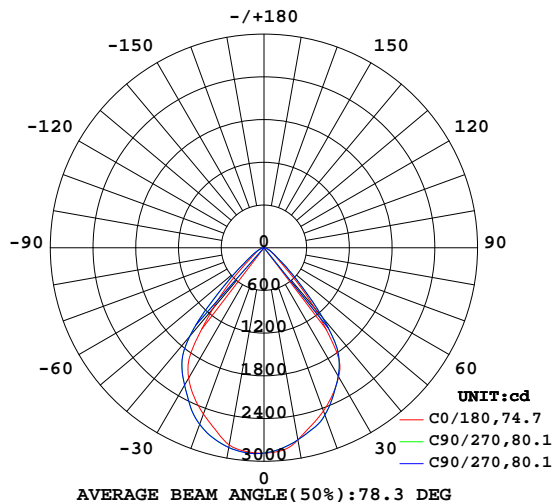


LUMINAIRE PHOTOMETRIC TEST REPORT

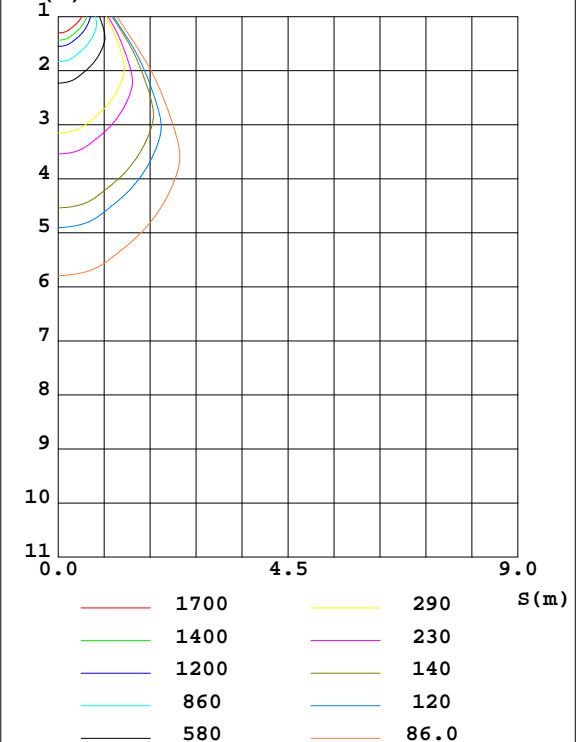
Test:U:230.16V I:0.1594A P:34.610W PF:0.9433 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4115.4x1 lm		
NAME: LED542 W34 (35W 3000K)	TYPE: 35W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 118.91 lm/W			
MODEL	LED542 W34 (35W/3K)	Imax(cd)	2894	S/MH(C0/180)	1.09
NOMINAL POWER(W)	35	LOR(%)	100.0	S/MH(C90/270)	1.16
RATED VOLTAGE(V)		TOTAL FLUX(lm)	4115.4	η UP,DN(C0-180)	0.0,48.1
NOMINAL FLUX(lm)	4115.4	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)		η down(%)	100.0	CIBSE SHR MAX	1.15

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	2742	2740	2813	2849					0- 10	270.9	270.9	6.58,6.58
20	2440	2501	2487	2641					10- 20	748.8	1020	24.8,24.8
30	2096	2085	2116	2231					20- 30	1074	2094	50.9,50.9
40	1105	1280	1118	1624					30- 40	1114	3208	77.9,77.9
50	272.2	364.0	290.5	471.3					40- 50	567.4	3775	91.7,91.7
60	118.7	128.5	123.7	159.7					50- 60	189.3	3964	96.3,96.3
70	59.64	59.72	66.50	66.15					60- 70	92.51	4057	98.6,98.6
80	22.86	24.65	27.99	26.51					70- 80	45.36	4102	99.7,99.7
90	0.5364	1.035	1.396	1.924					80- 90	13.33	4115	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): 3572 lm

%lum = 86.8%

%lamp = 86.8%

Conical surface Flux(120deg): 3964.2 lm

%lum = 96.3%

%lamp = 96.3%

0 - 45 DEG Zonal Flux:3572 %lum: 86.8%

0 - 60 DEG Zonal Flux:3964.2 %lum: 96.3%

All measured values may vary less than 35 %

from the average measured value in the 0 to 130 deg. zone: 7.1%

All measured values in the 0 to 130 deg. zone

may vary less than 50% from the average value of itself: 11.5%

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

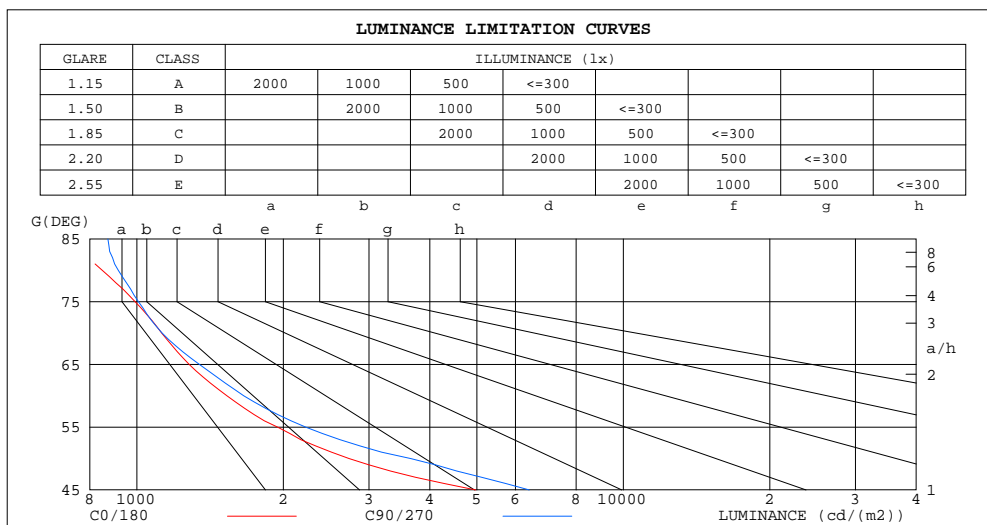
Humidity:65.0%

Test Distance:8.690m [K=1.0000]

Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.16V I:0.1594A P:34.610W PF:0.9433 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4115.4x1 lm		
NAME: LED542 W34 (35W 3000K)	TYPE: 35W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	693	872
80	849	916
75	992	1008
70	1124	1127
65	1281	1345
60	1532	1659
55	1948	2226
50	2731	3655
45	4974	6404

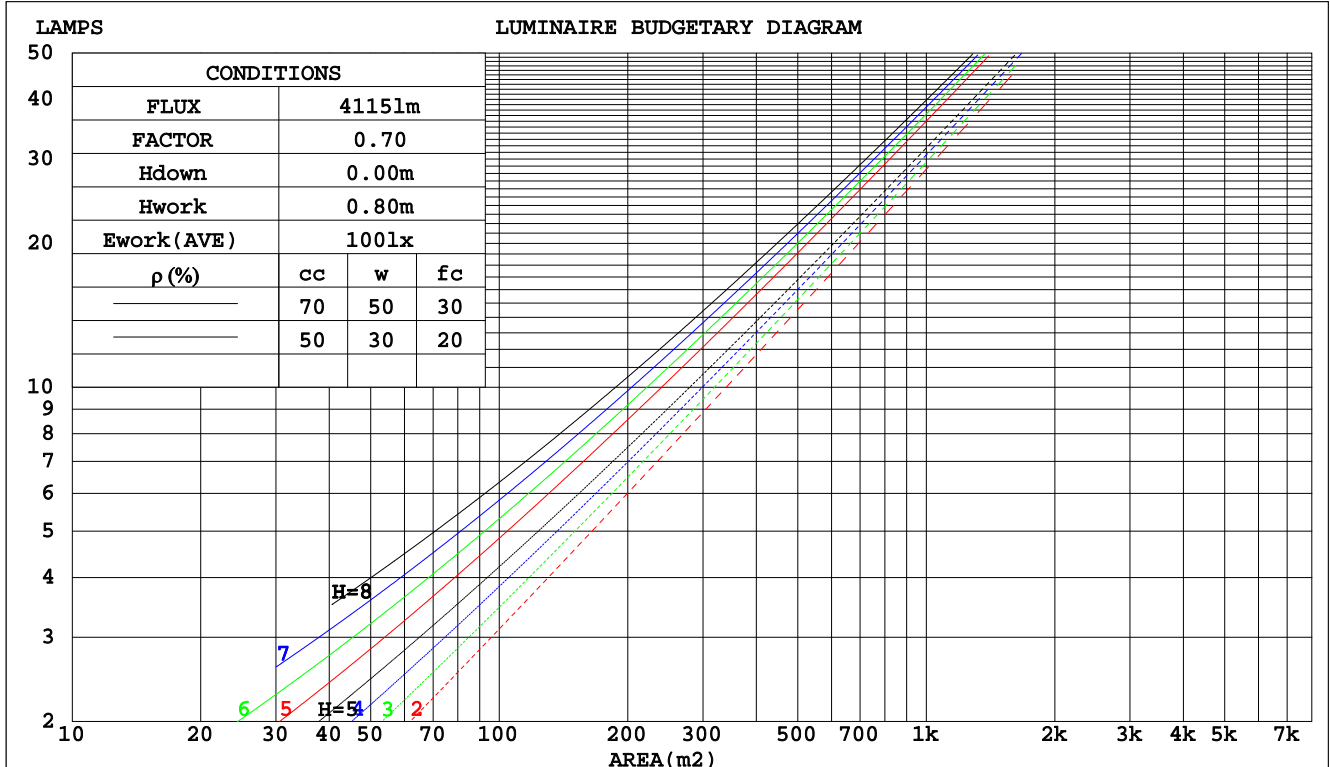
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-09

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:230.16V I:0.1594A P:34.610W PF:0.9433 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4115.4x1 lm		
NAME: LED542 W34 (35W 3000K)	TYPE: 35W	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						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	1.09	1.06	1.03	1.07	1.04	1.02	1.03	1.01	.99	.99	.97	.96	.95	.94	.93	.91
2.0	.00	.95	.91	.98	.93	.90	.94	.91	.88	.91	.88	.86	.89	.86	.84	.82
3.0	.91	.85	.80	.90	.84	.80	.87	.82	.78	.84	.80	.77	.82	.79	.76	.74
4.0	.84	.77	.72	.82	.76	.72	.80	.75	.71	.78	.74	.70	.76	.72	.69	.67
5.0	.77	.70	.65	.76	.70	.65	.74	.68	.64	.72	.67	.63	.71	.66	.63	.61
6.0	.71	.64	.59	.70	.64	.59	.69	.63	.58	.67	.62	.58	.66	.61	.57	.56
7.0	.66	.59	.54	.65	.58	.54	.64	.58	.53	.62	.57	.53	.61	.56	.53	.51
8.0	.61	.54	.49	.60	.54	.49	.59	.53	.49	.58	.53	.49	.57	.52	.49	.47
9.0	.57	.50	.46	.56	.50	.45	.55	.49	.45	.54	.49	.45	.53	.49	.45	.43
10.0	.53	.47	.42	.53	.46	.42	.52	.46	.42	.51	.46	.42	.50	.45	.42	.40



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:230.16V I:0.1594A P:34.610W PF:0.9433 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4115.4x1 lm		
NAME: LED542 W34 (35W 3000K)	TYPE: 35W	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	.212	.120	.038	.205	.117	.037	.192	.110	.035	.181	.104	.033	.170	.098	.032		
2.0	.204	.112	.034	.199	.109	.034	.188	.104	.032	.178	.100	.031	.168	.095	.030		
3.0	.195	.104	.031	.190	.102	.031	.180	.098	.030	.172	.094	.029	.163	.090	.028		
4.0	.185	.096	.028	.181	.094	.028	.172	.091	.027	.165	.088	.027	.157	.086	.026		
5.0	.175	.089	.026	.172	.088	.026	.164	.086	.025	.158	.083	.025	.151	.081	.024		
6.0	.167	.084	.024	.163	.082	.024	.157	.080	.023	.151	.078	.023	.145	.076	.023		
7.0	.158	.078	.022	.155	.077	.022	.150	.076	.022	.144	.074	.022	.139	.072	.021		
8.0	.151	.074	.021	.148	.073	.021	.143	.071	.020	.138	.070	.020	.134	.069	.020		
9.0	.144	.070	.019	.141	.069	.019	.137	.068	.019	.132	.066	.019	.128	.065	.019		
10.0	.137	.066	.018	.135	.065	.018	.131	.064	.018	.127	.063	.018	.123	.062	.018		

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	.174	.157	.142	.148	.135	.122	.102	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.161	.132	.109	.138	.114	.094	.094	.079	.065	.054	.046	.038	.017	.015	.013	
3.0	.150	.114	.085	.129	.098	.074	.088	.068	.052	.051	.040	.030	.016	.013	.010	
4.0	.141	.100	.068	.121	.086	.059	.083	.060	.042	.048	.035	.025	.015	.011	.008	
5.0	.133	.088	.055	.114	.076	.048	.079	.053	.034	.046	.031	.020	.015	.010	.007	
6.0	.126	.080	.046	.109	.069	.040	.075	.048	.028	.043	.028	.017	.014	.009	.006	
7.0	.120	.072	.039	.103	.063	.034	.071	.044	.024	.041	.026	.014	.013	.008	.005	
8.0	.115	.066	.033	.099	.058	.029	.068	.040	.021	.040	.024	.012	.013	.008	.004	
9.0	.109	.061	.029	.094	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.105	.057	.025	.090	.050	.022	.063	.035	.016	.037	.021	.009	.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:230.16V I:0.1594A P:34.610W PF:0.9433 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4115.4x1 lm		
NAME: LED542 W34 (35W 3000K)	TYPE: 35W	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	15.0	16.2	15.3	16.3	16.5	15.4	16.6	15.7	16.7	16.9
3H	15.1	16.1	15.3	16.3	16.5	15.4	16.5	15.7	16.7	16.9
4H	15.1	16.1	15.4	16.3	16.5	15.5	16.5	15.7	16.7	16.9
6H	15.1	16.0	15.4	16.3	16.5	15.5	16.4	15.8	16.6	16.9
8H	15.1	16.0	15.4	16.2	16.5	15.4	16.3	15.8	16.6	16.9
12H	15.1	15.9	15.4	16.2	16.5	15.4	16.3	15.8	16.6	16.8
4H 2H	14.9	15.9	15.2	16.1	16.4	15.3	16.3	15.6	16.5	16.7
3H	15.0	15.9	15.4	16.2	16.5	15.4	16.2	15.7	16.5	16.8
4H	15.1	15.9	15.5	16.2	16.5	15.5	16.2	15.8	16.5	16.9
6H	15.2	15.9	15.6	16.2	16.5	15.5	16.2	15.9	16.5	16.9
8H	15.2	15.8	15.6	16.2	16.5	15.5	16.2	15.9	16.5	16.9
12H	15.2	15.8	15.6	16.1	16.5	15.5	16.1	15.9	16.5	16.9
8H 4H	15.1	15.7	15.5	16.1	16.4	15.4	16.0	15.8	16.4	16.8
6H	15.2	15.7	15.6	16.1	16.5	15.5	16.0	15.9	16.4	16.8
8H	15.2	15.7	15.7	16.1	16.5	15.6	16.0	16.0	16.4	16.9
12H	15.2	15.6	15.7	16.1	16.6	15.6	16.0	16.1	16.4	16.9
12H 4H	15.0	15.6	15.5	16.0	16.4	15.4	15.9	15.8	16.3	16.7
6H	15.2	15.6	15.6	16.0	16.5	15.5	15.9	15.9	16.4	16.8
8H	15.2	15.6	15.7	16.1	16.5	15.5	15.9	16.0	16.4	16.9
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 1.8 / - 3.5					+ 2.0 / - 3.6				
1.5H	+ 3.4 / - 3.0					+ 3.4 / - 3.4				
2.0H	+ 3.2 / - 1.7					+ 4.1 / - 2.2				

CIE Pub.117, 4115 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 4.9$)
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:230.16V I:0.1594A P:34.610W PF:0.9433 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4115.4x1 lm		
NAME: LED542 W34 (35W 3000K)	TYPE: 35W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

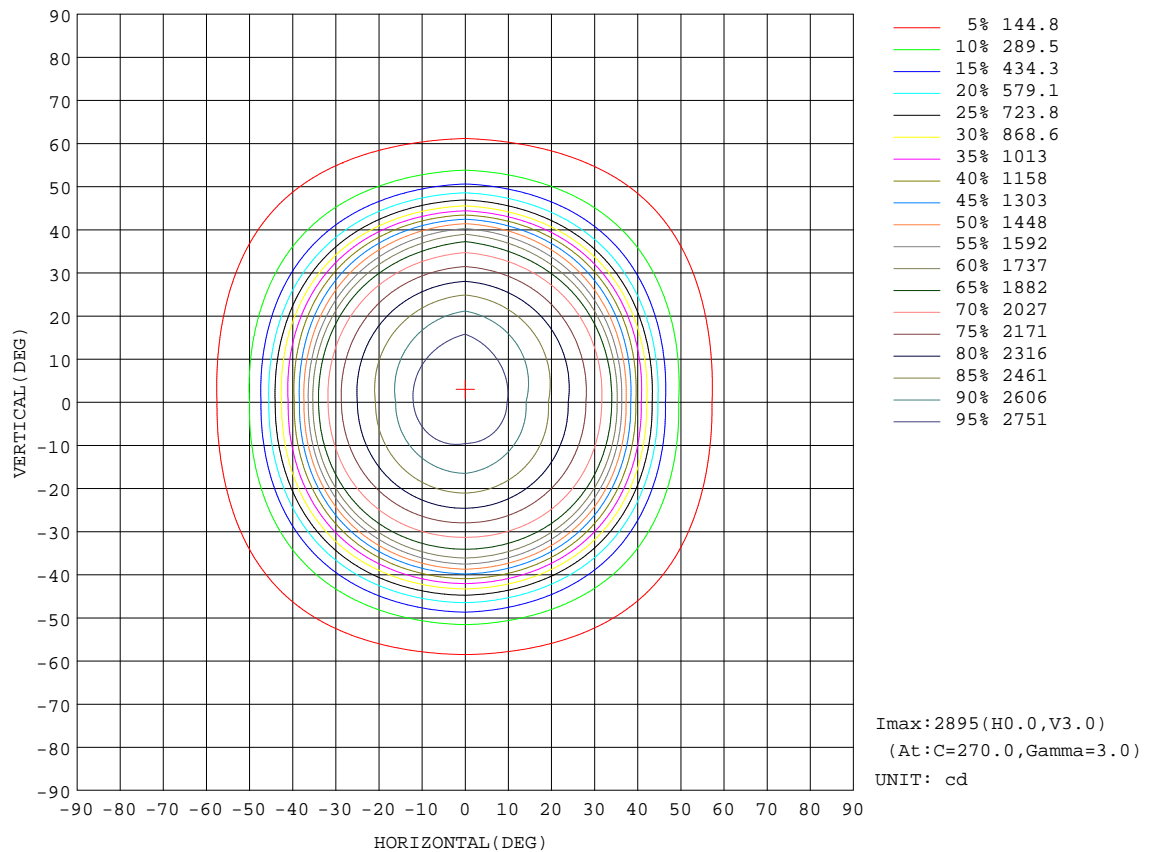
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	78	70	65	77	69	65	76	69	65	60
0.80	86	79	74	86	78	74	84	78	73	69
1.00	93	85	81	92	85	81	90	85	80	75
1.25	98	91	87	97	91	86	94	89	86	81
1.50	101	95	91	100	94	90	97	93	89	84
2.00	105	100	96	104	99	95	101	97	94	88
2.50	107	103	99	106	101	98	102	99	96	90
3.00	109	105	102	108	104	101	104	101	98	92
4.00	112	108	105	110	107	104	106	103	101	94
5.00	113	110	108	111	108	106	107	105	103	95
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:230.16V I:0.1594A P:34.610W PF:0.9433 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4115.4x1 lm		
NAME: LED542 W34 (35W 3000K)	TYPE: 35W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

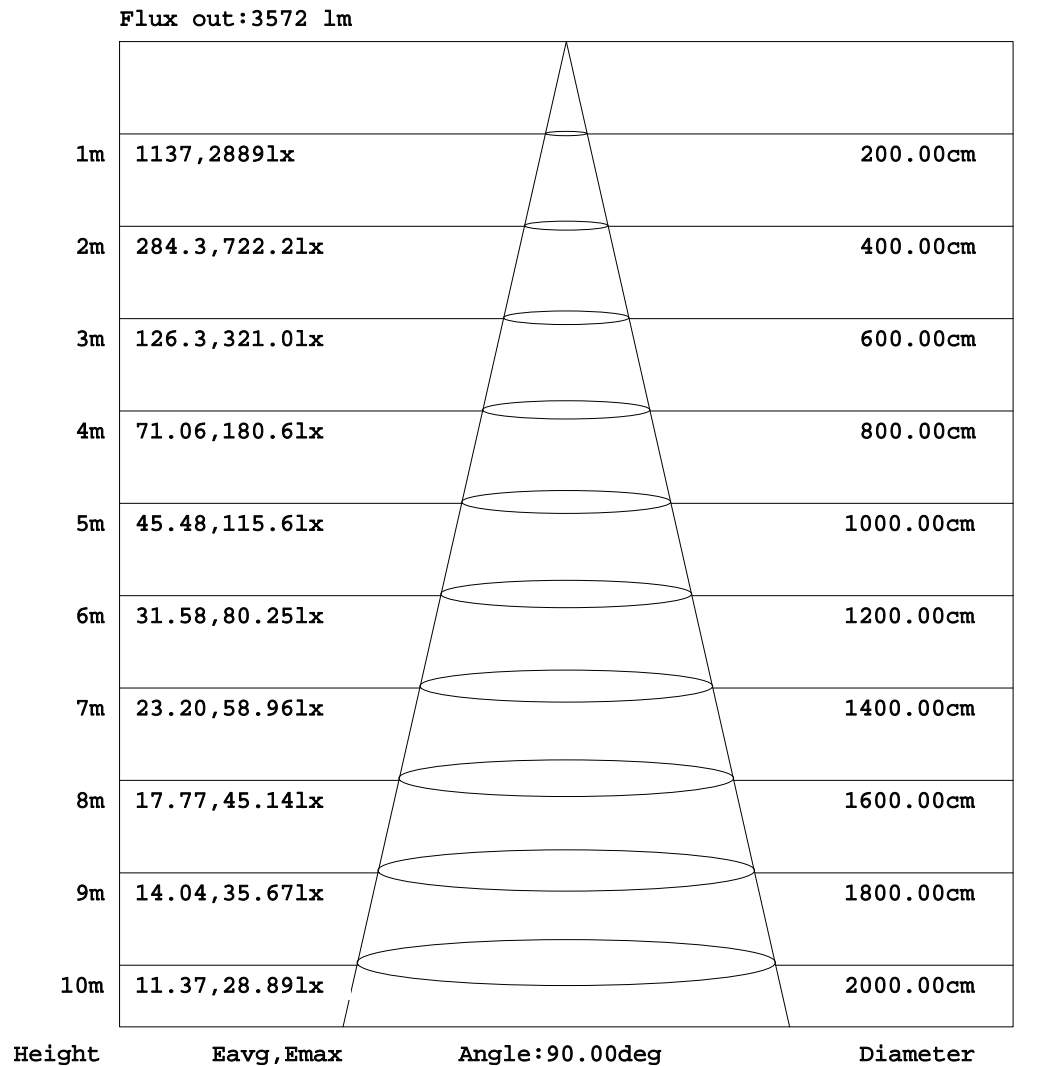


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-09

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:230.16V I:0.1594A P:34.610W PF:0.9433 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4115.4x1 lm		
NAME: LED542 W34 (35W 3000K)	TYPE: 35W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:



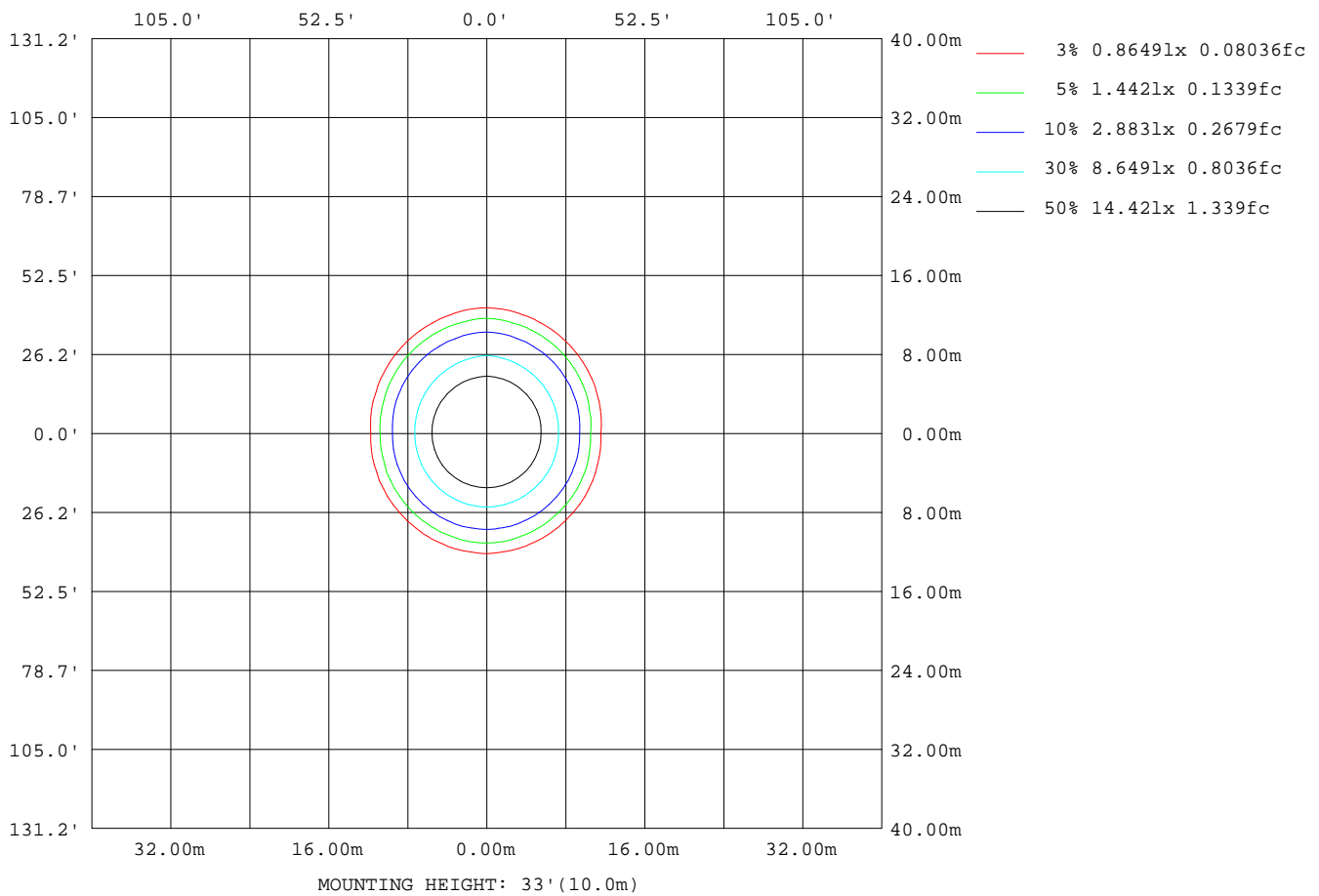
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.16V I:0.1594A P:34.610W PF:0.9433 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4115.4x1 lm		
NAME: LED542 W34 (35W 3000K)	TYPE: 35W	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:230.16V I:0.1594A P:34.610W PF:0.9433 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4115.4x1 lm		
NAME: LED542 W34 (35W 3000K)	TYPE: 35W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

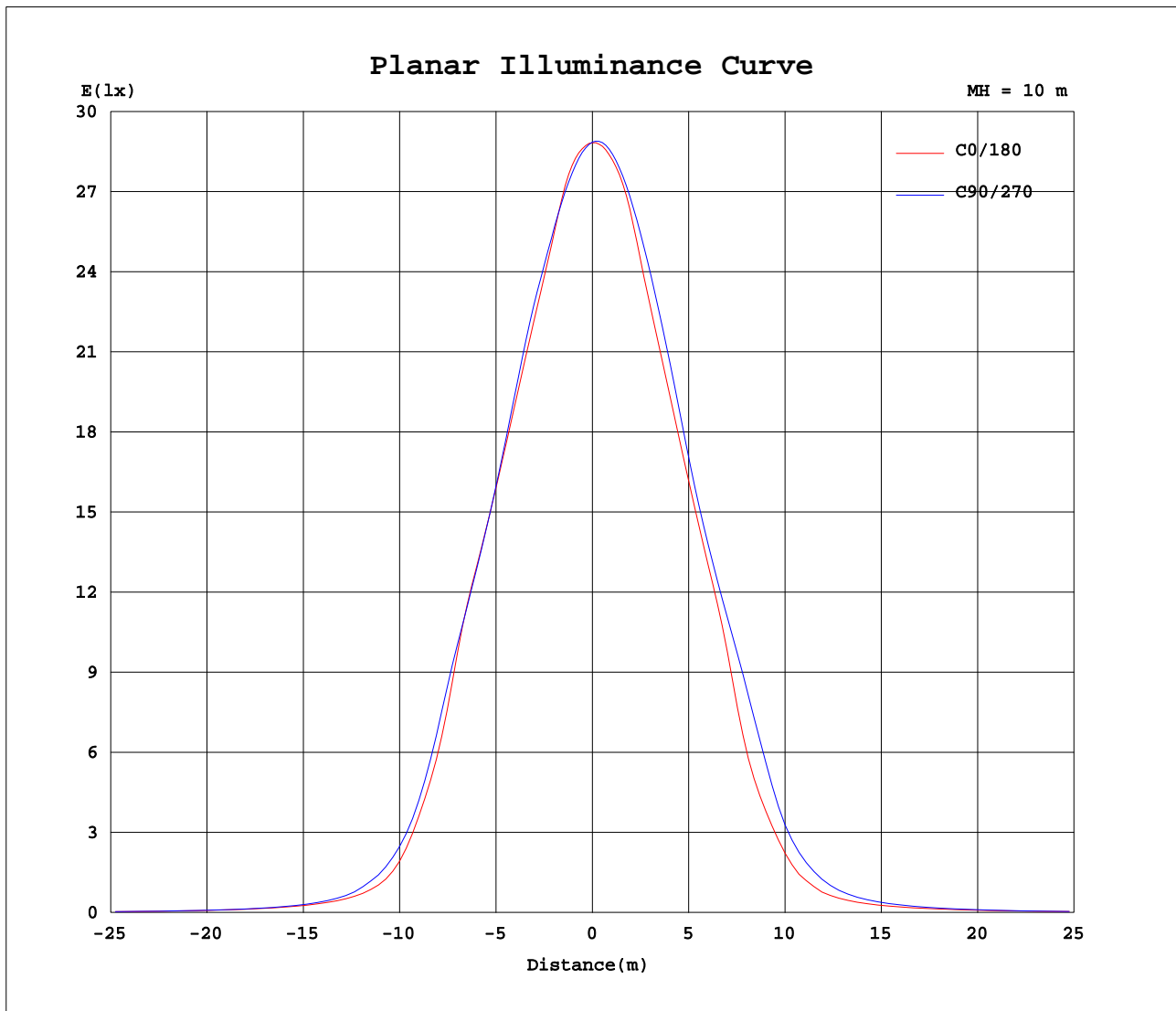
AvgL	cd/m2
L_0~180(65)av	1336
L_0~180(75)av	1069
L_0~180(85)av	835
L_90~270(65)av	1459
L_90~270(75)av	1046
L_90~270(85)av	916
L_45(65)av	1416
L_45(75)av	1060
L_45(85)av	894

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:

```