

LED Downlight TAKEO Series T200-25W-940-30



Light Output Ratio:	100.0%	
Luminaire Power:	27.96 W	
SHR Nominal:	0.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

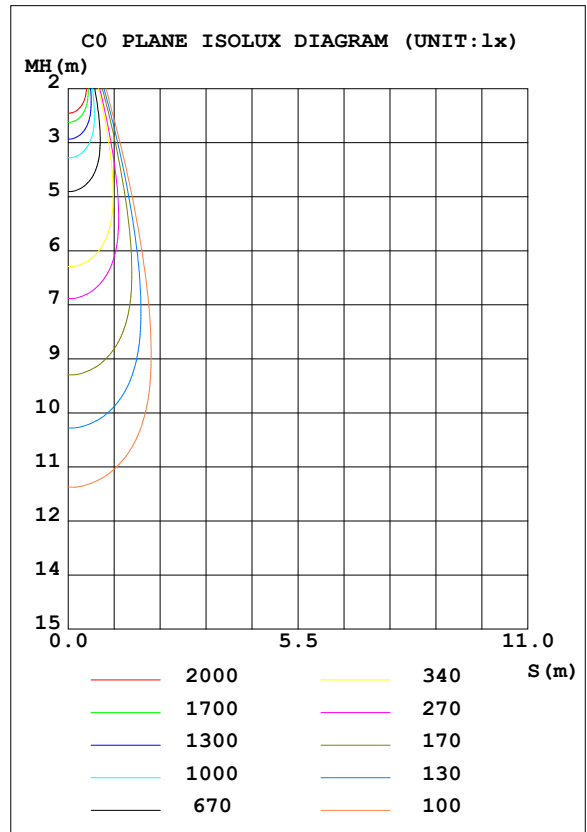
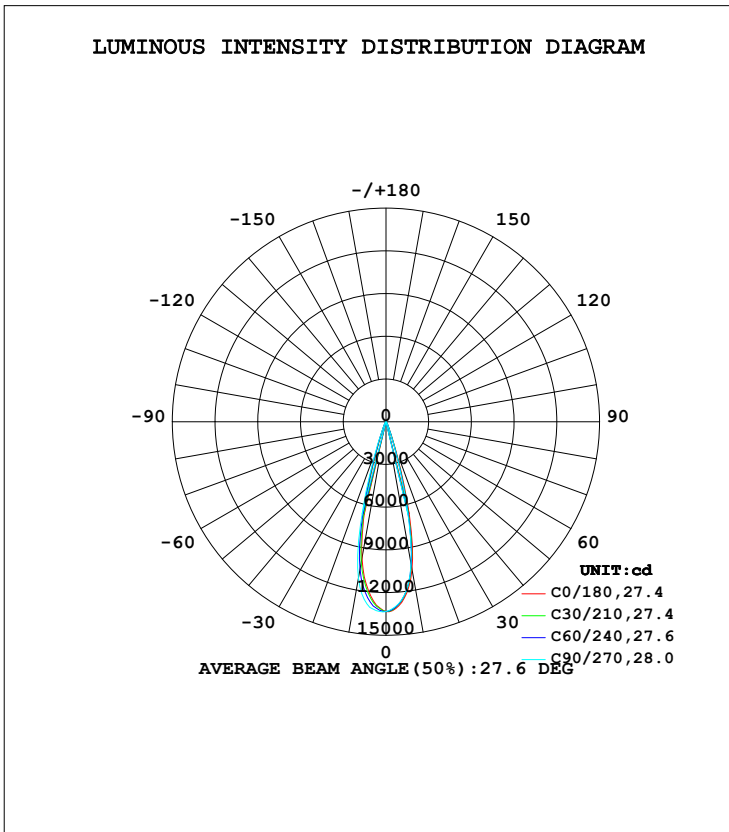
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Men Yongjian
Test Date: 2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity: 56%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.2V I:0.1298A P:27.96W PF:0.9672 Freq:49.00Hz Lamp Flux:2998.28x1 lm		
NAME: T200-25W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ218mm*H126mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 107.23 lm/W			
MODEL	CITIZEN-4000K	I _{max} (cd)	13399	S/MH (C0/180)	0.41
NOMINAL POWER (W)	28	LOR (%)	100.0	S/MH (C90/270)	0.44
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2998.3	η UP, DN (C0-180)	0.0, 48.0
NOMINAL FLUX (lm)	2998.28	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 52.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Men Yongjian
 Test Date: 2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity: 56%
 Test Distance: 5.850m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1053	1032	1015	970.9	974.6	1013	1117	1120	0- 10	1138	1138	37.9,37.9
20	157.2	144.6	123.8	119.9	127.4	135.4	174.1	179.7	10- 20	1438	2576	85.9,85.9
30	24.90	25.46	23.67	22.86	23.82	24.32	26.84	25.68	20- 30	256.9	2833	94.5,94.5
40	10.79	11.01	10.50	10.07	10.21	10.43	10.95	10.75	30- 40	100.7	2934	97.8,97.8
50	2.938	3.156	3.002	2.861	2.744	2.735	2.903	2.949	40- 50	47.40	2981	99.4,99.4
60	0.7261	0.7613	0.7003	0.7076	0.6803	0.6555	0.6763	0.7390	50- 60	12.97	2994	99.9,99.9
70	0.1374	0.1409	0.1202	0.1171	0.1087	0.1036	0.1091	0.1272	60- 70	3.728	2998	100,100
80	0.0163	0.0131	0.0160	0.0136	0.0145	0.0158	0.0144	0.0178	70- 80	0.3570	2998	100,100
90	0.0120	0.0116	0.0123	0.0112	0.0100	0.0096	0.0101	0.0118	80- 90	0.1493	2998	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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 2963.9 lm

%lum = 98.9%
%lamp = 98.9%

Conical surface Flux(120deg): 2994 lm

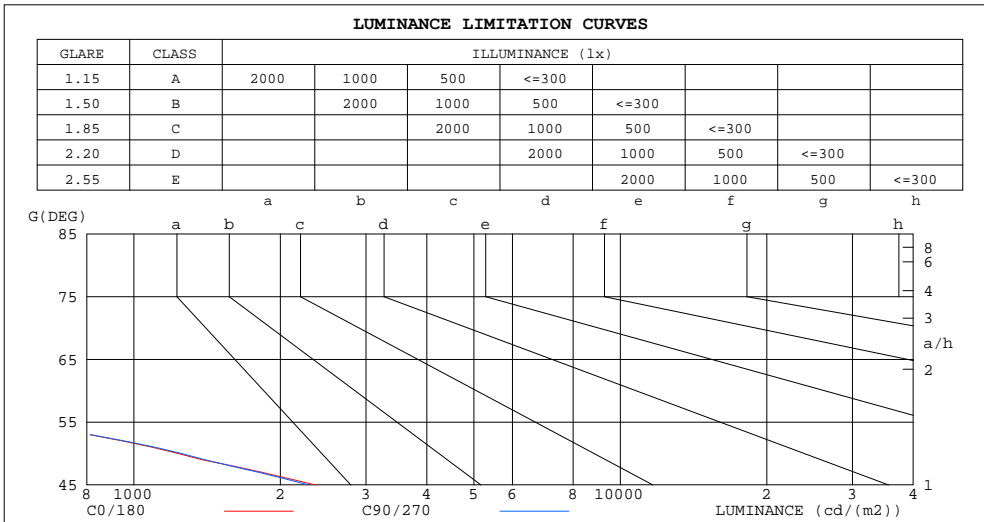
%lum = 99.9%
%lamp = 99.9%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Men Yongjian
Test Date:2018-07-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.2V I:0.1298A P:27.96W PF:0.9672 Freq:49.00Hz Lamp Flux:2998.28x1 lm		
NAME: T200-25W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ218mm*H126mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	45	45
80	25	25
75	19	18
70	108	94
65	251	225
60	391	375
55	601	602
50	1232	1250
45	2358	2286

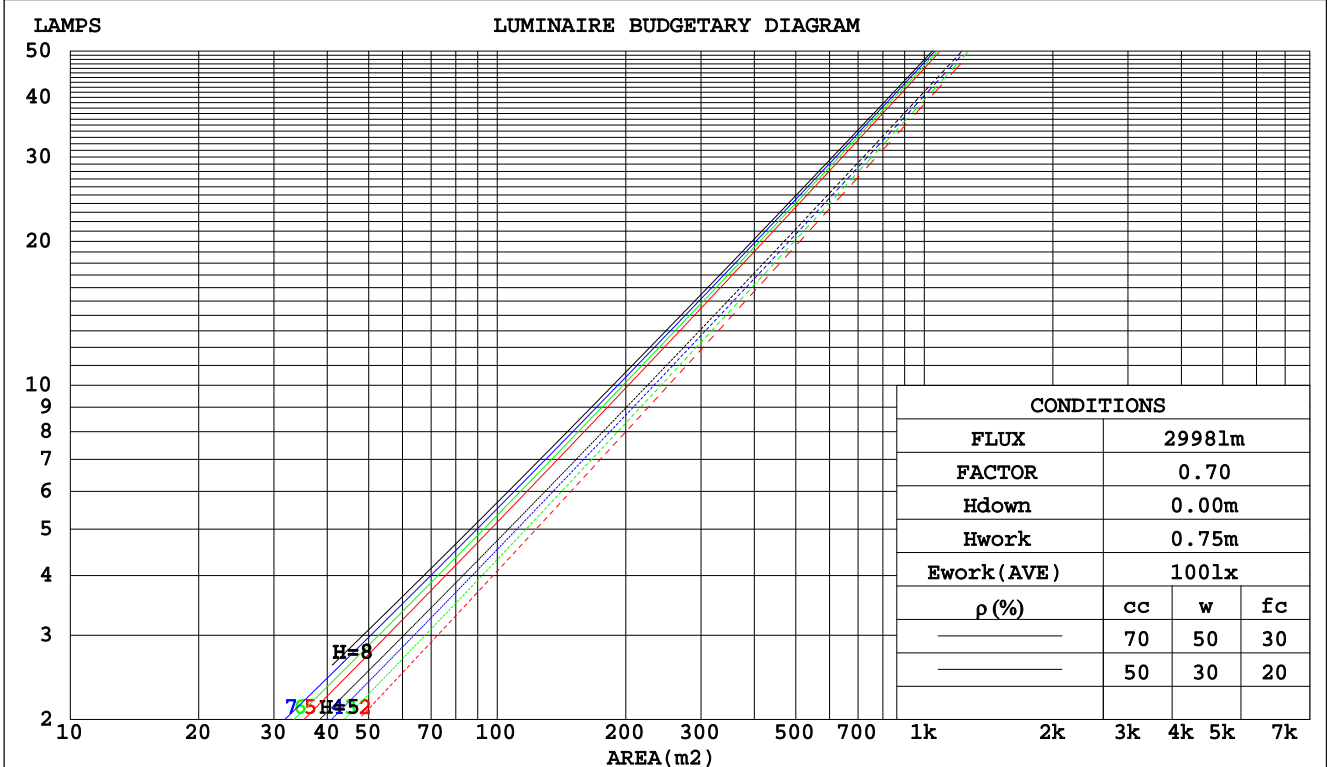
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Men Yongjian
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:56%
 Test Distance:5.850m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.2V I:0.1298A P:27.96W PF:0.9672 Freq:49.00Hz Lamp Flux:2998.28x1 lm		
NAME: T200-25W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ218mm*H126mm	
MFR.: NEKO LIGHTING AG		

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc																
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	.00
1.0	1.13	1.11	1.10	1.11	1.09	1.08	1.07	1.06	1.05	1.03	1.02	1.01	.00	.99	.99	.97
2.0	1.08	1.05	1.03	1.06	1.04	1.01	1.03	1.01	.99	1.00	.99	.97	.98	.96	.95	.94
3.0	1.04	1.00	.97	1.02	.99	.97	.00	.97	.95	.98	.95	.94	.95	.94	.92	.91
4.0	.00	.96	.93	.99	.95	.92	.97	.94	.91	.95	.92	.90	.93	.91	.89	.88
5.0	.96	.92	.89	.95	.92	.89	.94	.91	.88	.92	.90	.88	.91	.89	.87	.86
6.0	.93	.89	.86	.92	.89	.86	.91	.88	.85	.90	.87	.85	.89	.86	.84	.83
7.0	.90	.86	.84	.90	.86	.83	.89	.85	.83	.88	.85	.83	.87	.84	.82	.81
8.0	.88	.84	.81	.87	.84	.81	.86	.83	.81	.86	.83	.80	.85	.82	.80	.79
9.0	.85	.82	.79	.85	.81	.79	.84	.81	.79	.84	.81	.78	.83	.80	.78	.77
10.0	.83	.79	.77	.83	.79	.77	.82	.79	.77	.82	.79	.76	.81	.78	.76	.75



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Men Yongjian
Test Date:2018-07-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:220.2V I:0.1298A P:27.96W PF:0.9672 Freq:49.00Hz Lamp Flux:2998.28x1 lm		
NAME: T200-25W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ218mm*H126mm	
MFR.: NEKO LIGHTING AG		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.134	.076	.024	.127	.072	.023	.115	.066	.021	.103	.060	.019	.093	.054	.017	
2.0	.123	.068	.021	.118	.065	.020	.108	.060	.019	.098	.055	.017	.090	.051	.016	
3.0	.115	.061	.018	.110	.059	.018	.102	.055	.017	.094	.052	.016	.087	.048	.015	
4.0	.107	.056	.016	.104	.054	.016	.097	.051	.015	.090	.048	.015	.084	.045	.014	
5.0	.101	.051	.015	.098	.050	.015	.092	.048	.014	.086	.045	.014	.081	.043	.013	
6.0	.095	.048	.014	.093	.047	.013	.087	.045	.013	.083	.043	.013	.078	.041	.012	
7.0	.090	.045	.013	.088	.044	.013	.084	.042	.012	.079	.041	.012	.075	.039	.012	
8.0	.086	.042	.012	.084	.041	.012	.080	.040	.011	.076	.039	.011	.073	.037	.011	
9.0	.082	.040	.011	.080	.039	.011	.077	.038	.011	.074	.037	.011	.071	.036	.010	
10.0	.079	.038	.010	.077	.037	.010	.074	.036	.010	.071	.035	.010	.068	.034	.010	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.168	.158	.148	.144	.135	.128	.098	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.150	.133	.118	.128	.114	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.135	.113	.096	.115	.098	.083	.079	.068	.059	.046	.040	.034	.015	.013	.011	
4.0	.122	.098	.079	.105	.085	.069	.072	.059	.049	.042	.035	.029	.013	.011	.009	
5.0	.111	.085	.066	.096	.074	.058	.066	.052	.041	.038	.030	.024	.012	.010	.008	
6.0	.102	.075	.056	.088	.065	.049	.061	.046	.035	.035	.027	.021	.011	.009	.007	
7.0	.095	.067	.048	.081	.058	.042	.056	.041	.030	.033	.024	.018	.011	.008	.006	
8.0	.088	.060	.041	.076	.052	.036	.052	.037	.026	.030	.022	.015	.010	.007	.005	
9.0	.082	.055	.036	.071	.047	.031	.049	.033	.022	.029	.020	.013	.009	.006	.004	
10.0	.077	.050	.032	.067	.043	.028	.046	.030	.020	.027	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Men Yongjian
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:56%
 Test Distance:5.850m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.2V I:0.1298A P:27.96W PF:0.9672 Freq:49.00Hz Lamp Flux:2998.28x1 lm		
NAME: T200-25W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ218mm*H126mm	
MFR.: NEKO LIGHTING AG		

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	0.9	1.5	1.1	1.7	1.8	0.8	1.4	1.0	1.6	1.7
3H	0.8	1.4	1.0	1.6	1.8	0.7	1.3	0.9	1.5	1.6
4H	0.7	1.3	1.0	1.5	1.7	0.6	1.2	0.9	1.4	1.6
6H	0.6	1.2	0.9	1.4	1.6	0.5	1.1	0.8	1.3	1.5
8H	0.6	1.1	0.9	1.4	1.6	0.5	1.0	0.8	1.2	1.5
12H	0.6	1.0	0.9	1.3	1.6	0.4	0.9	0.7	1.2	1.5
4H 2H	0.8	1.3	1.0	1.5	1.7	0.6	1.2	0.9	1.4	1.6
3H	0.6	1.1	0.9	1.4	1.6	0.5	1.0	0.8	1.3	1.5
4H	0.5	1.0	0.9	1.3	1.6	0.4	0.9	0.7	1.1	1.4
6H	0.4	0.8	0.8	1.1	1.5	0.3	0.7	0.7	1.0	1.4
8H	0.4	0.7	0.7	1.1	1.4	0.3	0.6	0.6	1.0	1.3
12H	0.3	0.7	0.7	1.0	1.4	0.2	0.5	0.6	0.9	1.3
8H 4H	0.4	0.7	0.7	1.1	1.4	0.3	0.6	0.6	1.0	1.3
6H	0.3	0.6	0.7	1.0	1.4	0.1	0.4	0.6	0.8	1.2
8H	0.2	0.5	0.6	0.9	1.3	0.1	0.4	0.5	0.8	1.2
12H	0.1	0.4	0.6	0.8	1.3	0.0	0.3	0.5	0.7	1.2
12H 4H	0.3	0.7	0.7	1.0	1.4	0.2	0.5	0.6	0.9	1.3
6H	0.2	0.5	0.6	0.9	1.3	0.1	0.4	0.5	0.8	1.2
8H	0.1	0.4	0.6	0.8	1.3	0.0	0.3	0.5	0.7	1.2
Variations with the observer position at spacings:										
S = 1.0H	+ 2.4 / - 8.1					+ 2.4 / - 8.0				
1.5H	+ 3.5 / - 6.6					+ 3.4 / - 6.3				
2.0H	+ 5.6 / - 6.5					+ 5.4 / - 6.5				

CIE Pub.117, 2998 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.8)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Men Yongjian
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:56%
 Test Distance:5.850m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.2V I:0.1298A P:27.96W PF:0.9672 Freq:49.00Hz Lamp Flux:2998.28x1 lm		
NAME: T200-25W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ218mm*H126mm	
MFR.: NEKO LIGHTING AG		

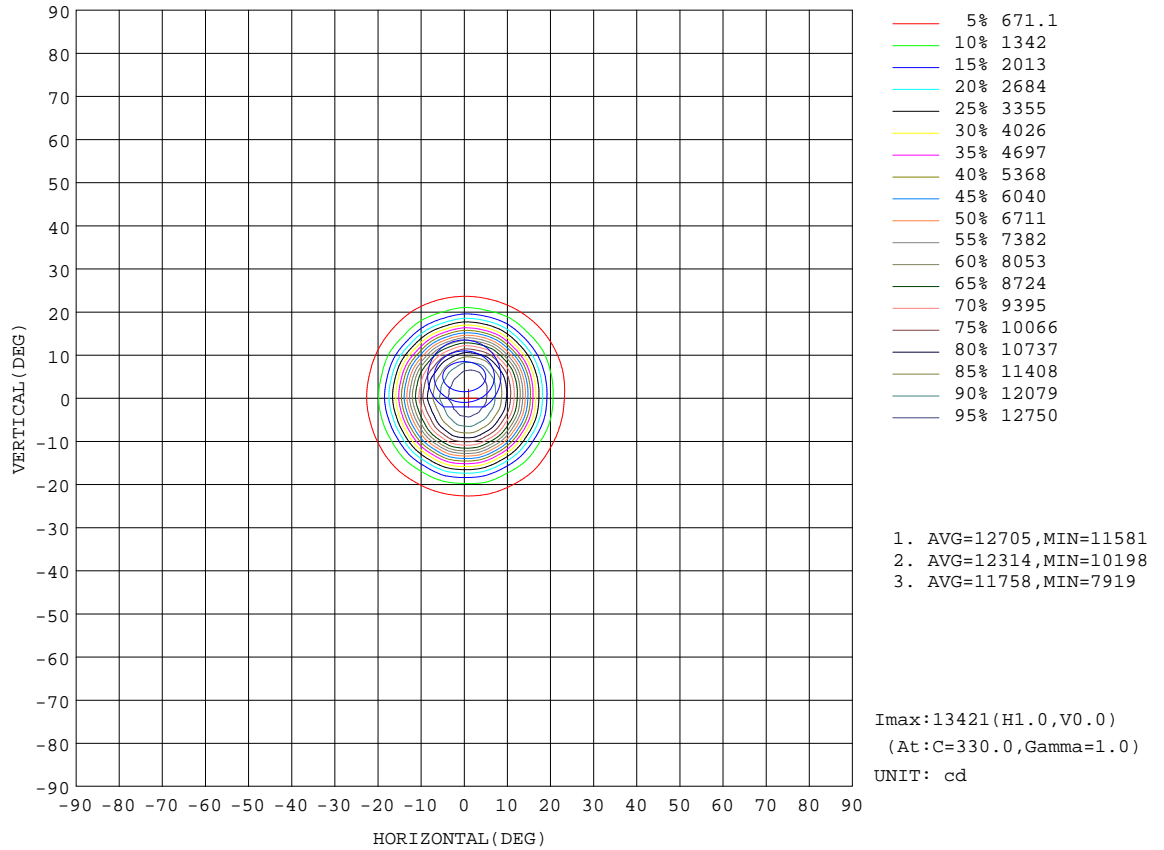
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	90	84	81	90	84	81	89	84	81	77
0.80	97	92	89	97	92	88	96	91	88	85
1.00	101	96	93	100	96	93	99	95	92	88
1.25	105	100	97	104	100	97	102	98	96	92
1.50	107	103	100	106	102	99	104	101	98	94
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	104	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	116	114	112	113	112	110	110	108	107	100
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Men Yongjian
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:56%
 Test Distance:5.850m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.2V I:0.1298A P:27.96W PF:0.9672 Freq:49.00Hz Lamp Flux:2998.28x1 lm		
NAME: T200-25W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ218mm*H126mm	
MFR.: NEKO LIGHTING AG		



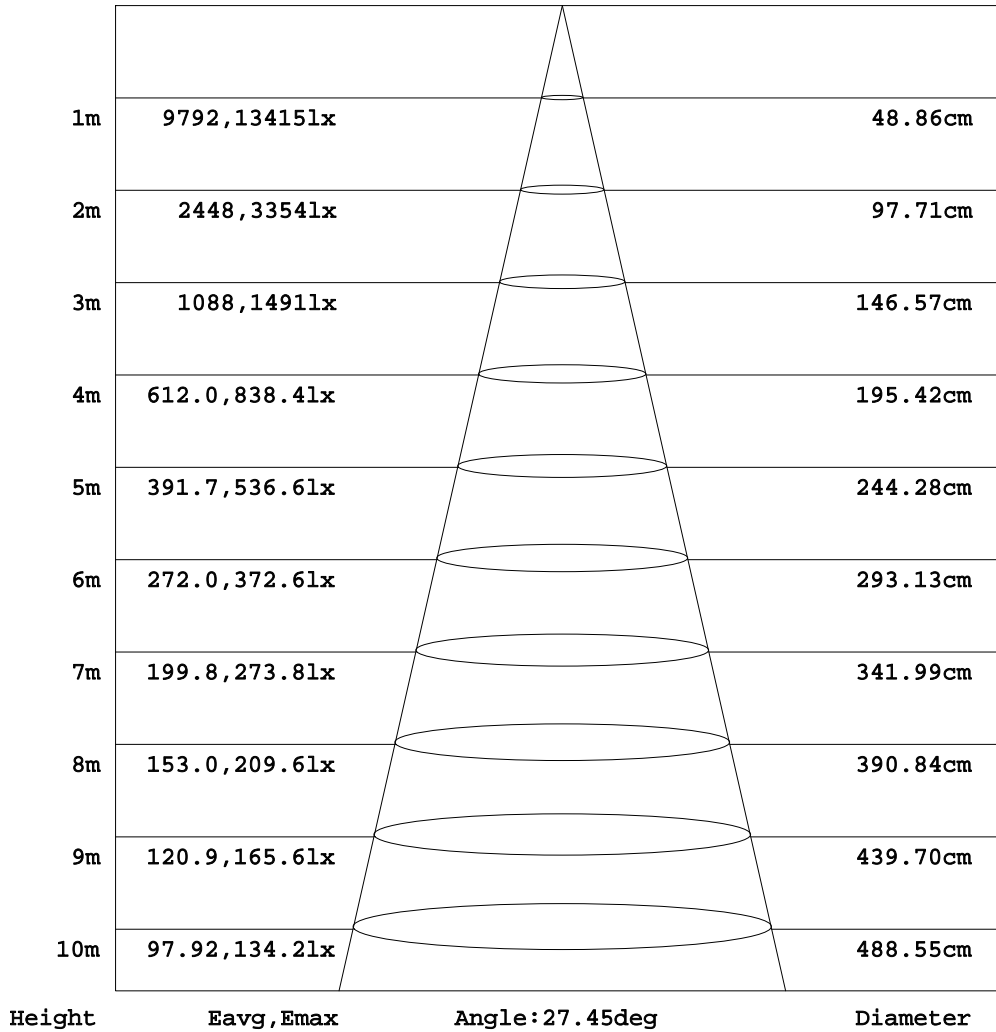
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Men Yongjian
Test Date:2018-07-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.2V I:0.1298A P:27.96W PF:0.9672 Freq:49.00Hz Lamp Flux:2998.28x1 lm		
NAME: T200-25W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ218mm*H126mm	
MFR.: NEKO LIGHTING AG		

Flux out:1912 lm



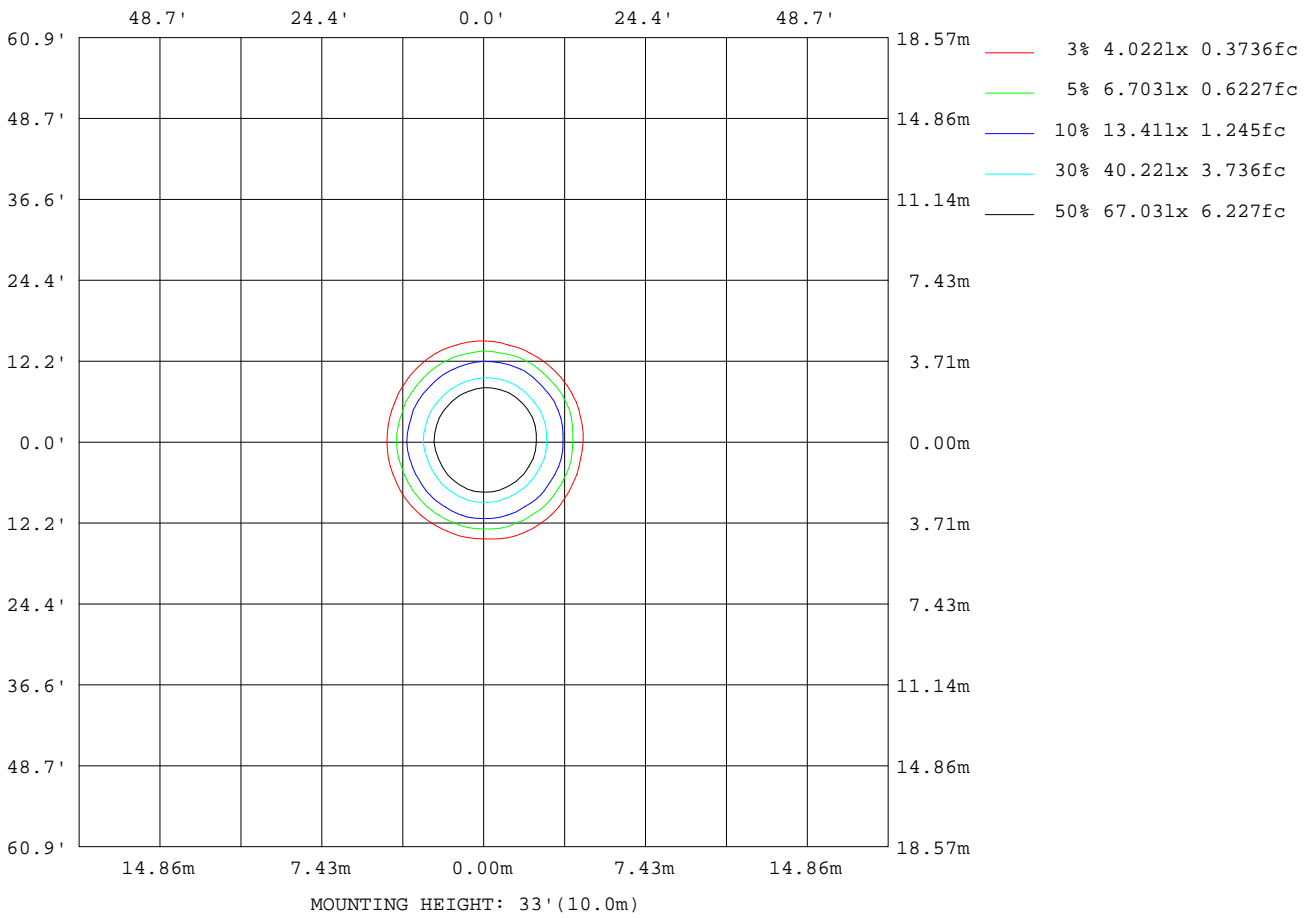
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Men Yongjian
Test Date:2018-07-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:220.2V I:0.1298A P:27.96W PF:0.9672 Freq:49.00Hz Lamp Flux:2998.28x1 lm		
NAME: T200-25W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ218mm*H126mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Men Yongjian
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:56%
 Test Distance:5.850m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:220.2V I:0.1298A P:27.96W PF:0.9672 Freq:49.00Hz Lamp Flux:2998.28x1 lm		
NAME: T200-25W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ218mm*H126mm	
MFR.: NEKO LIGHTING AG		

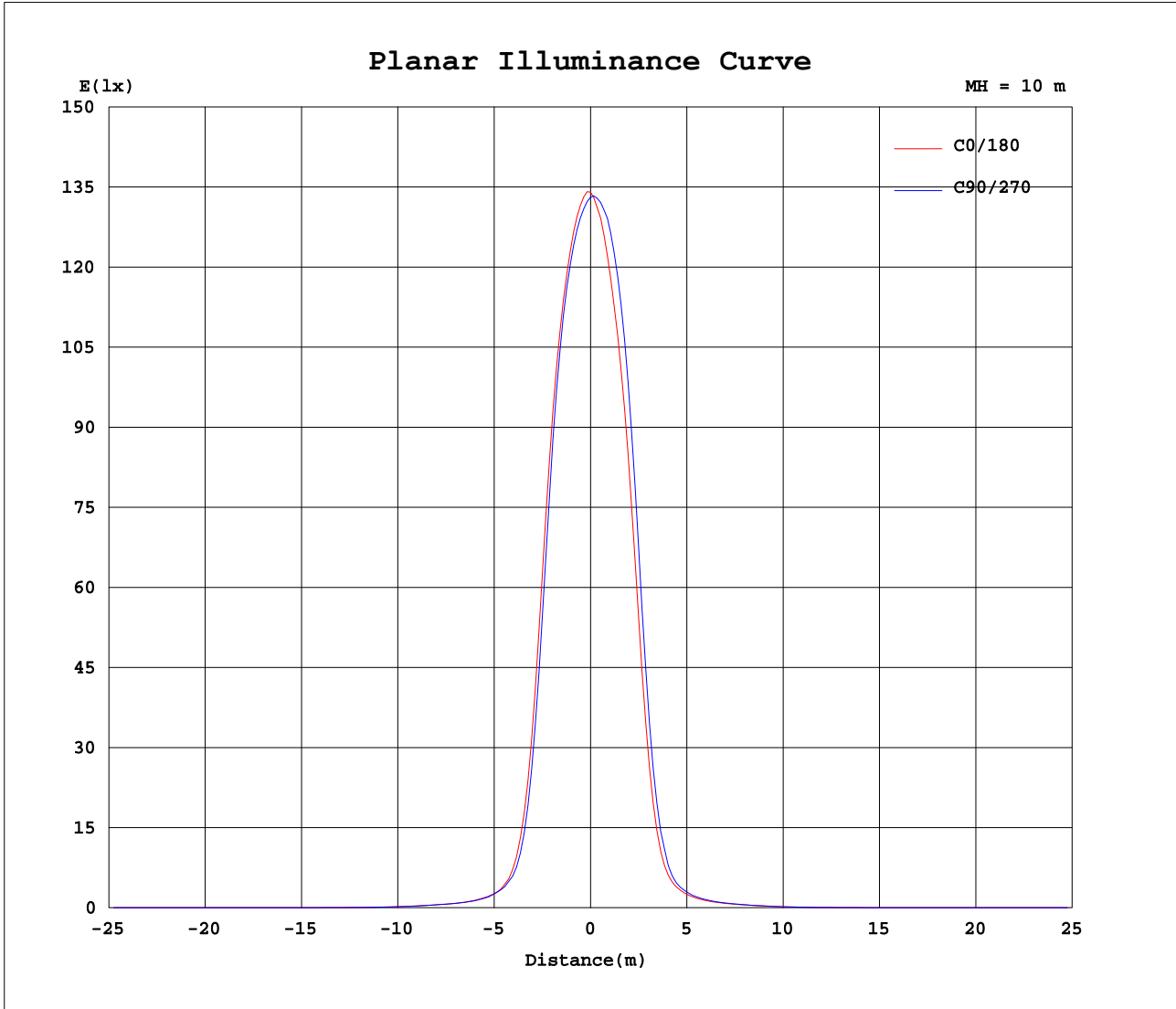
AvgL	cd/m2
L_0~180 (65) av	236
L_0~180 (75) av	17
L_0~180 (85) av	43
L_90~270 (65) av	220
L_90~270 (75) av	17
L_90~270 (85) av	44
L_45 (65) av	234
L_45 (75) av	17
L_45 (85) av	43

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Men Yongjian
Test Date:2018-07-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Men Yongjian
 Test Date: 2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity: 56%
 Test Distance: 5.850m [K=1.0000]
 Remarks:

