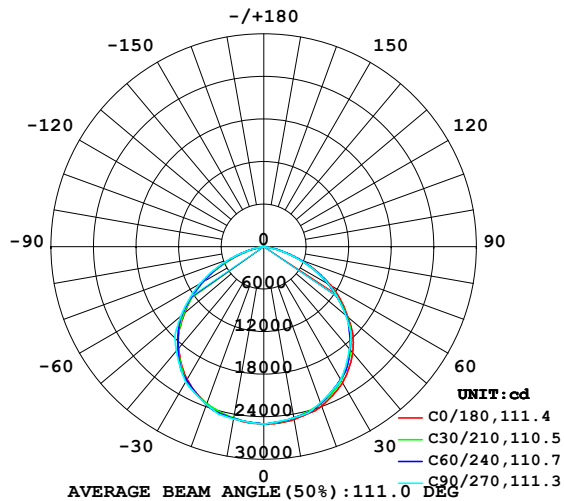


LUMINAIRE PHOTOMETRIC TEST REPORT

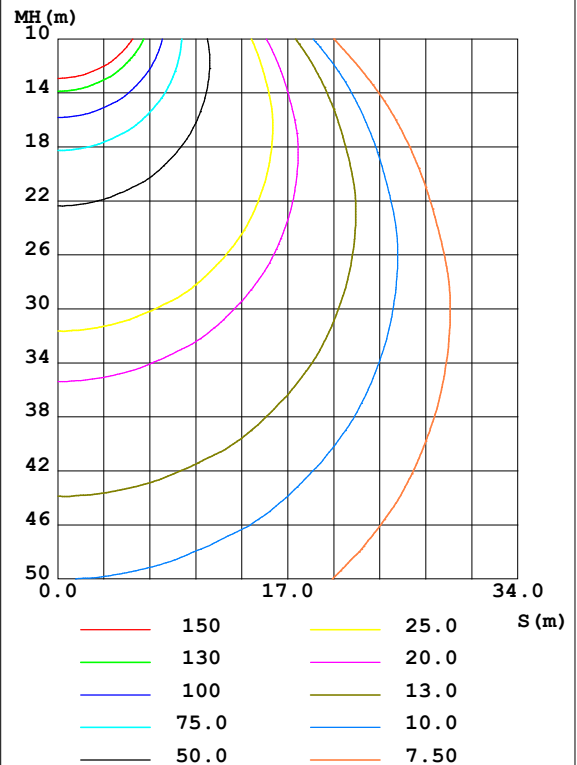
Test:U:120.83V I:3.9773A P:433.75W PF:0.9026 Freq:50.02Hz Lamp Flux:67758.3x1 lm		
NAME: LED Explosion-proof Light	TYPE:Flood Light	WEIGHT:N/A
SPEC.:450W	DIM.: 540mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 156.22 lm/W			
MODEL	GST-450W	I _{max} (cd)	25051	S/MH(C0/180)	1.28
NOMINAL POWER(W)	450	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	67758	□ UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	67758.3	CIE CLASS	DIRECT	□ UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	□ up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	□ down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

°	C0	C45	C90	C135	C180	C225	C270	C315	°	□ zone	□ total	%lum, lamp
10	2475	2452	2451	2444	2464	2455	2466	2462	0- 10	2362	2362	3.49, 3.49
20	2390	2363	2342	2354	2354	2375	2367	2388	10- 20	6836	9198	13.6, 13.6
30	2221	2166	2174	2150	2161	2167	2206	2193	20- 30	10501	19699	29.1, 29.1
40	1949	1913	1884	1893	1873	1899	1919	1937	30- 40	12826	32525	48, 48
50	1552	1519	1511	1488	1459	1492	1529	1545	40- 50	13274	45799	67.6, 67.6
60	1091	1048	1055	1007	984.0	993.7	1037	1061	50- 60	11423	57222	84.5, 84.5
70	539.1	540.4	532.5	492.0	440.4	456.4	501.0	530.3	60- 70	7578	64800	95.6, 95.6
80	105.8	101.7	0	80.59	67.00	65.51	0	90.24	70- 80	2821	67622	99.8, 99.8
90	1.526	0	0	0	1.788	0	0	0	80- 90	136.6	67758	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): 39245 lm

%lum = 57.9%

%lamp = 57.9%

Conical surface Flux(120deg): 57222 lm

%lum = 84.5%

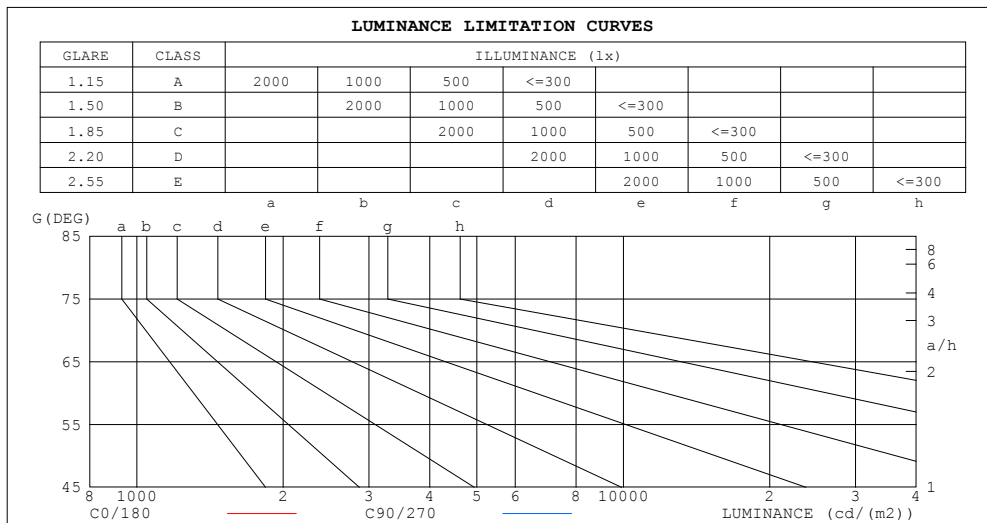
%lamp = 84.5%

H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.83V I:3.9773A P:433.75W PF:0.9026 Freq:50.02Hz Lamp Flux:67758.3x1 lm		
NAME: LED Explosion-proof Light	TYPE:Flood Light	WEIGHT:N/A
SPEC.:450W	DIM.: 540mm	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	101727	0
80	253947	0
75	458496	436758
70	656736	648677
65	807377	782454
60	908960	878997
55	967752	931838
50	1005838	979270
45	1050319	1024519

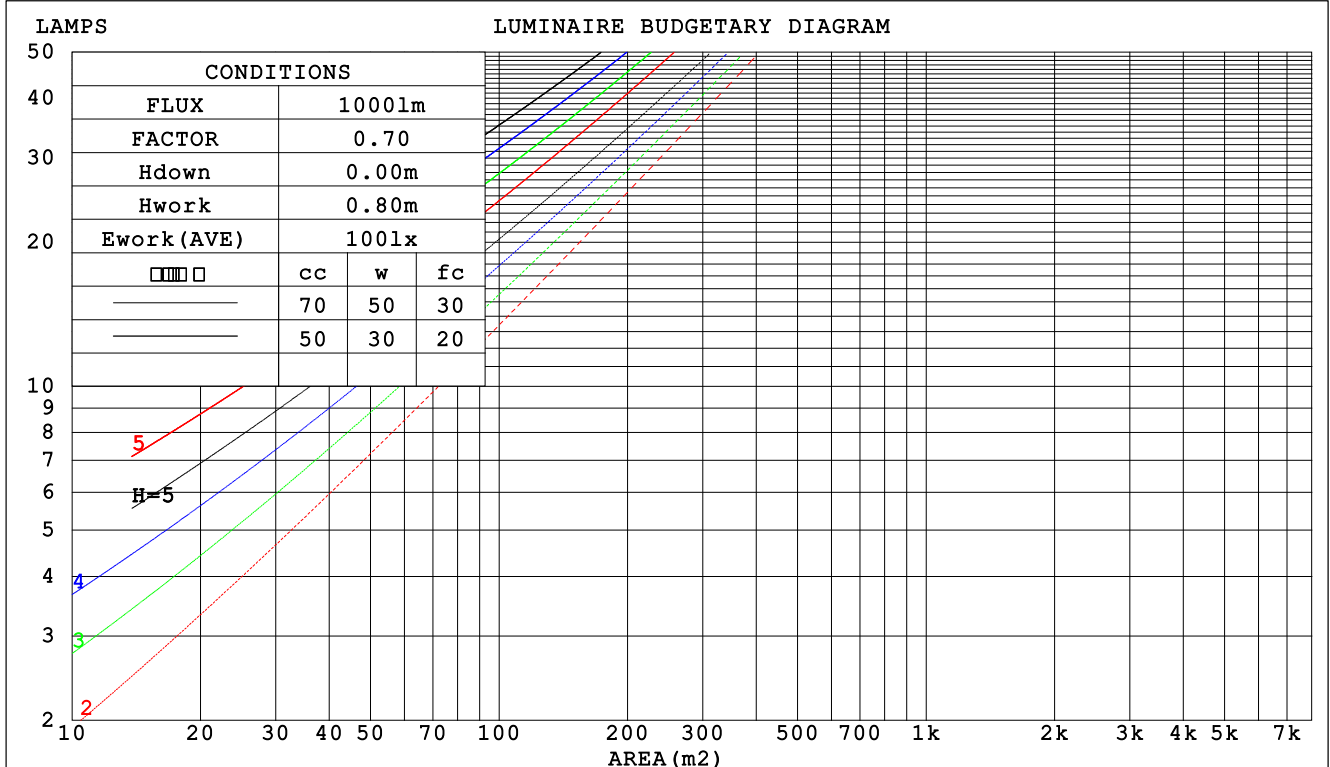
H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.83V I:3.9773A P:433.75W PF:0.9026 Freq:50.02Hz Lamp Flux:67758.3x1 lm		
NAME: LED Explosion-proof Light	TYPE:Flood Light	WEIGHT:N/A
SPEC.:450W	DIM.: 540mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:120.83V I:3.9773A P:433.75W PF:0.9026 Freq:50.02Hz Lamp Flux:67758.3x1 lm					
NAME: LED Explosion-proof Light			TYPE:Flood Light		WEIGHT:N/A
SPEC.:450W			DIM.: 540mm		SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.			SUR.:N/A		Shielding Angle:N/A

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.276	.157	.050	.269	.153	.049	.256	.147	.047	.244	.140	.045	.232	.135	.043	
2.0	.269	.147	.045	.263	.145	.045	.251	.140	.043	.241	.135	.042	.231	.131	.041	
3.0	.254	.135	.040	.248	.133	.040	.238	.129	.039	.229	.125	.038	.220	.122	.038	
4.0	.237	.123	.036	.233	.122	.036	.224	.119	.035	.215	.116	.035	.207	.113	.034	
5.0	.222	.113	.033	.217	.112	.032	.209	.109	.032	.202	.106	.032	.195	.104	.031	
6.0	.207	.104	.030	.203	.103	.030	.196	.100	.029	.189	.098	.029	.183	.096	.029	
7.0	.194	.096	.027	.190	.095	.027	.184	.093	.027	.178	.091	.027	.172	.089	.026	
8.0	.181	.089	.025	.178	.088	.025	.173	.086	.025	.167	.085	.024	.162	.083	.024	
9.0	.171	.083	.023	.168	.082	.023	.163	.080	.023	.158	.079	.023	.153	.078	.023	
10.0	.161	.077	.021	.158	.077	.021	.154	.075	.021	.149	.074	.021	.145	.073	.021	

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□fc	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	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.047	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.099	.066	.095	.068	.047	.055	.040	.027	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.147	.090	.048	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.133	.075	.034	.115	.065	.030	.079	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.127	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.105	.056	.022	.072	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.83V I:3.9773A P:433.75W PF:0.9026 Freq:50.02Hz Lamp Flux:67758.3x1 lm										
NAME: LED Explosion-proof Light					TYPE:Flood Light			WEIGHT:N/A		
SPEC.:450W					DIM.: 540mm			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	22.2	23.6	22.4	23.8	24.0	22.1	23.6	22.4	23.8	24.0
3H	23.2	24.6	23.5	24.8	25.0	23.2	24.6	23.5	24.8	25.0
4H	23.4	24.7	23.7	25.0	25.2	23.5	24.7	23.8	25.0	25.2
6H	23.4	24.6	23.8	24.9	25.2	23.4	24.6	23.8	24.9	25.2
8H	23.4	24.6	23.7	24.8	25.1	23.4	24.5	23.7	24.8	25.1
12H	23.4	24.5	23.7	24.8	25.1	23.3	24.4	23.7	24.7	25.0
4H 2H	22.6	23.9	23.0	24.2	24.4	22.6	23.9	22.9	24.1	24.4
3H	23.8	24.9	24.2	25.2	25.5	23.9	25.0	24.2	25.3	25.6
4H	24.1	25.1	24.5	25.4	25.8	24.2	25.2	24.6	25.5	25.8
6H	24.2	25.0	24.6	25.4	25.8	24.2	25.1	24.6	25.4	25.8
8H	24.1	25.0	24.5	25.3	25.7	24.1	25.0	24.5	25.3	25.7
12H	24.1	24.8	24.5	25.2	25.6	24.1	24.8	24.5	25.2	25.6
8H 4H	24.2	25.0	24.6	25.4	25.8	24.3	25.1	24.7	25.5	25.8
6H	24.3	25.0	24.8	25.4	25.8	24.3	25.0	24.7	25.4	25.8
8H	24.3	24.9	24.8	25.3	25.8	24.2	24.8	24.7	25.3	25.7
12H	24.3	24.8	24.8	25.2	25.7	24.2	24.7	24.7	25.2	25.6
12H 4H	24.2	24.9	24.6	25.3	25.7	24.2	25.0	24.7	25.4	25.8
6H	24.3	24.9	24.7	25.3	25.8	24.3	24.9	24.7	25.3	25.7
8H	24.3	24.8	24.8	25.2	25.7	24.2	24.7	24.7	25.2	25.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.3 / - 0.4				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.5				
2.0H	+ 0.5 / - 0.5					+ 0.4 / - 0.4				

CIE Pub.117, 67758 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 14.6)
Area: 0.024 m2

H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.83V I:3.9773A P:433.75W PF:0.9026 Freq:50.02Hz Lamp Flux:67758.3x1 lm		
NAME: LED Explosion-proof Light	TYPE:Flood Light	WEIGHT:N/A
SPEC.:450W	DIM.: 540mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

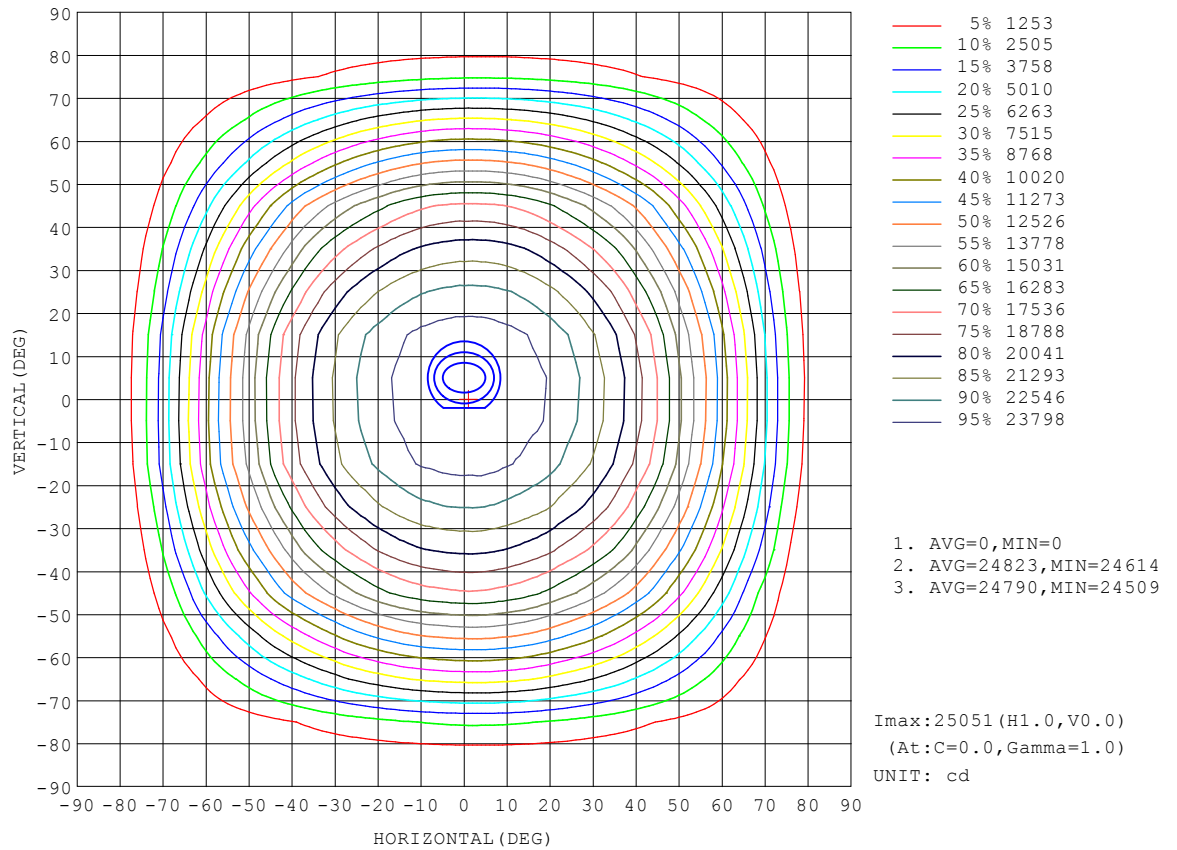
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	58	48	41	57	47	41	34
0.80	70	58	51	69	58	51	67	57	51	44
1.00	78	68	61	77	67	60	75	68	60	53
1.25	85	76	69	84	75	68	81	73	68	61
1.50	90	81	75	89	80	74	86	79	73	66
2.00	97	89	83	95	88	83	92	86	81	74
2.50	101	94	88	99	92	87	95	90	85	78
3.00	104	98	93	102	96	92	98	93	90	81
4.00	108	103	98	105	101	97	101	98	94	86
5.00	110	106	102	108	104	100	103	100	97	89
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

H(□) Range:-90 - 90DEG
 H(□) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jessy
 Test Date:2024-12-20

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:7.138m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.83V I:3.9773A P:433.75W PF:0.9026 Freq:50.02Hz Lamp Flux:67758.3x1 lm		
NAME: LED Explosion-proof Light	TYPE:Flood Light	WEIGHT:N/A
SPEC.:450W	DIM.: 540mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

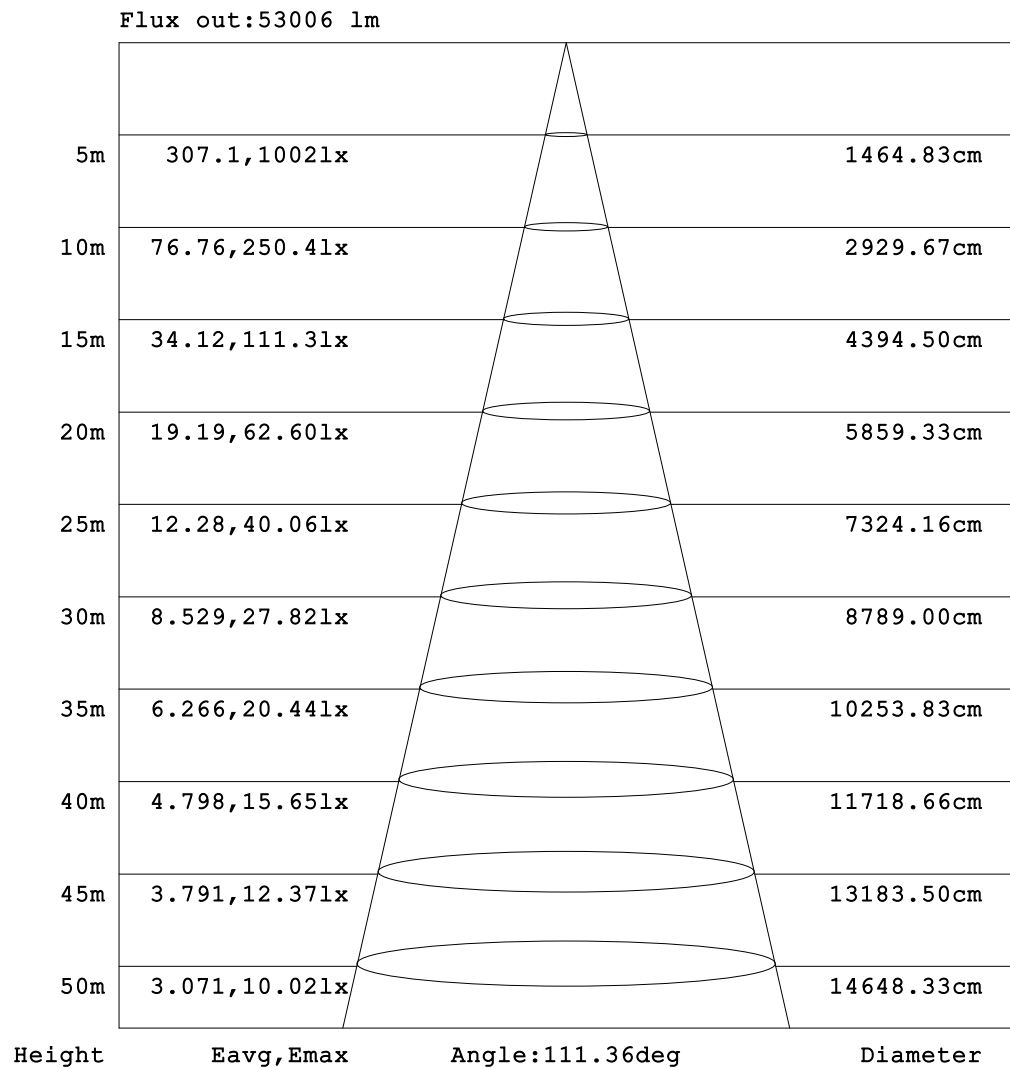


H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [K=1.0000]
Remarks:

AAI Figure

Test:U:120.83V I:3.9773A P:433.75W PF:0.9026 Freq:50.02Hz Lamp Flux:67758.3x1 lm		
NAME: LED Explosion-proof Light	TYPE:Flood Light	WEIGHT:N/A
SPEC.:450W	DIM.: 540mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



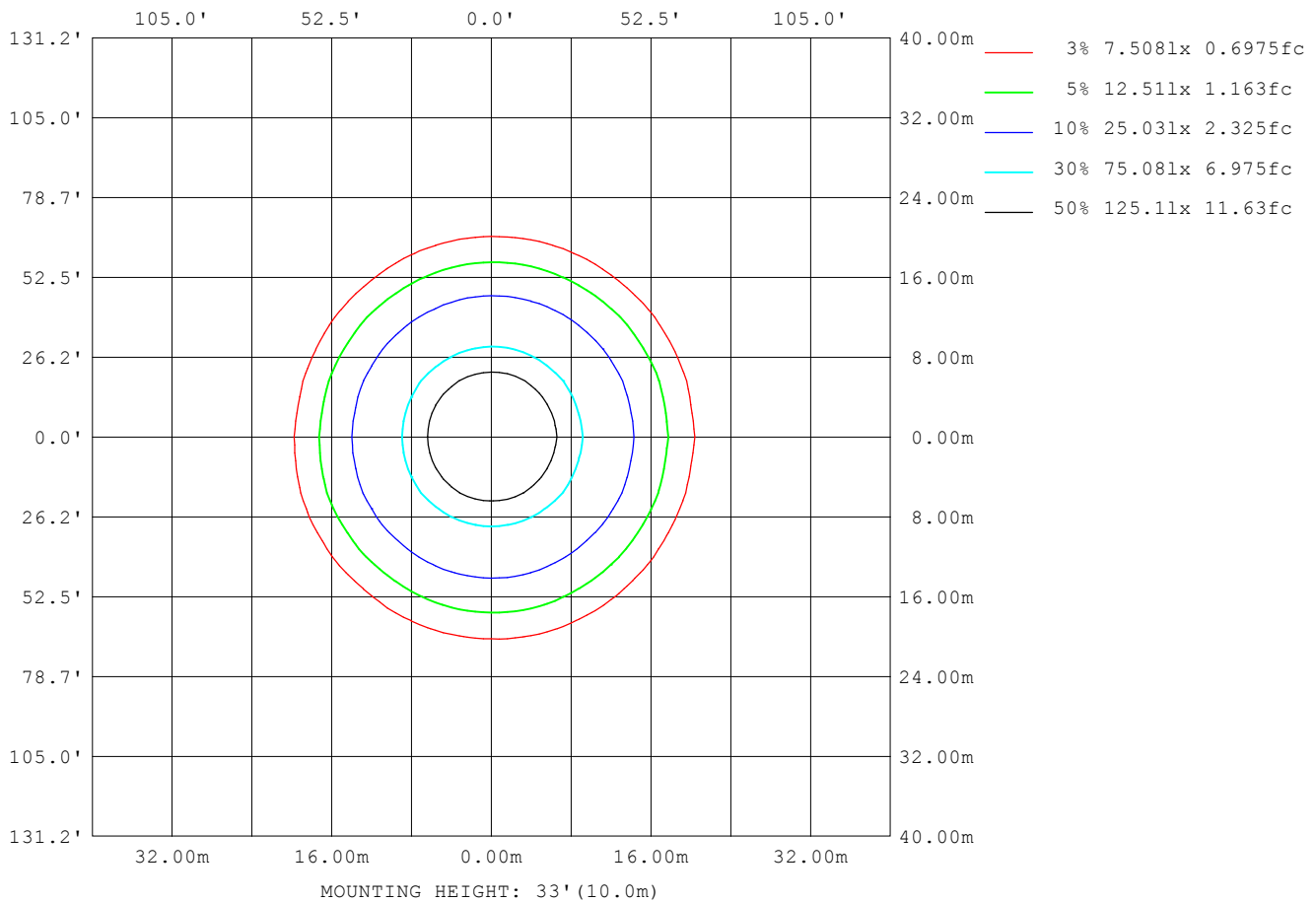
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:120.83V I:3.9773A P:433.75W PF:0.9026 Freq:50.02Hz Lamp Flux:67758.3x1 lm		
NAME: LED Explosion-proof Light	TYPE:Flood Light	WEIGHT:N/A
SPEC.:450W	DIM.: 540mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A



H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:120.83V I:3.9773A P:433.75W PF:0.9026 Freq:50.02Hz Lamp Flux:67758.3x1 lm		
NAME: LED Explosion-proof Light	TYPE:Flood Light	WEIGHT:N/A
SPEC.:450W	DIM.: 540mm	SERIAL No.:N/A
MFR.: Grin Industrial Co., Ltd.	SUR.:N/A	Shielding Angle:N/A

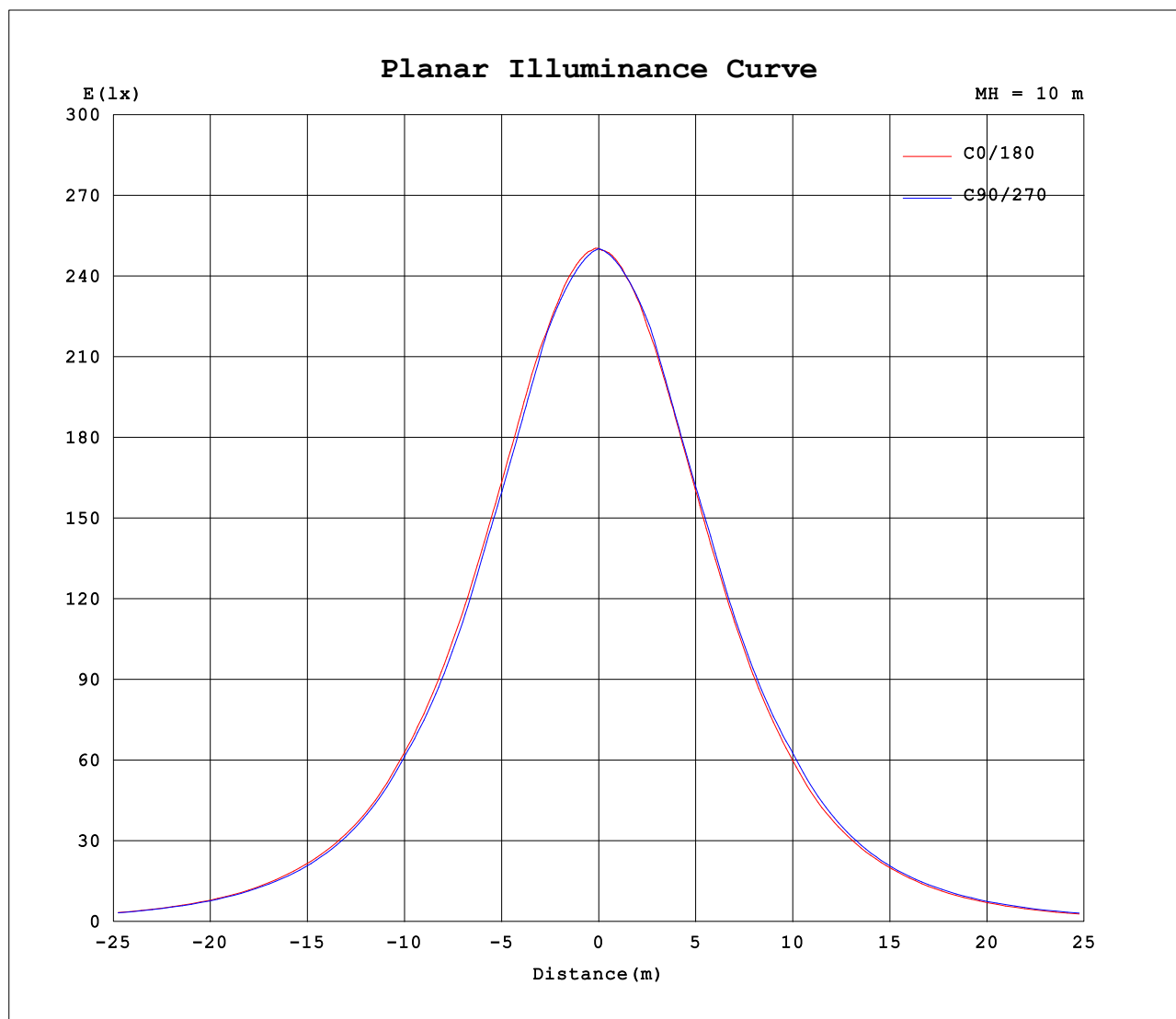
AvgL	cd/m2
L_0~180 (65) av	754657
L_0~180 (75) av	397537
L_0~180 (85) av	81262
L_90~270 (65) av	770253
L_90~270 (75) av	405952
L_90~270 (85) av	0
L_45 (65) av	745920
L_45 (75) av	458195
L_45 (85) av	0

Standard: GB/T 29293-2012

H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(□) Range:-90 - 90DEG
H(□) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jessy
Test Date:2024-12-20

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:7.138m [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:7.138m [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:7.138m [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:7.138m [K=1.0000]
Remarks:
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