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# LEED 4.0 IEQ CREDIT 8.1

## 1. SUMMARY

To meet the LEED 4.0 IEQ CREDIT 8.1 (Option 2. Simulation: Illuminance calculations), it must be shown that the illuminance levels will lie between 300 lux and 3000 lux at 9 a.m. and 3 p.m., in both cases for a day with clear skies and during the equinox. A point will be obtained if this requirement is met for 75% of the gross surface usually built that is occupied and two points if it occurs for 90%.

General information of the project	
Type of sky:	Clear sky
Latitude(°):	40.66
Longitude(°):	73.94
Day: 1	21 March
Day: 2	21 September

Percentage of the total built surface area that is usually occupied			
Time	Project	Design code	Meets the requirements
9 a.m.	84.13	>= 75% (1 point)	✓
		>= 90% (2 points)	✗
3 p.m.	80.57	>= 75% (1 point)	✓
		>= 90% (2 points)	✗

Result	
LEED 4.0 IEQ CREDIT 8.1	Meets the requirements - (1 point)

## 2. DETAILED RESULTS

### 2.1. Glazed openings

Type	Transmission grade	Refraction index
Ventana oscilobatiente (80 x 120) cm	0.90	1.52
Ventana oscilobatiente (60 x 80) cm	0.90	1.52
Ventana oscilobatiente (40 x 80.00) cm	0.90	1.52
Ventana oscilobatiente (150 x 120) cm	0.90	1.52
Ventana oscilobatiente (40 x 120) cm	0.90	1.52
Ventana oscilobatiente (79.35 x 80.00) cm	0.90	1.52
Ventana oscilobatiente (270 x 210) cm	0.90	1.52
Ventana oscilobatiente (100 x 210) cm	0.90	1.52
Ventana oscilobatiente (340.00 x 102.00) cm	0.90	1.52
Window (80 x 120) cm	0.90	1.52
Window (60 x 80) cm	0.90	1.52
Window (40 x 80.00) cm	0.90	1.52
Window (150 x 120) cm	0.90	1.52
Window (340.00 x 102.00) cm	0.90	1.52
Window (40 x 120) cm	0.90	1.52
Window (79.35 x 80.00) cm	0.90	1.52
Window (270 x 210) cm	0.90	1.52
Window (100 x 210) cm	0.90	1.52

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### 2.2. Spaces

Space	Height of the workplane (m)	Marginal band (m)	Total surface area (m <sup>2</sup> )	Surface within the limits (%)	
				9 a.m.	3 p.m.
F5 Room 501 (ROOM HOTEL)	0.85	0.50	16.36	87.50	87.18
F5 Room 502 (ROOM HOTEL)	0.85	0.50	16.16	90.24	87.80
F5 Room 503 (ROOM HOTEL)	0.85	0.50	22.41	76.60	76.19
F5 Room 504 (ROOM HOTEL)	0.85	0.50	22.44	80.95	73.91
F5 Room 505 (ROOM HOTEL)	0.85	0.50	16.35	87.80	90.24
F5 Room 506 (ROOM HOTEL)	0.85	0.50	16.41	89.47	89.74
F5 Corridor (CORRIDOR)	0.85	0.50	39.95	100.00	100.00
F4 Room 401 (ROOM HOTEL)	0.85	0.50	16.36	92.50	87.50
F4 Room 402 (ROOM HOTEL)	0.85	0.50	16.16	87.50	87.80
F4 Room 403 (ROOM HOTEL)	0.85	0.50	22.41	78.72	73.81
F4 Room 404 (ROOM HOTEL)	0.85	0.50	22.44	78.57	76.09
F4 Room 405 (ROOM HOTEL)	0.85	0.50	16.35	90.24	87.50
F4 Room 406 (ROOM HOTEL)	0.85	0.50	16.41	89.47	89.74
F4 Corridor (CORRIDOR)	0.85	0.50	39.95	100.00	100.00
F3 Room 301 (ROOM HOTEL)	0.85	0.50	16.36	87.50	87.18
F3 Room 302 (ROOM HOTEL)	0.85	0.50	16.16	90.24	87.80
F3 Room 303 (ROOM HOTEL)	0.85	0.50	22.41	80.85	79.07
F3 Room 304 (ROOM HOTEL)	0.85	0.50	22.44	81.40	82.98
F3 Room 305 (ROOM HOTEL)	0.85	0.50	16.35	90.48	87.50
F3 Room 306 (ROOM HOTEL)	0.85	0.50	16.41	89.74	89.74
F3 Corridor (CORRIDOR)	0.85	0.50	39.95	100.00	100.00
F2 Room 201 (ROOM HOTEL)	0.85	0.50	16.36	87.50	87.18
F2 Room 202 (ROOM HOTEL)	0.85	0.50	16.16	90.00	90.24
F2 Room 203 (ROOM HOTEL)	0.85	0.50	22.41	80.43	76.74
F2 Room 204 (ROOM HOTEL)	0.85	0.50	22.44	80.95	78.26

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F2 Room 205 (ROOM HOTEL)	0.85	0.50	16.35	87.80	87.18
F2 Room 206 (ROOM HOTEL)	0.85	0.50	16.41	89.47	89.74
F2 Corridor (CORRIDOR)	0.85	0.50	39.95	100.00	100.00
F1 Room 101 (ROOM HOTEL)	0.85	0.50	16.36	90.00	87.50
F1 Room 102 (ROOM HOTEL)	0.85	0.50	16.16	92.31	87.80
F1 Room 103 (ROOM HOTEL)	0.85	0.50	22.41	87.23	81.40
F1 Room 104 (ROOM HOTEL)	0.85	0.50	22.44	81.40	84.78
F1 Room 105 (ROOM HOTEL)	0.85	0.50	16.35	90.24	89.74
F1 Room 106 (ROOM HOTEL)	0.85	0.50	16.41	92.11	89.74
F1 Corridor (CORRIDOR)	0.85	0.50	39.95	100.00	100.00
GF Office 1 (OFFICE)	0.85	0.50	13.43	72.41	40.00
GF Office 2 (OFFICE)	0.85	0.50	12.30	73.91	50.00
GF Hall (HALL)	0.85	0.50	279.96	29.17	30.00
GF Dining (DINING)	0.85	0.50	77.13	84.21	68.49
Total	-	-	1133.24	84.13	80.57