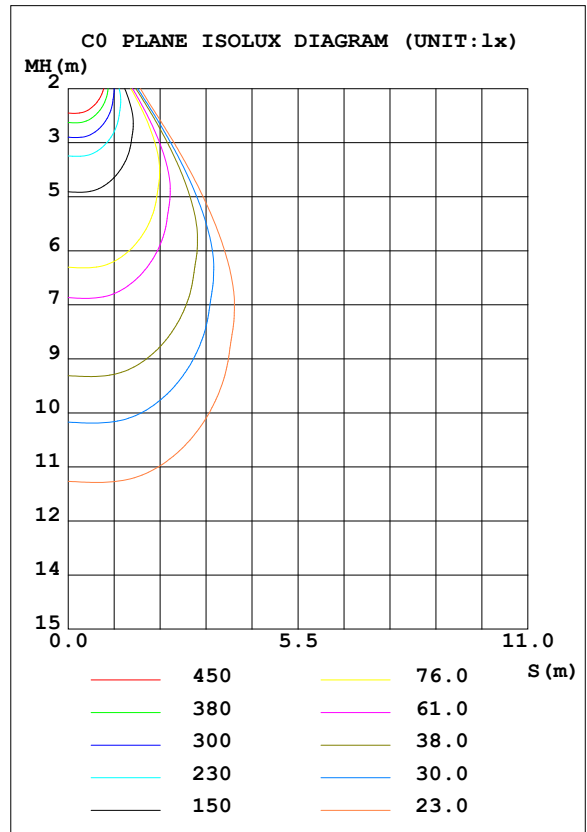
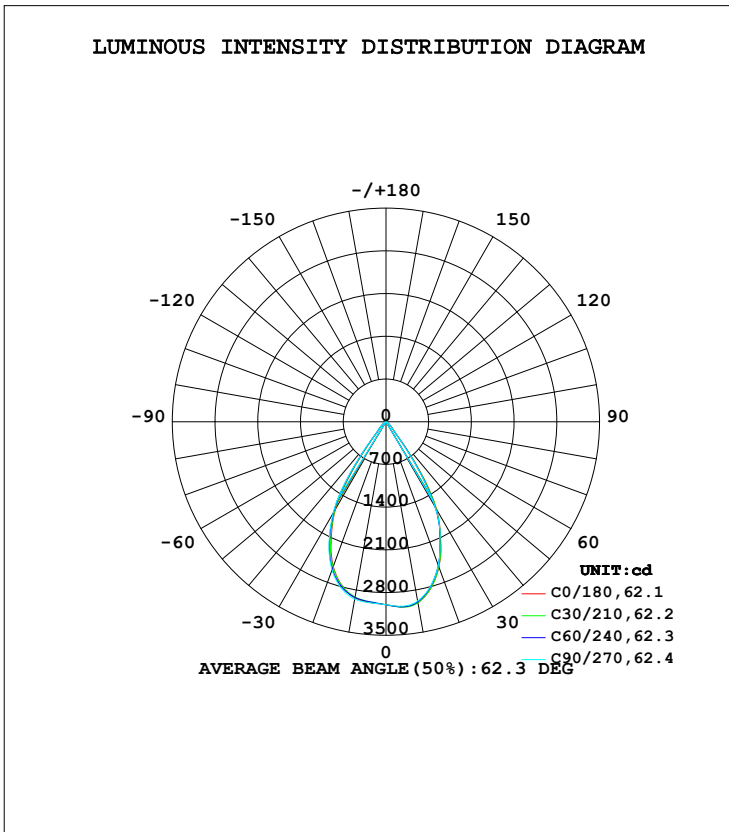


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:221.0V I:0.1281A P:27.72W PF:0.9792 Freq:59.98Hz Lamp Flux:2762.09x1 lm		
NAME: T150 Pro-24W-930-65	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 99.63 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	3054	S/MH (C0/180)	0.91
NOMINAL POWER (W)	27	LOR (%)	100.0	S/MH (C90/270)	0.93
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2762.1	η UP, DN (C0-180)	0.0,49.1
NOMINAL FLUX (lm)	2762.09	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0,50.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	0.95



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	3009	3004	2984	2963	2931	2920	2950	2994	0- 10	286.1	286.1	10.4,10.4
20	2534	2517	2503	2508	2526	2553	2586	2575	10- 20	784.9	1071	38.8,38.8
30	1658	1629	1609	1613	1660	1703	1738	1705	20- 30	972.5	2044	74,74
40	246.6	238.2	225.3	229.8	247.0	269.8	281.6	269.3	30- 40	555.1	2599	94.1,94.1
50	82.72	83.10	80.29	80.20	84.16	88.30	88.91	85.66	40- 50	111.7	2710	98.1,98.1
60	14.92	16.84	15.55	14.46	15.06	16.85	16.02	14.74	50- 60	39.92	2750	99.6,99.6
70	4.660	5.338	4.867	4.536	4.792	5.654	5.244	4.630	60- 70	9.366	2760	99.9,99.9
80	0.2190	0.1800	0.1468	0.1806	0.2152	0.3258	0.3453	0.2511	70- 80	2.337	2762	100,100
90	0.0813	0.0843	0.0872	0.0847	0.0868	0.0870	0.0872	0.0874	80- 90	0.1148	2762	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): 2665.7 lm

%lum = 96.5%

%lamp = 96.5%

Conical surface Flux(120deg): 2750.3 lm

%lum = 99.6%

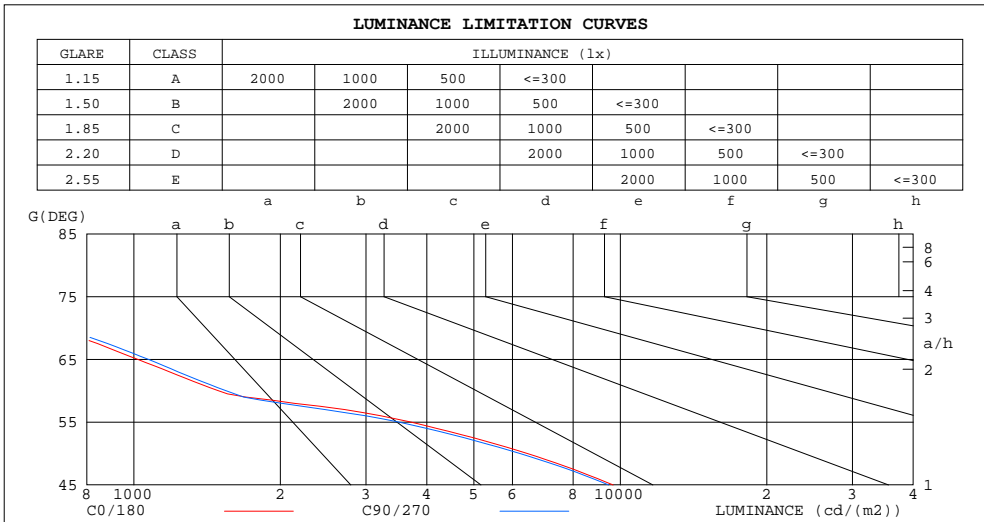
%lamp = 99.6%

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:0.1281A P:27.72W PF:0.9792 Freq:59.98Hz Lamp Flux:2762.09x1 lm		
NAME: T150 Pro-24W-930-65	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	59	50
80	63	42
75	369	363
70	681	708
65	1018	1071
60	1491	1546
55	3711	3501
50	6432	6211
45	9664	9462

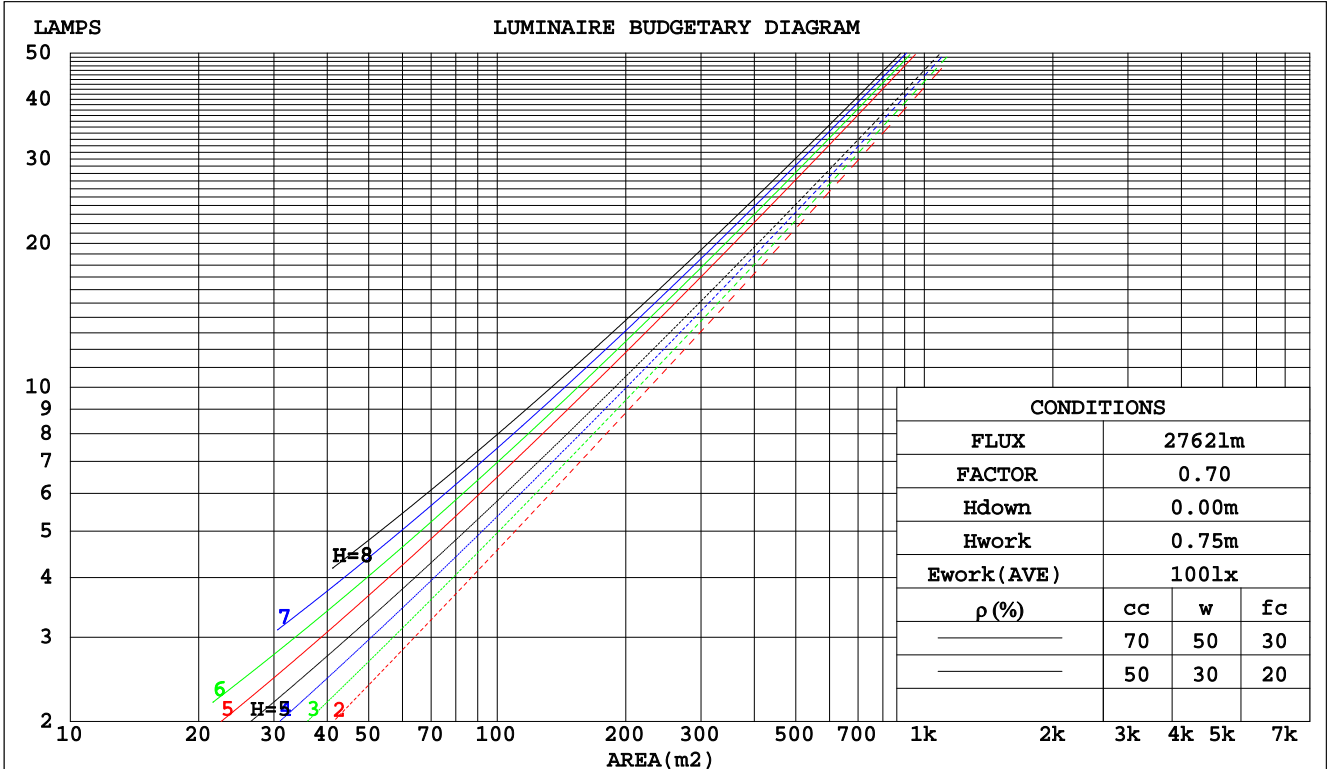
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-03-20

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:0.1281A P:27.72W PF:0.9792 Freq:59.98Hz Lamp Flux:2762.09x1 lm		
NAME: T150 Pro-24W-930-65	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.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	.96	.91	.88	.95	.90	.87	.92	.89	.85	.90	.87	.84	.88	.85	.83	.81
4.0	.90	.85	.81	.89	.84	.80	.87	.83	.79	.85	.81	.78	.83	.80	.77	.76
5.0	.85	.79	.75	.84	.78	.74	.82	.77	.74	.80	.76	.73	.79	.75	.72	.71
6.0	.79	.73	.69	.79	.73	.69	.77	.72	.69	.76	.71	.68	.74	.71	.68	.66
7.0	.75	.69	.65	.74	.68	.64	.73	.68	.64	.72	.67	.64	.70	.66	.63	.62
8.0	.70	.65	.60	.70	.64	.60	.69	.64	.60	.68	.63	.60	.67	.63	.60	.58
9.0	.67	.61	.57	.66	.60	.57	.65	.60	.56	.64	.60	.56	.63	.59	.56	.55
10.0	.63	.57	.53	.63	.57	.53	.62	.57	.53	.61	.56	.53	.60	.56	.53	.52



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:0.1281A P:27.72W PF:0.9792 Freq:59.98Hz Lamp Flux:2762.09x1 lm		
NAME: T150 Pro-24W-930-65	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	.176	.100	.032	.169	.097	.031	.157	.090	.029	.145	.084	.027	.134	.078	.025	
2.0	.169	.092	.028	.163	.090	.028	.152	.085	.026	.143	.080	.025	.134	.076	.024	
3.0	.161	.086	.026	.156	.084	.025	.147	.080	.024	.139	.076	.023	.131	.073	.022	
4.0	.153	.080	.023	.149	.078	.023	.141	.075	.022	.134	.072	.022	.128	.069	.021	
5.0	.146	.075	.022	.143	.073	.021	.136	.071	.021	.130	.068	.020	.124	.066	.020	
6.0	.140	.070	.020	.137	.069	.020	.131	.067	.019	.125	.065	.019	.120	.063	.019	
7.0	.134	.066	.019	.131	.065	.019	.126	.064	.018	.121	.062	.018	.116	.060	.018	
8.0	.128	.063	.018	.126	.062	.017	.121	.060	.017	.117	.059	.017	.112	.058	.017	
9.0	.123	.059	.017	.121	.059	.017	.116	.058	.016	.112	.056	.016	.109	.055	.016	
10.0	.118	.057	.016	.116	.056	.016	.112	.055	.015	.109	.054	.015	.105	.053	.015	

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	.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	.079	.060	.044	.045	.035	.026	.015	.011	.009	
5.0	.125	.087	.060	.107	.075	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.050	.101	.068	.043	.070	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.111	.070	.042	.095	.061	.037	.066	.043	.026	.038	.025	.015	.012	.008	.005	
8.0	.105	.064	.036	.091	.056	.031	.063	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.100	.059	.031	.086	.051	.027	.060	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.096	.055	.027	.083	.047	.024	.057	.033	.017	.033	.020	.010	.011	.006	.003	

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:0.1281A P:27.72W PF:0.9792 Freq:59.98Hz Lamp Flux:2762.09x1 lm		
NAME: T150 Pro-24W-930-65	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	13.8	14.7	14.0	14.9	15.1	13.4	14.3	13.6	14.5	14.6
3H	13.6	14.5	13.9	14.7	14.9	13.2	14.1	13.5	14.3	14.5
4H	13.5	14.4	13.8	14.6	14.8	13.1	13.9	13.4	14.2	14.4
6H	13.5	14.2	13.8	14.5	14.7	13.0	13.8	13.3	14.0	14.3
8H	13.4	14.1	13.7	14.4	14.7	13.0	13.7	13.3	14.0	14.2
12H	13.4	14.1	13.7	14.3	14.6	12.9	13.6	13.3	13.9	14.2
4H 2H	13.6	14.4	13.8	14.6	14.8	13.1	13.9	13.4	14.2	14.4
3H	13.4	14.1	13.7	14.4	14.6	13.0	13.7	13.3	13.9	14.2
4H	13.3	13.9	13.6	14.2	14.5	12.9	13.5	13.2	13.8	14.1
6H	13.2	13.8	13.6	14.1	14.4	12.8	13.3	13.2	13.7	14.0
8H	13.2	13.7	13.5	14.0	14.4	12.7	13.2	13.1	13.6	14.0
12H	13.1	13.6	13.5	13.9	14.3	12.7	13.1	13.1	13.5	13.9
8H 4H	13.2	13.7	13.5	14.0	14.4	12.7	13.2	13.1	13.6	14.0
6H	13.1	13.5	13.5	13.9	14.3	12.6	13.1	13.1	13.4	13.9
8H	13.0	13.4	13.4	13.8	14.2	12.6	12.9	13.0	13.4	13.8
12H	12.9	13.3	13.4	13.7	14.2	12.5	12.8	13.0	13.3	13.7
12H 4H	13.1	13.6	13.5	13.9	14.3	12.7	13.1	13.1	13.5	13.9
6H	13.0	13.4	13.4	13.8	14.2	12.6	12.9	13.0	13.4	13.8
8H	12.9	13.3	13.4	13.7	14.2	12.5	12.8	13.0	13.3	13.7
Variations with the observer position at spacings:										
S = 1.0H	+ 4.2 / - 8.7					+ 4.0 / - 8.1				
1.5H	+ 6.0 / - 5.8					+ 5.6 / - 5.5				
2.0H	+ 4.5 / - 6.8					+ 4.6 / - 6.4				

CIE Pub.117, 2762 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.5)

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:0.1281A P:27.72W PF:0.9792 Freq:59.98Hz Lamp Flux:2762.09x1 lm		
NAME: T150 Pro-24W-930-65	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

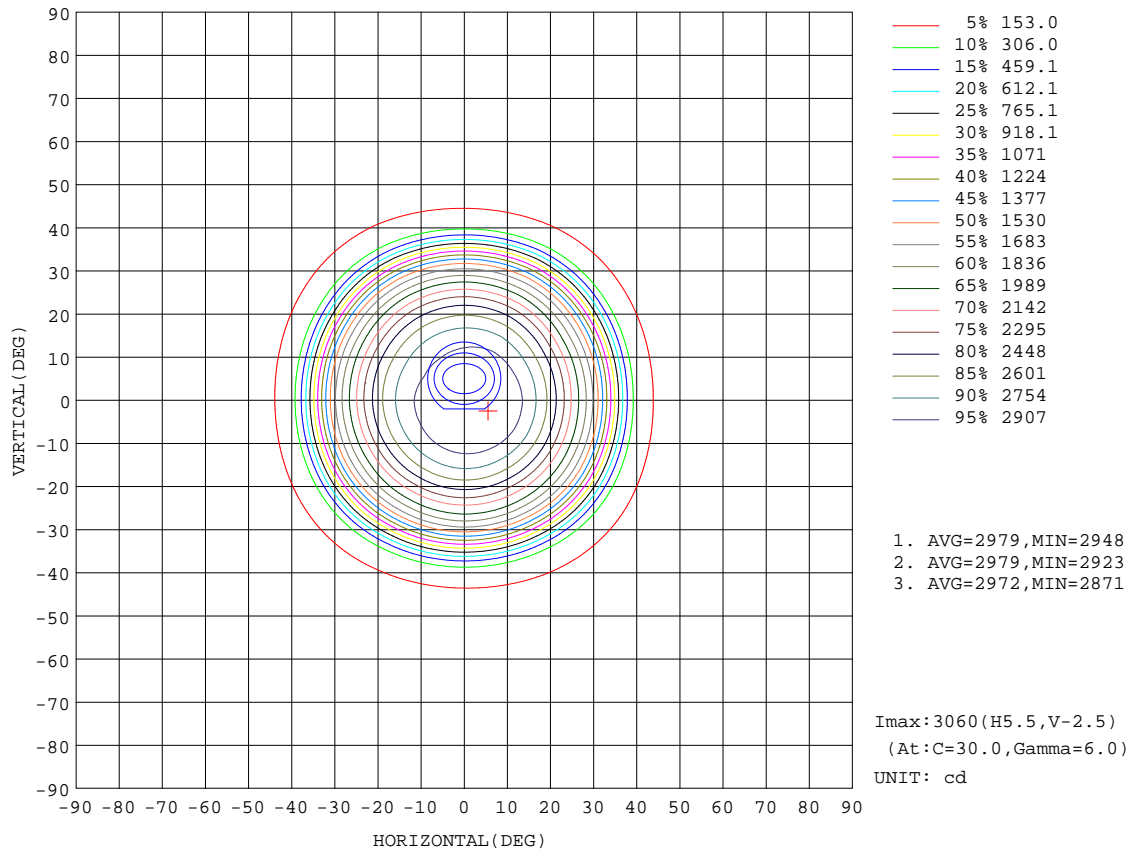
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	88	81	78	87	81	78	86	81	78	74
0.80	95	89	86	95	89	86	93	89	85	82
1.00	100	94	91	99	94	90	97	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	98	105	101	98	103	99	97	92
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	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: 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:0.1281A P:27.72W PF:0.9792 Freq:59.98Hz Lamp Flux:2762.09x1 lm		
NAME: T150 Pro-24W-930-65	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		



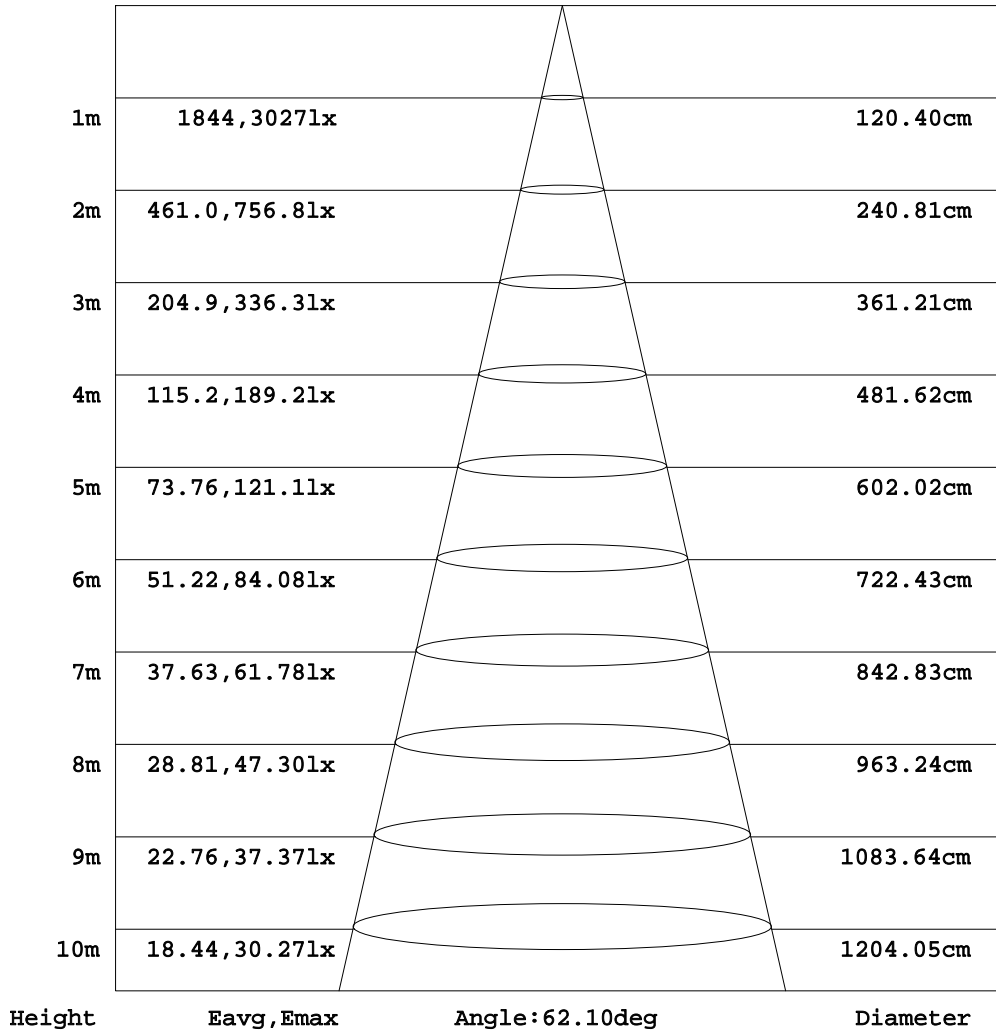
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jasoan
 Test Date: 2023-03-20

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:0.1281A P:27.72W PF:0.9792 Freq:59.98Hz Lamp Flux:2762.09x1 lm		
NAME: T150 Pro-24W-930-65	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

Flux out:2175 lm



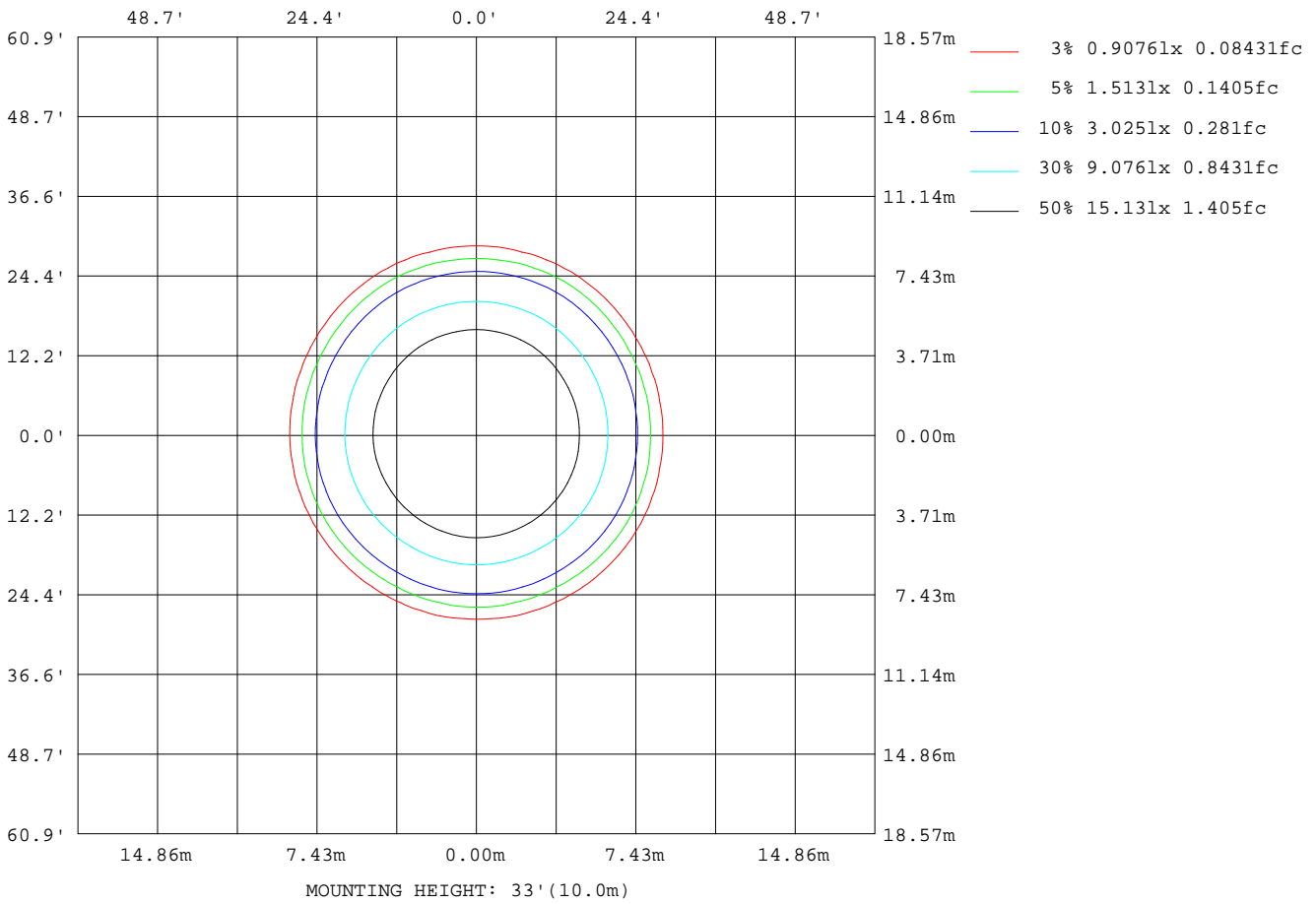
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1281A P:27.72W PF:0.9792 Freq:59.98Hz Lamp Flux:2762.09x1 lm		
NAME: T150 Pro-24W-930-65	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:0.1281A P:27.72W PF:0.9792 Freq:59.98Hz Lamp Flux:2762.09x1 lm		
NAME: T150 Pro-24W-930-65	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

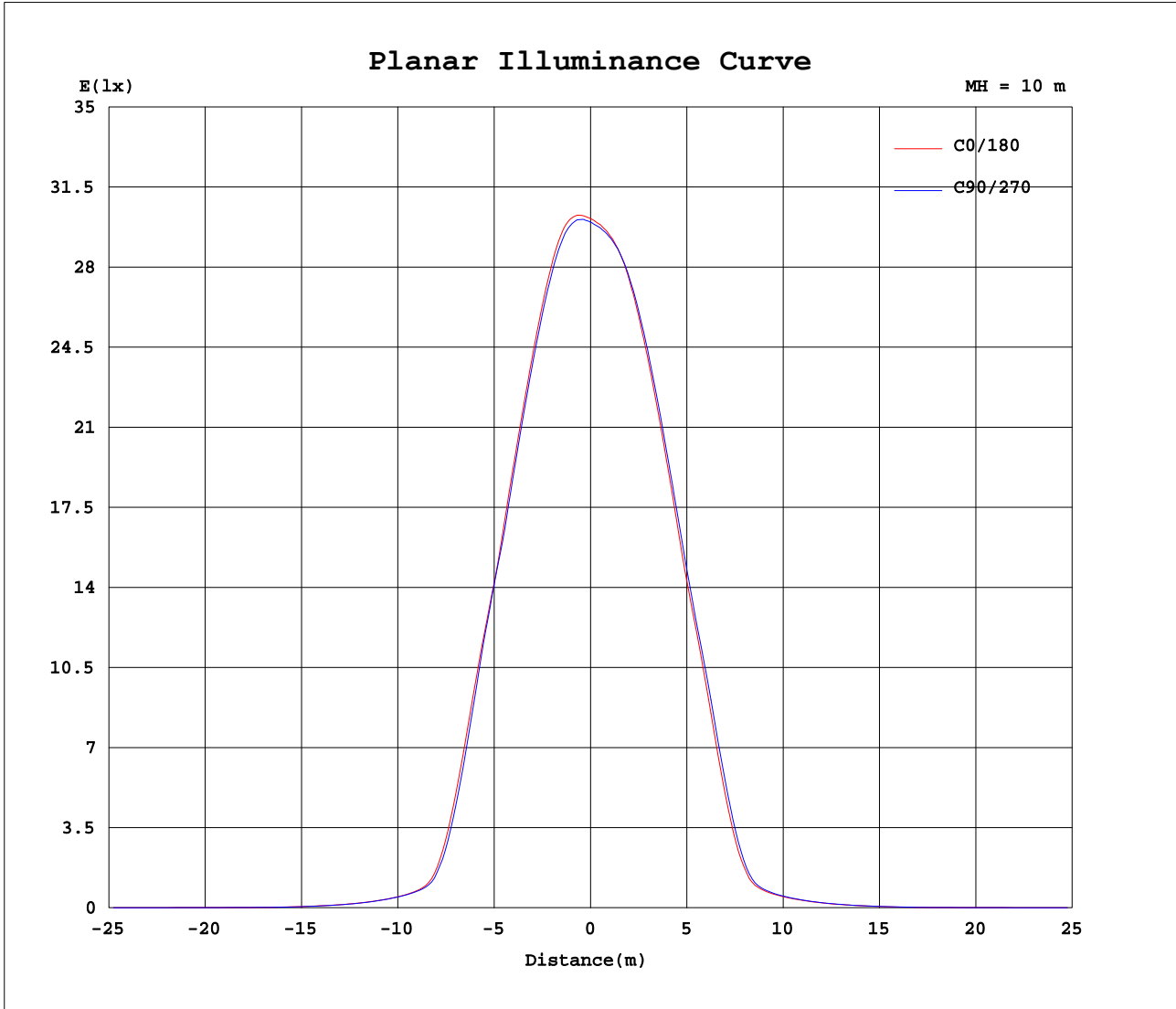
AvgL	cd/m2
L_0~180 (65) av	1025
L_0~180 (75) av	373
L_0~180 (85) av	54
L_90~270 (65) av	1085
L_90~270 (75) av	397
L_90~270 (85) av	57
L_45 (65) av	1088
L_45 (75) av	399
L_45 (85) av	54

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:

