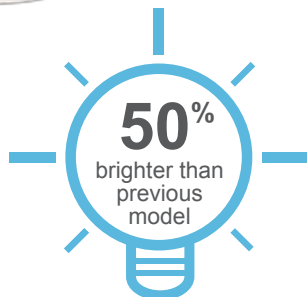


Q-RAY™

Not all LED bulbs are created equal



DownLED

(Recess Downlight)

Product Description

The Q-RAY™ DownLED is developed to replace the conventional lights system (Fixtures + Ballast + Bulb). It saves energy and conserves the environment by reducing carbon footprint. It operates on Universal AC input supply and adopts an easy 'plug-and-play' model, which makes it a perfect choice for those who opt for aesthetics and functionality.

Applications

Superior choice for residential and low ceiling commercial complexes for general illuminations. Suitable for indoor and semi outdoor installations.

Design Concept

Q-RAY™ DownLED offers good color rendering for better visibility and comfort lighting. It offers exact dimensions for retrofitting to existing fixtures. As usual, Q-RAY™ line of products ensures long term reliability and durability. Energy conservation and comfort lighting are Q-RAY™'s design guiding principles.

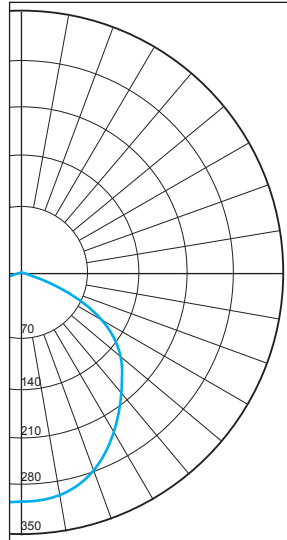
Up to
80%
Energy Saving
Long lasting, No mercury, No UV.
Environmental Friendly

Q-RAY™ DLE Photometric Data (base on LM79 test method)

Digital Lighting Inc - 6" LED Downlight Luminaire
with Frosted Glass (QDL06-RWW-65RSVE)
Luminaire Lumen Output - 793 lm
Lamp Operating at 230 VAC And 13.4W CCT - 6500K Nominal

Intensity (Candlepower) Summary

Angle	Mean CP	Lumens
0	313	
5	313	7
10	308	22
15	299	36
20	287	48
25	272	59
30	254	67
35	233	71
40	210	74
45	186	73
50	161	70
55	136	65
60	111	57
65	88	48
70	65	38
75	43	28
80	24	18
85	8	9
90	1	3



Zonal Lumens And Percentages

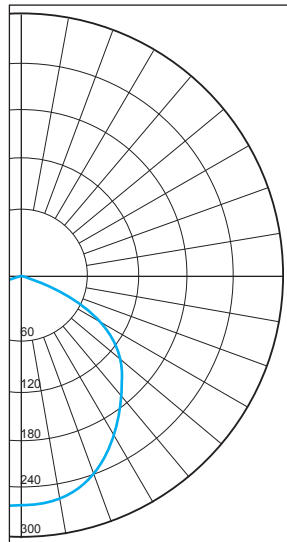
Zone	Lumens	%Lamp	%Luminaire
0-30	239	30.1	30.1
0-40	384	48.4	48.4
0-60	649	81.8	81.8
0-90	793	100	100

**** Efficacy: 59.2 Lumens/watt ****

Digital Lighting Inc - 4" LED Downlight Luminaire
with Frosted Glass (QDL04-RWW-65RSVE)
Luminaire Lumen Output - 625 lm
Lamp Operating at 230 VAC and 11.6W CCT - 6500K Nominal

Intensity (Candlepower) Summary

Angle	Mean CP	Lumens
0	249	
5	248	6
10	245	18
15	238	29
20	228	38
25	216	47
30	201	53
35	184	57
40	166	58
45	146	58
50	126	55
55	106	50
60	87	44
65	68	37
70	50	30
75	34	22
80	19	14
85	7	7
90	1	2



Zonal Lumens And Percentages

Zone	Lumens	%Lamp	%Luminaire
0-30	191	30.5	30.5
0-40	306	49.0	49.0
0-60	513	82.1	82.1
0-90	625	100	100

**** Efficacy: 53.9 Lumens/watt ****

Application Requirements

Using Q-RAY™ DownLED is simple. For new installation, the method is similar to conventional downlight. For retrofitting, it is a 'plug and play' conversion.

We recommend a ceiling height of between 8 to 12 feet to unleash the full potential of DownLED.

Q-RAY™ DownLED 4" is designed to replace an approximate 60W bulb (up to 28W PLC) whilst the 6" version replaces the 75W (or up to 36W PLC). With 11.5W and 13.5W respectively.

Light Emitting Diodes

Only Lighting Class LEDs suitable for General Illumination are used.

Body Material & Constructions

The advance thermal management system design ensures 50,000 hours of operating life without color shift is achievable.

Optical Properties

Q-RAY™ products are designed with wide angle so that the lumens (luminance) are directed to a wider area to enhance general illumination.

Technical Specifications

Input Voltage	120 to 265 VAC
Power Factor	0.90
Typical Power	4" (11.5 W) 6" (13.5 W)
Illumination Angle	Wide Flood (110°)
Recommended Installation Height	8 to 12 feet Ceiling
CCT*	Warm White 3000K Neutral White 4500K Cool White 6500K
CRI (Minimum)	82 for Warm & Neutral, 72 for Cool Daylight

*Note: * Color Temperature Referenced to ANSI C78.377-2008 specifications.*

Typical Reading	4"	6"
Light Output (lm)	600	800
Power (W)	11.5	13.5
System Efficacy (lpw)	52	59
Color Accuracy	82	82
Light Color (K)	3000 (Warm)/ 4500 (Neutral)/ 6500 (Cool)	

Benefits of Q-RAY™ DownLED

- No UV light or heat generated through the light beam to protect valuables on display
- Cool Beam, which is especially important during summer time
- Lower power consumption to minimize carbon emission
- Durable & long lasting up to 50,000 hours or more
- No reflector required. Light loss is minimal with long lumens maintenance hours
- Capable of dimming down to 20% via selected conventional dimmers
- No mercury content

Ordering Information

Part Number

QDL04-RWW-30RSVE Q-RAY™ DownLED 4", Warm White

QDL04-RWW-45RSVE Q-RAY™ DownLED 4", Neutral White

QDL04-RWW-65RSVE Q-RAY™ DownLED 4", Cool White

QDL06-RWW-30RSVE Q-RAY™ DownLED 6", Warm White

QDL06-RWW-45RSVE Q-RAY™ DownLED 6", Neutral White

QDL06-RWW-65RSVE Q-RAY™ DownLED 6", Cool White

Note: While every effort has been made to ensure that the information contained herein is correct at the time of publication, specifications may change without prior notice.