

Shadowless Illumination CV-FR/DR/DSQ Series



Shadowless Ring Illumination: CV-FR Series

- Diffuse, shadowless illumination*
- Optimal soft, uniform light for shiny surfaces

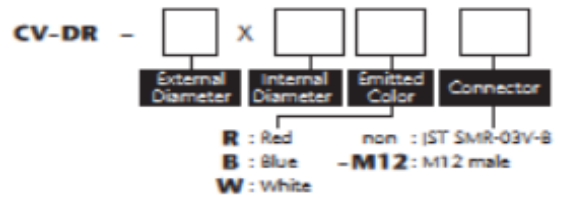
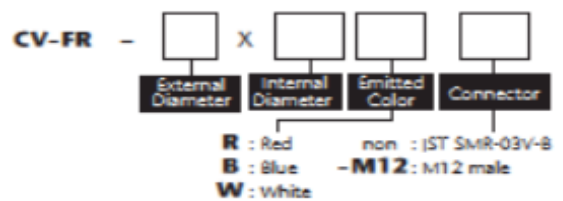
Shadowless Low Angle Ring Illumination: CV-DR Series

- Shallow angle LED illumination that provides diffused, soft light
- Ideal for flaw or edge detection on reflective surfaces

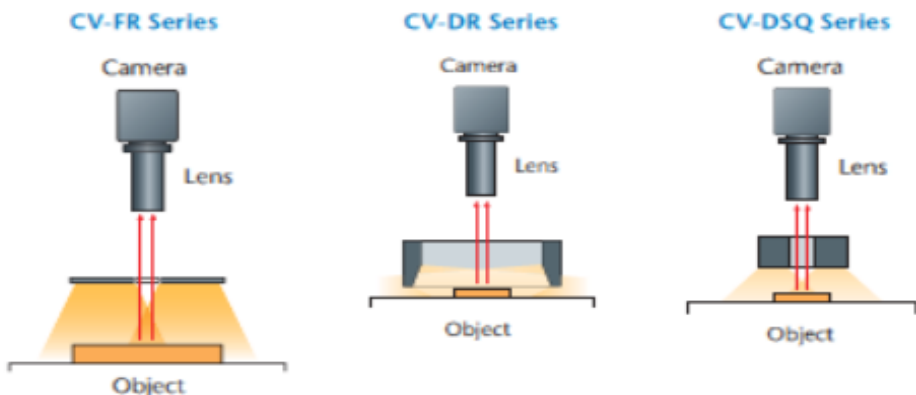
Square Shadowless Low Angle Illumination: CV-DSQ Series

- Diffused illumination best suited for square shape objects, such as in BGA & QFP applications

Explanation of Model Code



Illumination Structure



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Model	Emitted Color	Power (W)	External Dimensions (mm)			Emitting Diameter (mm)	Weight (g) *
			External Diameter	Internal Diameter	Height		
CV-FR-102X33R	● Red	1.2	102	33	12	80	190
CV-FR-102X33B	● Blue	3.3	102	33	12	80	190
CV-FR-102X33W	○ White	3.2	102	33	12	80	190
CV-FR-125X44R	● Red	2.3	125	44	12	102.5	280
CV-FR-125X44B	● Blue	3.8	125	44	12	102.5	280
CV-FR-125X44W	○ White	4.0	125	44	12	102.5	280

Model	Emitted Color	Power (W)	External Dimensions (mm)			Emitting Diameter (mm)	Weight (g) *
			External Diameter	Internal Diameter	Height		
CV-DR-100X73R	● Red	1.7	100	73	40	93.5	230
CV-DR-100X73B	● Blue	5.0	100	73	40	93.5	230
CV-DR-100X73W	○ White	5.8	100	73	40	93.5	230
CV-DR-136X109R	● Red	1.7	136	109	40	129.5	340
CV-DR-136X109B	● Blue	8.6	136	109	40	129.5	340
CV-DR-136X109W	○ White	8.4	136	109	40	129.5	340
CV-DR-180X153R	● Red	2.3	180	153	40	173.5	420
CV-DR-180X153B	● Blue	10.3	180	153	40	173.5	420
CV-DR-180X153W	○ White	11.6	180	153	40	173.5	420

Model	Emitted Color	Power (W)	External Dimensions (mm)				Emitting Area Dimensions (mm)			Weight (g) *
			External Diameter	Internal Diameter	Height	Inside Square	Length	Width	Height	
CV-DSQ-48X48-15R	● Red	0.4	48	48	30	10 / 26	36	36	15	110
CV-DSQ-48X48-15B	● Blue	1.0	48	48	30	10 / 26	36	36	15	110
CV-DSQ-48X48-15W	○ White	1.1	48	48	30	10 / 26	36	36	15	110
CV-DSQ-75X75-15R	● Red	0.7	75	75	30	20 / 53	64	64	15	180
CV-DSQ-75X75-15B	● Blue	2.6	75	75	30	20 / 53	64	64	15	180
CV-DSQ-75X75-15W	○ White	3.0	75	75	30	20 / 53	64	64	15	180
CV-DSQ-96X96-15R	● Red	0.9	96	96	30	74	84	84	15	190
CV-DSQ-96X96-15B	● Blue	3.8	96	96	30	74	84	84	15	190
CV-DSQ-96X96-15W	○ White	2.6	96	96	30	74	84	84	15	190
CV-DSQ-120X120-15R	● Red	1.1	120	120	30	98	108	108	15	240
CV-DSQ-120X120-15B	● Blue	5.2	120	120	30	98	108	108	15	240
CV-DSQ-120X120-15W	○ White	6.0	120	120	30	98	108	108	15	240

* LED Controller on P.185

* It is weighted 15g more in case "M12".



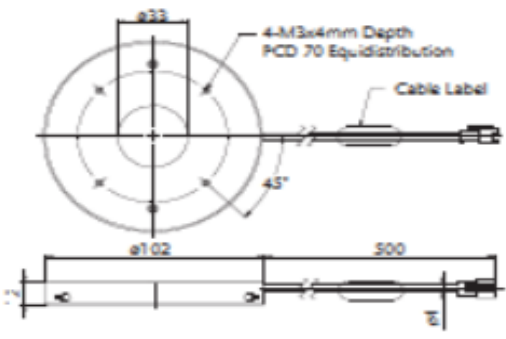
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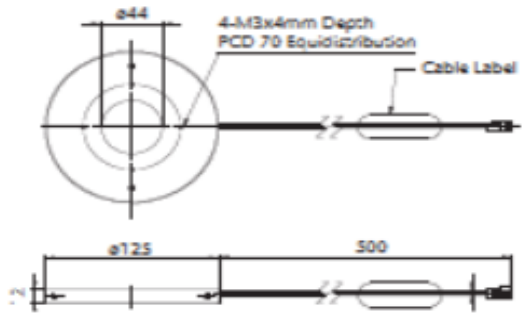
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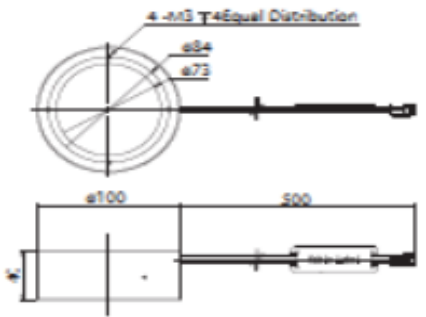
CV-FR-102X33R (B,W)



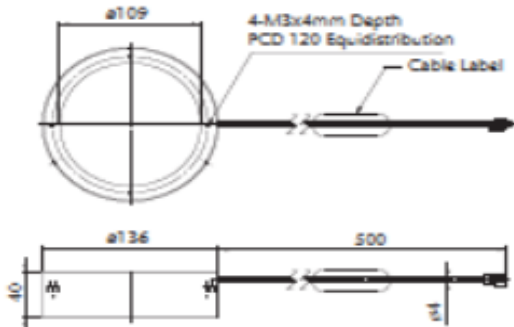
CV-FR-125X44R (B,W)



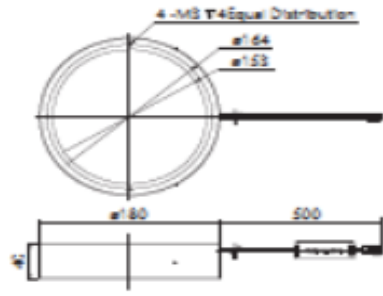
CV-DR-100X73R (B,W)



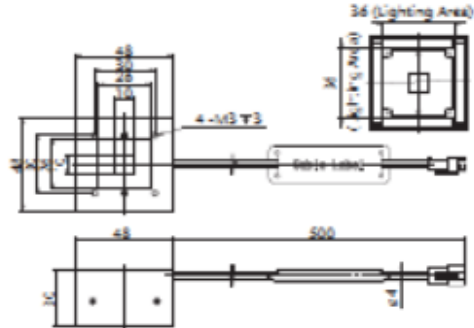
CV-DR-136X109R (B,W)



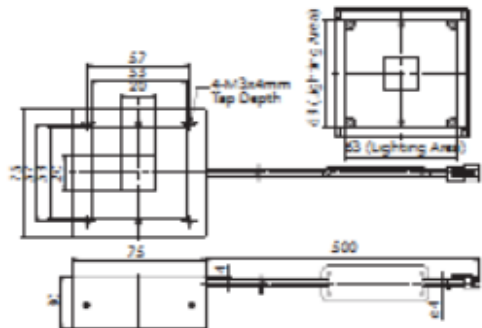
CV-DR-180X153R (B,W)



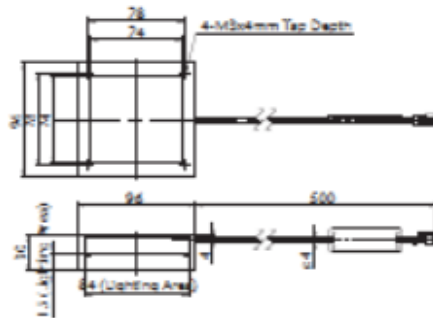
CV-DSQ-48X48-15R (B,W)



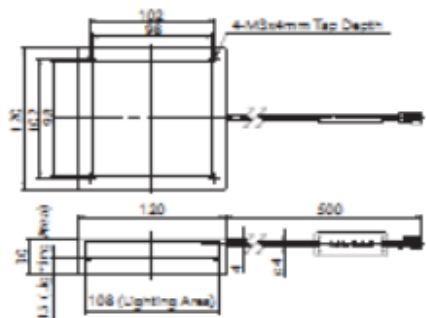
CV-DSQ-75X75-15R (B,W)



CV-DSQ-96X96-15R (B,W)



CV-DSQ-120X120-15R (B,W)



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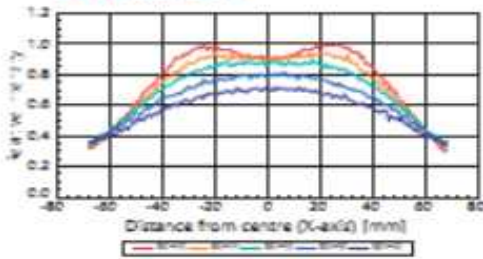
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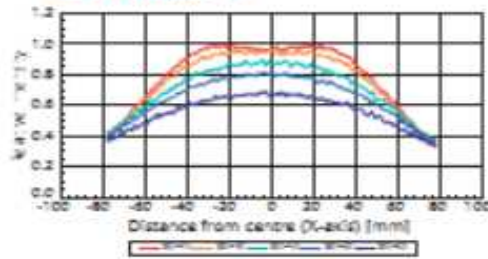
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Light Distribution Characteristics

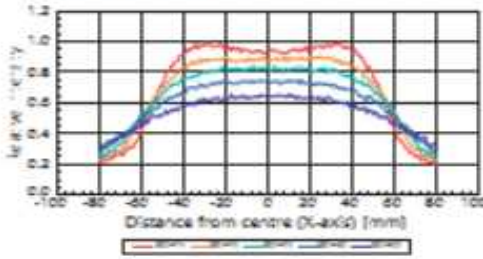
CV-FR102X33W



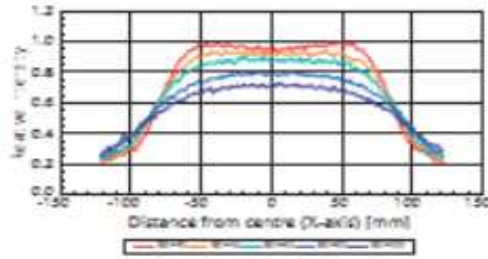
CV-FR125X44W



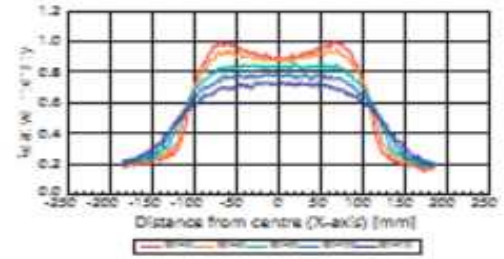
CV-DR-100X73W



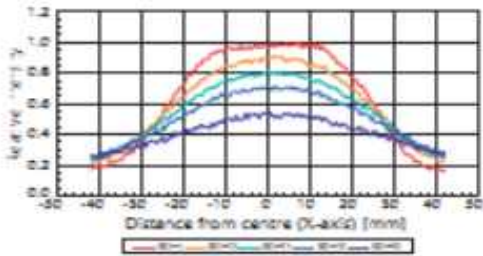
CV-DR-136X109W



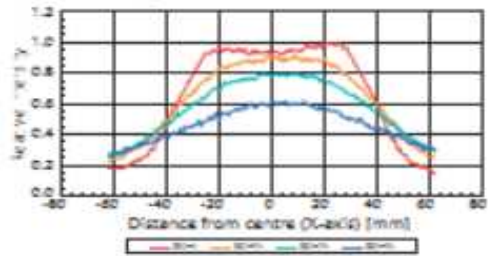
CV-DR-180X153W



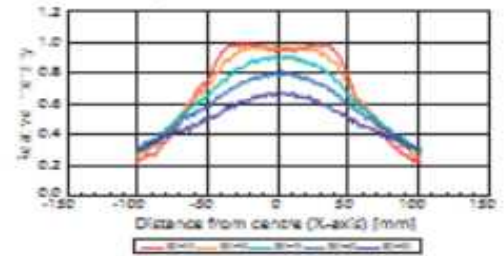
CV-DSQ-48X48-15W



CV-DSQ-75X75-15W



CV-DSQ-120X120-15W



Sample Images

CV-FR Series



CD Inspection



OCR on Brushed Metal Surface

CV-DR Series



Cap Inspection



Silkscreen Printing Verification for Remote Control

CV-DSQ Series



Connector Inspection



Ink Cartridge Print Head Inspection



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