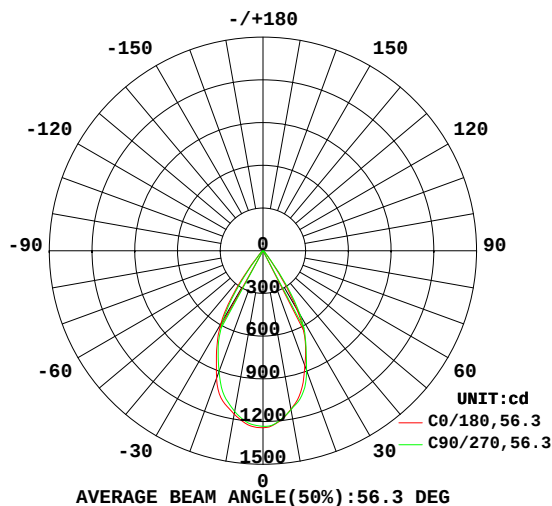


LUMINAIRE PHOTOMETRIC TEST REPORT

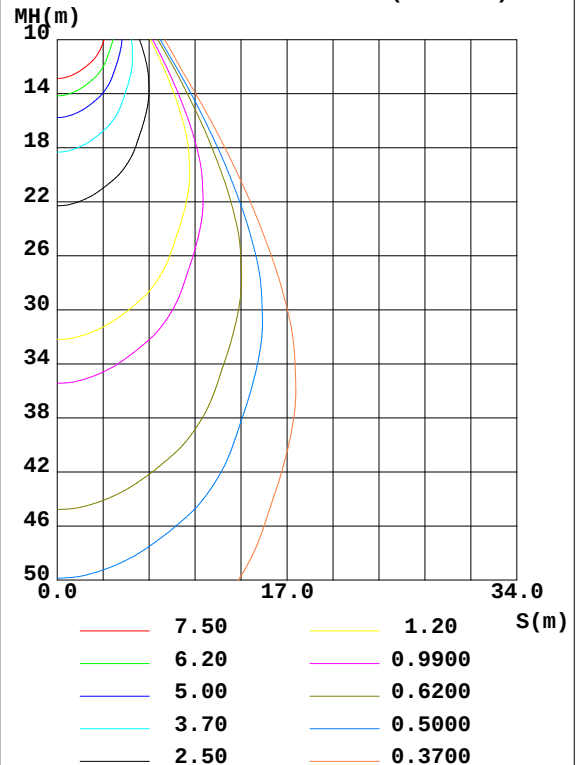
Test:U:230.75V I:0.0466A P:10.402W PF:0.9680 Freq:49.99Hz Lamp Flux:957.204x1 lm		
NAME: DL9411-WH3K10C01	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 45mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 92.02 lm/W			
MODEL	ML13111202 3000K	I _{max} (cd)	1243	S/MH(C0/180)	0.88
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.86
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	957.20	η UP, DN(C0-180)	0.0, 49.1
NOMINAL FLUX(lm)	957.204	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.90

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: 2024-05-20

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:

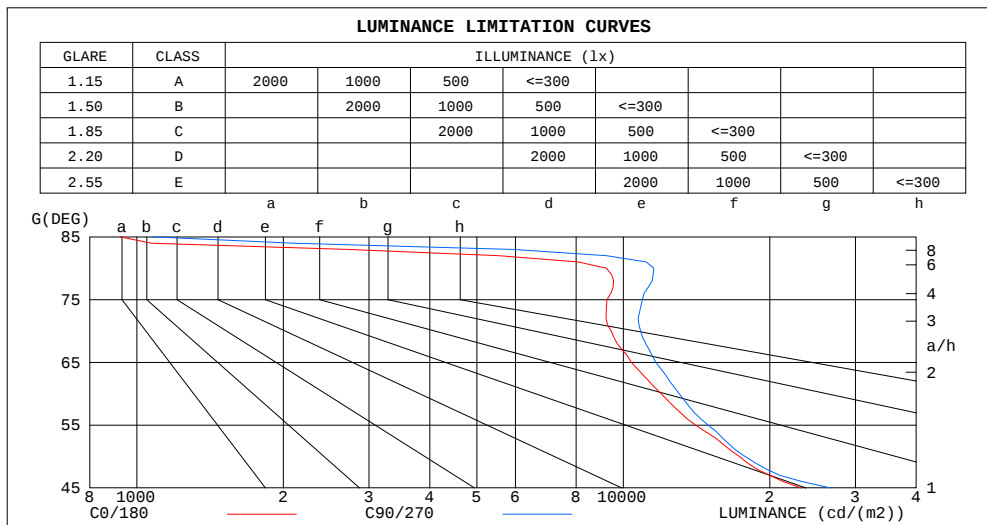
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1131	1131	1133	1140	1165	1161	1147	1129	0- 10	113.3	113.3	11.8,11.8
20	860.2	871.5	896.6	918.7	954.4	937.8	902.1	873.0	10- 20	291.7	405.0	42.3,42.3
30	482.3	501.6	528.7	558.0	592.5	587.2	560.8	515.0	20- 30	331.8	736.8	77,77
40	57.74	59.89	65.64	74.83	92.73	91.39	73.45	61.97	30- 40	168.7	905.5	94.6,94.6
50	17.69	17.63	18.18	18.77	19.55	19.04	18.35	18.16	40- 50	26.97	932.4	97.4,97.4
60	9.510	9.996	10.36	10.52	10.56	10.22	9.648	9.270	50- 60	12.29	944.7	98.7,98.7
70	5.134	5.547	5.902	5.999	5.748	5.231	4.899	4.914	60- 70	7.435	952.2	99.5,99.5
80	2.547	2.814	3.188	3.350	2.981	2.402	2.247	2.386	70- 80	4.257	956.4	99.9,99.9
90	0.0270	0.0270	0.0193	0.0154	0	0	0	0	80- 90	0.7713	957.2	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:2024-05-20

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:230.75V I:0.0466A P:10.402W PF:0.9680 Freq:49.99Hz Lamp Flux:957.204x1 lm		
NAME: DL9411-WH3K10C01	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 45mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	923	1076
80	9227	11547
75	9256	10945
70	9440	10853
65	10389	11665
60	11962	13030
55	14078	14936
50	17309	17784
45	23220	26640

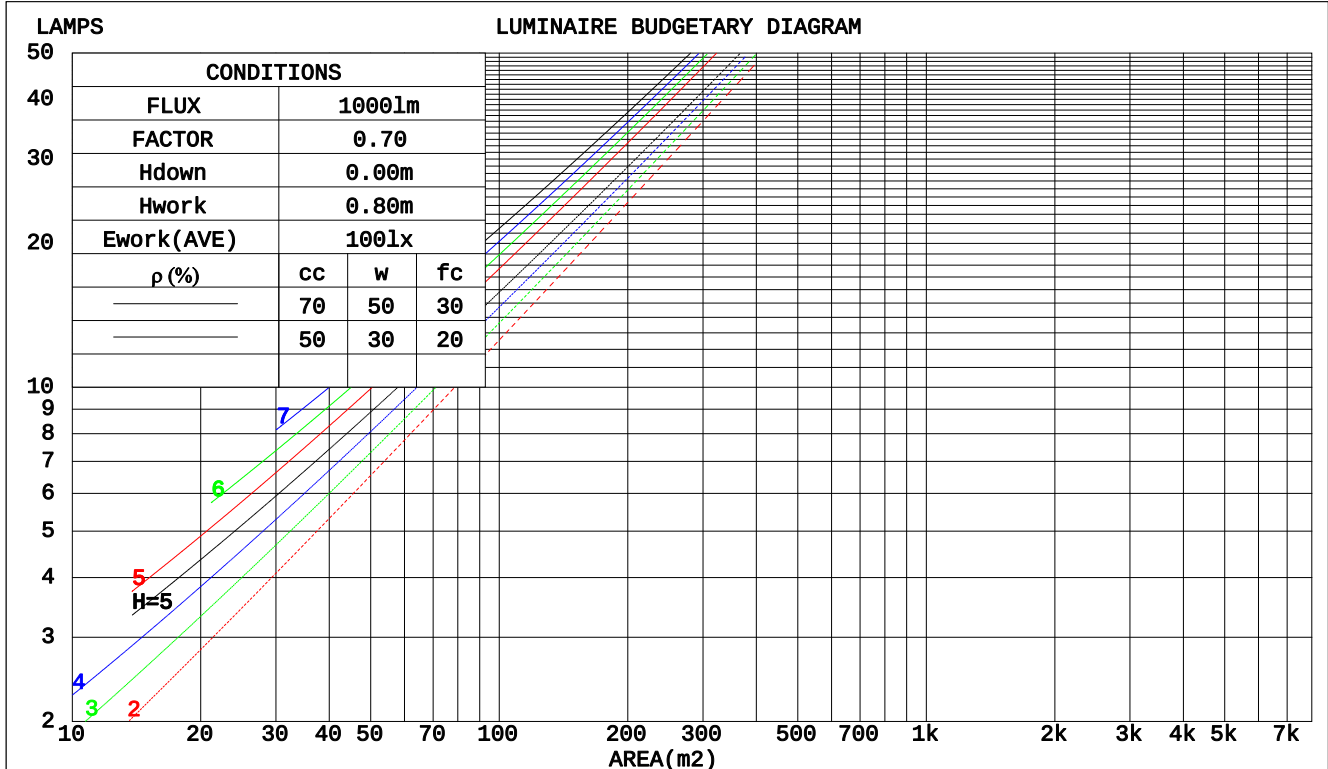
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-05-20

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:230.75V I:0.0466A P:10.402W PF:0.9680 Freq:49.99Hz Lamp Flux:957.204x1 lm		
NAME: DL9411-WH3K10C01	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 45mm	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	1.08	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.99	.98	.98	.96	.95	.94
2.0	1.03	.99	.96	1.02	.98	.95	.98	.96	.93	.95	.93	.91	.93	.91	.89	.87
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.85	.88	.85	.83	.82
4.0	.91	.85	.81	.90	.85	.81	.87	.83	.80	.85	.82	.79	.84	.81	.78	.76
5.0	.85	.80	.75	.84	.79	.75	.83	.78	.74	.81	.77	.74	.79	.76	.73	.72
6.0	.80	.75	.70	.80	.74	.70	.78	.73	.70	.77	.72	.69	.75	.72	.69	.67
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.65	.73	.68	.65	.72	.68	.65	.63
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.61	.68	.64	.61	.60
9.0	.68	.62	.58	.67	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.58	.56
10.0	.64	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.55	.62	.58	.55	.53



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-05-20

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 γ 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:230.75V I:0.0466A P:10.402W PF:0.9680 Freq:49.99Hz Lamp Flux:957.204x1 lm								
NAME: DL9411-WH3K10C01				TYPE:			WEIGHT:	
SPEC.: white RA90				DIM.:			SERIAL No.:	
MFR.:				SUR.: 45mm			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	.176	.100	.032	.169	.096	.031	.156	.090	.029	.145	.084	.027	.134	.078	.025	
2.0	.167	.092	.028	.162	.089	.027	.151	.084	.026	.141	.079	.025	.132	.075	.024	
3.0	.159	.085	.025	.154	.082	.025	.145	.079	.024	.137	.075	.023	.129	.071	.022	
4.0	.151	.078	.023	.147	.077	.023	.139	.074	.022	.132	.071	.021	.125	.068	.021	
5.0	.144	.073	.021	.140	.072	.021	.133	.069	.020	.127	.067	.020	.121	.065	.019	
6.0	.137	.069	.020	.134	.068	.019	.128	.066	.019	.122	.064	.019	.117	.062	.018	
7.0	.131	.065	.018	.128	.064	.018	.123	.062	.018	.118	.060	.018	.113	.059	.017	
8.0	.125	.061	.017	.123	.060	.017	.118	.059	.017	.114	.058	.017	.109	.056	.016	
9.0	.120	.058	.016	.118	.057	.016	.114	.056	.016	.110	.055	.016	.106	.054	.016	
10.0	.115	.055	.015	.113	.055	.015	.109	.054	.015	.106	.053	.015	.102	.052	.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	.156	.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	.133	.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	.110	.070	.042	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.036	.090	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.099	.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:2024-05-20

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:230.75V I:0.0466A P:10.402W PF:0.9680 Freq:49.99Hz Lamp Flux:957.204x1 lm											
NAME: DL9411-WH3K10C01					TYPE:			WEIGHT:			
SPEC.: white RA90					DIM.:			SERIAL No.:			
MFR.:					SUR.: 45mm			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	2H	20.4	21.3	20.6	21.5	21.7	21.1	22.1	21.4	22.2	22.4
	3H	20.4	21.2	20.7	21.4	21.6	21.1	22.0	21.4	22.2	22.4
	4H	20.4	21.2	20.7	21.4	21.7	21.2	22.0	21.4	22.2	22.4
	6H	20.4	21.2	20.7	21.4	21.7	21.2	21.9	21.5	22.2	22.4
	8H	20.4	21.1	20.7	21.4	21.7	21.2	21.9	21.5	22.2	22.4
	12H	20.4	21.1	20.7	21.3	21.6	21.1	21.8	21.5	22.1	22.4
4H	2H	20.2	21.0	20.5	21.3	21.5	21.0	21.8	21.2	22.0	22.2
	3H	20.3	21.0	20.6	21.3	21.6	21.0	21.7	21.3	22.0	22.3
	4H	20.4	21.0	20.7	21.3	21.6	21.1	21.7	21.4	22.0	22.3
	6H	20.5	21.0	20.9	21.4	21.7	21.2	21.8	21.6	22.1	22.4
	8H	20.5	21.0	20.9	21.3	21.7	21.2	21.7	21.6	22.1	22.5
	12H	20.4	20.9	20.8	21.3	21.6	21.2	21.6	21.6	22.0	22.4
8H	4H	20.4	20.9	20.7	21.2	21.6	21.0	21.6	21.4	21.9	22.3
	6H	20.5	20.9	20.9	21.3	21.7	21.2	21.6	21.6	22.0	22.4
	8H	20.5	20.9	20.9	21.3	21.7	21.2	21.6	21.7	22.0	22.5
	12H	20.4	20.8	20.9	21.2	21.7	21.2	21.5	21.6	21.9	22.4
12H	4H	20.3	20.8	20.7	21.2	21.6	21.0	21.5	21.4	21.8	22.2
	6H	20.5	20.9	20.9	21.3	21.7	21.2	21.6	21.6	22.0	22.4
	8H	20.5	20.8	20.9	21.2	21.7	21.2	21.5	21.7	22.0	22.4
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 2.2 / - 1.9					+ 3.0 / - 2.3					
1.5H	+ 3.9 / - 1.6					+ 5.0 / - 2.0					
2.0H	+ 1.0 / - 0.7					+ 1.4 / - 0.6					

CIE Pub.117, 957.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.2)
Area: 0.00159 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-05-20

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:230.75V I:0.0466A P:10.402W PF:0.9680 Freq:49.99Hz Lamp Flux:957.204x1 lm		
NAME: DL9411-WH3K10C01	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 45mm	Shielding Angle:

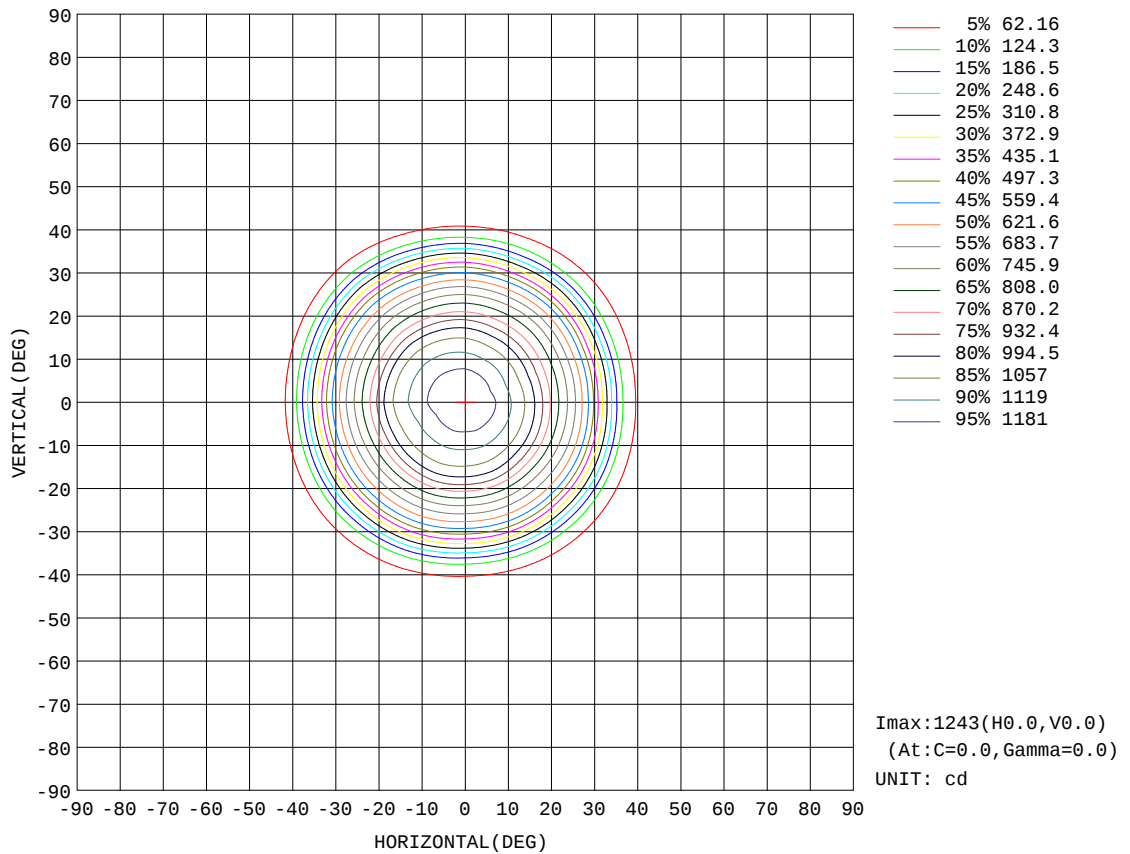
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	88	82	78	87	81	78	75
0.80	95	90	86	95	89	86	94	89	86	82
1.00	100	94	91	99	94	90	97	94	90	86
1.25	104	98	95	103	98	95	101	97	94	90
1.50	106	102	98	105	101	98	103	99	97	92
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	109	108	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: 2024-05-20

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:230.75V I:0.0466A P:10.402W PF:0.9680 Freq:49.99Hz Lamp Flux:957.204x1 lm		
NAME: DL9411-WH3K10C01	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 45mm	Shielding Angle:



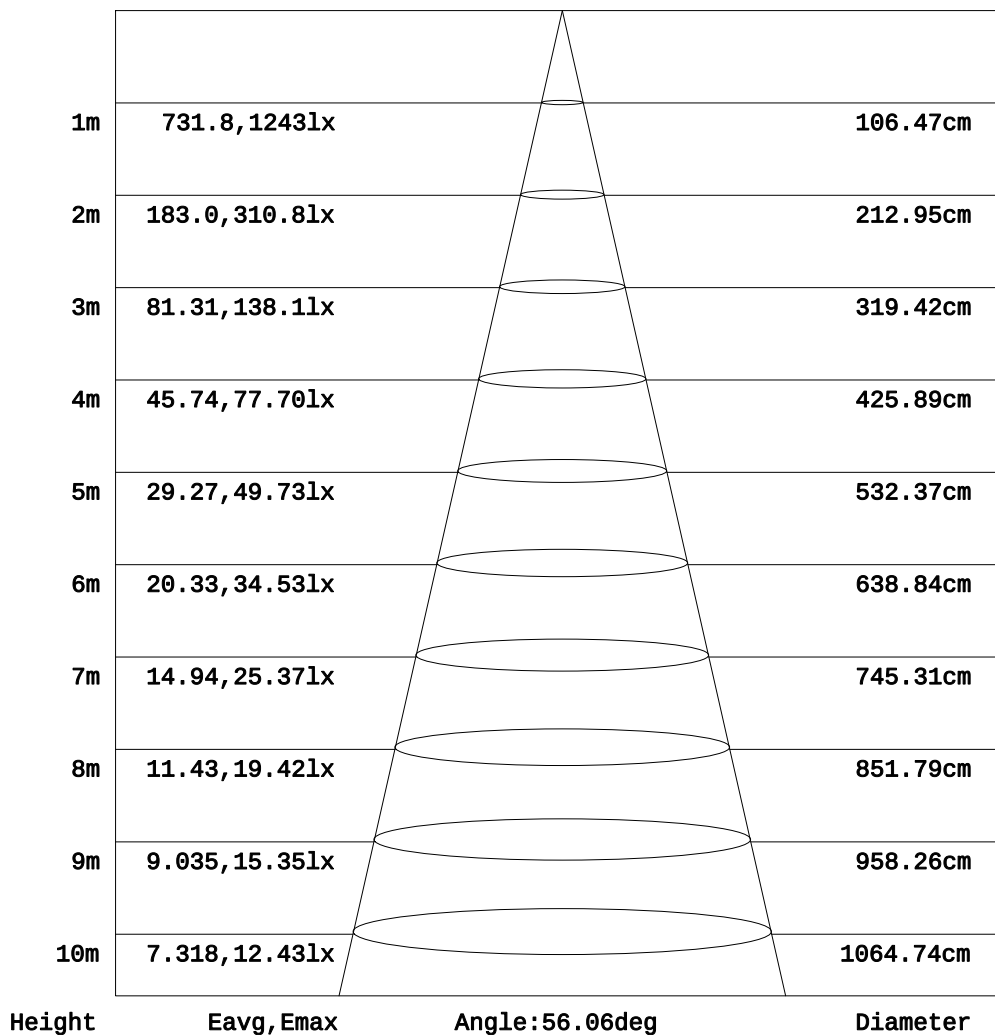
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-05-20

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:230.75V I:0.0466A P:10.402W PF:0.9680 Freq:49.99Hz Lamp Flux:957.204x1 lm		
NAME: DL9411-WH3K10C01	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 45mm	Shielding Angle:

Flux out:706.4 lm



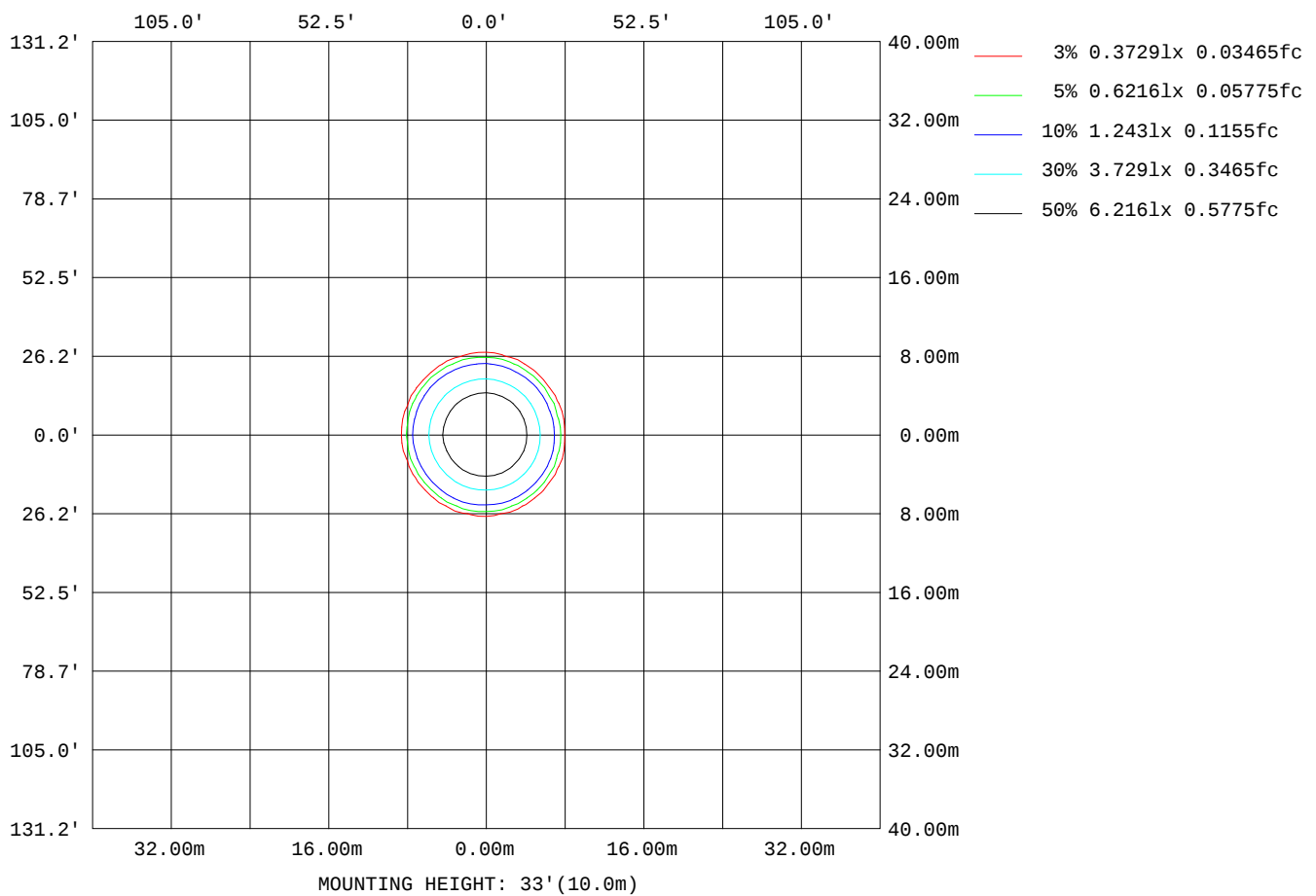
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-05-20

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:230.75V I:0.0466A P:10.402W PF:0.9680 Freq:49.99Hz Lamp Flux:957.204x1 lm		
NAME: DL9411-WH3K10C01	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 45mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-05-20

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:230.75V I:0.0466A P:10.402W PF:0.9680 Freq:49.99Hz Lamp Flux:957.204x1 lm		
NAME: DL9411-WH3K10C01	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 45mm	Shielding Angle:

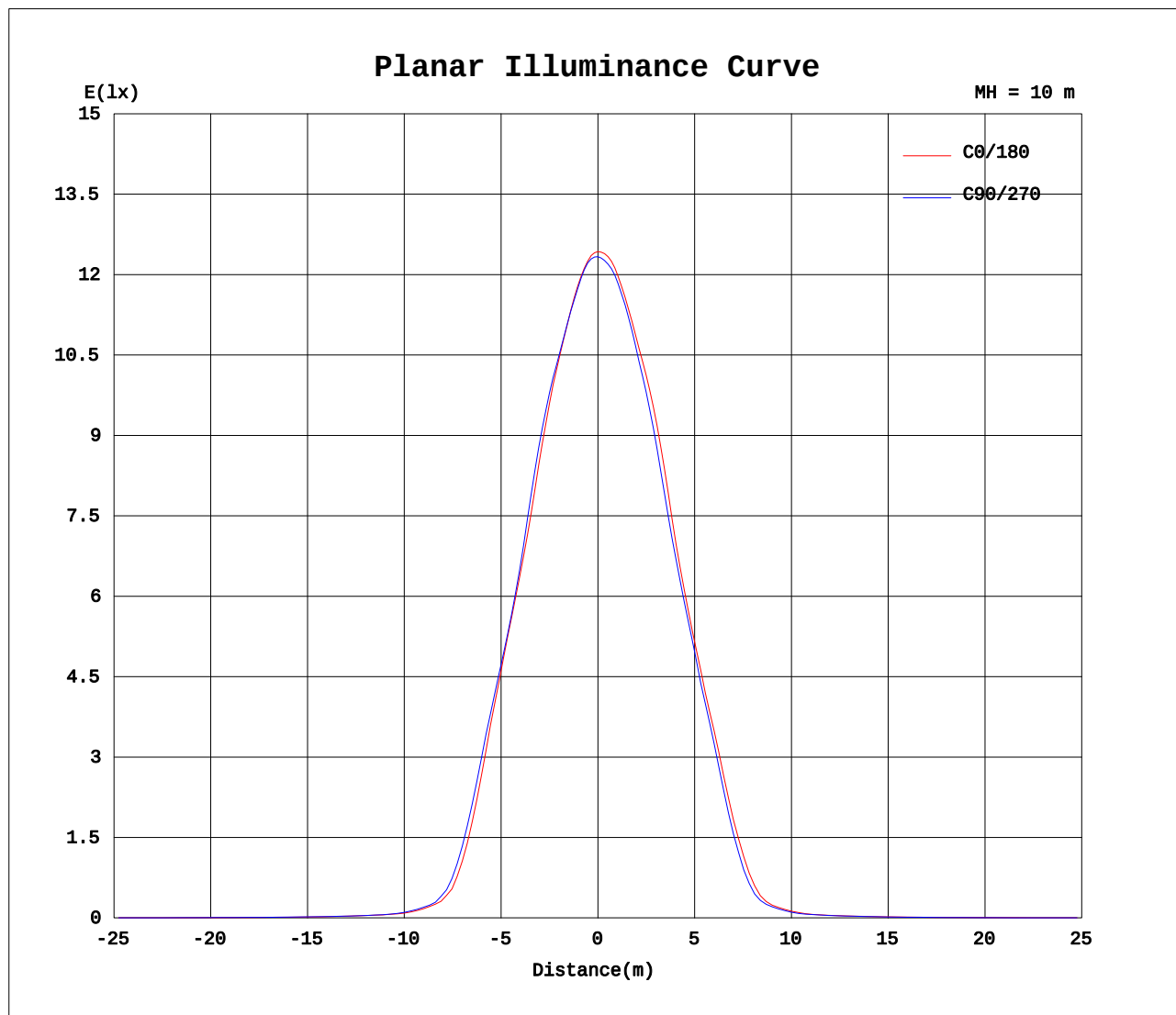
AvgL	cd/m2
L_0~180(65)av	11077
L_0~180(75)av	9784
L_0~180(85)av	918
L_90~270(65)av	10991
L_90~270(75)av	9658
L_90~270(85)av	925
L_45(65)av	11041
L_45(75)av	9705
L_45(85)av	885

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-05-20

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: 2024-05-20

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:

```