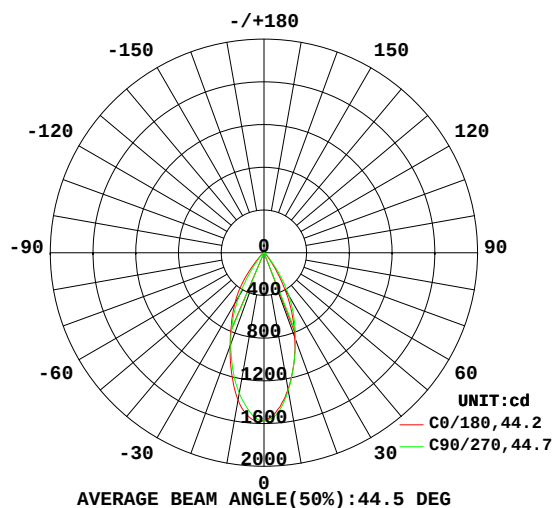


LUMINAIRE PHOTOMETRIC TEST REPORT

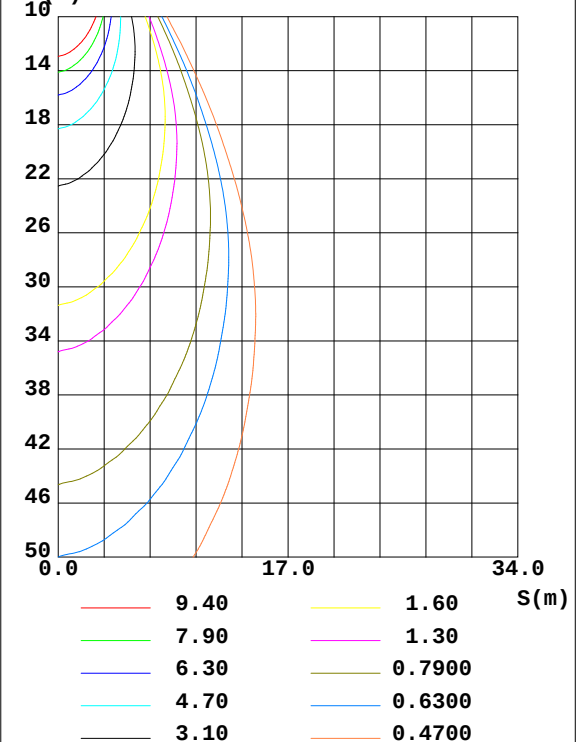
Test:U:231.89V I:0.0496A P:10.286W PF:0.8943 Freq:49.99Hz Lamp Flux:996.917x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 96.92 lm/W			
MODEL	TB8-1911A 5000K	I _{max} (cd)	1584	S/MH(C0/180)	0.72
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.70
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	996.92	η UP, DN(C0-180)	0.0, 49.4
NOMINAL FLUX(lm)	996.917	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	0.75

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:

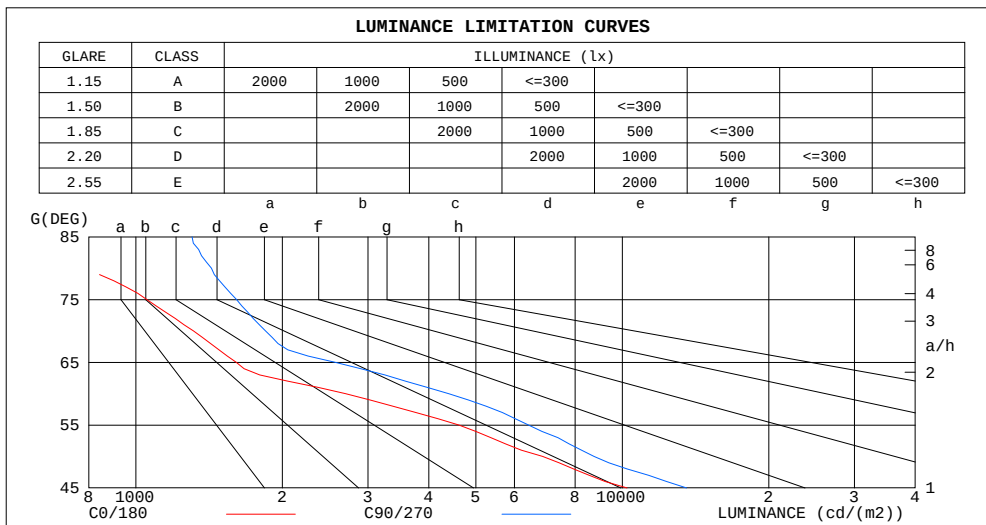
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1302	1300	1309	1353	1402	1363	1336	1323	0- 10	138.4	138.4	13.9,13.9
20	844.4	846.2	863.5	903.3	929.4	913.4	910.7	876.5	10- 20	308.7	447.1	44.9,44.9
30	386.0	419.6	472.2	519.5	546.9	528.4	466.3	395.0	20- 30	305.9	753.0	75.5,75.5
40	84.11	93.77	117.7	164.6	188.2	141.2	99.77	87.21	30- 40	169.1	922.2	92.5,92.5
50	25.00	27.23	31.87	37.88	40.38	35.09	28.86	25.81	40- 50	46.98	969.1	97.2,97.2
60	7.647	9.040	12.47	15.87	17.16	14.22	10.44	8.204	50- 60	18.34	987.5	99.1,99.1
70	2.547	2.897	3.582	4.202	4.374	3.860	3.139	2.639	60- 70	6.428	993.9	99.7,99.7
80	0.7732	0.9938	1.407	1.775	1.831	1.523	1.092	0.8022	70- 80	2.376	996.3	99.9,99.9
90	0	0	0.0367	0.2481	0.3032	0.1286	0	0	80- 90	0.6347	996.9	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:231.89V I:0.0496A P:10.286W PF:0.8943 Freq:49.99Hz Lamp Flux:996.917x1 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	328	1305
80	785	1429
75	1053	1611
70	1314	1847
65	1608	2568
60	2697	4397
55	4613	6415
50	6859	8745
45	10219	13556

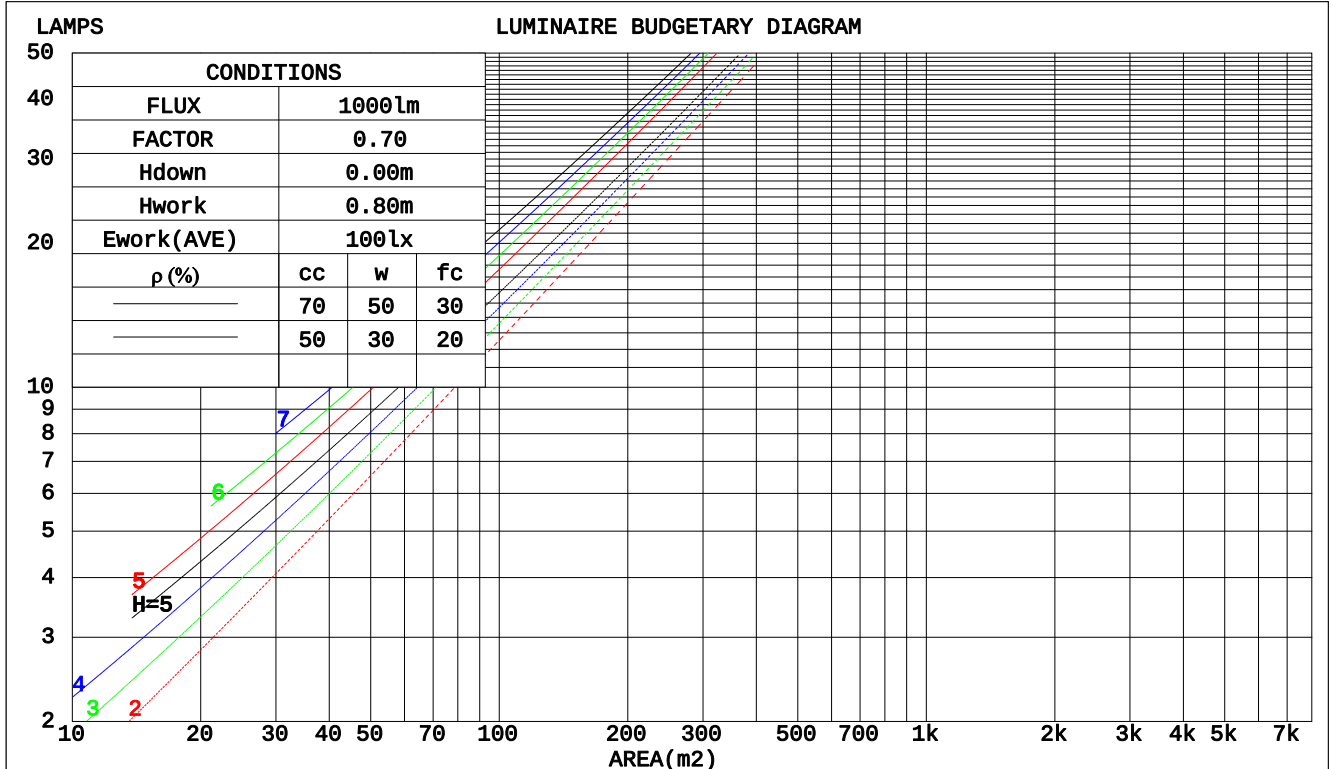
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-07-15

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:231.89V I:0.0496A P:10.286W PF:0.8943 Freq:49.99Hz Lamp Flux:996.917x1 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	1.00
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	.88	.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	.85	.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	.75	.70	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.64
8.0	.72	.66	.62	.72	.66	.62	.70	.66	.62	.69	.65	.62	.69	.65	.62	.60
9.0	.68	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.58	.65	.61	.58	.57
10.0	.65	.60	.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:231.89V I:0.0496A P:10.286W PF:0.8943 Freq:49.99Hz Lamp Flux:996.917x1 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	.095	.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	.132	.069	.020	.126	.067	.020	.120	.064	.019	
6.0	.136	.068	.020	.133	.067	.019	.127	.065	.019	.121	.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	.058	.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	

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	.155	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.122	.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:231.89V I:0.0496A P:10.286W PF:0.8943 Freq:49.99Hz Lamp Flux:996.917x1 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	15.6	16.6	15.9	16.7	16.9	16.9	17.8	17.1	18.0	18.2
3H	15.5	16.4	15.8	16.6	16.8	16.8	17.6	17.1	17.8	18.0
4H	15.4	16.2	15.7	16.5	16.7	16.7	17.5	17.0	17.7	18.0
6H	15.4	16.1	15.7	16.4	16.6	16.7	17.4	17.0	17.7	17.9
8H	15.3	16.0	15.6	16.3	16.6	16.6	17.4	16.9	17.6	17.9
12H	15.3	16.0	15.6	16.2	16.5	16.6	17.3	16.9	17.5	17.8
4H 2H	15.5	16.3	15.7	16.5	16.7	16.7	17.5	17.0	17.7	17.9
3H	15.3	16.0	15.7	16.3	16.6	16.6	17.3	16.9	17.6	17.8
4H	15.3	15.9	15.6	16.2	16.5	16.5	17.2	16.9	17.5	17.8
6H	15.2	15.8	15.6	16.1	16.4	16.5	17.0	16.9	17.4	17.7
8H	15.2	15.7	15.6	16.0	16.4	16.4	17.0	16.8	17.3	17.7
12H	15.1	15.6	15.5	15.9	16.3	16.4	16.9	16.8	17.2	17.6
8H 4H	15.2	15.7	15.5	16.0	16.4	16.4	16.9	16.8	17.3	17.6
6H	15.1	15.5	15.5	15.9	16.3	16.4	16.8	16.8	17.2	17.6
8H	15.0	15.4	15.5	15.8	16.3	16.3	16.7	16.8	17.1	17.5
12H	15.0	15.3	15.5	15.7	16.2	16.3	16.6	16.7	17.0	17.5
12H 4H	15.1	15.6	15.5	15.9	16.3	16.4	16.8	16.8	17.2	17.6
6H	15.0	15.4	15.5	15.8	16.3	16.3	16.7	16.7	17.1	17.5
8H	15.0	15.3	15.5	15.7	16.2	16.3	16.6	16.7	17.0	17.5
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 3.0 / - 5.4					+ 3.7 / - 5.2				
1.5H	+ 4.6 / - 3.5					+ 5.6 / - 4.1				
2.0H	+ 3.5 / - 4.5					+ 4.0 / - 4.3				

CIE Pub.117, 996.9 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:231.89V I:0.0496A P:10.286W PF:0.8943 Freq:49.99Hz Lamp Flux:996.917x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

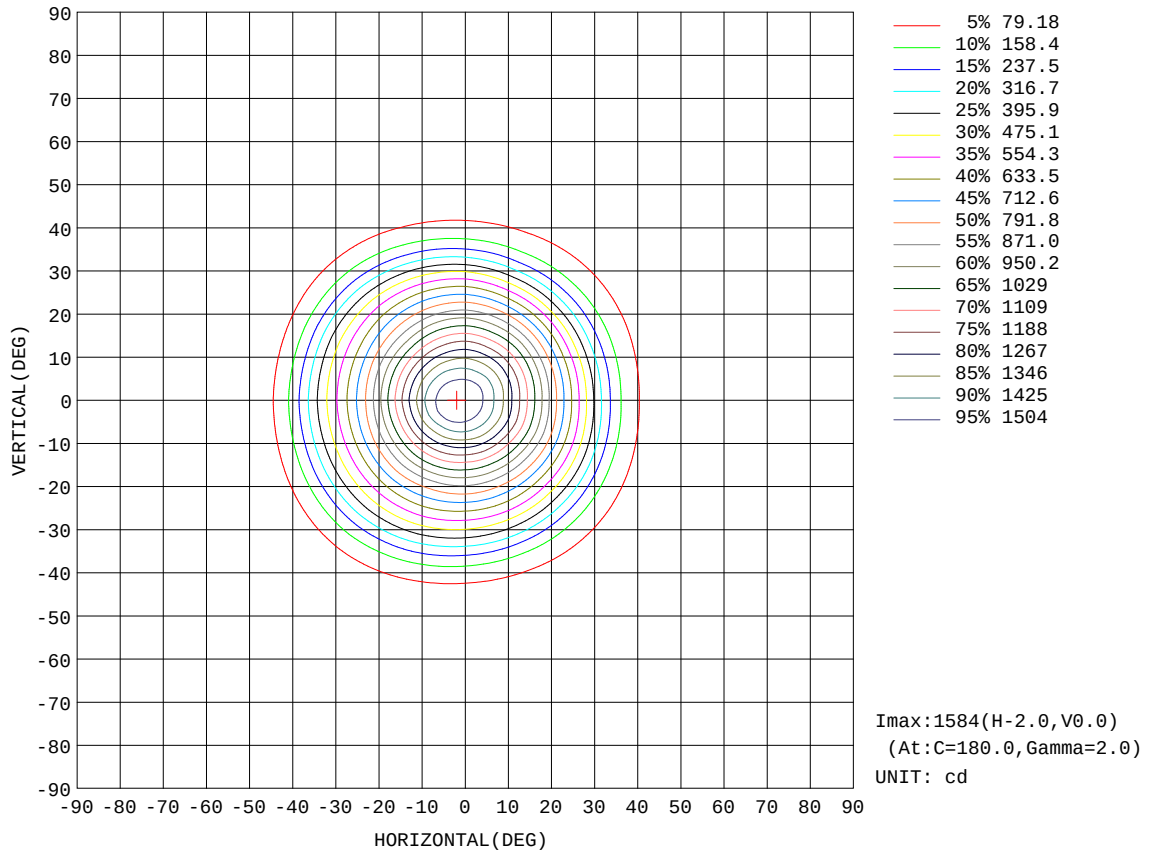
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	77	86	80	76	86	80	76	73
0.80	94	88	85	94	88	84	92	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:231.89V I:0.0496A P:10.286W PF:0.8943 Freq:49.99Hz Lamp Flux:996.917x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

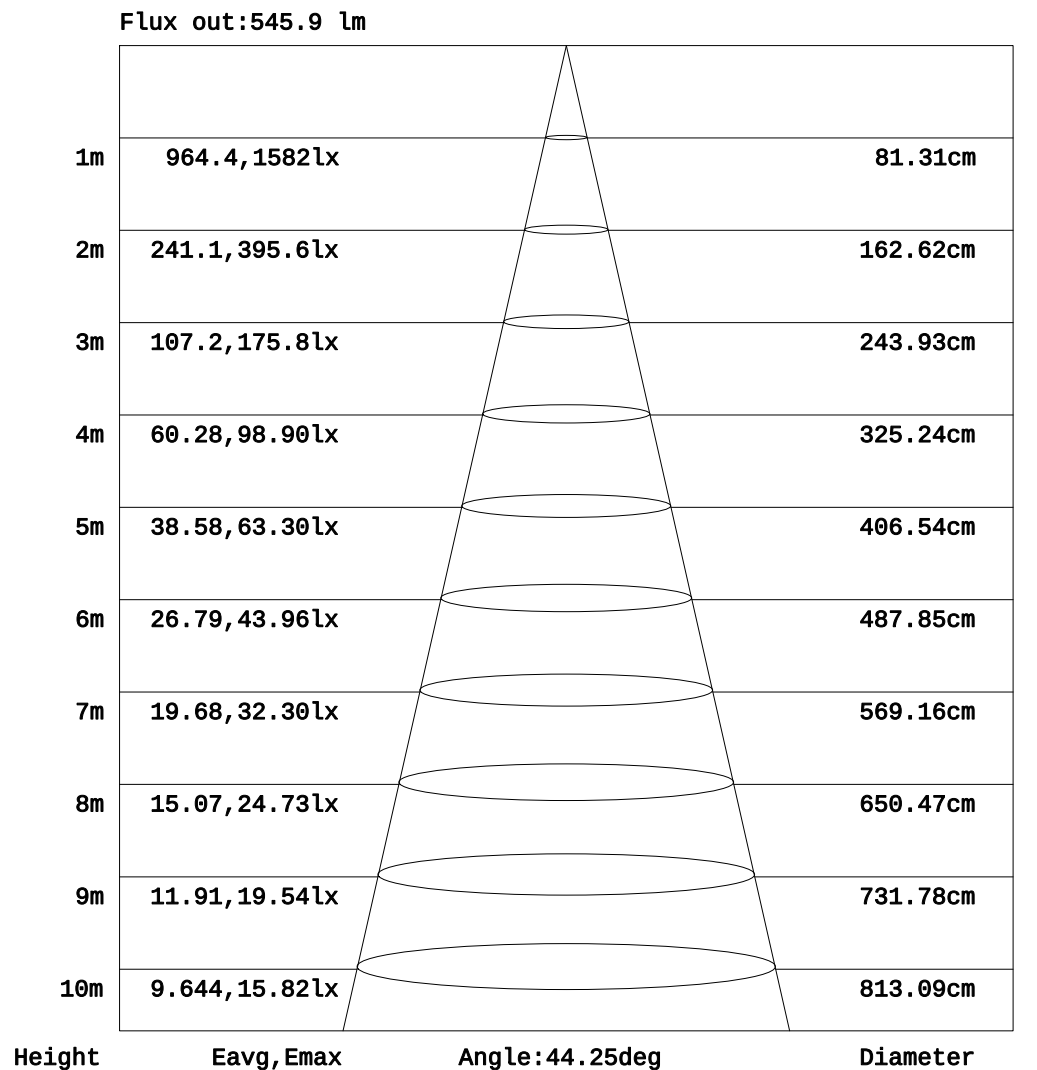


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-07-15

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:231.89V I:0.0496A P:10.286W PF:0.8943 Freq:49.99Hz Lamp Flux:996.917x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:



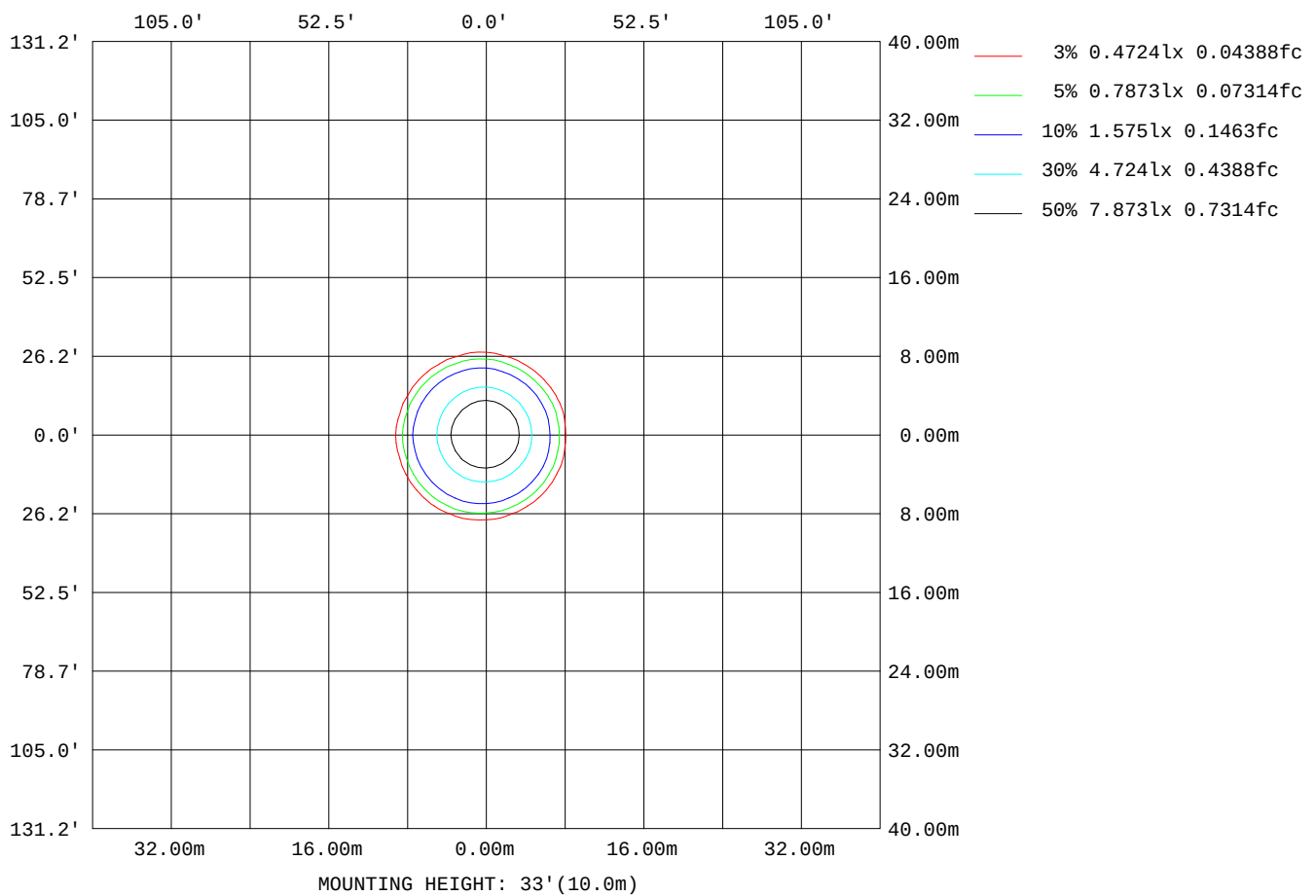
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:231.89V I:0.0496A P:10.286W PF:0.8943 Freq:49.99Hz Lamp Flux:996.917x1 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:231.89V I:0.0496A P:10.286W PF:0.8943 Freq:49.99Hz Lamp Flux:996.917x1 lm		
NAME: DL9452-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

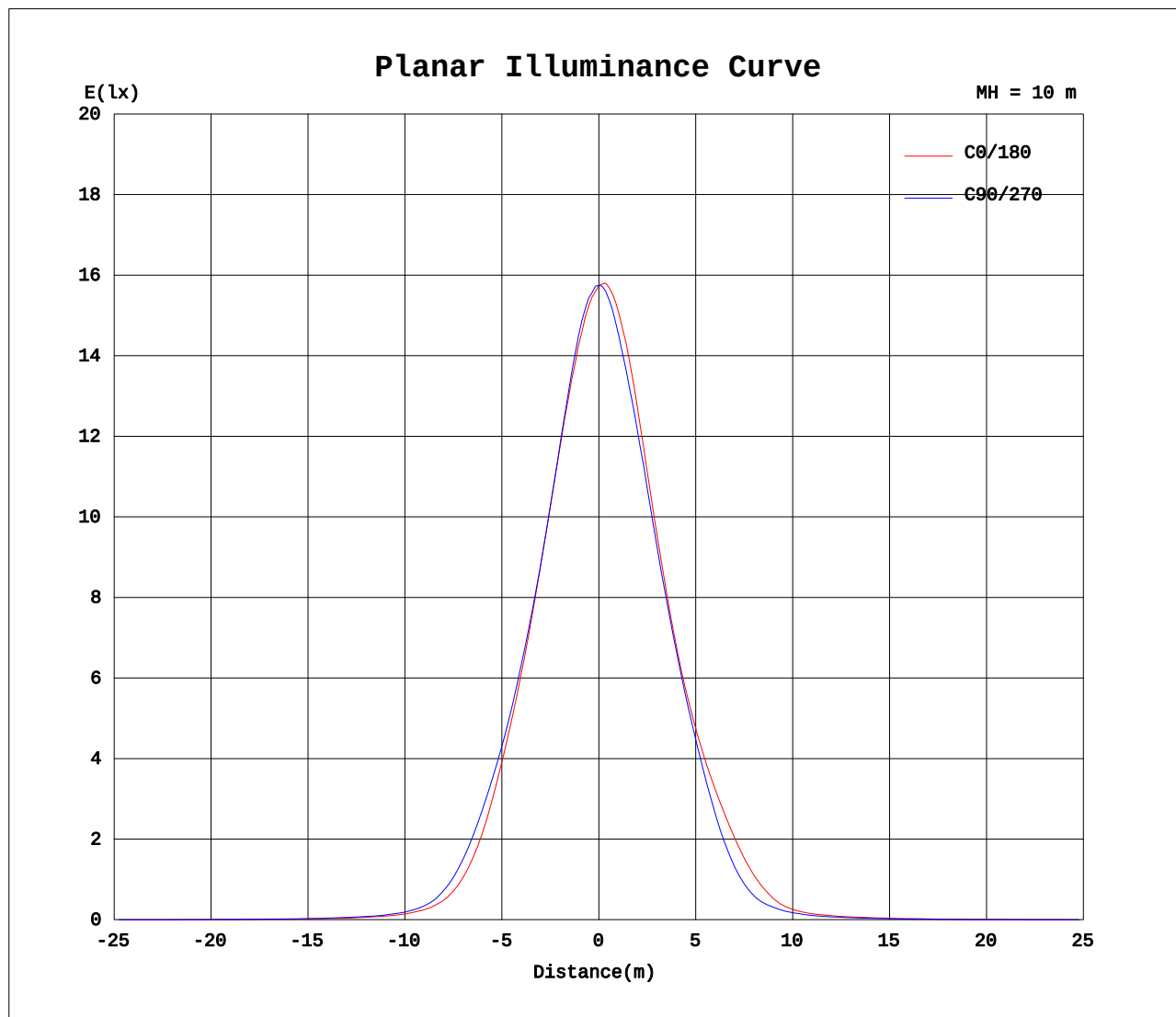
AvgL	cd/m2
L_0~180(65)av	2697
L_0~180(75)av	1534
L_0~180(85)av	1134
L_90~270(65)av	2319
L_90~270(75)av	1484
L_90~270(85)av	1055
L_45(65)av	2454
L_45(75)av	1504
L_45(85)av	1079

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:

```