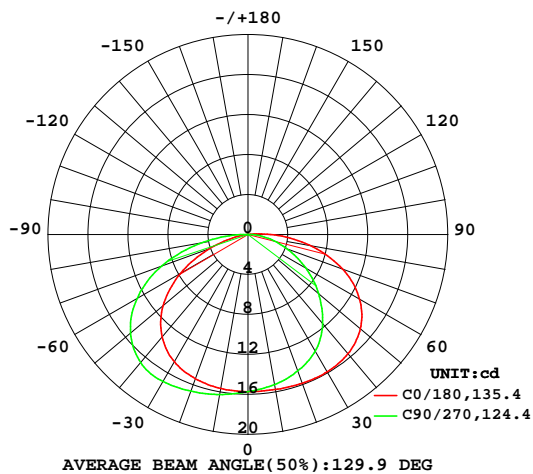


LUMINAIRE PHOTOMETRIC TEST REPORT

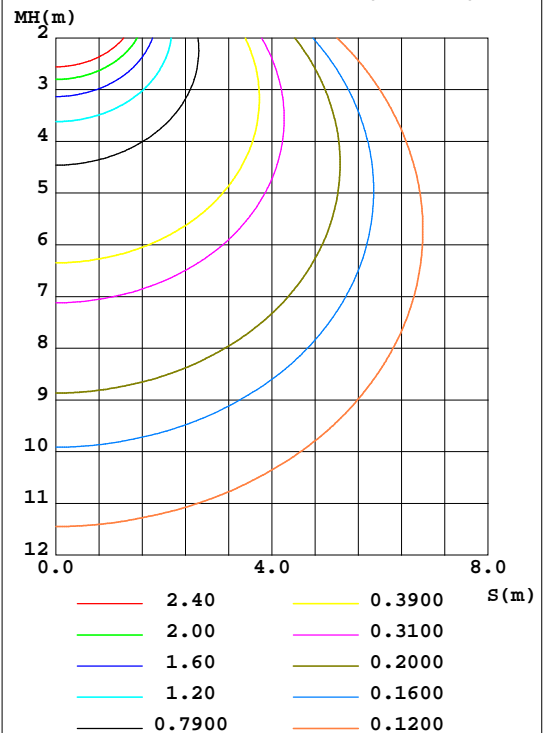
Test:U:24.00V I:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 15.43 lm/W			
MODEL	DA6962412NO	I _{max} (cd)	17.03	S/MH(C0/180)	1.39
NOMINAL POWER(W)	3.84	LOR(%)	100.0	S/MH(C90/270)	1.63
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	59.241	h UP,DN(C0-180)	0.5,49.3
NOMINAL FLUX(lm)	59.2408	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.0,50.2
LAMPS INSIDE	1	h up(%)	0.5	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	h down(%)	99.5	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

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:

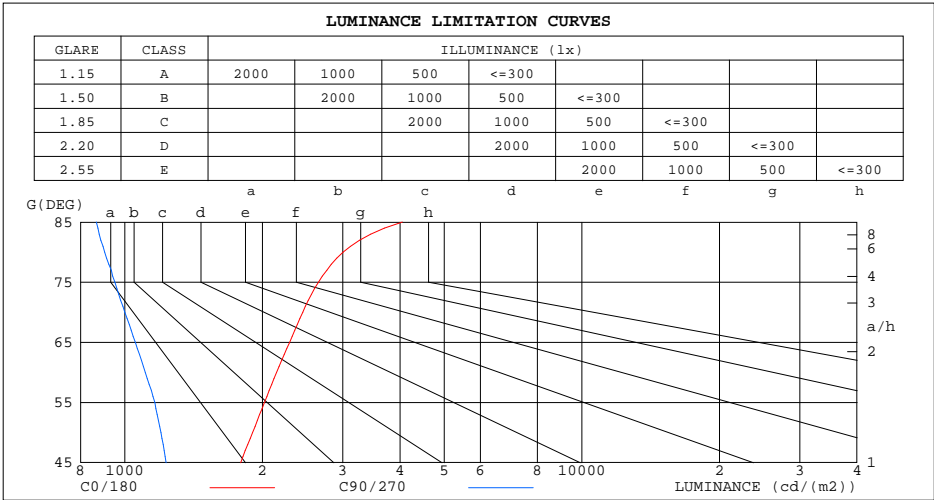
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	15.74	15.27	15.64	16.26					0~ 10	1.501	1.501	2.53,2.53
20	15.84	14.54	15.38	16.69					10~ 20	4.444	5.946	10,10
30	15.87	13.47	14.71	16.99					20~ 30	7.154	13.10	22.1,22.1
40	15.58	11.64	13.37	16.72					30~ 40	9.324	22.42	37.9,37.9
50	14.67	9.250	11.10	15.34					40~ 50	10.45	32.88	55.5,55.5
60	12.89	6.653	7.815	12.82					50~ 60	10.19	43.07	72.7,72.7
70	10.05	4.102	4.007	9.151					60~ 70	8.401	51.47	86.9,86.9
80	6.260	1.883	0.8323	4.520					70~ 80	5.360	56.83	95.9,95.9
90	2.285	0	0	0.4563					80~ 90	2.105	58.93	99.5,99.5
100	0.0690	0	0	0					90~100	0.2723	59.21	99.9,99.9
110	0	0	0.0000	0					100~110	0.0011	59.21	99.9,99.9
120	0	0.0094	0.0063	0					110~120	0.0027	59.21	99.9,99.9
130	0	0.0220	0.0063	0					120~130	0.0048	59.22	100,100
140	0	0.0282	0.0188	0					130~140	0.0073	59.22	100,100
150	0	0.0251	0.0188	0					140~150	0.0068	59.23	100,100
160	0.0062	0.0219	0.0219	0					150~160	0.0052	59.23	100,100
170	0.0063	0.0251	0.0219	0.0188					160~170	0.0040	59.24	100,100
180	0.0219	0.0219	0.0219	0.0219					170~180	0.0019	59.24	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:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	4050	867
80	3004	903
75	2652	952
70	2450	1000
65	2294	1055
60	2149	1109
55	2022	1163
50	1902	1199
45	1794	1232

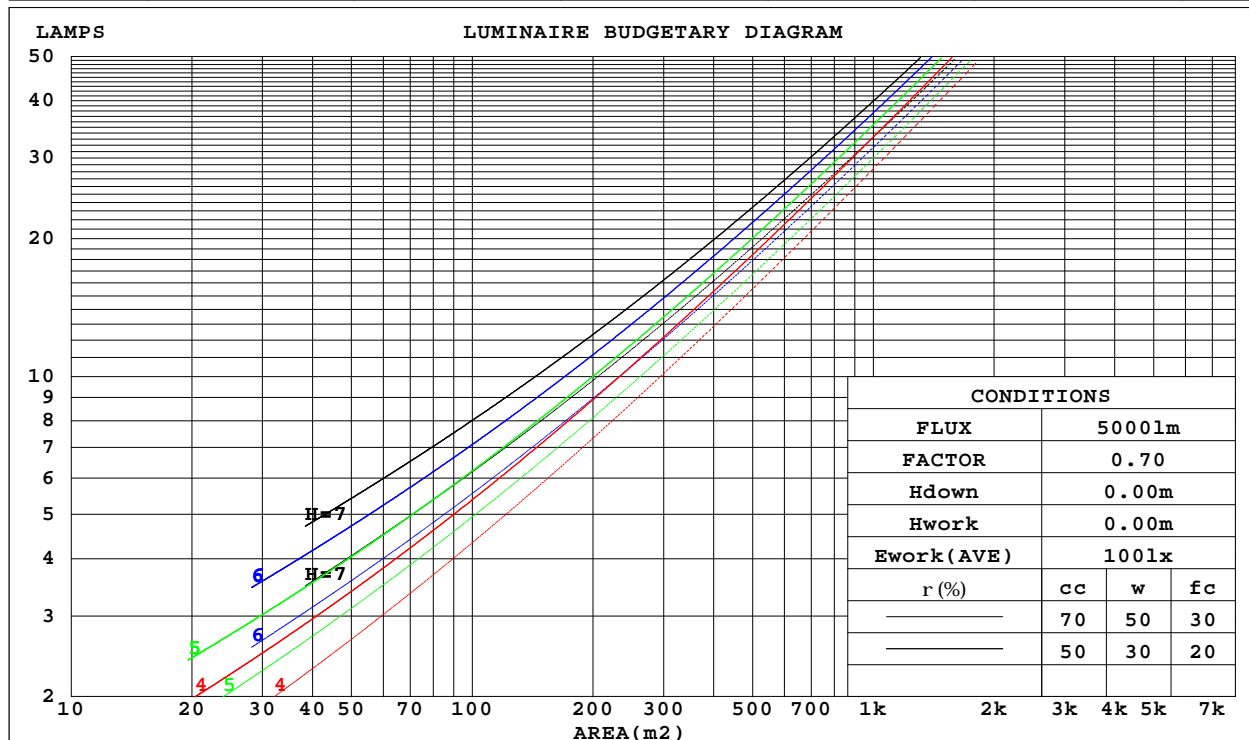
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

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:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B	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															



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:

WEC AND CCEC

Test:U:24.00V I:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B	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	.346	.197	.062	.339	.193	.061	.325	.187	.060	.312	.180	.058	.301	.174	.056	
2.0	.318	.174	.053	.312	.172	.053	.299	.166	.052	.288	.162	.051	.278	.157	.050	
3.0	.290	.155	.046	.285	.152	.046	.274	.148	.045	.264	.145	.044	.254	.141	.044	
4.0	.265	.138	.041	.260	.136	.040	.251	.133	.040	.242	.130	.039	.233	.127	.039	
5.0	.244	.124	.036	.239	.123	.036	.230	.120	.035	.222	.117	.035	.215	.115	.035	
6.0	.225	.113	.032	.220	.111	.032	.213	.109	.032	.206	.107	.031	.199	.105	.031	
7.0	.208	.103	.029	.204	.102	.029	.198	.100	.029	.191	.098	.029	.185	.096	.028	
8.0	.193	.095	.027	.190	.094	.026	.184	.092	.026	.178	.090	.026	.173	.089	.026	
9.0	.181	.087	.024	.178	.087	.024	.172	.085	.024	.167	.084	.024	.162	.082	.024	
10.0	.169	.081	.023	.167	.081	.022	.162	.079	.022	.157	.078	.022	.153	.077	.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	.194	.194	.194	.166	.166	.166	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.187	.160	.135	.160	.137	.117	.109	.094	.081	.063	.055	.047	.020	.018	.015	
2.0	.180	.136	.099	.154	.117	.085	.106	.081	.060	.061	.047	.035	.020	.015	.011	
3.0	.172	.118	.075	.148	.102	.065	.101	.071	.046	.059	.041	.027	.019	.013	.009	
4.0	.165	.105	.060	.141	.091	.052	.097	.063	.037	.056	.037	.022	.018	.012	.007	
5.0	.157	.095	.049	.135	.082	.043	.093	.058	.030	.054	.034	.018	.017	.011	.006	
6.0	.150	.087	.042	.129	.075	.036	.089	.053	.026	.052	.031	.015	.017	.010	.005	
7.0	.143	.080	.036	.123	.069	.031	.085	.049	.022	.049	.029	.013	.016	.009	.004	
8.0	.136	.074	.032	.117	.064	.028	.081	.045	.020	.047	.027	.012	.015	.009	.004	
9.0	.130	.069	.028	.112	.060	.025	.078	.042	.018	.045	.025	.011	.015	.008	.003	
10.0	.124	.065	.026	.107	.057	.023	.074	.040	.016	.043	.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:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm											
NAME: DA6962412NO						TYPE:		WEIGHT:			
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B						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	27.6	23.2	24.8	23.5	25.0	25.2	
	3H	27.9	29.4	28.2	29.6	29.9	24.6	26.1	24.9	26.4	26.6
	4H	29.0	30.5	29.4	30.7	31.0	25.2	26.7	25.6	26.9	27.2
	6H	30.1	31.4	30.5	31.7	32.0	25.7	27.0	26.0	27.3	27.6
	8H	30.6	31.9	31.0	32.2	32.5	25.8	27.1	26.2	27.4	27.7
	12H	31.1	32.4	31.5	32.7	33.0	25.9	27.2	26.3	27.5	27.8
4H	2H	26.0	27.4	26.3	27.7	28.0	24.3	25.7	24.6	26.0	26.3
	3H	28.6	29.8	29.0	30.2	30.5	26.0	27.3	26.4	27.6	27.9
	4H	29.9	31.0	30.3	31.4	31.7	26.8	27.9	27.1	28.2	28.6
	6H	31.2	32.2	31.6	32.5	32.9	27.4	28.4	27.8	28.7	29.1
	8H	31.8	32.7	32.2	33.1	33.5	27.6	28.5	28.0	28.9	29.3
	12H	32.4	33.3	32.8	33.6	34.1	27.7	28.6	28.2	29.0	29.4
8H	4H	30.1	31.1	30.6	31.5	31.9	27.5	28.5	27.9	28.8	29.2
	6H	31.6	32.4	32.1	32.8	33.3	28.4	29.2	28.8	29.6	30.0
	8H	32.4	33.1	32.8	33.5	34.0	28.7	29.4	29.2	29.9	30.3
	12H	33.2	33.8	33.6	34.2	34.7	29.0	29.6	29.5	30.1	30.6
12H	4H	30.2	31.0	30.6	31.4	31.9	27.7	28.6	28.1	29.0	29.4
	6H	31.7	32.4	32.2	32.8	33.3	28.7	29.4	29.1	29.8	30.3
	8H	32.5	33.1	33.0	33.6	34.1	29.1	29.7	29.6	30.2	30.7
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2					
1.5H	+ 0.1 / - 0.2					+ 0.3 / - 0.4					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.5					

CIE Pub.117, 59.24 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -9.8)

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:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

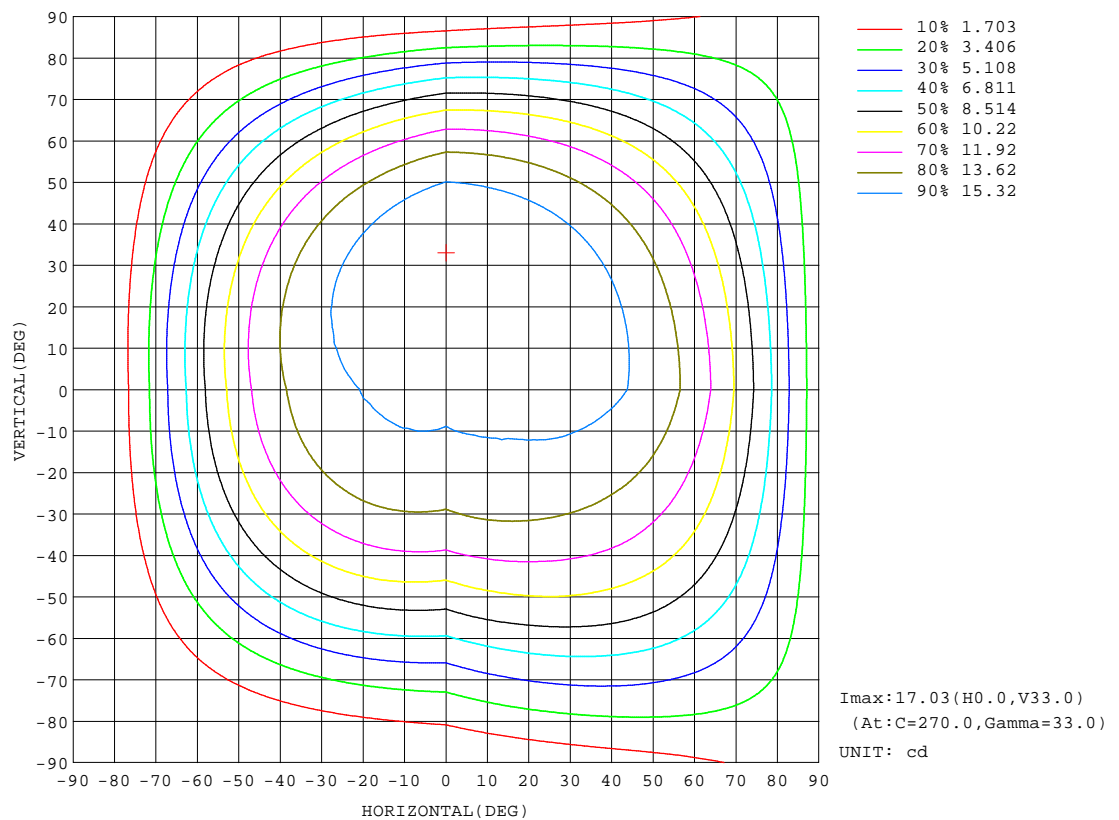
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	41	34	53	41	34	52	41	34	27
0.80	64	51	43	63	51	43	61	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	89	79
5.00	107	101	97	104	99	95	100	96	92	83
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:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:



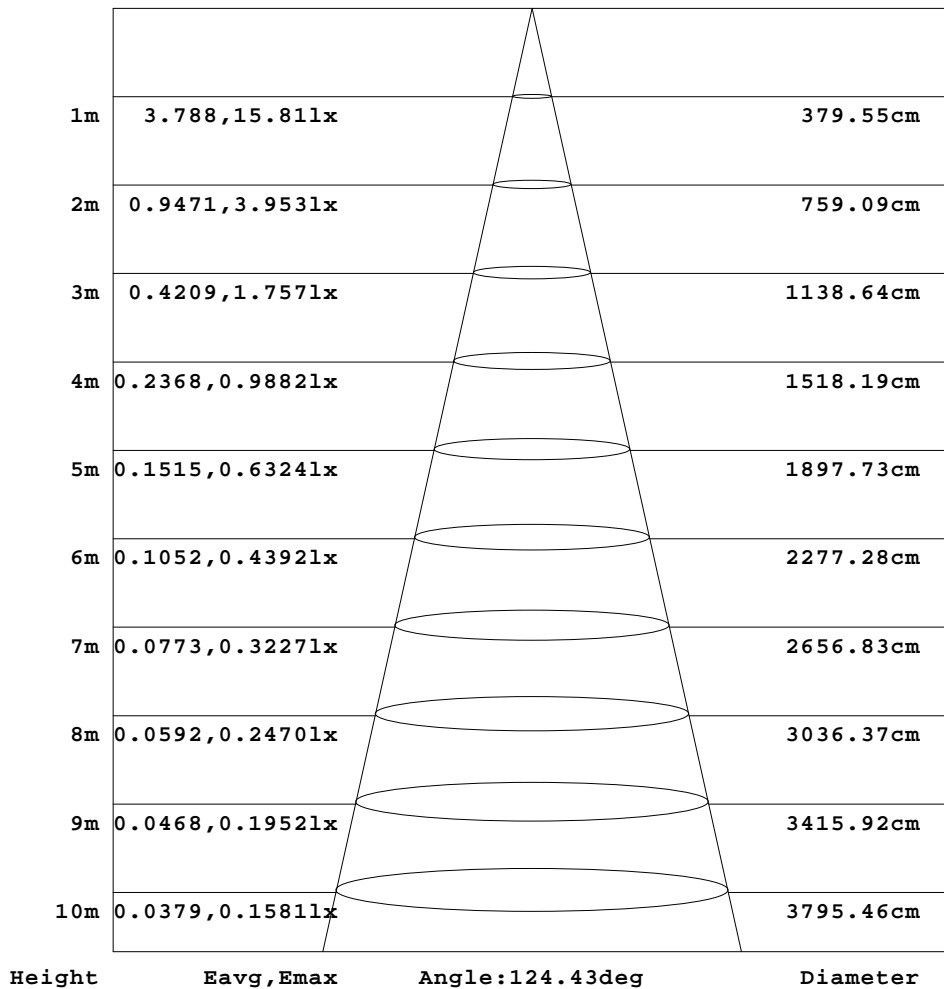
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2018-11-30

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:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Flux out:45.84 lm



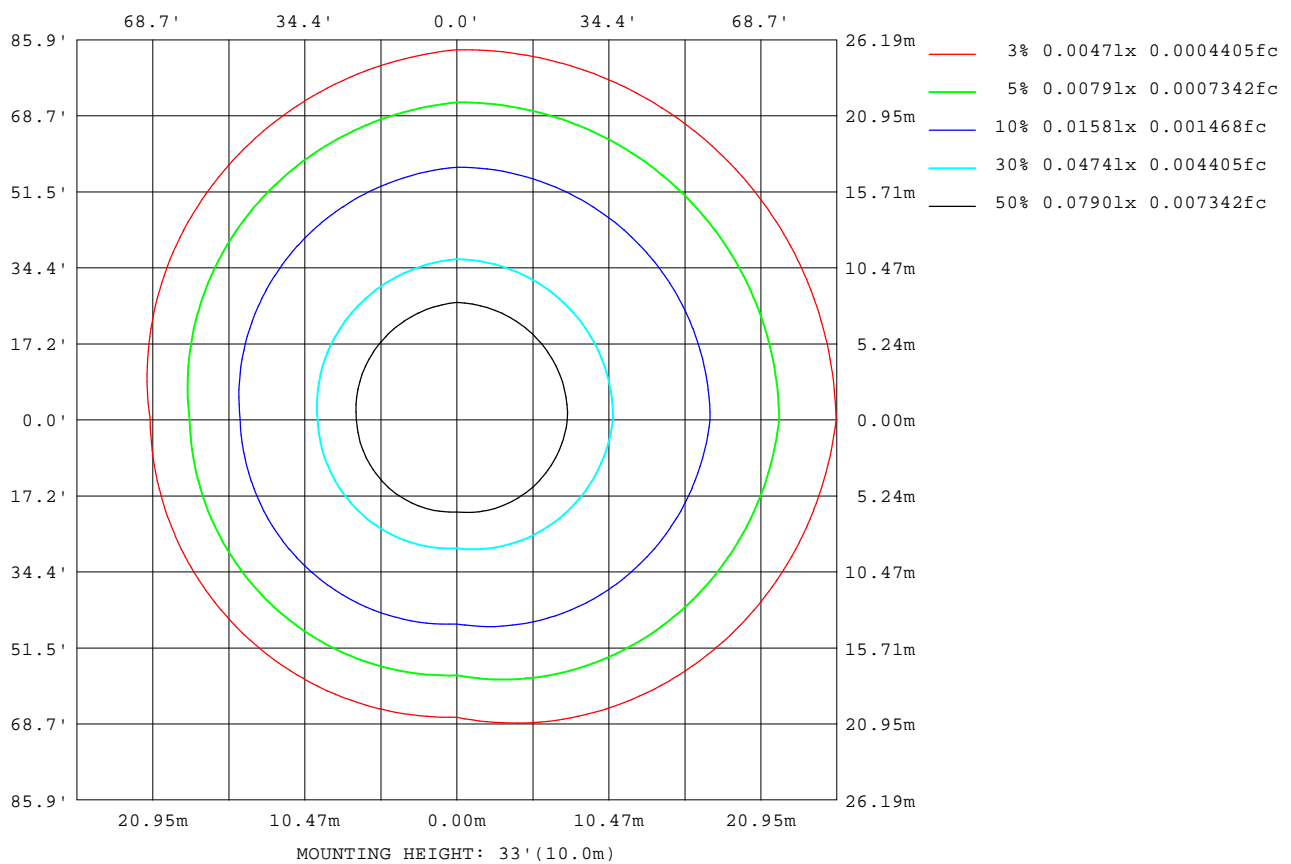
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B	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:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

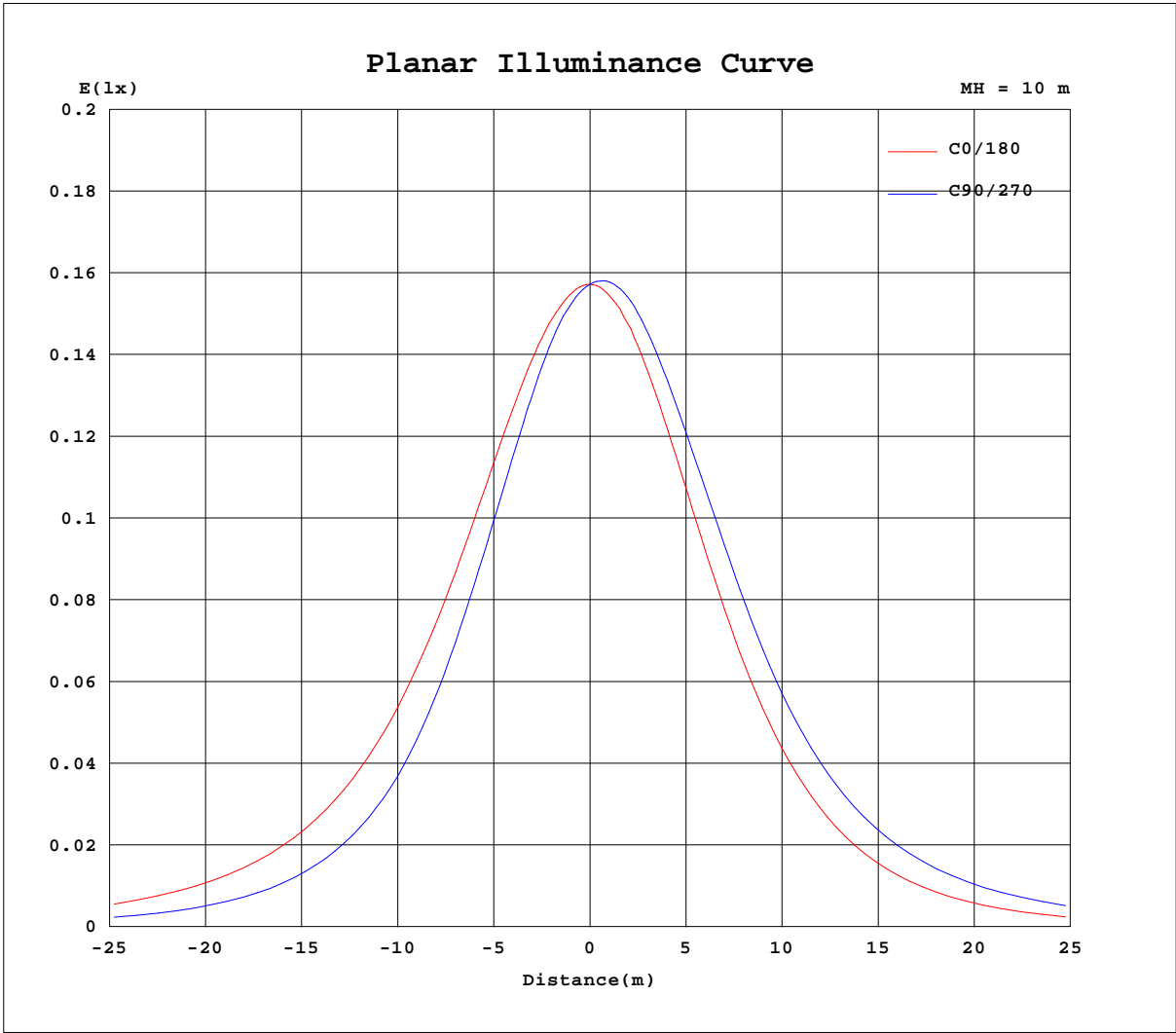
AvgL	cd/m2
L_0~180(65)av	1731
L_0~180(75)av	1676
L_0~180(85)av	2064
L_90~270(65)av	1625
L_90~270(75)av	1586
L_90~270(85)av	1534
L_45(65)av	1630
L_45(75)av	1559
L_45(85)av	1609

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:0.1600A P:3.840W PF:0.9794 Freq:0Hz Lamp Flux:59.2408x1 lm		
NAME: DA6962412NO	TYPE:	WEIGHT:
SPEC.:DA6962412NO-0RGBSWWDA012WC0500-B	DIM.: 1000*12*1.5mm	SERIAL No.:01
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Table--1

UNIT: cd

C(DEC) g (DEC)	0	90	180	270															
0	15.7	15.7	15.7	15.7															
5	15.7	15.5	15.7	16.0															
10	15.7	15.3	15.6	16.3															
15	15.8	14.9	15.5	16.5															
20	15.8	14.5	15.4	16.7															
25	15.9	14.1	15.1	16.9															
30	15.9	13.5	14.7	17.0															
35	15.8	12.7	14.2	17.0															
40	15.6	11.6	13.4	16.7															
45	15.2	10.5	12.4	16.2															
50	14.7	9.25	11.1	15.3															
55	13.9	8.01	9.56	14.2															
60	12.9	6.65	7.81	12.8															
65	11.6	5.35	5.93	11.1															
70	10.1	4.10	4.01	9.15															
75	8.24	2.96	2.17	6.90															
80	6.26	1.88	0.83	4.52															
85	4.24	0.91	0.08	2.30															
90	2.29	0.00	0.00	0.46															
95	0.85	0.00	0.00	0.00															
100	0.07	0.00	0.00	0.00															
105	0.00	0.00	0.00	0.00															
110	0.00	0.00	0.00	0.00															
115	0.00	0.01	0.01	0.00															
120	0.00	0.01	0.01	0.00															
125	0.00	0.02	0.01	0.00															
130	0.00	0.02	0.01	0.00															
135	0.00	0.03	0.01	0.00															
140	0.00	0.03	0.02	0.00															
145	0.00	0.03	0.02	0.00															
150	0.00	0.03	0.02	0.00															
155	0.00	0.03	0.02	0.00															
160	0.01	0.02	0.02	0.00															
165	0.01	0.03	0.02	0.00															
170	0.01	0.03	0.02	0.02															
175	0.01	0.03	0.02	0.03															
180	0.02	0.02	0.02	0.02															

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: