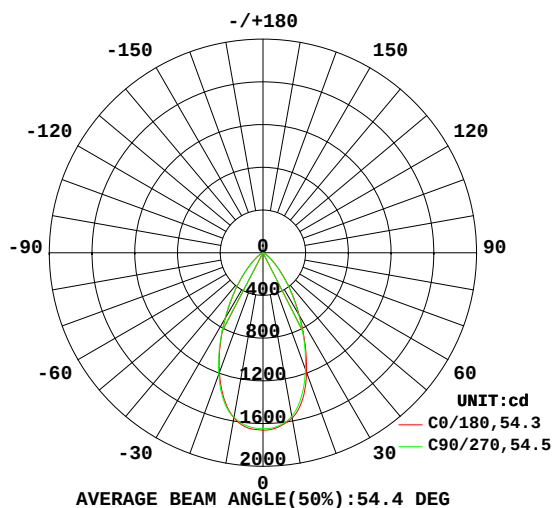


LUMINAIRE PHOTOMETRIC TEST REPORT

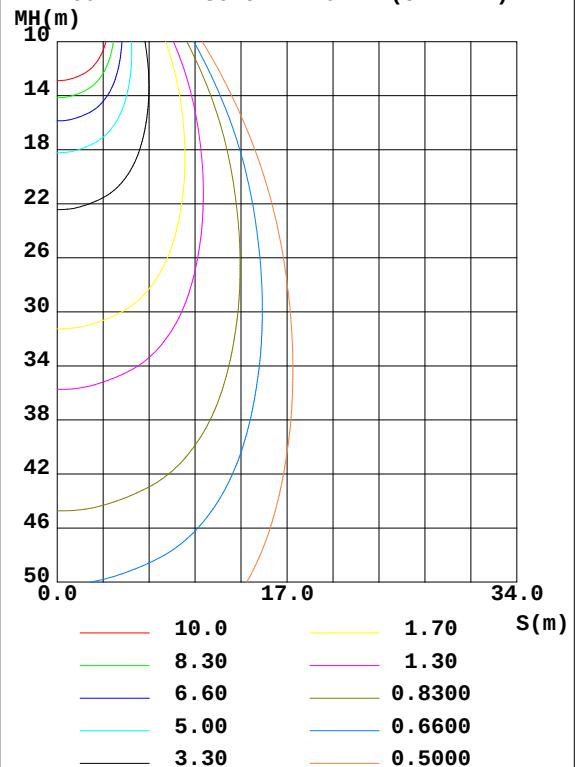
Test:U:232.00V I:0.0564A P:12.383W PF:0.9463 Freq:49.99Hz Lamp Flux:1501.5x1 lm		
NAME: DL1008-BKTC12S03	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 115mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 121.26 lm/W			
MODEL	2835 48 3000K	I _{max} (cd)	1660	S/MH(C0/180)	0.84
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	0.85
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	1501.5	η UP, DN(C0-180)	0.0, 49.4
NOMINAL FLUX(lm)	1501.5	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.85

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: 2025-07-19

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

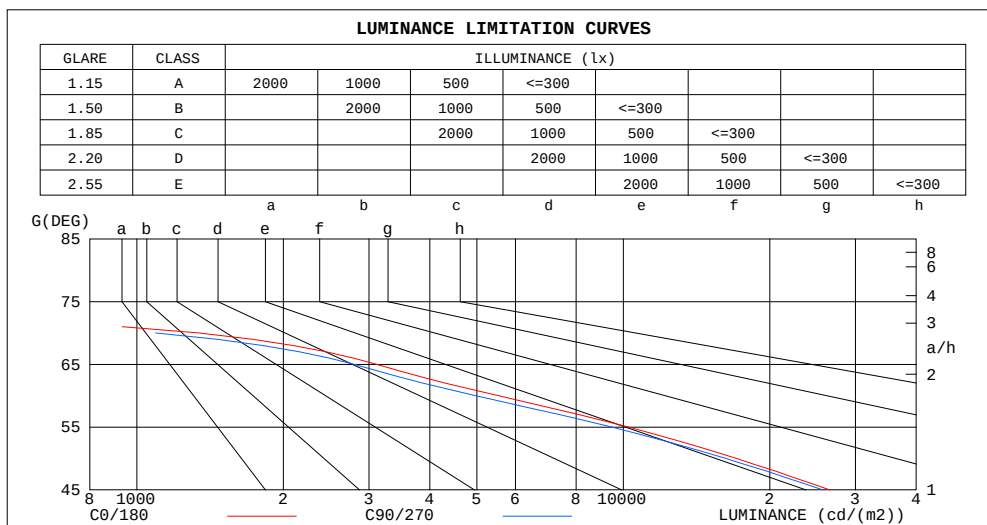
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1572	1557	1554	1550	1570	1566	1565	1555	0- 10	153.5	153.5	10.2,10.2
20	1192	1168	1162	1173	1194	1205	1210	1195	10- 20	390.6	544.0	36.2,36.2
30	685.4	680.0	672.4	674.9	706.1	711.3	712.4	704.1	20- 30	426.3	970.3	64.6,64.6
40	318.8	314.7	309.9	311.5	326.4	332.0	332.3	327.2	30- 40	305.4	1276	85,85
50	114.0	110.1	108.5	108.9	113.7	116.1	117.0	115.4	40- 50	155.1	1431	95.3,95.3
60	28.77	26.19	25.82	26.34	27.68	28.75	29.49	29.56	50- 60	56.00	1487	99,99
70	4.763	4.040	3.884	3.995	4.447	4.855	5.163	5.204	60- 70	13.87	1501	99.9,99.9
80	0.0230	0.0230	0.0184	0.0184	0.0046	0	0.0046	0	70- 80	0.8043	1501	100,100
90	0	0	0	0	0.0092	0	0.0046	0.0046	80- 90	0.0041	1501	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:2025-07-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.880m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:232.00V I:0.0564A P:12.383W PF:0.9463 Freq:49.99Hz Lamp Flux:1501.5x1 lm		
NAME: DL1008-BKTC12S03	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 115mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	5	0
80	13	10
75	26	22
70	1340	1093
65	3108	2796
60	5537	4970
55	10243	9470
50	17070	16244
45	26582	25719

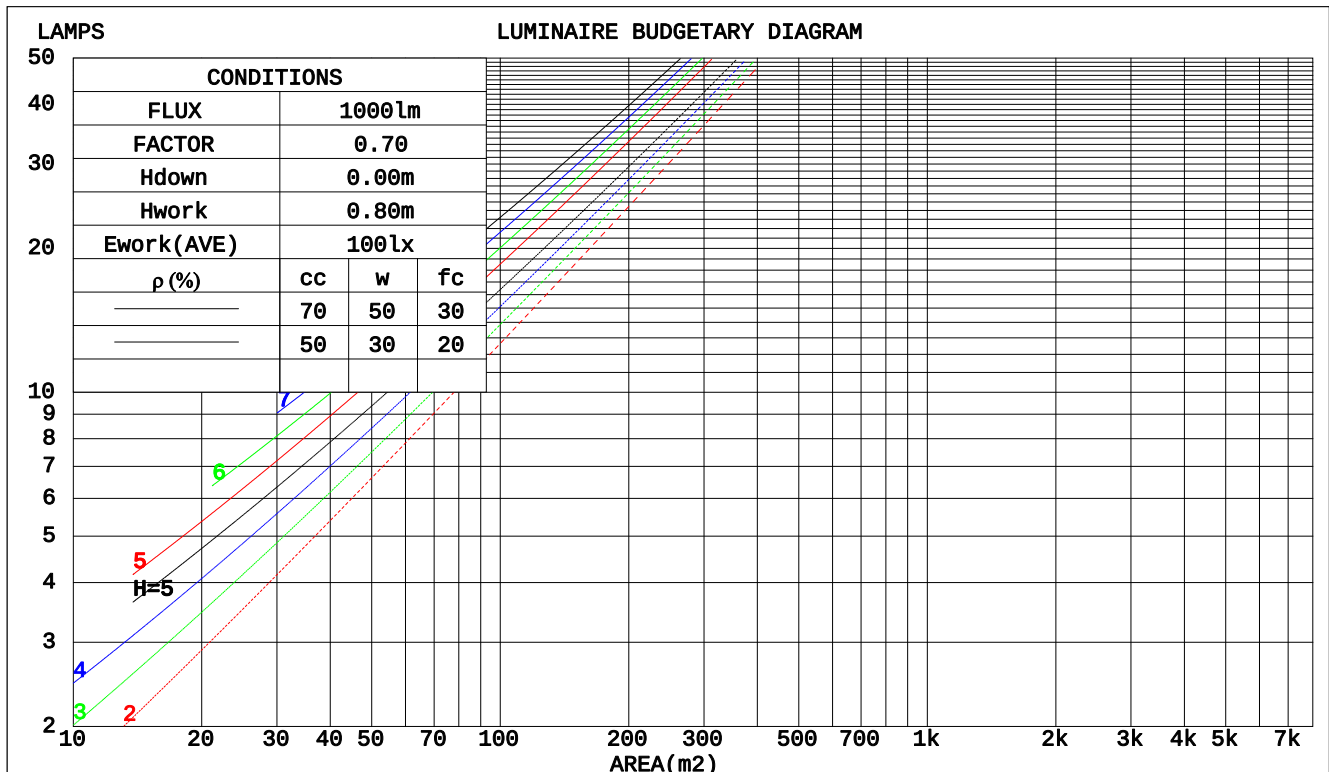
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-07-19

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:232.00V I:0.0564A P:12.383W PF:0.9463 Freq:49.99Hz Lamp Flux:1501.5x1 lm		
NAME: DL1008-BKTC12S03	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 115mm	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						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.10	1.08	1.05	1.08	1.06	1.04	1.04	1.02	1.00	1.00	.99	.97	.97	.96	.95	.93
2.0	1.02	.98	.94	1.00	.96	.93	.97	.94	.91	.94	.91	.89	.91	.89	.87	.86
3.0	.95	.89	.85	.93	.88	.84	.90	.86	.83	.88	.85	.82	.86	.83	.80	.79
4.0	.88	.82	.78	.87	.81	.77	.84	.80	.76	.82	.78	.75	.81	.77	.74	.73
5.0	.82	.76	.71	.81	.75	.71	.79	.74	.70	.77	.73	.70	.76	.72	.69	.67
6.0	.76	.70	.66	.76	.70	.65	.74	.69	.65	.73	.68	.64	.71	.67	.64	.62
7.0	.72	.65	.61	.71	.65	.61	.70	.64	.60	.68	.64	.60	.67	.63	.60	.58
8.0	.67	.61	.57	.67	.61	.56	.65	.60	.56	.64	.60	.56	.63	.59	.56	.54
9.0	.63	.57	.53	.63	.57	.53	.62	.56	.53	.61	.56	.52	.60	.56	.52	.51
10.0	.60	.54	.50	.59	.53	.50	.58	.53	.49	.58	.53	.49	.57	.52	.49	.48



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-07-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:232.00V I:0.0564A P:12.383W PF:0.9463 Freq:49.99Hz Lamp Flux:1501.5x1 lm					
NAME: DL1008-BKTC12S03			TYPE:		WEIGHT:
SPEC.: black RA90 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.: 115mm		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	.187	.106	.034	.180	.103	.033	.167	.096	.031	.156	.090	.029	.145	.084	.027	
2.0	.180	.099	.030	.175	.096	.030	.164	.091	.028	.154	.087	.027	.145	.082	.026	
3.0	.173	.092	.028	.168	.090	.027	.159	.086	.026	.150	.082	.025	.142	.079	.024	
4.0	.165	.086	.025	.160	.084	.025	.152	.081	.024	.145	.078	.023	.138	.075	.023	
5.0	.157	.080	.023	.153	.079	.023	.146	.076	.022	.140	.074	.022	.134	.071	.021	
6.0	.149	.075	.021	.146	.074	.021	.140	.072	.021	.134	.070	.021	.129	.068	.020	
7.0	.143	.070	.020	.140	.070	.020	.134	.068	.020	.129	.066	.019	.124	.065	.019	
8.0	.136	.066	.019	.133	.066	.019	.129	.064	.018	.124	.063	.018	.120	.061	.018	
9.0	.130	.063	.018	.128	.062	.017	.123	.061	.017	.119	.060	.017	.115	.059	.017	
10.0	.124	.060	.017	.122	.059	.016	.118	.058	.016	.115	.057	.016	.111	.056	.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	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.157	.132	.111	.135	.114	.096	.092	.079	.067	.053	.046	.039	.017	.015	.013	
3.0	.146	.114	.088	.125	.098	.076	.086	.068	.054	.050	.040	.032	.016	.013	.010	
4.0	.136	.099	.071	.117	.086	.062	.080	.060	.043	.046	.035	.026	.015	.011	.008	
5.0	.128	.088	.058	.110	.076	.051	.076	.053	.036	.044	.031	.021	.014	.010	.007	
6.0	.121	.079	.048	.104	.068	.042	.071	.048	.030	.041	.028	.018	.013	.009	.006	
7.0	.114	.071	.041	.098	.062	.036	.068	.043	.025	.039	.025	.015	.013	.008	.005	
8.0	.108	.065	.035	.093	.056	.031	.065	.040	.022	.038	.023	.013	.012	.008	.004	
9.0	.103	.060	.030	.089	.052	.027	.062	.036	.019	.036	.022	.011	.012	.007	.004	
10.0	.099	.055	.027	.085	.048	.023	.059	.034	.017	.034	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-07-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:232.00V I:0.0564A P:12.383W PF:0.9463 Freq:49.99Hz Lamp Flux:1501.5x1 lm											
NAME: DL1008-BKTC12S03						TYPE:			WEIGHT:		
SPEC.: black RA90 3000K+5700K						DIM.:			SERIAL No.:		
MFR.:						SUR.: 115mm			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	18.1	19.1	18.3	19.3	19.4	17.9	19.0	18.2	19.1	19.3	
	3H	17.9	18.9	18.2	19.1	19.3	17.8	18.7	18.1	18.9	19.1
	4H	17.8	18.7	18.1	18.9	19.2	17.7	18.6	18.0	18.8	19.0
	6H	17.8	18.6	18.1	18.8	19.1	17.6	18.4	17.9	18.7	18.9
	8H	17.7	18.5	18.0	18.8	19.0	17.6	18.4	17.9	18.6	18.9
	12H	17.7	18.4	18.0	18.7	19.0	17.5	18.3	17.9	18.6	18.8
4H	2H	17.9	18.8	18.2	19.0	19.2	17.8	18.6	18.0	18.9	19.1
	3H	17.7	18.5	18.1	18.8	19.1	17.6	18.4	17.9	18.6	18.9
	4H	17.7	18.3	18.0	18.6	18.9	17.5	18.2	17.9	18.5	18.8
	6H	17.6	18.2	17.9	18.5	18.8	17.4	18.0	17.8	18.4	18.7
	8H	17.5	18.1	17.9	18.4	18.8	17.4	17.9	17.8	18.3	18.7
	12H	17.5	18.0	17.9	18.3	18.7	17.3	17.8	17.7	18.2	18.6
8H	4H	17.5	18.1	17.9	18.4	18.8	17.4	17.9	17.8	18.3	18.7
	6H	17.4	17.9	17.8	18.3	18.7	17.3	17.7	17.7	18.1	18.5
	8H	17.4	17.8	17.8	18.2	18.6	17.2	17.6	17.7	18.0	18.5
	12H	17.3	17.6	17.8	18.1	18.6	17.2	17.5	17.6	18.0	18.4
12H	4H	17.5	18.0	17.9	18.3	18.7	17.3	17.8	17.7	18.2	18.6
	6H	17.4	17.8	17.8	18.2	18.6	17.2	17.6	17.7	18.0	18.5
	8H	17.3	17.6	17.8	18.1	18.6	17.2	17.5	17.6	18.0	18.4
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 2.3 / - 5.9					+ 2.3 / - 6.3					
1.5H	+ 3.2 / - 4.2					+ 3.1 / - 4.3					
2.0H	+ 4.7 / - 7.1					+ 4.7 / - 7.2					

CIE Pub.117, 1501 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 1.4$)
Area: 0.01039 m²

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-07-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:232.00V I:0.0564A P:12.383W PF:0.9463 Freq:49.99Hz Lamp Flux:1501.5x1 lm		
NAME: DL1008-BKTC12S03	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 115mm	Shielding Angle:

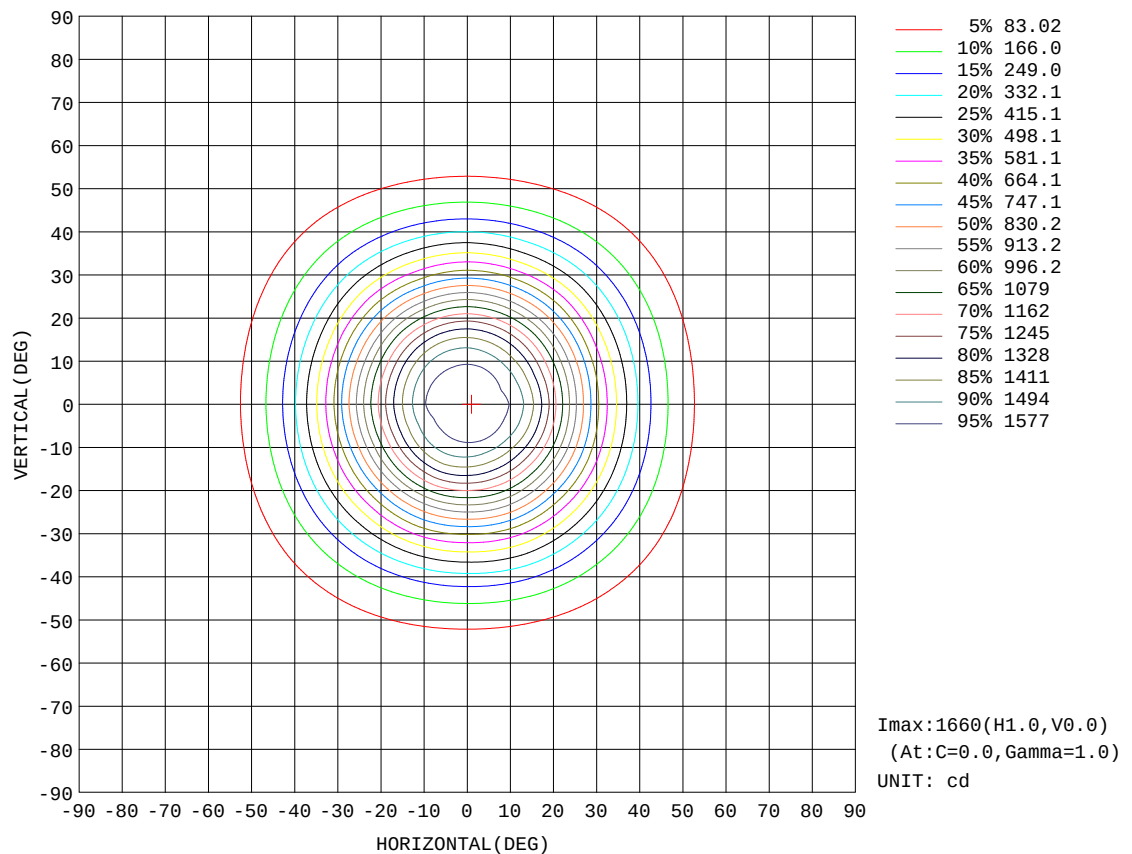
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	82	75	70	81	74	70	80	74	70	66
0.80	90	83	79	90	83	79	88	82	79	74
1.00	96	89	85	95	89	85	93	89	85	80
1.25	101	95	91	99	94	90	97	93	90	85
1.50	104	98	95	102	98	94	100	96	93	88
2.00	107	102	99	106	101	98	103	99	97	91
2.50	109	105	101	107	104	101	104	101	99	93
3.00	111	107	104	109	106	103	106	103	101	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	106	105	97
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:2025-07-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:232.00V I:0.0564A P:12.383W PF:0.9463 Freq:49.99Hz Lamp Flux:1501.5x1 lm		
NAME: DL1008-BKTC12S03	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 115mm	Shielding Angle:

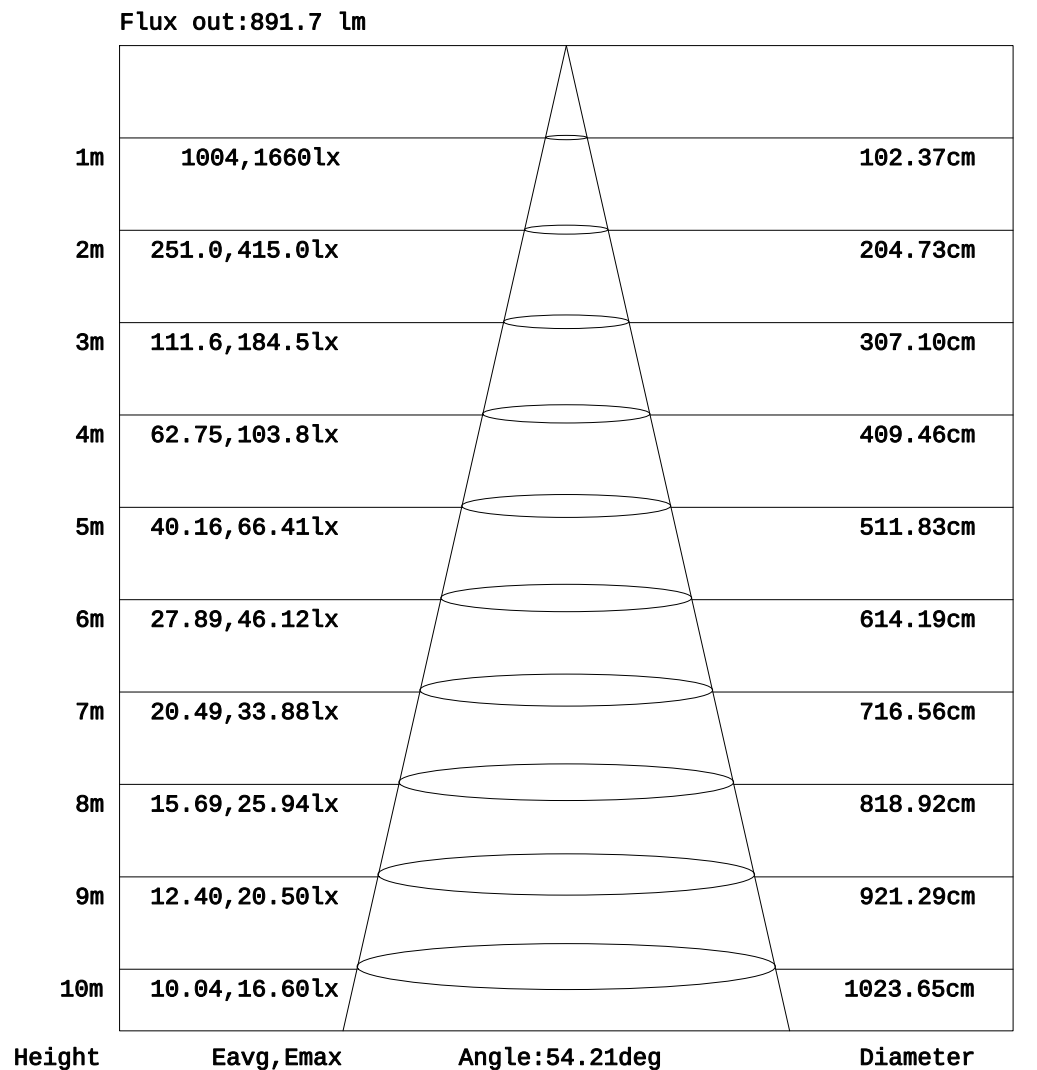


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-07-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

AAI Figure

Test:U:232.00V I:0.0564A P:12.383W PF:0.9463 Freq:49.99Hz Lamp Flux:1501.5x1 lm		
NAME: DL1008-BKTC12S03	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 115mm	Shielding Angle:



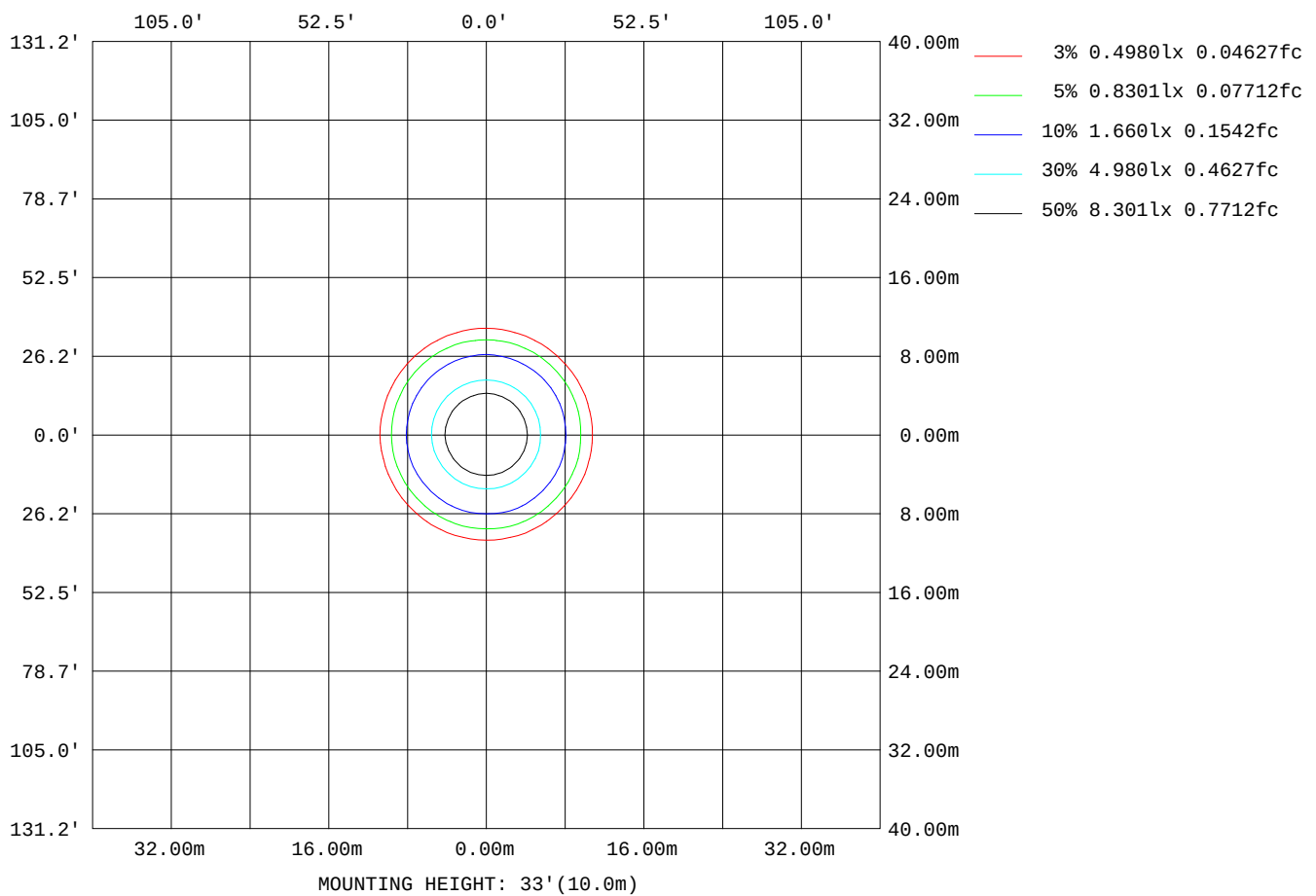
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2025-07-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.880m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:232.00V I:0.0564A P:12.383W PF:0.9463 Freq:49.99Hz Lamp Flux:1501.5x1 lm		
NAME: DL1008-BKTC12S03	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 115mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-07-19

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:232.00V I:0.0564A P:12.383W PF:0.9463 Freq:49.99Hz Lamp Flux:1501.5x1 lm		
NAME: DL1008-BKTC12S03	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 115mm	Shielding Angle:

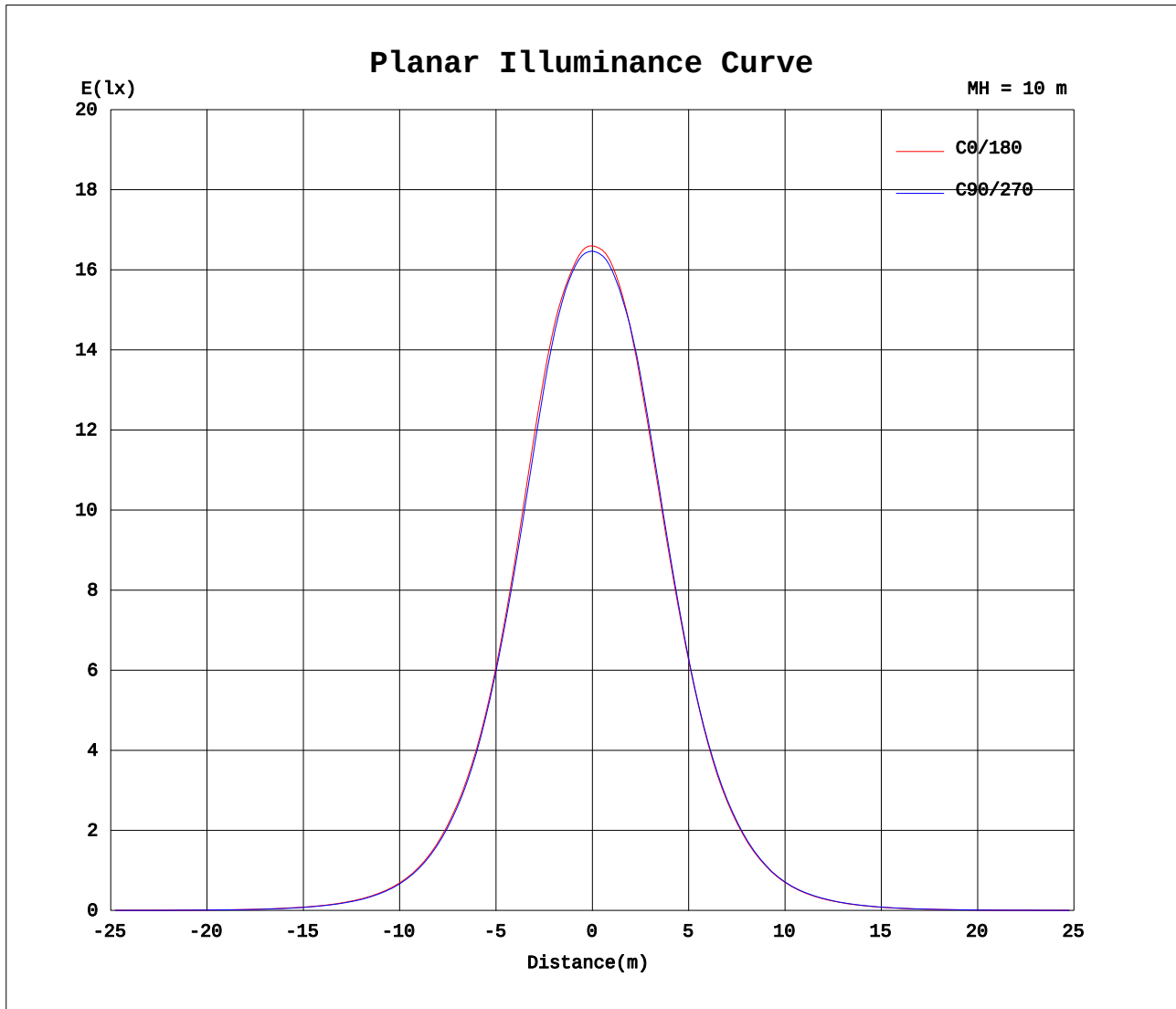
AvgL	cd/m2
L_0~180(65)av	3040
L_0~180(75)av	16
L_0~180(85)av	5
L_90~270(65)av	2994
L_90~270(75)av	13
L_90~270(85)av	3
L_45(65)av	2992
L_45(75)av	12
L_45(85)av	1

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2025-07-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.880m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-07-19

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [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:7.880m [K=1.0000]
Remarks:

```