

## CS Series

# Lumen Maintenance Factors

Cree lumen maintenance factors (LMFs) are derived from long-term lumen maintenance projections, long-term reliability testing and many years of real-world LED product installations. Select the appropriate lumen maintenance factor based upon your product family, anticipated application life and average ambient temperature. **LMF for all other luminaires is L88 @ 50,000 hours unless otherwise published.**

### CS14 - 4000 HE lumen

Ambient Temp	25K hrs LMF	35K hrs LMF	50k hrs LMF	75k hrs LMF
25°C (77° F)	0.96	0.94	0.92	0.87
30°C (86° F)	0.96	0.94	0.91	0.86
35°C (95° F)	0.95	0.93	0.90	0.85

### CS14 - 4000 lumen

Ambient Temp	25K hrs LMF	35K hrs LMF	50k hrs LMF	75k hrs LMF
25°C (77° F)	0.95	0.93	0.90	
30°C (86° F)	0.94	0.92	0.89	
35°C (95° F)	0.94	0.91	0.88	

### CS14 - 3800 HE lumen

Ambient Temp	25K hrs LMF	35K hrs LMF	50k hrs LMF	75k hrs LMF
25°C (77° F)	0.96	0.94	0.92	0.87
30°C (86° F)	0.96	0.94	0.91	0.86
35°C (95° F)	0.95	0.93	0.90	0.85

### CS14 - 3800 lumen

Ambient Temp	25K hrs LMF	35K hrs LMF	50k hrs LMF	75k hrs LMF
25°C (77° F)	0.95	0.93	0.90	
30°C (86° F)	0.94	0.92	0.89	
35°C (95° F)	0.94	0.91	0.88	

### CS14 - 2200 lumen

Ambient Temp	25K hrs LMF	35K hrs LMF	50k hrs LMF	75k hrs LMF
25°C (77° F)	0.97	0.96	0.93	0.89
30°C (86° F)	0.96	0.95	0.92	0.88
35°C (95° F)	0.96	0.94	0.91	0.87

### CS18 - 8200 HE lumen

Ambient Temp	25K hrs LMF	35K hrs LMF	50k hrs LMF	75k hrs LMF
25°C (77° F)	0.96	0.94	0.92	0.87
30°C (86° F)	0.96	0.94	0.91	0.86
35°C (95° F)	0.95	0.93	0.90	0.85

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### CS18 - 8000 HE lumen

Ambient Temp	25K hrs LMF	35K hrs LMF	50k hrs LMF	75k hrs LMF
25°C (77° F)	0.96	0.94	0.92	0.87
30°C (86° F)	0.96	0.94	0.91	0.86
35°C (95° F)	0.95	0.93	0.90	0.85

### CS18 - 7500 lumen

Ambient Temp	25K hrs LMF	35K hrs LMF	50k hrs LMF	75k hrs LMF
25°C (77° F)	0.95	0.93	0.90	0.85
30°C (86° F)	0.94	0.92	0.89	0.83
35°C (95° F)	0.94	0.91	0.88	0.82

### CS18 - 4400 lumen

Ambient Temp	25K hrs LMF	35K hrs LMF	50k hrs LMF	75k hrs LMF
25°C (77° F)	0.97	0.96	0.93	0.89
30°C (86° F)	0.96	0.95	0.92	0.88
35°C (95° F)	0.96	0.94	0.91	0.87