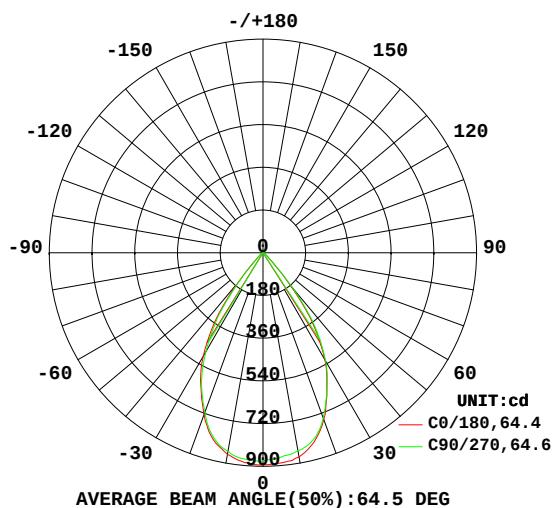


LUMINAIRE PHOTOMETRIC TEST REPORT

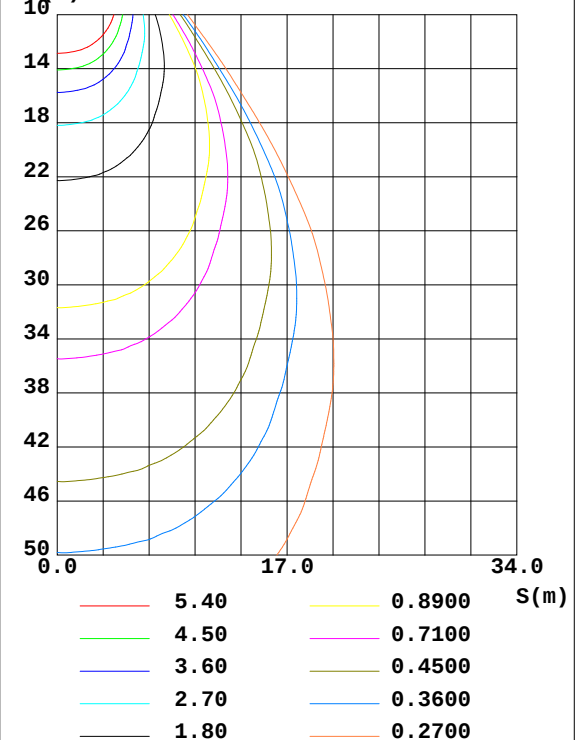
Test:U:230.49V I:0.0432A P:8.6989W PF:0.8731 Freq:49.99Hz Lamp Flux:890.439x1 lm		
NAME: DL9454-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 102.36 lm/W			
MODEL	2835 16 4000K	I _{max} (cd)	894.2	S/MH(C0/180)	0.95
NOMINAL POWER(W)	9	LOR(%)	100.0	S/MH(C90/270)	0.94
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	890.44	η UP, DN(C0-180)	0.0, 51.6
NOMINAL FLUX(lm)	890.439	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 48.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.00

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: 2025-04-07

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:

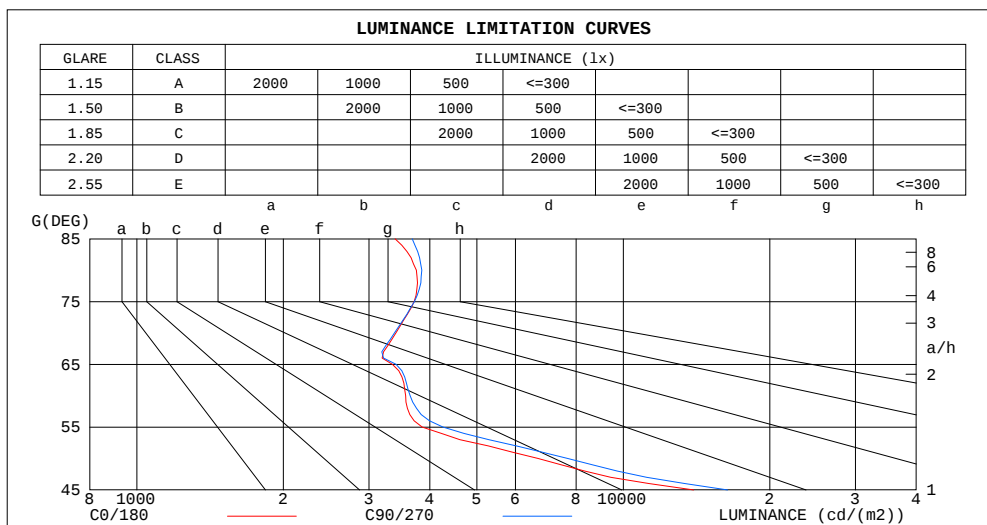
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	873.6	861.5	846.2	843.7	861.9	856.6	850.0	854.5	0- 10	82.76	82.76	9.29, 9.29
20	748.3	755.6	742.6	728.8	727.1	716.2	716.5	725.4	10- 20	226.1	308.9	34.7, 34.7
30	521.8	534.1	528.9	507.2	504.2	481.5	482.7	495.0	20- 30	285.5	594.4	66.7, 66.7
40	182.8	202.2	200.4	172.8	163.3	148.1	148.6	164.1	30- 40	215.8	810.1	91, 91
50	24.32	28.36	27.99	23.15	22.41	20.74	20.87	22.33	40- 50	52.50	862.6	96.9, 96.9
60	10.11	10.47	10.33	9.820	9.914	9.574	9.487	9.666	50- 60	12.60	875.2	98.3, 98.3
70	6.608	6.589	6.562	6.479	6.640	6.461	6.378	6.406	60- 70	7.898	883.1	99.2, 99.2
80	3.697	3.785	3.794	3.615	3.601	3.372	3.308	3.459	70- 80	5.517	888.7	99.8, 99.8
90	0.0046	0.0551	0.0643	0	0.0046	0	0	0	80- 90	1.785	890.4	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: 2025-04-07

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:230.49V I:0.0432A P:8.6989W PF:0.8731 Freq:49.99Hz Lamp Flux:890.439x1 lm		
NAME: DL9454-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:



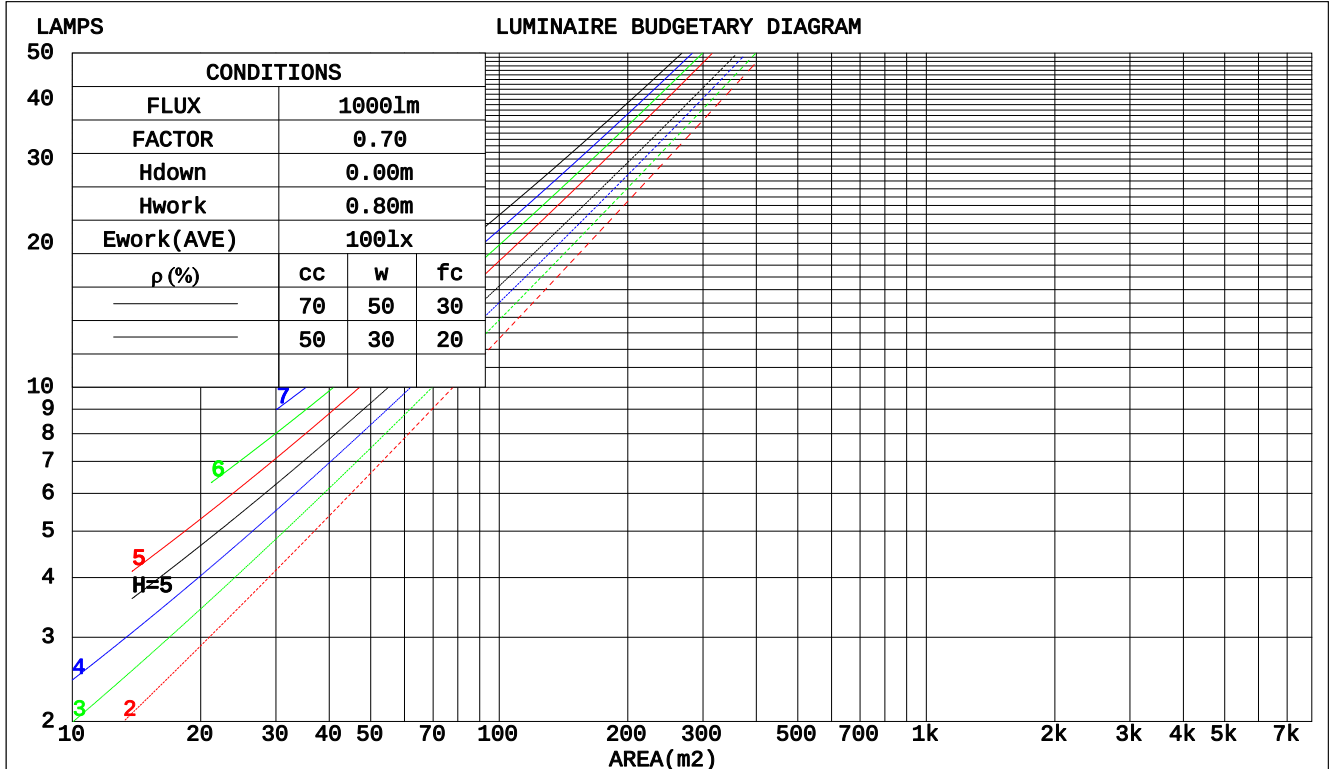
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-04-07

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:230.49V I:0.0432A P:8.6989W PF:0.8731 Freq:49.99Hz Lamp Flux:890.439x1 lm		
NAME: DL9454-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	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	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
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	1.10	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	.97	.93	.97	.94	.91	.94	.92	.89	.91	.89	.87	.86
3.0	.95	.90	.86	.93	.89	.85	.91	.87	.83	.88	.85	.82	.86	.83	.81	.79
4.0	.88	.83	.78	.87	.82	.78	.85	.80	.77	.83	.79	.76	.81	.78	.75	.73
5.0	.82	.76	.72	.81	.76	.72	.80	.75	.71	.78	.74	.70	.76	.73	.70	.68
6.0	.77	.71	.66	.76	.70	.66	.75	.70	.66	.73	.69	.65	.72	.68	.65	.63
7.0	.72	.66	.62	.72	.66	.62	.70	.65	.61	.69	.64	.61	.68	.64	.60	.59
8.0	.68	.62	.57	.67	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.57	.55
9.0	.64	.58	.54	.63	.58	.54	.62	.57	.53	.62	.57	.53	.61	.56	.53	.52
10.0	.60	.54	.50	.60	.54	.50	.59	.54	.50	.58	.53	.50	.57	.53	.50	.48



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-04-07

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:230.49V I:0.0432A P:8.6989W PF:0.8731 Freq:49.99Hz Lamp Flux:890.439x1 lm					
NAME: DL9454-WHTC10C03			TYPE:		WEIGHT:
SPEC.: white RA90 3000K+5700K			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	.187	.107	.034	.181	.103	.033	.168	.096	.031	.156	.090	.029	.146	.084	.027		
2.0	.179	.098	.030	.174	.096	.029	.163	.091	.028	.153	.086	.027	.144	.081	.026		
3.0	.170	.091	.027	.166	.089	.027	.156	.085	.026	.148	.081	.025	.140	.078	.024		
4.0	.162	.084	.025	.158	.083	.024	.150	.080	.024	.143	.077	.023	.136	.074	.022		
5.0	.154	.079	.023	.151	.077	.023	.144	.075	.022	.137	.072	.022	.131	.070	.021		
6.0	.147	.074	.021	.144	.073	.021	.138	.071	.021	.132	.069	.020	.127	.067	.020		
7.0	.141	.069	.020	.138	.069	.020	.132	.067	.019	.127	.065	.019	.122	.064	.019		
8.0	.134	.066	.018	.132	.065	.018	.127	.063	.018	.122	.062	.018	.118	.061	.018		
9.0	.129	.062	.017	.126	.062	.017	.122	.060	.017	.118	.059	.017	.114	.058	.017		
10.0	.123	.059	.016	.121	.059	.016	.117	.057	.016	.114	.056	.016	.110	.055	.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	.112	.135	.114	.096	.092	.079	.067	.053	.046	.039	.017	.015	.013	
3.0	.145	.114	.088	.125	.098	.077	.086	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.135	.099	.071	.116	.086	.062	.080	.060	.044	.046	.035	.026	.015	.011	.008	
5.0	.127	.088	.058	.109	.076	.051	.075	.053	.036	.044	.031	.021	.014	.010	.007	
6.0	.120	.078	.049	.103	.068	.042	.071	.048	.030	.041	.028	.018	.013	.009	.006	
7.0	.113	.071	.041	.098	.061	.036	.067	.043	.025	.039	.025	.015	.013	.008	.005	
8.0	.108	.065	.035	.093	.056	.031	.064	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.103	.060	.031	.089	.052	.027	.061	.036	.019	.036	.021	.011	.012	.007	.004	
10.0	.098	.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:2025-04-07

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:230.49V I:0.0432A P:8.6989W PF:0.8731 Freq:49.99Hz Lamp Flux:890.439x1 lm											
NAME: DL9454-WHTC10C03						TYPE:			WEIGHT:		
SPEC.: white RA90 3000K+5700K						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		20.0	21.0	20.2	21.2	21.3	20.2	21.2	20.4	21.4	21.6
	3H	19.9	20.8	20.2	21.0	21.2	20.1	21.0	20.4	21.2	21.5
	4H	19.9	20.8	20.2	21.0	21.2	20.1	21.0	20.4	21.2	21.4
	6H	19.9	20.7	20.2	21.0	21.2	20.1	20.9	20.4	21.1	21.4
	8H	19.9	20.7	20.2	20.9	21.2	20.1	20.9	20.4	21.1	21.4
	12H	19.9	20.6	20.2	20.9	21.2	20.1	20.8	20.4	21.1	21.4
4H	2H	19.8	20.7	20.1	20.9	21.1	20.0	20.9	20.3	21.1	21.3
	3H	19.7	20.5	20.1	20.8	21.0	19.9	20.7	20.3	21.0	21.2
	4H	19.8	20.4	20.1	20.7	21.1	20.0	20.6	20.3	20.9	21.2
	6H	19.8	20.4	20.2	20.7	21.1	20.0	20.6	20.4	20.9	21.3
	8H	19.8	20.4	20.2	20.7	21.1	20.0	20.6	20.4	20.9	21.3
	12H	19.8	20.3	20.2	20.7	21.1	20.0	20.5	20.4	20.9	21.3
8H	4H	19.7	20.2	20.1	20.6	21.0	19.9	20.4	20.3	20.8	21.2
	6H	19.8	20.2	20.2	20.6	21.0	20.0	20.4	20.4	20.8	21.2
	8H	19.8	20.2	20.3	20.6	21.1	20.0	20.4	20.5	20.8	21.3
	12H	19.9	20.2	20.3	20.6	21.1	20.0	20.4	20.5	20.8	21.3
12H	4H	19.7	20.2	20.1	20.5	20.9	19.8	20.3	20.3	20.7	21.1
	6H	19.8	20.2	20.2	20.6	21.0	19.9	20.3	20.4	20.8	21.2
	8H	19.8	20.2	20.3	20.6	21.1	20.0	20.3	20.5	20.8	21.3
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 2.8 / - 5.5					+ 2.9 / - 5.7					
1.5H	+ 5.1 / - 5.3					+ 5.2 / - 5.5					
2.0H	+ 3.1 / - 1.1					+ 3.7 / - 1.4					

CIE Pub.117, 890.4 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.4)
Area: 0.00567 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-04-07

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:230.49V I:0.0432A P:8.6989W PF:0.8731 Freq:49.99Hz Lamp Flux:890.439x1 lm		
NAME: DL9454-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

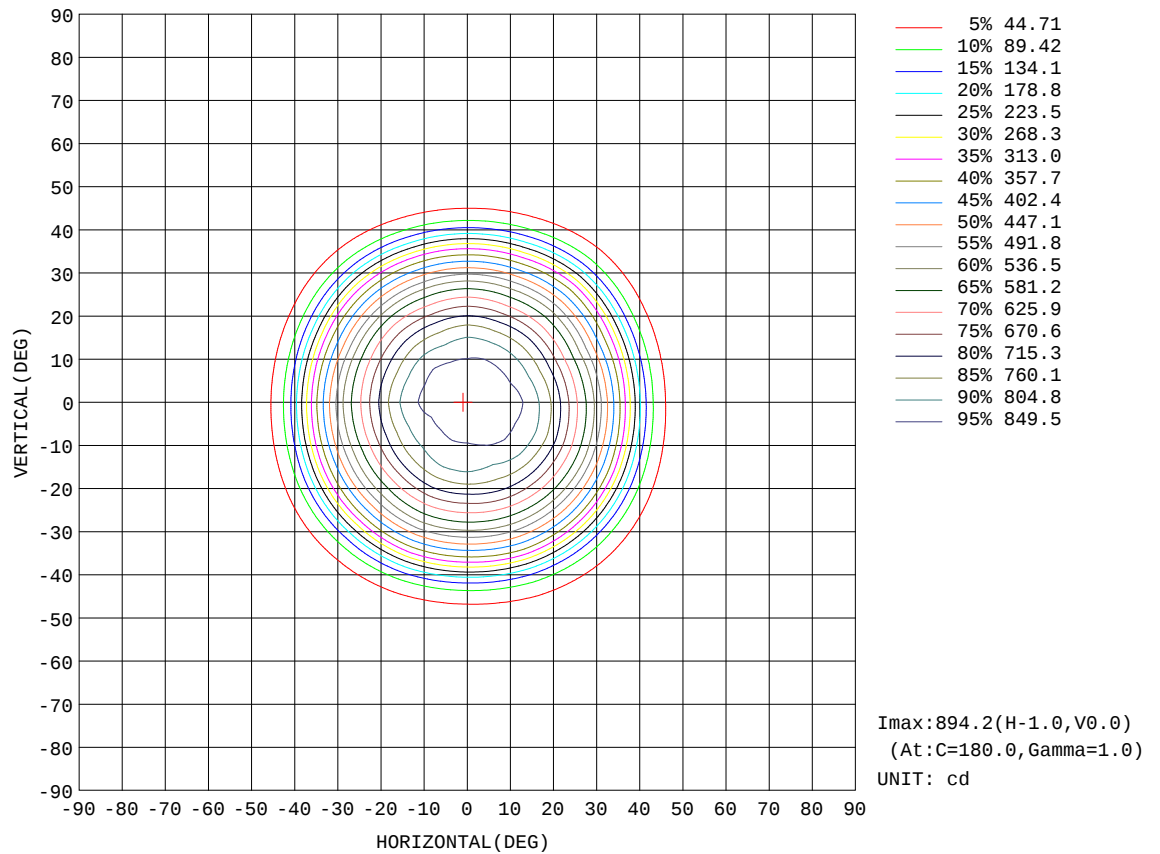
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	79	75	85	79	75	85	79	75	72
0.80	94	87	84	93	87	83	92	86	83	79
1.00	98	92	89	97	92	88	96	92	88	84
1.25	102	97	93	101	96	93	99	95	92	88
1.50	105	100	97	104	99	96	102	98	95	91
2.00	108	104	100	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	111	108	105	110	106	104	106	104	102	95
4.00	113	111	108	111	109	107	108	106	104	97
5.00	115	112	110	113	111	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:2025-04-07

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:230.49V I:0.0432A P:8.6989W PF:0.8731 Freq:49.99Hz Lamp Flux:890.439x1 lm		
NAME: DL9454-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:



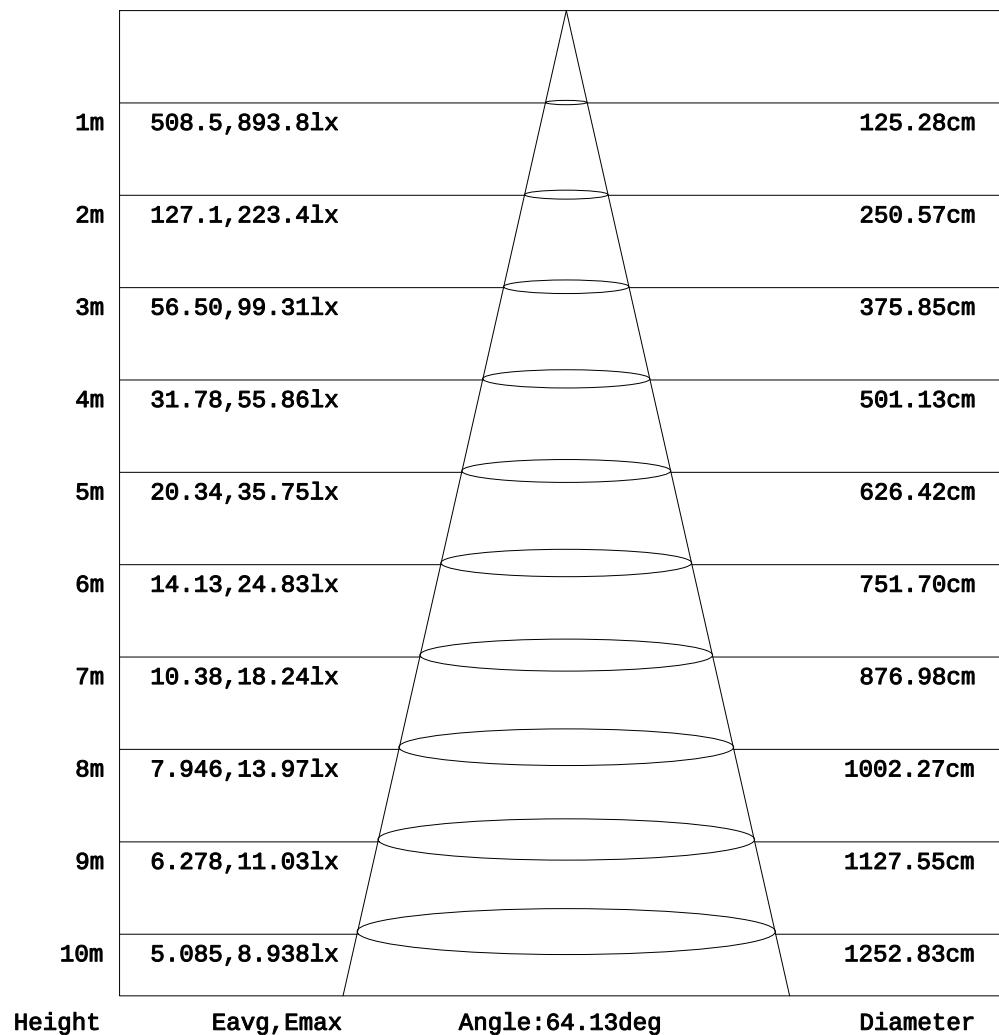
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-04-07

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:230.49V I:0.0432A P:8.6989W PF:0.8731 Freq:49.99Hz Lamp Flux:890.439x1 lm		
NAME: DL9454-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

Flux out:673.7 lm



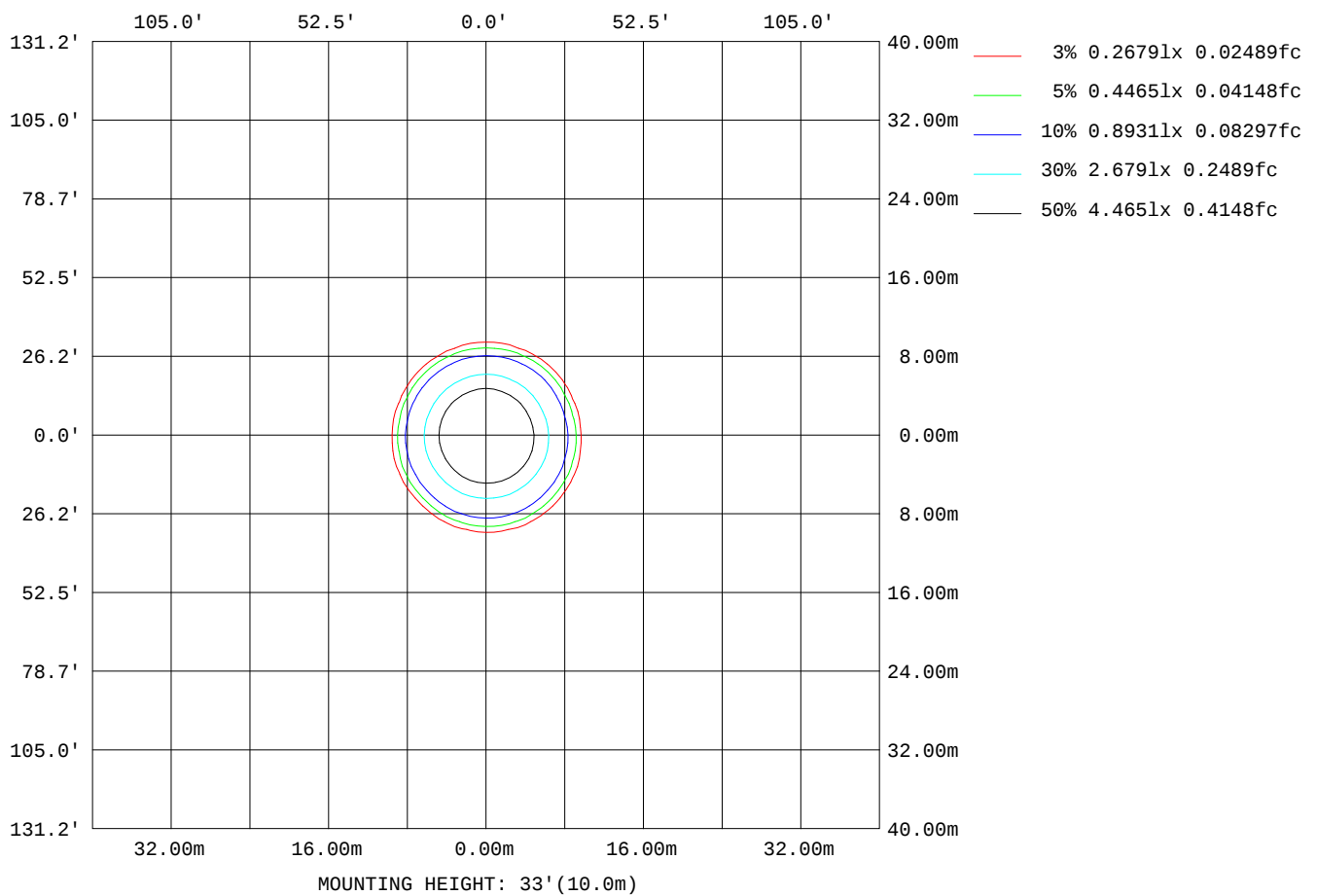
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2025-04-07

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:230.49V I:0.0432A P:8.6989W PF:0.8731 Freq:49.99Hz Lamp Flux:890.439x1 lm		
NAME: DL9454-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-04-07

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:230.49V I:0.0432A P:8.6989W PF:0.8731 Freq:49.99Hz Lamp Flux:890.439x1 lm		
NAME: DL9454-WHTC10C03	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

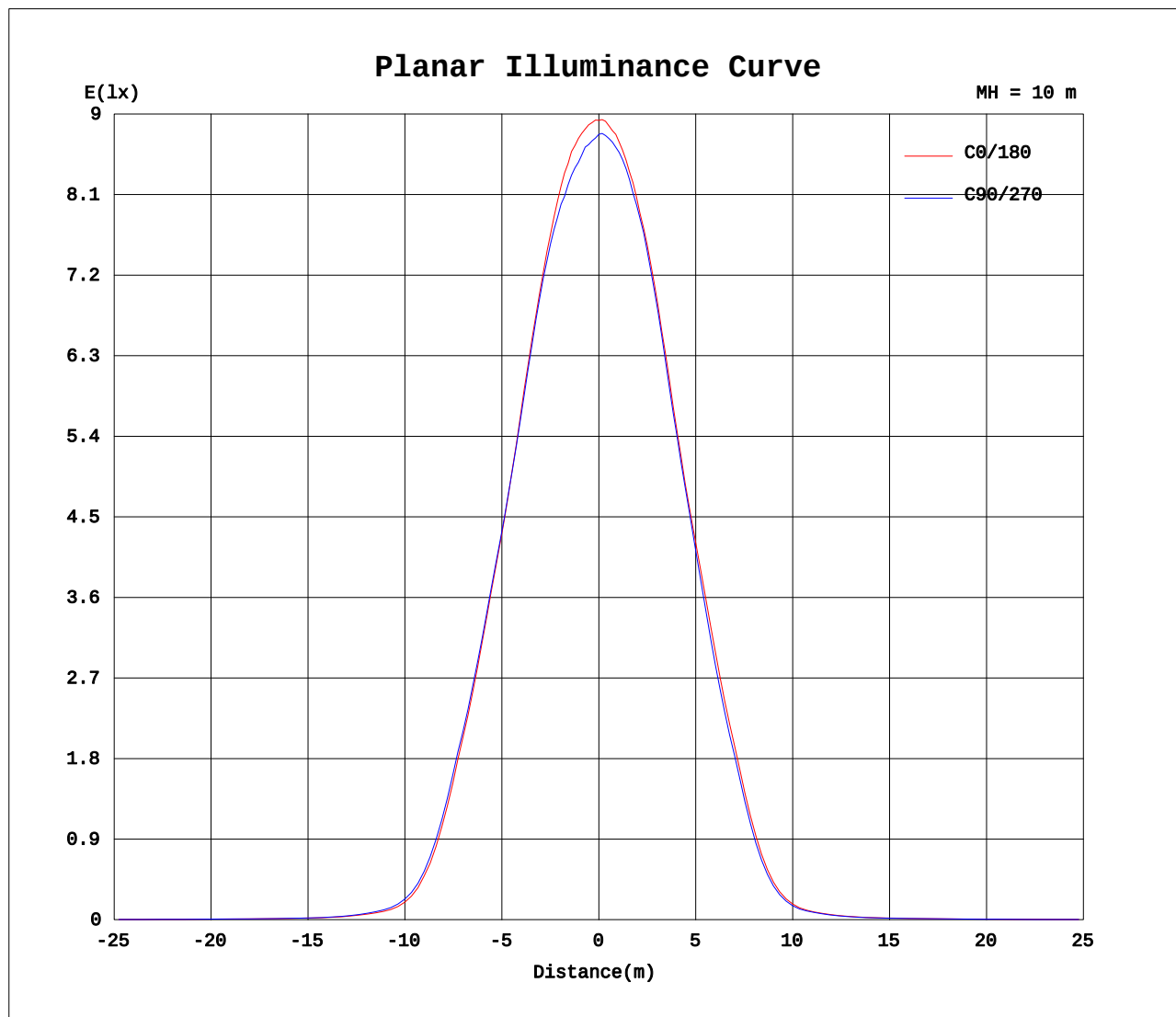
AvgL	cd/m2
L_0~180(65)av	3308
L_0~180(75)av	3713
L_0~180(85)av	3282
L_90~270(65)av	3240
L_90~270(75)av	3617
L_90~270(85)av	3202
L_45(65)av	3254
L_45(75)av	3627
L_45(85)av	3205

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-04-07

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: 2025-04-07

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:

```