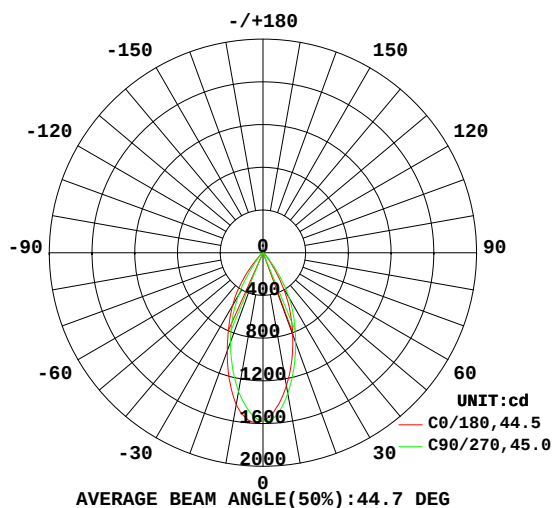


LUMINAIRE PHOTOMETRIC TEST REPORT

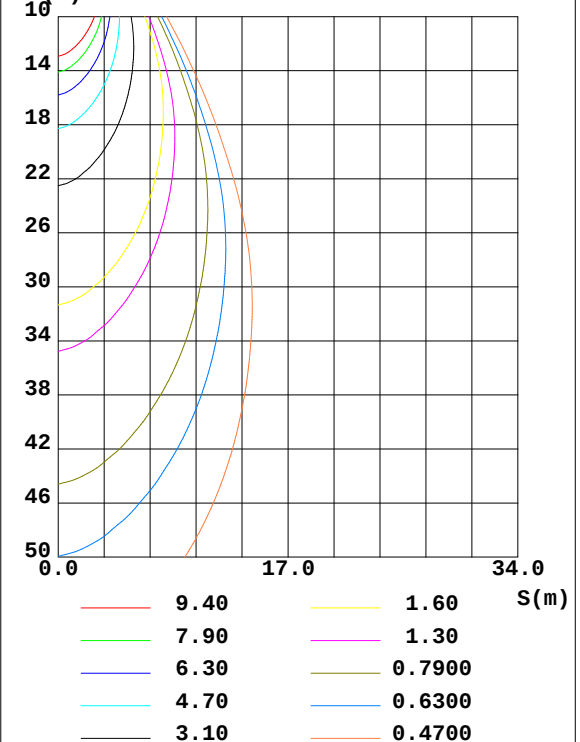
Test:U:231.93V I:0.0483A P:9.9411W PF:0.8868 Freq:49.99Hz Lamp Flux:1005.37x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 101.13 lm/W			
MODEL	TB8-1911A 4000K	I _{max} (cd)	1595	S/MH(C0/180)	0.75
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.69
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	1005.4	η UP, DN(C0-180)	0.0, 49.8
NOMINAL FLUX(lm)	1005.37	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.80

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:2025-07-15

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:

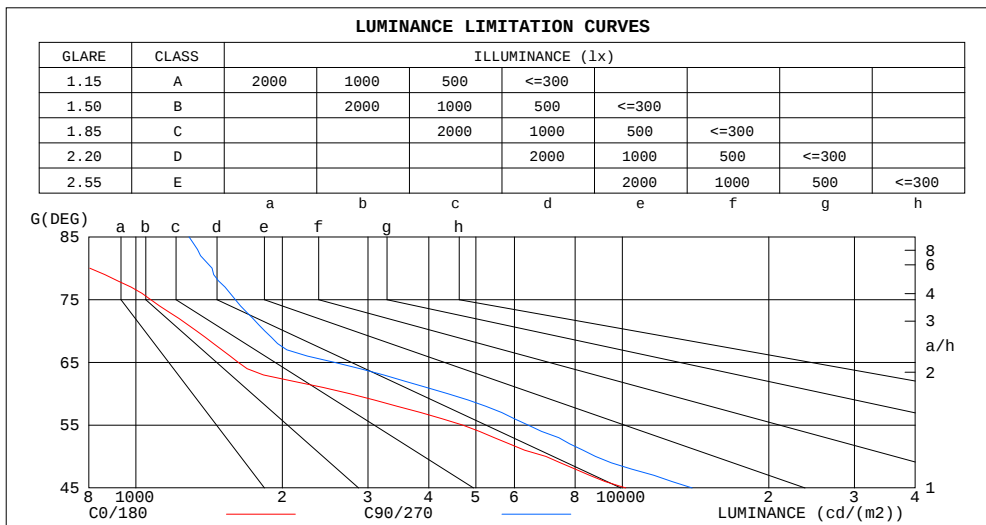
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1263	1292	1337	1406	1444	1385	1322	1277	0- 10	138.7	138.7	13.8,13.8
20	814.6	840.8	896.5	951.2	980.0	946.6	890.7	835.9	10- 20	310.7	449.4	44.7,44.7
30	379.7	420.1	491.6	543.3	571.1	544.3	456.6	377.9	20- 30	309.4	758.8	75.5,75.5
40	82.88	93.38	121.4	169.5	190.5	145.1	97.81	83.14	30- 40	171.3	930.1	92.5,92.5
50	25.38	27.37	32.10	38.22	40.52	35.55	29.02	25.82	40- 50	47.38	977.5	97.2,97.2
60	7.803	9.118	12.41	15.75	16.86	14.21	10.56	8.273	50- 60	18.41	995.9	99.1,99.1
70	2.584	2.906	3.568	4.170	4.310	3.865	3.171	2.675	60- 70	6.426	1002	99.7,99.7
80	0.7916	0.9985	1.412	1.757	1.799	1.523	1.114	0.8023	70- 80	2.378	1005	99.9,99.9
90	0	0	0.0413	0.2435	0.2848	0.1286	0	0	80- 90	0.6345	1005	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:2025-07-15

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:231.93V I:0.0483A P:9.9411W PF:0.8868 Freq:49.99Hz Lamp Flux:1005.37x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	365	1286
80	804	1434
75	1072	1601
70	1333	1840
65	1623	2557
60	2753	4376
55	4694	6400
50	6964	8809
45	10160	13921

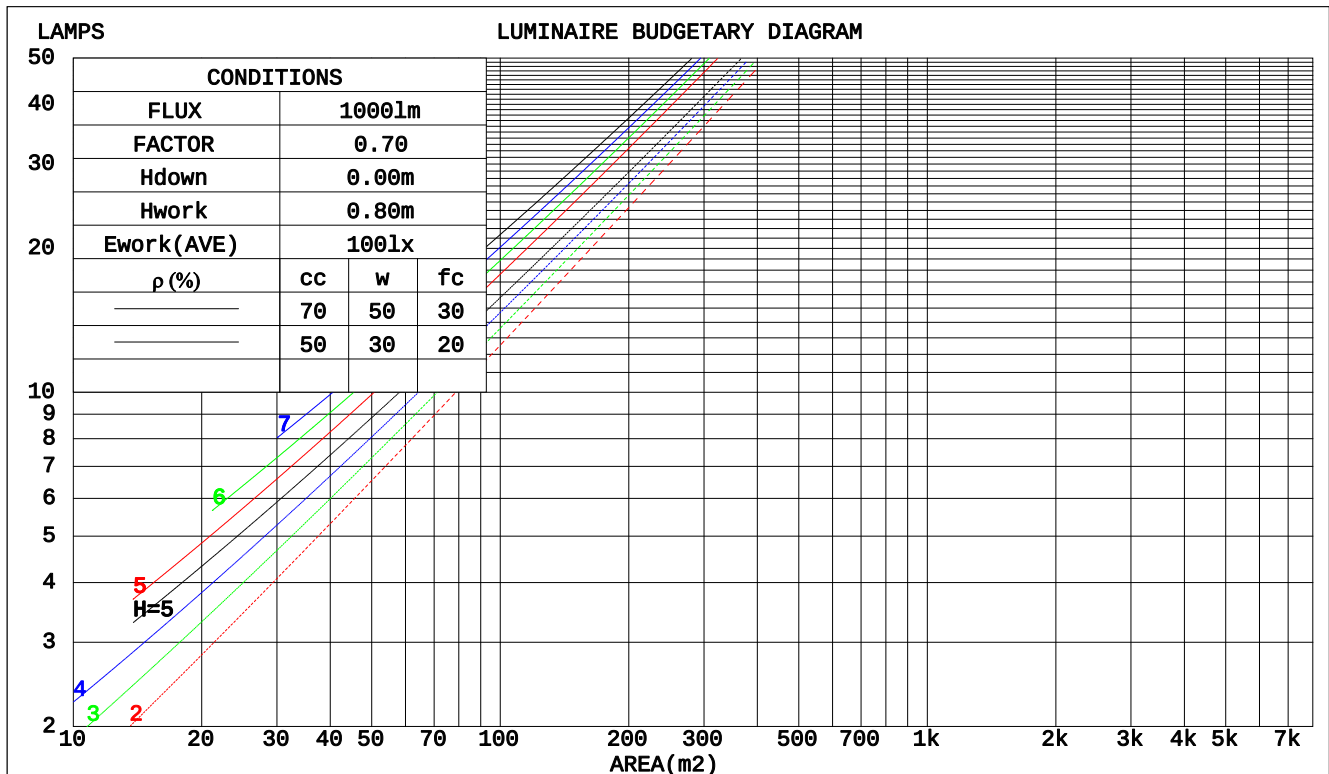
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-07-15

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:231.93V I:0.0483A P:9.9411W PF:0.8868 Freq:49.99Hz Lamp Flux:1005.37x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	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	1.04	.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	.86	.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	.69	.76	.72	.69	.68
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.64
8.0	.72	.66	.62	.71	.66	.62	.70	.66	.62	.69	.65	.62	.68	.64	.61	.60
9.0	.68	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.58	.65	.61	.58	.57
10.0	.65	.59	.56	.65	.59	.56	.64	.59	.56	.63	.59	.55	.62	.58	.55	.54



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-07-15

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:231.93V I:0.0483A P:9.9411W PF:0.8868 Freq:49.99Hz Lamp Flux:1005.37x1 lm					
NAME: DL9452-WHTC10C03			TYPE:		WEIGHT:
SPEC.: white RA90 3000K+5000K			DIM.:		SERIAL No.:
MFR.:			SUR.: 85mm		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	.166	.091	.028	.161	.088	.027	.150	.083	.026	.140	.079	.025	.131	.074	.023	
3.0	.158	.084	.025	.153	.082	.025	.144	.078	.024	.136	.074	.023	.128	.071	.022	
4.0	.150	.078	.023	.146	.076	.023	.138	.073	.022	.131	.070	.021	.124	.068	.021	
5.0	.143	.073	.021	.139	.071	.021	.133	.069	.020	.126	.067	.020	.120	.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	.122	.060	.017	.117	.059	.017	.113	.057	.016	.109	.056	.016	
9.0	.119	.058	.016	.117	.057	.016	.113	.056	.016	.109	.054	.016	.105	.053	.015	
10.0	.114	.055	.015	.112	.054	.015	.108	.053	.015	.105	.052	.015	.101	.051	.015	

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						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	.155	.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	.104	.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:2025-07-15

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:231.93V I:0.0483A P:9.9411W PF:0.8868 Freq:49.99Hz Lamp Flux:1005.37x1 lm											
NAME: DL9452-WHTC10C03						TYPE:		WEIGHT:			
SPEC.: white RA90 3000K+5000K						DIM.:		SERIAL No.:			
MFR.:						SUR.: 85mm		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		15.5	16.4	15.7	16.6	16.7	17.0	17.9	17.2	18.1	18.3
	3H	15.4	16.2	15.6	16.4	16.6	16.9	17.7	17.2	17.9	18.1
	4H	15.3	16.1	15.6	16.3	16.6	16.8	17.6	17.1	17.9	18.1
	6H	15.2	16.0	15.5	16.2	16.5	16.8	17.5	17.1	17.8	18.0
	8H	15.2	15.9	15.5	16.2	16.4	16.7	17.5	17.0	17.7	18.0
	12H	15.2	15.8	15.5	16.1	16.4	16.7	17.4	17.0	17.7	17.9
4H	2H	15.3	16.1	15.6	16.3	16.6	16.8	17.6	17.1	17.8	18.0
	3H	15.2	15.9	15.5	16.2	16.4	16.7	17.4	17.0	17.7	17.9
	4H	15.1	15.8	15.5	16.1	16.4	16.6	17.3	17.0	17.6	17.9
	6H	15.1	15.6	15.5	16.0	16.3	16.6	17.1	17.0	17.5	17.8
	8H	15.0	15.5	15.4	15.9	16.3	16.5	17.1	16.9	17.4	17.8
	12H	15.0	15.4	15.4	15.8	16.2	16.5	17.0	16.9	17.3	17.7
8H	4H	15.0	15.5	15.4	15.9	16.3	16.5	17.0	16.9	17.4	17.7
	6H	15.0	15.4	15.4	15.8	16.2	16.5	16.9	16.9	17.3	17.7
	8H	14.9	15.3	15.4	15.7	16.1	16.4	16.8	16.9	17.2	17.6
	12H	14.9	15.2	15.3	15.6	16.1	16.4	16.7	16.9	17.1	17.6
12H	4H	15.0	15.4	15.4	15.8	16.2	16.5	16.9	16.9	17.3	17.7
	6H	14.9	15.3	15.4	15.7	16.1	16.4	16.8	16.9	17.2	17.6
	8H	14.9	15.2	15.3	15.6	16.1	16.4	16.7	16.8	17.1	17.6
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 3.0 / - 5.2					+ 3.7 / - 5.4					
1.5H	+ 4.6 / - 3.4					+ 5.7 / - 4.3					
2.0H	+ 3.5 / - 4.5					+ 4.1 / - 4.3					

CIE Pub.117, 1005 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.0)
Area: 0.00567 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-07-15

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:231.93V I:0.0483A P:9.9411W PF:0.8868 Freq:49.99Hz Lamp Flux:1005.37x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

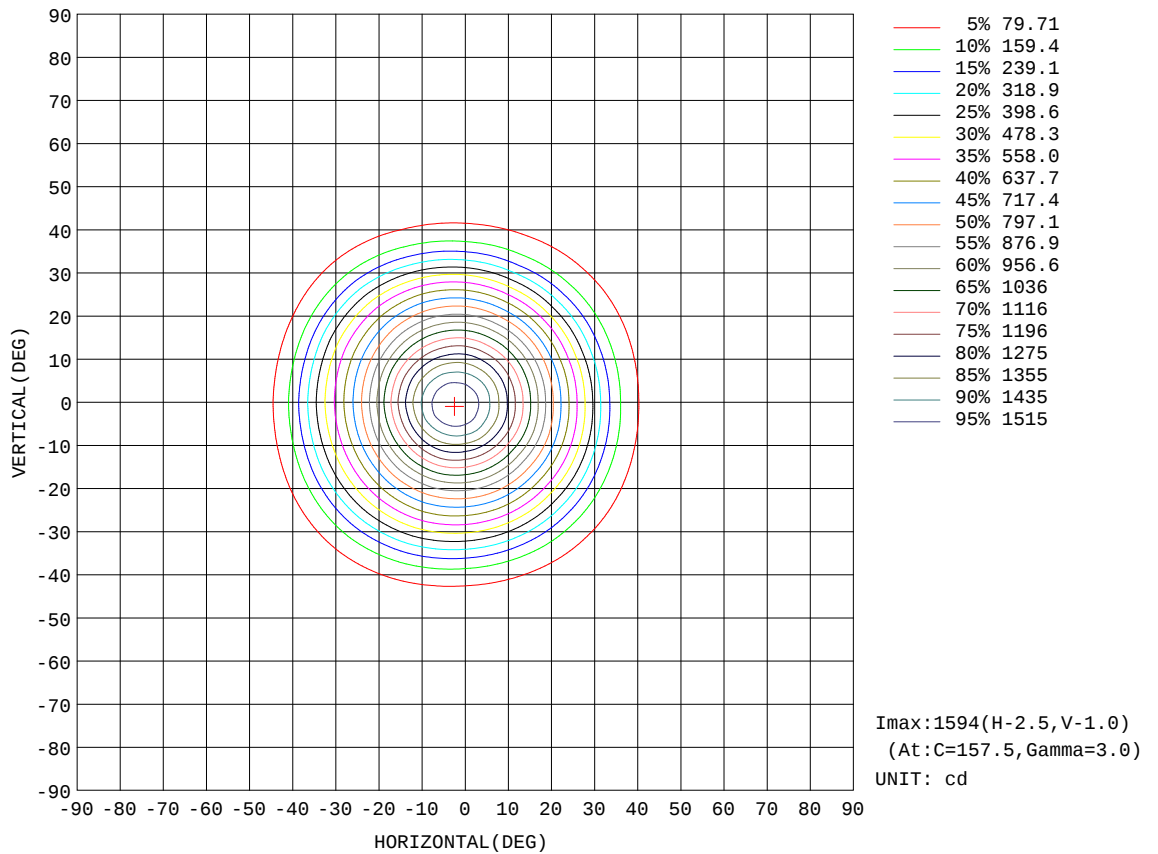
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	87	80	77	86	80	76	86	80	76	73
0.80	94	88	85	94	88	85	92	87	84	80
1.00	99	93	90	98	93	89	96	93	89	85
1.25	103	98	94	102	97	94	100	96	93	89
1.50	106	101	98	104	100	97	102	99	96	92
2.00	108	104	101	107	103	100	104	101	99	94
2.50	110	106	103	109	105	102	105	103	101	95
3.00	112	108	106	110	107	104	107	104	102	96
4.00	114	111	109	112	109	107	108	106	105	98
5.00	115	113	111	113	111	109	109	107	106	99
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:2025-07-15

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:231.93V I:0.0483A P:9.9411W PF:0.8868 Freq:49.99Hz Lamp Flux:1005.37x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

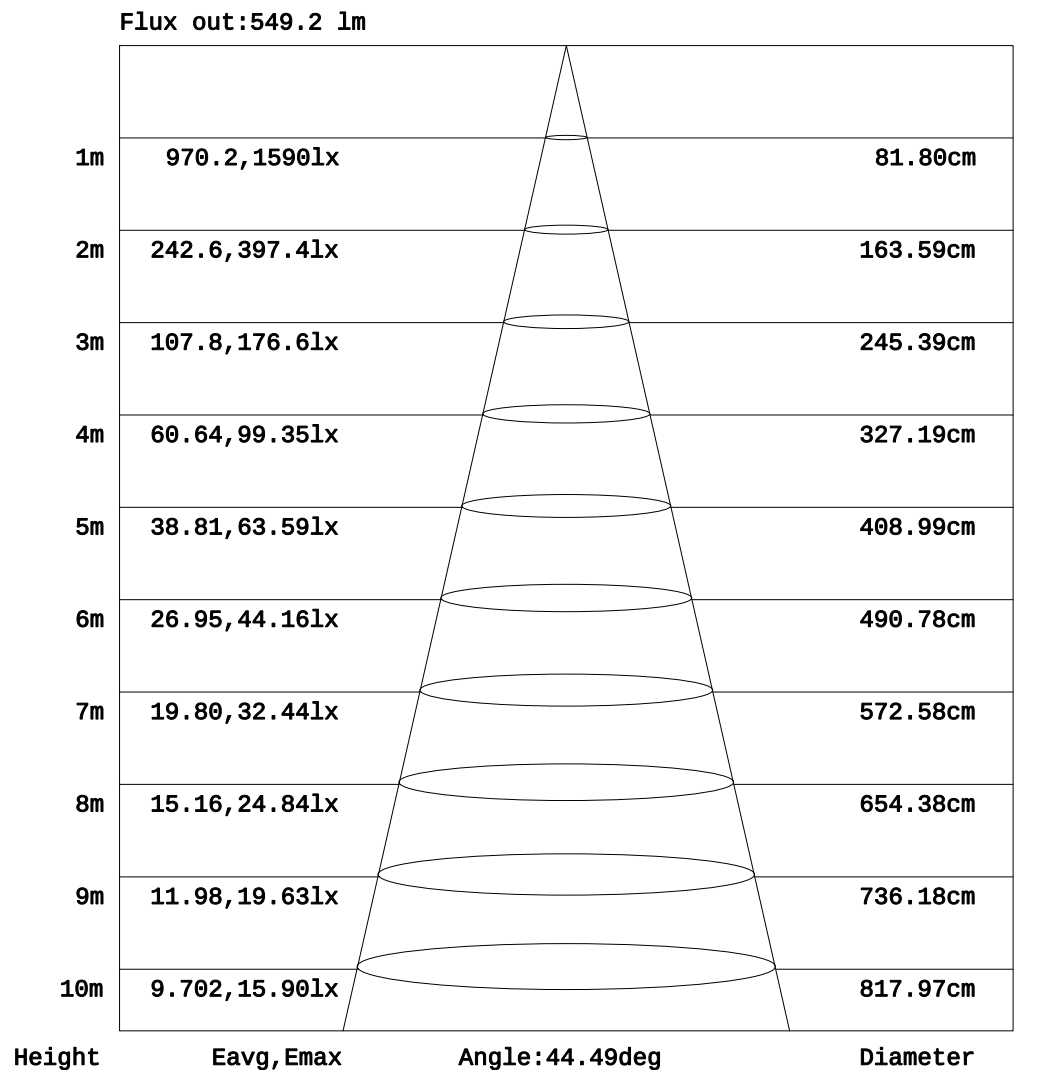


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-07-15

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:231.93V I:0.0483A P:9.9411W PF:0.8868 Freq:49.99Hz Lamp Flux:1005.37x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:



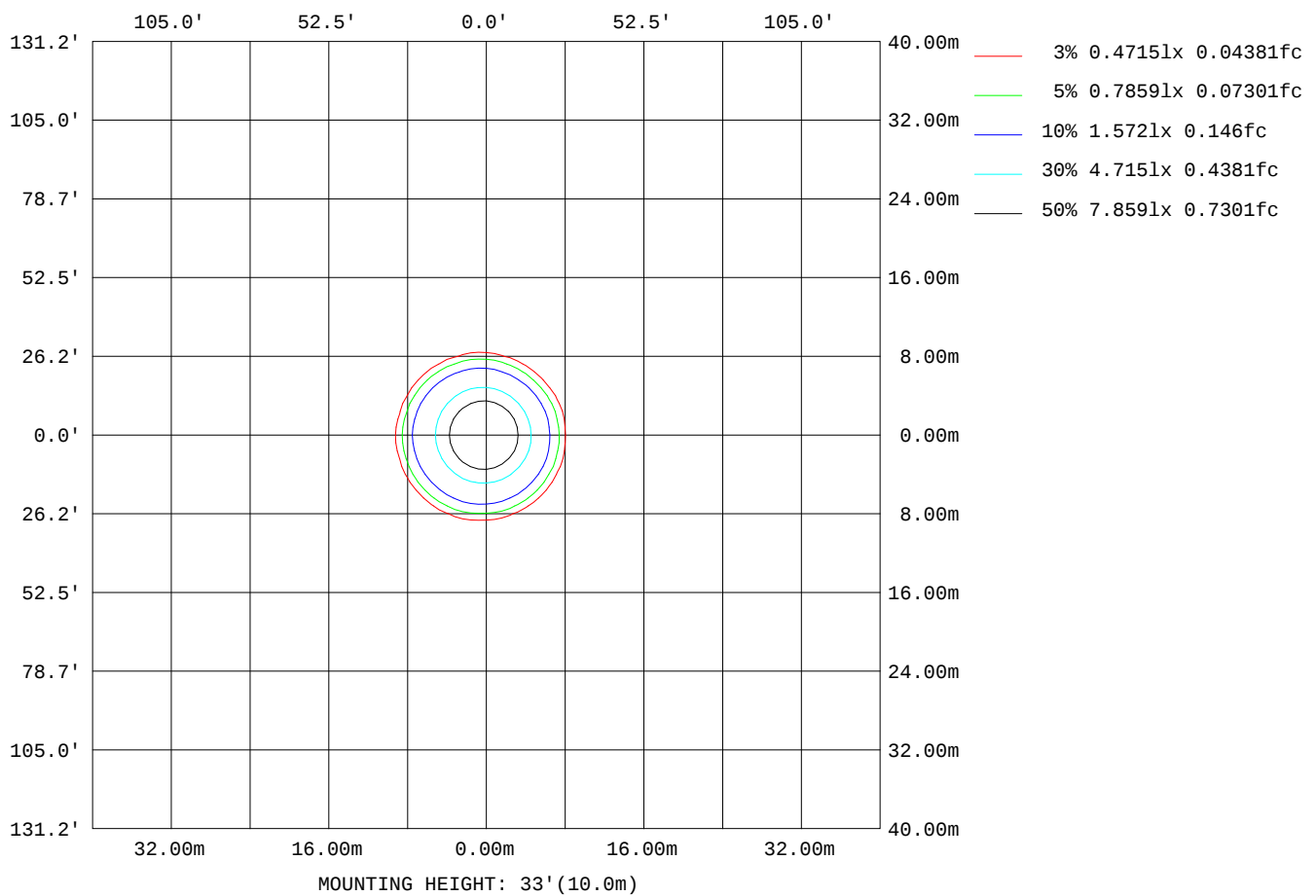
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-07-15

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:231.93V I:0.0483A P:9.9411W PF:0.8868 Freq:49.99Hz Lamp Flux:1005.37x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-07-15

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:231.93V I:0.0483A P:9.9411W PF:0.8868 Freq:49.99Hz Lamp Flux:1005.37x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

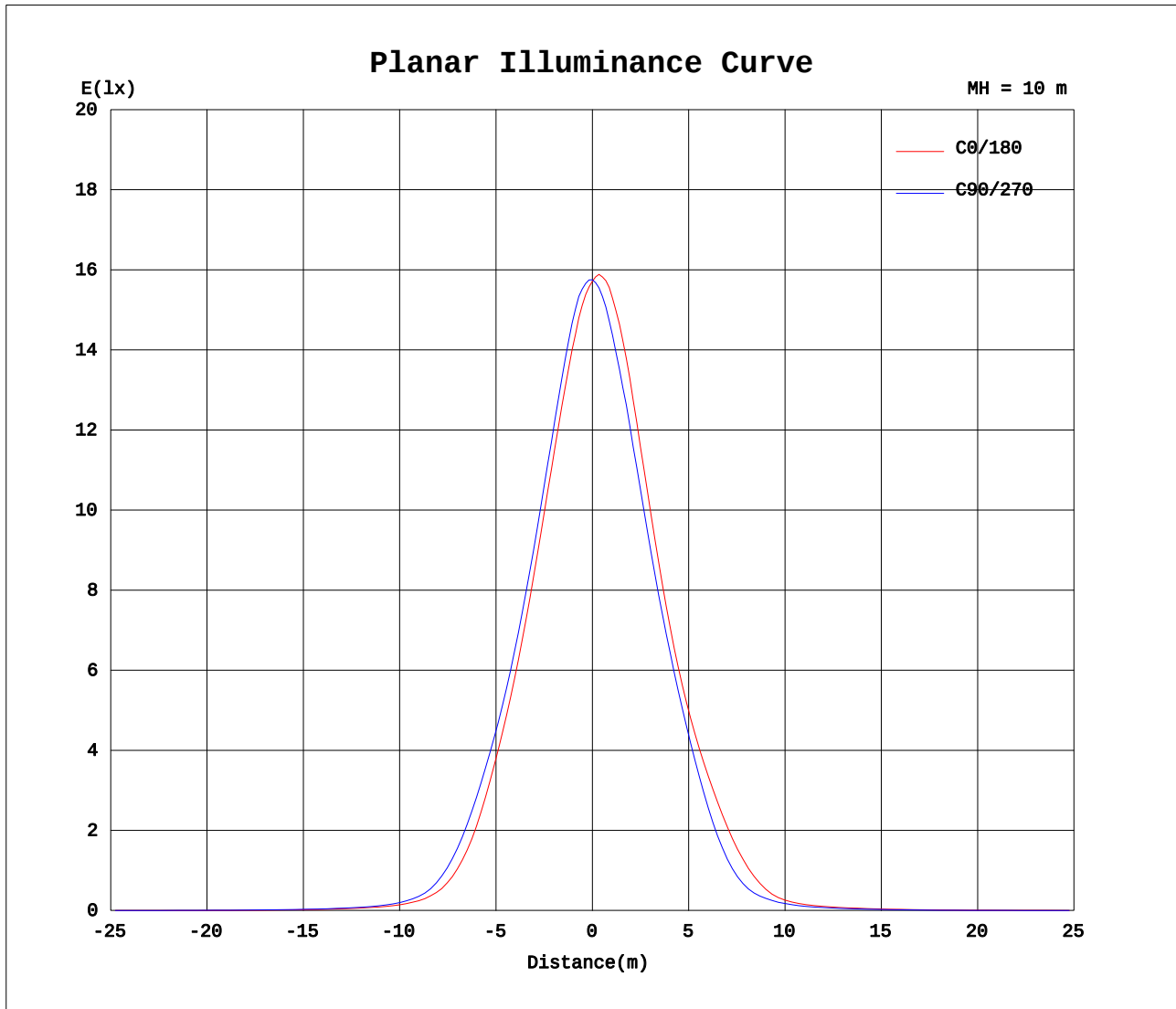
AvgL	cd/m2
L_0~180(65)av	2668
L_0~180(75)av	1529
L_0~180(85)av	1129
L_90~270(65)av	2326
L_90~270(75)av	1489
L_90~270(85)av	1051
L_45(65)av	2456
L_45(75)av	1504
L_45(85)av	1088

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2025-07-15

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: 2025-07-15

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:

```