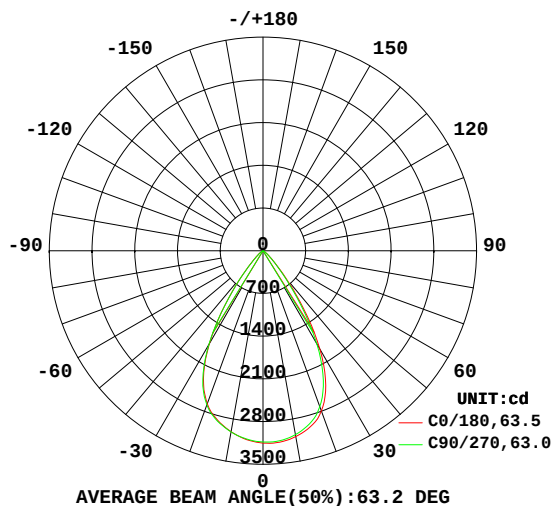


LUMINAIRE PHOTOMETRIC TEST REPORT

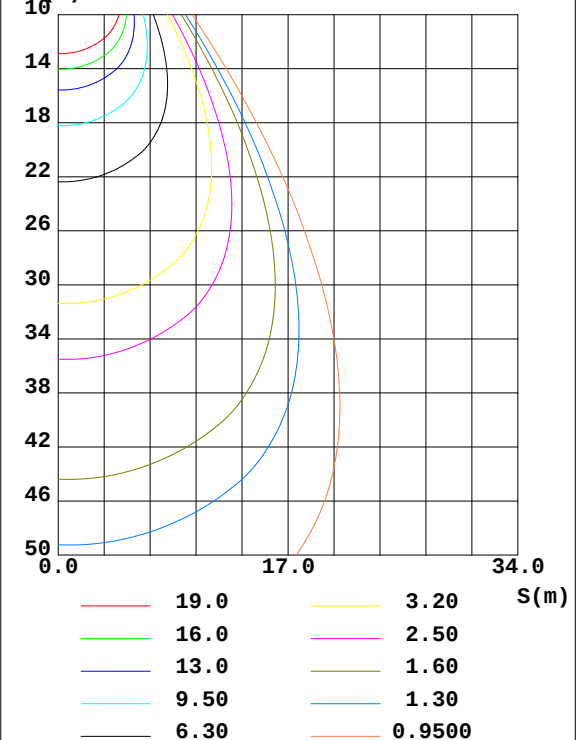
Test:U:220.41V I:0.1544A P:33.296W PF:0.9783 Freq:50.01Hz Lamp Flux:3134.77x1 lm		
NAME: BJ31-BKTC30C023P	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 72mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 94.15 lm/W
MODEL	TB25171211 3000K	I _{max} (cd)	3157	S/MH(C0/180)	0.93	
NOMINAL POWER(W)	35	LOR(%)	100.0	S/MH(C90/270)	0.93	
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	3134.8	η UP, DN(C0-180)	0.0, 50.4	
NOMINAL FLUX(lm)	3134.77	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.6	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.95	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-03

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

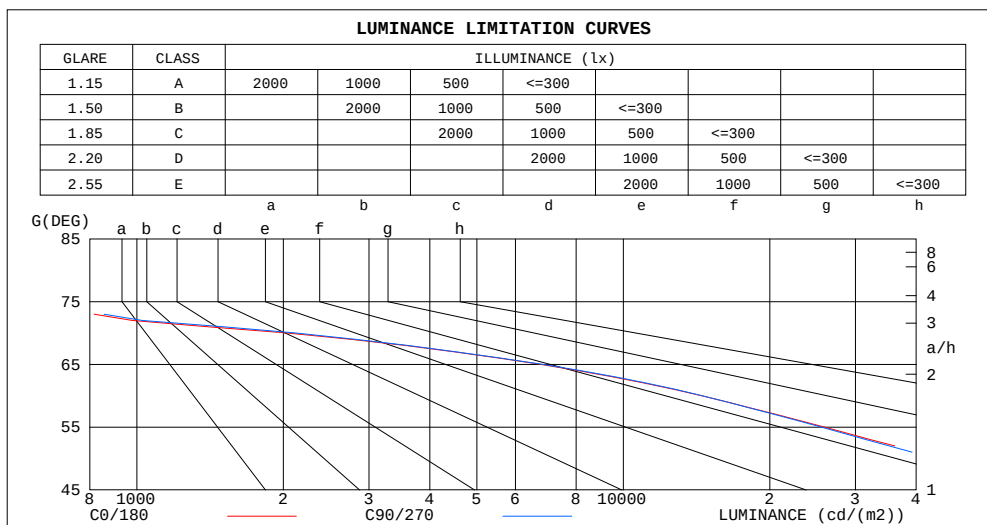
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3093	3089	3060	3023	3013	2992	3014	3052	0- 10	294.7	294.7	9.4,9.4
20	2797	2786	2721	2658	2669	2662	2690	2743	10- 20	818.4	1113	35.5,35.5
30	1870	1854	1768	1689	1757	1756	1775	1810	20- 30	1057	2170	69.2,69.2
40	577.8	592.3	527.1	490.2	530.5	542.0	522.3	539.5	30- 40	690.4	2861	91.3,91.3
50	119.8	125.3	115.7	107.3	112.2	113.5	108.3	110.2	40- 50	203.7	3064	97.8,97.8
60	29.47	31.00	29.51	28.58	29.65	30.01	28.45	28.56	50- 60	55.95	3120	99.5,99.5
70	2.827	2.978	2.942	3.054	3.207	3.326	3.042	2.942	60- 70	13.09	3133	100,100
80	0.4909	0.5026	0.4525	0.5066	0.3967	0.3697	0.3736	0.3504	70- 80	1.038	3135	100,100
90	0.2548	0.2548	0.2471	0.2548	0.0849	0.0811	0.0733	0.0695	80- 90	0.2468	3135	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:cd									UNIT: lm		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2023-11-03

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.41V I:0.1544A P:33.296W PF:0.9783 Freq:50.01Hz Lamp Flux:3134.77x1 lm		
NAME: BJ31-BKTC30C023P	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 72mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	752	708
80	695	640
75	701	716
70	2031	2114
65	6750	6811
60	14479	14502
55	25883	25504
50	45791	44243
45	87887	81891

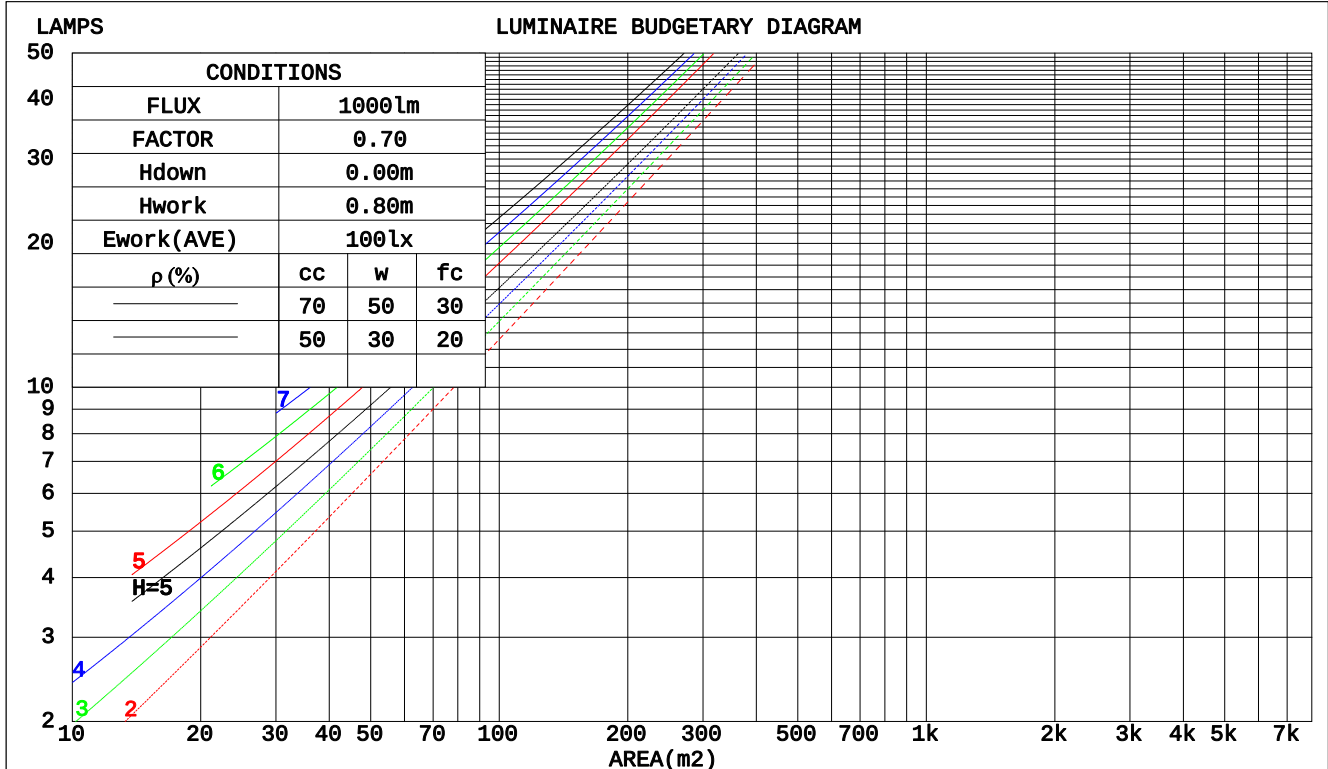
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2023-11-03

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.41V I:0.1544A P:33.296W PF:0.9783 Freq:50.01Hz Lamp Flux:3134.77x1 lm		
NAME: BJ31-BKTC30C023P	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 72mm	Shielding Angle:

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	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2023-11-03

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:220.41V I:0.1544A P:33.296W PF:0.9783 Freq:50.01Hz Lamp Flux:3134.77x1 lm					
NAME: BJ31-BKTC30C023P			TYPE:		WEIGHT:
SPEC.: black RA90 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.: 72mm		Shielding Angle:

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	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.181	.103	.033	.174	.099	.032	.161	.093	.030	.150	.086	.028	.139	.081	.026	
2.0	.174	.095	.029	.168	.093	.029	.158	.088	.027	.148	.083	.026	.139	.079	.025	
3.0	.166	.089	.027	.161	.086	.026	.152	.083	.025	.144	.079	.024	.136	.075	.023	
4.0	.159	.083	.024	.155	.081	.024	.147	.078	.023	.139	.075	.023	.133	.072	.022	
5.0	.152	.077	.022	.148	.076	.022	.141	.073	.022	.135	.071	.021	.129	.069	.021	
6.0	.145	.073	.021	.142	.072	.021	.136	.069	.020	.130	.067	.020	.125	.066	.019	
7.0	.138	.068	.019	.136	.068	.019	.130	.066	.019	.125	.064	.019	.120	.063	.018	
8.0	.133	.065	.018	.130	.064	.018	.125	.063	.018	.121	.061	.018	.116	.060	.017	
9.0	.127	.061	.017	.125	.061	.017	.120	.060	.017	.116	.058	.017	.113	.057	.017	
10.0	.122	.058	.016	.120	.058	.016	.116	.057	.016	.112	.056	.016	.109	.055	.016	

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	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	.171	.157	.145	.147	.135	.124	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.157	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.145	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.135	.099	.072	.115	.086	.062	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.126	.087	.059	.108	.076	.051	.075	.053	.036	.043	.031	.021	.014	.010	.007	
6.0	.119	.078	.049	.102	.068	.043	.071	.047	.030	.041	.028	.018	.013	.009	.006	
7.0	.113	.071	.041	.097	.061	.036	.067	.043	.026	.039	.025	.015	.013	.008	.005	
8.0	.107	.065	.035	.092	.056	.031	.064	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.102	.059	.031	.088	.052	.027	.061	.036	.019	.035	.021	.011	.011	.007	.004	
10.0	.098	.055	.027	.084	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-03

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.41V I:0.1544A P:33.296W PF:0.9783 Freq:50.01Hz Lamp Flux:3134.77x1 lm											
NAME: BJ31-BKTC30C023P						TYPE:		WEIGHT:			
SPEC.: black RA90 3000K+5700K						DIM.:		SERIAL No.:			
MFR.:						SUR.: 72mm		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	2H	20.7	21.7	20.9	21.9	22.0	20.5	21.4	20.7	21.6	21.8
	3H	20.5	21.4	20.8	21.6	21.9	20.3	21.2	20.5	21.4	21.6
	4H	20.5	21.3	20.7	21.5	21.8	20.2	21.0	20.5	21.3	21.5
	6H	20.4	21.2	20.7	21.4	21.7	20.1	20.9	20.4	21.1	21.4
	8H	20.3	21.1	20.6	21.3	21.6	20.1	20.8	20.4	21.1	21.3
	12H	20.3	21.0	20.6	21.3	21.6	20.0	20.7	20.3	21.0	21.3
4H	2H	20.5	21.3	20.8	21.5	21.8	20.2	21.1	20.5	21.3	21.5
	3H	20.3	21.0	20.6	21.3	21.6	20.0	20.8	20.4	21.0	21.3
	4H	20.2	20.9	20.6	21.2	21.5	19.9	20.6	20.3	20.9	21.2
	6H	20.1	20.7	20.5	21.0	21.4	19.9	20.4	20.2	20.8	21.1
	8H	20.1	20.6	20.5	21.0	21.3	19.8	20.3	20.2	20.7	21.1
	12H	20.0	20.5	20.4	20.9	21.3	19.8	20.2	20.2	20.6	21.0
8H	4H	20.1	20.6	20.5	21.0	21.3	19.8	20.3	20.2	20.7	21.1
	6H	20.0	20.4	20.4	20.8	21.2	19.7	20.1	20.1	20.5	20.9
	8H	19.9	20.3	20.4	20.7	21.2	19.7	20.0	20.1	20.5	20.9
	12H	19.9	20.2	20.3	20.6	21.1	19.6	19.9	20.1	20.4	20.8
12H	4H	20.0	20.5	20.4	20.9	21.3	19.8	20.2	20.2	20.6	21.0
	6H	19.9	20.3	20.4	20.7	21.2	19.7	20.0	20.1	20.5	20.9
	8H	19.9	20.2	20.3	20.6	21.1	19.6	19.9	20.1	20.4	20.8
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 3.2 / -10.1					+ 3.0 / - 9.7					
1.5H	+ 5.2 / - 7.1					+ 4.9 / - 6.9					
2.0H	+ 5.4 / - 7.7					+ 5.2 / - 7.6					

CIE Pub.117, 3135 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 4.0)
Area: 0.00407 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-03

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.41V I:0.1544A P:33.296W PF:0.9783 Freq:50.01Hz Lamp Flux:3134.77x1 lm		
NAME: BJ31-BKTC30C023P	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 72mm	Shielding Angle:

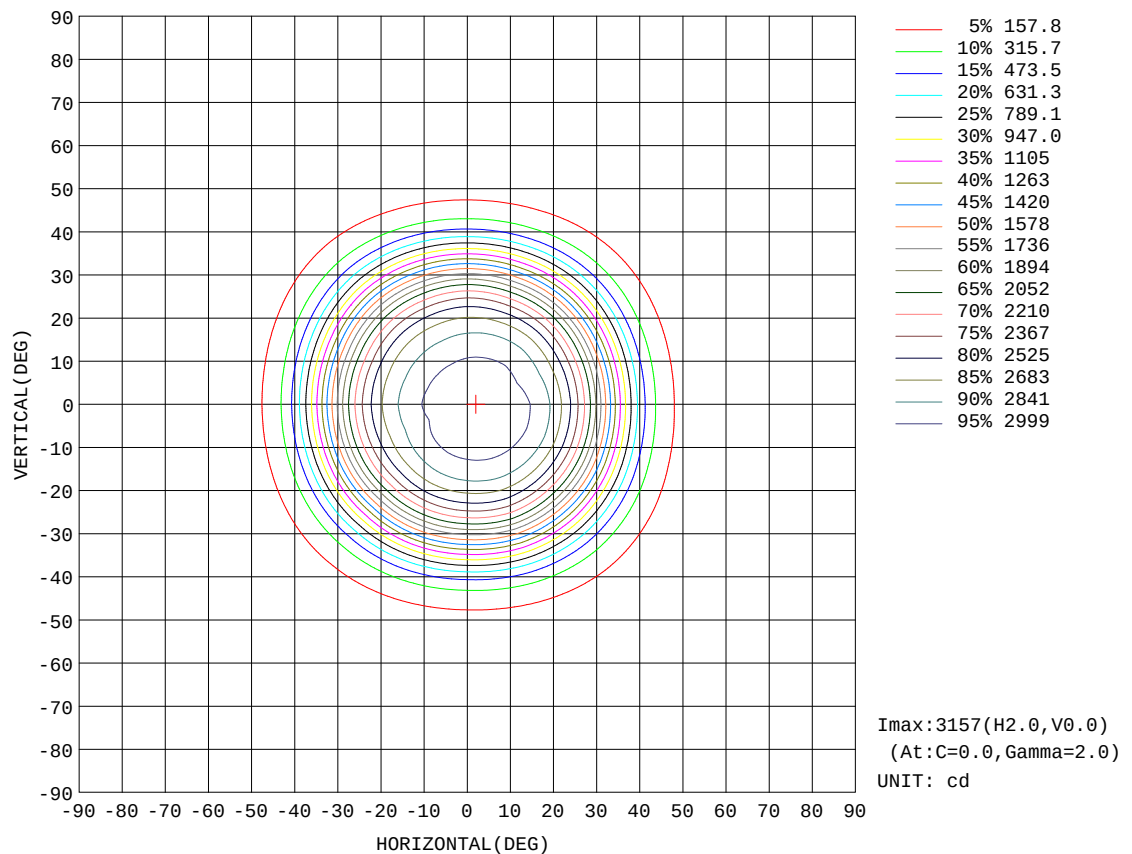
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	79	75	85	79	75	85	79	75	72
0.80	94	88	84	93	87	84	92	87	83	79
1.00	99	93	89	98	92	89	96	92	88	84
1.25	103	97	94	102	97	93	100	96	93	88
1.50	106	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	99	93
2.50	110	106	103	108	105	102	105	103	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	105	97
5.00	115	113	111	113	111	109	109	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-03

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.41V I:0.1544A P:33.296W PF:0.9783 Freq:50.01Hz Lamp Flux:3134.77x1 lm		
NAME: BJ31-BKTC30C023P	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 72mm	Shielding Angle:

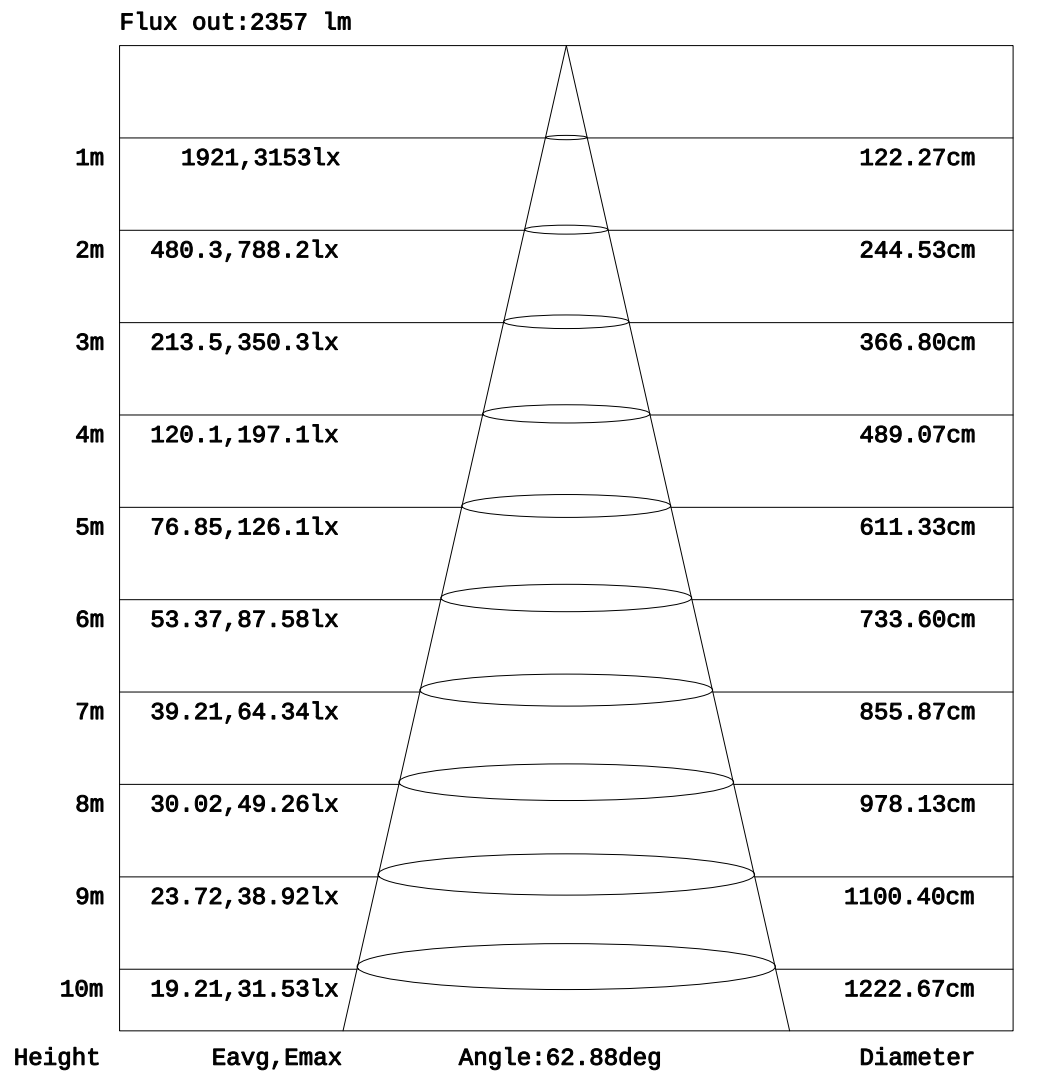


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2023-11-03

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.41V I:0.1544A P:33.296W PF:0.9783 Freq:50.01Hz Lamp Flux:3134.77x1 lm		
NAME: BJ31-BKTC30C023P	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 72mm	Shielding Angle:



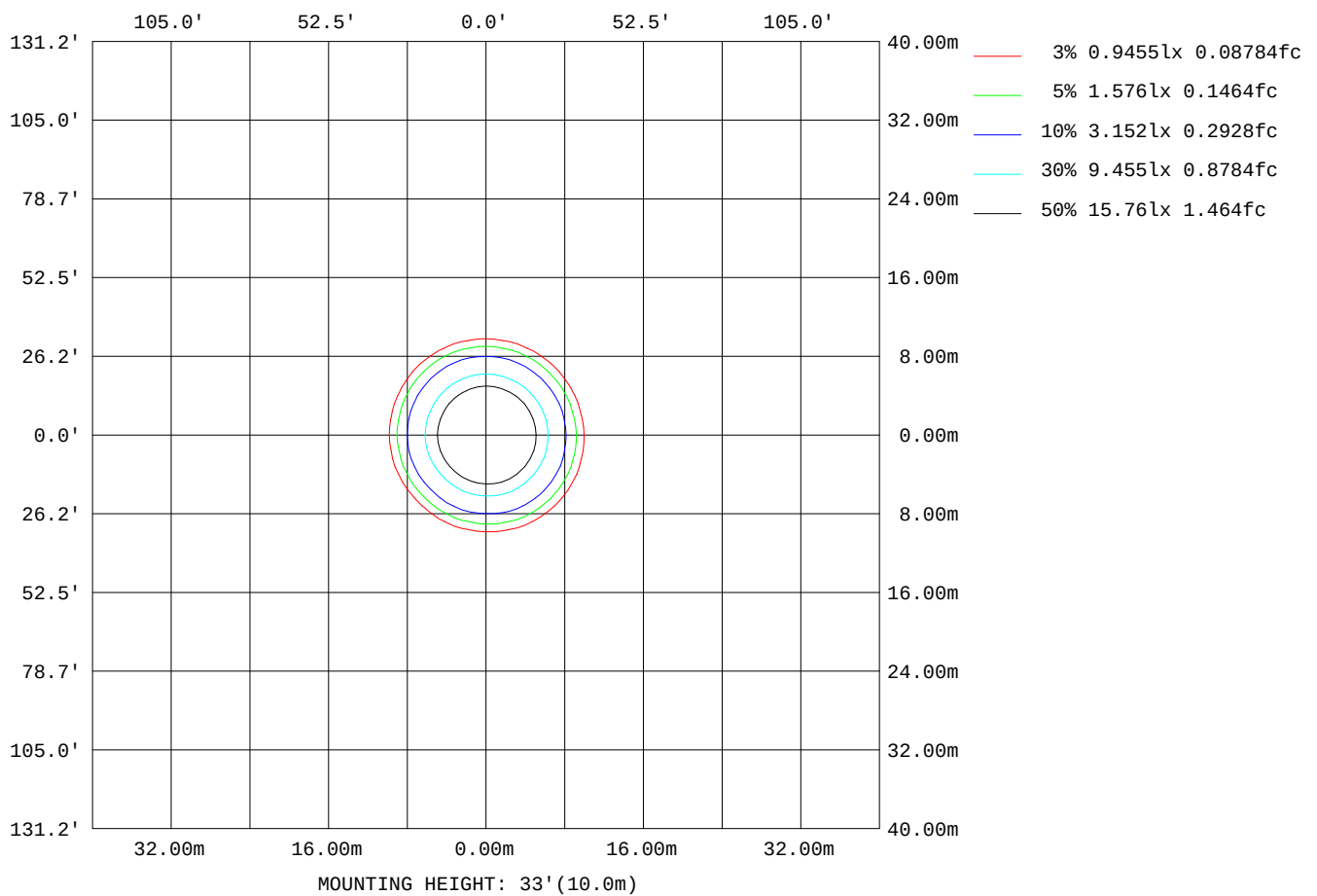
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-03

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:220.41V I:0.1544A P:33.296W PF:0.9783 Freq:50.01Hz Lamp Flux:3134.77x1 lm		
NAME: BJ31-BKTC30C023P	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 72mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-03

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:220.41V I:0.1544A P:33.296W PF:0.9783 Freq:50.01Hz Lamp Flux:3134.77x1 lm		
NAME: BJ31-BKTC30C023P	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 72mm	Shielding Angle:

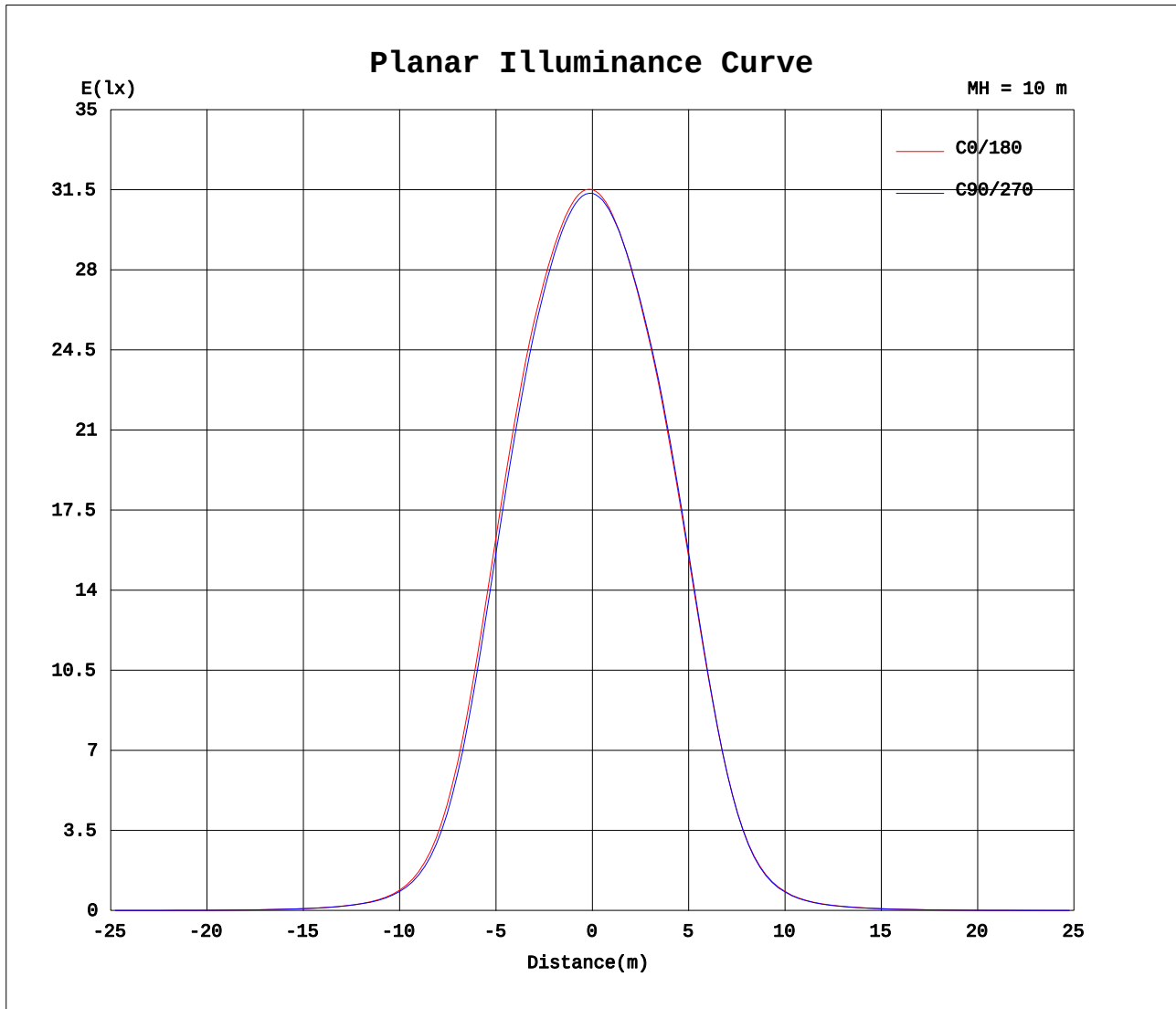
AvgL	cd/m2
L_0~180(65)av	6893
L_0~180(75)av	676
L_0~180(85)av	550
L_90~270(65)av	6802
L_90~270(75)av	667
L_90~270(85)av	501
L_45(65)av	6939
L_45(75)av	692
L_45(85)av	530

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-03

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2023-11-03

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

```