



5062

Appendix B

APPENDIX to SUNLIGHT RECEPTION ANALYSIS  
1 (one) HOURLY SUNLIGHT / SHADOW STATUS CALCULATIONS

## ORCHARD GATE SHD

RESIDENTIAL APARTMENT DEVELOPMENT

**KENNELSFORT ROAD UPPER  
PALMERSTOWN  
CO DUBLIN**

AAI Palmerstown Ltd

Project file no  
**DKP-M70-5062 | P3**  
2021-11-18

## Document control

DKP project no: M70

DKP document no: 5062

Project file no: DKP-M70-5062

Circular	Issue >	P1#	P2	P3
Clients	AAI Palmerstown Ltd			
Architects	Shipseybarry Architects	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Planning consultants	HW Planning	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Landscape architects	Ilsa Rutgers Architecture			

Issue	P1#	2021-04-22	Draft issue
Issue	P2	2021-04-27	SHD meeting
Issue	P3	2021-11-18	Planning issue

### Document issue status ID

#	Sketch/draft
P	Planning
C	Concept
D	Design
G	General information
T	Tender
W	Works/construction
Z	As-build/constructed

Issue	Prepared	Checked	Approved
P3	208	201	201

### Neighbouring amenity spaces sunlight-shadow calculations at March 21<sup>st</sup>

1						8,000 m <sup>2</sup>
EXISTING STATUS						March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	
7.00	53%	47%	60	3760	225,600	
8.00	17%	83%	60	6640	398,400	
9.00	0%	100%	60	8000	480,000	
10.00	0%	100%	60	8000	480,000	
11.00	0%	100%	60	8000	480,000	
12.00	0%	100%	60	8000	480,000	
13.00	0%	100%	60	8000	480,000	
14.00	0%	100%	60	8000	480,000	
15.00	0%	100%	60	8000	480,000	
16.00	0%	100%	60	8000	480,000	
17.00	8%	92%	60	7360	441,600	
18.00	77%	23%	60	1840	110,400	
19.00	100%	0%	60	0	0	

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	10.00
Achieved total sun time (hrs)	10.45
Achieved daily sun time * area	5016000

NEW STATUS						March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0	0
7.00	79%	21%	60	1680	100,800	-124,800	0
8.00	17%	83%	60	6640	398,400	0	0
9.00	0%	100%	60	8000	480,000	0	0
10.00	0%	100%	60	8000	480,000	0	0
11.00	0%	100%	60	8000	480,000	0	0
12.00	0%	100%	60	8000	480,000	0	0
13.00	0%	100%	60	8000	480,000	0	0
14.00	0%	100%	60	8000	480,000	0	0
15.00	0%	100%	60	8000	480,000	0	0
16.00	0%	100%	60	8000	480,000	0	0
17.00	8%	92%	60	7360	441,600	0	0
18.00	77%	23%	60	1840	110,400	0	0
19.00	100%	0%	60	0	0	0	0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	10.00
Achieved total sun time (hrs)	10.19
Achieved daily sun time * area	4891200

2						60 m <sup>2</sup>
EXISTING STATUS						March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	
7.00	87%	13%	60	8	468	
8.00	85%	15%	60	9	540	
9.00	80%	20%	60	12	720	
10.00	72%	28%	60	17	1,008	
11.00	69%	31%	60	19	1,116	
12.00	45%	55%	60	33	1,980	
13.00	14%	86%	60	52	3,096	
14.00	0%	100%	60	60	3,600	
15.00	18%	82%	60	49	2,952	
16.00	69%	31%	60	19	1,116	
17.00	83%	17%	60	10	612	
18.00	91%	9%	60	5	324	
19.00	100%	0%	60	0	0	

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	4.87
Achieved daily sun time * area	17532

NEW STATUS						March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0	0
7.00	90%	10%	60	6	360	-108	0
8.00	95%	5%	60	3	180	-360	0
9.00	80%	20%	60	12	720	0	0
10.00	72%	28%	60	17	1,008	0	0
11.00	69%	31%	60	19	1,116	0	0
12.00	45%	55%	60	33	1,980	0	0
13.00	14%	86%	60	52	3,096	0	0
14.00	0%	100%	60	60	3,600	0	0
15.00	18%	82%	60	49	2,952	0	0
16.00	69%	31%	60	19	1,116	0	0
17.00	83%	17%	60	10	612	0	0
18.00	91%	9%	60	5	324	0	0
19.00	100%	0%	60	0	0	0	0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	4.74
Achieved daily sun time * area	17064

2A						80 m <sup>2</sup>
EXISTING STATUS						March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	
7.00	87%	13%	60	10	624	
8.00	85%	15%	60	12	720	
9.00	61%	39%	60	31	1,872	
10.00	24%	76%	60	61	3,648	
11.00	20%	80%	60	64	3,840	
12.00	13%	87%	60	70	4,176	
13.00	9%	91%	60	73	4,368	
14.00	0%	100%	60	80	4,800	
15.00	0%	100%	60	80	4,800	
16.00	15%	85%	60	68	4,080	
17.00	41%	59%	60	47	2,832	
18.00	73%	27%	60	22	1,296	
19.00	100%	0%	60	0	0	

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.72
Achieved daily sun time * area	37056

NEW STATUS						March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0	0
7.00	98%	2%	60	2	96	-528	0
8.00	90%	10%	60	8	480	-240	0
9.00	61%	39%	60	31	1,872	0	0
10.00	24%	76%	60	61	3,648	0	0
11.00	20%	80%	60	64	3,840	0	0
12.00	13%	87%	60	70	4,176	0	0
13.00	9%	91%	60	73	4,368	0	0
14.00	0%	100%	60	80	4,800	0	0
15.00	0%	100%	60	80	4,800	0	0
16.00	15%	85%	60	68	4,080	0	0
17.00	41%	59%	60	47	2,832	0	0
18.00	73%	27%	60	22	1,296	0	0
19.00	100%	0%	60	0	0	0	0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.56
Achieved daily sun time * area	36288

3						60 m <sup>2</sup>
EXISTING STATUS						March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	
7.00	88%	12%	60	7	432	
8.00	31%	69%	60	41	2,484	
9.00	16%	84%	60	50	3,024	
10.00	18%	82%	60	49	2,952	
11.00	24%	76%	60	46	2,736	
12.00	35%	65%	60	39	2,340	
13.00	51%	49%	60	29	1,764	
14.00	63%	37%	60	22	1,332	
15.00	76%	24%	60	14	864	
16.00	84%	16%	60	10	576	
17.00	88%	12%	60	7	432	
18.00	92%	8%	60	5	288	
19.00	100%	0%	60	0	0	

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	5.00
Achieved total sun time (hrs)	5.34
Achieved daily sun time * area	19224

NEW STATUS						March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0	0
7.00	88%	12%	60	7	432	0	0
8.00	80%	20%	60	12	720	-1,764	0
9.00	79%	21%	60	13	756	-2,268	0
10.00	18%	82%	60	49	2,952	0	0
11.00	24%	76%	60	46	2,736	0	0
12.00	35%	65%	60	39	2,340	0	0
13.00	51%	49%	60	29	1,764	0	0
14.00	63%	37%	60	22	1,332	0	0
15.00	76%	24%	60	14	864	0	0
16.00	84%	16%	60	10	576	0	0
17.00	88%	12%	60	7	432	0	0
18.00	92%	8%	60	5	288	0	0
19.00	100%	0%	60	0	0	0	0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	3.00
Achieved total sun time (hrs)	4.22
Achieved daily sun time * area	15192



3A							60 m <sup>2</sup>
EXISTING STATUS							March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	
7.00	87%	13%	60	8	468		
8.00	44%	56%	60	34	2,016		
9.00	9%	91%	60	55	3,276		
10.00	0%	100%	60	60	3,600		
11.00	0%	100%	60	60	3,600		
12.00	0%	100%	60	60	3,600		
13.00	0%	100%	60	60	3,600		
14.00	0%	100%	60	60	3,600		
15.00	0%	100%	60	60	3,600		
16.00	14%	86%	60	52	3,096		
17.00	46%	54%	60	32	1,944		
18.00	89%	11%	60	7	396		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 10.00  
 Achieved total sun time (hrs) 9.11  
 Achieved daily sun time \* area 32796

NEW STATUS							March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	0	
7.00	98%	2%	60	1	72		-396	
8.00	70%	30%	60	18	1,080		-936	
9.00	9%	91%	60	55	3,276		0	
10.00	0%	100%	60	60	3,600		0	
11.00	0%	100%	60	60	3,600		0	
12.00	0%	100%	60	60	3,600		0	
13.00	0%	100%	60	60	3,600		0	
14.00	0%	100%	60	60	3,600		0	
15.00	0%	100%	60	60	3,600		0	
16.00	14%	86%	60	52	3,096		0	
17.00	46%	54%	60	32	1,944		0	
18.00	89%	11%	60	7	396		0	
19.00	100%	0%	60	0	0		0	

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 9.00  
 Achieved total sun time (hrs) 8.74  
 Achieved daily sun time \* area 31464

0.96  
0.96

4							55 m <sup>2</sup>
EXISTING STATUS							March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	
7.00	88%	12%	60	7	396		
8.00	30%	70%	60	39	2,310		
9.00	16%	84%	60	46	2,772		
10.00	18%	82%	60	45	2,706		
11.00	25%	75%	60	41	2,475		
12.00	35%	65%	60	36	2,145		
13.00	51%	49%	60	27	1,617		
14.00	63%	37%	60	20	1,221		
15.00	75%	25%	60	14	825		
16.00	82%	18%	60	10	594		
17.00	88%	12%	60	7	396		
18.00	90%	10%	60	6	330		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 5.00  
 Achieved total sun time (hrs) 5.39  
 Achieved daily sun time \* area 17787

NEW STATUS							March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0		0	
7.00	88%	12%	60	7	396		0	
8.00	80%	20%	60	11	660		-1,650	
9.00	79%	21%	60	12	693		-2,079	
10.00	18%	82%	60	45	2,706		0	
11.00	25%	75%	60	41	2,475		0	
12.00	35%	65%	60	36	2,145		0	
13.00	51%	49%	60	27	1,617		0	
14.00	63%	37%	60	20	1,221		0	
15.00	75%	25%	60	14	825		0	
16.00	82%	18%	60	10	594		0	
17.00	88%	12%	60	7	396		0	
18.00	90%	10%	60	6	330		0	
19.00	100%	0%	60	0	0		0	

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 3.00  
 Achieved total sun time (hrs) 4.26  
 Achieved daily sun time \* area 14058

0.80  
0.80

4A							60 m <sup>2</sup>
EXISTING STATUS							March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	
7.00	87%	13%	60	8	468		
8.00	79%	21%	60	13	756		
9.00	66%	34%	60	20	1,224		
10.00	53%	47%	60	28	1,692		
11.00	37%	63%	60	38	2,268		
12.00	10%	90%	60	54	3,240		
13.00	0%	100%	60	60	3,600		
14.00	0%	100%	60	60	3,600		
15.00	0%	100%	60	60	3,600		
16.00	18%	82%	60	49	2,952		
17.00	43%	57%	60	34	2,052		
18.00	75%	25%	60	15	900		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 7.00  
 Achieved total sun time (hrs) 7.32  
 Achieved daily sun time \* area 26352

NEW STATUS							March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0		0	
7.00	96%	4%	60	2	144		-324	
8.00	89%	11%	60	7	396		-360	
9.00	66%	34%	60	20	1,224		0	
10.00	53%	47%	60	28	1,692		0	
11.00	37%	63%	60	38	2,268		0	
12.00	10%	90%	60	54	3,240		0	
13.00	0%	100%	60	60	3,600		0	
14.00	0%	100%	60	60	3,600		0	
15.00	0%	100%	60	60	3,600		0	
16.00	18%	82%	60	49	2,952		0	
17.00	43%	57%	60	34	2,052		0	
18.00	75%	25%	60	15	900		0	
19.00	100%	0%	60	0	0		0	

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 7.00  
 Achieved total sun time (hrs) 7.13  
 Achieved daily sun time \* area 25668

0.98  
0.98

5							60 m <sup>2</sup>
EXISTING STATUS							March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	
7.00	88%	12%	60	7	432		
8.00	30%	70%	60	42	2,520		
9.00	17%	83%	60	50	2,988		
10.00	19%	81%	60	49	2,916		
11.00	25%	75%	60	45	2,700		
12.00	35%	65%	60	39	2,340		
13.00	51%	49%	60	29	1,764		
14.00	64%	36%	60	22	1,296		
15.00	74%	26%	60	16	936		
16.00	82%	18%	60	11	648		
17.00	88%	12%	60	7	432		
18.00	90%	10%	60	6	360		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 5.00  
 Achieved total sun time (hrs) 5.37  
 Achieved daily sun time \* area 19332

NEW STATUS							March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0		0	
7.00	88%	12%	60	7	432		0	
8.00	75%	25%	60	15	900		-1,620	
9.00	79%	21%	60	13	756		-2,232	
10.00	19%	81%	60	49	2,916		0	
11.00	25%	75%	60	45	2,700		0	
12.00	35%	65%	60	39	2,340		0	
13.00	51%	49%	60	29	1,764		0	
14.00	64%	36%	60	22	1,296		0	
15.00	74%	26%	60	16	936		0	
16.00	82%	18%	60	11	648		0	
17.00	88%	12%	60	7	432		0	
18.00	90%	10%	60	6	360		0	
19.00	100%	0%	60	0	0		0	

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 3.00  
 Achieved total sun time (hrs) 4.3  
 Achieved daily sun time \* area 15480

0.81  
0.81



5A							50 m <sup>2</sup>	
EXISTING STATUS							March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area			
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			
6.00	100%	0%	60	0	0			
7.00	87%	13%	60	7	390			
8.00	78%	22%	60	11	660			
9.00	52%	48%	60	24	1,440			
10.00	8%	92%	60	46	2,760			
11.00	0%	100%	60	50	3,000			
12.00	0%	100%	60	50	3,000			
13.00	0%	100%	60	50	3,000			
14.00	0%	100%	60	50	3,000			
15.00	6%	94%	60	47	2,820			
16.00	18%	82%	60	41	2,460			
17.00	43%	57%	60	29	1,710			
18.00	75%	25%	60	13	750			
19.00	100%	0%	60	0	0			

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	8.33
Achieved daily sun time * area	24990

NEW STATUS							March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>	
6.00	100%	0%	60	0	0			0	
7.00	98%	2%	60	1	60			-330	
8.00	96%	4%	60	2	120			-540	
9.00	52%	48%	60	24	1,440			0	
10.00	8%	92%	60	46	2,760			0	
11.00	0%	100%	60	50	3,000			0	
12.00	0%	100%	60	50	3,000			0	
13.00	0%	100%	60	50	3,000			0	
14.00	0%	100%	60	50	3,000			0	
15.00	6%	94%	60	47	2,820			0	
16.00	18%	82%	60	41	2,460			0	
17.00	43%	57%	60	29	1,710			0	
18.00	75%	25%	60	13	750			0	
19.00	100%	0%	60	0	0			0	

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	8.04
Achieved daily sun time * area	24120

6							65 m <sup>2</sup>	
EXISTING STATUS							March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area			
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			
6.00	100%	0%	60	0	0			
7.00	88%	12%	60	8	468			
8.00	27%	73%	60	47	2,847			
9.00	15%	85%	60	55	3,315			
10.00	15%	85%	60	55	3,315			
11.00	23%	77%	60	50	3,003			
12.00	64%	36%	60	23	1,404			
13.00	51%	49%	60	32	1,911			
14.00	62%	38%	60	25	1,482			
15.00	71%	29%	60	19	1,131			
16.00	77%	23%	60	15	897			
17.00	84%	16%	60	10	624			
18.00	90%	10%	60	7	390			
19.00	100%	0%	60	0	0			

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	5.33
Achieved daily sun time * area	20787

NEW STATUS							March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>	
6.00	100%	0%	60	0	0			0	
7.00	88%	12%	60	8	468			0	
8.00	68%	32%	60	21	1,248			-1,599	
9.00	80%	20%	60	13	780			-2,535	
10.00	15%	85%	60	55	3,315			0	
11.00	23%	77%	60	50	3,003			0	
12.00	64%	36%	60	23	1,404			0	
13.00	51%	49%	60	32	1,911			0	
14.00	62%	38%	60	25	1,482			0	
15.00	71%	29%	60	19	1,131			0	
16.00	77%	23%	60	15	897			0	
17.00	84%	16%	60	10	624			0	
18.00	90%	10%	60	7	390			0	
19.00	100%	0%	60	0	0			0	

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	2.00
Achieved total sun time (hrs)	4.27
Achieved daily sun time * area	16653

6A							45 m <sup>2</sup>	
EXISTING STATUS							March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area			
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			
6.00	100%	0%	60	0	0			
7.00	87%	13%	60	6	351			
8.00	78%	22%	60	10	594			
9.00	52%	48%	60	22	1,296			
10.00	8%	92%	60	41	2,484			
11.00	0%	100%	60	45	2,700			
12.00	0%	100%	60	45	2,700			
13.00	0%	100%	60	45	2,700			
14.00	0%	100%	60	45	2,700			
15.00	6%	94%	60	42	2,538			
16.00	18%	82%	60	37	2,214			
17.00	43%	57%	60	26	1,539			
18.00	75%	25%	60	11	675			
19.00	100%	0%	60	0	0			

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	8.33
Achieved daily sun time * area	22491

NEW STATUS							March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>	
6.00	100%	0%	60	0	0			0	
7.00	97%	3%	60	1	81			-270	
8.00	86%	14%	60	6	378			-216	
9.00	52%	48%	60	22	1,296			0	
10.00	8%	92%	60	41	2,484			0	
11.00	0%	100%	60	45	2,700			0	
12.00	0%	100%	60	45	2,700			0	
13.00	0%	100%	60	45	2,700			0	
14.00	0%	100%	60	45	2,700			0	
15.00	6%	94%	60	42	2,538			0	
16.00	18%	82%	60	37	2,214			0	
17.00	43%	57%	60	26	1,539			0	
18.00	75%	25%	60	11	675			0	
19.00	100%	0%	60	0	0			0	

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	8.15
Achieved daily sun time * area	22005

7							75 m <sup>2</sup>	
EXISTING STATUS							March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area			
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			
6.00	100%	0%	60	0	0			
7.00	88%	12%	60	9	540			
8.00	27%	73%	60	55	3,285			
9.00	15%	85%	60	64	3,825			
10.00	15%	85%	60	64	3,825			
11.00	23%	77%	60	58	3,465			
12.00	64%	36%	60	27	1,620			
13.00	51%	49%	60	37	2,205			
14.00	62%	38%	60	29	1,710			
15.00	71%	29%	60	22	1,305			
16.00	77%	23%	60	17	1,035			
17.00	84%	16%	60	12	720			
18.00	90%	10%	60	8	450			
19.00	100%	0%	60	0	0			

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	5.33
Achieved daily sun time * area	23985

NEW STATUS							March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area	
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>	
6.00	100%	0%	60	0	0			0	
7.00	81%	19%	60	14	855			315	
8.00	64%	36%	60	27	1,620			-1,665	
9.00	80%	20%	60	15	900			-2,925	
10.00	15%	85%	60	64	3,825			0	
11.00	23%	77%	60	58	3,465			0	
12.00	64%	36%	60	27	1,620			0	
13.00	51%	49%	60	37	2,205			0	
14.00	62%	38%	60	29	1,710			0	
15.00	71%	29%	60	22	1,305			0	
16.00	77%	23%	60	17	1,035			0	
17.00	84%	16%	60	12	720			0	
18.00	90%	10%	60	8	450			0	
19.00	100%	0%	60	0	0			0	

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	2.00
Achieved total sun time (hrs)	4.38
Achieved daily sun time * area	19710



7A						50 m <sup>2</sup>
EXISTING STATUS						March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	87%	13%	60	7	390	-300
8.00	68%	32%	60	16	960	-270
9.00	52%	48%	60	24	1,440	0
10.00	8%	92%	60	46	2,760	0
11.00	0%	100%	60	50	3,000	0
12.00	0%	100%	60	50	3,000	0
13.00	0%	100%	60	50	3,000	0
14.00	0%	100%	60	50	3,000	0
15.00	6%	94%	60	47	2,820	0
16.00	18%	82%	60	41	2,460	0
17.00	43%	57%	60	29	1,710	0
18.00	75%	25%	60	13	750	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	8.43
Achieved daily sun time * area	25290

NEW STATUS						March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0	0
7.00	97%	3%	60	2	90	2,760	-300
8.00	77%	23%	60	12	690	1,440	-270
9.00	52%	48%	60	24	1,440	2,760	0
10.00	8%	92%	60	46	2,760	3,000	0
11.00	0%	100%	60	50	3,000	3,000	0
12.00	0%	100%	60	50	3,000	3,000	0
13.00	0%	100%	60	50	3,000	3,000	0
14.00	0%	100%	60	50	3,000	3,000	0
15.00	6%	94%	60	47	2,820	3,000	0
16.00	18%	82%	60	41	2,460	3,000	0
17.00	43%	57%	60	29	1,710	3,000	0
18.00	75%	25%	60	13	750	3,000	0
19.00	100%	0%	60	0	0	3,000	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	8.24
Achieved daily sun time * area	24720
	0.98
	0.98

8						85 m <sup>2</sup>
EXISTING STATUS						March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	88%	12%	60	10	612	0
8.00	27%	73%	60	62	3,723	-1,326
9.00	15%	85%	60	72	4,335	-561
10.00	19%	81%	60	69	4,131	0
11.00	27%	73%	60	62	3,723	0
12.00	51%	49%	60	42	2,499	0
13.00	58%	42%	60	36	2,142	0
14.00	62%	38%	60	32	1,938	0
15.00	71%	29%	60	25	1,479	0
16.00	77%	23%	60	20	1,173	0
17.00	84%	16%	60	14	816	0
18.00	90%	10%	60	9	510	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	5.31
Achieved daily sun time * area	27081

NEW STATUS						March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0	0
7.00	88%	12%	60	10	612	612	0
8.00	53%	47%	60	40	2,397	3,723	-1,326
9.00	26%	74%	60	63	3,774	4,335	-561
10.00	19%	81%	60	69	4,131	4,131	0
11.00	27%	73%	60	62	3,723	3,723	0
12.00	51%	49%	60	42	2,499	2,499	0
13.00	58%	42%	60	36	2,142	2,142	0
14.00	62%	38%	60	32	1,938	1,938	0
15.00	71%	29%	60	25	1,479	1,479	0
16.00	77%	23%	60	20	1,173	1,173	0
17.00	84%	16%	60	14	816	816	0
18.00	90%	10%	60	9	510	510	0
19.00	100%	0%	60	0	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	3.00
Achieved total sun time (hrs)	4.94
Achieved daily sun time * area	25194
	0.94
	0.94

8A						40 m <sup>2</sup>
EXISTING STATUS						March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	87%	13%	60	5	312	-72
8.00	68%	32%	60	13	768	-432
9.00	52%	48%	60	19	1,152	0
10.00	8%	92%	60	37	2,208	0
11.00	0%	100%	60	40	2,400	0
12.00	0%	100%	60	40	2,400	0
13.00	0%	100%	60	40	2,400	0
14.00	0%	100%	60	40	2,400	0
15.00	6%	94%	60	38	2,256	0
16.00	18%	82%	60	33	1,968	0
17.00	43%	57%	60	23	1,368	0
18.00	75%	25%	60	10	600	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	8.43
Achieved daily sun time * area	20232

NEW STATUS						March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0	0
7.00	90%	10%	60	4	240	240	-72
8.00	86%	14%	60	6	336	768	-432
9.00	52%	48%	60	19	1,152	1,152	0
10.00	8%	92%	60	37	2,208	2,208	0
11.00	0%	100%	60	40	2,400	2,400	0
12.00	0%	100%	60	40	2,400	2,400	0
13.00	0%	100%	60	40	2,400	2,400	0
14.00	0%	100%	60	40	2,400	2,400	0
15.00	6%	94%	60	38	2,256	2,256	0
16.00	18%	82%	60	33	1,968	1,968	0
17.00	43%	57%	60	23	1,368	1,368	0
18.00	75%	25%	60	10	600	600	0
19.00	100%	0%	60	0	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	8.22
Achieved daily sun time * area	19728
	0.98
	0.98

9						85 m <sup>2</sup>
EXISTING STATUS						March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	88%	12%	60	10	612	0
8.00	27%	73%	60	62	3,723	-1,020
9.00	18%	82%	60	70	4,182	0
10.00	22%	78%	60	66	3,978	0
11.00	29%	71%	60	60	3,621	0
12.00	52%	48%	60	41	2,448	0
13.00	60%	40%	60	34	2,040	0
14.00	63%	37%	60	31	1,887	0
15.00	73%	27%	60	23	1,377	0
16.00	77%	23%	60	20	1,173	0
17.00	84%	16%	60	14	816	0
18.00	90%	10%	60	9	510	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	5.17
Achieved daily sun time * area	26367

NEW STATUS						March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0	0
7.00	88%	12%	60	10	612	612	0
8.00	47%	53%	60	45	2,703	3,723	-1,020
9.00	18%	82%	60	70	4,182	4,182	0
10.00	22%	78%	60	66	3,978	3,978	0
11.00	29%	71%	60	60	3,621	3,621	0
12.00	52%	48%	60	41	2,448	2,448	0
13.00	60%	40%	60	34	2,040	2,040	0
14.00	63%	37%	60	31	1,887	1,887	0
15.00	73%	27%	60	23	1,377	1,377	0
16.00	77%	23%	60	20	1,173	1,173	0
17.00	84%	16%	60	14	816	816	0
18.00	90%	10%	60	9	510	510	0
19.00	100%	0%	60	0	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	4.97
Achieved daily sun time * area	25347
	0.97
	0.97



9A							45 m <sup>2</sup>
EXISTING STATUS							March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change	
24 Hr	% / %	% / %	min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	
7.00	87%	13%	60	6	351	0	
8.00	66%	34%	60	15	918	0	
9.00	49%	51%	60	23	1,377	0	
10.00	8%	92%	60	41	2,484	0	
11.00	0%	100%	60	45	2,700	0	
12.00	0%	100%	60	45	2,700	0	
13.00	0%	100%	60	45	2,700	0	
14.00	0%	100%	60	45	2,700	0	
15.00	6%	94%	60	42	2,538	0	
16.00	18%	82%	60	37	2,214	0	
17.00	43%	57%	60	26	1,539	0	
18.00	75%	25%	60	11	675	0	
19.00	100%	0%	60	0	0	0	
Required sun hours @ 50% area (hr)							2
Achieved sun hours on (hrs) @ 50% area							9.00
Achieved total sun time (hrs)							8.48
Achieved daily sun time * area							22896

NEW STATUS							March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area	
24 Hr	% / %	% / %	min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	0	
7.00	87%	13%	60	6	351	0	0	
8.00	86%	14%	60	6	378	-540	0	
9.00	49%	51%	60	23	1,377	0	0	
10.00	8%	92%	60	41	2,484	0	0	
11.00	0%	100%	60	45	2,700	0	0	
12.00	0%	100%	60	45	2,700	0	0	
13.00	0%	100%	60	45	2,700	0	0	
14.00	0%	100%	60	45	2,700	0	0	
15.00	6%	94%	60	42	2,538	0	0	
16.00	18%	82%	60	37	2,214	0	0	
17.00	43%	57%	60	26	1,539	0	0	
18.00	75%	25%	60	11	675	0	0	
19.00	100%	0%	60	0	0	0	0	
Required sun hours @ 50% area (hr)							2	
Achieved sun hours on (hrs) @ 50% area							9.00	
Achieved total sun time (hrs)							8.28	0.98
Achieved daily sun time * area							22356	0.98

10							65 m <sup>2</sup>
EXISTING STATUS							March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change	
24 Hr	% / %	% / %	min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	
7.00	88%	12%	60	8	468	0	
8.00	28%	72%	60	47	2,808	0	
9.00	26%	74%	60	48	2,886	0	
10.00	29%	71%	60	46	2,769	0	
11.00	35%	65%	60	42	2,535	0	
12.00	46%	54%	60	35	2,106	0	
13.00	51%	49%	60	32	1,911	0	
14.00	64%	36%	60	23	1,404	0	
15.00	76%	24%	60	16	936	0	
16.00	84%	16%	60	10	624	0	
17.00	89%	11%	60	7	429	0	
18.00	92%	8%	60	5	312	0	
19.00	100%	0%	60	0	0	0	
Required sun hours @ 50% area (hr)							2
Achieved sun hours on (hrs) @ 50% area							5.00
Achieved total sun time (hrs)							4.92
Achieved daily sun time * area							19188

NEW STATUS							March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area	
24 Hr	% / %	% / %	min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	0	
7.00	88%	12%	60	8	468	0	0	
8.00	39%	61%	60	40	2,379	-429	0	
9.00	26%	74%	60	48	2,886	0	0	
10.00	29%	71%	60	46	2,769	0	0	
11.00	35%	65%	60	42	2,535	0	0	
12.00	46%	54%	60	35	2,106	0	0	
13.00	51%	49%	60	32	1,911	0	0	
14.00	64%	36%	60	23	1,404	0	0	
15.00	76%	24%	60	16	936	0	0	
16.00	84%	16%	60	10	624	0	0	
17.00	89%	11%	60	7	429	0	0	
18.00	92%	8%	60	5	312	0	0	
19.00	100%	0%	60	0	0	0	0	
Required sun hours @ 50% area (hr)							2	
Achieved sun hours on (hrs) @ 50% area							5.00	
Achieved total sun time (hrs)							4.81	0.98
Achieved daily sun time * area							18759	0.98

10A							45 m <sup>2</sup>
EXISTING STATUS							March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change	
24 Hr	% / %	% / %	min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	
7.00	87%	13%	60	6	351	0	
8.00	56%	44%	60	20	1,188	0	
9.00	19%	81%	60	36	2,187	0	
10.00	8%	92%	60	41	2,484	0	
11.00	0%	100%	60	45	2,700	0	
12.00	0%	100%	60	45	2,700	0	
13.00	0%	100%	60	45	2,700	0	
14.00	0%	100%	60	45	2,700	0	
15.00	6%	94%	60	42	2,538	0	
16.00	18%	82%	60	37	2,214	0	
17.00	43%	57%	60	26	1,539	0	
18.00	75%	25%	60	11	675	0	
19.00	100%	0%	60	0	0	0	
Required sun hours @ 50% area (hr)							2
Achieved sun hours on (hrs) @ 50% area							9.00
Achieved total sun time (hrs)							8.88
Achieved daily sun time * area							23976

NEW STATUS							March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area	
24 Hr	% / %	% / %	min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	0	
7.00	87%	13%	60	6	351	0	0	
8.00	84%	16%	60	7	432	-756	0	
9.00	19%	81%	60	36	2,187	0	0	
10.00	8%	92%	60	41	2,484	0	0	
11.00	0%	100%	60	45	2,700	0	0	
12.00	0%	100%	60	45	2,700	0	0	
13.00	0%	100%	60	45	2,700	0	0	
14.00	0%	100%	60	45	2,700	0	0	
15.00	6%	94%	60	42	2,538	0	0	
16.00	18%	82%	60	37	2,214	0	0	
17.00	43%	57%	60	26	1,539	0	0	
18.00	75%	25%	60	11	675	0	0	
19.00	100%	0%	60	0	0	0	0	
Required sun hours @ 50% area (hr)							2	
Achieved sun hours on (hrs) @ 50% area							9.00	
Achieved total sun time (hrs)							8.6	0.97
Achieved daily sun time * area							23220	0.97

11							50 m <sup>2</sup>
EXISTING STATUS							March 21st
Time	Shadow	Sunlight	Sun time	Sun area	time * area	change	
24 Hr	% / %	% / %	min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	
7.00	88%	12%	60	6	360	0	
8.00	28%	72%	60	36	2,160	0	
9.00	30%	70%	60	35	2,100	0	
10.00	33%	67%	60	34	2,010	0	
11.00	39%	61%	60	31	1,830	0	
12.00	46%	54%	60	27	1,620	0	
13.00	51%	49%	60	25	1,470	0	
14.00	64%	36%	60	18	1,080	0	
15.00	76%	24%	60	12	720	0	
16.00	84%	16%	60	8	480	0	
17.00	89%	11%	60	6	330	0	
18.00	92%	8%	60	4	240	0	
19.00	100%	0%	60	0	0	0	
Required sun hours @ 50% area (hr)							2
Achieved sun hours on (hrs) @ 50% area							5.00
Achieved total sun time (hrs)							4.8
Achieved daily sun time * area							14400

NEW STATUS							March 21st	change
Time	Shadow	Sunlight	Sun time	Sun area	time * area	time * area	time * area	
24 Hr	% / %	% / %	min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>	
6.00	100%	0%	60	0	0	0	0	
7.00	88%	12%	60	6	360	0	0	
8.00	35%	65%	60	33	1,950	-210	0	
9.00	30%	70%	60	35	2,100	0	0	
10.00	33%	67%	60	34	2,010	0	0	
11.00	39%	61%	60	31	1,830	0	0	
12.00	46%	54%	60	27	1,620	0	0	
13.00	51%	49%	60	25	1,470	0	0	
14.00	64%	36%	60	18	1,080	0	0	
15.00	76%	24%	60	12	720	0	0	
16.00	84%	16%	60	8	480	0	0	
17.00	89%	11%	60	6	330	0	0	
18.00	92%	8%	60	4	240	0	0	
19.00	100%	0%	60	0	0	0	0	
Required sun hours @ 50% area (hr)							2	
Achieved sun hours on (hrs) @ 50% area							5.00	
Achieved total sun time (hrs)							4.73	0.99
Achieved daily sun time * area							14190	0.99



**11A** 45 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	87%	13%	60	6	351		
8.00	46%	54%	60	24	1,458		
9.00	19%	81%	60	36	2,187		
10.00	8%	92%	60	41	2,484		
11.00	0%	100%	60	45	2,700		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	6%	94%	60	42	2,538		
16.00	18%	82%	60	37	2,214		
17.00	43%	57%	60	26	1,539		
18.00	75%	25%	60	11	675		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	10.00
Achieved total sun time (hrs)	8.98
Achieved daily sun time * area	24246

**NEW STATUS**

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>
6.00	100%	0%	60	0	0			0
7.00	87%	13%	60	6	351			0
8.00	85%	15%	60	7	405			-1,053
9.00	19%	81%	60	36	2,187			0
10.00	8%	92%	60	41	2,484			0
11.00	0%	100%	60	45	2,700			0
12.00	0%	100%	60	45	2,700			0
13.00	0%	100%	60	45	2,700			0
14.00	0%	100%	60	45	2,700			0
15.00	6%	94%	60	42	2,538			0
16.00	18%	82%	60	37	2,214			0
17.00	43%	57%	60	26	1,539			0
18.00	75%	25%	60	11	675			0
19.00	100%	0%	60	0	0			0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	9.00
Achieved total sun time (hrs)	8.59
Achieved daily sun time * area	23193

**12** 80 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	10	576		
8.00	27%	73%	60	58	3,504		
9.00	31%	69%	60	55	3,312		
10.00	33%	67%	60	54	3,216		
11.00	39%	61%	60	49	2,928		
12.00	46%	54%	60	43	2,592		
13.00	51%	49%	60	39	2,352		
14.00	64%	36%	60	29	1,728		
15.00	76%	24%	60	19	1,152		
16.00	84%	16%	60	13	768		
17.00	89%	11%	60	9	528		
18.00	92%	8%	60	6	384		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	5.00
Achieved total sun time (hrs)	4.8
Achieved daily sun time * area	23040

**NEW STATUS**

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>
6.00	100%	0%	60	0	0			0
7.00	88%	12%	60	10	576			0
8.00	32%	68%	60	54	3,264			-240
9.00	31%	69%	60	55	3,312			0
10.00	33%	67%	60	54	3,216			0
11.00	39%	61%	60	49	2,928			0
12.00	46%	54%	60	43	2,592			0
13.00	51%	49%	60	39	2,352			0
14.00	64%	36%	60	29	1,728			0
15.00	76%	24%	60	19	1,152			0
16.00	84%	16%	60	13	768			0
17.00	89%	11%	60	9	528			0
18.00	92%	8%	60	6	384			0
19.00	100%	0%	60	0	0			0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	5.00
Achieved total sun time (hrs)	4.75
Achieved daily sun time * area	22800

**12A** 45 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	87%	13%	60	6	351		
8.00	46%	54%	60	24	1,458		
9.00	19%	81%	60	36	2,187		
10.00	8%	92%	60	41	2,484		
11.00	0%	100%	60	45	2,700		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	6%	94%	60	42	2,538		
16.00	18%	82%	60	37	2,214		
17.00	43%	57%	60	26	1,539		
18.00	75%	25%	60	11	675		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	10.00
Achieved total sun time (hrs)	8.98
Achieved daily sun time * area	24246

**NEW STATUS**

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>
6.00	100%	0%	60	0	0			0
7.00	87%	13%	60	6	351			0
8.00	86%	14%	60	6	378			-1,080
9.00	19%	81%	60	36	2,187			0
10.00	8%	92%	60	41	2,484			0
11.00	0%	100%	60	45	2,700			0
12.00	0%	100%	60	45	2,700			0
13.00	0%	100%	60	45	2,700			0
14.00	0%	100%	60	45	2,700			0
15.00	6%	94%	60	42	2,538			0
16.00	18%	82%	60	37	2,214			0
17.00	43%	57%	60	26	1,539			0
18.00	75%	25%	60	11	675			0
19.00	100%	0%	60	0	0			0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	9.00
Achieved total sun time (hrs)	8.58
Achieved daily sun time * area	23166

**13** 100 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	12	720		
8.00	27%	73%	60	73	4,380		
9.00	31%	69%	60	69	4,140		
10.00	33%	67%	60	67	4,020		
11.00	39%	61%	60	61	3,660		
12.00	46%	54%	60	54	3,240		
13.00	51%	49%	60	49	2,940		
14.00	64%	36%	60	36	2,160		
15.00	76%	24%	60	24	1,440		
16.00	84%	16%	60	16	960		
17.00	89%	11%	60	11	660		
18.00	92%	8%	60	8	480		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	5.00
Achieved total sun time (hrs)	4.8
Achieved daily sun time * area	28800

**NEW STATUS**

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>
6.00	100%	0%	60	0	0			0
7.00	88%	12%	60	12	720			0
8.00	32%	68%	60	68	4,080			-300
9.00	31%	69%	60	69	4,140			0
10.00	33%	67%	60	67	4,020			0
11.00	39%	61%	60	61	3,660			0
12.00	46%	54%	60	54	3,240			0
13.00	51%	49%	60	49	2,940			0
14.00	64%	36%	60	36	2,160			0
15.00	76%	24%	60	24	1,440			0
16.00	84%	16%	60	16	960			0
17.00	89%	11%	60	11	660			0
18.00	92%	8%	60	8	480			0
19.00	100%	0%	60	0	0			0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	5.00
Achieved total sun time (hrs)	4.75
Achieved daily sun time * area	28500





**13A** 45 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	87%	13%	60	6	351		
8.00	46%	54%	60	24	1,458		
9.00	19%	81%	60	36	2,187		
10.00	8%	92%	60	41	2,484		
11.00	0%	100%	60	45	2,700		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	6%	94%	60	42	2,538		
16.00	18%	82%	60	37	2,214		
17.00	43%	57%	60	26	1,539		
18.00	75%	25%	60	11	675		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	10.00
Achieved total sun time (hrs)	8.98
Achieved daily sun time * area	24246

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>
6.00	100%	0%	60	0	0			0
7.00	87%	13%	60	6	351			0
8.00	85%	15%	60	7	405			-1,053
9.00	19%	81%	60	36	2,187			0
10.00	8%	92%	60	41	2,484			0
11.00	0%	100%	60	45	2,700			0
12.00	0%	100%	60	45	2,700			0
13.00	0%	100%	60	45	2,700			0
14.00	0%	100%	60	45	2,700			0
15.00	6%	94%	60	42	2,538			0
16.00	18%	82%	60	37	2,214			0
17.00	43%	57%	60	26	1,539			0
18.00	75%	25%	60	11	675			0
19.00	100%	0%	60	0	0			0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	9.00
Achieved total sun time (hrs)	8.59
Achieved daily sun time * area	23193

**14** 70 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	8	504		
8.00	79%	21%	60	15	882		
9.00	32%	68%	60	48	2,856		
10.00	12%	88%	60	62	3,696		
11.00	0%	100%	60	70	4,200		
12.00	0%	100%	60	70	4,200		
13.00	0%	100%	60	70	4,200		
14.00	0%	100%	60	70	4,200		
15.00	14%	86%	60	60	3,612		
16.00	24%	76%	60	53	3,192		
17.00	68%	32%	60	22	1,344		
18.00	92%	8%	60	6	336		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.91
Achieved daily sun time * area	33222

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>
6.00	100%	0%	60	0	0			0
7.00	88%	12%	60	8	504			0
8.00	81%	19%	60	13	798			-84
9.00	48%	52%	60	36	2,184			-672
10.00	12%	88%	60	62	3,696			0
11.00	0%	100%	60	70	4,200			0
12.00	0%	100%	60	70	4,200			0
13.00	0%	100%	60	70	4,200			0
14.00	0%	100%	60	70	4,200			0
15.00	14%	86%	60	60	3,612			0
16.00	24%	76%	60	53	3,192			0
17.00	68%	32%	60	22	1,344			0
18.00	92%	8%	60	6	336			0
19.00	100%	0%	60	0	0			0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.73
Achieved daily sun time * area	32466

**15** 65 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	8	468		
8.00	77%	23%	60	15	897		
9.00	34%	66%	60	43	2,574		
10.00	12%	88%	60	57	3,432		
11.00	0%	100%	60	65	3,900		
12.00	0%	100%	60	65	3,900		
13.00	0%	100%	60	65	3,900		
14.00	0%	100%	60	65	3,900		
15.00	14%	86%	60	56	3,354		
16.00	24%	76%	60	49	2,964		
17.00	68%	32%	60	21	1,248		
18.00	92%	8%	60	5	312		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.91
Achieved daily sun time * area	30849

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>
6.00	100%	0%	60	0	0			0
7.00	88%	12%	60	8	468			0
8.00	79%	21%	60	14	819			-78
9.00	42%	58%	60	38	2,262			-312
10.00	12%	88%	60	57	3,432			0
11.00	0%	100%	60	65	3,900			0
12.00	0%	100%	60	65	3,900			0
13.00	0%	100%	60	65	3,900			0
14.00	0%	100%	60	65	3,900			0
15.00	14%	86%	60	56	3,354			0
16.00	24%	76%	60	49	2,964			0
17.00	68%	32%	60	21	1,248			0
18.00	92%	8%	60	5	312			0
19.00	100%	0%	60	0	0			0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.81
Achieved daily sun time * area	30459

**16** 70 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	8	504		
8.00	79%	21%	60	15	882		
9.00	34%	66%	60	46	2,772		
10.00	12%	88%	60	62	3,696		
11.00	0%	100%	60	70	4,200		
12.00	0%	100%	60	70	4,200		
13.00	0%	100%	60	70	4,200		
14.00	0%	100%	60	70	4,200		
15.00	14%	86%	60	60	3,612		
16.00	24%	76%	60	53	3,192		
17.00	74%	26%	60	18	1,092		
18.00	92%	8%	60	6	336		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.83
Achieved daily sun time * area	32886

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>			min*m <sup>2</sup>
6.00	100%	0%	60	0	0			0
7.00	88%	12%	60	8	504			0
8.00	79%	21%	60	15	882			0
9.00	56%	44%	60	32	1,890			-882
10.00	12%	88%	60	62	3,696			0
11.00	0%	100%	60	70	4,200			0
12.00	0%	100%	60	70	4,200			0
13.00	0%	100%	60	70	4,200			0
14.00	0%	100%	60	70	4,200			0
15.00	14%	86%	60	60	3,612			0
16.00	24%	76%	60	53	3,192			0
17.00	74%	26%	60	18	1,092			0
18.00	92%	8%	60	6	336			0
19.00	100%	0%	60	0	0			0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	7.00
Achieved total sun time (hrs)	7.62
Achieved daily sun time * area	32004



**17** **45** m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	5	324		
8.00	79%	21%	60	9	567		
9.00	34%	66%	60	30	1,782		
10.00	12%	88%	60	40	2,376		
11.00	0%	100%	60	45	2,700		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	14%	86%	60	39	2,322		
16.00	24%	76%	60	34	2,052		
17.00	74%	26%	60	12	702		
18.00	92%	8%	60	4	216		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.83
Achieved daily sun time * area	21141

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	88%	12%	60	5	324	0
8.00	79%	21%	60	9	567	0
9.00	81%	19%	60	9	513	-1,269
10.00	12%	88%	60	40	2,376	0
11.00	0%	100%	60	45	2,700	0
12.00	0%	100%	60	45	2,700	0
13.00	0%	100%	60	45	2,700	0
14.00	0%	100%	60	45	2,700	0
15.00	14%	86%	60	39	2,322	0
16.00	24%	76%	60	34	2,052	0
17.00	74%	26%	60	12	702	0
18.00	92%	8%	60	4	216	0
19.00	100%	0%	60	0	0	0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	7.00
Achieved total sun time (hrs)	7.36
Achieved daily sun time * area	19872

**18** **45** m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	5	324		
8.00	73%	27%	60	12	729		
9.00	41%	59%	60	27	1,593		
10.00	12%	88%	60	40	2,376		
11.00	0%	100%	60	45	2,700		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	14%	86%	60	39	2,322		
16.00	24%	76%	60	34	2,052		
17.00	74%	26%	60	12	702		
18.00	92%	8%	60	4	216		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.82
Achieved daily sun time * area	21114

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	88%	12%	60	5	324	0
8.00	73%	27%	60	12	729	0
9.00	80%	20%	60	9	540	-1,053
10.00	21%	79%	60	36	2,133	-243
11.00	0%	100%	60	45	2,700	0
12.00	0%	100%	60	45	2,700	0
13.00	0%	100%	60	45	2,700	0
14.00	0%	100%	60	45	2,700	0
15.00	14%	86%	60	39	2,322	0
16.00	24%	76%	60	34	2,052	0
17.00	74%	26%	60	12	702	0
18.00	92%	8%	60	4	216	0
19.00	100%	0%	60	0	0	0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	7.00
Achieved total sun time (hrs)	7.34
Achieved daily sun time * area	19818

**18A** **45** m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	5	324		
8.00	23%	77%	60	35	2,079		
9.00	18%	82%	60	37	2,214		
10.00	34%	66%	60	30	1,782		
11.00	39%	61%	60	27	1,647		
12.00	56%	44%	60	20	1,188		
13.00	63%	37%	60	17	999		
14.00	63%	37%	60	17	999		
15.00	65%	35%	60	16	945		
16.00	70%	30%	60	14	810		
17.00	74%	26%	60	12	702		
18.00	90%	10%	60	5	270		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	5.17
Achieved daily sun time * area	13959

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	88%	12%	60	5	324	0
8.00	70%	30%	60	14	810	-1,269
9.00	18%	82%	60	37	2,214	0
10.00	56%	44%	60	20	1,188	-594
11.00	39%	61%	60	27	1,647	0
12.00	56%	44%	60	20	1,188	0
13.00	63%	37%	60	17	999	0
14.00	63%	37%	60	17	999	0
15.00	65%	35%	60	16	945	0
16.00	70%	30%	60	14	810	0
17.00	74%	26%	60	12	702	0
18.00	90%	10%	60	5	270	0
19.00	100%	0%	60	0	0	0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	2.00
Achieved total sun time (hrs)	4.48
Achieved daily sun time * area	12096

**19** **70** m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	8	504		
8.00	62%	38%	60	27	1,596		
9.00	41%	59%	60	41	2,478		
10.00	12%	88%	60	62	3,696		
11.00	0%	100%	60	70	4,200		
12.00	0%	100%	60	70	4,200		
13.00	0%	100%	60	70	4,200		
14.00	0%	100%	60	70	4,200		
15.00	14%	86%	60	60	3,612		
16.00	24%	76%	60	53	3,192		
17.00	74%	26%	60	18	1,092		
18.00	92%	8%	60	6	336		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.93
Achieved daily sun time * area	33306

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	88%	12%	60	8	504	0
8.00	62%	38%	60	27	1,596	0
9.00	80%	20%	60	14	840	-1,638
10.00	71%	29%	60	20	1,218	-2,478
11.00	0%	100%	60	70	4,200	0
12.00	0%	100%	60	70	4,200	0
13.00	0%	100%	60	70	4,200	0
14.00	0%	100%	60	70	4,200	0
15.00	14%	86%	60	60	3,612	0
16.00	24%	76%	60	53	3,192	0
17.00	74%	26%	60	18	1,092	0
18.00	92%	8%	60	6	336	0
19.00	100%	0%	60	0	0	0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	6.00
Achieved total sun time (hrs)	6.95
Achieved daily sun time * area	29190



**19A** 45 m2

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m2	min*m2		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	5	324		
8.00	23%	77%	60	35	2,079		
9.00	18%	82%	60	37	2,214		
10.00	34%	66%	60	30	1,782		
11.00	39%	61%	60	27	1,647		
12.00	56%	44%	60	20	1,188		
13.00	63%	37%	60	17	999		
14.00	63%	37%	60	17	999		
15.00	65%	35%	60	16	945		
16.00	70%	30%	60	14	810		
17.00	74%	26%	60	12	702		
18.00	90%	10%	60	5	270		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	5.17
Achieved daily sun time * area	13959

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m2	min*m2			min*m2
6.00	100%	0%	60	0	0			0
7.00	88%	12%	60	5	324			0
8.00	76%	24%	60	11	648			-1,431
9.00	18%	82%	60	37	2,214			0
10.00	57%	43%	60	19	1,161			-621
11.00	39%	61%	60	27	1,647			0
12.00	56%	44%	60	20	1,188			0
13.00	63%	37%	60	17	999			0
14.00	63%	37%	60	17	999			0
15.00	65%	35%	60	16	945			0
16.00	70%	30%	60	14	810			0
17.00	74%	26%	60	12	702			0
18.00	90%	10%	60	5	270			0
19.00	100%	0%	60	0	0			0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	2.00
Achieved total sun time (hrs)	4.41
Achieved daily sun time * area	11907

**20** 45 m2

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m2	min*m2		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	5	324		
8.00	51%	49%	60	22	1,323		
9.00	35%	65%	60	29	1,755		
10.00	12%	88%	60	40	2,376		
11.00	0%	100%	60	45	2,700		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	14%	86%	60	39	2,322		
16.00	24%	76%	60	34	2,052		
17.00	74%	26%	60	12	702		
18.00	92%	8%	60	4	216		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	8.1
Achieved daily sun time * area	21870

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m2	min*m2			min*m2
6.00	100%	0%	60	0	0			0
7.00	88%	12%	60	5	324			0
8.00	74%	26%	60	12	702			-621
9.00	80%	20%	60	9	540			-1,215
10.00	69%	31%	60	14	837			-1,539
11.00	0%	100%	60	45	2,700			0
12.00	0%	100%	60	45	2,700			0
13.00	0%	100%	60	45	2,700			0
14.00	0%	100%	60	45	2,700			0
15.00	14%	86%	60	39	2,322			0
16.00	24%	76%	60	34	2,052			0
17.00	74%	26%	60	12	702			0
18.00	92%	8%	60	4	216			0
19.00	100%	0%	60	0	0			0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	6.00
Achieved total sun time (hrs)	6.85
Achieved daily sun time * area	18495

**20A** 45 m2

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m2	min*m2		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	5	324		
8.00	23%	77%	60	35	2,079		
9.00	18%	82%	60	37	2,214		
10.00	34%	66%	60	30	1,782		
11.00	35%	65%	60	29	1,755		
12.00	56%	44%	60	20	1,188		
13.00	63%	37%	60	17	999		
14.00	63%	37%	60	17	999		
15.00	65%	35%	60	16	945		
16.00	70%	30%	60	14	810		
17.00	74%	26%	60	12	702		
18.00	85%	15%	60	7	405		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	5.26
Achieved daily sun time * area	14202

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m2	min*m2			min*m2
6.00	100%	0%	60	0	0			0
7.00	88%	12%	60	5	324			0
8.00	77%	23%	60	10	621			-1,458
9.00	18%	82%	60	37	2,214			0
10.00	66%	34%	60	15	918			-864
11.00	45%	55%	60	25	1,485			-270
12.00	56%	44%	60	20	1,188			0
13.00	63%	37%	60	17	999			0
14.00	63%	37%	60	17	999			0
15.00	65%	35%	60	16	945			0
16.00	70%	30%	60	14	810			0
17.00	74%	26%	60	12	702			0
18.00	85%	15%	60	7	405			0
19.00	100%	0%	60	0	0			0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	2.00
Achieved total sun time (hrs)	4.3
Achieved daily sun time * area	11610

**21** 95 m2

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m2	min*m2		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	11	684		
8.00	69%	31%	60	29	1,767		
9.00	56%	44%	60	42	2,508		
10.00	38%	62%	60	59	3,534		
11.00	18%	82%	60	78	4,674		
12.00	15%	85%	60	81	4,845		
13.00	10%	90%	60	86	5,130		
14.00	0%	100%	60	95	5,700		
15.00	14%	86%	60	82	4,902		
16.00	24%	76%	60	72	4,332		
17.00	74%	26%	60	25	1,482		
18.00	90%	10%	60	10	570		
19.00	100%	0%	60	0	0		

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	7.00
Achieved total sun time (hrs)	7.04
Achieved daily sun time * area	40128

NEW STATUS						March 21st		change
Time	Shadow	Sunlight	Sun time	Sun area	time * area			time * area
24 Hr	% / %		min	m2	min*m2			min*m2
6.00	100%	0%	60	0	0			0
7.00	88%	12%	60	11	684			0
8.00	88%	12%	60	11	684			-1,083
9.00	80%	20%	60	19	1,140			-1,368
10.00	77%	23%	60	22	1,311			-2,223
11.00	18%	82%	60	78	4,674			0
12.00	15%	85%	60	81	4,845			0
13.00	10%	90%	60	86	5,130			0
14.00	0%	100%	60	95	5,700			0
15.00	14%	86%	60	82	4,902			0
16.00	24%	76%	60	72	4,332			0
17.00	74%	26%	60	25	1,482			0
18.00	90%	10%	60	10	570			0
19.00	100%	0%	60	0	0			0

  

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	6.00
Achieved total sun time (hrs)	6.22
Achieved daily sun time * area	35454



**21A** 65 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	8	468		
8.00	66%	34%	60	22	1,326		
9.00	60%	40%	60	26	1,560		
10.00	53%	47%	60	31	1,833		
11.00	19%	81%	60	53	3,159		
12.00	23%	77%	60	50	3,003		
13.00	26%	74%	60	48	2,886		
14.00	41%	59%	60	38	2,301		
15.00	65%	35%	60	23	1,365		
16.00	70%	30%	60	20	1,170		
17.00	74%	26%	60	17	1,014		
18.00	85%	15%	60	10	585		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	5.3
Achieved daily sun time * area	20670

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	88%	12%	60	8	468	0
8.00	79%	21%	60	14	819	-507
9.00	60%	40%	60	26	1,560	0
10.00	80%	20%	60	13	780	-1,053
11.00	72%	28%	60	18	1,092	-2,067
12.00	23%	77%	60	50	3,003	0
13.00	26%	74%	60	48	2,886	0
14.00	41%	59%	60	38	2,301	0
15.00	65%	35%	60	23	1,365	0
16.00	70%	30%	60	20	1,170	0
17.00	74%	26%	60	17	1,014	0
18.00	85%	15%	60	10	585	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	3.00
Achieved total sun time (hrs)	4.37
Achieved daily sun time * area	17043

**22** 100 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	12	720		
8.00	72%	28%	60	28	1,680		
9.00	55%	45%	60	45	2,700		
10.00	39%	61%	60	61	3,660		
11.00	23%	77%	60	77	4,620		
12.00	19%	81%	60	81	4,860		
13.00	25%	75%	60	75	4,500		
14.00	54%	46%	60	46	2,760		
15.00	62%	38%	60	38	2,280		
16.00	69%	31%	60	31	1,860		
17.00	74%	26%	60	26	1,560		
18.00	92%	8%	60	8	480		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	4.00
Achieved total sun time (hrs)	5.28
Achieved daily sun time * area	31680

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	88%	12%	60	12	720	0
8.00	78%	22%	60	22	1,320	-360
9.00	88%	12%	60	12	720	-1,980
10.00	53%	47%	60	47	2,820	-840
11.00	23%	77%	60	77	4,620	0
12.00	19%	81%	60	81	4,860	0
13.00	25%	75%	60	75	4,500	0
14.00	54%	46%	60	46	2,760	0
15.00	62%	38%	60	38	2,280	0
16.00	69%	31%	60	31	1,860	0
17.00	74%	26%	60	26	1,560	0
18.00	92%	8%	60	8	480	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	3.00
Achieved total sun time (hrs)	4.75
Achieved daily sun time * area	28500

**22A** 65 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	87%	13%	60	8	507		
8.00	81%	19%	60	12	741		
9.00	58%	42%	60	27	1,638		
10.00	24%	76%	60	49	2,964		
11.00	18%	82%	60	53	3,198		
12.00	9%	91%	60	59	3,549		
13.00	0%	100%	60	65	3,900		
14.00	0%	100%	60	65	3,900		
15.00	10%	90%	60	59	3,510		
16.00	15%	85%	60	55	3,315		
17.00	45%	55%	60	36	2,145		
18.00	73%	27%	60	18	1,053		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	8.00
Achieved total sun time (hrs)	7.8
Achieved daily sun time * area	30420

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	87%	13%	60	8	507	0
8.00	89%	11%	60	7	429	-312
9.00	88%	12%	60	8	468	-1,170
10.00	68%	32%	60	21	1,248	-1,716
11.00	18%	82%	60	53	3,198	0
12.00	9%	91%	60	59	3,549	0
13.00	0%	100%	60	65	3,900	0
14.00	0%	100%	60	65	3,900	0
15.00	10%	90%	60	59	3,510	0
16.00	15%	85%	60	55	3,315	0
17.00	45%	55%	60	36	2,145	0
18.00	73%	27%	60	18	1,053	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	7.00
Achieved total sun time (hrs)	6.98
Achieved daily sun time * area	27222

**23** 76 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	9	540		
8.00	30%	70%	60	53	3,150		
9.00	15%	85%	60	64	3,825		
10.00	13%	87%	60	65	3,915		
11.00	19%	81%	60	61	3,645		
12.00	23%	77%	60	58	3,465		
13.00	45%	55%	60	41	2,475		
14.00	63%	37%	60	28	1,665		
15.00	67%	33%	60	25	1,485		
16.00	71%	29%	60	22	1,305		
17.00	75%	25%	60	19	1,125		
18.00	92%	8%	60	6	360		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	6.00
Achieved total sun time (hrs)	5.99
Achieved daily sun time * area	26955

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	88%	12%	60	9	540	0
8.00	30%	70%	60	53	3,150	0
9.00	75%	25%	60	19	1,125	-2,700
10.00	13%	87%	60	65	3,915	0
11.00	19%	81%	60	61	3,645	0
12.00	23%	77%	60	58	3,465	0
13.00	45%	55%	60	41	2,475	0
14.00	63%	37%	60	28	1,665	0
15.00	67%	33%	60	25	1,485	0
16.00	71%	29%	60	22	1,305	0
17.00	75%	25%	60	19	1,125	0
18.00	92%	8%	60	6	360	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	5.00
Achieved total sun time (hrs)	5.39
Achieved daily sun time * area	24255



**23A** 45 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	87%	13%	60	6	351		
8.00	62%	38%	60	17	1,026		
9.00	48%	52%	60	23	1,404		
10.00	19%	81%	60	36	2,187		
11.00	17%	83%	60	37	2,241		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	10%	90%	60	41	2,430		
16.00	15%	85%	60	38	2,295		
17.00	45%	55%	60	25	1,485		
18.00	73%	27%	60	12	729		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 9.00  
 Achieved total sun time (hrs) 8.24  
 Achieved daily sun time \* area 22248

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	87%	13%	60	6	351	0
8.00	85%	15%	60	7	405	-621
9.00	84%	16%	60	7	432	-972
10.00	19%	81%	60	36	2,187	0
11.00	17%	83%	60	37	2,241	0
12.00	0%	100%	60	45	2,700	0
13.00	0%	100%	60	45	2,700	0
14.00	0%	100%	60	45	2,700	0
15.00	10%	90%	60	41	2,430	0
16.00	15%	85%	60	38	2,295	0
17.00	45%	55%	60	25	1,485	0
18.00	73%	27%	60	12	729	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 8.00  
 Achieved total sun time (hrs) 7.65 0.93  
 Achieved daily sun time \* area 20655 0.93

**24** 65 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	88%	12%	60	8	468		
8.00	30%	70%	60	46	2,730		
9.00	15%	85%	60	55	3,315		
10.00	13%	87%	60	57	3,393		
11.00	19%	81%	60	53	3,159		
12.00	23%	77%	60	50	3,003		
13.00	45%	55%	60	36	2,145		
14.00	63%	37%	60	24	1,443		
15.00	67%	33%	60	21	1,287		
16.00	71%	29%	60	19	1,131		
17.00	75%	25%	60	16	975		
18.00	92%	8%	60	5	312		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 6.00  
 Achieved total sun time (hrs) 5.99  
 Achieved daily sun time \* area 23361

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	88%	12%	60	8	468	0
8.00	30%	70%	60	46	2,730	0
9.00	25%	75%	60	49	2,925	-390
10.00	13%	87%	60	57	3,393	0
11.00	19%	81%	60	53	3,159	0
12.00	23%	77%	60	50	3,003	0
13.00	45%	55%	60	36	2,145	0
14.00	63%	37%	60	24	1,443	0
15.00	67%	33%	60	21	1,287	0
16.00	71%	29%	60	19	1,131	0
17.00	75%	25%	60	16	975	0
18.00	92%	8%	60	5	312	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 6.00  
 Achieved total sun time (hrs) 5.89 0.99  
 Achieved daily sun time \* area 22971 0.99

**24A** 45 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	87%	13%	60	6	351		
8.00	67%	33%	60	15	891		
9.00	49%	51%	60	23	1,377		
10.00	19%	81%	60	36	2,187		
11.00	17%	83%	60	37	2,241		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	10%	90%	60	41	2,430		
16.00	15%	85%	60	38	2,295		
17.00	45%	55%	60	25	1,485		
18.00	73%	27%	60	12	729		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 9.00  
 Achieved total sun time (hrs) 8.18  
 Achieved daily sun time \* area 22086

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	87%	13%	60	6	351	0
8.00	85%	15%	60	7	405	-486
9.00	49%	51%	60	23	1,377	0
10.00	19%	81%	60	36	2,187	0
11.00	17%	83%	60	37	2,241	0
12.00	0%	100%	60	45	2,700	0
13.00	0%	100%	60	45	2,700	0
14.00	0%	100%	60	45	2,700	0
15.00	10%	90%	60	41	2,430	0
16.00	15%	85%	60	38	2,295	0
17.00	45%	55%	60	25	1,485	0
18.00	73%	27%	60	12	729	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 9.00  
 Achieved total sun time (hrs) 8 0.98  
 Achieved daily sun time \* area 21600 0.98

**25** 45 m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	87%	13%	60	6	351		
8.00	68%	32%	60	14	864		
9.00	49%	51%	60	23	1,377		
10.00	19%	81%	60	36	2,187		
11.00	17%	83%	60	37	2,241		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	10%	90%	60	41	2,430		
16.00	15%	85%	60	38	2,295		
17.00	45%	55%	60	25	1,485		
18.00	73%	27%	60	12	729		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 9.00  
 Achieved total sun time (hrs) 8.17  
 Achieved daily sun time \* area 22059

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	87%	13%	60	6	351	0
8.00	85%	15%	60	7	405	-459
9.00	49%	51%	60	23	1,377	0
10.00	19%	81%	60	36	2,187	0
11.00	17%	83%	60	37	2,241	0
12.00	0%	100%	60	45	2,700	0
13.00	0%	100%	60	45	2,700	0
14.00	0%	100%	60	45	2,700	0
15.00	10%	90%	60	41	2,430	0
16.00	15%	85%	60	38	2,295	0
17.00	45%	55%	60	25	1,485	0
18.00	73%	27%	60	12	729	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr) 2  
 Achieved sun hours on (hrs) @ 50% area 9.00  
 Achieved total sun time (hrs) 8 0.98  
 Achieved daily sun time \* area 21600 0.98



**26** **45** m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	87%	13%	60	6	351		
8.00	69%	31%	60	14	837		
9.00	49%	51%	60	23	1,377		
10.00	19%	81%	60	36	2,187		
11.00	17%	83%	60	37	2,241		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	10%	90%	60	41	2,430		
16.00	15%	85%	60	38	2,295		
17.00	45%	55%	60	25	1,485		
18.00	73%	27%	60	12	729		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	9.00
Achieved total sun time (hrs)	8.16
Achieved daily sun time * area	22032

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	87%	13%	60	6	351	0
8.00	85%	15%	60	7	405	-432
9.00	49%	51%	60	23	1,377	0
10.00	19%	81%	60	36	2,187	0
11.00	17%	83%	60	37	2,241	0
12.00	0%	100%	60	45	2,700	0
13.00	0%	100%	60	45	2,700	0
14.00	0%	100%	60	45	2,700	0
15.00	10%	90%	60	41	2,430	0
16.00	15%	85%	60	38	2,295	0
17.00	45%	55%	60	25	1,485	0
18.00	73%	27%	60	12	729	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	9.00
Achieved total sun time (hrs)	8 <span style="background-color: #90EE90;">0.99</span>
Achieved daily sun time * area	21600 <span style="background-color: #90EE90;">0.99</span>

**27** **45** m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	87%	13%	60	6	351		
8.00	69%	31%	60	14	837		
9.00	49%	51%	60	23	1,377		
10.00	19%	81%	60	36	2,187		
11.00	17%	83%	60	37	2,241		
12.00	0%	100%	60	45	2,700		
13.00	0%	100%	60	45	2,700		
14.00	0%	100%	60	45	2,700		
15.00	10%	90%	60	41	2,430		
16.00	15%	85%	60	38	2,295		
17.00	45%	55%	60	25	1,485		
18.00	73%	27%	60	12	729		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	9.00
Achieved total sun time (hrs)	8.16
Achieved daily sun time * area	22032

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	87%	13%	60	6	351	0
8.00	85%	15%	60	7	405	-432
9.00	49%	51%	60	23	1,377	0
10.00	19%	81%	60	36	2,187	0
11.00	17%	83%	60	37	2,241	0
12.00	0%	100%	60	45	2,700	0
13.00	0%	100%	60	45	2,700	0
14.00	0%	100%	60	45	2,700	0
15.00	10%	90%	60	41	2,430	0
16.00	15%	85%	60	38	2,295	0
17.00	45%	55%	60	25	1,485	0
18.00	73%	27%	60	12	729	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	9.00
Achieved total sun time (hrs)	8 <span style="background-color: #90EE90;">0.99</span>
Achieved daily sun time * area	21600 <span style="background-color: #90EE90;">0.99</span>

**28** **1,500** m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	71%	29%	60	435	26,100		
8.00	22%	78%	60	1170	70,200		
9.00	11%	89%	60	1335	80,100		
10.00	0%	100%	60	1500	90,000		
11.00	0%	100%	60	1500	90,000		
12.00	0%	100%	60	1500	90,000		
13.00	0%	100%	60	1500	90,000		
14.00	0%	100%	60	1500	90,000		
15.00	0%	100%	60	1500	90,000		
16.00	16%	84%	60	1260	75,600		
17.00	27%	73%	60	1095	65,700		
18.00	81%	19%	60	285	17,100		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	10.00
Achieved total sun time (hrs)	9.72
Achieved daily sun time * area	874800

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	71%	29%	60	435	26,100	0
8.00	22%	78%	60	1170	70,200	0
9.00	11%	89%	60	1335	80,100	0
10.00	0%	100%	60	1500	90,000	0
11.00	0%	100%	60	1500	90,000	0
12.00	0%	100%	60	1500	90,000	0
13.00	0%	100%	60	1500	90,000	0
14.00	0%	100%	60	1500	90,000	0
15.00	0%	100%	60	1500	90,000	0
16.00	16%	84%	60	1260	75,600	0
17.00	27%	73%	60	1095	65,700	0
18.00	81%	19%	60	285	17,100	0
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	10.00
Achieved total sun time (hrs)	9.72 <span style="background-color: #90EE90;">1.00</span>
Achieved daily sun time * area	874800 <span style="background-color: #90EE90;">1.00</span>

**29** **800** m<sup>2</sup>

EXISTING STATUS						March 21st	
Time	Shadow	Sunlight	Sun time	Sun area	time * area		
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>		
6.00	100%	0%	60	0	0		
7.00	81%	19%	60	152	9,120		
8.00	29%	71%	60	568	34,080		
9.00	11%	89%	60	712	42,720		
10.00	0%	100%	60	800	48,000		
11.00	0%	100%	60	800	48,000		
12.00	0%	100%	60	800	48,000		
13.00	0%	100%	60	800	48,000		
14.00	0%	100%	60	800	48,000		
15.00	0%	100%	60	800	48,000		
16.00	16%	84%	60	672	40,320		
17.00	49%	51%	60	408	24,480		
18.00	92%	8%	60	64	3,840		
19.00	100%	0%	60	0	0		

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	10.00
Achieved total sun time (hrs)	9.22
Achieved daily sun time * area	442560

**NEW STATUS** March 21st

Time	Shadow	Sunlight	Sun time	Sun area	time * area	change
24 Hr	% / %		min	m <sup>2</sup>	min*m <sup>2</sup>	min*m <sup>2</sup>
6.00	100%	0%	60	0	0	0
7.00	81%	19%	60	152	9,120	0
8.00	29%	71%	60	568	34,080	0
9.00	11%	89%	60	712	42,720	0
10.00	0%	100%	60	800	48,000	0
11.00	0%	100%	60	800	48,000	0
12.00	0%	100%	60	800	48,000	0
13.00	0%	100%	60	800	48,000	0
14.00	0%	100%	60	800	48,000	0
15.00	0%	100%	60	800	48,000	0
16.00	16%	84%	60	584	35,040	-5,280
17.00	68%	32%	60	256	15,360	-9,120
18.00	95%	5%	60	40	2,400	-1,440
19.00	100%	0%	60	0	0	0

Required sun hours @ 50% area (hr)	2
Achieved sun hours on (hrs) @ 50% area	9.00
Achieved total sun time (hrs)	8.89 <span style="background-color: #90EE90;">0.97</span>
Achieved daily sun time * area	426720 <span style="background-color: #90EE90;">0.97</span>

