

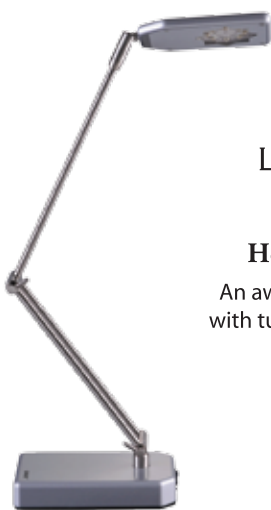
Q-RAY™

Not all LED bulbs are created equal



World's 1st

LED Desk Lamp qualified
by ENERGY STAR!



LIGHTING
for
tomorrow
2008

Honorable Mention

An award winning desk lamp
with tunable white light feature



Warm Cool

MP-400 LED Desk Lamp

Product Description

The environmentally friendly Q-RAY™ MP-400 Desk Lamp provides good color rendering and tunable white light to suit individual reading preference. Q-RAY™ MP-400 Desk Lamp not only provides good quality light but also utilises 75% less power compared to conventional incandescent desk lamp. The 4-dimensional light sources provide user with flexibility to channel light for maximum reading comfort.

Applications

Hotels, Offices, Show rooms, Homes, Study rooms and Libraries.

Design Concept

Q-RAY™ MP 400 Desk Lamp, resolved safety hazards by utilizing 'heat proof' LED light source. This design allows young children to safely use the product as a study lamp. The light source won't burn your skin. In fact, we've built it with aesthetic and practicality in mind.

Certifications & Qualifications

This Award Winning Desk Lamp has obtained certifications from Underwriters Laboratory. It's UL and CUL listed and tested to UL153 and UL8750 standards. At the same time, it is an ENERGY STAR® qualified product.

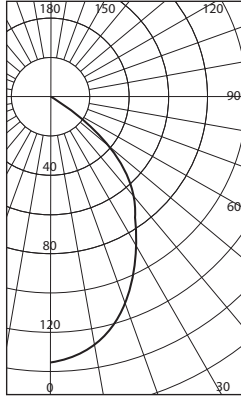


Performance Table

Digital Lighting - LED Desk Lamp With Adjustable Color Setting,cat# MP-400
White Interior With Clear Flat Plastic Lens
Four Of Eight LEDs Operating. Luminaire Lumen Output - 223 LMS.
Fixture Operating At 120 Vac And 7.3 Watts - Selector Set To Inboard Position

Intensity (Candlepower) Summary

Angle	Mem C13	Lumens
0	135	
5	133	13
10	128	
15	121	34
20	112	
25	101	46
30	90	
35	77	48
40	66	
45	54	40
50	36	
55	21	20
60	15	
65	13	13
70	10	
75	6	6
80	3	
85	3	2
90	0	



Zonal Lumens And Percentages

Zone	Lumens	%Lamp	%Luminaire
0-30	92	41.76	41.75
0-40	141	63.43	63.42
0-60	201	90.58	90.57
0-90	222	100.01	100.00
40-90	81	36.58	36.58
60-90	20	9.43	9.43
90-180	0	0.00	0.00
0-180	222	100.01	100.00

Spectral Measurements:

X = 0.4450 CRI = 84.7
Y = 0.3982 CCT = 2818 K

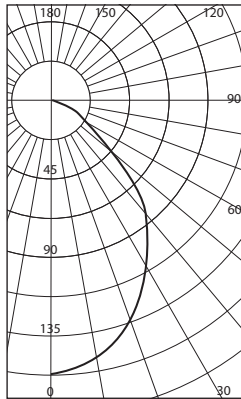
**** Efficacy: 30.5 Lumens/watt ****

Fig: Independent Test Data at
Nominal CCT 2700K (ANSI C78.377-2008)

Digital Lighting - LED Desk Lamp With Adjustable Color Setting,cat# MP-400
White Interior With Clear Flat Plastic Lens
Eight Of Eight LEDs Operating. Luminaire Lumen Output - 272 LMS.
Fixture Operating At 120 Vac And 7.3 Watts - Selector Set To Outboard Position

Intensity (Candlepower) Summary

Angle	Mem C13	Lumens
0	157	
5	155	15
10	151	
15	144	40
20	133	
25	122	56
30	111	
35	99	61
40	84	
45	67	50
50	44	
55	26	25
60	18	
65	15	14
70	11	
75	5	6
80	3	
85	4	3
90	1	



Zonal Lumens And Percentages

Zone	Lumens	%Lamp	%Luminaire
0-30	111	40.94	40.95
0-40	172	63.47	63.48
0-60	247	91.09	91.10
0-90	271	99.98	100.00
40-90	99	36.51	36.52
60-90	24	8.89	8.90
90-180	0	0.00	0.00
0-180	271	99.98	100.00

Spectral Measurements:

X = 0.4070 CRI = 88.0
Y = 0.3842 CCT = 3404 K

**** Efficacy: 37.3 Lumens/watt ****

Fig: Independent Test Data at
Nominal CCT 3500K (ANSI C78.377-2008)

Technical Specifications

Input Voltage	90 to 250 VAC, 50 – 60Hz	
Typical Power	120 VAC	6.8 W
	230 VAC	7.6 W
Light Output	Typical	239 lumens
Efficacy	Typical	35 lm/W
CCT (ANSI)	Nominal	3000K
CRI	~ 85	
Power Factor	120VAC	0.96

Product Assurance

Q-RAY™ products go through stringent tests before they are released to the market. This ensures long term outstanding performance and reliability.

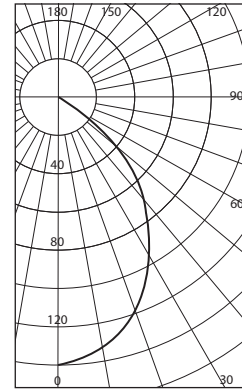
Accreditation and Certification

Q-RAY™ MP 400 LED Desk Lamp is an award winning desk lamp in the 2008 Lighting for Tomorrow Competition organized by the US Department of Energy and American Lighting Association. Designed to comply to UL & CE safety standards, its performance standards are set to meet or exceed ENERGY STAR recommendation.

Digital Lighting - LED Desk Lamp With Adjustable Color Setting,cat# MP-400
White Interior With Clear Flat Plastic Lens
Eight Of Eight LEDs Operating. Luminaire Lumen Output - 239 LMS.
Fixture Operating At 120 Vac And 6.8 Watts - Selector Set To Center Position

Intensity (Candlepower) Summary

Angle	Mem C13	Lumens
0	135	
5	133	13
10	128	
15	121	34
20	112	
25	101	46
30	90	
35	77	48
40	66	
45	54	40
50	36	
55	21	20
60	15	
65	13	13
70	10	
75	6	6
80	3	
85	3	2
90	0	



Zonal Lumens And Percentages

Zone	Lumens	%Lamp	%Luminaire
0-30	97	41.02	41.01
0-40	150	63.10	63.09
0-60	216	90.77	90.76
0-90	238	100.01	100.00
40-90	88	36.91	36.91
60-90	22	9.24	9.24
90-180	0	0.00	0.00
0-180	238	100.01	100.00

Spectral Measurements:

X = 0.4239 CRI = 86.9
Y = 0.3917 CCT = 3126 K

**** Efficacy: 35.1 Lumens/watt ****

Fig: Independent Test Data at
Nominal CCT 3000K (ANSI C78.377-2008)

Ordering Information

Part Number	Product Description
Q MP40-IN W-TW RSV N	Q-RAY™ Multipurpose 400 series, with Wide Flood angle, Tunable White

*UL – Underwriters Laboratory, is an independent product safety certification organisation.

*CE – Conformity Mark for European Economic Area.

*ENERGY STAR – This is an organization backed by US government helping business and individuals protect the environment through superior energy efficiency.

©2010 ITRAMAS

All rights reserved. Reproduction in whole or in part is strictly prohibited without the prior written consent of ItraMAS. The content in this document serves as informational purpose only and does not form part of any quotation or contract. All information is believed to be accurate and may be changed without prior notice. No liability will be accepted by the publisher or ItraMAS for any consequence of its use. The compilation (meaning the collection, arrangement and assembly) of all content on this document is also the exclusive property of ItraMAS and/or its respective owners and protected by copyright laws.