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Clause Item		
General Information		
Proponent		
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Target Sensor		
Image Sensor	x	
High Rate PD		x
Low Rate PD		x
Flicker mode	Flicker	Flicker-free
Short description	Example 1	Example 2
Image Sensor Communications		
4.3.1 Applications/Use cases		
A1. Offline to Online Marketing /Public Information System		
A2. IoT (M2M/D2D / Internet of Light (IoL))		
A3. LBS / Indoor Positioning		
A4. Vehicular Communication		
A5. Underwater Communication	x	
A6. Power Consumption Control		
A7. Vehicular Positioning	x	
A8. Seaside Communication		
A9. LED based Tag application		
A10. Point-to-(multi)point / relay communication		
A11. Digital signage		
4.3.2 Transmitter		
Ceiling light / Lighting Source		
Flash light	x	
Car light		
Indirect light	x	
Illuminated signage with diffused light		
Illuminated signage with discrete LEDs		
Digital signage (such as LCD)		
Traffic light and Intelligent Traffic System (ITS)		
Lighthouse	x	
LED Tag		
Display / Image patterns		
4.3.3 Receiver		
Global Shutter	x	
Rolling Shutter	x	
4.3.4 Carrier Wavelength		
Visible Light	x	
IR		
UV		
4.3.5 Transfer mode		
ID broadcast mode	x	
Unidirectional data transfer mode	x	
Bidirectional data transfer mode		
4.3.6 Dimming Control	Y	
4.3.7 Power Consumption Control	N	
4.3.8 Coexistence with Ambient Light	Y	
4.3.9 Coexistence with Other Lighting Systems	Y	
4.3.10 Simultaneous Communication with Multiple Transmitters	N	
4.3.11 Simultaneous Communication with Multiple Receivers	N	
4.3.12 Data Frame Consistency	Y	
4.3.13 Nearly point image data source	Y	
4.3.14 Identification of modulated light sources	Y	
4.3.15 Low overhead repetitive transmission	Y	
4.3.16 Image Sensor Compatibility	Y	
High Rate PD Communications		
4.4.1 Applications/Use cases		
B1 Indoor Office/Home Applications		x
B2 Data Center / Industrial Establishments, Secure Wireless		x
B3 Vehicular Communications		
B4 Wireless Backhaul		
4.4.2 Transmitter		
Ceiling/Street light		
Indirect light		x
Car light		
Directed light		
4.4.3 Transfer mode		
Bidirectional Functionality		
Minimum supported connectivity of at least 1 Mbps at the PHY SAP		
Ppeak data rates of 10 Gbps at the PHY SAP		
4.4.4 Dimming Control		
4.4.5 Adaptive Transmission and Multiple User Support		
4.4.6 Asymmetric Communication		
4.4.7 Handover and Interference Coordination		
Horizontal handover		Y

<p>Efficient mechanisms that can be used to deliver interference coordination techniques by higher layers</p> <p>4.4.8 Localization</p> <p>4.4.9 Coexistence with Ambient Light and Other Lighting Systems</p> <p>4.4.10 Simultaneous Communication with Multiple Transmitters</p> <p>MIMO</p> <p>Efficient and reliable feedback and control channels</p> <p>4.4.11 Waveform</p> <p>Variable current modulation</p> <p>4.4.12 Metric Reporting</p>		<p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p>
<p>Low Rate PD Communications</p> <p>4.5.1 Applications/Use cases</p> <p>C1 Underwater/Seaside Communication</p> <p>C2 Point-to-(multi)point / communication</p> <p>C3 Digital signage</p> <p>C4 D2D/IoT</p> <p>C5 LOS Authentication</p> <p>C6 Identification based service</p> <p>4.5.2 Transmitter</p> <p>Smart Device Flash light</p> <p>Lighting source</p> <p>4.5.3 Receiver</p> <p>4.5.4 Carrier Wavelength</p> <p>Visible Light</p> <p>IR</p> <p>UV</p> <p>4.5.5 Transfer mode</p> <p>D2D/IoT data transmission and Relay mode</p> <p>Uni/Bi-directional data transfer mode</p> <p>4.5.6 Dimming Control</p> <p>4.5.7 Handover, Link Recovery and Interference Coordination</p> <p>Handover</p> <p>Interference coordination techniques by higher layers</p> <p>Link recovery mechanism to maintain connection in unreliable channel for reducing the connection delay</p> <p>4.5.8 Localization</p> <p>4.5.9 Coexistence with Ambient Light</p> <p>4.5.10 Coexistence with Other Lighting Systems</p> <p>4.5.11 Identification of Transmitter</p>		<p>x</p> <p>x</p> <p>x</p> <p>x</p> <p>x</p> <p>Y</p> <p>N</p> <p>N</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>N</p>