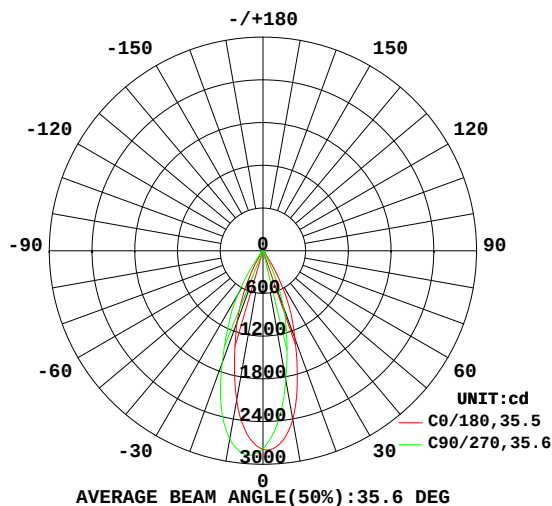


LUMINAIRE PHOTOMETRIC TEST REPORT

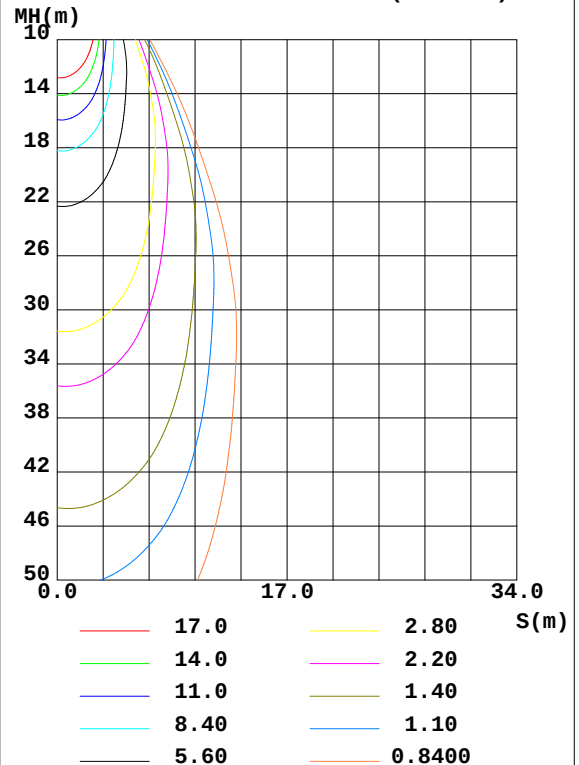
Test:U:220.49V I:0.0732A P:15.690W PF:0.9714 Freq:50.01Hz Lamp Flux:1269.08x1 lm		
NAME: TH2035-WHTC18C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 65mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 80.89 lm/W
MODEL	TB15111204 5700K	I _{max} (cd)	2881	S/MH(C0/180)	0.54	
NOMINAL POWER(W)	16	LOR(%)	100.0	S/MH(C90/270)	0.72	
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	1269.1	η UP, DN(C0-180)	0.0, 40.4	
NOMINAL FLUX(lm)	1269.08	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 59.6	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.65	

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: 2024-01-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

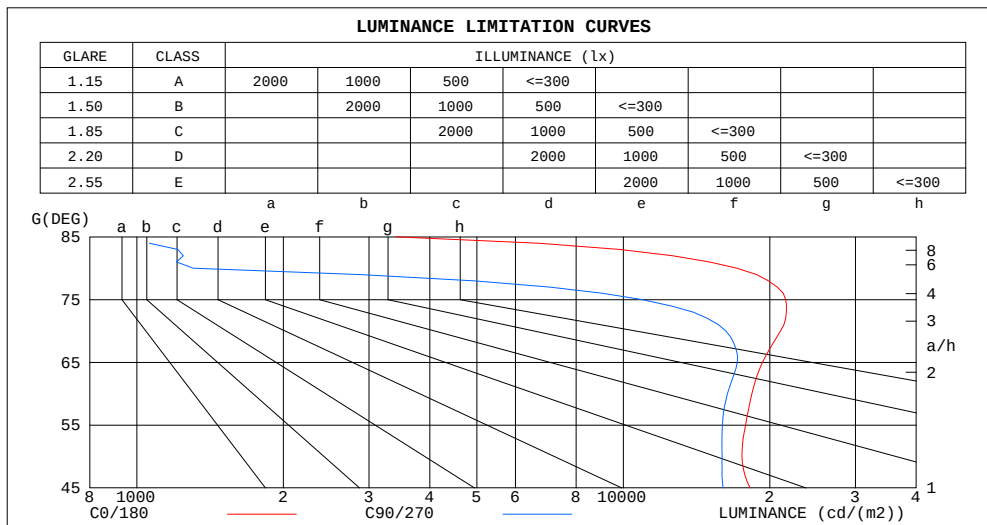
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2407	2052	1850	1869	2131	2483	2686	2641	0- 10	240.3	240.3	18.9,18.9
20	1313	1020	848.3	860.9	1064	1393	1680	1618	10- 20	478.0	718.4	56.6,56.6
30	431.9	203.5	114.5	123.3	240.8	485.8	702.6	676.9	20- 30	344.3	1063	83.7,83.7
40	58.44	47.04	43.02	43.39	47.33	63.44	83.94	80.38	30- 40	97.73	1160	91.4,91.4
50	37.43	35.67	34.05	34.14	35.75	38.48	39.96	39.56	40- 50	33.82	1194	94.1,94.1
60	30.51	28.59	27.17	27.20	28.61	31.20	32.58	32.33	50- 60	29.73	1224	96.4,96.4
70	23.90	21.06	18.44	18.60	21.33	24.40	25.60	25.41	60- 70	26.09	1250	98.5,98.5
80	9.870	3.517	0.7526	0.9712	4.574	11.08	14.73	14.09	70- 80	16.41	1266	99.8,99.8
90	0.2664	0.0965	0.1120	0.1081	0.0347	0.2548	0.4903	0.4825	80- 90	2.692	1269	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:2024-01-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.49V I:0.0732A P:15.690W PF:0.9714 Freq:50.01Hz Lamp Flux:1269.08x1 lm		
NAME: TH2035-WHTC18C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 65mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3405	753
80	17120	1305
75	21560	10924
70	21050	16239
65	19323	17147
60	18378	16369
55	17837	15987
50	17537	15955
45	18230	16029

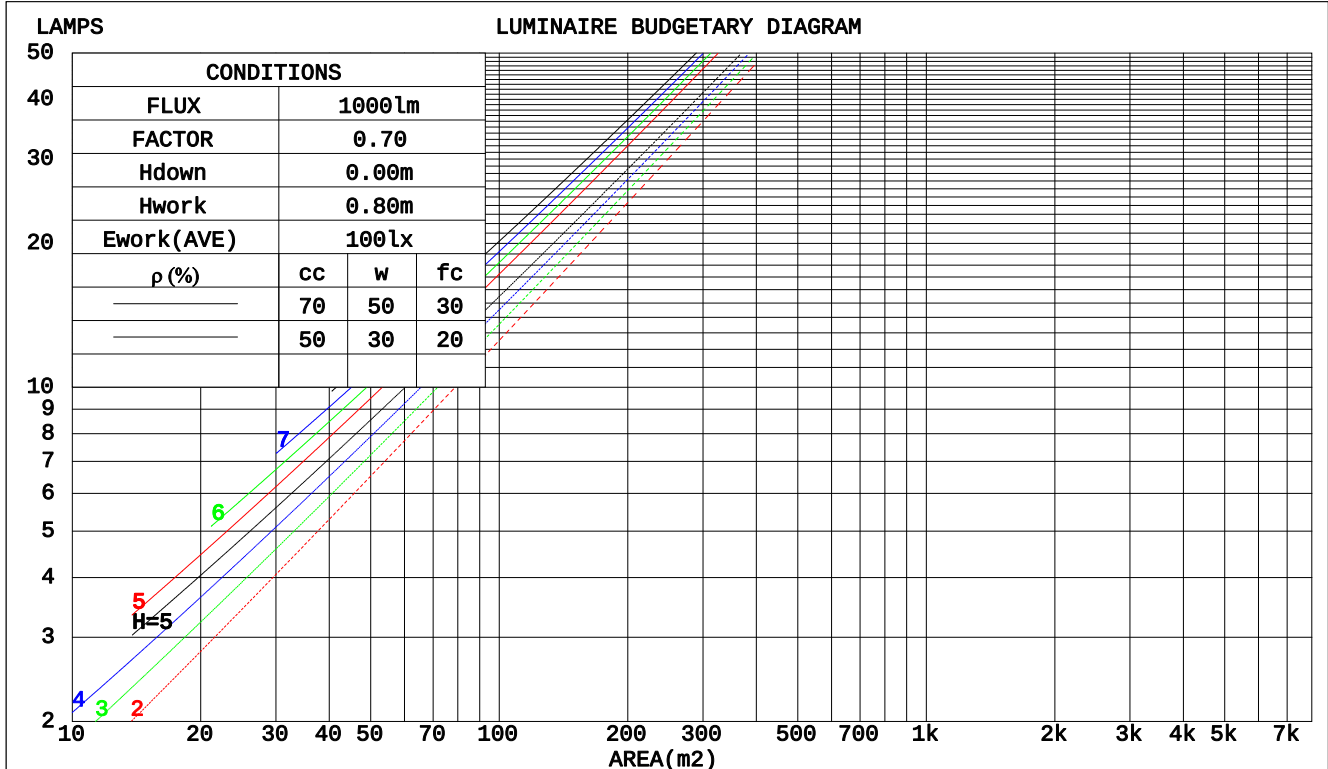
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-01-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.49V I:0.0732A P:15.690W PF:0.9714 Freq:50.01Hz Lamp Flux:1269.08x1 lm		
NAME: TH2035-WHTC18C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 65mm	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	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
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	1.09	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.99	.98	.98	.97	.96	.94
2.0	1.04	.99	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.91	.90	.88
3.0	.98	.93	.89	.96	.92	.89	.94	.90	.87	.91	.88	.86	.89	.87	.84	.83
4.0	.92	.87	.83	.91	.86	.83	.89	.85	.82	.87	.84	.81	.85	.82	.80	.78
5.0	.87	.82	.78	.86	.82	.78	.85	.80	.77	.83	.79	.76	.82	.78	.76	.74
6.0	.83	.78	.74	.82	.77	.74	.81	.76	.73	.80	.76	.73	.78	.75	.72	.71
7.0	.79	.74	.70	.79	.74	.70	.77	.73	.70	.76	.72	.69	.75	.72	.69	.68
8.0	.76	.70	.67	.75	.70	.67	.74	.70	.66	.73	.69	.66	.72	.69	.66	.65
9.0	.72	.67	.64	.72	.67	.64	.71	.67	.63	.70	.66	.63	.69	.66	.63	.62
10.0	.70	.64	.61	.69	.64	.61	.68	.64	.61	.68	.63	.61	.67	.63	.60	.59



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-01-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:220.49V I:0.0732A P:15.690W PF:0.9714 Freq:50.01Hz Lamp Flux:1269.08x1 lm					
NAME: TH2035-WHTC18C02			TYPE:		WEIGHT:
SPEC.: white RA90 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.: 65mm		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	.174	.099	.031	.167	.095	.030	.155	.089	.028	.143	.082	.026	.132	.077	.025	
2.0	.163	.089	.027	.158	.087	.027	.147	.082	.025	.137	.077	.024	.128	.073	.023	
3.0	.153	.081	.024	.148	.079	.024	.139	.075	.023	.131	.072	.022	.123	.068	.021	
4.0	.144	.075	.022	.139	.073	.022	.132	.070	.021	.125	.067	.020	.118	.064	.020	
5.0	.135	.069	.020	.132	.068	.020	.125	.065	.019	.119	.063	.019	.113	.060	.018	
6.0	.128	.064	.018	.125	.063	.018	.119	.061	.018	.114	.059	.017	.109	.057	.017	
7.0	.121	.060	.017	.119	.059	.017	.114	.057	.017	.109	.056	.016	.104	.054	.016	
8.0	.115	.056	.016	.113	.056	.016	.109	.054	.015	.104	.053	.015	.100	.052	.015	
9.0	.110	.053	.015	.108	.053	.015	.104	.051	.015	.100	.050	.014	.097	.049	.014	
10.0	.105	.051	.014	.103	.050	.014	.100	.049	.014	.097	.048	.014	.093	.047	.013	

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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.068	.052	.046	.040	.017	.015	.013	
3.0	.142	.114	.091	.122	.098	.079	.084	.068	.055	.048	.040	.033	.016	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.121	.087	.061	.104	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.113	.077	.051	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.106	.069	.044	.091	.060	.038	.063	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.100	.063	.038	.086	.055	.033	.060	.038	.023	.035	.023	.014	.011	.007	.005	
9.0	.095	.058	.033	.081	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.090	.053	.029	.077	.046	.025	.054	.032	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.49V I:0.0732A P:15.690W PF:0.9714 Freq:50.01Hz Lamp Flux:1269.08x1 lm											
NAME: TH2035-WHTC18C02						TYPE:			WEIGHT:		
SPEC.: white RA90 3000K+5700K						DIM.:			SERIAL No.:		
MFR.:						SUR.: 65mm			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		16.4	17.3	16.7	17.5	17.6	15.2	16.1	15.5	16.3	16.4
	3H	18.3	19.1	18.5	19.3	19.5	17.1	17.9	17.4	18.1	18.3
	4H	19.2	19.9	19.4	20.1	20.3	17.6	18.3	17.9	18.6	18.8
	6H	19.7	20.4	20.0	20.6	20.9	17.6	18.3	17.9	18.5	18.8
	8H	19.8	20.5	20.1	20.7	21.0	17.6	18.2	17.9	18.5	18.8
	12H	19.7	20.4	20.1	20.7	20.9	17.5	18.2	17.8	18.4	18.7
4H	2H	17.0	17.8	17.3	18.0	18.2	16.1	16.9	16.4	17.1	17.3
	3H	19.1	19.8	19.4	20.0	20.3	18.1	18.8	18.4	19.1	19.3
	4H	20.1	20.7	20.4	21.0	21.3	18.7	19.3	19.0	19.6	19.9
	6H	20.6	21.2	21.0	21.5	21.9	18.7	19.2	19.1	19.5	19.9
	8H	20.7	21.2	21.1	21.6	21.9	18.6	19.1	19.0	19.5	19.8
	12H	20.7	21.1	21.1	21.5	21.9	18.6	19.0	19.0	19.4	19.8
8H	4H	20.2	20.7	20.6	21.1	21.4	18.9	19.4	19.3	19.8	20.2
	6H	20.8	21.2	21.2	21.6	22.0	19.0	19.4	19.4	19.8	20.2
	8H	20.9	21.3	21.3	21.7	22.1	18.9	19.3	19.4	19.7	20.1
	12H	20.9	21.2	21.3	21.6	22.1	18.9	19.2	19.3	19.6	20.1
12H	4H	20.2	20.6	20.6	21.0	21.4	18.9	19.4	19.3	19.7	20.1
	6H	20.8	21.1	21.2	21.6	22.0	18.9	19.3	19.4	19.7	20.2
	8H	20.8	21.2	21.3	21.6	22.1	18.9	19.2	19.4	19.6	20.1
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2					
1.5H	+ 0.3 / - 0.2					+ 0.2 / - 0.3					
2.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.4					

CIE Pub.117, 1269 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.8)
Area: 0.00332 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.49V I:0.0732A P:15.690W PF:0.9714 Freq:50.01Hz Lamp Flux:1269.08x1 lm		
NAME: TH2035-WHTC18C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 65mm	Shielding Angle:

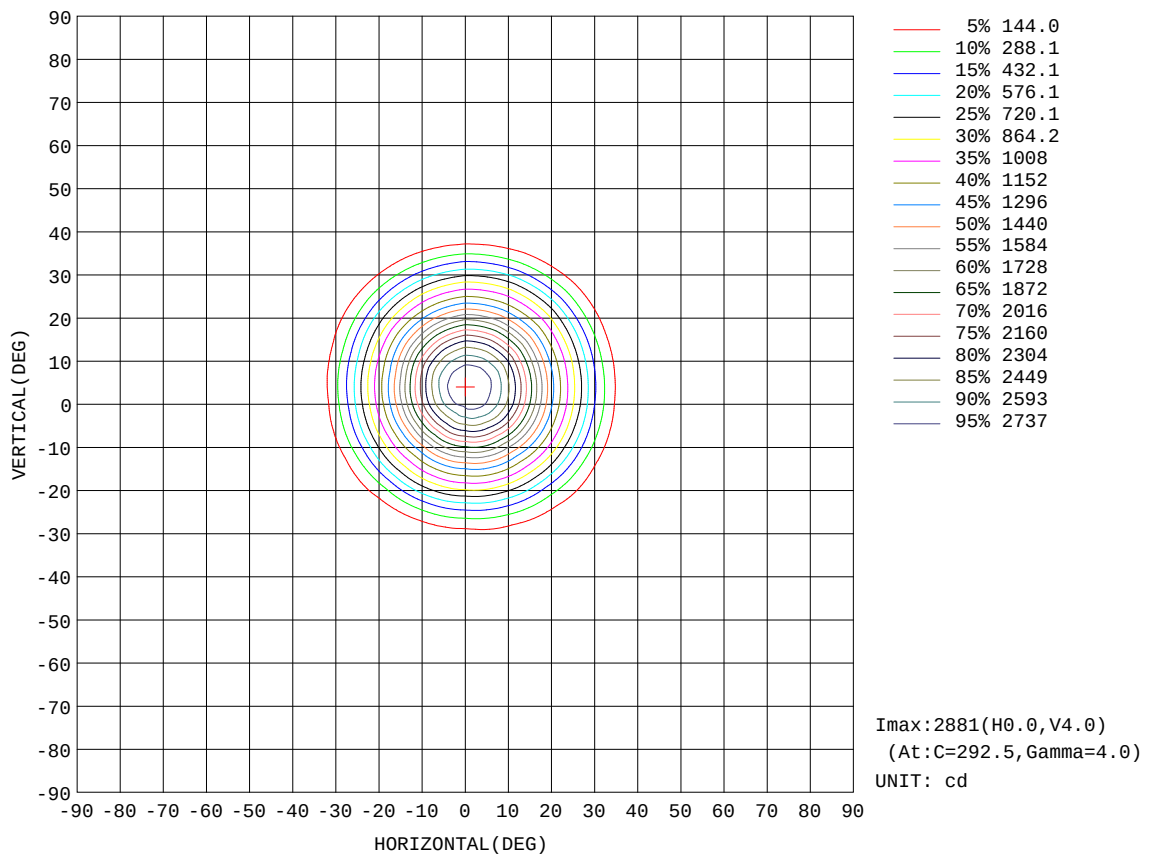
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	80	76	86	80	76	85	79	76	72
0.80	94	88	84	93	87	84	92	87	83	79
1.00	98	92	88	97	92	88	96	92	88	83
1.25	102	97	93	101	96	92	99	95	92	87
1.50	105	100	96	104	99	96	101	98	95	90
2.00	108	103	100	106	102	99	103	100	97	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	108	105	109	106	103	106	103	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	113	110	109	109	107	106	98
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: 2024-01-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.49V I:0.0732A P:15.690W PF:0.9714 Freq:50.01Hz Lamp Flux:1269.08x1 lm		
NAME: TH2035-WHTC18C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 65mm	Shielding Angle:

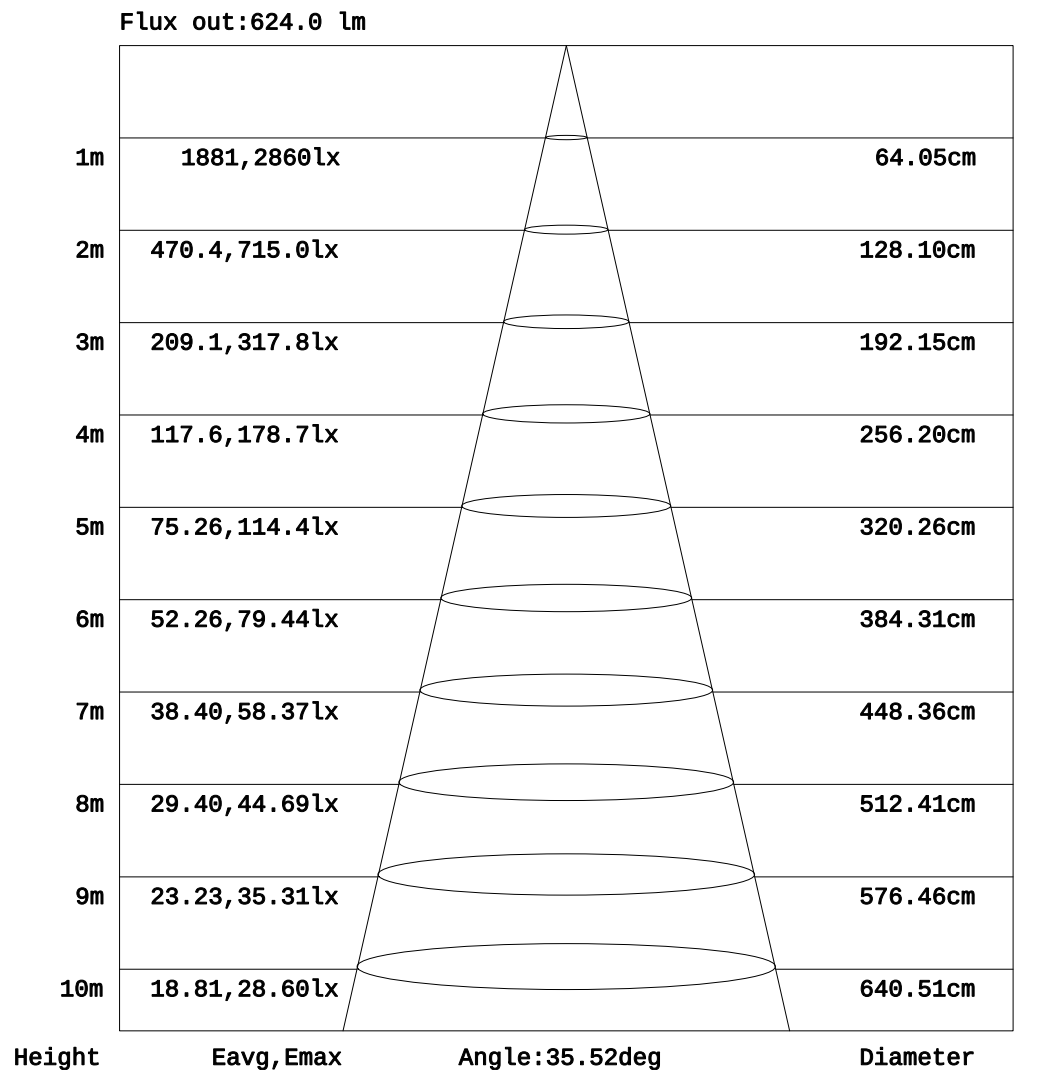


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.49V I:0.0732A P:15.690W PF:0.9714 Freq:50.01Hz Lamp Flux:1269.08x1 lm		
NAME: TH2035-WHTC18C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 65mm	Shielding Angle:



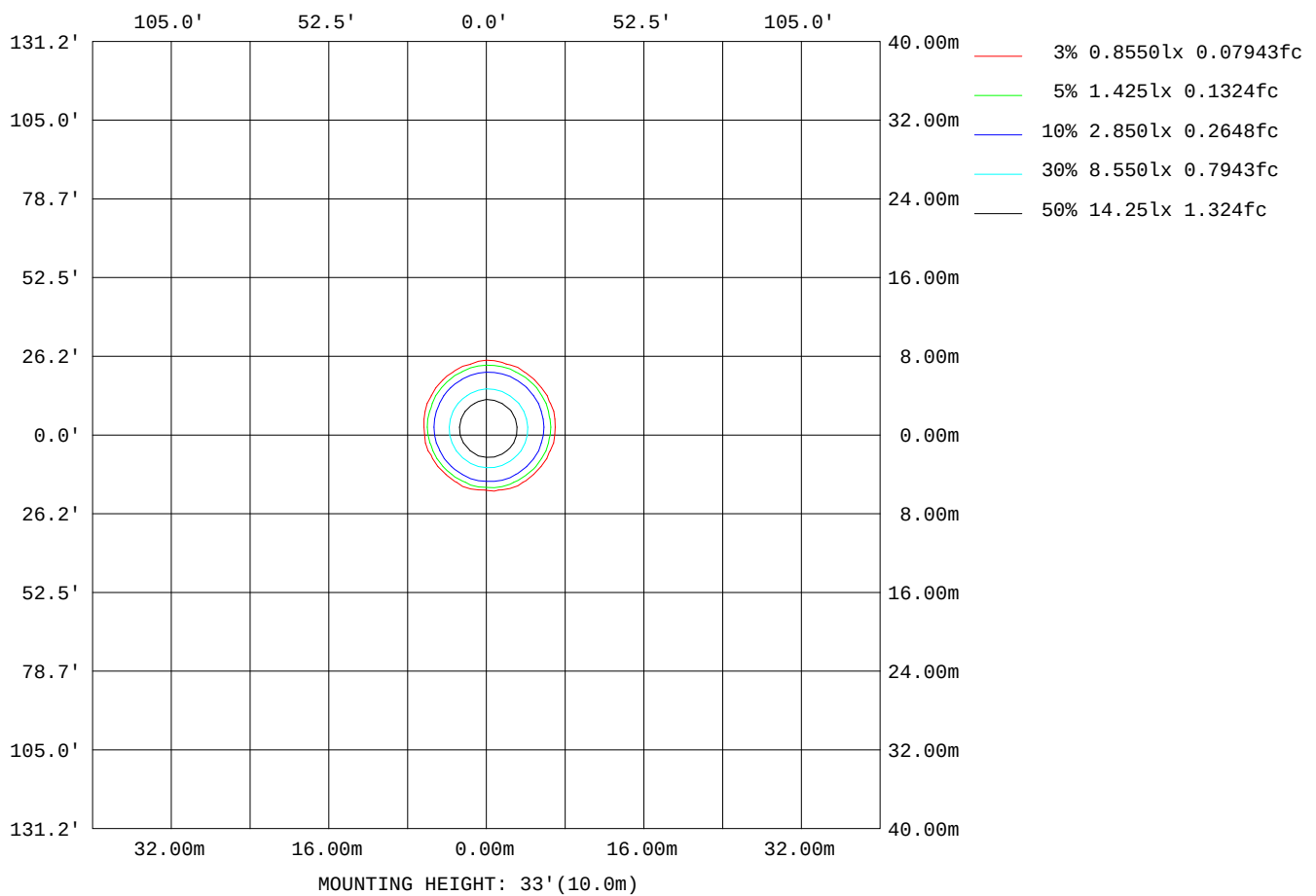
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:220.49V I:0.0732A P:15.690W PF:0.9714 Freq:50.01Hz Lamp Flux:1269.08x1 lm		
NAME: TH2035-WHTC18C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 65mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:220.49V I:0.0732A P:15.690W PF:0.9714 Freq:50.01Hz Lamp Flux:1269.08x1 lm		
NAME: TH2035-WHTC18C02	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 65mm	Shielding Angle:

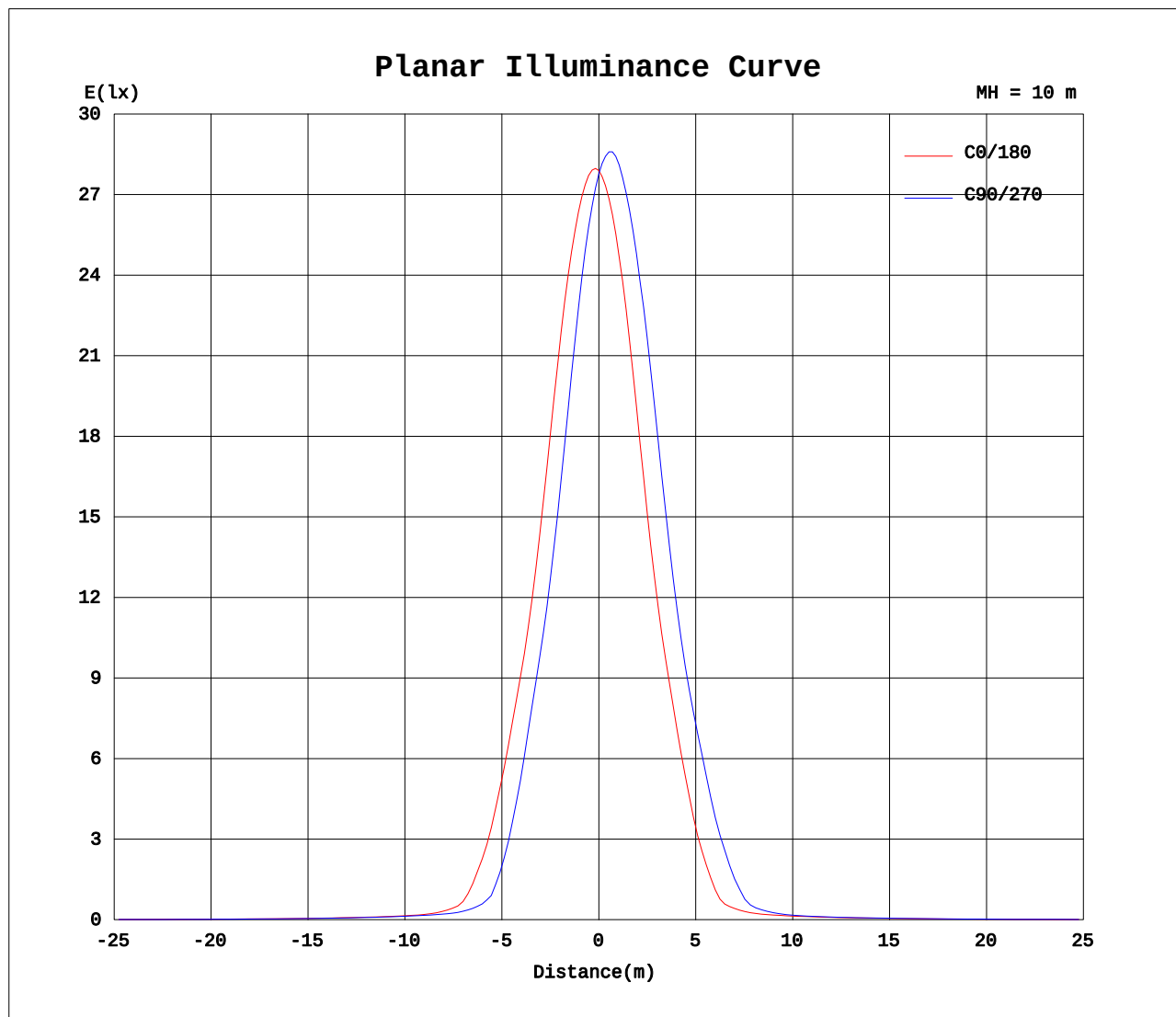
AvgL	cd/m2
L_0~180(65)av	18734
L_0~180(75)av	19103
L_0~180(85)av	2514
L_90~270(65)av	18902
L_90~270(75)av	18009
L_90~270(85)av	9177
L_45(65)av	18906
L_45(75)av	18540
L_45(85)av	6096

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
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: 2024-01-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

```