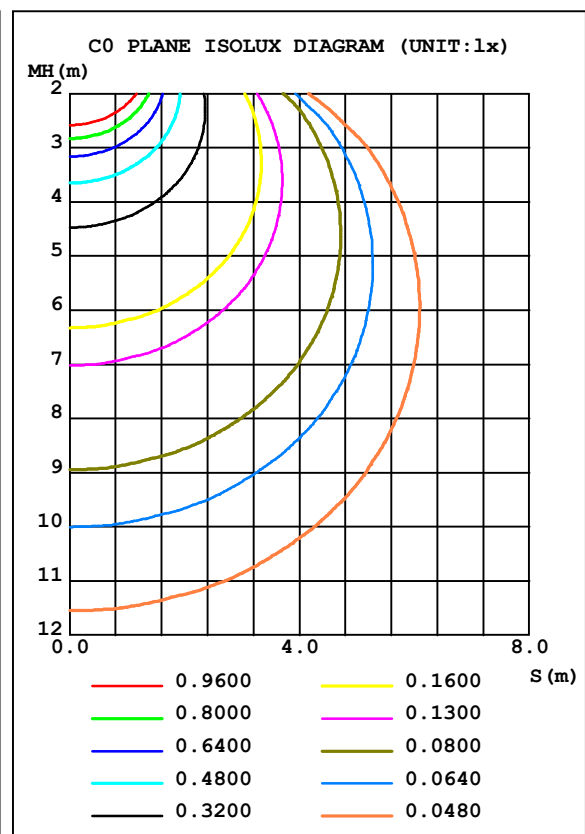
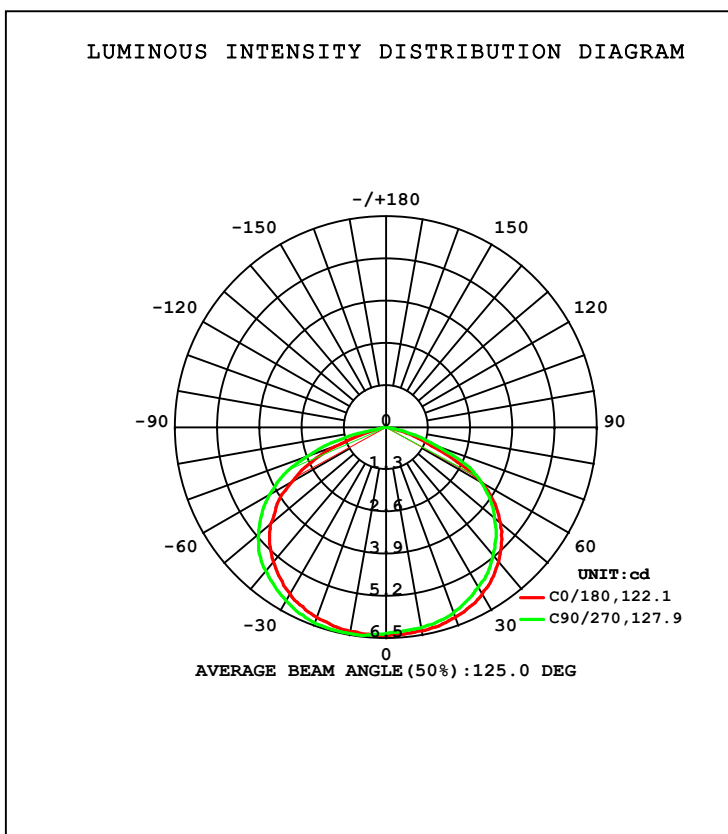


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm		
NAME: RGB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:0.05	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 15.66 lm/W			
MODEL		I _{max} (cd)	6.464	S/MH (C0/180)	1.37
NOMINAL POWER (W)	1.5	LOR (%)	100.0	S/MH (C90/270)	1.44
RATED VOLTAGE (V)	12	TOTAL FLUX (lm)	20.025	η UP, DN (C0-180)	0.0, 47.7
NOMINAL FLUX (lm)	20.0256	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 52.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	12	η down (%)	100.0	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LHY
 Test Date: 2021-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: GO-2000A_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 9.727m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

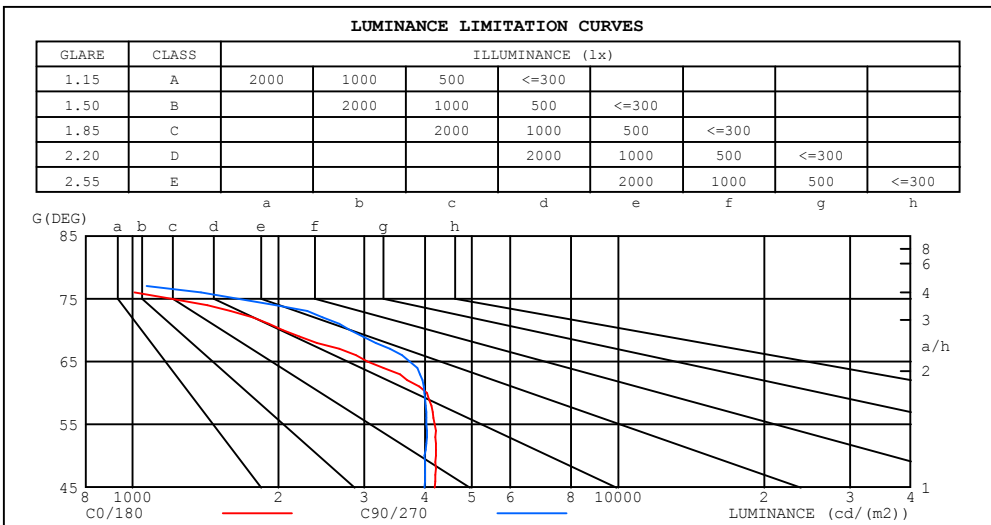
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	6.361	6.270	6.385	6.457					0- 10	0.6085	0.6085	3.04,3.04
20	6.228	6.080	6.227	6.422					10- 20	1.789	2.397	12,12
30	5.937	5.691	5.929	6.179					20- 30	2.821	5.218	26.1,26.1
40	5.398	5.144	5.405	5.778					30- 40	3.574	8.792	43.9,43.9
50	4.606	4.366	4.662	5.142					40- 50	3.933	12.73	63.5,63.5
60	3.428	3.387	3.338	4.145					50- 60	3.734	16.46	82.2,82.2
70	1.186	1.630	1.505	2.555					60- 70	2.668	19.13	95.5,95.5
80	0.0742	0.0420	0.0296	0.2338					70- 80	0.8825	20.01	99.9,99.9
90	0	0	0	0					80- 90	0.0121	20.02	100,100
100	0	0	0	0					90-100	0	20.02	100,100
110	0	0	0	0					100-110	0	20.02	100,100
120	0	0	0	0					110-120	0	20.02	100,100
130	0	0	0	0					120-130	0	20.02	100,100
140	0	0	0	0					130-140	0	20.02	100,100
150	0	0.0061	0	0					140-150	0.0005	20.02	100,100
160	0	0.0061	0.0061	0					150-160	0.0010	20.02	100,100
170	0.0061	0.0122	0.0062	0.0061					160-170	0.0014	20.02	100,100
180	0.0122	0.0061	0.0122	0.0122					170-180	0.0010	20.03	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LHY
 Test Date:2021-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:GO-2000A_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:9.727m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm		
NAME: RGB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:0.05	Shielding Angle:



LUMINANCE cd/ (m2)		
G (DEG)	C0/180	C90/270
85	123	0
80	251	142
75	1203	1649
70	2040	2803
65	3046	3727
60	4033	3985
55	4195	4028
50	4215	3996
45	4186	3987

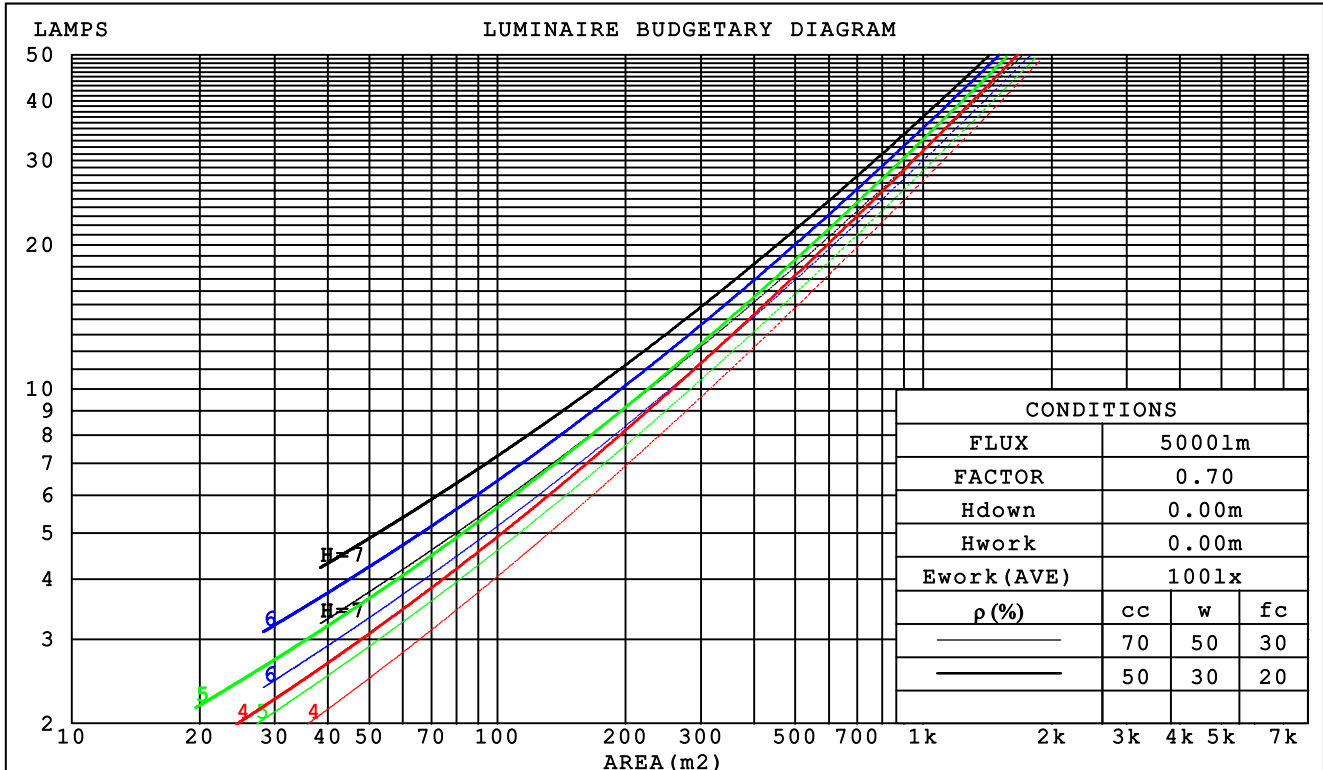
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LHY
 Test Date:2021-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:GO-2000A_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:9.727m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm		
NAME: RGB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:0.05	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	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.88	.86
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.77	.74	.71
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.64	.73	.68	.63	.71	.66	.62	.60
4.0	.71	.62	.56	.70	.62	.55	.67	.60	.55	.65	.59	.54	.63	.57	.53	.51
5.0	.63	.54	.48	.62	.54	.47	.60	.53	.47	.58	.51	.46	.56	.50	.46	.44
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.45	.40	.51	.45	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.31	.29
9.0	.43	.34	.29	.42	.34	.29	.41	.34	.28	.40	.33	.28	.39	.33	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.25	.24



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LHY
 Test Date:2021-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:GO-2000A_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:9.727m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm		
NAME: RGB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:0.05	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.284	.162	.051	.277	.158	.050	.264	.152	.048	.252	.145	.047	.241	.140	.045	
2.0	.278	.152	.047	.272	.150	.046	.260	.145	.045	.250	.140	.044	.240	.136	.043	
3.0	.263	.140	.042	.257	.138	.041	.247	.134	.041	.237	.130	.040	.229	.127	.039	
4.0	.245	.127	.037	.240	.126	.037	.231	.123	.037	.223	.120	.036	.215	.117	.036	
5.0	.228	.116	.034	.224	.115	.034	.216	.112	.033	.208	.110	.033	.201	.108	.032	
6.0	.213	.107	.031	.209	.106	.030	.202	.103	.030	.195	.101	.030	.189	.099	.029	
7.0	.199	.098	.028	.195	.097	.028	.189	.095	.027	.183	.094	.027	.177	.092	.027	
8.0	.186	.091	.026	.183	.090	.025	.177	.089	.025	.172	.087	.025	.167	.085	.025	
9.0	.175	.084	.024	.172	.084	.023	.167	.082	.023	.162	.081	.023	.157	.080	.023	
10.0	.164	.079	.022	.162	.078	.022	.157	.077	.022	.153	.076	.022	.148	.075	.021	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.191	.191	.191	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.179	.157	.137	.153	.134	.118	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.069	.046	.055	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.091	.048	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.065	.025	.106	.056	.022	.074	.040	.016	.043	.023	.009	.014	.008	.003	
10.0	.118	.061	.023	.101	.053	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LHY
 Test Date:2021-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:GO-2000A_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:9.727m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm										
NAME: RGB					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:0.05			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	31.6	33.1	31.8	33.3	33.5	31.6	33.1	31.8	33.3	33.5
3H	32.3	33.7	32.6	33.9	34.2	32.7	34.1	33.0	34.3	34.5
4H	32.4	33.7	32.7	33.9	34.2	32.8	34.2	33.2	34.4	34.7
6H	32.3	33.5	32.6	33.8	34.1	32.8	34.0	33.1	34.3	34.6
8H	32.2	33.4	32.6	33.7	34.0	32.7	33.9	33.1	34.2	34.5
12H	32.2	33.3	32.5	33.6	33.9	32.7	33.8	33.0	34.1	34.4
4H 2H	32.1	33.4	32.4	33.6	33.9	32.1	33.4	32.4	33.6	33.9
3H	32.9	34.0	33.2	34.3	34.6	33.2	34.4	33.6	34.7	35.0
4H	33.0	34.0	33.4	34.4	34.7	33.5	34.5	33.8	34.8	35.1
6H	32.9	33.9	33.3	34.2	34.6	33.4	34.3	33.8	34.7	35.0
8H	32.9	33.8	33.3	34.1	34.5	33.4	34.2	33.8	34.6	35.0
12H	32.9	33.6	33.3	34.0	34.4	33.3	34.1	33.7	34.5	34.9
8H 4H	33.0	33.9	33.4	34.2	34.6	33.4	34.3	33.8	34.7	35.0
6H	33.0	33.7	33.4	34.1	34.5	33.4	34.1	33.8	34.5	34.9
8H	32.9	33.5	33.4	34.0	34.4	33.4	34.0	33.8	34.4	34.8
12H	32.9	33.4	33.4	33.9	34.3	33.3	33.8	33.8	34.3	34.8
12H 4H	33.0	33.7	33.4	34.1	34.5	33.4	34.2	33.8	34.6	35.0
6H	32.9	33.5	33.4	34.0	34.4	33.4	34.0	33.8	34.4	34.9
8H	32.9	33.4	33.4	33.9	34.3	33.3	33.9	33.8	34.3	34.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.4					+ 0.3 / - 0.4				
1.5H	+ 0.5 / - 0.7					+ 0.3 / - 0.5				
2.0H	+ 0.4 / - 0.7					+ 0.3 / - 0.7				

CIE Pub.117, 20.03 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -13.6)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LHY
Test Date:2021-10-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.727m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm		
NAME: RGB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:0.05	Shielding Angle:

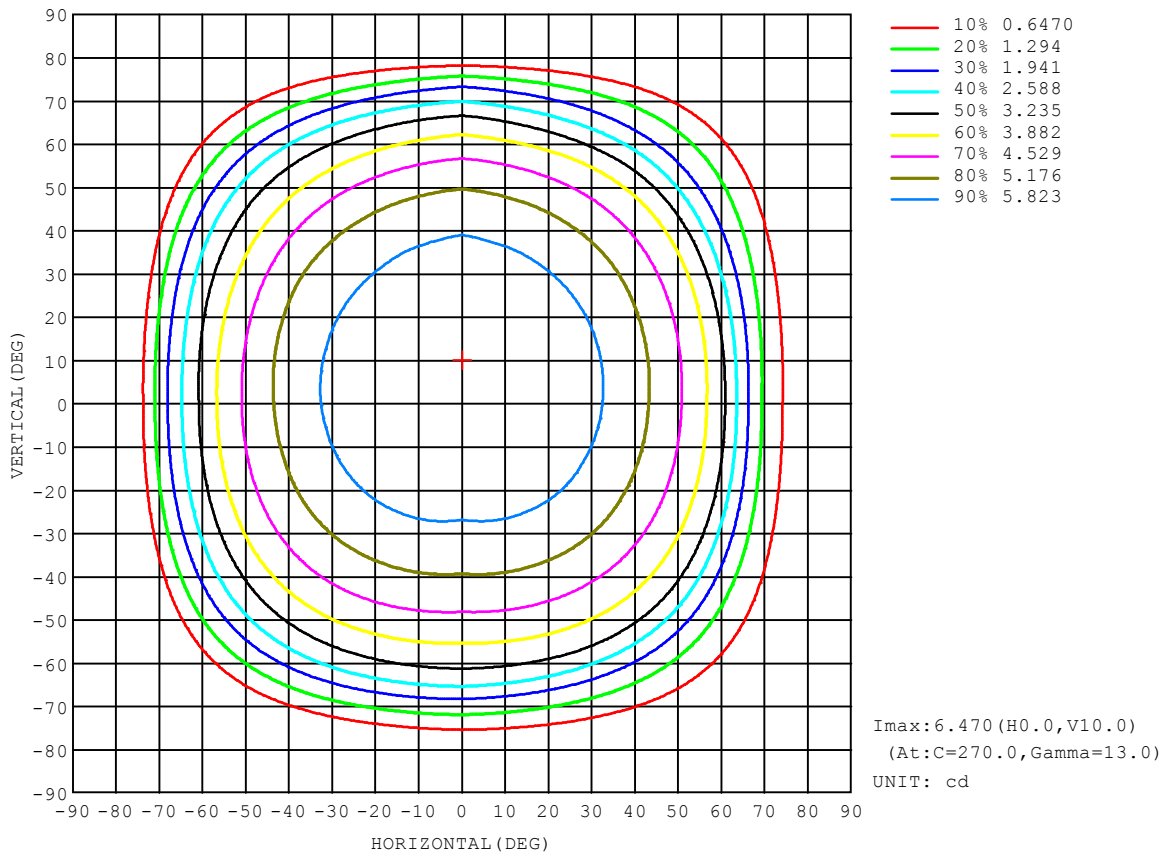
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	44	38	31
0.80	67	55	48	66	55	48	64	54	48	41
1.00	76	65	58	75	65	58	73	66	57	50
1.25	84	73	66	82	73	66	80	71	65	58
1.50	89	79	72	87	78	72	84	77	71	63
2.00	96	88	82	94	87	81	91	84	79	72
2.50	100	92	87	98	91	86	94	88	84	76
3.00	103	97	92	101	95	91	97	92	88	80
4.00	107	102	98	105	100	96	101	97	94	85
5.00	110	105	101	107	103	100	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LHY
 Test Date:2021-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:GO-2000A_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:9.727m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm		
NAME: RGB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:0.05	Shielding Angle:

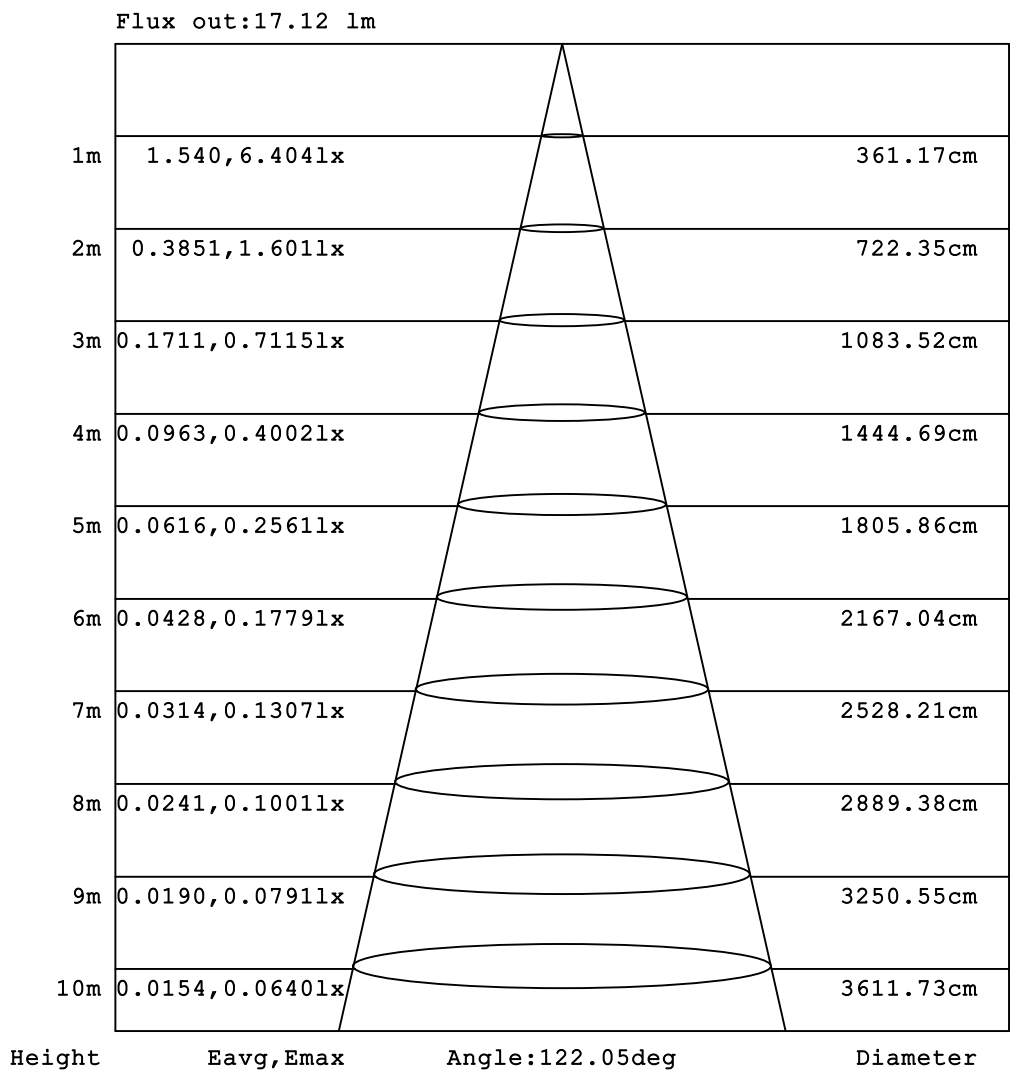


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LHY
 Test Date:2021-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:GO-2000A_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:9.727m [K=1.0000]
 Remarks:

AAI Figure

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm		
NAME: RGB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:0.05	Shielding Angle:



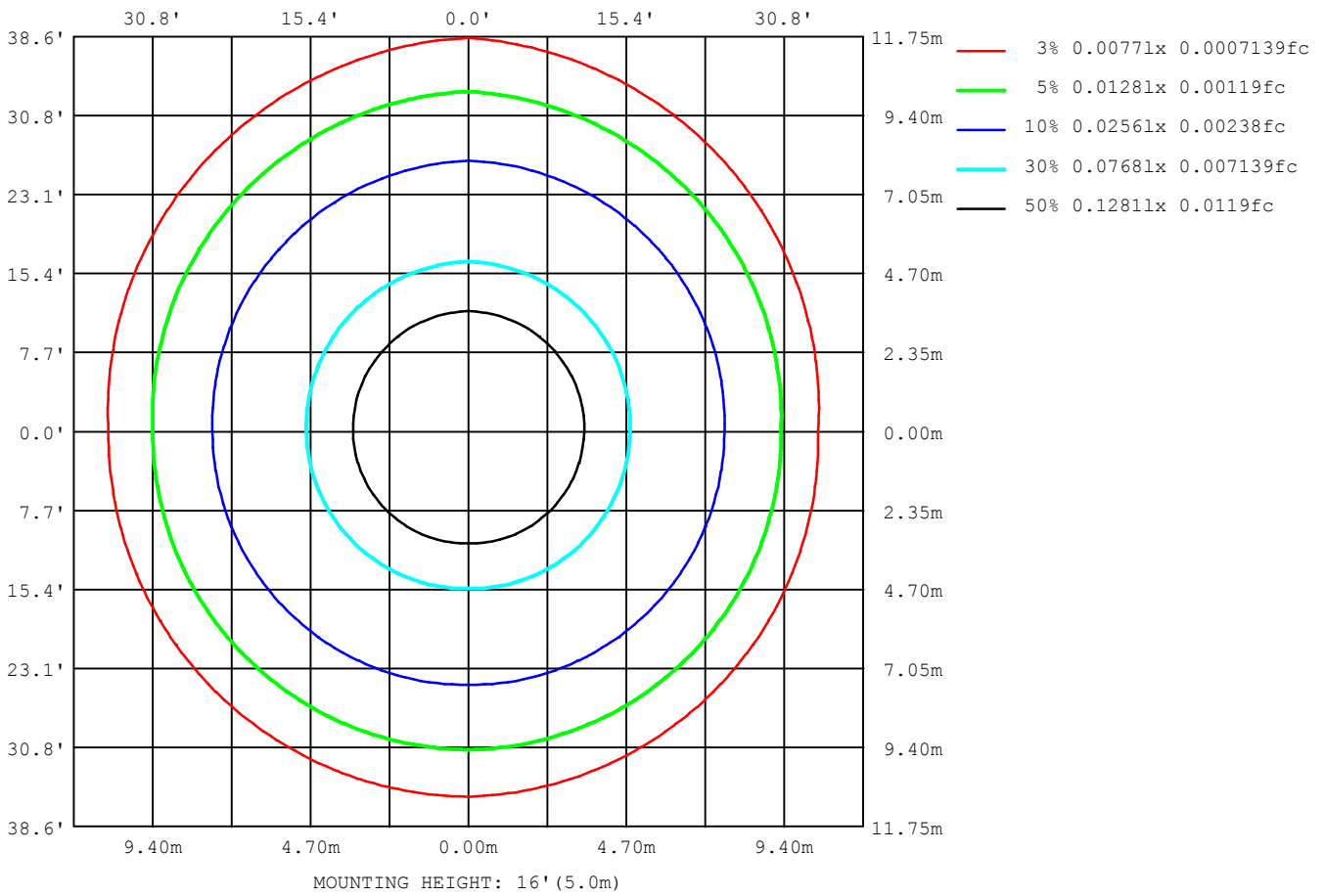
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LHY
 Test Date:2021-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:GO-2000A_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:9.727m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm		
NAME: RGB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:0.05	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LHY
Test Date:2021-10-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.727m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm		
NAME: RGB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:0.05	Shielding Angle:

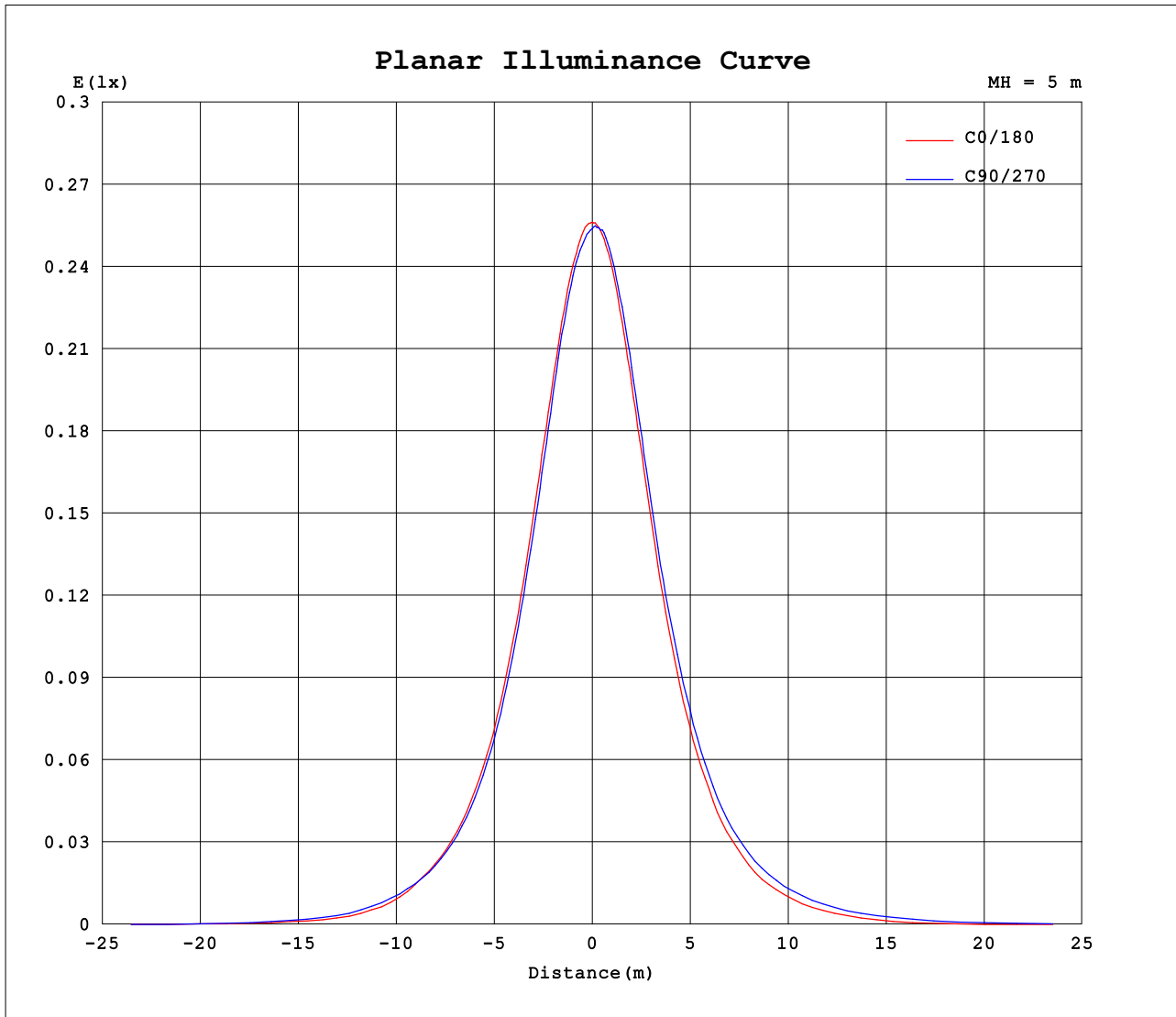
AvgL	cd/m2
L_0~180 (65) av	3280
L_0~180 (75) av	1084
L_0~180 (85) av	62
L_90~270 (65) av	4287
L_90~270 (75) av	2478
L_90~270 (85) av	20
L_45 (65) av	3924
L_45 (75) av	1948
L_45 (85) av	34

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:LHY
Test Date:2021-10-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.727m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: LHY
 Test Date: 2021-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: GO-2000A_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 9.727m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:11.998V I:0.1066A P:1.2790W PF:1.0000 Freq:49.99Hz Lamp Flux:20.0256x1 lm		
NAME: RGB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:0.05	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	6.40	6.35	6.40	6.35															
5	6.40	6.29	6.40	6.41															
10	6.36	6.27	6.39	6.46															
15	6.32	6.19	6.34	6.45															
20	6.23	6.08	6.23	6.42															
25	6.11	5.90	6.11	6.32															
30	5.94	5.69	5.93	6.18															
35	5.70	5.46	5.69	5.98															
40	5.40	5.14	5.41	5.78															
45	5.03	4.79	5.07	5.53															
50	4.61	4.37	4.66	5.14															
55	4.09	3.93	4.09	4.68															
60	3.43	3.39	3.34	4.15															
65	2.19	2.68	2.52	3.48															
70	1.19	1.63	1.50	2.55															
75	0.53	0.73	0.42	1.46															
80	0.07	0.04	0.03	0.23															
85	0.02	0.00	0.00	0.01															
90	0.00	0.00	0.00	0.00															
95	0.00	0.00	0.00	0.00															
100	0.00	0.00	0.00	0.00															
105	0.00	0.00	0.00	0.00															
110	0.00	0.00	0.00	0.00															
115	0.00	0.00	0.00	0.00															
120	0.00	0.00	0.00	0.00															
125	0.00	0.00	0.00	0.00															
130	0.00	0.00	0.00	0.00															
135	0.00	0.00	0.00	0.00															
140	0.00	0.00	0.00	0.00															
145	0.00	0.01	0.00	0.00															
150	0.00	0.01	0.00	0.00															
155	0.00	0.01	0.00	0.00															
160	0.00	0.01	0.01	0.00															
165	0.01	0.01	0.01	0.01															
170	0.01	0.01	0.01	0.01															
175	0.01	0.01	0.01	0.01															
180	0.01	0.01	0.01	0.01															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LHY
 Test Date:2021-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:GO-2000A_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:9.727m [K=1.0000]
 Remarks: