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	2018-4-25	Model No.	IB8360, IB8360-W
Issue Date	2018-4-25	Rating	1) DC 37-57V (POE), 0.16-0.11A for IB8360 2) DC 12V, 0.51A for IB8360-W
Full-test	☒	Sample No.	Engineering Sample
Re-test/ Modification	☐	Standard	**IEC 62471:2006, EN 62471:2008**
Add Test after review	☐	Project No.	611061810001

*	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.

Dony Wang
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Signature
Testing Engineer

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Signature
Approved by

General product information:

Equipment manufacturer information (Data Sheet) about the containing LED component	
Manufacturer	LITEON OPTOELECTRONICS
LED Part No.	LTE-7F70L-092
Emitted Wavelength	850 nm

1. Tested on IB8360-W was considered as the representative of models listed in this report
2. The difference between models:

Model	IB8360	IB8360-W
Power supply	PoE	DC
Rating	DC 37-57V, 0.16-0.11A	DC 12V, 0.51A
LED board	The same	

3. All tests were performed according to IEC/EN 62471
4. The LED output power was measured under normal conditions noted in details of measurement procedure and measurement results
5. 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	IB8360-W
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m^2)	10/ 33/ 100	**1.3×10^{-5}**
E_{eff}: Actinic UV skin & eye: 200-400nm (Actinic UV hazard for skin and eye) (W/ m^2)	0.001/ 0.003/ 0.03	**3.0×10^{-5}**
E_B: Blue-light small source: 300-700nm (Retinal blue light hazard) (W/ m^2)	1/ 1/ 400	**N/A**
E_{IR}: Retinal thermal hazard (W/ m^2)	100/ 570/ 3200	**2.9**
Measurement distance(cm)	**-**	**20**
Voltage (Vdc)	**-**	**12**
Angular subtense (rad)	α	**0.070**

Hazard of spectral radiance of the source (IEC 62471)

Hazard name: radiance based values	Limit for Exempt level/ low risk/ mod risk	IB8360-W
L_B: Retinal blue light hazard: 300-700nm ($W.m^{-2}.sr^{-1}$)	100/ 10000/ 4000000	**3.1×10^{-3}**
L_R: Retinal thermal: 380-1400nm ($W.m^{-2}.sr^{-1}$)	(28000/α) / (28000/α) / (71000/α)	**1.8×10^{4}**
L_{IR}: Retinal thermal (weak visual stimulus): 780-1400nm ($W.m^{-2}.sr^{-1}$)	6000/α	**4.9×10^{4} (Lv = 2.51 cd/m^2)**
Measurement distance(cm)	-	**20**
Voltage (Vdc)	**-**	**12**
Angular subtense (rad)	α	**0.070**

Hazard of total irradiance (EN 62471)

Hazard name: irradiance based values	Limit for Exempt level/ low risk/ mod risk	IB8360-W
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m^2)	0.33	**1.3×10^{-5}**
E_{eff}: Actinic UV skin & eye: 180-400nm (Actinic UV hazard for skin and eye) (W/ m^2)	0.001	**3.0×10^{-5}**
E_B: Blue-light small source: 300-700nm (Retinal blue light hazard) (W/ m^2)	0.01/ 1/ 400	**N/A**
E_{IR}: Retinal thermal hazard (W/ m^2)	100/ 570/ 3200	**2.9**
Measurement distance(cm)	**-**	**20**
Voltage (Vdc)	**-**	**12**
Angular subtense (rad)	α	**0.070**

Hazard of spectral radiance of the source (EN 62471)

Hazard name: radiance based values	Limit for Exempt level/ low risk/ mod risk	IB8360-W
L_B: Retinal blue light hazard: 300-700nm ($W.m^{-2}.sr^{-1}$)	100/ 10000/ 4000000	**3.1×10^{-3}**
L_R: Retinal thermal: 380-1400nm ($W.m^{-2}.sr^{-1}$)	(28000/α) / (28000/α) / (71000/α)	**1.8×10^4**
L_{IR}: Retinal thermal (weak visual stimulus): 780-1400nm ($W.m^{-2}.sr^{-1}$)	6000/α	**4.9×10^4 (Lv = 2.51 cd/m^2)**
Measurement distance(cm)	-	**20**
Voltage (Vdc)	**-**	**12**
Angular subtense (rad)	α	**0.070**

Photo:

IB8360-W