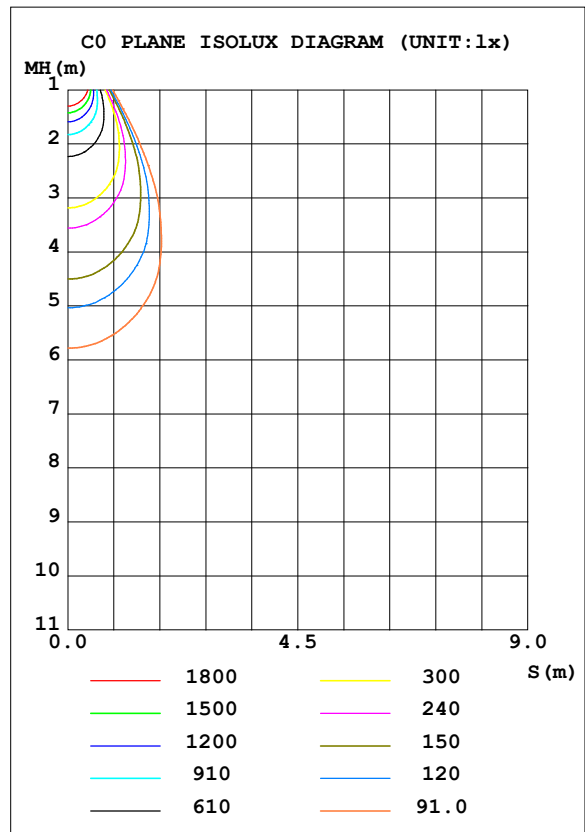
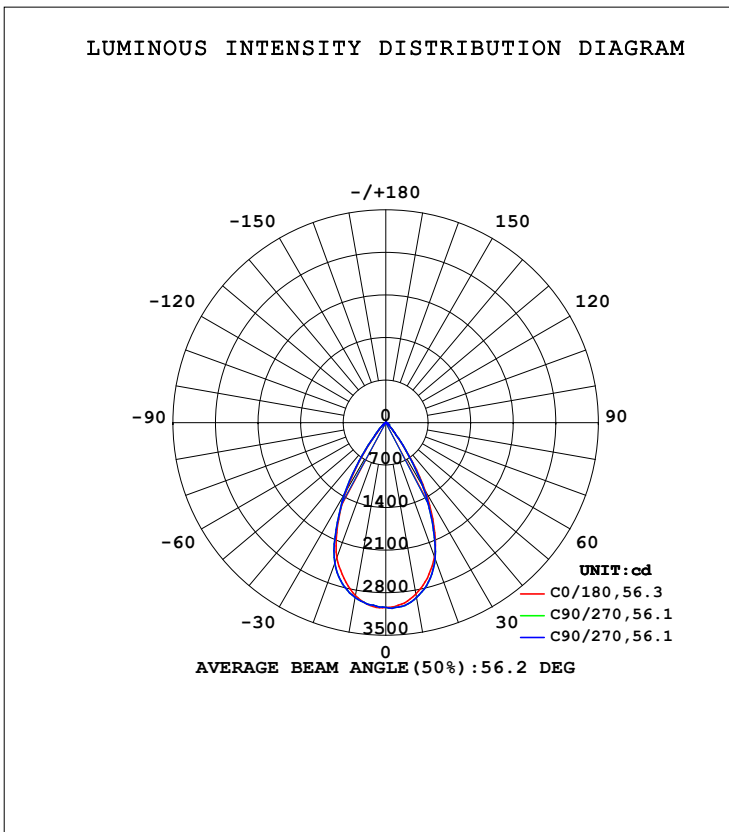


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:230.14V I:0.1281A P:28.510W PF:0.9674 Freq:50.09Hz UTHDi:0.23% ITHDi:10.23% KDisp:0.9733 Lamp Flux:2509.31x1 lm		
NAME: TL30W-CC-W 3000K	TYPE: 30W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 88.01 lm/W			
MODEL	TL30W-CC-W 3000K	I <sub>max</sub> (cd)	3055	S/MH (C0/180)	0.85
NOMINAL POWER (W)	30	LOR (%)	100.0	S/MH (C90/270)	0.86
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2509.3	<input type="checkbox"/> UP, DN (C0-180)	0.0, 49.2
NOMINAL FLUX (lm)	2509.31	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	0.90



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:

°	C0	C90	C180	C270				°	□ zone	□ total	%lum, lamp
10	2862	2921	2888	2921				0- 10	284.1	284.1	11.3,11.3
20	2350	2376	2360	2462				10- 20	750.7	1035	41.2,41.2
30	1314	1249	1320	1371				20- 30	850.4	1885	75.1,75.1
40	263.5	270.1	275.8	317.3				30- 40	450.3	2336	93.1,93.1
50	64.13	64.95	64.70	71.13				40- 50	112.8	2448	97.6,97.6
60	27.08	26.01	26.82	28.63				50- 60	40.99	2489	99.2,99.2
70	8.693	7.695	8.616	9.998				60- 70	17.58	2507	99.9,99.9
80	0.1584	0.1335	0.1078	0.1646				70- 80	2.265	2509	100,100
90	0.1157	0.1158	0.1036	0.1036				80- 90	0.1336	2509	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): 2409.6 lm

%lum = 96.0%

%lamp = 96.0%

Conical surface Flux(120deg): 2489.3 lm

%lum = 99.2%

%lamp = 99.2%

0 - 45 DEG Zonal Flux:2409.6      %lum: 96.0%

0 - 60 DEG Zonal Flux:2489.3      %lum: 99.2%

All measured values may vary less than 35 %  
from the average measured value in the 0 to 130 deg. zone: 6.0%

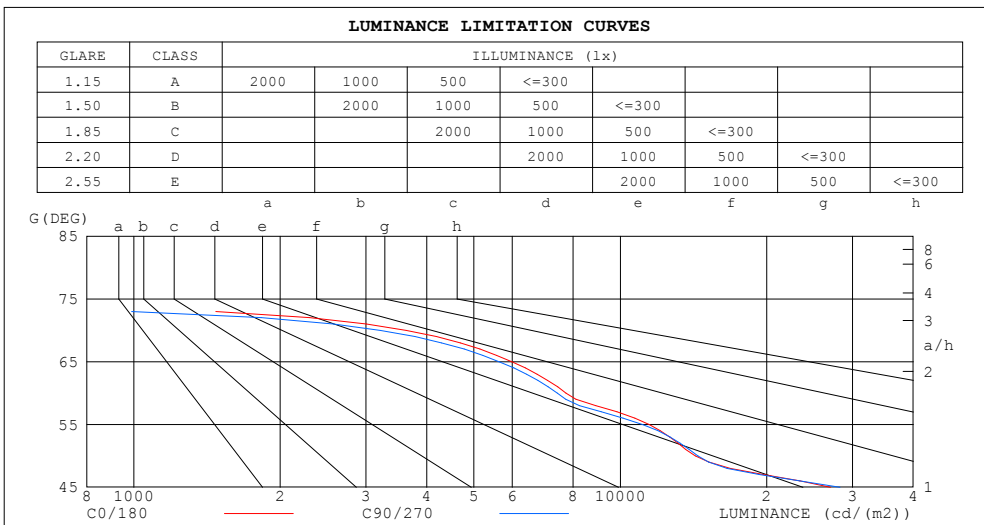
All measured values in the 0 to 130 deg. zone  
may vary less than 50% from the average value of itself: 8.8%

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:230.14V I:0.1281A P:28.510W PF:0.9674 Freq:50.09Hz UTHDi:0.23% ITHDi:10.23% KDisp:0.9733 Lamp Flux:2509.31x1 lm		
NAME: TL30W-CC-W 3000K	TYPE: 30W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	210	198
80	130	110
75	143	81
70	3632	3213
65	5987	5631
60	7738	7429
55	11465	11107
50	14256	14431
45	27035	28296

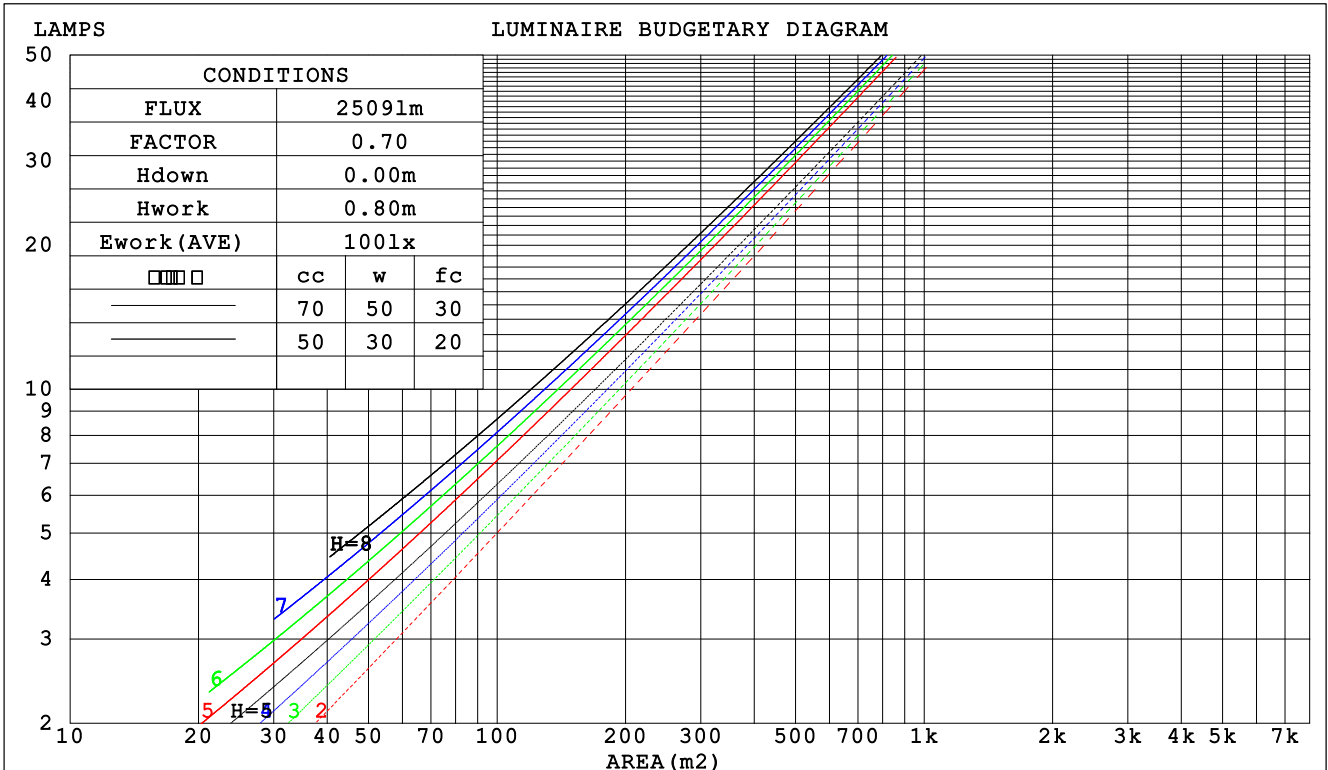
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-07-14

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:230.14V I:0.1281A P:28.510W PF:0.9674 Freq:50.09Hz UTHDi:0.23% ITHDi:10.23% KDisp:0.9733 Lamp Flux:2509.31x1 lm		
NAME: TL30W-CC-W 3000K	TYPE: 30W	WEIGHT:
SPEC.: 3000K	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	1.08	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.00	.98	.98	.96	.95	.94
2.0	1.03	.99	.96	1.02	.98	.95	.98	.95	.93	.95	.93	.91	.93	.91	.89	.87
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.84	.88	.85	.83	.81
4.0	.90	.85	.81	.89	.84	.80	.87	.83	.79	.85	.81	.78	.83	.80	.78	.76
5.0	.85	.79	.75	.84	.79	.75	.82	.77	.74	.80	.76	.73	.79	.75	.73	.71
6.0	.80	.74	.70	.79	.73	.69	.77	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.75	.69	.65	.75	.69	.65	.73	.68	.65	.72	.68	.64	.71	.67	.64	.63
8.0	.71	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.67	.63	.60	.59
9.0	.67	.61	.58	.67	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.57	.56
10.0	.64	.58	.54	.63	.58	.54	.62	.57	.54	.62	.57	.54	.61	.57	.54	.52



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:230.14V I:0.1281A P:28.510W PF:0.9674 Freq:50.09Hz UTHDi:0.23% ITHDi:10.23% KDisp:0.9733 Lamp Flux:2509.31x1 lm		
NAME: TL30W-CC-W 3000K	TYPE: 30W	WEIGHT:
SPEC.: 3000K	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	.175 .100 .032	.169 .096 .031	.156 .090 .029	.145 .083 .027	.134 .078 .025	
2.0	.168 .092 .028	.162 .089 .028	.152 .084 .026	.142 .080 .025	.133 .075 .024	
3.0	.160 .085 .026	.155 .083 .025	.146 .079 .024	.138 .076 .023	.130 .072 .022	
4.0	.152 .079 .023	.148 .078 .023	.140 .074 .022	.133 .072 .022	.127 .069 .021	
5.0	.145 .074 .021	.142 .073 .021	.135 .070 .021	.129 .068 .020	.123 .066 .020	
6.0	.139 .069 .020	.135 .068 .020	.129 .066 .019	.124 .064 .019	.119 .063 .019	
7.0	.132 .065 .019	.130 .065 .018	.124 .063 .018	.119 .061 .018	.115 .060 .018	
8.0	.127 .062 .017	.124 .061 .017	.120 .060 .017	.115 .058 .017	.111 .057 .017	
9.0	.122 .059 .016	.119 .058 .016	.115 .057 .016	.111 .056 .016	.107 .055 .016	
10.0	.117 .056 .016	.115 .055 .015	.111 .054 .015	.107 .053 .015	.104 .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 .060 .044	.045 .035 .026	.015 .011 .009	
5.0	.124 .087 .060	.107 .075 .052	.074 .053 .037	.043 .031 .022	.014 .010 .007	
6.0	.117 .078 .050	.100 .067 .043	.069 .047 .031	.040 .028 .018	.013 .009 .006	
7.0	.110 .070 .042	.095 .061 .037	.066 .043 .026	.038 .025 .016	.012 .008 .005	
8.0	.105 .064 .036	.090 .056 .032	.062 .039 .022	.036 .023 .013	.012 .008 .004	
9.0	.100 .059 .031	.086 .051 .027	.059 .036 .019	.035 .021 .012	.011 .007 .004	
10.0	.095 .055 .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:230.14V I:0.1281A P:28.510W PF:0.9674 Freq:50.09Hz UTHDi:0.23% ITHDi:10.23% KDisp:0.9733 Lamp Flux:2509.31x1 lm		
NAME: TL30W-CC-W 3000K	TYPE: 30W	WEIGHT:
SPEC.: 3000K	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	16.9	17.7	17.9	16.5	17.4	16.7	17.6	17.8
3H	16.5	17.4	16.8	17.6	17.8	16.4	17.2	16.6	17.4	17.6
4H	16.4	17.3	16.7	17.5	17.7	16.3	17.1	16.6	17.3	17.5
6H	16.4	17.1	16.6	17.4	17.6	16.2	17.0	16.5	17.2	17.4
8H	16.3	17.0	16.6	17.3	17.6	16.2	16.9	16.5	17.1	17.4
12H	16.3	17.0	16.6	17.2	17.5	16.1	16.8	16.4	17.1	17.4
4H 2H	16.4	17.2	16.7	17.5	17.7	16.3	17.1	16.6	17.3	17.5
3H	16.3	17.0	16.7	17.3	17.6	16.2	16.9	16.5	17.2	17.4
4H	16.2	16.9	16.6	17.2	17.5	16.1	16.7	16.4	17.0	17.3
6H	16.2	16.7	16.5	17.0	17.4	16.0	16.6	16.4	16.9	17.2
8H	16.1	16.6	16.5	17.0	17.3	16.0	16.5	16.3	16.8	17.2
12H	16.1	16.5	16.5	16.9	17.3	15.9	16.4	16.3	16.7	17.1
8H 4H	16.1	16.6	16.5	17.0	17.3	16.0	16.5	16.3	16.8	17.2
6H	16.0	16.4	16.4	16.8	17.2	15.9	16.3	16.3	16.7	17.1
8H	15.9	16.3	16.4	16.7	17.2	15.8	16.2	16.2	16.6	17.0
12H	15.9	16.2	16.4	16.7	17.1	15.7	16.1	16.2	16.5	17.0
12H 4H	16.1	16.5	16.5	16.9	17.3	15.9	16.4	16.3	16.7	17.1
6H	15.9	16.3	16.4	16.7	17.2	15.8	16.2	16.2	16.6	17.0
8H	15.9	16.2	16.4	16.7	17.1	15.7	16.1	16.2	16.5	17.0
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 3.4 / - 6.1					+ 3.2 / - 6.4				
1.5H	+ 5.3 / - 4.4					+ 5.1 / - 4.6				
2.0H	+ 4.4 / - 3.1					+ 4.7 / - 3.2				

CIE Pub.117, 2509 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.2)  
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:230.14V I:0.1281A P:28.510W PF:0.9674 Freq:50.09Hz UTHDi:0.23% ITHDi:10.23% KDisp:0.9733 Lamp Flux:2509.31x1 lm		
NAME: TL30W-CC-W 3000K	TYPE: 30W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:

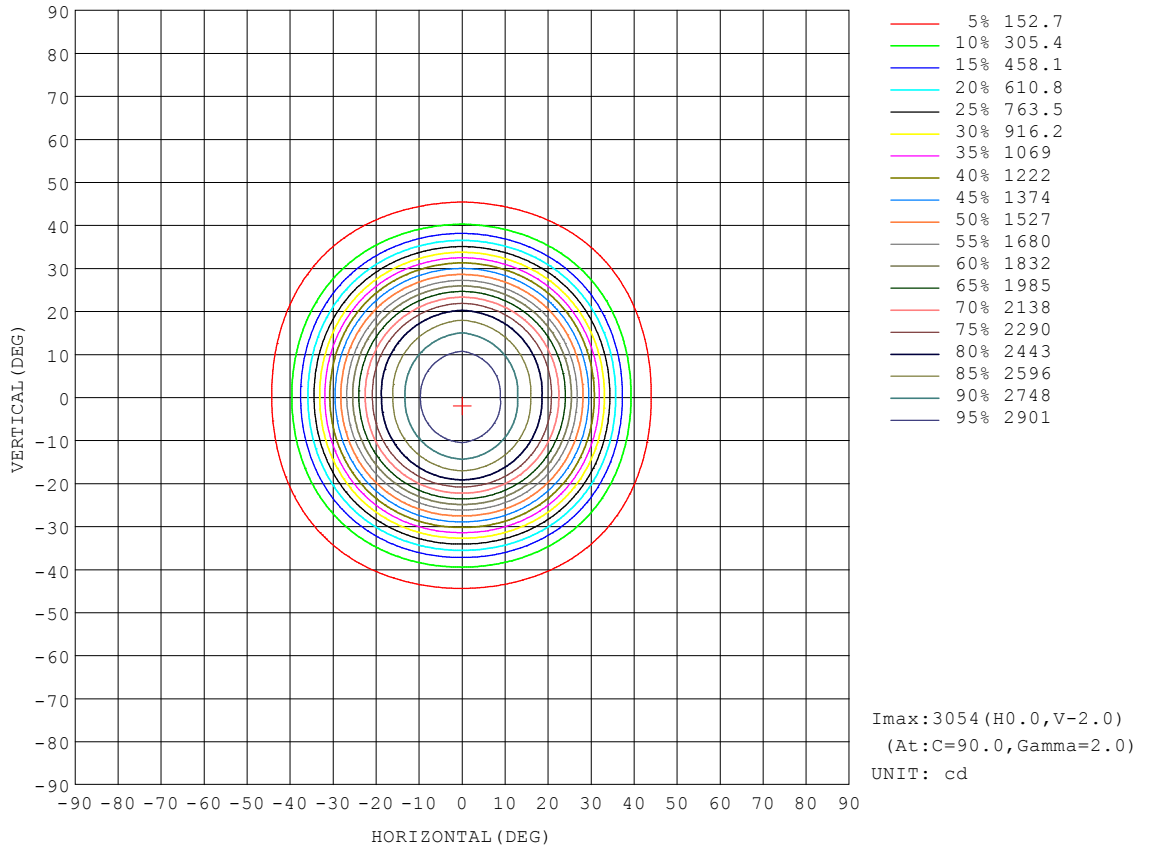
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	87	81	77	87	81	77	86	80	77	73
0.80	95	89	85	94	88	85	93	88	85	81
1.00	99	94	90	98	93	90	97	93	89	85
1.25	103	98	95	102	97	94	100	96	93	89
1.50	106	101	98	105	100	97	102	99	96	92
2.00	109	104	101	107	103	101	104	101	99	94
2.50	110	106	104	109	105	103	106	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	109	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:230.14V I:0.1281A P:28.510W PF:0.9674 Freq:50.09Hz UTHDi:0.23% ITHDi:10.23% KDisp:0.9733 Lamp Flux:2509.31x1 lm		
NAME: TL30W-CC-W 3000K	TYPE: 30W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:



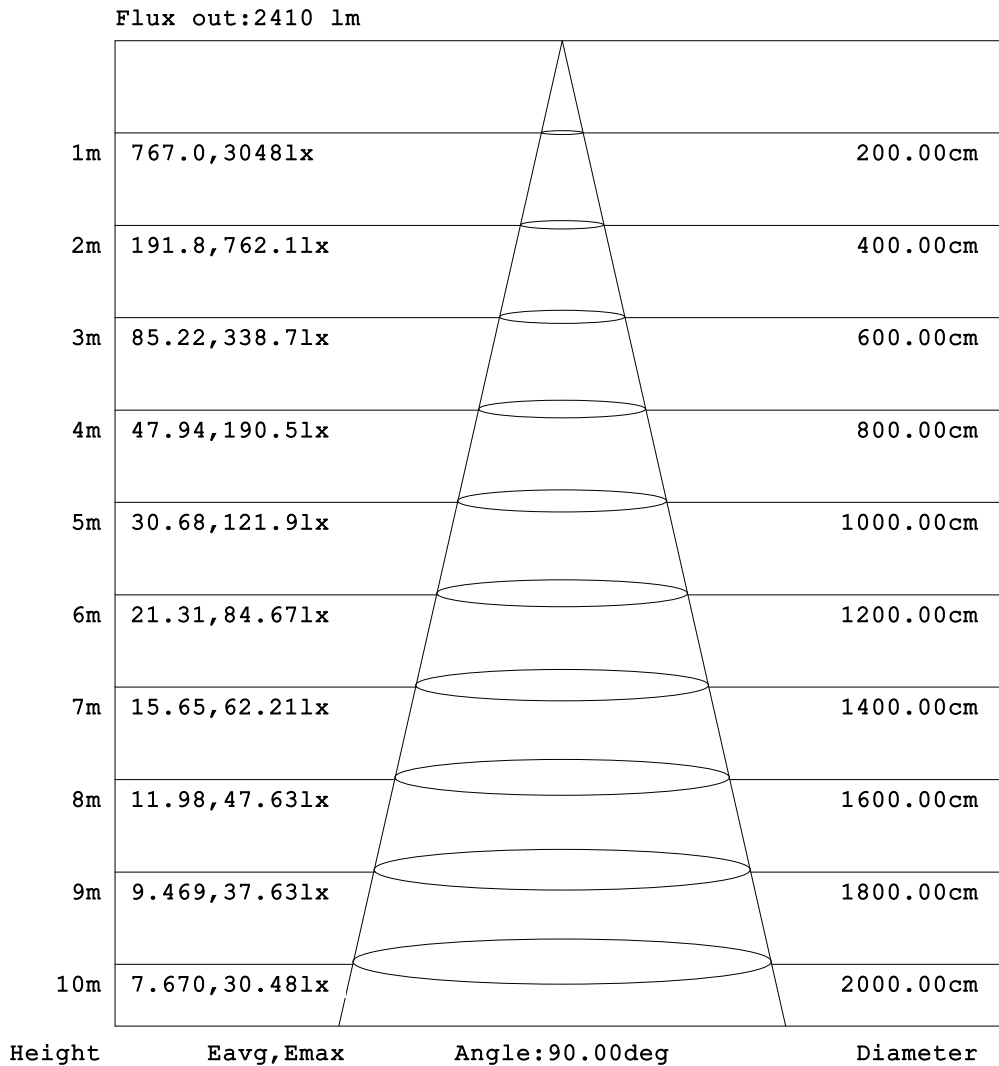
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-07-14

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:230.14V I:0.1281A P:28.510W PF:0.9674 Freq:50.09Hz UTHDi:0.23% ITHDi:10.23% KDisp:0.9733 Lamp Flux:2509.31x1 lm		
NAME: TL30W-CC-W 3000K	TYPE: 30W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:



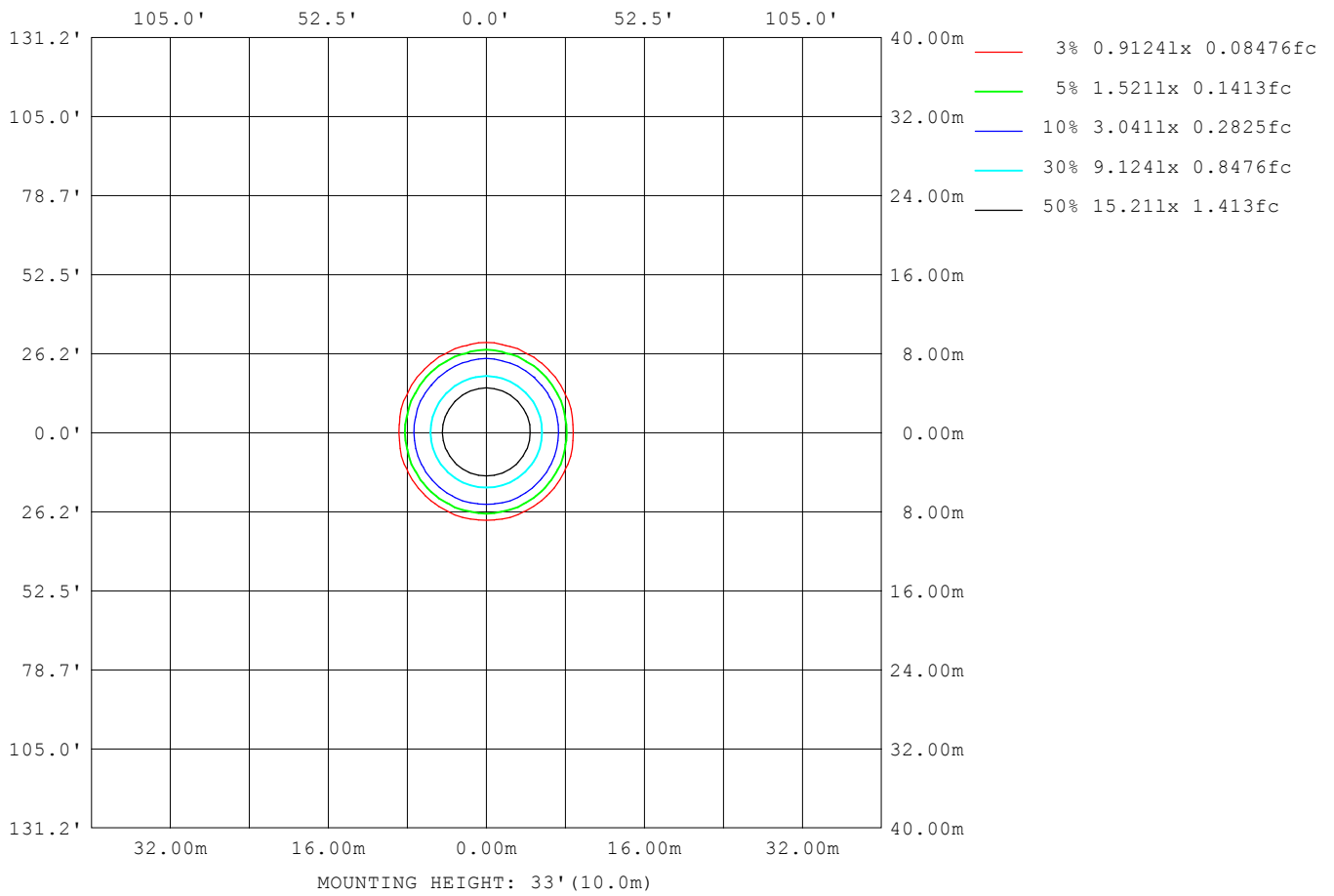
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.14V I:0.1281A P:28.510W PF:0.9674 Freq:50.09Hz UTHDi:0.23% ITHDi:10.23% KDisp:0.9733 Lamp Flux:2509.31x1 lm		
NAME: TL30W-CC-W 3000K	TYPE: 30W	WEIGHT:
SPEC.: 3000K	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:230.14V I:0.1281A P:28.510W PF:0.9674 Freq:50.09Hz UTHDi:0.23% ITHDi:10.23% KDisp:0.9733 Lamp Flux:2509.31x1 lm		
NAME: TL30W-CC-W 3000K	TYPE: 30W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.007	Shielding Angle:

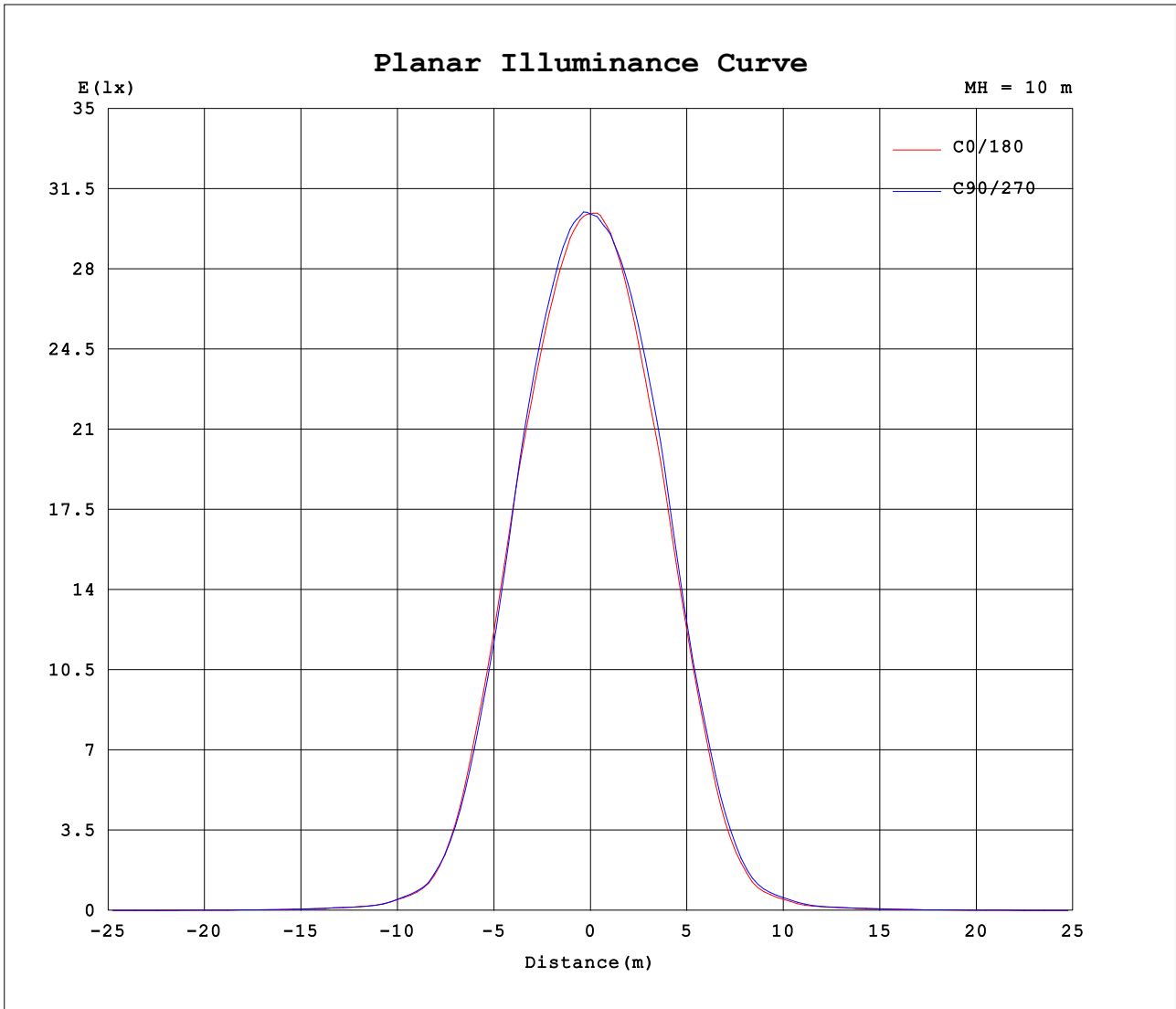
AvgL	cd/m2
L_0~180 (65) av	5957
L_0~180 (75) av	125
L_0~180 (85) av	191
L_90~270 (65) av	6048
L_90~270 (75) av	205
L_90~270 (85) av	204
L_45 (65) av	6012
L_45 (75) av	174
L_45 (85) av	198

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:

