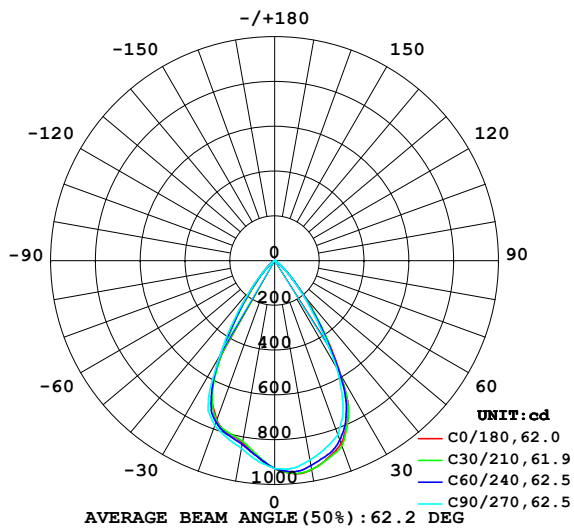


LUMINAIRE PHOTOMETRIC TEST REPORT

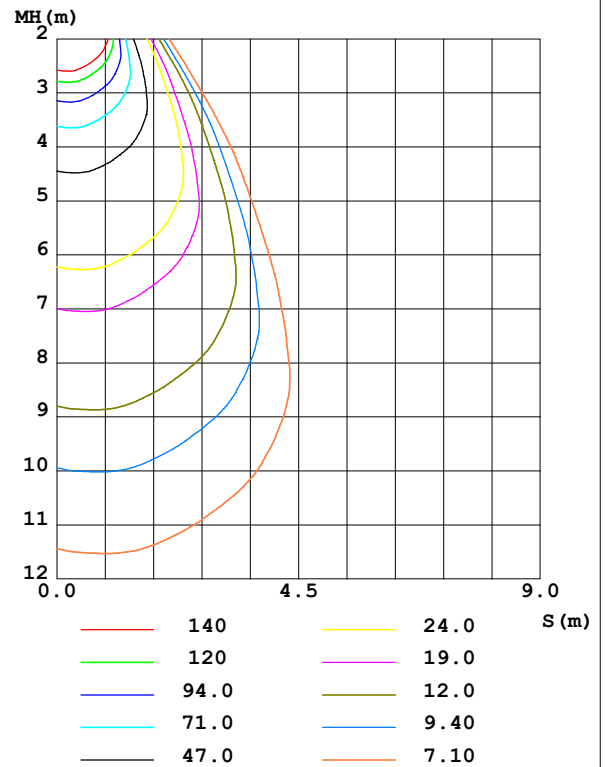
NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 44.31 lm/W			
MODEL		I _{max} (cd)	957.8	S/MH(C0/180)	1.07
NOMINAL POWER(W)	21	LOR(%)	37.2	S/MH(C90/270)	1.02
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	930.44	η UP,DN(C0-180)	0.0,19.2
NOMINAL FLUX(lm)	2500	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,18.1
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	24	η down (%)	37.2	CIBSE SHR MAX	0.95

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:
 Test Date:

V(B) Range:-85 - 85DEG
 V(B) Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity:65.0%
 Test Distance:10.720m [K=0.9328]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	947.8	939.2	905.0	856.6	827.4	827.4	851.6	897.6	0- 10	86.12	86.12	9.26,3.44
20	868.5	868.3	827.2	783.5	758.2	762.7	783.7	820.5	10- 20	239.5	325.6	35,13
30	592.8	591.1	555.4	494.3	448.8	463.9	488.5	549.7	20- 30	318.3	643.9	69.2,25.8
40	211.9	204.6	183.5	153.9	129.7	136.0	156.3	183.1	30- 40	202.1	846.1	90.9,33.8
50	50.00	46.10	42.33	34.60	35.57	29.00	27.02	34.25	40- 50	69.32	915.4	98.4,36.6
60	7.744	3.764	2.825	3.484	3.774	0.2301	0.0000	0.6101	50- 60	14.57	930.0	99.9,37.2
70	0	0	0	0	0	0	0	0	60- 70	0.4722	930.4	100,37.2
80	0	0	0	0	0	0	0	0	70- 80	0	930.4	100,37.2
90	0	0	0	0	0	0	0	0	80- 90	0	930.4	100,37.2
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): 891.52 lm

%lum = 95.8%

%lamp = 35.7%

Conical surface Flux(120deg): 929.97 lm

%lum = 99.9%

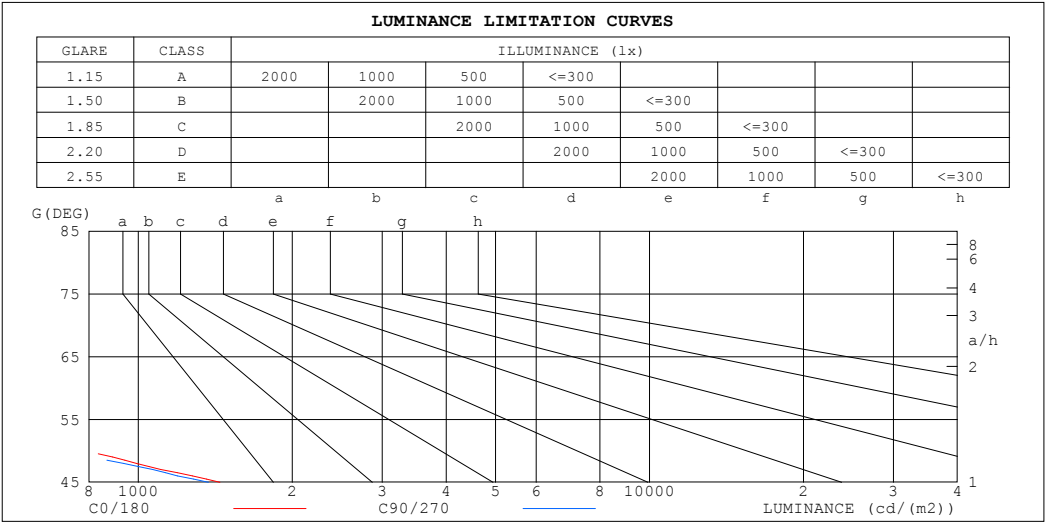
%lamp = 37.2%

H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:
 Test Date:

V(B) Range:-85 - 85DEG
 V(B) Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity:65.0%
 Test Distance:10.720m [K=0.9328]
 Remarks:

LUMINANCE LIMITATION CURVES

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



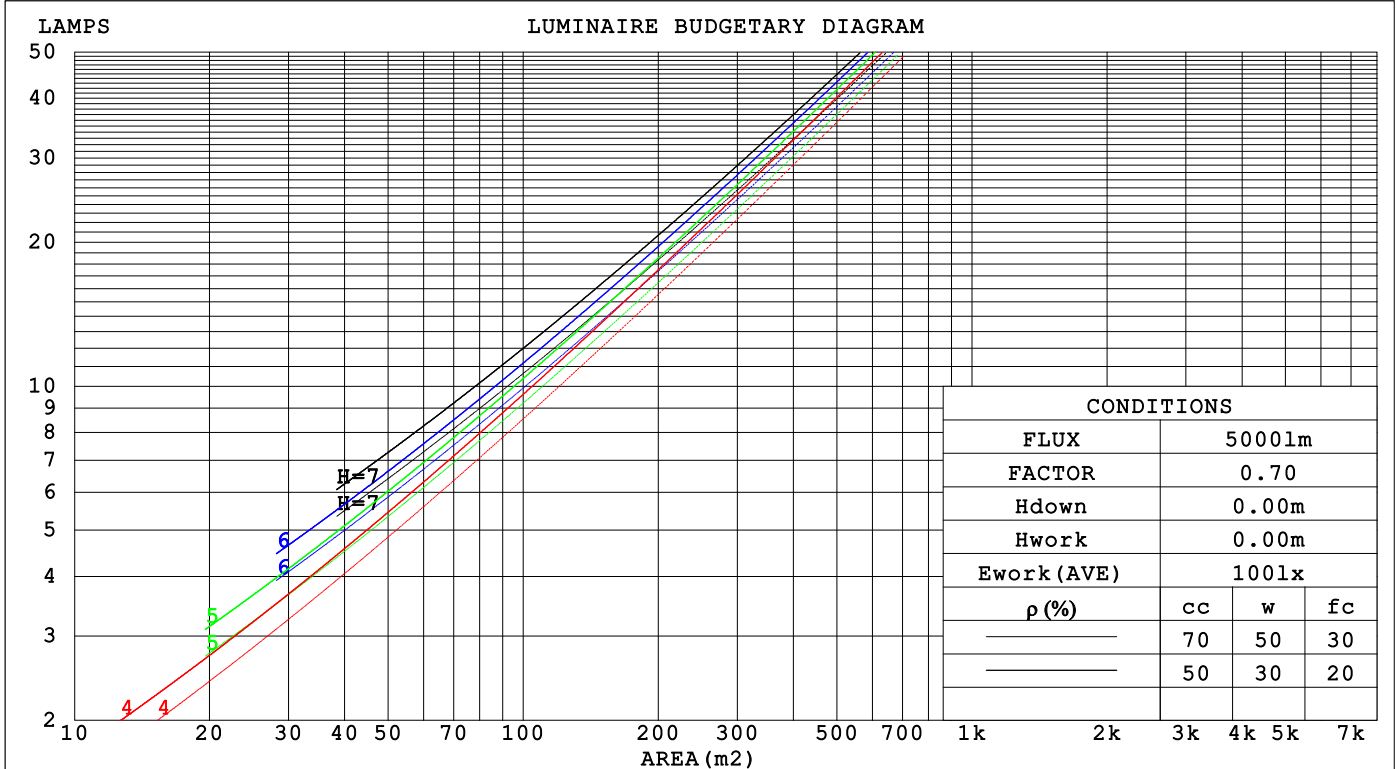
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	0	0
80	0	0
75	0	0
70	0	0
65	10	7
60	155	57
55	385	309
50	778	659
45	1443	1371

H(β) Range:-90 - 90DEG	V(B) Range:-85 - 85DEG
H(β) Interval: 1.0DEG	V(B) Interval: 2.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Temperature:25.3°C	Humidity:65.0%
Operators:	Test Distance:10.720m [K=0.9328]
Test Date:	Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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			Coefficients of Utilization(CU)												
0.0	.44	.44	.44	.43	.43	.43	.41	.41	.41	.40	.40	.40	.38	.38	.38	.37
1.0	.41	.40	.39	.40	.40	.39	.39	.38	.38	.37	.37	.36	.36	.36	.35	.35
2.0	.38	.37	.35	.38	.36	.35	.36	.35	.34	.35	.34	.34	.34	.34	.33	.32
3.0	.36	.34	.32	.35	.33	.32	.34	.33	.31	.33	.32	.31	.32	.31	.30	.30
4.0	.33	.31	.29	.33	.31	.29	.32	.30	.29	.31	.30	.29	.30	.29	.28	.28
5.0	.31	.29	.27	.31	.29	.27	.30	.28	.27	.29	.28	.27	.29	.27	.26	.26
6.0	.29	.27	.25	.29	.27	.25	.28	.26	.25	.28	.26	.25	.27	.26	.24	.24
7.0	.27	.25	.23	.27	.25	.23	.26	.24	.23	.26	.24	.23	.26	.24	.23	.22
8.0	.26	.23	.22	.25	.23	.22	.25	.23	.22	.24	.23	.21	.24	.23	.21	.21
9.0	.24	.22	.20	.24	.22	.20	.23	.22	.20	.23	.21	.20	.23	.21	.20	.20
10.0	.23	.20	.19	.22	.20	.19	.22	.20	.19	.22	.20	.19	.22	.20	.19	.18



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:10.720m [K=0.9328]
Remarks:

WEC AND CCEC

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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	.067 .038 .012	.065 .037 .012	.060 .034 .011	.056 .032 .010	.052 .030 .010	
2.0	.065 .035 .011	.062 .034 .011	.058 .033 .010	.055 .031 .010	.051 .029 .009	
3.0	.062 .033 .010	.060 .032 .010	.057 .031 .009	.053 .029 .009	.051 .028 .009	
4.0	.059 .031 .009	.057 .030 .009	.055 .029 .009	.052 .028 .008	.049 .027 .008	
5.0	.056 .029 .008	.055 .028 .008	.052 .027 .008	.050 .026 .008	.048 .026 .008	
6.0	.054 .027 .008	.053 .027 .008	.050 .026 .008	.048 .025 .007	.046 .024 .007	
7.0	.052 .026 .007	.051 .025 .007	.049 .025 .007	.047 .024 .007	.045 .023 .007	
8.0	.049 .024 .007	.048 .024 .007	.047 .023 .007	.045 .023 .007	.043 .022 .006	
9.0	.047 .023 .006	.047 .023 .006	.045 .022 .006	.043 .022 .006	.042 .021 .006	
10.0	.045 .022 .006	.045 .022 .006	.043 .021 .006	.042 .021 .006	.041 .020 .006	

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	.071 .071 .071	.061 .061 .061	.041 .041 .041	.024 .024 .024	.008 .008 .008	
1.0	.064 .059 .054	.055 .050 .046	.037 .035 .032	.021 .020 .019	.007 .006 .006	
2.0	.058 .049 .042	.050 .042 .036	.034 .029 .025	.020 .017 .015	.006 .006 .005	
3.0	.054 .042 .033	.046 .036 .029	.032 .025 .020	.018 .015 .012	.006 .005 .004	
4.0	.050 .037 .027	.043 .032 .023	.030 .022 .016	.017 .013 .010	.005 .004 .003	
5.0	.047 .033 .022	.040 .028 .019	.028 .020 .013	.016 .012 .008	.005 .004 .003	
6.0	.044 .029 .018	.038 .025 .016	.026 .018 .011	.015 .010 .007	.005 .003 .002	
7.0	.042 .026 .015	.036 .023 .013	.025 .016 .010	.014 .009 .006	.005 .003 .002	
8.0	.040 .024 .013	.034 .021 .012	.024 .015 .008	.014 .009 .005	.004 .003 .002	
9.0	.038 .022 .011	.033 .019 .010	.023 .014 .007	.013 .008 .004	.004 .003 .001	
10.0	.036 .021 .010	.031 .018 .009	.022 .013 .006	.013 .007 .004	.004 .002 .001	

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:10.720m [K=0.9328]
Remarks:

UGR(Unified Glare Rating) Table

NAME: BL7069-LV-C21-60					TYPE:					WEIGHT:				
SPEC.:					DIM.:					SERIAL No.:				
MFR.:					SUR.:					Shielding Angle:				
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					7.0	7.9	7.2	8.1	8.3	6.6	7.6	6.9	7.8	8.0
3H					6.8	7.7	7.0	7.9	8.1	6.5	7.4	6.7	7.6	7.8
4H					6.7	7.5	7.0	7.8	8.0	6.4	7.2	6.7	7.4	7.7
6H					6.6	7.4	6.9	7.6	7.9	6.3	7.1	6.6	7.3	7.6
8H					6.6	7.3	6.9	7.6	7.8	6.2	7.0	6.6	7.3	7.5
12H					6.5	7.2	6.8	7.5	7.8	6.2	6.9	6.5	7.2	7.5
4H 2H					6.7	7.6	7.0	7.8	8.0	6.4	7.2	6.7	7.5	7.7
3H					6.5	7.3	6.8	7.5	7.8	6.2	6.9	6.5	7.2	7.5
4H					6.4	7.1	6.8	7.4	7.7	6.1	6.8	6.5	7.1	7.4
6H					6.3	6.9	6.7	7.2	7.6	6.0	6.6	6.4	6.9	7.3
8H					6.3	6.8	6.7	7.2	7.5	6.0	6.5	6.4	6.9	7.2
12H					6.2	6.7	6.6	7.1	7.5	5.9	6.4	6.3	6.8	7.2
8H 4H					6.3	6.8	6.7	7.2	7.5	6.0	6.5	6.4	6.9	7.2
6H					6.2	6.6	6.6	7.0	7.4	5.9	6.3	6.3	6.7	7.1
8H					6.1	6.5	6.6	6.9	7.4	5.8	6.2	6.3	6.6	7.1
12H					6.1	6.4	6.5	6.9	7.3	5.8	6.1	6.2	6.5	7.0
12H 4H					6.2	6.7	6.6	7.1	7.5	5.9	6.4	6.3	6.8	7.2
6H					6.1	6.5	6.6	6.9	7.4	5.8	6.2	6.3	6.6	7.1
8H					6.1	6.4	6.5	6.9	7.3	5.8	6.1	6.2	6.5	7.0
Variations with the observer position at spacings(CIE Pub.117):														
S = 1.0H					+ 3.1 / -11.1					+ 2.7 / -12.5				
1.5H					+ 4.8 / - 9.0					+ 4.4 / - 8.2				
2.0H					+ 6.1 / -34.7					+ 6.1 / -52.1				

CIE Pub.117, 2500 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.2$)
Area: 0.1 m²

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:10.720m [K=0.9328]
Remarks:

UTILIZATION FACTORS TABLE

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

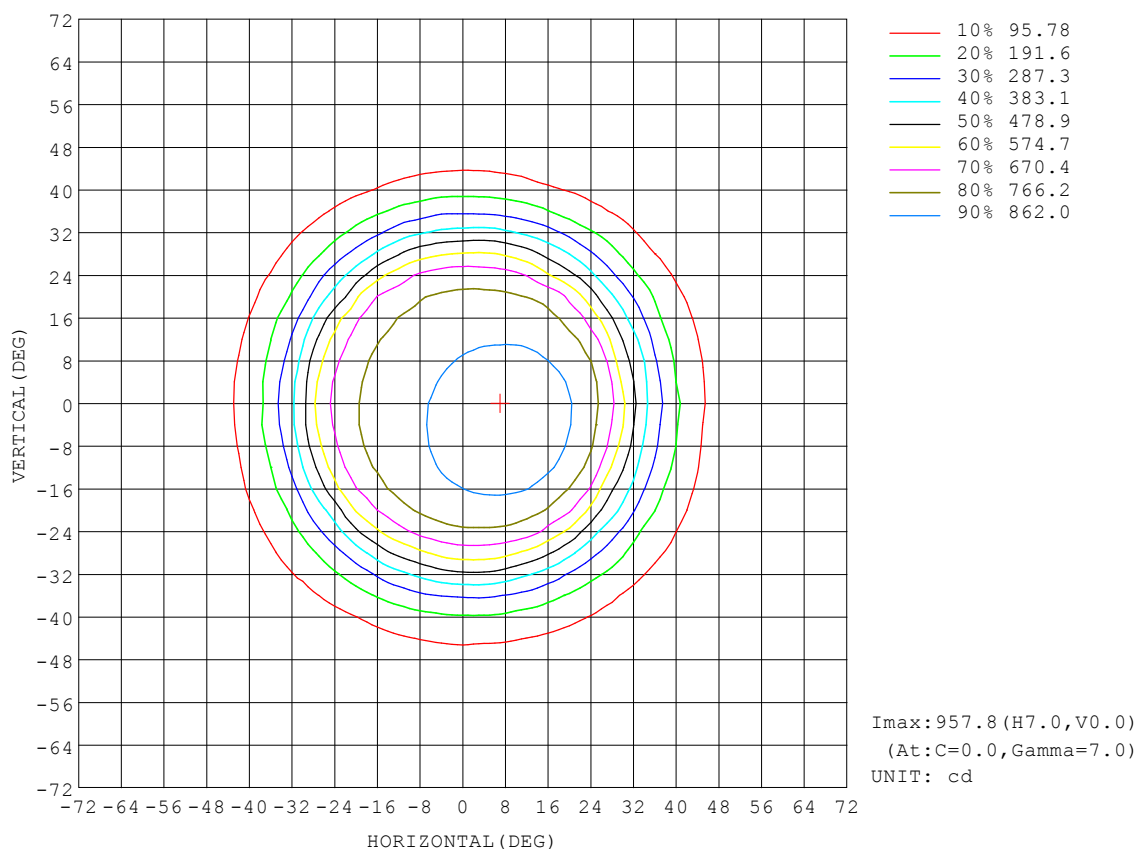
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	32	29	28	32	29	28	31	29	28	26
0.80	35	33	31	35	32	31	34	32	31	29
1.00	37	35	33	36	34	33	36	34	33	31
1.25	38	36	35	38	36	35	37	36	34	33
1.50	39	37	36	39	37	36	38	37	36	34
2.00	40	39	38	40	38	37	39	38	37	35
2.50	41	40	38	40	39	38	39	38	37	35
3.00	42	40	39	41	40	39	40	39	38	36
4.00	42	41	40	42	41	40	40	39	39	36
5.00	43	42	41	42	41	41	40	40	39	37
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:25.3°C
 Operators:
 Test Date:

$V(B)$ Range:-85 - 85DEG
 $V(B)$ Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity:65.0%
 Test Distance:10.720m [K=0.9328]
 Remarks:

ISOCANDELA DIAGRAM

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

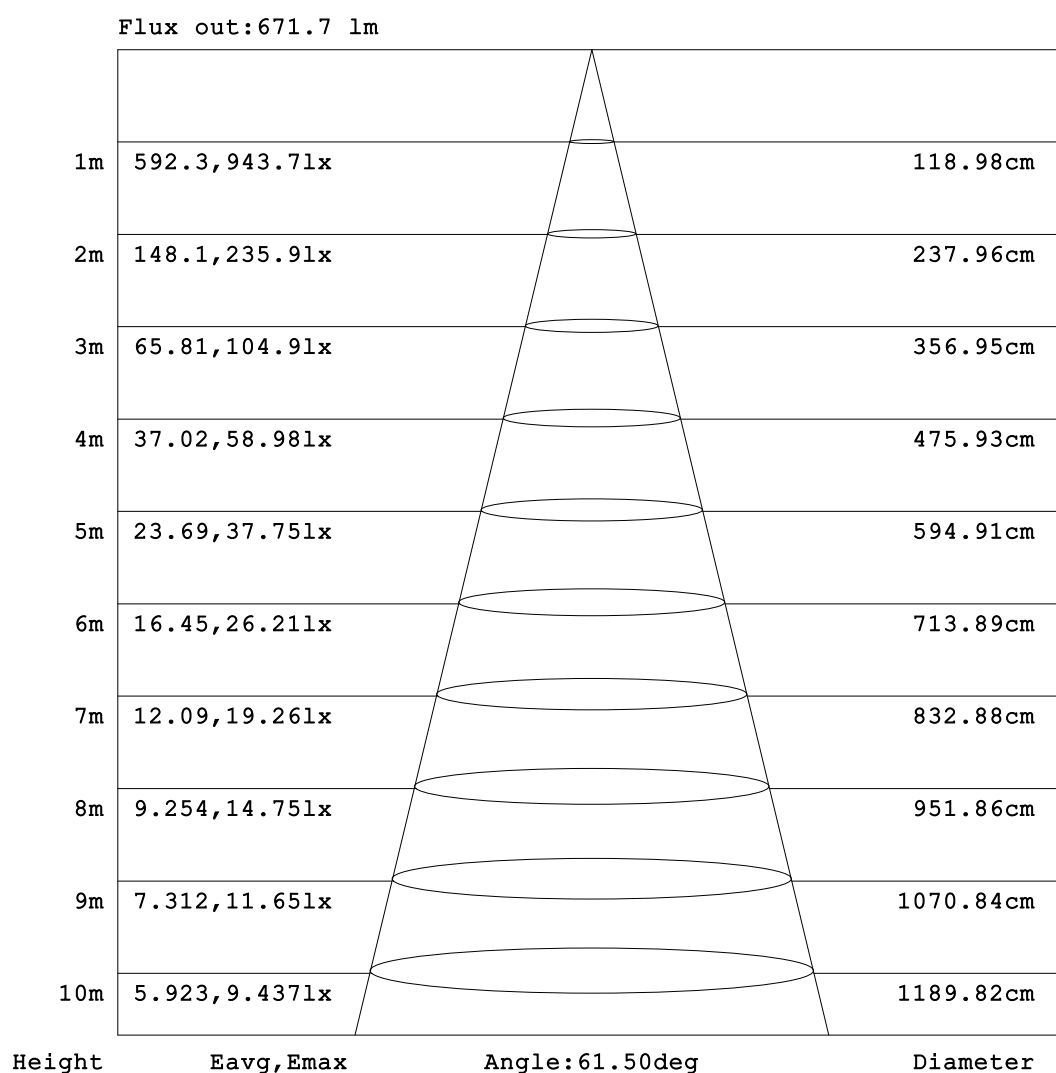


H(β) Range: -90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date:

V(B) Range: -85 - 85DEG
V(B) Interval: 2.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 10.720m [K=0.9328]
Remarks:

AAI Figure

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



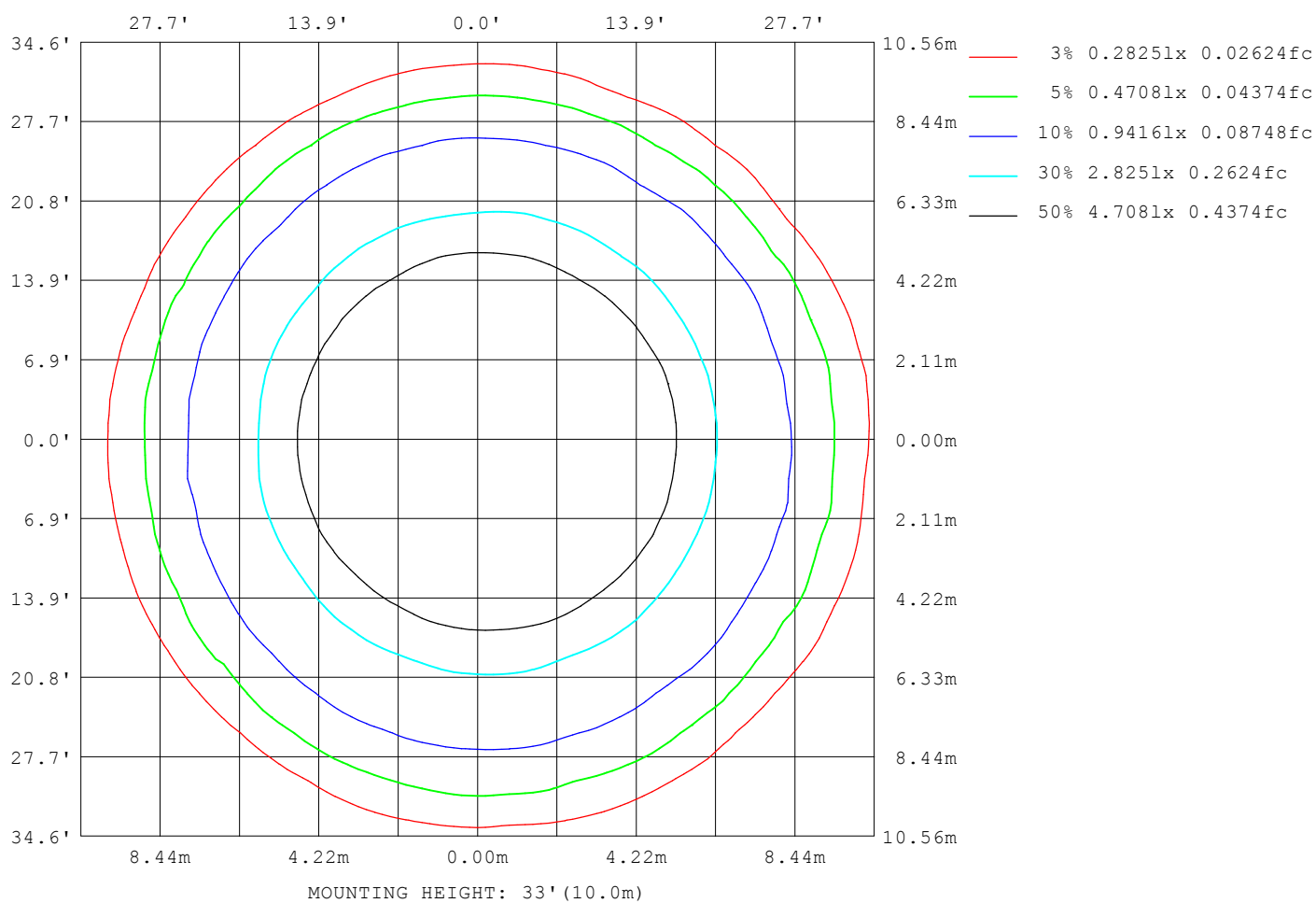
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range: -90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators:
Test Date:

V(B) Range: -85 - 85DEG
V(B) Interval: 2.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 10.720m [K=0.9328]
Remarks:

ISOLUX DIAGRAM

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:10.720m [K=0.9328]
Remarks:

LED Avg.L Report

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

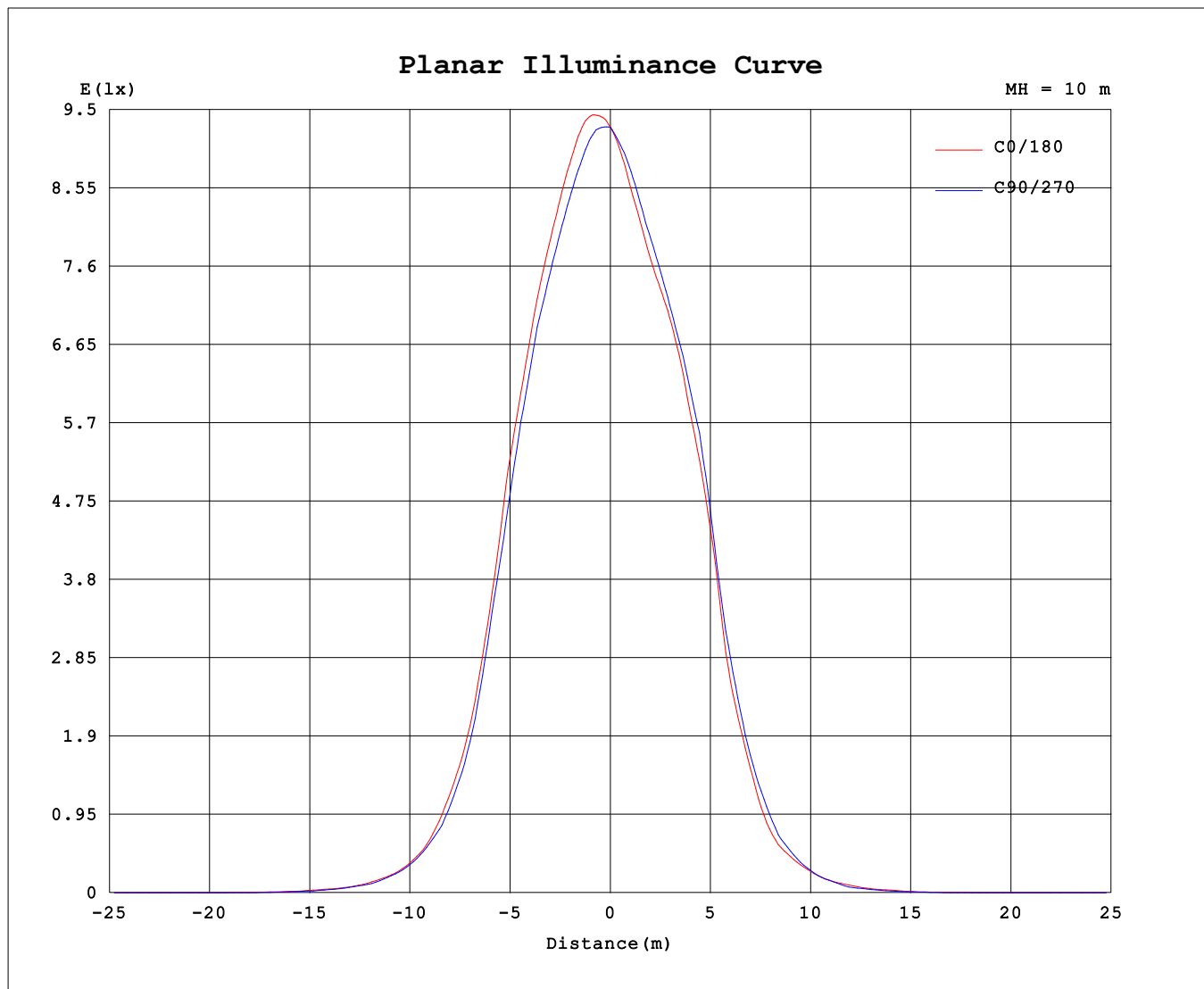
AvgL	cd/m2
L_0~180 (65) av	5
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	3
L_90~270 (75) av	0
L_90~270 (85) av	0
L_45 (65) av	0
L_45 (75) av	0
L_45 (85) av	0

Standard: GB/T 29293-2012

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:
Test Date:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:10.720m [K=0.9328]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:

V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:10.720m [K=0.9328]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

[illegible]

```
H( $\beta$ ) Range:-90 - 90DEG
H( $\beta$ ) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:
```

```
V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:10.720m [K=0.9328]
Remarks:
```

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--2

UNIT: cd

[illegible]

```
H( $\beta$ ) Range:-90 - 90DEG
H( $\beta$ ) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:
```

```
V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:10.720m [K=0.9328]
Remarks:
```


LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: BL7069-LV-C21-60	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--4

UNIT: cd

[illegible]

```
H( $\beta$ ) Range:-90 - 90DEG
H( $\beta$ ) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:
Test Date:
```

```
V(B) Range:-85 - 85DEG
V(B) Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:10.720m [K=0.9328]
Remarks:
```