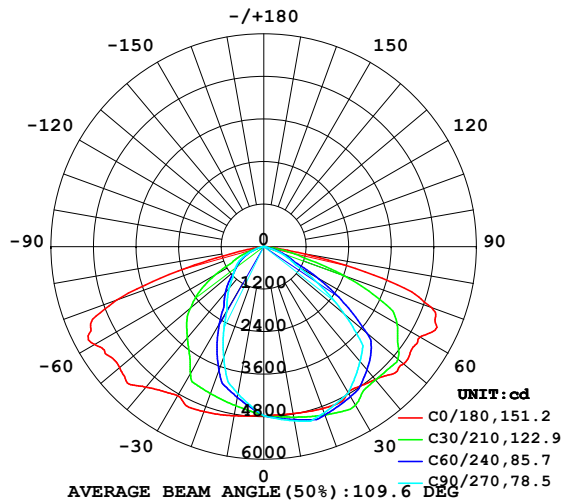


## LUMINAIRE PHOTOMETRIC TEST REPORT

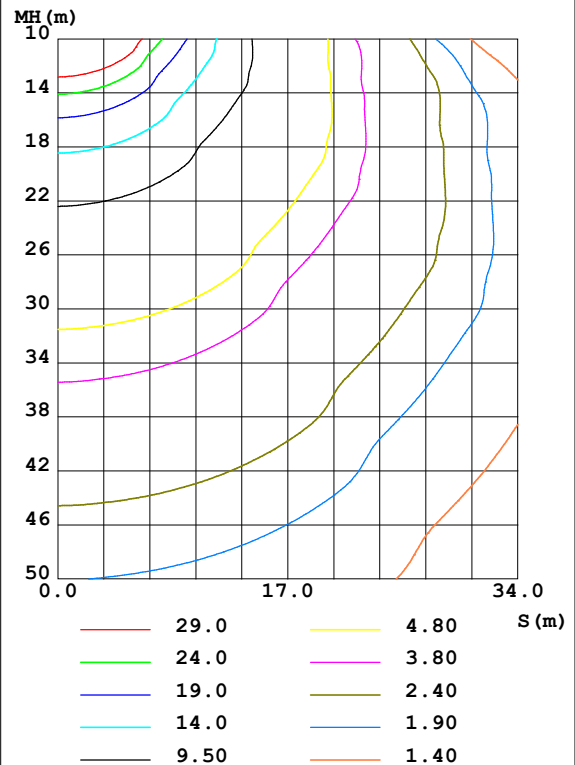
Test:U:120.89V I:0.8386A P:101.16W PF:0.9979 Freq:59.98Hz Lamp Flux:14356x1 lm		
NAME: GSM-15-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:100W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 141.91 lm/W			
MODEL	GSM-15-U	Imax(cd)	5795	S/MH(C0/180)	1.64
NOMINAL POWER(W)	100W	LOR(%)	100.0	S/MH(C90/270)	0.83
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	14356	$\eta$ UP,DN(C0-180)	0.0,61.2
NOMINAL FLUX(lm)	14356	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,38.8
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	$\eta$ down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



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:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	4781	4923	4986	4963	4844	4425	4214	4383	0- 10	449.4	449.4	3.13, 3.13
20	4859	5116	4985	5187	4952	4145	3316	4071	10- 20	1314	1763	12.3, 12.3
30	4746	5024	4765	5085	4858	3188	2073	3151	20- 30	2014	3778	26.3, 26.3
40	4895	4707	4227	4727	5172	2061	1522	2037	30- 40	2454	6232	43.4, 43.4
50	5145	4255	2991	4217	5312	1482	1096	1482	40- 50	2749	8981	62.6, 62.6
60	5093	2815	1058	2594	5521	788.7	795.4	864.2	50- 60	2582	11563	80.5, 80.5
70	5032	730.3	447.3	464.3	4422	331.4	323.1	430.7	60- 70	1965	13528	94.2, 94.2
80	980.8	97.14	0	69.19	375.4	36.75	0	55.53	70- 80	788.4	14316	99.7, 99.7
90	7.447	0	0	0	9.320	0	0	0	80- 90	40.19	14356	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): 7586.2 lm

%lum = 52.8%

%lamp = 52.8%

Conical surface Flux(120deg): 11563 lm

%lum = 80.5%

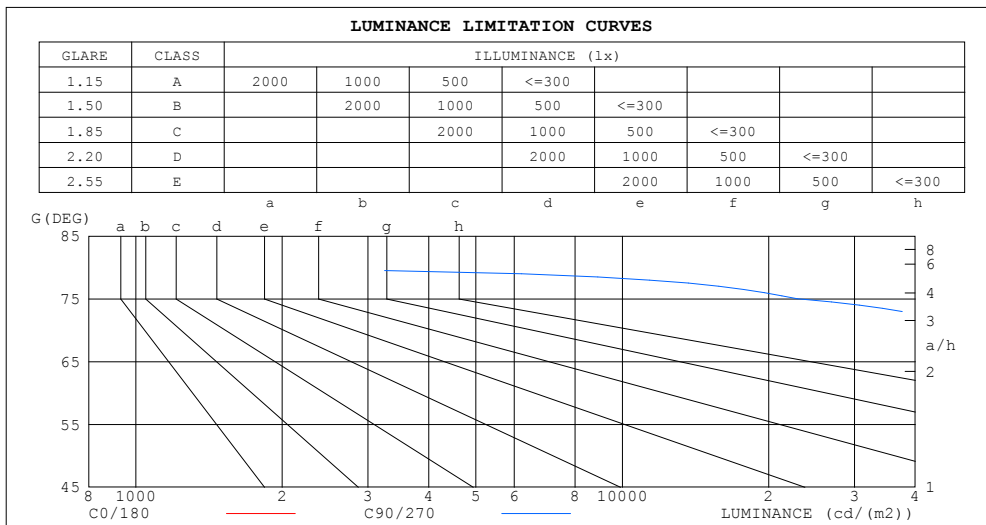
%lamp = 80.5%

$H(\beta)$  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:120.89V I:0.8386A P:101.16W PF:0.9979 Freq:59.98Hz Lamp Flux:14356x1 lm		
NAME: GSM-15-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:100W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



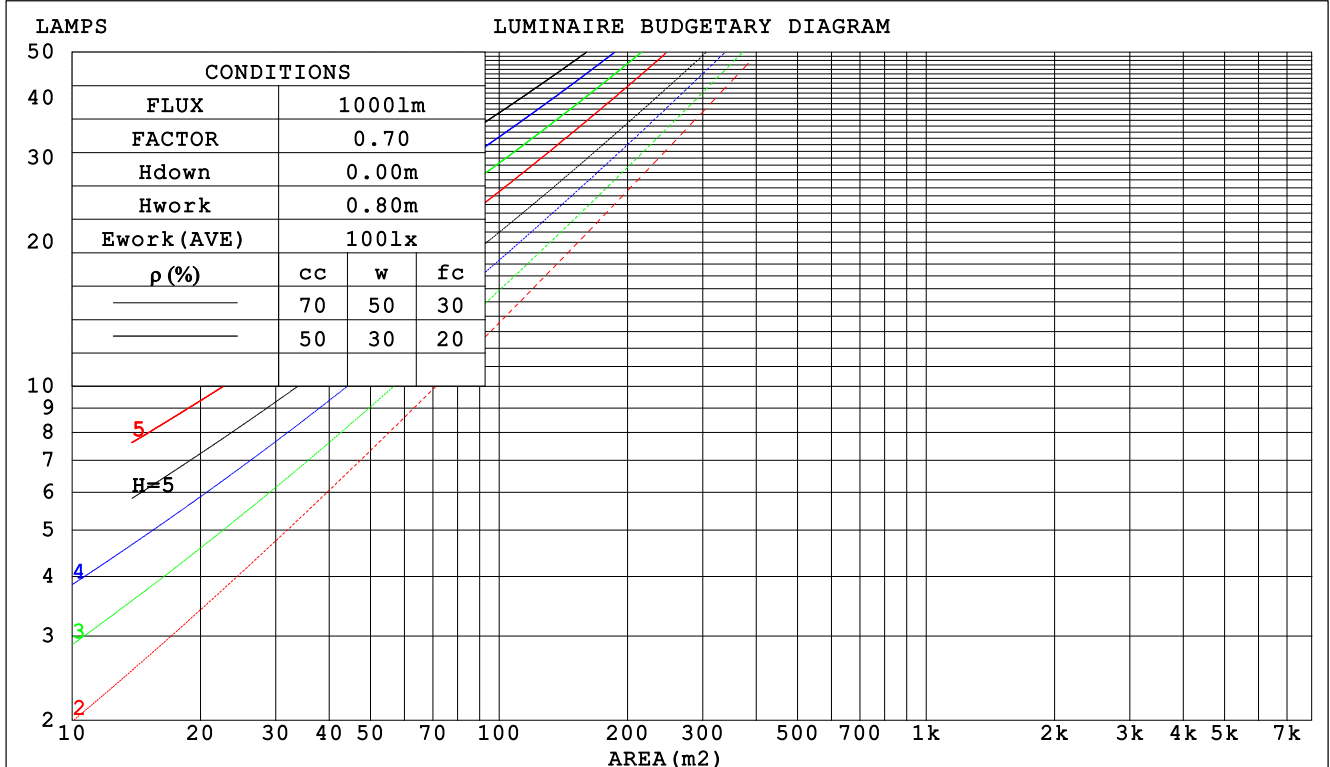
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-17

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:120.89V I:0.8386A P:101.16W PF:0.9979 Freq:59.98Hz Lamp Flux:14356x1 lm		
NAME: GSM-15-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:100W/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	1.03	.99	.96	.98	.95	.93	.94	.92	.90	.91	.89	.87	.85
2.0	.91	.85	.79	.89	.83	.78	.86	.81	.76	.83	.78	.75	.80	.76	.73	.71
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.64	.73	.67	.63	.70	.65	.61	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.46	.58	.51	.46	.56	.50	.45	.43
6.0	.56	.47	.41	.55	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.40	.35	.46	.40	.35	.33
8.0	.46	.38	.32	.46	.38	.32	.44	.37	.32	.43	.36	.31	.42	.36	.31	.29
9.0	.42	.34	.29	.42	.34	.29	.41	.33	.28	.40	.33	.28	.39	.33	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.25	.24



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

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:120.89V I:0.8386A P:101.16W PF:0.9979 Freq:59.98Hz Lamp Flux:14356x1 lm					
NAME: GSM-15-U			TYPE:Flood Light		WEIGHT:N/A
SPEC.:100W/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	.292	.166	.053	.285	.162	.052	.271	.156	.050	.259	.150	.048	.248	.144	.046		
2.0	.283	.155	.048	.277	.153	.047	.266	.148	.046	.255	.143	.045	.245	.139	.044		
3.0	.266	.142	.042	.261	.140	.042	.250	.136	.041	.241	.132	.040	.232	.128	.040		
4.0	.248	.129	.038	.243	.127	.038	.234	.124	.037	.225	.121	.036	.217	.118	.036		
5.0	.230	.117	.034	.226	.116	.034	.218	.113	.033	.210	.111	.033	.203	.108	.033		
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.190	.100	.030		
7.0	.199	.099	.028	.196	.098	.028	.190	.096	.028	.183	.094	.027	.178	.092	.027		
8.0	.186	.091	.026	.183	.090	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025		
9.0	.175	.085	.024	.172	.084	.024	.167	.082	.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	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.140	.099	.065	.096	.068	.046	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.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	.016	.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:2025-03-17

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:120.89V I:0.8386A P:101.16W PF:0.9979 Freq:59.98Hz Lamp Flux:14356x1 lm										
NAME: GSM-15-U					TYPE:Flood Light			WEIGHT:N/A		
SPEC.:100W/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	26.8	28.3	27.1	28.5	28.7	21.1	22.7	21.4	22.9	23.1
3H	30.1	31.5	30.4	31.7	32.0	21.3	22.7	21.6	23.0	23.2
4H	31.2	32.5	31.5	32.8	33.0	21.3	22.6	21.6	22.9	23.1
6H	31.5	32.7	31.8	33.0	33.3	21.2	22.4	21.5	22.7	23.0
8H	31.4	32.7	31.8	32.9	33.2	21.1	22.3	21.5	22.6	22.9
12H	31.4	32.6	31.7	32.9	33.2	21.1	22.2	21.4	22.5	22.8
4H 2H	26.8	28.2	27.2	28.4	28.7	22.3	23.6	22.6	23.9	24.1
3H	30.2	31.4	30.6	31.7	32.0	22.4	23.6	22.8	23.9	24.2
4H	31.4	32.4	31.8	32.8	33.1	22.4	23.5	22.8	23.8	24.1
6H	31.7	32.7	32.1	33.0	33.4	22.3	23.3	22.7	23.6	24.0
8H	31.7	32.6	32.2	33.0	33.4	22.3	23.2	22.7	23.5	23.9
12H	31.7	32.5	32.1	32.9	33.3	22.2	23.0	22.7	23.4	23.8
8H 4H	31.3	32.1	31.7	32.5	32.9	22.9	23.8	23.3	24.2	24.5
6H	31.7	32.4	32.1	32.8	33.2	22.9	23.6	23.3	24.0	24.4
8H	31.7	32.3	32.1	32.7	33.2	22.8	23.4	23.3	23.9	24.3
12H	31.7	32.2	32.1	32.6	33.1	22.8	23.3	23.3	23.8	24.2
12H 4H	31.2	32.0	31.7	32.4	32.8	22.9	23.7	23.4	24.1	24.5
6H	31.6	32.2	32.1	32.7	33.1	22.9	23.5	23.3	23.9	24.4
8H	31.6	32.2	32.1	32.6	33.1	22.8	23.4	23.3	23.8	24.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.6 / - 0.8				
1.5H	+ 0.3 / - 0.8					+ 0.8 / - 1.1				
2.0H	+ 0.4 / - 0.4					+ 1.8 / - 3.9				

CIE Pub.117, 14356 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 9.3)  
Area: 0.024 m2

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

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:120.89V I:0.8386A P:101.16W PF:0.9979 Freq:59.98Hz Lamp Flux:14356x1 lm		
NAME: GSM-15-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:100W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

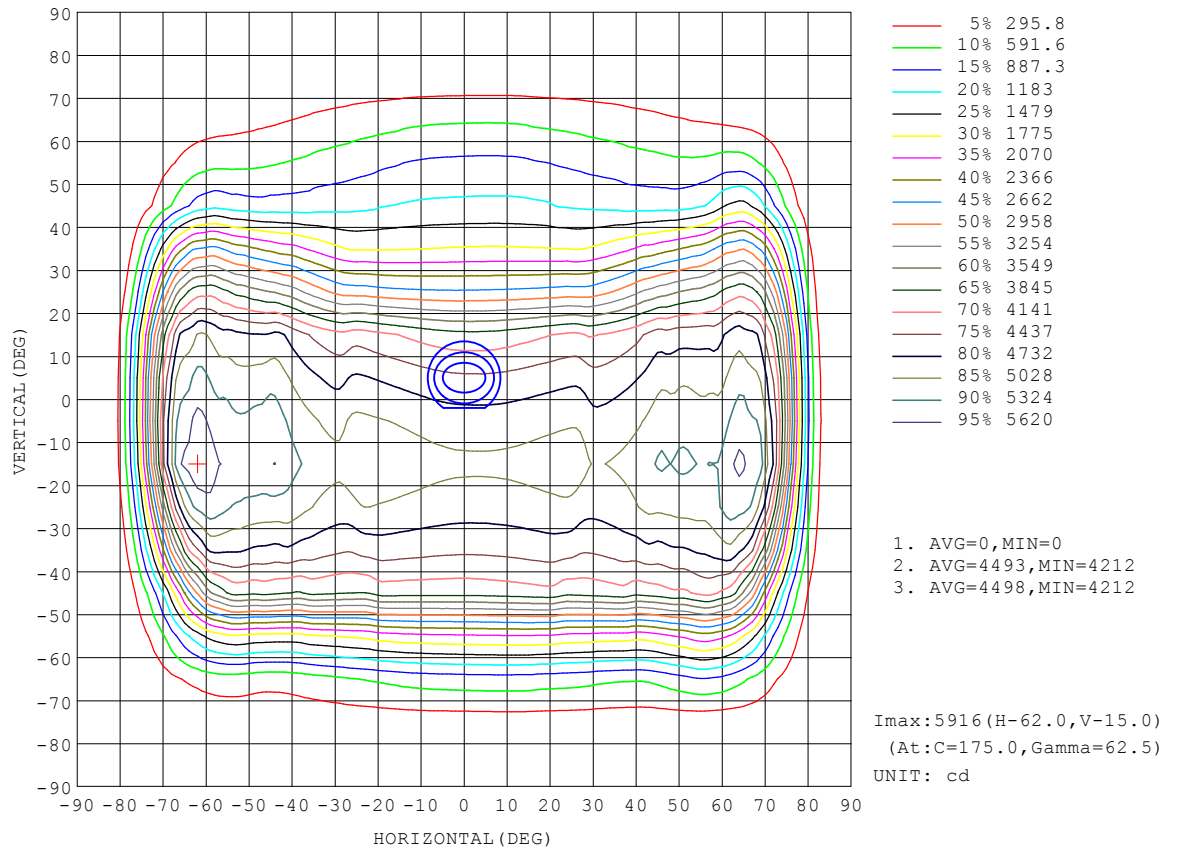
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	45	38	56	45	38	55	44	37	31
0.80	67	55	48	66	55	48	64	54	47	40
1.00	76	65	57	75	64	57	72	65	56	49
1.25	83	73	66	82	72	65	79	71	64	57
1.50	88	78	72	87	78	71	84	76	70	62
2.00	95	87	81	94	86	80	90	84	78	71
2.50	99	92	86	97	91	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:2025-03-17

$V(B)$  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:120.89V I:0.8386A P:101.16W PF:0.9979 Freq:59.98Hz Lamp Flux:14356x1 lm		
NAME: GSM-15-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:100W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



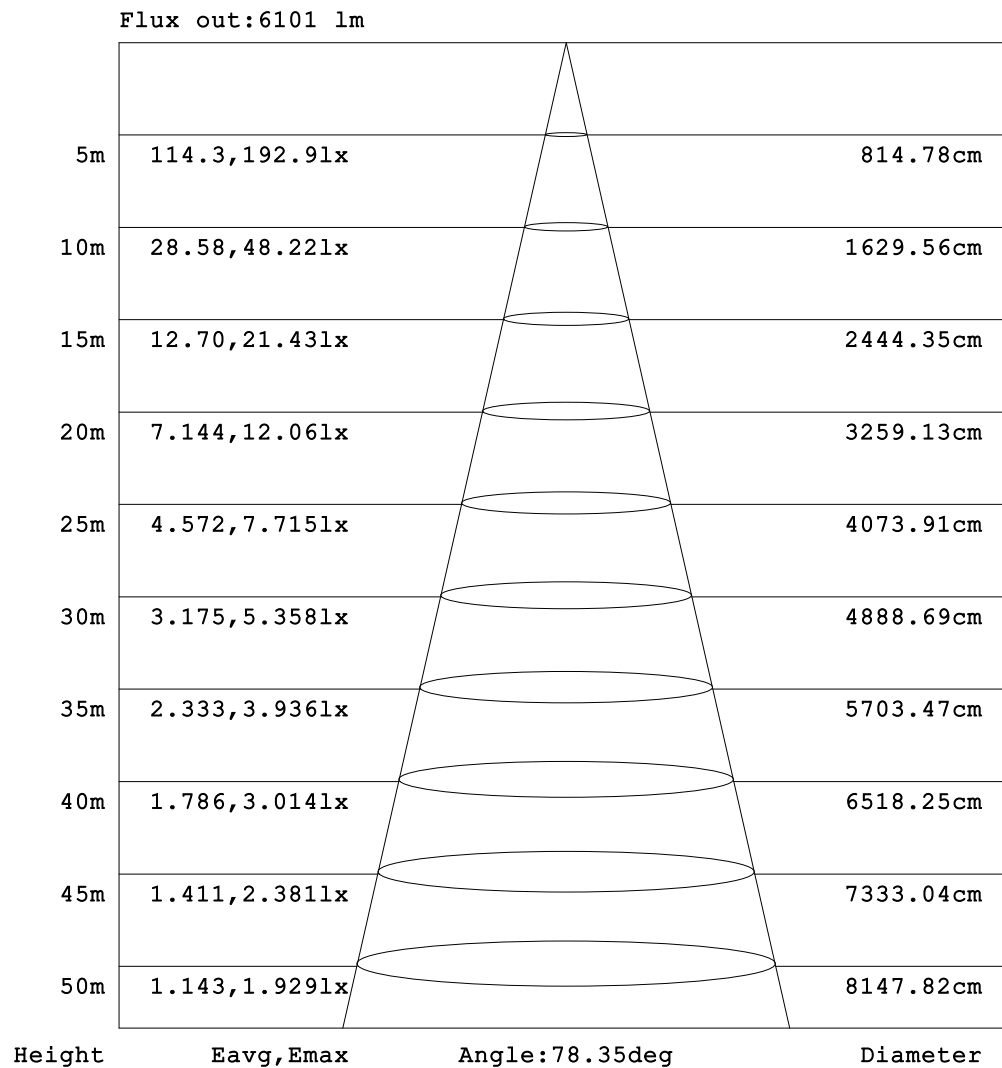
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Gu  
Test Date:2025-03-17

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:120.89V I:0.8386A P:101.16W PF:0.9979 Freq:59.98Hz Lamp Flux:14356x1 lm		
NAME: GSM-15-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:100W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



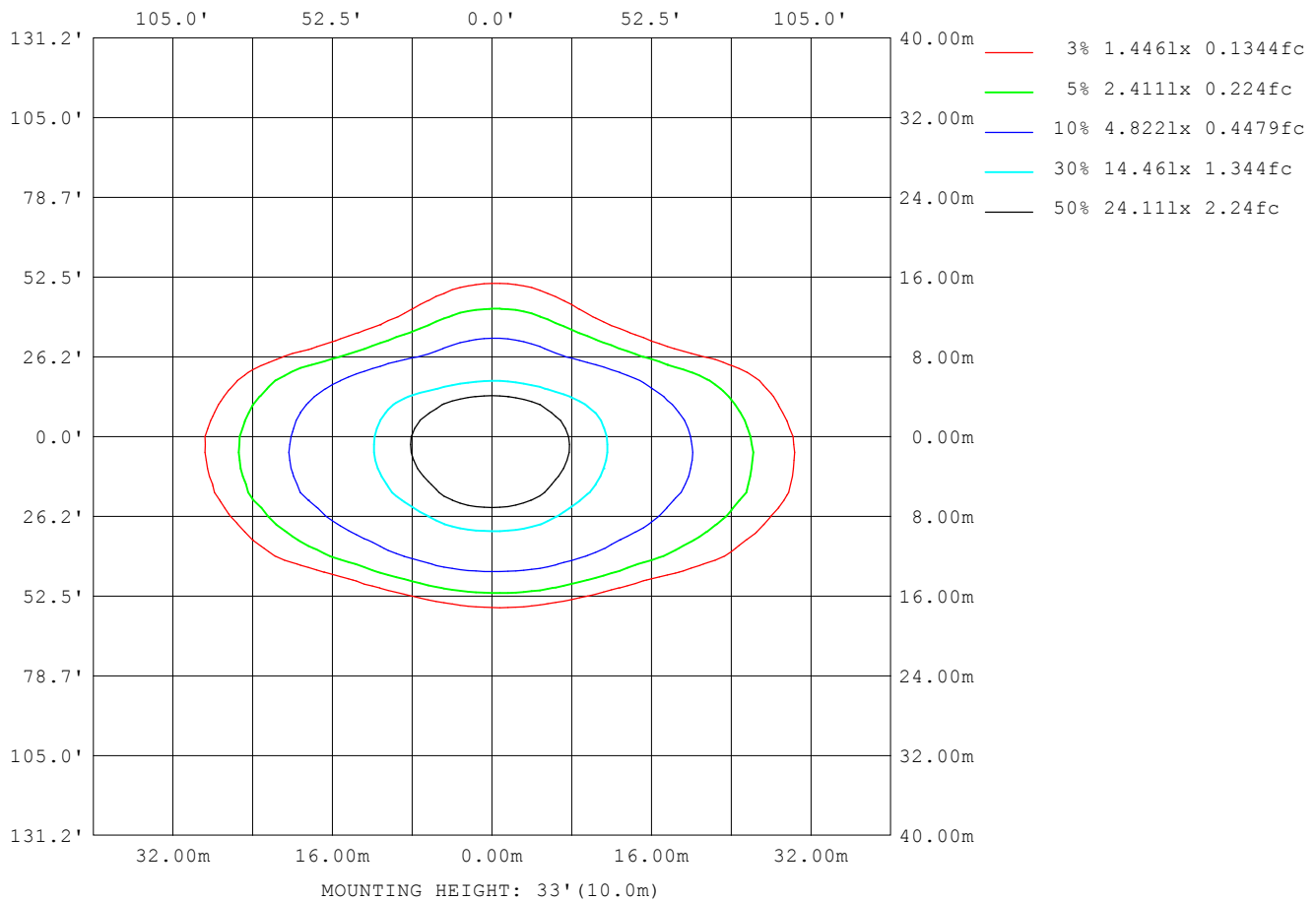
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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:120.89V I:0.8386A P:101.16W PF:0.9979 Freq:59.98Hz Lamp Flux:14356x1 lm		
NAME: GSM-15-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:100W/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:2025-03-17

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:120.89V I:0.8386A P:101.16W PF:0.9979 Freq:59.98Hz Lamp Flux:14356x1 lm		
NAME: GSM-15-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:100W/5000K/T2	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

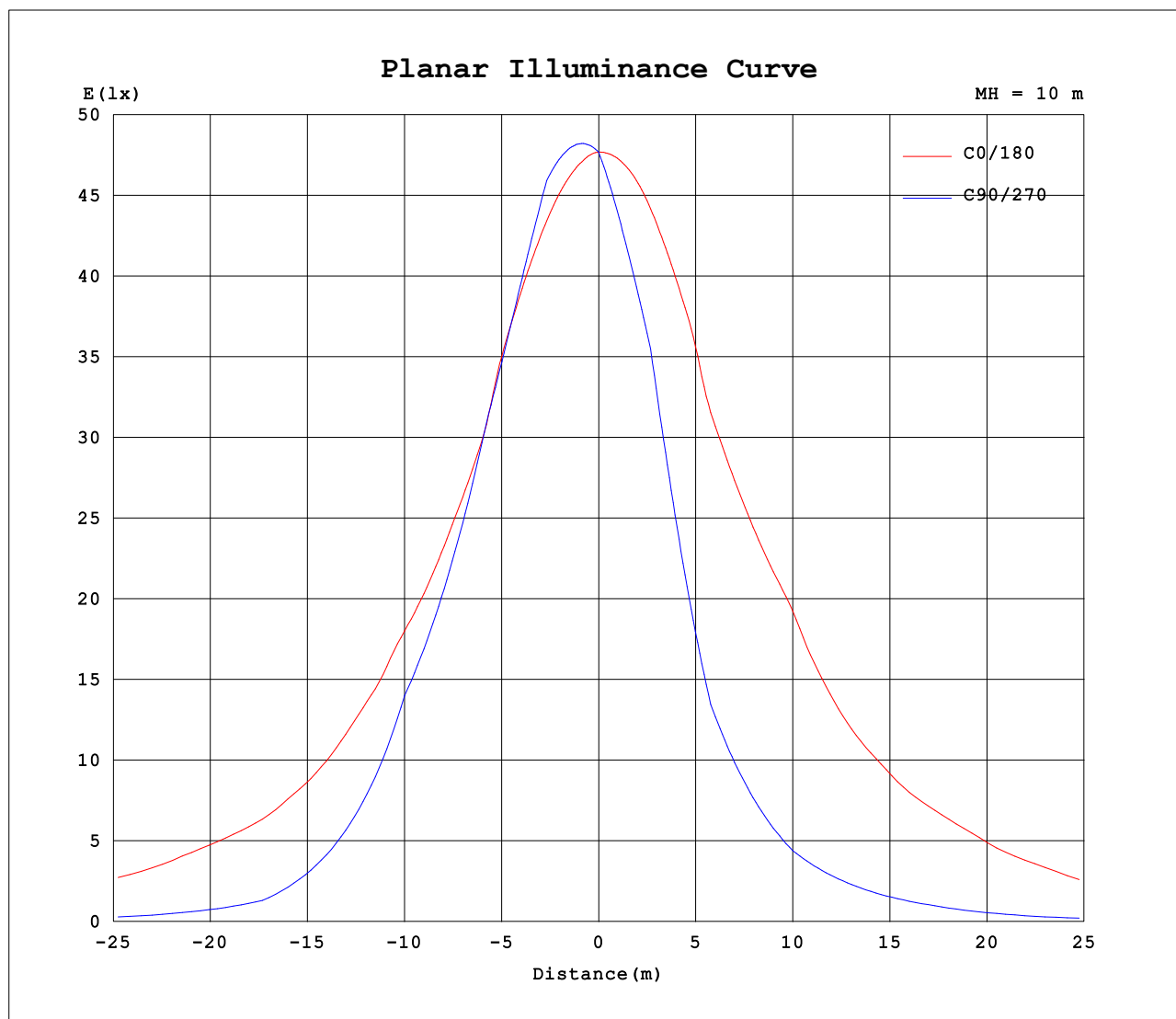
AvgL	cd/m2
L_0~180 (65) av	531312
L_0~180 (75) av	441697
L_0~180 (85) av	27399
L_90~270 (65) av	64664
L_90~270 (75) av	18438
L_90~270 (85) av	0
L_45 (65) av	100386
L_45 (75) av	43646
L_45 (85) av	0

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:2025-03-17

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( $\beta$ ) 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:

```
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:
```