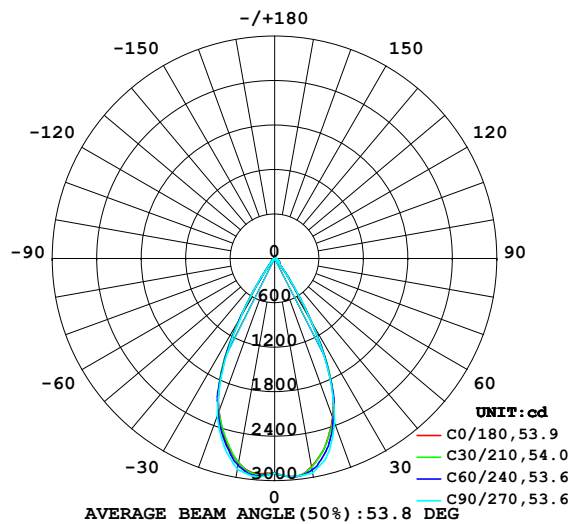


LUMINAIRE PHOTOMETRIC TEST REPORT

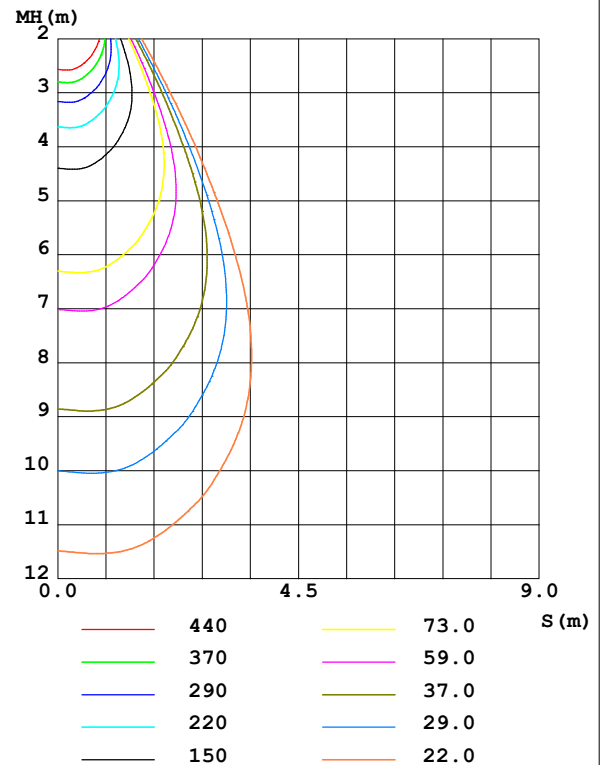
NAME: BL7069-C20-3-50-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 107.12 lm/W
MODEL		Imax (cd)	2961	S/MH (C0/180)		0.79
NOMINAL POWER(W)	20	LOR (%)	71.1	S/MH (C90/270)		0.78
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	2131.6	η UP,DN (C0-180)		0.0,36.2
NOMINAL FLUX(lm)	3000	CIE CLASS	DIRECT	η UP,DN (C180-360)		0.0,34.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.75
TEST VOLTAGE (V)	220.2	η down (%)	71.1	CIBSE SHR MAX		0.80

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



H(β) Range:-90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:ZT
Test Date:2024-01-22

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:10.722m [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	2858	2875	2940	2830	2803	2810	2890	2835	0- 10	278.0	278.0	13,9.27
20	2286	2302	2370	2222	2198	2221	2268	2248	10- 20	725.5	1003	47.1,33.4
30	1002	1019	1005	978.7	963.9	957.2	923.0	971.7	20- 30	764.9	1768	83,58.9
40	132.6	126.9	119.5	125.8	115.5	106.0	95.06	107.2	30- 40	257.7	2026	95,67.5
50	69.70	53.25	54.13	53.92	57.12	46.61	43.50	44.41	40- 50	57.06	2083	97.7,69.4
60	28.28	19.87	19.33	19.30	24.69	13.90	12.74	13.66	50- 60	30.86	2114	99.2,70.5
70	9.213	6.676	6.772	6.945	13.04	3.124	3.085	3.203	60- 70	10.38	2124	99.7,70.8
80	4.417	4.284	4.565	4.470	11.18	1.970	2.076	2.187	70- 80	4.787	2129	99.9,71
90	2.384	0	0	0	4.532	0	0	0	80- 90	2.457	2132	100,71.1
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): 2059 lm

%lum = 96.6%

%lamp = 68.6%

Conical surface Flux(120deg): 2114 lm

%lum = 99.2%

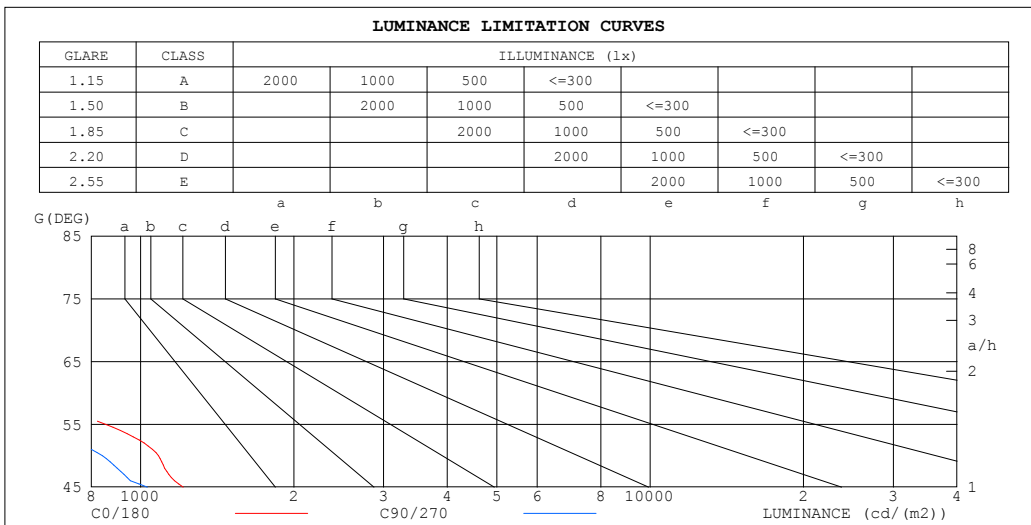
%lamp = 70.5%

H(β) Range:-90 - 90DEG
 H(β) Interval: 0.5DEG
 Test Speed: MEDIUM
 Temperature:25.3°C
 Operators:ZT
 Test Date:2024-01-22

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:10.722m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

NAME: BL7069-C20-3-50-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



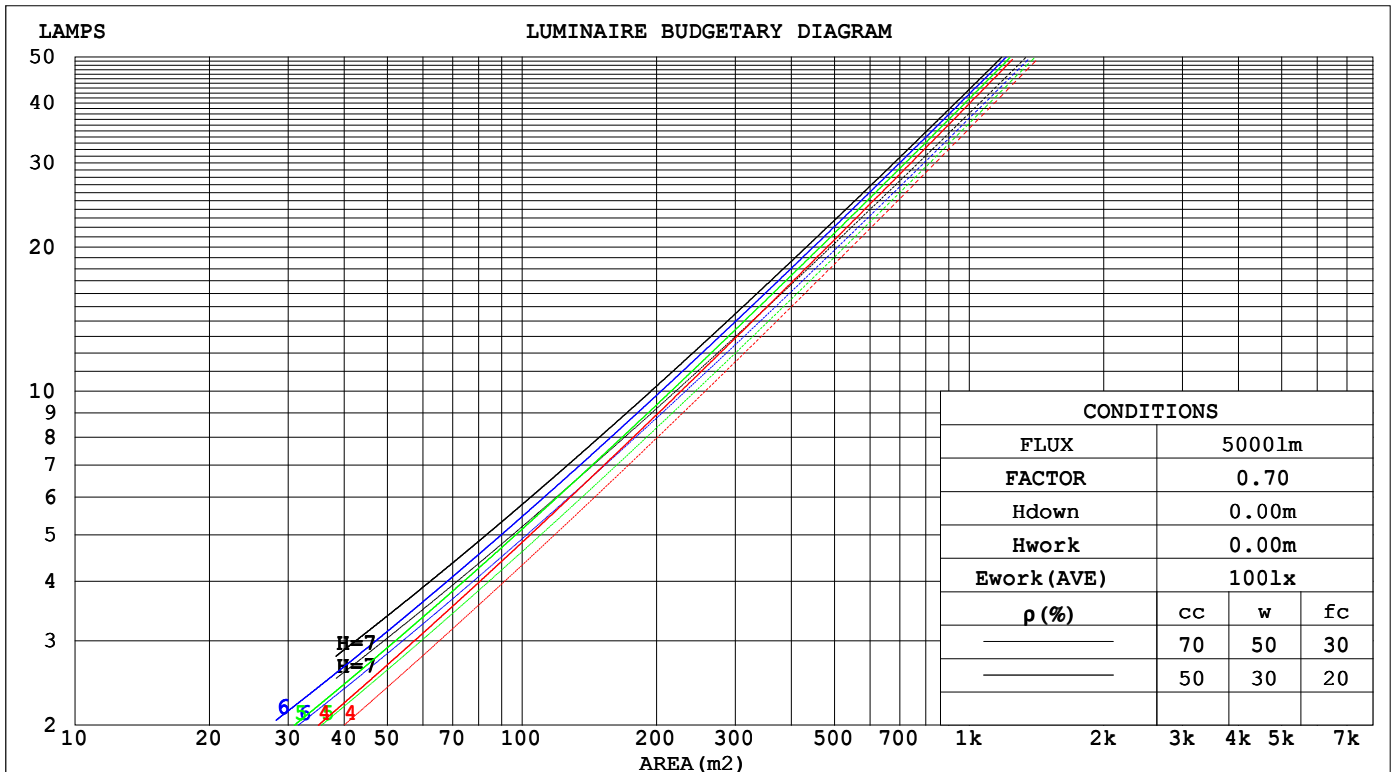
H(β) Range:-90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:ZT
Test Date:2024-01-22

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:10.722m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: BL7069-C20-3-50-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0														
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
ρfc	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Coefficients of Utilization(CU)														
0.0	.85	.85	.85	.83	.83	.83	.79	.79	.79	.76	.76	.76	.73	.73	.73	.71														
1.0	.79	.77	.76	.77	.76	.75	.75	.73	.72	.72	.71	.70	.70	.69	.68	.67														
2.0	.74	.71	.69	.73	.70	.68	.70	.68	.67	.68	.67	.65	.66	.65	.64	.63														
3.0	.69	.66	.63	.68	.65	.63	.67	.64	.62	.65	.63	.61	.63	.62	.60	.59														
4.0	.65	.62	.59	.65	.61	.59	.63	.60	.58	.62	.59	.57	.60	.58	.57	.56														
5.0	.62	.58	.55	.61	.57	.55	.60	.57	.54	.59	.56	.54	.57	.55	.53	.52														
6.0	.58	.54	.52	.58	.54	.51	.57	.53	.51	.56	.53	.51	.55	.52	.50	.49														
7.0	.55	.51	.48	.55	.51	.48	.54	.51	.48	.53	.50	.48	.52	.50	.48	.47														
8.0	.52	.48	.46	.52	.48	.46	.51	.48	.45	.51	.48	.45	.50	.47	.45	.44														
9.0	.50	.46	.43	.49	.46	.43	.49	.45	.43	.48	.45	.43	.48	.45	.43	.42														
10.0	.47	.44	.41	.47	.43	.41	.47	.43	.41	.46	.43	.41	.46	.43	.41	.40														



H(β) Range:-90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:ZT
Test Date:2024-01-22

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:10.722m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: BL7069-C20-3-50-NS	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	.121	.069	.022	.116	.066	.021	.107	.061	.020	.099	.057	.018	.091	.053	.017	
2.0	.114	.063	.019	.110	.061	.019	.103	.057	.018	.096	.054	.017	.090	.051	.016	
3.0	.108	.058	.017	.105	.056	.017	.099	.053	.016	.093	.051	.016	.087	.048	.015	
4.0	.103	.053	.016	.100	.052	.015	.095	.050	.015	.090	.048	.015	.085	.046	.014	
5.0	.098	.050	.014	.095	.049	.014	.091	.047	.014	.086	.046	.014	.082	.044	.013	
6.0	.093	.047	.013	.091	.046	.013	.087	.045	.013	.083	.043	.013	.080	.042	.012	
7.0	.089	.044	.013	.087	.043	.012	.084	.042	.012	.080	.041	.012	.077	.040	.012	
8.0	.085	.042	.012	.084	.041	.012	.080	.040	.011	.077	.039	.011	.074	.038	.011	
9.0	.082	.040	.011	.080	.039	.011	.077	.038	.011	.075	.037	.011	.072	.037	.011	
10.0	.079	.038	.010	.077	.037	.010	.075	.037	.010	.072	.036	.010	.070	.035	.010	

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	.135	.135	.135	.116	.116	.116	.079	.079	.079	.045	.045	.045	.015	.015	.015	
1.0	.121	.112	.103	.104	.096	.089	.071	.066	.062	.041	.038	.036	.013	.012	.012	
2.0	.110	.094	.081	.094	.081	.070	.065	.056	.049	.037	.033	.029	.012	.011	.009	
3.0	.101	.081	.065	.086	.070	.056	.059	.048	.039	.034	.028	.023	.011	.009	.008	
4.0	.093	.070	.052	.080	.061	.046	.055	.042	.032	.032	.025	.019	.010	.008	.006	
5.0	.087	.062	.043	.075	.053	.038	.051	.037	.027	.030	.022	.016	.010	.007	.005	
6.0	.081	.055	.036	.070	.048	.032	.048	.033	.022	.028	.020	.013	.009	.006	.004	
7.0	.077	.050	.031	.066	.043	.027	.046	.030	.019	.026	.018	.011	.009	.006	.004	
8.0	.072	.045	.026	.062	.039	.023	.043	.027	.016	.025	.016	.010	.008	.005	.003	
9.0	.069	.041	.023	.059	.036	.020	.041	.025	.014	.024	.015	.008	.008	.005	.003	
10.0	.066	.038	.020	.057	.033	.017	.039	.023	.012	.023	.014	.007	.007	.005	.002	

H(β) Range:-90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:ZT
Test Date:2024-01-22

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:10.722m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME: BL7069-C20-3-50-NS					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					4.3	5.1	4.5	5.3	5.5	4.5	5.3	4.7	5.5	5.7
3H					4.2	5.0	4.5	5.2	5.4	4.4	5.2	4.6	5.4	5.6
4H					4.2	4.9	4.4	5.1	5.4	4.3	5.1	4.6	5.3	5.5
6H					4.1	4.9	4.4	5.1	5.3	4.3	5.0	4.6	5.3	5.5
8H					4.1	4.8	4.4	5.1	5.3	4.3	5.0	4.6	5.2	5.5
12H					4.1	4.8	4.5	5.1	5.3	4.3	5.0	4.6	5.2	5.5
4H 2H					4.1	4.9	4.4	5.1	5.3	4.3	5.1	4.6	5.3	5.5
3H					4.0	4.7	4.4	5.0	5.3	4.2	4.9	4.5	5.1	5.4
4H					4.0	4.6	4.4	4.9	5.2	4.2	4.8	4.5	5.1	5.4
6H					4.0	4.6	4.4	4.9	5.2	4.2	4.7	4.6	5.1	5.4
8H					4.1	4.6	4.5	4.9	5.3	4.2	4.7	4.6	5.1	5.4
12H					4.1	4.6	4.5	5.0	5.3	4.3	4.7	4.7	5.1	5.5
8H 4H					3.9	4.4	4.3	4.8	5.1	4.1	4.6	4.5	4.9	5.3
6H					4.0	4.4	4.4	4.8	5.2	4.1	4.5	4.6	4.9	5.3
8H					4.1	4.4	4.5	4.8	5.3	4.2	4.6	4.6	5.0	5.4
12H					4.2	4.5	4.7	4.9	5.4	4.3	4.6	4.8	5.0	5.5
12H 4H					3.9	4.3	4.3	4.7	5.1	4.0	4.5	4.4	4.9	5.2
6H					4.0	4.3	4.4	4.7	5.2	4.1	4.5	4.5	4.9	5.3
8H					4.1	4.4	4.5	4.8	5.3	4.2	4.5	4.7	4.9	5.4
Variations with the observer position at spacings(CIE Pub.117):														
S = 1.0H					+ 2.2 / - 2.1					+ 2.9 / - 2.9				
1.5H					+ 3.3 / - 2.1					+ 4.5 / - 2.0				
2.0H					+ 2.1 / - 3.1					+ 1.9 / - 2.2				

CIE Pub.117, 3000 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.8)
Area: 0.1 m2

H(β) Range:-90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:ZT
Test Date:2024-01-22

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:10.722m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: BL7069-C20-3-50-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

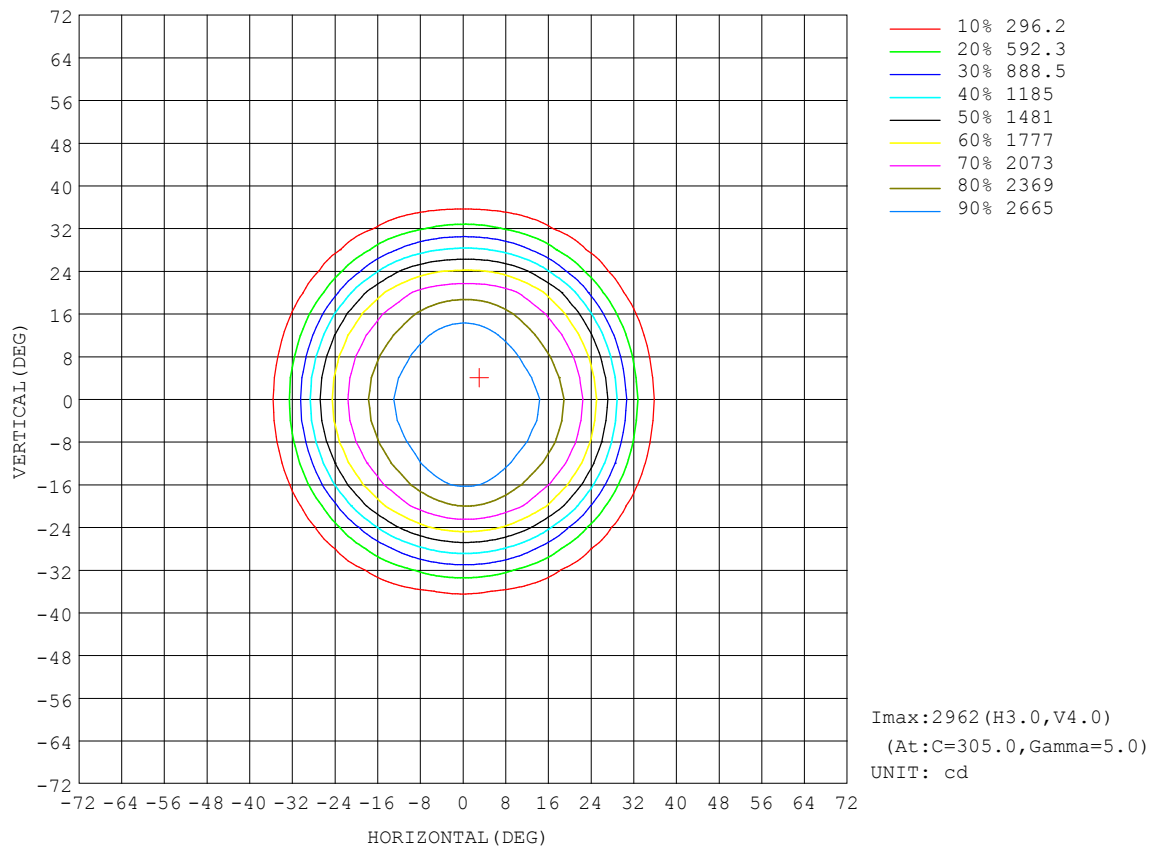
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	63	58	56	62	58	56	62	58	56	53
0.80	68	64	61	68	64	61	67	63	61	59
1.00	71	67	65	70	67	64	69	67	64	61
1.25	74	70	68	73	70	68	72	69	67	64
1.50	76	72	70	75	72	70	73	71	69	66
2.00	77	75	72	76	74	72	74	72	71	67
2.50	79	76	74	77	75	73	75	73	72	68
3.00	80	77	75	78	76	75	76	74	73	69
4.00	81	79	78	80	78	77	77	76	75	70
5.00	82	80	79	80	79	78	78	77	76	70
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended				SHR NOM = 1.25		

H(β) Range: -90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators: ZT
Test Date: 2024-01-22

V(β) Range: -85 - 85DEG
V(β) Interval: 2.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 10.722m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: BL7069-C20-3-50-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

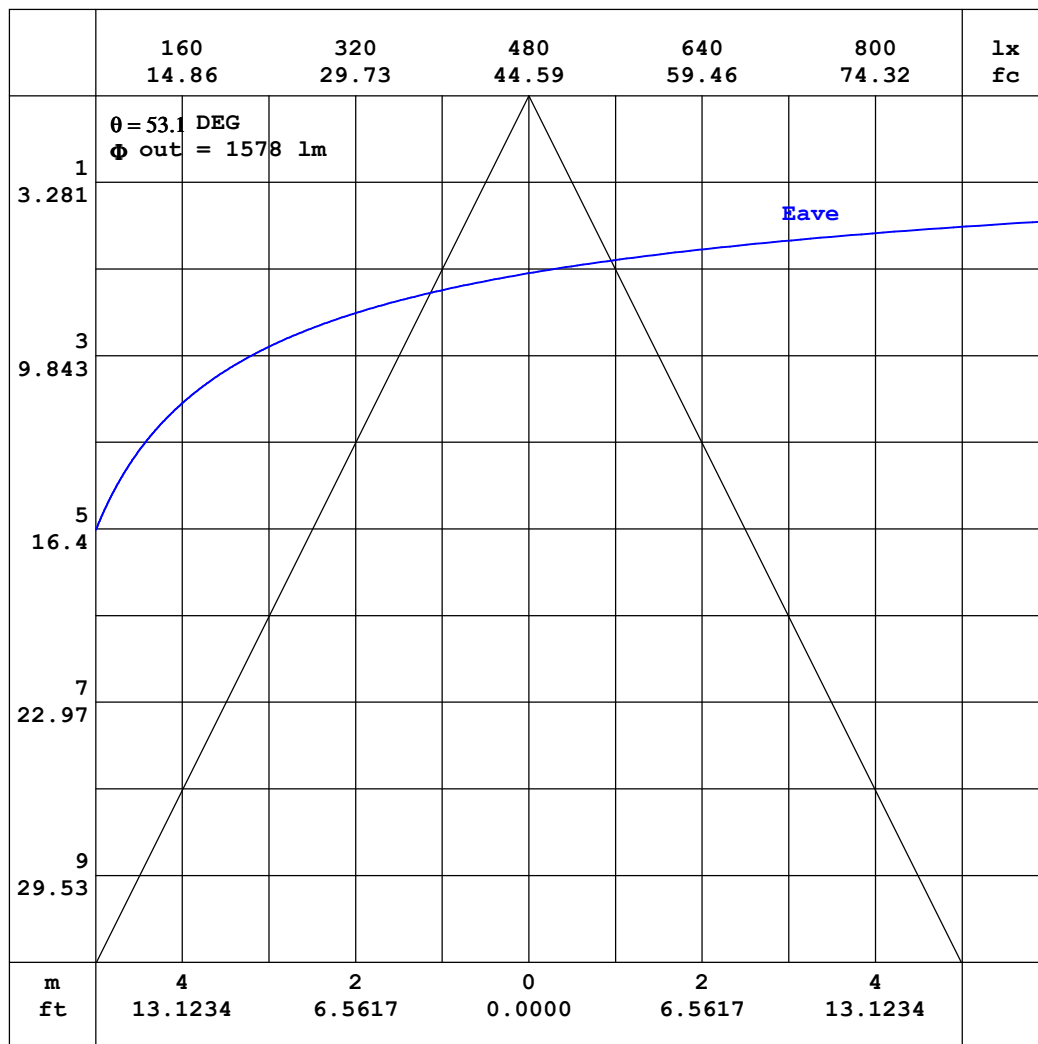


H(β) Range: -90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators: ZT
Test Date: 2024-01-22

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: 10.722m [K=1.0000]
Remarks:

AAI CURVES

NAME: BL7069-C20-3-50-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



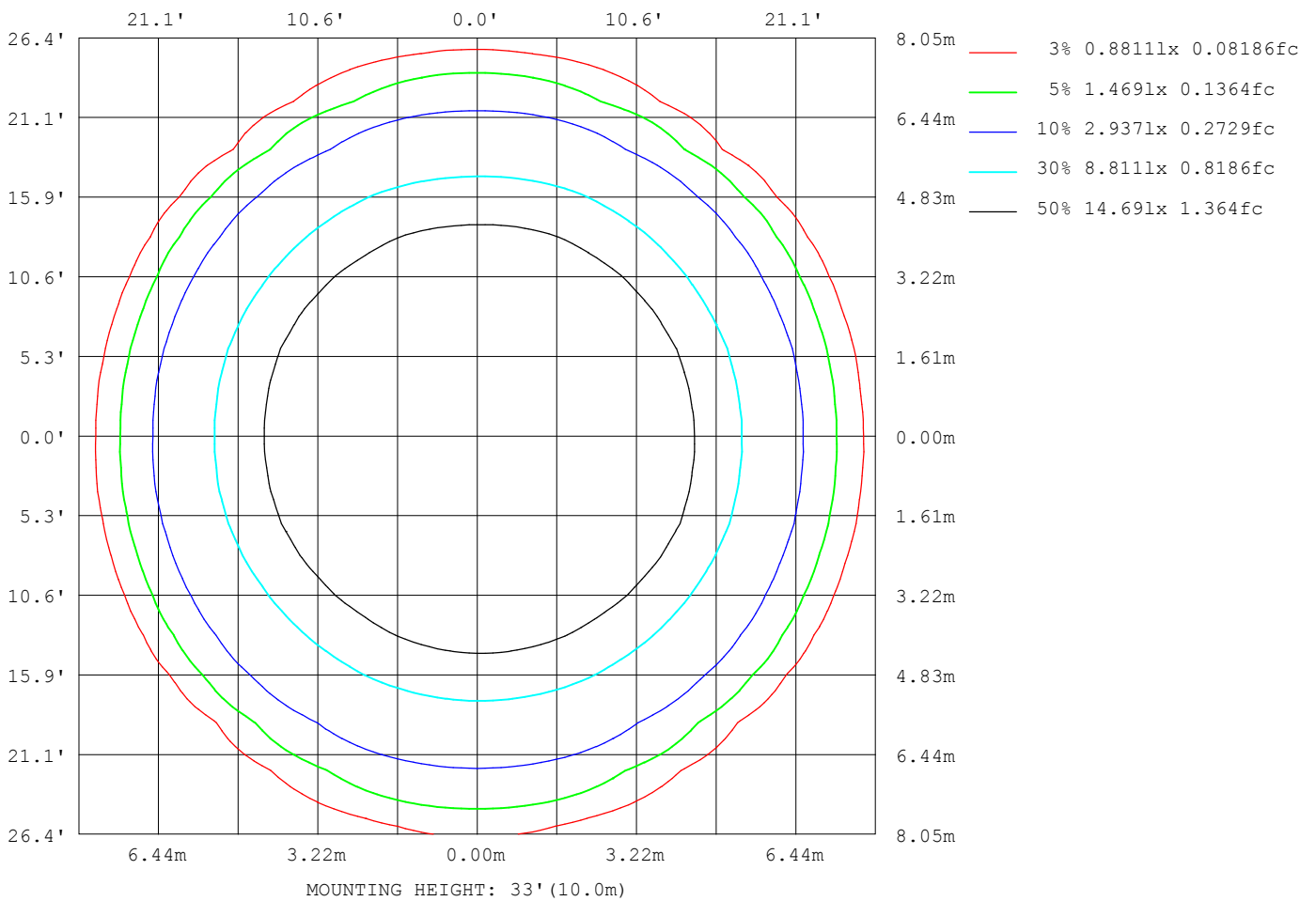
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range: -90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature: 25.3°C
Operators: ZT
Test Date: 2024-01-22

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: 10.722m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

NAME: BL7069-C20-3-50-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



H(β) Range:-90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:ZT
Test Date:2024-01-22

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:10.722m [K=1.0000]
Remarks:

LED Avg.L Report

NAME: BL7069-C20-3-50-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

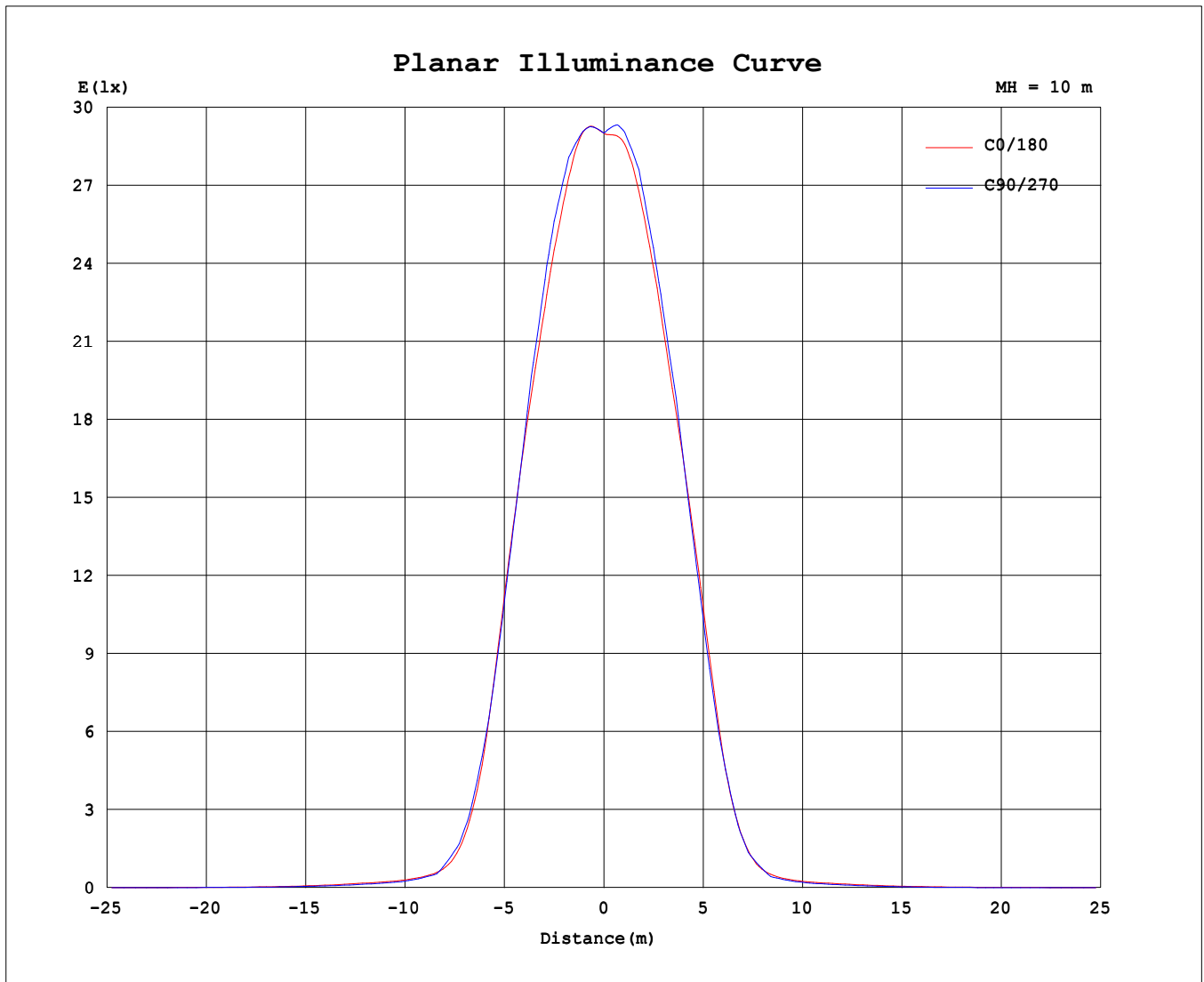
AvgL	cd/m2
L_0~180 (65) av	383
L_0~180 (75) av	349
L_0~180 (85) av	797
L_90~270 (65) av	205
L_90~270 (75) av	152
L_90~270 (85) av	178
L_45 (65) av	203
L_45 (75) av	147
L_45 (85) av	329

Standard: GB/T 29293-2012

H(β) Range:-90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:ZT
Test Date:2024-01-22

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:10.722m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:ZT
Test Date:2024-01-22

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:10.722m [K=1.0000]
Remarks:

```
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:10.722m [K=1.0000]
Remarks:
```

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:10.722m [K=1.0000]
Remarks:

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:10.722m [K=1.0000]
Remarks:

```
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:10.722m [K=1.0000]
Remarks:
```