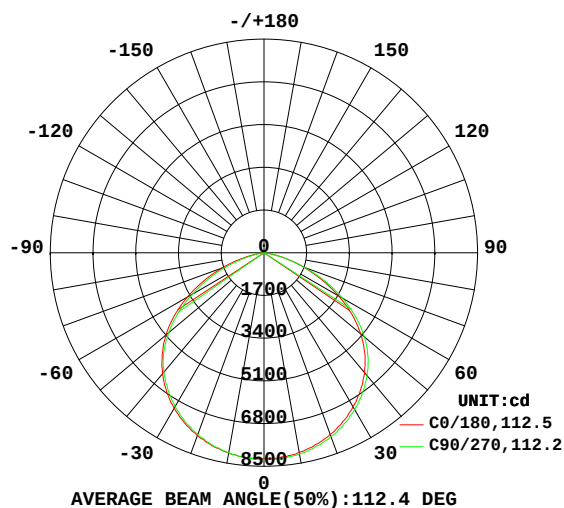


LUMINAIRE PHOTOMETRIC TEST REPORT

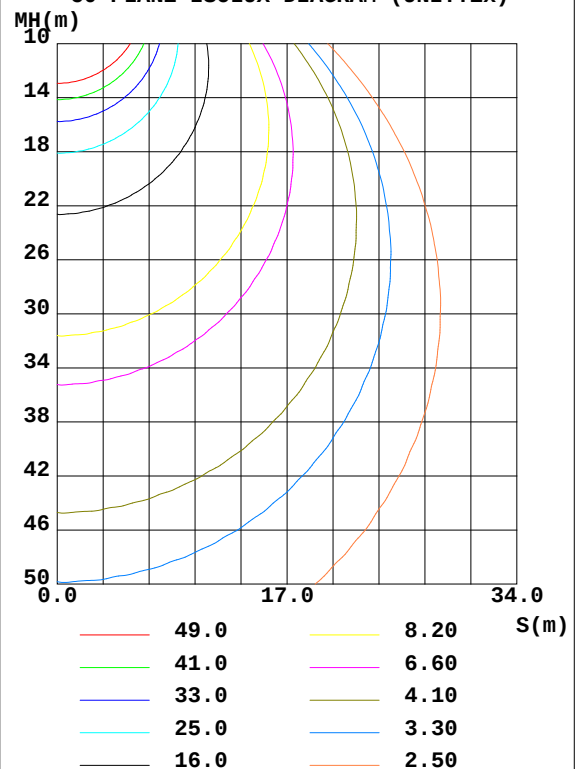
Test:U:230.65V I:0.6184A P:139.31W PF:0.9766 Freq:49.99Hz Lamp Flux:22489.4x1 lm		
NAME: KD008-BKTCTP150-100	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+6000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 280mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 161.43 lm/W			
MODEL	2835 4000K	I _{max} (cd)	8246	S/MH(C0/180)	1.30
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	22489	η UP, DN(C0-180)	0.0, 50.8
NOMINAL FLUX(lm)	22489.4	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.35

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: 2025-02-26

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:

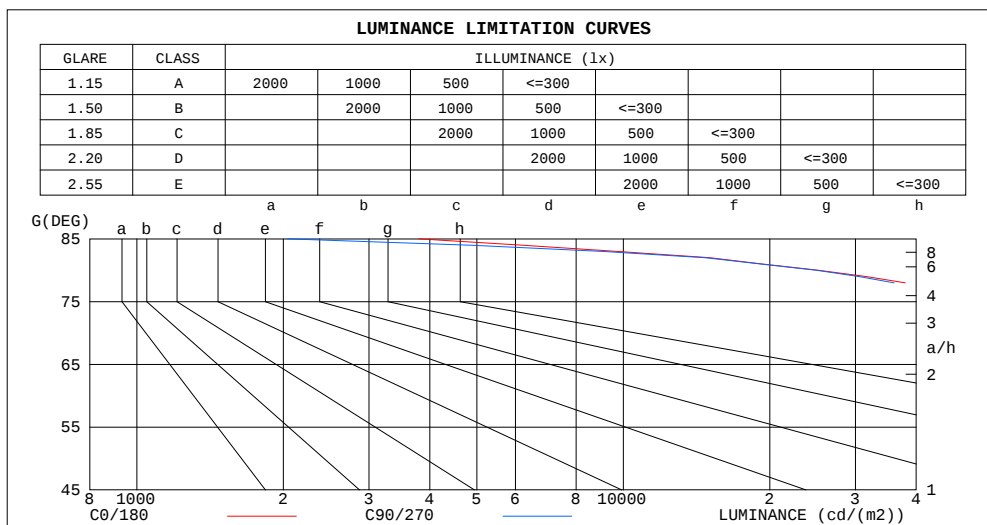
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	8060	8106	8122	8133	8095	8097	8082	8082	0- 10	779.5	779.5	3.47, 3.47
20	7692	7743	7786	7797	7745	7725	7703	7702	10- 20	2246	3026	13.5, 13.5
30	7082	7150	7208	7222	7153	7111	7074	7082	20- 30	3445	6470	28.8, 28.8
40	6223	6309	6382	6361	6289	6254	6204	6204	30- 40	4215	10686	47.5, 47.5
50	5030	5150	5224	5181	5100	5008	4959	4988	40- 50	4409	15094	67.1, 67.1
60	3422	3552	3596	3588	3517	3341	3292	3346	50- 60	3839	18934	84.2, 84.2
70	1682	1767	1740	1830	1776	1649	1520	1614	60- 70	2537	21471	95.5, 95.5
80	268.5	269.1	266.0	280.5	316.4	211.5	189.4	208.8	70- 80	955.4	22427	99.7, 99.7
90	8.319	7.777	7.231	7.699	8.880	9.445	9.013	9.537	80- 90	62.69	22489	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: 2025-02-26

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:230.65V I:0.6184A P:139.31W PF:0.9766 Freq:49.99Hz Lamp Flux:22489.4x1 lm		
NAME: KD008-BKTCTP150-100	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+6000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 280mm	Shielding Angle:



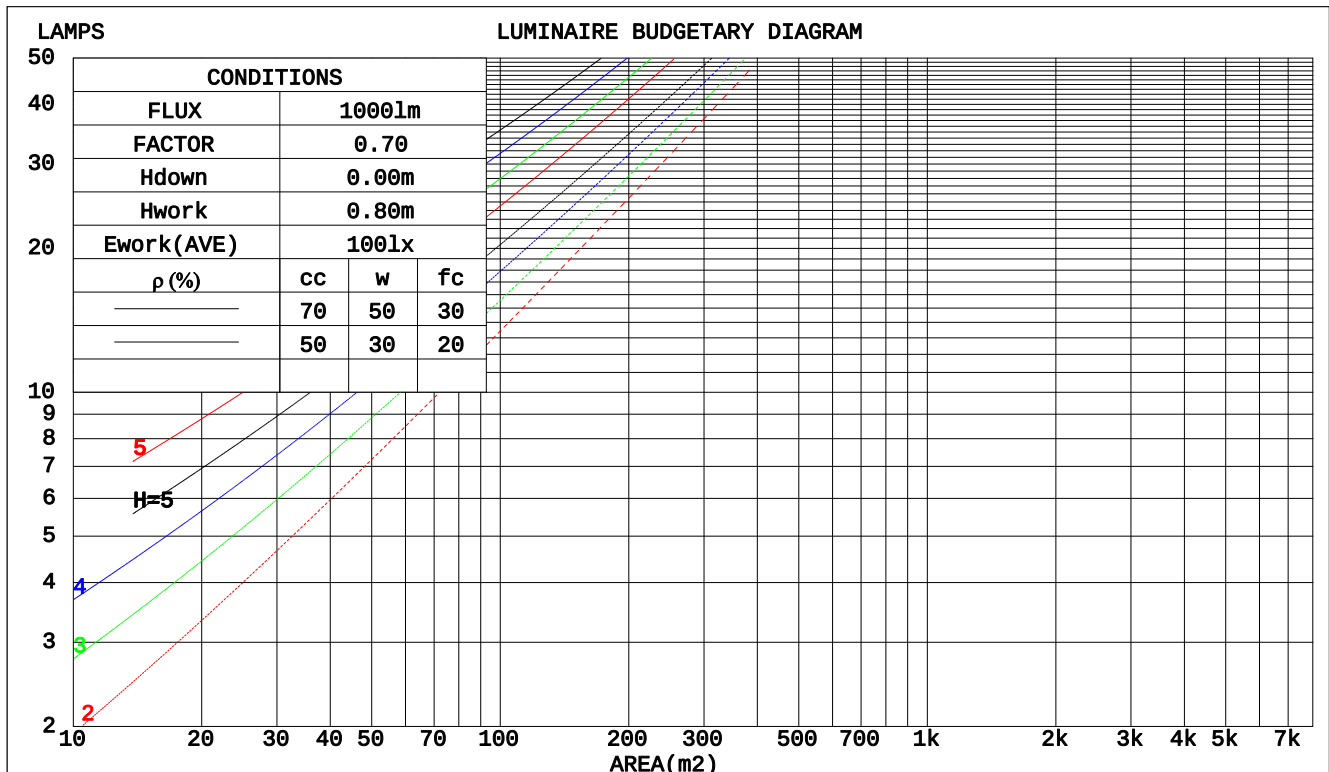
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-02-26

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:230.65V I:0.6184A P:139.31W PF:0.9766 Freq:49.99Hz Lamp Flux:22489.4x1 lm		
NAME: KD008-BKTCTP150-100	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+6000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 280mm	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	.00
1.0	1.06	1.02	.98	1.03	.90	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.86	.81	.91	.85	.80	.87	.82	.78	.84	.80	.76	.81	.78	.75	.73
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.74	.69	.65	.72	.68	.64	.62
4.0	.73	.64	.58	.71	.63	.57	.69	.62	.56	.66	.60	.56	.64	.59	.55	.53
5.0	.65	.56	.50	.64	.56	.49	.62	.54	.49	.60	.53	.48	.58	.52	.48	.46
6.0	.58	.50	.43	.57	.49	.43	.56	.48	.43	.54	.47	.42	.52	.47	.42	.40
7.0	.53	.44	.38	.52	.44	.38	.51	.43	.38	.49	.42	.38	.48	.42	.37	.35
8.0	.48	.40	.34	.48	.40	.34	.46	.39	.34	.45	.38	.34	.44	.38	.33	.31
9.0	.44	.36	.31	.44	.36	.31	.43	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.27	.37	.32	.27	.26



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-02-26

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:230.65V I:0.6184A P:139.31W PF:0.9766 Freq:49.99Hz Lamp Flux:22489.4x1 lm					
NAME: KD008-BKTCTP150-100			TYPE:		WEIGHT:
SPEC.: black RA80 3000K+6000K			DIM.:		SERIAL No.:
MFR.:			SUR.: 280mm		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	.278	.158	.050	.271	.154	.049	.257	.148	.047	.245	.142	.045	.234	.136	.044	
2.0	.270	.148	.045	.264	.145	.045	.253	.140	.044	.242	.136	.042	.232	.131	.041	
3.0	.255	.136	.041	.250	.134	.040	.239	.130	.039	.230	.126	.039	.221	.123	.038	
4.0	.238	.124	.036	.234	.122	.036	.225	.119	.036	.216	.116	.035	.208	.113	.034	
5.0	.222	.113	.033	.218	.112	.033	.210	.109	.032	.203	.107	.032	.196	.105	.031	
6.0	.208	.104	.030	.204	.103	.030	.197	.101	.029	.190	.099	.029	.184	.097	.029	
7.0	.194	.096	.027	.191	.095	.027	.184	.093	.027	.178	.091	.027	.173	.090	.026	
8.0	.182	.089	.025	.179	.088	.025	.173	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.171	.083	.023	.168	.082	.023	.163	.081	.023	.158	.079	.023	.154	.078	.023	
10.0	.161	.077	.021	.159	.077	.021	.154	.075	.021	.150	.074	.021	.146	.073	.021	

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	.178	.156	.137	.152	.134	.118	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.162	.114	.076	.139	.099	.066	.095	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.147	.090	.048	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.079	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.127	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.026	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-02-26

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:230.65V I:0.6184A P:139.31W PF:0.9766 Freq:49.99Hz Lamp Flux:22489.4x1 lm											
NAME: KD008-BKTCTP150-100					TYPE:			WEIGHT:			
SPEC.: black RA80 3000K+6000K					DIM.:			SERIAL No.:			
MFR.:					SUR.: 280mm			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		18.8	20.3	19.1	20.5	20.7	19.0	20.5	19.3	20.7	20.9
	3H	19.9	21.2	20.1	21.4	21.7	20.1	21.4	20.4	21.6	21.9
	4H	20.1	21.4	20.4	21.6	21.9	20.3	21.5	20.6	21.8	22.0
	6H	20.1	21.3	20.4	21.6	21.9	20.3	21.5	20.6	21.7	22.0
	8H	20.1	21.2	20.4	21.5	21.8	20.2	21.4	20.6	21.7	21.9
	12H	20.0	21.1	20.4	21.4	21.7	20.2	21.3	20.5	21.6	21.9
4H	2H	19.3	20.6	19.7	20.9	21.1	19.5	20.8	19.8	21.0	21.3
	3H	20.5	21.6	20.9	21.9	22.2	20.7	21.8	21.0	22.1	22.4
	4H	20.8	21.8	21.2	22.2	22.5	20.9	21.9	21.3	22.3	22.6
	6H	20.9	21.8	21.3	22.1	22.5	21.0	21.9	21.4	22.2	22.6
	8H	20.8	21.7	21.3	22.0	22.4	20.9	21.8	21.3	22.1	22.5
	12H	20.8	21.6	21.2	21.9	22.4	20.9	21.6	21.3	22.0	22.4
8H	4H	20.9	21.7	21.3	22.1	22.5	21.0	21.8	21.4	22.2	22.6
	6H	21.0	21.7	21.4	22.1	22.5	21.0	21.7	21.5	22.1	22.6
	8H	21.0	21.6	21.4	22.0	22.4	21.0	21.6	21.5	22.1	22.5
	12H	20.9	21.4	21.4	21.9	22.4	21.0	21.5	21.5	22.0	22.4
12H	4H	20.9	21.6	21.3	22.0	22.4	20.9	21.7	21.4	22.1	22.5
	6H	20.9	21.5	21.4	22.0	22.4	21.0	21.6	21.5	22.0	22.5
	8H	20.9	21.4	21.4	21.9	22.4	21.0	21.5	21.5	22.0	22.4
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3					
1.5H	+ 0.3 / - 0.6					+ 0.3 / - 0.5					
2.0H	+ 0.4 / - 0.5					+ 0.5 / - 0.4					

CIE Pub.117, 22489 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 10.8)
Area: 0.06158 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-02-26

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:230.65V I:0.6184A P:139.31W PF:0.9766 Freq:49.99Hz Lamp Flux:22489.4x1 lm		
NAME: KD008-BKTCTP150-100	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+6000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 280mm	Shielding Angle:

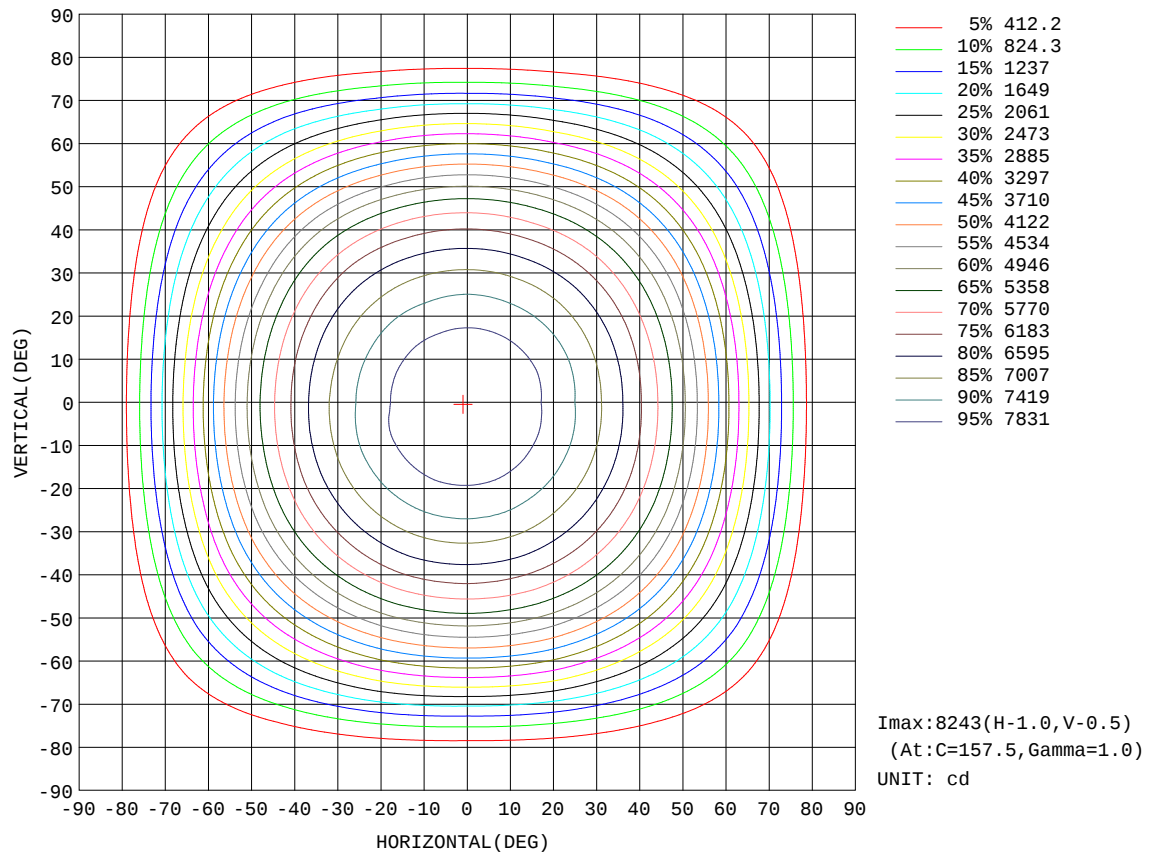
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	47	41	58	47	40	57	47	40	34
0.80	69	58	51	68	58	51	66	57	50	44
1.00	78	67	60	77	67	60	75	68	60	53
1.25	85	75	69	84	75	68	81	73	67	60
1.50	90	81	74	89	80	74	86	78	73	66
2.00	97	89	83	95	88	82	92	86	81	73
2.50	101	94	88	99	92	87	95	90	85	77
3.00	104	98	93	102	96	92	98	93	89	81
4.00	108	102	98	105	101	97	101	97	94	86
5.00	110	106	102	107	104	100	103	100	97	88
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:2025-02-26

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:230.65V I:0.6184A P:139.31W PF:0.9766 Freq:49.99Hz Lamp Flux:22489.4x1 lm		
NAME: KD008-BKTCTP150-100	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+6000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 280mm	Shielding Angle:

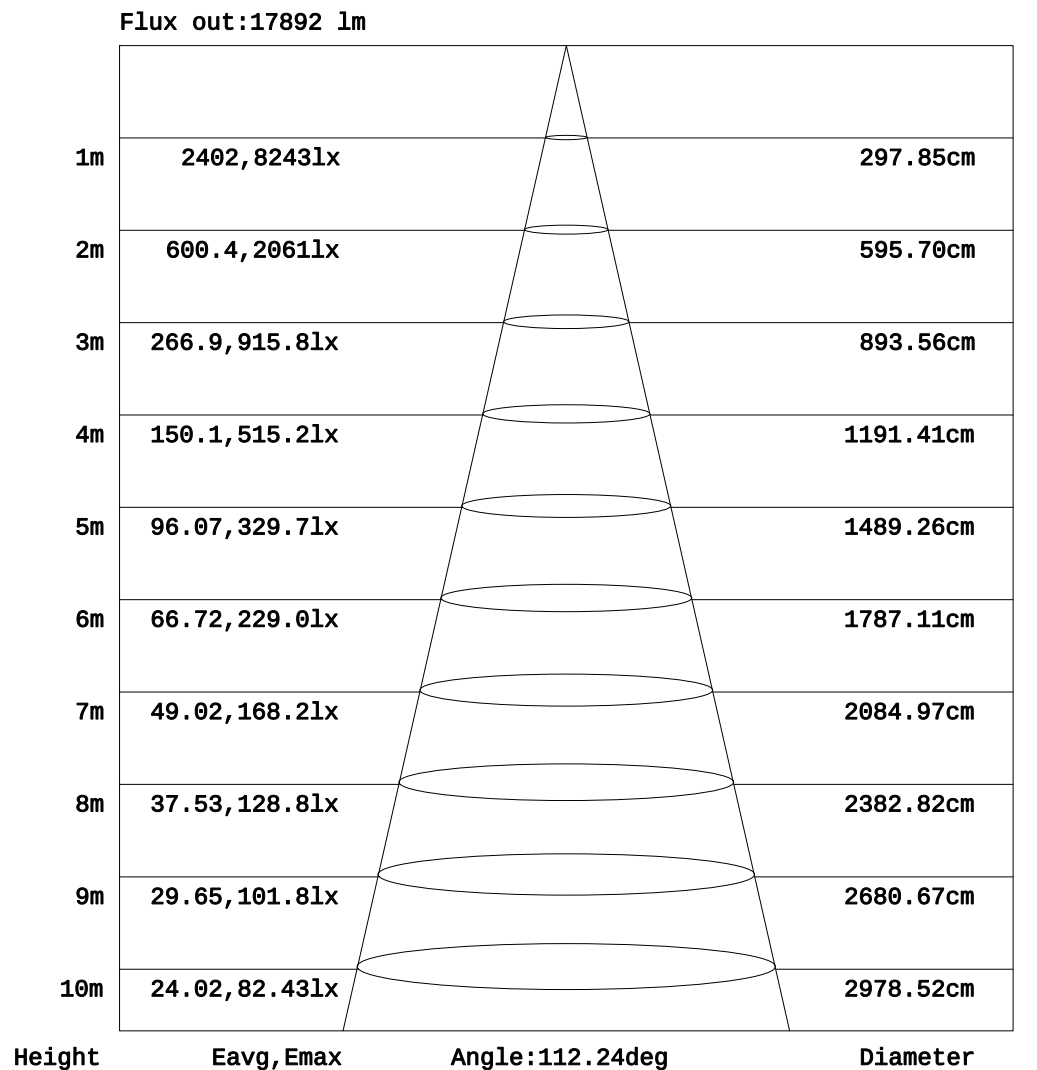


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-02-26

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:230.65V I:0.6184A P:139.31W PF:0.9766 Freq:49.99Hz Lamp Flux:22489.4x1 lm		
NAME: KD008-BKTCTP150-100	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+6000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 280mm	Shielding Angle:



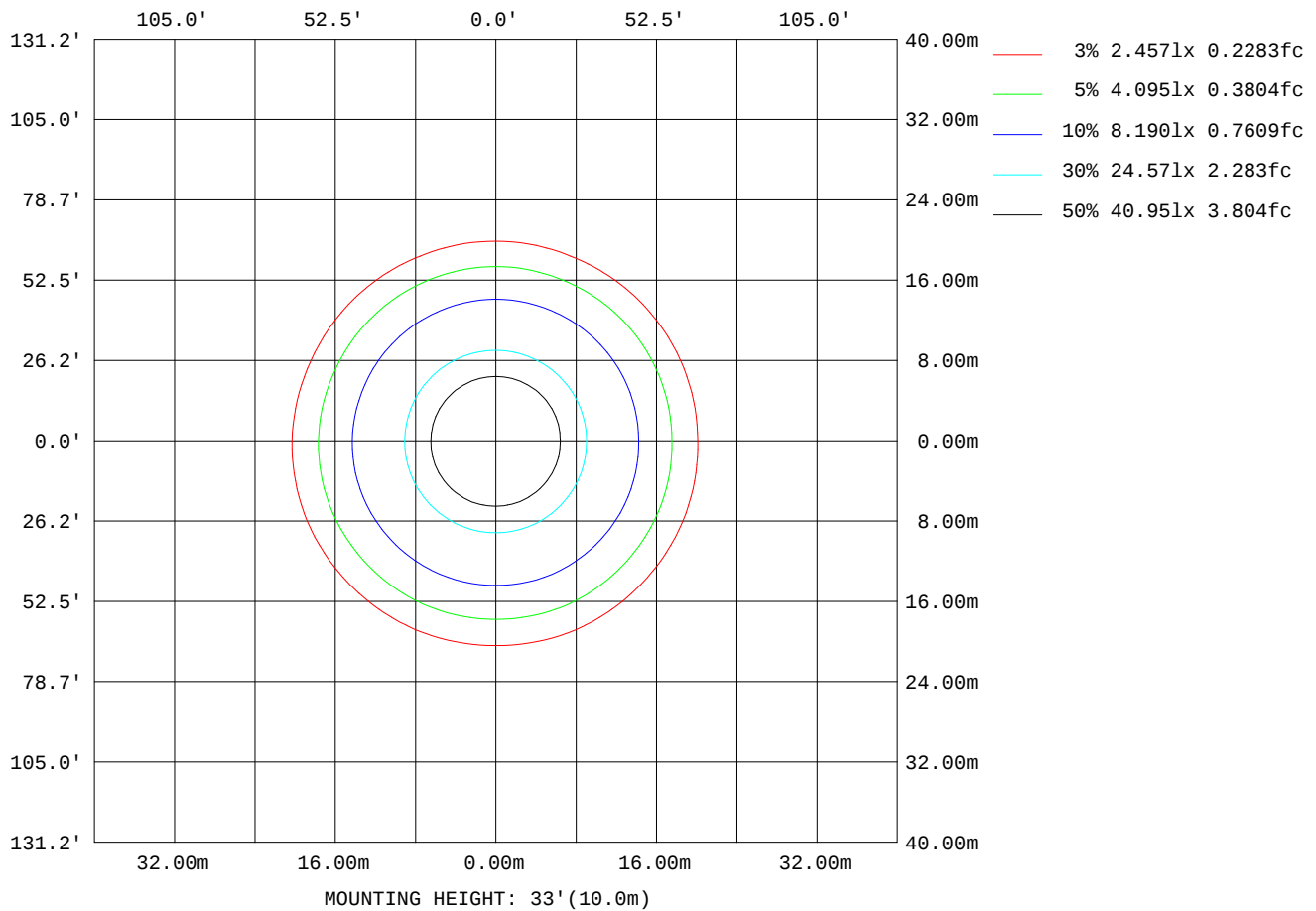
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-02-26

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:230.65V I:0.6184A P:139.31W PF:0.9766 Freq:49.99Hz Lamp Flux:22489.4x1 lm		
NAME: KD008-BKTCTP150-100	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+6000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 280mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-02-26

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:230.65V I:0.6184A P:139.31W PF:0.9766 Freq:49.99Hz Lamp Flux:22489.4x1 lm		
NAME: KD008-BKTCTP150-100	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+6000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 280mm	Shielding Angle:

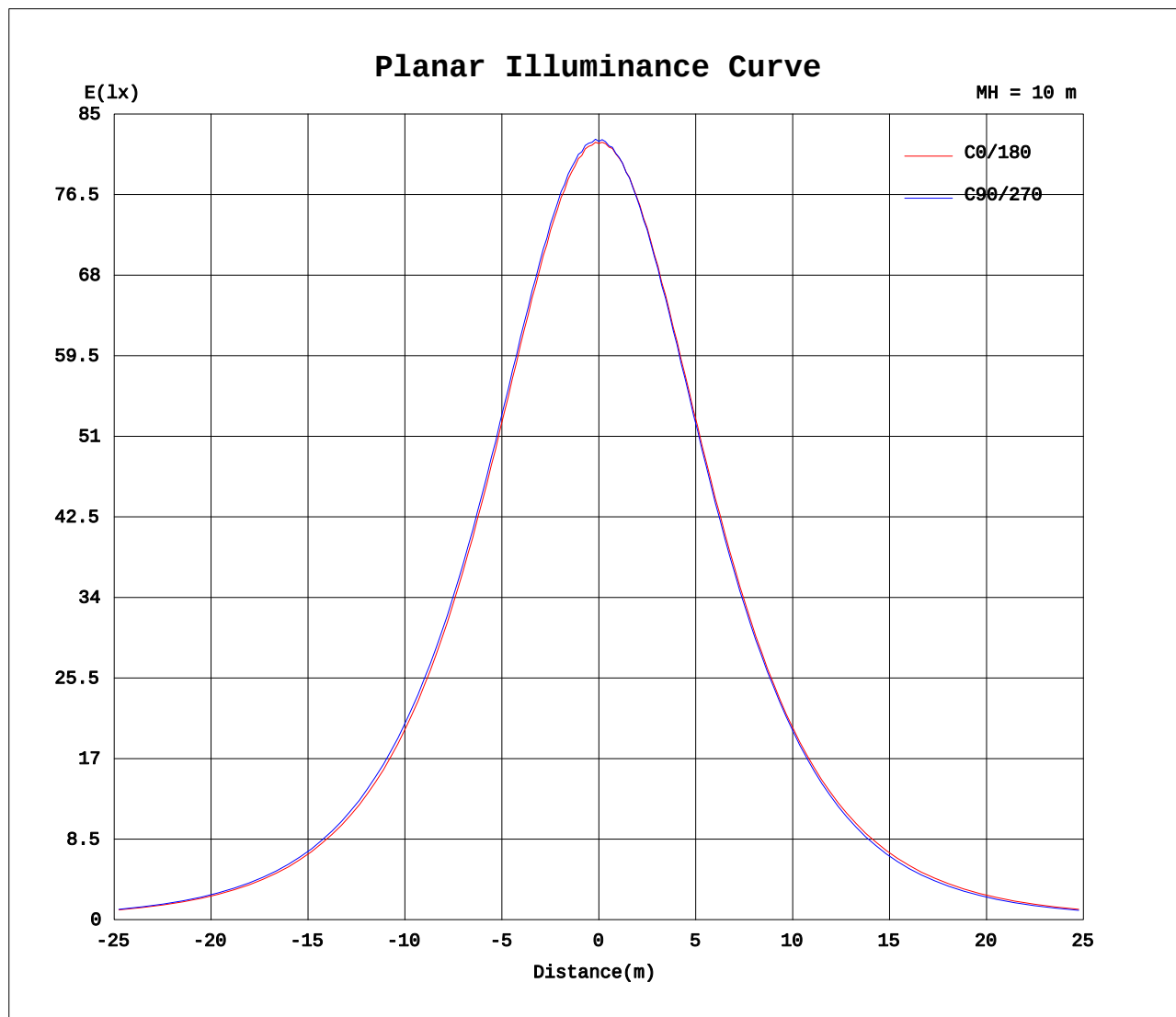
AvgL	cd/m2
L_0~180(65)av	99094
L_0~180(75)av	58938
L_0~180(85)av	4639
L_90~270(65)av	97411
L_90~270(75)av	49494
L_90~270(85)av	1834
L_45(65)av	98543
L_45(75)av	55472
L_45(85)av	3280

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2025-02-26

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: 2025-02-26

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:

```