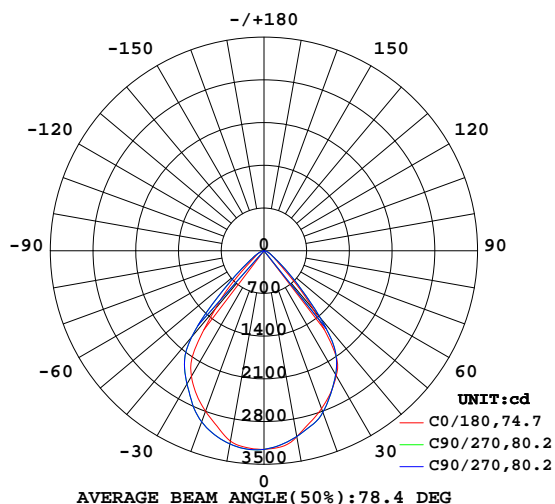


LUMINAIRE PHOTOMETRIC TEST REPORT

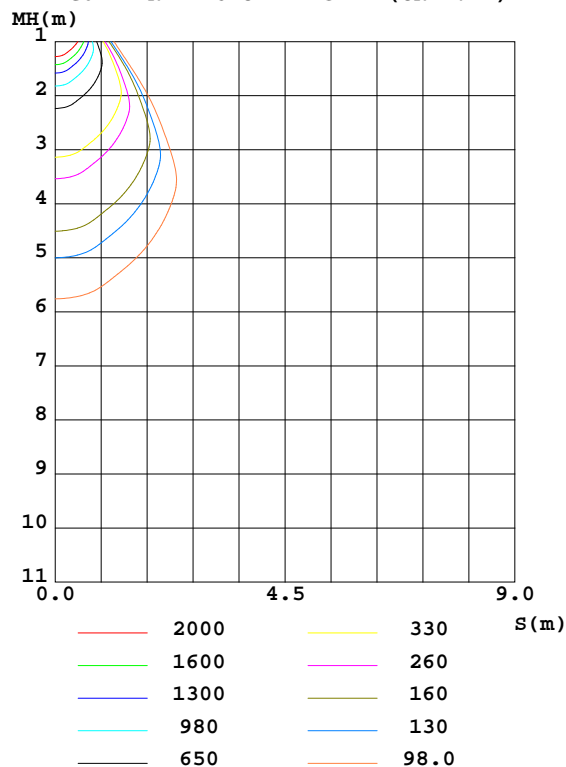
Test:U:230.16V I:0.1782A P:39.083W PF:0.9531 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4641.72x1 lm		
NAME: LED542 W34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 118.76 lm/W			
MODEL	LED542 W34 (40W/3K)	I _{max} (cd)	3265	S/MH(C0/180)	1.08
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.16
RATED VOLTAGE(V)		TOTAL FLUX(lm)	4641.7	η UP,DN(C0-180)	0.0,48.2
NOMINAL FLUX(lm)	4641.72	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.8
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	3095	3091	3169	3216					0- 10	305.6	305.6	6.58,6.58
20	2755	2819	2801	2984					10- 20	844.6	1150	24.8,24.8
30	2369	2349	2379	2523					20- 30	1212	2362	50.9,50.9
40	1266	1434	1243	1845					30- 40	1256	3618	77.9,77.9
50	311.0	407.9	321.0	537.0					40- 50	640.7	4259	91.7,91.7
60	135.1	144.0	138.1	181.7					50- 60	213.5	4472	96.3,96.3
70	67.84	67.03	74.10	74.44					60- 70	104.1	4576	98.6,98.6
80	26.18	27.64	31.04	28.97					70- 80	50.92	4627	99.7,99.7
90	0.5610	1.145	1.311	1.120					80- 90	14.65	4642	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): 4029.8 lm

%lum = 86.8%

%lamp = 86.8%

Conical surface Flux(120deg): 4472 lm

%lum = 96.3%

%lamp = 96.3%

0 - 45 DEG Zonal Flux:4029.8 %lum: 86.8%

0 - 60 DEG Zonal Flux:4472 %lum: 96.3%

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: 11.5%

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

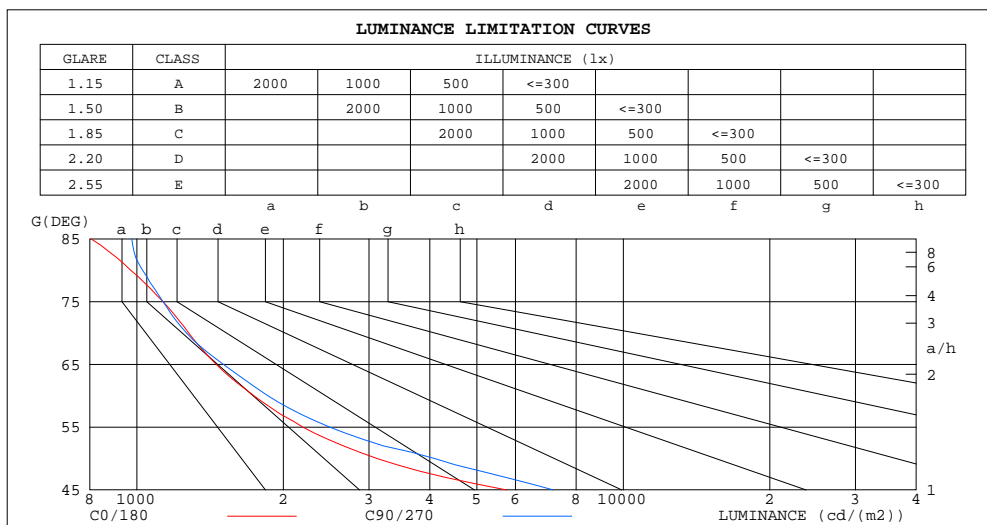
Humidity:65.0%

Test Distance:8.690m [K=1.0000]

Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.16V I:0.1782A P:39.083W PF:0.9531 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4641.72x1 lm		
NAME: LED542 W34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:



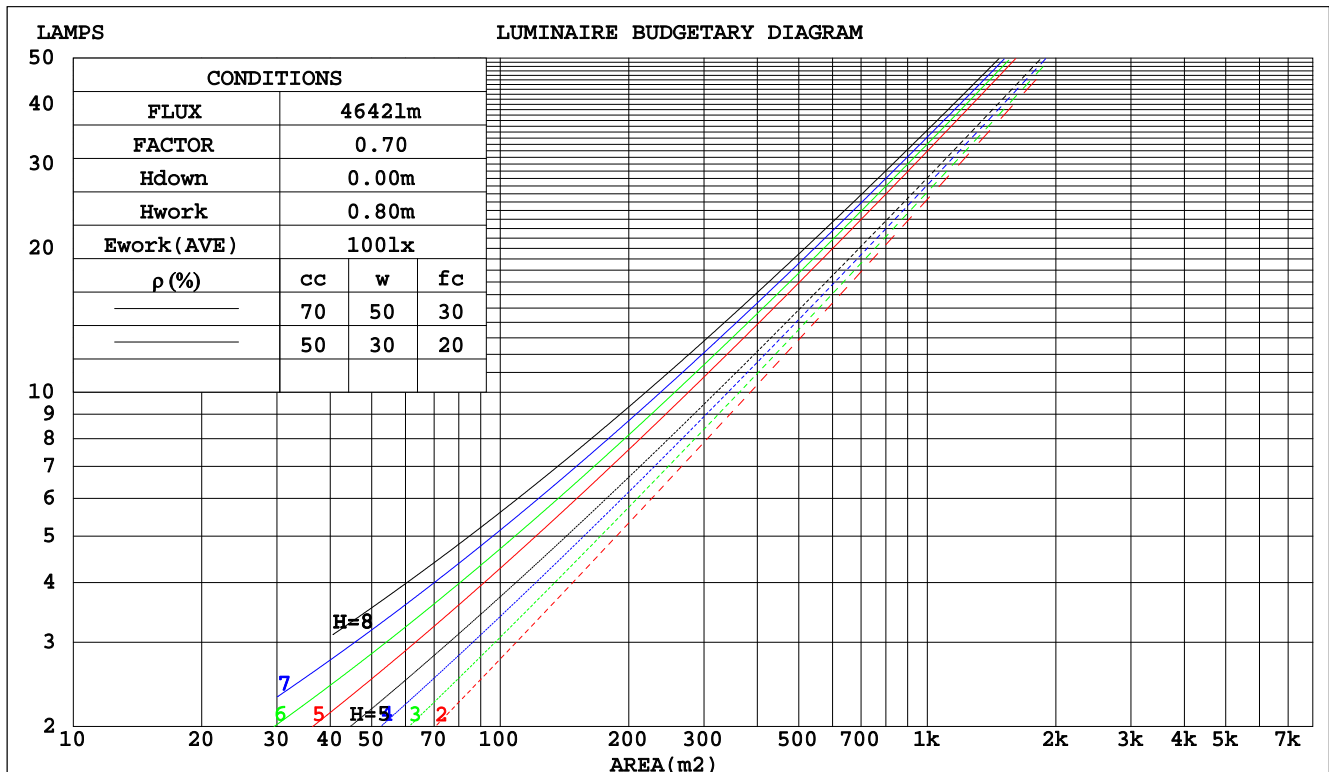
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2021-12-09

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.16V I:0.1782A P:39.083W PF:0.9531 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4641.72x1 lm		
NAME: LED542 W34 (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						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	.81	.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:0.1782A P:39.083W PF:0.9531 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4641.72x1 lm		
NAME: LED542 W34 (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	.212	.120	.038	.205	.117	.037	.192	.110	.035	.180	.104	.033	.170	.098	.032		
2.0	.204	.112	.034	.198	.109	.034	.188	.104	.032	.178	.100	.031	.168	.095	.030		
3.0	.195	.104	.031	.190	.102	.031	.180	.098	.030	.171	.094	.029	.163	.090	.028		
4.0	.185	.096	.028	.180	.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	.069	.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:0.1782A P:39.083W PF:0.9531 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4641.72x1 lm										
NAME: LED542 W34 (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	15.5	16.6	15.7	16.8	17.0	15.8	17.0	16.1	17.1	17.3
3H	15.5	16.6	15.8	16.8	17.0	15.8	16.9	16.1	17.1	17.3
4H	15.6	16.5	15.8	16.8	17.0	15.9	16.9	16.1	17.1	17.3
6H	15.6	16.5	15.9	16.7	17.0	15.9	16.8	16.2	17.0	17.3
8H	15.5	16.4	15.9	16.7	17.0	15.8	16.7	16.2	17.0	17.3
12H	15.5	16.4	15.9	16.7	16.9	15.8	16.7	16.2	17.0	17.2
4H 2H	15.4	16.4	15.6	16.6	16.8	15.7	16.7	16.0	16.9	17.1
3H	15.5	16.4	15.8	16.6	16.9	15.8	16.6	16.1	16.9	17.2
4H	15.6	16.4	15.9	16.7	17.0	15.9	16.6	16.2	16.9	17.3
6H	15.6	16.3	16.0	16.7	17.0	15.9	16.6	16.3	16.9	17.3
8H	15.7	16.3	16.1	16.6	17.0	15.9	16.6	16.3	16.9	17.3
12H	15.7	16.2	16.1	16.6	17.0	15.9	16.5	16.4	16.9	17.3
8H 4H	15.5	16.2	15.9	16.5	16.9	15.8	16.4	16.2	16.8	17.2
6H	15.7	16.2	16.1	16.6	17.0	15.9	16.4	16.3	16.8	17.2
8H	15.7	16.1	16.1	16.6	17.0	16.0	16.4	16.4	16.8	17.3
12H	15.7	16.1	16.2	16.5	17.0	16.0	16.4	16.5	16.8	17.3
12H 4H	15.5	16.1	15.9	16.5	16.9	15.8	16.3	16.2	16.7	17.1
6H	15.6	16.1	16.1	16.5	17.0	15.9	16.3	16.3	16.8	17.2
8H	15.7	16.1	16.2	16.5	17.0	16.0	16.3	16.4	16.8	17.3
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	+ 3.3 / - 1.7					+ 4.1 / - 2.1				

CIE Pub.117, 4642 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:230.16V I:0.1782A P:39.083W PF:0.9531 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4641.72x1 lm		
NAME: LED542 W34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

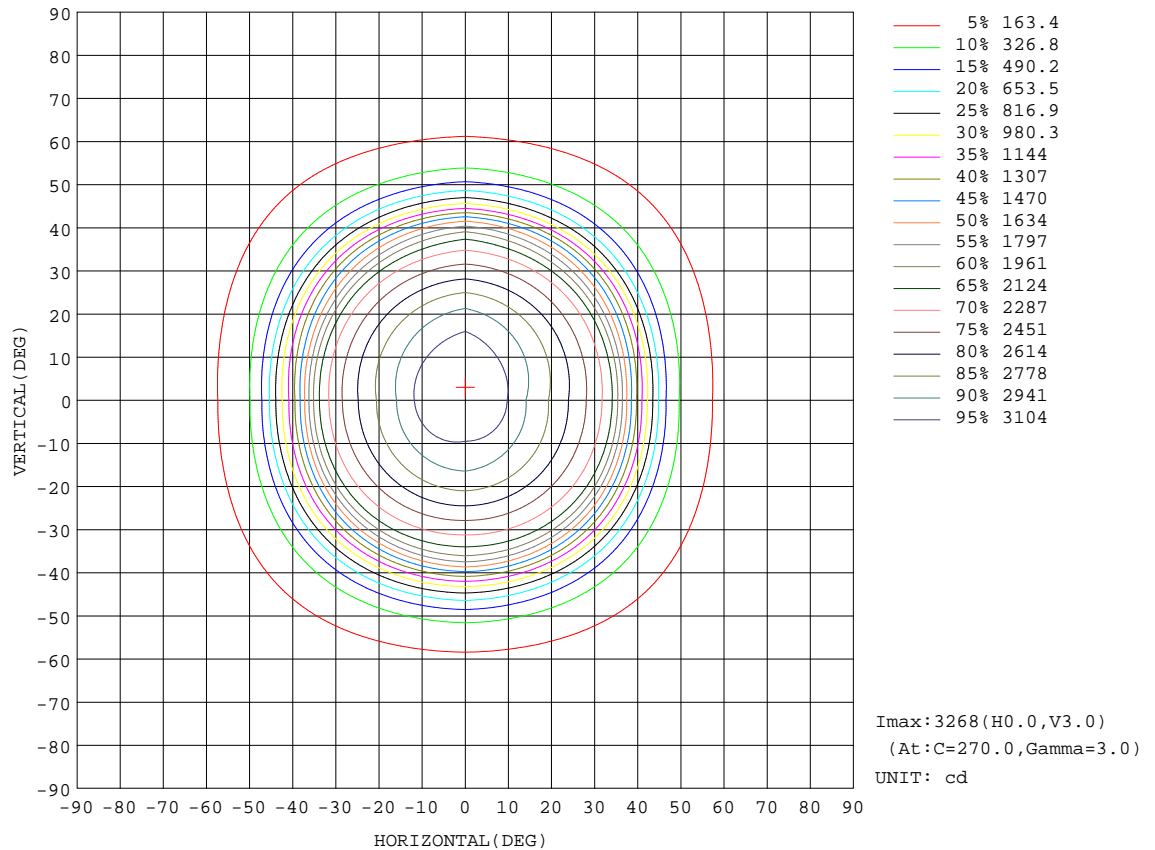
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	78	70	65	77	69	65	76	69	65	60
0.80	86	79	74	86	78	74	84	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:0.1782A P:39.083W PF:0.9531 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4641.72x1 lm		
NAME: LED542 W34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

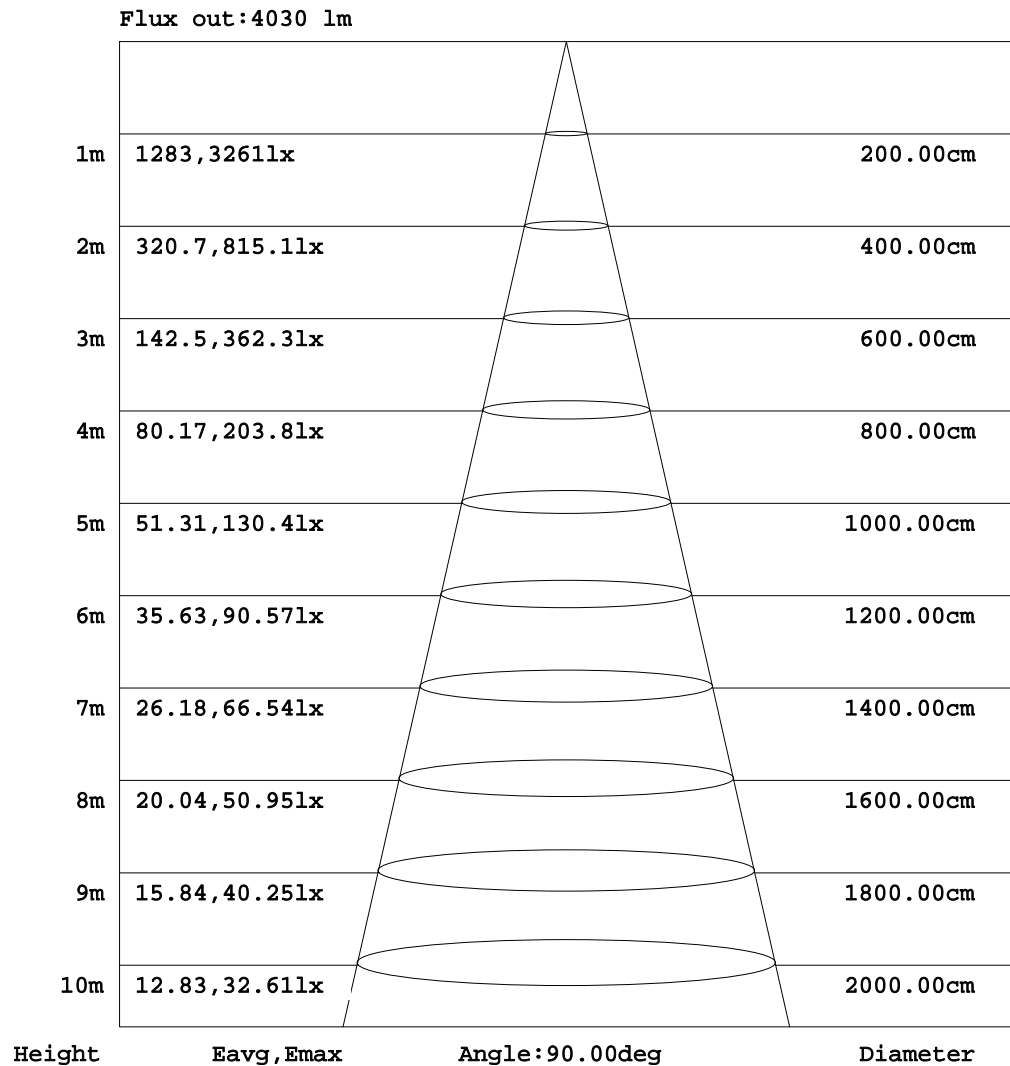


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2021-12-09

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:230.16V I:0.1782A P:39.083W PF:0.9531 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4641.72x1 lm		
NAME: LED542 W34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:



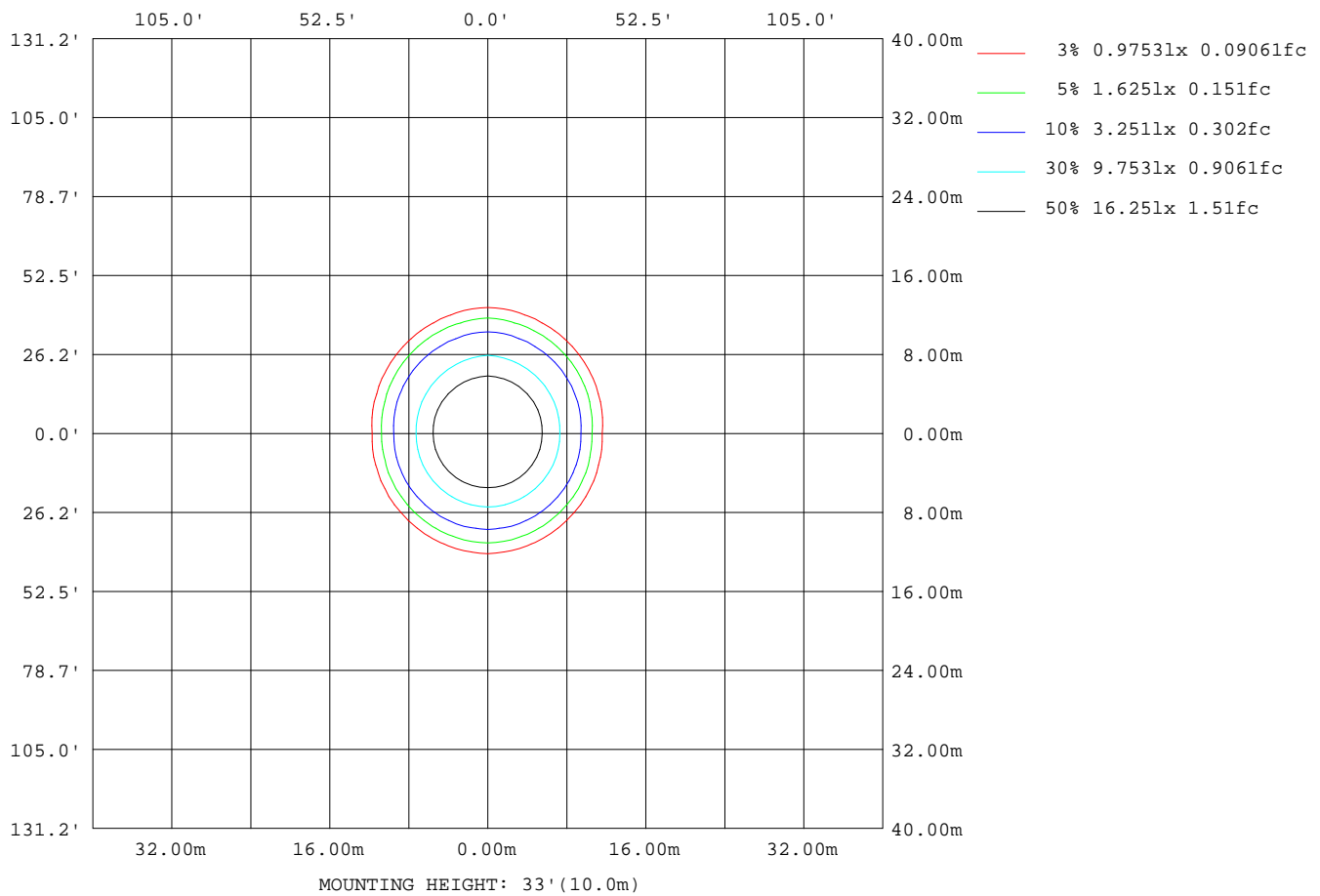
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.16V I:0.1782A P:39.083W PF:0.9531 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4641.72x1 lm		
NAME: LED542 W34 (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:230.16V I:0.1782A P:39.083W PF:0.9531 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:4641.72x1 lm		
NAME: LED542 W34 (40W 3000K)	TYPE: 40W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: #1
MFR.:	SUR.: 0.155	Shielding Angle:

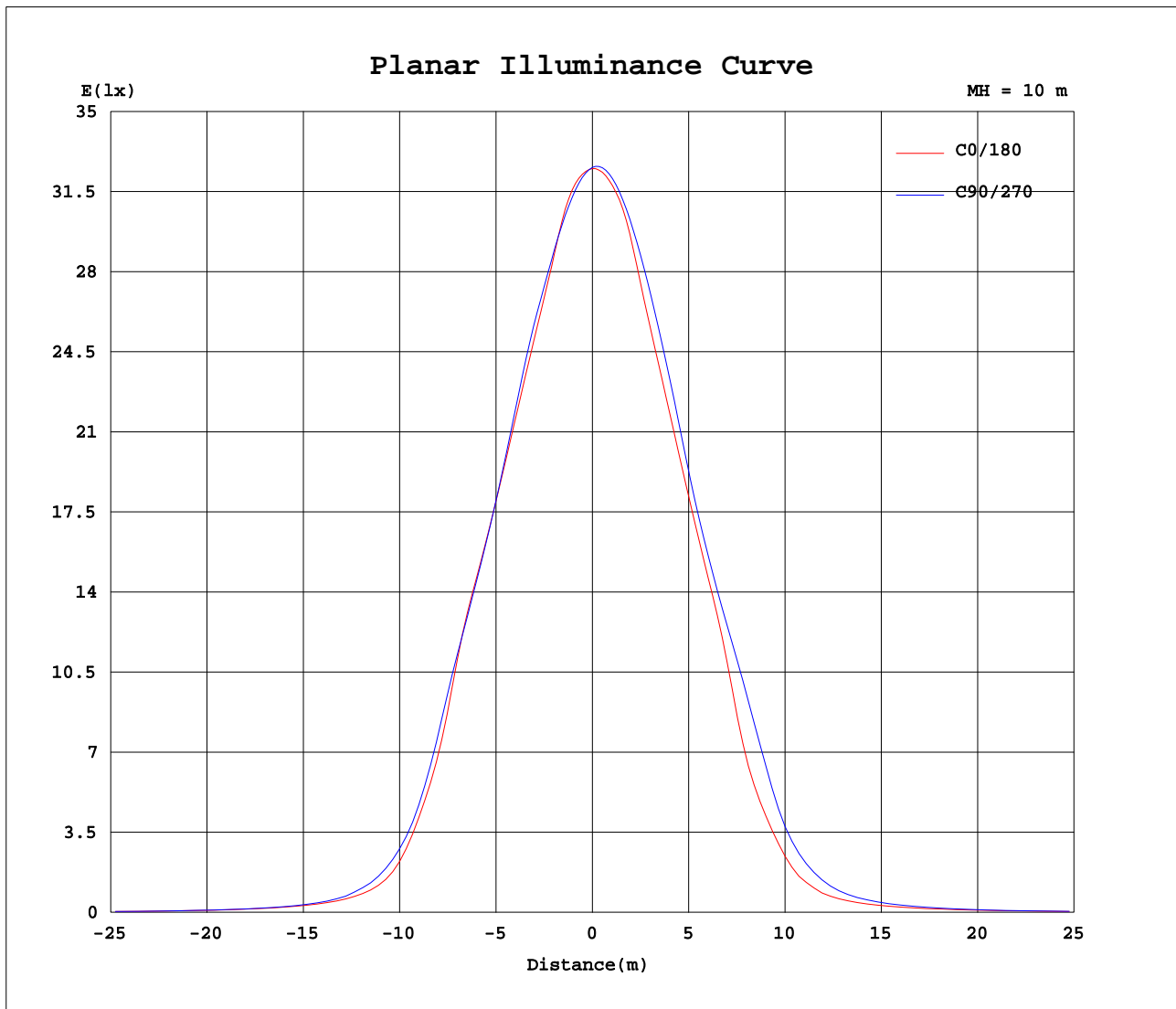
AvgL	cd/m2
L_0~180(65)av	1504
L_0~180(75)av	1205
L_0~180(85)av	937
L_90~270(65)av	1641
L_90~270(75)av	1172
L_90~270(85)av	981
L_45(65)av	1593
L_45(75)av	1189
L_45(85)av	972

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:

```