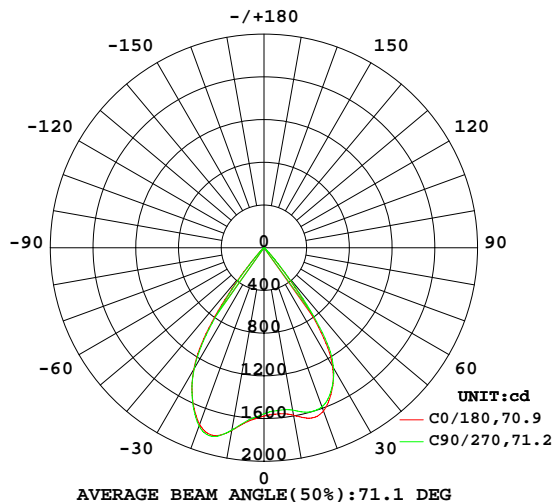


LUMINAIRE PHOTOMETRIC TEST REPORT

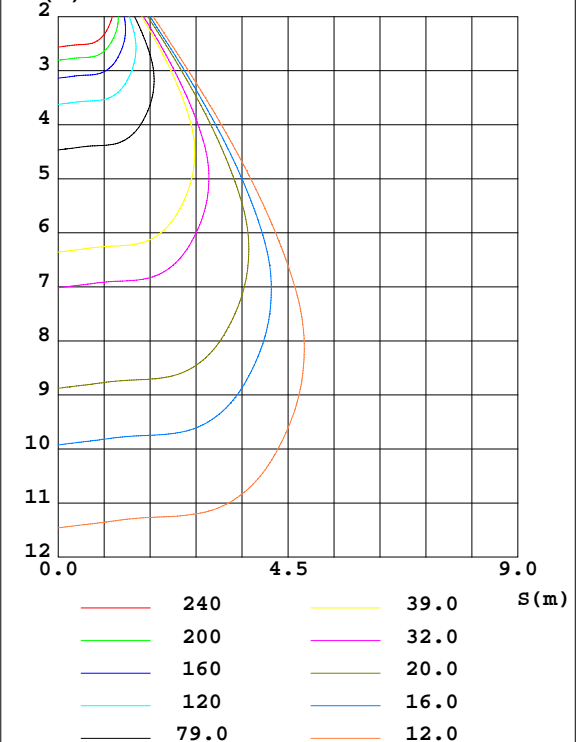
Test:U:229.85V I:0.0858A P:17.895W PF:0.9070 Freq:49.99Hz Lamp Flux:1910.55x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: A3841462-03	SUR.:0.115*0.115	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 106.76 lm/W			
MODEL		Imax(cd)	1862	S/MH(C0/180)	1.02
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	1.04
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1910.6	η UP,DN(C0-180)	0.0,49.7
NOMINAL FLUX(lm)	1910.55	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.3
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2022-01-08

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

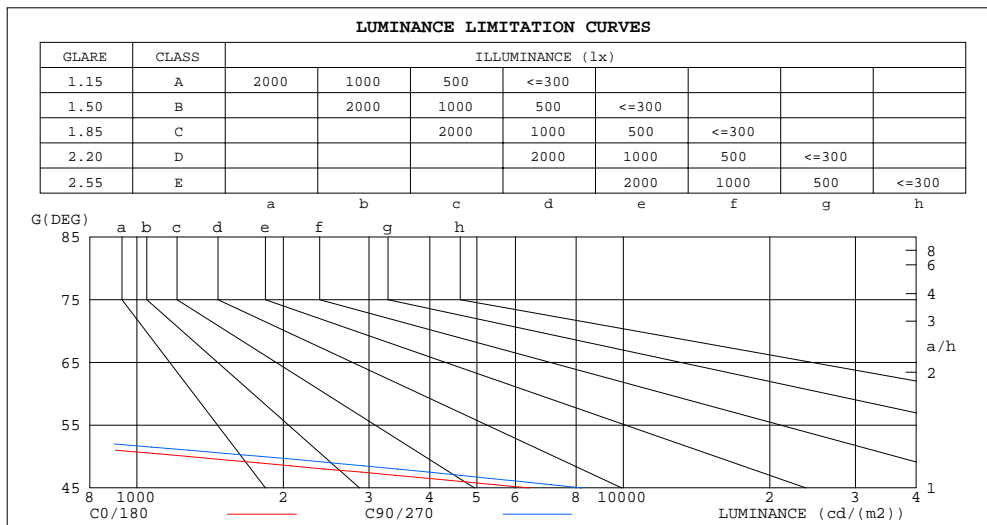
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1592	1529	1544	1612	1736	1765	1733	1641	0- 10	152.6	152.6	7.99,7.99
20	1627	1572	1585	1654	1761	1798	1777	1697	10- 20	481.5	634.2	33.2,33.2
30	1283	1285	1301	1300	1315	1303	1307	1284	20- 30	697.1	1331	69.7,69.7
40	271.8	328.6	308.9	331.4	295.2	286.0	247.8	270.6	30- 40	505.7	1837	96.1,96.1
50	10.78	18.69	15.27	17.26	9.317	10.55	8.288	11.57	40- 50	70.78	1908	99.9,99.9
60	0.2371	0.3088	0.3093	0.3968	0.2523	0.2802	0.2036	0.2143	50- 60	2.561	1910	100,100
70	0.0771	0.0937	0.1046	0.1047	0.0716	0.0441	0.0496	0.0716	60- 70	0.1434	1910	100,100
80	0.0606	0.0551	0.0661	0.0717	0.0716	0.0441	0.0496	0.0716	70- 80	0.0667	1910	100,100
90	0.0441	0.0441	0.0276	0.0551	0.0716	0.0441	0.0496	0.0716	80- 90	0.0615	1911	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		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2022-01-08

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:9.370m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:229.85V I:0.0858A P:17.895W PF:0.9070 Freq:49.99Hz Lamp Flux:1910.55x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: A3841462-03	SUR.:0.115*0.115	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	43	43
80	26	29
75	19	23
70	17	23
65	22	29
60	36	47
55	175	253
50	1271	1799
45	6397	8231

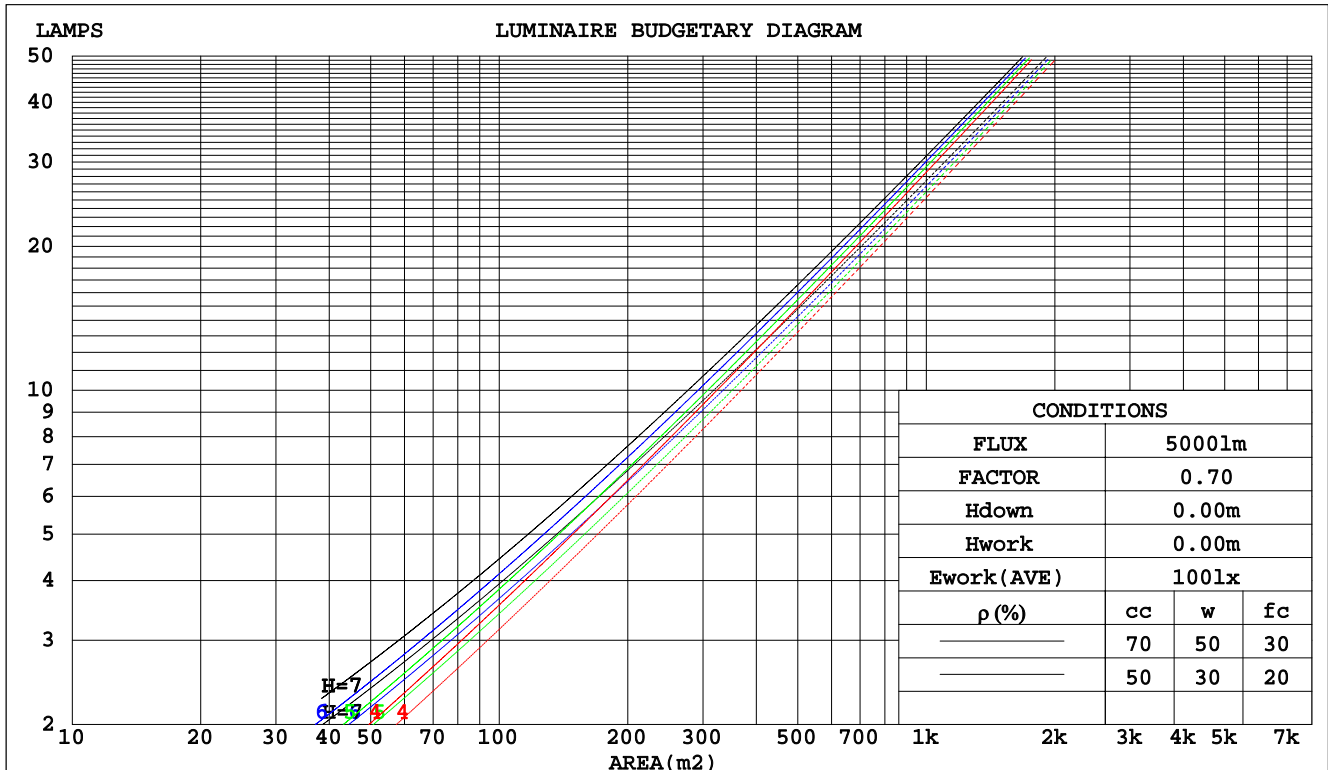
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2022-01-08

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.85V I:0.0858A P:17.895W PF:0.9070 Freq:49.99Hz Lamp Flux:1910.55x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: A3841462-03	SUR.:0.115*0.115	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	.00
1.0	1.11	1.08	1.06	1.09	1.06	1.04	1.05	1.03	1.01	1.01	.99	.98	.97	.96	.95	.94
2.0	1.03	.99	.96	1.01	.98	.95	.98	.95	.92	.95	.93	.90	.92	.90	.89	.87
3.0	.96	.91	.87	.95	.90	.86	.92	.88	.85	.89	.86	.84	.87	.85	.82	.81
4.0	.89	.84	.80	.88	.83	.79	.86	.82	.78	.84	.80	.77	.82	.79	.76	.75
5.0	.84	.78	.73	.83	.77	.73	.81	.76	.72	.79	.75	.72	.78	.74	.71	.70
6.0	.78	.72	.68	.77	.72	.68	.76	.71	.67	.75	.70	.67	.73	.69	.66	.65
7.0	.73	.67	.63	.73	.67	.63	.71	.66	.62	.70	.66	.62	.69	.65	.62	.60
8.0	.69	.63	.59	.68	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.58	.56
9.0	.65	.59	.55	.64	.58	.55	.63	.58	.54	.62	.58	.54	.62	.57	.54	.53
10.0	.61	.55	.51	.61	.55	.51	.60	.54	.51	.59	.54	.51	.58	.54	.51	.49



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2022-01-08

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:9.370m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:229.85V I:0.0858A P:17.895W PF:0.9070 Freq:49.99Hz Lamp Flux:1910.55x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.: 120*120*27			SERIAL No.:		
MFR.: A3841462-03			SUR.:0.115*0.115			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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.178	.101	.032	.171	.098	.031	.159	.091	.029	.147	.085	.027	.137	.079	.026	
2.0	.171	.094	.029	.166	.091	.028	.155	.086	.027	.145	.081	.025	.136	.077	.024	
3.0	.164	.087	.026	.159	.085	.026	.150	.081	.025	.141	.078	.024	.134	.074	.023	
4.0	.157	.081	.024	.152	.080	.024	.145	.077	.023	.137	.074	.022	.131	.071	.022	
5.0	.150	.076	.022	.146	.075	.022	.139	.073	.021	.133	.070	.021	.127	.068	.020	
6.0	.144	.072	.021	.140	.071	.020	.134	.069	.020	.129	.067	.020	.123	.065	.019	
7.0	.138	.068	.019	.135	.067	.019	.129	.065	.019	.124	.064	.019	.120	.062	.018	
8.0	.132	.065	.018	.130	.064	.018	.125	.062	.018	.120	.061	.018	.116	.060	.017	
9.0	.127	.061	.017	.125	.061	.017	.120	.059	.017	.116	.058	.017	.112	.057	.016	
10.0	.122	.058	.016	.120	.058	.016	.116	.057	.016	.112	.056	.016	.109	.055	.016	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.132	.113	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.123	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.134	.099	.072	.115	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.126	.087	.059	.108	.076	.051	.074	.053	.036	.043	.031	.022	.014	.010	.007	
6.0	.119	.078	.049	.102	.068	.043	.070	.047	.030	.041	.028	.018	.013	.009	.006	
7.0	.112	.071	.042	.097	.061	.036	.067	.043	.026	.039	.025	.015	.013	.008	.005	
8.0	.107	.065	.036	.092	.056	.031	.064	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.102	.059	.031	.088	.052	.027	.061	.036	.019	.035	.021	.011	.011	.007	.004	
10.0	.098	.055	.027	.084	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2022-01-08

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:229.85V I:0.0858A P:17.895W PF:0.9070 Freq:49.99Hz Lamp Flux:1910.55x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 120*120*27			SERIAL No.:			
MFR.: A3841462-03					SUR.:0.115*0.115			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	19.2	20.2	19.4	20.3	20.5	19.4	20.4	19.7	20.6	20.7	
	3H	19.0	19.9	19.3	20.1	20.3	19.3	20.1	19.5	20.3	
	4H	18.9	19.8	19.2	20.0	20.2	19.2	20.0	19.4	20.2	
	6H	18.8	19.6	19.1	19.8	20.1	19.1	19.9	19.4	20.1	
	8H	18.8	19.5	19.1	19.8	20.0	19.0	19.8	19.3	20.0	
	12H	18.7	19.5	19.1	19.7	20.0	19.0	19.7	19.3	20.0	
4H	2H	18.9	19.8	19.2	20.0	20.2	19.2	20.0	19.4	20.2	
	3H	18.7	19.5	19.1	19.7	20.0	19.0	19.7	19.3	20.0	
	4H	18.6	19.3	19.0	19.6	19.9	18.9	19.5	19.2	19.8	
	6H	18.5	19.1	18.9	19.4	19.8	18.8	19.4	19.2	19.7	
	8H	18.5	19.0	18.9	19.4	19.7	18.8	19.3	19.1	19.6	
	12H	18.4	18.9	18.9	19.3	19.7	18.7	19.2	19.1	19.6	
8H	4H	18.5	19.0	18.9	19.4	19.7	18.8	19.3	19.1	19.6	
	6H	18.4	18.8	18.8	19.2	19.6	18.7	19.1	19.1	19.5	
	8H	18.3	18.7	18.8	19.1	19.6	18.6	19.0	19.0	19.4	
	12H	18.3	18.6	18.8	19.1	19.5	18.5	18.9	19.0	19.3	
12H	4H	18.4	18.9	18.9	19.3	19.7	18.7	19.2	19.1	19.6	
	6H	18.3	18.7	18.8	19.1	19.6	18.6	19.0	19.0	19.4	
	8H	18.3	18.6	18.8	19.1	19.5	18.5	18.9	19.0	19.3	
Variations with the observer position at spacings:											
S = 1.0H	+ 3.9 / -37.0					+ 4.1 / -36.7					
1.5H	+ 6.6 / -29.0					+ 6.8 / -29.1					
2.0H	+ 7.6 / -26.0					+ 8.1 / -27.1					

CIE Pub.117, 1911 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 2.2$)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2022-01-08

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:229.85V I:0.0858A P:17.895W PF:0.9070 Freq:49.99Hz Lamp Flux:1910.55x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: A3841462-03	SUR.:0.115*0.115	Shielding Angle:

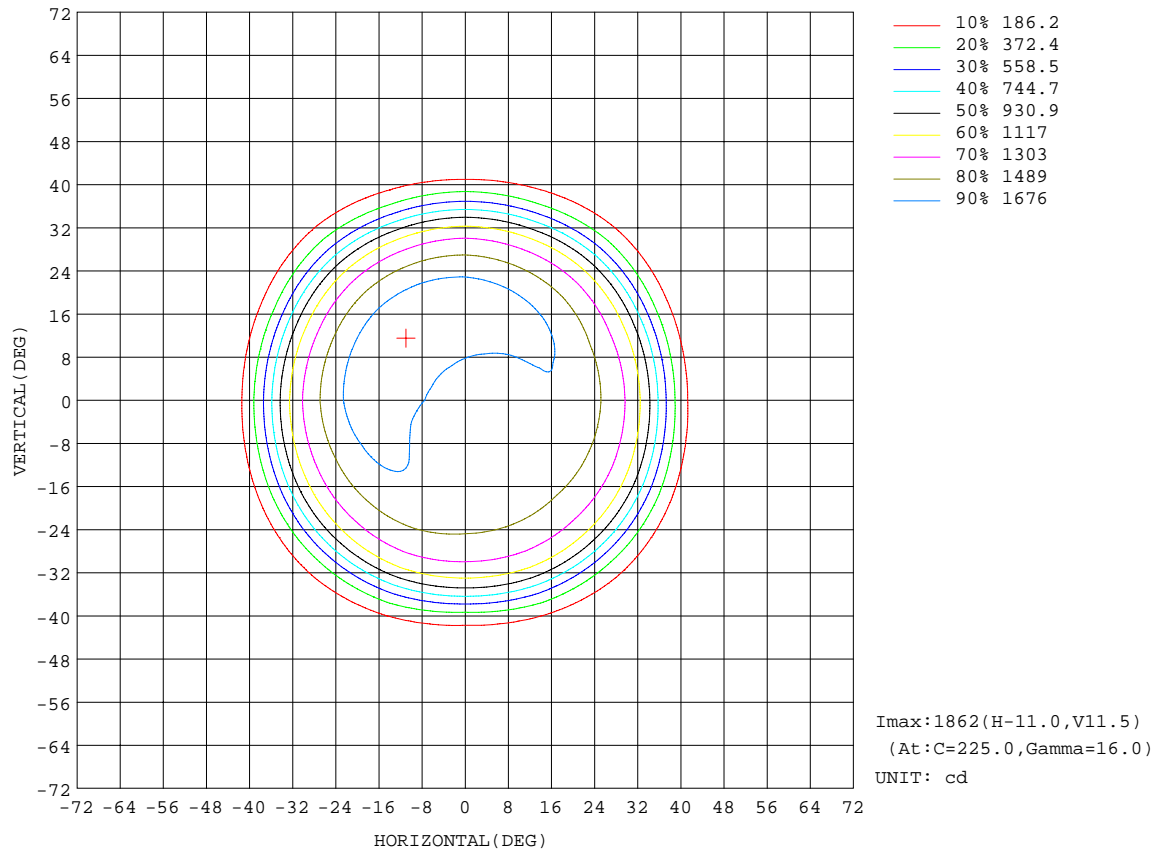
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	79	88	83	79	76
0.80	96	91	87	96	91	87	95	90	87	83
1.00	101	95	92	100	95	92	98	95	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	103	99	106	102	99	104	100	98	94
2.00	109	105	102	108	104	102	105	102	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	105	107	105	103	97
4.00	114	112	110	112	110	108	109	107	105	98
5.00	115	113	112	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2022-01-08

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:229.85V I:0.0858A P:17.895W PF:0.9070 Freq:49.99Hz Lamp Flux:1910.55x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: A3841462-03	SUR.:0.115*0.115	Shielding Angle:

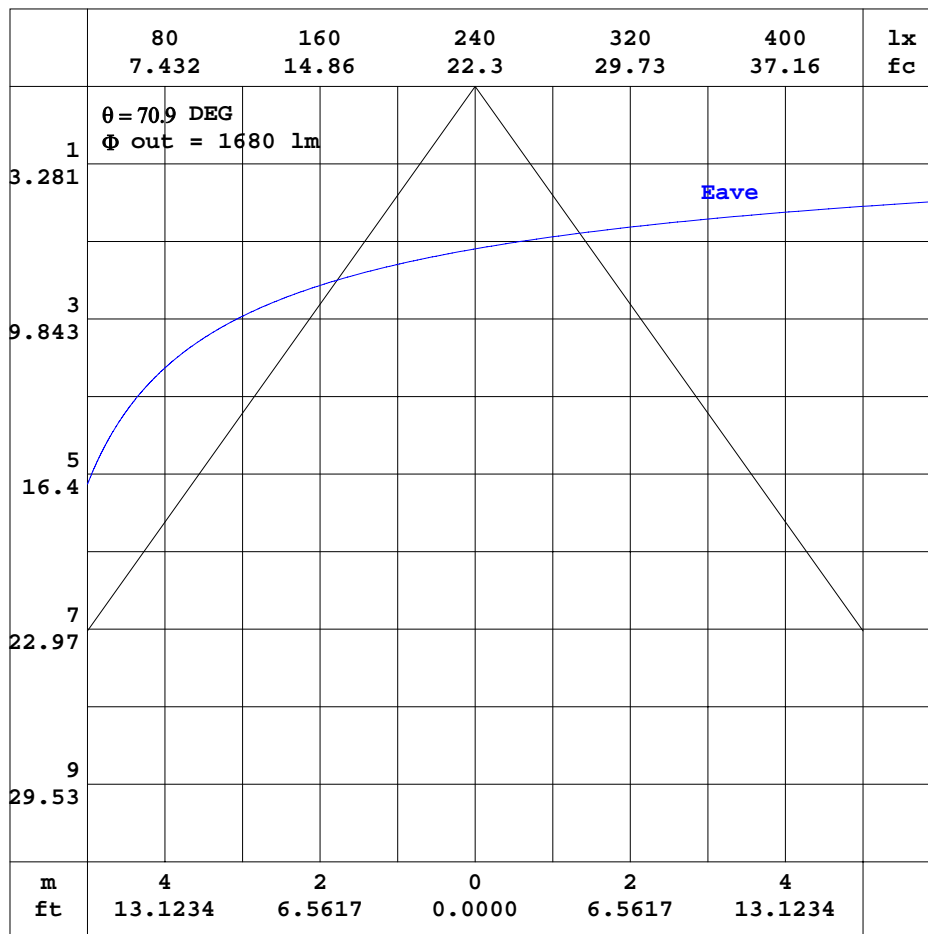


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2022-01-08

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

AAI CURVES

Test:U:229.85V I:0.0858A P:17.895W PF:0.9070 Freq:49.99Hz Lamp Flux:1910.55x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: A3841462-03	SUR.:0.115*0.115	Shielding Angle:



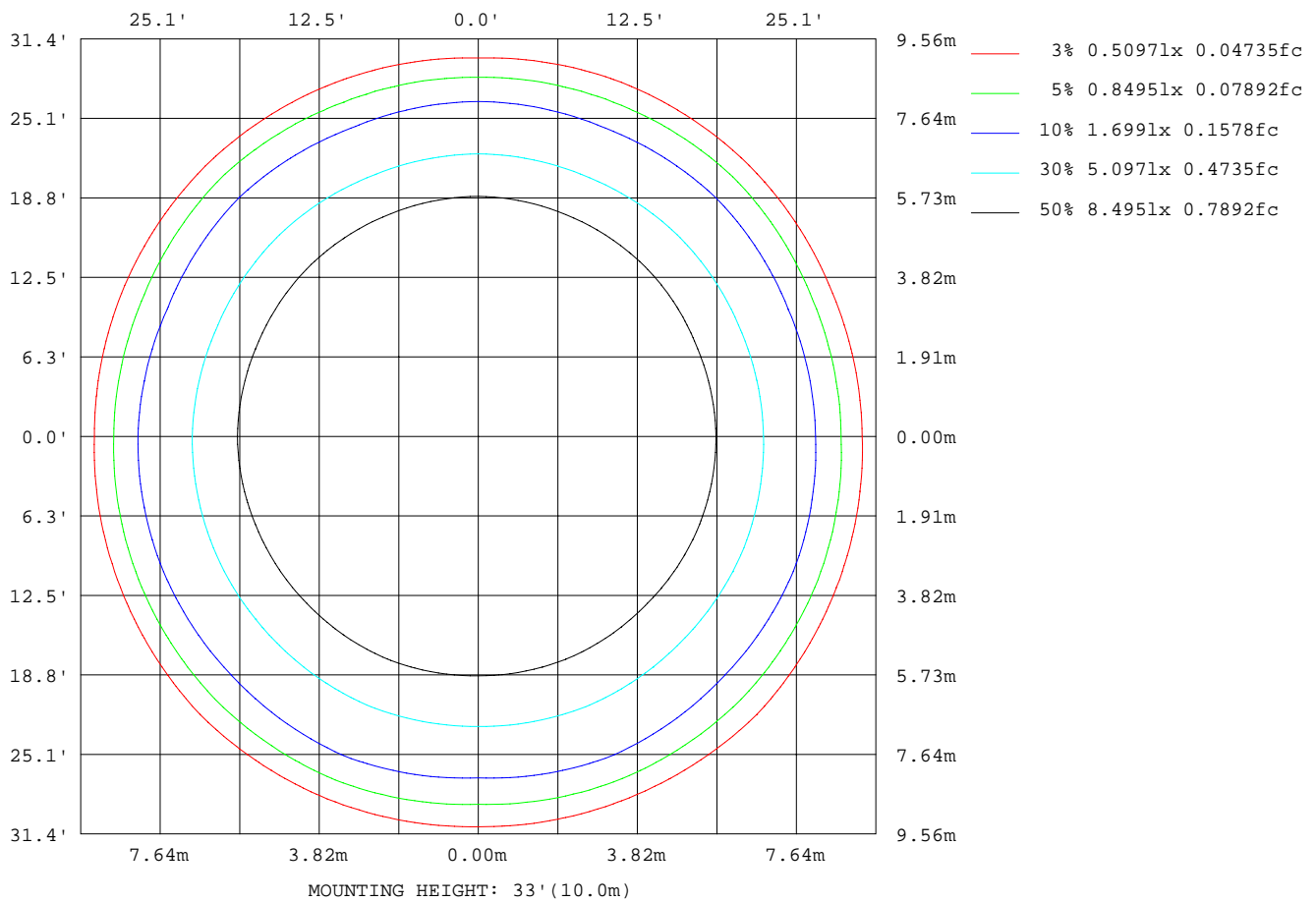
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2022-01-08

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:229.85V I:0.0858A P:17.895W PF:0.9070 Freq:49.99Hz Lamp Flux:1910.55x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: A3841462-03	SUR.:0.115*0.115	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators:
Test Date: 2022-01-08

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity: 65.0%
Test Distance: 9.370m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:229.85V I:0.0858A P:17.895W PF:0.9070 Freq:49.99Hz Lamp Flux:1910.55x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: A3841462-03	SUR.:0.115*0.115	Shielding Angle:

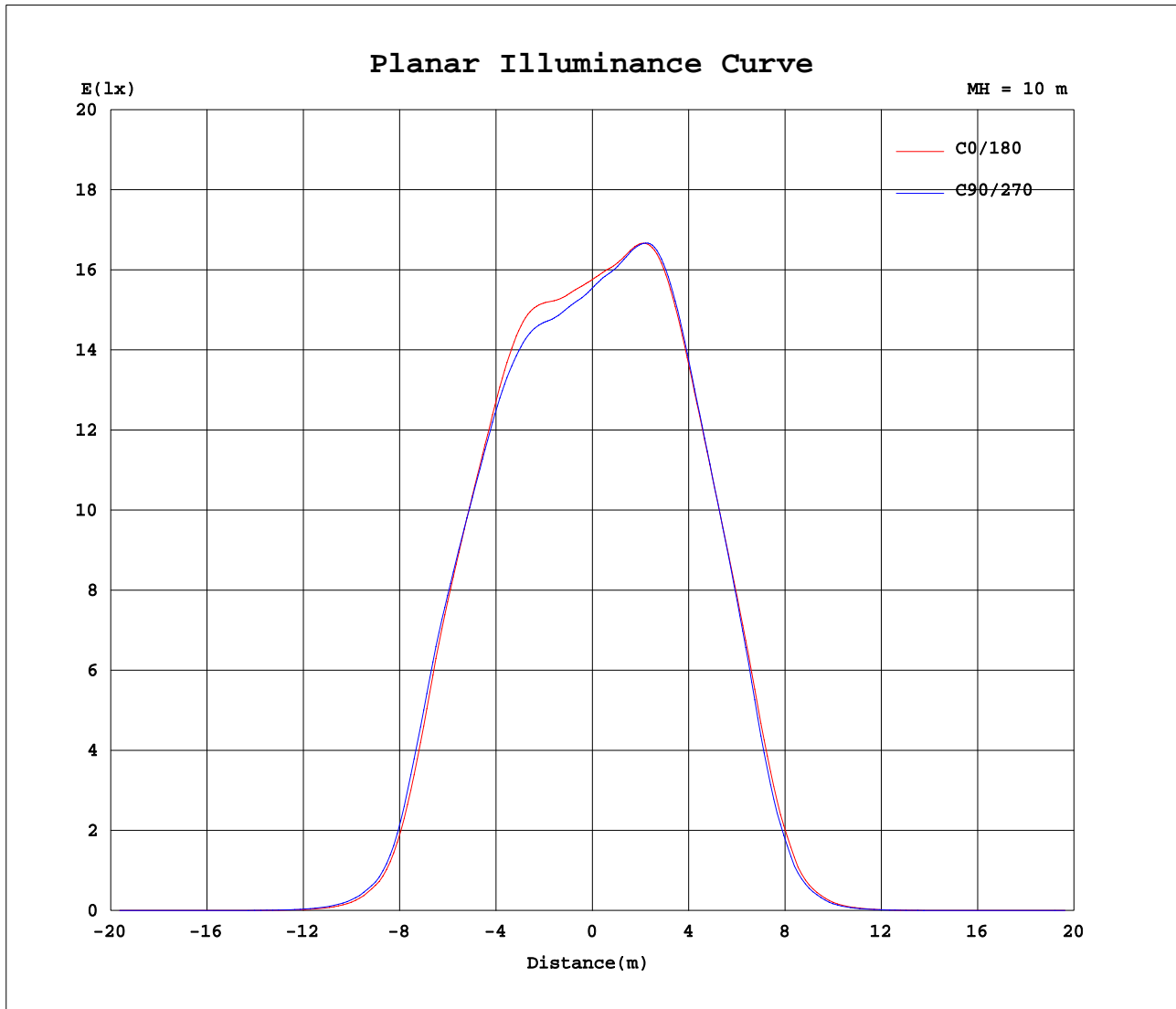
AvgL	cd/m2
L_0~180(65)av	19
L_0~180(75)av	20
L_0~180(85)av	53
L_90~270(65)av	19
L_90~270(75)av	19
L_90~270(85)av	43
L_45(65)av	27
L_45(75)av	19
L_45(85)av	49

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:2022-01-08

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators:
Test Date: 2022-01-08

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity: 65.0%
Test Distance: 9.370m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:9.370m [K=1.0000]
Remarks:

```