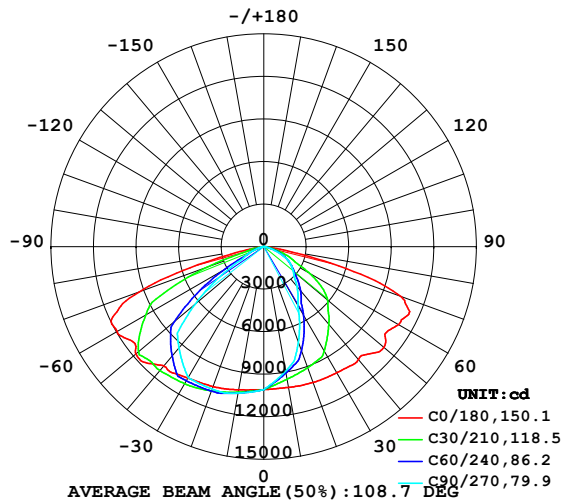


LUMINAIRE PHOTOMETRIC TEST REPORT

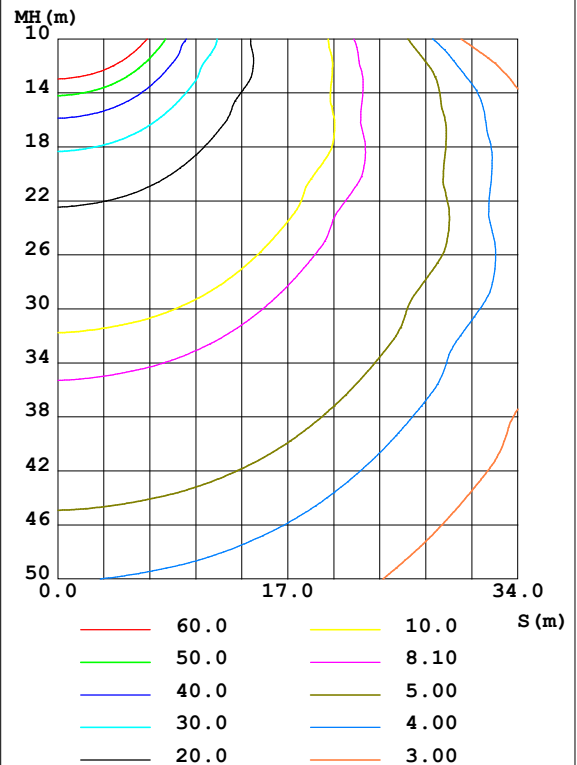
Test:U:120.72V I:1.6495A P:198.73W PF:0.9980 Freq:59.98Hz Lamp Flux:31143x1 lm		
NAME: GHSL-32-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 156.71 lm/W			
MODEL	GHSL-32-U	I _{max} (cd)	12526	S/MH(C0/180)	1.65
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH(C90/270)	1.49
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	31143	η UP,DN(C0-180)	0.0,39.8
NOMINAL FLUX(lm)	31143	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,60.2
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:2025-02-27

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	1008	924.5	891.8	936.8	1025	1046	1049	1034	0- 10	948.8	948.8	3.05,3.05
20	1020	855.8	716.2	876.6	1050	1091	1068	1069	10- 20	2772	3721	11.9,11.9
30	1028	680.4	481.5	696.8	1070	1107	1067	1079	20- 30	4316	8037	25.8,25.8
40	1039	483.8	364.8	500.9	1098	1110	931.2	1078	30- 40	5438	13475	43.3,43.3
50	1106	352.4	272.6	361.0	1179	945.6	632.9	925.9	40- 50	6090	19565	62.8,62.8
60	1099	213.5	205.0	204.8	1195	571.2	172.6	568.7	50- 60	5693	25258	81.1,81.1
70	1031	108.6	87.18	92.33	932.6	79.60	73.46	90.86	60- 70	4253	29511	94.8,94.8
80	139.9	14.27	0	10.85	79.98	10.81	0	12.19	70- 80	1566	31077	99.8,99.8
90	1.350	0	0	0	1.534	0	0	0	80- 90	65.83	31143	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): 16471 lm

%lum = 52.9%

%lamp = 52.9%

Conical surface Flux(120deg): 25258 lm

%lum = 81.1%

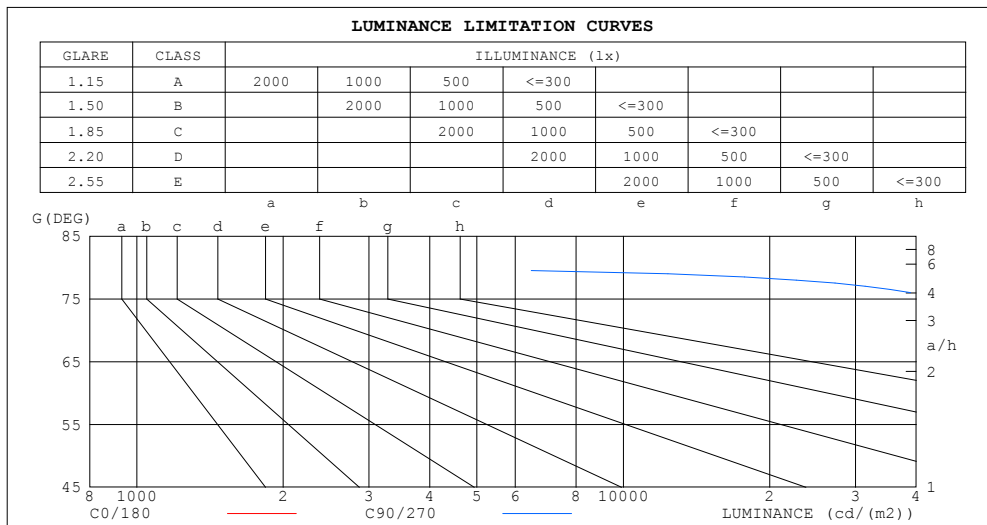
%lamp = 81.1%

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-02-27

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:1.6495A P:198.73W PF:0.9980 Freq:59.98Hz Lamp Flux:31143x1 lm		
NAME: GHSL-32-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K	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	47223	0
80	335706	0
75	976397	45538
70	1255933	106208
65	1112508	144017
60	916045	170807
55	766243	173458
50	716980	176698
45	628306	180548

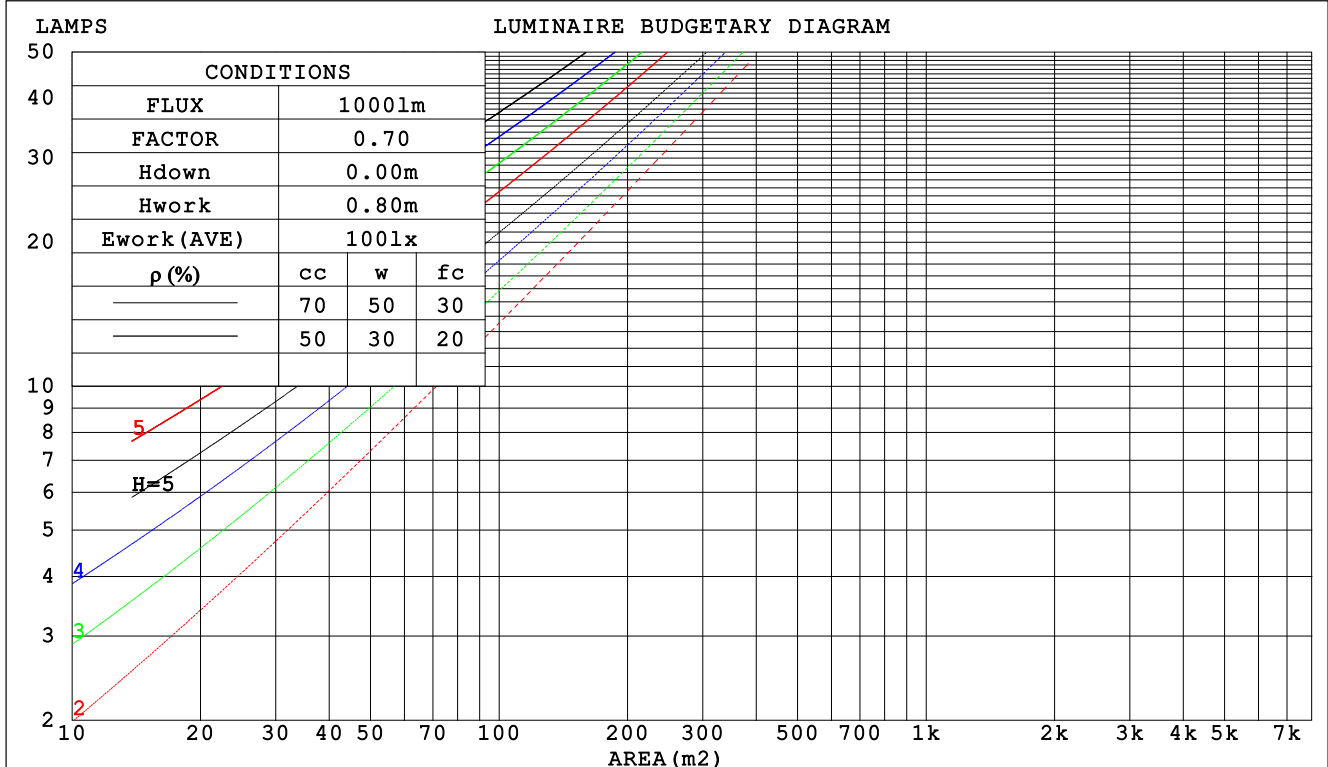
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-02-27

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:1.6495A P:198.73W PF:0.9980 Freq:59.98Hz Lamp Flux:31143x1 lm		
NAME: GHSL-32-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K	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	.00
1.0	1.05	1.01	.97	1.03	.99	.96	.98	.95	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.91	.85	.79	.90	.83	.78	.86	.81	.76	.83	.78	.75	.80	.76	.73	.71
3.0	.80	.72	.66	.79	.71	.65	.76	.69	.64	.73	.67	.63	.70	.66	.62	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.64	.58	.53	.62	.57	.53	.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	.35	.47	.40	.35	.46	.40	.35	.33
8.0	.46	.38	.32	.46	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.29
9.0	.42	.34	.28	.42	.34	.28	.41	.33	.28	.40	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.37	.30	.25	.36	.30	.25	.23



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-02-27

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:1.6495A P:198.73W PF:0.9980 Freq:59.98Hz Lamp Flux:31143x1 lm		
NAME: GHSL-32-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K	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	.289	.165	.052	.282	.161	.051	.269	.154	.049	.257	.148	.048	.246	.143	.046		
2.0	.282	.155	.047	.276	.152	.047	.264	.147	.046	.253	.142	.045	.244	.138	.043		
3.0	.265	.141	.042	.260	.139	.042	.250	.135	.041	.240	.132	.040	.231	.128	.040		
4.0	.247	.128	.038	.242	.127	.037	.233	.124	.037	.225	.121	.036	.217	.118	.036		
5.0	.230	.117	.034	.226	.116	.034	.217	.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	.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	.158	.080	.023		
10.0	.165	.079	.022	.162	.078	.022	.158	.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	.146	.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	.015	.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(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-02-27

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:1.6495A P:198.73W PF:0.9980 Freq:59.98Hz Lamp Flux:31143x1 lm											
NAME: GHSL-32-U					TYPE:Flood Light			WEIGHT:N/A			
SPEC.:200W/5000K					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	2H	24.5	26.0	24.7	26.2	26.4	16.2	17.7	16.4	17.9	18.1
	3H	27.8	29.3	28.1	29.5	29.7	17.0	18.5	17.3	18.7	18.9
	4H	28.9	30.2	29.2	30.4	30.7	17.1	18.4	17.4	18.7	19.0
	6H	29.0	30.3	29.4	30.6	30.8	17.0	18.3	17.4	18.6	18.8
	8H	29.0	30.2	29.4	30.5	30.8	17.0	18.2	17.3	18.5	18.8
	12H	29.0	30.1	29.3	30.4	30.7	16.9	18.1	17.3	18.4	18.7
4H	2H	24.2	25.6	24.6	25.8	26.1	17.1	18.4	17.4	18.7	19.0
	3H	27.6	28.8	28.0	29.1	29.4	18.0	19.2	18.4	19.5	19.8
	4H	28.7	29.7	29.0	30.0	30.4	18.1	19.2	18.5	19.5	19.8
	6H	28.9	29.8	29.3	30.2	30.5	18.0	19.0	18.4	19.3	19.7
	8H	28.9	29.7	29.3	30.1	30.5	18.0	18.9	18.4	19.2	19.6
	12H	28.8	29.6	29.3	30.0	30.4	18.0	18.7	18.4	19.1	19.5
8H	4H	28.5	29.4	29.0	29.8	30.2	18.4	19.2	18.8	19.6	20.0
	6H	28.8	29.5	29.2	29.9	30.3	18.3	19.0	18.8	19.4	19.9
	8H	28.8	29.4	29.2	29.8	30.3	18.3	18.9	18.7	19.3	19.8
	12H	28.7	29.3	29.2	29.7	30.2	18.2	18.8	18.7	19.2	19.7
12H	4H	28.5	29.3	28.9	29.7	30.1	18.3	19.1	18.8	19.5	19.9
	6H	28.8	29.4	29.2	29.8	30.2	18.3	18.9	18.8	19.4	19.8
	8H	28.7	29.3	29.2	29.7	30.2	18.3	18.8	18.7	19.2	19.7
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.7 / - 0.9					
1.5H	+ 0.8 / - 1.2					+ 0.8 / - 0.6					
2.0H	+ 1.8 / - 4.8					+ 0.3 / - 0.6					

CIE Pub.117, 31143 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 11.9)
Area: 0.024 m2

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-02-27

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:1.6495A P:198.73W PF:0.9980 Freq:59.98Hz Lamp Flux:31143x1 lm		
NAME: GHSL-32-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

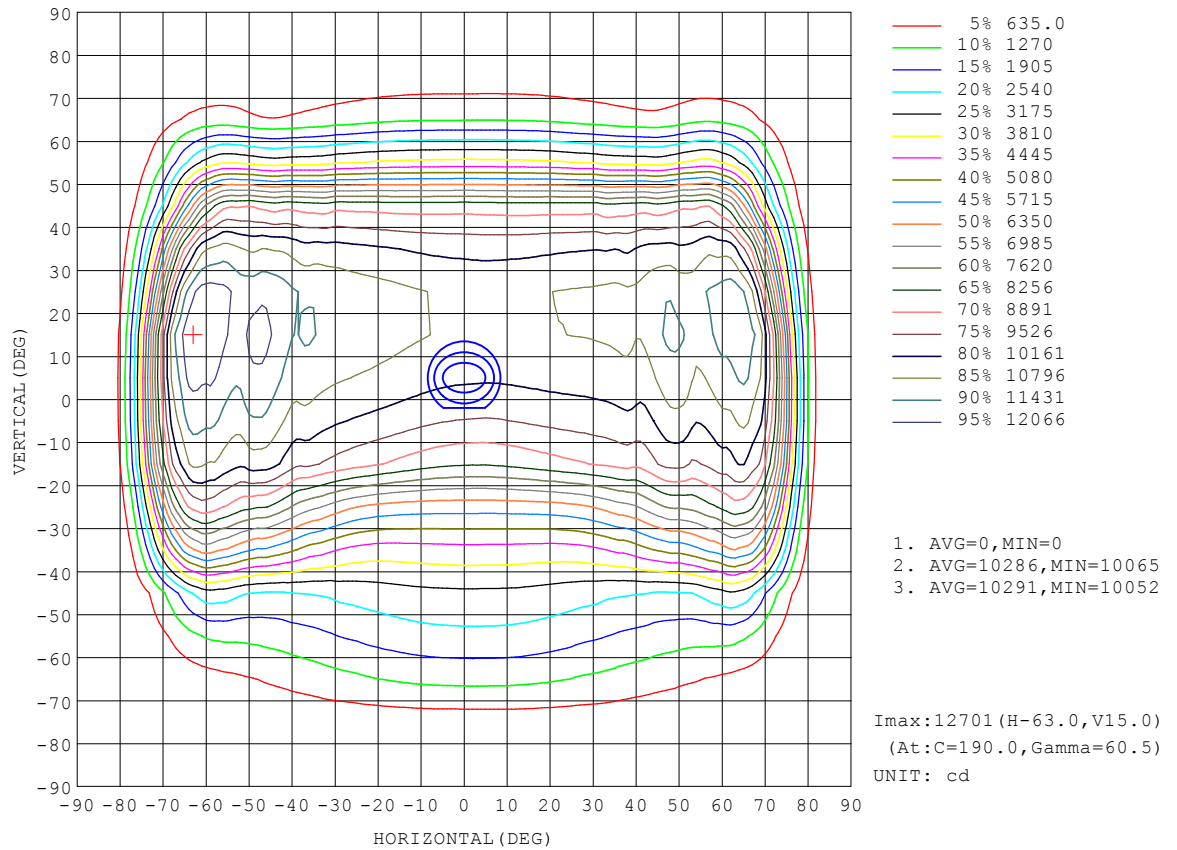
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	45	37	56	44	37	54	44	37	31
0.80	67	55	48	66	55	47	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	79	72	87	78	71	84	76	70	63
2.00	96	87	81	94	86	80	90	84	79	71
2.50	100	92	86	98	91	85	94	88	83	75
3.00	103	96	91	101	95	90	97	92	88	80
4.00	107	102	97	105	100	96	100	97	93	84
5.00	109	105	101	107	103	99	103	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:2025-02-27

$V(B)$ 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:1.6495A P:198.73W PF:0.9980 Freq:59.98Hz Lamp Flux:31143x1 lm		
NAME: GHSL-32-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

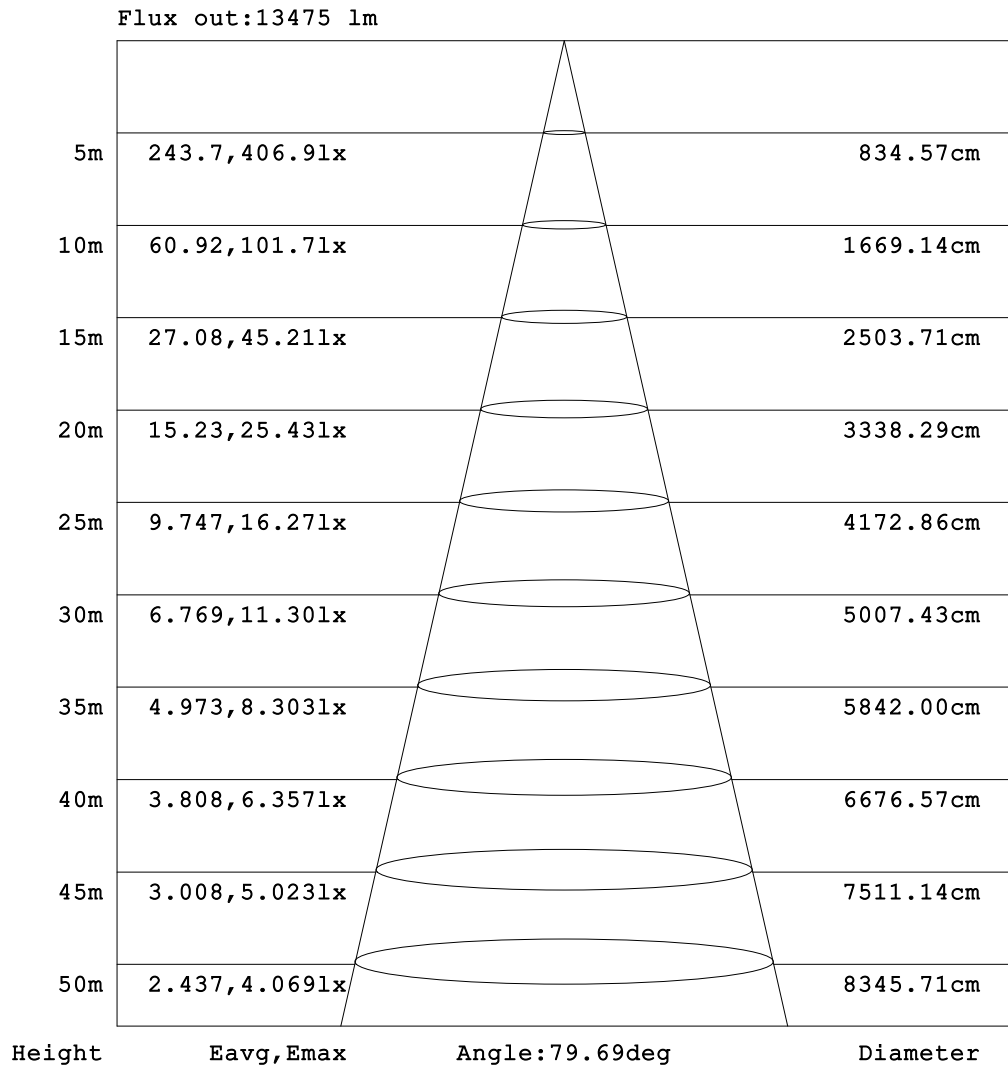


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-02-27

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:1.6495A P:198.73W PF:0.9980 Freq:59.98Hz Lamp Flux:31143x1 lm		
NAME: GHSL-32-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



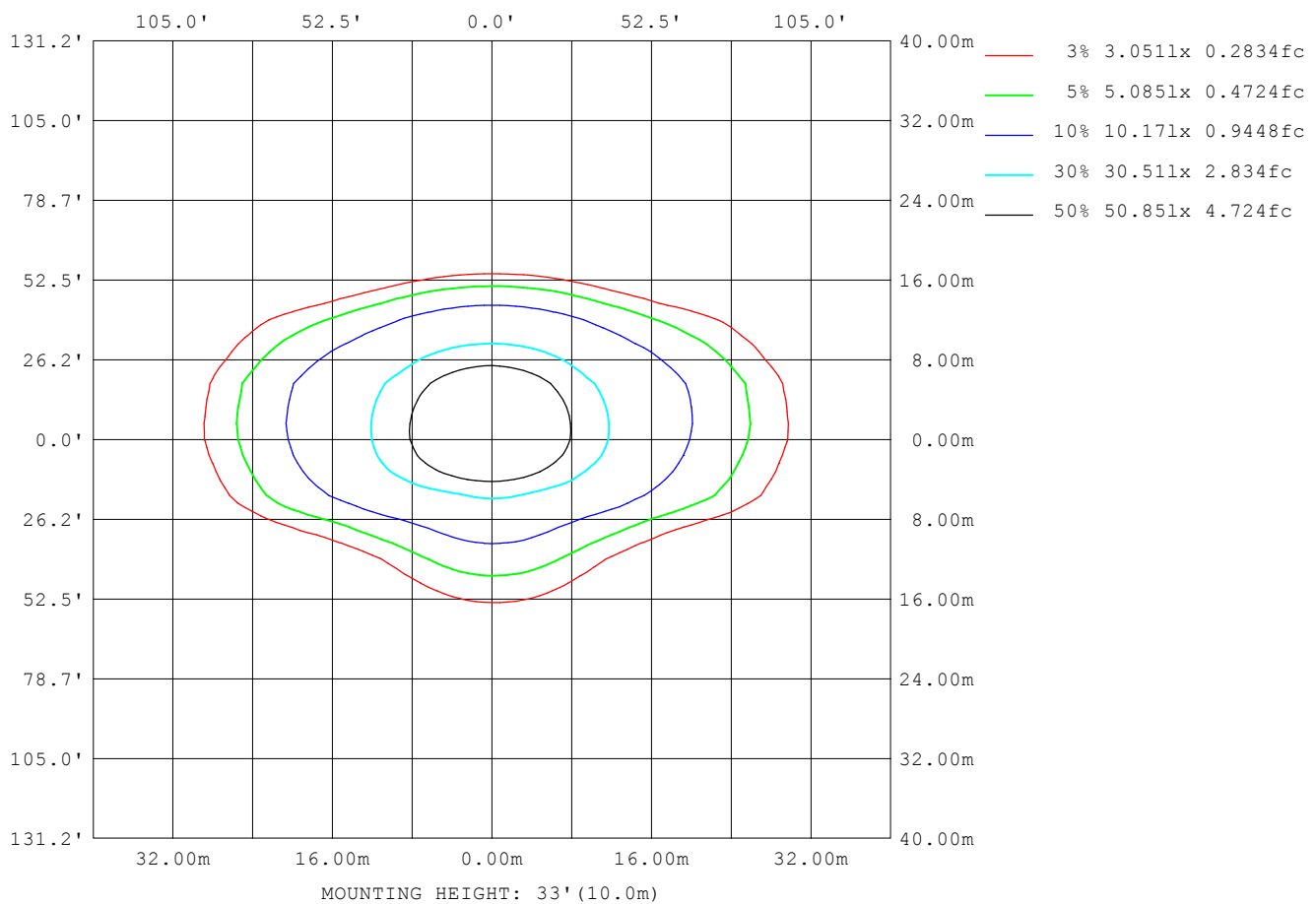
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Gu
Test Date:2025-02-27

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:1.6495A P:198.73W PF:0.9980 Freq:59.98Hz Lamp Flux:31143x1 lm		
NAME: GHSL-32-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K	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:2025-02-27

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:1.6495A P:198.73W PF:0.9980 Freq:59.98Hz Lamp Flux:31143x1 lm		
NAME: GHSL-32-U	TYPE:Flood Light	WEIGHT:N/A
SPEC.:200W/5000K	DIM.: 190*150mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

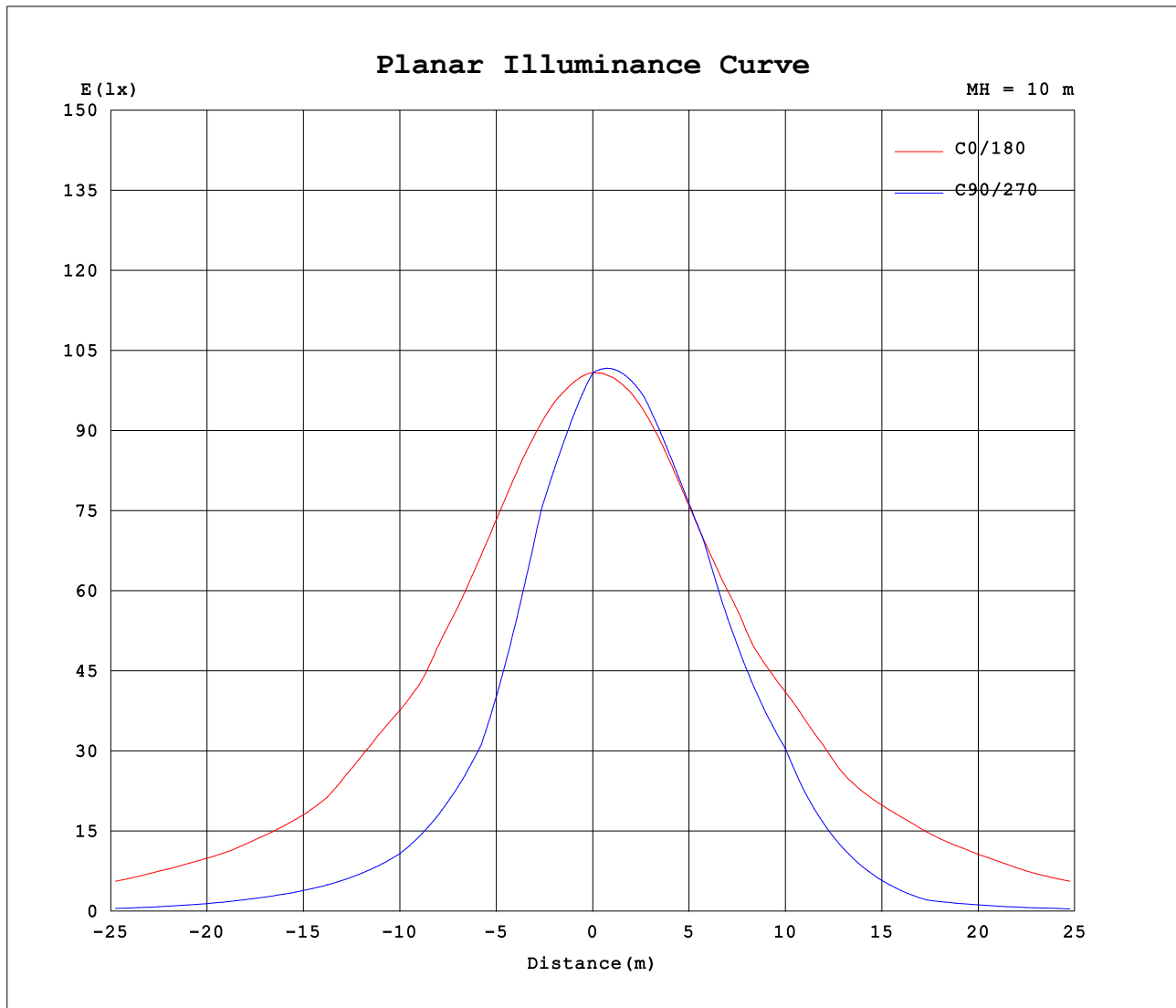
AvgL	cd/m2
L_0~180 (65) av	1136550
L_0~180 (75) av	826107
L_0~180 (85) av	36563
L_90~270 (65) av	132667
L_90~270 (75) av	41976
L_90~270 (85) av	0
L_45 (65) av	212680
L_45 (75) av	81505
L_45 (85) av	0

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:2025-02-27

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:2025-02-27

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: