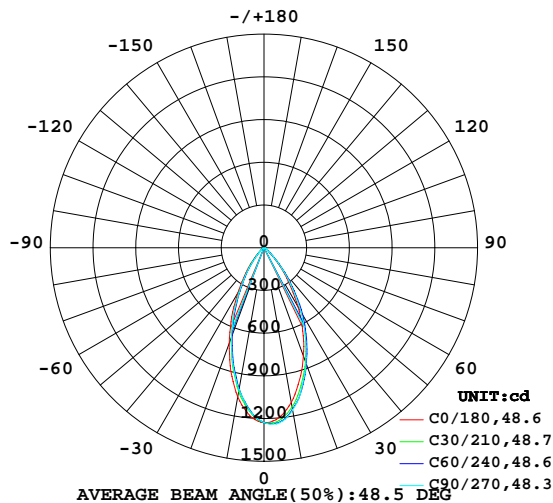


LUMINAIRE PHOTOMETRIC TEST REPORT

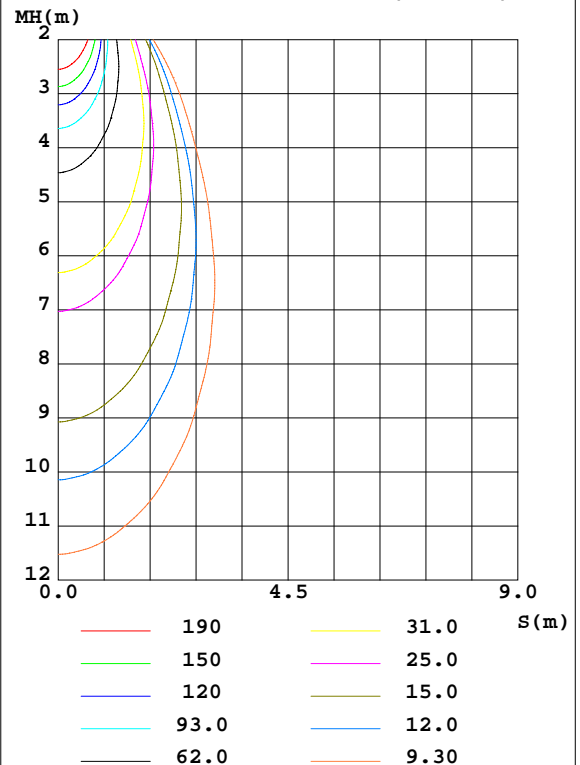
Test:U:225.1V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:918.052x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:46		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 60.80 lm/W
MODEL	ALR55-15G30-60	I _{max} (cd)	1240	S/MH(C0/180)	0.79	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.82	
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	918.05	η UP,DN(C0-180)	0.0,44.5	
NOMINAL FLUX(lm)	918.052	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,55.5	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	225.1	η down(%)	100.0	CIBSE SHR MAX	0.80	

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:

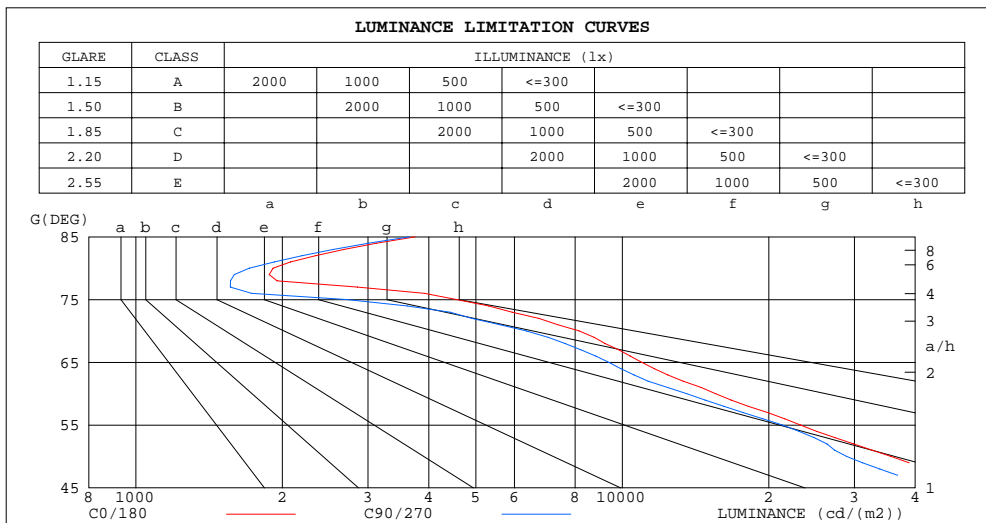
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1064	1016	1010	1047	1103	1141	1158	1122	0- 10	110.1	110.1	12,12
20	714.3	666.0	667.6	735.4	810.0	856.8	863.4	792.3	10- 20	258.4	368.5	40.1,40.1
30	370.1	330.7	328.9	399.1	479.2	531.3	519.9	444.9	20- 30	269.3	637.8	69.5,69.5
40	145.7	117.2	105.5	140.2	192.0	226.4	211.1	175.4	30- 40	175.4	813.2	88.6,88.6
50	37.88	31.39	30.93	37.13	47.70	55.10	54.04	46.05	40- 50	67.33	880.5	95.9,95.9
60	12.84	11.28	11.28	14.66	19.49	22.19	21.57	16.53	50- 60	24.78	905.3	98.6,98.6
70	4.608	3.870	3.613	4.705	5.995	6.837	6.758	5.405	60- 70	9.521	914.8	99.6,99.6
80	0.5494	0.5039	0.4941	0.5403	0.7166	1.375	1.213	0.5120	70- 80	2.754	917.5	99.9,99.9
90	0.6618	0.7421	0.6782	0.5966	0.3387	0.3047	0.3097	0.3179	80- 90	0.5026	918.1	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:0.9600 Freq:50.00Hz Lamp Flux:918.052x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3752	3654
80	1914	1710
75	4564	2717
70	8152	6348
65	10961	9376
60	15542	13558
55	23238	21355
50	35659	28917
45	58239	44693

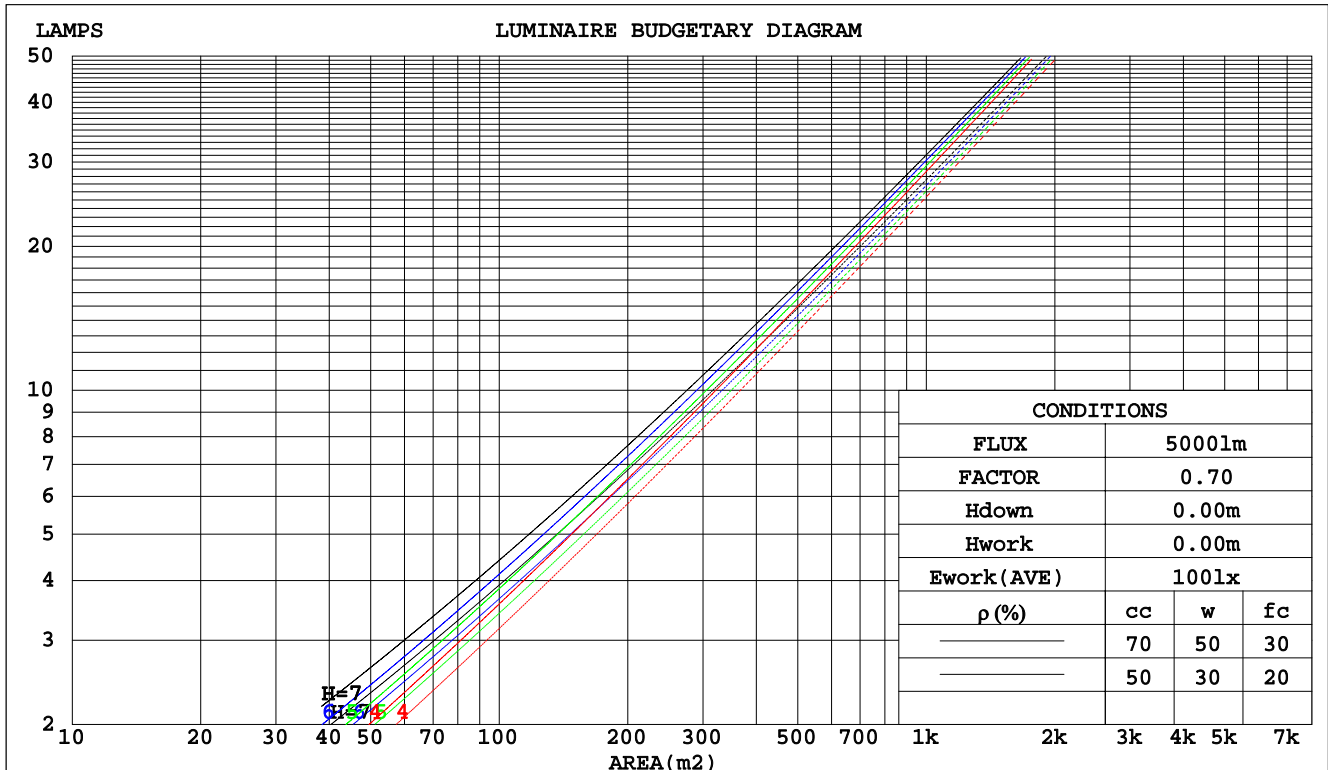
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2020-06-16

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:0.9600 Freq:50.00Hz Lamp Flux:918.052x1 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	1.00
1.0	1.11	1.08	1.06	1.08	1.06	1.04	1.04	1.02	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.98	.95	1.01	.97	.94	.98	.95	.92	.95	.92	.90	.92	.90	.88	.86
3.0	.96	.90	.86	.94	.89	.86	.91	.88	.84	.89	.86	.83	.87	.84	.82	.80
4.0	.89	.83	.79	.88	.83	.79	.86	.81	.78	.84	.80	.77	.82	.79	.76	.74
5.0	.83	.77	.73	.82	.77	.73	.81	.76	.72	.79	.75	.71	.77	.74	.71	.69
6.0	.78	.72	.68	.77	.72	.68	.76	.71	.67	.75	.70	.67	.73	.69	.66	.65
7.0	.74	.68	.63	.73	.67	.63	.72	.66	.63	.70	.66	.62	.69	.65	.62	.61
8.0	.69	.63	.59	.69	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.58	.57
9.0	.66	.60	.56	.65	.59	.56	.64	.59	.55	.63	.59	.55	.62	.58	.55	.54
10.0	.62	.56	.52	.62	.56	.52	.61	.56	.52	.60	.55	.52	.59	.55	.52	.51



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:0.9600 Freq:50.00Hz Lamp Flux:918.052x1 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	.182	.104	.033	.175	.100	.032	.163	.093	.030	.151	.087	.028	.141	.081	.026	
2.0	.175	.096	.029	.169	.093	.029	.159	.088	.027	.149	.083	.026	.140	.079	.025	
3.0	.167	.089	.027	.162	.087	.026	.153	.083	.025	.144	.079	.024	.136	.076	.023	
4.0	.158	.082	.024	.154	.081	.024	.146	.078	.023	.139	.075	.023	.132	.072	.022	
5.0	.151	.077	.022	.147	.075	.022	.140	.073	.021	.134	.071	.021	.128	.068	.021	
6.0	.144	.072	.021	.140	.071	.020	.134	.069	.020	.129	.067	.020	.123	.065	.019	
7.0	.137	.068	.019	.134	.067	.019	.129	.065	.019	.124	.063	.018	.119	.062	.018	
8.0	.131	.064	.018	.128	.063	.018	.123	.062	.018	.119	.060	.017	.115	.059	.017	
9.0	.125	.060	.017	.123	.060	.017	.118	.059	.017	.114	.057	.016	.111	.056	.016	
10.0	.120	.057	.016	.118	.057	.016	.114	.056	.016	.110	.055	.016	.107	.054	.015	

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	.144	.147	.135	.124	.100	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.157	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.145	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.134	.099	.072	.115	.086	.062	.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	.096	.061	.036	.067	.043	.026	.039	.025	.015	.012	.008	.005	
8.0	.106	.064	.036	.091	.056	.031	.063	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.101	.059	.031	.087	.051	.027	.060	.036	.019	.035	.021	.011	.011	.007	.004	
10.0	.097	.055	.027	.083	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.003	

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:0.9600 Freq:50.00Hz Lamp Flux:918.052x1 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	21.6	22.6	21.9	22.8	22.9	20.8	21.8	21.0	22.0	22.1
3H	21.6	22.5	21.8	22.7	22.9	20.7	21.6	21.0	21.8	22.0
4H	21.5	22.3	21.8	22.6	22.8	20.7	21.5	20.9	21.7	22.0
6H	21.4	22.2	21.7	22.4	22.7	20.6	21.4	20.9	21.6	21.9
8H	21.4	22.1	21.7	22.4	22.6	20.5	21.3	20.8	21.6	21.8
12H	21.3	22.1	21.6	22.3	22.6	20.5	21.2	20.8	21.5	21.8
4H 2H	21.5	22.3	21.7	22.5	22.7	20.7	21.5	20.9	21.7	22.0
3H	21.4	22.1	21.7	22.4	22.7	20.6	21.3	20.9	21.6	21.9
4H	21.3	22.0	21.7	22.3	22.6	20.5	21.2	20.9	21.5	21.8
6H	21.3	21.8	21.6	22.2	22.5	20.4	21.0	20.8	21.4	21.7
8H	21.2	21.7	21.6	22.1	22.5	20.4	20.9	20.8	21.3	21.7
12H	21.2	21.7	21.6	22.0	22.4	20.4	20.8	20.8	21.2	21.6
8H 4H	21.2	21.7	21.6	22.1	22.5	20.4	20.9	20.8	21.3	21.7
6H	21.1	21.6	21.5	22.0	22.4	20.3	20.8	20.7	21.1	21.6
8H	21.1	21.5	21.5	21.9	22.3	20.3	20.7	20.7	21.1	21.5
12H	21.0	21.4	21.5	21.8	22.3	20.2	20.6	20.7	21.0	21.5
12H 4H	21.2	21.7	21.6	22.0	22.4	20.4	20.8	20.8	21.2	21.6
6H	21.1	21.5	21.5	21.9	22.3	20.3	20.6	20.7	21.1	21.5
8H	21.0	21.4	21.5	21.8	22.3	20.2	20.5	20.7	21.0	21.5
Variations with the observer position at spacings:										
S = 1.0H	+ 2.9 / - 5.5					+ 2.7 / - 5.2				
1.5H	+ 4.6 / - 4.5					+ 4.4 / - 3.9				
2.0H	+ 4.7 / - 4.2					+ 3.7 / - 3.9				

CIE Pub.117, 918.1 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -0.3$)

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:0.9600 Freq:50.00Hz Lamp Flux:918.052x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:

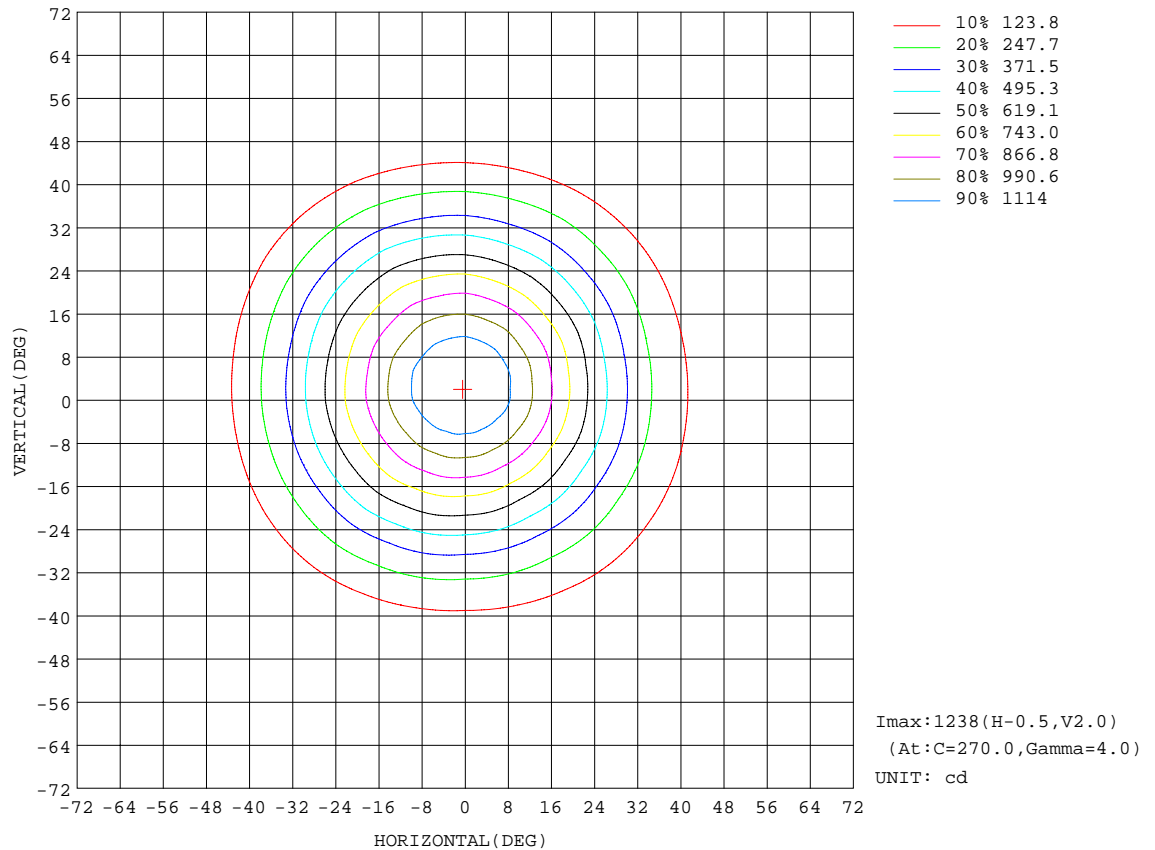
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	84	77	73	84	77	73	83	77	73	69
0.80	92	86	82	92	85	82	90	85	81	77
1.00	97	91	87	96	91	87	95	91	86	82
1.25	102	96	92	101	95	92	99	94	91	87
1.50	105	99	96	103	99	95	101	97	94	90
2.00	108	103	100	106	102	99	103	100	98	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	108	105	109	106	104	106	103	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	112	110	109	108	107	105	98
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:0.9600 Freq:50.00Hz Lamp Flux:918.052x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:



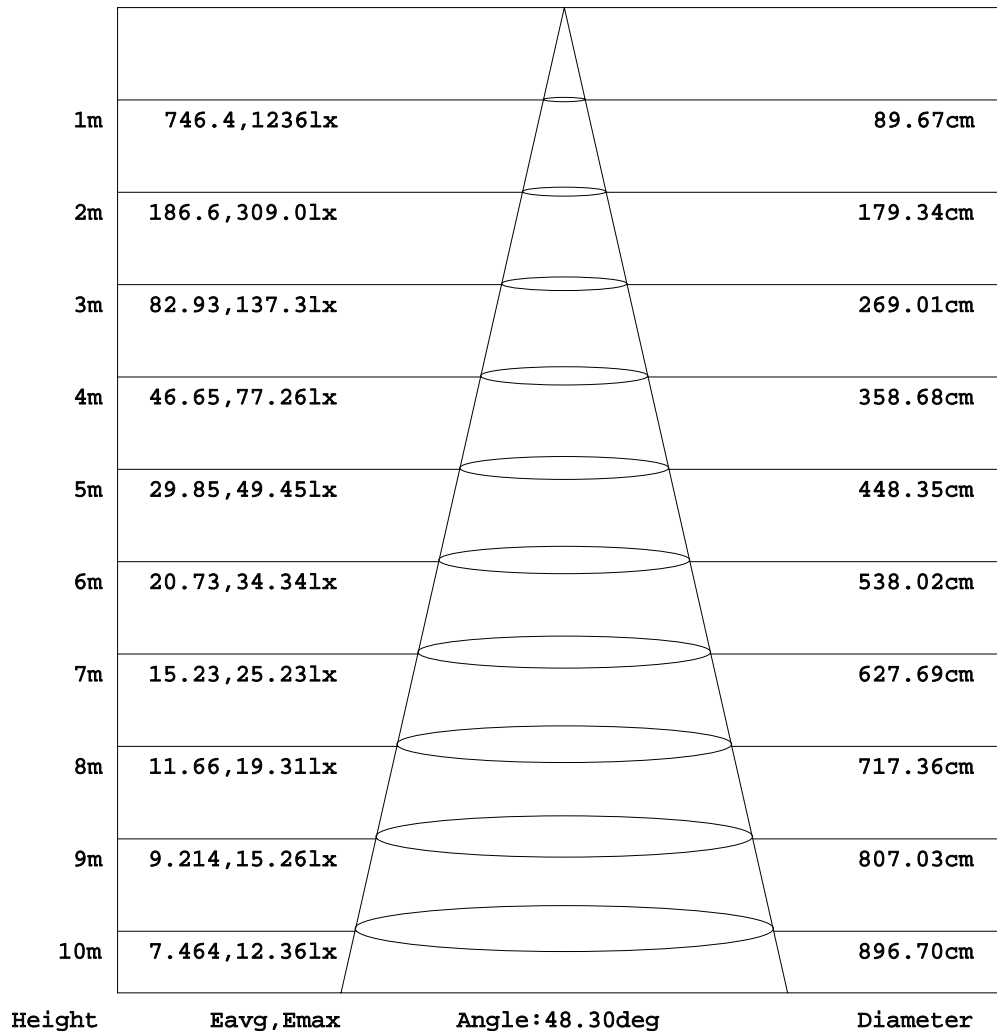
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-16

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:0.9600 Freq:50.00Hz Lamp Flux:918.052x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:

Flux out:509.8 lm



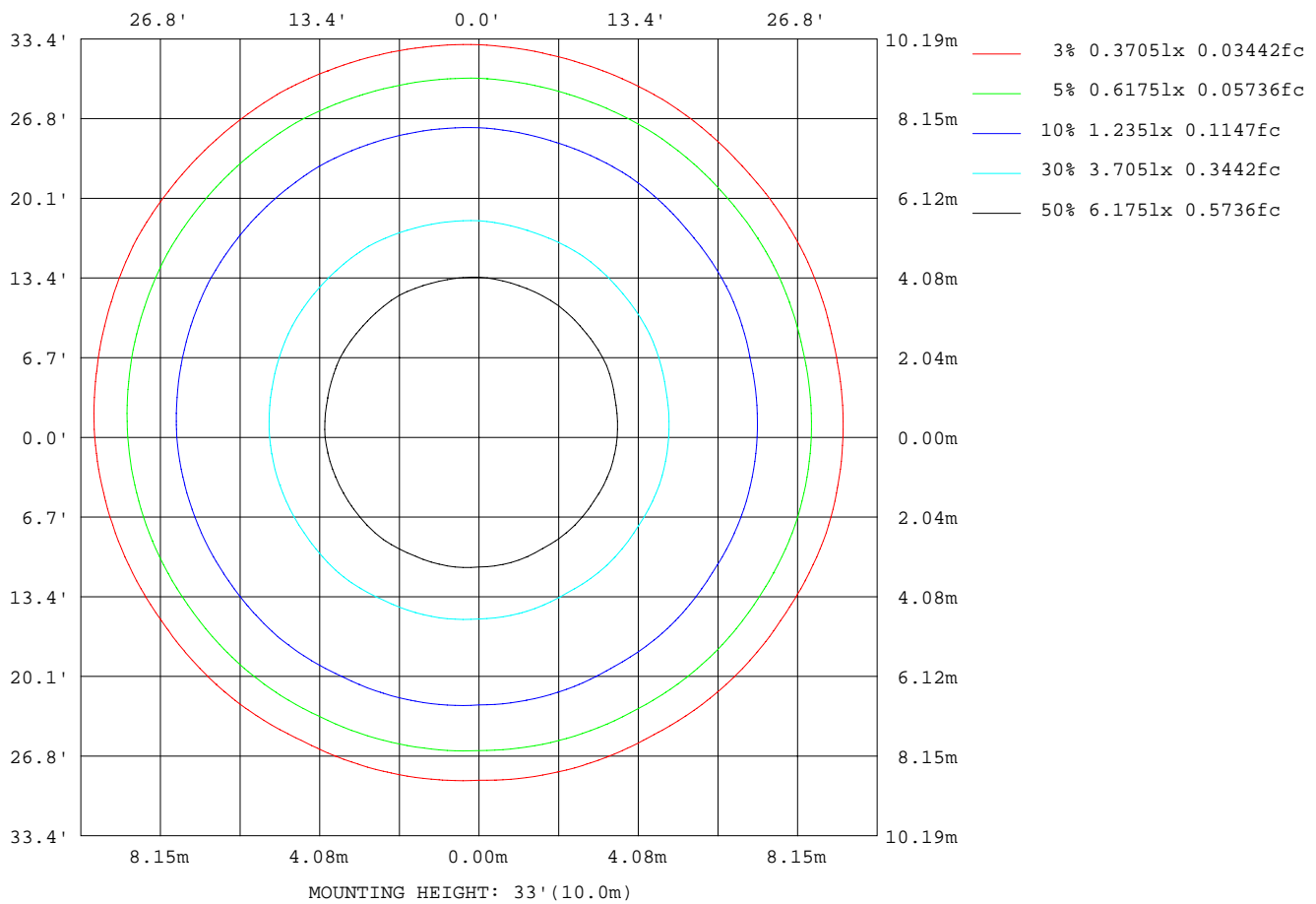
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.9600 Freq:50.00Hz Lamp Flux:918.052x1 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:0.9600 Freq:50.00Hz Lamp Flux:918.052x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:

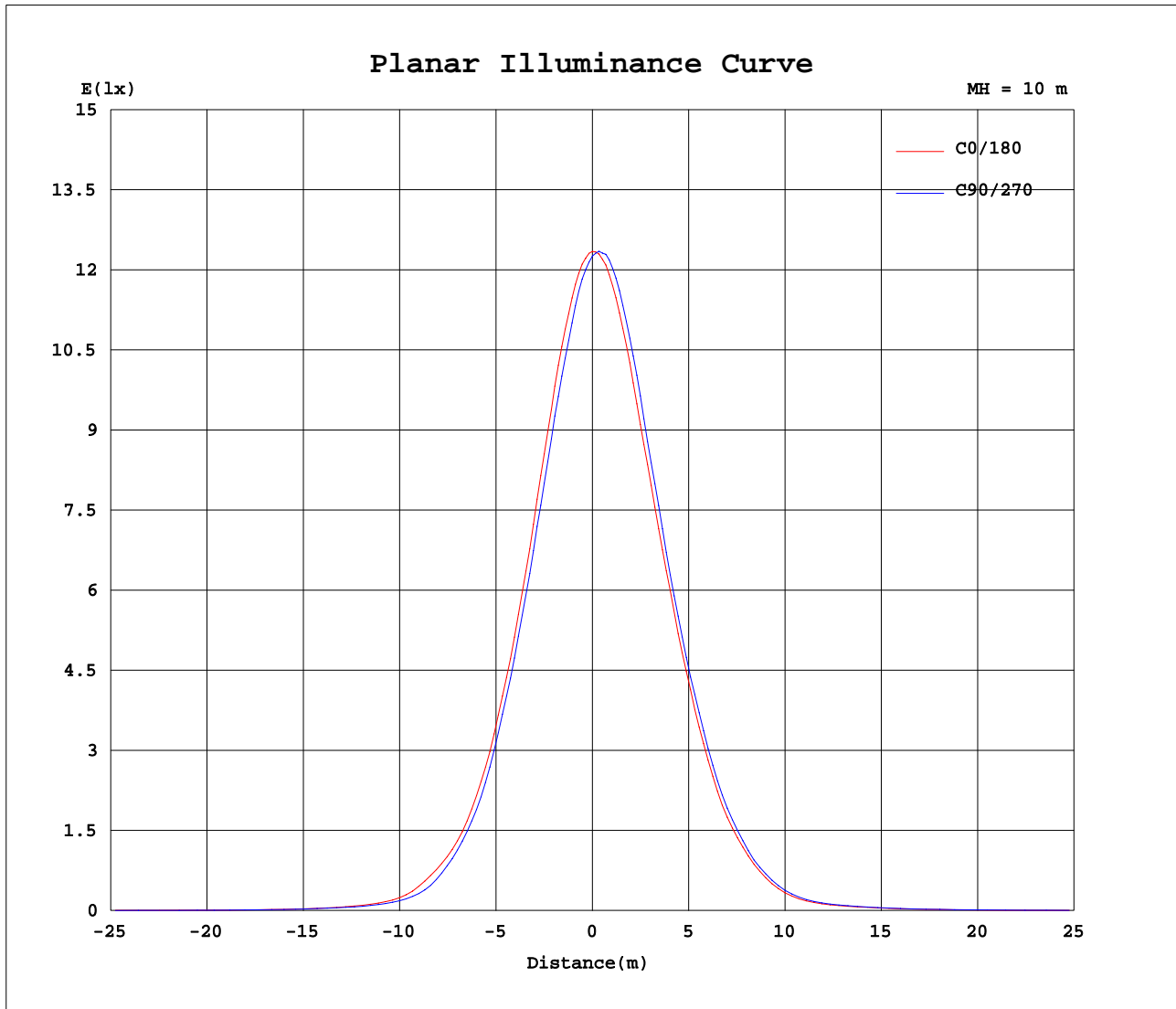
AvgL	cd/m2
L_0~180(65)av	12624
L_0~180(75)av	5832
L_0~180(85)av	3036
L_90~270(65)av	13252
L_90~270(75)av	5655
L_90~270(85)av	2900
L_45(65)av	12898
L_45(75)av	5759
L_45(85)av	2901

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:

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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:

```