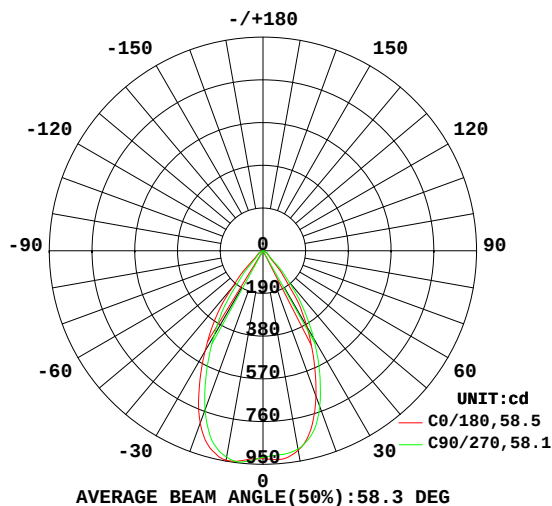


LUMINAIRE PHOTOMETRIC TEST REPORT

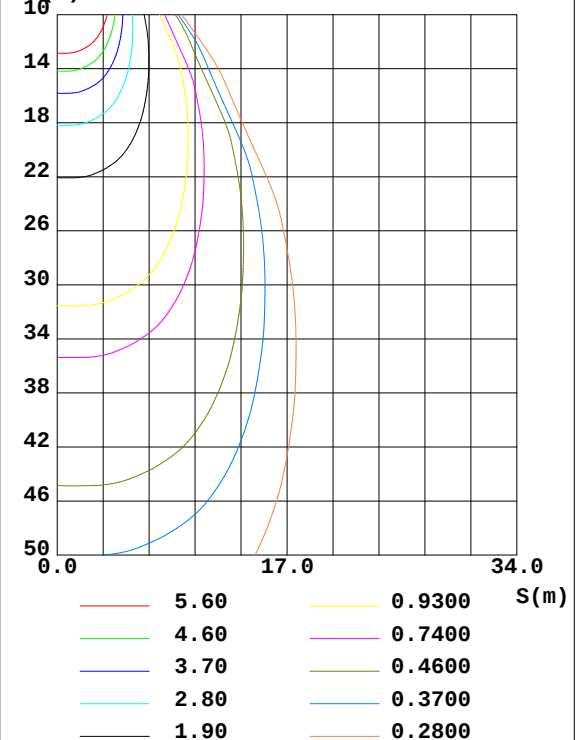
Test:U:230.79V I:0.0466A P:10.464W PF:0.9721 Freq:49.99Hz Lamp Flux:894.807x1 lm		
NAME: DL9453-WH3K10C03	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 85.51 lm/W			
MODEL	ML12111202 3000K	I _{max} (cd)	954.7	S/MH(C0/180)	0.95
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.89
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	894.81	η UP, DN(C0-180)	0.0, 50.1
NOMINAL FLUX(lm)	894.807	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.95

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: 2024-11-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

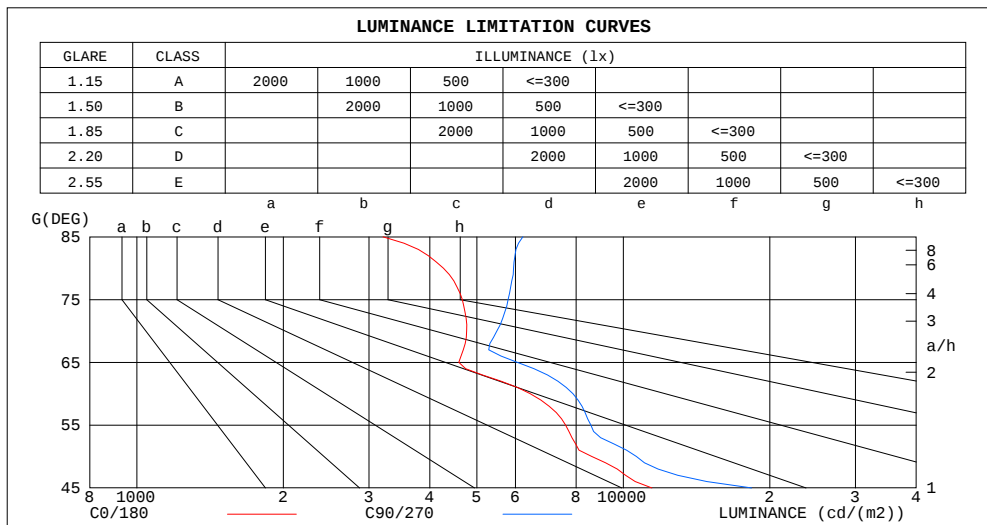
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	901.2	889.7	895.9	906.8	946.0	950.3	931.5	910.0	0- 10	88.22	88.22	9.86, 9.86
20	689.4	706.2	738.1	774.8	816.2	796.1	753.8	703.1	10- 20	238.4	326.6	36.5, 36.5
30	393.1	412.3	453.3	491.5	516.2	483.7	436.8	399.0	20- 30	272.3	598.9	66.9, 66.9
40	131.2	149.2	175.1	203.6	211.2	177.7	144.7	128.9	30- 40	187.8	786.7	87.9, 87.9
50	31.37	35.51	38.74	40.35	39.75	35.85	32.20	29.88	40- 50	60.22	846.9	94.6, 94.6
60	18.24	20.43	22.33	23.21	22.52	20.23	18.14	17.28	50- 60	23.86	870.8	97.3, 97.3
70	9.235	10.10	10.66	10.73	10.43	9.627	8.939	8.708	60- 70	13.56	884.3	98.8, 98.8
80	4.202	5.102	5.855	6.121	5.711	4.777	4.040	3.773	70- 80	7.902	892.2	99.7, 99.7
90	0.1158	0.0965	0.4825	0.8184	0.4980	0.0077	0.0077	0.0077	80- 90	2.588	894.8	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: 2024-11-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.79V I:0.0466A P:10.464W PF:0.9721 Freq:49.99Hz Lamp Flux:894.807x1 lm		
NAME: DL9453-WH3K10C03	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3208	6216
80	4268	5946
75	4668	5797
70	4762	5498
65	4590	6052
60	6435	7876
55	7606	8573
50	8608	10630
45	11442	18344

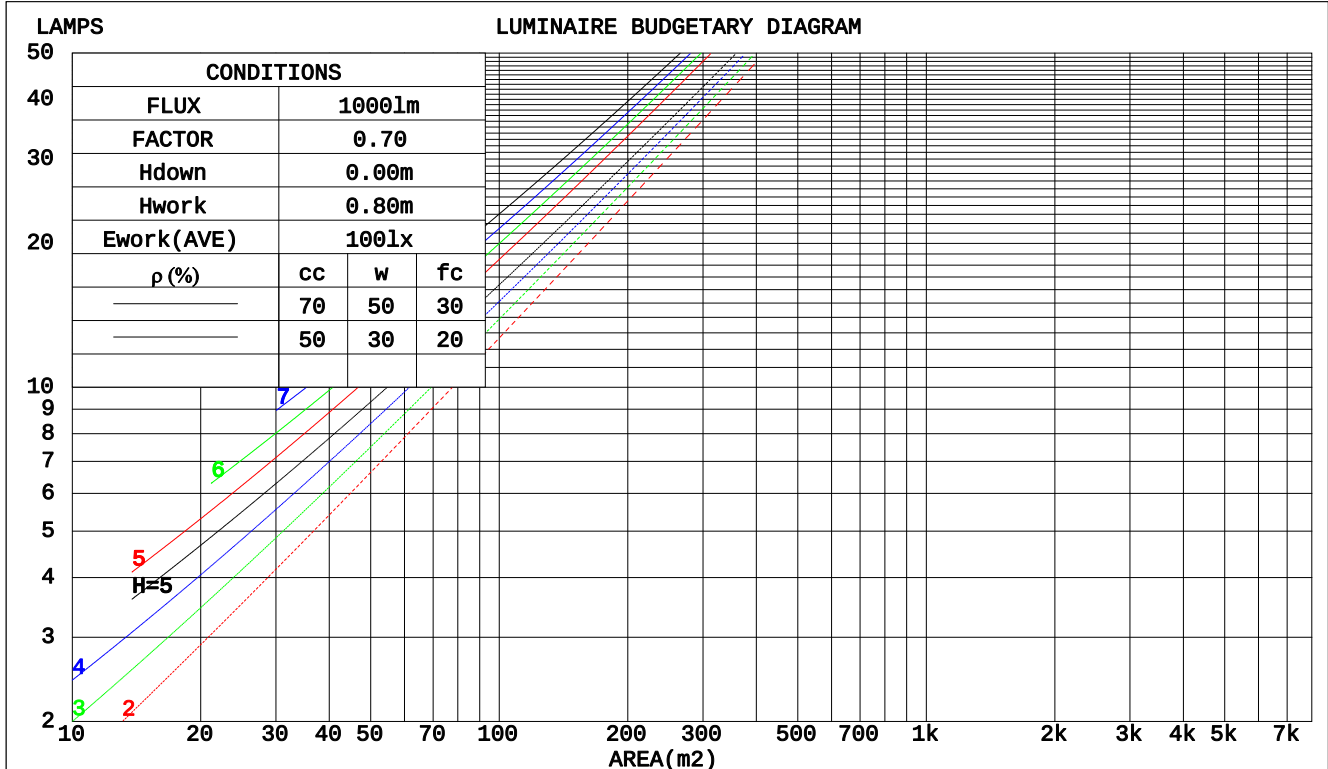
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-11-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.79V I:0.0466A P:10.464W PF:0.9721 Freq:49.99Hz Lamp Flux:894.807x1 lm		
NAME: DL9453-WH3K10C03	TYPE:	WEIGHT:
SPEC.: white RA90	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	1.00
1.0	1.10	1.07	1.05	1.08	1.05	1.03	1.04	1.02	1.00	1.00	.99	.97	.97	.95	.94	.92
2.0	1.02	.97	.94	1.00	.96	.93	.97	.94	.91	.94	.91	.89	.91	.89	.87	.85
3.0	.94	.89	.85	.93	.88	.84	.90	.86	.83	.88	.84	.82	.86	.83	.80	.79
4.0	.88	.82	.78	.87	.81	.77	.85	.80	.76	.82	.78	.75	.81	.77	.74	.73
5.0	.82	.76	.71	.81	.75	.71	.79	.74	.70	.77	.73	.70	.76	.72	.69	.68
6.0	.77	.70	.66	.76	.70	.66	.74	.69	.65	.73	.68	.65	.72	.68	.64	.63
7.0	.72	.66	.61	.71	.65	.61	.70	.65	.61	.69	.64	.60	.68	.63	.60	.59
8.0	.68	.61	.57	.67	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.56	.55
9.0	.64	.58	.54	.63	.57	.53	.62	.57	.53	.61	.57	.53	.61	.56	.53	.51
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: 2024-11-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.79V I:0.0466A P:10.464W PF:0.9721 Freq:49.99Hz Lamp Flux:894.807x1 lm									
NAME: DL9453-WH3K10C03					TYPE:			WEIGHT:	
SPEC.: white RA90					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	.192	.109	.035	.185	.106	.034	.172	.099	.032	.161	.093	.030	.150	.087	.028	
2.0	.183	.100	.031	.177	.098	.030	.167	.093	.029	.157	.088	.028	.148	.083	.026	
3.0	.173	.092	.028	.169	.090	.027	.159	.086	.026	.151	.083	.025	.143	.079	.025	
4.0	.164	.085	.025	.160	.084	.025	.152	.081	.024	.145	.078	.023	.138	.075	.023	
5.0	.156	.080	.023	.152	.078	.023	.146	.076	.022	.139	.073	.022	.133	.071	.021	
6.0	.148	.074	.021	.145	.073	.021	.139	.071	.021	.133	.069	.020	.128	.067	.020	
7.0	.141	.070	.020	.139	.069	.020	.133	.067	.019	.128	.066	.019	.123	.064	.019	
8.0	.135	.066	.019	.132	.065	.018	.128	.064	.018	.123	.062	.018	.119	.061	.018	
9.0	.129	.062	.017	.127	.062	.017	.122	.060	.017	.118	.059	.017	.114	.058	.017	
10.0	.123	.059	.016	.121	.059	.016	.117	.058	.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	.158	.132	.111	.135	.114	.096	.093	.079	.067	.053	.046	.039	.017	.015	.013	
3.0	.146	.114	.088	.125	.098	.076	.086	.068	.053	.050	.040	.032	.016	.013	.010	
4.0	.136	.099	.071	.117	.086	.062	.080	.060	.043	.046	.035	.026	.015	.011	.008	
5.0	.128	.088	.058	.110	.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	.114	.071	.041	.098	.062	.036	.068	.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	.022	.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:2024-11-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.79V I:0.0466A P:10.464W PF:0.9721 Freq:49.99Hz Lamp Flux:894.807x1 lm											
NAME: DL9453-WH3K10C03					TYPE:			WEIGHT:			
SPEC.: white RA90					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	18.3	19.3	18.6	19.5	19.7	19.4	20.4	19.6	20.6	20.7	
	3H	18.4	19.4	18.7	19.6	19.8	19.5	20.4	19.7	20.6	20.8
	4H	18.5	19.4	18.8	19.6	19.9	19.6	20.5	19.9	20.7	20.9
	6H	18.6	19.4	18.9	19.7	19.9	19.7	20.5	20.0	20.8	21.0
	8H	18.6	19.4	18.9	19.7	19.9	19.8	20.5	20.1	20.8	21.1
	12H	18.6	19.4	19.0	19.7	19.9	19.8	20.5	20.1	20.8	21.1
4H	2H	18.3	19.1	18.5	19.4	19.6	19.3	20.1	19.5	20.4	20.6
	3H	18.5	19.3	18.8	19.5	19.8	19.5	20.2	19.8	20.5	20.8
	4H	18.7	19.4	19.1	19.7	20.0	19.7	20.4	20.0	20.7	21.0
	6H	18.9	19.5	19.3	19.8	20.2	19.9	20.5	20.3	20.8	21.2
	8H	18.9	19.5	19.3	19.8	20.2	20.0	20.6	20.4	20.9	21.3
	12H	18.9	19.5	19.4	19.8	20.2	20.1	20.6	20.5	21.0	21.4
8H	4H	18.7	19.3	19.1	19.7	20.0	19.7	20.2	20.1	20.6	21.0
	6H	19.0	19.5	19.4	19.9	20.3	20.0	20.5	20.4	20.8	21.3
	8H	19.1	19.5	19.6	19.9	20.4	20.1	20.6	20.6	21.0	21.4
	12H	19.2	19.5	19.6	20.0	20.4	20.3	20.6	20.8	21.1	21.6
12H	4H	18.7	19.2	19.1	19.6	20.0	19.6	20.2	20.1	20.5	20.9
	6H	19.0	19.4	19.5	19.9	20.3	20.0	20.4	20.4	20.8	21.3
	8H	19.2	19.5	19.6	20.0	20.4	20.2	20.5	20.6	21.0	21.4
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 1.5 / - 2.1					+ 2.2 / - 2.5					
1.5H	+ 3.2 / - 1.9					+ 4.2 / - 2.3					
2.0H	+ 0.9 / - 0.8					+ 2.2 / - 0.8					

CIE Pub.117, 894.8 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:2024-11-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.79V I:0.0466A P:10.464W PF:0.9721 Freq:49.99Hz Lamp Flux:894.807x1 lm		
NAME: DL9453-WH3K10C03	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

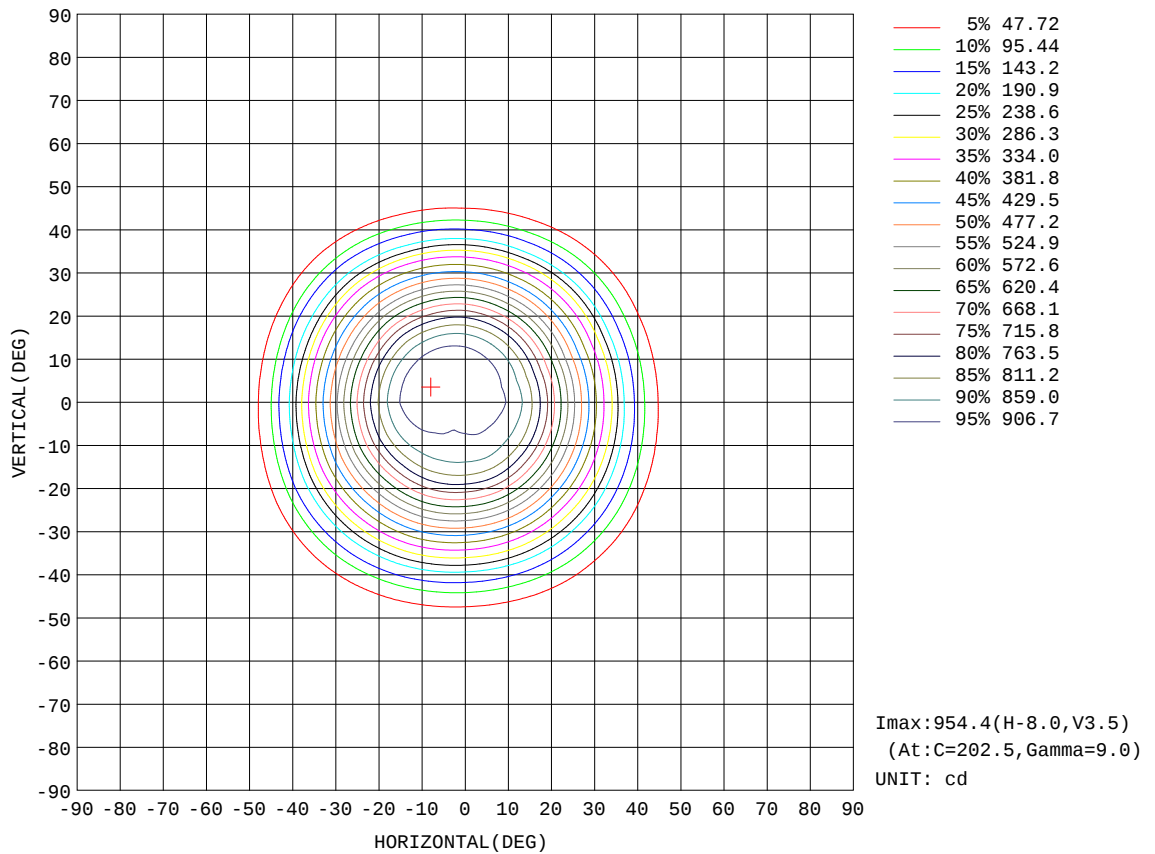
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	84	77	73	83	77	73	83	77	73	69
0.80	92	85	81	91	85	81	90	84	81	77
1.00	97	91	87	96	90	86	94	90	86	82
1.25	101	95	92	100	95	91	98	94	90	86
1.50	104	99	95	103	98	95	101	97	94	89
2.00	107	103	99	106	102	98	103	100	97	91
2.50	109	105	102	107	104	101	104	101	99	93
3.00	111	107	104	109	106	103	106	103	101	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	107	105	97
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: 2024-11-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:230.79V I:0.0466A P:10.464W PF:0.9721 Freq:49.99Hz Lamp Flux:894.807x1 lm		
NAME: DL9453-WH3K10C03	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:



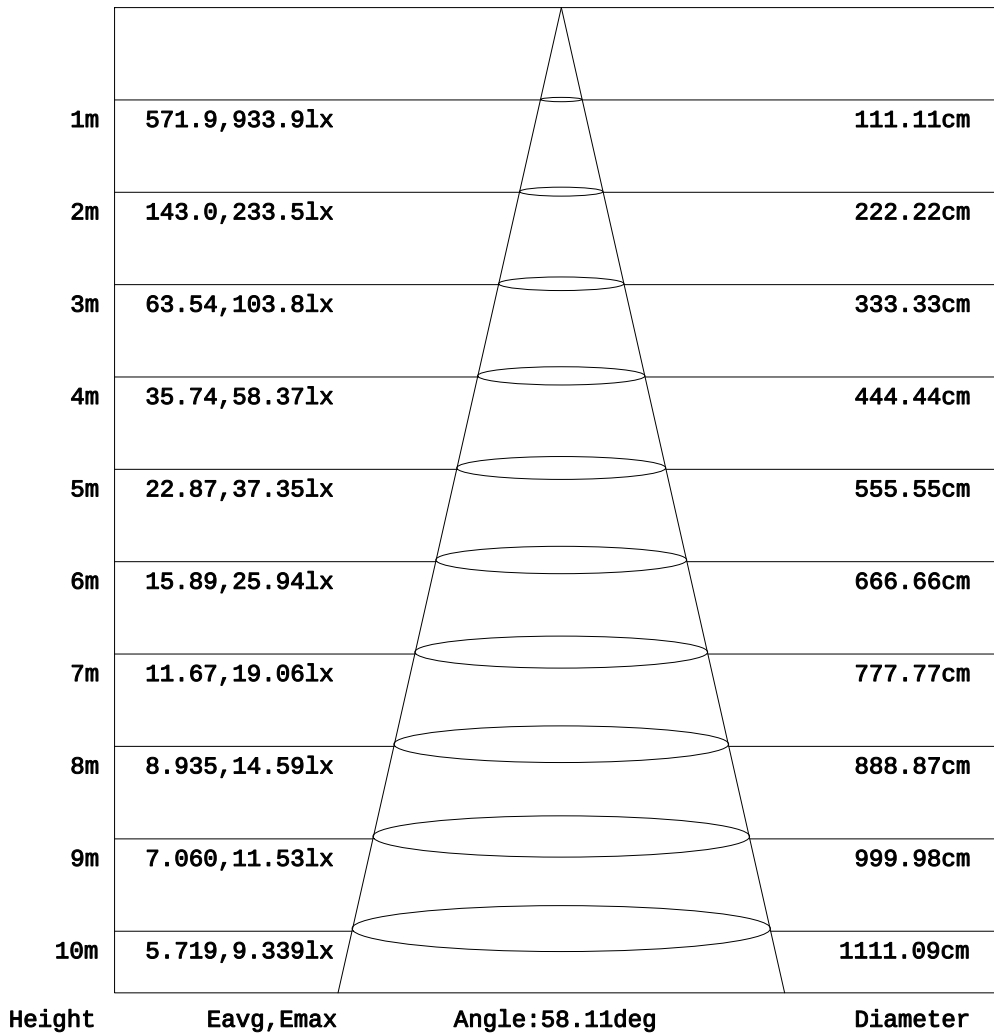
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-11-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.79V I:0.0466A P:10.464W PF:0.9721 Freq:49.99Hz Lamp Flux:894.807x1 lm		
NAME: DL9453-WH3K10C03	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

Flux out:598.9 lm



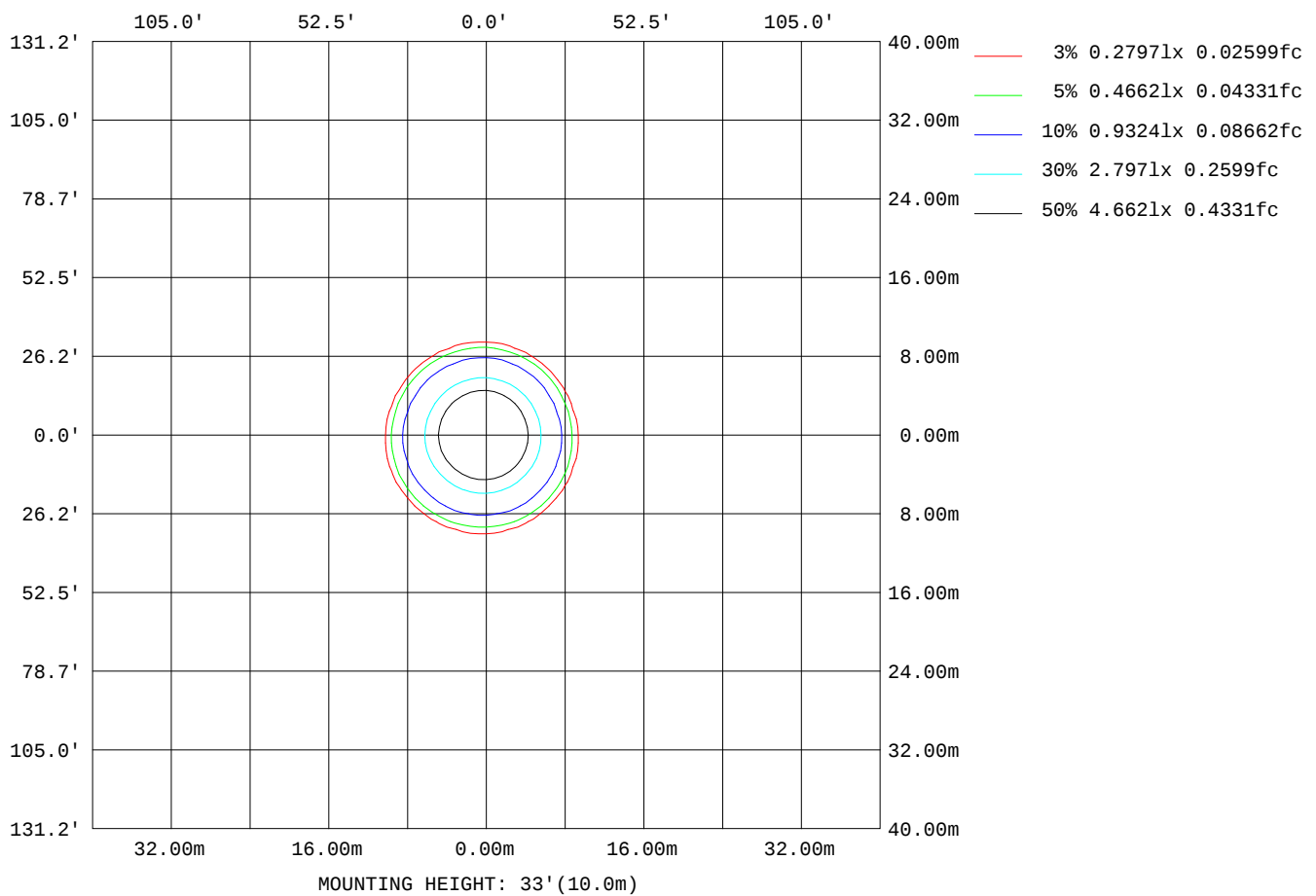
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-11-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:230.79V I:0.0466A P:10.464W PF:0.9721 Freq:49.99Hz Lamp Flux:894.807x1 lm		
NAME: DL9453-WH3K10C03	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-11-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.79V I:0.0466A P:10.464W PF:0.9721 Freq:49.99Hz Lamp Flux:894.807x1 lm		
NAME: DL9453-WH3K10C03	TYPE:	WEIGHT:
SPEC.: white RA90	DIM.:	SERIAL No.:
MFR.:	SUR.: 85mm	Shielding Angle:

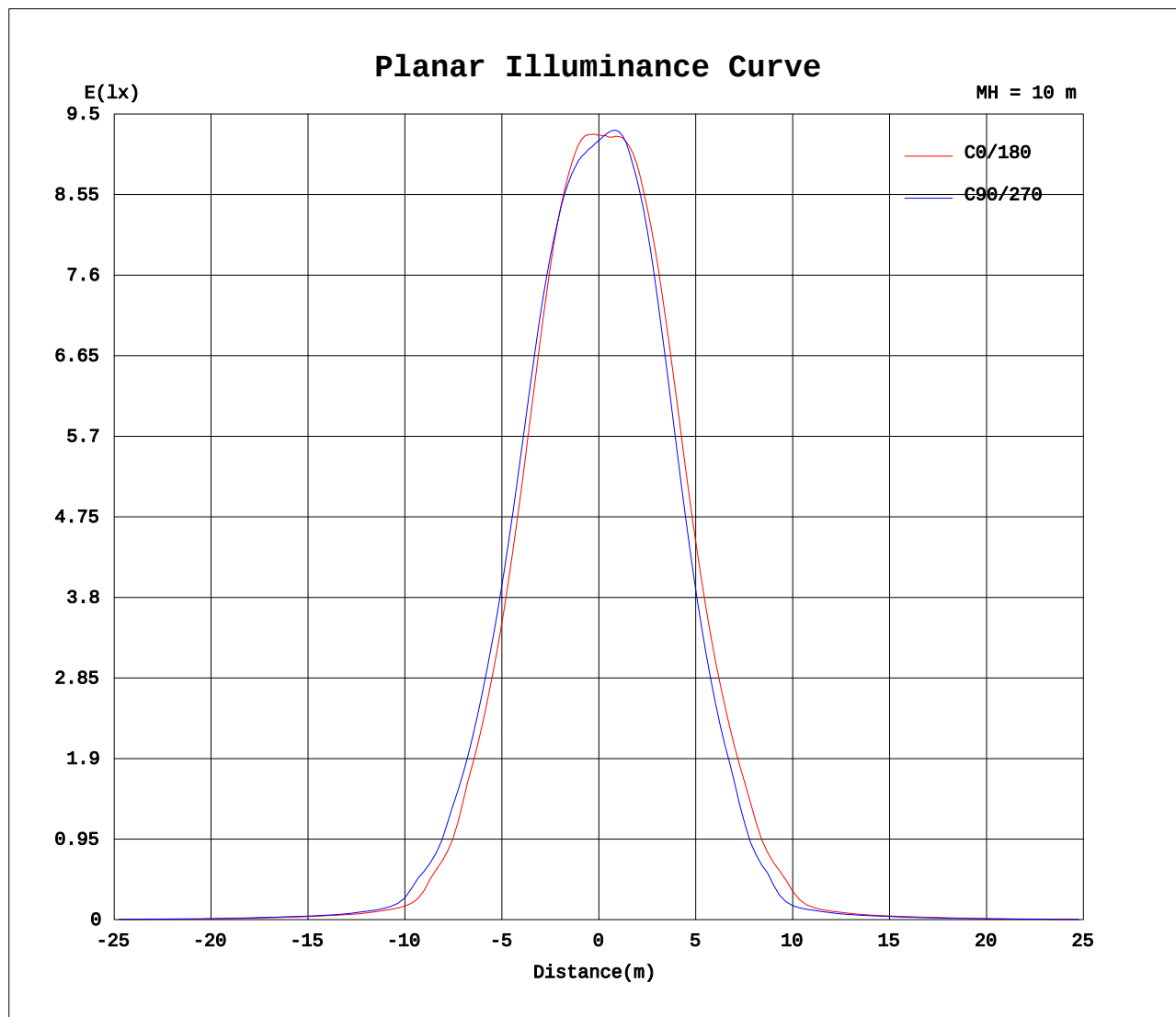
AvgL	cd/m2
L_0~180(65)av	5458
L_0~180(75)av	5165
L_0~180(85)av	4663
L_90~270(65)av	5247
L_90~270(75)av	5131
L_90~270(85)av	4668
L_45(65)av	5321
L_45(75)av	5138
L_45(85)av	4652

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-11-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_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: 2024-11-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_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-2000A_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

```