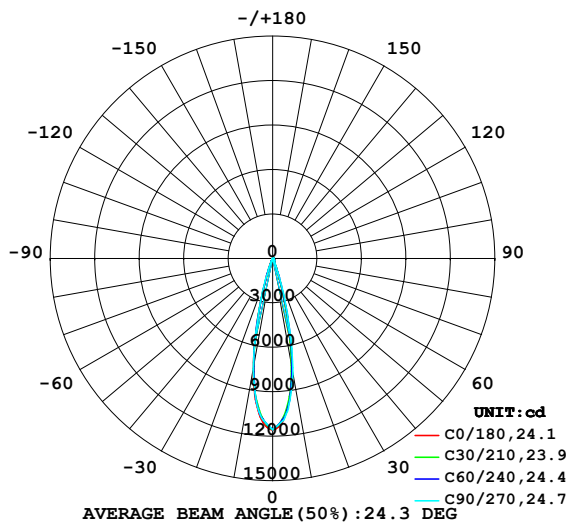


LUMINAIRE PHOTOMETRIC TEST REPORT

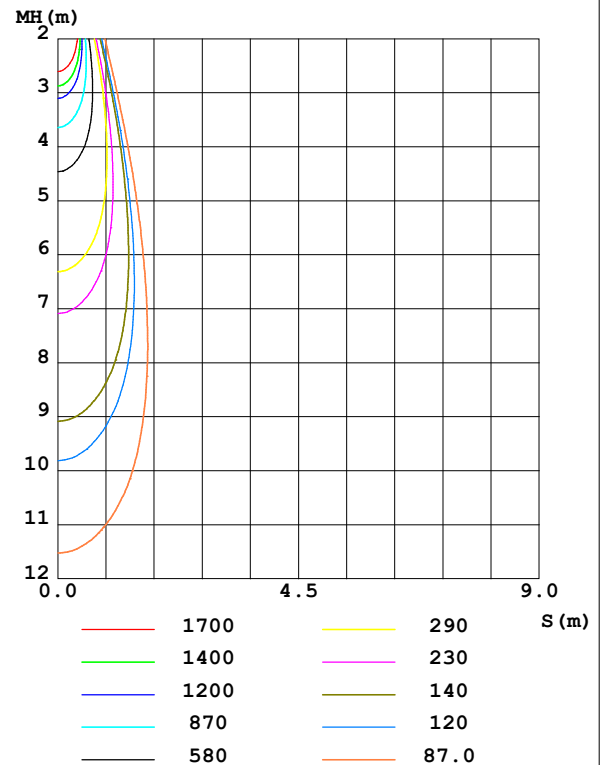
NAME: BL7069-C20-3-24-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 108.63 lm/W
MODEL		Imax (cd)	11556	S/MH (C0/180)		0.39
NOMINAL POWER(W)	20	LOR (%)	72.1	S/MH (C90/270)		0.39
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	2161.7	η UP,DN (C0-180)		0.0,37.0
NOMINAL FLUX(lm)	3000	CIE CLASS	DIRECT	η UP,DN (C180-360)		0.0,35.1
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.00
TEST VOLTAGE (V)	220.2	η down (%)	72.1	CIBSE SHR MAX		0.30

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°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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	746.0	739.9	792.0	750.3	752.9	733.9	761.7	719.4	0- 10	898.8	898.8	41.6,30
20	101.2	107.4	110.8	108.6	97.24	100.1	91.01	94.55	10- 20	964.7	1863	86.2,62.1
30	21.71	15.37	16.09	14.46	13.66	12.69	11.98	12.18	20- 30	179.9	2043	94.5,68.1
40	10.94	5.175	5.191	5.067	5.808	4.086	4.071	3.970	30- 40	54.21	2098	97,69.9
50	5.554	3.046	3.017	3.002	3.674	2.389	2.484	2.384	40- 50	30.99	2129	98.5,71
60	2.170	1.396	1.390	1.349	1.973	0.8328	0.8619	0.9127	50- 60	18.68	2147	99.3,71.6
70	0.7021	0.6555	0.7100	0.6679	1.465	0.1985	0.2057	0.3042	60- 70	7.589	2155	99.7,71.8
80	0.3234	0.4844	0.5227	0.5294	1.196	0.1054	0.1218	0.2022	70- 80	4.545	2159	99.9,72
90	0.2037	0	0	0	0.3660	0	0	0	80- 90	2.358	2162	100,72.1
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:X10cd									UNIT:1m		

Conical surface Flux(90deg): 2114.5 lm

%lum = 97.8%

%lamp = 70.5%

Conical surface Flux(120deg): 2147.2 lm

%lum = 99.3%

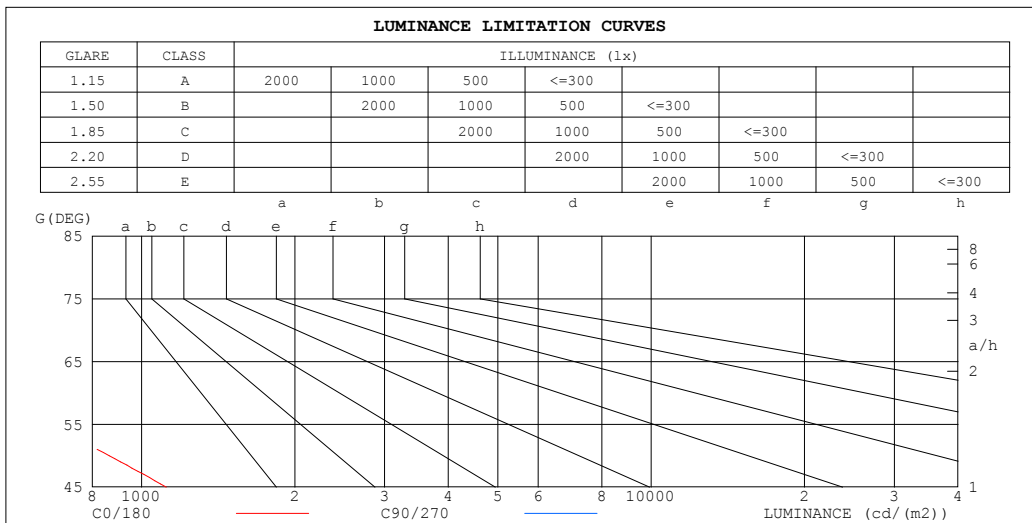
%lamp = 71.6%

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-C20-3-24-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	287	252
80	186	301
75	180	241
70	205	208
65	262	204
60	434	278
55	641	381
50	864	469
45	1118	558

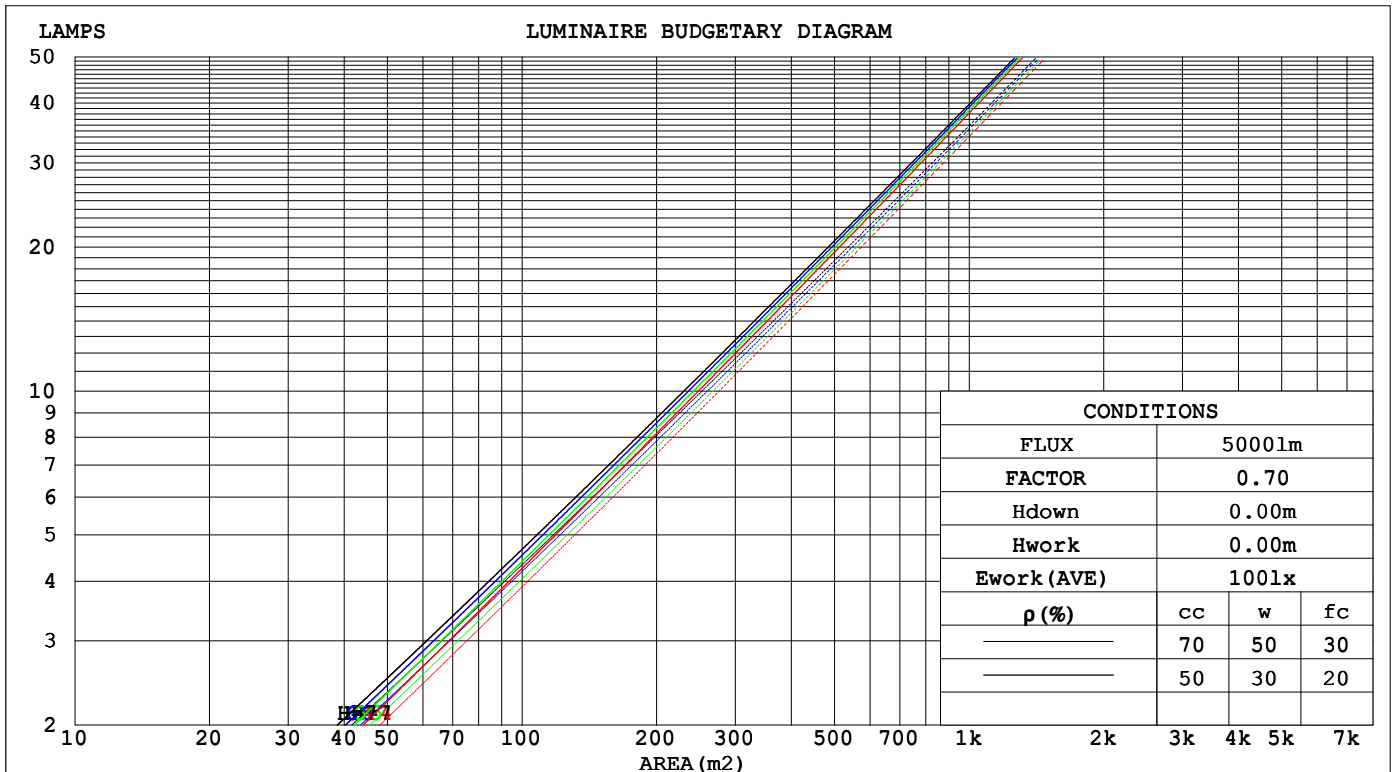
H(β) Range:-90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature:25.3°C
Operators:ZT
Test Date:2024-01-22

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-C20-3-24-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	.86	.86	.86	.84	.84	.84	.80	.80	.80	.77	.77	.77	.74	.74	.74	.72
1.0	.81	.80	.79	.80	.79	.78	.77	.76	.75	.74	.74	.73	.72	.71	.71	.70
2.0	.78	.76	.74	.77	.75	.73	.74	.73	.72	.72	.71	.70	.70	.69	.69	.68
3.0	.75	.72	.70	.74	.71	.70	.72	.70	.69	.70	.69	.67	.69	.68	.66	.66
4.0	.72	.69	.67	.71	.69	.67	.70	.68	.66	.68	.67	.65	.67	.66	.65	.64
5.0	.70	.67	.65	.69	.66	.64	.68	.66	.64	.67	.65	.63	.66	.64	.63	.62
6.0	.67	.65	.63	.67	.64	.62	.66	.64	.62	.65	.63	.62	.64	.63	.61	.60
7.0	.65	.63	.61	.65	.62	.61	.64	.62	.60	.64	.61	.60	.63	.61	.60	.59
8.0	.64	.61	.59	.63	.61	.59	.63	.60	.59	.62	.60	.58	.62	.60	.58	.58
9.0	.62	.59	.57	.62	.59	.57	.61	.59	.57	.61	.59	.57	.60	.58	.57	.56
10.0	.61	.58	.56	.60	.58	.56	.60	.58	.56	.59	.57	.56	.59	.57	.56	.55



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-C20-3-24-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	.097	.055	.017	.092	.053	.017	.083	.048	.015	.075	.043	.014	.067	.039	.013	
2.0	.089	.049	.015	.085	.047	.014	.078	.043	.013	.071	.040	.012	.065	.037	.012	
3.0	.083	.044	.013	.079	.042	.013	.073	.040	.012	.068	.037	.011	.062	.035	.011	
4.0	.077	.040	.012	.074	.039	.011	.069	.037	.011	.064	.035	.010	.060	.033	.010	
5.0	.072	.037	.011	.070	.036	.010	.065	.034	.010	.061	.032	.010	.058	.031	.009	
6.0	.068	.034	.010	.066	.033	.010	.062	.032	.009	.059	.030	.009	.055	.029	.009	
7.0	.064	.032	.009	.062	.031	.009	.059	.030	.009	.056	.029	.008	.053	.028	.008	
8.0	.061	.030	.008	.059	.029	.008	.057	.028	.008	.054	.027	.008	.051	.026	.008	
9.0	.058	.028	.008	.057	.028	.008	.054	.027	.008	.052	.026	.007	.050	.025	.007	
10.0	.055	.027	.007	.054	.026	.007	.052	.026	.007	.050	.025	.007	.048	.024	.007	

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	.137	.137	.137	.117	.117	.117	.080	.080	.080	.046	.046	.046	.015	.015	.015	
1.0	.121	.114	.107	.104	.098	.092	.071	.067	.064	.041	.039	.037	.013	.012	.012	
2.0	.108	.096	.085	.092	.082	.074	.063	.057	.051	.037	.033	.030	.012	.011	.010	
3.0	.097	.082	.069	.083	.070	.060	.057	.049	.042	.033	.029	.025	.011	.009	.008	
4.0	.088	.070	.057	.075	.061	.050	.052	.042	.035	.030	.025	.021	.010	.008	.007	
5.0	.080	.062	.048	.069	.053	.042	.047	.037	.029	.027	.022	.017	.009	.007	.006	
6.0	.073	.054	.041	.063	.047	.035	.043	.033	.025	.025	.019	.015	.008	.006	.005	
7.0	.068	.048	.035	.058	.042	.030	.040	.029	.021	.023	.017	.013	.008	.006	.004	
8.0	.063	.043	.030	.054	.038	.026	.037	.026	.019	.022	.016	.011	.007	.005	.004	
9.0	.059	.039	.026	.051	.034	.023	.035	.024	.016	.020	.014	.010	.007	.005	.003	
10.0	.055	.036	.023	.047	.031	.020	.033	.022	.014	.019	.013	.008	.006	.004	.003	

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:

UGR(Unified Glare Rating) Table

NAME: BL7069-C20-3-24-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					-1.6	-1.0	-1.4	-0.9	-0.7	-3.3	-2.7	-3.1	-2.5	-2.4
3H					-1.5	-0.9	-1.3	-0.7	-0.6	-2.9	-2.3	-2.6	-2.1	-1.9
4H					-1.4	-0.9	-1.2	-0.7	-0.5	-2.5	-2.0	-2.3	-1.8	-1.6
6H					-1.3	-0.8	-1.0	-0.5	-0.3	-2.0	-1.5	-1.8	-1.3	-1.1
8H					-1.2	-0.7	-0.9	-0.5	-0.2	-1.7	-1.2	-1.4	-1.0	-0.7
12H					-1.0	-0.5	-0.7	-0.3	-0.0	-1.5	-1.0	-1.1	-0.7	-0.4
4H 2H					-1.6	-1.1	-1.4	-0.9	-0.7	-3.2	-2.6	-2.9	-2.4	-2.2
3H					-1.4	-0.9	-1.1	-0.7	-0.4	-2.6	-2.1	-2.3	-1.8	-1.6
4H					-1.2	-0.8	-0.9	-0.5	-0.2	-2.1	-1.6	-1.7	-1.3	-1.0
6H					-1.0	-0.6	-0.6	-0.3	0.1	-1.4	-1.0	-1.0	-0.7	-0.3
8H					-0.8	-0.4	-0.4	-0.1	0.3	-1.0	-0.6	-0.6	-0.3	0.1
12H					-0.4	-0.1	-0.0	0.3	0.7	-0.6	-0.2	-0.2	0.1	0.5
8H 4H					-1.2	-0.8	-0.8	-0.4	-0.1	-1.9	-1.6	-1.5	-1.2	-0.9
6H					-0.7	-0.4	-0.3	0.0	0.4	-1.0	-0.7	-0.6	-0.3	0.1
8H					-0.3	-0.0	0.1	0.4	0.8	-0.5	-0.2	-0.0	0.2	0.7
12H					0.3	0.5	0.7	0.9	1.4	0.1	0.3	0.5	0.8	1.2
12H 4H					-1.2	-0.8	-0.8	-0.4	-0.1	-1.9	-1.6	-1.5	-1.2	-0.8
6H					-0.6	-0.3	-0.2	0.1	0.5	-1.0	-0.7	-0.5	-0.3	0.2
8H					-0.1	0.1	0.3	0.5	1.0	-0.3	-0.1	0.2	0.4	0.8
Variations with the observer position at spacings(CIE Pub.117):														
S = 1.0H					+ 1.9 / - 1.3					+ 0.5 / - 0.6				
1.5H					+ 2.6 / - 1.5					+ 0.6 / - 0.4				
2.0H					+ 3.5 / - 1.7					+ 0.8 / - 0.8				

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-C20-3-24-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

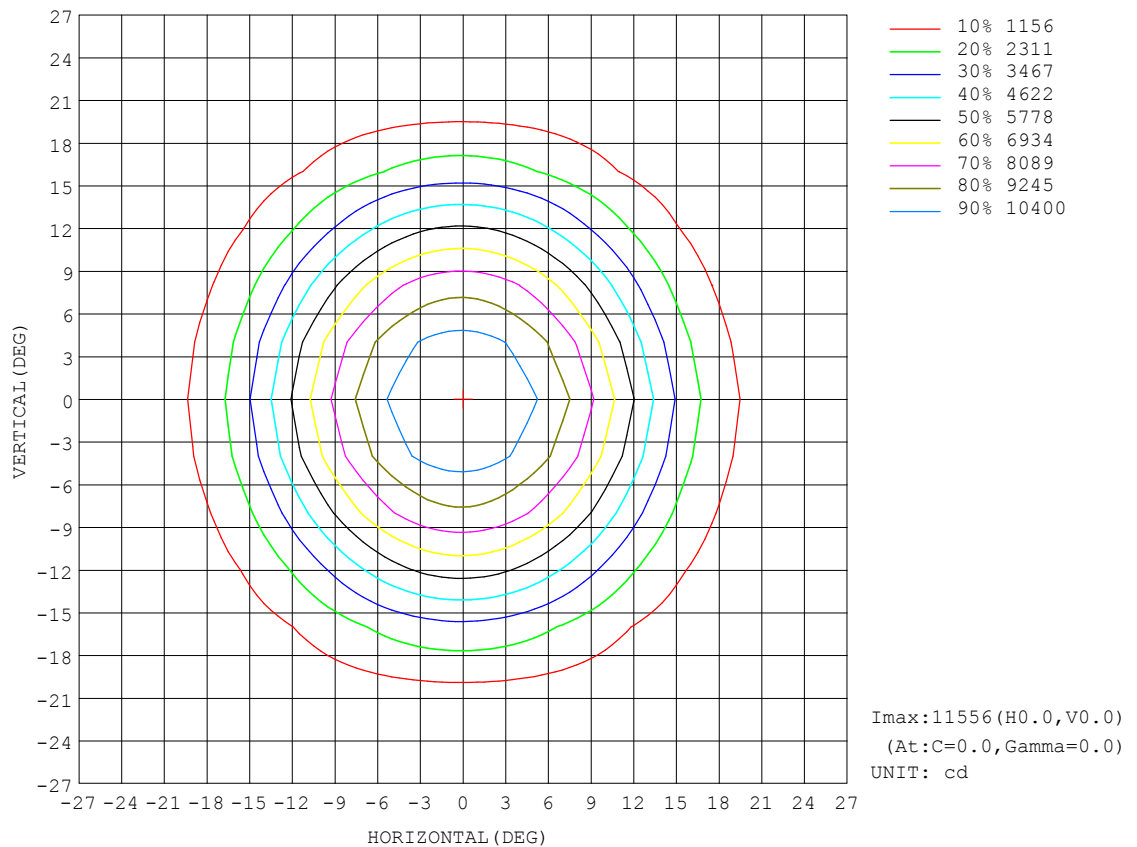
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	65	60	58	64	60	58	64	60	58	55
0.80	70	66	63	69	66	63	68	65	63	61
1.00	73	69	66	72	69	66	71	68	66	63
1.25	75	72	69	75	71	69	73	71	69	66
1.50	77	74	72	76	73	71	75	72	71	67
2.00	79	76	74	78	75	73	76	74	72	68
2.50	80	77	75	79	76	75	77	75	73	69
3.00	81	79	77	80	78	76	77	76	74	70
4.00	82	80	79	81	79	78	78	77	76	71
5.00	83	82	80	82	80	79	79	78	77	72
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended				SHRNOM = 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(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:

ISOCANDELA DIAGRAM

NAME: BL7069-C20-3-24-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

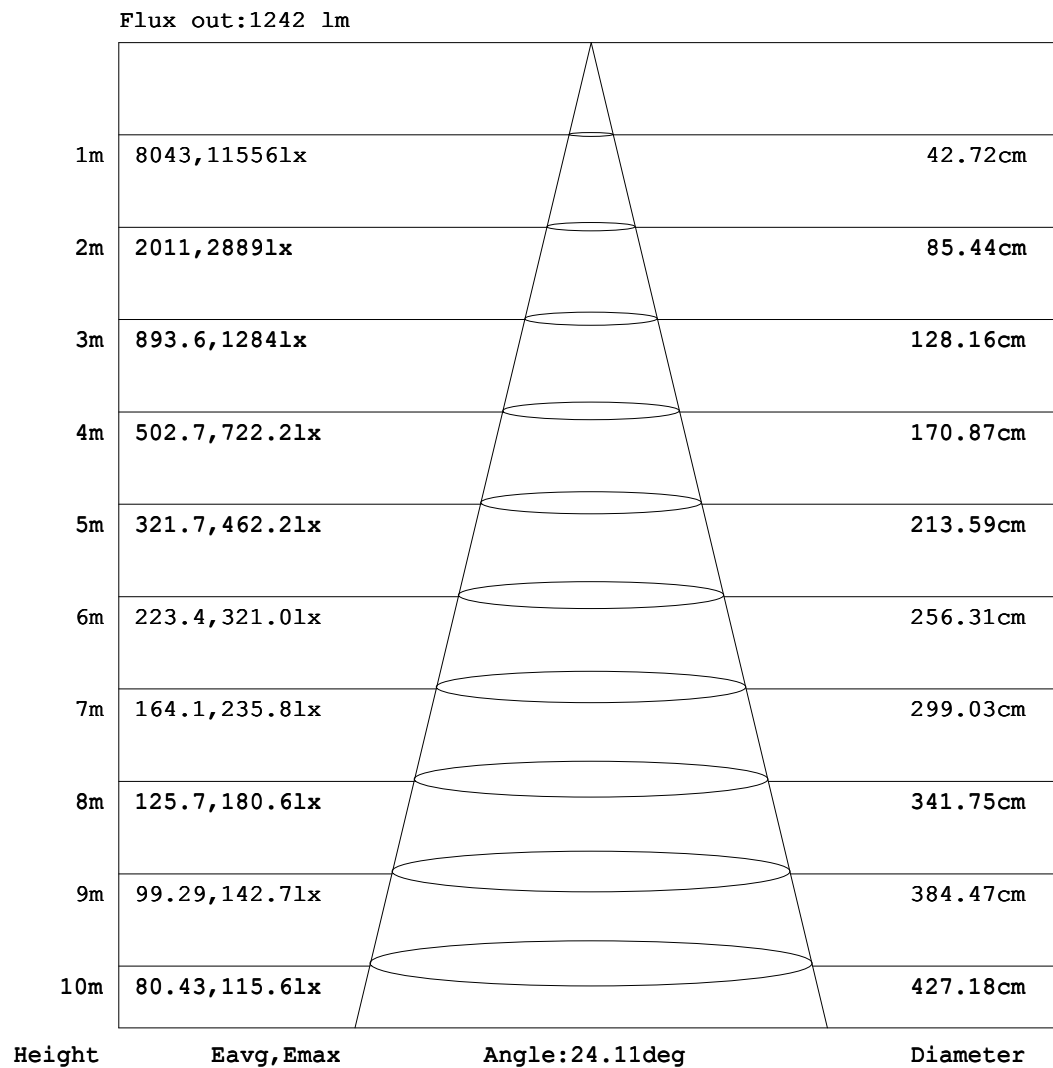


H(β) Range:-90 - 90DEG
H(β) Interval: 0.5DEG
Test Speed: MEDIUM
Temperature:25.3℃
Operators:ZT
Test Date:2024-01-22

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 Figure

NAME: BL7069-C20-3-24-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



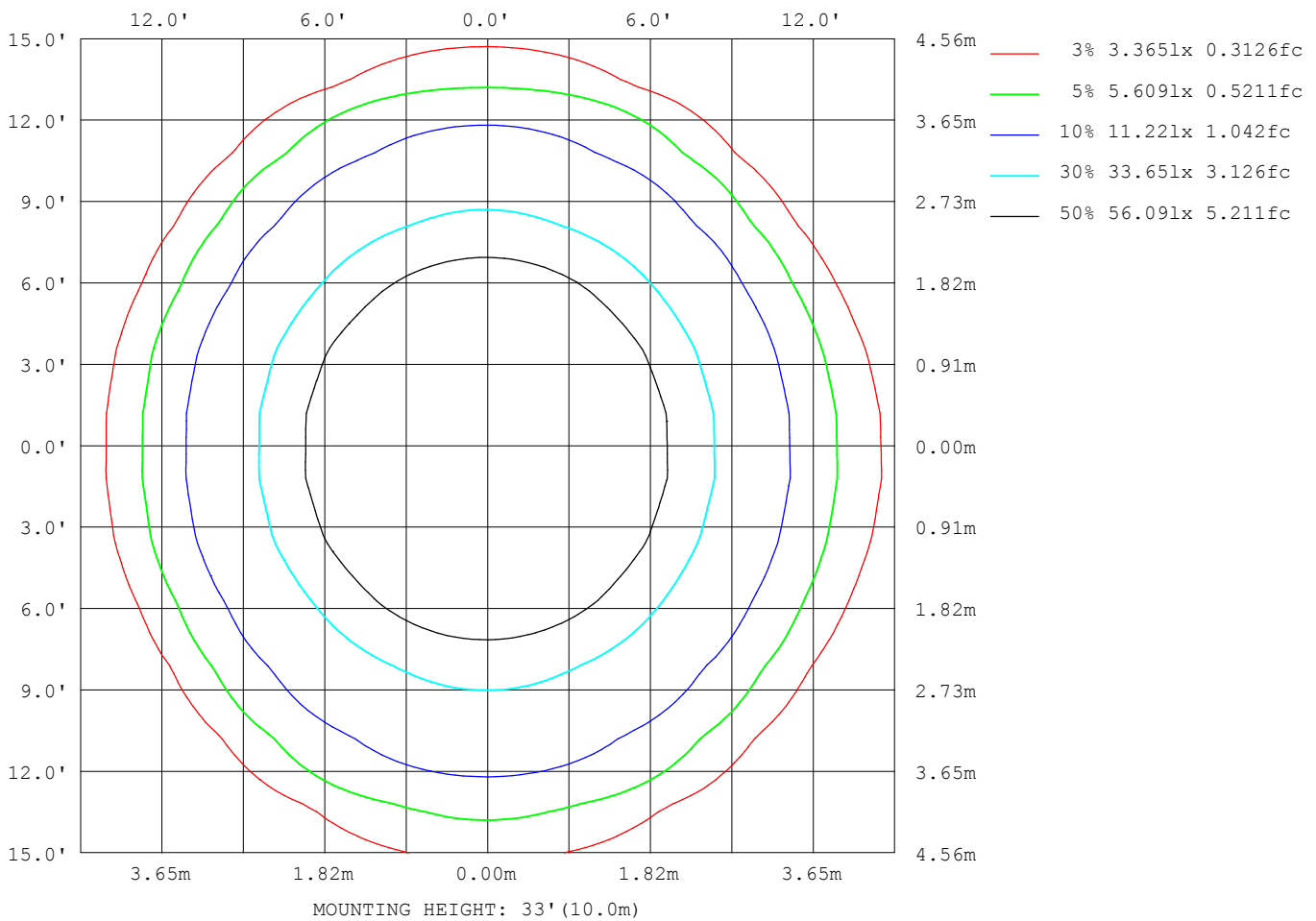
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

V(β) Range: -85 - 85 DEG
V(β) Interval: 2.0 DEG
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-C20-3-24-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-C20-3-24-NS	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

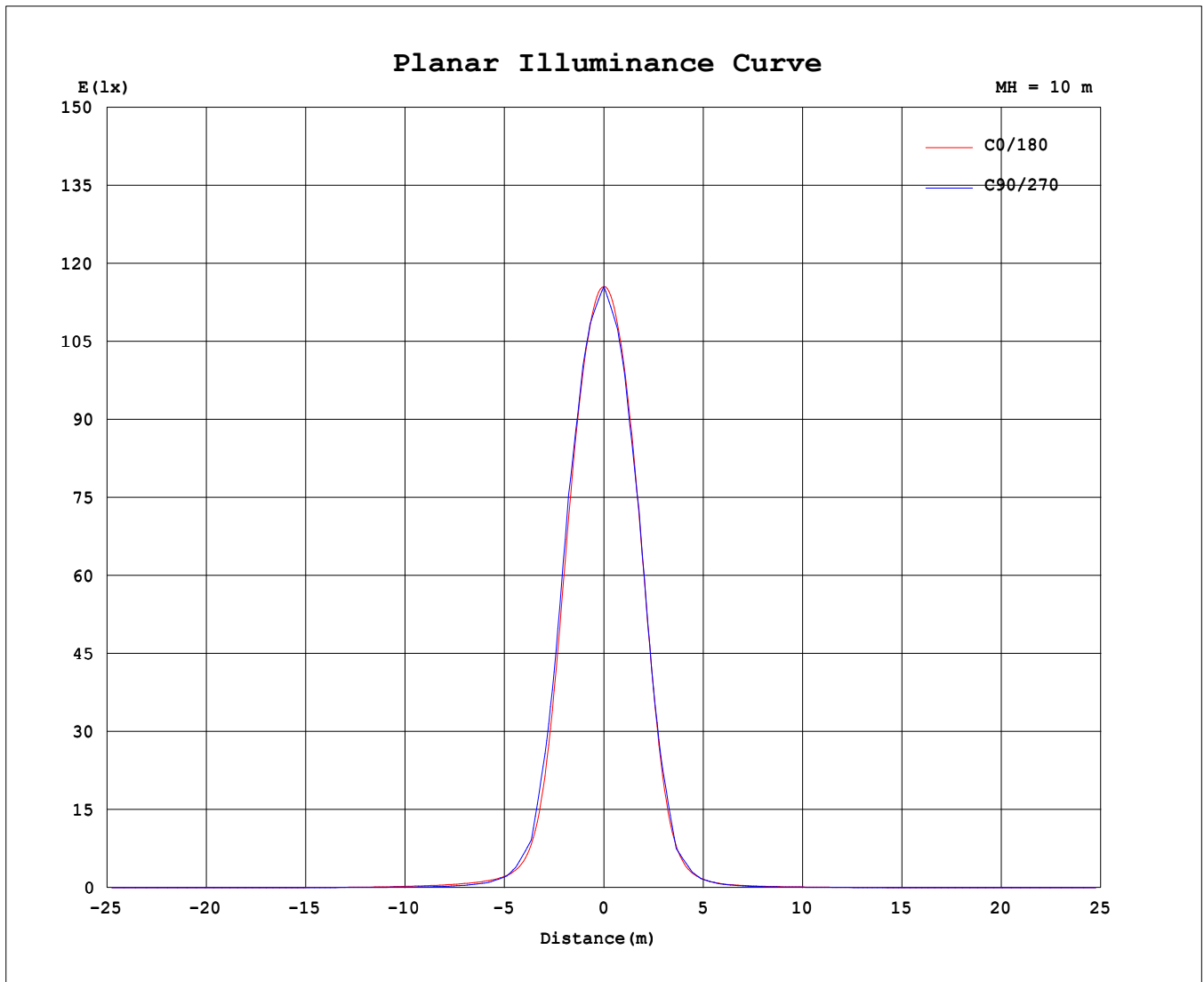
AvgL	cd/m2
L_0~180 (65) av	316
L_0~180 (75) av	346
L_0~180 (85) av	766
L_90~270 (65) av	145
L_90~270 (75) av	148
L_90~270 (85) av	162
L_45 (65) av	142
L_45 (75) av	150
L_45 (85) av	303

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
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Remarks:
```