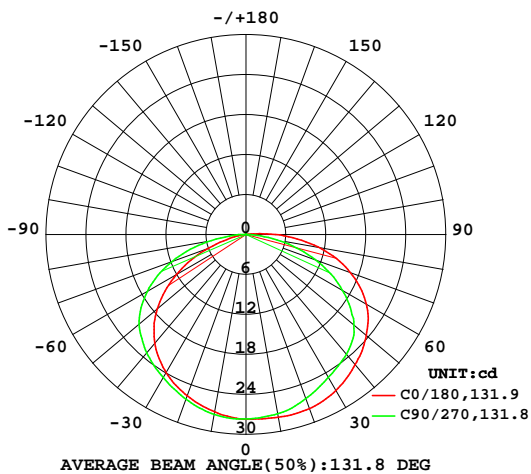


LUMINAIRE PHOTOMETRIC TEST REPORT

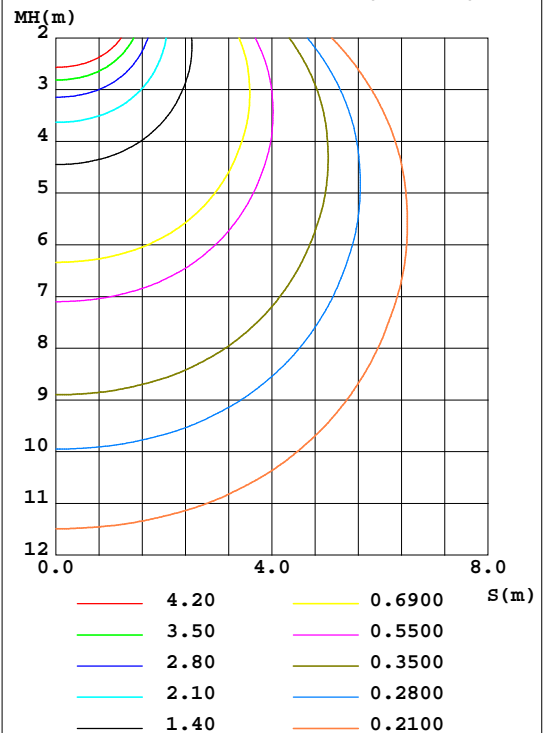
Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 25.04 lm/W			
MODEL	DA6962412NO	I _{max} (cd)	27.91	S/MH(C0/180)	1.29
NOMINAL POWER(W)	3.84	LOR(%)	100.0	S/MH(C90/270)	1.35
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	98.549	h UP,DN(C0-180)	0.6,55.0
NOMINAL FLUX(lm)	98.5493	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.2,44.2
LAMPS INSIDE	1	h up(%)	0.8	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	h down(%)	99.2	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

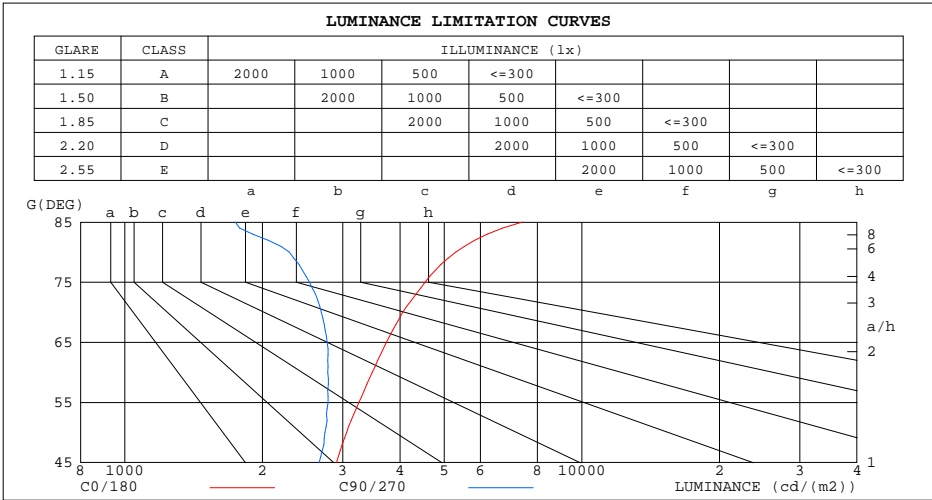
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	27.84	27.33	27.03	27.44					0~ 10	2.630	2.630	2.67,2.67
20	27.82	26.23	25.78	26.31					10~ 20	7.648	10.28	10.4,10.4
30	27.03	24.76	23.96	24.82					20~ 30	11.96	22.23	22.6,22.6
40	25.49	23.46	21.30	23.19					30~ 40	15.24	37.47	38,38
50	23.57	21.14	17.39	20.94					40~ 50	17.14	54.61	55.4,55.4
60	20.87	16.68	12.08	17.09					50~ 60	16.86	71.48	72.5,72.5
70	16.65	11.05	5.956	11.79					60~ 70	13.99	85.47	86.7,86.7
80	11.04	4.771	1.178	5.279					70~ 80	8.896	94.37	95.8,95.8
90	4.471	0.0556	0.0249	0.5017					80~ 90	3.414	97.78	99.2,99.2
100	0.1834	0	0.0219	0					90~100	0.5215	98.30	99.8,99.8
110	0	0.0219	0.0439	0.0031					100~110	0.0157	98.32	99.8,99.8
120	0	0.0408	0.0627	0.0314					110~120	0.0242	98.34	99.8,99.8
130	0.0376	0.0595	0.0721	0.0407					120~130	0.0381	98.38	99.8,99.8
140	0.0439	0.0721	0.0909	0.0438					130~140	0.0448	98.43	99.9,99.9
150	0.0470	0.0846	0.0940	0.0971					140~150	0.0468	98.47	99.9,99.9
160	0.0940	0.0940	0.0940	0.0940					150~160	0.0399	98.51	100,100
170	0.0940	0.0971	0.0940	0.0940					160~170	0.0268	98.54	100,100
180	0.0940	0.0940	0.0940	0.0971					170~180	0.0090	98.55	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:



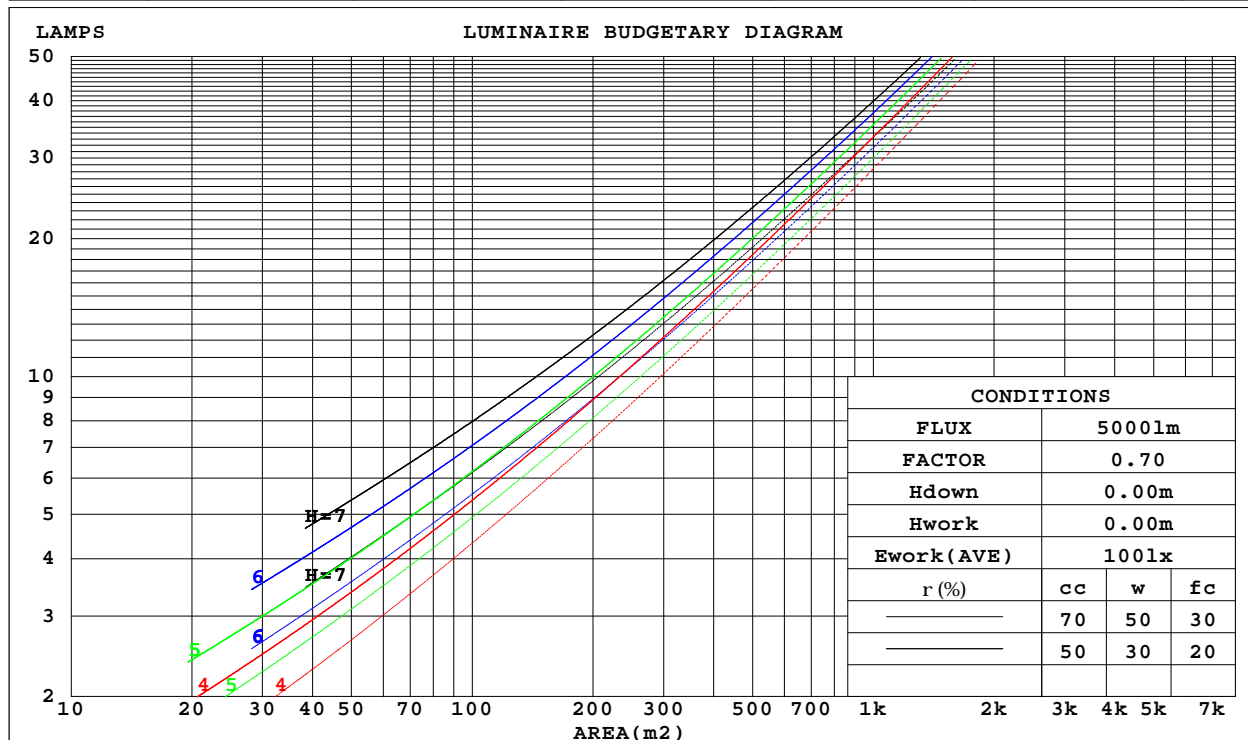
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:COLORS
 Test Date:2018-11-30

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Wall Exitance Coefficients(WEC)												
0.0																
1.0	.345	.196	.062	.337	.192	.061	.323	.186	.059	.311	.179	.058	.299	.173	.056	
2.0	.317	.174	.053	.310	.171	.053	.298	.166	.051	.287	.161	.050	.276	.156	.049	
3.0	.289	.154	.046	.284	.152	.046	.273	.148	.045	.262	.144	.044	.253	.140	.043	
4.0	.265	.137	.040	.259	.136	.040	.250	.132	.040	.241	.129	.039	.232	.126	.038	
5.0	.243	.124	.036	.238	.122	.036	.229	.119	.035	.221	.117	.035	.214	.114	.034	
6.0	.224	.112	.032	.220	.111	.032	.212	.109	.032	.205	.106	.031	.198	.104	.031	
7.0	.207	.102	.029	.204	.101	.029	.197	.099	.029	.190	.098	.028	.184	.096	.028	
8.0	.193	.094	.026	.190	.093	.026	.183	.092	.026	.178	.090	.026	.172	.088	.026	
9.0	.180	.087	.024	.177	.086	.024	.172	.085	.024	.166	.083	.024	.161	.082	.024	
10.0	.169	.081	.022	.166	.080	.022	.161	.079	.022	.156	.078	.022	.152	.076	.022	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.196	.196	.196	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.189	.162	.138	.161	.139	.118	.110	.096	.082	.064	.055	.048	.020	.018	.015	
2.0	.182	.138	.101	.156	.119	.087	.107	.082	.061	.061	.048	.036	.020	.015	.012	
3.0	.174	.120	.078	.149	.104	.067	.103	.072	.047	.059	.042	.028	.019	.014	.009	
4.0	.167	.107	.062	.143	.093	.054	.098	.065	.038	.057	.038	.022	.018	.012	.007	
5.0	.159	.097	.051	.137	.084	.045	.094	.059	.032	.055	.034	.019	.018	.011	.006	
6.0	.152	.089	.044	.130	.077	.038	.090	.054	.027	.052	.032	.016	.017	.010	.005	
7.0	.145	.082	.038	.125	.071	.033	.086	.050	.024	.050	.029	.014	.016	.010	.005	
8.0	.138	.076	.034	.119	.066	.030	.082	.046	.021	.048	.027	.013	.015	.009	.004	
9.0	.132	.071	.031	.113	.062	.027	.079	.044	.019	.046	.026	.011	.015	.008	.004	
10.0	.126	.067	.028	.108	.058	.024	.075	.041	.017	.044	.024	.010	.014	.008	.003	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm											
NAME: DA6962412NO					TYPE:			WEIGHT:			
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R					DIM.: 1000*12*1.5mm			SERIAL No.:01			
MFR.: Colors					SUR.:1000*12			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	25.7	27.3	26.0	27.5	27.8	24.9	26.5	25.2	26.8	27.0	
	3H	28.1	29.6	28.4	29.8	30.1	26.7	28.2	27.1	28.5	28.7
	4H	29.3	30.7	29.6	30.9	31.2	27.5	28.9	27.8	29.1	29.4
	6H	30.4	31.7	30.7	32.0	32.3	28.0	29.3	28.3	29.6	29.9
	8H	30.9	32.2	31.3	32.5	32.8	28.1	29.4	28.5	29.7	30.0
	12H	31.5	32.7	31.8	33.0	33.3	28.2	29.4	28.6	29.7	30.1
4H	2H	26.4	27.8	26.7	28.1	28.4	25.8	27.2	26.2	27.5	27.8
	3H	28.9	30.2	29.3	30.5	30.8	27.8	29.1	28.2	29.4	29.7
	4H	30.3	31.4	30.7	31.7	32.1	28.7	29.9	29.1	30.2	30.5
	6H	31.6	32.6	32.0	32.9	33.3	29.4	30.4	29.8	30.8	31.2
	8H	32.2	33.1	32.6	33.5	33.9	29.6	30.5	30.0	30.9	31.3
	12H	32.8	33.7	33.3	34.1	34.5	29.7	30.6	30.2	31.0	31.4
8H	4H	30.6	31.5	31.0	31.9	32.3	29.3	30.2	29.7	30.6	31.0
	6H	32.1	32.9	32.6	33.3	33.8	30.2	31.0	30.6	31.4	31.8
	8H	32.9	33.6	33.3	34.0	34.5	30.5	31.2	31.0	31.7	32.1
	12H	33.7	34.3	34.2	34.8	35.3	30.7	31.4	31.2	31.8	32.3
12H	4H	30.6	31.5	31.1	31.9	32.3	29.4	30.3	29.8	30.7	31.1
	6H	32.2	32.9	32.7	33.3	33.8	30.4	31.1	30.9	31.5	32.0
	8H	33.0	33.6	33.5	34.1	34.6	30.8	31.4	31.3	31.9	32.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1				+ 0.1 / - 0.1						
1.5H	+ 0.2 / - 0.2				+ 0.2 / - 0.3						
2.0H	+ 0.2 / - 0.3				+ 0.2 / - 0.5						

CIE Pub.117, 98.55 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -8.1)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

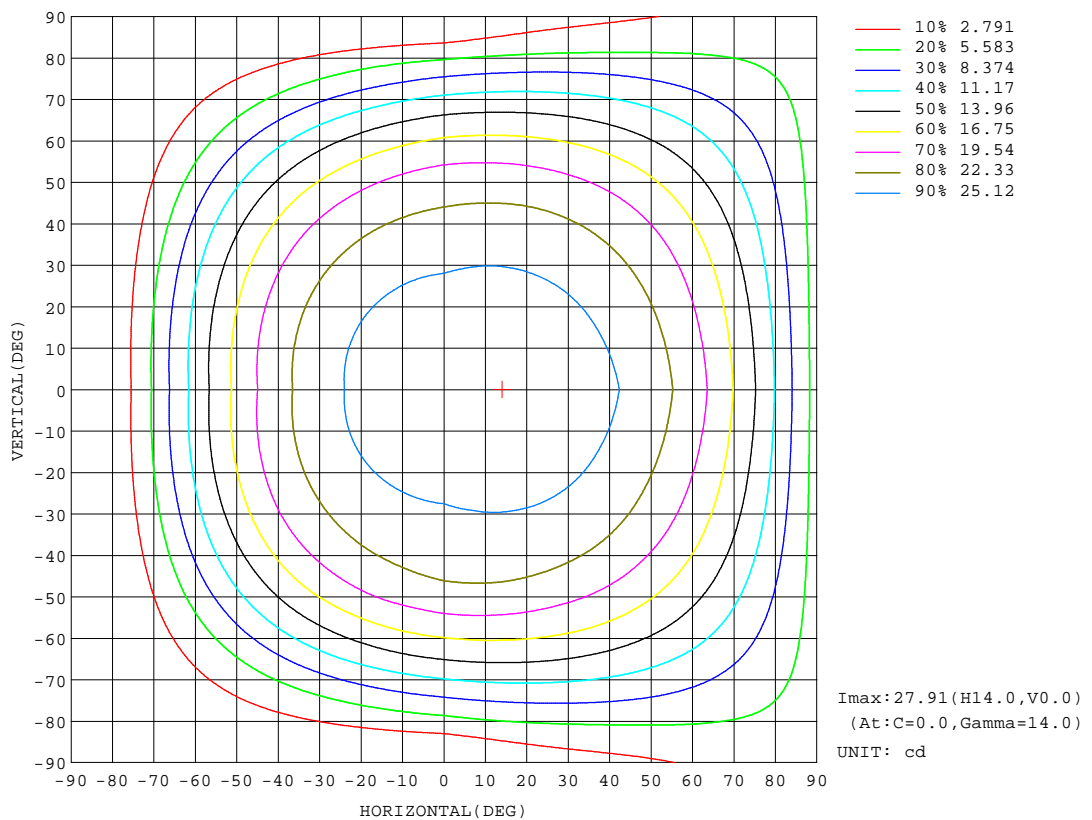
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	34	53	41	34	52	41	34	27
0.80	64	51	43	63	51	43	61	50	43	35
1.00	72	60	52	71	60	52	69	61	51	44
1.25	79	68	60	78	67	60	75	66	59	51
1.50	85	74	66	83	73	66	80	71	65	56
2.00	92	83	75	90	81	75	86	79	73	65
2.50	96	88	81	94	86	80	90	83	78	69
3.00	100	92	86	98	91	85	93	88	83	74
4.00	104	98	93	102	96	91	97	93	88	79
5.00	107	101	97	104	99	95	100	96	92	82
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:COLORS
 Test Date:2018-11-30

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.500m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:



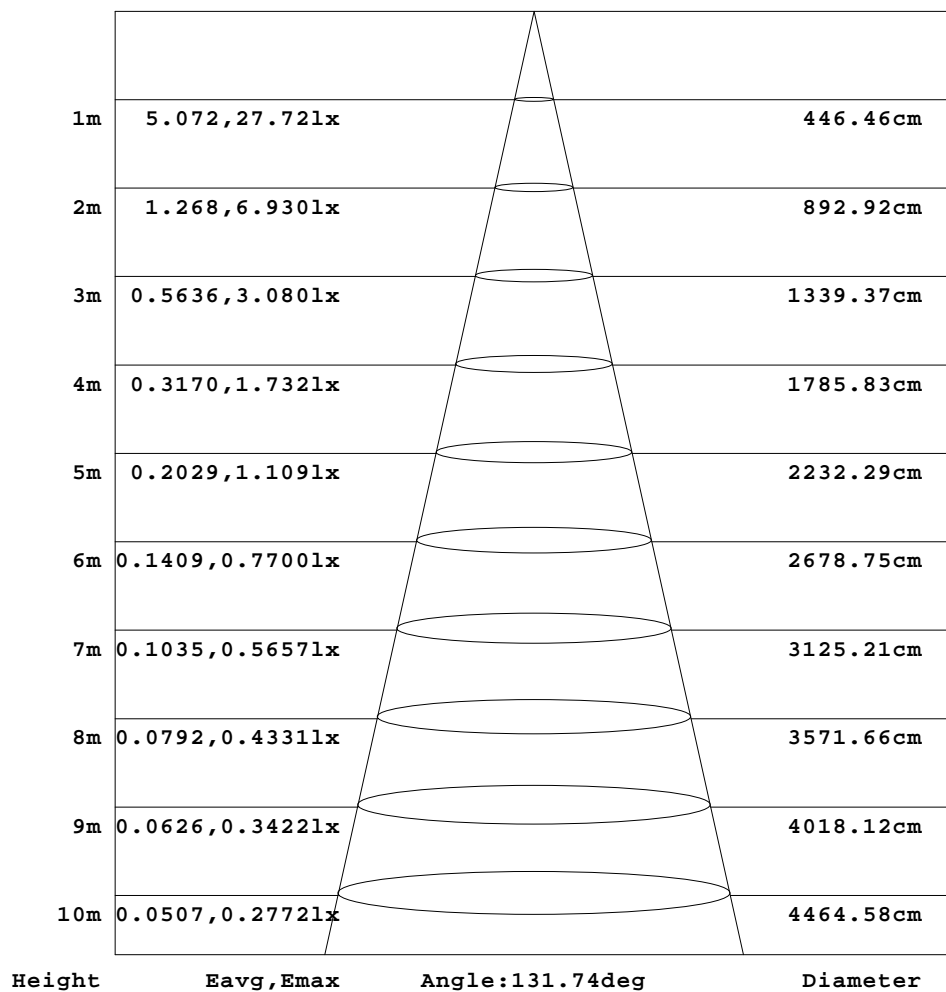
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

deg Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

AAI Figure

Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Flux out:80.38 lm



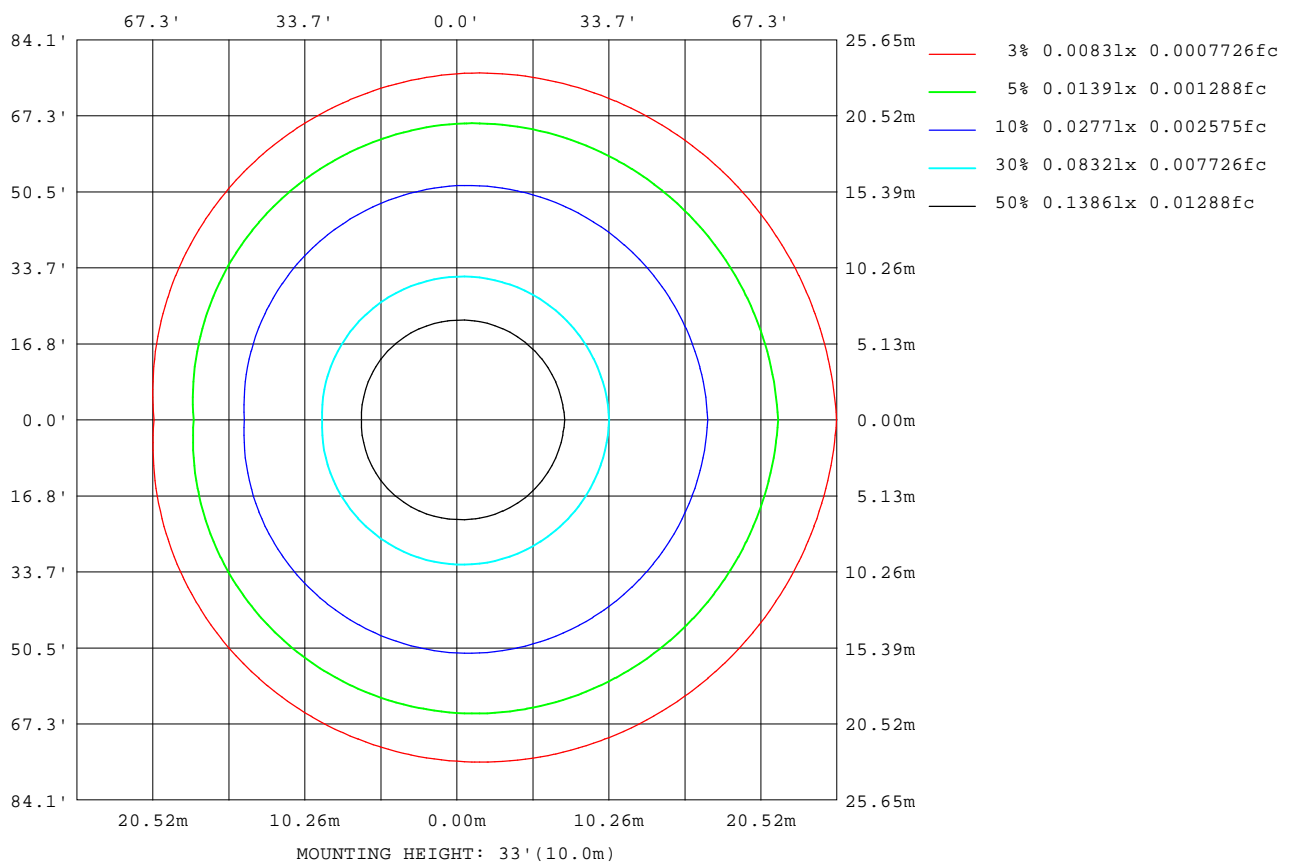
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

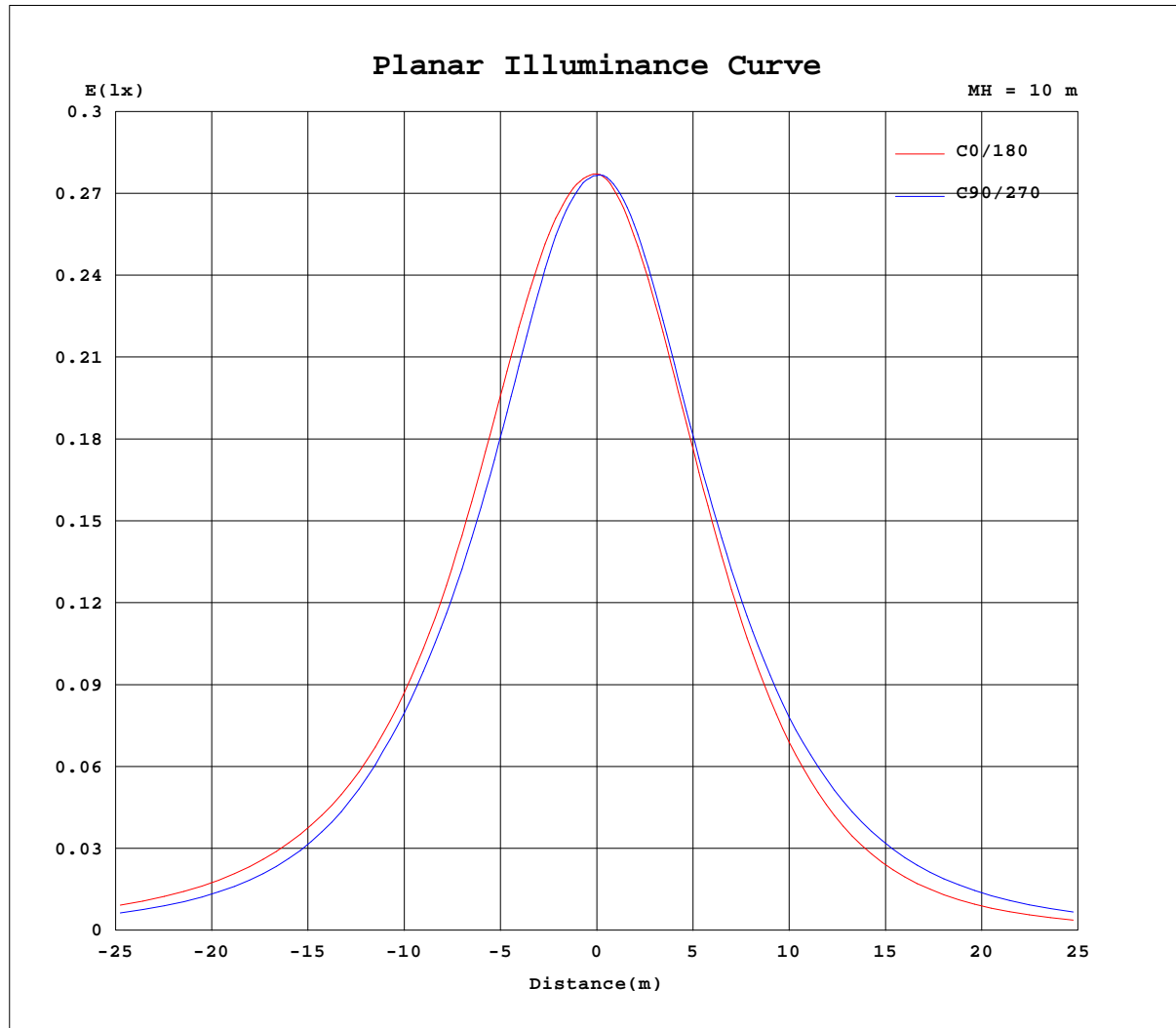
AvgL	cd/m2
L_0~180(65)av	2768
L_0~180(75)av	2753
L_0~180(85)av	3790
L_90~270(65)av	2828
L_90~270(75)av	2662
L_90~270(85)av	1863
L_45(65)av	2745
L_45(75)av	2584
L_45(85)av	2359

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: COLORS
Test Date: 2018-11-30

Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.500m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.1640A P:3.936W PF:0.9794 Freq:0Hz Lamp Flux:98.5493x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-R	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	90	180	270														
0	27.7	27.7	27.7	27.7														
5	27.8	27.6	27.5	27.7														
10	27.8	27.3	27.0	27.4														
15	27.9	26.9	26.5	27.0														
20	27.8	26.2	25.8	26.3														
25	27.5	25.5	25.0	25.6														
30	27.0	24.8	24.0	24.8														
35	26.3	24.1	22.7	24.0														
40	25.5	23.5	21.3	23.2														
45	24.7	22.6	19.5	22.1														
50	23.6	21.1	17.4	20.9														
55	22.4	19.2	14.9	19.2														
60	20.9	16.7	12.1	17.1														
65	19.0	14.0	9.13	14.6														
70	16.6	11.0	5.96	11.8														
75	14.1	7.87	3.01	8.66														
80	11.0	4.77	1.18	5.28														
85	7.76	1.82	0.17	2.07														
90	4.47	0.06	0.02	0.50														
95	1.63	0.00	0.02	0.00														
100	0.18	0.00	0.02	0.00														
105	0.00	0.01	0.04	0.00														
110	0.00	0.02	0.04	0.00														
115	0.00	0.03	0.06	0.01														
120	0.00	0.04	0.06	0.03														
125	0.01	0.06	0.06	0.04														
130	0.04	0.06	0.07	0.04														
135	0.04	0.07	0.08	0.04														
140	0.04	0.07	0.09	0.04														
145	0.04	0.08	0.09	0.09														
150	0.05	0.08	0.09	0.10														
155	0.07	0.09	0.09	0.09														
160	0.09	0.09	0.09	0.09														
165	0.10	0.10	0.09	0.09														
170	0.09	0.10	0.09	0.09														
175	0.09	0.10	0.09	0.09														
180	0.09	0.09	0.09	0.10														

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.500m [K=1.0000]
Remarks: