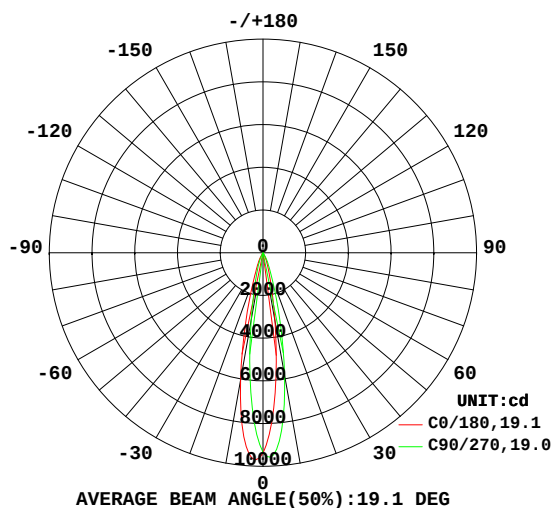


LUMINAIRE PHOTOMETRIC TEST REPORT

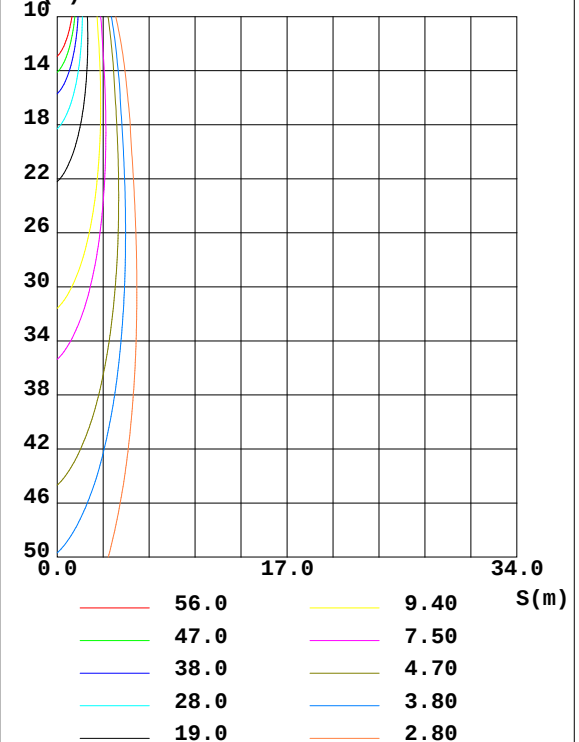
Test:U:220.36V I:0.1636A P:19.843W PF:0.5506 Freq:50.01Hz Lamp Flux:1488.81x1 lm		
NAME: DL6940010-4K BK	TYPE:	WEIGHT:
SPEC.: black RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 26*26mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 75.03 lm/W			
MODEL	4000K	I _{max} (cd)	9835	S/MH(C0/180)	0.39
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	0.26
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	1488.8	η UP, DN(C0-180)	0.0, 56.8
NOMINAL FLUX(lm)	1488.81	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 43.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00
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:2023-11-07

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

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

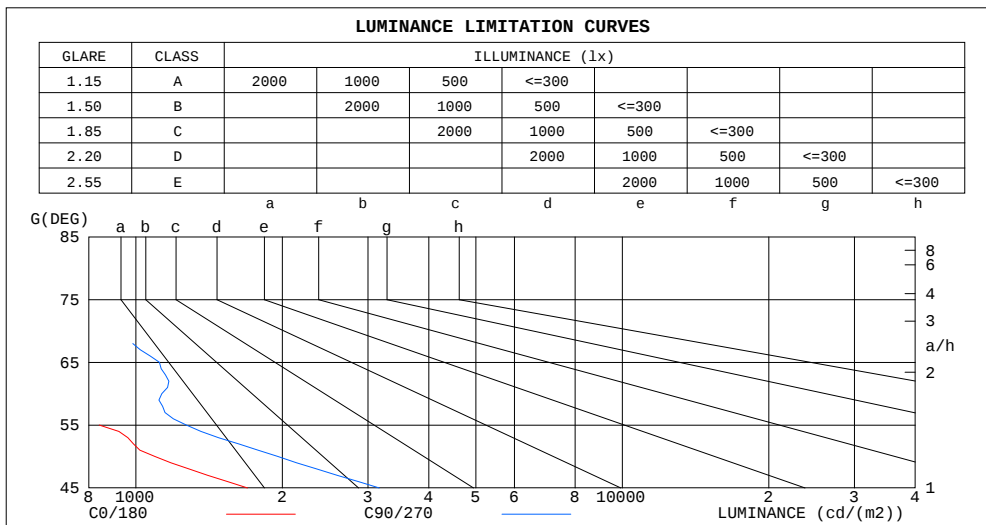
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3236	4228	5826	6794	6075	4227	3202	2975	0- 10	633.3	633.3	42.5, 42.5
20	629.1	785.9	1154	1401	1130	809.2	661.8	606.8	10- 20	599.1	1232	82.8, 82.8
30	78.23	119.3	246.0	306.2	263.5	146.1	89.75	80.86	20- 30	201.4	1434	96.3, 96.3
40	14.41	19.30	28.46	30.21	23.27	18.46	14.94	18.55	30- 40	38.88	1473	98.9, 98.9
50	4.750	6.908	8.501	10.77	7.287	7.042	5.509	7.722	40- 50	9.605	1482	99.6, 99.6
60	2.448	4.024	3.822	4.794	2.857	4.174	3.061	3.919	50- 60	4.502	1487	99.9, 99.9
70	0	1.432	0.0170	2.280	0.0916	0.8852	0	0	60- 70	2.024	1489	100, 100
80	0	0	0	0	0	0	0	0	70- 80	0.0767	1489	100, 100
90	0	0	0	0	0	0	0	0	80- 90	0	1489	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: 2023-11-07

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

LUMINANCE LIMITATION CURVES

Test:U:220.36V I:0.1636A P:19.843W PF:0.5506 Freq:50.01Hz Lamp Flux:1488.81x1 lm		
NAME: DL6940010-4KBK	TYPE:	WEIGHT:
SPEC.: black RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 26*26mm	Shielding Angle:



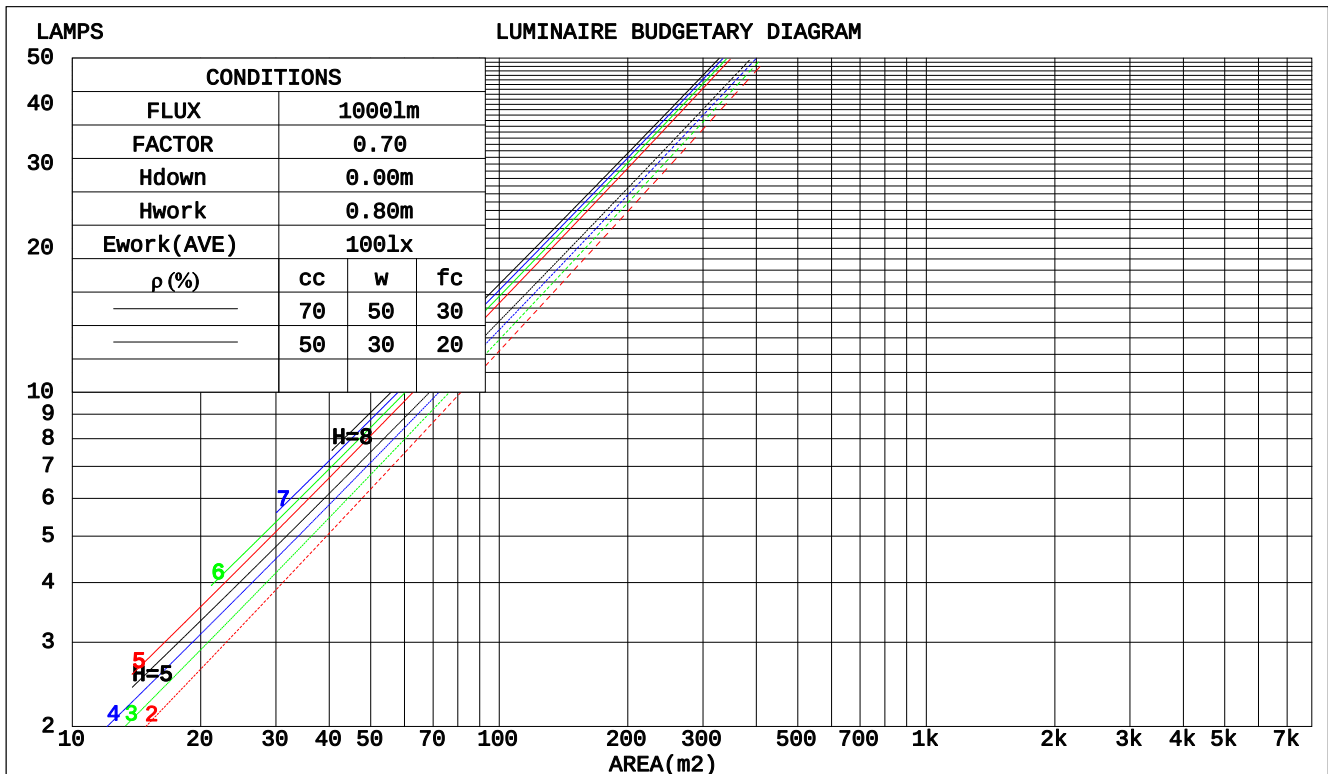
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2023-11-07

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

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.36V I:0.1636A P:19.843W PF:0.5506 Freq:50.01Hz Lamp Flux:1488.81x1 lm		
NAME: DL6940010-4KKBK	TYPE:	WEIGHT:
SPEC.: black RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 26*26mm	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	1.13	1.11	1.10	1.11	1.09	1.08	1.07	1.06	1.05	1.03	1.03	1.02	1.00	.99	.99	.97
2.0	1.08	1.05	1.03	1.07	1.04	1.02	1.04	1.01	.00	1.01	.99	.98	.98	.97	.96	.94
3.0	1.04	1.01	.98	1.03	.00	.97	1.00	.98	.96	.98	.96	.94	.96	.94	.93	.91
4.0	1.00	.97	.94	.99	.96	.93	.97	.94	.92	.95	.93	.91	.94	.92	.90	.89
5.0	.97	.93	.90	.96	.92	.90	.94	.91	.89	.93	.90	.88	.92	.89	.88	.87
6.0	.94	.90	.87	.93	.90	.87	.92	.89	.86	.91	.88	.86	.90	.87	.85	.84
7.0	.91	.87	.85	.91	.87	.84	.90	.86	.84	.89	.86	.84	.88	.85	.83	.82
8.0	.89	.85	.82	.88	.85	.82	.87	.84	.82	.87	.84	.81	.86	.83	.81	.80
9.0	.86	.83	.80	.86	.82	.80	.85	.82	.80	.85	.82	.80	.84	.81	.79	.78
10.0	.84	.81	.78	.84	.80	.78	.83	.80	.78	.83	.80	.78	.82	.79	.78	.77



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2023-11-07

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

WEC AND CCEC

Test:U:220.36V I:0.1636A P:19.843W PF:0.5506 Freq:50.01Hz Lamp Flux:1488.81x1 lm									
NAME: DL6940010-4KBK					TYPE:			WEIGHT:	
SPEC.: black RA90					DIM.:			SERIAL No.:	
MFR.:					SUR.: 26*26mm			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	.131	.074	.024	.124	.071	.023	.112	.064	.021	.101	.058	.019	.090	.052	.017	
2.0	.121	.066	.020	.115	.064	.020	.105	.059	.018	.096	.054	.017	.087	.049	.016	
3.0	.112	.060	.018	.108	.058	.017	.099	.054	.016	.092	.050	.015	.084	.047	.014	
4.0	.105	.055	.016	.101	.053	.016	.094	.050	.015	.087	.047	.014	.081	.044	.013	
5.0	.099	.050	.015	.095	.049	.014	.089	.047	.014	.084	.044	.013	.078	.042	.013	
6.0	.093	.047	.013	.090	.046	.013	.085	.044	.013	.080	.042	.012	.076	.040	.012	
7.0	.088	.044	.012	.086	.043	.012	.081	.041	.012	.077	.040	.012	.073	.038	.011	
8.0	.084	.041	.012	.082	.040	.011	.078	.039	.011	.074	.038	.011	.071	.036	.011	
9.0	.080	.039	.011	.078	.038	.011	.075	.037	.010	.072	.036	.010	.068	.035	.010	
10.0	.077	.037	.010	.075	.036	.010	.072	.035	.010	.069	.034	.010	.066	.033	.010	

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	.168	.158	.149	.144	.135	.128	.098	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.149	.133	.119	.128	.114	.103	.088	.079	.072	.051	.046	.042	.016	.015	.014	
3.0	.134	.113	.097	.115	.098	.084	.079	.068	.059	.046	.040	.035	.015	.013	.011	
4.0	.121	.098	.080	.104	.084	.069	.072	.059	.049	.041	.034	.029	.013	.011	.009	
5.0	.111	.085	.067	.095	.074	.058	.065	.052	.041	.038	.030	.024	.012	.010	.008	
6.0	.101	.075	.057	.087	.065	.049	.060	.046	.035	.035	.027	.021	.011	.009	.007	
7.0	.094	.067	.048	.081	.058	.042	.056	.041	.030	.032	.024	.018	.010	.008	.006	
8.0	.087	.060	.042	.075	.052	.036	.052	.037	.026	.030	.022	.015	.010	.007	.005	
9.0	.081	.054	.036	.070	.047	.032	.048	.033	.022	.028	.020	.013	.009	.006	.004	
10.0	.076	.050	.032	.066	.043	.028	.046	.030	.020	.027	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-07

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

UGR(Unified Glare Rating) Table

Test:U:220.36V I:0.1636A P:19.843W PF:0.5506 Freq:50.01Hz Lamp Flux:1488.81x1 lm											
NAME: DL6940010-4K BK					TYPE:			WEIGHT:			
SPEC.: black RA90					DIM.:			SERIAL No.:			
MFR.:					SUR.: 26*26mm			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		0.4	1.1	0.6	1.2	1.3	4.7	5.3	4.9	5.5	5.6
3H		0.3	0.9	0.6	1.1	1.3	4.8	5.4	5.0	5.5	5.7
4H		0.3	0.8	0.5	1.0	1.2	4.7	5.2	5.0	5.5	5.7
6H		0.2	0.7	0.4	0.9	1.1	4.6	5.1	4.9	5.4	5.6
8H		0.1	0.6	0.4	0.9	1.1	4.6	5.1	4.9	5.3	5.6
12H		0.1	0.6	0.4	0.8	1.1	4.5	5.0	4.8	5.3	5.5
4H	2H	0.6	1.2	0.9	1.4	1.6	4.6	5.2	4.9	5.4	5.6
	3H	0.5	1.0	0.8	1.2	1.5	4.7	5.2	5.0	5.4	5.7
	4H	0.4	0.9	0.7	1.1	1.4	4.6	5.0	4.9	5.3	5.6
	6H	0.3	0.7	0.7	1.0	1.4	4.5	4.9	4.8	5.2	5.5
	8H	0.3	0.6	0.6	1.0	1.3	4.4	4.8	4.8	5.1	5.5
	12H	0.2	0.5	0.6	0.9	1.3	4.4	4.7	4.8	5.1	5.5
8H	4H	0.3	0.6	0.7	1.0	1.3	4.4	4.8	4.8	5.1	5.5
	6H	0.2	0.5	0.6	0.8	1.3	4.3	4.6	4.7	5.0	5.4
	8H	0.1	0.4	0.5	0.8	1.2	4.2	4.5	4.7	4.9	5.4
	12H	0.0	0.3	0.5	0.7	1.2	4.2	4.4	4.6	4.9	5.3
12H	4H	0.2	0.6	0.6	0.9	1.3	4.4	4.7	4.8	5.1	5.5
	6H	0.1	0.4	0.5	0.8	1.2	4.2	4.5	4.7	4.9	5.4
	8H	0.0	0.3	0.5	0.7	1.2	4.2	4.4	4.6	4.9	5.3
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 1.8 / - 3.5				+ 3.3 / - 4.6					
1.5H		+ 2.8 / - 2.2				+ 4.9 / - 4.2					
2.0H		+ 2.0 / - 1.8				+ 3.9 / - 2.3					

CIE Pub.117, 1489 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.4)
Area: 0.00676 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-07

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

UTILIZATION FACTORS TABLE

Test:U:220.36V I:0.1636A P:19.843W PF:0.5506 Freq:50.01Hz Lamp Flux:1488.81x1 lm		
NAME: DL6940010-4K BK	TYPE:	WEIGHT:
SPEC.: black RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 26*26mm	Shielding Angle:

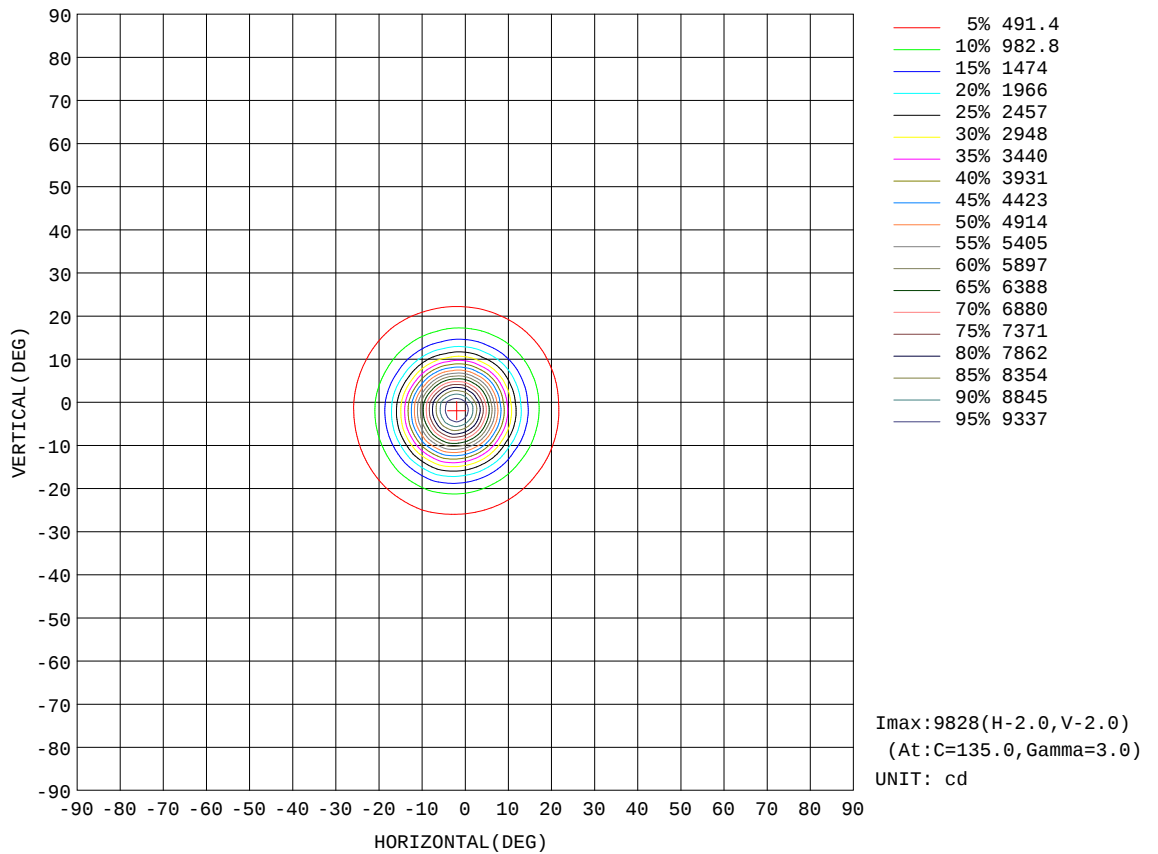
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	82	90	85	82	90	85	82	78
0.80	98	93	89	97	92	89	96	92	89	86
1.00	102	97	93	101	96	93	99	96	93	89
1.25	105	101	97	104	100	97	102	99	96	92
1.50	108	103	100	106	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	108	106	104	98
4.00	115	112	110	112	110	109	109	107	106	99
5.00	116	114	112	114	112	110	110	108	107	100
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:2023-11-07

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

ISOCANDELA DIAGRAM

Test:U:220.36V I:0.1636A P:19.843W PF:0.5506 Freq:50.01Hz Lamp Flux:1488.81x1 lm		
NAME: DL6940010-4KBK	TYPE:	WEIGHT:
SPEC.: black RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 26*26mm	Shielding Angle:

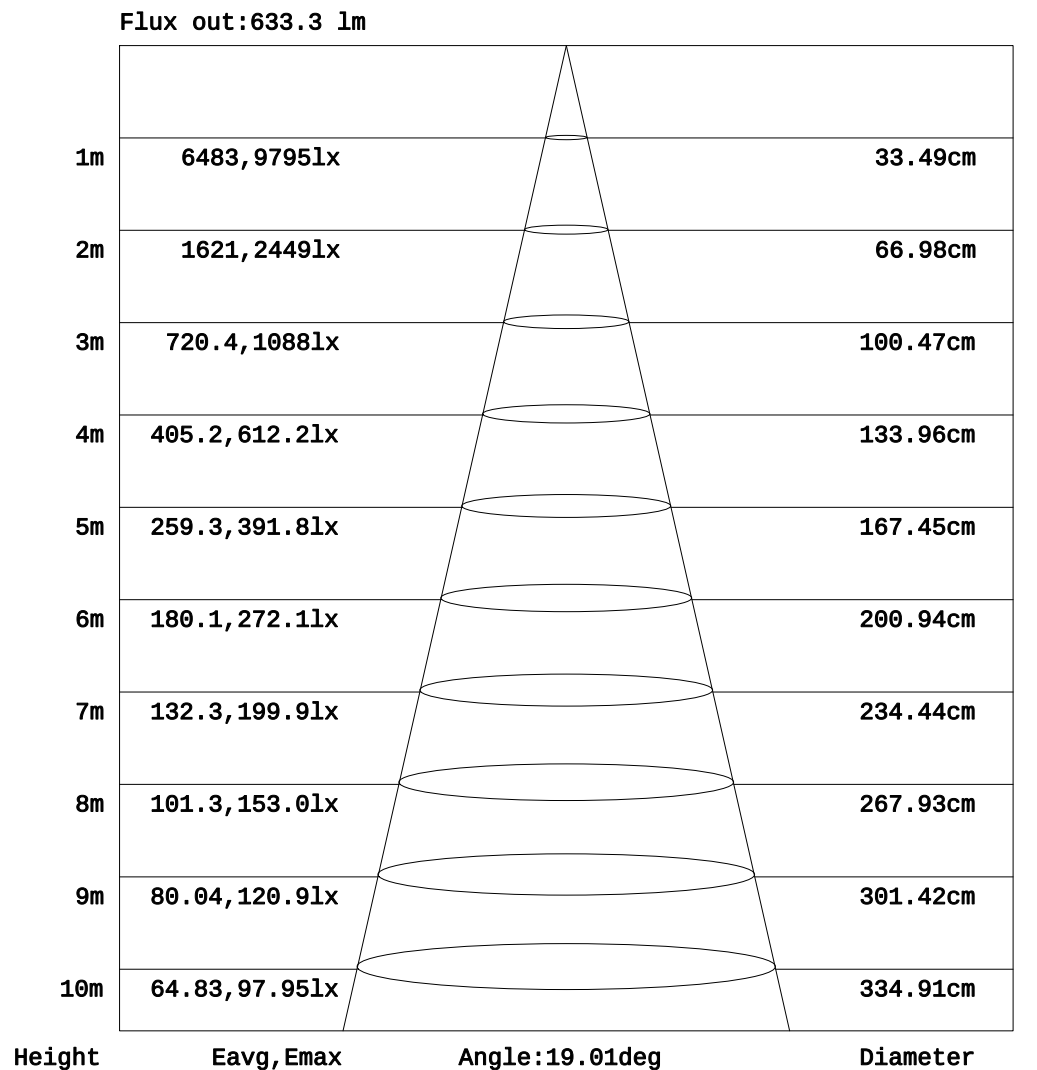


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-07

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

AAI Figure

Test:U:220.36V I:0.1636A P:19.843W PF:0.5506 Freq:50.01Hz Lamp Flux:1488.81x1 lm		
NAME: DL6940010-4KBK	TYPE:	WEIGHT:
SPEC.: black RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 26*26mm	Shielding Angle:



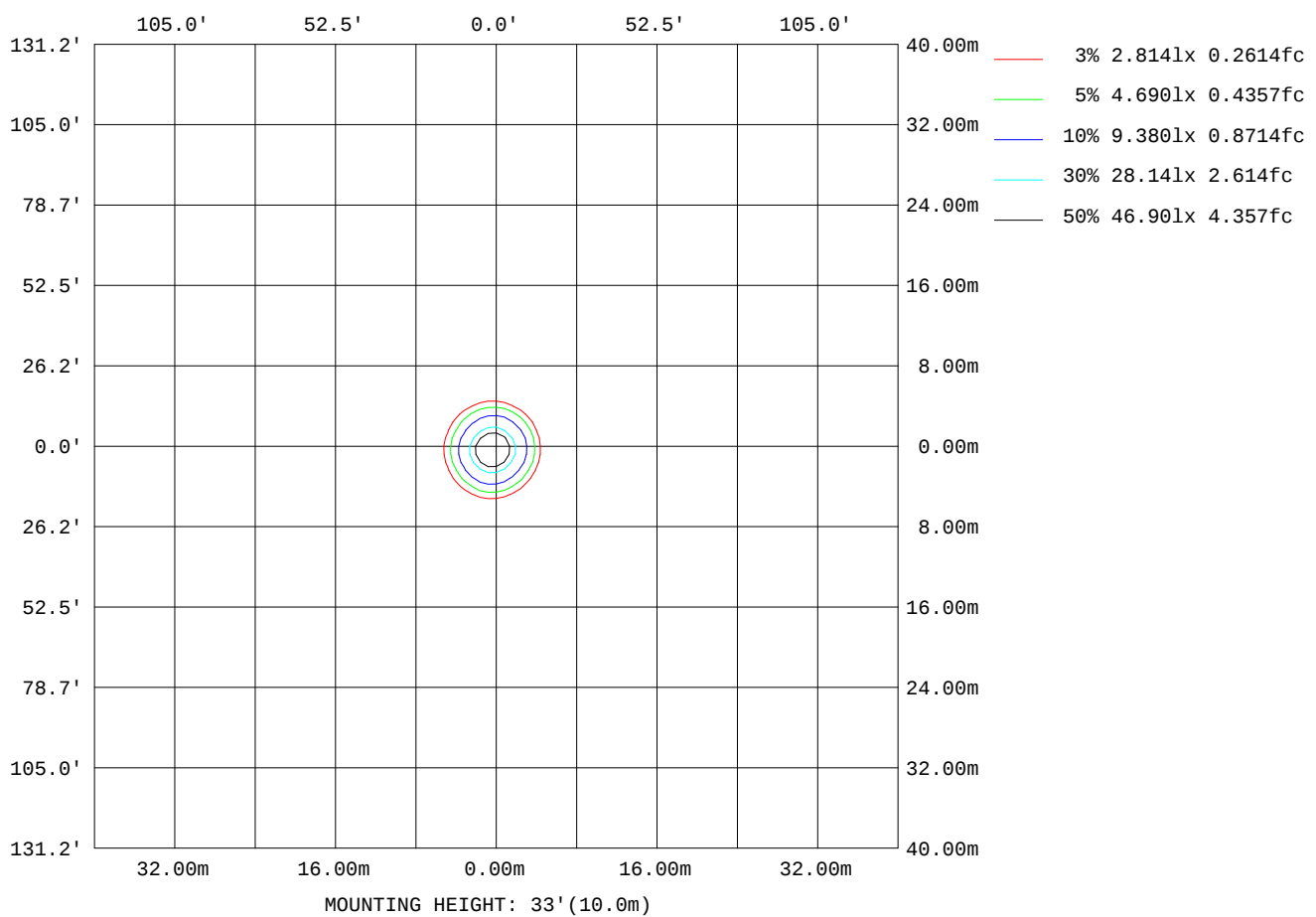
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-07

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

ISOLUX DIAGRAM

Test:U:220.36V I:0.1636A P:19.843W PF:0.5506 Freq:50.01Hz Lamp Flux:1488.81x1 lm		
NAME: DL6940010-4KBK	TYPE:	WEIGHT:
SPEC.: black RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 26*26mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-07

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

LED Avg.L Report

Test:U:220.36V I:0.1636A P:19.843W PF:0.5506 Freq:50.01Hz Lamp Flux:1488.81x1 lm		
NAME: DL6940010-4KBK	TYPE:	WEIGHT:
SPEC.: black RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 26*26mm	Shielding Angle:

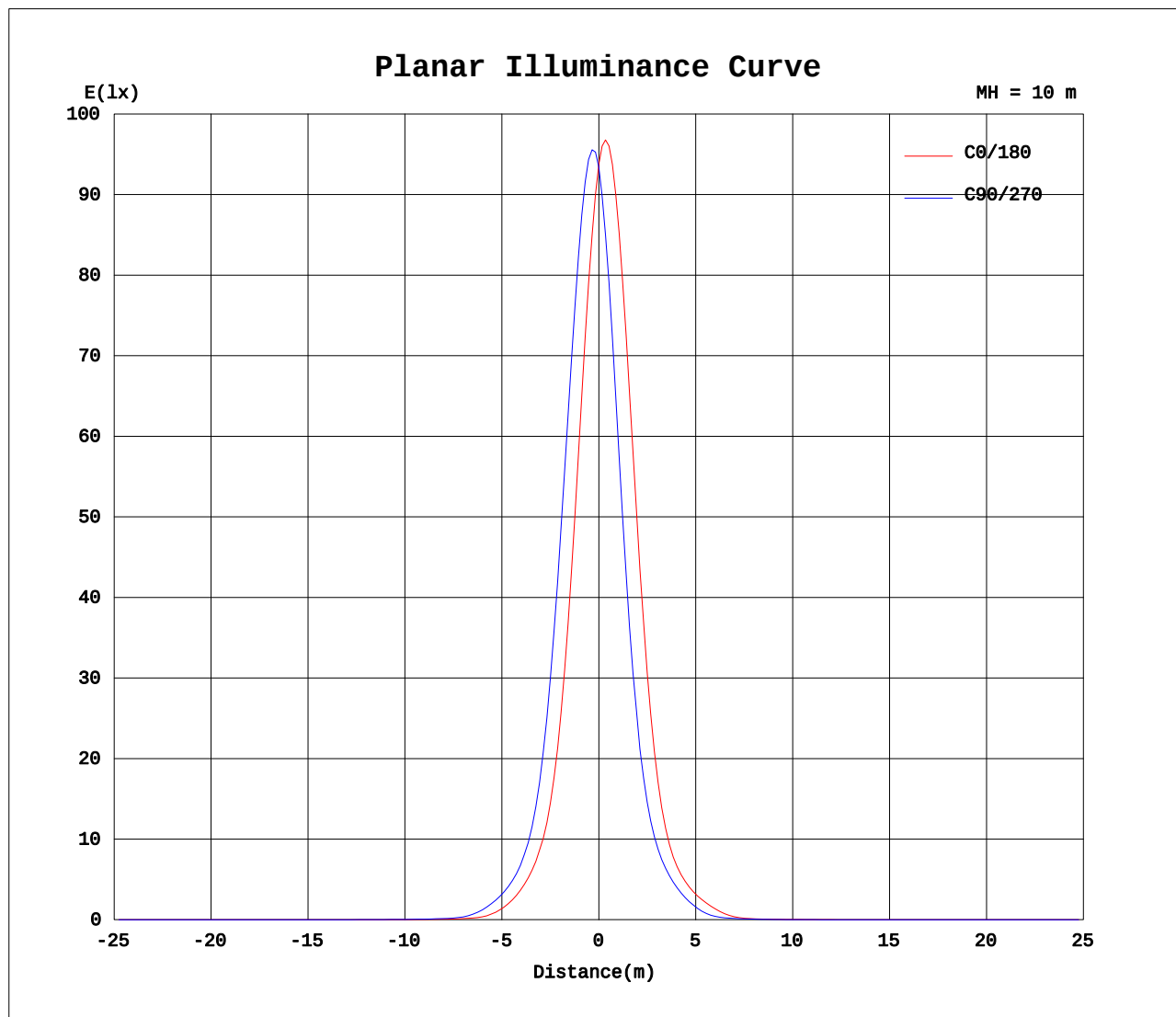
AvgL	cd/m2
L_0~180(65)av	462
L_0~180(75)av	0
L_0~180(85)av	0
L_90~270(65)av	559
L_90~270(75)av	0
L_90~270(85)av	0
L_45(65)av	993
L_45(75)av	4
L_45(85)av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2023-11-07

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

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2023-11-07

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

```