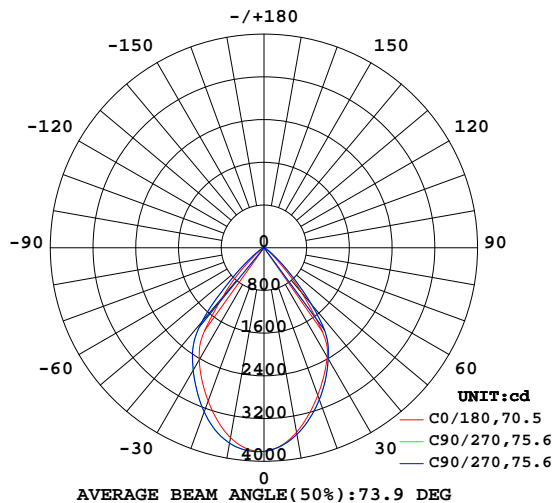


LUMINAIRE PHOTOMETRIC TEST REPORT

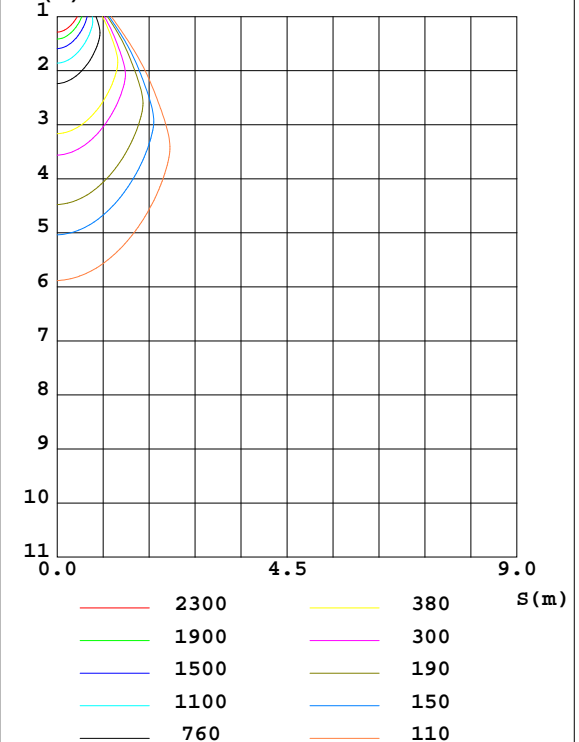
Test:U:230.17V I:0.1777A P:39.003W PF:0.9537 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4570.3lx1 lm		
NAME: LED542 B34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 117.18 lm/W			
MODEL	LED542 B34 (40W/3K)	I _{max} (cd)	3821	S/MH(C0/180)	1.00
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.07
RATED VOLTAGE(V)		TOTAL FLUX(lm)	4570.3	η UP,DN(C0-180)	0.0,47.5
NOMINAL FLUX(lm)	4570.31	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,52.5
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)		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: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-09

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	3509	3550	3614	3716					0- 10	353.5	353.5	7.73,7.73
20	2942	3029	3057	3273					10- 20	941.9	1295	28.3,28.3
30	2368	2407	2426	2651					20- 30	1274	2569	56.2,56.2
40	1109	1388	1207	1816					30- 40	1247	3817	83.5,83.5
50	190.6	313.8	232.0	451.6					40- 50	573.5	4390	96.1,96.1
60	41.83	72.05	48.26	98.91					50- 60	131.2	4521	98.9,98.9
70	9.208	20.98	11.25	23.35					60- 70	34.40	4556	99.7,99.7
80	2.760	9.046	3.479	9.502					70- 80	11.03	4567	99.9,99.9
90	0.2745	0.8458	0.3782	0.8398					80- 90	3.520	4570	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		

Conical surface Flux(90deg): 4198.3 lm

%lum = 91.9%

%lamp = 91.9%

Conical surface Flux(120deg): 4521.4 lm

%lum = 98.9%

%lamp = 98.9%

0 - 45 DEG Zonal Flux:4198.3 %lum: 91.9%

0 - 60 DEG Zonal Flux:4521.4 %lum: 98.9%

All measured values may vary less than 35 %

from the average measured value in the 0 to 130 deg. zone: 7.4%

All measured values in the 0 to 130 deg. zone

may vary less than 50% from the average value of itself: 11.3%

C Range: 0 - 360DEG

C Interval: 90.0DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:

Test Date:2021-12-09

γ Range: 0 - 90DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446

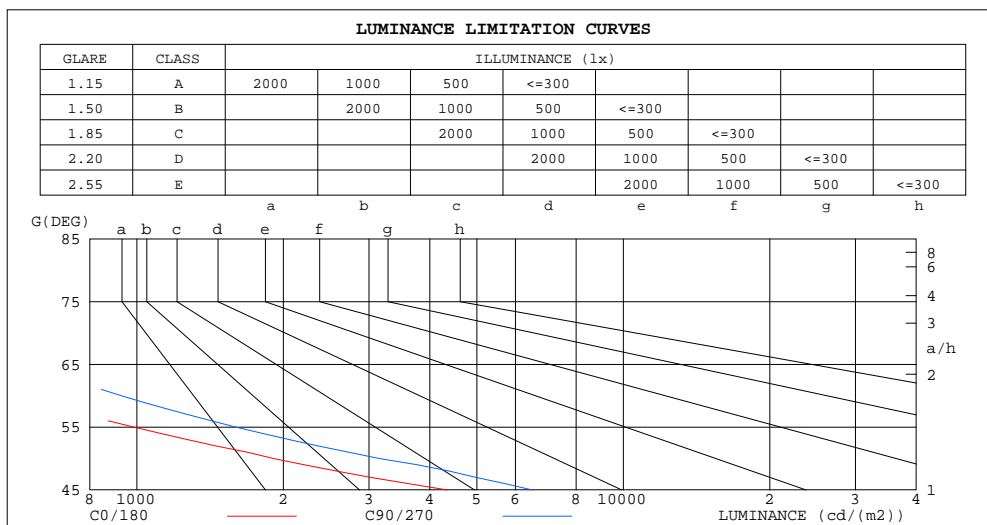
Humidity:65.0%

Test Distance:8.690m [K=1.0000]

Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.17V I:0.1777A P:39.003W PF:0.9537 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4570.3lx1 lm		
NAME: LED542 B34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	77	349
80	102	337
75	135	353
70	173	396
65	284	582
60	539	931
55	988	1601
50	1911	3154
45	4344	6500

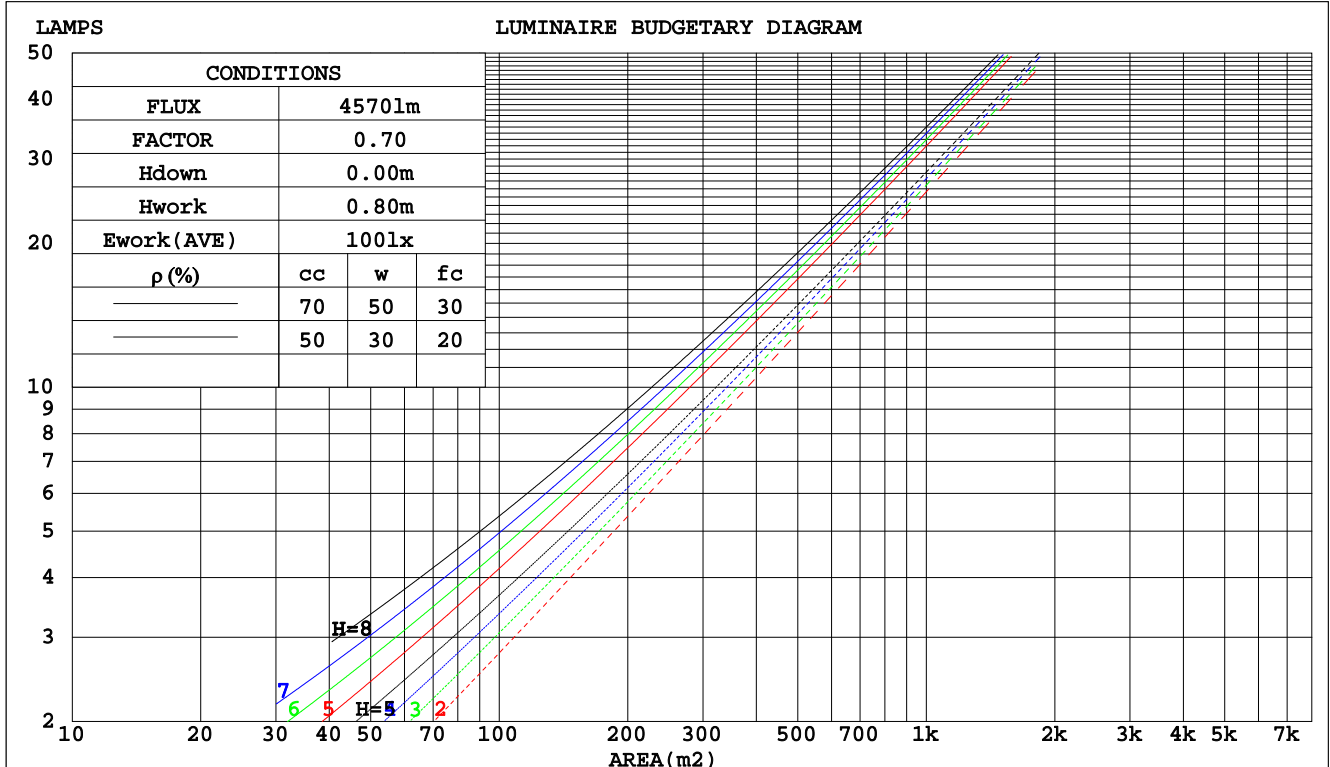
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-09

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.17V I:0.1777A P:39.003W PF:0.9537 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4570.3lx1 lm		
NAME: LED542 B34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	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															



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-09

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.17V I:0.1777A P:39.003W PF:0.9537 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4570.31x1 lm		
NAME: LED542 B34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	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	.195	.111	.035	.189	.108	.034	.176	.101	.032	.164	.095	.030	.153	.089	.029		
2.0	.189	.104	.032	.183	.101	.031	.173	.096	.030	.163	.091	.029	.154	.087	.027		
3.0	.181	.097	.029	.176	.094	.028	.167	.091	.028	.159	.087	.027	.151	.083	.026		
4.0	.173	.090	.026	.169	.088	.026	.161	.085	.025	.153	.082	.025	.146	.080	.024		
5.0	.165	.084	.024	.161	.083	.024	.154	.080	.024	.148	.078	.023	.142	.076	.023		
6.0	.158	.079	.023	.154	.078	.022	.148	.076	.022	.142	.074	.022	.137	.072	.021		
7.0	.150	.074	.021	.147	.073	.021	.142	.072	.021	.137	.070	.020	.132	.068	.020		
8.0	.144	.070	.020	.141	.069	.020	.136	.068	.019	.131	.067	.019	.127	.065	.019		
9.0	.137	.066	.019	.135	.066	.018	.130	.065	.018	.126	.063	.018	.122	.062	.018		
10.0	.131	.063	.017	.129	.062	.017	.125	.061	.017	.121	.060	.017	.118	.059	.017		

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	.172	.157	.143	.147	.135	.123	.101	.093	.085	.058	.054	.050	.019	.017	.016	
2.0	.159	.132	.110	.136	.114	.095	.093	.079	.067	.054	.046	.039	.017	.015	.013	
3.0	.147	.114	.087	.126	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.138	.099	.070	.119	.086	.060	.082	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.130	.088	.057	.112	.076	.049	.077	.053	.035	.045	.031	.021	.014	.010	.007	
6.0	.123	.079	.047	.106	.068	.041	.073	.048	.029	.042	.028	.017	.014	.009	.006	
7.0	.117	.072	.040	.101	.062	.035	.070	.044	.025	.040	.026	.015	.013	.008	.005	
8.0	.112	.066	.034	.096	.057	.030	.066	.040	.021	.039	.024	.013	.013	.008	.004	
9.0	.107	.061	.030	.092	.053	.026	.064	.037	.018	.037	.022	.011	.012	.007	.004	
10.0	.102	.056	.026	.088	.049	.023	.061	.034	.016	.036	.020	.010	.012	.007	.003	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-09

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.17V I:0.1777A P:39.003W PF:0.9537 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4570.3lx1 lm										
NAME: LED542 B34 (40W 3000K)					TYPE: 40W			WEIGHT:		
SPEC.: 3000K					DIM.:			SERIAL No.: #1		
MFR.:					SUR.: 0.155			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	14.4	15.5	14.6	15.7	15.8	15.1	16.2	15.3	16.3	16.5
3H	14.2	15.2	14.5	15.4	15.6	14.9	15.9	15.2	16.1	16.3
4H	14.1	15.1	14.4	15.3	15.5	14.9	15.8	15.1	16.0	16.2
6H	14.1	14.9	14.4	15.2	15.4	14.8	15.6	15.1	15.9	16.1
8H	14.0	14.8	14.3	15.1	15.4	14.7	15.6	15.1	15.8	16.1
12H	14.0	14.8	14.3	15.0	15.3	14.7	15.5	15.0	15.8	16.0
4H 2H	14.2	15.1	14.5	15.3	15.6	14.8	15.8	15.1	16.0	16.2
3H	14.0	14.8	14.3	15.1	15.4	14.7	15.5	15.0	15.8	16.0
4H	13.9	14.6	14.3	14.9	15.2	14.6	15.3	15.0	15.6	16.0
6H	13.8	14.5	14.2	14.8	15.1	14.5	15.2	14.9	15.5	15.9
8H	13.8	14.4	14.2	14.7	15.1	14.5	15.1	14.9	15.4	15.8
12H	13.7	14.3	14.1	14.6	15.0	14.5	15.0	14.9	15.4	15.8
8H 4H	13.8	14.4	14.2	14.7	15.1	14.5	15.1	14.9	15.4	15.8
6H	13.7	14.2	14.1	14.6	15.0	14.4	14.9	14.8	15.3	15.7
8H	13.6	14.1	14.1	14.5	14.9	14.4	14.8	14.8	15.2	15.7
12H	13.6	14.0	14.1	14.4	14.9	14.3	14.7	14.8	15.1	15.6
12H 4H	13.7	14.3	14.1	14.6	15.0	14.4	15.0	14.8	15.3	15.7
6H	13.6	14.1	14.1	14.5	14.9	14.4	14.8	14.8	15.2	15.6
8H	13.6	14.0	14.1	14.4	14.9	14.3	14.7	14.8	15.1	15.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 2.5 / -10.5					+ 2.8 / - 8.5				
1.5H	+ 4.5 / - 7.6					+ 4.5 / - 7.5				
2.0H	+ 5.7 / - 6.8					+ 6.3 / - 6.9				

CIE Pub.117, 4570 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 5.3$)
Area: 0.155 m²

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-09

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.17V I:0.1777A P:39.003W PF:0.9537 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4570.3lx1 lm		
NAME: LED542 B34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

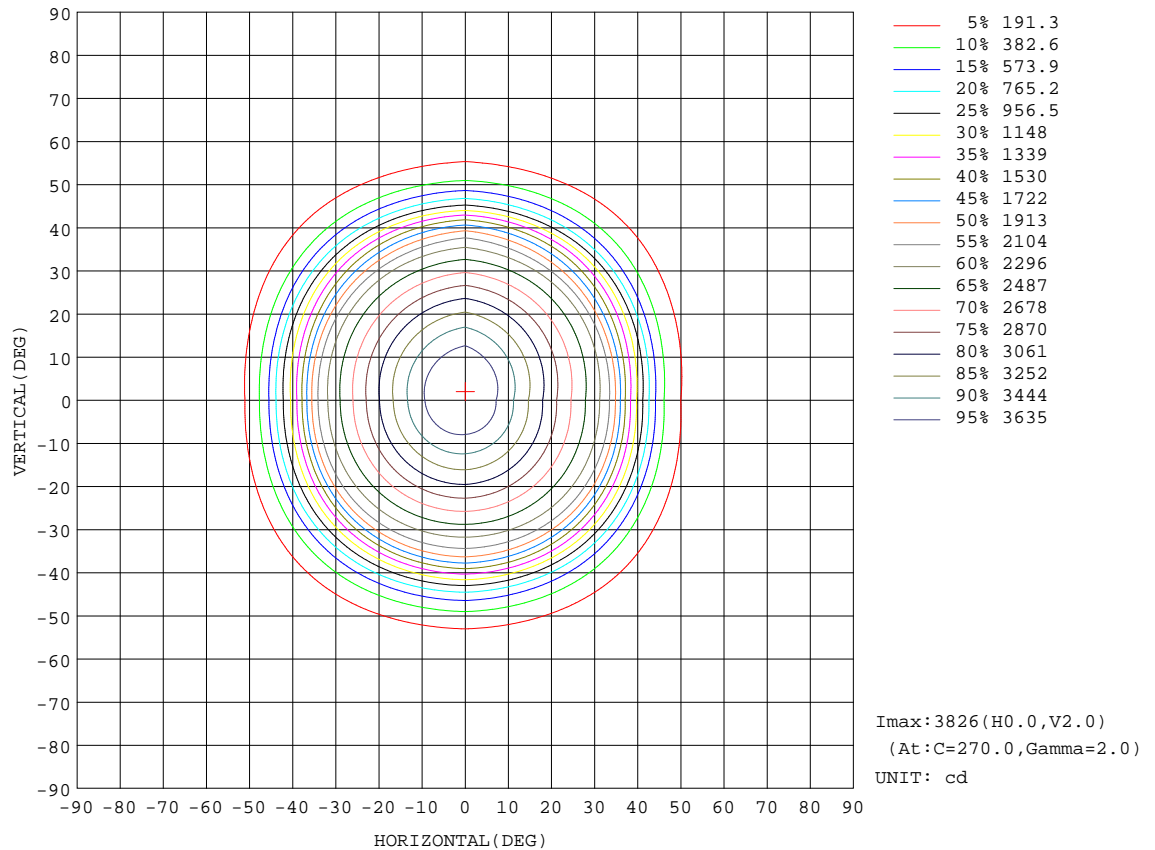
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	81	74	69	80	73	69	80	73	69	65
0.80	90	83	78	89	82	78	88	82	78	73
1.00	95	89	85	94	88	84	93	88	84	79
1.25	100	94	90	99	94	90	97	92	89	84
1.50	103	98	94	102	97	94	100	96	92	88
2.00	107	102	99	105	101	98	103	99	96	91
2.50	109	104	101	107	103	100	104	101	98	92
3.00	111	107	104	109	105	103	105	103	100	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	111	109	112	110	108	108	106	105	97
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:
Test Date:2021-12-09

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:230.17V I:0.1777A P:39.003W PF:0.9537 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4570.3lx1 lm		
NAME: LED542 B34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

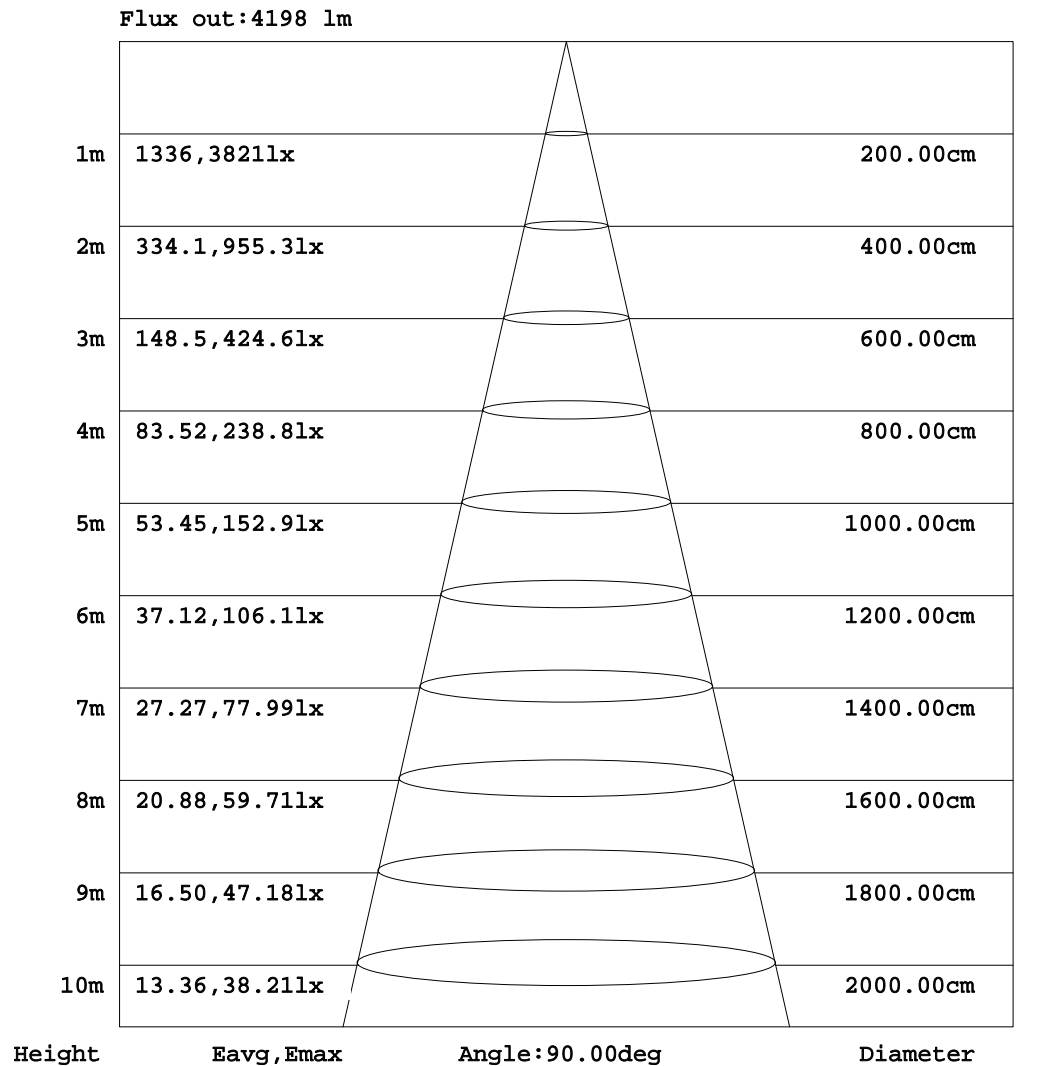


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-09

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.17V I:0.1777A P:39.003W PF:0.9537 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4570.3lx1 lm		
NAME: LED542 B34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:



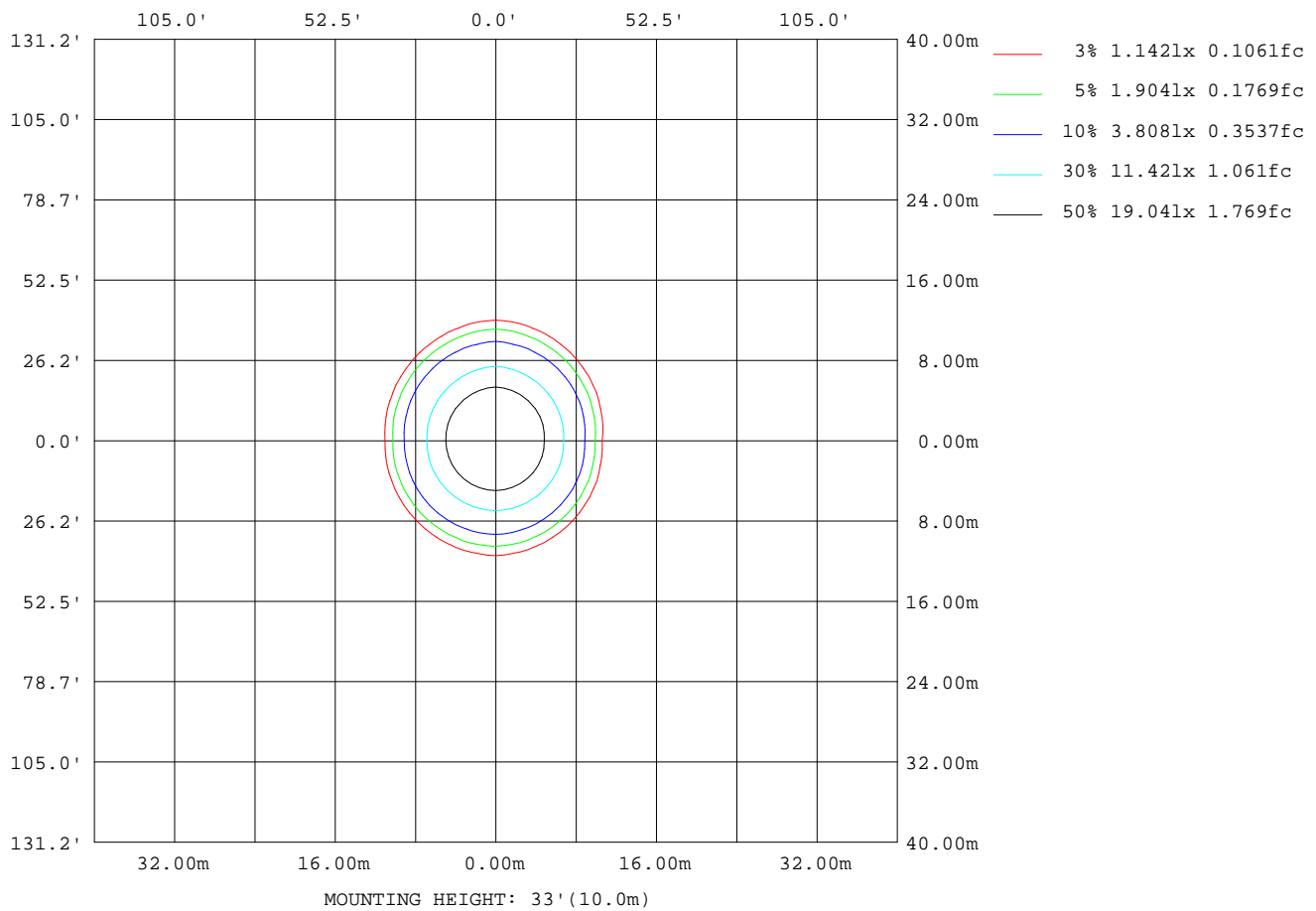
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-09

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:230.17V I:0.1777A P:39.003W PF:0.9537 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4570.3lx1 lm		
NAME: LED542 B34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-09

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 8.690m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.17V I:0.1777A P:39.003W PF:0.9537 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4570.3lx1 lm		
NAME: LED542 B34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

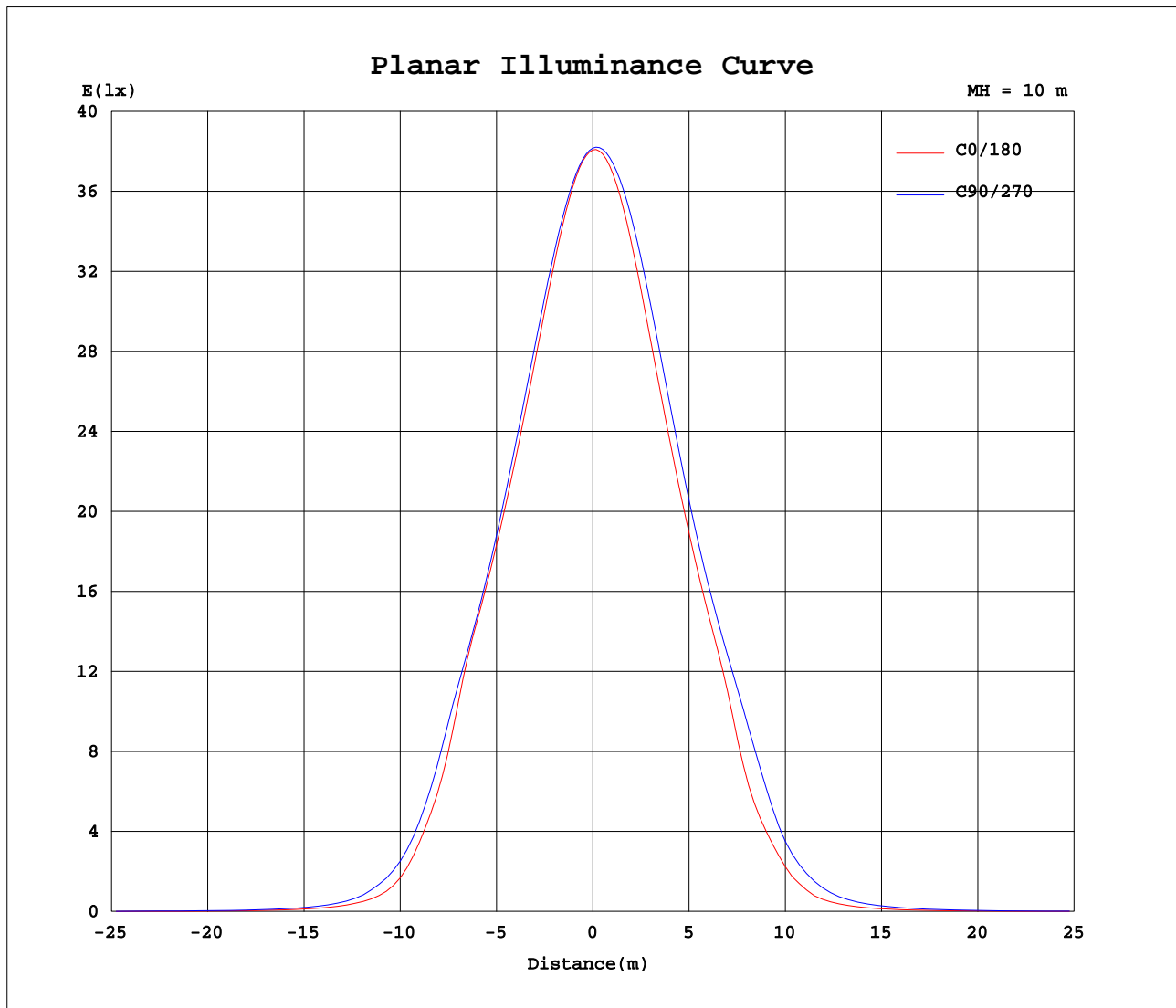
AvgL	cd/m2
L_0~180(65)av	319
L_0~180(75)av	149
L_0~180(85)av	91
L_90~270(65)av	658
L_90~270(75)av	359
L_90~270(85)av	364
L_45(65)av	534
L_45(75)av	281
L_45(85)av	263

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-09

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-09

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 8.690m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

```