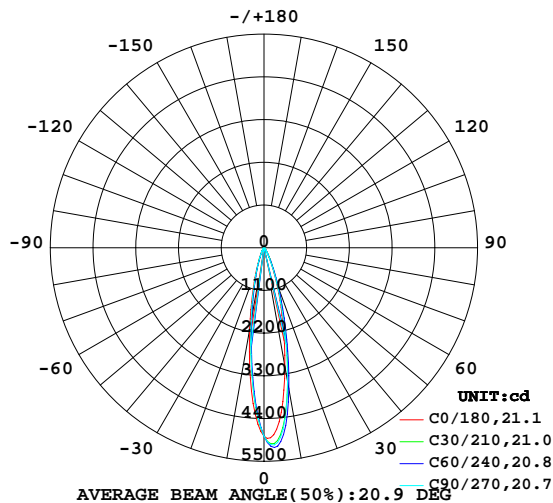


LUMINAIRE PHOTOMETRIC TEST REPORT

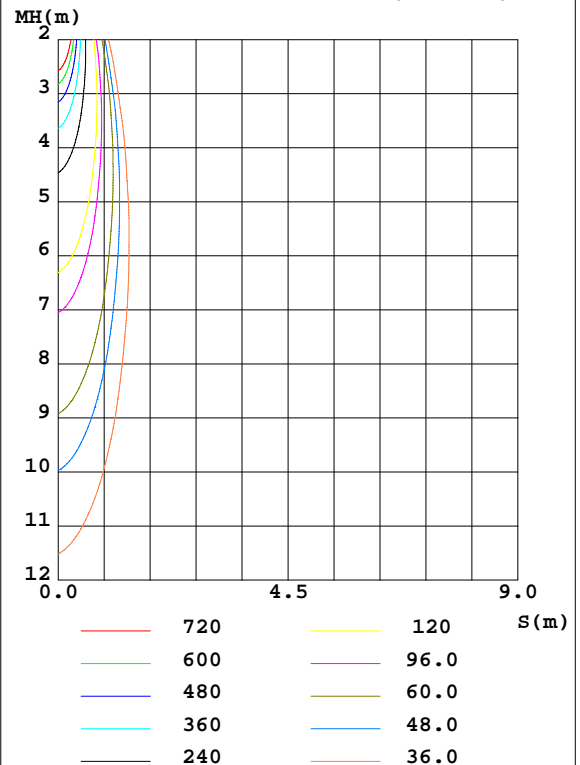
Test:U:225.1V I:0.0700A P:15.10W PF:0.9610 Freq:50.00Hz Lamp Flux:1010.24x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:46		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 66.90 lm/W
MODEL	ALR55-15G30-24	I _{max} (cd)	5152	S/MH(C0/180)	0.42	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.45	
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	1010.2	η UP,DN(C0-180)	0.0,40.4	
NOMINAL FLUX(lm)	1010.24	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,59.6	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	225.1	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: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

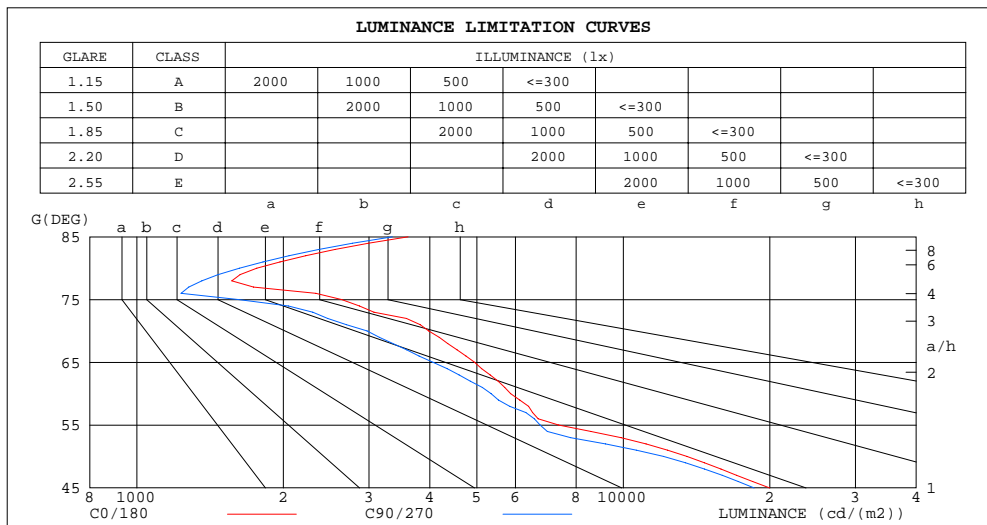
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	2113	1840	1914	2400	3102	3570	3498	2719	0- 10	344.4	344.4	34.1,34.1
20	505.4	428.0	462.0	655.1	935.2	1090	984.3	702.1	10- 20	403.8	748.2	74.1,74.1
30	124.6	108.9	113.8	153.9	216.8	241.6	207.5	156.1	20- 30	164.0	912.1	90.3,90.3
40	42.55	34.28	35.53	48.49	66.30	72.64	65.68	51.03	30- 40	58.82	970.9	96.1,96.1
50	14.65	12.70	12.92	17.11	22.53	24.70	23.45	17.69	40- 50	24.20	995.1	98.5,98.5
60	4.946	4.367	4.441	5.518	6.706	6.961	6.762	5.474	50- 60	9.175	1004	99.4,99.4
70	2.295	1.733	1.689	2.168	2.973	3.547	3.617	2.761	60- 70	3.907	1008	99.8,99.8
80	0.5166	0.5382	0.4689	0.5399	0.4762	0.8468	0.8025	0.4657	70- 80	1.567	1010	100,100
90	0.6158	0.6556	0.6065	0.5503	0.1867	0.2199	0.2074	0.1977	80- 90	0.4605	1010	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: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:225.1V I:0.0700A P:15.10W PF:0.9610 Freq:50.00Hz Lamp Flux:1010.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3609	3350
80	1764	1626
75	2636	1618
70	3979	2972
65	4949	4063
60	5866	5347
55	7364	6744
50	13513	12096
45	19983	18580

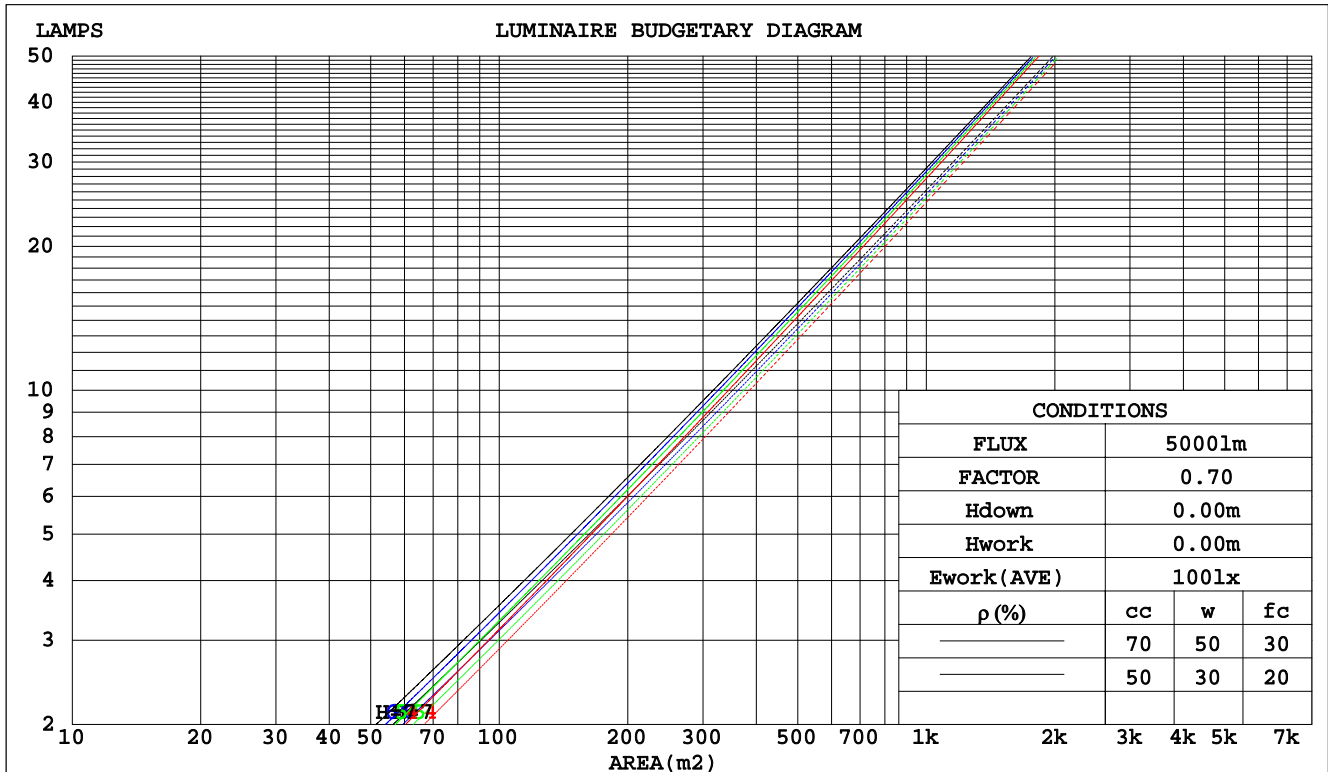
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.240m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:225.1V I:0.0700A P:15.10W PF:0.9610 Freq:50.00Hz Lamp Flux:1010.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	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	1.13	1.11	1.09	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.01	1.05	1.02	.00	1.02	.00	.98	.99	.97	.96	.96	.95	.94	.92
3.0	1.02	.98	.95	1.01	.97	.94	.98	.95	.93	.96	.93	.91	.94	.92	.90	.89
4.0	.98	.93	.90	.96	.93	.90	.94	.91	.89	.93	.90	.88	.91	.89	.87	.85
5.0	.94	.89	.86	.93	.89	.86	.91	.88	.85	.90	.87	.84	.88	.86	.84	.82
6.0	.90	.86	.83	.89	.85	.82	.88	.84	.82	.87	.84	.81	.86	.83	.81	.80
7.0	.87	.83	.79	.86	.82	.79	.85	.82	.79	.84	.81	.78	.83	.80	.78	.77
8.0	.84	.80	.77	.84	.79	.77	.83	.79	.76	.82	.78	.76	.81	.78	.76	.75
9.0	.81	.77	.74	.81	.77	.74	.80	.77	.74	.79	.76	.74	.79	.76	.73	.72
10.0	.79	.75	.72	.79	.75	.72	.78	.74	.72	.77	.74	.72	.77	.74	.71	.70



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:225.1V I:0.0700A P:15.10W PF:0.9610 Freq:50.00Hz Lamp Flux:1010.24x1 lm									
NAME:				TYPE:				WEIGHT:	
SPEC.:				DIM.:				SERIAL No.:	
MFR.:				SUR.:46				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	.144	.082	.026	.137	.078	.025	.125	.072	.023	.114	.066	.021	.103	.060	.019	
2.0	.134	.074	.023	.129	.071	.022	.119	.066	.020	.109	.061	.019	.100	.057	.018	
3.0	.126	.067	.020	.121	.065	.020	.112	.061	.019	.104	.057	.018	.097	.054	.017	
4.0	.118	.061	.018	.114	.060	.018	.107	.057	.017	.100	.054	.016	.094	.051	.016	
5.0	.111	.057	.016	.108	.055	.016	.102	.053	.016	.096	.051	.015	.090	.048	.015	
6.0	.105	.053	.015	.102	.052	.015	.097	.050	.014	.092	.048	.014	.087	.046	.014	
7.0	.100	.049	.014	.097	.049	.014	.093	.047	.014	.088	.045	.013	.084	.044	.013	
8.0	.095	.046	.013	.093	.046	.013	.089	.044	.013	.085	.043	.012	.081	.042	.012	
9.0	.091	.044	.012	.089	.043	.012	.085	.042	.012	.082	.041	.012	.079	.040	.012	
10.0	.087	.042	.012	.085	.041	.011	.082	.040	.011	.079	.039	.011	.076	.038	.011	

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	.169	.158	.147	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.130	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.013	
3.0	.137	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.107	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.114	.086	.065	.098	.074	.056	.068	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.106	.076	.055	.091	.066	.048	.063	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.098	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.092	.061	.040	.079	.053	.035	.055	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.086	.056	.035	.074	.048	.031	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.081	.051	.031	.070	.044	.027	.048	.031	.019	.028	.018	.011	.009	.006	.004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-16

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:225.1V I:0.0700A P:15.10W PF:0.9610 Freq:50.00Hz Lamp Flux:1010.24x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.:					SUR.:46			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	2H	13.1	13.8	13.3	13.9	14.1	12.5	13.2	12.7	13.3	13.5
	3H	13.2	13.8	13.4	14.0	14.2	12.5	13.1	12.7	13.3	13.5
	4H	13.2	13.8	13.4	14.0	14.2	12.4	13.1	12.7	13.3	13.5
	6H	13.1	13.7	13.4	13.9	14.2	12.4	13.0	12.7	13.2	13.4
	8H	13.1	13.6	13.4	13.9	14.1	12.4	12.9	12.7	13.2	13.4
	12H	13.1	13.6	13.4	13.9	14.1	12.4	12.9	12.7	13.2	13.4
4H	2H	13.0	13.6	13.3	13.8	14.0	12.4	13.0	12.7	13.2	13.4
	3H	13.1	13.6	13.4	13.9	14.2	12.4	13.0	12.7	13.2	13.5
	4H	13.1	13.6	13.4	13.9	14.2	12.4	12.9	12.7	13.2	13.5
	6H	13.0	13.5	13.4	13.8	14.2	12.3	12.8	12.7	13.1	13.4
	8H	13.0	13.4	13.4	13.8	14.1	12.3	12.7	12.7	13.1	13.4
	12H	13.0	13.4	13.4	13.8	14.2	12.3	12.7	12.7	13.1	13.5
8H	4H	13.0	13.4	13.4	13.7	14.1	12.3	12.7	12.7	13.0	13.4
	6H	12.9	13.3	13.4	13.7	14.1	12.2	12.6	12.7	13.0	13.4
	8H	12.9	13.2	13.4	13.6	14.1	12.2	12.5	12.7	13.0	13.4
	12H	13.0	13.2	13.4	13.7	14.1	12.3	12.6	12.8	13.0	13.5
12H	4H	12.9	13.3	13.3	13.7	14.0	12.2	12.6	12.6	13.0	13.4
	6H	12.9	13.2	13.3	13.6	14.0	12.2	12.5	12.6	12.9	13.3
	8H	12.9	13.2	13.4	13.6	14.1	12.2	12.5	12.7	12.9	13.4
Variations with the observer position at spacings:											
S = 1.0H	+ 2.4 / - 3.9					+ 2.3 / - 3.7					
1.5H	+ 3.7 / - 3.9					+ 3.5 / - 3.6					
2.0H	+ 4.0 / - 2.8					+ 4.1 / - 2.8					

CIE Pub.117, 1010 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.0$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:225.1V I:0.0700A P:15.10W PF:0.9610 Freq:50.00Hz Lamp Flux:1010.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:

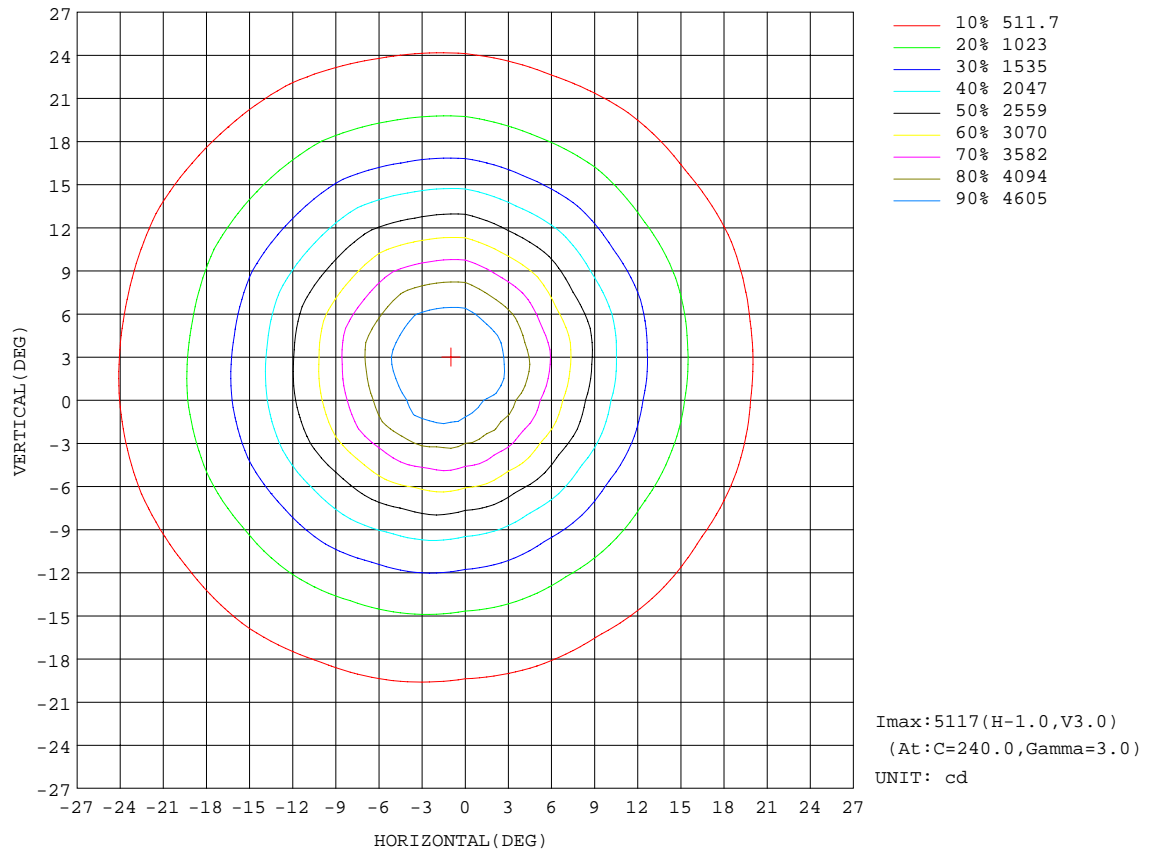
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	89	83	79	88	83	79	76
0.80	96	91	87	96	90	87	95	90	87	83
1.00	100	95	92	100	95	91	98	94	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	102	99	106	102	99	103	100	98	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	104	102	96
3.00	112	109	106	110	108	105	107	105	103	97
4.00	114	112	109	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: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:225.1V I:0.0700A P:15.10W PF:0.9610 Freq:50.00Hz Lamp Flux:1010.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:

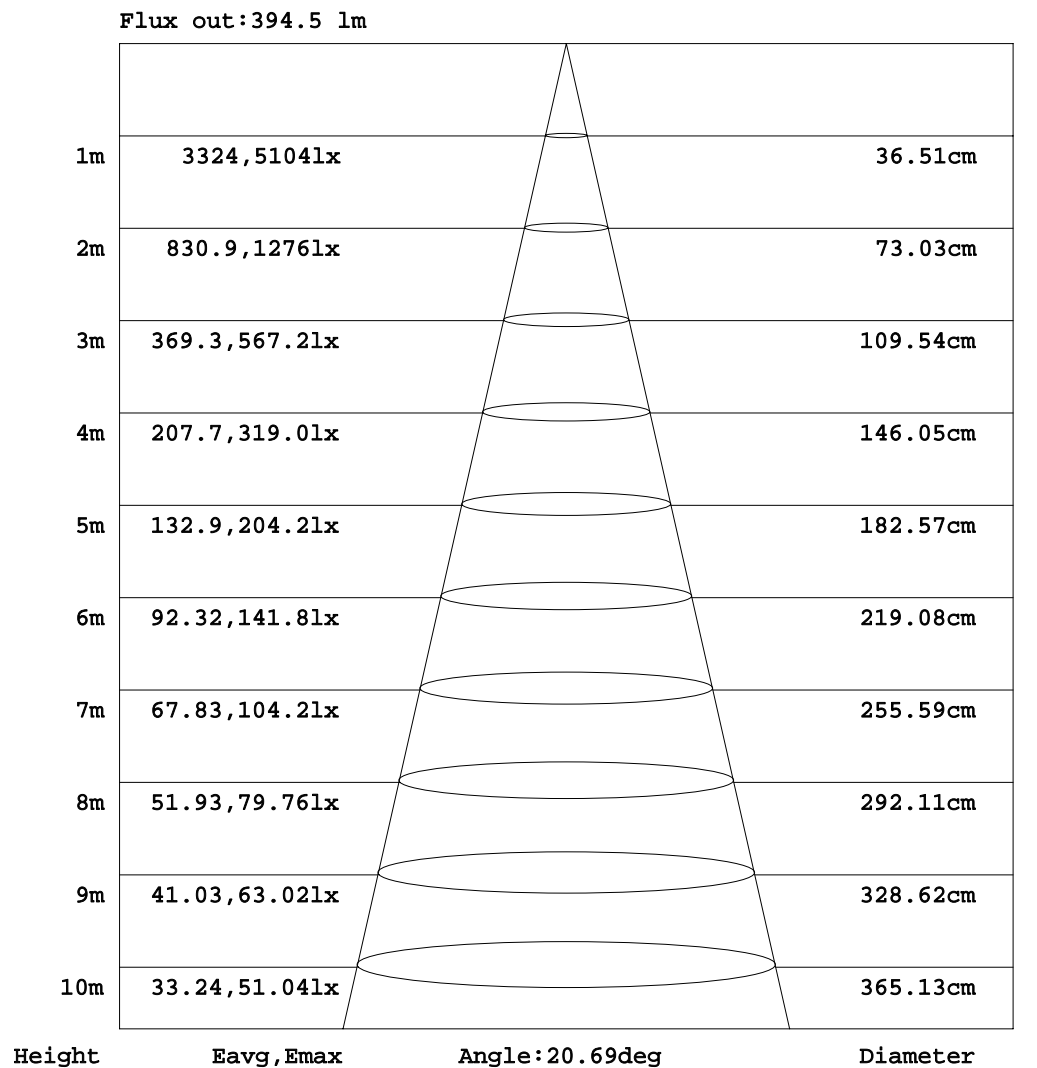


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

AAI Figure

Test:U:225.1V I:0.0700A P:15.10W PF:0.9610 Freq:50.00Hz Lamp Flux:1010.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:



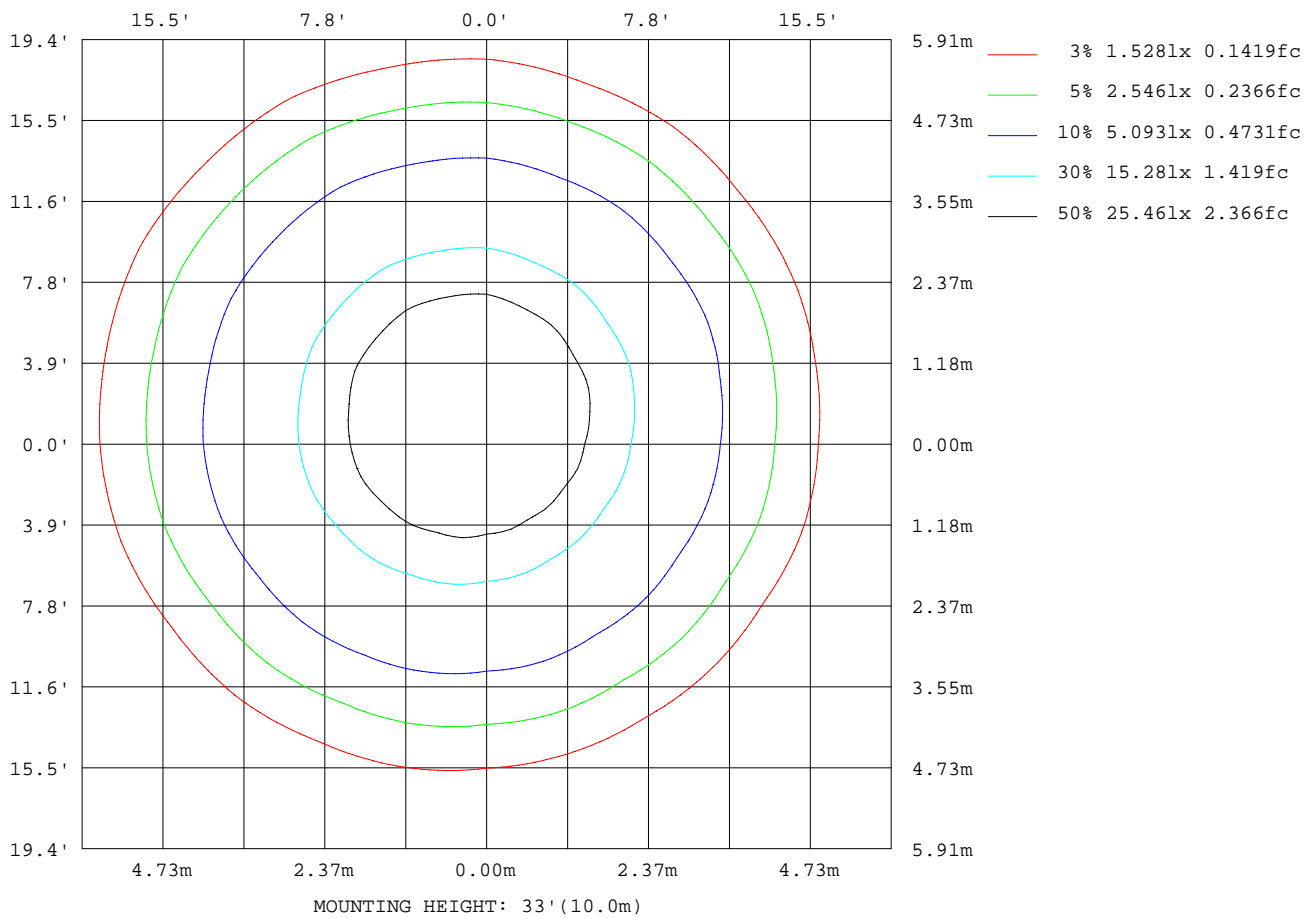
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:225.1V I:0.0700A P:15.10W PF:0.9610 Freq:50.00Hz Lamp Flux:1010.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: AE
 Test Date: 2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.240m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:225.1V I:0.0700A P:15.10W PF:0.9610 Freq:50.00Hz Lamp Flux:1010.24x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:

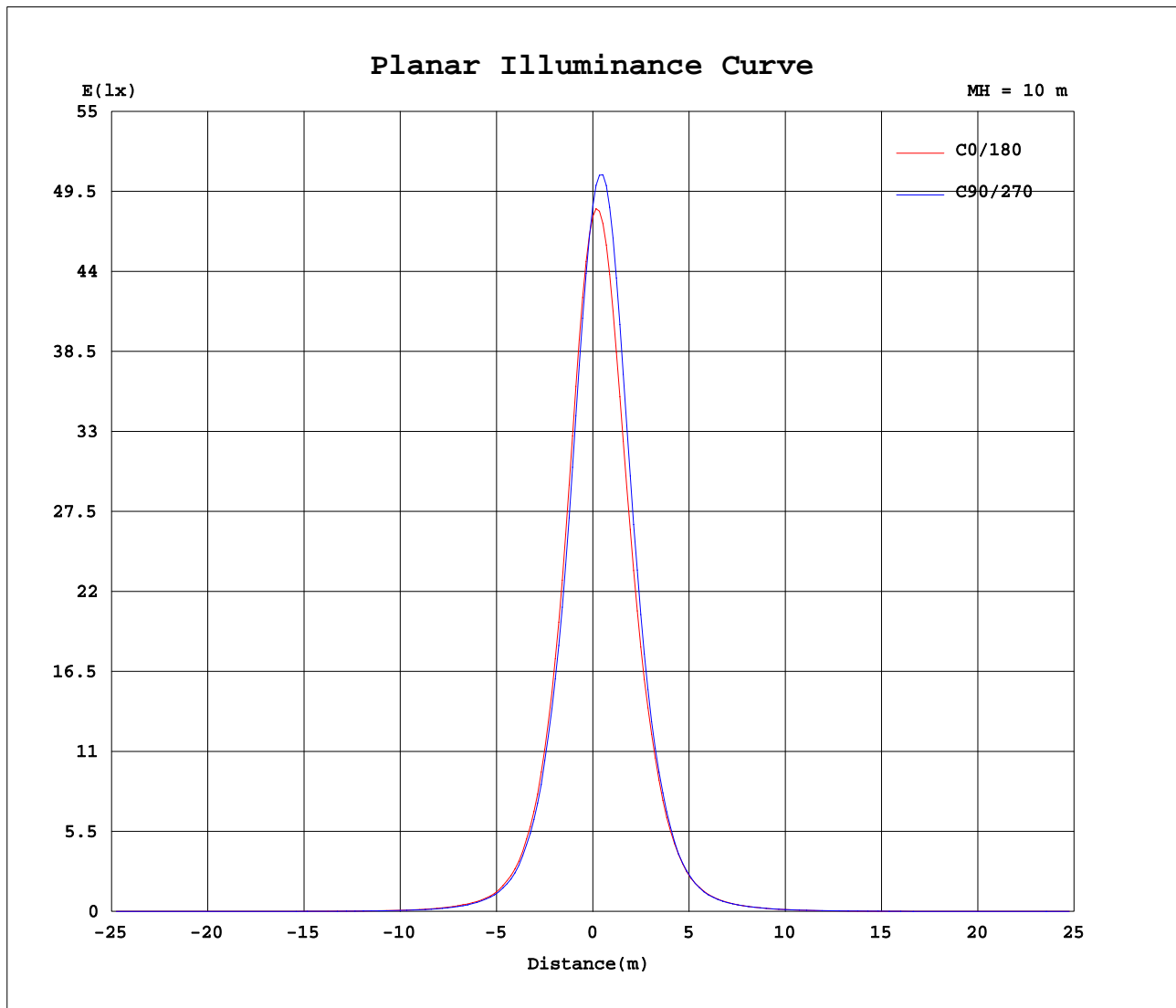
AvgL	cd/m2
L_0~180(65)av	5707
L_0~180(75)av	3400
L_0~180(85)av	2846
L_90~270(65)av	5627
L_90~270(75)av	3553
L_90~270(85)av	2755
L_45(65)av	5427
L_45(75)av	3329
L_45(85)av	2859

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.240m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

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