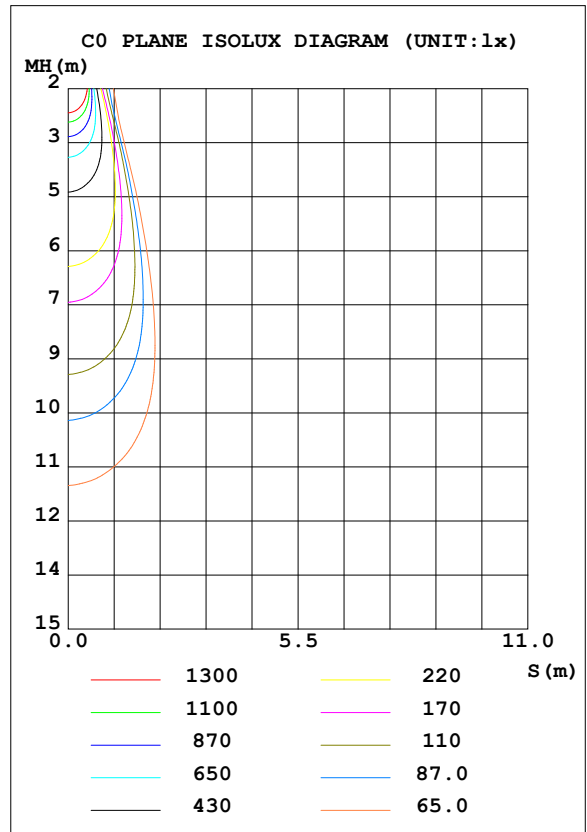
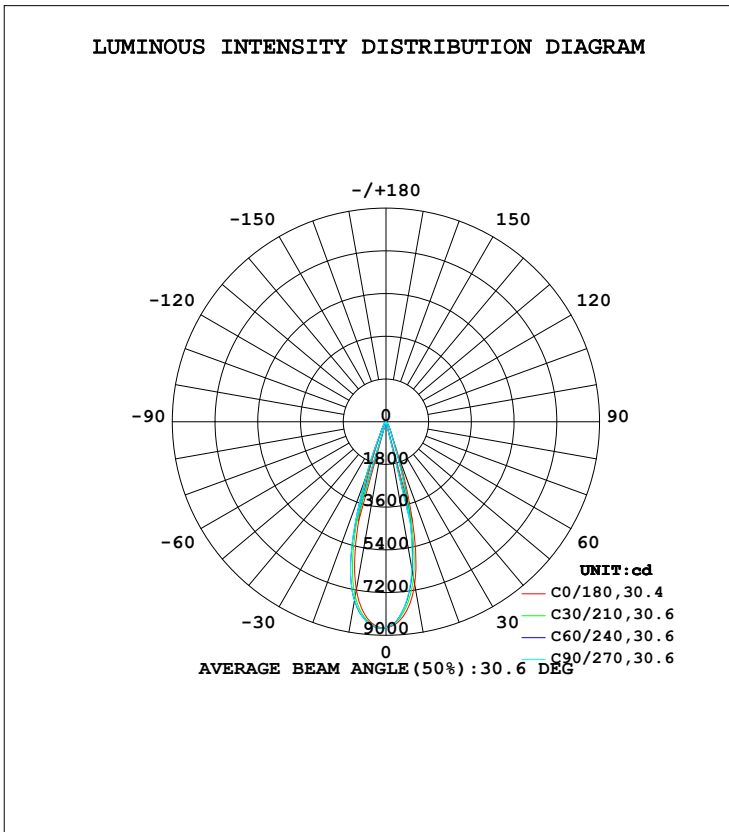


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 125.82 lm/W			
MODEL	CITIZEN-4000K	I _{max} (cd)	8712	S/MH (C0/180)	0.47
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	0.51
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2460.0	η UP, DN (C0-180)	0.0, 44.3
NOMINAL FLUX (lm)	2459.99	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 55.7
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: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jasoan
Test Date: 2023-07-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 9.767m [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	6954	6523	6294	6574	7188	7555	7637	7499	0- 10	751.5	751.5	30.5,30.5
20	1535	1217	1121	1272	1710	2310	2516	2325	10- 20	1185	1937	78.7,78.7
30	318.7	298.6	293.2	283.6	298.2	332.4	343.7	337.9	20- 30	323.7	2260	91.9,91.9
40	117.6	111.3	111.0	110.3	116.6	120.4	128.4	126.7	30- 40	118.7	2379	96.7,96.7
50	37.17	36.58	37.97	37.53	37.79	37.69	38.27	39.58	40- 50	55.79	2435	99,99
60	8.242	8.197	8.892	9.021	8.683	8.652	8.959	9.193	50- 60	18.22	2453	99.7,99.7
70	2.761	2.753	3.012	3.068	2.895	2.936	3.129	3.185	60- 70	5.478	2458	99.9,99.9
80	0.2151	0.1750	0.1736	0.1970	0.1734	0.2134	0.2659	0.2450	70- 80	1.445	2460	100,100
90	0.0971	0.0938	0.0969	0.0968	0.0841	0.0841	0.0840	0.0839	80- 90	0.1223	2460	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): 2413.4 lm

%lum = 98.1%
%lamp = 98.1%

Conical surface Flux(120deg): 2452.9 lm

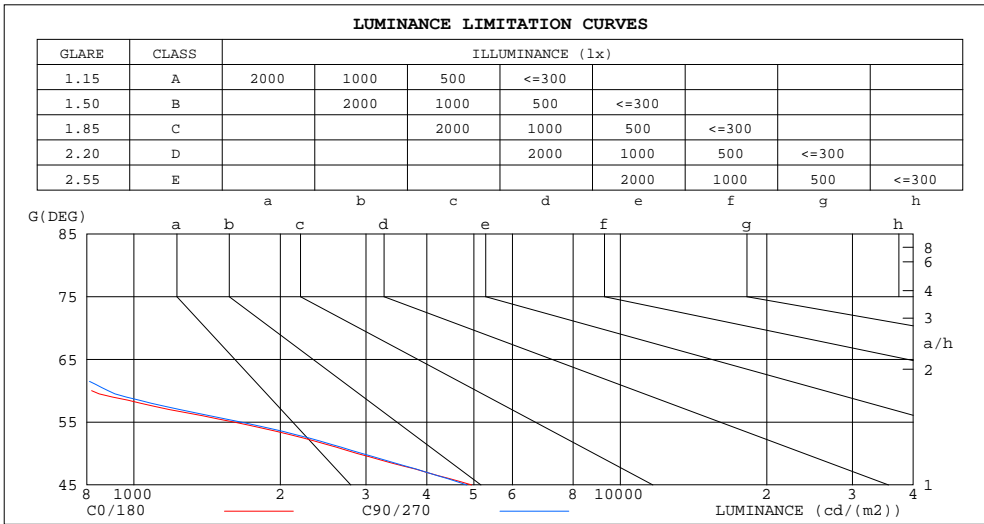
%lum = 99.7%
%lamp = 99.7%

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:9.767m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	74	55
80	62	50
75	228	243
70	401	438
65	596	649
60	819	885
55	1606	1659
50	2873	2941
45	4946	4833

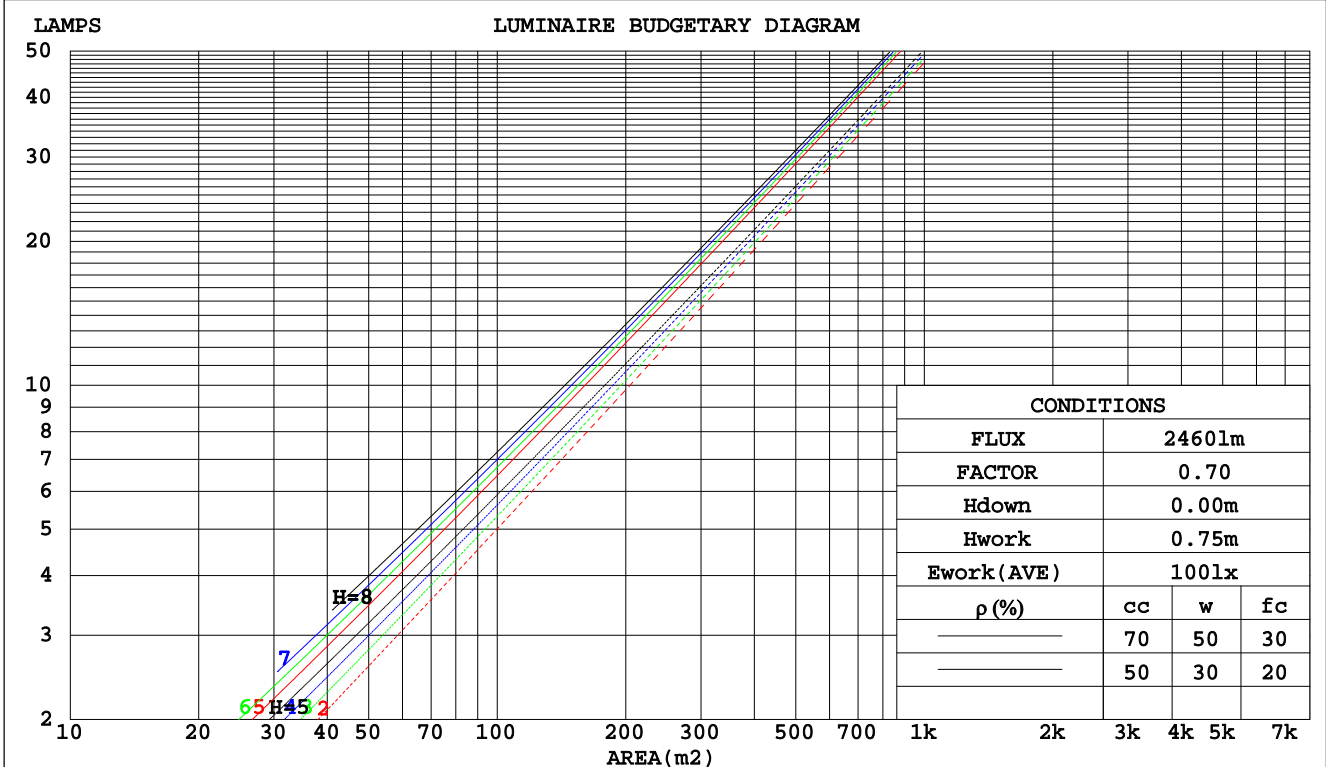
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-07-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:9.767m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
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																0
pfc																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	.00
1.0	1.13	1.11	1.09	1.10	1.09	1.07	1.07	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.01	1.05	1.03	1.00	1.02	.99	.98	.99	.98	.96	.97	.95	.94	.93
3.0	1.02	.98	.95	1.01	.97	.95	.98	.95	.93	.96	.94	.92	.94	.92	.90	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.90	.88	.91	.89	.87	.86
5.0	.94	.90	.86	.93	.89	.86	.91	.88	.85	.90	.87	.85	.89	.86	.84	.83
6.0	.90	.86	.83	.90	.86	.83	.88	.85	.82	.87	.84	.82	.86	.83	.81	.80
7.0	.87	.83	.80	.87	.83	.80	.86	.82	.79	.85	.81	.79	.84	.81	.79	.77
8.0	.84	.80	.77	.84	.80	.77	.83	.79	.77	.82	.79	.76	.81	.78	.76	.75
9.0	.82	.77	.75	.81	.77	.74	.81	.77	.74	.80	.76	.74	.79	.76	.74	.73
10.0	.79	.75	.72	.79	.75	.72	.78	.75	.72	.78	.74	.72	.77	.74	.72	.71



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jasoan
 Test Date: 2023-07-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 58%
 Test Distance: 9.767m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
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	.142	.081	.026	.136	.077	.025	.123	.071	.023	.112	.064	.021	.101	.059	.019	
2.0	.132	.073	.022	.127	.070	.022	.117	.065	.020	.107	.060	.019	.099	.056	.018	
3.0	.124	.066	.020	.119	.064	.019	.111	.060	.018	.103	.056	.017	.095	.053	.016	
4.0	.116	.061	.018	.113	.059	.017	.105	.056	.017	.099	.053	.016	.092	.050	.015	
5.0	.110	.056	.016	.107	.055	.016	.100	.052	.015	.095	.050	.015	.089	.048	.014	
6.0	.104	.052	.015	.101	.051	.015	.096	.049	.014	.091	.047	.014	.086	.045	.013	
7.0	.099	.049	.014	.096	.048	.014	.092	.046	.013	.087	.045	.013	.083	.043	.013	
8.0	.094	.046	.013	.092	.045	.013	.088	.044	.013	.084	.043	.012	.081	.041	.012	
9.0	.090	.044	.012	.088	.043	.012	.085	.042	.012	.081	.041	.012	.078	.040	.011	
10.0	.086	.041	.011	.085	.041	.011	.081	.040	.011	.078	.039	.011	.076	.038	.011	

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	.169	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.129	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.014	
3.0	.136	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.107	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.114	.086	.065	.098	.074	.057	.067	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.105	.076	.055	.090	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.098	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.091	.061	.040	.079	.053	.035	.054	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.086	.055	.035	.074	.048	.031	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.081	.051	.031	.070	.044	.027	.048	.031	.019	.028	.018	.011	.009	.006	.004	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-07-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:9.767m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
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	5.2	5.9	5.5	6.1	6.2	5.1	5.8	5.3	5.9	6.1
3H	5.2	5.8	5.4	6.0	6.2	5.0	5.7	5.3	5.8	6.0
4H	5.1	5.7	5.3	5.9	6.1	4.9	5.6	5.2	5.8	6.0
6H	5.0	5.6	5.3	5.8	6.0	4.9	5.4	5.1	5.7	5.9
8H	5.0	5.5	5.3	5.8	6.0	4.8	5.4	5.1	5.6	5.9
12H	4.9	5.4	5.2	5.7	6.0	4.8	5.3	5.1	5.6	5.8
4H 2H	5.1	5.7	5.3	5.9	6.1	4.9	5.5	5.2	5.8	6.0
3H	5.0	5.5	5.3	5.8	6.1	4.9	5.4	5.2	5.6	5.9
4H	4.9	5.4	5.2	5.7	6.0	4.8	5.3	5.1	5.6	5.9
6H	4.8	5.2	5.2	5.6	5.9	4.7	5.1	5.1	5.4	5.8
8H	4.8	5.2	5.1	5.5	5.9	4.6	5.0	5.0	5.4	5.7
12H	4.7	5.1	5.1	5.4	5.8	4.6	4.9	5.0	5.3	5.7
8H 4H	4.8	5.2	5.2	5.5	5.9	4.6	5.0	5.0	5.4	5.7
6H	4.7	5.0	5.1	5.4	5.8	4.5	4.9	5.0	5.3	5.7
8H	4.6	4.9	5.0	5.3	5.7	4.5	4.8	4.9	5.2	5.6
12H	4.5	4.8	5.0	5.2	5.7	4.4	4.7	4.9	5.1	5.6
12H 4H	4.7	5.1	5.1	5.5	5.8	4.6	5.0	5.0	5.3	5.7
6H	4.6	4.9	5.0	5.3	5.7	4.5	4.8	4.9	5.2	5.6
8H	4.5	4.8	5.0	5.2	5.7	4.4	4.7	4.9	5.1	5.6
Variations with the observer position at spacings:										
S = 1.0H	+ 2.4 / - 6.5					+ 2.2 / - 6.1				
1.5H	+ 3.4 / - 5.0					+ 3.1 / - 4.9				
2.0H	+ 5.2 / - 6.2					+ 5.0 / - 6.0				

CIE Pub.117, 2460 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.1)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-07-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:9.767m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

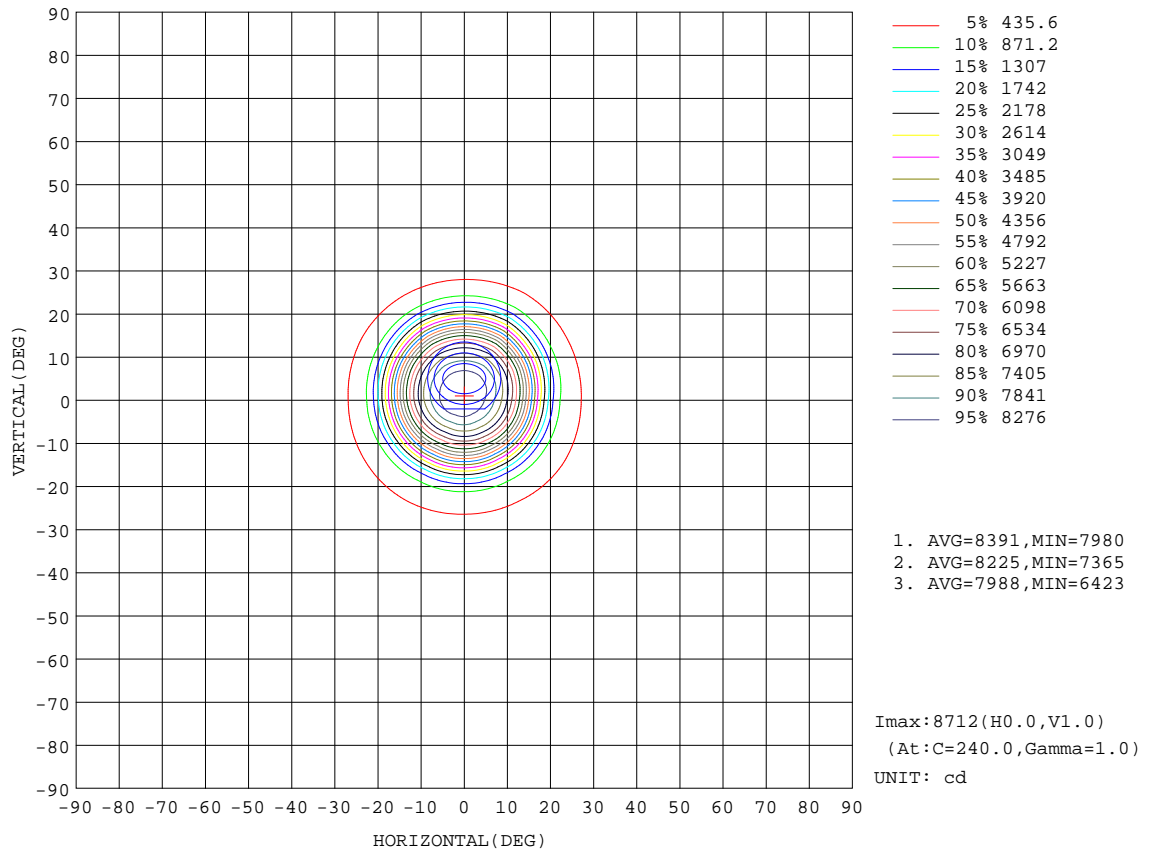
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	89	83	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	96	92	100	95	92	98	95	91	88
1.25	104	100	96	103	99	96	102	98	95	91
1.50	107	103	99	106	102	99	104	100	98	94
2.00	109	105	102	108	104	102	105	102	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	105	107	105	103	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	115	113	112	113	112	110	109	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: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-07-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:9.767m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		



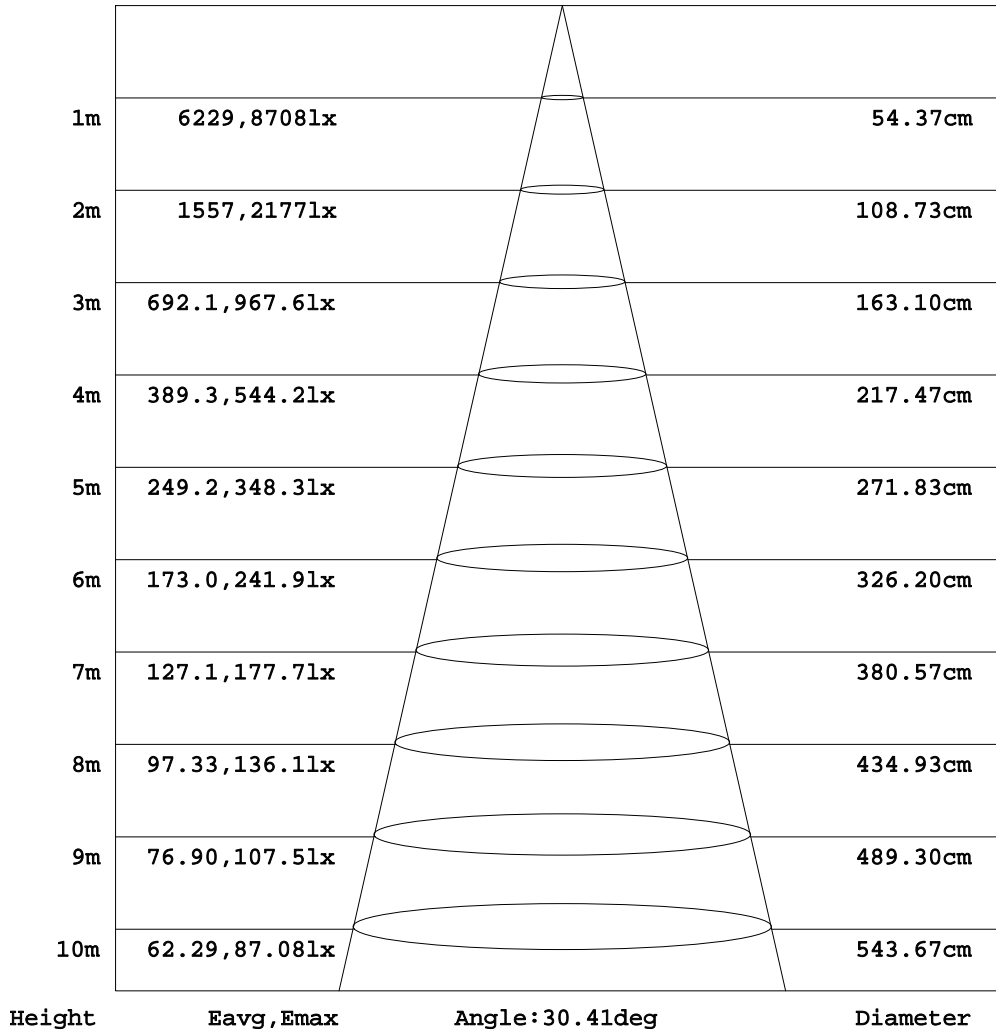
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:9.767m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

Flux out:1505 lm



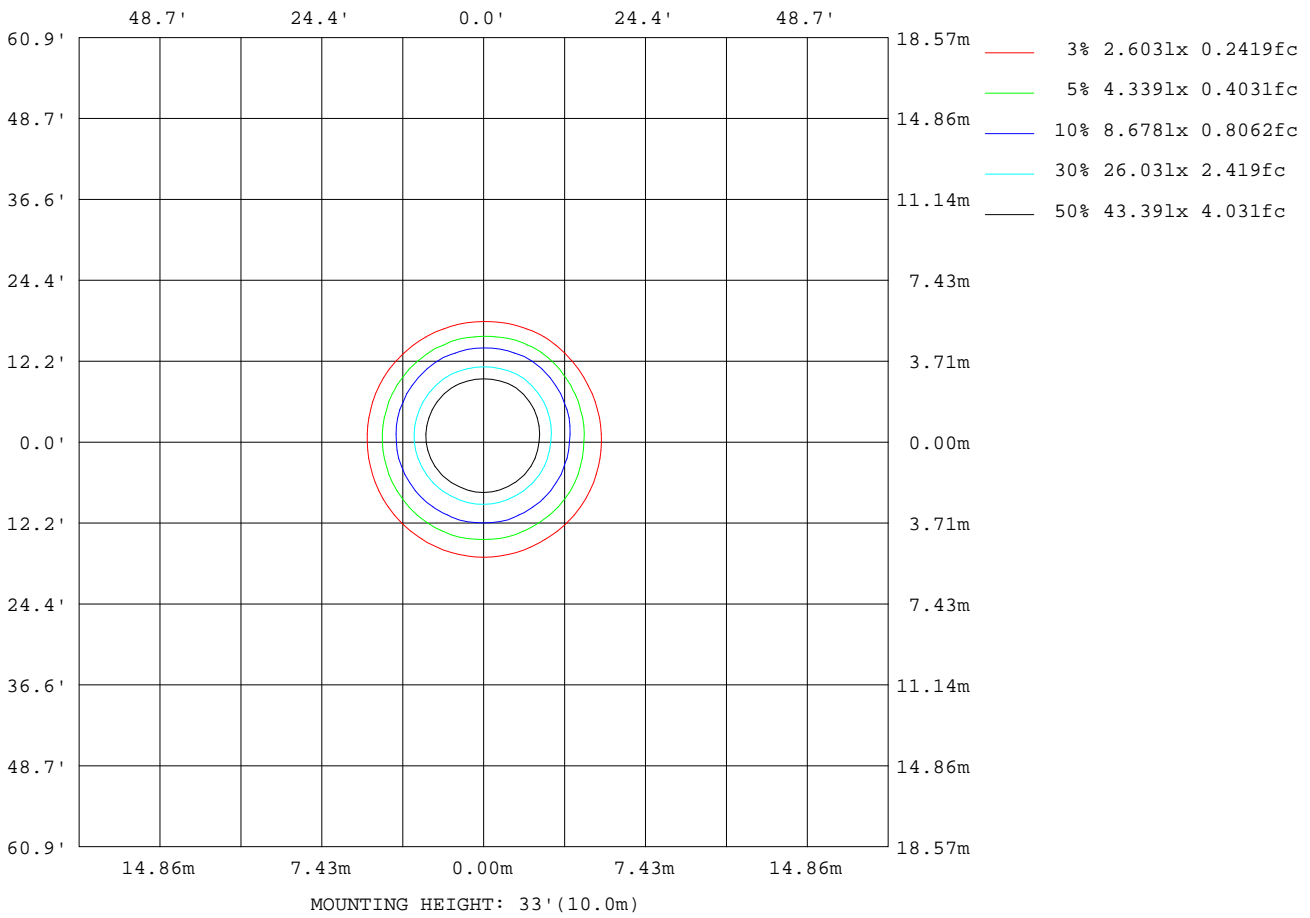
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:9.767m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-07-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:9.767m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

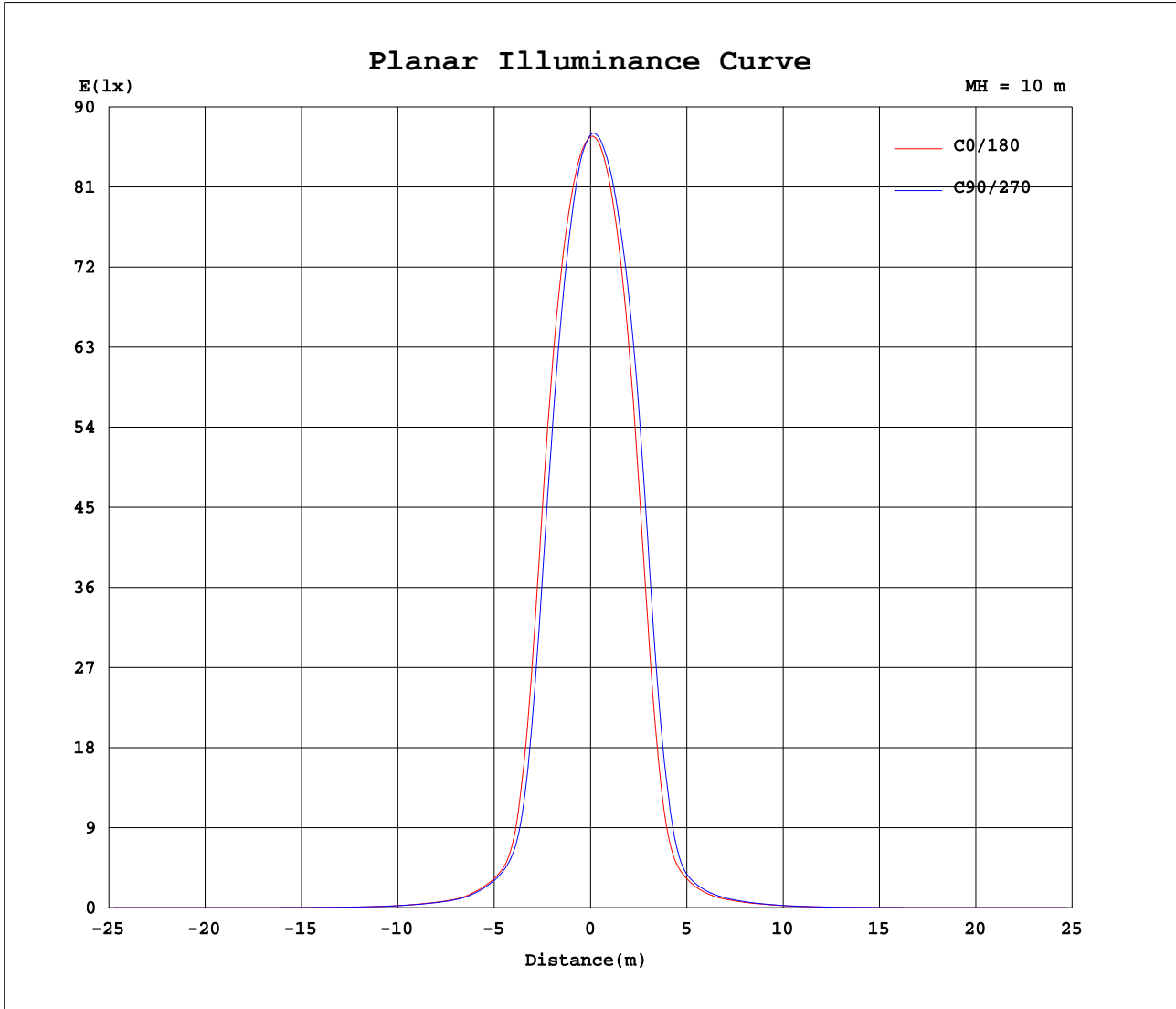
AvgL	cd/m2
L_0~180 (65) av	612
L_0~180 (75) av	232
L_0~180 (85) av	65
L_90~270 (65) av	654
L_90~270 (75) av	255
L_90~270 (85) av	61
L_45 (65) av	641
L_45 (75) av	246
L_45 (85) av	60

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:9.767m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jasoan
 Test Date: 2023-07-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 58%
 Test Distance: 9.767m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.3V I:0.0929A P:19.55W PF:0.9522 Freq:49.90Hz Lamp Flux:2459.99x1 lm		
NAME: T150 Pro-17W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	8682	8682	8682	8682	8682	8682	8682	8682	8682	8682	8682	8682						
5	8244	8115	8005	8010	8053	8228	8384	8464	8522	8506	8494	8389						
10	6954	6673	6372	6294	6367	6780	7188	7462	7648	7637	7637	7361						
15	4301	3878	3491	3447	3563	4053	4658	5209	5620	5647	5639	5045						
20	1535	1296	1139	1121	1165	1379	1710	2111	2508	2516	2573	2076						
25	550	545	512	510	523	535	564	618	681	715	748	617						
30	319	305	292	293	281	286	298	327	337	344	350	326						
35	180	169	165	167	164	171	177	183	196	204	203	195						
40	118	112	111	111	109	112	117	117	124	128	128	125						
45	70.4	67.8	67.5	68.6	66.9	68.0	70.8	70.2	73.5	75.6	76.8	74.4						
50	37.2	36.5	36.7	38.0	37.5	37.5	37.8	37.5	37.8	38.3	40.4	38.8						
55	18.5	18.1	18.1	19.1	19.1	19.2	19.5	19.2	19.4	19.8	21.2	20.0						
60	8.24	8.12	8.27	8.89	9.16	8.89	8.68	8.59	8.72	8.96	9.54	8.85						
65	5.07	5.00	5.12	5.51	5.71	5.51	5.33	5.32	5.38	5.59	5.95	5.50						
70	2.76	2.70	2.80	3.01	3.14	2.99	2.90	2.92	2.95	3.13	3.33	3.05						
75	1.19	1.12	1.19	1.26	1.35	1.25	1.23	1.28	1.26	1.38	1.46	1.33						
80	0.22	0.14	0.21	0.17	0.23	0.17	0.17	0.23	0.19	0.27	0.23	0.26						
85	0.13	0.09	0.13	0.10	0.14	0.10	0.10	0.11	0.08	0.12	0.09	0.11						
90	0.10	0.09	0.10	0.10	0.10	0.10	0.08	0.09	0.08	0.08	0.08	0.08						

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-07-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:9.767m [K=1.0000]
 Remarks: