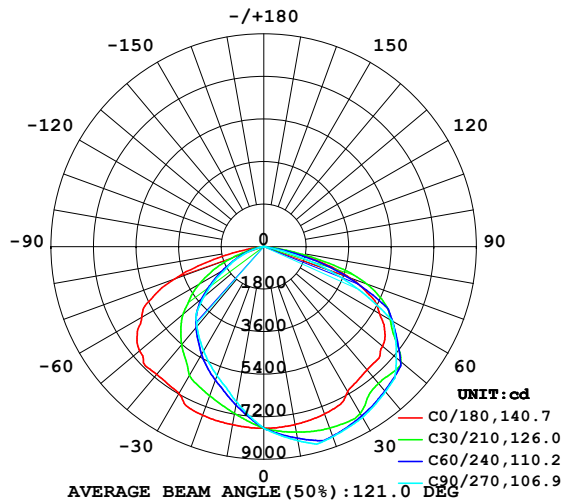


LUMINAIRE PHOTOMETRIC TEST REPORT

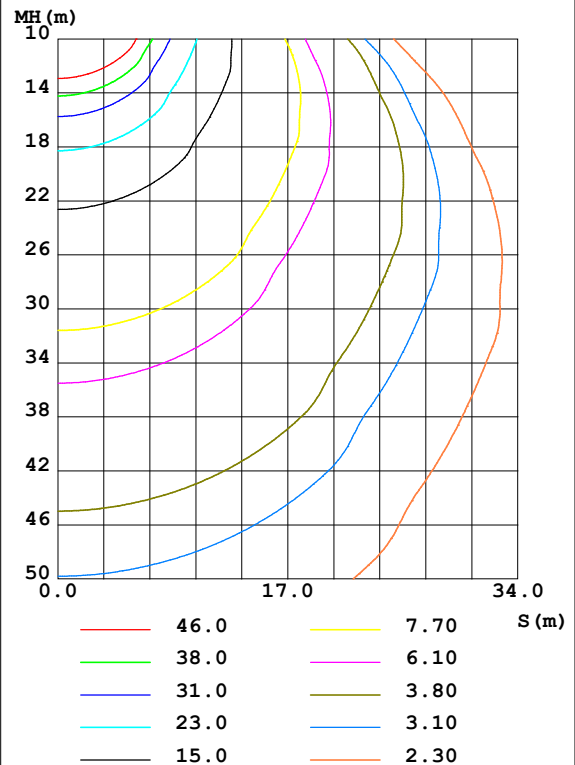
Test:U:120.73V I:1.7157A P:206.74W PF:0.9981 Freq:59.98Hz Lamp Flux:25510x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T4	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 123.39 lm/W			
MODEL	GSM-30-U	Imax(cd)	8656	S/MH(C0/180)	1.42
NOMINAL POWER(W)	200W	LOR(%)	100.0	S/MH(C90/270)	1.00
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	25510	η UP,DN(C0-180)	0.0,62.4
NOMINAL FLUX(lm)	25510	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,37.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.50

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:2025-03-17

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	7642	8114	8333	8120	7649	6963	6673	6970	0- 10	725.4	725.4	2.84, 2.84
20	7531	8482	8553	8494	7590	6308	5808	6324	10- 20	2116	2841	11.1, 11.1
30	7093	8206	8348	8263	7174	5658	5093	5685	20- 30	3322	6164	24.2, 24.2
40	6803	7726	8015	7839	7056	4654	4405	4701	30- 40	4199	10363	40.6, 40.6
50	6558	7499	7328	7778	6860	3690	3315	3761	40- 50	4811	15174	59.5, 59.5
60	5646	6393	6288	6616	5963	2418	1823	2516	50- 60	4740	19914	78.1, 78.1
70	3879	4693	2921	5098	3993	1170	811.0	1244	60- 70	3805	23719	93, 93
80	819.3	1199	0	1118	755.8	140.4	0	149.7	70- 80	1704	25423	99.7, 99.7
90	9.067	0	0	0	10.13	0	0	0	80- 90	86.78	25510	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:cd									UNIT:lm		

Conical surface Flux(90deg): 12717 lm

%lum = 49.8%

%lamp = 49.8%

Conical surface Flux(120deg): 19914 lm

%lum = 78.1%

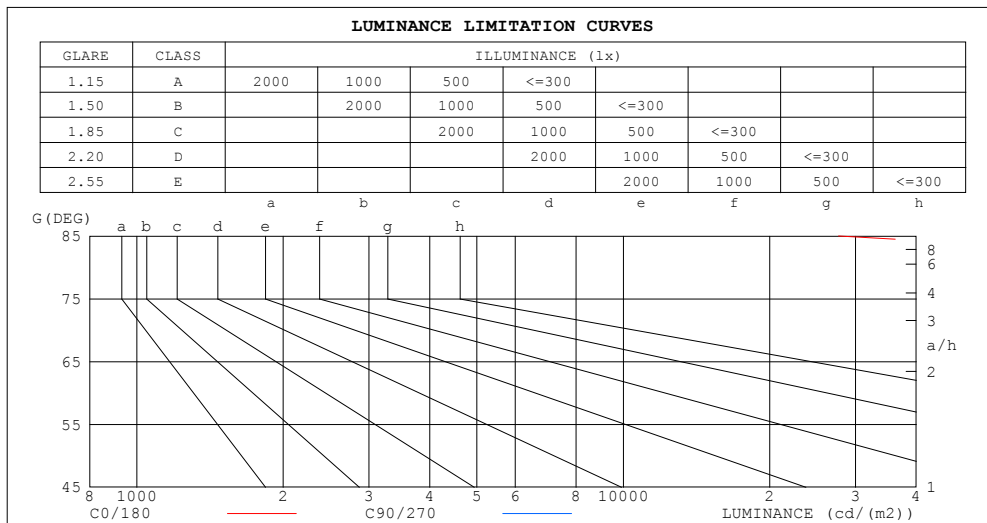
%lamp = 78.1%

$H(\beta)$ Range:-90 - 90DEG
 $H(\beta)$ Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Gu
 Test Date:2025-03-17

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:120.73V I:1.7157A P:206.74W PF:0.9981 Freq:59.98Hz Lamp Flux:25510x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T4	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	27699	0
80	196597	0
75	389402	199180
70	472539	355814
65	494920	453930
60	470523	523966
55	454368	494539
50	425108	475007
45	400206	462449

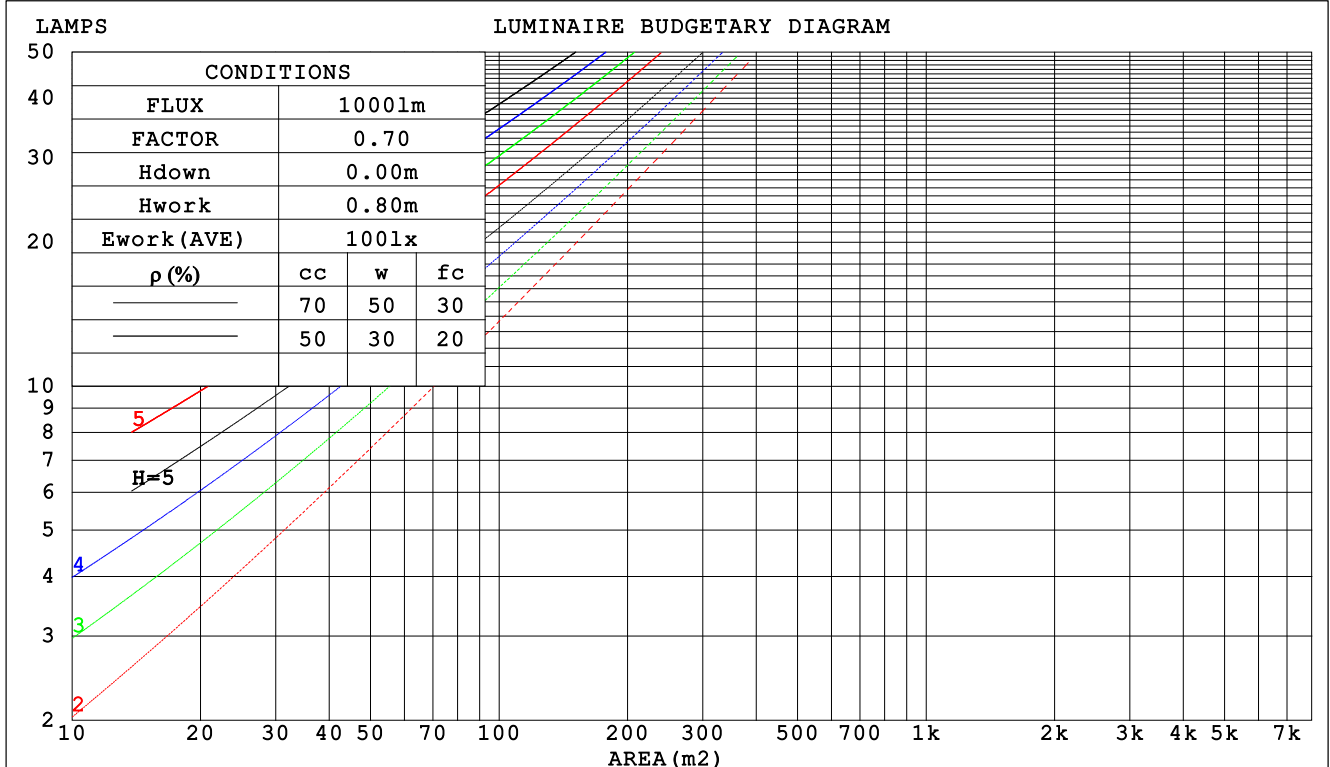
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-17

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:120.73V I:1.7157A P:206.74W PF:0.9981 Freq:59.98Hz Lamp Flux:25510x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T4	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	1.00
1.0	1.04	1.00	.96	1.02	.98	.95	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.90	.83	.78	.88	.82	.77	.85	.79	.75	.82	.77	.73	.78	.75	.71	.69
3.0	.79	.70	.64	.77	.69	.63	.74	.67	.62	.71	.66	.61	.69	.64	.60	.58
4.0	.69	.60	.53	.68	.59	.53	.65	.58	.52	.63	.57	.51	.61	.55	.51	.48
5.0	.61	.52	.45	.60	.52	.45	.58	.50	.44	.56	.49	.44	.54	.48	.44	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.39	.50	.43	.38	.49	.43	.38	.36
7.0	.50	.41	.34	.49	.40	.34	.47	.39	.34	.46	.39	.34	.44	.38	.33	.31
8.0	.45	.36	.30	.44	.36	.30	.43	.35	.30	.42	.35	.30	.40	.34	.30	.28
9.0	.41	.33	.27	.41	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.26	.25
10.0	.38	.30	.24	.37	.30	.24	.36	.29	.24	.35	.29	.24	.34	.28	.24	.22



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-17

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:120.73V I:1.7157A P:206.74W PF:0.9981 Freq:59.98Hz Lamp Flux:25510x1 lm					
NAME: GSM-30-U			TYPE:Flood Light		WEIGHT:N/A
SPEC.:200W/5000K/T4			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	.303	.172	.055	.296	.169	.054	.283	.162	.052	.271	.156	.050	.259	.150	.048		
2.0	.293	.161	.049	.287	.158	.049	.275	.153	.048	.265	.148	.046	.255	.144	.045		
3.0	.274	.146	.044	.269	.144	.043	.259	.140	.043	.249	.136	.042	.240	.133	.041		
4.0	.254	.132	.039	.250	.131	.039	.240	.127	.038	.232	.124	.038	.224	.122	.037		
5.0	.236	.120	.035	.231	.119	.035	.223	.116	.034	.215	.114	.034	.208	.111	.033		
6.0	.219	.110	.031	.215	.108	.031	.207	.106	.031	.201	.104	.031	.194	.102	.030		
7.0	.203	.101	.029	.200	.100	.028	.193	.098	.028	.187	.096	.028	.181	.094	.028		
8.0	.190	.093	.026	.187	.092	.026	.181	.090	.026	.175	.089	.026	.170	.087	.025		
9.0	.178	.086	.024	.175	.085	.024	.170	.084	.024	.165	.083	.024	.160	.081	.023		
10.0	.167	.080	.022	.164	.079	.022	.160	.078	.022	.155	.077	.022	.151	.076	.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	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.098	.148	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.165	.114	.074	.142	.099	.064	.097	.069	.045	.056	.040	.026	.018	.013	.009	
4.0	.158	.101	.058	.136	.087	.050	.093	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.151	.091	.046	.130	.079	.040	.089	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.083	.038	.124	.071	.033	.085	.050	.024	.050	.029	.014	.016	.010	.005	
7.0	.137	.076	.033	.118	.066	.028	.082	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.131	.070	.028	.112	.061	.025	.078	.043	.017	.045	.025	.010	.015	.008	.003	
9.0	.125	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.119	.061	.022	.102	.053	.019	.071	.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:2025-03-17

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:120.73V I:1.7157A P:206.74W PF:0.9981 Freq:59.98Hz Lamp Flux:25510x1 lm										
NAME: GSM-30-U					TYPE:Flood Light			WEIGHT:N/A		
SPEC.:200W/5000K/T4					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	24.4	26.0	24.7	26.2	26.4	24.6	26.2	24.9	26.4	26.6
3H	26.3	27.8	26.6	28.0	28.3	25.9	27.3	26.2	27.6	27.8
4H	26.9	28.3	27.2	28.5	28.8	26.1	27.4	26.4	27.7	28.0
6H	27.0	28.3	27.4	28.6	28.9	26.0	27.3	26.3	27.6	27.9
8H	27.0	28.2	27.3	28.5	28.8	26.0	27.2	26.3	27.5	27.8
12H	26.9	28.1	27.3	28.4	28.7	25.9	27.1	26.3	27.4	27.7
4H 2H	25.4	26.7	25.7	27.0	27.2	25.5	26.8	25.8	27.1	27.4
3H	27.5	28.7	27.8	29.0	29.3	26.9	28.1	27.3	28.4	28.7
4H	28.1	29.2	28.5	29.5	29.8	27.2	28.3	27.6	28.6	28.9
6H	28.3	29.2	28.7	29.6	29.9	27.1	28.1	27.5	28.5	28.8
8H	28.2	29.1	28.6	29.5	29.9	27.1	28.0	27.5	28.4	28.8
12H	28.2	29.0	28.6	29.4	29.8	27.1	27.9	27.5	28.3	28.7
8H 4H	28.4	29.3	28.8	29.6	30.0	27.6	28.5	28.0	28.9	29.2
6H	28.6	29.4	29.1	29.8	30.2	27.6	28.3	28.0	28.7	29.2
8H	28.6	29.3	29.1	29.7	30.2	27.6	28.2	28.0	28.6	29.1
12H	28.6	29.2	29.1	29.6	30.1	27.5	28.1	28.0	28.5	29.0
12H 4H	28.3	29.2	28.8	29.6	30.0	27.6	28.4	28.0	28.8	29.2
6H	28.6	29.3	29.1	29.7	30.1	27.6	28.3	28.1	28.7	29.1
8H	28.6	29.2	29.1	29.6	30.1	27.6	28.1	28.1	28.6	29.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.3				
1.5H	+ 0.1 / - 0.4					+ 0.3 / - 0.4				
2.0H	+ 0.2 / - 0.5					+ 0.6 / - 0.8				

CIE Pub.117, 25510 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 11.3)
Area: 0.024 m2

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-17

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:120.73V I:1.7157A P:206.74W PF:0.9981 Freq:59.98Hz Lamp Flux:25510x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T4	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

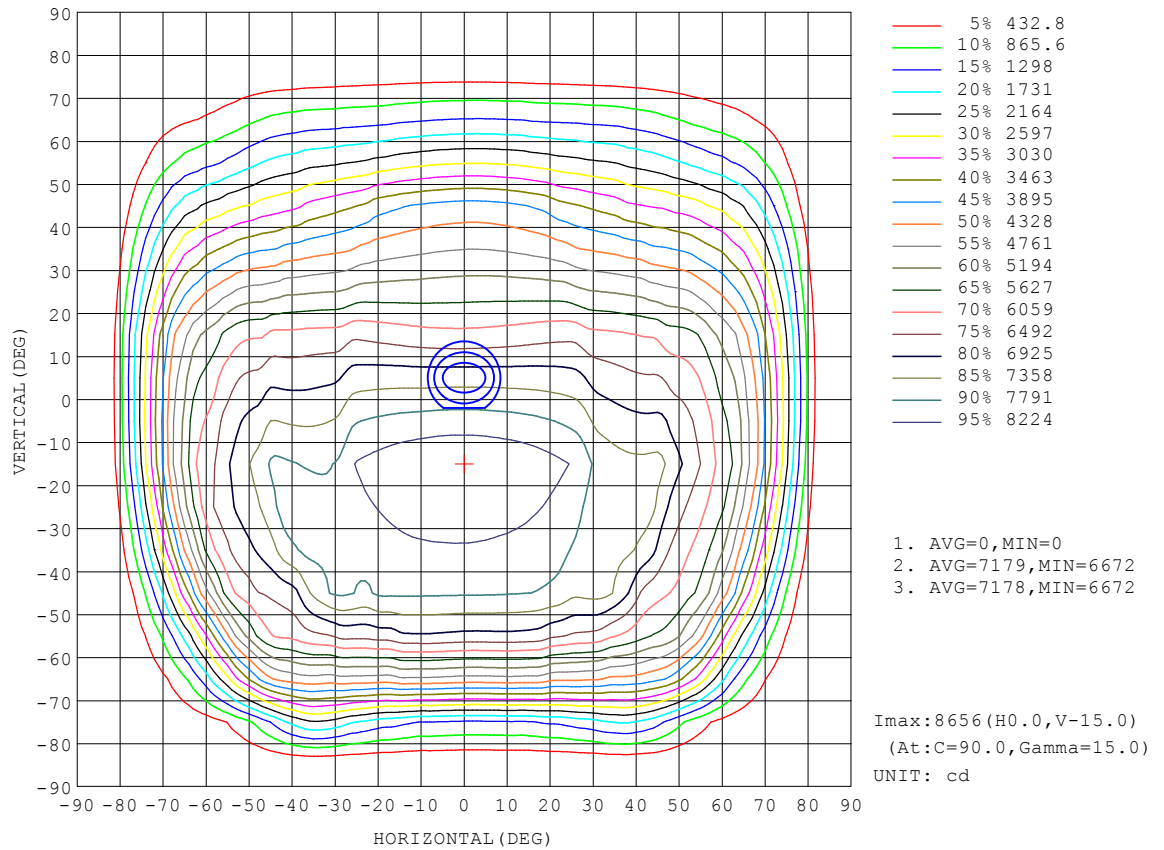
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	55	43	36	54	43	36	53	42	35	29
0.80	65	53	46	64	53	45	62	52	45	38
1.00	74	63	55	73	62	55	71	64	54	47
1.25	82	71	63	80	70	63	77	69	62	55
1.50	87	77	70	85	76	69	82	74	68	60
2.00	94	86	79	93	84	78	89	82	77	69
2.50	99	91	85	96	89	84	93	87	82	73
3.00	102	95	90	100	94	89	96	91	86	78
4.00	106	101	96	104	99	95	100	96	92	83
5.00	109	104	100	106	102	99	102	99	96	86
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:2025-03-17

$V(B)$ 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:120.73V I:1.7157A P:206.74W PF:0.9981 Freq:59.98Hz Lamp Flux:25510x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T4	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

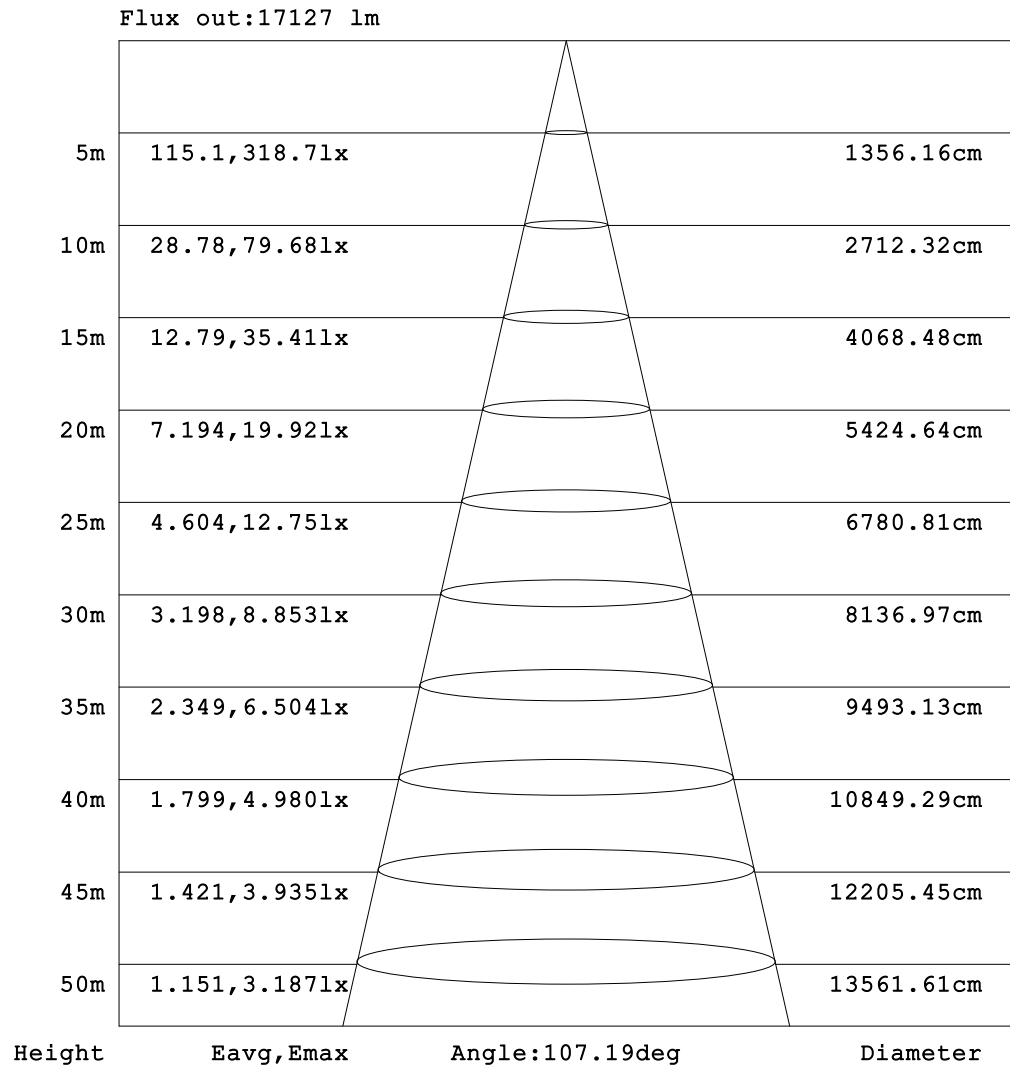


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-17

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:120.73V I:1.7157A P:206.74W PF:0.9981 Freq:59.98Hz Lamp Flux:25510x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T4	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



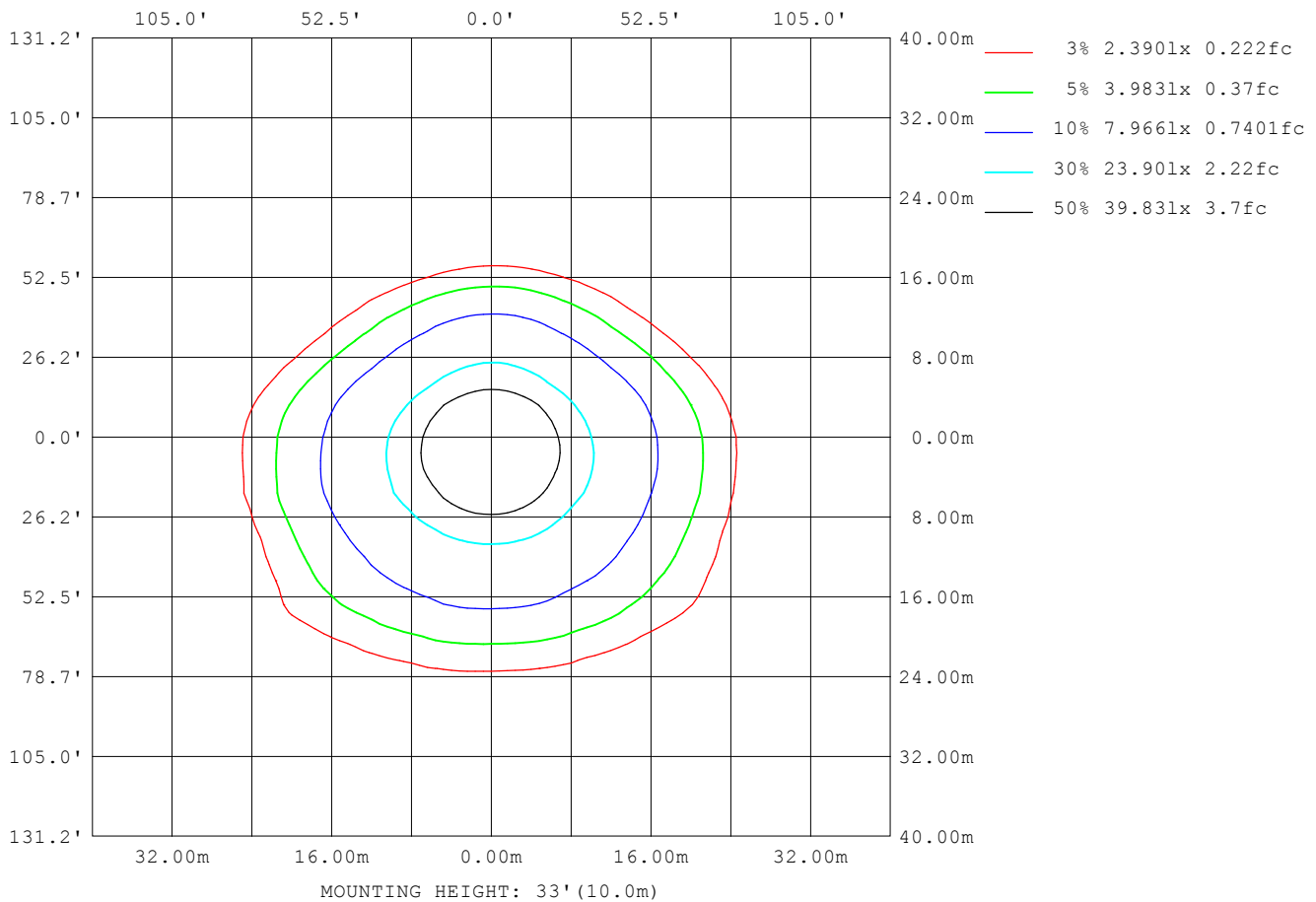
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-03-17

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:120.73V I:1.7157A P:206.74W PF:0.9981 Freq:59.98Hz Lamp Flux:25510x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T4	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:2025-03-17

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:120.73V I:1.7157A P:206.74W PF:0.9981 Freq:59.98Hz Lamp Flux:25510x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T4	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

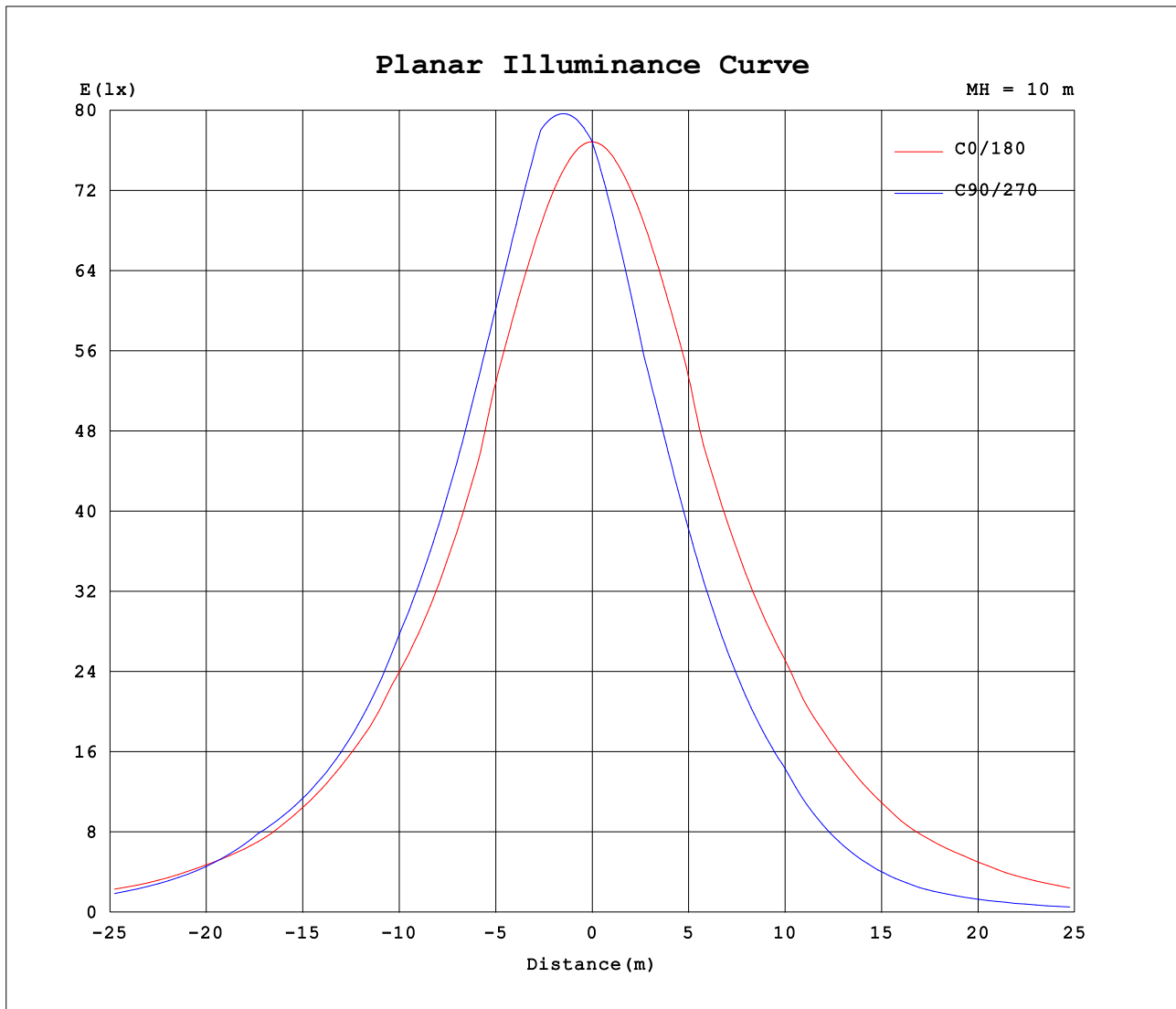
AvgL	cd/m2
L_0~180 (65) av	506222
L_0~180 (75) av	384490
L_0~180 (85) av	26186
L_90~270 (65) av	291886
L_90~270 (75) av	124146
L_90~270 (85) av	0
L_45 (65) av	380072
L_45 (75) av	302028
L_45 (85) av	0

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:2025-03-17

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:2025-03-17

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: