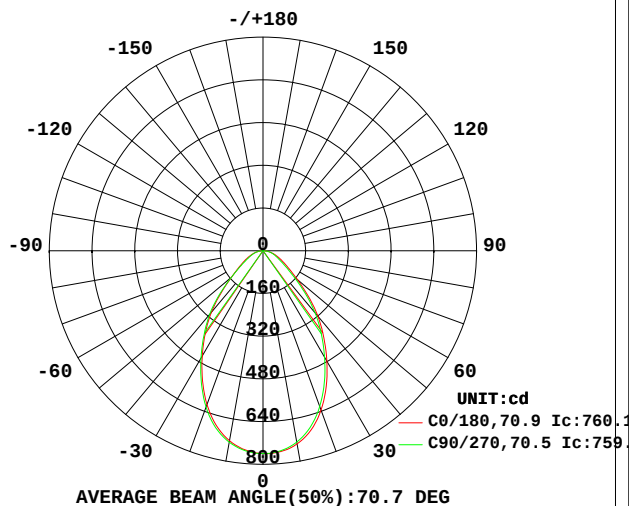


LUMINAIRE PHOTOMETRIC TEST REPORT

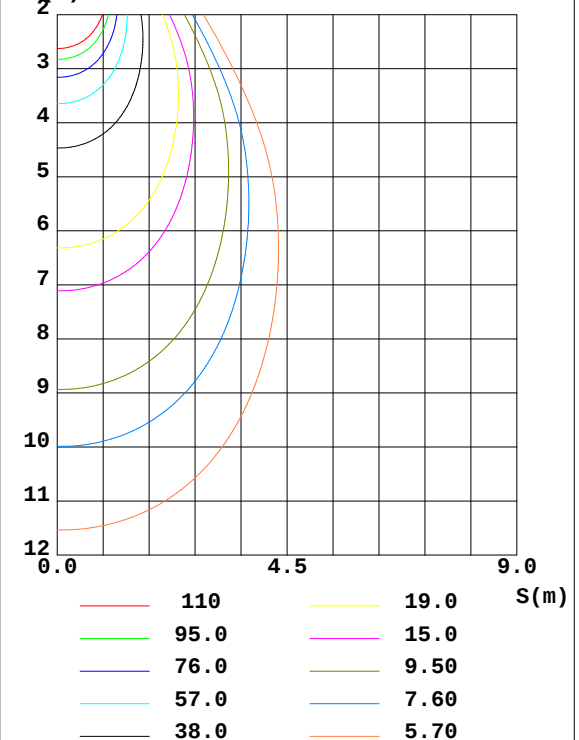
Test:U:230.28V I:0.0519A P:10.846W PF:0.9073 Freq:49.99Hz Lamp Flux:1140.3x1 lm		
NAME: AL5008-WHTC12S02-TS	TYPE:	WEIGHT:
SPEC.:white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.:115mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 105.14 lm/W			
MODEL	2835 96 4000K	I _{max} (cd)	760.2	S/MH(C0/180)	0.98
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	0.99
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	1140.3	η UP, DN(C0-180)	0.0, 50.1
NOMINAL FLUX(lm)	1140.3	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.10

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-07-17

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.402
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

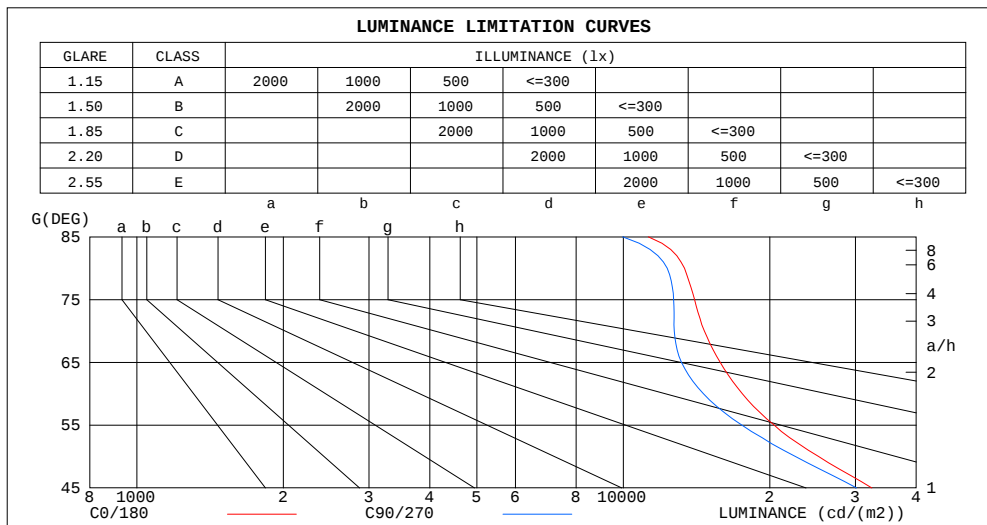
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	734.9	732.7	728.0	722.9	722.3	723.8	728.4	733.9	0- 10	71.05	71.05	6.23,6.23
20	635.5	631.3	621.0	612.7	613.2	615.4	623.1	633.9	10- 20	191.8	262.8	23,23
30	478.7	473.7	461.9	453.4	455.4	456.9	464.5	475.9	20- 30	250.4	513.3	45,45
40	319.9	314.4	304.0	298.0	300.3	302.0	310.4	320.1	30- 40	240.5	753.8	66.1,66.1
50	168.5	160.8	150.6	147.7	154.9	151.6	154.8	163.3	40- 50	175.5	929.3	81.5,81.5
60	91.43	84.51	75.84	79.63	85.15	79.27	76.03	84.70	50- 60	101.1	1030	90.4,90.4
70	52.27	50.44	45.20	47.23	48.19	46.70	43.81	50.22	60- 70	62.99	1093	95.9,95.9
80	24.15	24.09	22.19	20.89	20.41	20.56	20.98	23.42	70- 80	36.79	1130	99.1,99.1
90	0.4295	0.4199	0.3858	0.3826	0.1393	0.1425	0.1427	0.1353	80- 90	10.14	1140	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: HIGH
Temperature:25DEG
Operators:
Test Date:2024-07-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.28V I:0.0519A P:10.846W PF:0.9073 Freq:49.99Hz Lamp Flux:1140.3x1 lm		
NAME: AL5008-WHTC12S02-TS	TYPE:	WEIGHT:
SPEC.:white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.:115mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	11254	9973
80	13357	12307
75	14006	12683
70	14677	12729
65	15818	13165
60	17561	14609
55	20425	17515
50	25177	22564
45	32425	30163

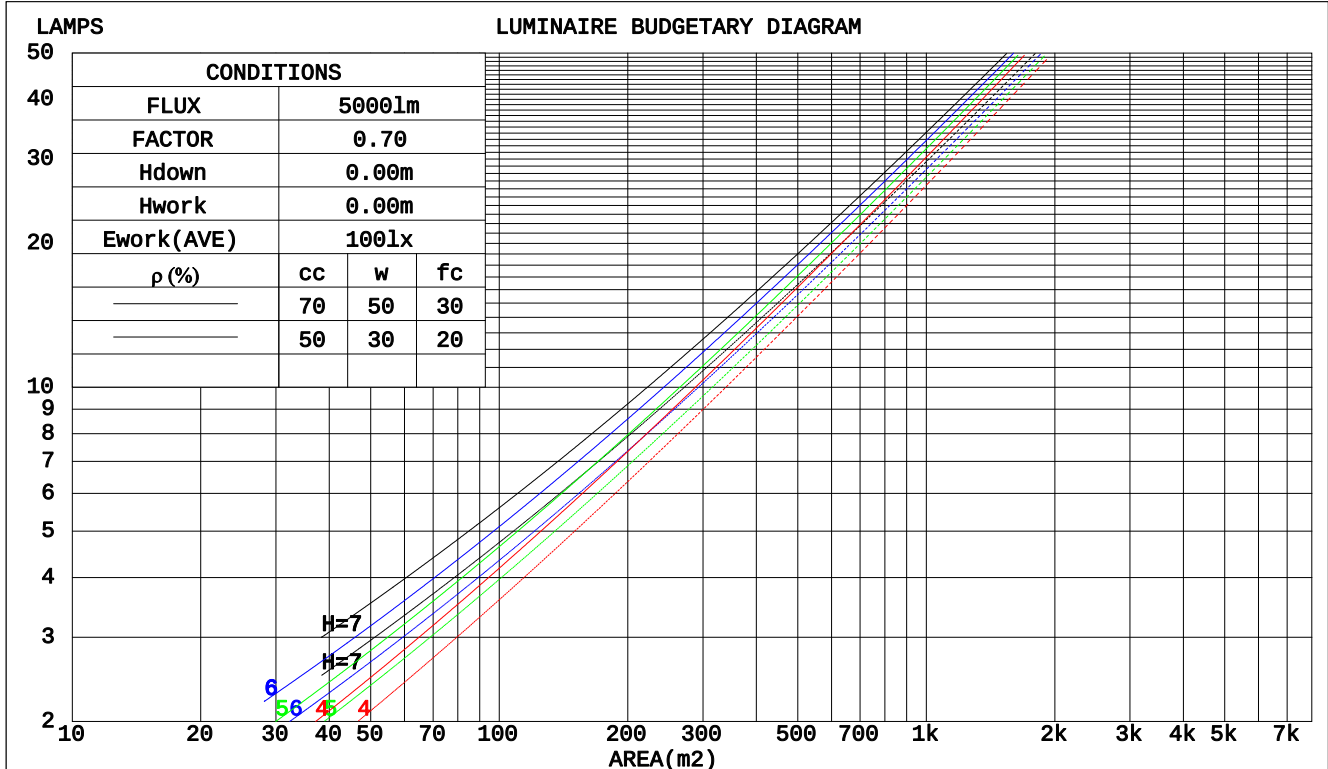
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-07-17

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.402
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.28V I:0.0519A P:10.846W PF:0.9073 Freq:49.99Hz Lamp Flux:1140.3x1 lm		
NAME: AL5008-WHTC12S02-TS	TYPE:	WEIGHT:
SPEC.:white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.:115mm	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			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	1.01	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.94	.92	.90	.89
2.0	.97	.91	.87	.95	.90	.86	.91	.87	.84	.88	.85	.82	.85	.83	.80	.78
3.0	.87	.81	.75	.86	.80	.75	.83	.78	.74	.80	.76	.72	.78	.74	.71	.69
4.0	.79	.72	.67	.78	.71	.66	.76	.70	.65	.74	.69	.65	.72	.67	.64	.62
5.0	.73	.65	.59	.72	.64	.59	.70	.63	.59	.68	.62	.58	.66	.61	.57	.56
6.0	.67	.59	.54	.66	.59	.53	.64	.58	.53	.63	.57	.53	.61	.56	.52	.50
7.0	.62	.54	.49	.61	.54	.49	.59	.53	.48	.58	.52	.48	.57	.52	.48	.46
8.0	.57	.50	.44	.56	.49	.44	.55	.49	.44	.54	.48	.44	.53	.48	.44	.42
9.0	.53	.46	.41	.52	.46	.41	.51	.45	.41	.50	.45	.40	.49	.44	.40	.39
10.0	.49	.42	.38	.49	.42	.38	.48	.42	.38	.47	.41	.37	.46	.41	.37	.36



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-07-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.402
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.28V I:0.0519A P:10.846W PF:0.9073 Freq:49.99Hz Lamp Flux:1140.3x1 lm					
NAME: AL5008-WHTC12S02-TS			TYPE:		WEIGHT:
SPEC.:white RA90 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.:115mm		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	.244	.139	.044	.237	.135	.043	.224	.129	.041	.212	.123	.039	.201	.117	.038		
2.0	.233	.127	.039	.227	.125	.038	.215	.120	.037	.205	.115	.036	.196	.111	.035		
3.0	.219	.116	.035	.213	.114	.034	.204	.110	.034	.195	.107	.033	.186	.103	.032		
4.0	.205	.107	.031	.200	.105	.031	.192	.102	.030	.184	.099	.030	.177	.096	.029		
5.0	.192	.098	.028	.188	.097	.028	.181	.094	.028	.174	.092	.027	.167	.089	.027		
6.0	.181	.091	.026	.177	.090	.026	.171	.087	.025	.164	.085	.025	.158	.083	.025		
7.0	.170	.084	.024	.167	.083	.024	.161	.081	.023	.156	.080	.023	.150	.078	.023		
8.0	.161	.079	.022	.158	.078	.022	.153	.076	.022	.148	.075	.022	.143	.073	.021		
9.0	.152	.074	.021	.150	.073	.020	.145	.072	.020	.140	.070	.020	.136	.069	.020		
10.0	.144	.069	.019	.142	.069	.019	.138	.067	.019	.134	.066	.019	.130	.065	.019		

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020		
1.0	.176	.157	.140	.150	.135	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016		
2.0	.164	.132	.105	.141	.114	.091	.096	.079	.063	.056	.046	.037	.018	.015	.012		
3.0	.155	.114	.082	.133	.098	.071	.091	.068	.050	.053	.040	.029	.017	.013	.010		
4.0	.146	.100	.065	.125	.086	.056	.086	.060	.040	.050	.035	.023	.016	.011	.008		
5.0	.138	.089	.053	.119	.077	.046	.082	.054	.032	.047	.032	.019	.015	.010	.006		
6.0	.131	.080	.044	.113	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005		
7.0	.125	.073	.037	.107	.063	.032	.074	.044	.023	.043	.026	.014	.014	.009	.005		
8.0	.119	.067	.032	.102	.058	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004		
9.0	.113	.062	.028	.098	.054	.024	.068	.038	.017	.039	.022	.010	.013	.007	.003		
10.0	.108	.058	.025	.093	.050	.021	.065	.035	.015	.038	.021	.009	.012	.007	.003		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-07-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.402
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.28V I:0.0519A P:10.846W PF:0.9073 Freq:49.99Hz Lamp Flux:1140.3x1 lm											
NAME: AL5008-WHTC12S02-TS						TYPE:			WEIGHT:		
SPEC.:white RA90 3000K+5700K						DIM.:			SERIAL No.:		
MFR.:						SUR.:115mm			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	21.8	23.1	22.1	23.3	23.4	21.6	22.9	21.9	23.1	23.2
	3H	22.6	23.8	22.9	24.0	24.2	22.4	23.5	22.6	23.7	24.0
	4H	23.0	24.1	23.3	24.3	24.6	22.7	23.8	23.0	24.1	24.3
	6H	23.4	24.4	23.7	24.6	24.9	23.1	24.1	23.4	24.4	24.6
	8H	23.5	24.5	23.8	24.7	25.0	23.2	24.2	23.5	24.4	24.7
	12H	23.5	24.5	23.9	24.8	25.1	23.2	24.2	23.6	24.5	24.8
4H	2H	22.1	23.1	22.3	23.4	23.6	21.9	23.0	22.2	23.2	23.5
	3H	23.1	24.0	23.4	24.3	24.6	22.9	23.8	23.2	24.1	24.4
	4H	23.6	24.5	24.0	24.8	25.1	23.4	24.3	23.8	24.6	24.9
	6H	24.1	24.9	24.5	25.2	25.6	23.9	24.7	24.3	25.0	25.4
	8H	24.3	25.0	24.7	25.4	25.7	24.1	24.8	24.5	25.1	25.5
	12H	24.4	25.1	24.8	25.4	25.8	24.2	24.8	24.6	25.2	25.6
8H	4H	23.8	24.5	24.2	24.9	25.3	23.6	24.3	24.0	24.7	25.1
	6H	24.4	25.0	24.9	25.4	25.9	24.3	24.8	24.7	25.2	25.7
	8H	24.7	25.2	25.2	25.7	26.1	24.5	25.0	25.0	25.5	25.9
	12H	24.9	25.4	25.4	25.8	26.3	24.7	25.1	25.2	25.6	26.1
12H	4H	23.8	24.5	24.2	24.8	25.2	23.6	24.3	24.1	24.7	25.1
	6H	24.5	25.0	24.9	25.4	25.9	24.3	24.8	24.8	25.3	25.7
	8H	24.8	25.2	25.3	25.7	26.2	24.6	25.1	25.1	25.5	26.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.5 / - 0.6					+ 0.5 / - 0.7					
1.5H	+ 0.5 / - 0.5					+ 0.5 / - 0.6					
2.0H	+ 1.2 / - 0.6					+ 1.0 / - 0.9					

CIE Pub.117, 1140 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.5$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2024-07-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.402
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.28V I:0.0519A P:10.846W PF:0.9073 Freq:49.99Hz Lamp Flux:1140.3x1 lm		
NAME: AL5008-WHTC12S02-TS	TYPE:	WEIGHT:
SPEC.:white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.:115mm	Shielding Angle:

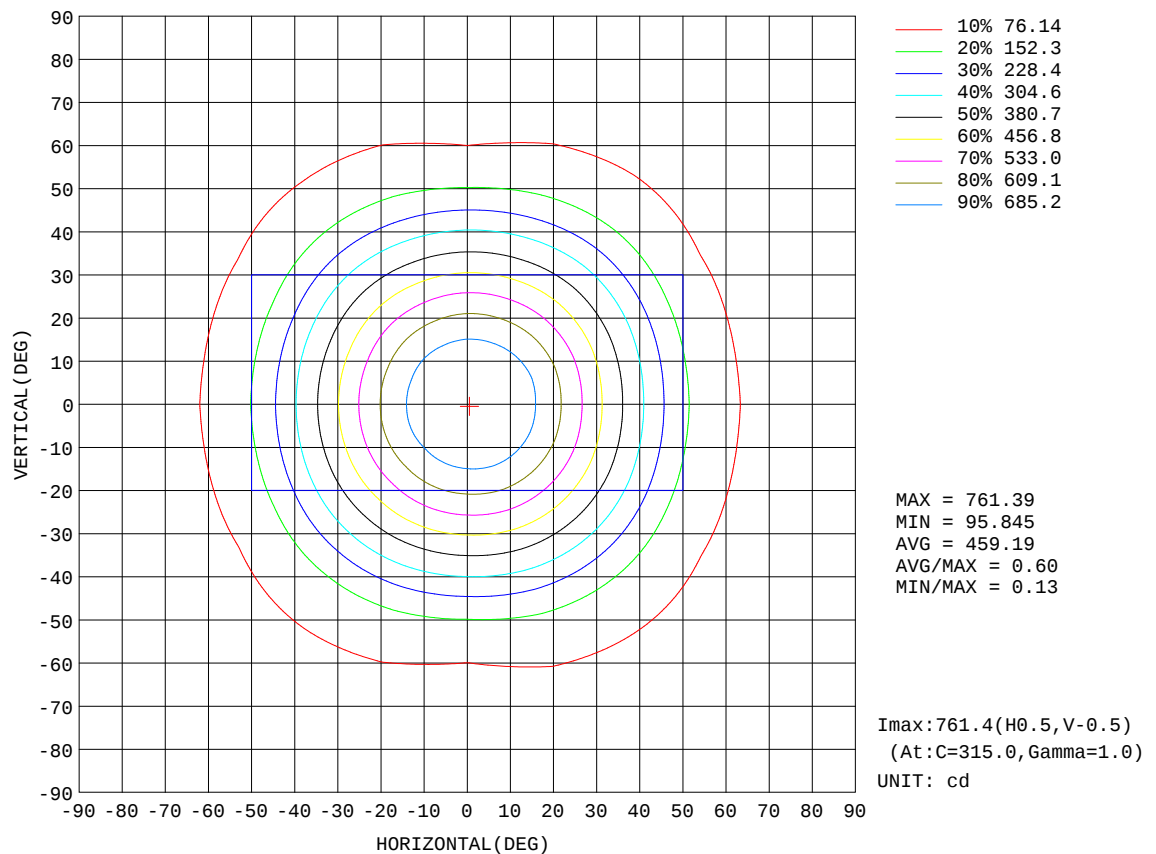
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	70	61	56	70	61	55	69	60	55	50
0.80	80	71	65	79	70	65	77	70	64	59
1.00	87	78	73	86	78	72	84	78	72	66
1.25	93	85	79	91	84	79	89	83	78	72
1.50	97	89	84	95	88	83	93	87	82	76
2.00	102	95	90	100	94	90	97	92	88	82
2.50	104	99	94	103	97	93	99	95	91	84
3.00	107	102	98	105	100	96	101	97	94	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	103	100	92
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: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-07-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.402
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:230.28V I:0.0519A P:10.846W PF:0.9073 Freq:49.99Hz Lamp Flux:1140.3x1 lm		
NAME: AL5008-WHTC12S02-TS	TYPE:	WEIGHT:
SPEC.:white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.:115mm	Shielding Angle:



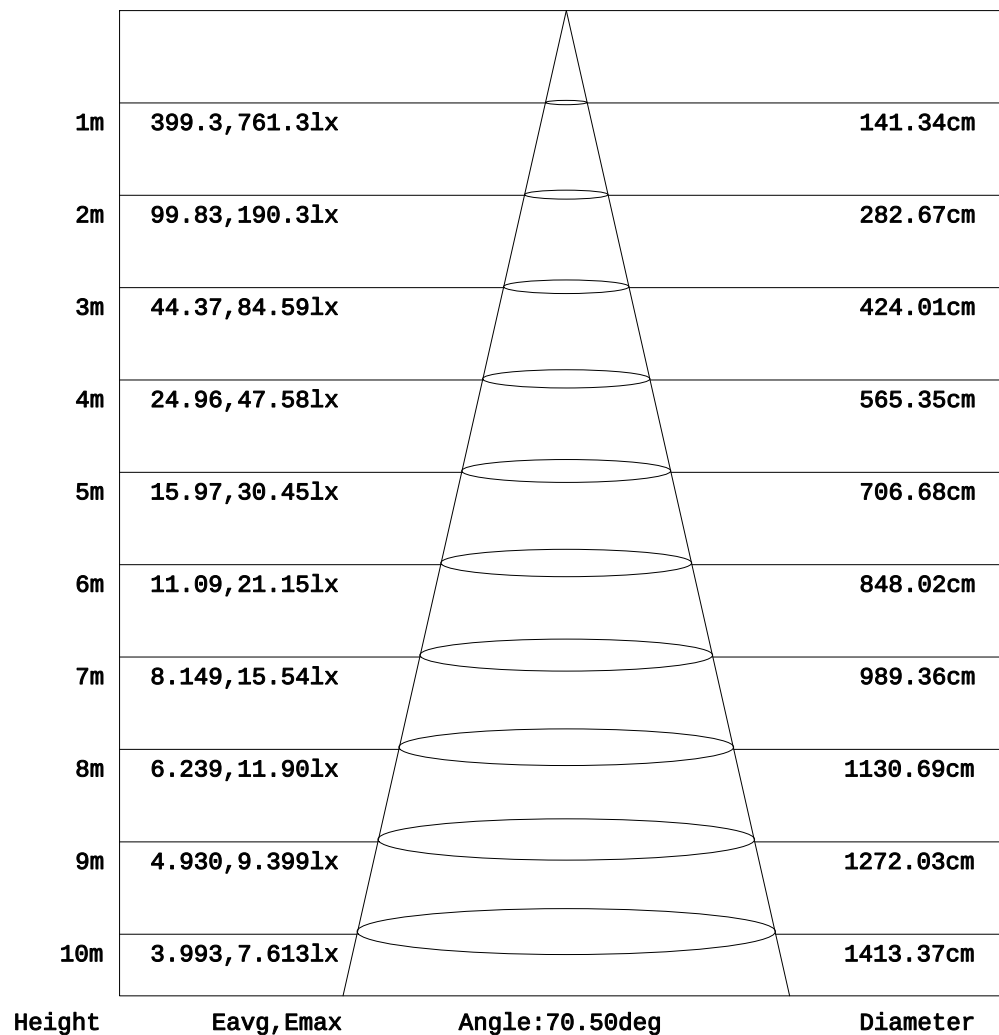
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-07-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.402
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.28V I:0.0519A P:10.846W PF:0.9073 Freq:49.99Hz Lamp Flux:1140.3x1 lm		
NAME: AL5008-WHTC12S02-TS	TYPE:	WEIGHT:
SPEC.:white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.:115mm	Shielding Angle:

Flux out:662.2 lm



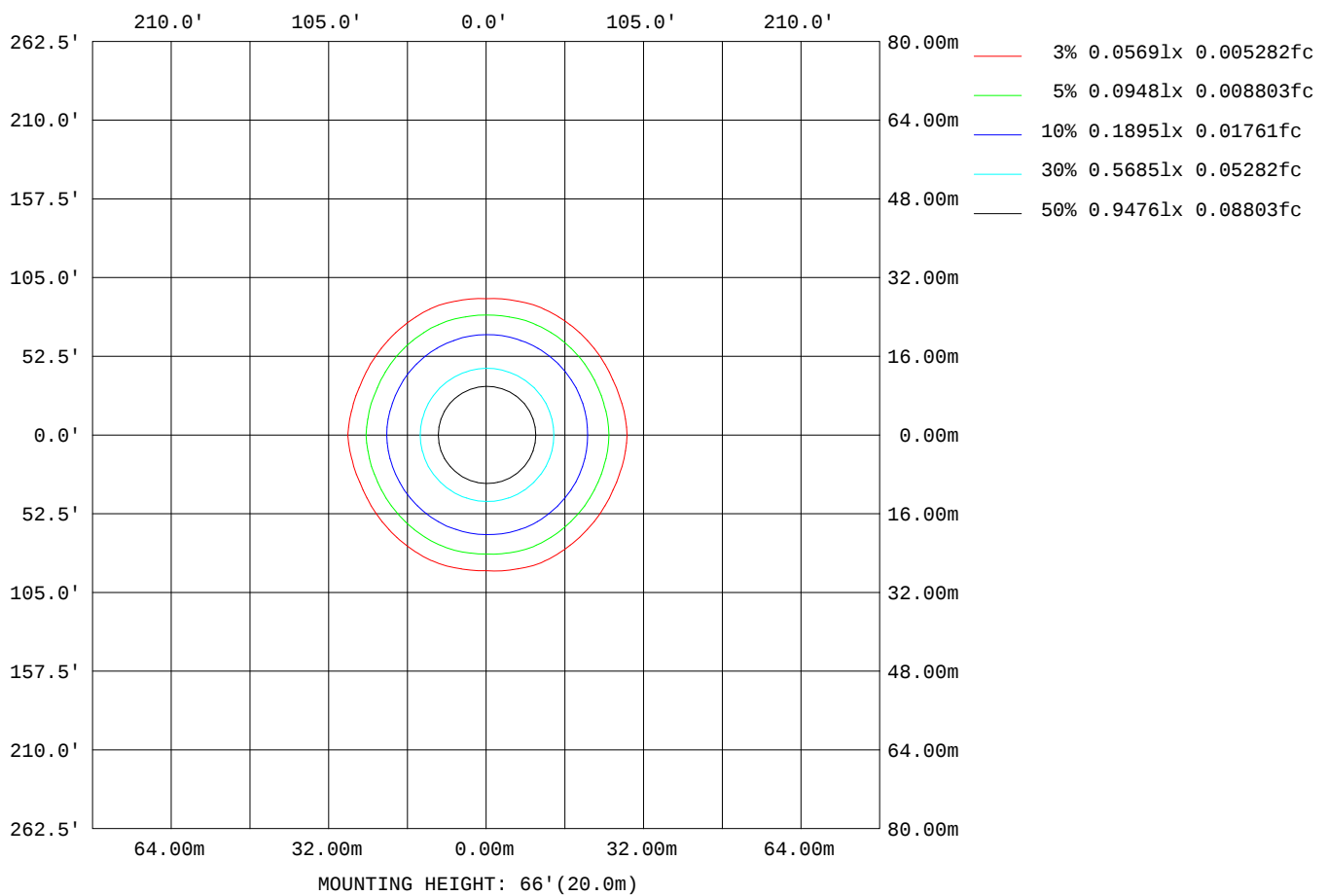
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-07-17

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:230.28V I:0.0519A P:10.846W PF:0.9073 Freq:49.99Hz Lamp Flux:1140.3x1 lm		
NAME: AL5008-WHTC12S02-TS	TYPE:	WEIGHT:
SPEC.:white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.:115mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-07-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 γ Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.402
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.28V I:0.0519A P:10.846W PF:0.9073 Freq:49.99Hz Lamp Flux:1140.3x1 lm		
NAME: AL5008-WHTC12S02-TS	TYPE:	WEIGHT:
SPEC.:white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.:115mm	Shielding Angle:

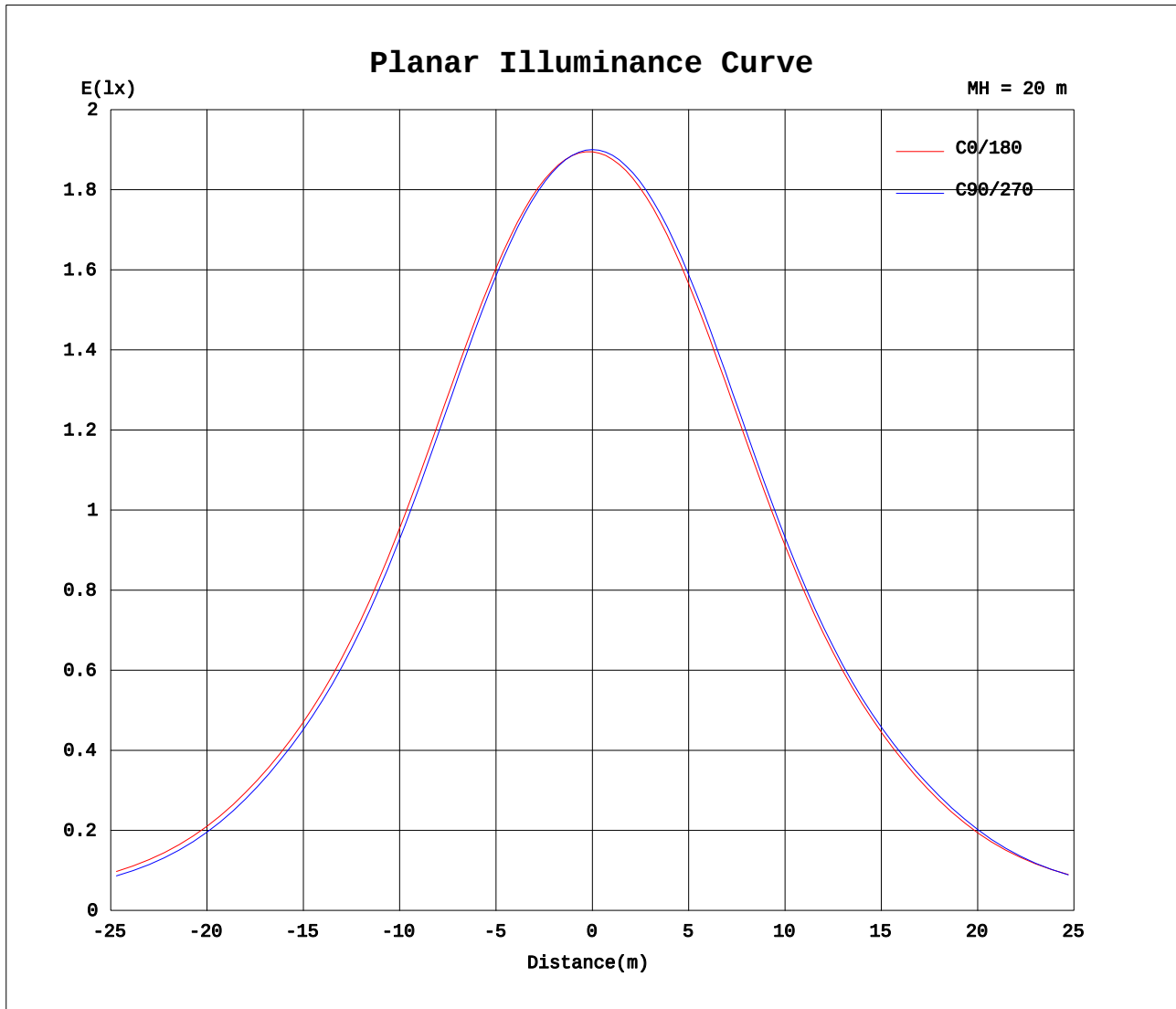
AvgL	cd/m2
L_0~180(65)av	15301
L_0~180(75)av	13331
L_0~180(85)av	9185
L_90~270(65)av	13073
L_90~270(75)av	12391
L_90~270(85)av	9692
L_45(65)av	14508
L_45(75)av	13064
L_45(85)av	9786

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-07-17

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-07-17

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.402
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

```