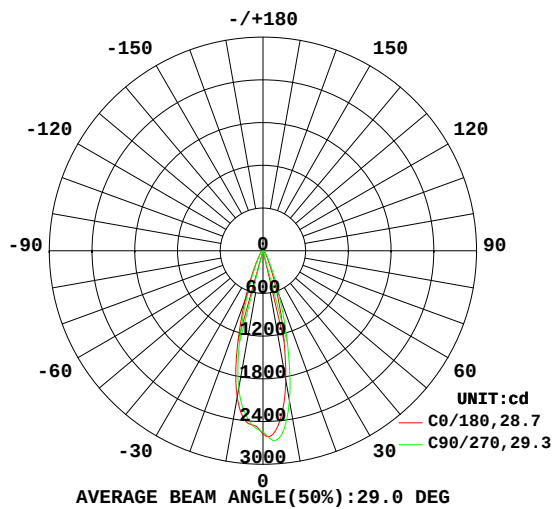


LUMINAIRE PHOTOMETRIC TEST REPORT

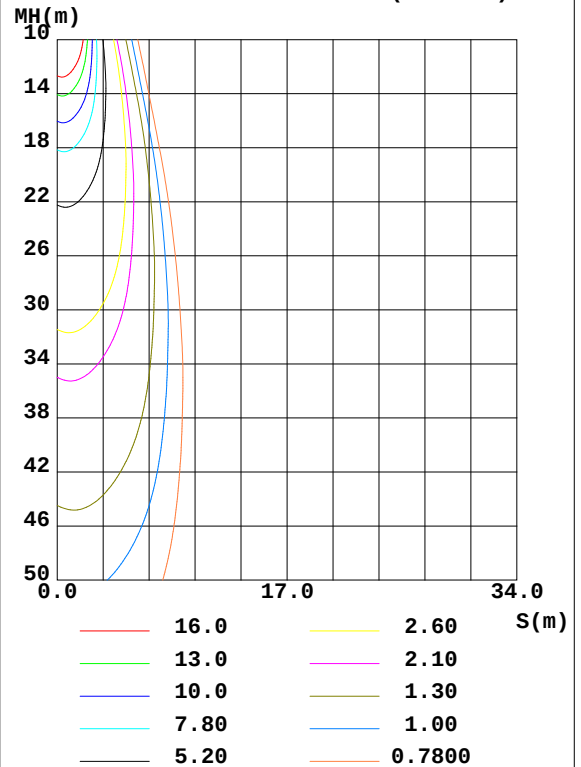
Test:U:220.39V I:0.0501A P:10.500W PF:0.9508 Freq:50.01Hz Lamp Flux:863.31x1 lm					
NAME: DL1541-WHTC10C02			TYPE:		WEIGHT:
SPEC.: white RA90 3000K+5000K			DIM.:		SERIAL No.:
MFR.:			SUR.: 90mm		Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 82.22 lm/W
MODEL	3000K	I _{max} (cd)	2674	S/MH(C0/180)	0.51	
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.48	
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	863.31	η UP, DN(C0-180)	0.0, 50.8	
NOMINAL FLUX(lm)	863.31	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.2	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.50	

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: 2023-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

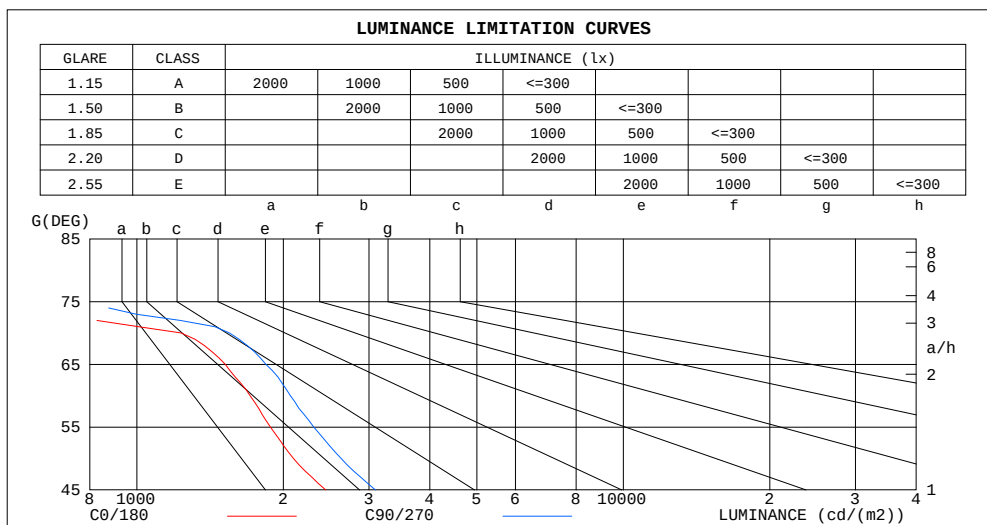
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1846	1980	2143	2182	2092	1994	1964	1865	0- 10	221.2	221.2	25.6, 25.6
20	499.0	558.5	668.4	730.0	738.6	692.8	614.8	539.4	10- 20	339.1	560.3	64.9, 64.9
30	132.4	147.6	166.3	170.5	180.9	174.2	161.3	142.4	20- 30	147.4	707.7	82, 82
40	58.24	67.75	73.33	73.77	71.30	66.65	67.83	63.62	30- 40	64.01	771.7	89.4, 89.4
50	34.32	40.15	43.00	42.62	39.12	36.35	37.65	35.88	40- 50	39.36	811.1	93.9, 93.9
60	21.75	24.88	26.31	25.84	24.58	22.91	22.91	21.61	50- 60	27.34	838.4	97.1, 97.1
70	10.73	12.23	13.49	14.13	14.19	13.15	12.01	10.75	60- 70	18.02	856.4	99.2, 99.2
80	0.9143	1.119	1.452	2.040	2.102	2.166	1.440	1.074	70- 80	6.318	862.7	99.9, 99.9
90	0.0695	0.0656	0.0733	0.0965	0.0695	0.0309	0.0116	0.0039	80- 90	0.5660	863.3	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: 2023-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.39V I:0.0501A P:10.500W PF:0.9508 Freq:50.01Hz Lamp Flux:863.31x1 lm		
NAME: DL1541-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 90mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	141	195
80	207	329
75	568	776
70	1233	1549
65	1519	1842
60	1709	2068
55	1881	2310
50	2098	2629
45	2445	3093

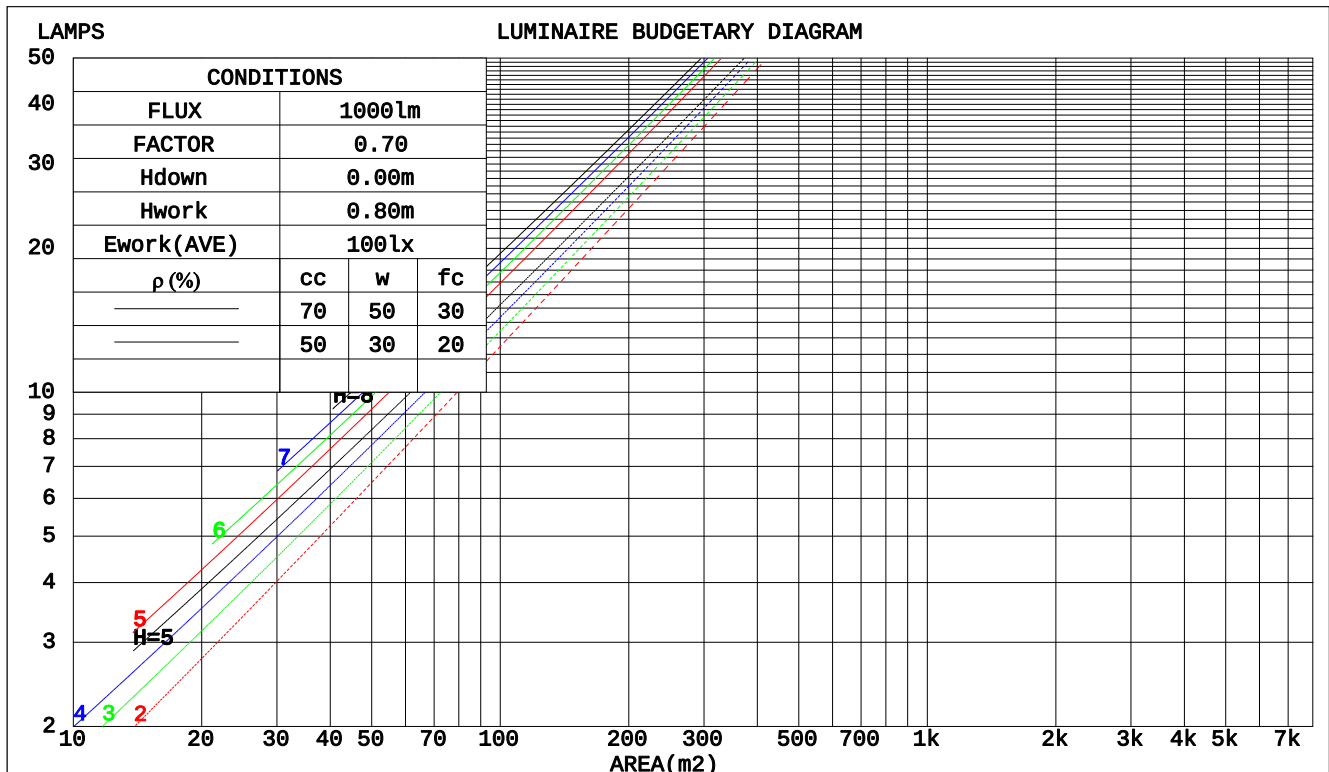
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2023-12-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.39V I:0.0501A P:10.500W PF:0.9508 Freq:50.01Hz Lamp Flux:863.31x1 lm		
NAME: DL1541-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 90mm	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	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.02	1.00	.99	.98	.97	.96	.94
2.0	1.05	1.01	.98	1.03	.99	.97	.99	.97	.95	.97	.95	.93	.94	.92	.91	.89
3.0	.99	.94	.91	.97	.93	.90	.95	.91	.89	.92	.90	.87	.90	.88	.86	.84
4.0	.93	.89	.85	.92	.88	.84	.90	.86	.83	.88	.85	.82	.87	.84	.82	.80
5.0	.89	.84	.80	.88	.83	.80	.86	.82	.79	.85	.81	.78	.83	.80	.78	.76
6.0	.85	.80	.76	.84	.79	.76	.83	.78	.75	.81	.78	.75	.80	.77	.74	.73
7.0	.81	.76	.73	.81	.76	.72	.79	.75	.72	.78	.75	.72	.77	.74	.71	.70
8.0	.78	.73	.70	.78	.73	.69	.77	.72	.69	.76	.72	.69	.75	.71	.69	.67
9.0	.75	.70	.67	.75	.70	.67	.74	.69	.66	.73	.69	.66	.72	.69	.66	.65
10.0	.72	.68	.64	.72	.67	.64	.71	.67	.64	.71	.67	.64	.70	.66	.64	.63



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2023-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:220.39V I:0.0501A P:10.500W PF:0.9508 Freq:50.01Hz Lamp Flux:863.31x1 lm					
NAME: DL1541-WHTC10C02			TYPE:		WEIGHT:
SPEC.: white RA90 3000K+5000K			DIM.:		SERIAL No.:
MFR.:			SUR.: 90mm		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	.165	.094	.030	.159	.090	.029	.146	.084	.027	.135	.078	.025	.124	.072	.023		
2.0	.156	.085	.026	.150	.083	.026	.140	.078	.024	.130	.073	.023	.121	.069	.022		
3.0	.146	.078	.023	.142	.076	.023	.133	.072	.022	.125	.068	.021	.117	.065	.020		
4.0	.137	.071	.021	.133	.070	.021	.126	.067	.020	.119	.064	.019	.112	.061	.019		
5.0	.129	.066	.019	.126	.065	.019	.119	.062	.018	.113	.060	.018	.108	.057	.017		
6.0	.122	.061	.018	.119	.060	.017	.113	.058	.017	.108	.056	.017	.103	.054	.016		
7.0	.116	.057	.016	.113	.056	.016	.108	.055	.016	.103	.053	.015	.099	.051	.015		
8.0	.110	.054	.015	.107	.053	.015	.103	.051	.015	.099	.050	.014	.095	.049	.014		
9.0	.104	.051	.014	.102	.050	.014	.099	.049	.014	.095	.048	.014	.091	.046	.013		
10.0	.100	.048	.013	.098	.047	.013	.094	.046	.013	.091	.045	.013	.088	.044	.013		

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	.170	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.154	.133	.114	.132	.114	.099	.090	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.092	.121	.098	.080	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.129	.098	.075	.111	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.120	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.111	.077	.052	.096	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.104	.069	.045	.089	.060	.039	.062	.042	.028	.036	.025	.016	.012	.008	.005	
8.0	.098	.063	.038	.084	.054	.033	.058	.038	.024	.034	.022	.014	.011	.007	.005	
9.0	.092	.057	.033	.079	.050	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004	
10.0	.087	.052	.029	.075	.046	.026	.052	.032	.018	.030	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.39V I:0.0501A P:10.500W PF:0.9508 Freq:50.01Hz Lamp Flux:863.31x1 lm											
NAME: DL1541-WHTC10C02					TYPE:			WEIGHT:			
SPEC.: white RA90 3000K+5000K					DIM.:			SERIAL No.:			
MFR.:					SUR.: 90mm			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		10.7	11.5	10.9	11.7	11.8	11.6	12.4	11.8	12.6	12.7
	3H	11.5	12.2	11.7	12.4	12.6	12.5	13.2	12.7	13.4	13.6
	4H	11.5	12.2	11.8	12.5	12.7	12.6	13.3	12.8	13.5	13.7
	6H	11.5	12.1	11.7	12.4	12.6	12.5	13.2	12.8	13.4	13.7
	8H	11.4	12.1	11.7	12.3	12.6	12.5	13.1	12.8	13.4	13.7
	12H	11.4	12.0	11.7	12.3	12.5	12.4	13.1	12.8	13.3	13.6
4H	2H	11.2	11.9	11.5	12.1	12.3	11.9	12.7	12.2	12.9	13.1
	3H	12.1	12.7	12.4	13.0	13.2	12.9	13.6	13.2	13.8	14.1
	4H	12.1	12.7	12.5	13.0	13.3	13.0	13.6	13.4	13.9	14.2
	6H	12.0	12.6	12.4	12.9	13.2	13.0	13.5	13.4	13.8	14.2
	8H	12.0	12.5	12.4	12.8	13.2	12.9	13.4	13.3	13.8	14.1
	12H	12.0	12.4	12.4	12.8	13.1	12.9	13.3	13.3	13.7	14.1
8H	4H	12.1	12.6	12.5	12.9	13.3	13.0	13.4	13.4	13.8	14.2
	6H	12.0	12.4	12.5	12.8	13.2	12.9	13.3	13.4	13.7	14.1
	8H	12.0	12.3	12.4	12.7	13.2	12.9	13.2	13.3	13.6	14.1
	12H	11.9	12.2	12.4	12.7	13.1	12.8	13.1	13.3	13.6	14.0
12H	4H	12.0	12.5	12.4	12.8	13.2	12.9	13.3	13.3	13.7	14.1
	6H	12.0	12.3	12.4	12.7	13.2	12.9	13.2	13.3	13.6	14.1
	8H	11.9	12.2	12.4	12.7	13.1	12.8	13.1	13.3	13.6	14.0
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 0.6 / - 0.8					+ 0.5 / - 0.8					
1.5H	+ 0.5 / - 0.8					+ 0.6 / - 0.5					
2.0H	+ 0.6 / - 0.7					+ 1.0 / - 0.9					

CIE Pub.117, 863.3 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.5)
Area: 0.02545 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-12-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.39V I:0.0501A P:10.500W PF:0.9508 Freq:50.01Hz Lamp Flux:863.31x1 lm		
NAME: DL1541-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 90mm	Shielding Angle:

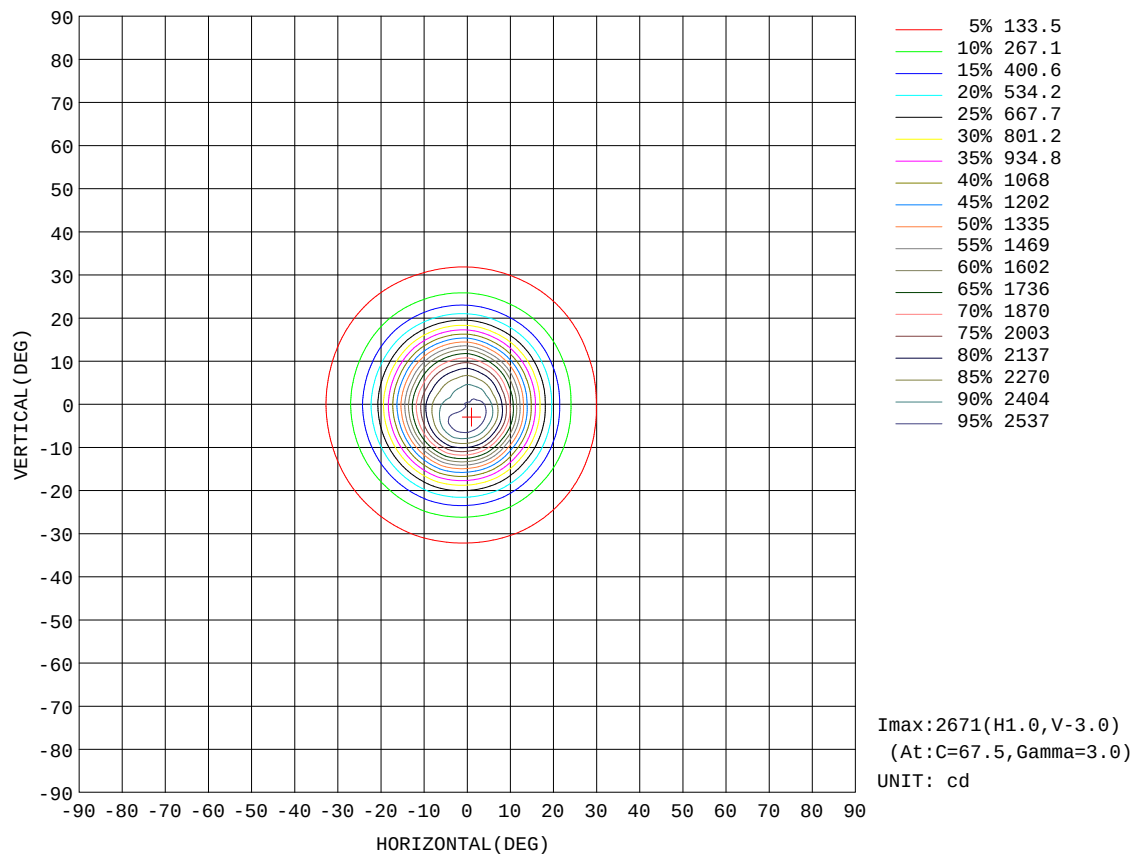
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	84	78	74	84	78	74	70
0.80	93	86	82	92	86	82	91	85	82	78
1.00	97	91	87	96	91	87	95	91	87	82
1.25	102	96	92	100	95	92	98	94	91	87
1.50	104	99	96	103	99	95	101	97	94	89
2.00	107	103	100	106	102	99	103	100	97	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	107	104	109	106	103	106	103	101	95
4.00	113	110	108	111	109	107	108	105	104	97
5.00	115	112	110	112	110	109	108	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:2023-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.39V I:0.0501A P:10.500W PF:0.9508 Freq:50.01Hz Lamp Flux:863.31x1 lm		
NAME: DL1541-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 90mm	Shielding Angle:

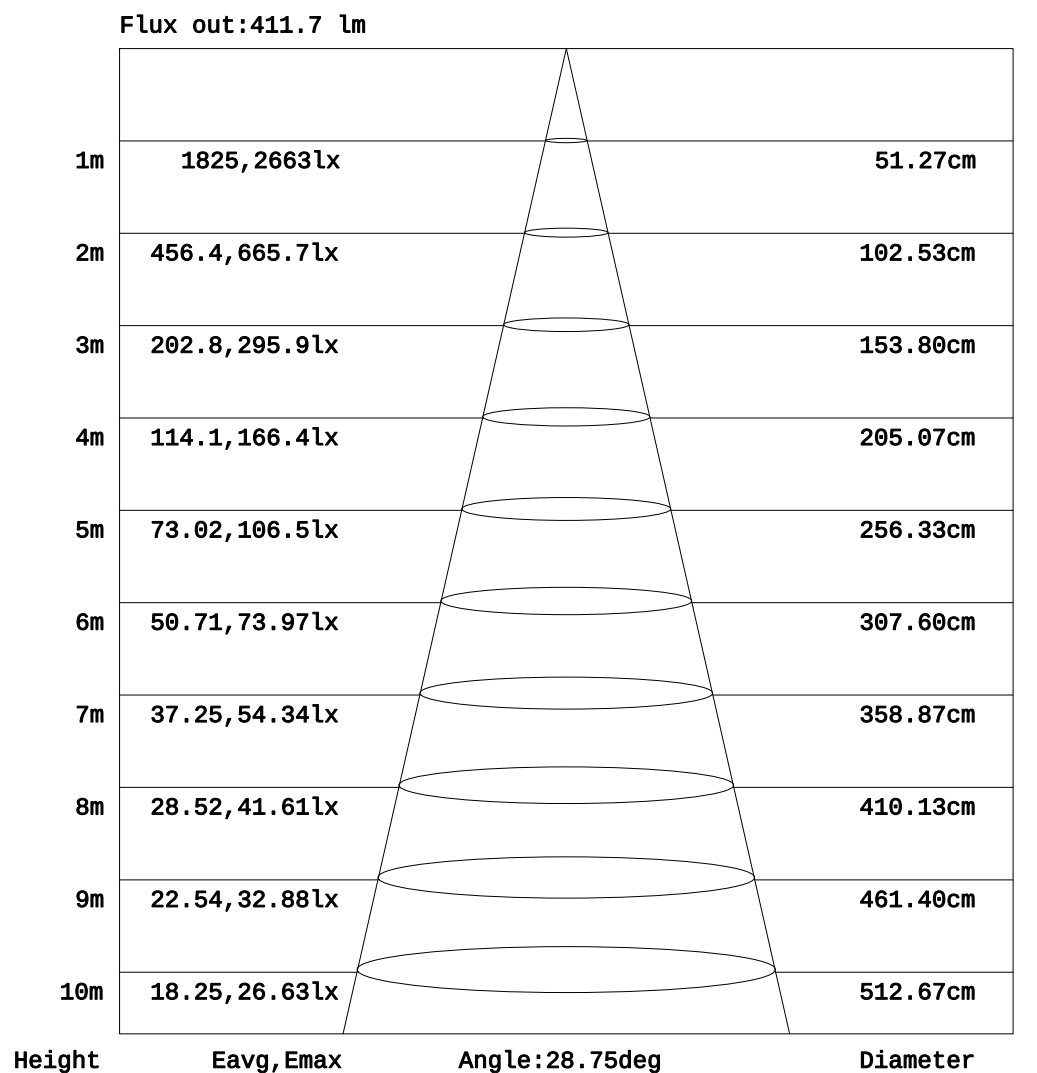


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-12-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.39V I:0.0501A P:10.500W PF:0.9508 Freq:50.01Hz Lamp Flux:863.31x1 lm		
NAME: DL1541-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 90mm	Shielding Angle:



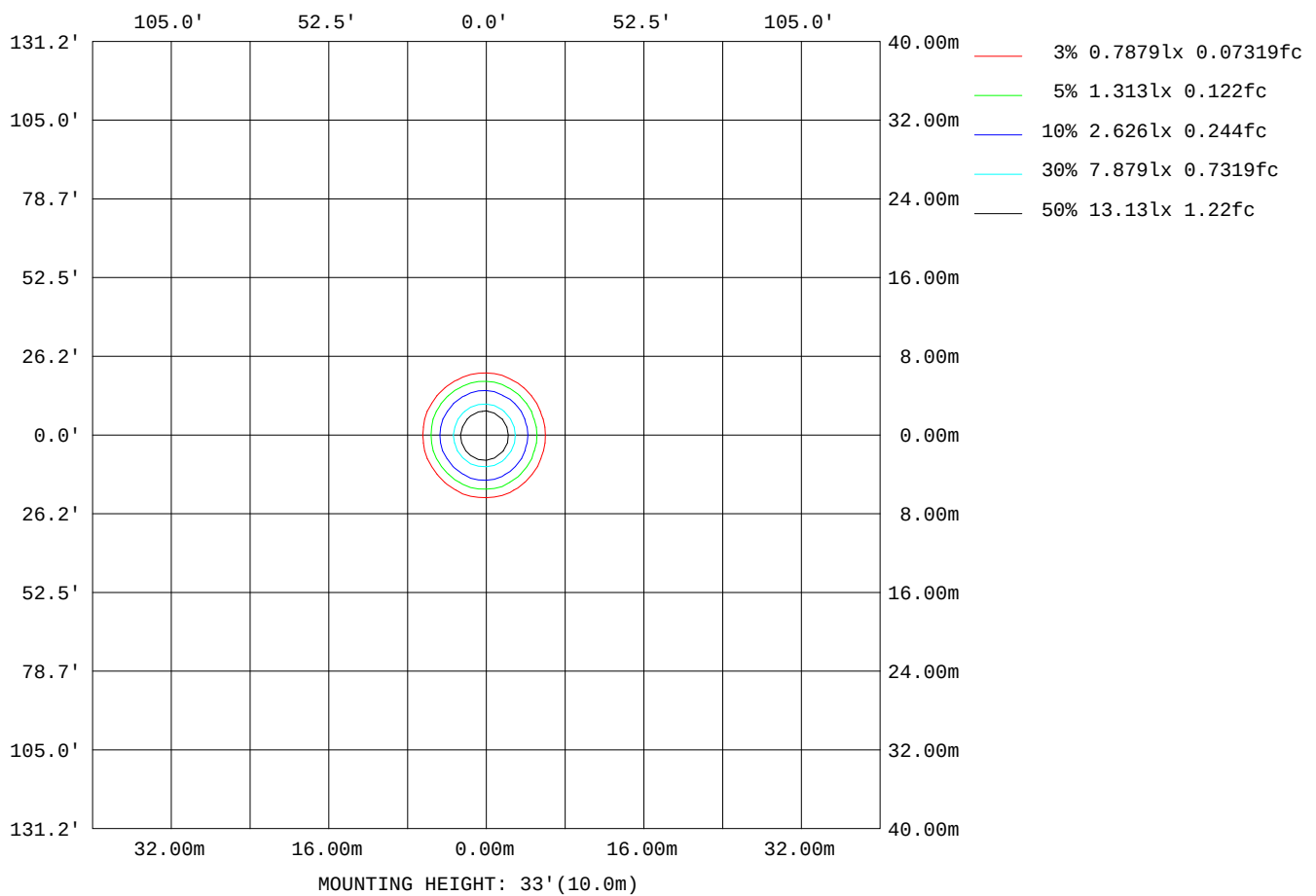
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-12-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:220.39V I:0.0501A P:10.500W PF:0.9508 Freq:50.01Hz Lamp Flux:863.31x1 lm		
NAME: DL1541-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 90mm	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2023-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:220.39V I:0.0501A P:10.500W PF:0.9508 Freq:50.01Hz Lamp Flux:863.31x1 lm		
NAME: DL1541-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5000K	DIM.:	SERIAL No.:
MFR.:	SUR.: 90mm	Shielding Angle:

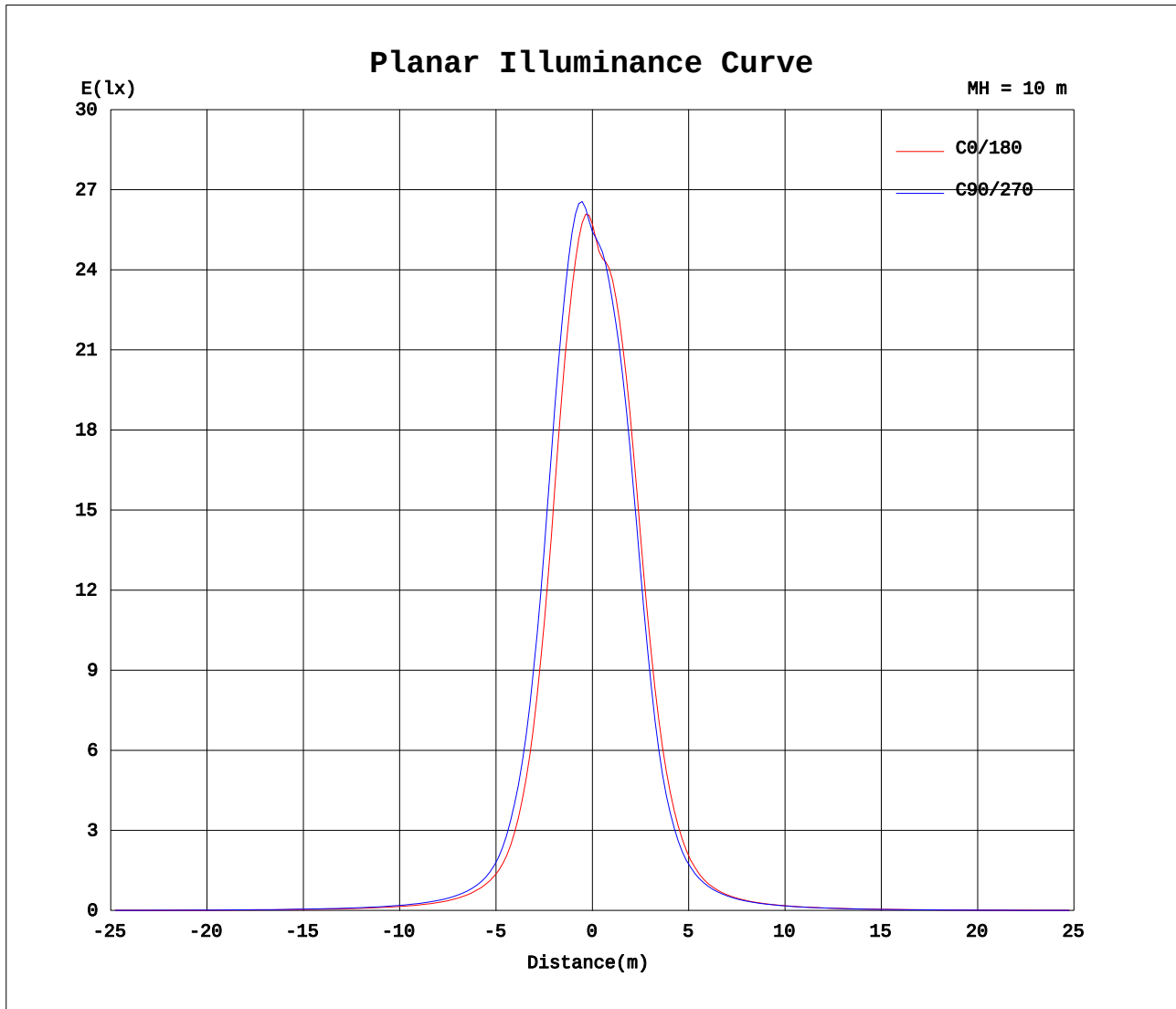
AvgL	cd/m2
L_0~180(65)av	1664
L_0~180(75)av	777
L_0~180(85)av	188
L_90~270(65)av	1724
L_90~270(75)av	764
L_90~270(85)av	191
L_45(65)av	1690
L_45(75)av	797
L_45(85)av	188

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-12-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2023-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [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:7.450m [K=1.0000]
Remarks:

```