

Equations		EXAMPLE OF EXCEL CALCULATION					
<b>Lumen Method Average fc Calc</b>		Office					
Number of Lamps X Output Lumens X LLF X CU / Total Area of the Room		Number of Lamps	2				
<b>Room Cavity Ratio</b>		Output Lumens	4800				
5 ( H) ( L+W) / L X W = RCR		LLF (average of fixture type)	0.9				
		CU (Manufacture Spec.)	0.5				
		Total Area	144				
		Solved (answer is in footcandles)					
		=B8*B9*B10*B11/B12					
Variables by Space	Office	Workspace (General Wash)	Workspace (Table)	Conference Room (General Wash)	Conference Room (Table)		
Number of Lamps	2	16	1	8	1		
Output Lumens	4800	2000	1384	1978	1348		
LLF (average of fixture type)	0.9	0.9	0.9	0.9	0.9		
CU (Manufacture Spec. based on RCR)	0.5	0.9	6	0.5	1		
Total Area	144	1000	60	299	48		
	Solved (answer is in footcandles)	Solved (answer is in footcandles)	Solved (answer is in footcandles)	Solved (answer is in footcandles)	Solved (answer is in footcandles)		
Answer	30	25.92	124.56	23.81538462	25.275		

Commercial Design Project	
Drawing Title: Illumination Calculations	Plate# 4 of 4
Designer: Baxter Carlisle Chambers	Scale: NTS
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