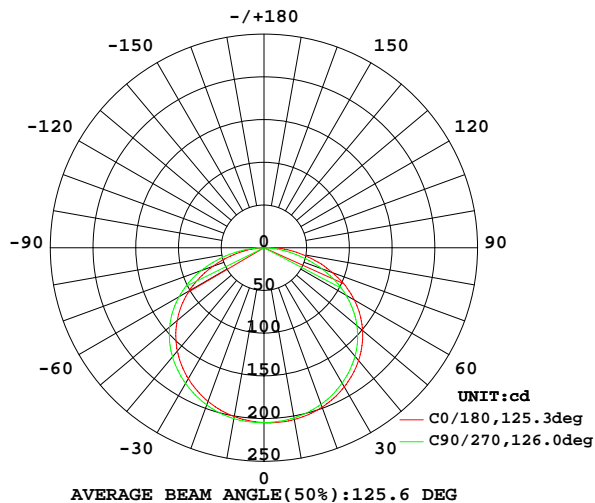


## LUMINAIRE PHOTOMETRIC TEST REPORT

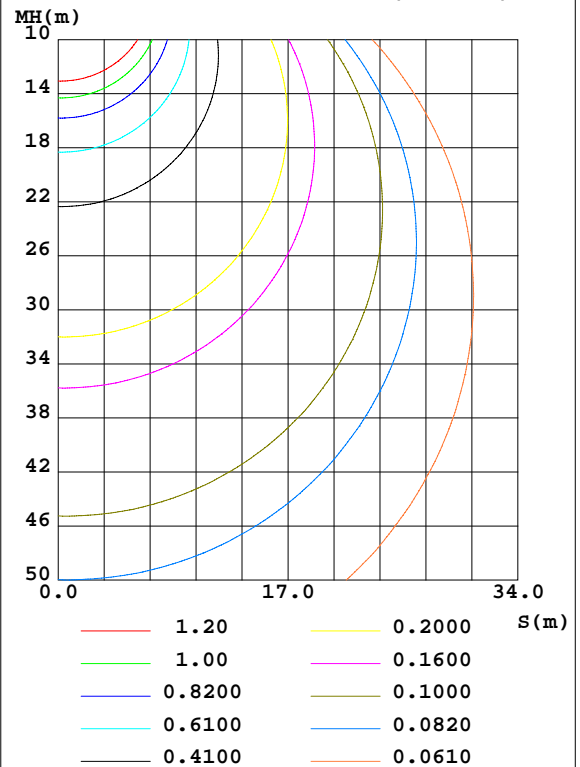
Test:U:24.00V I:0.7270A P:17.45W PF:1.000 Lamp Flux:683.64lx1 lm		
NAME: D560RGBW	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 39.18 lm/W			
MODEL	D560RGBW	Imax(cd)	205.1	S/MH(C0/180)	1.29
NOMINAL POWER(W)	16.8	LOR(%)	100.0	S/MH(C90/270)	1.34
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	683.64	$\eta$ UP,DN(C0-180)	0.5,51.1
NOMINAL FLUX(lm)	683.641	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.4,48.1
LAMPS INSIDE	1	$\eta$ up(%)	0.9	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	$\eta$ down(%)	99.1	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



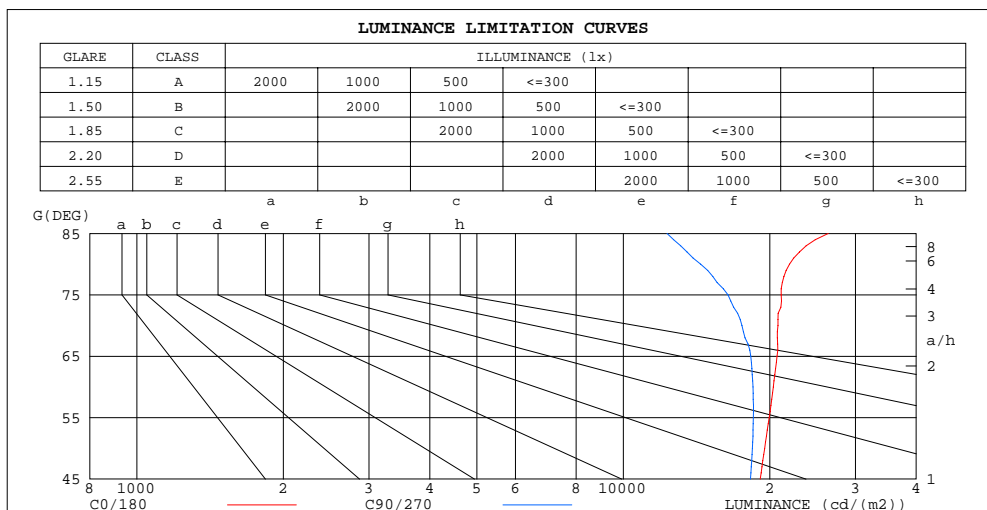
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:LQT  
 Test Date:2018-03-14

$\gamma$  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	204.2	202.2	200.6	203.1					0- 10	19.44	19.44	2.84,2.84
20	198.6	195.0	191.5	195.8					10- 20	56.39	75.83	11.1,11.1
30	188.0	182.9	177.1	183.5					20- 30	87.52	163.3	23.9,23.9
40	172.2	165.8	157.8	166.7					30- 40	109.5	272.9	39.9,39.9
50	150.6	142.0	132.7	144.1					40- 50	119.4	392.3	57.4,57.4
60	122.1	110.8	101.1	114.7					50- 60	114.5	506.7	74.1,74.1
70	85.35	71.95	63.89	78.33					60- 70	93.18	599.9	87.8,87.8
80	45.78	30.05	26.13	37.05					70- 80	57.70	657.6	96.2,96.2
90	12.79	1.985	4.331	3.892					80- 90	20.13	677.8	99.1,99.1
100	0.4101	0.3387	0.6782	0.3509					90-100	2.143	679.9	99.5,99.5
110	0.4011	0.4859	0.5394	0.5013					100-110	0.4614	680.4	99.5,99.5
120	0.5513	0.6333	0.6865	0.6735					110-120	0.5558	680.9	99.6,99.6
130	0.6864	0.7678	0.8151	0.7925					120-130	0.6317	681.6	99.7,99.7
140	0.8146	0.8772	0.9154	0.9078					130-140	0.6400	682.2	99.8,99.8
150	0.9364	0.9652	1.006	0.9931					140-150	0.5797	682.8	99.9,99.9
160	0.9995	1.037	1.081	1.033					150-160	0.4654	683.2	99.9,99.9
170	1.053	1.078	1.095	1.078					160-170	0.3007	683.5	100,100
180	1.100	1.090	1.097	1.103					170-180	0.1038	683.6	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



LUMINANCE cd/(m <sup>2</sup> )		
G(°)	C0/180	C90/270
85	26372	12303
80	21966	14423
75	21111	16413
70	20791	17534
65	20700	18273
60	20347	18473
55	19946	18498
50	19522	18416
45	19120	18252

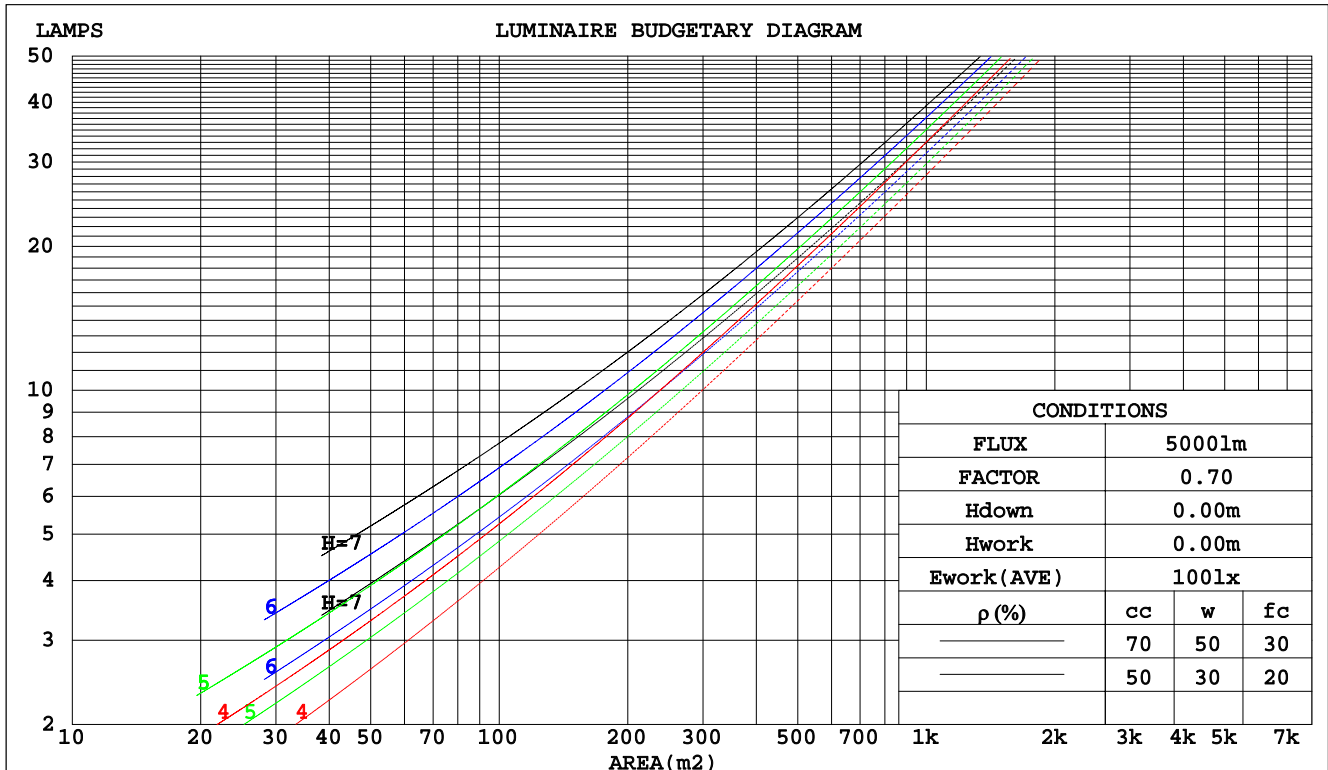
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:LQT  
Test Date:2018-03-14

$\gamma$  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:0.7270A P:17.45W PF:1.000 Lamp Flux:683.641x1 lm		
NAME: D560RGBW	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	.98	.94	1.00	.96	.92	.96	.92	.89	.91	.89	.86	.88	.85	.83	.81
2.0	.88	.81	.75	.86	.80	.74	.83	.77	.72	.79	.74	.70	.76	.72	.69	.66
3.0	.77	.68	.62	.75	.67	.61	.72	.65	.60	.69	.63	.59	.67	.62	.57	.55
4.0	.68	.59	.52	.66	.58	.51	.64	.56	.50	.61	.55	.50	.59	.53	.49	.46
5.0	.60	.51	.44	.59	.50	.44	.57	.49	.43	.55	.48	.43	.53	.47	.42	.40
6.0	.54	.45	.38	.53	.44	.38	.51	.43	.37	.49	.42	.37	.48	.41	.37	.34
7.0	.49	.40	.33	.48	.39	.33	.46	.39	.33	.45	.38	.33	.43	.37	.32	.30
8.0	.44	.36	.30	.44	.35	.30	.42	.35	.29	.41	.34	.29	.40	.33	.29	.27
9.0	.41	.32	.27	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.24
10.0	.37	.29	.24	.37	.29	.24	.36	.29	.24	.35	.28	.24	.34	.28	.23	.22



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:0.7270A P:17.45W PF:1.000 Lamp Flux:683.64lx1 lm		
NAME: D560RGBW	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	.334	.190	.060	.326	.186	.059	.313	.179	.057	.300	.173	.056	.288	.167	.054		
2.0	.309	.169	.052	.303	.167	.051	.290	.161	.050	.279	.157	.049	.268	.152	.048		
3.0	.283	.151	.045	.278	.149	.045	.267	.145	.044	.257	.141	.043	.247	.137	.042		
4.0	.260	.135	.040	.255	.133	.039	.245	.130	.039	.236	.127	.038	.227	.124	.038		
5.0	.239	.122	.035	.234	.120	.035	.226	.118	.035	.218	.115	.034	.210	.112	.034		
6.0	.221	.111	.032	.217	.109	.031	.209	.107	.031	.202	.105	.031	.195	.103	.030		
7.0	.205	.101	.029	.201	.100	.029	.194	.098	.028	.188	.096	.028	.182	.094	.028		
8.0	.191	.093	.026	.187	.092	.026	.181	.090	.026	.175	.089	.026	.170	.087	.025		
9.0	.178	.086	.024	.175	.085	.024	.170	.084	.024	.164	.082	.024	.159	.081	.023		
10.0	.167	.080	.022	.165	.079	.022	.160	.078	.022	.155	.077	.022	.150	.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	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.189	.163	.139	.161	.139	.120	.110	.096	.083	.064	.056	.048	.020	.018	.016	
2.0	.181	.138	.103	.155	.119	.089	.106	.082	.062	.061	.048	.036	.020	.016	.012	
3.0	.174	.121	.079	.149	.104	.069	.102	.073	.048	.059	.042	.028	.019	.014	.009	
4.0	.166	.108	.063	.143	.093	.055	.098	.065	.039	.057	.038	.023	.018	.012	.008	
5.0	.159	.098	.053	.136	.084	.046	.094	.059	.032	.054	.035	.019	.018	.011	.006	
6.0	.151	.089	.045	.130	.077	.039	.090	.054	.028	.052	.032	.016	.017	.010	.005	
7.0	.144	.083	.039	.124	.072	.034	.086	.050	.024	.050	.030	.014	.016	.010	.005	
8.0	.138	.077	.035	.119	.067	.030	.082	.047	.022	.048	.028	.013	.015	.009	.004	
9.0	.132	.072	.032	.113	.062	.027	.078	.044	.020	.046	.026	.012	.015	.008	.004	
10.0	.126	.068	.029	.108	.059	.025	.075	.041	.018	.044	.024	.011	.014	.008	.004	

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:0.7270A P:17.45W PF:1.000 Lamp Flux:683.64lx1 lm											
NAME: D560RGBW						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	23.5	25.1	23.8	25.3	25.6	23.2	24.8	23.5	25.0	25.2	
	3H	25.5	26.9	25.8	27.2	27.4	24.9	26.4	25.2	26.6	26.9
	4H	26.3	27.7	26.6	28.0	28.2	25.6	27.0	25.9	27.2	27.5
	6H	27.0	28.3	27.4	28.6	28.9	26.0	27.3	26.4	27.6	27.9
	8H	27.3	28.6	27.7	28.9	29.2	26.2	27.4	26.5	27.7	28.1
	12H	27.6	28.8	28.0	29.1	29.5	26.3	27.5	26.6	27.8	28.1
4H	2H	24.2	25.6	24.5	25.9	26.1	24.0	25.3	24.3	25.6	25.9
	3H	26.3	27.5	26.7	27.8	28.2	25.8	27.1	26.2	27.4	27.7
	4H	27.3	28.4	27.7	28.7	29.1	26.6	27.8	27.0	28.1	28.4
	6H	28.1	29.1	28.6	29.5	29.9	27.2	28.2	27.6	28.6	29.0
	8H	28.5	29.5	29.0	29.8	30.2	27.4	28.4	27.9	28.7	29.2
	12H	28.9	29.7	29.3	30.1	30.6	27.6	28.4	28.0	28.8	29.2
8H	4H	27.6	28.5	28.0	28.9	29.3	27.0	27.9	27.4	28.3	28.7
	6H	28.6	29.4	29.1	29.8	30.3	27.8	28.6	28.3	29.0	29.4
	8H	29.1	29.8	29.6	30.3	30.7	28.1	28.8	28.6	29.2	29.7
	12H	29.6	30.2	30.1	30.7	31.2	28.3	28.9	28.8	29.4	29.9
12H	4H	27.6	28.4	28.0	28.8	29.3	27.1	27.9	27.5	28.3	28.7
	6H	28.7	29.4	29.2	29.8	30.3	27.9	28.6	28.4	29.0	29.5
	8H	29.3	29.8	29.7	30.3	30.8	28.3	28.9	28.8	29.3	29.8
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.4					

CIE Pub.117 Corrected 683.6 lm Total Lamp Luminous Flux.(8log(F/F0) = -1.3)

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:0.7270A P:17.45W PF:1.000 Lamp Flux:683.64lx1 lm		
NAME: D560RGBW	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	55	43	36	54	43	35	53	42	35	29
0.80	65	53	45	64	52	45	62	51	44	37
1.00	73	62	54	72	61	54	70	62	53	45
1.25	80	69	62	79	69	61	76	67	60	53
1.50	86	75	68	84	74	67	81	72	66	58
2.00	93	84	77	91	82	76	87	80	74	66
2.50	97	89	82	95	87	81	91	84	79	70
3.00	101	93	87	98	91	86	94	88	84	75
4.00	105	99	94	102	97	92	98	93	89	80
5.00	107	102	98	105	100	96	100	96	93	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:0.7270A P:17.45W PF:1.000 Lamp Flux:683.64lx1 lm		
NAME: D560RGBW	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION ANGLE:

Conical surface Flux(90deg):

332.21 lm

%lum = 48.6%

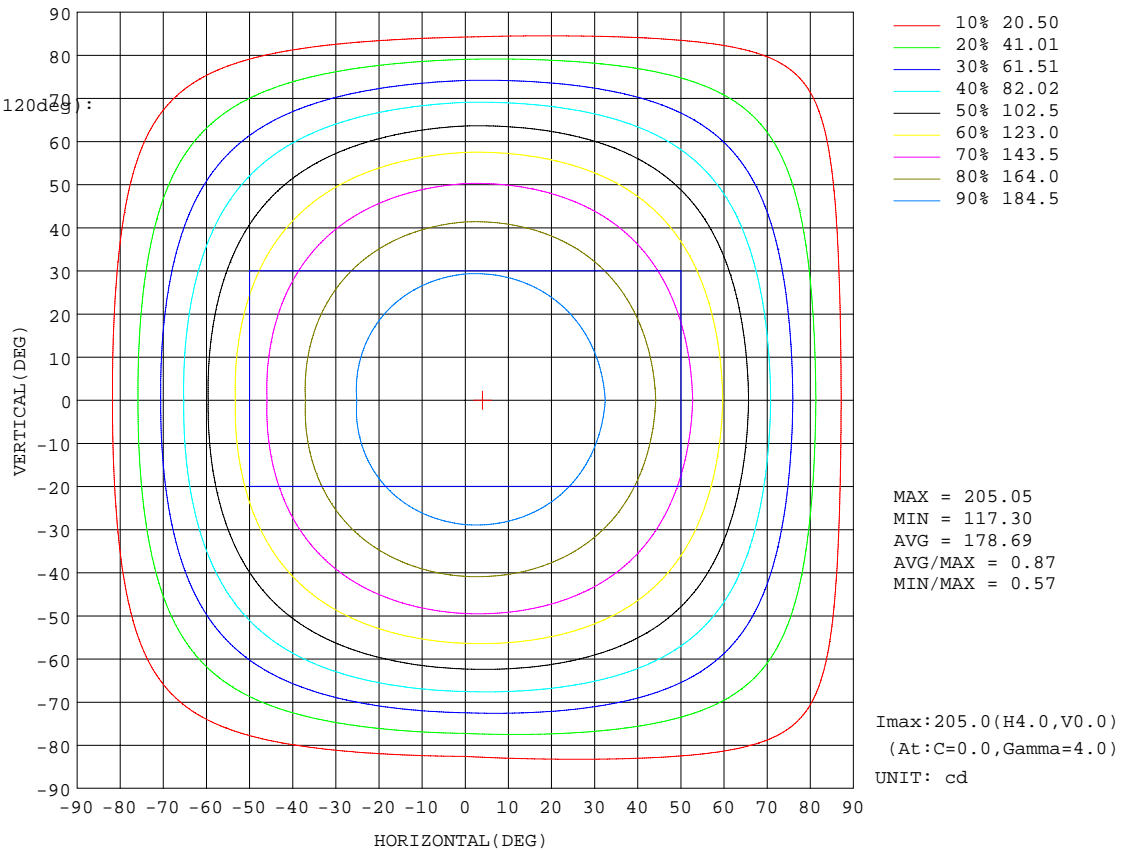
%lamp = 48.6%

Conical surface Flux(120deg):

506.75 lm

%lum = 74.1%

%lamp = 74.1%

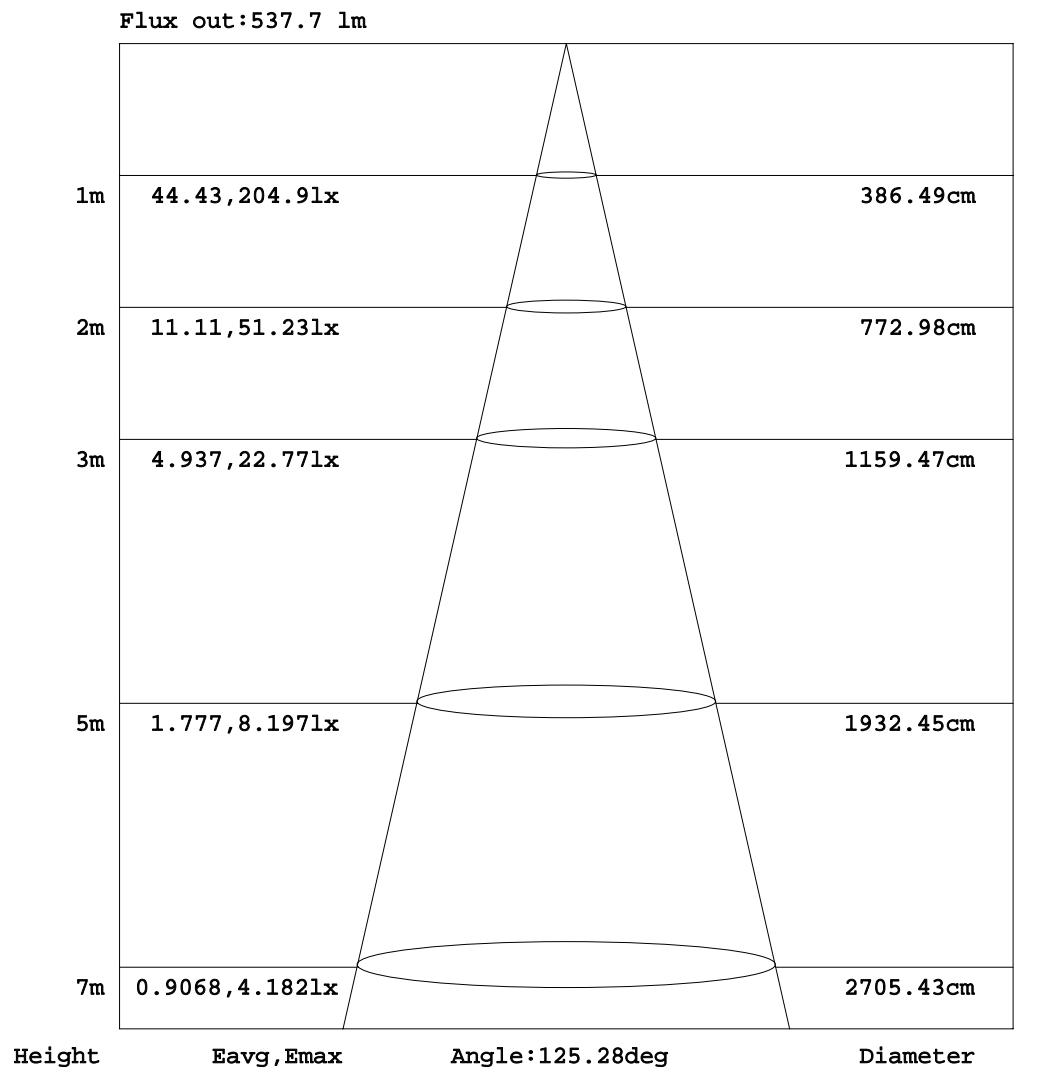


C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: LQT  
 Test Date: 2018-03-14

$\gamma$  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:

## AAI Figure

Test:U:24.00V I:0.7270A P:17.45W PF:1.000 Lamp Flux:683.64lx1 lm		
NAME: D560RGBW	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.

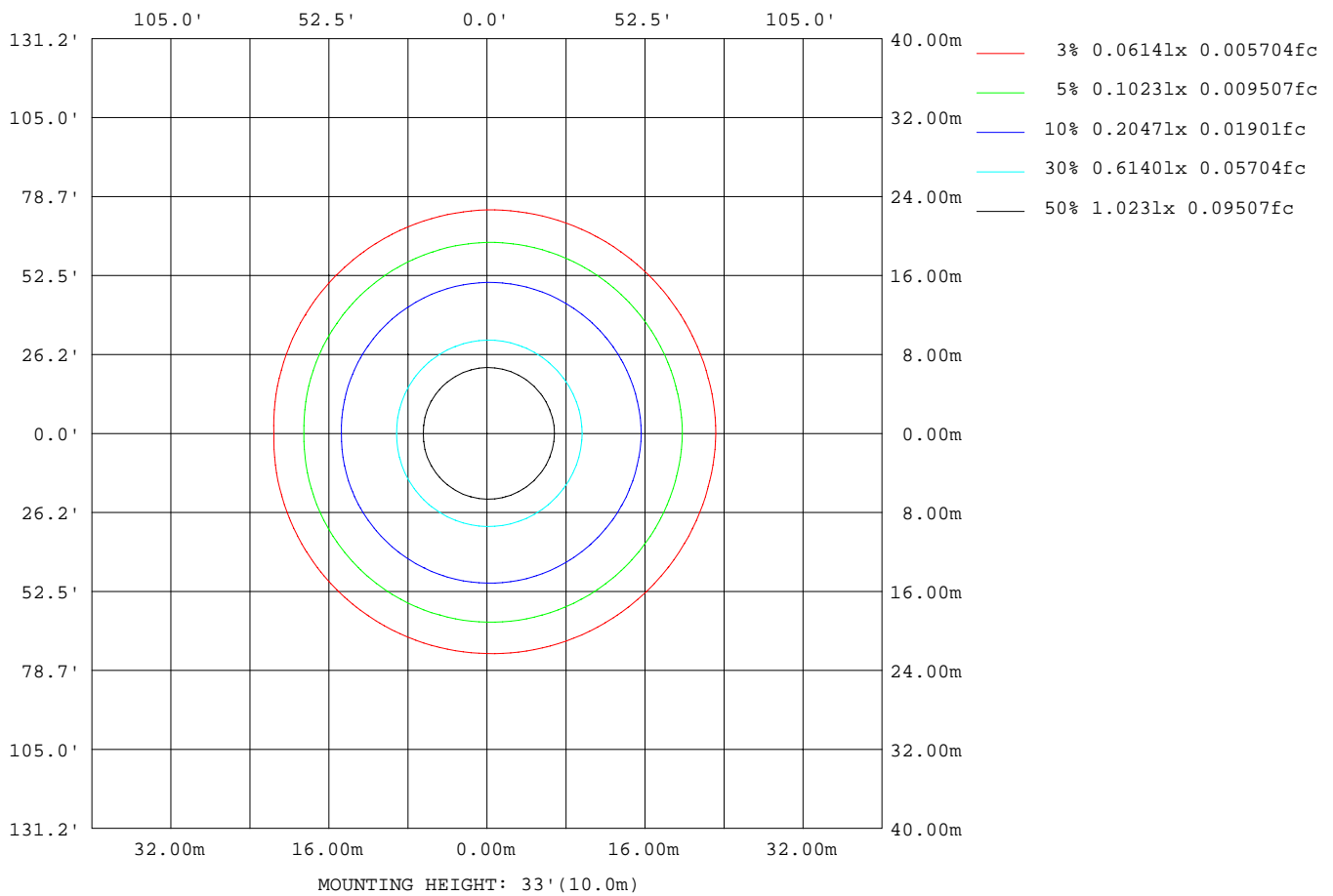
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:LQT  
 Test Date:2018-03-14

$\gamma$  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

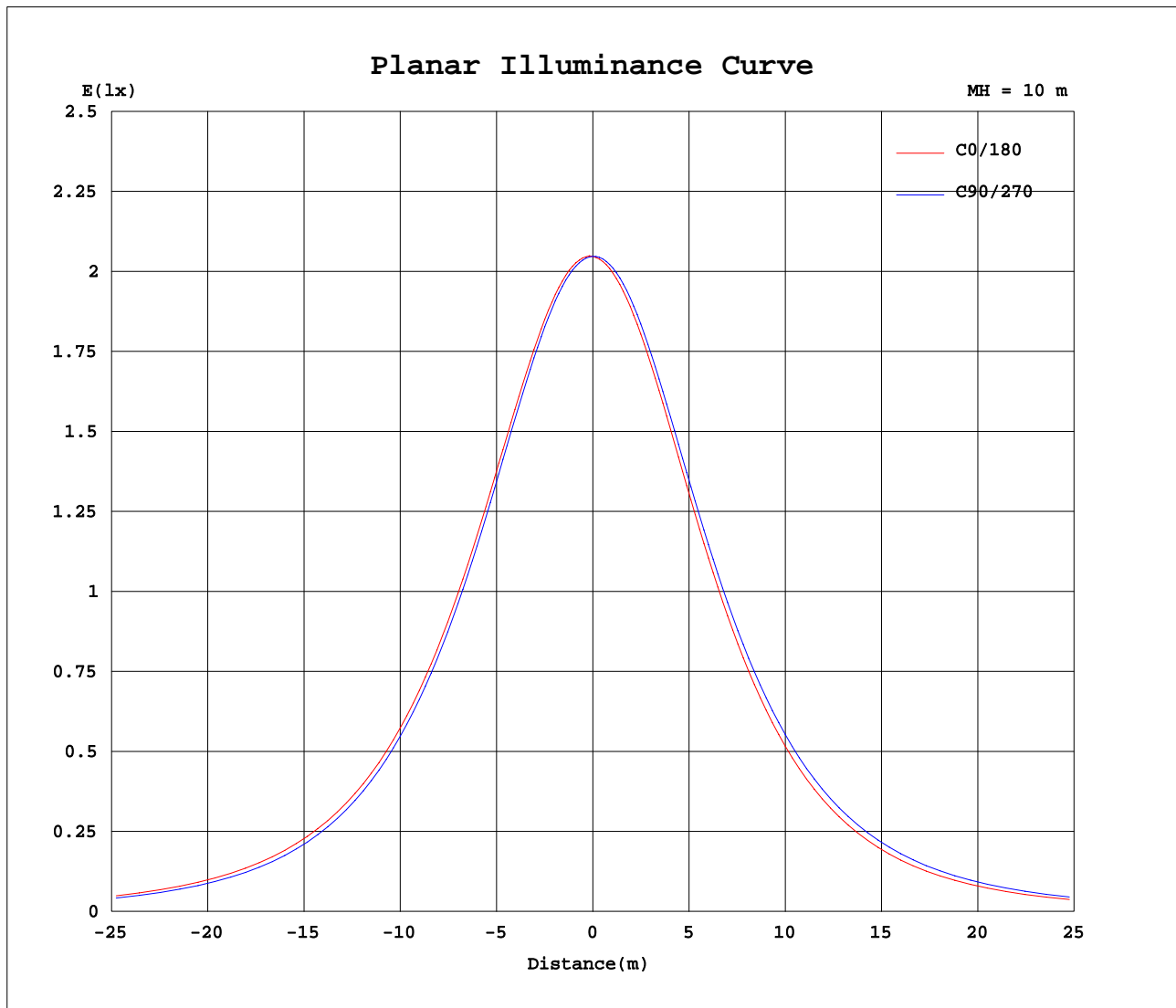
Test:U:24.00V I:0.7270A P:17.45W PF:1.000 Lamp Flux:683.64lx1 lm		
NAME: D560RGBW	TYPE:	WEIGHT:
SPEC.:D5602412NO-0RGBWCDA012WC0100	DIM.: 1000*12	SERIAL No.:001
MFR.: Colors	SUR.:1000*12	PROTECTION ANGLE:



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:0.7270A P:17.45W PF:1.000 Lamp Flux:683.641x1 lm		
NAME: D560RGBW	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	205	205	205	205															
5	205	204	203	204															
10	204	202	201	203															
15	202	199	197	200															
20	199	195	191	196															
25	194	190	185	190															
30	188	183	177	183															
35	181	175	168	176															
40	172	166	158	167															
45	162	155	146	156															
50	151	142	133	144															
55	137	127	118	130															
60	122	111	101	115															
65	105	92.7	83.1	97.4															
70	85.3	71.9	63.9	78.3															
75	65.6	51.0	44.4	57.9															
80	45.8	30.0	26.1	37.1															
85	27.6	12.9	12.2	17.7															
90	12.8	1.98	4.33	3.89															
95	4.04	0.27	1.38	0.29															
100	0.41	0.34	0.68	0.35															
105	0.34	0.41	0.52	0.44															
110	0.40	0.49	0.54	0.50															
115	0.48	0.56	0.61	0.59															
120	0.55	0.63	0.69	0.67															
125	0.64	0.71	0.76	0.74															
130	0.69	0.77	0.82	0.79															
135	0.75	0.83	0.87	0.85															
140	0.81	0.88	0.92	0.91															
145	0.86	0.92	0.97	0.94															
150	0.94	0.97	1.01	0.99															
155	0.98	1.01	1.06	1.01															
160	1.00	1.04	1.08	1.03															
165	1.04	1.07	1.09	1.04															
170	1.05	1.08	1.10	1.08															
175	1.10	1.09	1.10	1.09															
180	1.10	1.09	1.10	1.10															

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: