

EXTRACT FROM THE MICROSOFT BALLARD v1.8 - LIGHTING REQUIREMENTS SECTION

4.6.14 Lighting systems

1. Lighting panelboards are [415/400/380/480/277V/208V 3-phase, 4-wire].
2. Illumination levels shall be in accordance with the IESNA standards, Microsoft design standards including the CIPSB.
3. LED fixtures are preferred vs. Fluorescent but Fluorescent can still be used if shown to have lower TCO in given region.
4. Color temperature for interior lamps shall be 4000K.
5. Emergency egress lighting is provided in accordance with code, utilizing a central inverter battery.
6. Lighting controls are provided utilizing photocells, timers, and occupancy sensors to ensure lighting is not left energized unnecessarily.
7. Locally switched rooftop lighting provided where access to rooftop equipment is required.
8. Lighting shall be installed on the exterior of the building and on-site lighting poles where required to provide a code-compliant site lighting system.
9. Sodium vapor is prohibited by security requirements.
10. Wherever security requirements apply (that is, surveillance cameras), lighting levels shall conform to security requirements.
11. Lighting levels shall be provided per table below:

Light Details										
SPACE CRITERION	TYPE OF	COLO/IDF/ MDF	ELEC/ME CH	DC CIRCULATION	OFFICE	BREAK - ROOM	CONF	JANITOR	RECEIVING/STORAGE	TOILETS
	HORIZONTAL	HORIZONTAL WORK PLANE (AFF)	36"	36"	FLOOR	30"	30"	30"	FLOOR	FLOOR
TARGET AVERAGE ILLUMINATION (WHERE TASK LIGHTING IS AVAILABLE)		30 FC	15 FC	N/A	15 FC	N/A	N/A	N/A	N/A	N/A
TARGET AVERAGE ILLUMINATION (WHERE TASK LIGHTING IS UNAVAILABLE)		50 FC	25 FC	15 FC	30 FC	20 FC	30 FC	10 FC	30 FC	15 FC
VERTICAL	TOP OF VERTICAL WORK PLANE (AFF)	96"	96"	N/A	N/A	N/A	80"	N/A	N/A	80"
	TARGET AVERAGE ILLUMINATION (WHERE TASK LIGHTING IS AVAILABLE)	15 FC	7.5 FC	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TARGET AVERAGE ILLUMINATION (WHERE TASK LIGHTING IS UNAVAILABLE)	25 FC	10 FC	N/A	N/A	N/A	30 FC †	N/A	N/A	20 FC *
AVERAGE TO MINIMUM RATIO		2:1	2:1	3:1	2:1	3:1	2:1	3:1	2:1	2:1

* AT VANITY
 † AT WHITE BOARD

Safety and security exemptions shall be taken where applicable.
 Interior luminaires utilize advanced energy efficiency technology.