

# Nobi Pendant

Appliance sheet | Product requirements



The following parameters must be met to ensure smooth operation for Nobi:

|   |                    |  |
|---|--------------------|--|
| Ideal installation height                                 |                    | For optimal performance and safety, it is recommended to install the Nobi smart lamp at a sensor height (=height of the black dot on the lamp) ranging between 6.89 feet and 7.55 feet. This installation height ensures that Nobi's artificial intelligence operates at its best.   |
| Internet volume & Bandwidth                               |                    | Data Usage per 100 devices:<br>400 GB (upload and download combined)<br><br>Bandwidth requirements per 100 devices:<br>Download: 60 Mbps - Upload: 30 Mbps<br><br>Note: Internet volume and Bandwidth scale linearly with the number of devices. Please ensure a minimum upload bandwidth of 5 Mbps regardless of the number of devices. |
| Firewall settings<br>The following ports should be opened | # Cloud connection | *.nobi.cloud and nobi.cloud: port 443 (TCP)<br>*.nobi.cloud: port 5671 (TCP)   |
|   | # NTP              | time1.google.com, time2.google.com, time3.google.com, time4.google.com: port 123 (UDP)   |
|   | # Debugging        | *.nobi.cloud: port 2222  |
|   | # SIP signalling   | nobi.sip.us1.twilio.com: port 5060 (TCP + UDP)<br>nobi.sip.us1.twilio.com: port 5061 (TCP)   |
|   | # SIP media        | 168.86.128.0/18: port range 10.000-60.000 (UDP)  |
|   | # Software updates | hosted.mender.io: port 443 (TCP)<br>s3.amazonaws.com: port 443 (TCP)<br>c271964d41749feb10da762816c952ee.r2.cloudflarestorage.com: port 443 (TCP)  |
| The WLAN must   |                    | Not be publicly accessible without a password (security consideration).<br>Ideally be uniform across the entire department.  |
| The WLAN may  |                    | Not require any usage terms to be accepted.  |
| The signal strength must be                               |                    | Between -30 dBm and -67 dBm in decibel milliwatt (refer to the reference table).<br><br>Affected by structural measures, where different wall thicknesses can absorb different signal levels. Therefore, the signal must be measured in each room.   |

Reference table signal strength

|   |   |   |   |  |  |   |
|---|---|---|---|--|--|---|
|  |  |  |  |  |               |  |
| 30 dBm  | 50 dBm  | 60 dBm  | 67 dBm  | 70 dBm   | 80 dBm   | 90 dBm  |
| Maximum signal strength.  | Excellent signal strength.  | Good signal strength.   | Minimal signal strength required  | Not a strong signal.   | Unreliable signal strength.  | Weak signal strength.   |
| At this measurement level, an AccessPoint is likely to be nearby.                   |   | for applications that need a consistently stable WLAN signal.                       |   | It may be sufficient for checking emails.  | You can probably connect to the network, but it will be insufficient for most online applications. |   |