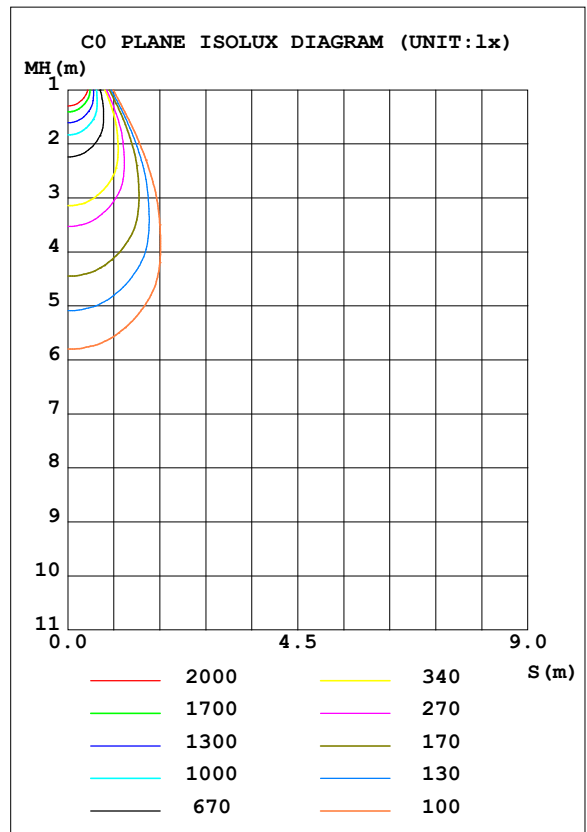
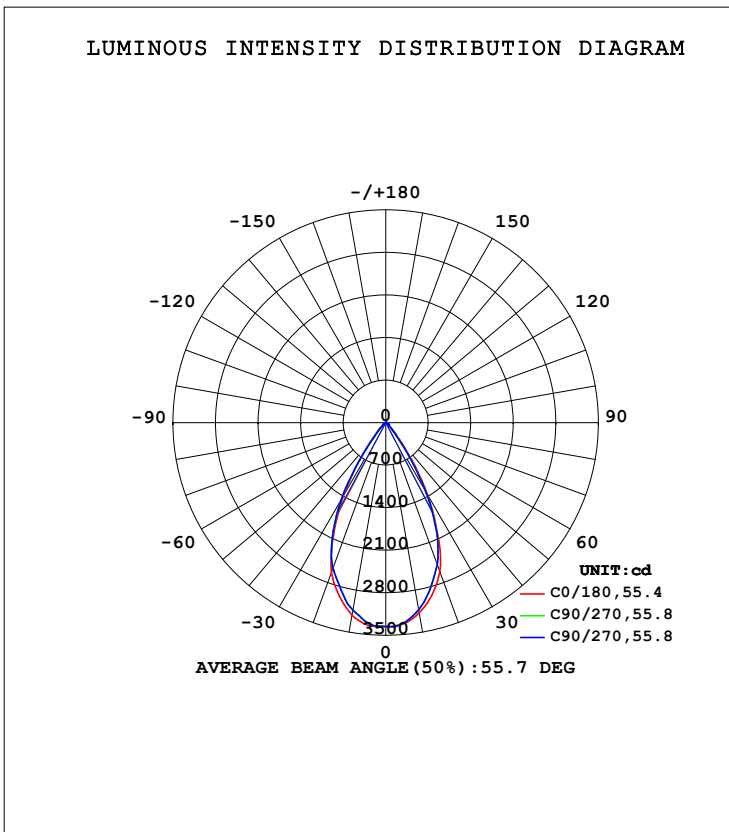


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:230.17V I:0.1320A P:29.435W PF:0.9686 Freq:50.08Hz UTHDi:0.16% ITHDi:10.38% KDisp:0.9747 Lamp Flux:2681.29x1 lm		
NAME: TL30W-CC-W 5000K	TYPE: 30W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	TL30W-CC-W 5000K	Imax (cd)	3366	S/MH (C0/180)	0.84
NOMINAL POWER (W)	30	LOR (%)	100.0	S/MH (C90/270)	0.85
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2681.3	<input type="checkbox"/> UP, DN (C0-180)	0.0, 49.2
NOMINAL FLUX (lm)	2681.29	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.0, 50.8
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	230	<input type="checkbox"/> down (%)	100.0	CIBSE SHR MAX	0.85



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-07-14

Range: 0 - 90DEG  
 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:

mm	C0	C90	C180	C270					mm	□ zone	□ total	%lum, lamp
10	3178	3124	3213	3130					0- 10	311.8	311.8	11.6,11.6
20	2608	2478	2619	2542					10- 20	808.1	1120	41.8,41.8
30	1396	1344	1405	1479					20- 30	917.6	2037	76,76
40	301.6	230.4	337.4	276.6					30- 40	468.3	2506	93.5,93.5
50	71.54	60.22	71.95	66.40					40- 50	112.2	2618	97.6,97.6
60	28.74	26.67	28.48	29.58					50- 60	42.58	2661	99.2,99.2
70	9.199	7.624	9.197	10.08					60- 70	18.30	2679	99.9,99.9
80	0.1460	0.1435	0.1248	0.1649					70- 80	2.323	2681	100,100
90	0.1215	0.1222	0.1094	0.1100					80- 90	0.1397	2681	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): 2579.5 lm

%lum = 96.2%

%lamp = 96.2%

Conical surface Flux(120deg): 2660.5 lm

%lum = 99.2%

%lamp = 99.2%

0 - 45 DEG Zonal Flux:2579.5      %lum: 96.2%

0 - 60 DEG Zonal Flux:2660.5      %lum: 99.2%

All measured values may vary less than 35 %  
from the average measured value in the 0 to 130 deg. zone: 5.5%

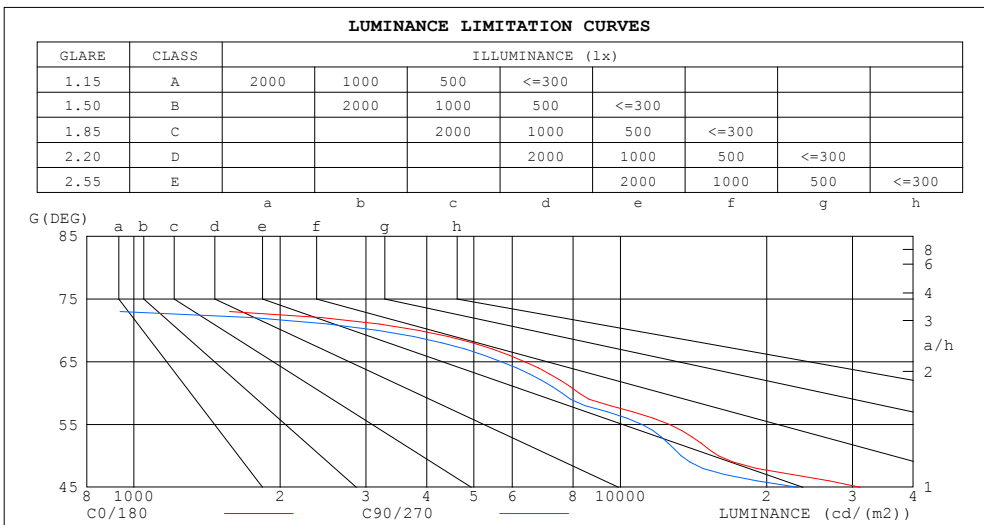
All measured values in the 0 to 130 deg. zone  
may vary less than 50% from the average value of itself: 9.3%

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-14

□ Range: 0 - 90DEG  
□ 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:0.1320A P:29.435W PF:0.9686 Freq:50.08Hz UTHDi:0.16% ITHDi:10.38% KDisp:0.9747 Lamp Flux:2681.29x1 lm		
NAME: TL30W-CC-W 5000K	TYPE: 30W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	220	210
80	120	118
75	145	87
70	3852	3176
65	6365	5694
60	8232	7600
55	12629	11086
50	15941	13349
45	31121	23175

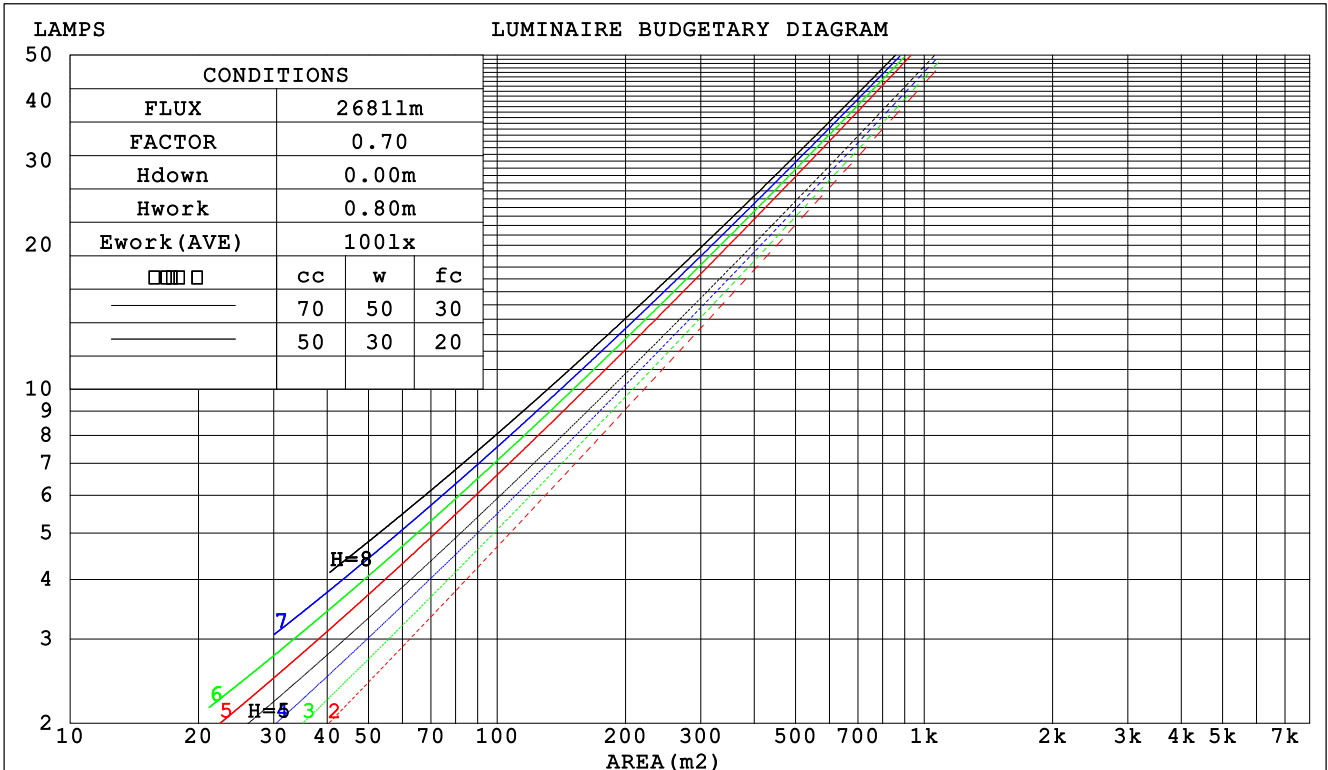
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-07-14

Range: 0 - 90DEG  
 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:0.1320A P:29.435W PF:0.9686 Freq:50.08Hz UTHDi:0.16% ITHDi:10.38% KDisp:0.9747 Lamp Flux:2681.29x1 lm		
NAME: TL30W-CC-W 5000K	TYPE: 30W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□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	1.11	1.09	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.00	.98	.98	.97	.96	.94
2.0	1.03	.00	.96	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.85	.88	.85	.83	.82
4.0	.91	.85	.81	.89	.84	.81	.87	.83	.80	.85	.82	.79	.83	.80	.78	.76
5.0	.85	.79	.75	.84	.79	.75	.82	.78	.74	.81	.77	.74	.79	.76	.73	.71
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.75	.70	.66	.75	.69	.65	.74	.69	.65	.72	.68	.65	.71	.67	.64	.63
8.0	.71	.66	.62	.71	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.59
9.0	.68	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.57	.64	.60	.57	.56
10.0	.64	.58	.55	.64	.58	.55	.63	.58	.54	.62	.58	.54	.61	.57	.54	.53



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-07-14

□ Range: 0 - 90DEG  
 □ 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:0.1320A P:29.435W PF:0.9686 Freq:50.08Hz UTHDi:0.16% ITHDi:10.38% KDisp:0.9747 Lamp Flux:2681.29x1 lm		
NAME: TL30W-CC-W 5000K	TYPE: 30W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio		Wall Exitance Coefficients (WEC)			
0.0						
1.0	.174 .099 .031	.168 .096 .030	.155 .089 .028	.144 .083 .027	.133 .077 .025	
2.0	.167 .092 .028	.161 .089 .027	.151 .084 .026	.141 .079 .025	.132 .075 .024	
3.0	.159 .085 .025	.154 .083 .025	.145 .079 .024	.137 .075 .023	.129 .072 .022	
4.0	.151 .079 .023	.147 .077 .023	.140 .074 .022	.132 .071 .021	.126 .068 .021	
5.0	.144 .074 .021	.141 .072 .021	.134 .070 .021	.128 .067 .020	.122 .065 .020	
6.0	.138 .069 .020	.135 .068 .020	.129 .066 .019	.123 .064 .019	.118 .062 .018	
7.0	.132 .065 .018	.129 .064 .018	.124 .062 .018	.119 .061 .018	.114 .059 .017	
8.0	.126 .062 .017	.124 .061 .017	.119 .059 .017	.114 .058 .017	.110 .057 .016	
9.0	.121 .058 .016	.119 .058 .016	.114 .057 .016	.110 .055 .016	.107 .054 .016	
10.0	.116 .056 .015	.114 .055 .015	.110 .054 .015	.107 .053 .015	.103 .052 .015	

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> 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	.156 .133 .113	.133 .114 .098	.091 .079 .068	.053 .046 .040	.017 .015 .013	
3.0	.143 .114 .090	.123 .098 .078	.084 .068 .055	.049 .040 .032	.016 .013 .011	
4.0	.133 .099 .073	.114 .085 .063	.078 .059 .045	.045 .035 .026	.015 .011 .009	
5.0	.124 .087 .060	.107 .075 .052	.073 .053 .037	.043 .031 .022	.014 .010 .007	
6.0	.117 .078 .050	.100 .067 .044	.069 .047 .031	.040 .028 .018	.013 .009 .006	
7.0	.110 .070 .042	.095 .061 .037	.065 .043 .026	.038 .025 .016	.012 .008 .005	
8.0	.104 .064 .036	.090 .056 .032	.062 .039 .022	.036 .023 .013	.012 .008 .004	
9.0	.099 .059 .031	.086 .051 .027	.059 .036 .019	.035 .021 .012	.011 .007 .004	
10.0	.095 .054 .028	.082 .047 .024	.057 .033 .017	.033 .020 .010	.011 .006 .003	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-07-14

Range: 0 - 90DEG  
 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:0.1320A P:29.435W PF:0.9686 Freq:50.08Hz UTHDi:0.16% ITHDi:10.38% KDisp:0.9747 Lamp Flux:2681.29x1 lm		
NAME: TL30W-CC-W 5000K	TYPE: 30W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	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	16.6	17.6	16.8	17.7	17.9	16.1	17.0	16.3	17.2	17.3
3H	16.5	17.4	16.8	17.6	17.8	16.0	16.8	16.2	17.0	17.2
4H	16.4	17.2	16.7	17.5	17.7	15.9	16.7	16.2	16.9	17.1
6H	16.3	17.1	16.6	17.3	17.6	15.8	16.5	16.1	16.8	17.0
8H	16.3	17.0	16.6	17.3	17.5	15.7	16.5	16.1	16.7	17.0
12H	16.3	16.9	16.6	17.2	17.5	15.7	16.4	16.0	16.7	16.9
4H 2H	16.4	17.2	16.7	17.5	17.7	15.9	16.7	16.2	16.9	17.1
3H	16.3	17.0	16.6	17.3	17.6	15.8	16.5	16.1	16.8	17.0
4H	16.2	16.9	16.6	17.2	17.5	15.7	16.3	16.0	16.6	16.9
6H	16.1	16.7	16.5	17.0	17.4	15.6	16.2	16.0	16.5	16.8
8H	16.1	16.6	16.5	17.0	17.3	15.6	16.1	15.9	16.4	16.8
12H	16.0	16.5	16.4	16.9	17.3	15.5	16.0	15.9	16.3	16.7
8H 4H	16.1	16.6	16.5	17.0	17.3	15.6	16.1	15.9	16.4	16.8
6H	16.0	16.4	16.4	16.8	17.2	15.5	15.9	15.9	16.3	16.7
8H	15.9	16.3	16.4	16.7	17.2	15.4	15.8	15.8	16.2	16.6
12H	15.9	16.2	16.3	16.6	17.1	15.3	15.7	15.8	16.1	16.6
12H 4H	16.0	16.5	16.5	16.9	17.3	15.5	16.0	15.9	16.3	16.7
6H	15.9	16.3	16.4	16.7	17.2	15.4	15.8	15.8	16.2	16.6
8H	15.9	16.2	16.3	16.6	17.1	15.3	15.7	15.8	16.1	16.6
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 3.6 / - 6.1					+ 3.3 / - 5.7				
1.5H	+ 5.5 / - 4.5					+ 5.3 / - 4.1				
2.0H	+ 4.8 / - 3.3					+ 3.6 / - 2.7				

CIE Pub.117, 2681 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.4)  
Area: 0.007 m2

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-14

Range: 0 - 90DEG  
 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:0.1320A P:29.435W PF:0.9686 Freq:50.08Hz UTHDi:0.16% ITHDi:10.38% KDisp:0.9747 Lamp Flux:2681.29x1 lm		
NAME: TL30W-CC-W 5000K	TYPE: 30W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:

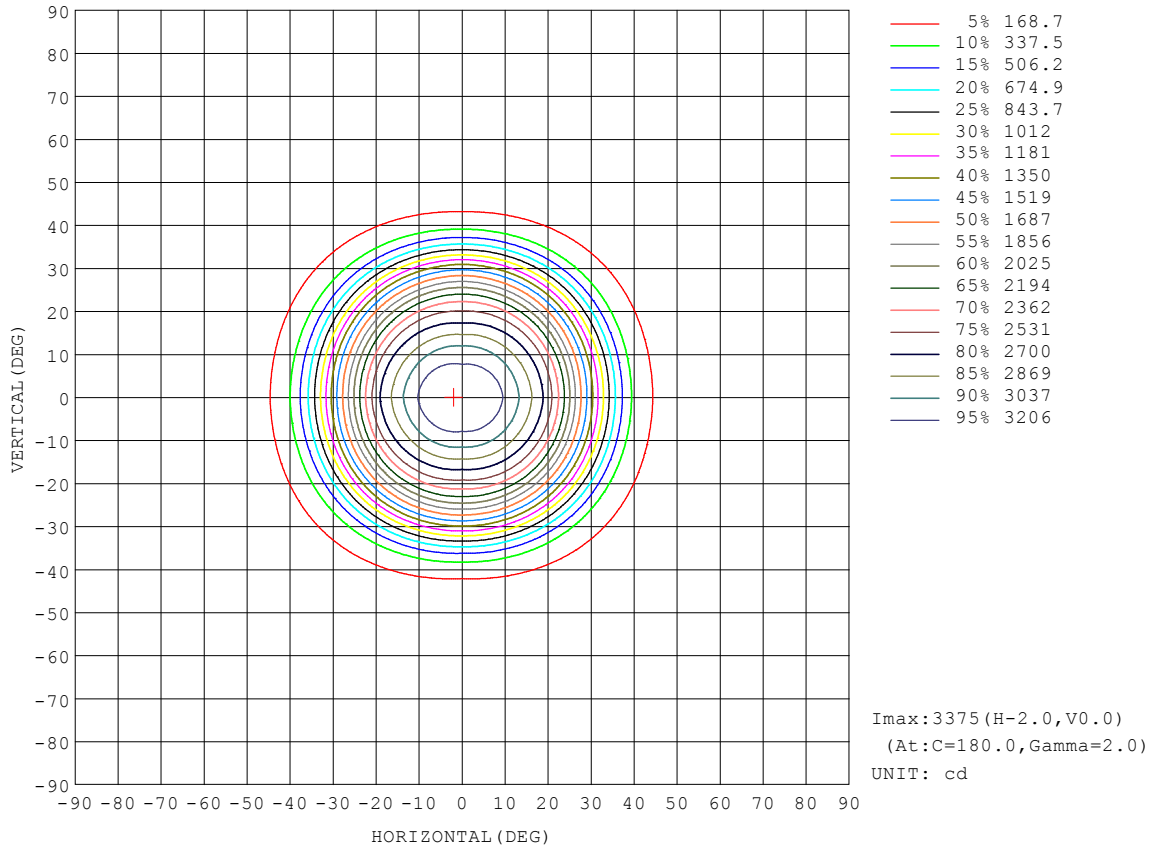
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	87	81	77	87	81	77	86	81	77	74
0.80	95	89	85	94	89	85	93	88	85	81
1.00	99	94	90	98	93	90	97	93	89	85
1.25	103	98	95	102	98	94	100	96	94	89
1.50	106	101	98	105	101	98	103	99	96	92
2.00	109	105	101	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	99
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:2022-07-14

Range: 0 - 90DEG  
 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:0.1320A P:29.435W PF:0.9686 Freq:50.08Hz UTHDi:0.16% ITHDi:10.38% KDisp:0.9747 Lamp Flux:2681.29x1 lm		
NAME: TL30W-CC-W 5000K	TYPE: 30W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:



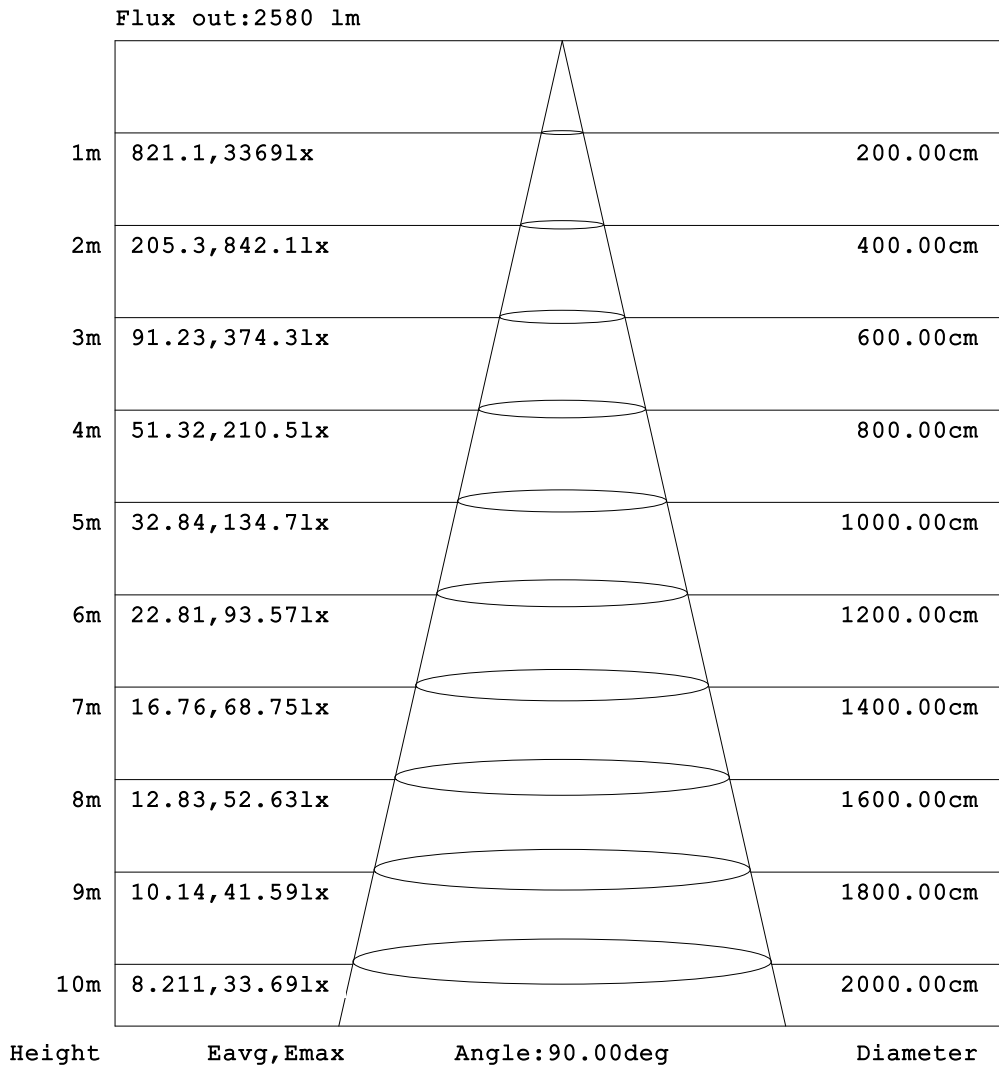
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-07-14

Range: 0 - 90DEG  
 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:0.1320A P:29.435W PF:0.9686 Freq:50.08Hz UTHDi:0.16% ITHDi:10.38% KDisp:0.9747 Lamp Flux:2681.29x1 lm		
NAME: TL30W-CC-W 5000K	TYPE: 30W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:



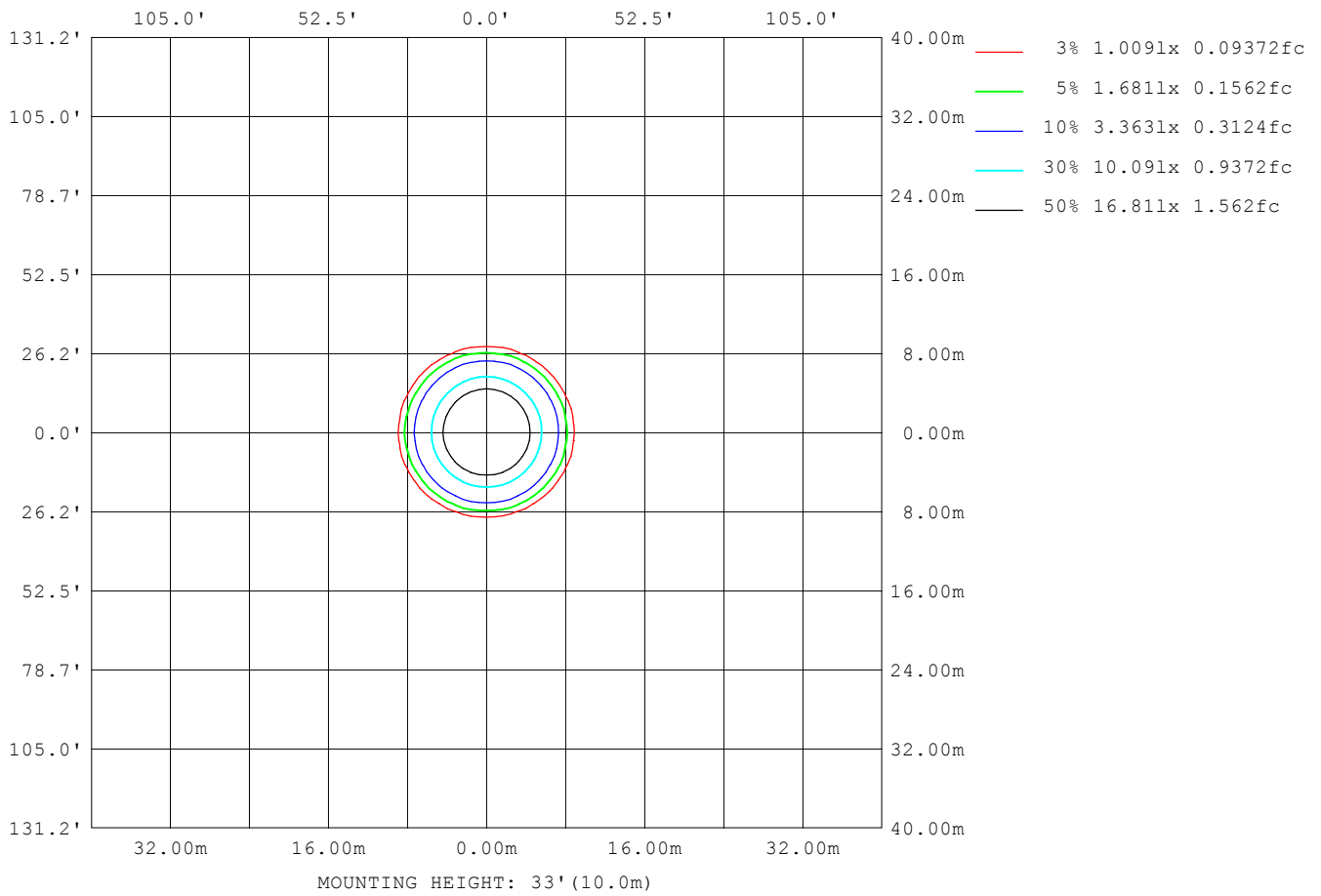
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-07-14

Range: 0 - 90DEG  
 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:0.1320A P:29.435W PF:0.9686 Freq:50.08Hz UTHDi:0.16% ITHDi:10.38% KDisp:0.9747 Lamp Flux:2681.29x1 lm		
NAME: TL30W-CC-W 5000K	TYPE: 30W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-07-14

Range: 0 - 90DEG  
 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:0.1320A P:29.435W PF:0.9686 Freq:50.08Hz UTHDi:0.16% ITHDi:10.38% KDisp:0.9747 Lamp Flux:2681.29x1 lm		
NAME: TL30W-CC-W 5000K	TYPE: 30W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:

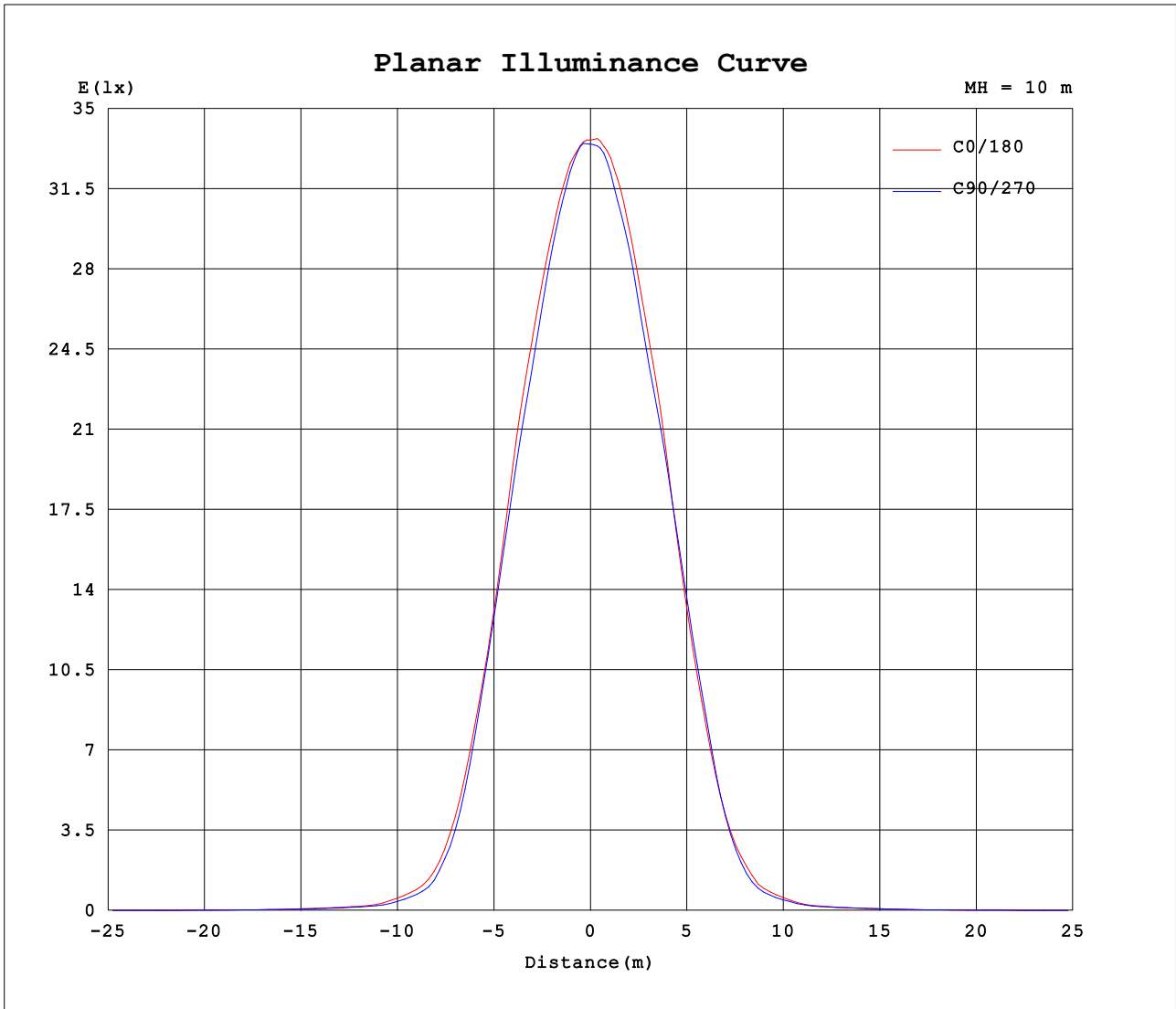
AvgL	cd/m2
L_0~180 (65) av	6324
L_0~180 (75) av	134
L_0~180 (85) av	203
L_90~270 (65) av	6169
L_90~270 (75) av	201
L_90~270 (85) av	210
L_45 (65) av	6226
L_45 (75) av	175
L_45 (85) av	206

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-07-14

Range: 0 - 90DEG  
 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: 2022-07-14

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.446  
 Humidity: 65.0%  
 Test Distance: 8.690m [K=1.0000]  
 Remarks:

