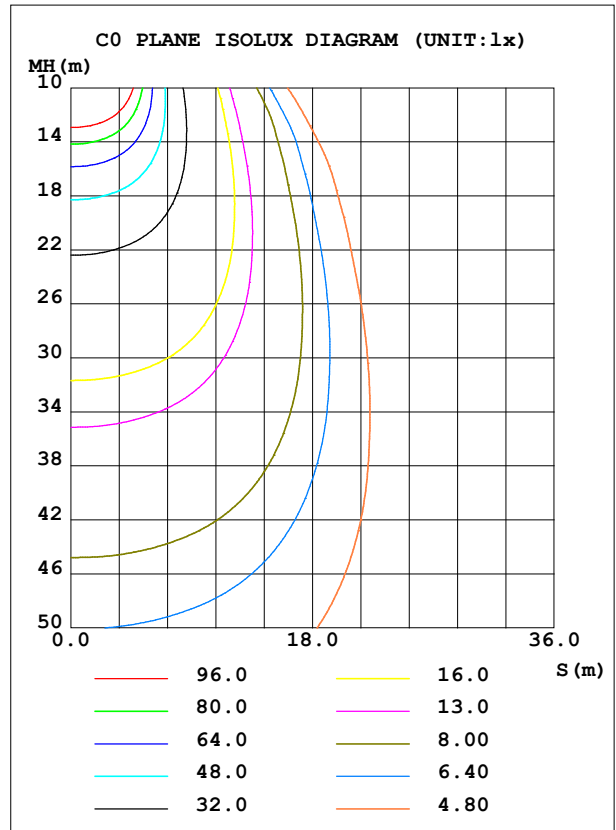
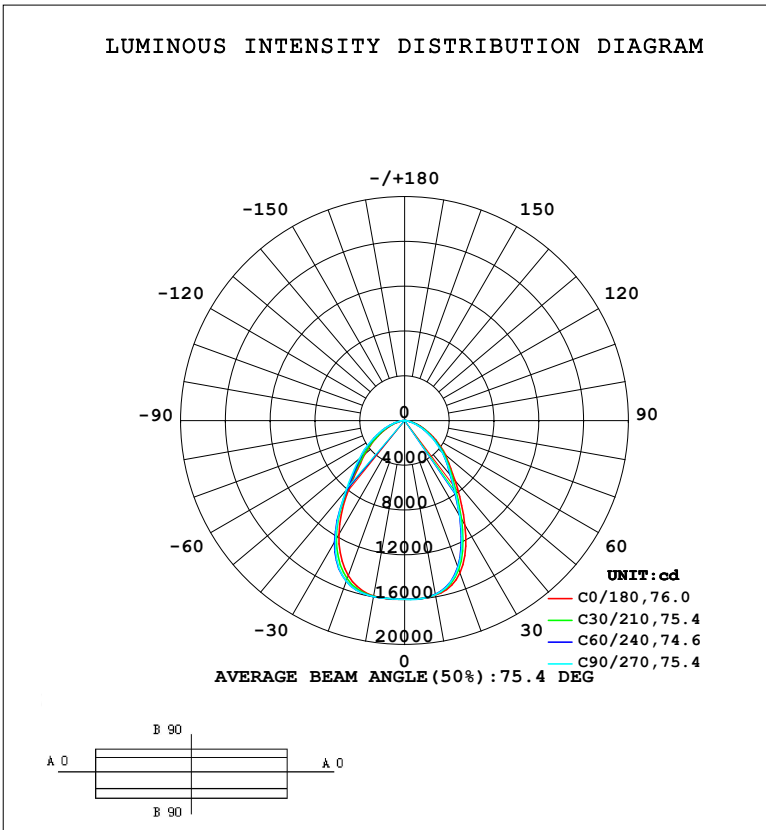


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:220.39V I:0.9184A P:197.49W PF:0.9757 Freq:49.99Hz Lamp Flux:28631.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	SYLHBU200DL	Imax (cd)	15995	S/MH (C0/180)	1.12
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.15
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	28632	η UP, DN (C0-180)	0.0,47.1
NOMINAL FLUX (lm)	28631.6	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0,52.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.15



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators:  
 Test Date: 2023-07-31

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity: 65.0%  
 Test Distance: 9.420m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	1583	1577	1579	1585	1591	1595	1597	1592	0- 10	1522	1522	5.32,5.32
20	1447	1403	1398	1430	1473	1515	1527	1498	10- 20	4348	5870	20.5,20.5
30	1079	1001	991.5	1079	1177	1238	1238	1162	20- 30	5994	11863	41.4,41.4
40	702.7	654.2	647.8	690.9	755.2	795.4	815.8	753.2	30- 40	5707	17570	61.4,61.4
50	478.1	451.3	437.6	439.6	465.1	498.0	529.0	509.7	40- 50	4536	22106	77.2,77.2
60	296.1	270.1	256.7	252.1	274.4	299.1	320.4	322.1	50- 60	3377	25483	89,89
70	150.0	132.3	119.9	120.7	133.0	152.7	165.7	168.1	60- 70	2078	27561	96.3,96.3
80	44.04	32.35	20.58	23.97	34.60	48.75	52.46	58.11	70- 80	946.0	28507	99.6,99.6
90	0.5142	0.5701	0.5969	0.6026	0.4771	0.4510	0.4138	0.4178	80- 90	125.1	28632	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:X10cd									UNIT:lm		

Conical surface Flux(90deg): 20422 lm

%lum = 71.3%

%lamp = 71.3%

Conical surface Flux(130deg): 26878 lm

%lum = 93.9%

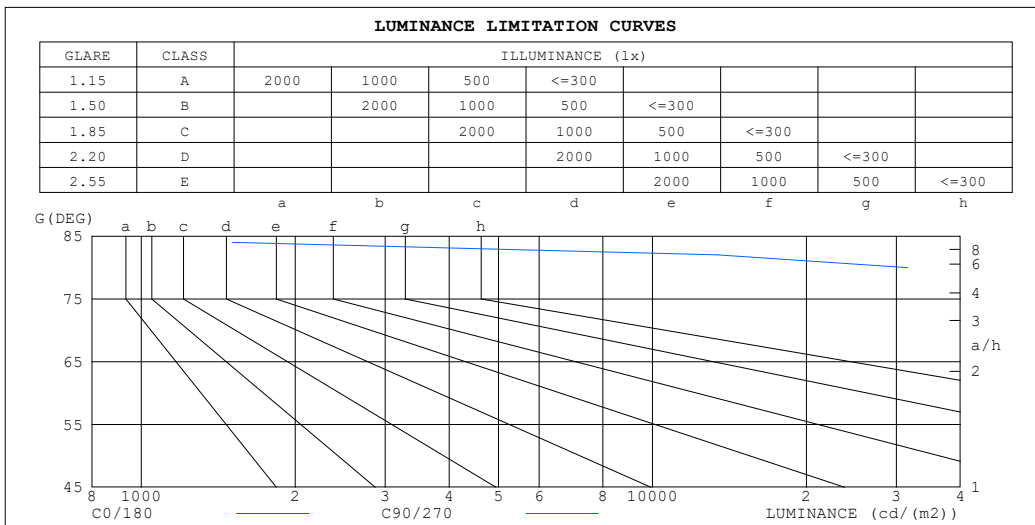
%lamp = 93.9%

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-07-31

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.420m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:220.39V I:0.9184A P:197.49W PF:0.9757 Freq:49.99Hz Lamp Flux:28631.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	38884	1805
80	67980	31554
75	109979	79320
70	117584	93309
65	147157	122954
60	158769	136692
55	186667	167080
50	199393	181281
45	225059	210255

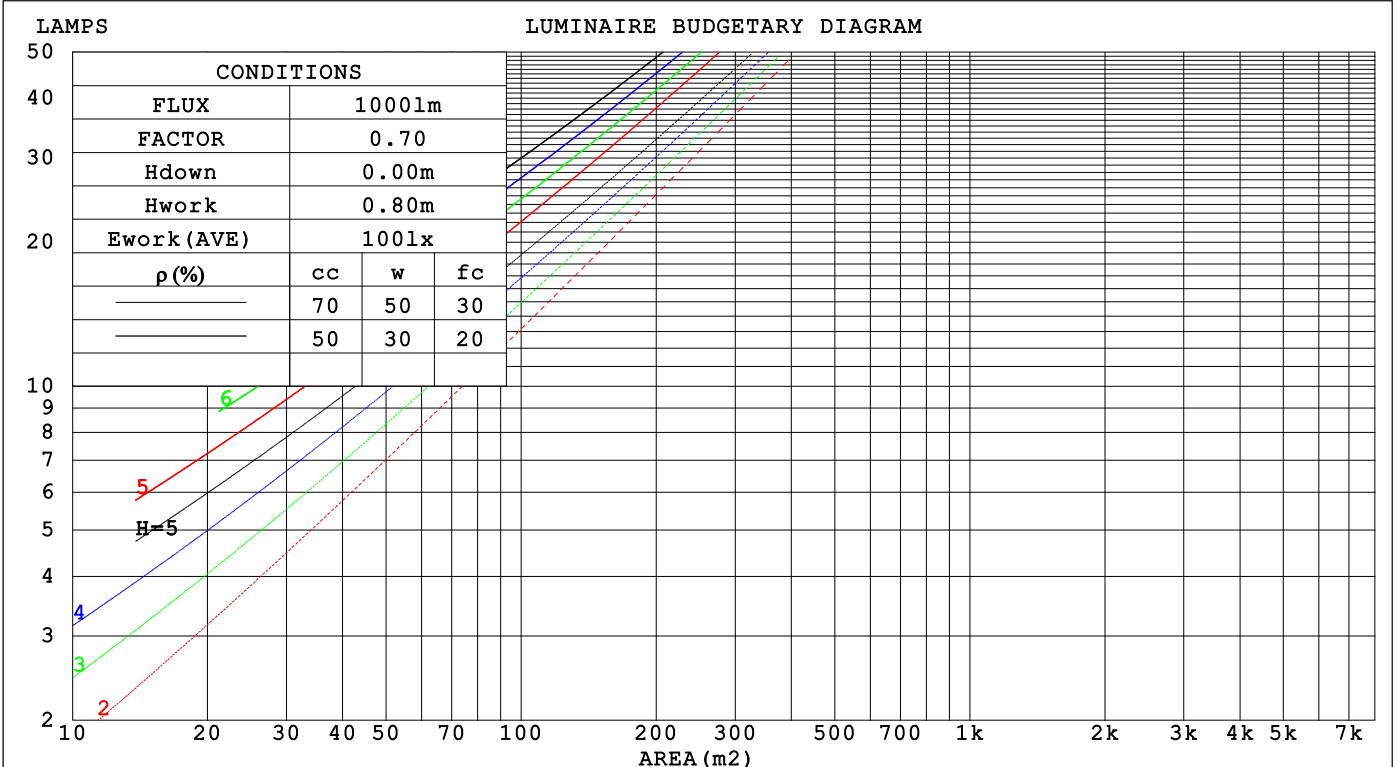
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3 °C  
 Operators:  
 Test Date:2023-07-31

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.420m [K=1.0000]  
 Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:220.39V I:0.9184A P:197.49W PF:0.9757 Freq:49.99Hz		
Lamp Flux:28631.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding 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	1.02	1.02	1.02	1.00
1.0	1.07	1.04	1.00	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.92	.90	.88
2.0	.96	.90	.85	.94	.89	.84	.90	.86	.82	.87	.84	.81	.84	.81	.79	.77
3.0	.86	.79	.74	.84	.78	.73	.82	.76	.72	.79	.74	.70	.77	.73	.69	.67
4.0	.78	.70	.64	.76	.69	.64	.74	.68	.63	.72	.67	.62	.70	.65	.61	.60
5.0	.71	.63	.57	.70	.62	.57	.68	.61	.56	.66	.60	.56	.64	.59	.55	.53
6.0	.65	.57	.51	.64	.56	.51	.62	.55	.50	.60	.54	.50	.59	.54	.50	.48
7.0	.59	.51	.46	.59	.51	.46	.57	.50	.46	.56	.50	.45	.54	.49	.45	.43
8.0	.55	.47	.42	.54	.47	.42	.53	.46	.41	.52	.46	.41	.51	.45	.41	.39
9.0	.51	.43	.38	.50	.43	.38	.49	.43	.38	.48	.42	.38	.47	.42	.38	.36
10.0	.47	.40	.35	.47	.40	.35	.46	.39	.35	.45	.39	.35	.44	.39	.35	.33



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-07-31

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.420m [K=1.0000]  
 Remarks:

**WEC AND CCEC**

Test:U:220.39V I:0.9184A P:197.49W PF:0.9757 Freq:49.99Hz		
Lamp Flux:28631.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

$\rho_{CC}$	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	.250	.142	.045	.243	.139	.044	.230	.132	.042	.218	.126	.040	.207	.120	.039	
2.0	.241	.132	.041	.235	.129	.040	.224	.124	.039	.213	.120	.037	.204	.115	.036	
3.0	.227	.121	.036	.222	.119	.036	.212	.115	.035	.203	.111	.034	.195	.108	.033	
4.0	.213	.111	.033	.209	.109	.032	.200	.106	.032	.192	.103	.031	.185	.100	.031	
5.0	.200	.102	.030	.196	.101	.029	.188	.098	.029	.181	.096	.028	.174	.093	.028	
6.0	.188	.094	.027	.184	.093	.027	.177	.091	.026	.171	.089	.026	.165	.087	.026	
7.0	.176	.087	.025	.173	.086	.025	.167	.085	.024	.161	.083	.024	.156	.081	.024	
8.0	.166	.081	.023	.163	.080	.023	.158	.079	.023	.153	.077	.022	.148	.076	.022	
9.0	.157	.076	.021	.155	.075	.021	.150	.074	.021	.145	.073	.021	.141	.071	.021	
10.0	.149	.071	.020	.146	.071	.020	.142	.070	.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	.176	.157	.139	.151	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.165	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.156	.114	.080	.134	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.148	.100	.064	.127	.087	.055	.087	.060	.039	.051	.035	.023	.016	.012	.008	
5.0	.140	.089	.052	.121	.077	.045	.083	.054	.032	.048	.032	.019	.016	.010	.006	
6.0	.133	.081	.043	.115	.070	.037	.079	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.127	.074	.036	.109	.064	.032	.075	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.121	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.011	.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	

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-07-31

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.420m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:220.39V I:0.9184A P:197.49W PF:0.9757 Freq:49.99Hz										
Lamp Flux:28631.6x1 lm										
NAME:			TYPE:			WEIGHT:				
SPEC.:			DIM.:			SERIAL No.:				
MFR.:			SUR.:			Shielding 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	18.1	19.4	18.4	19.6	19.8	17.6	18.9	17.9	19.1	19.3
3H	19.0	20.2	19.3	20.5	20.7	18.4	19.6	18.6	19.8	20.0
4H	19.4	20.5	19.7	20.7	21.0	18.5	19.7	18.8	19.9	20.2
6H	19.5	20.6	19.8	20.8	21.1	18.6	19.6	18.9	19.9	20.2
8H	19.5	20.5	19.8	20.8	21.1	18.5	19.6	18.8	19.8	20.1
12H	19.4	20.4	19.8	20.7	21.0	18.5	19.5	18.8	19.7	20.0
4H 2H	18.4	19.6	18.7	19.8	20.1	18.0	19.2	18.3	19.4	19.6
3H	19.5	20.5	19.8	20.8	21.1	18.9	19.9	19.2	20.2	20.5
4H	19.9	20.8	20.3	21.1	21.5	19.2	20.1	19.5	20.4	20.7
6H	20.1	20.9	20.5	21.3	21.6	19.2	20.0	19.6	20.4	20.7
8H	20.1	20.9	20.5	21.2	21.6	19.2	19.9	19.6	20.3	20.7
12H	20.1	20.8	20.5	21.2	21.6	19.2	19.8	19.6	20.2	20.6
8H 4H	20.0	20.7	20.4	21.1	21.5	19.3	20.0	19.7	20.4	20.8
6H	20.2	20.8	20.7	21.2	21.7	19.4	20.0	19.8	20.4	20.8
8H	20.3	20.8	20.7	21.2	21.7	19.3	19.9	19.8	20.3	20.7
12H	20.2	20.7	20.7	21.1	21.6	19.3	19.8	19.8	20.2	20.7
12H 4H	19.9	20.6	20.4	21.0	21.4	19.3	19.9	19.7	20.3	20.7
6H	20.2	20.7	20.7	21.2	21.6	19.4	19.9	19.8	20.3	20.8
8H	20.2	20.7	20.7	21.1	21.6	19.3	19.8	19.8	20.2	20.7
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.3 / - 0.4					+ 0.4 / - 0.6				
1.5H	+ 0.1 / - 0.3					+ 0.2 / - 0.2				
2.0H	+ 0.7 / - 0.7					+ 0.7 / - 0.9				

CIE Pub.117, 28632 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 11.7)  
 Area: 0.0375 m2

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-07-31

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.420m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:220.39V I:0.9184A P:197.49W PF:0.9757 Freq:49.99Hz Lamp Flux:28631.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

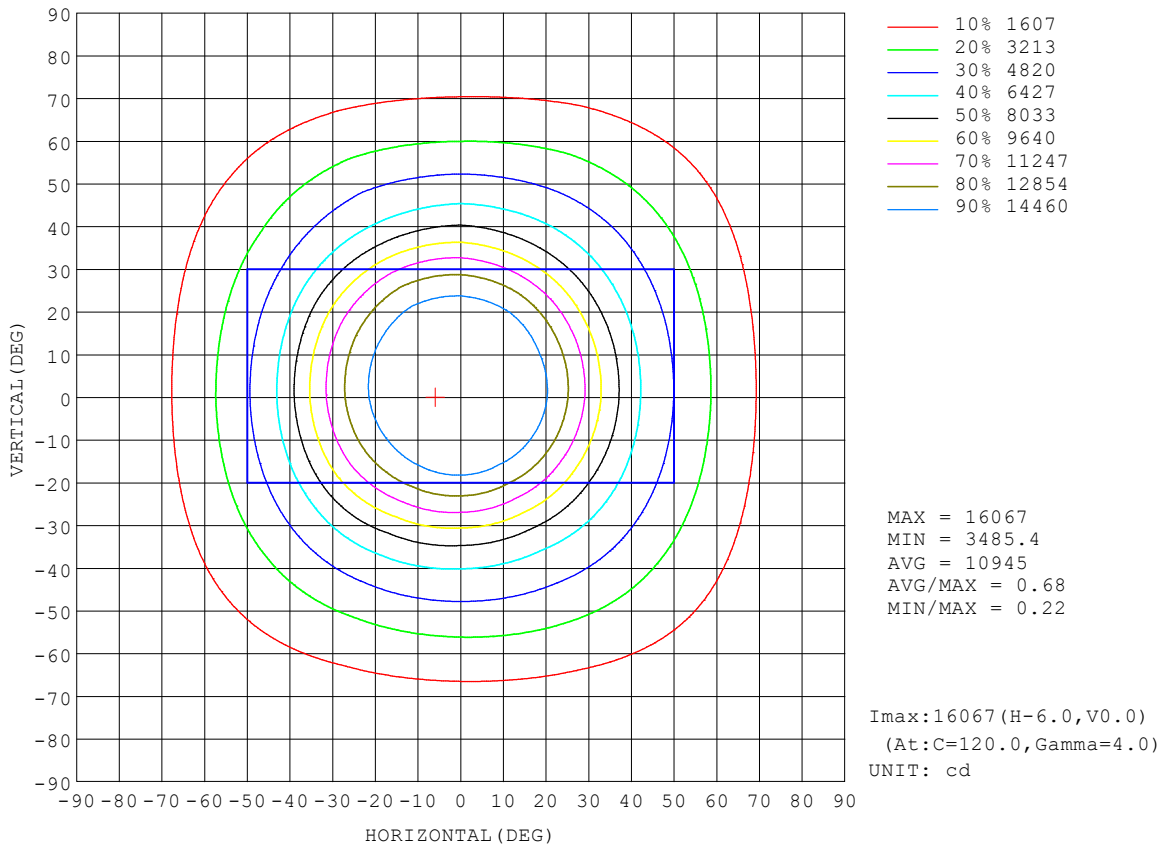
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	67	58	52	67	57	51	66	57	51	46
0.80	77	67	61	76	67	61	75	66	61	55
1.00	85	75	69	83	75	69	81	76	69	63
1.25	91	82	77	89	82	76	87	80	75	69
1.50	95	87	82	94	86	81	91	85	80	74
2.00	101	94	89	99	93	88	96	90	86	80
2.50	104	97	93	102	96	92	98	94	90	83
3.00	106	101	96	104	99	95	100	97	93	86
4.00	109	105	101	107	103	100	103	100	97	89
5.00	111	108	104	109	106	103	105	102	100	91
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3 °C  
 Operators:  
 Test Date:2023-07-31

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.420m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:220.39V I:0.9184A P:197.49W PF:0.9757 Freq:49.99Hz Lamp Flux:28631.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

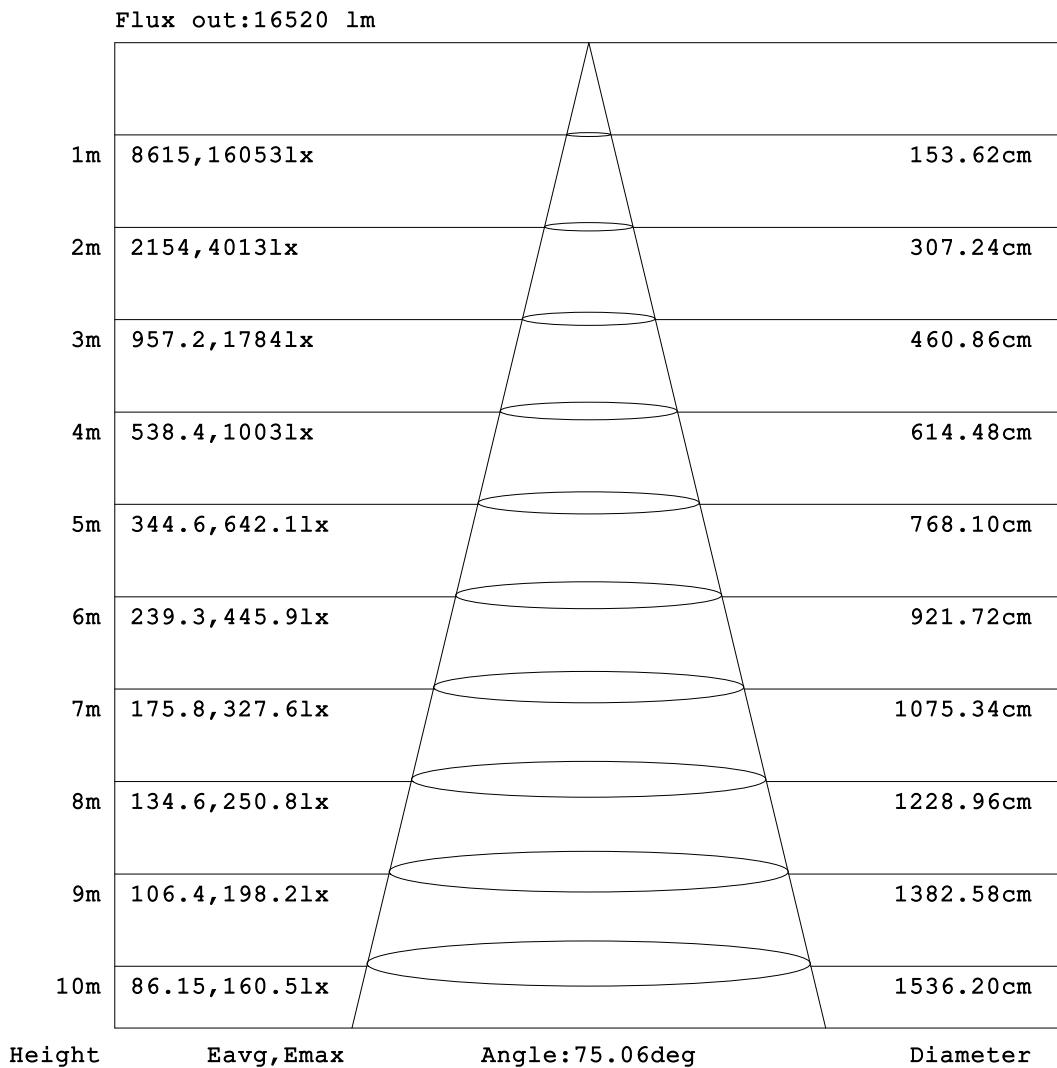


C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3 °C  
 Operators:  
 Test Date:2023-07-31

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.420m [K=1.0000]  
 Remarks:

**AAI Figure**

Test:U:220.39V I:0.9184A P:197.49W PF:0.9757 Freq:49.99Hz Lamp Flux:28631.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



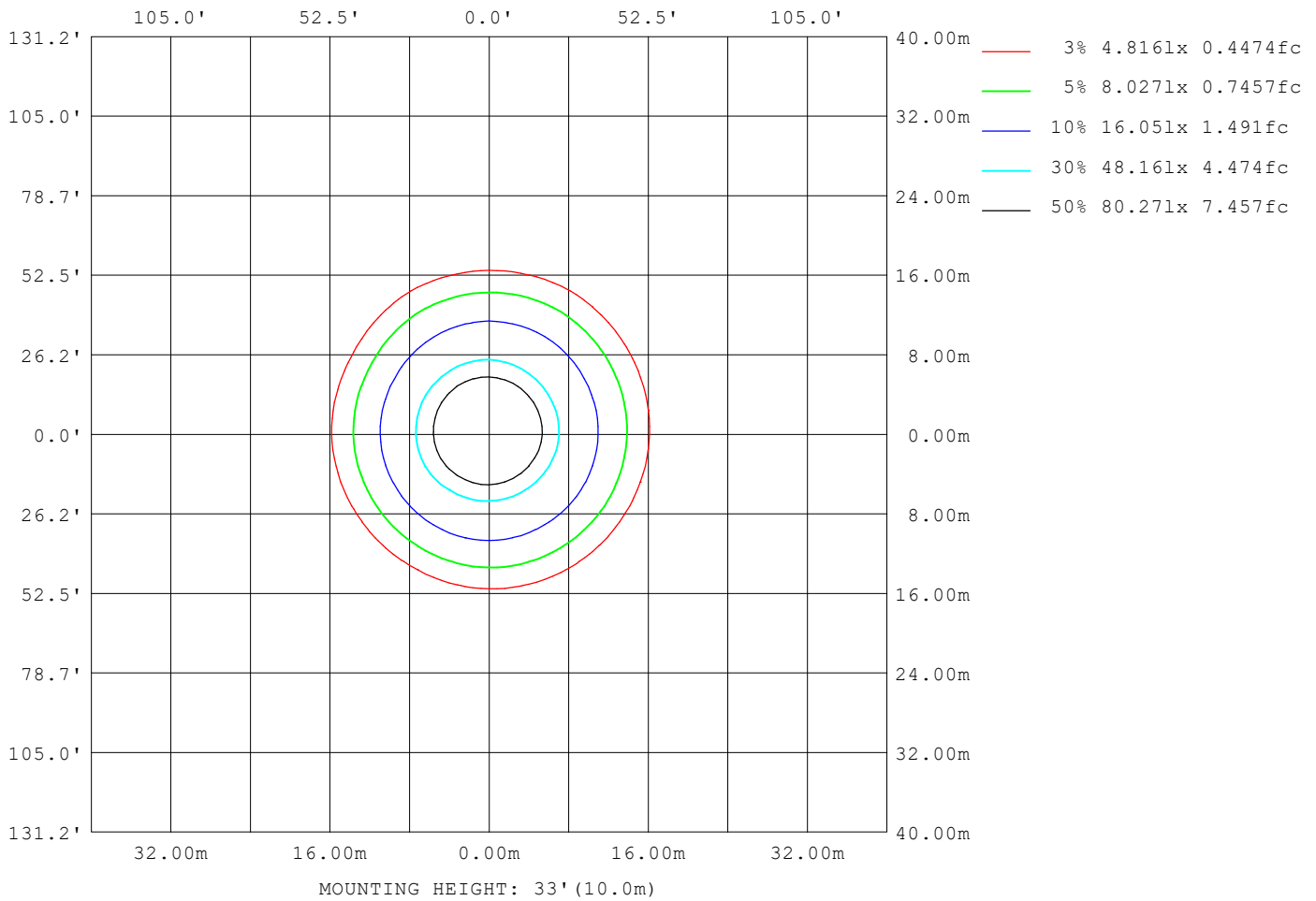
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:2023-07-31

γ Range: 0 - 90DEG  
γ Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:9.420m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:220.39V I:0.9184A P:197.49W PF:0.9757 Freq:49.99Hz Lamp Flux:28631.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3 °C  
 Operators:  
 Test Date:2023-07-31

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.420m [K=1.0000]  
 Remarks:

**LED Avg.L Report**

Test:U:220.39V I:0.9184A P:197.49W PF:0.9757 Freq:49.99Hz Lamp Flux:28631.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

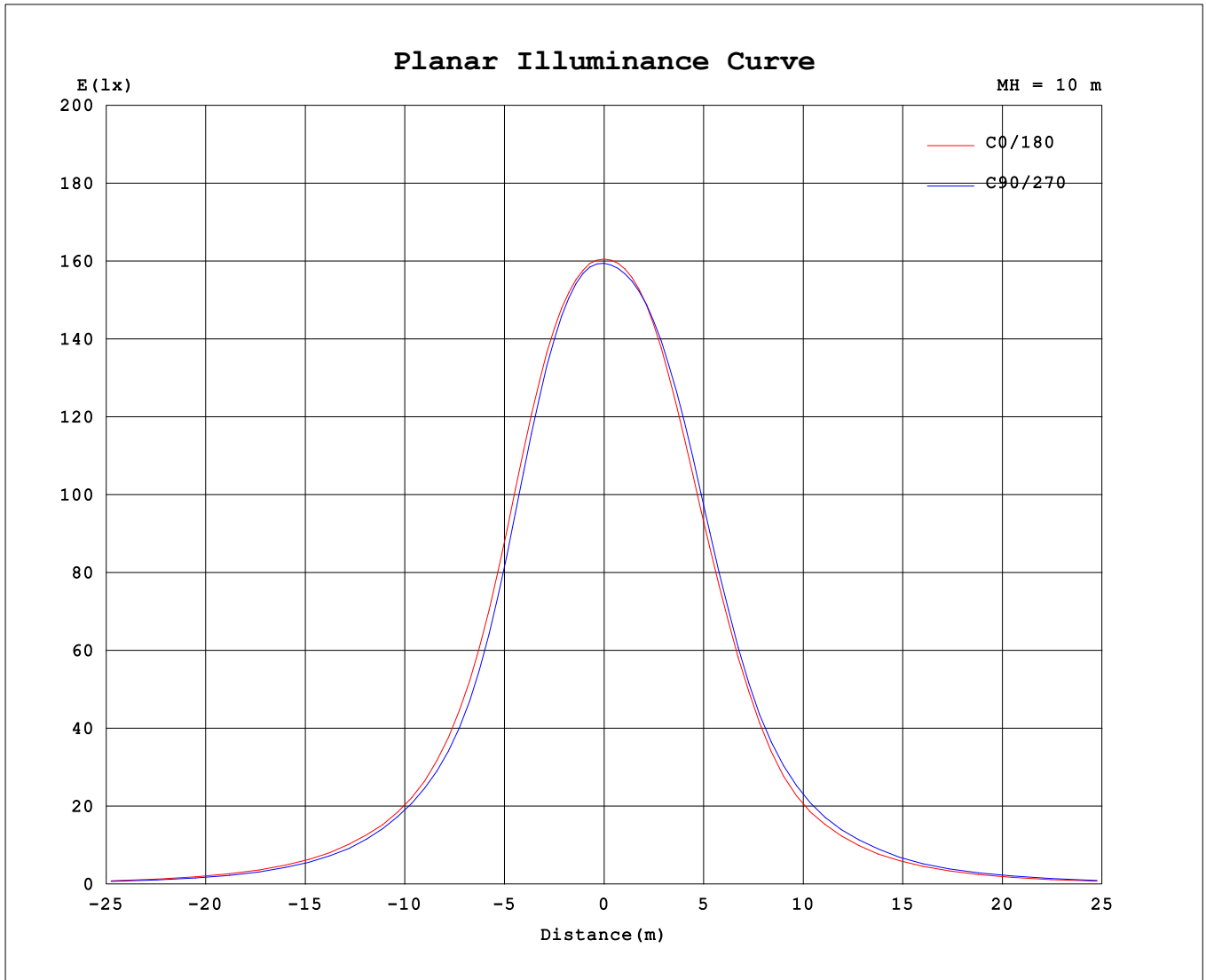
AvgL	cd/m2
L_0~180 (65) av	129979
L_0~180 (75) av	90946
L_0~180 (85) av	12321
L_90~270 (65) av	132049
L_90~270 (75) av	87913
L_90~270 (85) av	17631
L_45 (65) av	131318
L_45 (75) av	93260
L_45 (85) av	21427

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:  
 Test Date:2023-07-31

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:9.420m [K=1.0000]  
 Remarks:

**Planar Illuminance Curve**



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3 °C  
 Operators:  
 Test Date: 2023-07-31

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.458  
 Humidity: 65.0%  
 Test Distance: 9.420m [K=1.0000]  
 Remarks:

