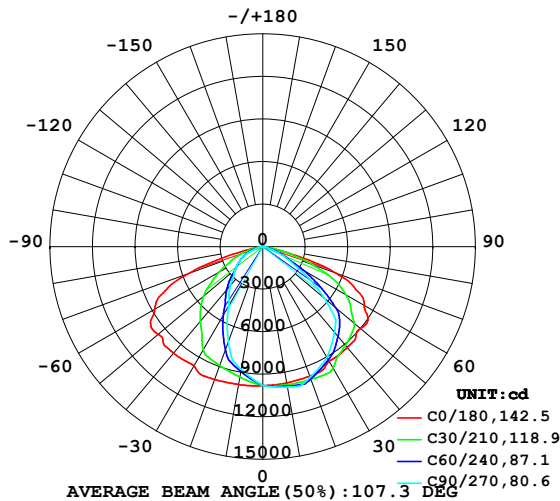


## LUMINAIRE PHOTOMETRIC TEST REPORT

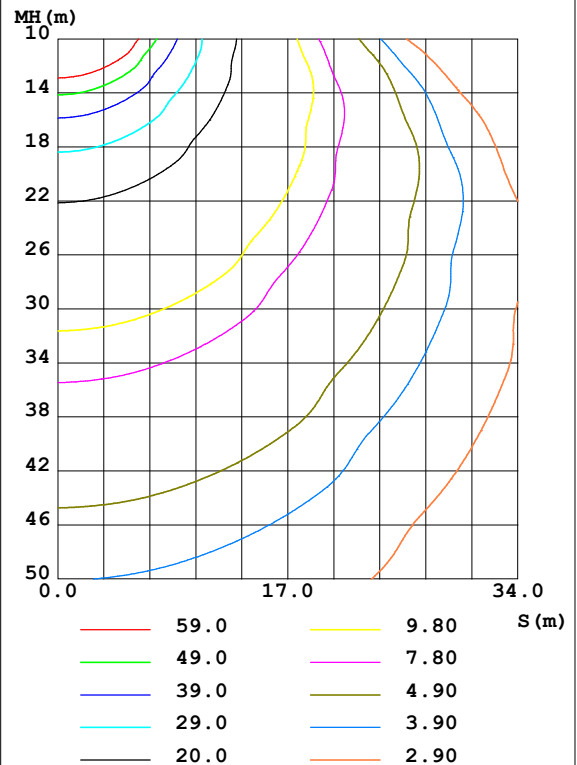
Test:U:120.72V I:1.7088A P:205.89W PF:0.9981 Freq:59.98Hz Lamp Flux:27676x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T3°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 134.42 lm/W			
MODEL	GSM-30-U	I <sub>max</sub> (cd)	10495	S/MH(C0/180)	1.53
NOMINAL POWER(W)	200W	LOR(%)	100.0	S/MH(C90/270)	0.87
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	27676	η UP,DN(C0-180)	0.0,59.1
NOMINAL FLUX(lm)	27676	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,40.9
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:2025-03-13

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:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	976.5	994.9	1006	1006	987.3	912.4	879.4	908.9	0- 10	921.5	921.5	3.33,3.33
20	971.9	1007	980.5	1034	996.7	844.5	712.4	844.4	10- 20	2667	3588	13,13
30	934.3	954.6	904.8	993.4	971.4	679.0	479.6	701.7	20- 30	4050	7639	27.6,27.6
40	927.8	857.1	787.4	903.3	979.8	494.9	354.6	538.1	30- 40	4899	12538	45.3,45.3
50	900.0	742.2	568.4	837.6	962.4	335.4	255.1	366.1	40- 50	5305	17843	64.5,64.5
60	827.2	492.7	247.9	625.1	879.5	201.0	181.0	219.0	50- 60	4917	22760	82.2,82.2
70	549.8	192.6	92.98	320.3	557.5	107.4	81.39	104.7	60- 70	3573	26333	95.1,95.1
80	35.96	8.084	0	11.26	49.88	15.14	0	14.59	70- 80	1292	27625	99.8,99.8
90	1.218	0	0	0	1.241	0	0	0	80- 90	51.45	27676	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): 15181 lm

%lum = 54.9%

%lamp = 54.9%

Conical surface Flux(120deg): 22760 lm

%lum = 82.2%

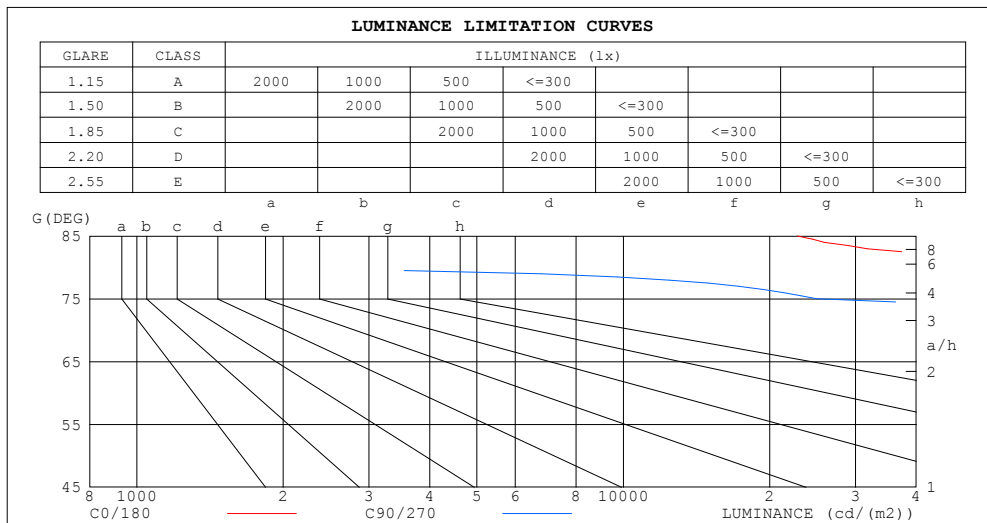
%lamp = 82.2%

$H(\beta)$  Range:-90 - 90DEG  
 $H(\beta)$  Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Gu  
 Test Date:2025-03-13

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:120.72V I:1.7088A P:205.89W PF:0.9981 Freq:59.98Hz Lamp Flux:27676x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T3°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



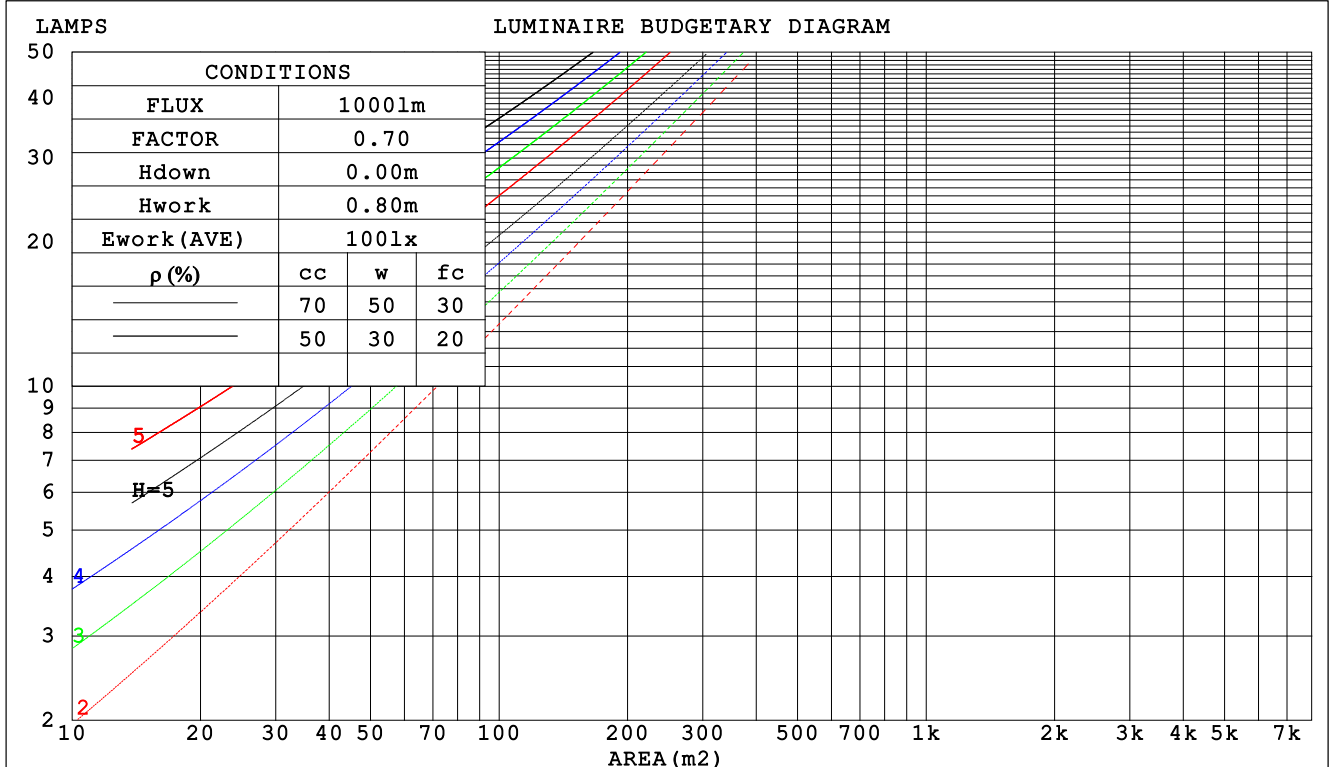
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-13

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:120.72V I:1.7088A P:205.89W PF:0.9981 Freq:59.98Hz Lamp Flux:27676x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T3°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.88	.86
2.0	.92	.86	.80	.90	.84	.79	.87	.82	.77	.83	.79	.75	.80	.77	.74	.72
3.0	.81	.73	.67	.79	.72	.66	.76	.70	.65	.74	.68	.64	.71	.66	.63	.60
4.0	.72	.63	.56	.70	.62	.56	.68	.61	.55	.65	.59	.54	.63	.58	.54	.52
5.0	.64	.55	.48	.63	.54	.48	.61	.53	.48	.59	.52	.47	.57	.51	.47	.44
6.0	.57	.48	.42	.56	.48	.42	.55	.47	.42	.53	.46	.41	.51	.45	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.34
8.0	.47	.39	.33	.47	.38	.33	.45	.38	.33	.44	.37	.32	.43	.37	.32	.30
9.0	.43	.35	.30	.43	.35	.30	.42	.34	.29	.41	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.26	.37	.31	.26	.25



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-13

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:120.72V I:1.7088A P:205.89W PF:0.9981 Freq:59.98Hz Lamp Flux:27676x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/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	.284	.161	.051	.277	.158	.050	.264	.151	.048	.251	.145	.047	.240	.139	.045		
2.0	.277	.152	.047	.270	.149	.046	.259	.144	.045	.248	.139	.044	.238	.135	.043		
3.0	.261	.139	.042	.255	.137	.041	.245	.133	.040	.235	.129	.040	.227	.125	.039		
4.0	.243	.126	.037	.238	.125	.037	.229	.122	.036	.221	.119	.036	.213	.116	.035		
5.0	.226	.115	.033	.222	.114	.033	.214	.111	.033	.206	.109	.032	.199	.107	.032		
6.0	.211	.106	.030	.207	.105	.030	.200	.102	.030	.193	.100	.029	.187	.098	.029		
7.0	.197	.097	.028	.193	.096	.027	.187	.095	.027	.181	.093	.027	.175	.091	.027		
8.0	.184	.090	.025	.181	.089	.025	.175	.088	.025	.170	.086	.025	.165	.085	.025		
9.0	.173	.084	.023	.170	.083	.023	.165	.082	.023	.160	.080	.023	.156	.079	.023		
10.0	.163	.078	.022	.160	.077	.022	.156	.076	.021	.151	.075	.021	.147	.074	.021		

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	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.018	.015	.011	
3.0	.163	.114	.076	.139	.099	.066	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.111	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-13

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:120.72V I:1.7088A P:205.89W PF:0.9981 Freq:59.98Hz Lamp Flux:27676x1 lm										
NAME: GSM-30-U					TYPE:Flood Light			WEIGHT:N/A		
SPEC.:200W/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	25.5	27.0	25.8	27.2	27.4	20.9	22.4	21.2	22.6	22.8
3H	27.7	29.0	28.0	29.3	29.5	21.2	22.5	21.5	22.8	23.0
4H	28.1	29.4	28.4	29.6	29.9	21.1	22.4	21.4	22.7	22.9
6H	28.0	29.3	28.4	29.5	29.8	21.0	22.2	21.3	22.5	22.8
8H	28.0	29.2	28.3	29.5	29.8	20.9	22.1	21.3	22.4	22.7
12H	27.9	29.1	28.3	29.4	29.7	20.9	22.0	21.2	22.3	22.6
4H 2H	25.6	27.0	26.0	27.2	27.5	21.9	23.2	22.2	23.5	23.7
3H	27.9	29.1	28.3	29.4	29.7	22.2	23.3	22.5	23.6	23.9
4H	28.4	29.5	28.8	29.8	30.1	22.1	23.1	22.5	23.5	23.8
6H	28.4	29.4	28.8	29.7	30.1	22.0	22.9	22.4	23.3	23.6
8H	28.4	29.3	28.8	29.6	30.0	22.0	22.8	22.4	23.2	23.6
12H	28.4	29.1	28.8	29.5	29.9	21.9	22.7	22.4	23.1	23.5
8H 4H	28.3	29.2	28.8	29.6	29.9	22.5	23.3	22.9	23.7	24.1
6H	28.4	29.1	28.8	29.5	29.9	22.4	23.1	22.8	23.5	23.9
8H	28.4	29.0	28.8	29.4	29.8	22.3	23.0	22.8	23.4	23.8
12H	28.3	28.9	28.8	29.3	29.8	22.3	22.8	22.8	23.3	23.7
12H 4H	28.3	29.1	28.7	29.5	29.9	22.4	23.2	22.9	23.6	24.0
6H	28.4	29.0	28.8	29.4	29.8	22.4	23.0	22.8	23.4	23.9
8H	28.3	28.9	28.8	29.3	29.8	22.3	22.9	22.8	23.3	23.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.3					+ 0.5 / - 0.7				
1.5H	+ 0.3 / - 0.7					+ 0.6 / - 0.9				
2.0H	+ 0.6 / - 0.5					+ 1.2 / - 2.8				

CIE Pub.117, 27676 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 11.5)  
Area: 0.024 m2

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-13

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:120.72V I:1.7088A P:205.89W PF:0.9981 Freq:59.98Hz Lamp Flux:27676x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T3°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

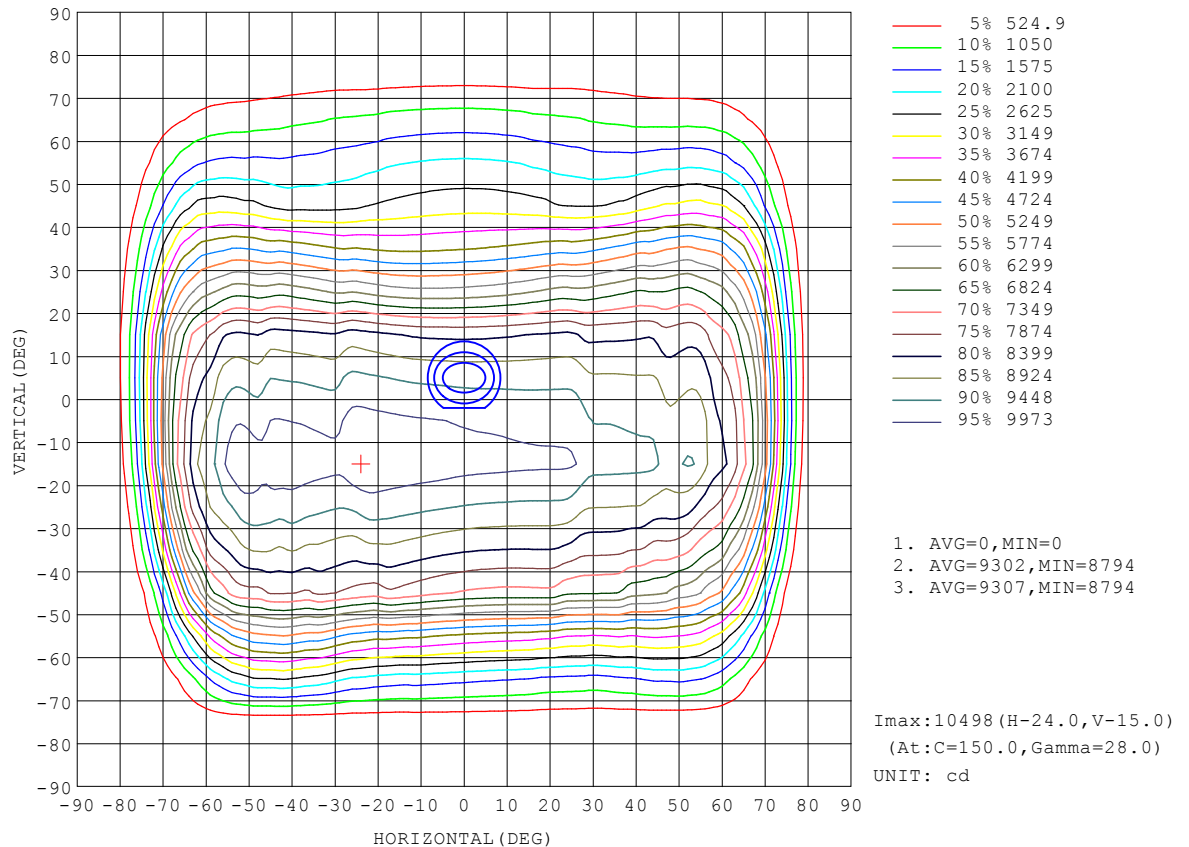
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	49	65	55	49	42
1.00	77	66	59	76	65	58	73	67	58	51
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	80	73	88	79	72	85	77	71	64
2.00	96	88	82	94	87	81	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	91	97	93	89	80
4.00	107	102	98	105	100	96	101	97	94	85
5.00	110	105	101	107	103	100	103	100	97	88
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:2025-03-13

$V(B)$  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:120.72V I:1.7088A P:205.89W PF:0.9981 Freq:59.98Hz Lamp Flux:27676x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T3°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



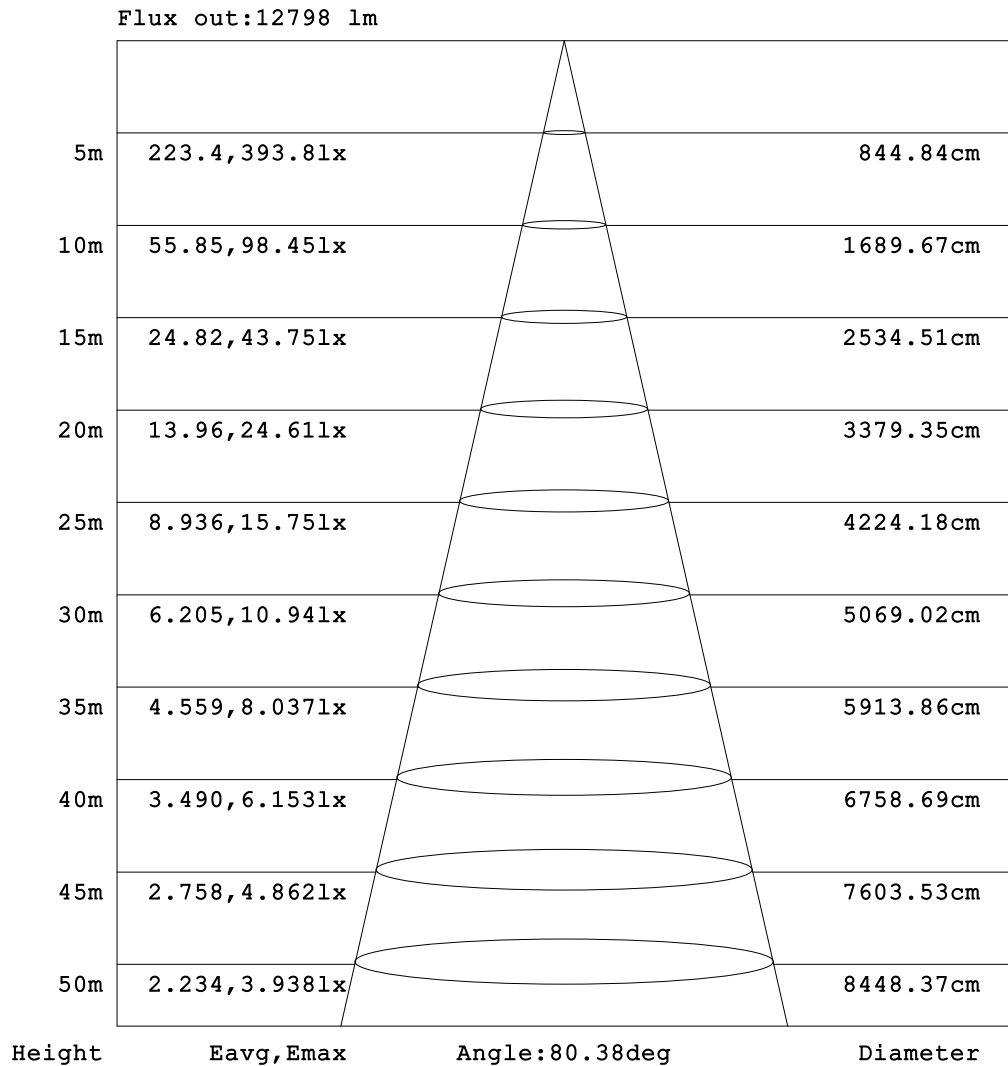
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-13

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:120.72V I:1.7088A P:205.89W PF:0.9981 Freq:59.98Hz Lamp Flux:27676x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T3°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



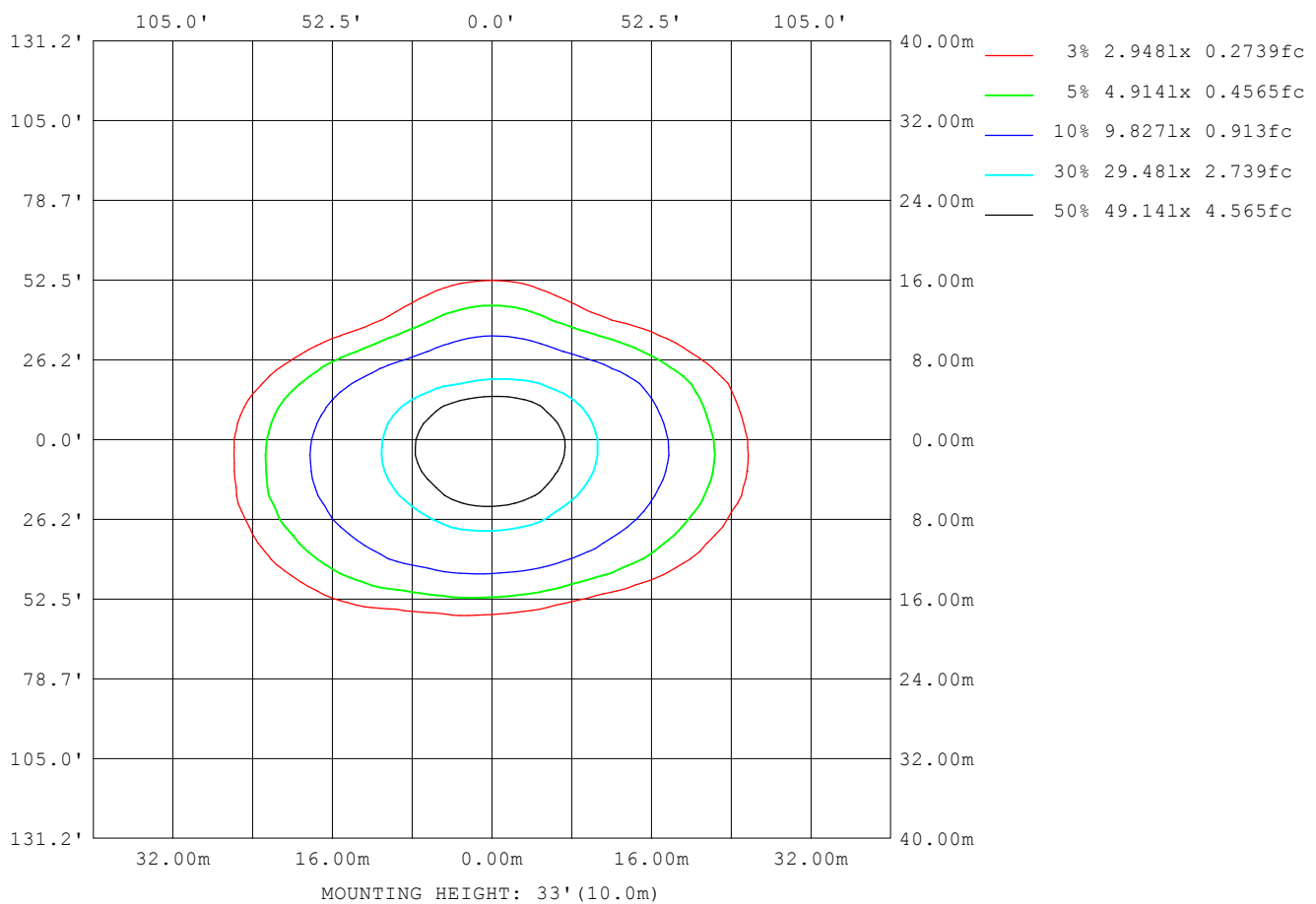
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-13

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:120.72V I:1.7088A P:205.89W PF:0.9981 Freq:59.98Hz Lamp Flux:27676x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T3°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-13

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:120.72V I:1.7088A P:205.89W PF:0.9981 Freq:59.98Hz Lamp Flux:27676x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/T3°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

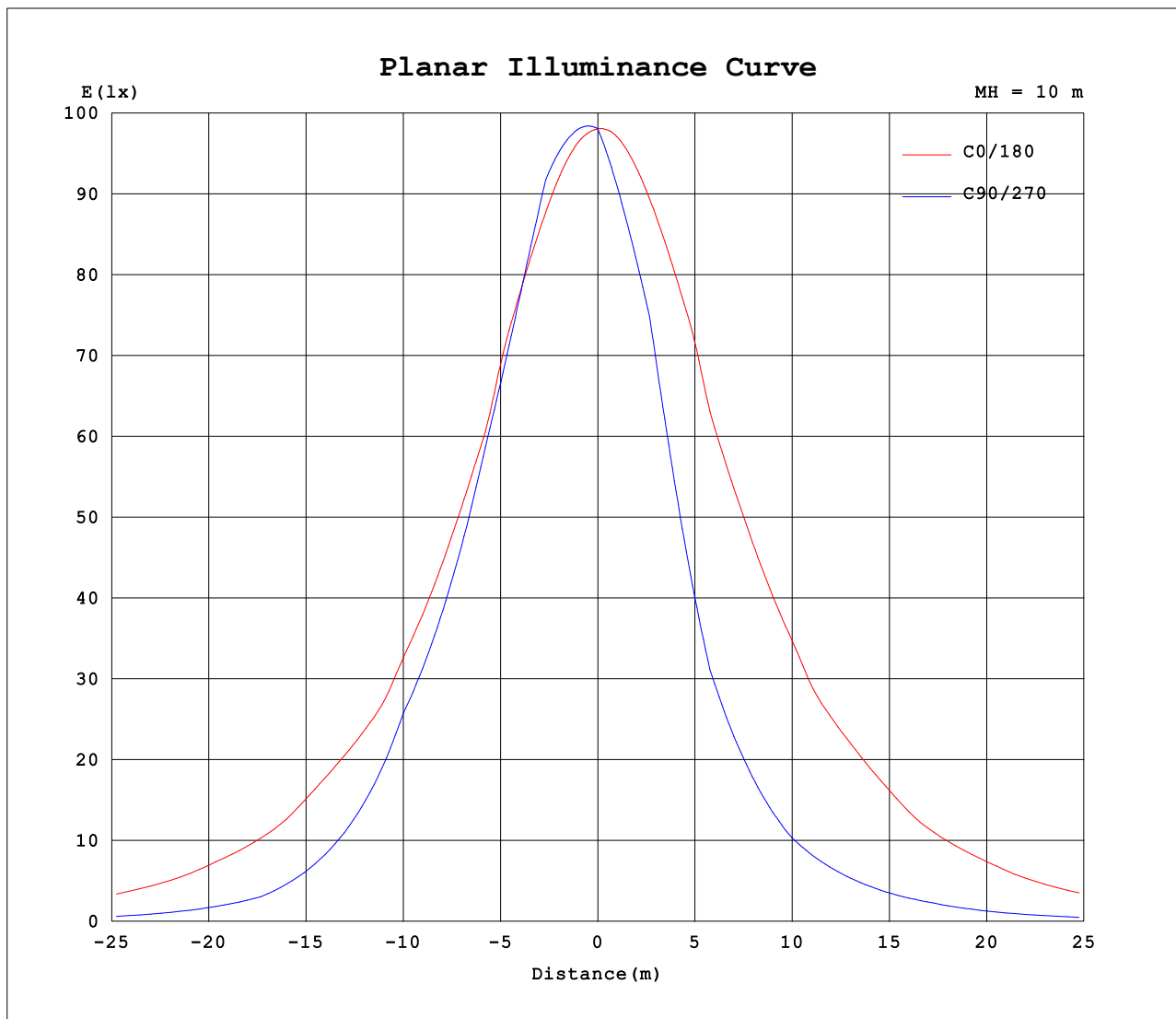
AvgL	cd/m2
L_0~180 (65) av	742555
L_0~180 (75) av	381832
L_0~180 (85) av	26295
L_90~270 (65) av	148705
L_90~270 (75) av	37900
L_90~270 (85) av	0
L_45 (65) av	274511
L_45 (75) av	150654
L_45 (85) av	0

Standard: GB/T 29293-2012

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-13

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( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-13

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:

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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:
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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:
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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:
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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:
```