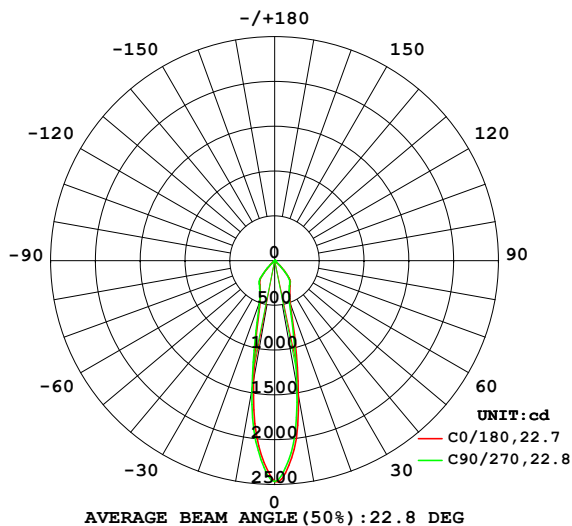


LUMINAIRE PHOTOMETRIC TEST REPORT

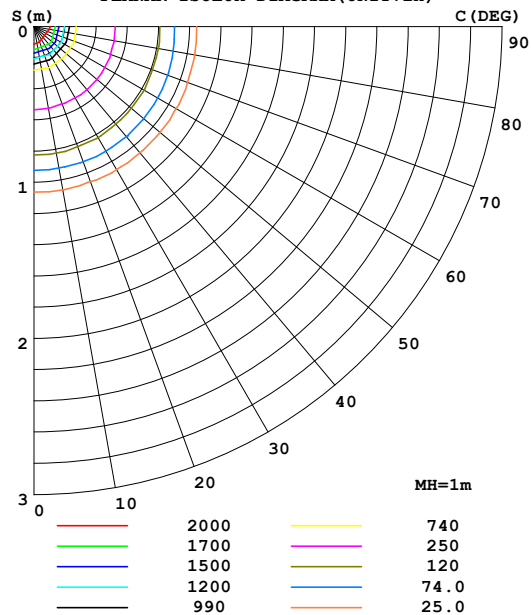
Test:U:240.4V I:0.0447A P:10.0W PF:0.9321 Freq:49.99Hz		
UTHDi:0.27% ITHDi:20.16% KDisp:0.9514 Lamp Flux:875.709x1 lm		
NAME: MD10-10-XX-02 2700K RA90 25D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 87.37 lm/W
MODEL		I _{max} (cd)	2470	S/MH (C0/180)		0.37
NOMINAL POWER(W)	10	LOR (%)	100.0	S/MH (C90/270)		0.39
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	875.71	η UP,DN (C0-180)		0.0,50.6
NOMINAL FLUX(lm)	875.709	CIE CLASS	DIRECT	η UP,DN (C180-360)		0.0,49.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.00
TEST VOLTAGE(V)	240.42	η down (%)	100.0	CIBSE SHR MAX		0.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2023-09-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
 Humidity: 65.0%
 Test Distance: 3.090m [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	1531	1524	1434	1394	1368	1389	1466	1506	0- 10	182.6	182.6	20.9,20.9
20	513.1	510.8	488.4	478.3	475.5	480.5	495.8	505.2	10- 20	229.0	411.6	47,47
30	342.6	339.4	333.7	332.8	332.2	332.3	339.2	344.2	20- 30	182.4	594.0	67.8,67.8
40	252.2	247.9	233.0	222.2	214.1	219.0	232.5	244.1	30- 40	184.7	778.8	88.9,88.9
50	20.33	22.25	16.02	15.81	16.28	17.34	20.38	20.32	40- 50	80.34	859.1	98.1,98.1
60	5.236	5.032	4.778	4.667	4.685	4.902	5.250	5.412	50- 60	8.821	867.9	99.1,99.1
70	3.400	3.145	3.064	2.925	3.091	3.426	3.537	3.450	60- 70	3.806	871.7	99.5,99.5
80	2.693	2.499	2.178	2.521	2.772	2.961	2.398	2.667	70- 80	3.027	874.8	99.9,99.9
90	0.0151	0.0045	0.0135	0.0045	0.0064	0.0019	0.0061	0.0029	80- 90	0.9501	875.7	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		

Conical surface Flux(90deg): 840.06 lm

%lum = 95.9%

%lamp = 95.9%

Conical surface Flux(130deg): 869.97 lm

%lum = 99.3%

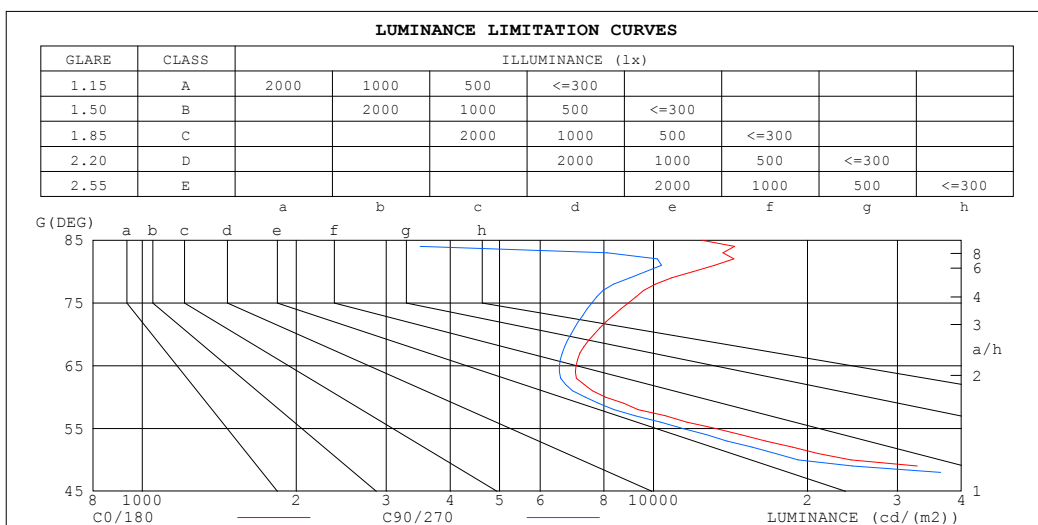
%lamp = 99.3%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2023-09-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.4V I:0.0447A P:10.0W PF:0.9321 Freq:49.99Hz		
UTHDi:0.27% ITHDi:20.16% KDisp:0.9514 Lamp Flux:875.709x1 lm		
NAME: MD10-10-XX-02 2700K RA90 25D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	12444	331
80	11934	9648
75	8923	7574
70	7649	6891
65	7050	6544
60	8058	7350
55	13248	11419
50	24336	19173
45	128204	108085

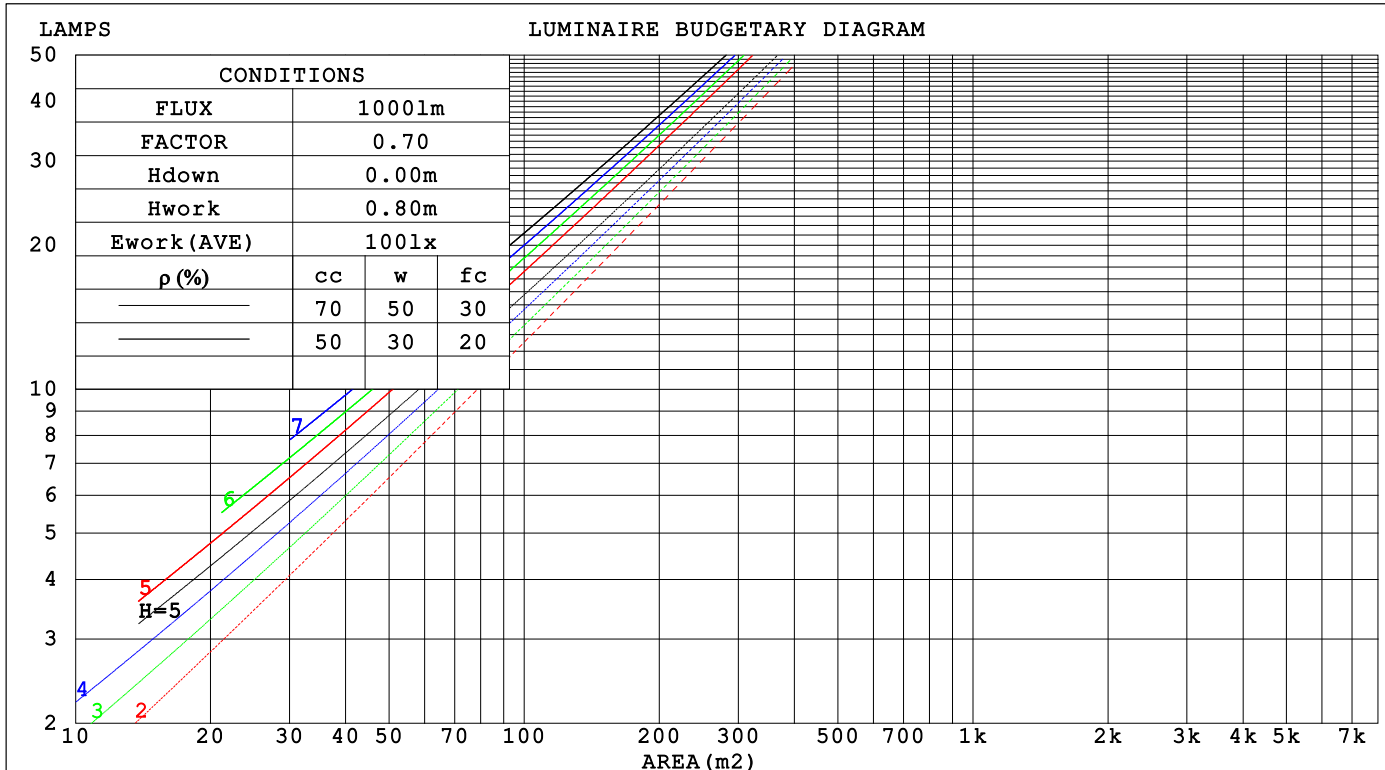
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-09-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.4V I:0.0447A P:10.0W PF:0.9321 Freq:49.99Hz		
UTHDi:0.27% ITHDi:20.16% KDisp:0.9514 Lamp Flux:875.709x1 lm		
NAME: MD10-10-XX-02 2700K RA90 25D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-09-14

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:240.4V I:0.0447A P:10.0W PF:0.9321 Freq:49.99Hz			UTHDi:0.27% ITHDi:20.16% KDisp:0.9514			Lamp Flux:875.709x1 lm		
NAME: MD10-10-XX-02 2700K RA90 25D			TYPE:			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.: Norming Lighting			SUR.:			Shielding Angle:		

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.174	.099	.031	.167	.095	.030	.155	.089	.028	.143	.083	.026	.132	.077	.025		
2.0	.166	.091	.028	.160	.088	.027	.150	.083	.026	.140	.079	.025	.131	.074	.023		
3.0	.158	.084	.025	.153	.082	.025	.144	.078	.024	.136	.074	.023	.128	.071	.022		
4.0	.150	.078	.023	.146	.076	.023	.138	.073	.022	.131	.070	.021	.124	.067	.021		
5.0	.142	.072	.021	.139	.071	.021	.132	.069	.020	.126	.066	.020	.120	.064	.019		
6.0	.135	.068	.019	.132	.067	.019	.126	.065	.019	.121	.063	.018	.116	.061	.018		
7.0	.129	.064	.018	.126	.063	.018	.121	.061	.018	.116	.060	.017	.112	.058	.017		
8.0	.123	.060	.017	.121	.059	.017	.116	.058	.017	.112	.057	.016	.108	.055	.016		
9.0	.118	.057	.016	.115	.056	.016	.111	.055	.016	.107	.054	.015	.104	.053	.015		
10.0	.112	.054	.015	.111	.053	.015	.107	.052	.015	.103	.051	.015	.100	.050	.014		

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	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	.155	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013		
3.0	.143	.114	.090	.122	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011		
4.0	.132	.099	.073	.114	.085	.064	.078	.059	.045	.045	.035	.026	.015	.011	.009		
5.0	.123	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007		
6.0	.116	.078	.050	.099	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006		
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005		
8.0	.103	.064	.037	.089	.055	.032	.061	.039	.023	.036	.023	.014	.012	.008	.004		
9.0	.098	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004		
10.0	.093	.054	.028	.080	.047	.024	.056	.033	.017	.032	.020	.010	.011	.006	.003		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-09-14

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.4V I:0.0447A P:10.0W PF:0.9321 Freq:49.99Hz UTHDi:0.27% ITHDi:20.16% KDisp:0.9514 Lamp Flux:875.709x1 lm										
NAME: MD10-10-XX-02 2700K RA90 25D					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: Norming Lighting					SUR.:			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	24.7	25.6	25.0	25.8	26.0	24.4	25.4	24.7	25.5	25.7
3H	24.6	25.4	24.8	25.6	25.8	24.3	25.1	24.6	25.3	25.5
4H	24.5	25.3	24.8	25.5	25.8	24.2	25.0	24.5	25.2	25.5
6H	24.5	25.2	24.8	25.5	25.7	24.2	24.9	24.5	25.2	25.4
8H	24.4	25.2	24.8	25.4	25.7	24.1	24.9	24.4	25.1	25.4
12H	24.4	25.1	24.7	25.4	25.7	24.1	24.8	24.4	25.1	25.3
4H 2H	24.5	25.3	24.8	25.5	25.7	24.2	25.0	24.5	25.2	25.4
3H	24.3	25.0	24.7	25.3	25.6	24.1	24.7	24.4	25.0	25.3
4H	24.3	24.9	24.6	25.2	25.5	24.0	24.6	24.3	24.9	25.2
6H	24.2	24.8	24.6	25.1	25.5	23.9	24.5	24.3	24.8	25.2
8H	24.2	24.8	24.6	25.1	25.5	23.9	24.4	24.3	24.8	25.2
12H	24.2	24.7	24.6	25.1	25.5	23.9	24.3	24.3	24.7	25.1
8H 4H	24.2	24.7	24.5	25.0	25.4	23.9	24.4	24.3	24.7	25.1
6H	24.1	24.6	24.6	25.0	25.4	23.8	24.3	24.3	24.7	25.1
8H	24.2	24.5	24.6	25.0	25.4	23.8	24.2	24.3	24.6	25.1
12H	24.2	24.5	24.6	24.9	25.4	23.8	24.1	24.3	24.6	25.0
12H 4H	24.1	24.6	24.5	24.9	25.3	23.8	24.3	24.2	24.7	25.1
6H	24.1	24.5	24.6	24.9	25.3	23.8	24.2	24.3	24.6	25.0
8H	24.1	24.5	24.6	24.9	25.4	23.8	24.1	24.3	24.6	25.0
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 2.4 / - 9.1					+ 2.4 / - 9.6				
1.5H	+ 4.3 / - 9.1					+ 4.5 / - 9.3				
2.0H	+ 7.4 / - 4.6					+ 7.2 / - 4.6				

CIE Pub.117, 875.7 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -0.5)
Area: 0.0013 m2

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-09-14

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.4V I:0.0447A P:10.0W PF:0.9321 Freq:49.99Hz		
UTHDi:0.27% ITHDi:20.16% KDisp:0.9514 Lamp Flux:875.709x1 lm		
NAME: MD10-10-XX-02 2700K RA90 25D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.:	Shielding Angle:

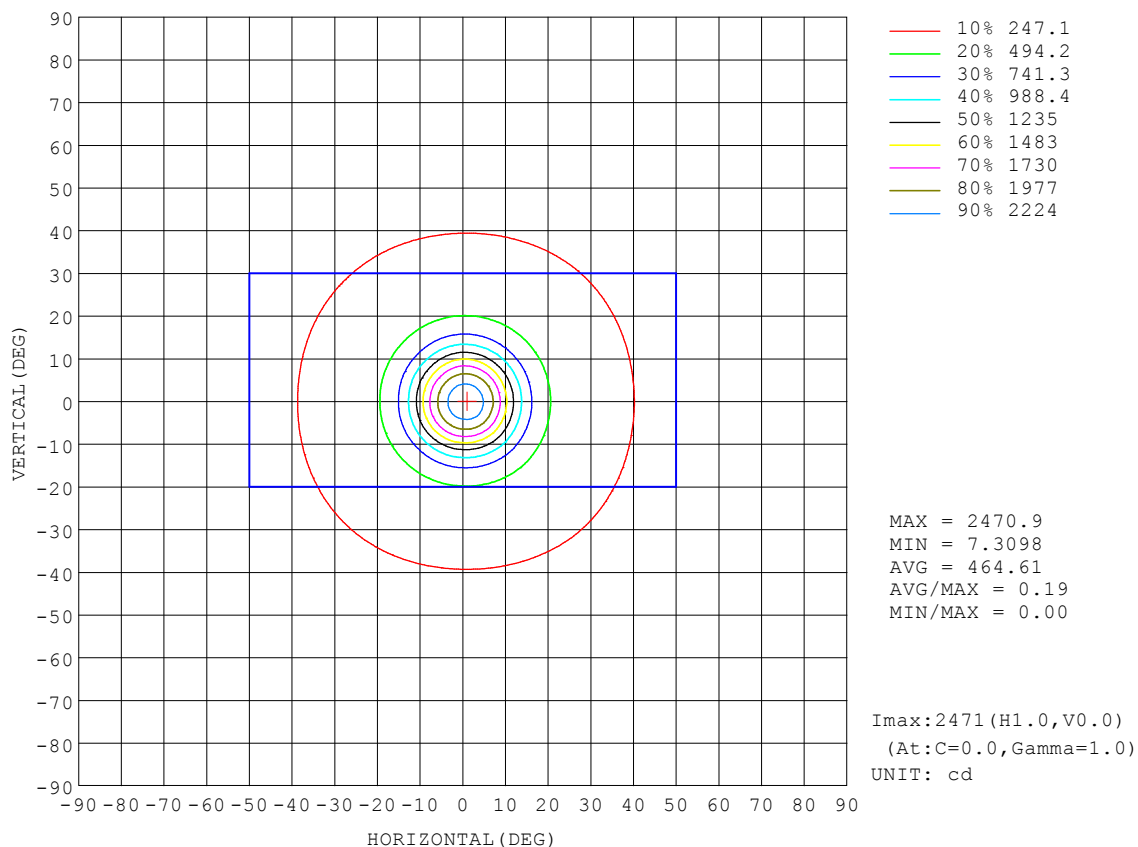
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	84	78	74	83	77	73	70
0.80	93	86	82	92	86	82	91	85	82	78
1.00	98	92	88	97	91	87	95	91	87	83
1.25	102	96	93	101	96	92	99	95	92	87
1.50	105	100	96	104	99	96	101	98	95	90
2.00	108	103	100	106	102	99	104	100	98	92
2.50	110	106	102	108	104	102	105	102	100	94
3.00	111	108	105	109	106	104	106	104	102	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	112	110	109	108	107	105	98
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-09-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:240.4V I:0.0447A P:10.0W PF:0.9321 Freq:49.99Hz		
UTHDi:0.27% ITHDi:20.16% KDisp:0.9514 Lamp Flux:875.709x1 lm		
NAME: MD10-10-XX-02 2700K RA90 25D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.:	Shielding Angle:

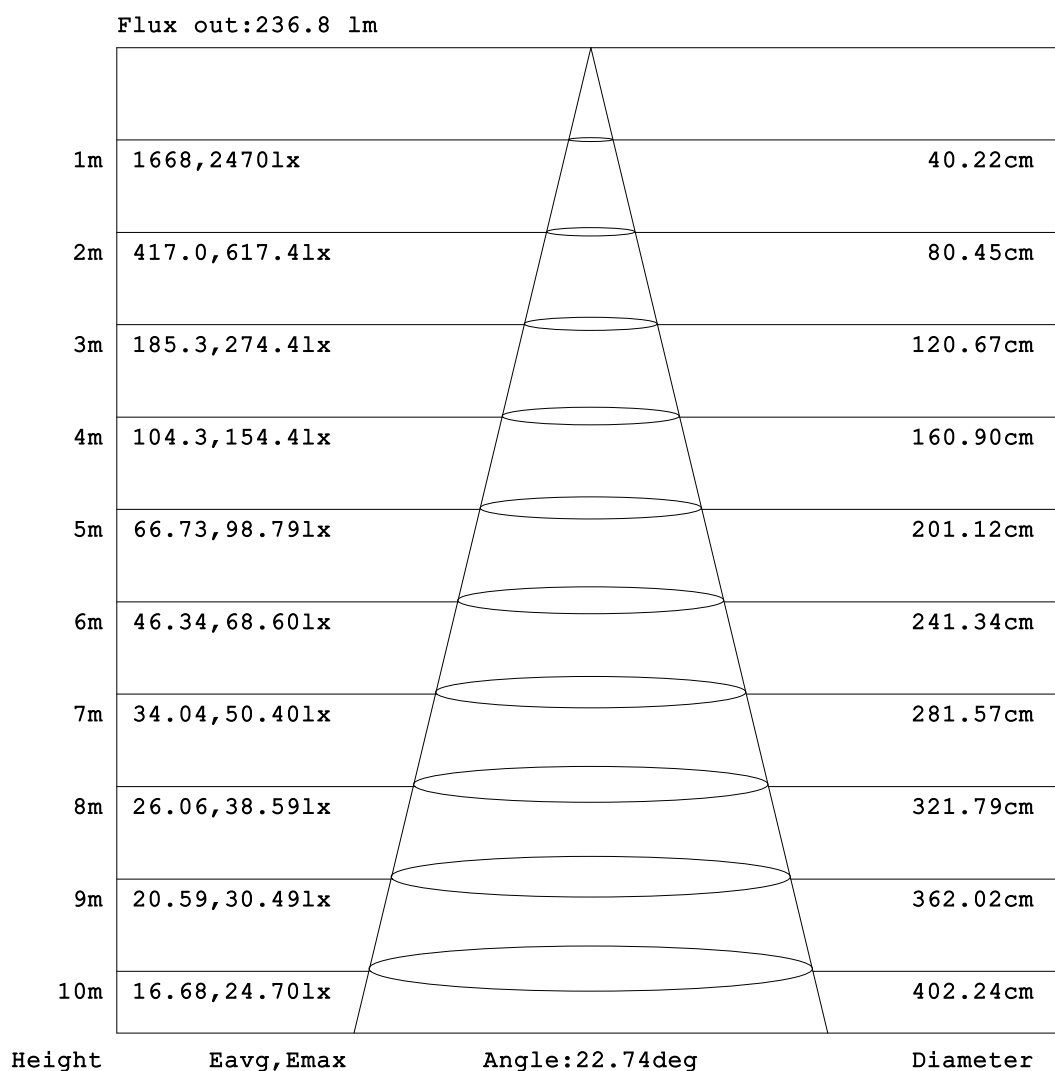


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-09-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

AAI Figure

Test:U:240.4V I:0.0447A P:10.0W PF:0.9321 Freq:49.99Hz		
UTHDi:0.27% ITHDi:20.16% KDisp:0.9514 Lamp Flux:875.709x1 lm		
NAME: MD10-10-XX-02 2700K RA90 25D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.:	Shielding Angle:



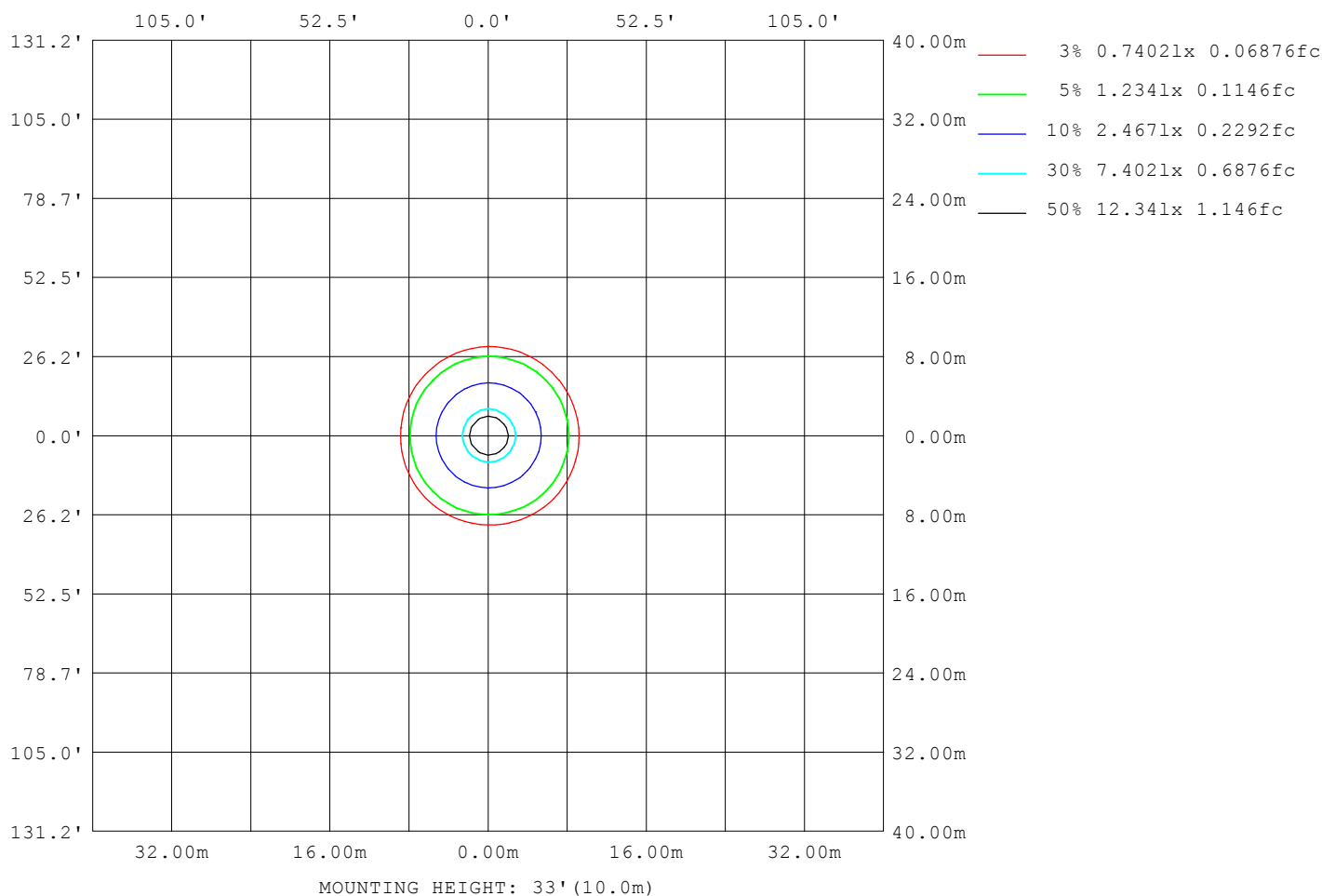
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-09-14

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:240.4V I:0.0447A P:10.0W PF:0.9321 Freq:49.99Hz		
UTHDi:0.27% ITHDi:20.16% KDisp:0.9514 Lamp Flux:875.709x1 lm		
NAME: MD10-10-XX-02 2700K RA90 25D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2023-09-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:240.4V I:0.0447A P:10.0W PF:0.9321 Freq:49.99Hz		
UTHDi:0.27% ITHDi:20.16% KDisp:0.9514 Lamp Flux:875.709x1 lm		
NAME: MD10-10-XX-02 2700K RA90 25D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.:	Shielding Angle:

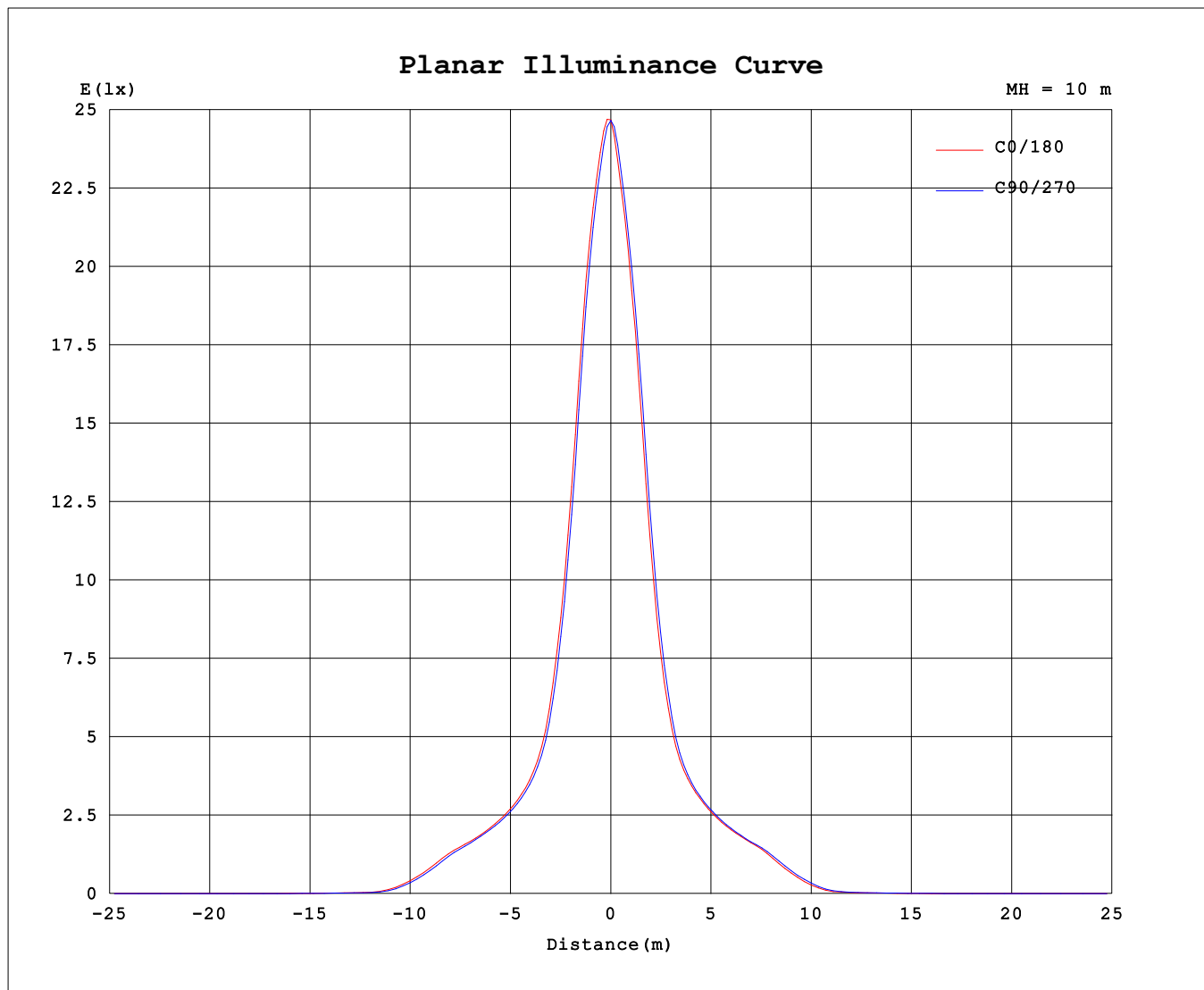
AvgL	cd/m2
L_0~180 (65) av	6734
L_0~180 (75) av	8542
L_0~180 (85) av	11459
L_90~270 (65) av	6873
L_90~270 (75) av	8298
L_90~270 (85) av	238
L_45 (65) av	6767
L_45 (75) av	8392
L_45 (85) av	1425

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-09-14

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2023-09-14

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity: 65.0%
Test Distance: 3.090m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

```