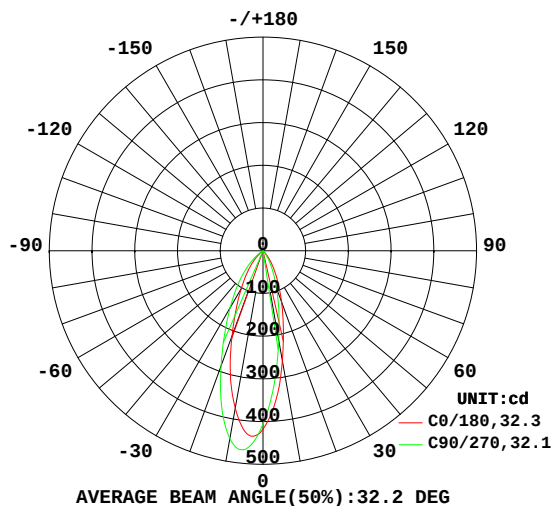


LUMINAIRE PHOTOMETRIC TEST REPORT

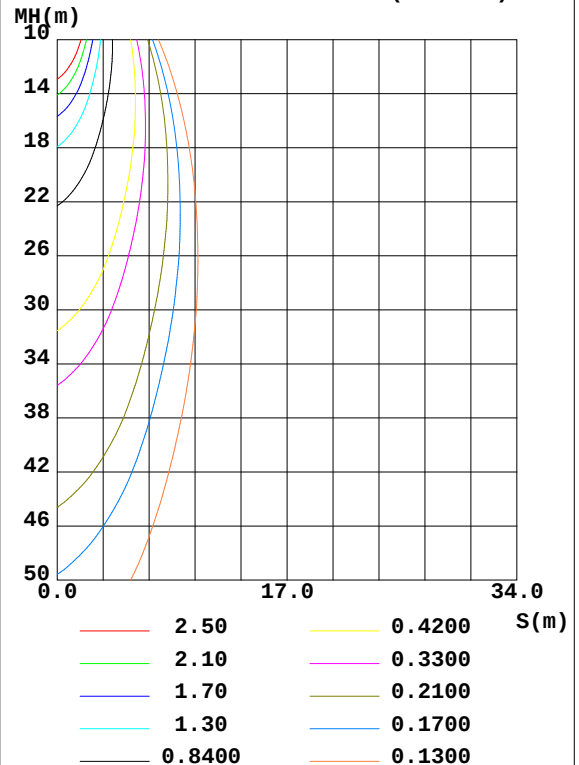
Test:U:12.000V I:0.2400A P:2.8800W PF:1.0000 Freq:50.00Hz Lamp Flux:219.347x1 lm		
NAME: CD3502-BK3K3C01	TYPE:	WEIGHT:
SPEC.: black RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 32mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 76.16 lm/W			
MODEL	3000K	I _{max} (cd)	488.1	S/MH(C0/180)	0.65
NOMINAL POWER(W)	3	LOR(%)	100.0	S/MH(C90/270)	0.81
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	219.35	η UP, DN(C0-180)	0.0, 30.2
NOMINAL FLUX(lm)	219.347	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 69.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.60

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: 2025-02-25

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:

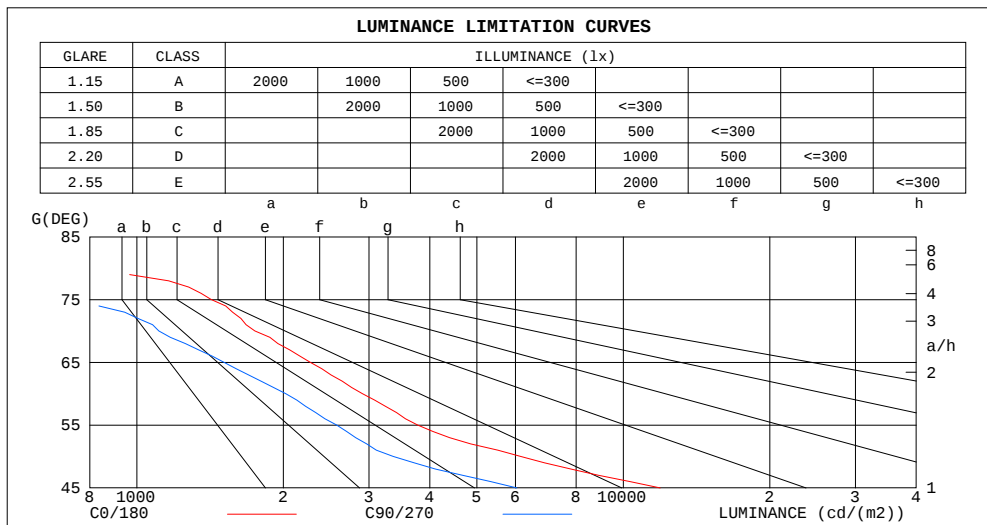
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	262.3	214.4	213.5	264.7	374.3	463.4	446.5	346.3	0- 10	34.82	34.82	15.9,15.9
20	127.1	94.03	92.84	129.8	212.0	295.8	287.4	195.5	10- 20	68.41	103.2	47.1,47.1
30	53.75	32.63	32.18	52.60	101.8	155.5	153.8	96.96	20- 30	57.47	160.7	73.3,73.3
40	15.87	7.605	7.264	14.54	43.20	80.70	75.87	40.47	30- 40	35.55	196.2	89.5,89.5
50	3.162	1.730	1.730	3.033	10.18	30.22	26.39	8.800	40- 50	16.43	212.7	97,97
60	1.163	0.8092	0.8092	1.154	2.019	4.589	4.801	2.129	50- 60	4.798	217.5	99.1,99.1
70	0.4784	0.3081	0.3035	0.4599	0.7846	1.400	1.505	0.8486	60- 70	1.279	218.8	99.7,99.7
80	0.0925	0	0.0000	0.1061	0.2890	0.5141	0.5643	0.2981	70- 80	0.4894	219.2	100,100
90	0	0	0	0	0	0	0	0	80- 90	0.1003	219.3	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:2025-02-25

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:12.000V I:0.2400A P:2.8800W PF:1.0000 Freq:50.00Hz Lamp Flux:219.347x1 lm		
NAME: CD3502-BK3K3C01	TYPE:	WEIGHT:
SPEC.: black RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 32mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	0	0
80	666	0
75	1422	756
70	1748	1109
65	2272	1510
60	2908	2023
55	3779	2575
50	6148	3364
45	11905	6044

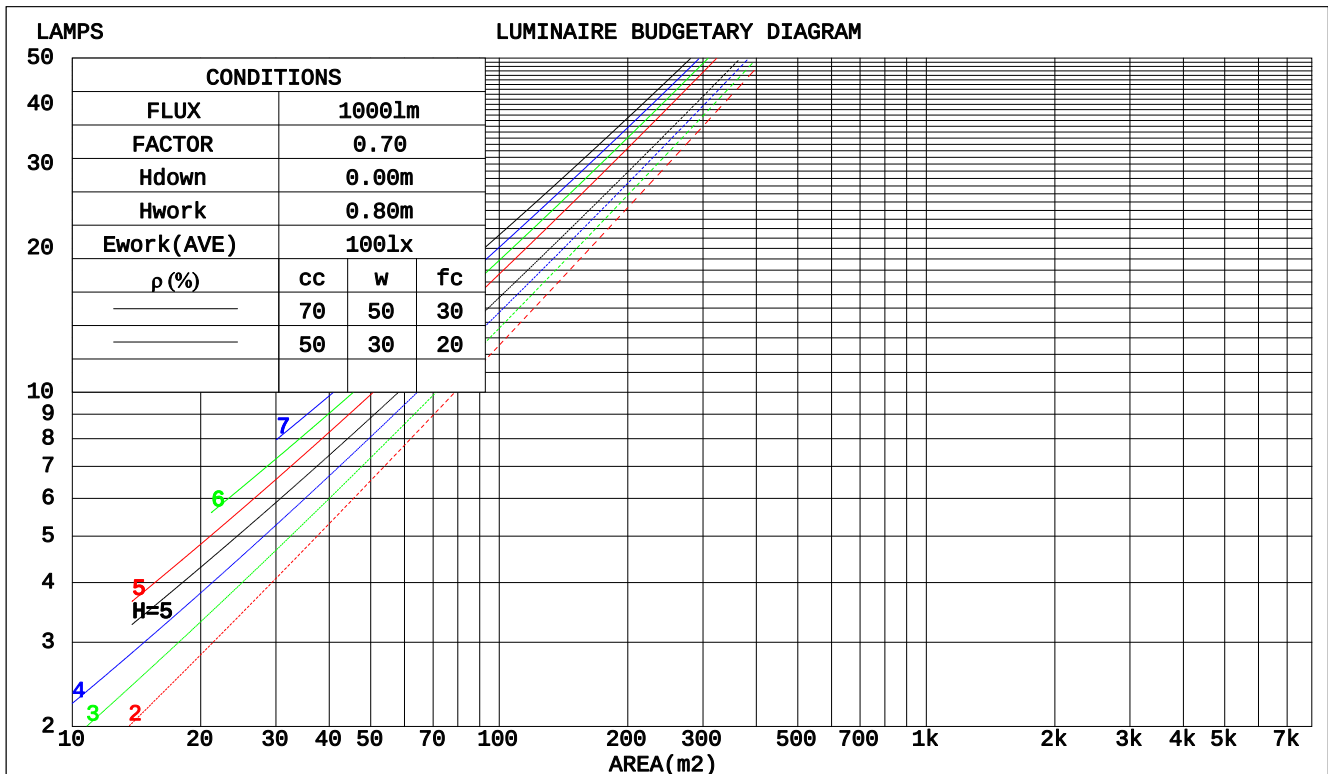
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-02-25

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:12.000V I:0.2400A P:2.8800W PF:1.0000 Freq:50.00Hz Lamp Flux:219.347x1 lm		
NAME: CD3502-BK3K3C01	TYPE:	WEIGHT:
SPEC.: black RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 32mm	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	1.11	1.09	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.99	.98	.98	.97	.96	.94
2.0	1.03	.99	.96	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.85	.88	.86	.83	.82
4.0	.91	.85	.81	.90	.85	.81	.88	.83	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.85	.80	.76	.84	.79	.75	.83	.78	.75	.81	.77	.74	.80	.76	.73	.72
6.0	.81	.75	.71	.80	.74	.70	.78	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.76	.70	.66	.76	.70	.66	.74	.69	.66	.73	.69	.66	.72	.68	.65	.64
8.0	.72	.66	.63	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.60
9.0	.69	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.66	.61	.58	.57
10.0	.65	.60	.56	.65	.60	.56	.64	.59	.56	.63	.59	.56	.63	.59	.56	.54



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

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:12.000V I:0.2400A P:2.8800W PF:1.0000 Freq:50.00Hz Lamp Flux:219.347x1 lm					
NAME: CD3502-BK3K3C01			TYPE:		WEIGHT:
SPEC.: black RA80			DIM.:		SERIAL No.:
MFR.:			SUR.: 32mm		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	.174	.099	.031	.167	.096	.030	.155	.089	.028	.143	.083	.027	.133	.077	.025		
2.0	.167	.091	.028	.161	.089	.027	.150	.084	.026	.141	.079	.025	.132	.074	.023		
3.0	.158	.084	.025	.154	.082	.025	.145	.078	.024	.136	.075	.023	.128	.071	.022		
4.0	.150	.078	.023	.146	.077	.023	.138	.073	.022	.131	.071	.021	.125	.068	.021		
5.0	.143	.073	.021	.139	.072	.021	.133	.069	.020	.126	.067	.020	.121	.064	.019		
6.0	.136	.068	.020	.133	.067	.019	.127	.065	.019	.122	.063	.019	.116	.061	.018		
7.0	.130	.064	.018	.127	.063	.018	.122	.062	.018	.117	.060	.017	.112	.058	.017		
8.0	.124	.061	.017	.121	.060	.017	.117	.058	.017	.112	.057	.016	.108	.056	.016		
9.0	.119	.057	.016	.116	.057	.016	.112	.055	.016	.108	.054	.016	.105	.053	.015		
10.0	.114	.054	.015	.112	.054	.015	.108	.053	.015	.104	.052	.015	.101	.051	.015		

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	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.132	.099	.073	.114	.085	.063	.078	.059	.045	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.089	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.098	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

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

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:12.000V I:0.2400A P:2.8800W PF:1.0000 Freq:50.00Hz Lamp Flux:219.347x1 lm											
NAME: CD3502-BK3K3C01					TYPE:			WEIGHT:			
SPEC.: black RA80					DIM.:			SERIAL No.:			
MFR.:					SUR.: 32mm			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		18.0	18.9	18.3	19.1	19.3	15.2	16.1	15.4	16.3	16.4
	3H	18.0	18.8	18.2	19.0	19.2	15.1	16.0	15.4	16.2	16.4
	4H	17.9	18.7	18.2	18.9	19.1	15.1	15.9	15.3	16.1	16.3
	6H	17.8	18.6	18.1	18.8	19.1	15.0	15.7	15.3	16.0	16.2
	8H	17.8	18.5	18.1	18.8	19.0	14.9	15.6	15.2	15.9	16.2
	12H	17.7	18.4	18.1	18.7	19.0	14.9	15.6	15.2	15.8	16.1
4H	2H	17.8	18.6	18.1	18.8	19.1	15.0	15.8	15.3	16.0	16.3
	3H	17.7	18.4	18.1	18.7	19.0	15.0	15.7	15.3	15.9	16.2
	4H	17.7	18.3	18.0	18.6	18.9	14.9	15.5	15.3	15.8	16.2
	6H	17.6	18.2	18.0	18.5	18.9	14.8	15.4	15.2	15.7	16.1
	8H	17.6	18.1	18.0	18.4	18.8	14.8	15.3	15.2	15.6	16.0
	12H	17.5	18.0	17.9	18.4	18.8	14.7	15.2	15.1	15.6	16.0
8H	4H	17.6	18.1	18.0	18.4	18.8	14.8	15.3	15.2	15.7	16.0
	6H	17.5	17.9	17.9	18.3	18.7	14.7	15.1	15.1	15.5	15.9
	8H	17.4	17.8	17.9	18.2	18.7	14.6	15.0	15.1	15.4	15.9
	12H	17.4	17.7	17.8	18.1	18.6	14.6	14.9	15.1	15.3	15.8
12H	4H	17.5	18.0	17.9	18.3	18.7	14.7	15.2	15.2	15.6	16.0
	6H	17.4	17.8	17.9	18.2	18.7	14.6	15.0	15.1	15.4	15.9
	8H	17.4	17.7	17.8	18.1	18.6	14.6	14.9	15.1	15.3	15.8
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 4.6 / - 6.7					+ 3.1 / - 5.1					
1.5H	+ 6.7 / - 6.5					+ 5.0 / - 4.1					
2.0H	+ 6.2 / - 3.8					+ 4.0 / - 2.8					

CIE Pub.117, 219.3 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -5.3)
Area: 0.0008 m2

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

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:12.000V I:0.2400A P:2.8800W PF:1.0000 Freq:50.00Hz Lamp Flux:219.347x1 lm		
NAME: CD3502-BK3K3C01	TYPE:	WEIGHT:
SPEC.: black RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 32mm	Shielding Angle:

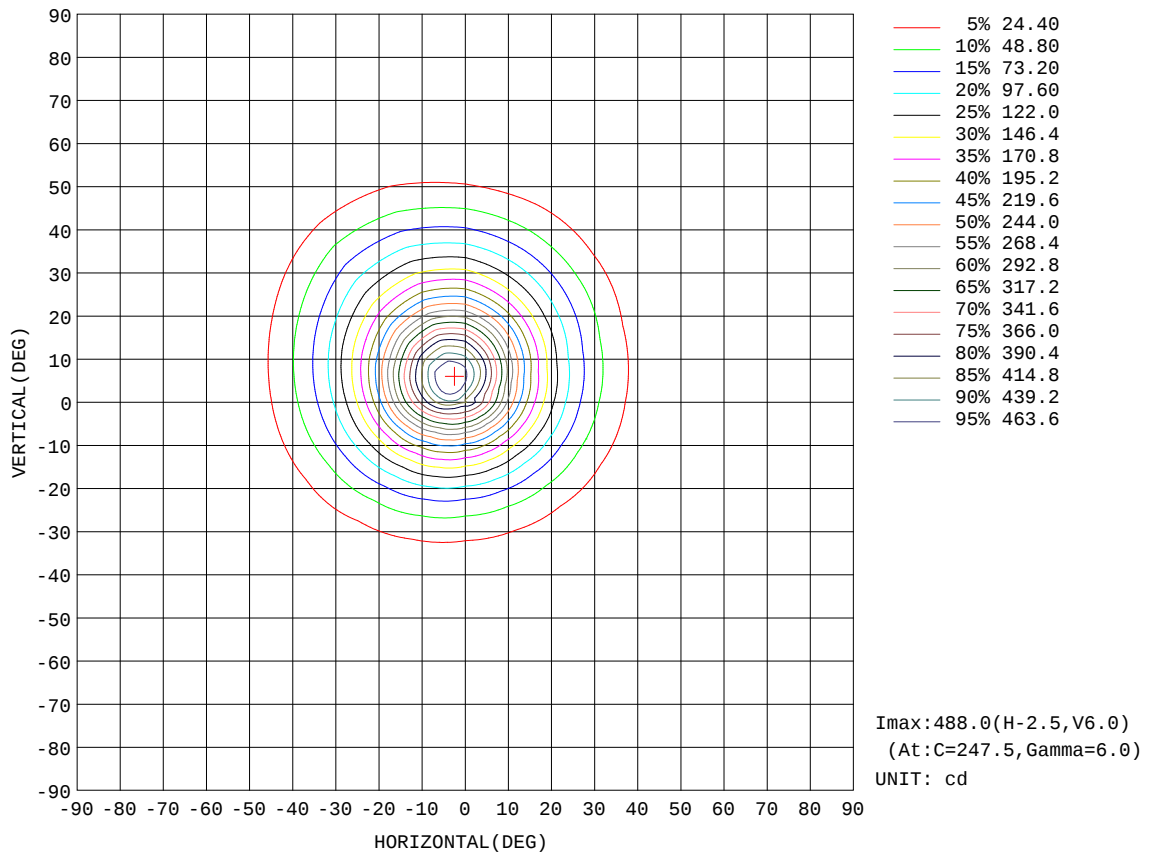
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	84	78	74	84	77	74	70
0.80	93	86	82	92	86	82	91	85	82	78
1.00	98	92	88	97	91	88	95	91	87	83
1.25	102	97	93	101	96	93	99	95	92	87
1.50	105	100	96	104	99	96	101	98	95	90
2.00	108	104	100	106	103	99	104	101	98	93
2.50	110	106	103	108	104	102	105	102	100	94
3.00	111	108	105	110	106	104	106	104	102	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	113	110	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:2025-02-25

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:12.000V I:0.2400A P:2.8800W PF:1.0000 Freq:50.00Hz Lamp Flux:219.347x1 lm		
NAME: CD3502-BK3K3C01	TYPE:	WEIGHT:
SPEC.: black RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 32mm	Shielding Angle:

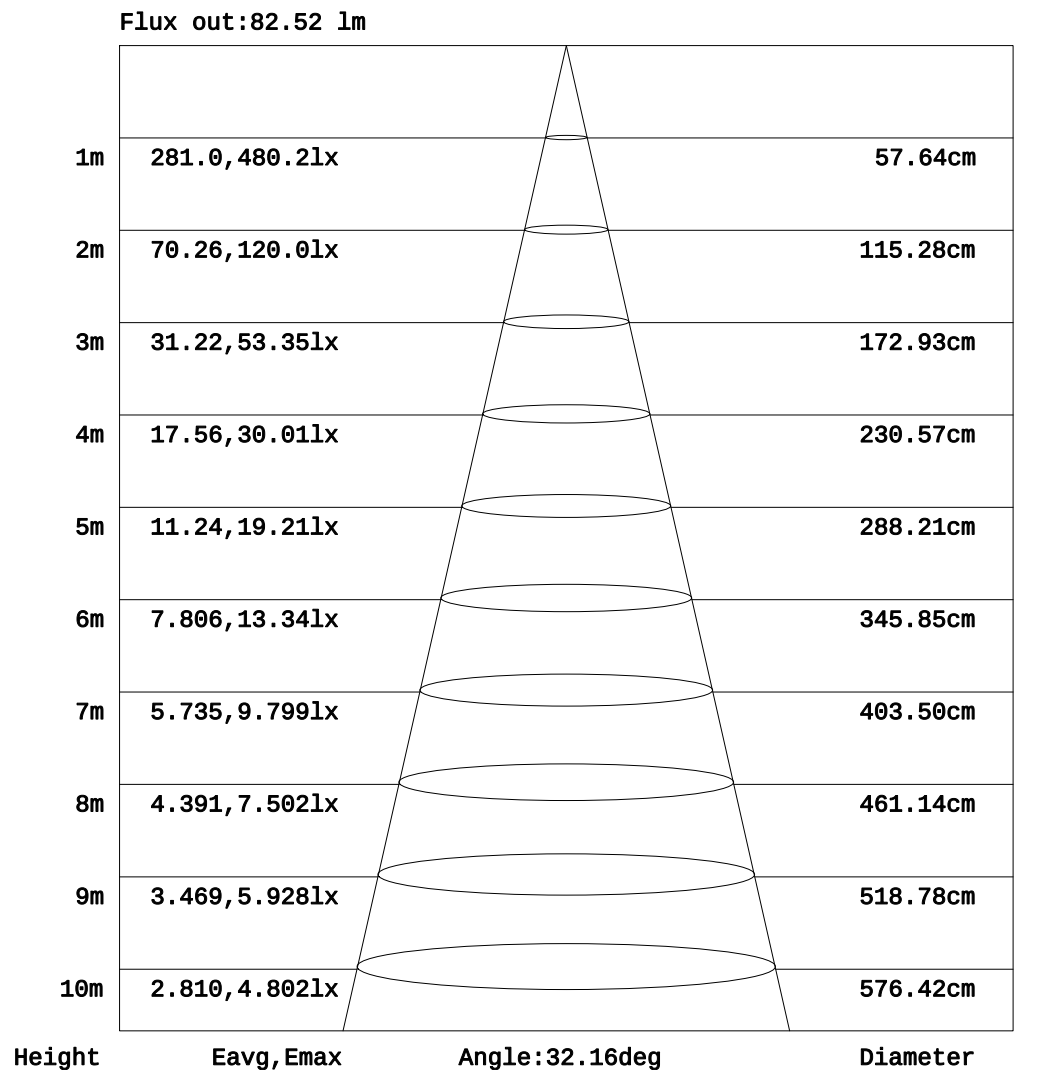


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-02-25

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:12.000V I:0.2400A P:2.8800W PF:1.0000 Freq:50.00Hz Lamp Flux:219.347x1 lm		
NAME: CD3502-BK3K3C01	TYPE:	WEIGHT:
SPEC.: black RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 32mm	Shielding Angle:



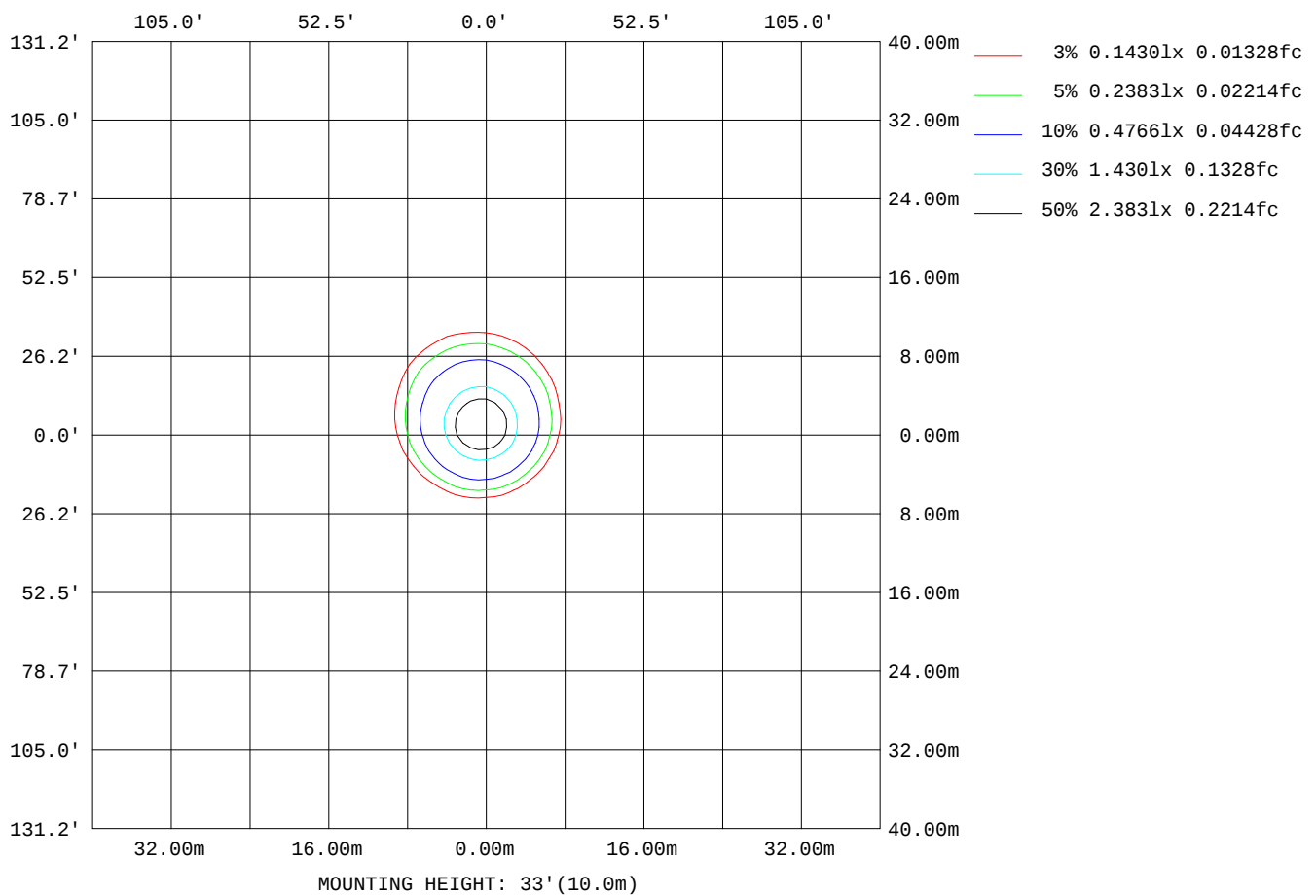
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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:12.000V I:0.2400A P:2.8800W PF:1.0000 Freq:50.00Hz Lamp Flux:219.347x1 lm		
NAME: CD3502-BK3K3C01	TYPE:	WEIGHT:
SPEC.: black RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 32mm	Shielding Angle:



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

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:12.000V I:0.2400A P:2.8800W PF:1.0000 Freq:50.00Hz Lamp Flux:219.347x1 lm		
NAME: CD3502-BK3K3C01	TYPE:	WEIGHT:
SPEC.: black RA80	DIM.:	SERIAL No.:
MFR.:	SUR.: 32mm	Shielding Angle:

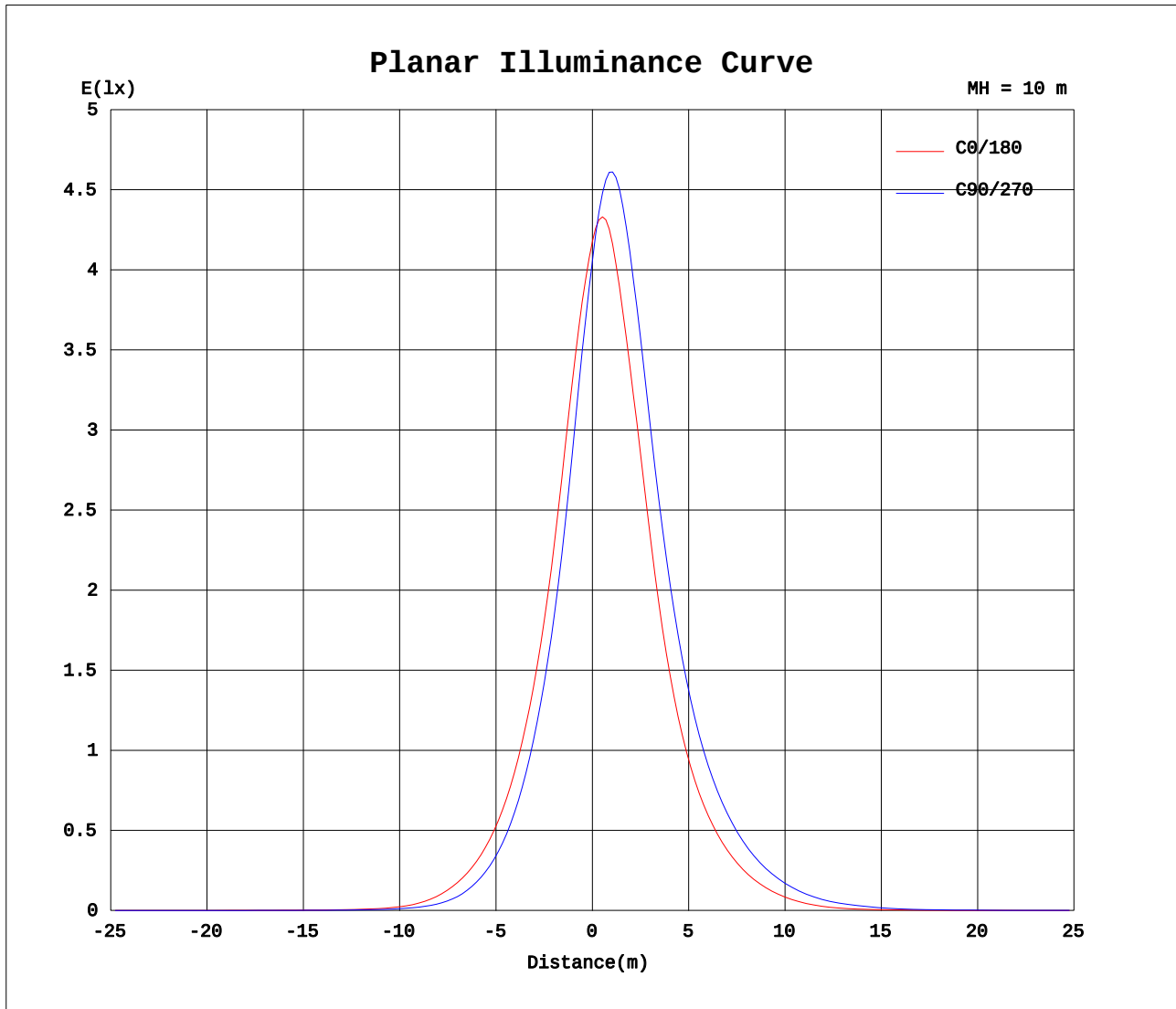
AvgL	cd/m2
L_0~180(65)av	3002
L_0~180(75)av	1820
L_0~180(85)av	358
L_90~270(65)av	4311
L_90~270(75)av	2462
L_90~270(85)av	1873
L_45(65)av	3592
L_45(75)av	2124
L_45(85)av	937

Standard: GB/T 29293-2012

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

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: 2025-02-25

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:

```