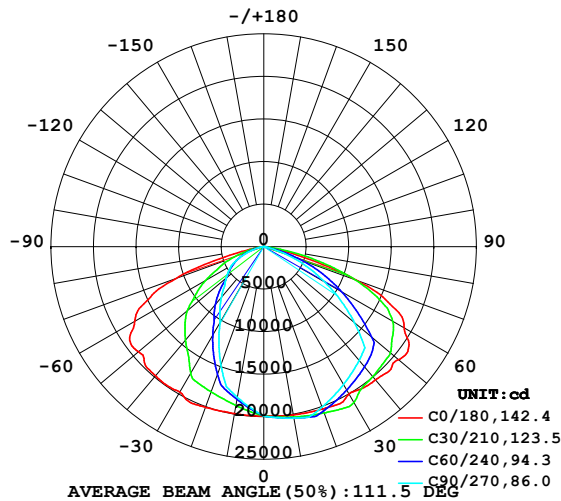


LUMINAIRE PHOTOMETRIC TEST REPORT

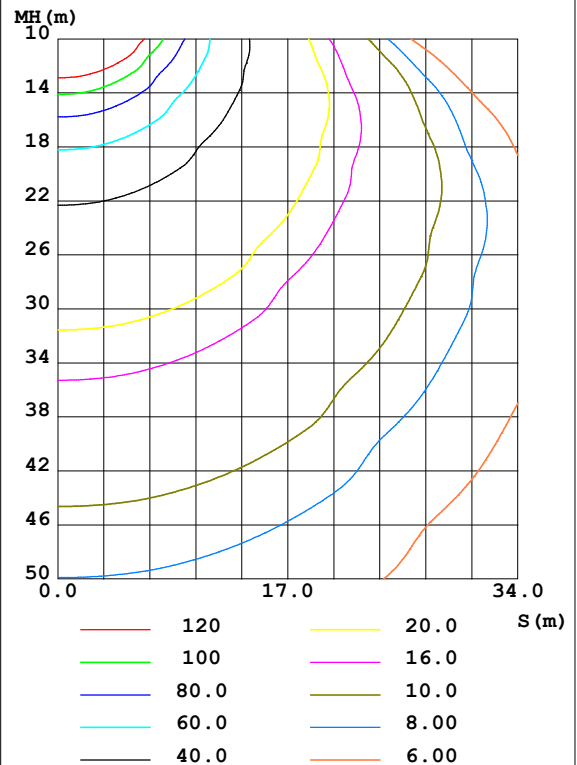
Test:U:117.80V I:3.5505A P:417.71W PF:0.9987 Freq:49.97Hz Lamp Flux:60726x1 lm		
NAME: GSM-60-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:400W/5000K/T3	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 145.38 lm/W			
MODEL	GSM-60-U	I _{max} (cd)	21792	S/MH(C0/180)	1.53
NOMINAL POWER(W)	400W	LOR(%)	100.0	S/MH(C90/270)	0.89
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	60726	η UP,DN(C0-180)	0.0,60.3
NOMINAL FLUX(lm)	60726	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,39.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-03

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2009	2041	2046	2033	1992	1855	1799	1867	0- 10	1876	1876	3.09,3.09
20	2030	2095	2007	2085	2009	1729	1477	1752	10- 20	5459	7335	12.1,12.1
30	2001	2025	1873	2018	1974	1428	1027	1460	20- 30	8386	15721	25.9,25.9
40	2045	1873	1745	1851	1982	1068	776.5	1124	30- 40	10348	26069	42.9,42.9
50	2068	1776	1393	1751	1923	750.5	578.5	789.6	40- 50	11536	37606	61.9,61.9
60	1906	1421	818.6	1383	1752	464.8	433.5	488.3	50- 60	11180	48786	80.3,80.3
70	1161	771.3	321.2	762.8	1103	239.3	201.3	249.4	60- 70	8563	57349	94.4,94.4
80	85.01	44.56	0	53.75	93.40	40.41	0	40.80	70- 80	3231	60580	99.8,99.8
90	2.598	0	0	0	2.974	0	0	0	80- 90	146.1	60726	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 31764 lm

%lum = 52.3%

%lamp = 52.3%

Conical surface Flux(120deg): 48786 lm

%lum = 80.3%

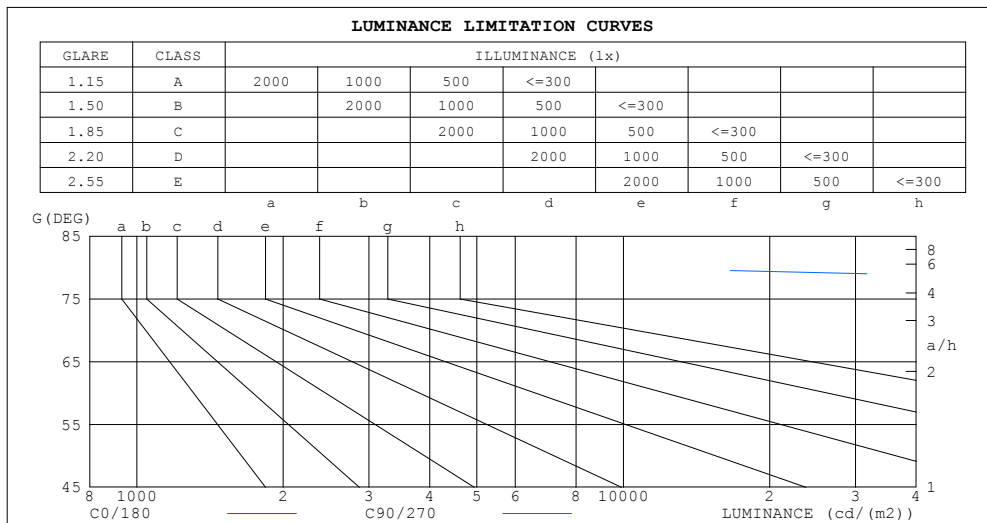
%lamp = 80.3%

$H(\beta)$ Range:-90 - 90DEG
 $H(\beta)$ Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Gu
 Test Date:2025-03-03

V(B) Range:-75 - 75DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:7.448m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:117.80V I:3.5505A P:417.71W PF:0.9987 Freq:49.97Hz Lamp Flux:60726x1 lm		
NAME: GSM-60-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:400W/5000K/T3	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



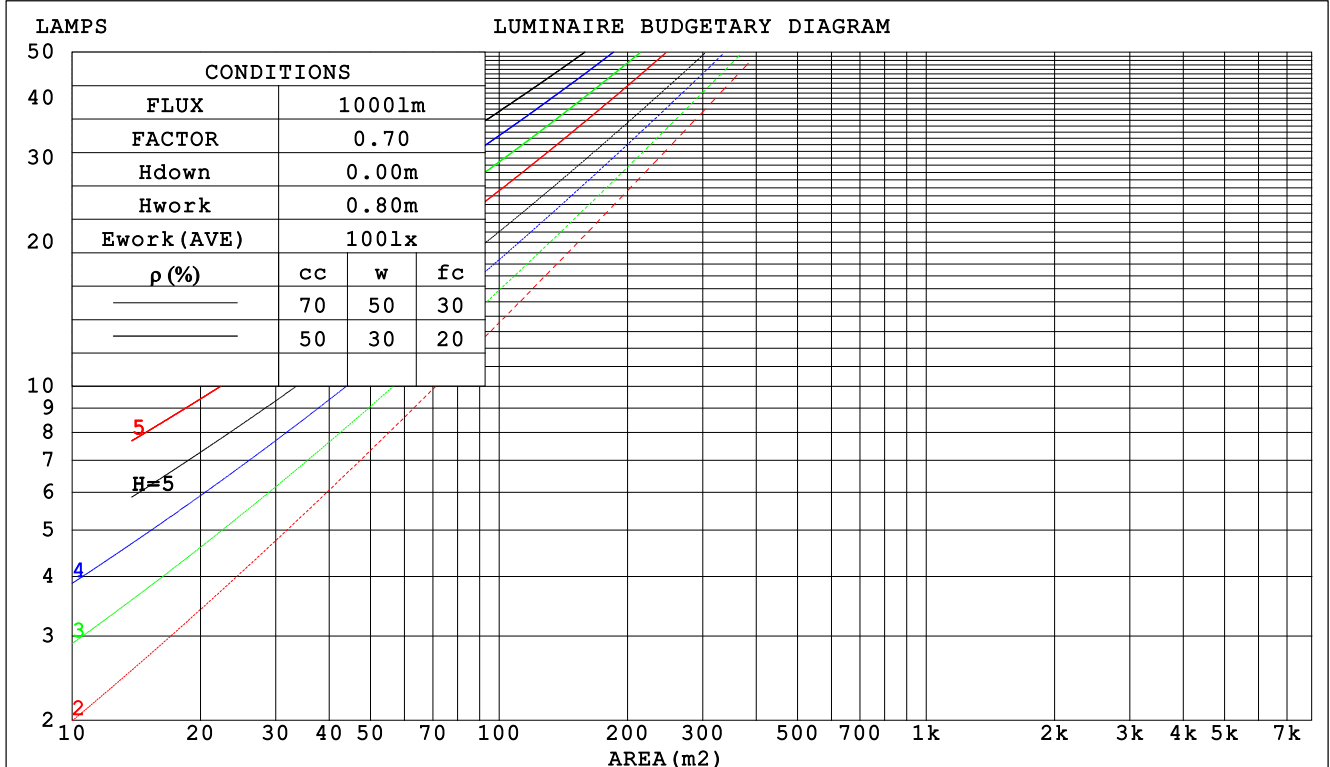
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-03

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:117.80V I:3.5505A P:417.71W PF:0.9987 Freq:49.97Hz Lamp Flux:60726x1 lm		
NAME: GSM-60-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:400W/5000K/T3	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.05	1.01	.97	1.03	.99	.96	.98	.95	.92	.94	.92	.90	.91	.89	.87	.85
2.0	.91	.85	.79	.89	.83	.78	.86	.81	.76	.83	.78	.74	.80	.76	.73	.71
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.70	.62	.55	.69	.61	.54	.67	.59	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.61	.53	.47	.59	.52	.46	.57	.51	.46	.56	.50	.45	.43
6.0	.56	.47	.41	.55	.47	.40	.53	.46	.40	.52	.45	.40	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.41	.36	.48	.41	.35	.47	.40	.35	.46	.39	.35	.33
8.0	.46	.38	.32	.45	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.29
9.0	.42	.34	.28	.42	.34	.28	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.36	.30	.25	.36	.29	.25	.23



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-03

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:117.80V I:3.5505A P:417.71W PF:0.9987 Freq:49.97Hz Lamp Flux:60726x1 lm					
NAME: GSM-60-U			TYPE:Flood Light		WEIGHT:N/A
SPEC.:400W/5000K/T3			DIM.: 190*150mm		SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.			SUR.:N/A		Shielding Angle:N/A

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.292	.166	.053	.285	.163	.052	.272	.156	.050	.260	.150	.048	.249	.144	.046		
2.0	.284	.156	.048	.278	.153	.047	.266	.148	.046	.256	.143	.045	.246	.139	.044		
3.0	.267	.142	.043	.262	.140	.042	.251	.136	.041	.242	.132	.041	.233	.129	.040		
4.0	.248	.129	.038	.244	.128	.038	.234	.124	.037	.226	.121	.037	.218	.118	.036		
5.0	.231	.118	.034	.227	.116	.034	.218	.114	.033	.211	.111	.033	.204	.109	.033		
6.0	.215	.108	.031	.211	.106	.031	.204	.104	.030	.197	.102	.030	.190	.100	.030		
7.0	.200	.099	.028	.197	.098	.028	.190	.096	.028	.184	.094	.027	.178	.093	.027		
8.0	.187	.091	.026	.184	.091	.026	.178	.089	.025	.173	.087	.025	.168	.086	.025		
9.0	.175	.085	.024	.173	.084	.024	.167	.083	.023	.162	.081	.023	.158	.080	.023		
10.0	.165	.079	.022	.162	.078	.022	.158	.077	.022	.153	.076	.022	.149	.075	.022		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.147	.114	.086	.101	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.141	.099	.065	.096	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.157	.101	.058	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.150	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.017	.010	.006	
6.0	.143	.082	.039	.123	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.015	.008	.003	
9.0	.123	.065	.025	.106	.056	.022	.074	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.118	.060	.022	.102	.052	.019	.070	.037	.014	.041	.022	.008	.013	.007	.003	

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-03

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:117.80V I:3.5505A P:417.71W PF:0.9987 Freq:49.97Hz Lamp Flux:60726x1 lm										
NAME: GSM-60-U					TYPE:Flood Light			WEIGHT:N/A		
SPEC.:400W/5000K/T3					DIM.: 190*150mm			SERIAL No.:N/A		
MFR.: Grin Industrial Co., Ltd.					SUR.:N/A			Shielding Angle:N/A		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	26.1	27.6	26.3	27.8	28.0	22.4	23.9	22.7	24.1	24.3
3H	28.1	29.6	28.4	29.8	30.0	22.9	24.3	23.2	24.6	24.8
4H	28.4	29.8	28.8	30.0	30.3	22.9	24.3	23.2	24.5	24.8
6H	28.4	29.7	28.7	29.9	30.2	22.8	24.1	23.1	24.3	24.6
8H	28.4	29.6	28.7	29.9	30.1	22.8	24.0	23.1	24.3	24.5
12H	28.3	29.5	28.7	29.8	30.1	22.7	23.9	23.1	24.2	24.5
4H 2H	26.4	27.8	26.7	28.0	28.3	23.6	25.0	23.9	25.2	25.5
3H	28.7	29.9	29.1	30.2	30.5	24.2	25.4	24.6	25.7	26.0
4H	29.2	30.2	29.6	30.6	30.9	24.2	25.3	24.6	25.6	25.9
6H	29.2	30.1	29.6	30.5	30.8	24.1	25.1	24.5	25.4	25.8
8H	29.2	30.0	29.6	30.4	30.8	24.1	25.0	24.5	25.3	25.7
12H	29.1	29.9	29.5	30.3	30.7	24.1	24.8	24.5	25.2	25.6
8H 4H	29.2	30.0	29.6	30.4	30.8	24.7	25.6	25.1	25.9	26.3
6H	29.2	30.0	29.7	30.4	30.8	24.6	25.3	25.1	25.7	26.2
8H	29.2	29.9	29.7	30.3	30.7	24.6	25.2	25.0	25.6	26.1
12H	29.2	29.7	29.7	30.2	30.7	24.6	25.1	25.0	25.5	26.0
12H 4H	29.1	29.9	29.6	30.3	30.7	24.7	25.5	25.1	25.9	26.3
6H	29.2	29.8	29.7	30.3	30.7	24.6	25.3	25.1	25.7	26.1
8H	29.2	29.7	29.7	30.2	30.7	24.6	25.1	25.1	25.6	26.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.3 / - 0.4				
1.5H	+ 0.2 / - 0.6					+ 0.4 / - 0.8				
2.0H	+ 0.4 / - 0.9					+ 0.5 / - 0.9				

CIE Pub.117, 60726 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 14.3)
Area: 0.024 m2

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-03

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:117.80V I:3.5505A P:417.71W PF:0.9987 Freq:49.97Hz Lamp Flux:60726x1 lm		
NAME: GSM-60-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:400W/5000K/T3	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

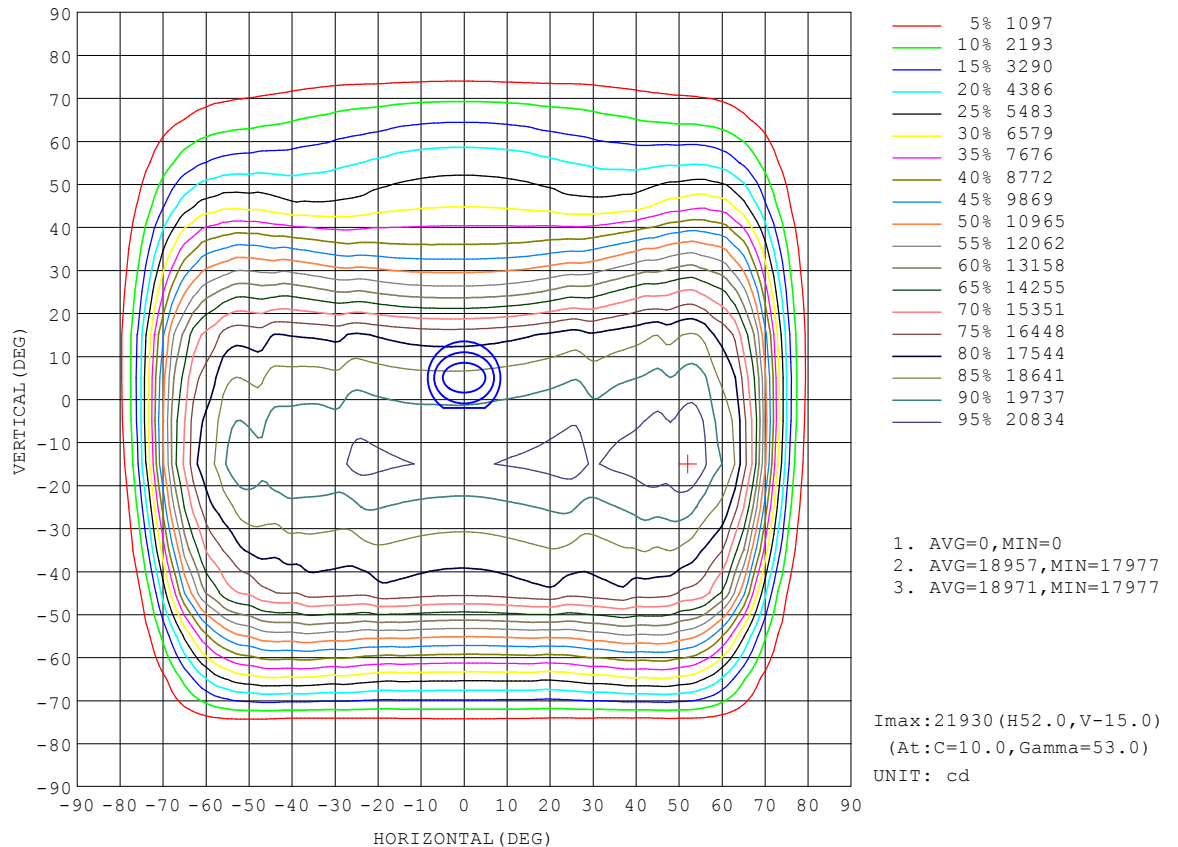
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	44	37	55	44	37	54	44	37	30
0.80	67	55	47	66	54	47	64	54	47	40
1.00	76	64	57	74	64	57	72	65	56	49
1.25	83	72	65	81	72	65	79	70	64	57
1.50	88	78	71	86	77	71	83	76	70	62
2.00	95	87	81	94	86	80	90	83	78	71
2.50	99	92	86	97	90	85	94	88	83	75
3.00	103	96	91	101	95	90	97	92	88	79
4.00	107	101	97	105	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

$H(\beta)$ Range:-90 - 90DEG
 $H(\beta)$ Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Gu
 Test Date:2025-03-03

$V(B)$ Range:-75 - 75DEG
 $V(B)$ Interval: 5.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:7.448m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:117.80V I:3.5505A P:417.71W PF:0.9987 Freq:49.97Hz Lamp Flux:60726x1 lm		
NAME: GSM-60-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:400W/5000K/T3	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

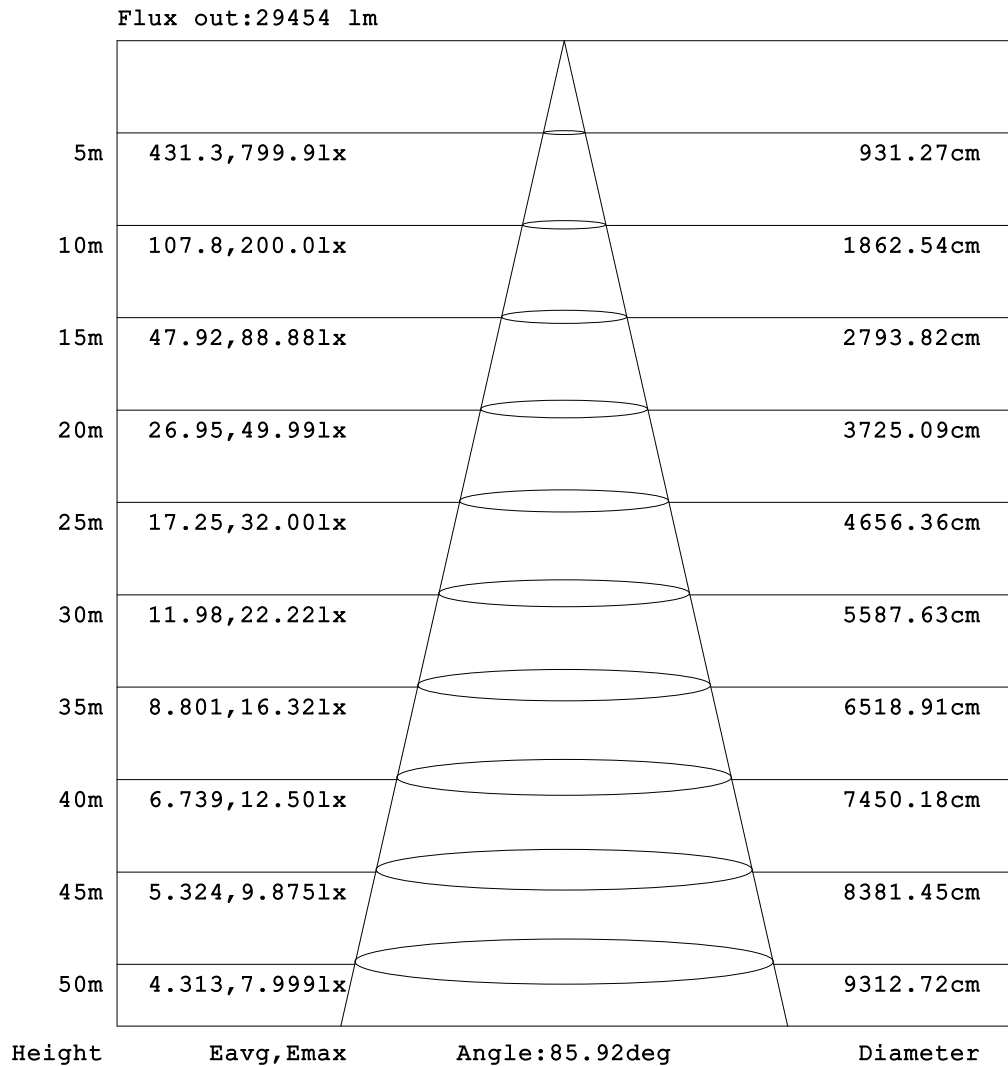


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-03

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

AAI Figure

Test:U:117.80V I:3.5505A P:417.71W PF:0.9987 Freq:49.97Hz Lamp Flux:60726x1 lm		
NAME: GSM-60-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:400W/5000K/T3	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



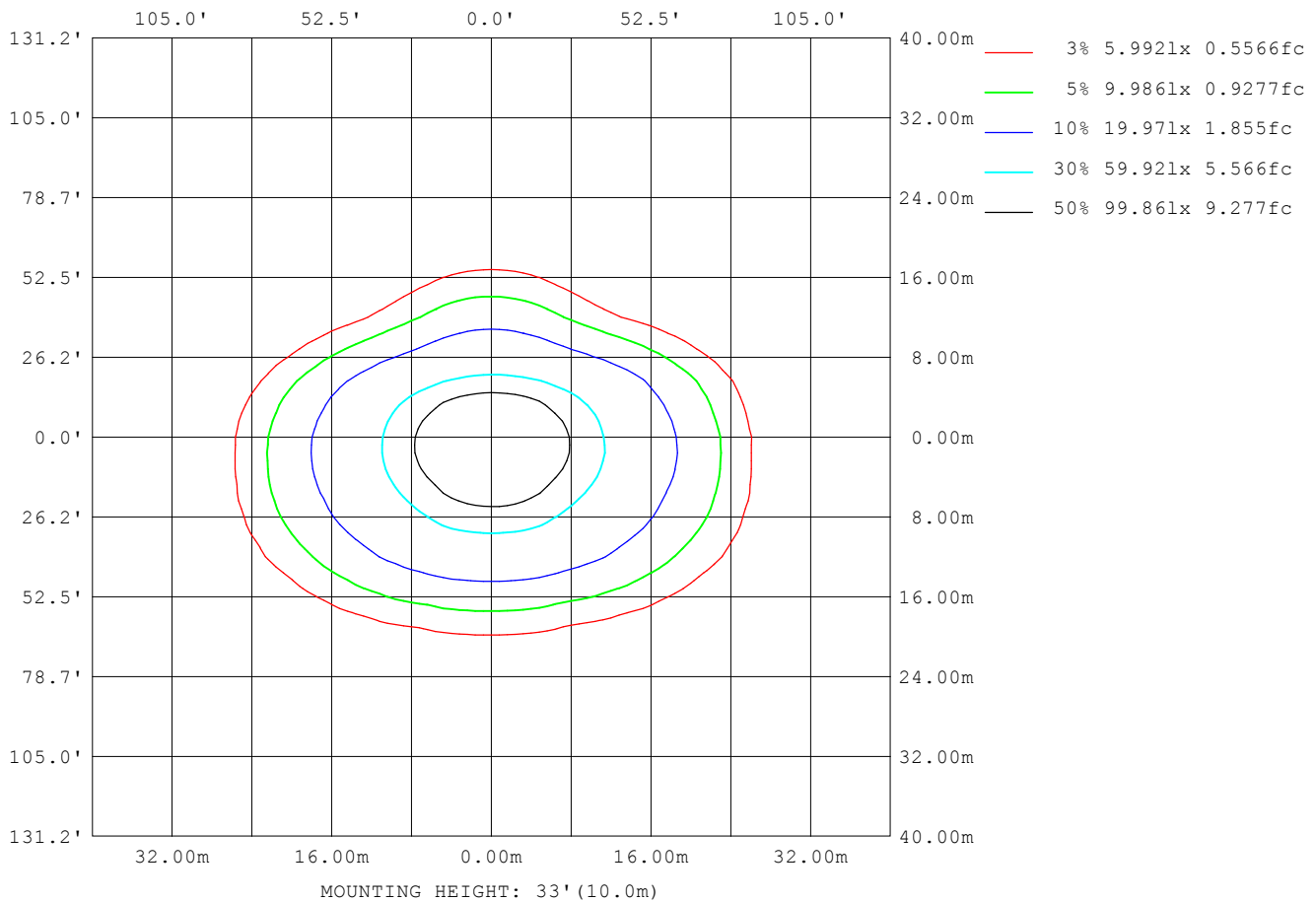
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-03

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:117.80V I:3.5505A P:417.71W PF:0.9987 Freq:49.97Hz Lamp Flux:60726x1 lm		
NAME: GSM-60-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:400W/5000K/T3	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-03

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:117.80V I:3.5505A P:417.71W PF:0.9987 Freq:49.97Hz Lamp Flux:60726x1 lm		
NAME: GSM-60-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:400W/5000K/T3	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

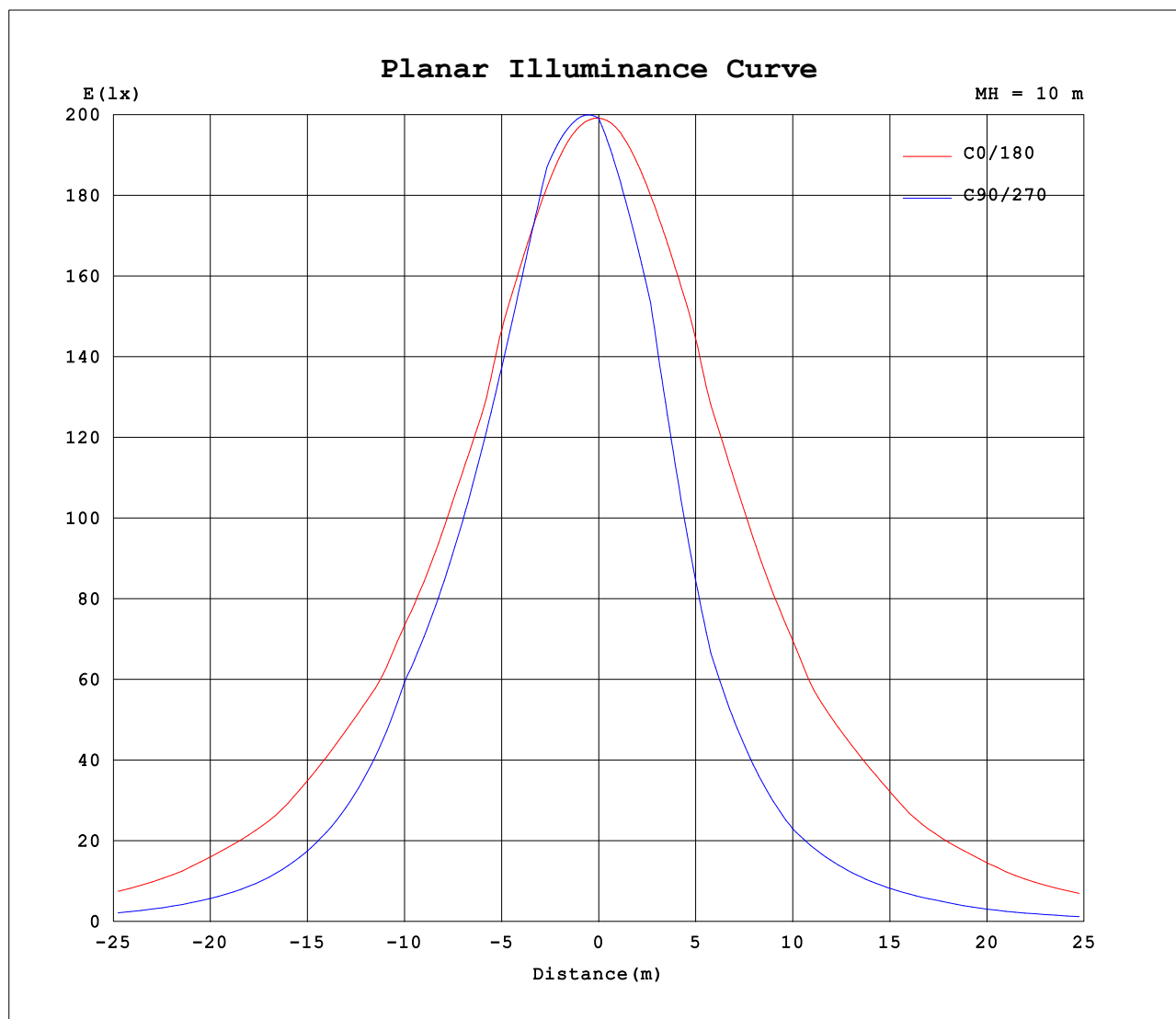
AvgL	cd/m2
L_0~180 (65) av	1572611
L_0~180 (75) av	751864
L_0~180 (85) av	69065
L_90~270 (65) av	437404
L_90~270 (75) av	127032
L_90~270 (85) av	0
L_45 (65) av	720443
L_45 (75) av	430852
L_45 (85) av	0

Standard: GB/T 29293-2012

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-03

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-03

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:

```
V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:
```

```
V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:
```

```
V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:
```