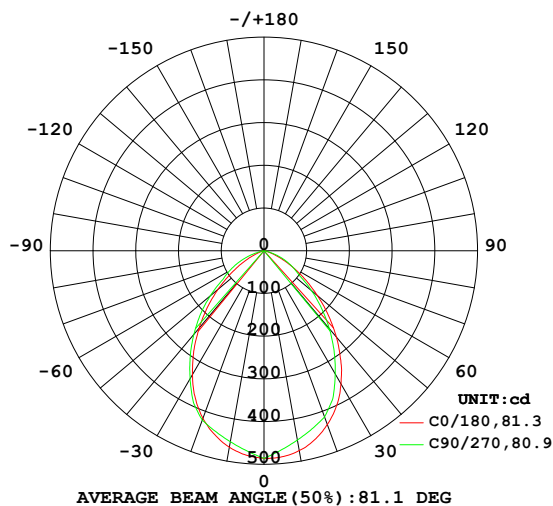


## LUMINAIRE PHOTOMETRIC TEST REPORT

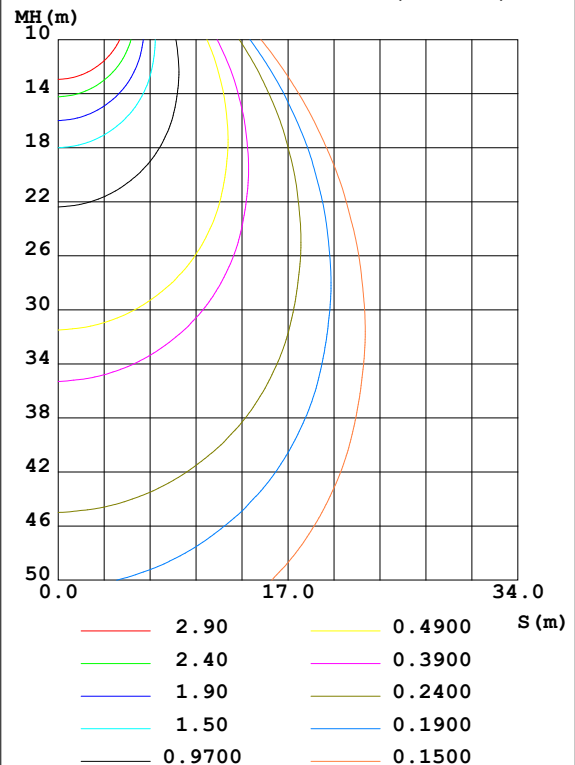
Test:U:120.60V I:0.0880A P:10.200W PF:0.9680 Freq:60.00Hz Lamp Flux:836.862x1 lm		
NAME: AVD4-5CCT-DB	TYPE: Down light	WEIGHT: 0.3Kg
SPEC.: 10W	DIM.: $\phi 132 \times 44$ (MM)	SERIAL No.: 01
MFR.: Signcomplex	SUR.: $\phi 90$ (MM)	Shielding Angle: 120°

DATA OF LAMP		PHOTOMETRIC DATA Eff: 82.05 lm/W			
MODEL	SMD 2835/LED	I <sub>max</sub> (cd)	486.3	S/MH (C0/180)	1.13
NOMINAL POWER (W)	10.2	LOR (%)	100.0	S/MH (C90/270)	1.06
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	836.86	$\eta$ UP, DN (C0-180)	0.0, 51.1
NOMINAL FLUX (lm)	836.862	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 48.9
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: 8.344m [K=1.0965]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	466.9	455.5	454.1	456.6	474.9	453.7	450.1	452.6	0- 10	44.66	44.66	5.34, 5.34
20	417.9	412.7	422.2	409.9	433.1	403.9	414.2	406.4	10- 20	122.9	167.6	20, 20
30	335.1	344.2	346.1	351.0	360.4	341.3	333.6	333.9	20- 30	174.4	342.0	40.9, 40.9
40	236.2	245.1	255.3	257.8	263.6	246.3	238.1	232.6	30- 40	182.5	524.6	62.7, 62.7
50	140.4	150.5	163.9	164.4	163.0	151.5	145.7	138.2	40- 50	151.7	676.3	80.8, 80.8
60	61.54	72.63	92.36	81.84	79.53	71.39	78.81	63.36	50- 60	97.90	774.2	92.5, 92.5
70	12.93	28.90	41.42	32.18	22.60	26.74	34.44	23.98	60- 70	48.14	822.3	98.3, 98.3
80	0.3979	4.637	2.783	4.922	0.8549	3.385	0.9479	3.359	70- 80	13.47	835.8	99.9, 99.9
90	0.0169	0.8471	1.083	1.195	0.0784	0.1010	0.1177	0.0954	80- 90	1.077	836.9	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): 606.17 lm

%lum = 72.4%

%lamp = 72.4%

Conical surface Flux(120deg): 774.17 lm

%lum = 92.5%

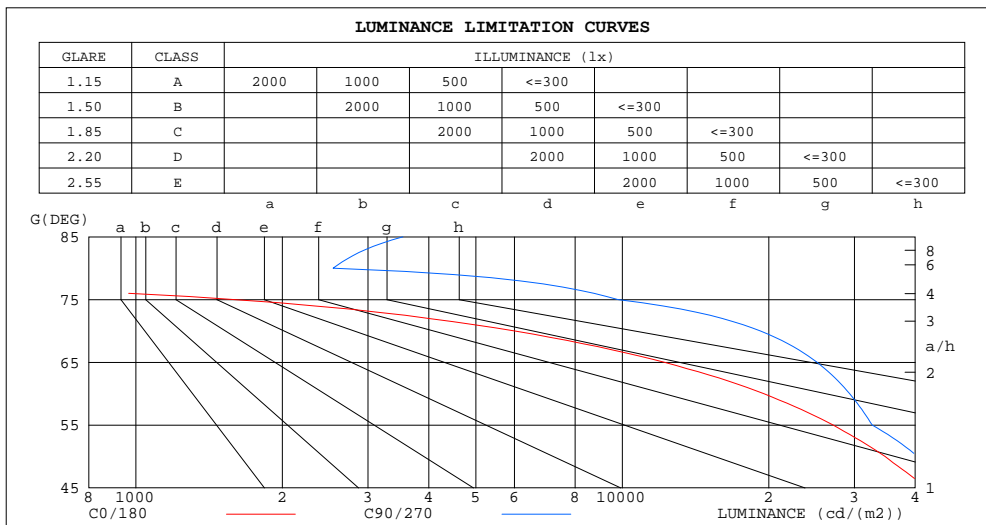
%lamp = 92.5%

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:8.344m [K=1.0965]  
 Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:120.60V I:0.0880A P:10.200W PF:0.9680 Freq:60.00Hz Lamp Flux:836.862x1 lm		
NAME: AVD4-5CCT-DB	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°



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	254	3539
80	364	2544
75	1589	9792
70	6001	19222
65	12205	25139
60	19536	29322
55	27120	32627
50	34674	40466
45	42096	47218

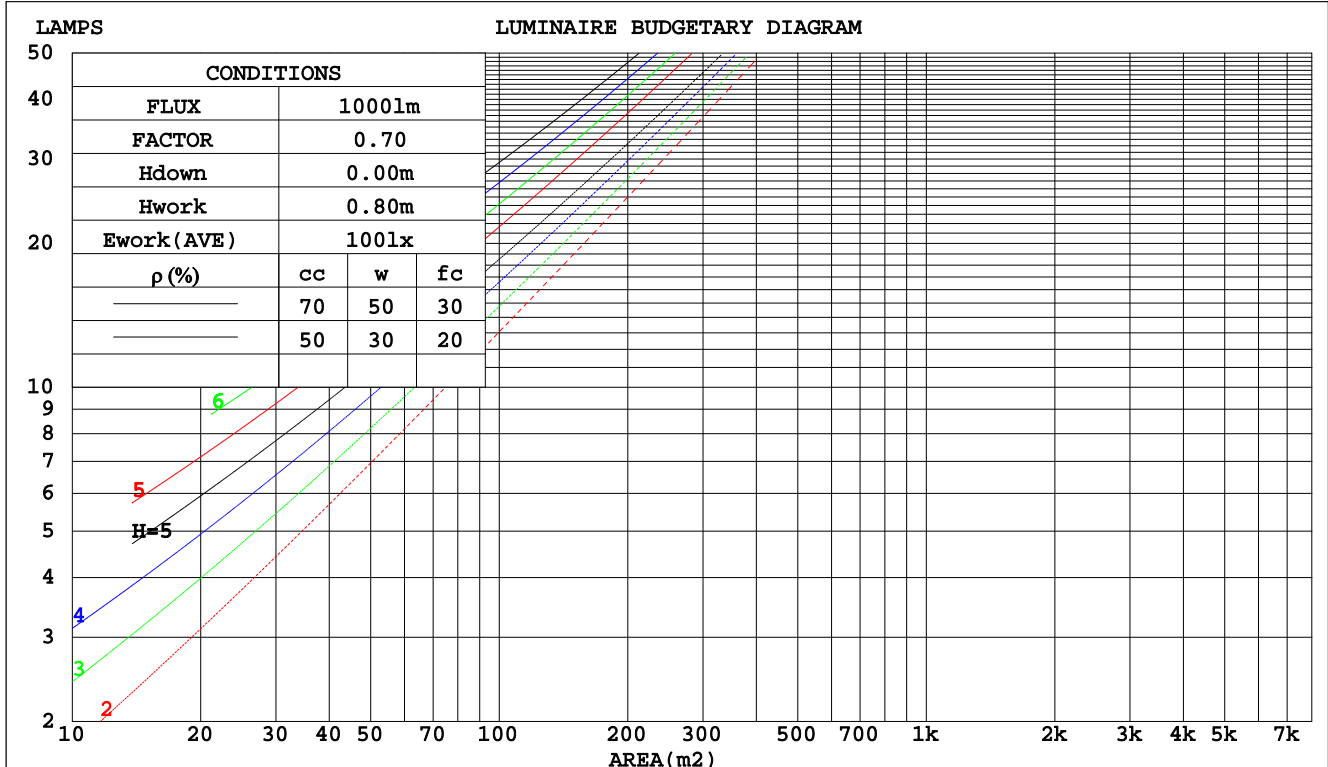
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:yang  
Test Date:2024-07-26

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:8.344m [K=1.0965]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.60V I:0.0880A P:10.200W PF:0.9680 Freq:60.00Hz Lamp Flux:836.862x1 lm		
NAME: AVD4-5CCT-DB	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	.00
1.0	1.08	1.04	1.02	1.06	1.03	.00	1.01	.99	.97	.98	.96	.94	.94	.93	.91	.89
2.0	.97	.91	.87	.95	.90	.86	.92	.87	.84	.88	.85	.82	.86	.83	.80	.78
3.0	.87	.81	.75	.86	.80	.75	.83	.78	.73	.80	.76	.72	.78	.74	.71	.69
4.0	.79	.72	.66	.78	.71	.65	.75	.69	.65	.73	.68	.64	.71	.67	.63	.61
5.0	.72	.64	.58	.71	.63	.58	.69	.62	.57	.67	.61	.57	.65	.60	.56	.54
6.0	.65	.58	.52	.65	.57	.52	.63	.56	.51	.61	.55	.51	.60	.55	.51	.49
7.0	.60	.52	.47	.59	.52	.47	.58	.51	.46	.56	.51	.46	.55	.50	.46	.44
8.0	.55	.48	.43	.55	.47	.42	.53	.47	.42	.52	.46	.42	.51	.46	.42	.40
9.0	.51	.44	.39	.51	.44	.39	.50	.43	.39	.49	.43	.38	.48	.42	.38	.37
10.0	.48	.40	.36	.47	.40	.36	.46	.40	.35	.45	.39	.35	.44	.39	.35	.34



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:8.344m [K=1.0965]  
Remarks:

## WEC AND CCEC

Test:U:120.60V I:0.0880A P:10.200W PF:0.9680 Freq:60.00Hz Lamp Flux:836.862x1 lm		
NAME: AVD4-5CCT-DB	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	.236	.134	.042	.229	.131	.041	.216	.124	.040	.204	.118	.038	.193	.112	.036		
2.0	.230	.126	.039	.224	.124	.038	.213	.119	.037	.203	.114	.036	.194	.109	.035		
3.0	.220	.117	.035	.214	.115	.035	.205	.111	.034	.196	.107	.033	.187	.104	.032		
4.0	.208	.108	.032	.203	.106	.031	.195	.103	.031	.187	.100	.030	.179	.097	.030		
5.0	.196	.100	.029	.192	.098	.029	.184	.096	.028	.177	.093	.028	.171	.091	.027		
6.0	.185	.093	.027	.181	.091	.026	.174	.089	.026	.168	.087	.026	.162	.085	.025		
7.0	.174	.086	.024	.171	.085	.024	.165	.083	.024	.159	.082	.024	.154	.080	.024		
8.0	.165	.081	.023	.162	.080	.023	.157	.078	.022	.151	.077	.022	.147	.075	.022		
9.0	.156	.075	.021	.153	.075	.021	.149	.073	.021	.144	.072	.021	.140	.071	.020		
10.0	.148	.071	.020	.146	.070	.020	.141	.069	.019	.137	.068	.019	.133	.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	.064	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.071	.091	.068	.050	.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	.139	.089	.052	.120	.077	.045	.082	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.132	.081	.043	.114	.070	.038	.079	.049	.027	.046	.029	.016	.015	.009	.005	
7.0	.126	.073	.037	.109	.064	.032	.075	.045	.023	.044	.026	.013	.014	.009	.004	
8.0	.120	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.012	.013	.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:8.344m [K=1.0965]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.60V I:0.0880A P:10.200W PF:0.9680 Freq:60.00Hz Lamp Flux:836.862x1 lm												
NAME: AVD4-5CCT-DB					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°				
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	2H	21.9	23.3	22.3	23.6	23.9	23.2	24.5	23.5	24.9	25.2	
	3H	22.3	23.5	22.7	23.8	24.2	24.3	25.6	24.7	25.9	26.2	
	4H	22.2	23.4	22.6	23.7	24.1	24.5	25.6	24.9	26.0	26.3	
	6H	22.2	23.2	22.6	23.6	24.0	24.4	25.5	24.9	25.9	26.3	
	8H	22.1	23.1	22.5	23.5	23.9	24.4	25.4	24.8	25.8	26.2	
	12H	22.1	23.0	22.5	23.4	23.8	24.4	25.3	24.8	25.7	26.1	
	4H	2H	22.2	23.3	22.6	23.7	24.1	23.3	24.5	23.7	24.8	25.2
	3H	22.6	23.5	23.0	23.9	24.4	24.7	25.6	25.1	26.0	26.4	
	4H	22.6	23.4	23.0	23.8	24.3	24.8	25.7	25.3	26.1	26.5	
	6H	22.5	23.2	23.0	23.7	24.1	24.8	25.6	25.3	26.0	26.5	
	8H	22.4	23.1	22.9	23.6	24.0	24.8	25.5	25.3	25.9	26.4	
	12H	22.4	23.0	22.9	23.5	23.9	24.8	25.4	25.2	25.8	26.3	
	8H	4H	22.6	23.3	23.1	23.8	24.2	24.8	25.5	25.3	25.9	26.4
	6H	22.6	23.1	23.1	23.6	24.1	24.8	25.3	25.3	25.8	26.3	
	8H	22.5	23.0	23.0	23.5	24.0	24.7	25.2	25.3	25.8	26.2	
	12H	22.5	22.9	23.0	23.4	24.0	24.7	25.2	25.2	25.7	26.2	
	12H	4H	22.6	23.2	23.1	23.7	24.1	24.8	25.4	25.3	25.8	26.3
	6H	22.5	23.0	23.0	23.5	24.0	24.8	25.2	25.3	25.7	26.3	
	8H	22.5	22.9	23.0	23.4	24.0	24.7	25.1	25.2	25.6	26.2	
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:8.344m [K=1.0965]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:120.60V I:0.0880A P:10.200W PF:0.9680 Freq:60.00Hz Lamp Flux:836.862x1 lm		
NAME: AVD4-5CCT-DB	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°

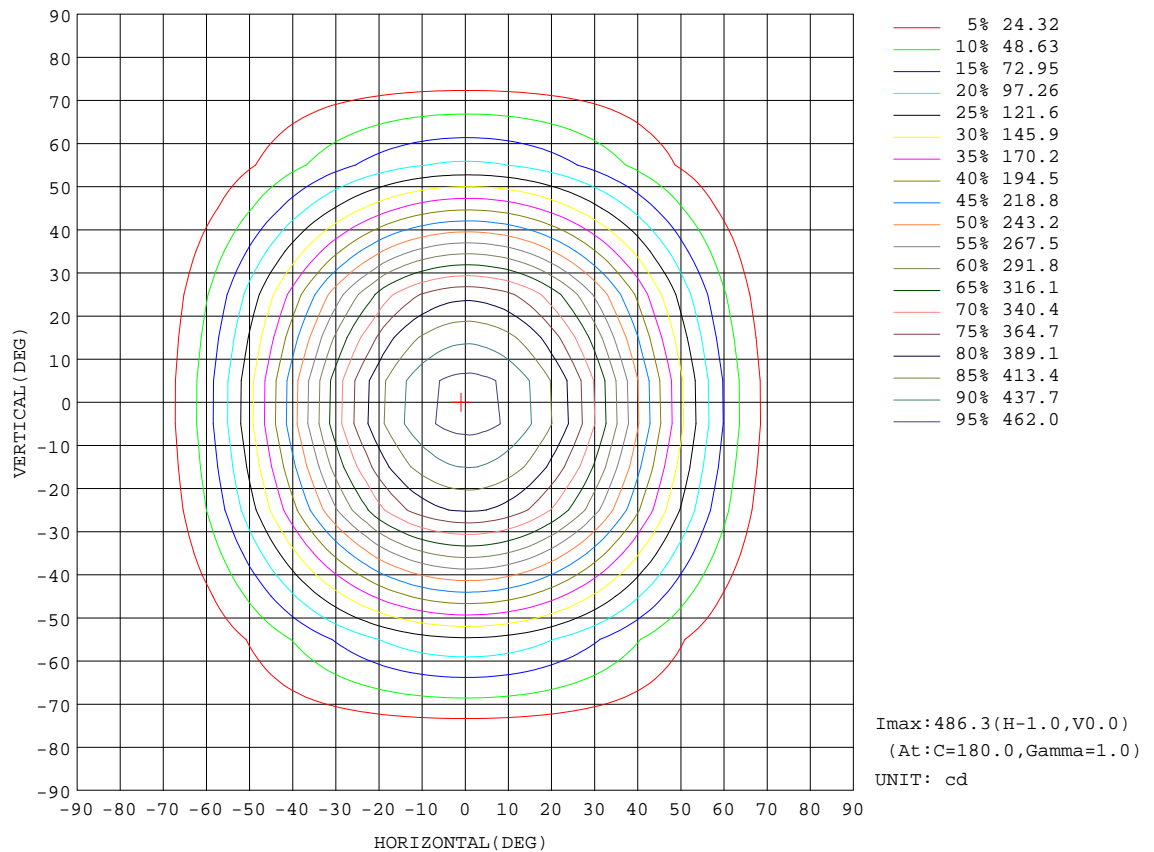
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	58	52	67	58	52	66	57	52	46
0.80	78	68	62	77	68	62	75	67	62	56
1.00	86	77	71	85	76	71	83	77	70	64
1.25	92	84	78	91	83	78	88	82	77	71
1.50	96	89	83	95	88	83	92	86	82	76
2.00	102	95	90	100	94	90	97	92	88	82
2.50	104	99	94	103	97	93	99	95	91	84
3.00	107	102	98	105	100	97	101	98	95	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	104	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:8.344m [K=1.0965]  
 Remarks:

## ISOCANDELA DIAGRAM

Test:U:120.60V I:0.0880A P:10.200W PF:0.9680 Freq:60.00Hz Lamp Flux:836.862x1 lm		
NAME: AVD4-5CCT-DB	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°



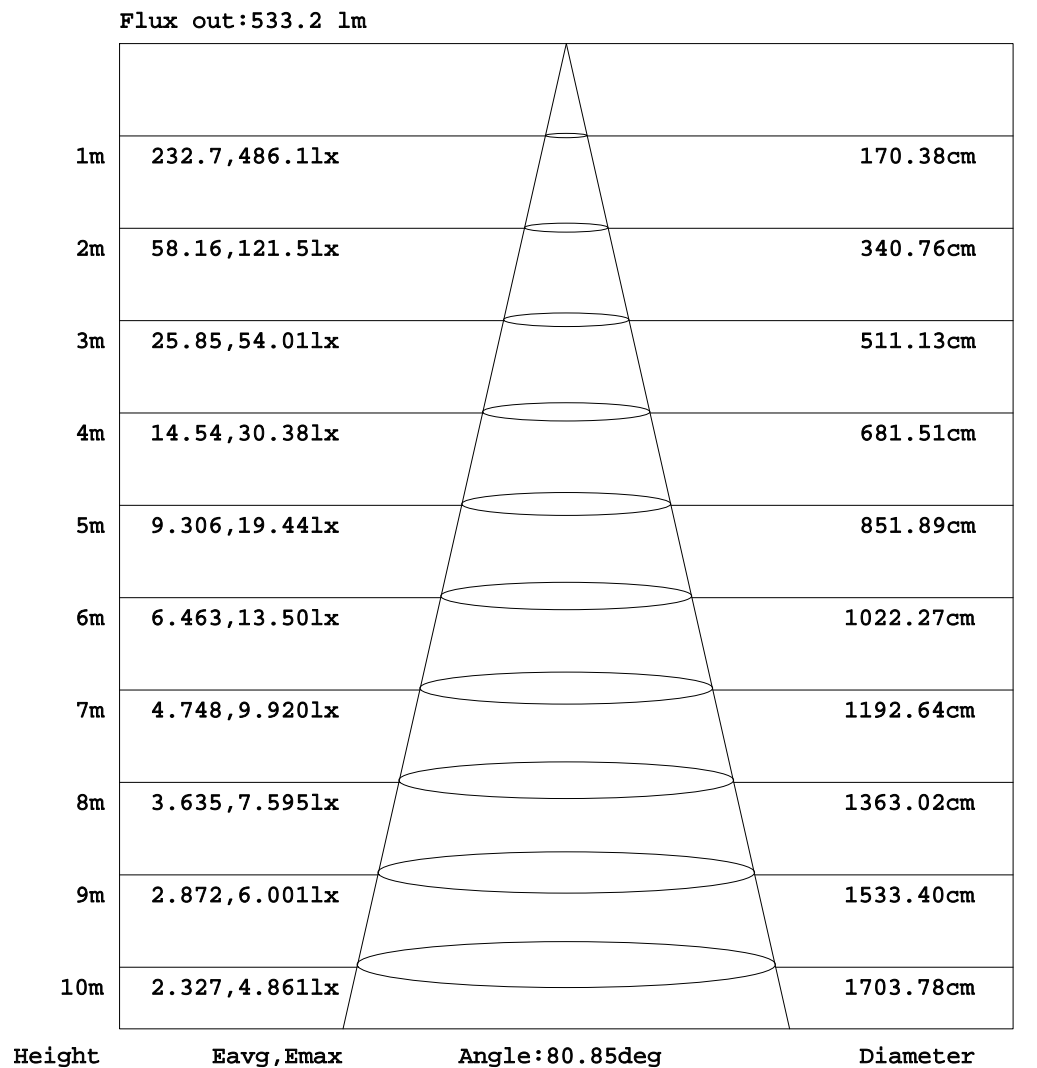
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:yang  
Test Date:2024-07-26

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:8.344m [K=1.0965]  
Remarks:



### AAI Figure

Test:U:120.60V I:0.0880A P:10.200W PF:0.9680 Freq:60.00Hz Lamp Flux:836.862x1 lm		
NAME: AVD4-5CCT-DB	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°



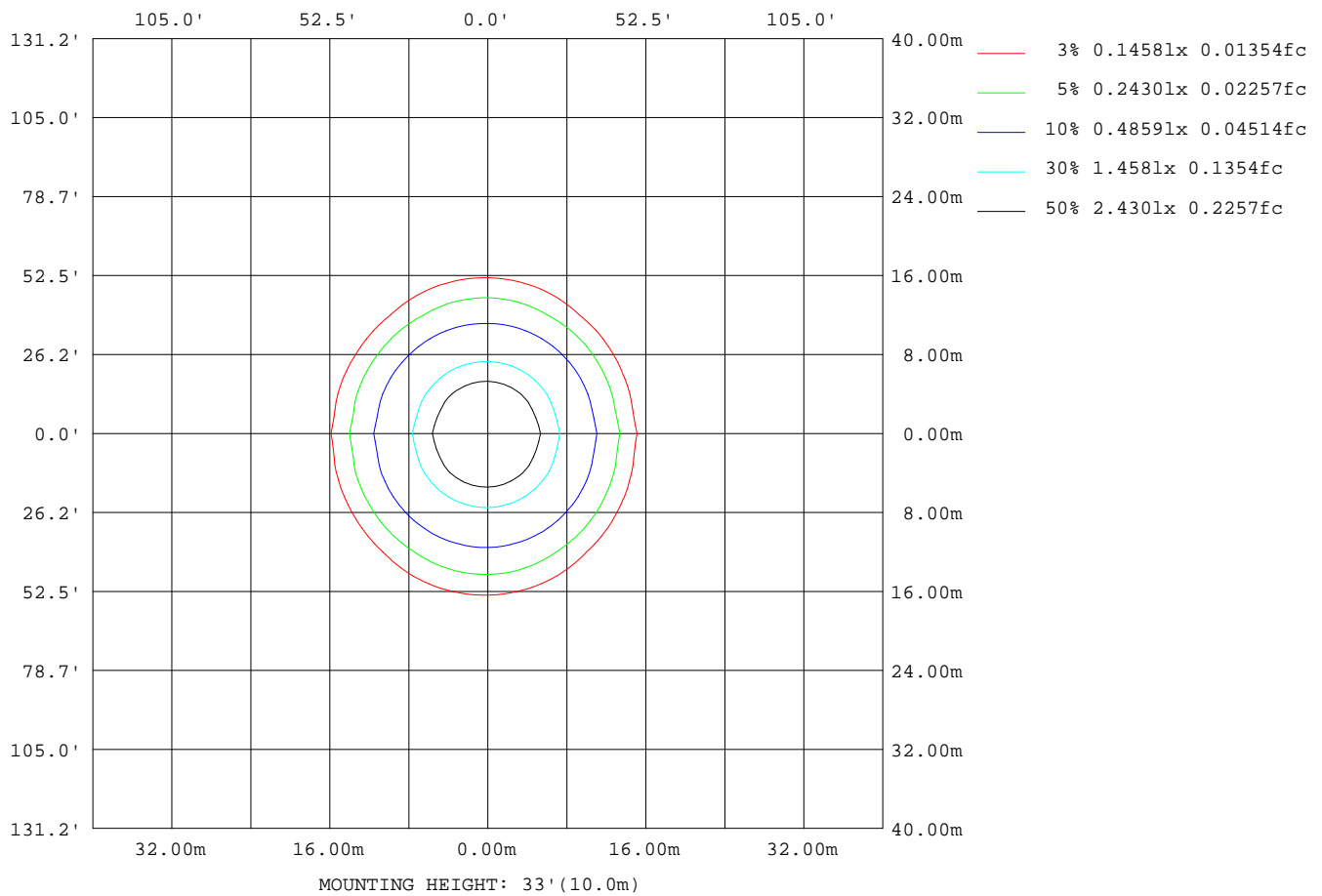
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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: 8.344m [K=1.0965]  
Remarks:

### ISOLUX DIAGRAM

Test:U:120.60V I:0.0880A P:10.200W PF:0.9680 Freq:60.00Hz Lamp Flux:836.862x1 lm		
NAME: AVD4-5CCT-DB	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:8.344m [K=1.0965]  
Remarks:

## LED Avg.L Report

Test:U:120.60V I:0.0880A P:10.200W PF:0.9680 Freq:60.00Hz Lamp Flux:836.862x1 lm		
NAME: AVD4-5CCT-DB	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°

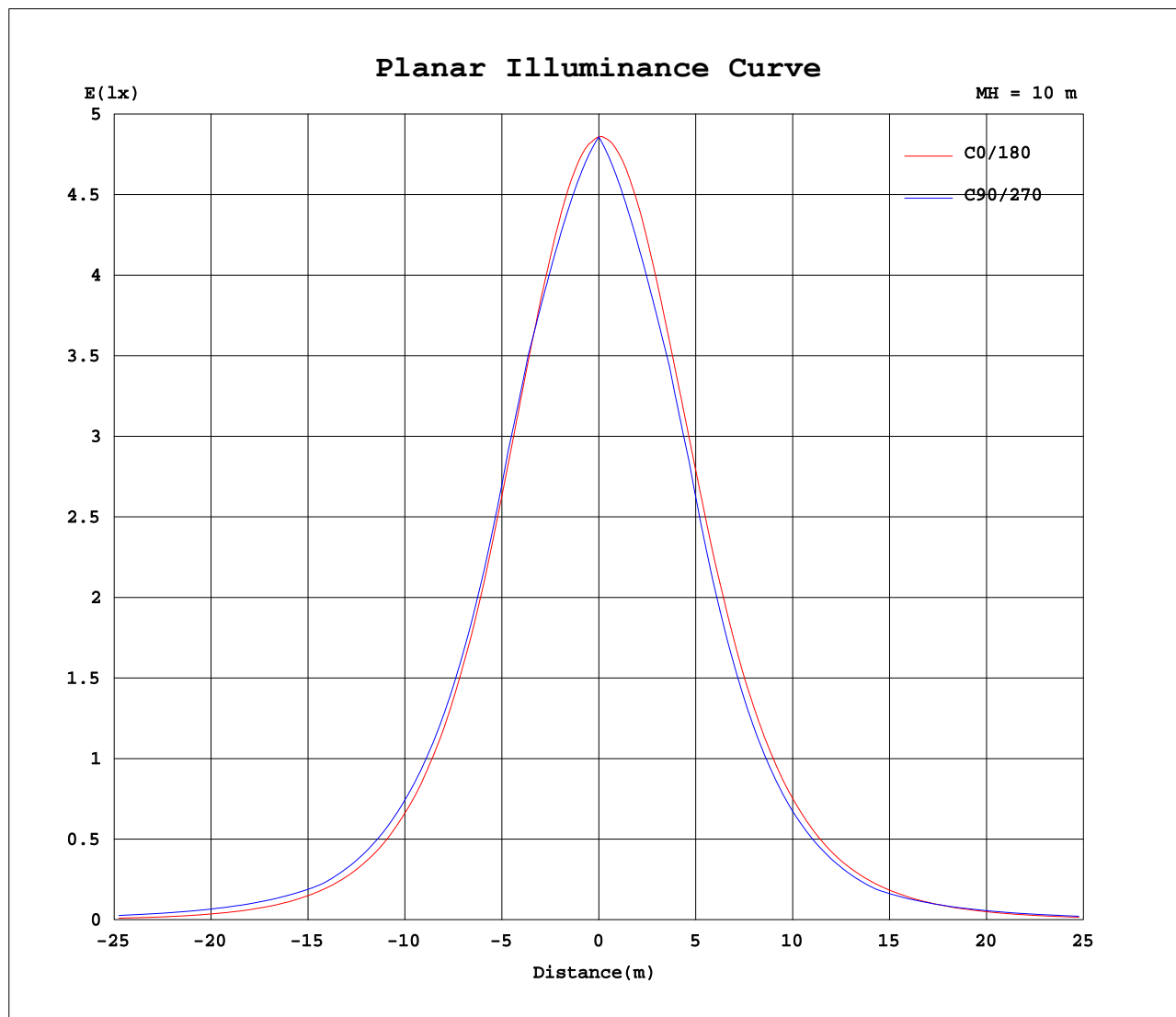
AvgL	cd/m2
L_0~180 (65) av	14882
L_0~180 (75) av	3166
L_0~180 (85) av	449
L_90~270 (65) av	23222
L_90~270 (75) av	8663
L_90~270 (85) av	2255
L_45 (65) av	16207
L_45 (75) av	9118
L_45 (85) av	1403

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:8.344m [K=1.0965]  
 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:8.344m [K=1.0965]  
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:8.344m [K=1.0965]  
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:8.344m [K=1.0965]  
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:8.344m [K=1.0965]  
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:8.344m [K=1.0965]  
Remarks: