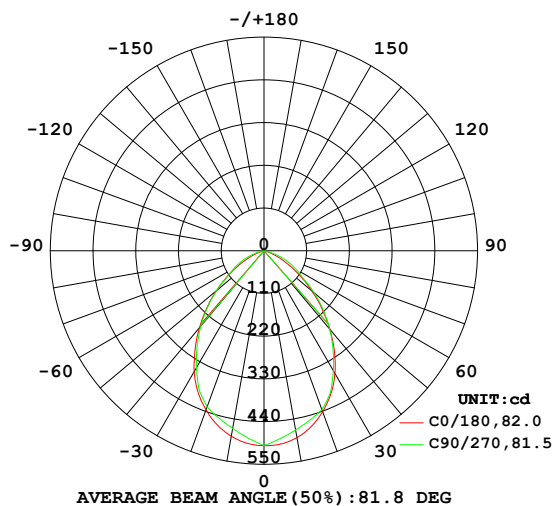


## LUMINAIRE PHOTOMETRIC TEST REPORT

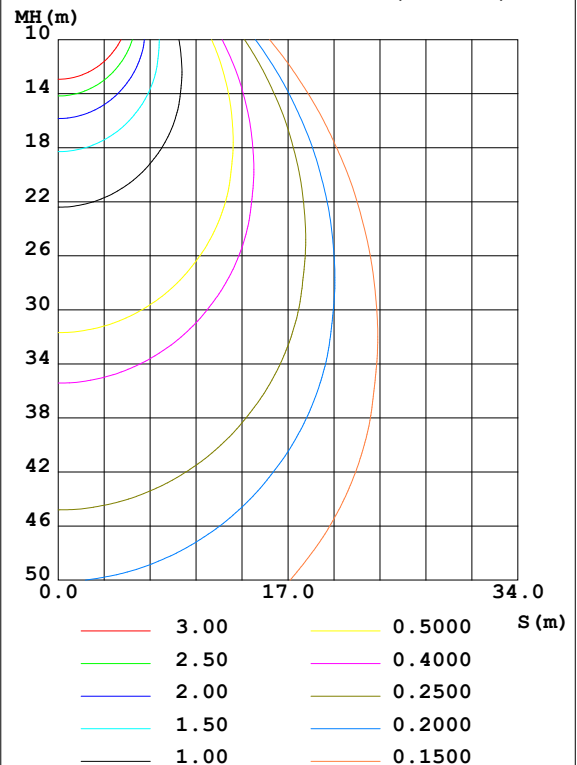
Test:U:120.60V I:0.0880A P:10.300W PF:0.9700 Freq:60.00Hz Lamp Flux:876.325x1 lm		
NAME: AVD4-5CCT-BK	TYPE: Down light	WEIGHT: 0.3Kg
SPEC.: 10W	DIM.: $\phi 132 \times 44$ (MM)	SERIAL No.: 01
MFR.: Signcomplex	SUR.: $\phi 90$ (MM)	Shielding Angle: 120°

DATA OF LAMP		PHOTOMETRIC DATA Eff: 85.08 lm/W			
MODEL	SMD 2835/LED	I <sub>max</sub> (cd)	501.9	S/MH (C0/180)	1.11
NOMINAL POWER (W)	10.3	LOR (%)	100.0	S/MH (C90/270)	1.09
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	876.33	$\eta$ UP, DN (C0-180)	0.0, 49.4
NOMINAL FLUX (lm)	876.325	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 50.6
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	120.6	$\eta$ down (%)	100.0	CIBSE SHR MAX	1.15

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



H( $\beta$ ) Range: -90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: yang  
Test Date: 2024-07-26

V(B) Range: -90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity: 65.0%  
Test Distance: 8.345m [K=1.1024]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	485.0	468.4	464.8	468.5	488.7	471.3	468.8	471.3	0- 10	46.15	46.15	5.27,5.27
20	436.2	420.7	427.8	419.2	441.4	423.9	435.8	426.8	10- 20	127.1	173.2	19.8,19.8
30	359.6	351.6	347.6	354.5	365.1	361.1	357.1	359.7	20- 30	180.8	354.0	40.4,40.4
40	258.6	252.0	252.8	255.7	264.2	261.8	263.2	259.8	30- 40	190.5	544.5	62.1,62.1
50	159.6	155.5	158.9	158.5	160.6	163.8	168.9	162.7	40- 50	159.6	704.1	80.3,80.3
60	75.90	75.04	87.75	75.84	76.50	80.10	95.12	81.47	50- 60	104.4	808.5	92.3,92.3
70	19.14	29.19	38.68	29.33	20.12	31.15	42.44	32.69	60- 70	52.18	860.7	98.2,98.2
80	0.1330	4.333	1.727	4.457	0.2739	3.702	2.359	4.120	70- 80	14.59	875.3	99.9,99.9
90	0.0452	0.8621	1.106	1.239	0.0963	0.0993	0.0879	0.0908	80- 90	1.025	876.3	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 630.11 lm

%lum = 71.9%

%lamp = 71.9%

Conical surface Flux(120deg): 808.52 lm

%lum = 92.3%

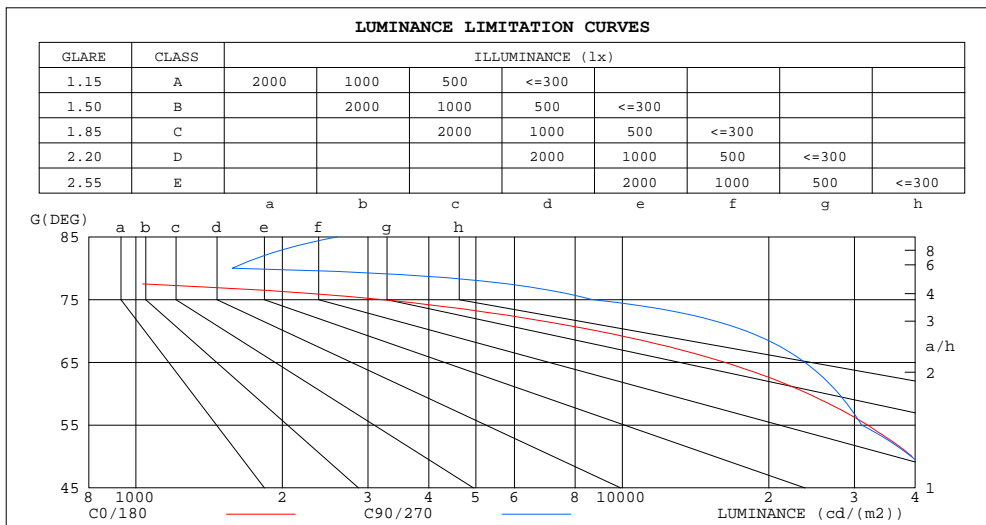
%lamp = 92.3%

H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:yang  
 Test Date:2024-07-26

V(B) Range:-90 - 90DEG  
 V(B) Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
 Humidity:65.0%  
 Test Distance:8.345m [K=1.1024]  
 Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:120.60V I:0.0880A P:10.300W PF:0.9700 Freq:60.00Hz Lamp Flux:876.325x1 lm		
NAME: AVD4-5CCT-BK	TYPE: Down light	WEIGHT: 0.3Kg
SPEC.: 10W	DIM.: $\phi 132 \times 44$ (MM)	SERIAL No.: 01
MFR.: Signcomplex	SUR.: $\phi 90$ (MM)	Shielding Angle: 120°



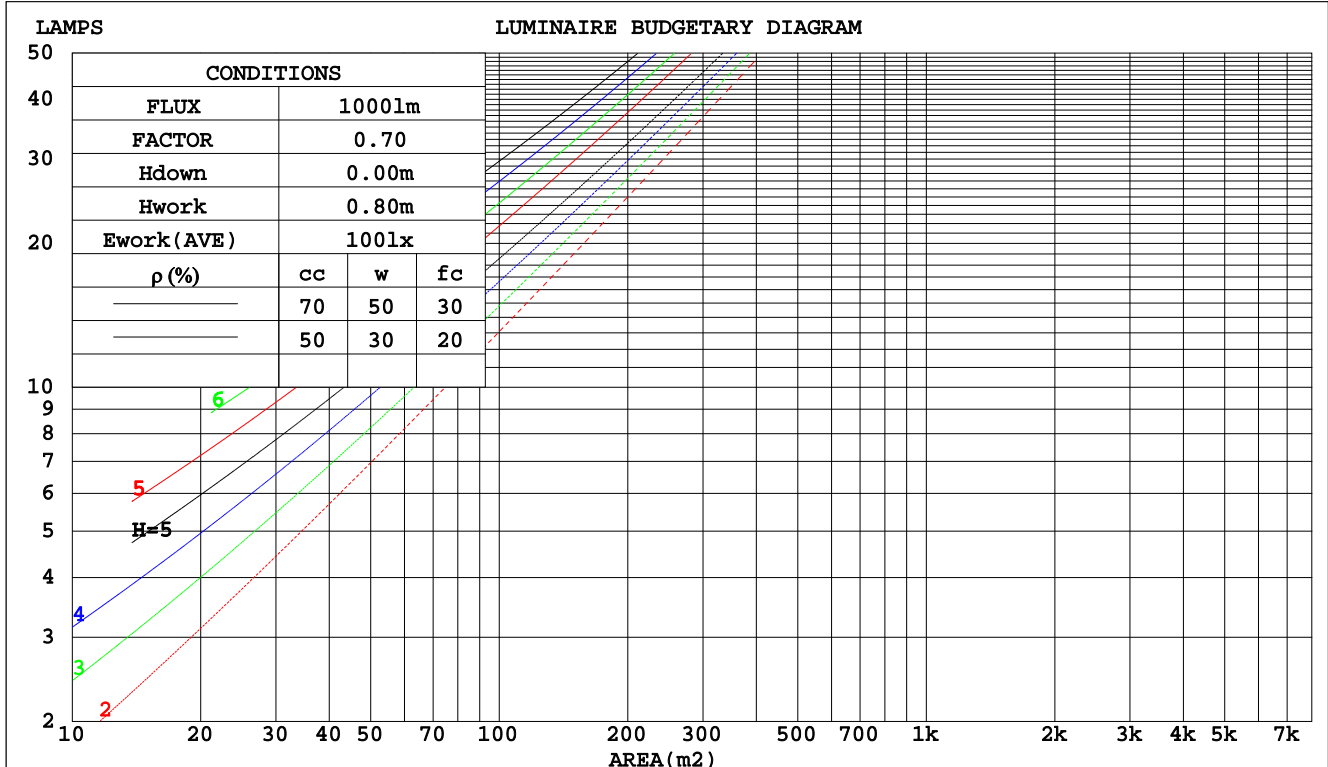
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:yang  
Test Date:2024-07-26

V(B) Range:-90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity:65.0%  
Test Distance:8.345m [K=1.1024]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.60V I:0.0880A P:10.300W PF:0.9700 Freq:60.00Hz Lamp Flux:876.325x1 lm		
NAME: AVD4-5CCT-BK	TYPE: Down light	WEIGHT: 0.3Kg
SPEC.: 10W	DIM.: $\phi 132 \times 44$ (MM)	SERIAL No.: 01
MFR.: Signcomplex	SUR.: $\phi 90$ (MM)	Shielding Angle: 120°

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	1.02	1.02	1.02	1.00
1.0	1.08	1.04	1.01	1.05	1.02	.00	1.01	.99	.97	.98	.96	.94	.94	.92	.91	.89
2.0	.97	.91	.87	.95	.90	.86	.91	.87	.84	.88	.85	.82	.85	.83	.80	.78
3.0	.87	.80	.75	.86	.79	.74	.83	.77	.73	.80	.76	.72	.78	.74	.71	.69
4.0	.79	.71	.66	.77	.71	.65	.75	.69	.64	.73	.68	.64	.71	.66	.63	.61
5.0	.71	.64	.58	.70	.63	.58	.68	.62	.57	.67	.61	.57	.65	.60	.56	.54
6.0	.65	.57	.52	.64	.57	.52	.63	.56	.51	.61	.55	.51	.60	.54	.50	.49
7.0	.60	.52	.47	.59	.52	.46	.58	.51	.46	.56	.50	.46	.55	.50	.46	.44
8.0	.55	.47	.42	.54	.47	.42	.53	.47	.42	.52	.46	.42	.51	.45	.41	.40
9.0	.51	.44	.39	.50	.43	.38	.49	.43	.38	.48	.42	.38	.47	.42	.38	.36
10.0	.47	.40	.35	.47	.40	.35	.46	.40	.35	.45	.39	.35	.44	.39	.35	.33



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:yang  
Test Date:2024-07-26

V(B) Range:-90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity:65.0%  
Test Distance:8.345m [K=1.1024]  
Remarks:

### WEC AND CCEC

Test:U:120.60V I:0.0880A P:10.300W PF:0.9700 Freq:60.00Hz Lamp Flux:876.325x1 lm					
NAME: AVD4-5CCT-BK			TYPE: Down light		WEIGHT: 0.3Kg
SPEC.: 10W			DIM.: $\phi$ 132*44(MM)		SERIAL No.: 01
MFR.: Signcomplex			SUR.: $\phi$ 90(MM)		Shielding Angle: 120°

$\rho_{cc}$	80%			70%			50%			30%			10%			0	
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
$\rho_{fc}$	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.237	.135	.043	.230	.131	.042	.217	.125	.040	.205	.118	.038	.194	.113	.036		
2.0	.232	.127	.039	.226	.124	.038	.215	.119	.037	.204	.115	.036	.195	.110	.035		
3.0	.221	.118	.035	.216	.115	.035	.206	.112	.034	.197	.108	.033	.188	.104	.032		
4.0	.209	.108	.032	.204	.107	.032	.196	.104	.031	.188	.101	.030	.180	.098	.030		
5.0	.197	.100	.029	.193	.099	.029	.185	.096	.028	.178	.094	.028	.171	.092	.028		
6.0	.186	.093	.027	.182	.092	.026	.175	.090	.026	.169	.088	.026	.163	.086	.025		
7.0	.175	.087	.025	.172	.086	.024	.166	.084	.024	.160	.082	.024	.155	.080	.024		
8.0	.165	.081	.023	.163	.080	.023	.157	.078	.022	.152	.077	.022	.147	.076	.022		
9.0	.157	.076	.021	.154	.075	.021	.149	.074	.021	.145	.072	.021	.140	.071	.021		
10.0	.148	.071	.020	.146	.071	.020	.142	.069	.020	.138	.068	.019	.134	.067	.019		

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.175	.157	.140	.150	.135	.121	.103	.093	.083	.059	.054	.049	.019	.017	.016	
2.0	.164	.132	.105	.141	.114	.091	.096	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.070	.091	.068	.049	.053	.040	.029	.017	.013	.010	
4.0	.147	.100	.064	.126	.086	.056	.087	.060	.039	.050	.035	.023	.016	.011	.008	
5.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.133	.081	.043	.114	.070	.038	.079	.049	.027	.046	.029	.016	.015	.009	.005	
7.0	.126	.074	.036	.109	.064	.032	.075	.045	.023	.044	.026	.013	.014	.009	.004	
8.0	.121	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.012	.014	.008	.004	
9.0	.115	.063	.027	.099	.054	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.110	.058	.024	.095	.051	.021	.066	.036	.015	.038	.021	.009	.012	.007	.003	

$H(\beta)$  Range:-90 - 90DEG  
 $H(\beta)$  Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:yang  
 Test Date:2024-07-26

$V(B)$  Range:-90 - 90DEG  
 $V(B)$  Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
 Humidity:65.0%  
 Test Distance:8.345m [K=1.1024]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.60V I:0.0880A P:10.300W PF:0.9700 Freq:60.00Hz Lamp Flux:876.325x1 lm											
NAME: AVD4-5CCT-BK					TYPE: Down light			WEIGHT: 0.3Kg			
SPEC.: 10W					DIM.: φ132*44 (MM)			SERIAL No.: 01			
MFR.: Signcomplex					SUR.: φ90 (MM)			Shielding Angle: 120°			
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	22.3	23.7	22.7	24.0	24.3	22.6	24.0	22.9	24.3	24.6	
	3H	22.7	23.9	23.1	24.3	24.6	23.7	24.9	24.1	25.3	25.6
	4H	22.6	23.8	23.0	24.2	24.5	23.8	25.0	24.2	25.3	25.7
	6H	22.6	23.6	23.0	24.0	24.4	23.8	24.9	24.2	25.2	25.6
	8H	22.5	23.5	23.0	23.9	24.3	23.8	24.8	24.2	25.2	25.6
	12H	22.5	23.5	22.9	23.8	24.3	23.7	24.7	24.2	25.1	25.5
4H	2H	22.5	23.7	22.9	24.0	24.4	22.7	23.9	23.1	24.2	24.6
	3H	22.9	23.9	23.4	24.3	24.7	24.0	25.0	24.4	25.4	25.8
	4H	22.9	23.7	23.3	24.2	24.6	24.2	25.0	24.6	25.5	25.9
	6H	22.8	23.6	23.3	24.0	24.5	24.2	24.9	24.6	25.3	25.8
	8H	22.8	23.5	23.2	23.9	24.4	24.1	24.8	24.6	25.3	25.7
	12H	22.7	23.3	23.2	23.8	24.3	24.1	24.7	24.6	25.2	25.6
8H	4H	22.9	23.6	23.4	24.1	24.5	24.2	24.8	24.6	25.3	25.8
	6H	22.9	23.4	23.4	23.9	24.4	24.1	24.7	24.6	25.2	25.7
	8H	22.8	23.3	23.3	23.8	24.3	24.1	24.6	24.6	25.1	25.6
	12H	22.8	23.2	23.3	23.7	24.3	24.0	24.5	24.6	25.0	25.5
12H	4H	22.9	23.5	23.4	24.0	24.5	24.1	24.7	24.6	25.2	25.7
	6H	22.8	23.3	23.4	23.8	24.3	24.1	24.6	24.6	25.0	25.6
	8H	22.8	23.2	23.3	23.7	24.3	24.0	24.5	24.6	25.0	25.5
CIE190: 2010											

CIE190: 2010  
Area: 0.0063 m2

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:yang  
Test Date:2024-07-26

V(B) Range:-90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity:65.0%  
Test Distance:8.345m [K=1.1024]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:120.60V I:0.0880A P:10.300W PF:0.9700 Freq:60.00Hz Lamp Flux:876.325x1 lm		
NAME: AVD4-5CCT-BK	TYPE: Down light	WEIGHT: 0.3Kg
SPEC.: 10W	DIM.: $\phi 132 \times 44$ (MM)	SERIAL No.: 01
MFR.: Signcomplex	SUR.: $\phi 90$ (MM)	Shielding Angle: 120°

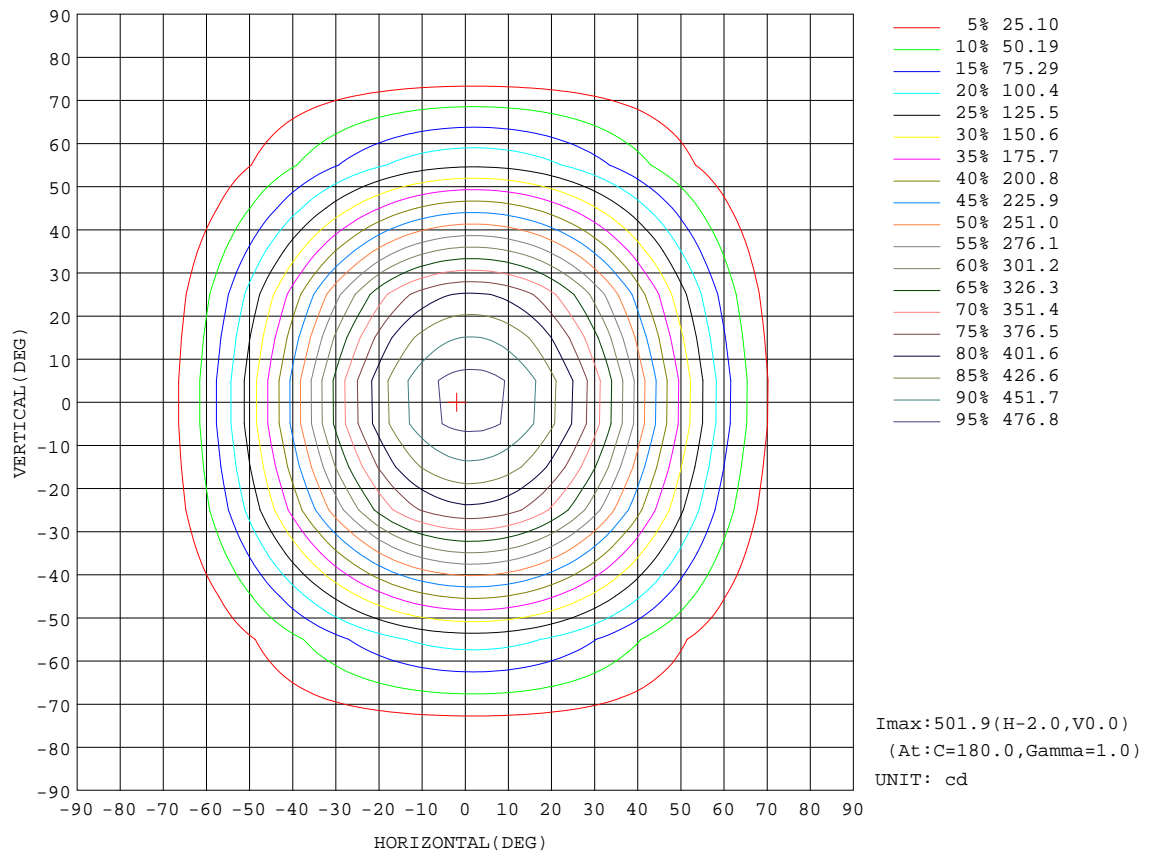
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	58	52	67	57	52	66	57	51	46
0.80	77	68	62	77	68	62	75	67	61	56
1.00	85	77	71	84	76	70	82	77	70	64
1.25	92	84	78	90	83	78	88	82	77	71
1.50	96	88	83	95	88	83	92	86	81	75
2.00	101	95	90	100	94	89	97	92	88	81
2.50	104	98	94	102	97	93	99	95	91	84
3.00	107	102	98	105	100	97	101	97	94	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	103	100	92
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

$H(\beta)$  Range:-90 - 90DEG  
 $H(\beta)$  Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:yang  
 Test Date:2024-07-26

$V(B)$  Range:-90 - 90DEG  
 $V(B)$  Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
 Humidity:65.0%  
 Test Distance:8.345m [K=1.1024]  
 Remarks:

## ISOCANDELA DIAGRAM

Test:U:120.60V I:0.0880A P:10.300W PF:0.9700 Freq:60.00Hz Lamp Flux:876.325x1 lm		
NAME: AVD4-5CCT-BK	TYPE: Down light	WEIGHT: 0.3Kg
SPEC.: 10W	DIM.: $\phi 132 \times 44$ (MM)	SERIAL No.: 01
MFR.: Signcomplex	SUR.: $\phi 90$ (MM)	Shielding Angle: 120°



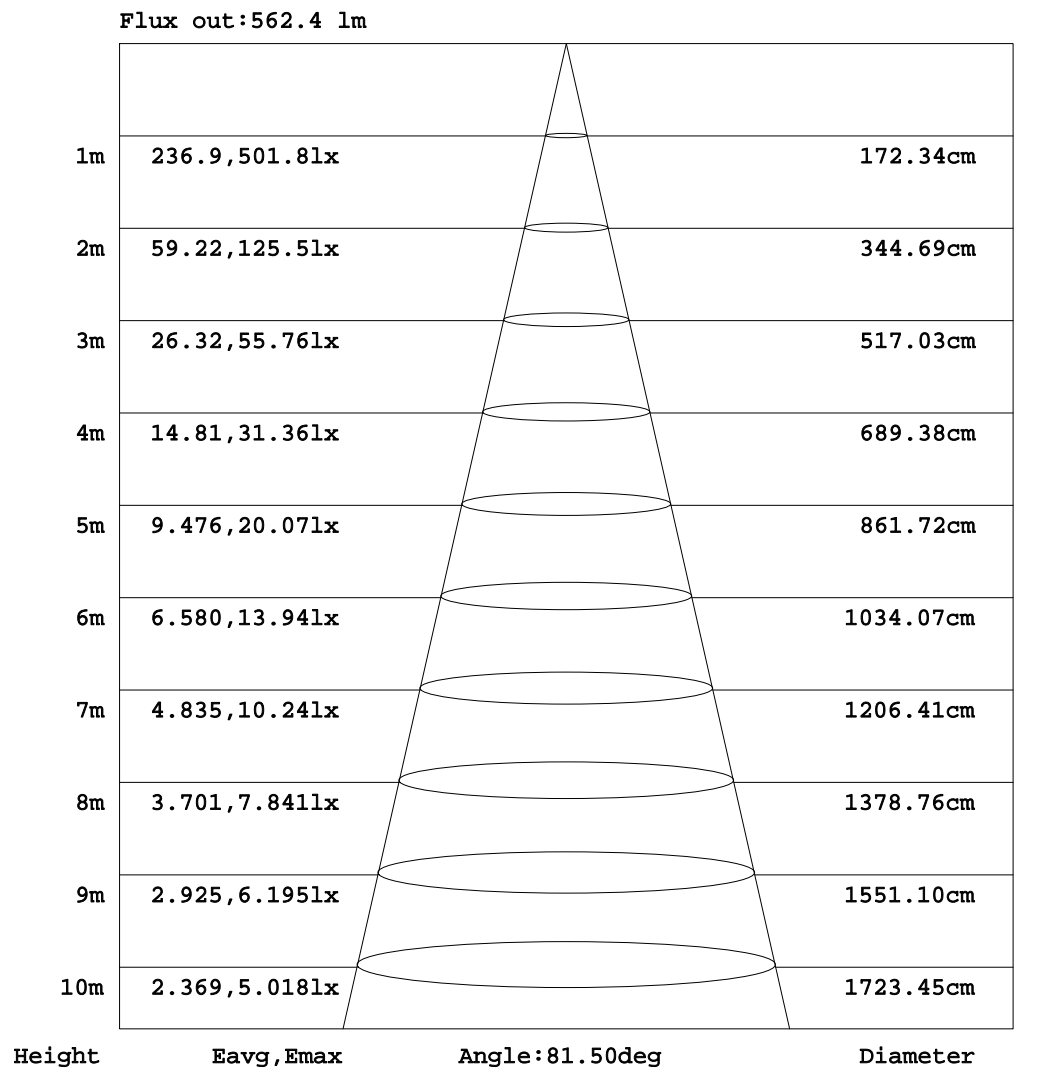
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:yang  
Test Date:2024-07-26

V(B) Range:-90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity:65.0%  
Test Distance:8.345m [K=1.1024]  
Remarks:



### AAI Figure

Test:U:120.60V I:0.0880A P:10.300W PF:0.9700 Freq:60.00Hz Lamp Flux:876.325x1 lm		
NAME: AVD4-5CCT-BK	TYPE: Down light	WEIGHT: 0.3Kg
SPEC.: 10W	DIM.: $\phi 132 \times 44$ (MM)	SERIAL No.: 01
MFR.: Signcomplex	SUR.: $\phi 90$ (MM)	Shielding Angle: 120°



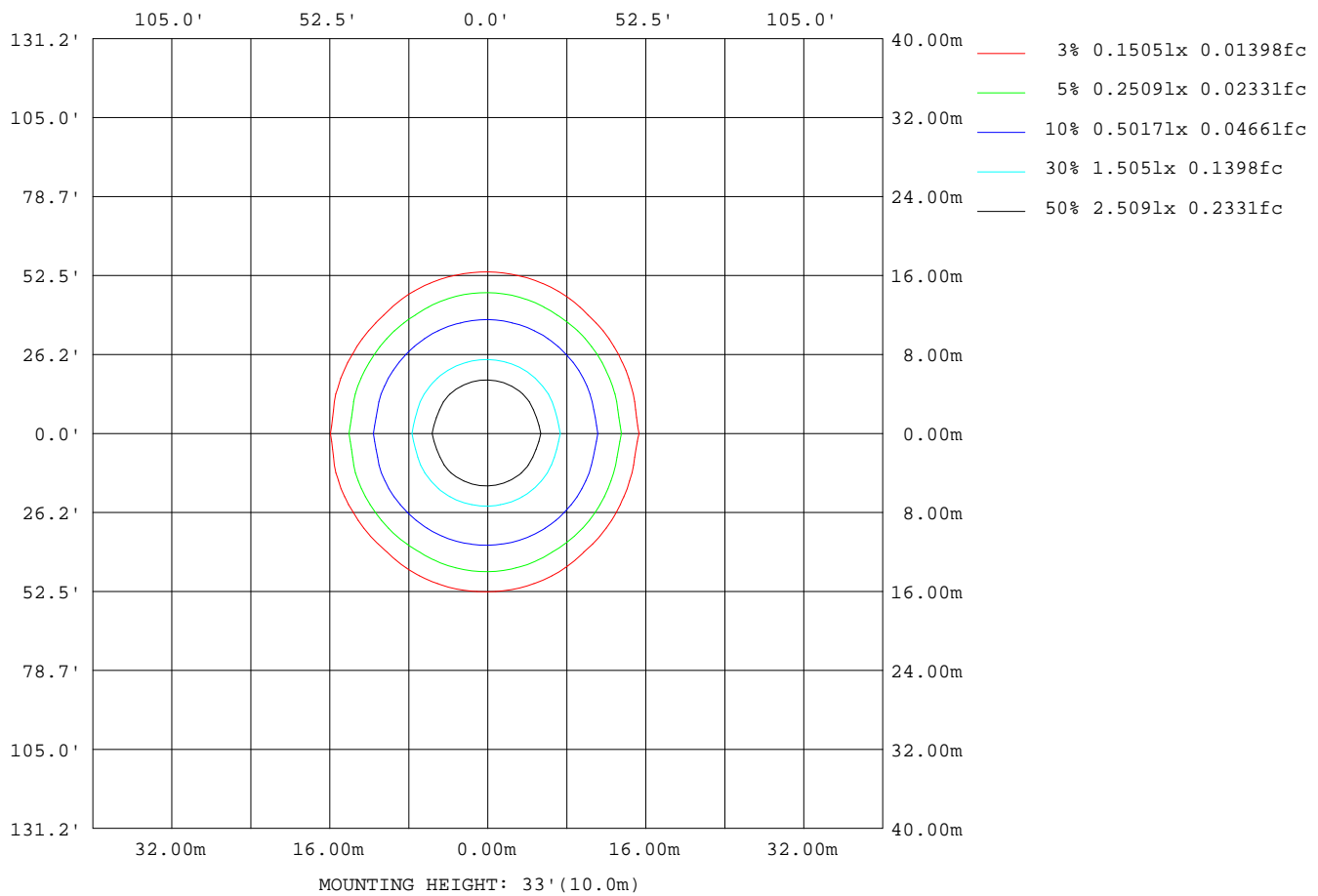
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H( $\beta$ ) Range: -90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: yang  
Test Date: 2024-07-26

V(B) Range: -90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity: 65.0%  
Test Distance: 8.345m [K=1.1024]  
Remarks:

## ISOLUX DIAGRAM

Test:U:120.60V I:0.0880A P:10.300W PF:0.9700 Freq:60.00Hz Lamp Flux:876.325x1 lm		
NAME: AVD4-5CCT-BK	TYPE: Down light	WEIGHT: 0.3Kg
SPEC.: 10W	DIM.: $\phi 132 \times 44$ (MM)	SERIAL No.: 01
MFR.: Signcomplex	SUR.: $\phi 90$ (MM)	Shielding Angle: 120°



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:yang  
Test Date:2024-07-26

V(B) Range:-90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity:65.0%  
Test Distance:8.345m [K=1.1024]  
Remarks:

## LED Avg.L Report

Test:U:120.60V I:0.0880A P:10.300W PF:0.9700 Freq:60.00Hz Lamp Flux:876.325x1 lm		
NAME: AVD4-5CCT-BK	TYPE: Down light	WEIGHT: 0.3Kg
SPEC.: 10W	DIM.: $\phi 132 \times 44$ (MM)	SERIAL No.: 01
MFR.: Signcomplex	SUR.: $\phi 90$ (MM)	Shielding Angle: 120°

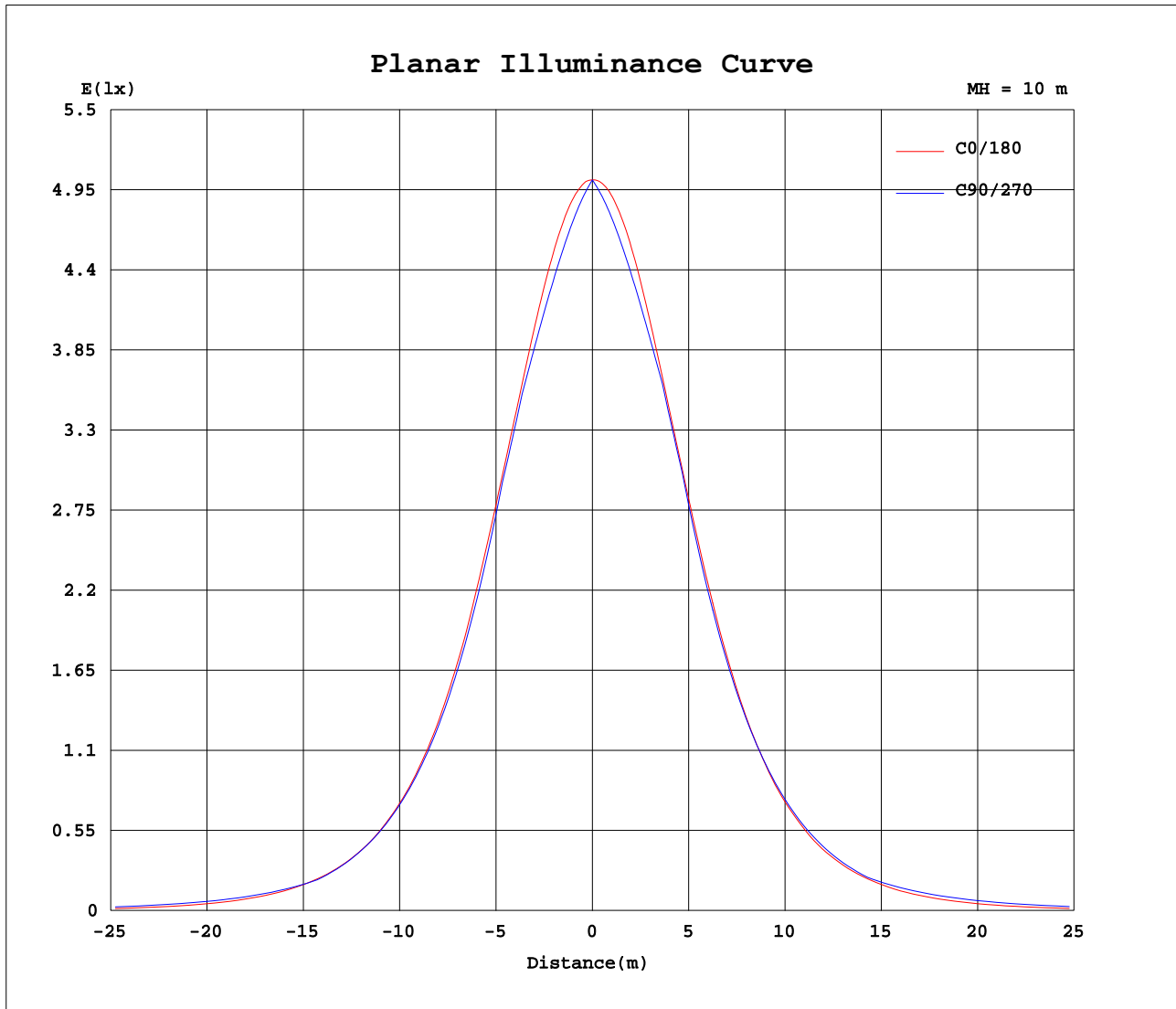
AvgL	cd/m2
L_0~180 (65) av	16328
L_0~180 (75) av	3446
L_0~180 (85) av	165
L_90~270 (65) av	24765
L_90~270 (75) av	9267
L_90~270 (85) av	2410
L_45 (65) av	17784
L_45 (75) av	9873
L_45 (85) av	1104

Standard: GB/T 29293-2012

$H(\beta)$  Range:-90 - 90DEG  
 $H(\beta)$  Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:yang  
 Test Date:2024-07-26

$V(B)$  Range:-90 - 90DEG  
 $V(B)$  Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
 Humidity:65.0%  
 Test Distance:8.345m [K=1.1024]  
 Remarks:

### Planar Illuminance Curve



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:yang  
Test Date:2024-07-26

V(B) Range:-90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity:65.0%  
Test Distance:8.345m [K=1.1024]  
Remarks:

V(B) Range:-90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity:65.0%  
Test Distance:8.345m [K=1.1024]  
Remarks:

V(B) Range:-90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity:65.0%  
Test Distance:8.345m [K=1.1024]  
Remarks:

V(B) Range:-90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity:65.0%  
Test Distance:8.345m [K=1.1024]  
Remarks:

V(B) Range:-90 - 90DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.429  
Humidity:65.0%  
Test Distance:8.345m [K=1.1024]  
Remarks: