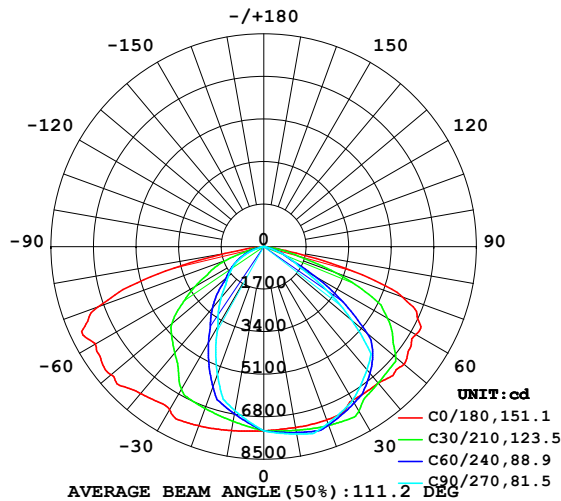


## LUMINAIRE PHOTOMETRIC TEST REPORT

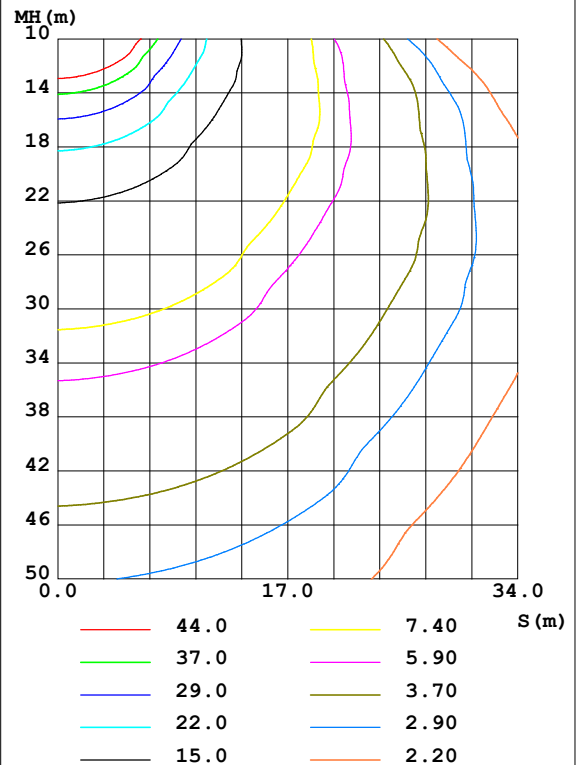
Test:U:120.80V I:1.2664A P:152.87W PF:0.9992 Freq:59.98Hz Lamp Flux:22222x1 lm		
NAME: GSM-23-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:150W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 145.37 lm/W			
MODEL	GSM-23-U	I <sub>max</sub> (cd)	8325	S/MH(C0/180)	1.58
NOMINAL POWER(W)	150W	LOR(%)	100.0	S/MH(C90/270)	0.88
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	22222	η UP,DN(C0-180)	0.0,59.3
NOMINAL FLUX(lm)	22222	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,40.7
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:2025-03-05

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	7337	7500	7602	7598	7460	6918	6655	6846	0- 10	694.0	694.0	3.12, 3.12
20	7366	7687	7517	7877	7617	6527	5425	6420	10- 20	2026	2720	12.2, 12.2
30	7088	7418	7107	7725	7529	5388	3673	5276	20- 30	3113	5833	26.2, 26.3
40	7127	6771	6417	7275	7662	4106	2657	3940	30- 40	3814	9647	43.4, 43.4
50	7315	5996	4610	6697	7964	2765	1865	2629	40- 50	4220	13867	62.4, 62.4
60	7022	3785	1687	4766	7769	1586	1299	1440	50- 60	3930	17797	80.1, 80.1
70	5897	976.9	667.3	1885	7067	752.6	543.6	649.7	60- 70	3016	20813	93.7, 93.7
80	736.4	80.12	0	99.55	1573	106.6	0	72.23	70- 80	1338	22151	99.7, 99.7
90	13.22	0	0	0	11.41	0	0	0	80- 90	71.66	22222	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): 11734 lm

%lum = 52.8%

%lamp = 52.8%

Conical surface Flux(120deg): 17797 lm

%lum = 80.1%

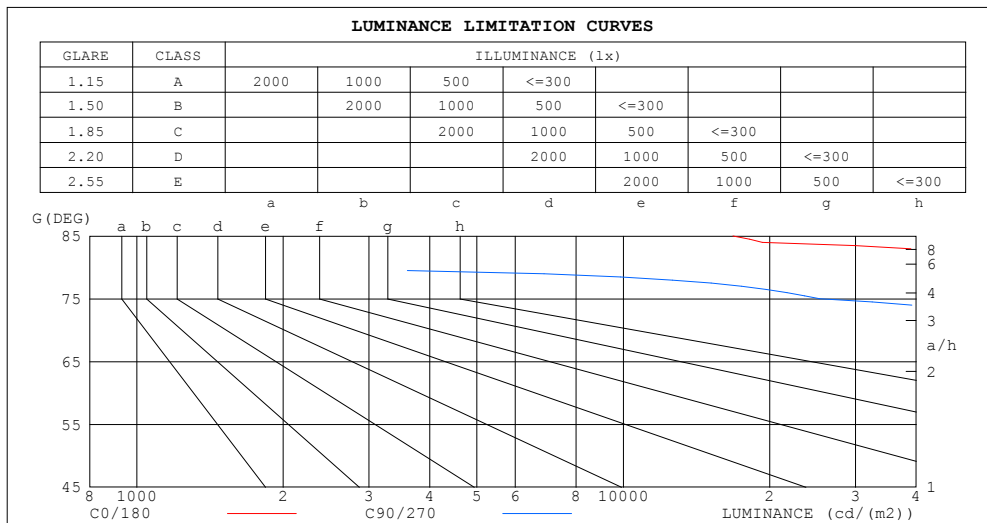
%lamp = 80.1%

$H(\beta)$  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:120.80V I:1.2664A P:152.87W PF:0.9992 Freq:59.98Hz Lamp Flux:22222x1 lm		
NAME: GSM-23-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:150W/5000K/T2	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	16790	0
80	176705	0
75	546314	25349
70	718348	81292
65	667840	116053
60	585189	140577
55	517021	228722
50	474144	298839
45	429431	357783

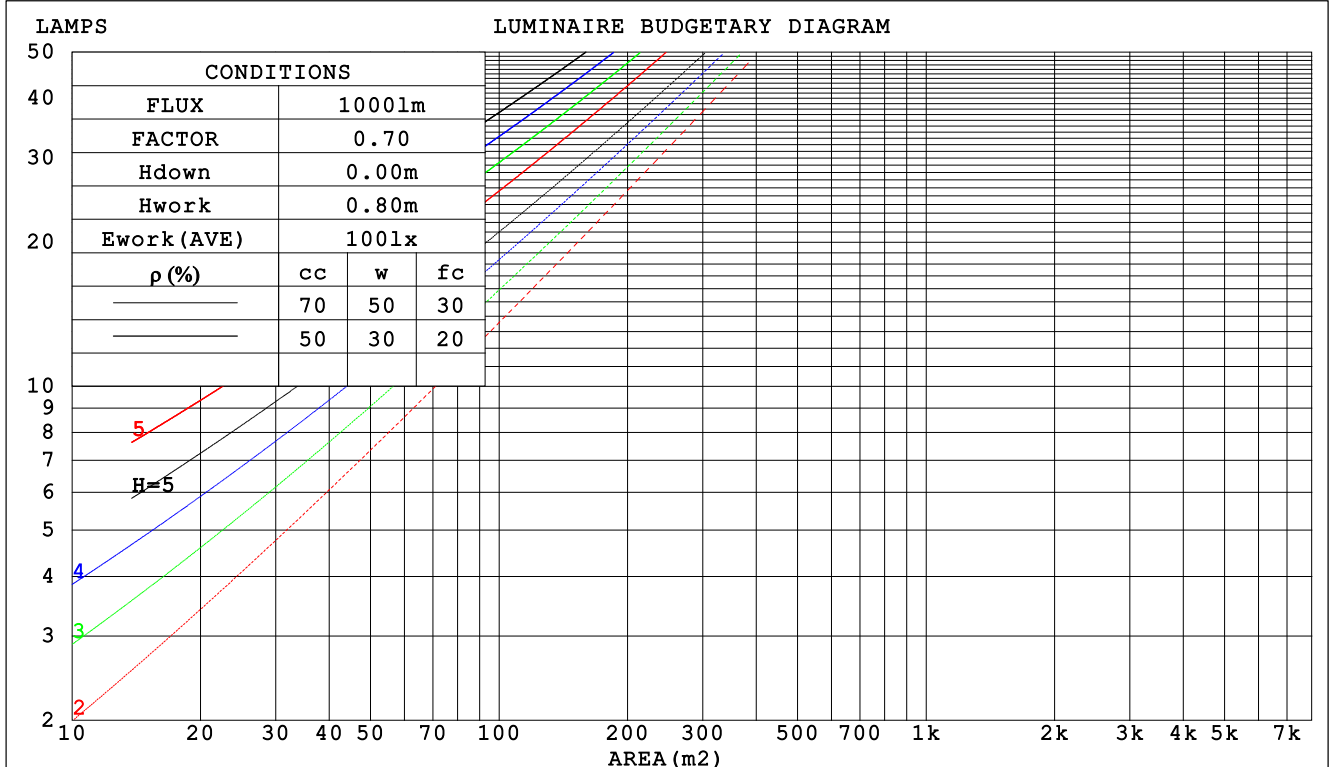
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-05

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:120.80V I:1.2664A P:152.87W PF:0.9992 Freq:59.98Hz Lamp Flux:22222x1 lm		
NAME: GSM-23-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:150W/5000K/T2	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	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.90	.91	.89	.87	.85
2.0	.91	.84	.79	.89	.83	.78	.86	.81	.76	.82	.78	.74	.79	.76	.73	.70
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	.62	.53	.47	.59	.52	.46	.57	.51	.46	.56	.50	.45	.43
6.0	.56	.47	.41	.55	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.35	.47	.40	.35	.46	.40	.35	.33
8.0	.46	.38	.32	.46	.37	.32	.44	.37	.32	.43	.36	.31	.42	.36	.31	.29
9.0	.42	.34	.29	.42	.34	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.30	.26	.37	.30	.25	.36	.30	.25	.24



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:120.80V I:1.2664A P:152.87W PF:0.9992 Freq:59.98Hz Lamp Flux:22222x1 lm					
NAME: GSM-23-U			TYPE:Flood Light		WEIGHT:N/A
SPEC.:150W/5000K/T2			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	.294	.167	.053	.287	.164	.052	.274	.157	.050	.262	.151	.048	.251	.145	.047		
2.0	.285	.156	.048	.279	.154	.047	.267	.149	.046	.257	.144	.045	.247	.139	.044		
3.0	.267	.142	.043	.262	.140	.042	.251	.136	.041	.242	.133	.041	.233	.129	.040		
4.0	.248	.129	.038	.243	.127	.038	.234	.124	.037	.226	.121	.037	.218	.118	.036		
5.0	.230	.117	.034	.226	.116	.034	.218	.114	.033	.210	.111	.033	.203	.109	.033		
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.190	.100	.030		
7.0	.200	.099	.028	.196	.098	.028	.190	.096	.028	.184	.094	.027	.178	.092	.027		
8.0	.187	.091	.026	.184	.090	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025		
9.0	.175	.085	.024	.172	.084	.024	.167	.083	.023	.162	.081	.023	.157	.080	.023		
10.0	.164	.079	.022	.162	.078	.022	.157	.077	.022	.153	.076	.022	.149	.075	.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	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.147	.114	.085	.101	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.141	.099	.065	.097	.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	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.017	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.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	.014	.008	.003	
9.0	.123	.065	.025	.106	.056	.022	.074	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.118	.060	.022	.101	.052	.019	.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:2025-03-05

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:120.80V I:1.2664A P:152.87W PF:0.9992 Freq:59.98Hz Lamp Flux:22222x1 lm										
NAME: GSM-23-U					TYPE:Flood Light			WEIGHT:N/A		
SPEC.:150W/5000K/T2					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	25.8	27.4	26.1	27.6	27.8	20.7	22.2	21.0	22.4	22.6
3H	28.6	30.0	28.9	30.2	30.5	20.9	22.3	21.1	22.5	22.7
4H	29.3	30.7	29.7	30.9	31.2	20.8	22.1	21.1	22.4	22.6
6H	29.4	30.7	29.8	31.0	31.2	20.7	21.9	21.0	22.2	22.5
8H	29.4	30.6	29.7	30.9	31.2	20.6	21.8	21.0	22.1	22.4
12H	29.3	30.5	29.7	30.8	31.1	20.6	21.7	20.9	22.0	22.3
4H 2H	25.9	27.2	26.2	27.5	27.7	21.6	23.0	21.9	23.2	23.5
3H	28.7	29.9	29.1	30.2	30.5	21.8	22.9	22.1	23.2	23.5
4H	29.6	30.6	29.9	31.0	31.3	21.7	22.8	22.1	23.1	23.4
6H	29.7	30.7	30.1	31.0	31.4	21.6	22.6	22.0	22.9	23.3
8H	29.7	30.6	30.1	30.9	31.3	21.6	22.5	22.0	22.8	23.2
12H	29.7	30.5	30.1	30.8	31.2	21.6	22.4	22.0	22.7	23.1
8H 4H	29.5	30.3	29.9	30.7	31.1	22.1	23.0	22.5	23.3	23.7
6H	29.6	30.4	30.1	30.8	31.2	22.0	22.7	22.5	23.1	23.6
8H	29.6	30.3	30.1	30.7	31.1	22.0	22.6	22.4	23.0	23.5
12H	29.6	30.1	30.1	30.6	31.1	21.9	22.5	22.4	22.9	23.4
12H 4H	29.4	30.2	29.8	30.6	31.0	22.1	22.9	22.5	23.3	23.7
6H	29.6	30.2	30.1	30.7	31.1	22.0	22.7	22.5	23.1	23.5
8H	29.6	30.1	30.1	30.6	31.1	22.0	22.5	22.5	23.0	23.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.3					+ 0.6 / - 0.8				
1.5H	+ 0.3 / - 0.7					+ 0.7 / - 1.0				
2.0H	+ 0.3 / - 0.3					+ 1.7 / - 4.1				

CIE Pub.117, 22222 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 10.8)  
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:120.80V I:1.2664A P:152.87W PF:0.9992 Freq:59.98Hz Lamp Flux:22222x1 lm		
NAME: GSM-23-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:150W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

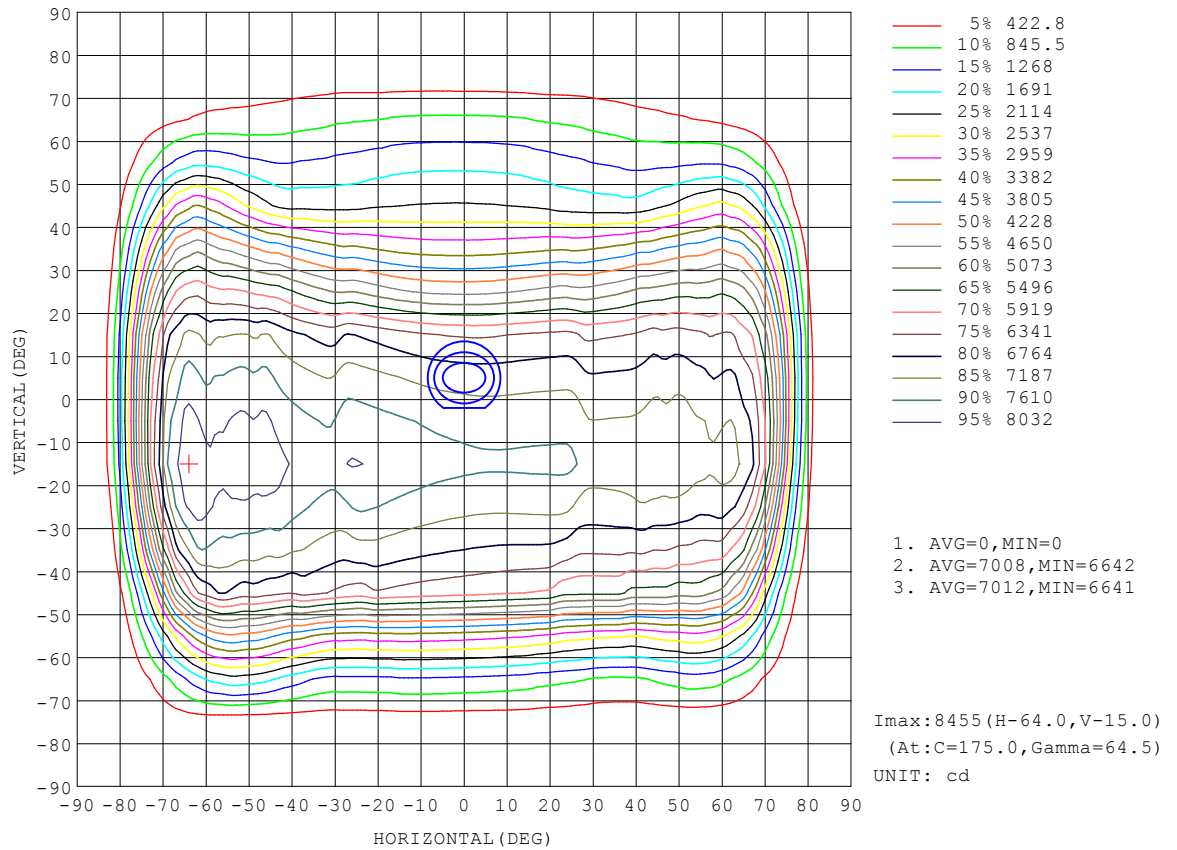
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	45	38	56	45	38	55	44	37	31
0.80	67	55	48	66	55	48	64	54	47	40
1.00	76	65	57	75	64	57	72	65	56	49
1.25	83	73	65	82	72	65	79	70	64	57
1.50	88	78	71	87	77	71	84	76	70	62
2.00	95	87	81	94	86	80	90	83	78	70
2.50	99	92	86	97	90	85	93	88	83	75
3.00	103	96	91	101	95	90	97	92	87	79
4.00	107	101	97	104	100	95	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:2025-03-05

$V(B)$  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:120.80V I:1.2664A P:152.87W PF:0.9992 Freq:59.98Hz Lamp Flux:22222x1 lm		
NAME: GSM-23-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:150W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



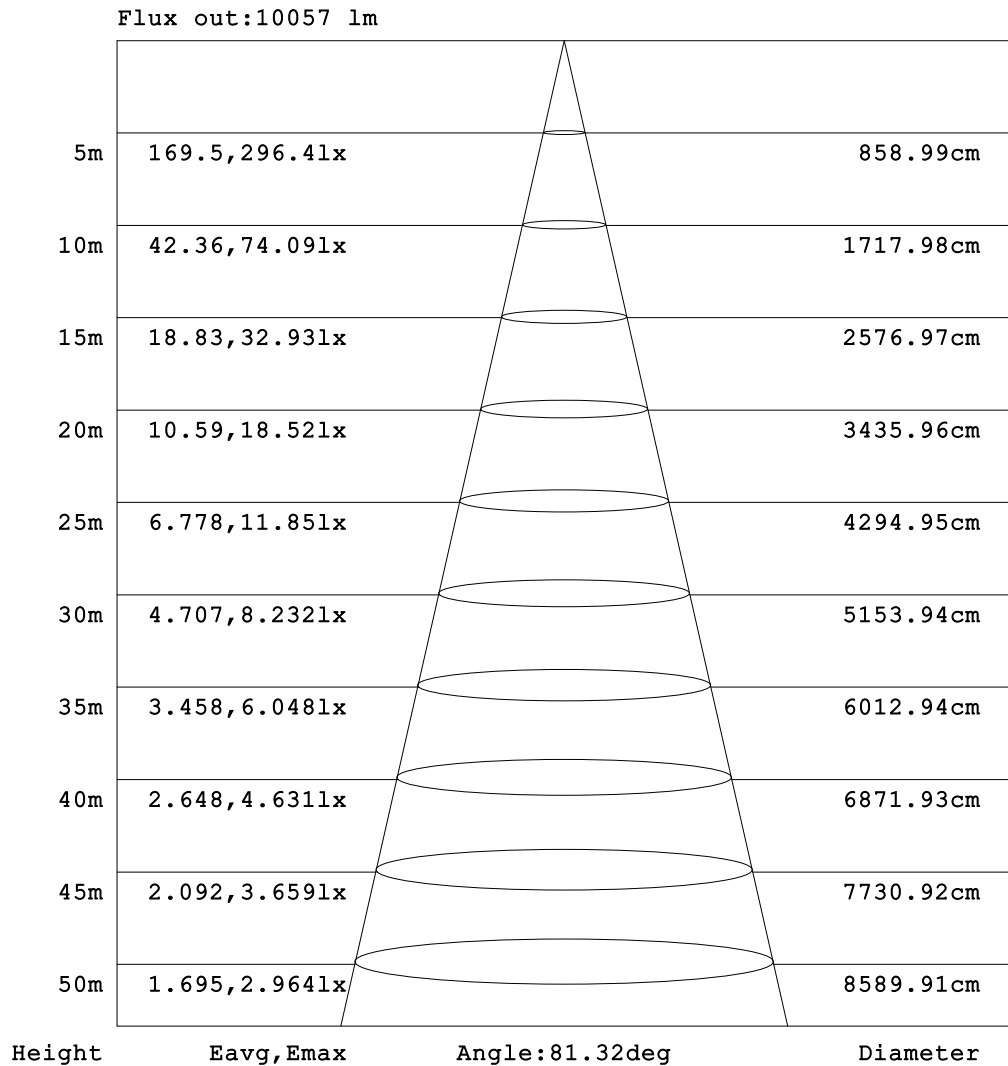
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-05

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:120.80V I:1.2664A P:152.87W PF:0.9992 Freq:59.98Hz Lamp Flux:22222x1 lm		
NAME: GSM-23-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:150W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



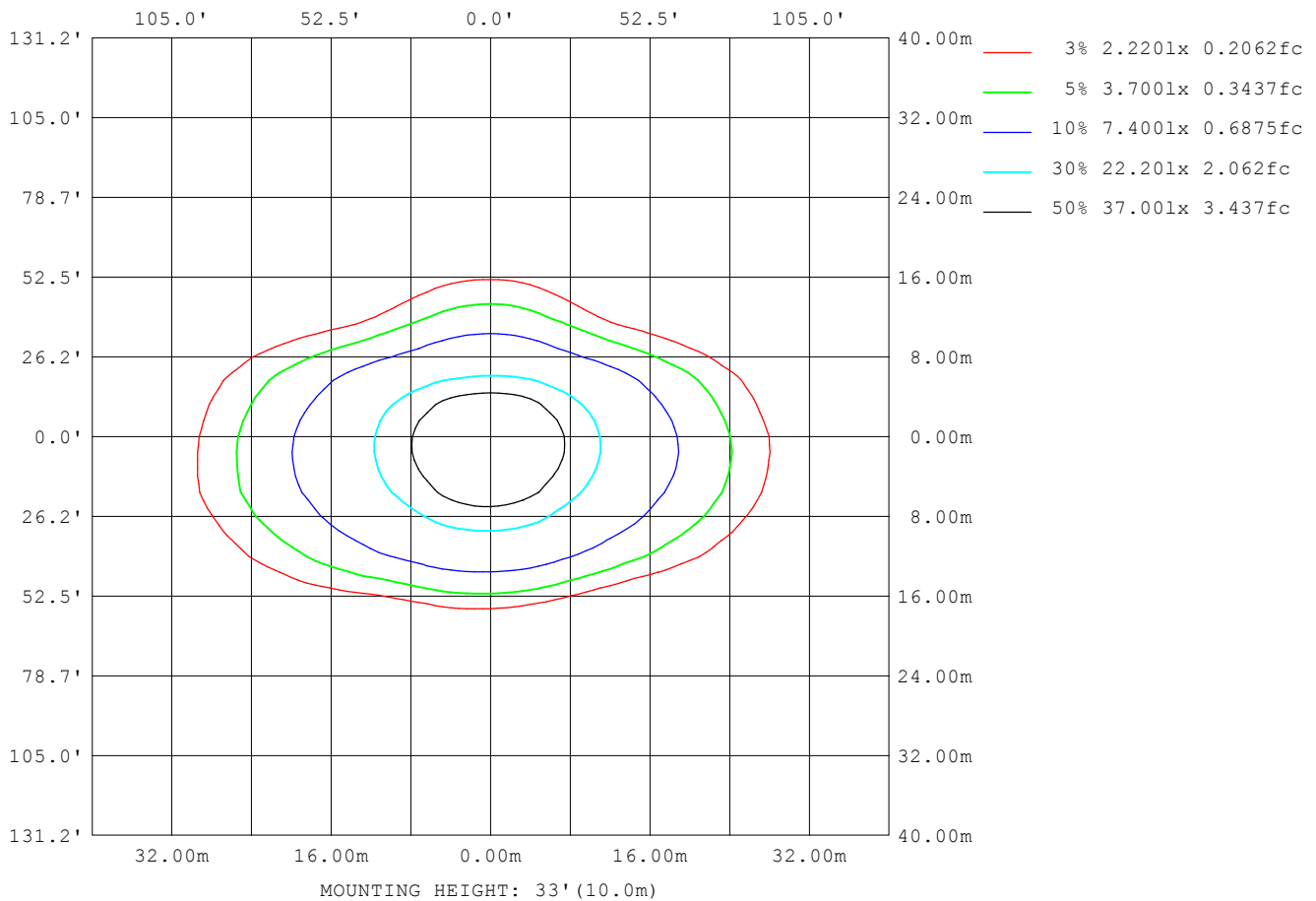
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:120.80V I:1.2664A P:152.87W PF:0.9992 Freq:59.98Hz Lamp Flux:22222x1 lm		
NAME: GSM-23-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:150W/5000K/T2	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:120.80V I:1.2664A P:152.87W PF:0.9992 Freq:59.98Hz Lamp Flux:22222x1 lm		
NAME: GSM-23-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:150W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

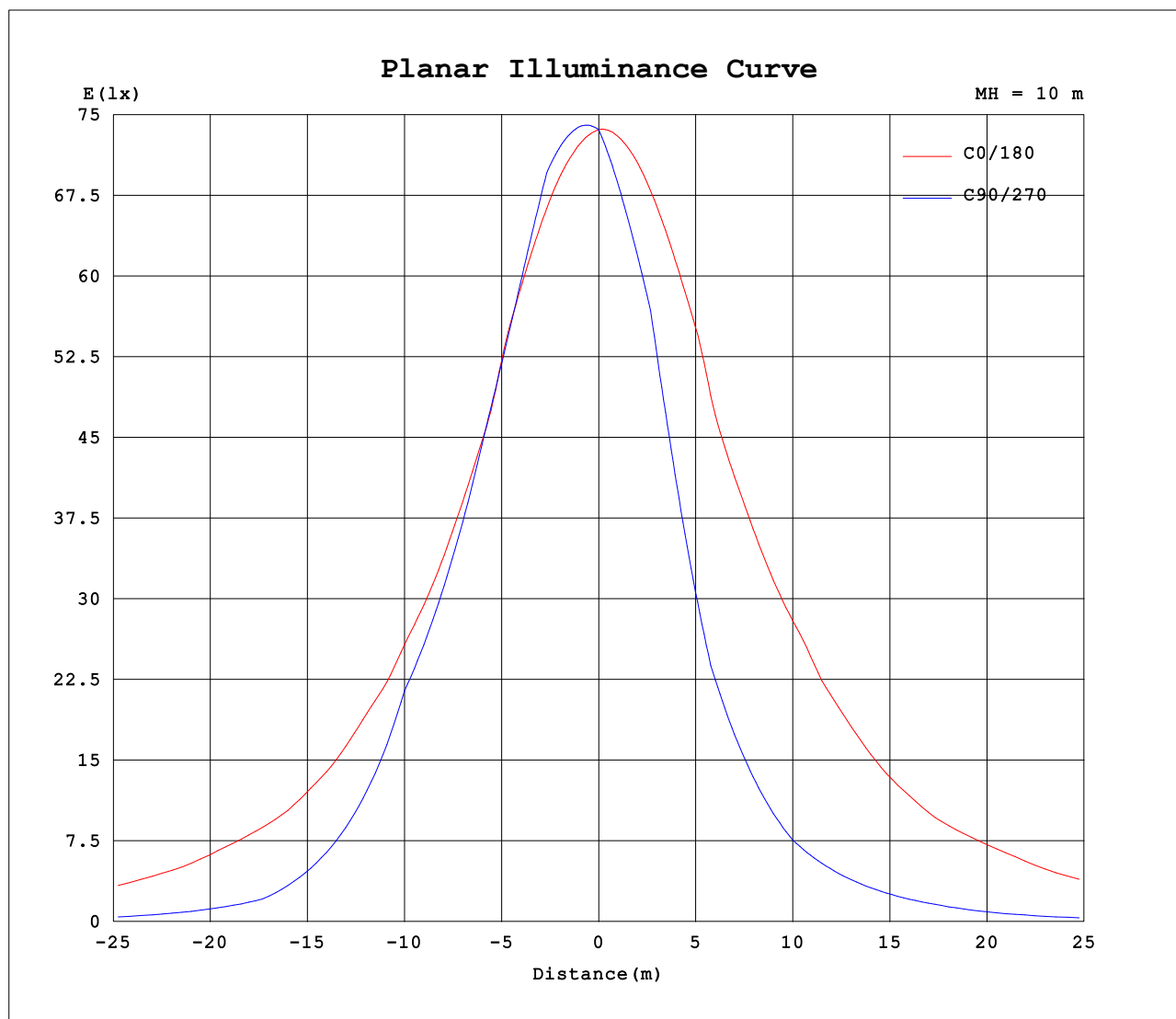
AvgL	cd/m2
L_0~180 (65) av	729686
L_0~180 (75) av	649323
L_0~180 (85) av	43783
L_90~270 (65) av	103449
L_90~270 (75) av	26017
L_90~270 (85) av	0
L_45 (65) av	182371
L_45 (75) av	92476
L_45 (85) av	0

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]  
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Humidity:65.0%
Test Distance:7.448m [K=1.0000]
Remarks:
```