomic design allows you to comfortably access all restoration sites. The 360-degree rotatable head enables restorations in all quadrants to be accessed easily. Radii Xpert has a well-balanced slimline design and can be held in a pencil or pistol grip, minimising hand and arm fatigue.



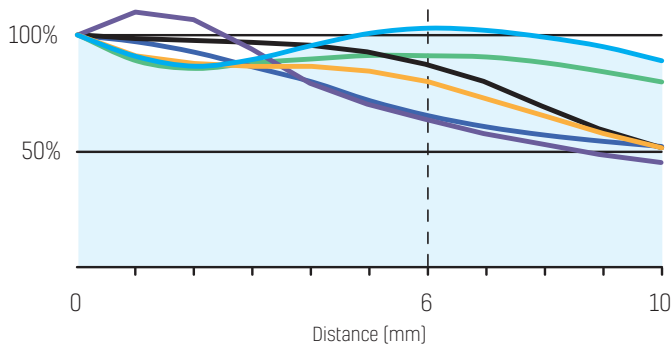
# PROFESSIONAL LED CURING LIGHT

## CONSISTENT LIGHT INTENSITY

Radii Xpert performs better as light intensity remains consistent across clinically relevant distances. This consistent intensity allows light to penetrate the restorations underlying layer with a small decrease in intensity, ensuring complete photoactivation in all restoration.



**LIGHT COMPARISON**  
Intensity % over distance



● RADII XPERT  
● DENTSPLY SIRONA Smartlite® Focus<sup>-</sup>  
● IVOCLAR VIVADENT Bluephase® Style<sup>-</sup>  
● ULTRADENT Valo® Grand [Standard]<sup>-</sup>  
● 3M ESPE Elipar™ DeepCure-S<sup>-</sup>  
● ULTRADENT VALO® Cordless [Standard]<sup>-</sup>

Independently tested by Tufts University School of Dental Medicine, Boston, USA, 2017  
Results normalised to 100% at 0 mm  
Tested on a BlueLight Analytics® Inc. MARC® light collector with 4-mm aperture  
~ These are not registered trademarks of SDI Ltd

## BASE WITH INTENSITY INDICATOR

Radii Xpert's built-in intensity indicator allows light intensity to be monitored easily, without the need to purchase an additional hand held meter to assess relative change in output. Routine evaluation of a curing light is important for optimal operation.

## ENHANCED HEAT MANAGEMENT

Restorations can be cured safely with Radii Xpert. Heat sink technology is incorporated to reduce the amount of heat emission. Enhanced heat management prevents damage to pulp tissue that can be caused by excess heat.

You can conveniently cure multiple restorations without the risk of overheating the unit. The absence of excess heat also helps to maintain the life of the LED.

## HEAT SINK TECHNOLOGY

Multiple restorations can be cured safely due to the heat absorption properties of heat sink. Heat sink technology directs heat away from the LED, without the need for a cooling fan.

## PULSE TECHNOLOGY

Radii Xpert uses a combination of pulse technology and steady current to further reduce heat emitted onto the tooth. With multiple pulses per second, light output is maintained on the restoration being cured, without the risk of overheating.

## INTERCHANGEABLE ATTACHMENTS

Radii Xpert offers versatility with the availability of standard full arch bleaching, diagnostic and orthodontic attachments that snap in with ease.

## SLIMLINE DESIGN

Radii Xpert's slimline design enables easy access to the posterior region of the mouth. This is particularly beneficial when treating children.

## EASY TO CLEAN

Radii Xpert has smooth surfaces and comes with a perfectly fitted barrier sleeve to prevent cross-contamination.

## DURABLE

Radii Xpert is constructed with high strength polymer for durability.

## CORDLESS

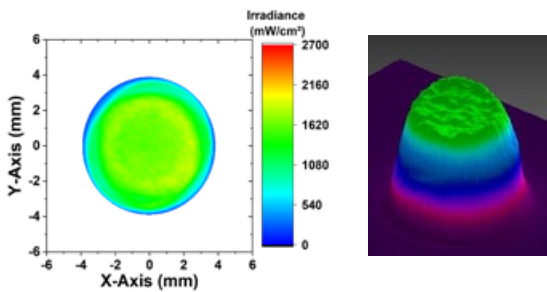
Radii Xpert is a cordless unit allowing complete freedom of movement.

# TECHNICAL REPORT - RADII XPERT

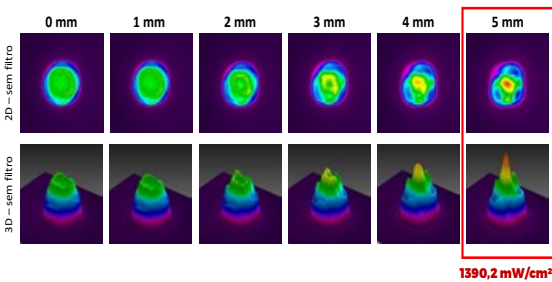
## CONSISTENT LIGHT BEAM PROFILE

The active tip of the Radii Xpert has a homogeneous distribution of the light beam profile. This feature guarantees well-distributed irradiance throughout the restoration region.

This is enough to adequately activate composite resins and resin cements. Radii Xpert is perfect for deep cavities, as the irradiance remains high even at a depth of 5 mm, delivering up to 1,390 mW/cm<sup>2</sup>.



## DISTANCE [MM]



Even if the tip of the Radii Xpert is moved up to 5 mm from the surface, the device emits adequate light intensity.

Prof. Carlos José Soares et al., Faculty of Dentistry, Federal University of Uberlândia 2023.

» A good LED light is of vital importance for use in your office! It needs to have good collimation, irradiance among other attributes. In SDI's Radii Xpert, you will find all attributes that a good LED light needs have, to make your daily practice easier! «

Dr Joshua Austin, DDS, MAGD. Dental Economics - United States - November 2020

» Your curing light is vitally important to your dentistry and your practice. You need several things in a curing light. The Radii Xpert by SDI has all of those things. It gives you functionality and flexibility for everyday use. «

Dr Joshua Austin, DDS, MAGD. Dental Economics - United States - November 2020

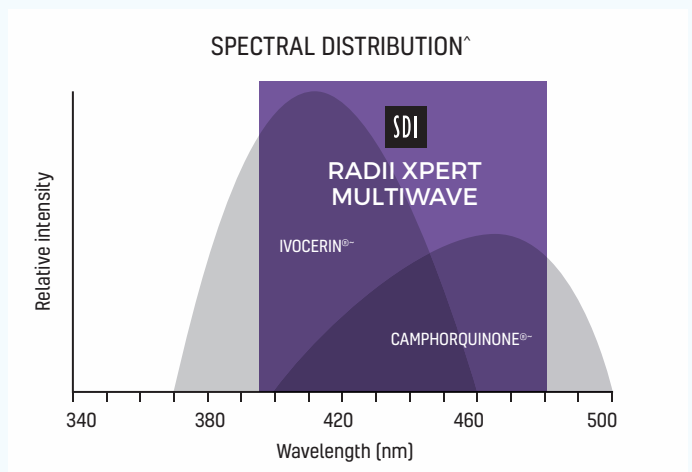
» Radii Xpert's broad spectrum of light allows photoactivation of diverse materials such as composite resins, adhesives, cements, among others that have different photoinitiators. «

Prof. Carlos José Soares et al., Faculty of Dentistry, Federal University of Uberlândia 2023

## EMISSION SPECTRUM

Radii Xpert Multiwave will cure all commercially available composites. The peak light intensity of 1,390 mW/cm<sup>2</sup> over a 4mm aperture covers a wavelength range between 395 - 480 nm. Radii Xpert Multiwave covers the absorbance spectrum of composites containing camphorquinone in combination with phenyl-propadione (PPD), acyl phosphine oxide [e.g. Lucerin TPO®~] or Ivocerin®

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# KEY FEATURES

## 360° ROTATABLE HEAD

Radii Xpert's 360-degree rotatable head enables restorations in all quadrants to be accessed with ease.

## 185g LIGHT WEIGHT

Weighing 185g, Radii Xpert is lightweight and minimises hand and arm fatigue.

## 2.5 HOUR RUNTIME

Achieve 900 x 10 second cures with Radii Xpert before the need to recharge. This equates to a convenient 2-hour 30 minute runtime.



Unique target assist for precision curing

Optimally collimated beam

Consistent light intensity

Smart technology for ease of use

Ergonomically well-balanced grip

Cures all composites

Consistent beam profile

Enhanced heat management

Base with intensity indicator

The Radii Xpert has received the ratings below for purchase recommendation.

**Presentation/ergonomics** ★★★★★

**Easy to use** ★★★★★

**Innovation** ★★★★★

**Efficiency** ★★★★★

**Purchase recommendation:**



Source: id Information-Dentaire n° 40 - 22 novembre 2023



# LED ATTACHMENTS AVAILABLE

## MULTIWAVE

**WAVELENGTH:** 395 - 480 nm

**PEAK WAVELENGTH:** 405 nm and 460 nm

**LIGHT INTENSITY:** 1400 mW/cm<sup>2</sup> (peak)

**DURATION OF CONTINUOUS USE:** 20 seconds

**TIME TO CHARGE FLAT BATTERY:** 3 - 5 hours

**TIME TO CHARGE BATTERY (GENERAL USE):** 60 - 180 minutes

**BATTERY:** 1 x 3.7 V 2600 mAh

**MULTI-REGION PLUG PACK:** AC input: 100 - 240 V ~ 0.8A, 50 - 60 Hz DC output: 12V 1.66A, 20.0W MAX Dimensions: 34mm (H) x 41mm (W) x 62.5 (L) Weight: 104g

**OPERATING TEMPERATURE:** 10°C - 40°C / 50°F - 104°F

**WEIGHT:** 185 g / 6.5 ounces

**TOTAL HEIGHT WITH HANDPIECE:** 290 mm





Radii Xpert LED curing light has a 3 year warranty.

Battery has a 2 year warranty.

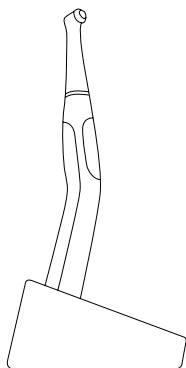
\*The irradiance as measured using a 4-mm diameter sensor that is centred.



## LED ATTACHMENTS

LED ATTACHMENT TYPE	INDICATIONS	PROGRAM	COLOUR
 <p>Standard LED attachment ø 7mm</p>	Light curing at contra angle similar to a hand piece	<ul style="list-style-type: none"> <li>• Run time: 2, 10, 20 seconds as selected</li> <li>• Beeps at completion</li> </ul>	Blue light (440 nm - 480 nm)
 <p>Diagnostic LED attachment ø 7mm</p>	Detection of cracks, fractures, calculus, decay, caries, root canal openings, non-vital teeth, leaking restorations and root tips	<ul style="list-style-type: none"> <li>• Run time: 5 minutes</li> <li>• Low, medium or high intensity selections available</li> <li>• Beeps at completion</li> </ul>	White light (440 nm - 480 nm)
 <p>Orthodontic LED attachment ø 7mm</p>	Light curing specifically for orthodontic use	<ul style="list-style-type: none"> <li>• Run time: 5 minutes or 10 seconds as selected</li> <li>• Beeps at completion</li> </ul>	Blue light (440 nm - 480 nm)
 <p>Full arch bleaching LED attachment</p>	<ul style="list-style-type: none"> <li>• In-office whitening of upper and lower arch</li> <li>• Vital and non-vital whitening procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Run time: 8, 10, 15 minutes as selected</li> <li>• Beeps at half-way point for each selection and at completion</li> </ul>	Blue light (440 nm - 480 nm)

# ORDER DETAILS



## RADII XPERT LED CURING LIGHT

<b>Radii Xpert LED curing light</b>	<b>5600312</b>
- 1 x Multiwave LED attachment	
- 1 x Radii Xpert handpiece	
- 1 x charger	
- 1 x multi-region plug pack	
- 5 x small light shields	
- 1 x large light shield	
- 3 x spare lens caps	
- 100 x barrier sleeves	

## LED ATTACHMENTS

<b>Radii Xpert standard LED attachment</b>	<b>5600301</b>
<b>Radii Xpert full arch bleaching LED attachment</b>	<b>5600308</b>
- 1 x full arch bleaching LED attachment	
- 2 x light shields	
- 50 x barrier sleeves	
<b>Radii Xpert diagnostic LED attachment</b>	<b>5600306</b>
<b>Radii Xpert orthodontic LED attachment</b>	<b>5600307</b>
<b>Radii Xpert multiwave LED attachment</b>	<b>5600311</b>

## ACCESSORIES AND REPLACEMENT PARTS

<b>Radii Xpert replacement lens caps</b> (5 pack)	<b>5600310</b>
<b>Radii Xpert barrier sleeves</b> (1000 pack)	<b>5600309</b>
<b>Radii Xpert small light shield</b> (5 pack)	<b>5600056</b>
<b>Radii Xpert large light shield</b>	<b>5600089</b>
<b>Radii Xpert replacement battery pack</b>	<b>5600305</b>
<b>Radii Xpert charger + plug pack</b>	<b>5600304</b>
<b>Bleach stand</b>	<b>5600095</b>
<b>Full arch bleaching LED attachment barrier sleeves</b> (50 pack)	<b>5600093</b>
<b>Full arch bleaching LED attachment light shields</b> (5 pack)	<b>5600094</b>
<b>Diagnostic adapter tip</b>	<b>5600078</b>
<b>Tacking tip set (1 mm and 2 mm openings)</b>	<b>5600079</b>



YOUR SMILE. OUR VISION.



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