

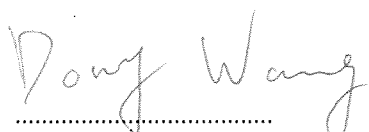
Laboratory Measurements

Test Engineer	Dony Wang	Client	VIVOTEK INC.
Subject	Network Camera	Address	6F, No.192, Lien-Cheng Rd., Chung-Ho , New Taipei City, 235, Taiwan, R.O.C.
Application Date	2017-09-14	Model No.	MD8565-N
Issue Date	2017-09-21	Rating	1) 7.5-48V, 0.82-0.13A 2) 44-57V, 0.12-0.09A
Full-test	☒	Sample No.	Engineering Sample
Re-test/ Modification	☐	Standard	IEC 62471:2006, EN 62471:2008
Add Test after review	☐	Project No.	611061725201

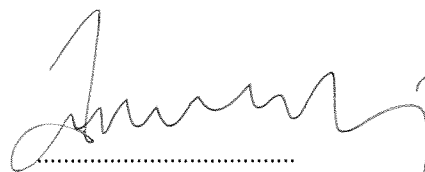
*	Clause(s)	Test(s)	Result
✓		Hazard of total irradiance	P
✓		Hazard of spectral radiance of the source	P

* Select the test(s) to be done.

Remark: 1 pcs of each color temperature for each model, carry out the tests after aging. Aging time for LED lamp is 1 hours, for halogen lamp is 24 hours.



 Signature
 Testing Engineer



 Signature
 Approved by

General product information:

Equipment manufacturer information (Data Sheet) about the containing LED component	
Manufacturer	Lextar Electronics Corporation.
LED Part No.	PR88F31
Emitted Wavelength	940 nm

Equipment manufacturer information (Data Sheet) about the containing LED component	
Manufacturer	LIGITEK ELECTRONICS CO., LTD..
LED Part No.	LG-CU3535NIR-1-T350-LSA
Emitted Wavelength	940 nm

1. All tests were performed according to IEC/EN 62471
2. The LED output power was measured under normal conditions noted in details of measurement procedure and measurement results
3. The product was complied with the requirements of Exempt group LED product according to IEC/EN 62471

Hazard of total irradiance (IEC 62471)

Hazard name: irradiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: PR88F31)
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m²)	10/ 33/ 100	3.8 x 10⁻⁶
E_{eff}: Actinic UV skin & eye: 200-400nm (Actinic UV hazard for skin and eye) (W/ m²)	0.001/ 0.003/ 0.03	6.9 x 10⁻¹⁰
E_B : Blue-light small source: 300-700nm (Retinal blue light hazard) (W/ m²)	1/ 1/ 400	N/A
E_{IR}: Retinal thermal hazard (W/ m²)	100/ 570/ 3200	1.9
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.0365

Hazard of spectral radiance of the source (IEC 62471)

Hazard name: radiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: PR88F31)
L_B: Retinal blue light hazard: 300-700nm (W.m⁻².sr⁻¹)	100/ 10000/ 4000000	7.3 x 10⁻⁴
L_R: Retinal thermal : 380-1400nm (W.m⁻².sr⁻¹)	(28000/ α) / (28000/ α) / (71000/ α)	9 x 10³
L_{IR}: Retinal thermal(weak visual stimulus) : 780-1400nm (W.m⁻².sr⁻¹)	6000/ α	4.4 x 10⁴
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.0365

Hazard of total irradiance (IEC 62471)

Hazard name: irradiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: LG-CU3535NIR-1-T350-LSA)
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m²)	10/ 33/ 100	2.7 x 10⁻⁵
E_{eff}: Actinic UV skin & eye: 200-400nm (Actinic UV hazard for skin and eye) (W/ m²)	0.001/ 0.003/ 0.03	4.4 x 10⁻⁵
E_B : Blue-light small source: 300-700nm (Retinal blue light hazard) (W/ m²)	1/ 1/ 400	N/A
E_{IR}: Retinal thermal hazard (W/ m²)	100/ 570/ 3200	1.4
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.053

Hazard of spectral radiance of the source (IEC 62471)

Hazard name: radiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: LG-CU3535NIR-1-T350-LSA)
L_B: Retinal blue light hazard: 300-700nm (W.m⁻².sr⁻¹)	100/ 10000/ 4000000	1.3 x 10⁻⁴
L_R: Retinal thermal : 380-1400nm (W.m⁻².sr⁻¹)	(28000/ α) / (28000/ α) / (71000/ α)	3.1 x 10²
L_{IR}: Retinal thermal(weak visual stimulus) : 780-1400nm (W.m⁻².sr⁻¹)	6000/ α	1.8 x 10³
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.053

Hazard of total irradiance (EN 62471)

Hazard name: irradiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: PR88F31)
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m²)	0.33	3.8 x 10⁻⁶
E_{eff}: Actinic UV skin & eye: 180-400nm (Actinic UV hazard for skin and eye) (W/ m²)	0.001	6.9 x 10⁻¹⁰
E_B : Blue-light small source: 300-700nm (Retinal blue light hazard) (W/ m²)	0.01/ 1/ 400	N/A
E_{IR}: Retinal thermal hazard (W/ m²)	100/ 570/ 3200	1.9
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.0365

Hazard of spectral radiance of the source (EN 62471)

Hazard name: radiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: PR88F31)
L_B: Retinal blue light hazard: 300-700nm (W.m⁻².sr⁻¹)	100/ 10000/ 4000000	7.3 x 10⁻⁴
L_R: Retinal thermal : 380-1400nm (W.m⁻².sr⁻¹)	(28000/ α) / (28000/ α) / (71000/ α)	9 x 10³
L_{IR}: Retinal thermal(weak visual stimulus) : 780-1400nm (W.m⁻².sr⁻¹)	6000/ α	4.4 x 10⁴
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.0365

Hazard of total irradiance (EN 62471)

Hazard name: irradiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: LG-CU3535NIR-1-T350-LSA)
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m²)	0.33	2.7 x 10⁻⁵
E_{eff}: Actinic UV skin & eye: 180-400nm (Actinic UV hazard for skin and eye) (W/ m²)	0.001	4.4 x 10⁻⁵
E_B : Blue-light small source: 300-700nm (Retinal blue light hazard) (W/ m²)	0.01/ 1/ 400	N/A
E_{IR}: Retinal thermal hazard (W/ m²)	100/ 570/ 3200	1.4
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.053

Hazard of spectral radiance of the source (EN 62471)

Hazard name: radiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: LG-CU3535NIR-1-T350-LSA)
L_B: Retinal blue light hazard: 300-700nm (W.m⁻².sr⁻¹)	100/ 10000/ 4000000	1.3 x 10⁻⁴
L_R: Retinal thermal : 380-1400nm (W.m⁻².sr⁻¹)	(28000/ α) / (28000/ α) / (71000/ α)	3.1 x 10²
L_{IR}: Retinal thermal(weak visual stimulus) : 780-1400nm (W.m⁻².sr⁻¹)	6000/ α	1.8 x 10³
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.053

Photo:

MD8565-N (LED: PR88F31)



MD8565-N (LED: LG-CU3535NIR-1-T350-LSA)

