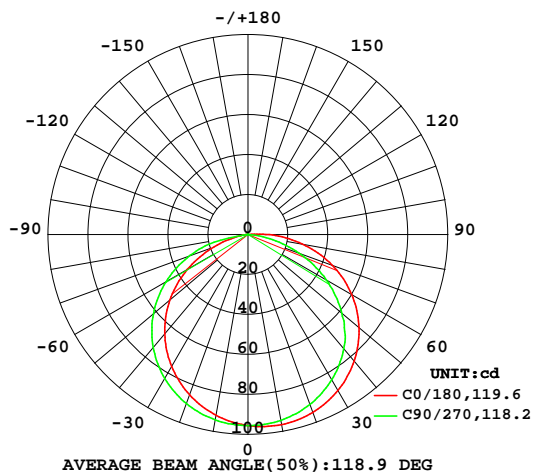


LUMINAIRE PHOTOMETRIC TEST REPORT

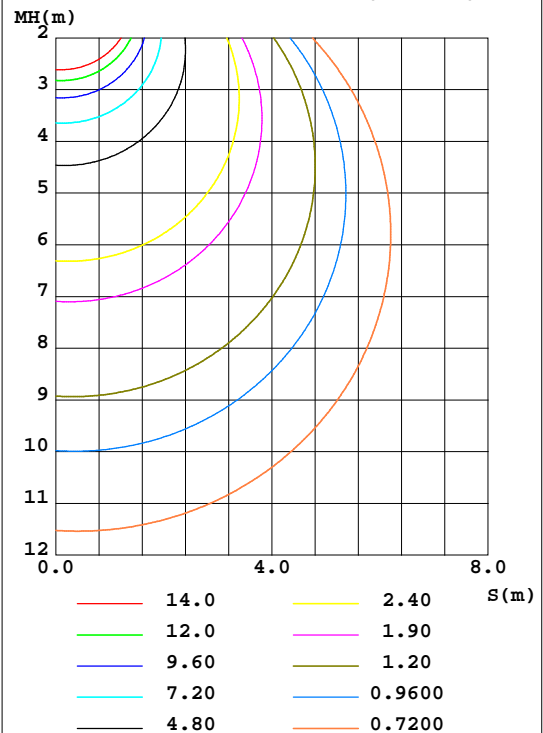
Test:U:24.00V I:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 73.42 lm/W			
MODEL	DA6962412NO	I _{max} (cd)	96.57	S/MH(C0/180)	1.20
NOMINAL POWER(W)	3.84	LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	296.03	h UP,DN(C0-180)	0.6,54.7
NOMINAL FLUX(lm)	296.034	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.3,44.4
LAMPS INSIDE	1	h up(%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	24	h down(%)	99.1	CIBSE SHR MAX	1.35

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:

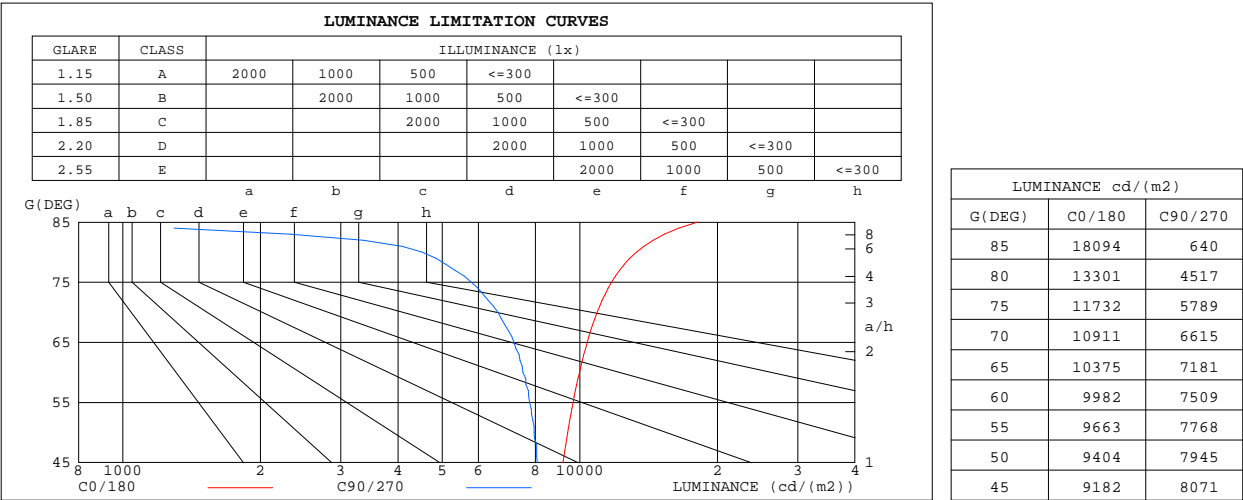
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	96.57	94.40	91.86	94.18					0~ 10	9.061	9.061	3.06,3.06
20	94.71	90.50	85.40	90.03					10~ 20	26.14	35.20	11.9,11.9
30	90.04	83.87	76.36	83.24					20~ 30	40.17	75.37	25.5,25.5
40	82.64	74.65	64.83	73.77					30~ 40	49.44	124.8	42.2,42.2
50	72.54	61.29	51.01	61.79					40~ 50	52.59	177.4	59.9,59.9
60	59.89	45.05	35.10	47.36					50~ 60	48.73	226.1	76.4,76.4
70	44.78	27.15	18.04	30.83					60~ 70	38.26	264.4	89.3,89.3
80	27.72	9.412	3.797	5.697					70~ 80	22.55	286.9	96.9,96.9
90	10.61	0.0875	0.3316	0.1632					80~ 90	6.437	293.4	99.1,99.1
100	0.0940	0.0972	0.1757	0.0970					90~100	1.185	294.6	99.5,99.5
110	0.0940	0.1724	0.2476	0.1754					100~110	0.1511	294.7	99.6,99.6
120	0.1942	0.2414	0.3165	0.2350					110~120	0.2054	294.9	99.6,99.6
130	0.2350	0.3134	0.3698	0.2913					120~130	0.2436	295.2	99.7,99.7
140	0.2914	0.3667	0.4199	0.3509					130~140	0.2596	295.4	99.8,99.8
150	0.3572	0.4199	0.4575	0.3948					140~150	0.2418	295.7	99.9,99.9
160	0.4073	0.4513	0.4920	0.4387					150~160	0.1984	295.9	99.9,99.9
170	0.4387	0.4732	0.4920	0.4450					160~170	0.1296	296.0	100,100
180	0.4951	0.4951	0.4920	0.4857					170~180	0.0450	296.0	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:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:



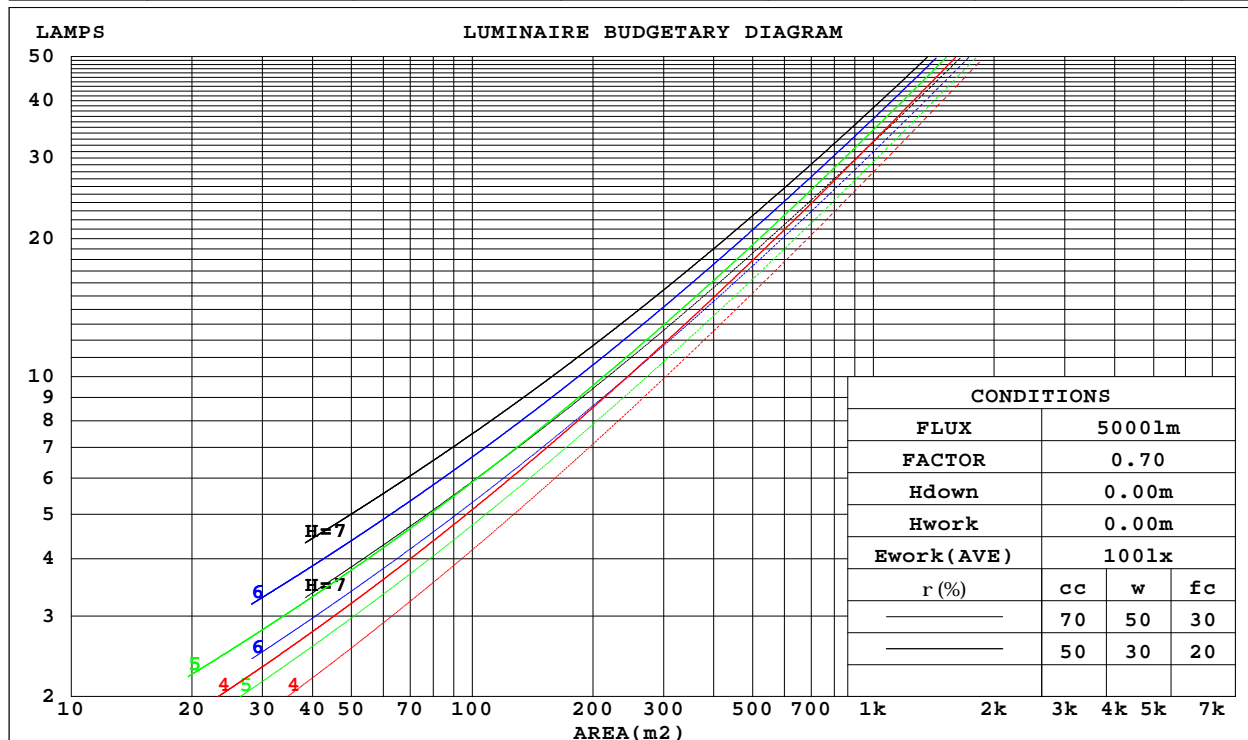
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

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:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW	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						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	1.01	1.01	1.01	.99
1.0	1.03	.99	.95	1.01	.97	.93	.96	.93	.90	.92	.90	.87	.89	.86	.84	.82
2.0	.89	.82	.77	.88	.81	.76	.84	.78	.74	.80	.76	.72	.77	.73	.70	.68
3.0	.78	.70	.63	.77	.69	.63	.73	.67	.61	.71	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.68	.59	.53	.65	.58	.52	.63	.56	.51	.60	.55	.50	.48
5.0	.62	.52	.46	.60	.52	.45	.58	.51	.45	.56	.49	.44	.54	.48	.44	.41
6.0	.55	.46	.40	.54	.46	.39	.52	.45	.39	.51	.44	.39	.49	.43	.38	.36
7.0	.50	.41	.35	.49	.41	.35	.48	.40	.34	.46	.39	.34	.45	.38	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.43	.36	.31	.42	.35	.30	.41	.35	.30	.28
9.0	.42	.33	.28	.41	.33	.28	.40	.33	.27	.39	.32	.27	.38	.32	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.36	.29	.25	.35	.29	.25	.23



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:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW	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															

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	.197	.197	.197	.169	.169	.169	.115	.115	.115	.066	.066	.066	.021	.021	.021		
1.0	.188	.163	.141	.161	.140	.121	.110	.096	.084	.063	.056	.049	.020	.018	.016		
2.0	.180	.139	.104	.154	.120	.090	.106	.083	.063	.061	.048	.037	.020	.016	.012		
3.0	.173	.121	.080	.148	.105	.070	.102	.073	.049	.059	.042	.029	.019	.014	.009		
4.0	.165	.108	.065	.142	.093	.056	.097	.065	.040	.056	.038	.023	.018	.012	.008		
5.0	.158	.098	.054	.135	.085	.047	.093	.059	.033	.054	.035	.020	.017	.011	.006		
6.0	.150	.089	.046	.129	.077	.040	.089	.054	.028	.052	.032	.017	.017	.010	.006		
7.0	.143	.083	.040	.123	.072	.035	.085	.050	.025	.050	.030	.015	.016	.010	.005		
8.0	.137	.077	.036	.118	.067	.031	.082	.047	.022	.047	.028	.013	.015	.009	.004		
9.0	.131	.072	.032	.113	.062	.028	.078	.044	.020	.045	.026	.012	.015	.008	.004		
10.0	.125	.068	.029	.108	.059	.026	.075	.041	.018	.044	.024	.011	.014	.008	.004		

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:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm										
NAME: DA6962412NO					TYPE:			WEIGHT:		
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW					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	25.5	27.1	25.8	27.3	27.5	24.5	26.1	24.8	26.3	26.5
	27.6	29.0	27.9	29.3	29.5	26.0	27.4	26.3	27.7	28.0
	28.6	30.0	29.0	30.2	30.5	26.6	27.9	26.9	28.2	28.5
	29.6	30.9	29.9	31.2	31.5	26.9	28.2	27.2	28.5	28.8
	30.0	31.3	30.4	31.6	31.9	26.9	28.2	27.3	28.5	28.8
	30.5	31.7	30.9	32.0	32.3	26.9	28.1	27.3	28.4	28.7
4H	26.1	27.5	26.4	27.7	28.0	25.4	26.7	25.7	27.0	27.3
	28.4	29.6	28.8	29.9	30.2	27.1	28.3	27.4	28.6	28.9
	29.5	30.6	29.9	31.0	31.3	27.8	28.8	28.1	29.2	29.5
	30.7	31.6	31.1	32.0	32.4	28.2	29.2	28.6	29.6	29.9
	31.2	32.1	31.6	32.5	32.9	28.3	29.2	28.7	29.6	30.0
	31.8	32.6	32.2	33.0	33.4	28.3	29.1	28.7	29.5	30.0
8H	29.8	30.7	30.2	31.1	31.5	28.3	29.2	28.7	29.5	29.9
	31.1	31.9	31.6	32.3	32.7	28.9	29.7	29.4	30.1	30.5
	31.8	32.5	32.3	32.9	33.4	29.1	29.8	29.6	30.2	30.7
	32.5	33.1	33.0	33.6	34.1	29.1	29.7	29.6	30.2	30.7
12H	29.8	30.6	30.3	31.0	31.5	28.4	29.2	28.8	29.6	30.0
	31.2	31.8	31.7	32.3	32.8	29.1	29.8	29.6	30.2	30.7
	31.9	32.5	32.4	32.9	33.4	29.3	29.9	29.8	30.4	30.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1				+ 0.1 / - 0.2					
1.5H	+ 0.1 / - 0.2				+ 0.2 / - 0.4					
2.0H	+ 0.1 / - 0.2				+ 0.2 / - 0.4					

CIE Pub.117, 296.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -4.2)

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:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

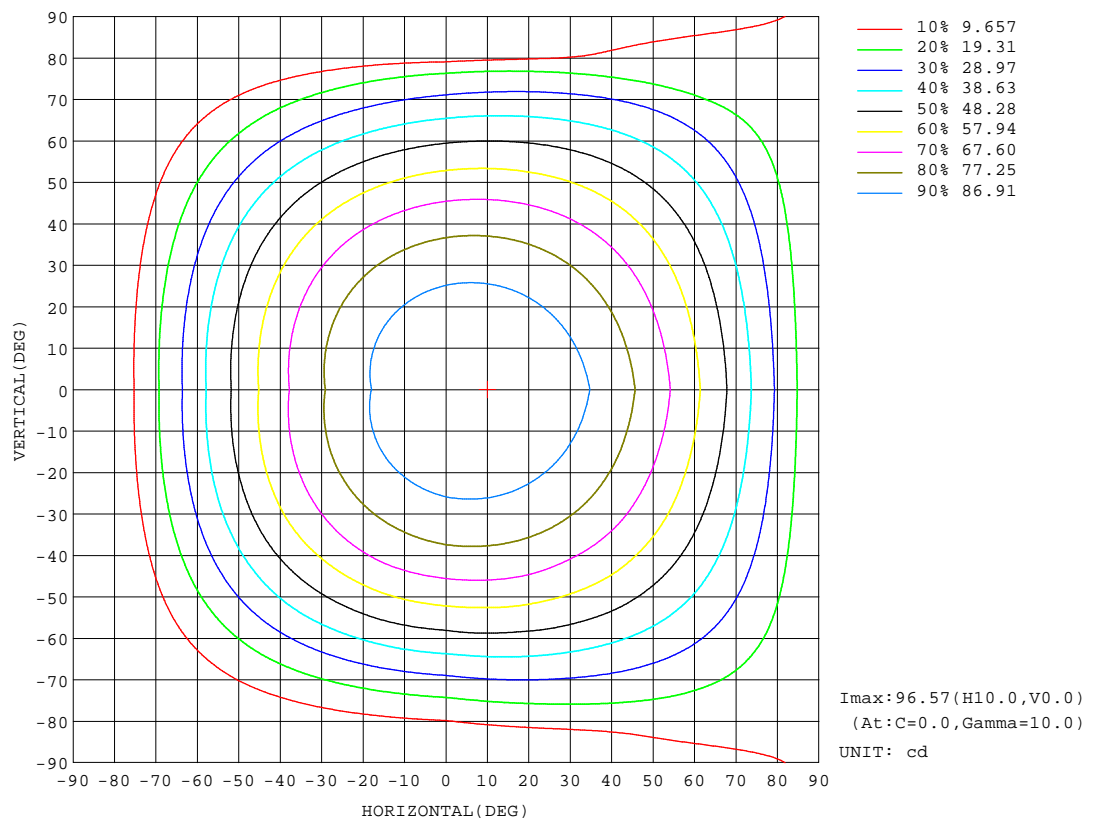
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	66	54	47	65	54	46	63	53	46	39
1.00	75	63	56	73	63	55	71	64	55	47
1.25	82	71	64	80	70	63	77	69	62	55
1.50	87	77	69	85	76	69	82	74	68	60
2.00	94	85	78	92	84	77	88	81	76	68
2.50	98	90	84	96	88	83	92	86	81	72
3.00	101	94	88	99	93	87	95	90	85	76
4.00	105	100	95	103	98	93	99	94	90	81
5.00	108	103	99	105	101	97	101	97	94	84
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:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:



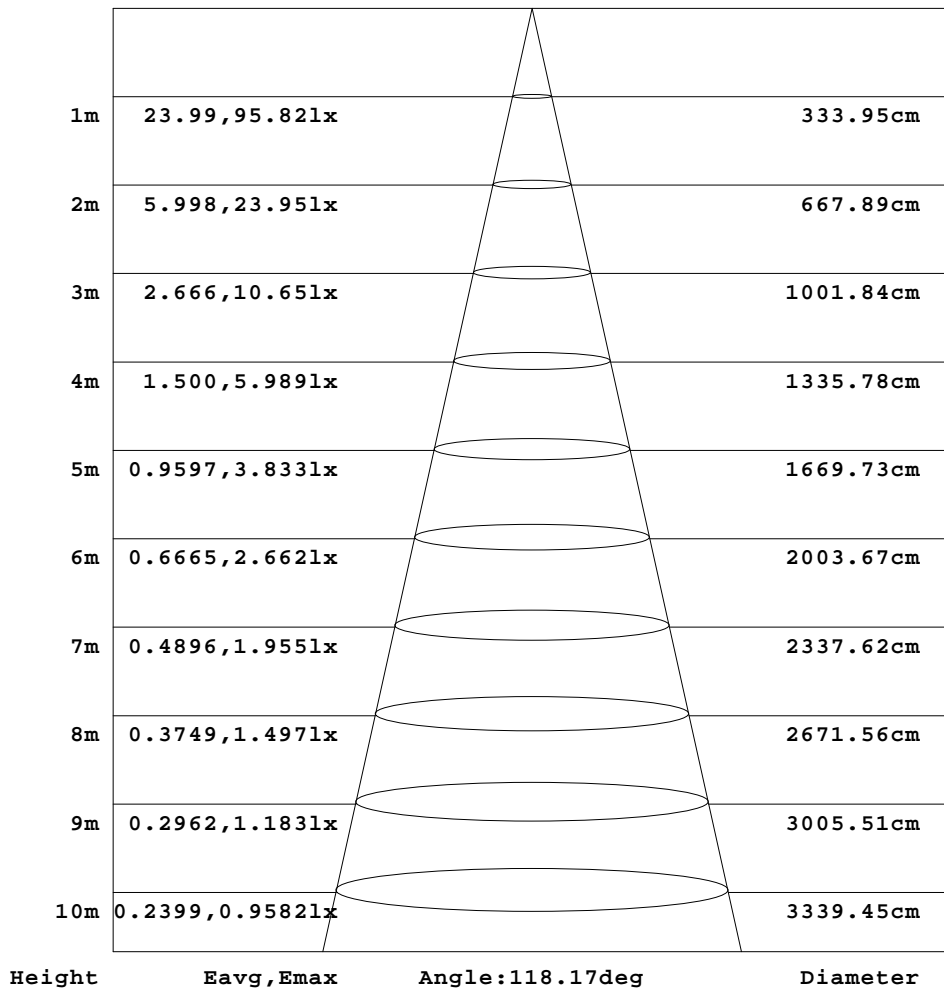
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

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:

AAI Figure

Test:U:24.00V I:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Flux out:226.1 lm



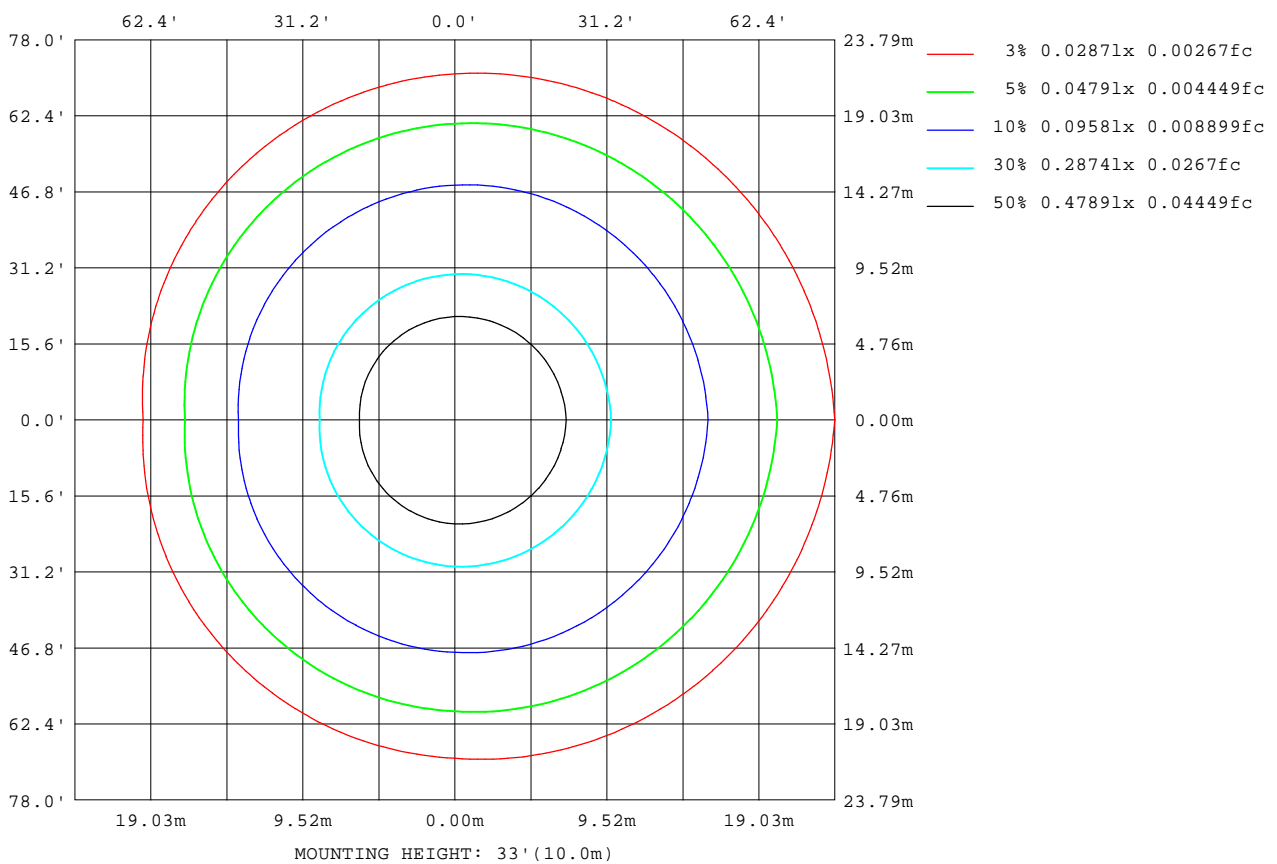
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW	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:

LED Avg.L Report

Test:U:24.00V I:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

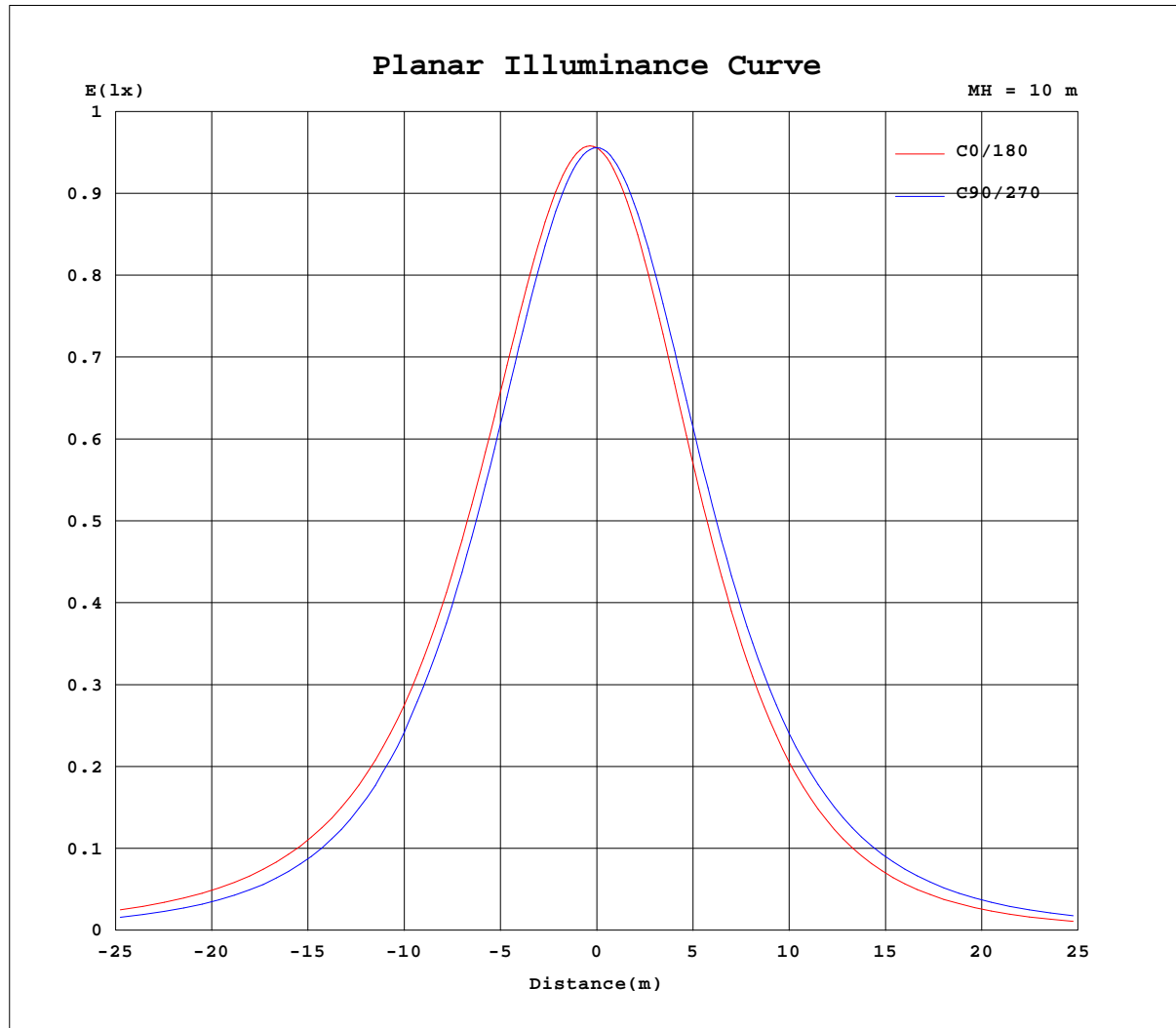
AvgL	cd/m2
L_0~180(65)av	7808
L_0~180(75)av	7484
L_0~180(85)av	9452
L_90~270(65)av	7466
L_90~270(75)av	6442
L_90~270(85)av	458
L_45(65)av	7434
L_45(75)av	6567
L_45(85)av	3514

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

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.1680A P:4.032W PF:0.9794 Freq:0Hz Lamp Flux:296.034x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-SW	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	95.6	95.6	95.6	95.6															
5	96.4	95.3	94.1	95.2															
10	96.6	94.4	91.9	94.2															
15	96.0	92.8	89.0	92.4															
20	94.7	90.5	85.4	90.0															
25	92.7	87.5	81.2	87.0															
30	90.0	83.9	76.4	83.2															
35	86.7	79.6	70.9	78.8															
40	82.6	74.6	64.8	73.8															
45	77.9	68.5	58.2	68.1															
50	72.5	61.3	51.0	61.8															
55	66.5	53.5	43.3	54.8															
60	59.9	45.1	35.1	47.4															
65	52.6	36.4	26.6	39.3															
70	44.8	27.2	18.0	30.8															
75	36.4	18.0	10.1	22.0															
80	27.7	9.41	3.80	5.70															
85	18.9	0.67	0.85	0.29															
90	10.6	0.09	0.33	0.16															
95	3.23	0.07	0.16	0.08															
100	0.09	0.10	0.18	0.10															
105	0.09	0.14	0.21	0.13															
110	0.09	0.17	0.25	0.18															
115	0.13	0.21	0.28	0.19															
120	0.19	0.24	0.32	0.24															
125	0.20	0.27	0.34	0.27															
130	0.24	0.31	0.37	0.29															
135	0.28	0.34	0.40	0.35															
140	0.29	0.37	0.42	0.35															
145	0.34	0.39	0.44	0.39															
150	0.36	0.42	0.46	0.39															
155	0.39	0.44	0.47	0.42															
160	0.41	0.45	0.49	0.44															
165	0.44	0.46	0.49	0.44															
170	0.44	0.47	0.49	0.44															
175	0.46	0.48	0.49	0.46															
180	0.50	0.50	0.49	0.49															

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: