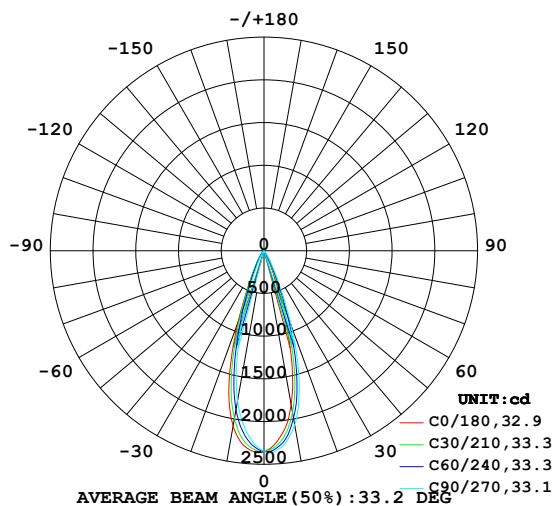


LUMINAIRE PHOTOMETRIC TEST REPORT

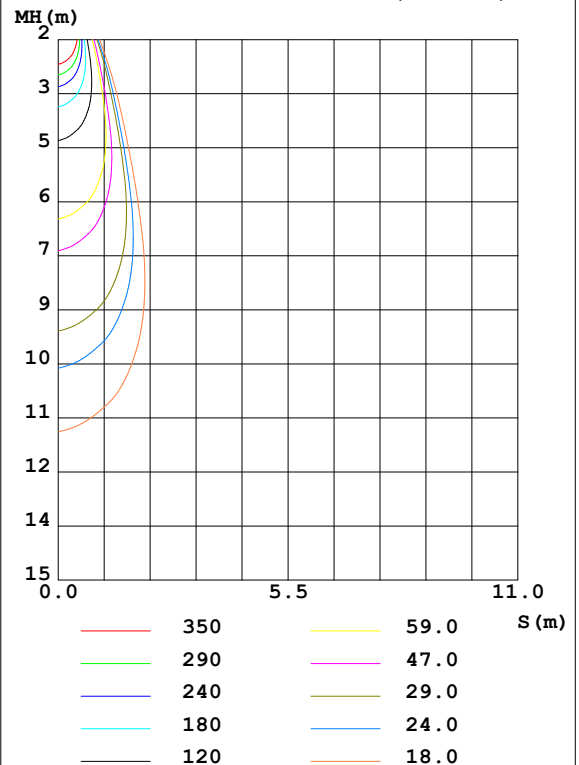
Test:U:24.00V I:0.4302A P:10.32W PF:1.000 Freq:0Hz Lamp Flux:767.199x1 lm		
NAME: AFTER7 Maxi-H CV-3030	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 74.31 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	2376	S/MH (C0/180)	0.55
NOMINAL POWER (W)	10	LOR (%)	100.0	S/MH (C90/270)	0.48
RATED VOLTAGE (V)	24	TOTAL FLUX (lm)	767.20	η UP, DN (C0-180)	0.0, 53.8
NOMINAL FLUX (lm)	767.199	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 46.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	24	η down (%)	100.0	CIBSE SHR MAX	0.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
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	1832	1977	2070	2140	2082	1930	1785	1721	0- 10	204.8	204.8	26.7,26.7
20	469.4	734.6	930.8	985.6	884.3	749.9	545.8	373.8	10- 20	366.5	571.3	74.5,74.5
30	41.13	68.99	156.0	184.5	193.5	161.5	105.5	45.23	20- 30	144.3	715.6	93.3,93.3
40	1.522	5.890	21.94	52.63	54.65	44.25	16.77	3.846	30- 40	37.50	753.1	98.2,98.2
50	0.6104	0.9508	2.776	9.251	14.94	9.130	2.999	1.048	40- 50	9.586	762.7	99.4,99.4
60	0.0488	0.4300	1.271	2.591	4.068	2.860	1.322	0.5253	50- 60	2.615	765.3	99.8,99.8
70	0.0262	0.0241	0.6719	1.237	1.593	1.315	0.7208	0.0219	60- 70	1.066	766.4	99.9,99.9
80	0.0262	0.0263	0.1796	0.7102	0.9177	0.7766	0.2532	0.0219	70- 80	0.5436	766.9	100,100
90	0.0350	0.0350	0.0306	0.3192	0.4985	0.3848	0.0525	0.0219	80- 90	0.2788	767.2	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): 759.51 lm

%lum = 99.0%

%lamp = 99.0%

Conical surface Flux(120deg): 765.31 lm

%lum = 99.8%

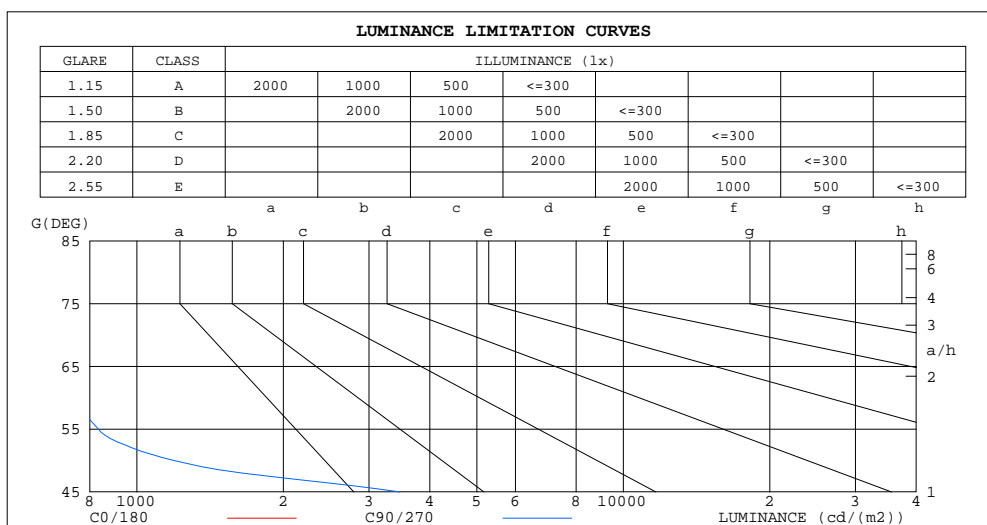
%lamp = 99.8%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.4302A P:10.32W PF:1.000 Freq:0Hz Lamp Flux:767.199x1 lm		
NAME: AFTER7 Maxi-H CV-3030	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	83	153
80	42	285
75	28	408
70	21	541
65	17	633
60	27	700
55	187	833
50	262	1190
45	296	3476

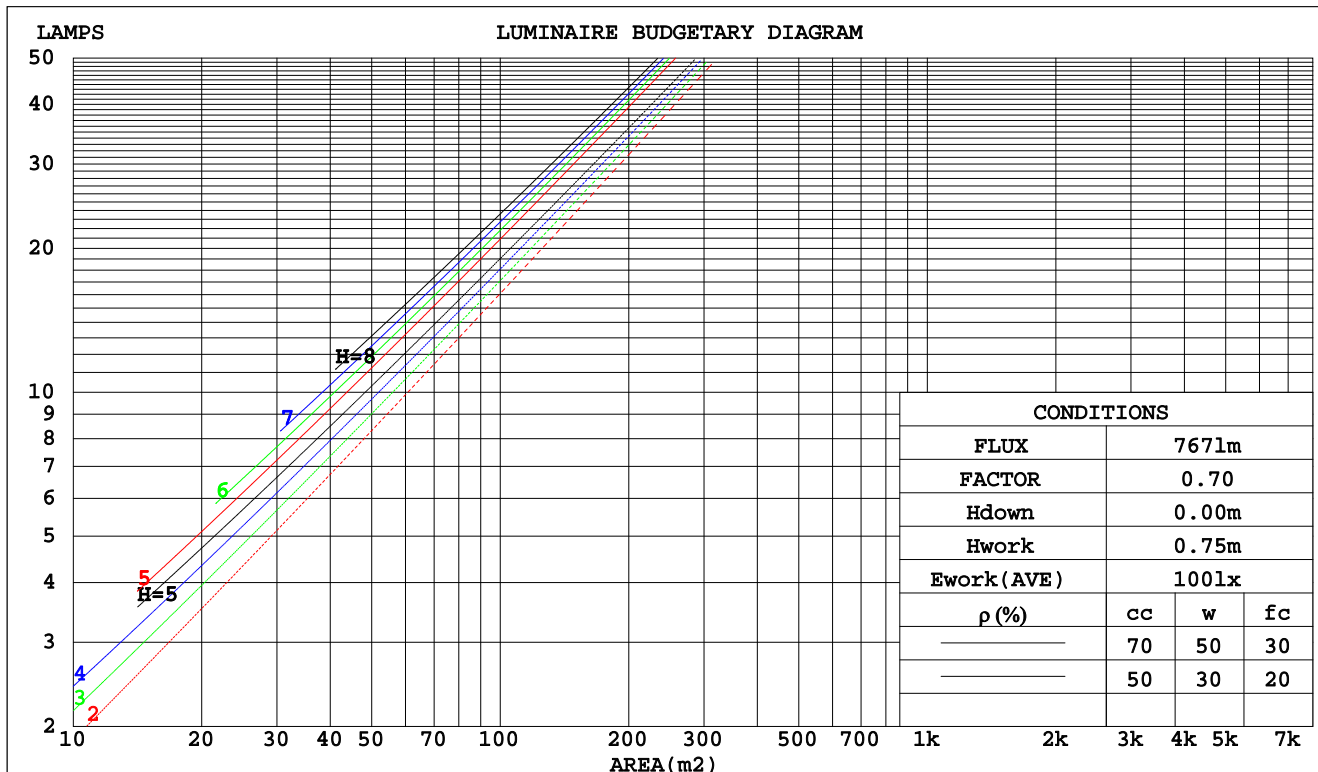
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.4302A P:10.32W PF:1.000 Freq:0Hz Lamp Flux:767.199x1 lm		
NAME: AFTER7 Maxi-H CV-3030	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
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	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	1.12	1.10	1.09	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.98	.98	.96
2.0	1.07	1.04	1.01	1.05	1.02	.00	1.02	.00	.98	.99	.97	.96	.96	.95	.94	.92
3.0	1.02	.98	.95	1.00	.97	.94	.98	.95	.93	.96	.93	.91	.94	.92	.90	.89
4.0	.97	.93	.90	.96	.92	.89	.94	.91	.88	.92	.90	.87	.91	.88	.86	.85
5.0	.93	.89	.86	.92	.88	.85	.91	.87	.85	.89	.86	.84	.88	.85	.83	.82
6.0	.90	.85	.82	.89	.85	.82	.88	.84	.81	.86	.83	.81	.85	.82	.80	.79
7.0	.86	.82	.79	.86	.82	.79	.85	.81	.78	.84	.80	.78	.83	.80	.77	.76
8.0	.83	.79	.76	.83	.79	.76	.82	.78	.75	.81	.78	.75	.80	.77	.75	.74
9.0	.80	.76	.73	.80	.76	.73	.79	.75	.73	.78	.75	.73	.78	.75	.72	.71
10.0	.78	.74	.71	.77	.73	.71	.77	.73	.70	.76	.73	.70	.75	.72	.70	.69



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:24.00V I:0.4302A P:10.32W PF:1.000 Freq:0Hz Lamp Flux:767.199x1 lm		
NAME: AFTER7 Maxi-H CV-3030	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		

ρ_{cc}	80%			70%			50%			30%			10%			0	
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.145	.082	.026	.138	.079	.025	.126	.072	.023	.114	.066	.021	.104	.060	.019		
2.0	.135	.074	.023	.129	.071	.022	.119	.066	.021	.110	.061	.019	.101	.057	.018		
3.0	.126	.067	.020	.122	.065	.020	.113	.061	.019	.105	.058	.018	.098	.054	.017		
4.0	.119	.062	.018	.115	.060	.018	.108	.057	.017	.101	.054	.016	.095	.051	.016		
5.0	.112	.057	.017	.109	.056	.016	.103	.054	.016	.097	.051	.015	.092	.049	.015		
6.0	.107	.053	.015	.104	.052	.015	.098	.050	.015	.093	.048	.014	.089	.047	.014		
7.0	.102	.050	.014	.099	.049	.014	.094	.048	.014	.090	.046	.013	.086	.045	.013		
8.0	.097	.047	.013	.095	.047	.013	.091	.045	.013	.087	.044	.013	.083	.043	.012		
9.0	.093	.045	.013	.091	.044	.012	.087	.043	.012	.084	.042	.012	.081	.041	.012		
10.0	.089	.043	.012	.087	.042	.012	.084	.041	.012	.081	.040	.011	.078	.039	.011		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{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	.169	.158	.147	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.130	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.013	
3.0	.137	.113	.095	.117	.098	.082	.081	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.125	.098	.078	.107	.085	.068	.074	.059	.048	.043	.035	.028	.014	.011	.009	
5.0	.115	.086	.065	.098	.074	.056	.068	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.106	.076	.055	.091	.066	.047	.063	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.099	.068	.046	.085	.059	.041	.059	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.092	.061	.040	.080	.053	.035	.055	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.087	.056	.035	.075	.048	.030	.052	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.082	.051	.030	.071	.044	.027	.049	.031	.019	.029	.018	.011	.009	.006	.004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.4302A P:10.32W PF:1.000 Freq:0Hz Lamp Flux:767.199x1 lm										
NAME: AFTER7 Maxi-H CV-3030					TYPE:Downlight			SERIAL No.:		
SPEC.:3000K					DIM.: ϕ 68mm*H124mm					
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	1.9	2.6	2.1	2.8	2.9	8.6	9.3	8.8	9.4	9.6
3H	1.8	2.4	2.0	2.6	2.8	8.4	9.1	8.7	9.3	9.5
4H	1.7	2.3	2.0	2.5	2.7	8.4	9.0	8.6	9.2	9.4
6H	1.6	2.2	1.9	2.4	2.7	8.3	8.9	8.6	9.1	9.3
8H	1.6	2.1	1.9	2.4	2.6	8.2	8.8	8.5	9.1	9.3
12H	1.5	2.1	1.8	2.3	2.6	8.2	8.7	8.5	9.0	9.3
4H 2H	1.7	2.3	2.0	2.6	2.8	8.3	8.9	8.6	9.2	9.4
3H	1.5	2.1	1.9	2.4	2.6	8.2	8.7	8.5	9.0	9.3
4H	1.5	2.0	1.8	2.2	2.5	8.1	8.6	8.4	8.9	9.2
6H	1.4	1.8	1.7	2.1	2.5	8.0	8.4	8.4	8.8	9.1
8H	1.3	1.7	1.7	2.1	2.4	8.0	8.4	8.3	8.7	9.1
12H	1.3	1.6	1.7	2.0	2.4	7.9	8.3	8.3	8.6	9.0
8H 4H	1.3	1.7	1.7	2.1	2.4	7.9	8.4	8.3	8.7	9.1
6H	1.2	1.5	1.6	1.9	2.3	7.8	8.2	8.3	8.6	9.0
8H	1.1	1.4	1.6	1.9	2.3	7.8	8.1	8.2	8.5	8.9
12H	1.1	1.3	1.5	1.8	2.3	7.7	8.0	8.2	8.4	8.9
12H 4H	1.2	1.6	1.7	2.0	2.4	7.9	8.3	8.3	8.6	9.0
6H	1.1	1.4	1.6	1.9	2.3	7.8	8.1	8.2	8.5	8.9
8H	1.1	1.3	1.5	1.8	2.2	7.7	8.0	8.2	8.4	8.9
Variations with the observer position at spacings:										
S = 1.0H	+ 4.4 / - 8.4					+ 5.2 / - 9.5				
1.5H	+ 6.4 / - 4.8					+ 7.7 / -10.5				
2.0H	+ 2.6 / - 7.9					+ 8.4 / - 5.8				

CIE Pub.117, 767.2 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -0.9$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.4302A P:10.32W PF:1.000 Freq:0Hz Lamp Flux:767.199x1 lm		
NAME: AFTER7 Maxi-H CV-3030	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		

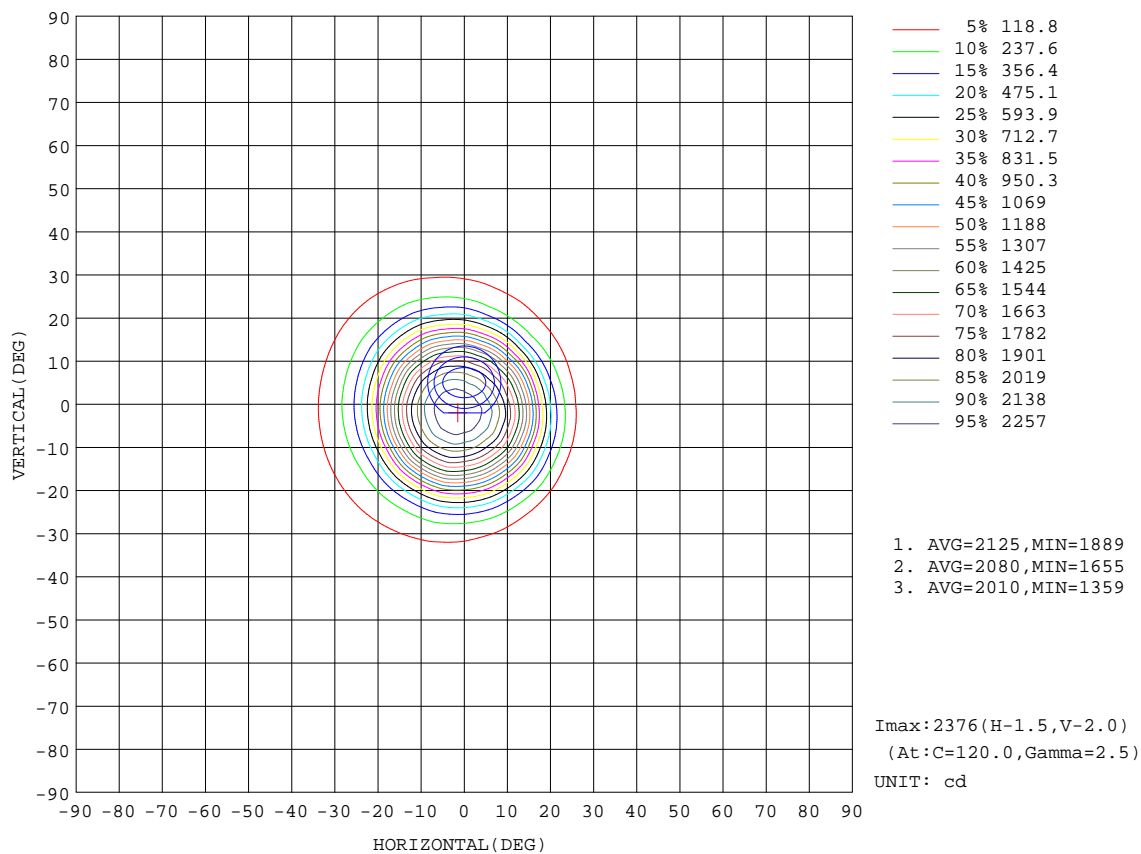
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	85	81	90	84	81	89	84	81	78
0.80	97	92	89	97	92	89	96	91	88	85
1.00	101	96	93	101	96	93	99	95	92	89
1.25	105	100	97	104	100	97	102	98	96	92
1.50	107	103	100	106	102	100	104	101	98	94
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	106	104	107	104	102	96
3.00	113	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:Jason
 Test Date:2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:5.850m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.4302A P:10.32W PF:1.000 Freq:0Hz Lamp Flux:767.199x1 lm		
NAME: AFTER7 Maxi-H CV-3030	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		

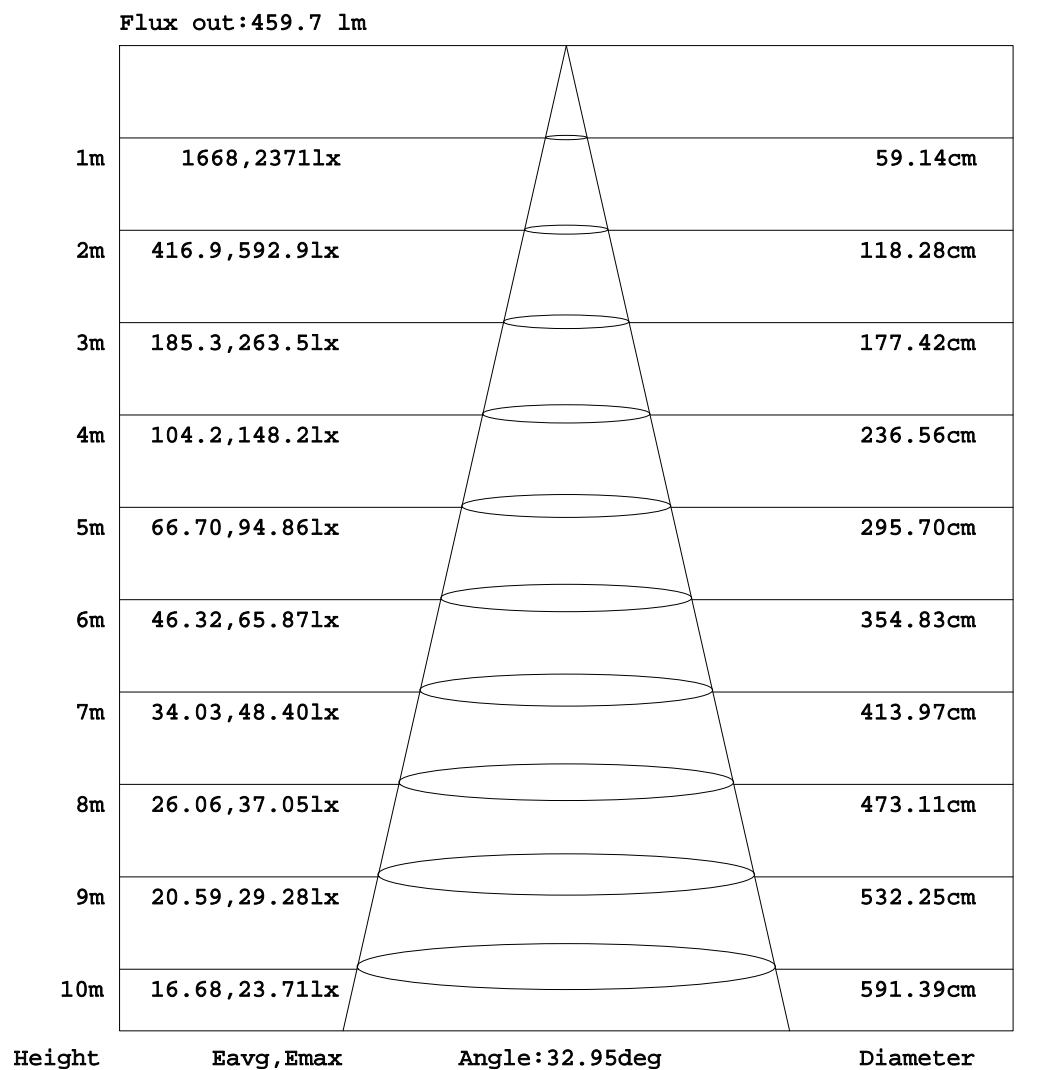


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

AAI Figure

Test:U:24.00V I:0.4302A P:10.32W PF:1.000 Freq:0Hz Lamp Flux:767.199x1 lm		
NAME: AFTER7 Maxi-H CV-3030	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		



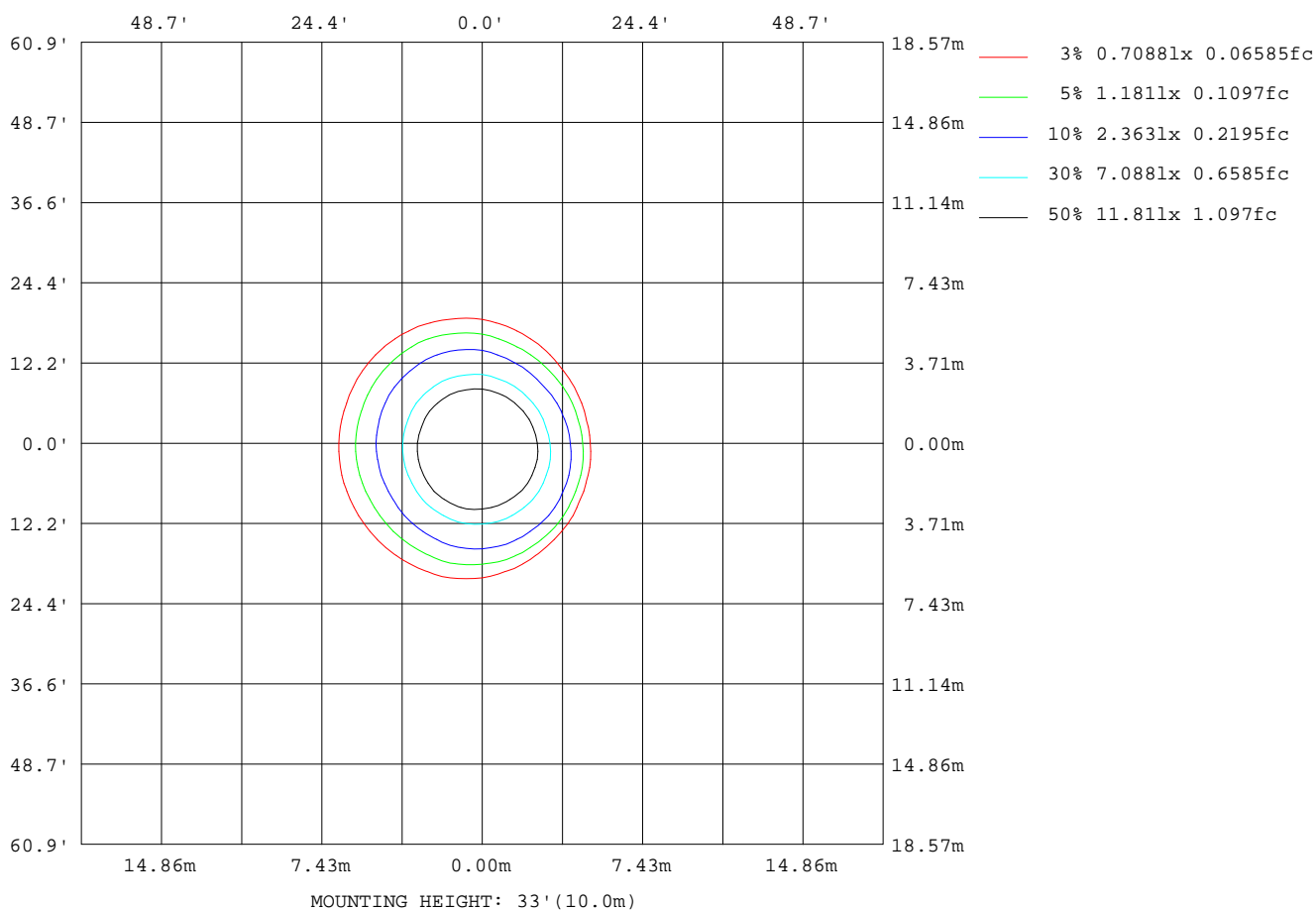
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:0.4302A P:10.32W PF:1.000 Freq:0Hz Lamp Flux:767.199x1 lm		
NAME: AFTER7 Maxi-H CV-3030	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:24.00V I:0.4302A P:10.32W PF:1.000 Freq:0Hz Lamp Flux:767.199x1 lm		
NAME: AFTER7 Maxi-H CV-3030	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		

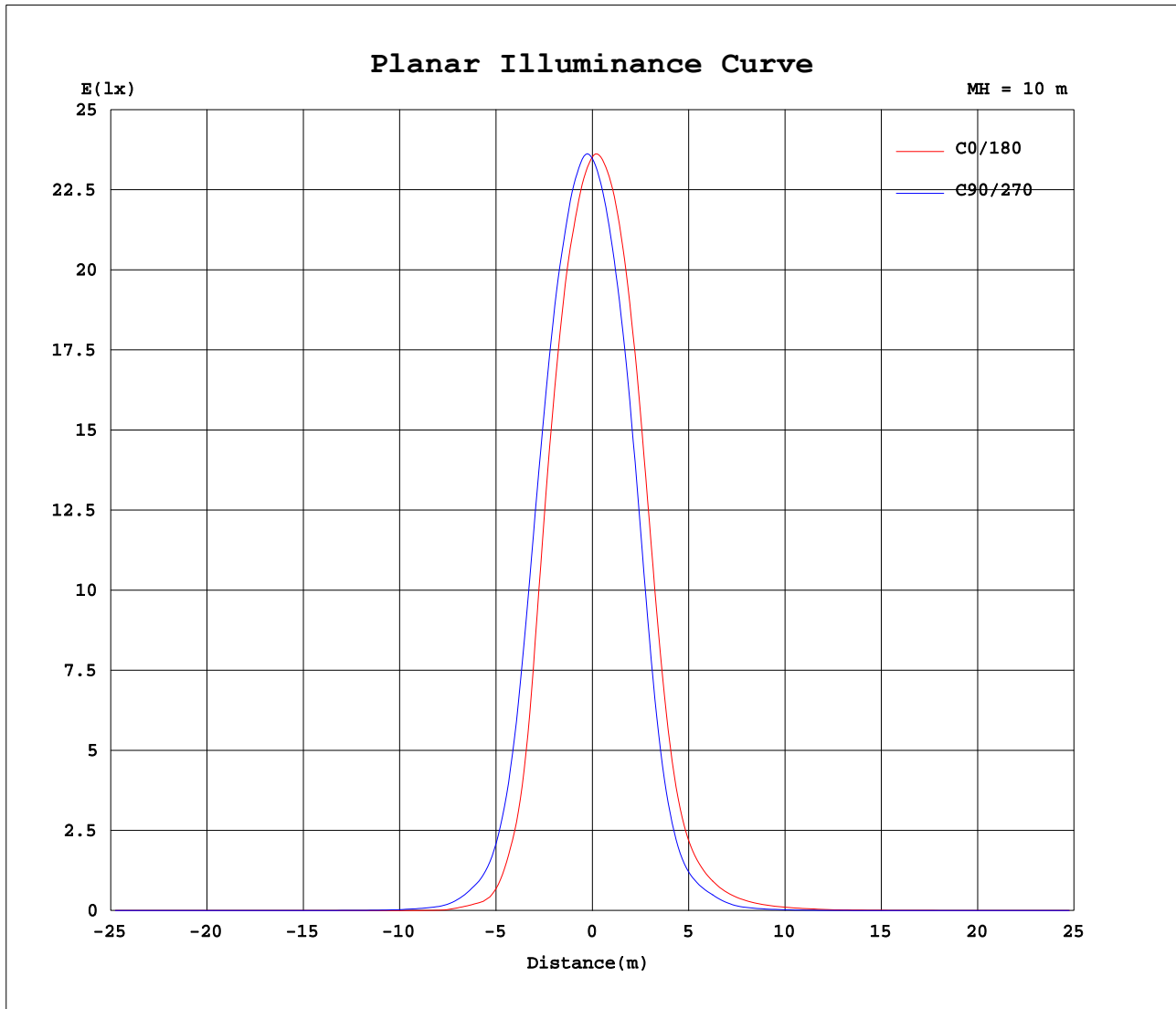
AvgL	cd/m2
L_0~180 (65) av	800
L_0~180 (75) av	653
L_0~180 (85) av	1105
L_90~270 (65) av	646
L_90~270 (75) av	441
L_90~270 (85) av	270
L_45 (65) av	614
L_45 (75) av	542
L_45 (85) av	859

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
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: Jason
Test Date: 2020-10-28

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

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