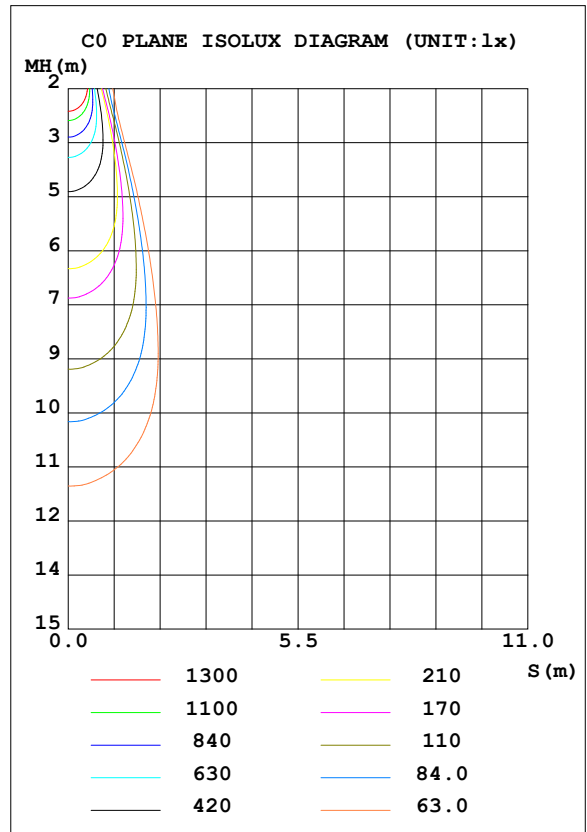
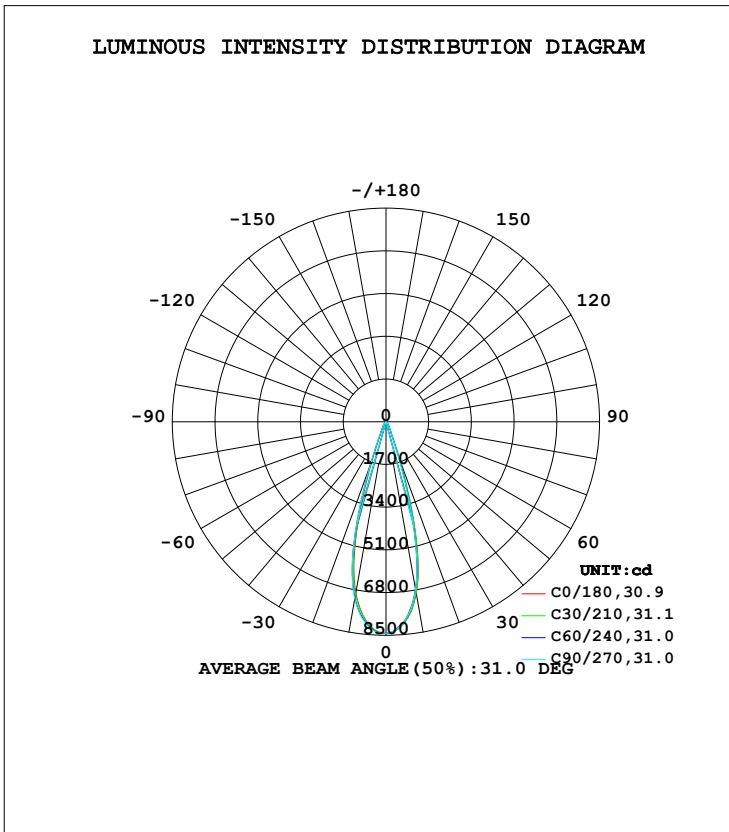


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 121.48 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	8419	S/MH (C0/180)	0.47
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	0.48
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2375.1	η UP, DN (C0-180)	0.0, 48.2
NOMINAL FLUX (lm)	2375.14	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 51.8
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: 2023-03-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 58%
 Test Distance: 8.967m [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	6939	6830	6782	6859	6917	7050	7152	7134	0- 10	736.5	736.5	31,31
20	1592	1477	1353	1471	1565	1770	1833	1826	10- 20	1171	1908	80.3,80.3
30	292.7	280.0	275.6	281.7	288.4	292.7	299.1	296.5	20- 30	284.9	2192	92.3,92.3
40	114.0	112.5	111.4	112.2	115.1	116.3	118.7	115.7	30- 40	114.3	2307	97.1,97.1
50	31.08	30.77	30.20	30.95	32.96	34.39	33.94	32.44	40- 50	51.91	2359	99.3,99.3
60	4.139	4.396	4.112	4.004	4.393	4.968	4.676	4.209	50- 60	13.38	2372	99.9,99.9
70	1.140	1.218	1.088	1.057	1.158	1.383	1.297	1.124	60- 70	2.435	2374	100,100
80	0.0987	0.0901	0.0762	0.0928	0.0707	0.1143	0.1419	0.0927	70- 80	0.5670	2375	100,100
90	0.0762	0.0735	0.0762	0.0763	0.0708	0.0681	0.0708	0.0654	80- 90	0.0828	2375	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): 2339.6 lm

%lum = 98.5%

%lamp = 98.5%

Conical surface Flux(120deg): 2372.1 lm

%lum = 99.9%

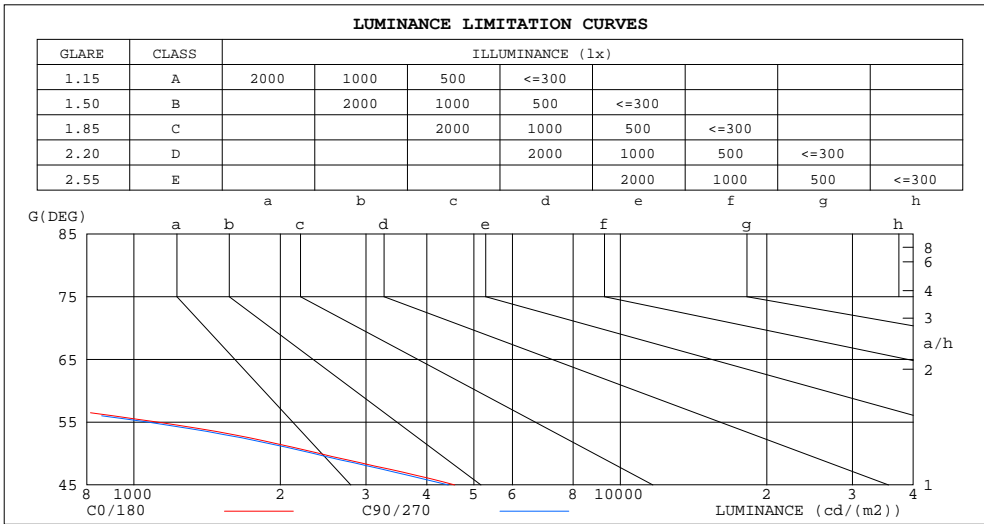
%lamp = 99.9%

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-03-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	47	44
80	28	22
75	93	79
70	166	158
65	261	254
60	412	409
55	1117	1067
50	2407	2338
45	4564	4429

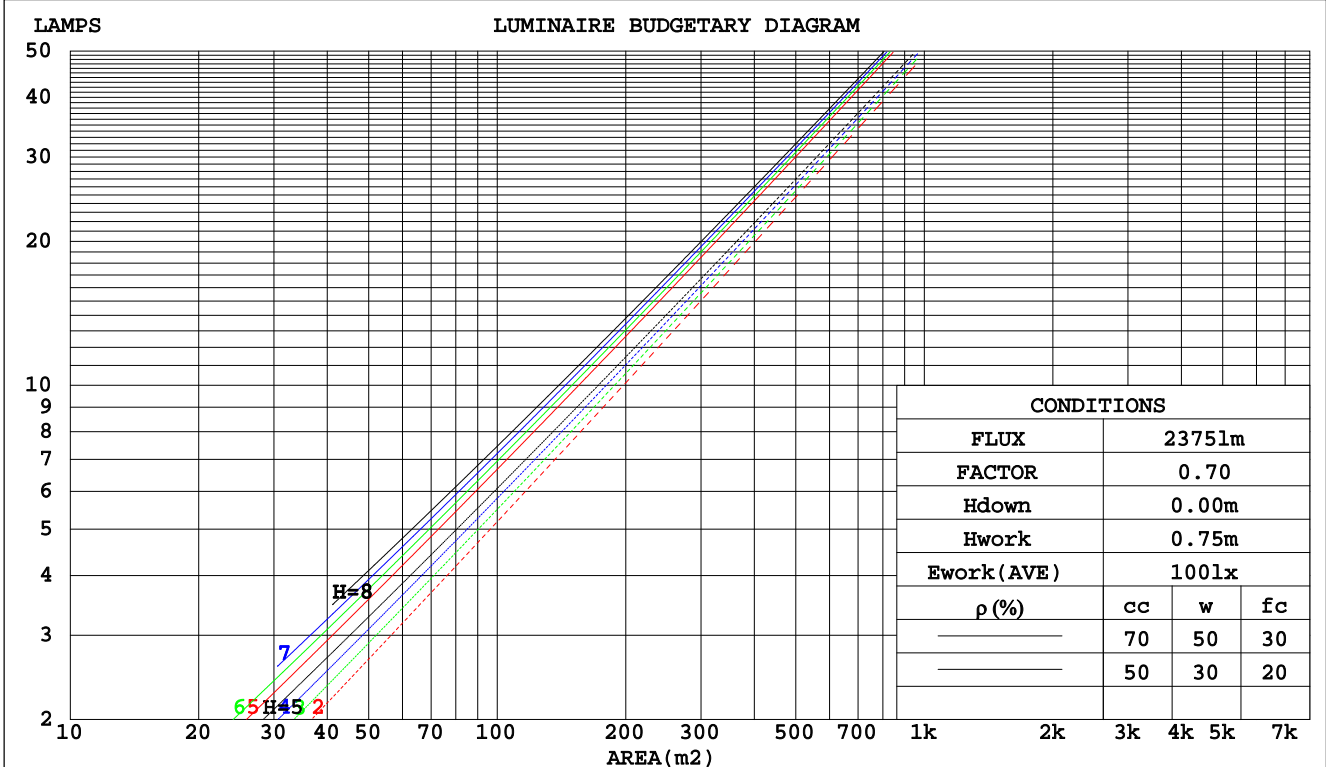
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-03-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	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															
	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	1.13	1.11	1.09	1.11	1.09	1.07	1.07	1.05	1.04	1.03	1.02	1.01	.00	.99	.98	.96
2.0	1.07	1.04	1.02	1.06	1.03	1.00	1.02	1.00	.98	.00	.98	.96	.97	.95	.94	.93
3.0	1.02	.99	.96	1.01	.98	.95	.99	.96	.93	.96	.94	.92	.94	.92	.91	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.91	.88	.92	.89	.87	.86
5.0	.94	.90	.87	.94	.90	.87	.92	.88	.86	.90	.87	.85	.89	.86	.84	.83
6.0	.91	.87	.84	.90	.86	.83	.89	.85	.83	.88	.85	.82	.86	.84	.82	.81
7.0	.88	.83	.80	.87	.83	.80	.86	.82	.80	.85	.82	.79	.84	.81	.79	.78
8.0	.85	.81	.78	.84	.80	.78	.84	.80	.77	.83	.79	.77	.82	.79	.77	.76
9.0	.82	.78	.75	.82	.78	.75	.81	.77	.75	.80	.77	.75	.80	.77	.74	.73
10.0	.80	.76	.73	.79	.76	.73	.79	.75	.73	.78	.75	.73	.78	.75	.72	.71



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-03-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	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	.140	.080	.025	.134	.076	.024	.121	.070	.022	.110	.063	.020	.100	.058	.019	
2.0	.131	.072	.022	.125	.069	.021	.115	.064	.020	.106	.059	.019	.097	.055	.017	
3.0	.122	.065	.019	.118	.063	.019	.109	.059	.018	.101	.055	.017	.094	.052	.016	
4.0	.115	.060	.018	.111	.058	.017	.104	.055	.016	.097	.052	.016	.091	.049	.015	
5.0	.108	.055	.016	.105	.054	.016	.099	.051	.015	.093	.049	.015	.088	.047	.014	
6.0	.103	.051	.015	.100	.050	.015	.094	.048	.014	.090	.047	.014	.085	.045	.013	
7.0	.098	.048	.014	.095	.047	.014	.090	.046	.013	.086	.044	.013	.082	.043	.013	
8.0	.093	.045	.013	.091	.045	.013	.087	.043	.012	.083	.042	.012	.079	.041	.012	
9.0	.089	.043	.012	.087	.042	.012	.083	.041	.012	.080	.040	.011	.077	.039	.011	
10.0	.085	.041	.011	.084	.040	.011	.080	.039	.011	.077	.038	.011	.074	.037	.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	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.136	.113	.095	.117	.098	.083	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.113	.086	.065	.097	.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	.097	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.091	.061	.041	.078	.053	.035	.054	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.085	.055	.035	.073	.048	.031	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.080	.051	.031	.069	.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:2023-03-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	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	5.1	5.8	5.3	5.9	6.1	4.9	5.5	5.1	5.7	5.8
3H	5.0	5.6	5.2	5.8	6.0	4.7	5.4	5.0	5.5	5.7
4H	4.9	5.5	5.1	5.7	5.9	4.6	5.2	4.9	5.5	5.7
6H	4.8	5.4	5.1	5.6	5.8	4.6	5.1	4.8	5.4	5.6
8H	4.7	5.3	5.0	5.5	5.8	4.5	5.1	4.8	5.3	5.6
12H	4.7	5.2	5.0	5.5	5.8	4.5	5.0	4.8	5.3	5.5
4H 2H	4.9	5.5	5.1	5.7	5.9	4.7	5.3	4.9	5.5	5.7
3H	4.7	5.3	5.0	5.5	5.8	4.5	5.0	4.8	5.3	5.6
4H	4.6	5.1	5.0	5.4	5.7	4.4	4.9	4.7	5.2	5.5
6H	4.5	5.0	4.9	5.3	5.6	4.3	4.7	4.7	5.1	5.4
8H	4.5	4.9	4.9	5.2	5.6	4.3	4.7	4.6	5.0	5.4
12H	4.4	4.8	4.8	5.2	5.5	4.2	4.6	4.6	4.9	5.3
8H 4H	4.5	4.9	4.9	5.2	5.6	4.3	4.7	4.6	5.0	5.4
6H	4.4	4.7	4.8	5.1	5.5	4.1	4.5	4.6	4.9	5.3
8H	4.3	4.6	4.8	5.0	5.5	4.1	4.4	4.5	4.8	5.2
12H	4.3	4.5	4.7	4.9	5.4	4.0	4.3	4.5	4.7	5.2
12H 4H	4.4	4.8	4.8	5.2	5.6	4.2	4.6	4.6	4.9	5.3
6H	4.3	4.6	4.8	5.0	5.5	4.1	4.4	4.5	4.8	5.2
8H	4.3	4.5	4.7	4.9	5.4	4.0	4.3	4.5	4.7	5.2
Variations with the observer position at spacings:										
S = 1.0H	+ 2.6 / - 9.9					+ 2.5 / -10.1				
1.5H	+ 3.9 / - 7.1					+ 3.8 / - 7.4				
2.0H	+ 6.0 / - 9.8					+ 6.0 / - 9.6				

CIE Pub.117, 2375 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.0)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-03-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

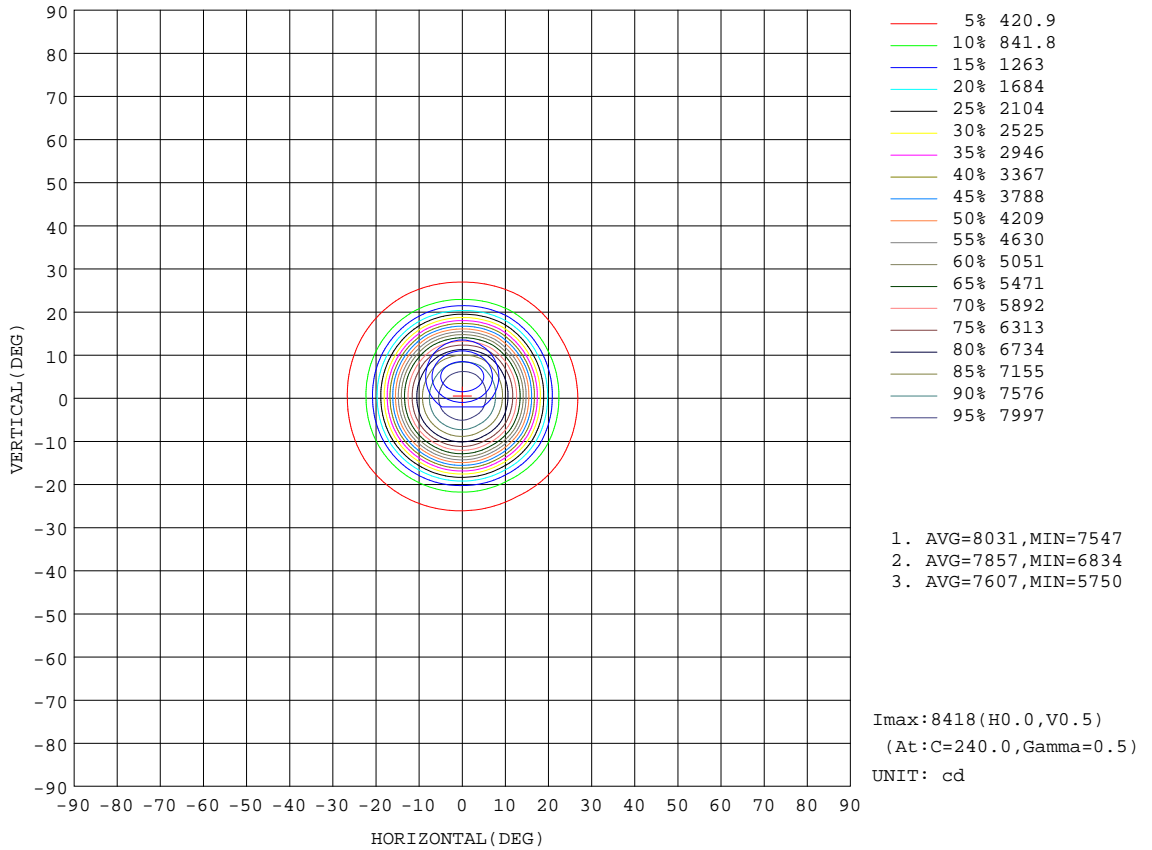
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	90	84	80	89	84	80	89	83	80	77
0.80	97	91	88	96	91	88	95	91	88	84
1.00	101	96	92	100	95	92	99	95	92	88
1.25	105	100	97	104	99	96	102	98	95	92
1.50	107	103	100	106	102	99	104	101	98	94
2.00	109	106	103	108	105	102	105	103	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	106	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:2023-03-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		



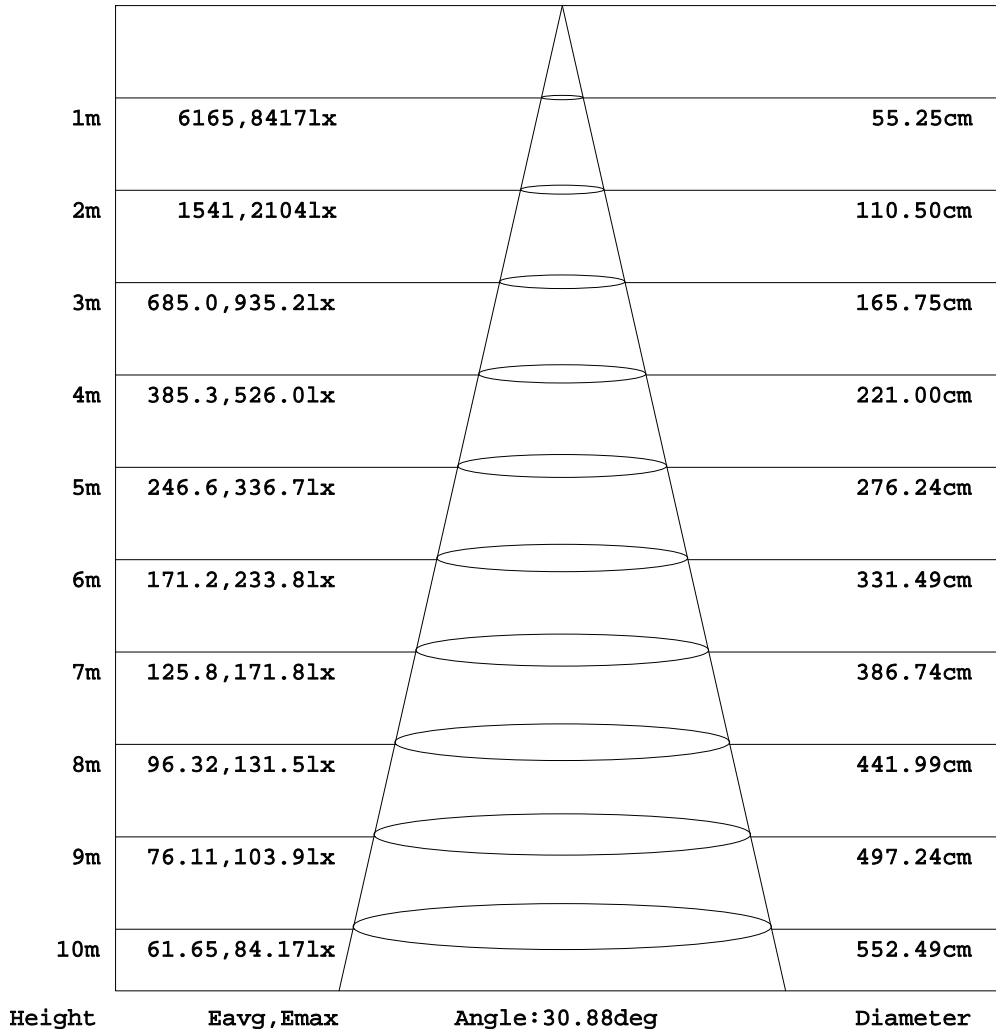
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-03-20

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

AAI Figure

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

Flux out:1490 lm



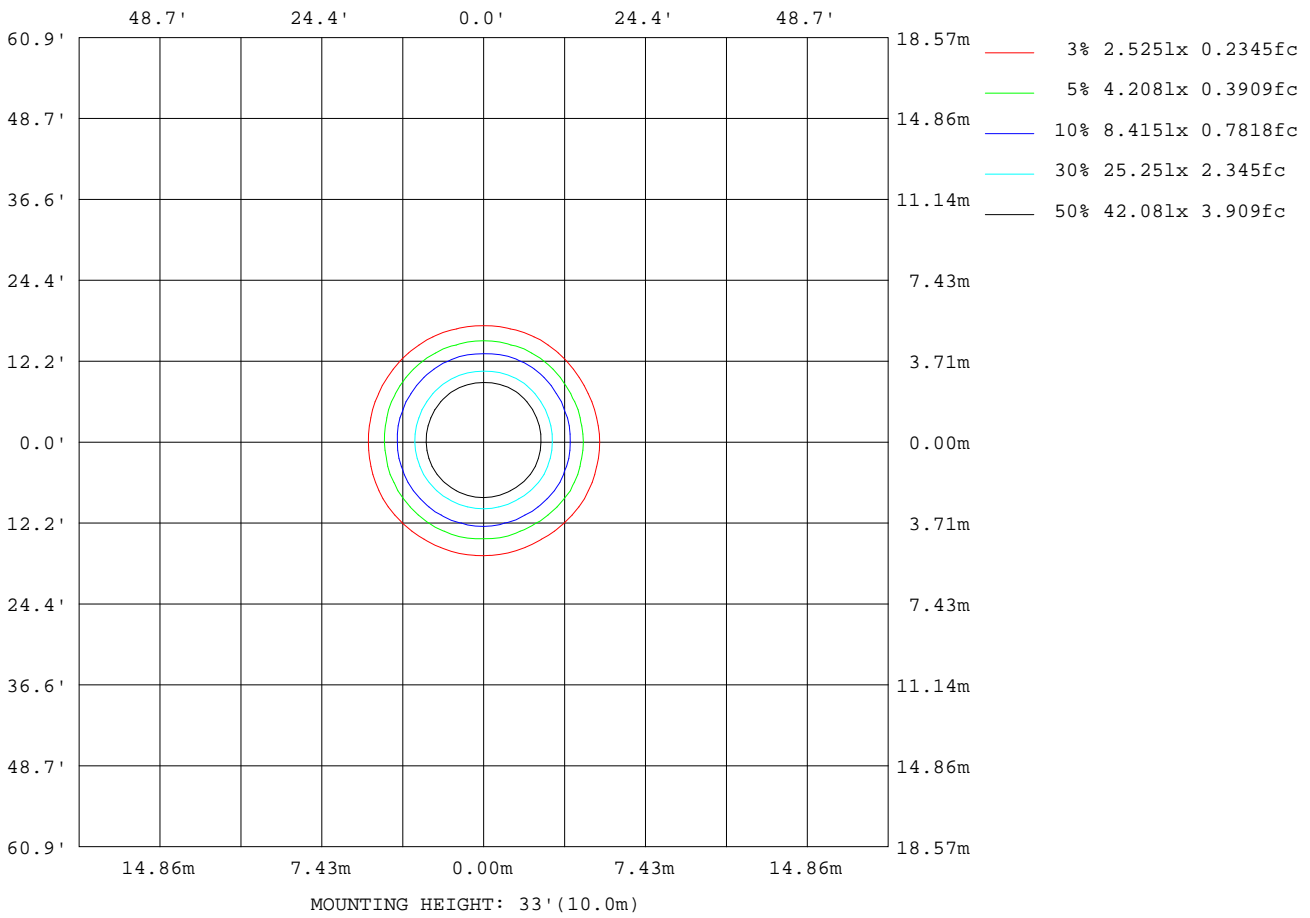
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-03-20

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	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:2023-03-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

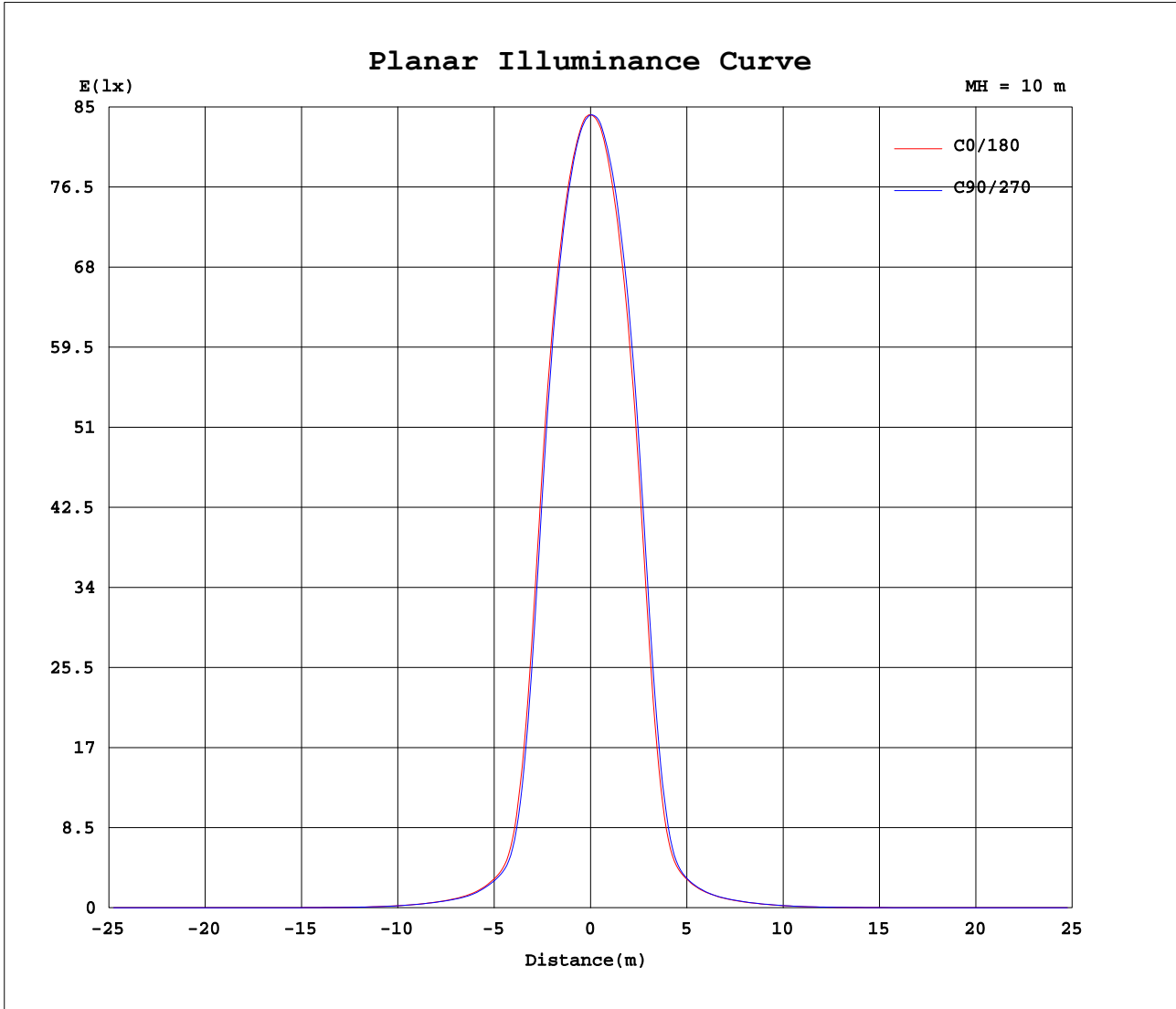
AvgL	cd/m2
L_0~180 (65) av	266
L_0~180 (75) av	92
L_0~180 (85) av	42
L_90~270 (65) av	274
L_90~270 (75) av	94
L_90~270 (85) av	44
L_45 (65) av	276
L_45 (75) av	96
L_45 (85) av	42

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-03-20

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [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: 2023-03-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 58%
 Test Distance: 8.967m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.0V I:0.0929A P:19.55W PF:0.9522 Freq:59.98Hz Lamp Flux:2375.14x1 lm		
NAME: T150 Pro-17W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	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	8414	8414	8414	8414	8414	8414	8414	8414	8414	8414	8414	8414							
5	8068	8050	8000	8015	8023	8060	8070	8071	8140	8156	8175	8129							
10	6939	6897	6762	6782	6826	6892	6917	6979	7121	7152	7211	7058							
15	4488	4436	4167	4167	4236	4407	4510	4674	4891	4892	4975	4711							
20	1592	1560	1394	1353	1434	1509	1565	1689	1850	1833	1932	1720							
25	518	512	466	476	492	500	510	542	555	544	553	511							
30	293	286	274	276	275	288	288	289	296	299	301	292							
35	180	176	173	170	169	178	179	179	182	184	183	184							
40	114	113	112	111	109	115	115	115	118	119	115	116							
45	64.8	64.7	62.4	62.9	61.8	65.5	66.9	67.2	70.1	69.5	67.6	65.9							
50	31.1	31.3	30.2	30.2	30.1	31.8	33.0	33.8	35.0	33.9	33.3	31.5							
55	12.9	13.2	12.3	12.3	12.2	13.2	14.2	15.0	15.8	15.0	14.3	13.0							
60	4.14	4.43	4.36	4.11	3.94	4.07	4.39	4.84	5.10	4.68	4.35	4.07							
65	2.21	2.38	2.37	2.16	2.07	2.11	2.31	2.62	2.74	2.49	2.26	2.15							
70	1.14	1.21	1.23	1.09	1.06	1.06	1.16	1.36	1.40	1.30	1.14	1.11							
75	0.49	0.48	0.50	0.41	0.44	0.42	0.47	0.59	0.59	0.57	0.47	0.47							
80	0.10	0.08	0.10	0.08	0.11	0.08	0.07	0.14	0.09	0.14	0.08	0.11							
85	0.08	0.07	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.08	0.07	0.08							
90	0.08	0.07	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-03-20

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks: