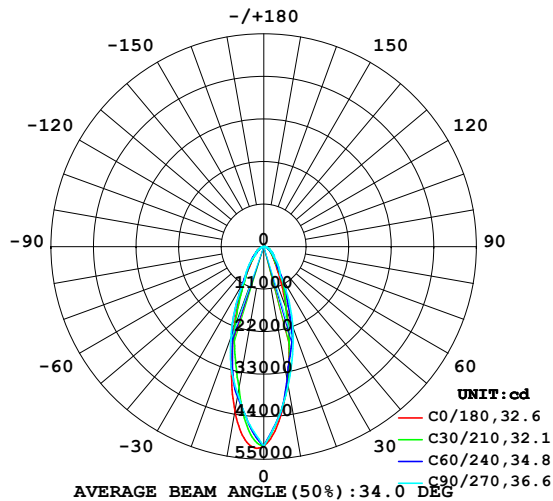


## LUMINAIRE PHOTOMETRIC TEST REPORT

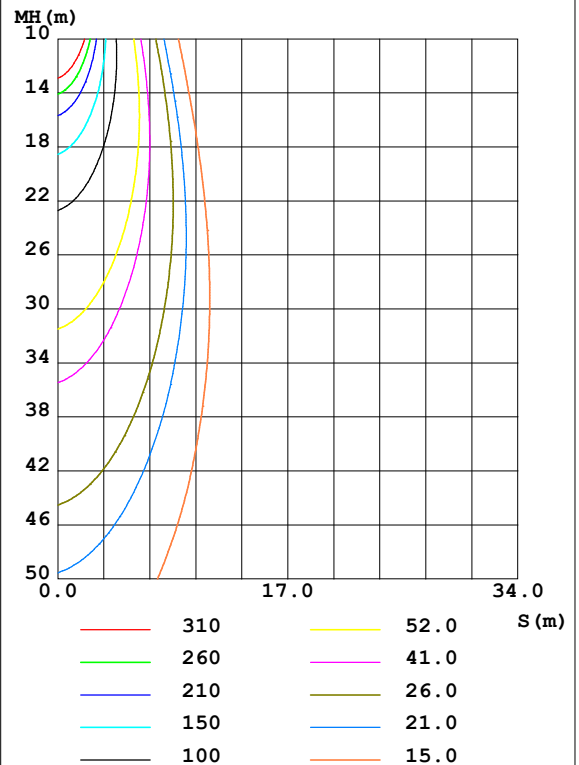
Test:U:120.73V I:1.7108A P:206.15W PF:0.9981 Freq:59.98Hz Lamp Flux:29391x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/30°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 142.57 lm/W			
MODEL	GSM-30-L	I <sub>max</sub> (cd)	52161	S/MH(C0/180)	0.59
NOMINAL POWER(W)	200W	LOR(%)	100.0	S/MH(C90/270)	0.62
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	29391	η UP,DN(C0-180)	0.0,48.6
NOMINAL FLUX(lm)	29391	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	0.65

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:2025-03-05

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	3530	3519	3629	3666	4318	3834	3877	3648	0- 10	4087	4087	13.9,13.9
20	1714	1986	2196	1966	2252	2173	2490	2141	10- 20	7889	11976	40.7,40.7
30	742.1	897.0	856.1	1006	1007	1110	996.4	954.3	20- 30	6650	18626	63.4,63.4
40	390.4	416.0	533.2	468.6	481.7	517.1	565.5	439.7	30- 40	4166	22792	77.5,77.5
50	247.2	265.1	306.3	295.0	295.4	303.6	289.5	262.5	40- 50	2817	25609	87.1,87.1
60	150.3	164.4	175.3	181.2	191.1	180.5	168.4	155.7	50- 60	1996	27605	93.9,93.9
70	67.63	81.20	91.35	89.59	103.6	89.97	85.77	74.77	60- 70	1245	28850	98.2,98.2
80	9.205	17.07	0	19.54	31.69	19.42	0	12.98	70- 80	510.3	29360	99.9,99.9
90	0.3915	0	0	0	0.3213	0	0	0	80- 90	30.27	29391	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): 24333 lm

%lum = 82.8%

%lamp = 82.8%

Conical surface Flux(120deg): 27605 lm

%lum = 93.9%

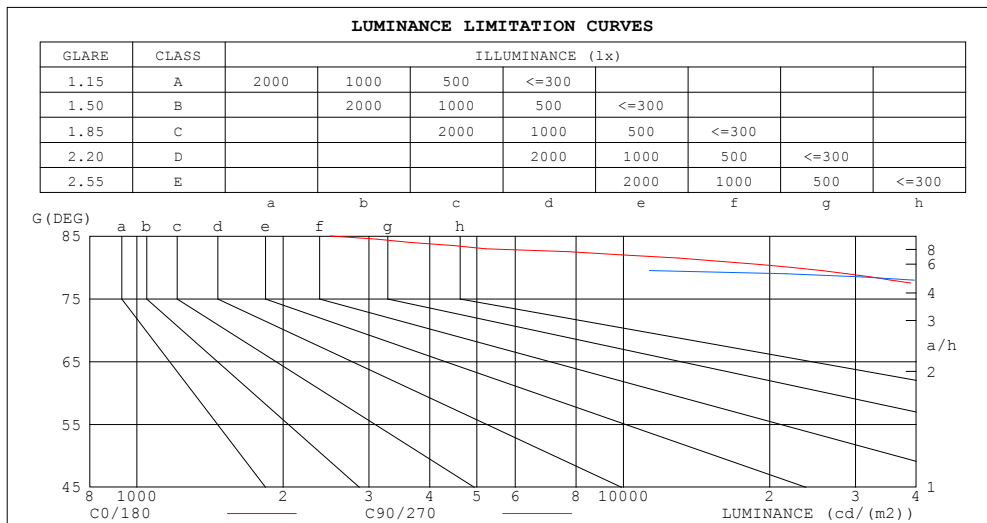
%lamp = 93.9%

$H(\beta)$  Range:-90 - 90DEG  
 $H(\beta)$  Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Gu  
 Test Date:2025-03-05

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:1.7108A P:206.15W PF:0.9981 Freq:59.98Hz Lamp Flux:29391x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/30°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



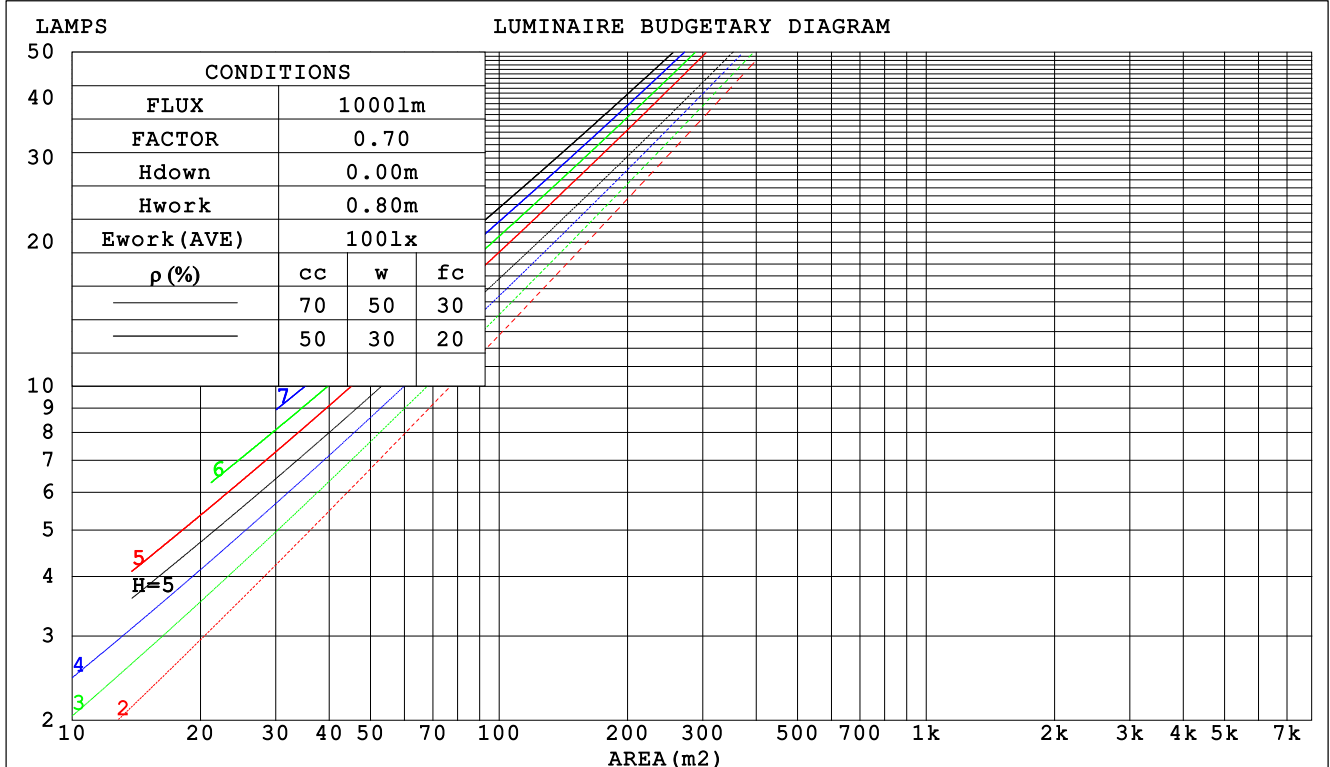
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-05

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:1.7108A P:206.15W PF:0.9981 Freq:59.98Hz Lamp Flux:29391x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/30°	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	.00
1.0	1.09	1.07	1.04	1.07	1.05	1.02	1.03	1.01	.99	.99	.98	.96	.96	.95	.93	.92
2.0	1.00	.96	.92	.99	.95	.91	.95	.92	.89	.92	.90	.87	.90	.87	.85	.83
3.0	.93	.87	.83	.91	.86	.82	.89	.84	.81	.86	.82	.79	.84	.81	.78	.76
4.0	.86	.80	.75	.85	.79	.75	.83	.78	.74	.80	.76	.73	.79	.75	.72	.70
5.0	.80	.74	.69	.79	.73	.69	.77	.72	.68	.76	.71	.67	.74	.70	.67	.65
6.0	.75	.68	.64	.74	.68	.64	.73	.67	.63	.71	.66	.63	.70	.66	.62	.61
7.0	.70	.64	.59	.70	.64	.59	.68	.63	.59	.67	.62	.59	.66	.62	.58	.57
8.0	.66	.60	.56	.66	.60	.56	.65	.59	.55	.64	.59	.55	.63	.58	.55	.53
9.0	.63	.57	.52	.62	.56	.52	.61	.56	.52	.60	.56	.52	.60	.55	.52	.50
10.0	.60	.54	.50	.59	.53	.50	.58	.53	.49	.58	.53	.49	.57	.52	.49	.48



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-05

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:1.7108A P:206.15W PF:0.9981 Freq:59.98Hz Lamp Flux:29391x1 lm					
NAME: GSM-30-U			TYPE:Flood Light		WEIGHT:N/A
SPEC.:200W/5000K/30°			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	.204	.116	.037	.197	.112	.036	.184	.106	.034	.172	.099	.032	.162	.094	.030		
2.0	.195	.107	.033	.190	.104	.032	.179	.099	.031	.169	.095	.030	.160	.090	.028		
3.0	.185	.098	.029	.180	.096	.029	.170	.092	.028	.162	.089	.027	.154	.085	.026		
4.0	.174	.090	.027	.169	.089	.026	.161	.086	.026	.154	.083	.025	.147	.080	.024		
5.0	.163	.083	.024	.160	.082	.024	.153	.079	.023	.146	.077	.023	.140	.075	.022		
6.0	.154	.077	.022	.151	.076	.022	.145	.074	.022	.139	.072	.021	.133	.070	.021		
7.0	.146	.072	.020	.143	.071	.020	.137	.069	.020	.132	.068	.020	.127	.066	.019		
8.0	.138	.067	.019	.135	.067	.019	.130	.065	.019	.126	.064	.018	.121	.062	.018		
9.0	.131	.063	.018	.129	.063	.018	.124	.061	.017	.120	.060	.017	.116	.059	.017		
10.0	.124	.060	.017	.122	.059	.016	.118	.058	.016	.115	.057	.016	.111	.056	.016		

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	.173	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.159	.132	.110	.137	.114	.095	.094	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.148	.114	.086	.127	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.138	.099	.070	.119	.086	.060	.082	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.130	.088	.057	.111	.076	.050	.077	.053	.035	.044	.031	.021	.014	.010	.007	
6.0	.122	.079	.048	.105	.068	.042	.072	.048	.029	.042	.028	.017	.014	.009	.006	
7.0	.115	.071	.040	.099	.062	.035	.069	.043	.025	.040	.026	.015	.013	.008	.005	
8.0	.109	.065	.035	.094	.056	.030	.065	.040	.022	.038	.023	.013	.012	.008	.004	
9.0	.104	.060	.030	.089	.052	.026	.062	.037	.019	.036	.022	.011	.012	.007	.004	
10.0	.099	.055	.027	.085	.048	.023	.059	.034	.017	.034	.020	.010	.011	.007	.003	

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-05

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:1.7108A P:206.15W PF:0.9981 Freq:59.98Hz Lamp Flux:29391x1 lm										
NAME: GSM-30-U					TYPE:Flood Light			WEIGHT:N/A		
SPEC.:200W/5000K/30°					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	15.5	16.6	15.8	16.8	16.9	16.5	17.6	16.8	17.7	17.9
3H	16.3	17.3	16.6	17.5	17.7	17.4	18.3	17.6	18.5	18.7
4H	16.5	17.4	16.8	17.6	17.9	17.6	18.5	17.9	18.7	19.0
6H	16.5	17.4	16.8	17.6	17.9	17.5	18.4	17.9	18.7	18.9
8H	16.5	17.3	16.8	17.6	17.8	17.5	18.3	17.8	18.6	18.9
12H	16.4	17.2	16.7	17.5	17.8	17.5	18.3	17.8	18.5	18.8
4H 2H	16.0	16.9	16.3	17.2	17.4	16.8	17.7	17.1	17.9	18.2
3H	16.9	17.7	17.2	18.0	18.3	17.8	18.6	18.1	18.9	19.1
4H	17.2	17.9	17.5	18.2	18.5	18.1	18.8	18.4	19.1	19.4
6H	17.2	17.9	17.6	18.2	18.6	18.1	18.7	18.4	19.0	19.4
8H	17.2	17.8	17.6	18.2	18.5	18.0	18.6	18.4	19.0	19.3
12H	17.2	17.7	17.6	18.1	18.5	18.0	18.5	18.4	18.9	19.3
8H 4H	17.3	17.9	17.7	18.2	18.6	18.1	18.7	18.5	19.0	19.4
6H	17.4	17.9	17.8	18.3	18.7	18.1	18.6	18.5	19.0	19.4
8H	17.4	17.8	17.8	18.2	18.6	18.0	18.5	18.5	18.9	19.3
12H	17.3	17.7	17.8	18.1	18.6	18.0	18.4	18.5	18.8	19.3
12H 4H	17.2	17.8	17.6	18.1	18.5	18.1	18.6	18.5	19.0	19.4
6H	17.3	17.8	17.8	18.2	18.6	18.1	18.5	18.5	18.9	19.4
8H	17.3	17.7	17.8	18.1	18.6	18.0	18.4	18.5	18.8	19.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.7					+ 0.5 / - 0.6				
1.5H	+ 0.3 / - 0.5					+ 0.6 / - 0.5				
2.0H	+ 0.9 / - 0.9					+ 0.9 / - 1.1				

CIE Pub.117, 29391 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 11.7)  
Area: 0.024 m2

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-05

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:1.7108A P:206.15W PF:0.9981 Freq:59.98Hz Lamp Flux:29391x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/30°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

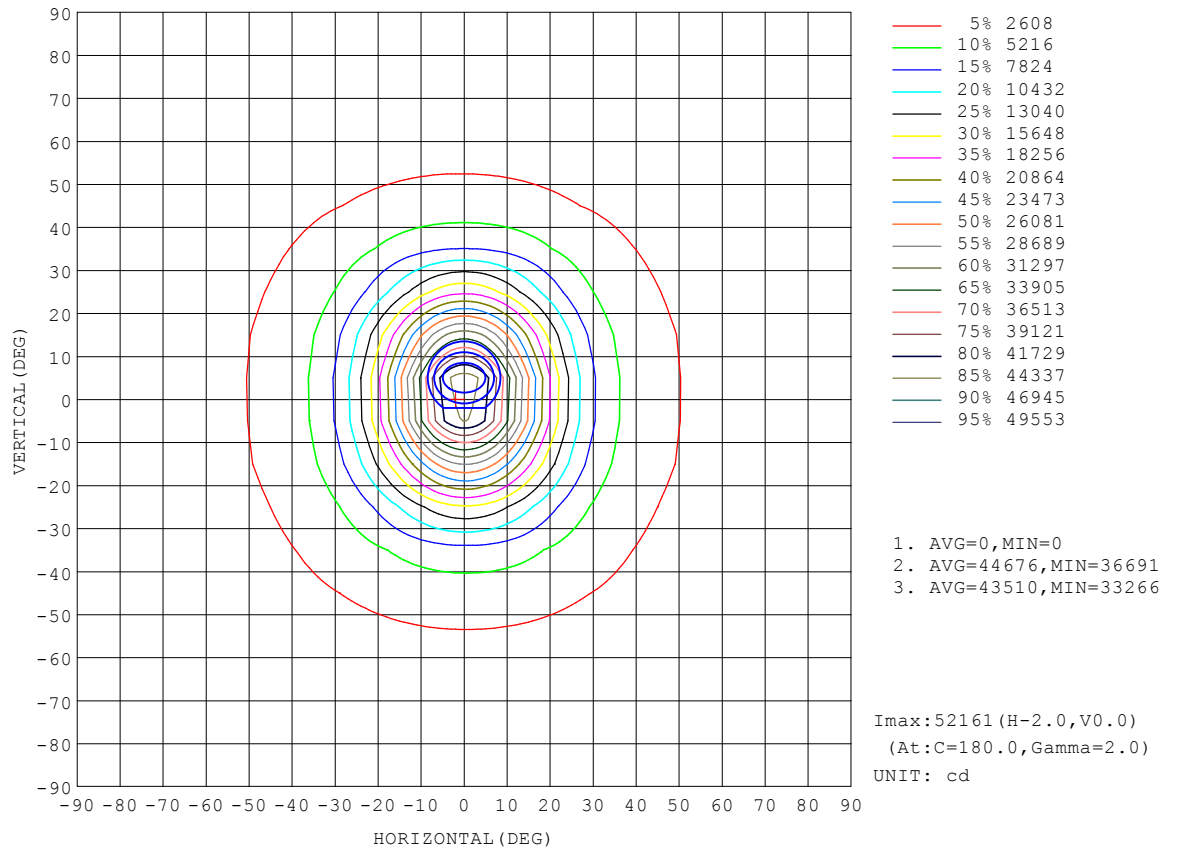
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	78	69	65	77	69	64	76	69	64	60
0.80	86	78	73	85	78	73	84	77	73	68
1.00	92	85	80	91	84	80	89	84	79	74
1.25	97	90	86	96	90	85	94	88	84	79
1.50	101	94	90	99	93	89	97	92	88	83
2.00	105	99	95	103	98	94	100	96	93	87
2.50	107	102	98	105	101	97	102	98	95	89
3.00	109	105	101	107	103	100	104	101	98	91
4.00	112	108	105	110	106	104	106	103	101	94
5.00	113	110	108	111	108	106	107	105	103	95
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:2025-03-05

$V(B)$  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:1.7108A P:206.15W PF:0.9981 Freq:59.98Hz Lamp Flux:29391x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/30°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



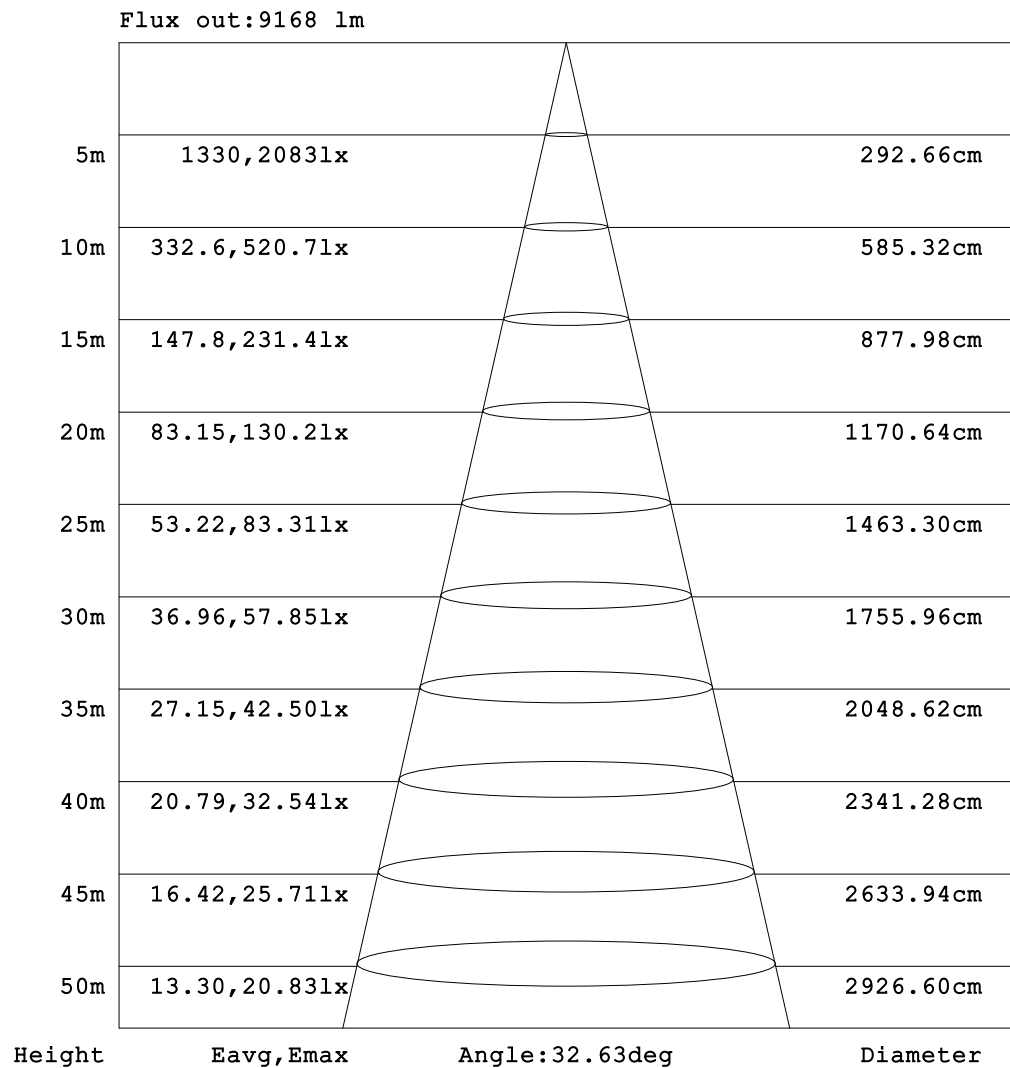
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-05

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:1.7108A P:206.15W PF:0.9981 Freq:59.98Hz Lamp Flux:29391x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/30°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



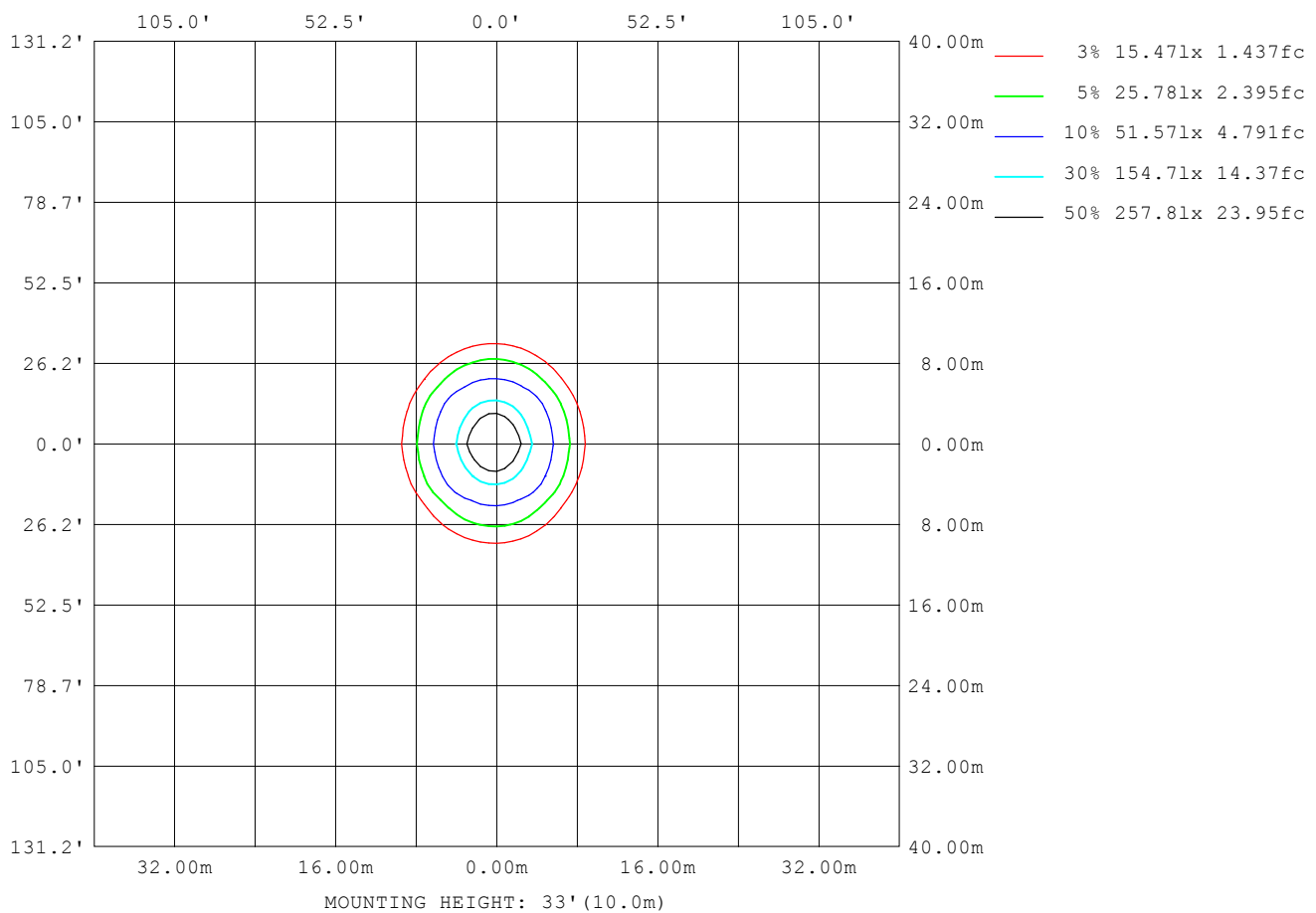
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-05

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:1.7108A P:206.15W PF:0.9981 Freq:59.98Hz Lamp Flux:29391x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/30°	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:2025-03-05

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:1.7108A P:206.15W PF:0.9981 Freq:59.98Hz Lamp Flux:29391x1 lm		
NAME: GSM-30-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K/30°	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

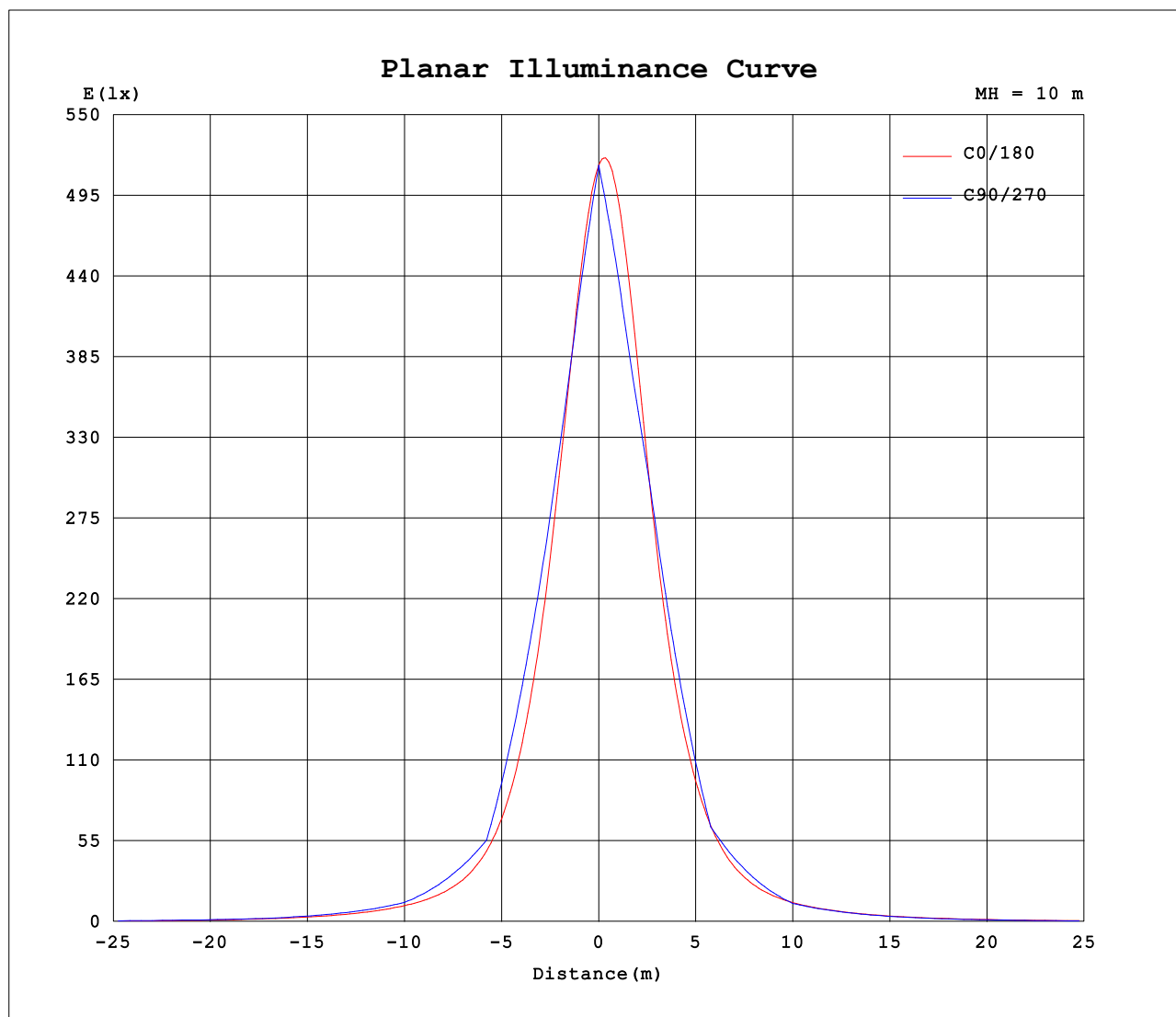
AvgL	cd/m2
L_0~180 (65) av	124623
L_0~180 (75) av	79781
L_0~180 (85) av	19737
L_90~270 (65) av	128646
L_90~270 (75) av	75834
L_90~270 (85) av	0
L_45 (65) av	122405
L_45 (75) av	79882
L_45 (85) av	0

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:2025-03-05

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:2025-03-05

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:

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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:
```

```
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:
```