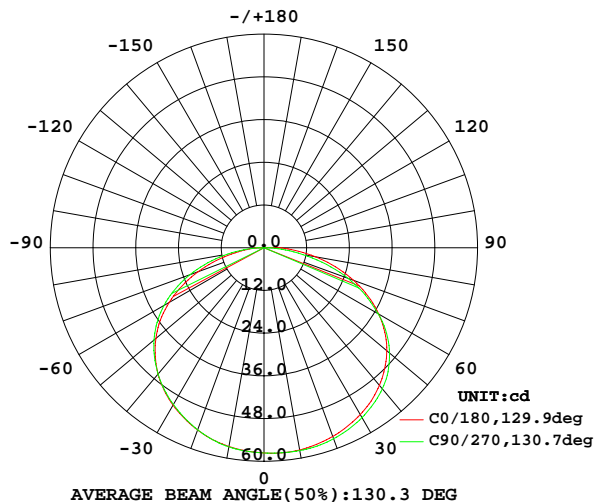


## LUMINAIRE PHOTOMETRIC TEST REPORT

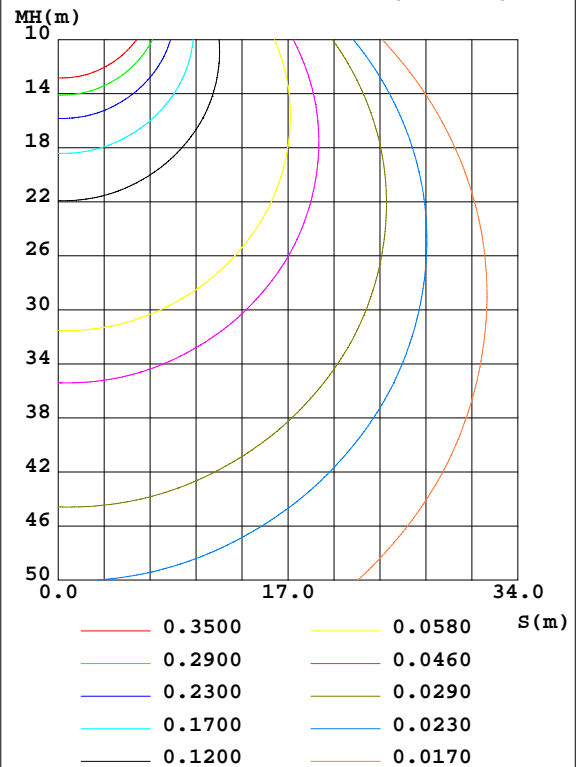
Test:U:24.00V I:0.1720A P:4.128W PF:1.000 Lamp Flux:203.715x1 lm		
NAME: D560RGBW-G	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 49.35 lm/W			
MODEL	D560RGBW-G	Imax(cd)	57.87	S/MH(C0/180)	1.32
NOMINAL POWER(W)	4.2	LOR(%)	100.0	S/MH(C90/270)	1.32
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	203.71	$\eta$ UP,DN(C0-180)	0.4,52.8
NOMINAL FLUX(lm)	203.715	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.3,46.4
LAMPS INSIDE	1	$\eta$ up(%)	0.8	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	$\eta$ down(%)	99.2	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



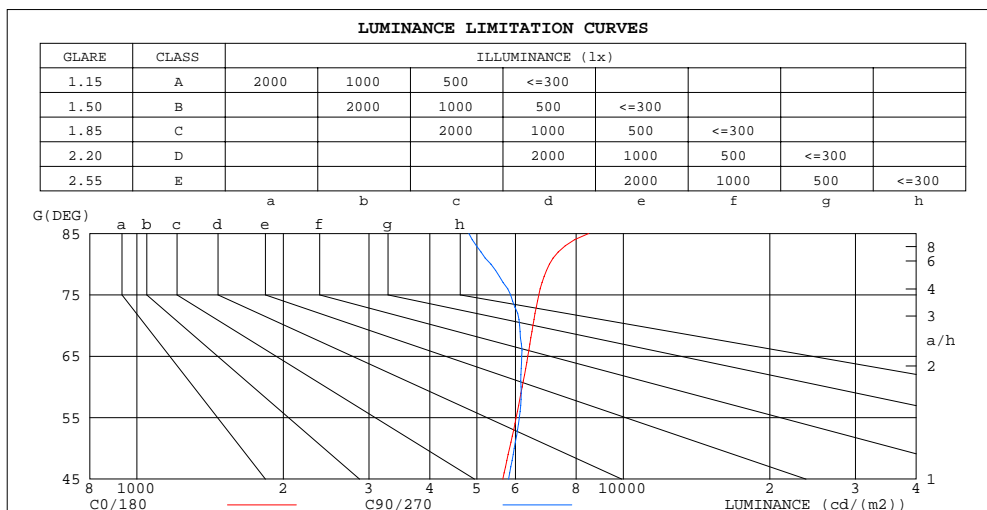
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LQT  
Test Date:2018-03-14

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
Humidity:21.8%  
Test Distance:7.500m [K=1.0000]  
Remarks:

ZONAL FLUX DIAGRAM  
AND LUMINANCE LIMITATION CURVES

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	$\%lum, lamp$
10	57.69	57.86	56.69	56.79					0- 10	5.486	5.486	2.69,2.69
20	56.39	57.10	54.51	54.43					10- 20	16.00	21.49	10.5,10.5
30	54.10	55.07	51.06	50.86					20- 30	25.08	46.57	22.9,22.9
40	50.45	51.72	46.29	46.30					30- 40	31.90	78.47	38.5,38.5
50	45.03	46.00	39.65	40.32					40- 50	35.48	114.0	55.9,55.9
60	37.18	36.98	30.75	32.43					50- 60	34.74	148.7	73,73
70	26.76	25.11	19.73	22.14					60- 70	28.77	177.5	87.1,87.1
80	14.69	11.13	8.286	10.31					70- 80	18.23	195.7	96.1,96.1
90	4.146	0.8293	1.634	0.8810					80- 90	6.484	202.2	99.2,99.2
100	0.0670	0.0595	0.2781	0.0626					90-100	0.7056	202.9	99.6,99.6
110	0.0563	0.0909	0.1192	0.1003					100-110	0.1000	203.0	99.6,99.6
120	0.0969	0.1286	0.1630	0.1441					110-120	0.1162	203.1	99.7,99.7
130	0.1391	0.1717	0.1976	0.1884					120-130	0.1404	203.2	99.8,99.8
140	0.1754	0.2036	0.2257	0.2129					130-140	0.1453	203.4	99.8,99.8
150	0.1973	0.2287	0.2445	0.2441					140-150	0.1366	203.5	99.9,99.9
160	0.2319	0.2444	0.2468	0.2430					150-160	0.1078	203.6	100,100
170	0.2367	0.2475	0.2491	0.2420					160-170	0.0689	203.7	100,100
180	0.2476	0.2475	0.2507	0.2412					170-180	0.0233	203.7	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



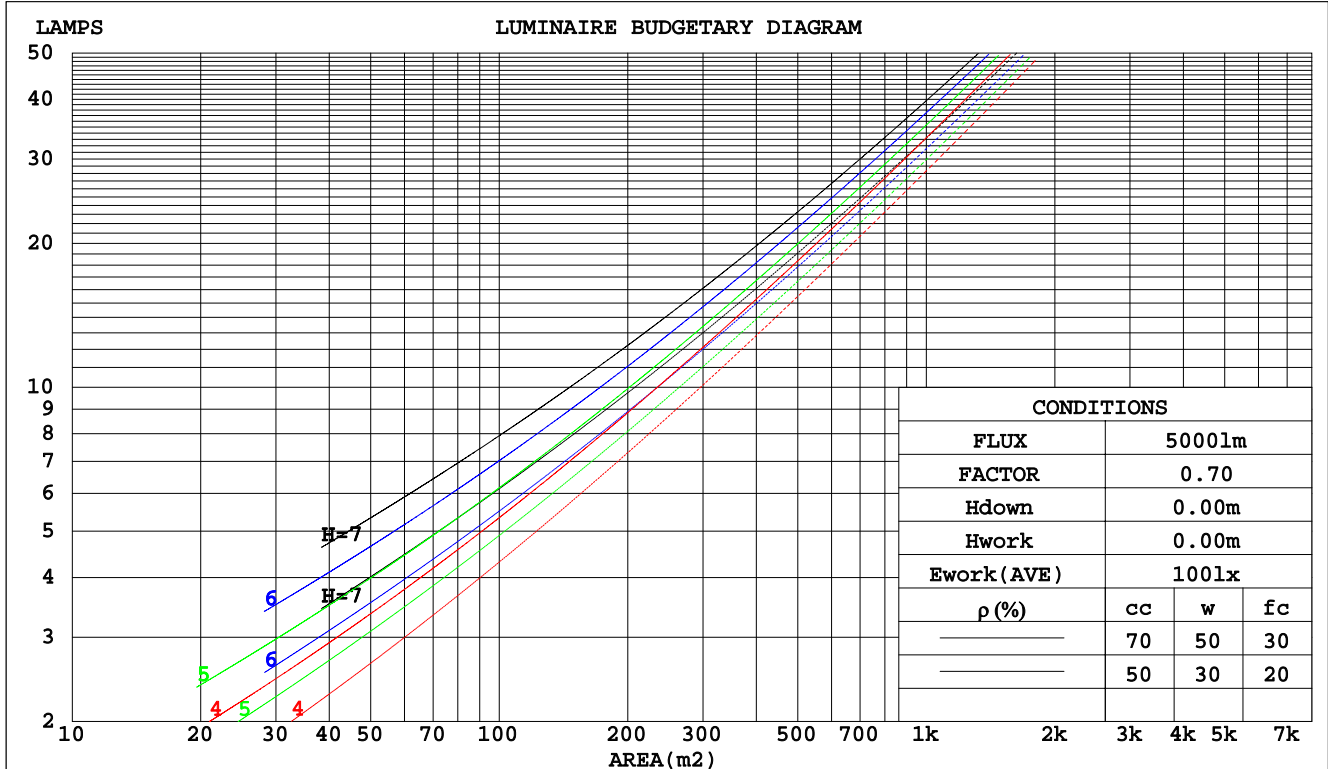
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LQT  
Test Date:2018-03-14

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
Humidity:21.8%  
Test Distance:7.500m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.1720A P:4.128W PF:1.000 Lamp Flux:203.715x1 lm		
NAME: D560RGBW-G	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION 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			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	1.02	.97	.93	.90	.95	.91	.95	.92	.88	.91	.88	.86	.87	.85	.83	.81
2.0	.88	.80	.74	.86	.79	.73	.82	.76	.71	.79	.74	.70	.75	.71	.68	.66
3.0	.76	.68	.61	.75	.67	.60	.72	.65	.59	.69	.63	.58	.66	.61	.57	.54
4.0	.67	.58	.51	.66	.57	.50	.63	.55	.49	.61	.54	.49	.58	.53	.48	.46
5.0	.60	.50	.43	.58	.49	.43	.56	.48	.42	.54	.47	.42	.52	.46	.41	.39
6.0	.53	.44	.37	.52	.43	.37	.50	.42	.37	.49	.42	.36	.47	.41	.36	.34
7.0	.48	.39	.33	.47	.39	.32	.46	.38	.32	.44	.37	.32	.43	.36	.31	.29
8.0	.44	.35	.29	.43	.35	.29	.42	.34	.28	.40	.33	.28	.39	.33	.28	.26
9.0	.40	.32	.26	.39	.31	.26	.38	.31	.25	.37	.30	.25	.36	.30	.25	.23
10.0	.37	.29	.23	.36	.28	.23	.35	.28	.23	.34	.28	.23	.33	.27	.23	.21



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LQT  
Test Date:2018-03-14

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
Humidity:21.8%  
Test Distance:7.500m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:24.00V I:0.1720A P:4.128W PF:1.000 Lamp Flux:203.715x1 lm		
NAME: D560RGBW-G	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION 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	.341	.194	.061	.334	.190	.060	.320	.183	.059	.307	.177	.057	.295	.171	.055		
2.0	.315	.172	.053	.308	.170	.052	.296	.165	.051	.285	.160	.050	.274	.155	.049		
3.0	.288	.153	.046	.282	.151	.045	.271	.147	.045	.261	.143	.044	.252	.139	.043		
4.0	.263	.137	.040	.258	.135	.040	.248	.132	.039	.239	.129	.039	.231	.126	.038		
5.0	.242	.123	.036	.237	.122	.035	.229	.119	.035	.221	.116	.035	.213	.114	.034		
6.0	.223	.112	.032	.219	.111	.032	.211	.108	.031	.204	.106	.031	.197	.104	.031		
7.0	.207	.102	.029	.203	.101	.029	.196	.099	.029	.190	.097	.028	.184	.095	.028		
8.0	.192	.094	.026	.189	.093	.026	.183	.091	.026	.177	.090	.026	.172	.088	.026		
9.0	.180	.087	.024	.177	.086	.024	.171	.085	.024	.166	.083	.024	.161	.082	.024		
10.0	.168	.081	.022	.166	.080	.022	.161	.079	.022	.156	.077	.022	.152	.076	.022		

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	.196	.196	.196	.168	.168	.168	.114	.114	.114	.066	.066	.066	.021	.021	.021	
1.0	.188	.162	.138	.161	.139	.119	.110	.095	.082	.063	.055	.048	.020	.018	.015	
2.0	.181	.138	.101	.155	.119	.087	.106	.082	.061	.061	.048	.036	.020	.015	.012	
3.0	.174	.120	.078	.149	.104	.067	.102	.072	.047	.059	.042	.028	.019	.014	.009	
4.0	.166	.107	.062	.143	.093	.054	.098	.065	.038	.057	.038	.022	.018	.012	.007	
5.0	.159	.097	.051	.136	.084	.045	.094	.059	.032	.054	.034	.019	.018	.011	.006	
6.0	.151	.089	.044	.130	.077	.038	.090	.054	.027	.052	.032	.016	.017	.010	.005	
7.0	.144	.082	.038	.124	.071	.033	.086	.050	.024	.050	.029	.014	.016	.010	.005	
8.0	.138	.076	.034	.119	.066	.030	.082	.046	.021	.048	.027	.012	.015	.009	.004	
9.0	.131	.071	.031	.113	.062	.027	.078	.043	.019	.046	.026	.011	.015	.008	.004	
10.0	.125	.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:LQT  
Test Date:2018-03-14

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
Humidity:21.8%  
Test Distance:7.500m [K=1.0000]  
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.1720A P:4.128W PF:1.000 Lamp Flux:203.715x1 lm											
NAME: D560RGBW-G						TYPE:		WEIGHT:			
SPEC.:D5602412NO-0RGBWCDA012WC0100						DIM.: 1000*12		SERIAL No.:001			
MFR.: Colors						SUR.:1000*12		PROTECTION 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		19.6	21.1	19.8	21.4	21.6	19.6	21.2	19.9	21.4	21.6
3H		21.5	23.0	21.9	23.3	23.5	21.4	22.9	21.7	23.1	23.4
4H		22.4	23.8	22.8	24.1	24.4	22.2	23.6	22.5	23.9	24.1
6H		23.2	24.5	23.5	24.8	25.1	22.7	24.1	23.1	24.3	24.7
8H		23.5	24.8	23.9	25.1	25.4	22.9	24.2	23.3	24.5	24.8
12H		23.8	25.1	24.2	25.4	25.7	23.0	24.3	23.4	24.6	24.9
4H 2H		20.3	21.7	20.6	22.0	22.3	20.3	21.7	20.6	22.0	22.3
3H		22.5	23.7	22.8	24.0	24.3	22.3	23.6	22.7	23.9	24.2
4H		23.5	24.6	23.9	24.9	25.3	23.2	24.4	23.6	24.7	25.1
6H		24.4	25.4	24.8	25.8	26.2	23.9	24.9	24.3	25.3	25.7
8H		24.8	25.7	25.2	26.1	26.5	24.2	25.1	24.6	25.5	25.9
12H		25.2	26.0	25.6	26.4	26.9	24.3	25.2	24.8	25.6	26.0
8H 4H		23.8	24.8	24.3	25.2	25.6	23.6	24.6	24.0	24.9	25.4
6H		24.9	25.7	25.4	26.1	26.6	24.5	25.3	24.9	25.7	26.1
8H		25.4	26.1	25.9	26.6	27.1	24.8	25.5	25.3	26.0	26.5
12H		26.0	26.6	26.4	27.0	27.5	25.1	25.7	25.6	26.2	26.7
12H 4H		23.9	24.7	24.3	25.1	25.6	23.7	24.5	24.1	24.9	25.4
6H		25.0	25.7	25.5	26.2	26.6	24.6	25.3	25.1	25.8	26.2
8H		25.6	26.2	26.1	26.7	27.2	25.0	25.6	25.5	26.1	26.6
Variations with the observer position at spacings:											
S = 1.0H		+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.1 / - 0.4					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 203.7 lm Total Lamp Luminous Flux.(8log(F/F0) = -5.5)

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LQT  
Test Date:2018-03-14

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
Humidity:21.8%  
Test Distance:7.500m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.1720A P:4.128W PF:1.000 Lamp Flux:203.715x1 lm		
NAME: D560RGBW-G	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION 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	35	53	42	34	52	41	34	27
0.80	64	52	44	63	51	44	61	50	43	36
1.00	72	61	53	71	60	52	69	62	52	44
1.25	80	68	61	78	68	60	75	66	59	52
1.50	85	74	67	83	73	66	80	71	65	57
2.00	92	83	76	90	82	75	87	79	73	65
2.50	97	88	81	94	87	80	90	84	78	70
3.00	100	93	86	98	91	85	94	88	83	74
4.00	104	98	93	102	96	92	97	93	89	79
5.00	107	102	97	105	100	96	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:LQT  
Test Date:2018-03-14

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
Humidity:21.8%  
Test Distance:7.500m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:24.00V I:0.1720A P:4.128W PF:1.000 Lamp Flux:203.715x1 lm		
NAME: D560RGBW-G	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION ANGLE:

Conical surface Flux(90deg):

96.01 lm

%lum = 47.1%

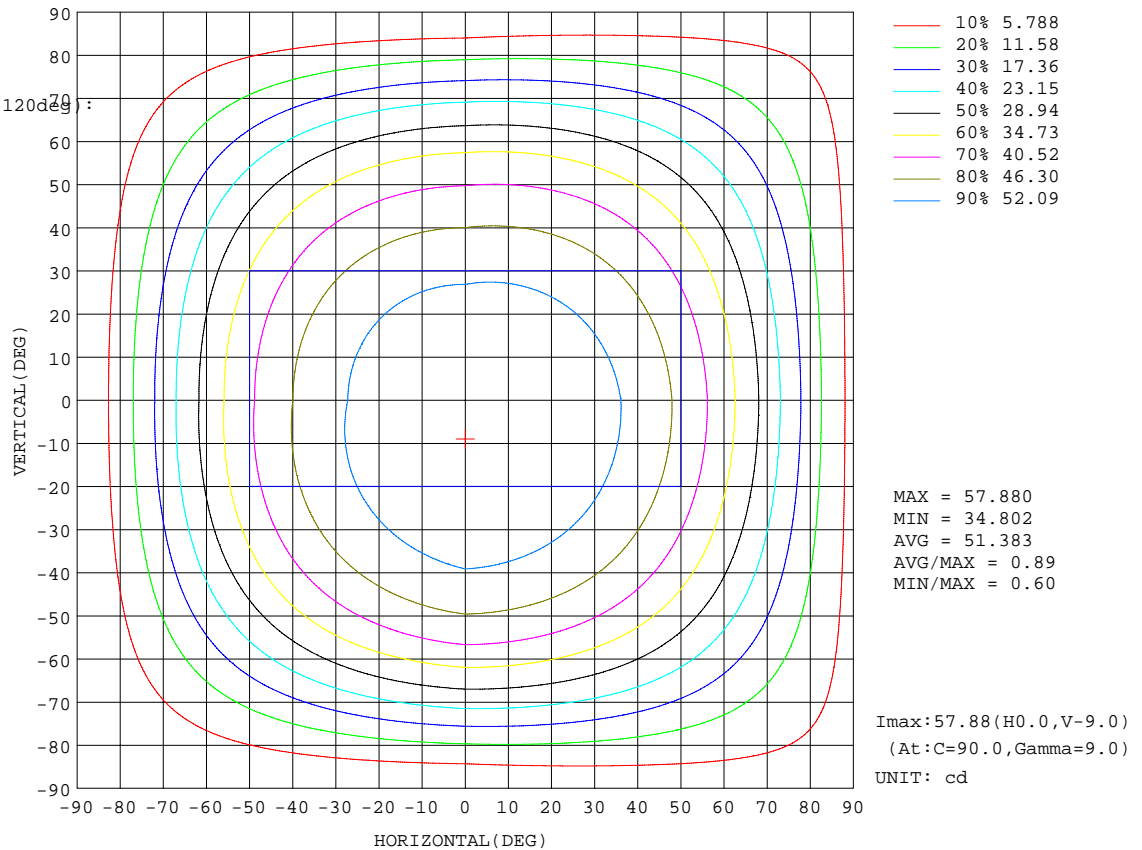
%lamp = 47.1%

Conical surface Flux(120deg):

148.69 lm

%lum = 73.0%

%lamp = 73.0%

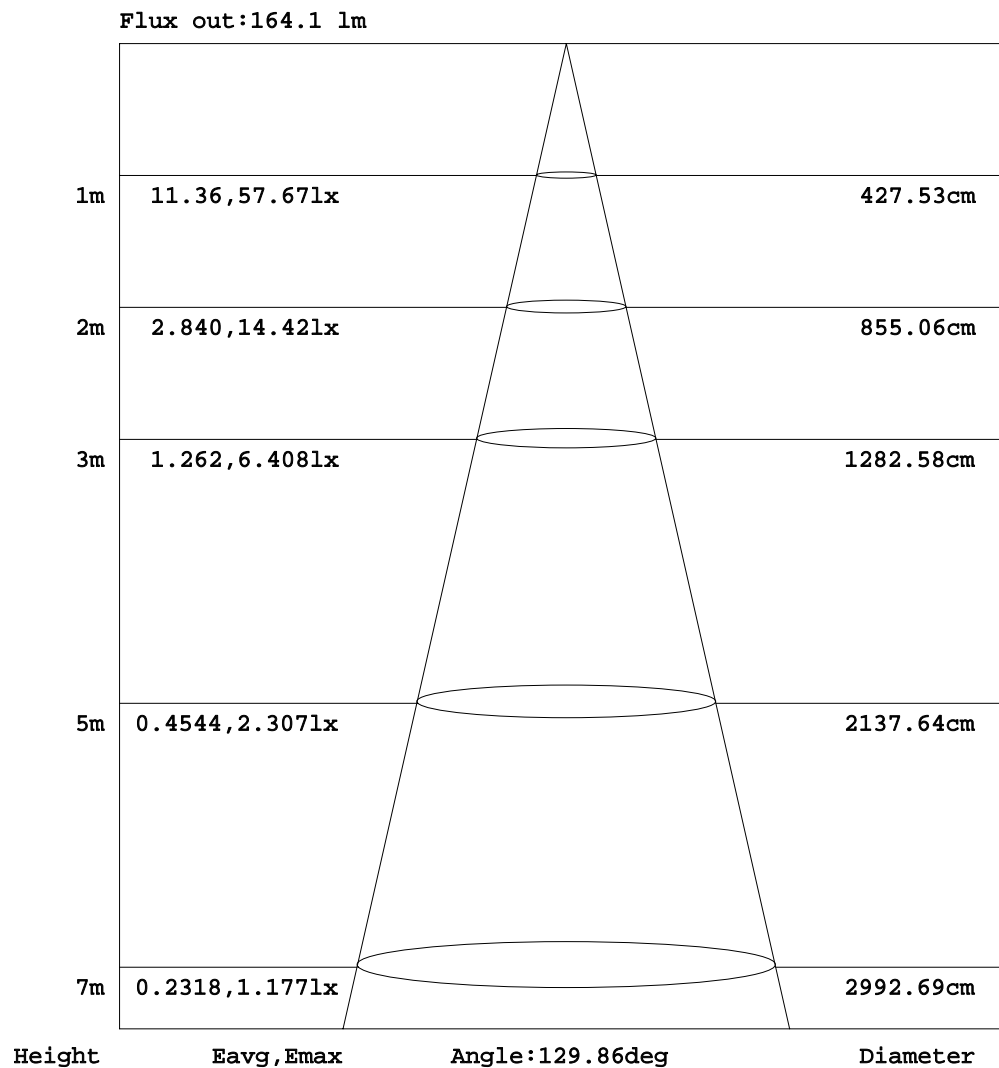


C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LQT  
Test Date:2018-03-14

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
Humidity:21.8%  
Test Distance:7.500m [K=1.0000]  
Remarks:

## AAI Figure

Test:U:24.00V I:0.1720A P:4.128W PF:1.000 Lamp Flux:203.715x1 lm		
NAME: D560RGBW-G	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION ANGLE:



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

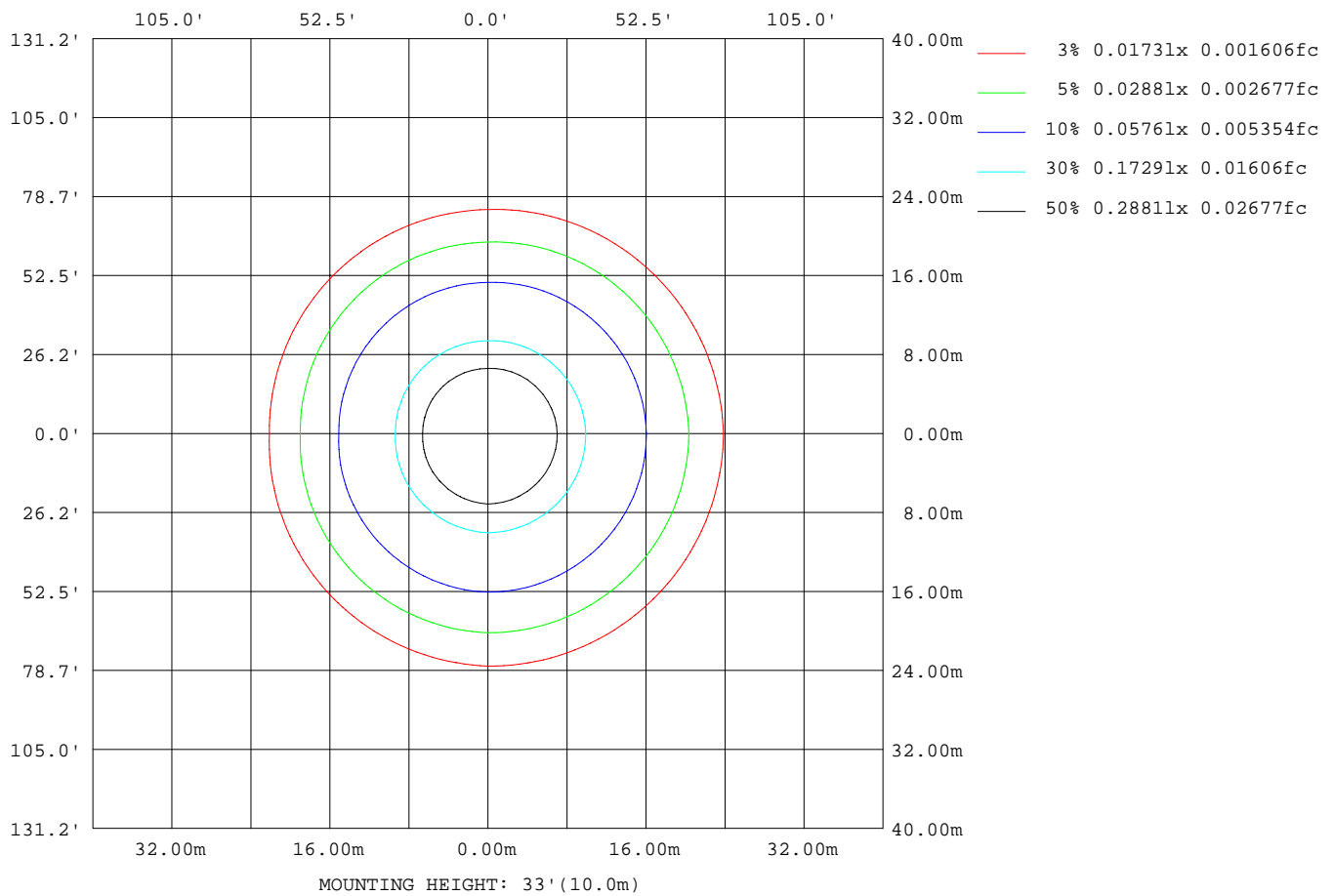
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:LQT  
 Test Date:2018-03-14

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
 Humidity:21.8%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:



### ISOLUX DIAGRAM

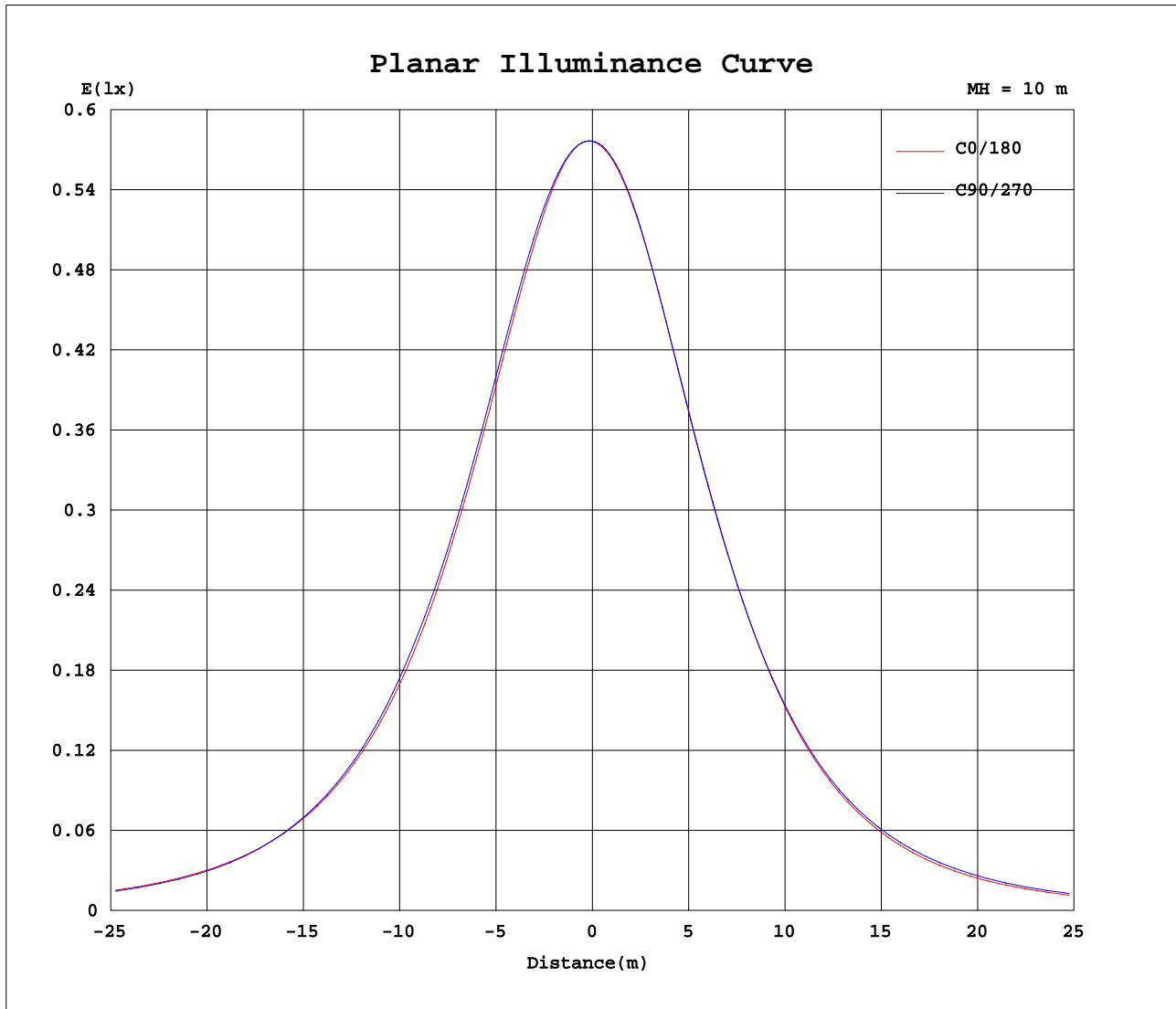
Test:U:24.00V I:0.1720A P:4.128W PF:1.000 Lamp Flux:203.715x1 lm		
NAME: D560RGBW-G	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:LQT  
 Test Date:2018-03-14

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
 Humidity:21.8%  
 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: LQT  
Test Date: 2018-03-14

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
Humidity: 21.8%  
Test Distance: 7.500m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.1720A P:4.128W PF:1.000 Lamp Flux:203.715x1 lm		
NAME: D560RGBW-G	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	90	180	270															
0	57.6	57.6	57.6	57.6															
5	57.8	57.8	57.3	57.3															
10	57.7	57.9	56.7	56.8															
15	57.2	57.7	55.8	55.8															
20	56.4	57.1	54.5	54.4															
25	55.4	56.3	52.9	52.8															
30	54.1	55.1	51.1	50.9															
35	52.5	53.6	48.9	48.8															
40	50.4	51.7	46.3	46.3															
45	48.0	49.3	43.2	43.5															
50	45.0	46.0	39.7	40.3															
55	41.5	42.0	35.6	36.7															
60	37.2	37.0	30.7	32.4															
65	32.3	31.3	25.4	27.6															
70	26.8	25.1	19.7	22.1															
75	20.8	18.2	13.8	16.3															
80	14.7	11.1	8.29	10.3															
85	8.88	5.03	4.06	4.80															
90	4.15	0.83	1.63	0.88															
95	1.32	0.03	0.61	0.06															
100	0.07	0.06	0.28	0.06															
105	0.05	0.07	0.13	0.09															
110	0.06	0.09	0.12	0.10															
115	0.08	0.12	0.14	0.14															
120	0.10	0.13	0.16	0.14															
125	0.13	0.16	0.18	0.18															
130	0.14	0.17	0.20	0.19															
135	0.16	0.19	0.22	0.20															
140	0.18	0.20	0.23	0.21															
145	0.19	0.21	0.24	0.24															
150	0.20	0.23	0.24	0.24															
155	0.21	0.23	0.25	0.24															
160	0.23	0.24	0.25	0.24															
165	0.24	0.25	0.25	0.24															
170	0.24	0.25	0.25	0.24															
175	0.24	0.25	0.25	0.24															
180	0.25	0.25	0.25	0.24															

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LQT  
Test Date:2018-03-14

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.292  
Humidity:21.8%  
Test Distance:7.500m [K=1.0000]  
Remarks: