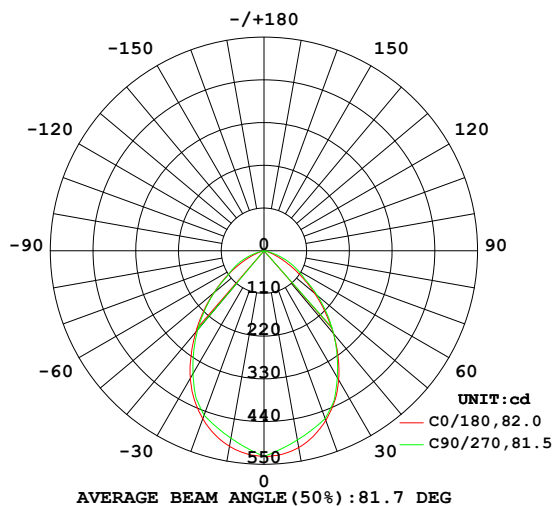


## LUMINAIRE PHOTOMETRIC TEST REPORT

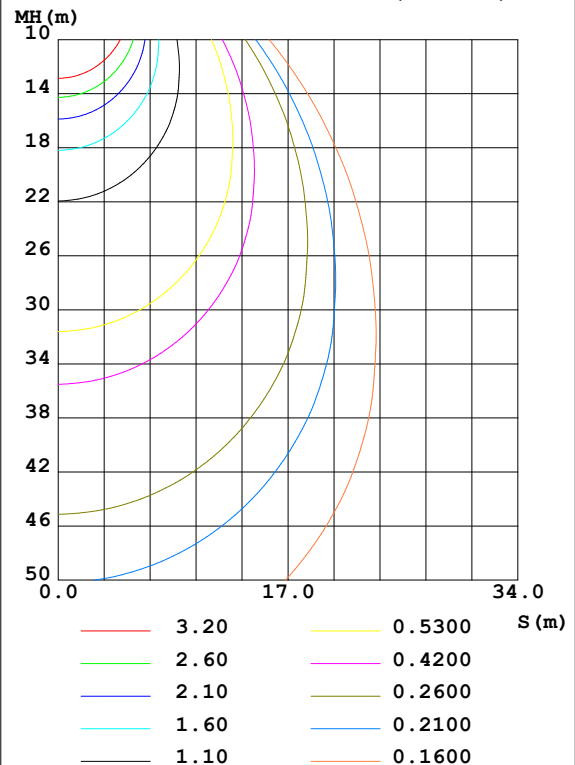
Test:U:120.60V I:0.0890A P:10.400W PF:0.9710 Freq:60.00Hz Lamp Flux:924.039x1 lm		
NAME: AVD4-5CCT-BK	TYPE: Down light	WEIGHT: 0.3Kg
SPEC.: 10W	DIM.: $\phi 132 \times 44$ (MM)	SERIAL No.: 01
MFR.: Signcomplex	SUR.: $\phi 90$ (MM)	Shielding Angle: 120°

DATA OF LAMP		PHOTOMETRIC DATA Eff: 88.85 lm/W			
MODEL	SMD 2835/LED	I <sub>max</sub> (cd)	529.6	S/MH (C0/180)	1.11
NOMINAL POWER (W)	10.4	LOR (%)	100.0	S/MH (C90/270)	1.09
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	924.04	$\eta$ UP, DN (C0-180)	0.0, 49.2
NOMINAL FLUX (lm)	924.039	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 50.8
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=1.1025]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	511.2	493.4	490.2	493.6	514.6	496.7	494.8	496.9	0- 10	48.65	48.65	5.26, 5.26
20	460.5	443.4	450.7	440.6	465.2	447.2	460.1	450.4	10- 20	133.9	182.6	19.8, 19.8
30	379.6	369.5	365.7	372.4	384.3	381.2	377.5	380.2	20- 30	190.6	373.2	40.4, 40.4
40	272.9	265.0	265.5	268.5	278.6	277.4	278.9	275.0	30- 40	200.9	574.0	62.1, 62.1
50	168.7	163.6	166.4	165.5	169.8	173.5	179.4	172.7	40- 50	168.3	742.4	80.3, 80.3
60	80.39	79.24	91.73	78.82	80.58	85.11	101.2	86.46	50- 60	110.2	852.5	92.3, 92.3
70	20.29	31.08	40.41	30.28	21.27	33.11	45.05	34.59	60- 70	55.05	907.6	98.2, 98.2
80	0.1415	4.612	1.768	4.626	0.3108	3.929	2.391	4.367	70- 80	15.37	923.0	99.9, 99.9
90	0.0170	0.9131	1.182	1.333	0.1049	0.0964	0.1161	0.1048	80- 90	1.074	924.0	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): 664.33 lm

%lum = 71.9%

%lamp = 71.9%

Conical surface Flux(120deg): 852.55 lm

%lum = 92.3%

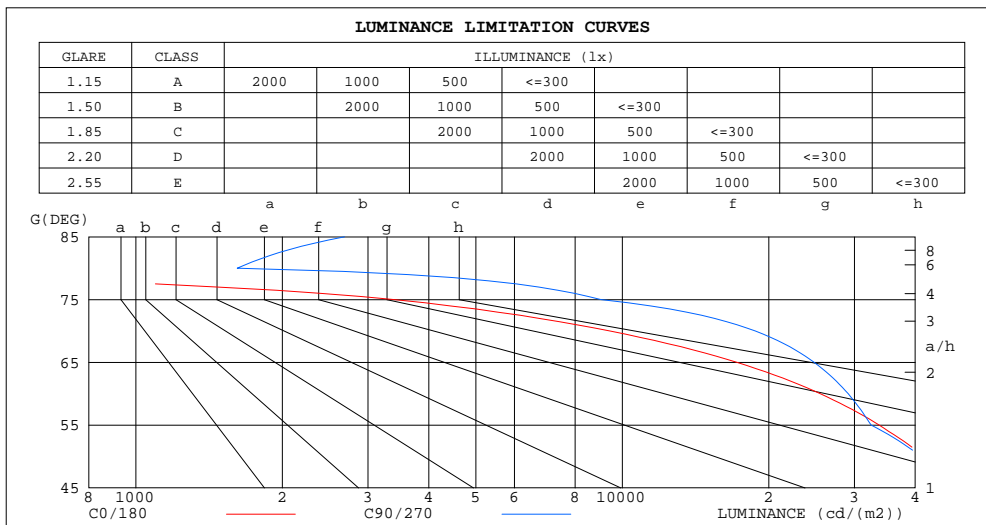
%lamp = 92.3%

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=1.1025]  
 Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:120.60V I:0.0890A P:10.400W PF:0.9710 Freq:60.00Hz Lamp Flux:924.039x1 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°



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	139	2683
80	129	1616
75	3390	9036
70	9419	18753
65	17188	24793
60	25519	29121
55	33717	32458
50	41651	41087
45	49333	48329

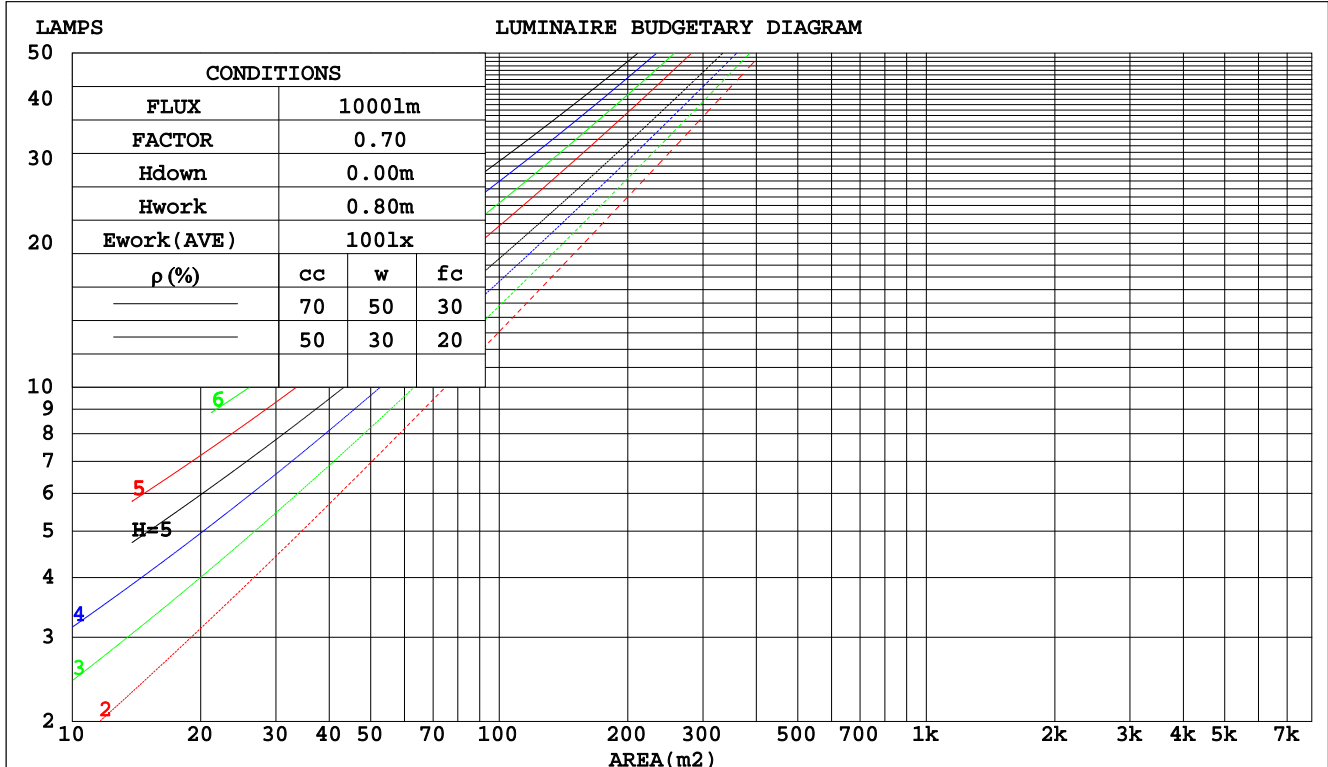
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:yang  
Test Date:2024-07-26

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=1.1025]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.60V I:0.0890A P:10.400W PF:0.9710 Freq:60.00Hz Lamp Flux:924.039x1 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	.70	.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=1.1025]  
Remarks:

## WEC AND CCEC

Test:U:120.60V I:0.0890A P:10.400W PF:0.9710 Freq:60.00Hz Lamp Flux:924.039x1 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	.079	.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=1.1025]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.60V I:0.0890A P:10.400W PF:0.9710 Freq:60.00Hz Lamp Flux:924.039x1 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°			
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	22.5	23.9	22.8	24.2	24.5	22.7	24.1	23.0	24.4	24.7	
	3H	22.8	24.1	23.2	24.4	24.8	23.8	25.0	24.2	25.4	
	4H	22.8	24.0	23.2	24.3	24.7	23.9	25.1	24.3	25.4	
	6H	22.7	23.8	23.1	24.2	24.6	23.9	25.0	24.3	25.3	
	8H	22.7	23.7	23.1	24.1	24.5	23.9	24.9	24.3	25.3	
12H	22.7	23.6	23.1	24.0	24.4	23.8	24.8	24.3	25.2	25.6	
4H	2H	22.7	23.8	23.1	24.2	24.6	22.8	24.0	23.2	24.3	
	3H	23.1	24.1	23.5	24.5	24.9	24.1	25.1	24.5	25.5	
	4H	23.1	23.9	23.5	24.3	24.8	24.3	25.1	24.7	25.5	
	6H	23.0	23.7	23.5	24.2	24.6	24.3	25.0	24.7	25.4	
	8H	23.0	23.6	23.4	24.1	24.5	24.2	24.9	24.7	25.3	
	12H	22.9	23.5	23.4	24.0	24.5	24.2	24.8	24.7	25.3	
8H	4H	23.1	23.8	23.6	24.2	24.7	24.2	24.9	24.7	25.4	
	6H	23.0	23.6	23.5	24.1	24.6	24.2	24.8	24.7	25.3	
	8H	23.0	23.5	23.5	24.0	24.5	24.2	24.7	24.7	25.2	
	12H	23.0	23.4	23.5	23.9	24.5	24.1	24.6	24.6	25.1	
12H	4H	23.1	23.7	23.6	24.2	24.6	24.2	24.8	24.7	25.3	
	6H	23.0	23.5	23.5	24.0	24.5	24.2	24.7	24.7	25.1	
	8H	23.0	23.4	23.5	23.9	24.5	24.1	24.6	24.6	25.1	
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=1.1025]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:120.60V I:0.0890A P:10.400W PF:0.9710 Freq:60.00Hz Lamp Flux:924.039x1 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°

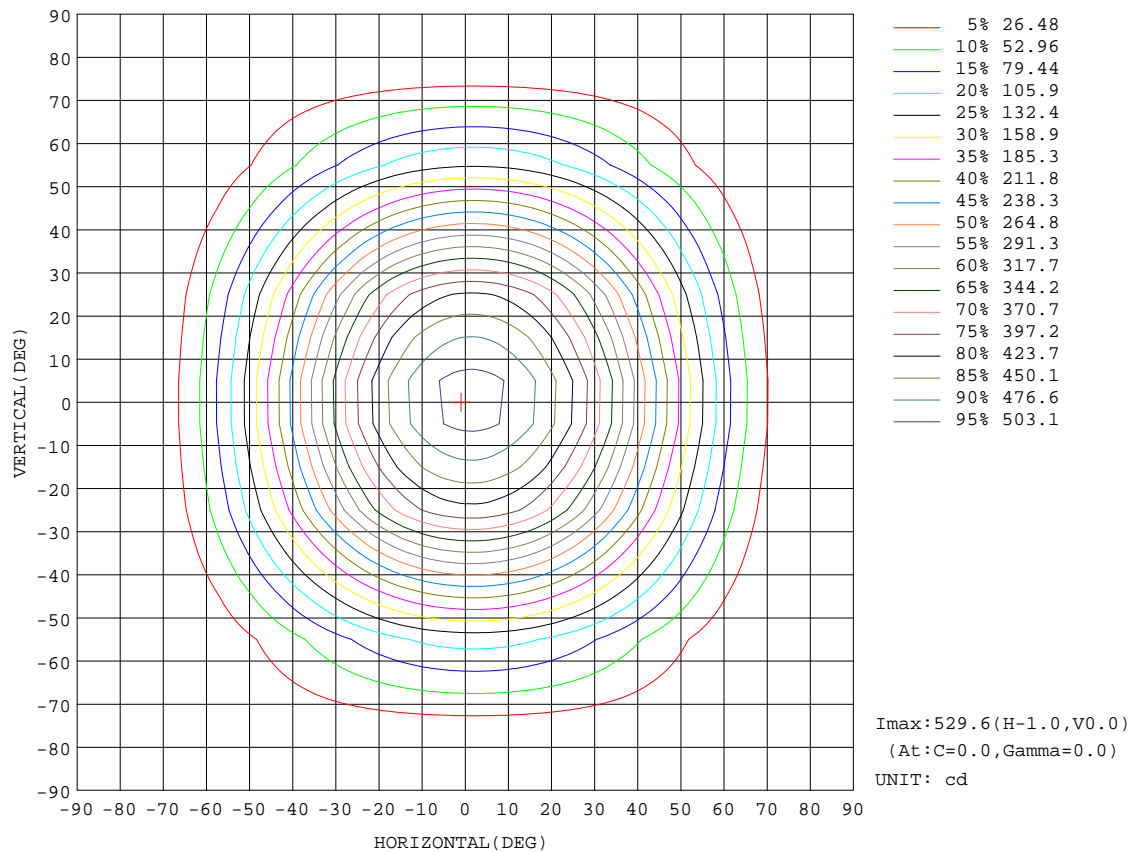
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	58	52	67	57	52	66	57	51	46
0.80	77	68	62	77	68	62	75	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=1.1025]  
 Remarks:

## ISOCANDELA DIAGRAM

Test:U:120.60V I:0.0890A P:10.400W PF:0.9710 Freq:60.00Hz Lamp Flux:924.039x1 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°



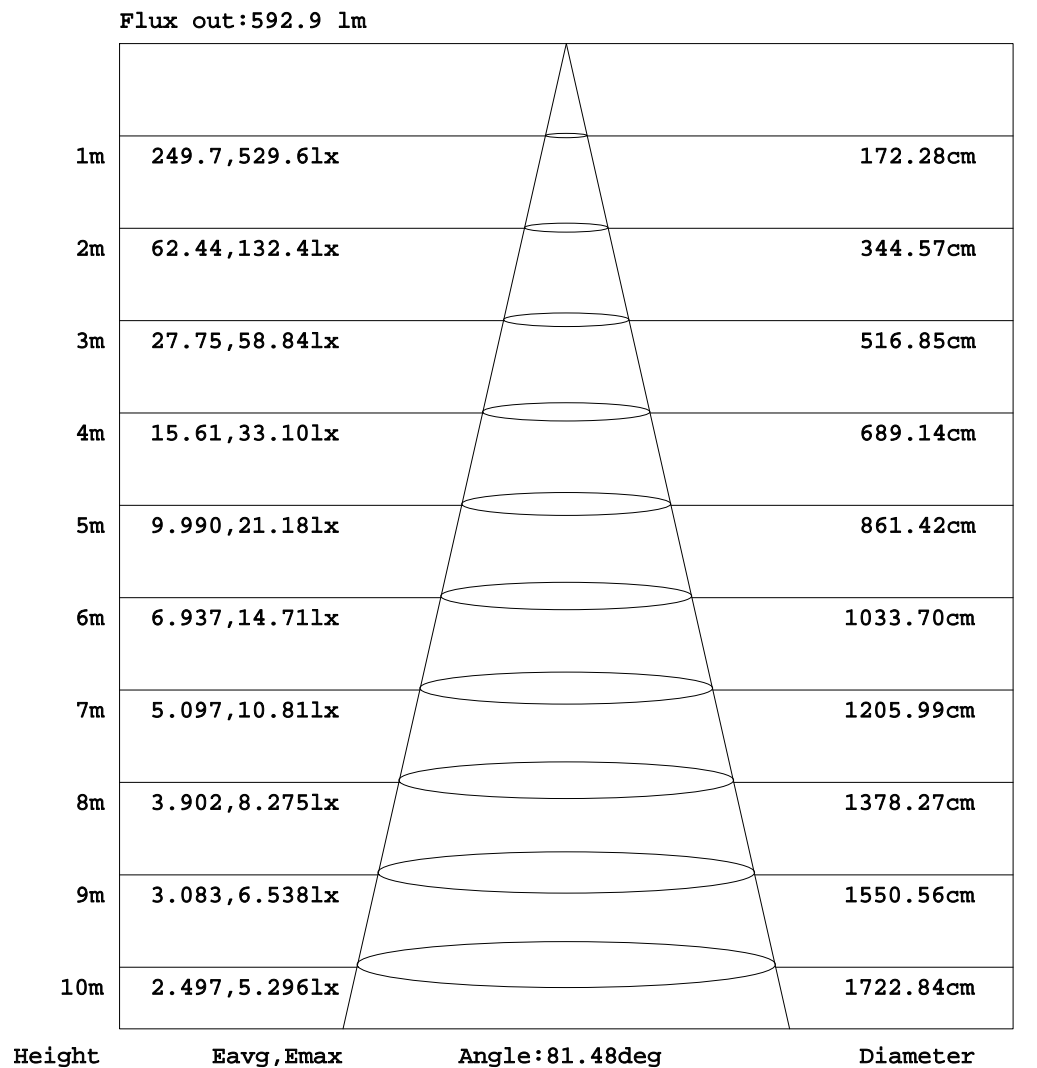
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:yang  
Test Date:2024-07-26

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=1.1025]  
Remarks:



### AAI Figure

Test:U:120.60V I:0.0890A P:10.400W PF:0.9710 Freq:60.00Hz Lamp Flux:924.039x1 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°



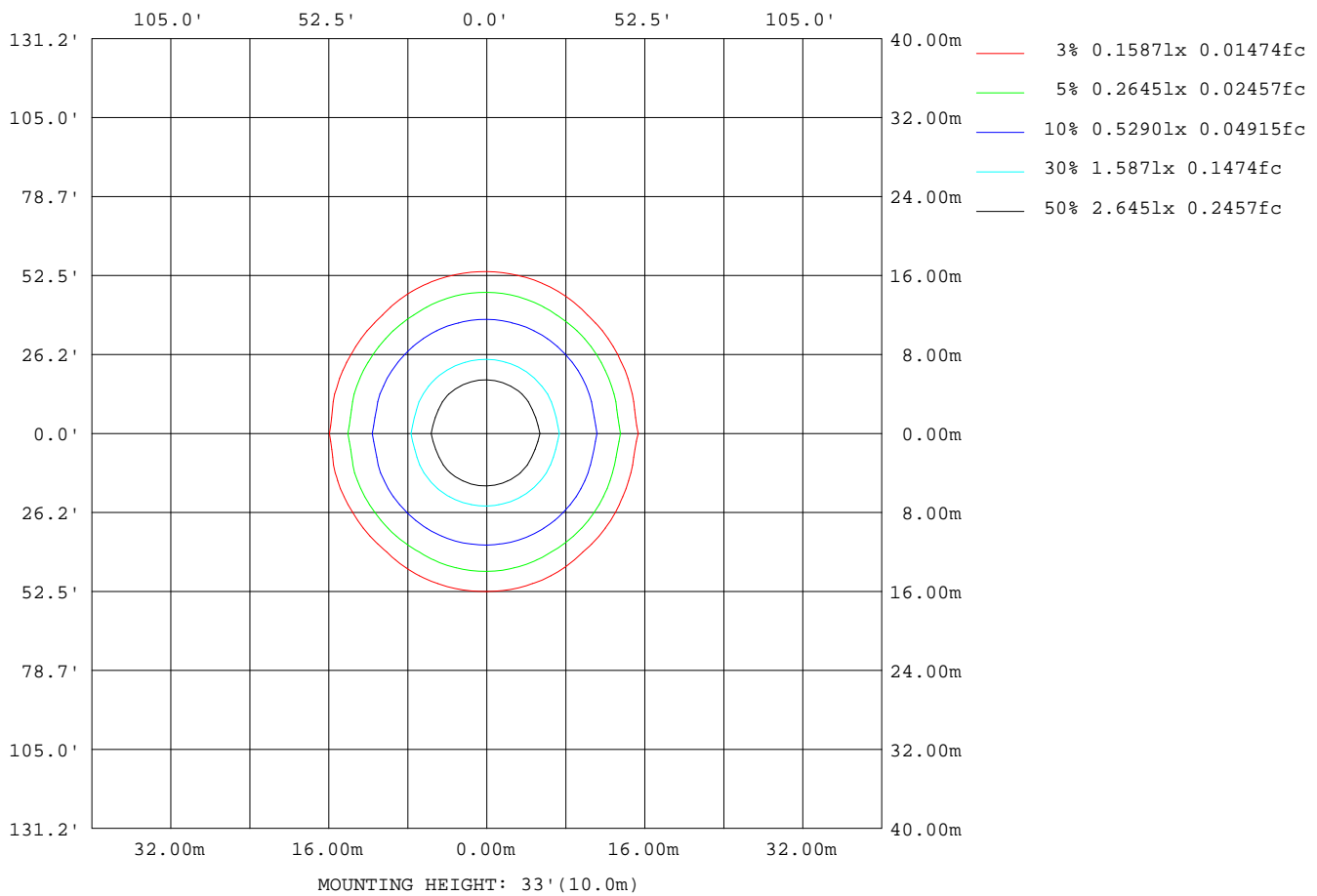
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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=1.1025]  
Remarks:

## ISOLUX DIAGRAM

Test:U:120.60V I:0.0890A P:10.400W PF:0.9710 Freq:60.00Hz Lamp Flux:924.039x1 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=1.1025]  
Remarks:

## LED Avg.L Report

Test:U:120.60V I:0.0890A P:10.400W PF:0.9710 Freq:60.00Hz Lamp Flux:924.039x1 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°

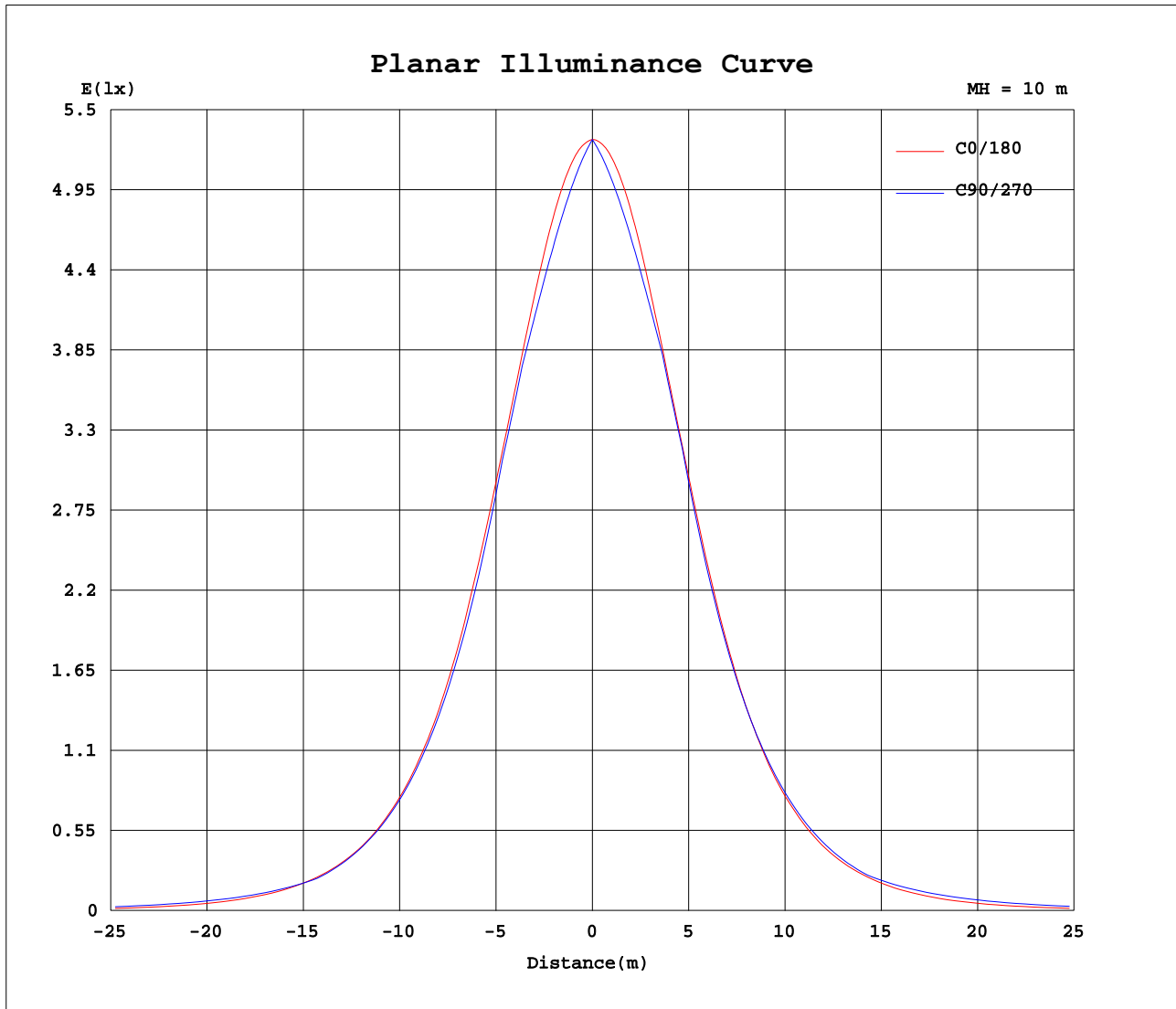
AvgL	cd/m2
L_0~180 (65) av	17255
L_0~180 (75) av	3643
L_0~180 (85) av	194
L_90~270 (65) av	26122
L_90~270 (75) av	9726
L_90~270 (85) av	2475
L_45 (65) av	18753
L_45 (75) av	10420
L_45 (85) av	1165

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=1.1025]  
 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=1.1025]  
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=1.1025]  
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=1.1025]  
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=1.1025]  
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=1.1025]  
Remarks: