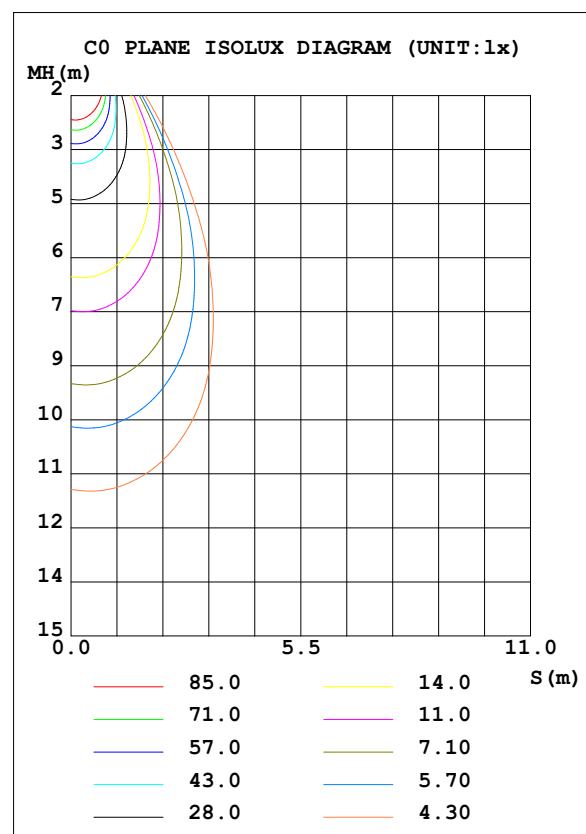
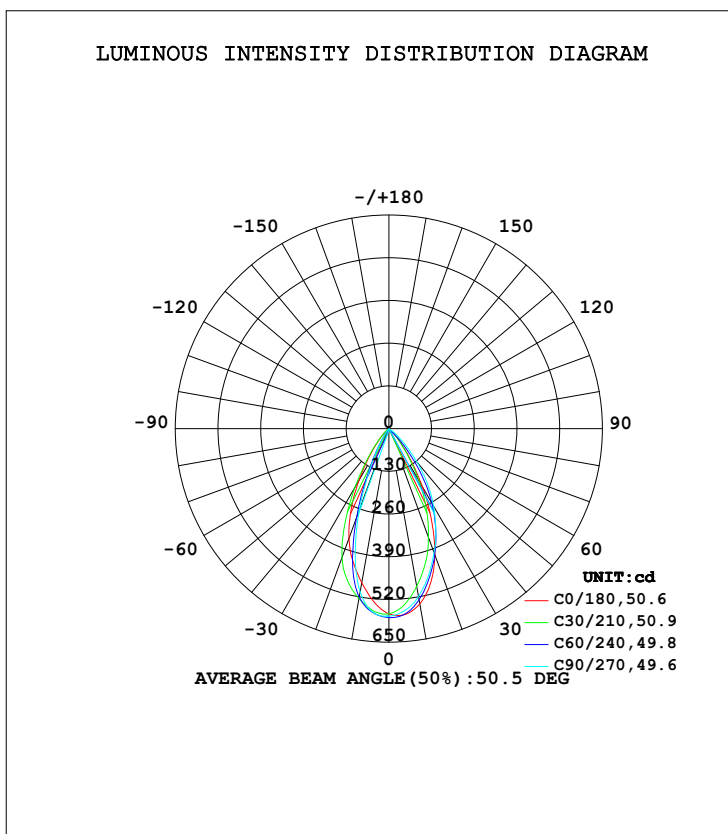


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.9V I:0.0355A P:7.842W PF:0.9003 Freq:59.90Hz Lamp Flux:411.876x1 lm		
NAME: MINUX 38-6W-930-50D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 38mm*H92mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 52.52 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	618.5	S/MH (C0/180)	0.76
NOMINAL POWER (W)	9	LOR (%)	100.0	S/MH (C90/270)	0.85
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	411.88	η UP, DN (C0-180)	0.0, 43.4
NOMINAL FLUX (lm)	411.876	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 56.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	0.80



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jasoan
Test Date: 2023-07-15

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	541.7	467.0	424.2	429.7	476.1	549.7	610.6	605.0	0- 10	51.24	51.24	12.4,12.4
20	408.9	334.7	292.7	302.1	355.2	447.2	511.3	488.7	10- 20	128.5	179.8	43.7,43.7
30	204.4	175.1	152.2	155.0	183.5	222.5	251.9	237.8	20- 30	134.9	314.7	76.4,76.4
40	54.08	48.90	44.95	46.11	54.73	61.81	64.20	62.05	30- 40	70.73	385.5	93.6,93.6
50	8.137	7.691	7.687	7.721	8.799	10.25	10.96	10.65	40- 50	20.72	406.2	98.6,98.6
60	2.520	2.452	2.480	2.443	2.396	2.407	2.490	2.622	50- 60	3.988	410.2	99.6,99.6
70	0.6082	0.6169	0.6545	0.6894	0.6565	0.6231	0.6181	0.5884	60- 70	1.289	411.4	99.9,99.9
80	0.1570	0.1416	0.1196	0.1667	0.1251	0.1479	0.1641	0.1322	70- 80	0.3692	411.8	100,100
90	0.0125	0.0094	0.0126	0.0126	0.0125	0.0126	0.0126	0.0126	80- 90	0.0566	411.9	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): 399.54 lm

%lum = 97.0%

%lamp = 97.0%

Conical surface Flux(120deg): 410.16 lm

%lum = 99.6%

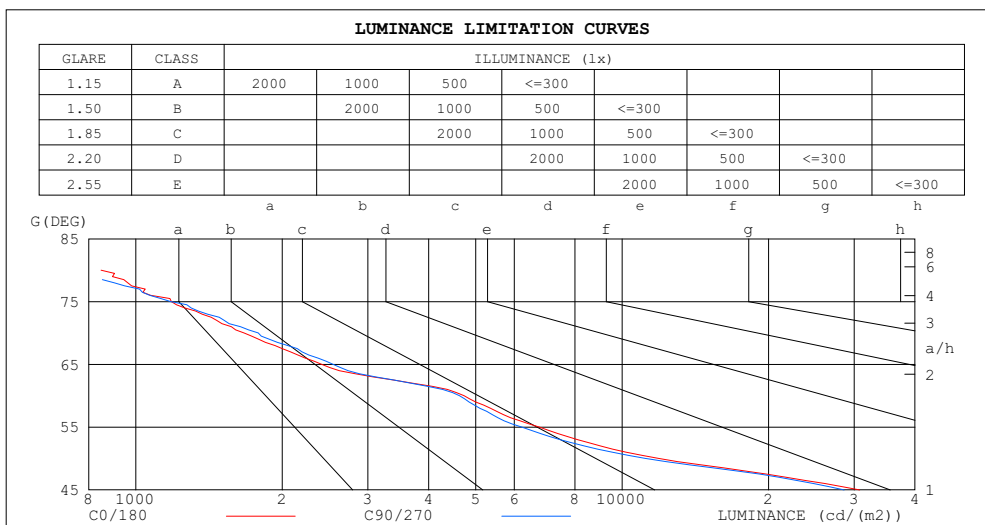
%lamp = 99.6%

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-15

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:220.9V I:0.0355A P:7.842W PF:0.9003 Freq:59.90Hz Lamp Flux:411.876x1 lm		
NAME: MINUX 38-6W-930-50D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 38mm*H92mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	408	135
80	849	643
75	1183	1180
70	1670	1786
65	2410	2544
60	4731	4629
55	6753	6216
50	11884	11158
45	30784	28599

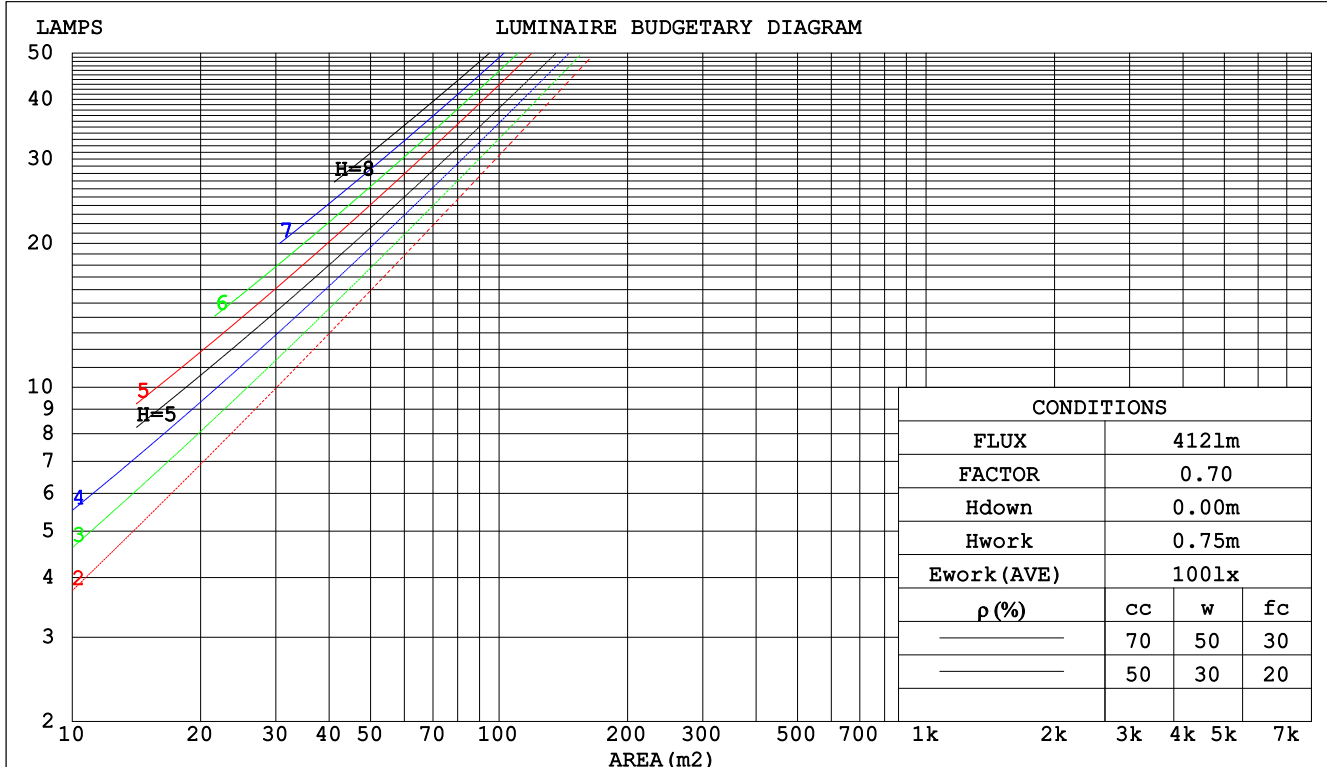
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-15

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:220.9V I:0.0355A P:7.842W PF:0.9003 Freq:59.90Hz Lamp Flux:411.876x1 lm		
NAME: MINUX 38-6W-930-50D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: \varnothing 38mm*H92mm	
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	1.00
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	.00	.97	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.88	.96	.91	.88	.93	.89	.86	.91	.88	.85	.88	.86	.84	.82
4.0	.91	.86	.82	.90	.85	.81	.88	.84	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.86	.80	.76	.85	.79	.76	.83	.78	.75	.81	.77	.74	.80	.76	.74	.72
6.0	.81	.75	.71	.80	.74	.71	.78	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.64
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.68	.64	.61	.60
9.0	.68	.63	.59	.68	.62	.59	.67	.62	.59	.66	.62	.58	.65	.61	.58	.57
10.0	.65	.59	.56	.64	.59	.56	.64	.59	.55	.63	.58	.55	.62	.58	.55	.54



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-15

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:220.9V I:0.0355A P:7.842W PF:0.9003 Freq:59.90Hz Lamp Flux:411.876x1 lm		
NAME: MINUX 38-6W-930-50D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 38mm*H92mm	
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						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.172	.098	.031	.165	.094	.030	.153	.088	.028	.141	.082	.026	.131	.076	.024		
2.0	.165	.090	.028	.159	.088	.027	.148	.082	.026	.139	.078	.024	.130	.073	.023		
3.0	.157	.083	.025	.152	.081	.024	.143	.077	.024	.135	.074	.023	.127	.070	.022		
4.0	.149	.077	.023	.145	.076	.022	.137	.073	.022	.130	.070	.021	.123	.067	.020		
5.0	.142	.072	.021	.139	.071	.021	.132	.069	.020	.126	.066	.020	.120	.064	.019		
6.0	.136	.068	.019	.133	.067	.019	.127	.065	.019	.121	.063	.019	.116	.061	.018		
7.0	.130	.064	.018	.127	.063	.018	.122	.062	.018	.117	.060	.017	.112	.058	.017		
8.0	.124	.061	.017	.122	.060	.017	.117	.059	.017	.113	.057	.016	.109	.056	.016		
9.0	.119	.058	.016	.117	.057	.016	.113	.056	.016	.109	.055	.016	.105	.053	.015		
10.0	.114	.055	.015	.112	.054	.015	.109	.053	.015	.105	.052	.015	.102	.051	.015		

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
PXP	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	.155	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.122	.098	.078	.084	.068	.055	.048	.040	.032	.016	.013	.011	
4.0	.132	.099	.073	.113	.085	.064	.078	.059	.045	.045	.035	.026	.015	.011	.009	
5.0	.123	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.037	.089	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.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:2023-07-15

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:220.9V I:0.0355A P:7.842W PF:0.9003 Freq:59.90Hz Lamp Flux:411.876x1 lm										
NAME: MINUX 38-6W-930-50D					TYPE:Downlight			SERIAL No.:		
SPEC.:3000K					DIM.: ϕ 38mm*H92mm					
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	22.8	23.7	23.0	23.9	24.0	21.8	22.7	22.0	22.9	23.1
3H	22.6	23.5	22.9	23.7	23.9	21.7	22.5	21.9	22.7	22.9
4H	22.5	23.3	22.8	23.5	23.8	21.6	22.4	21.9	22.6	22.8
6H	22.4	23.2	22.7	23.4	23.7	21.5	22.2	21.8	22.5	22.7
8H	22.4	23.1	22.7	23.4	23.6	21.5	22.2	21.8	22.4	22.7
12H	22.4	23.0	22.7	23.3	23.6	21.4	22.1	21.7	22.4	22.6
4H 2H	22.5	23.3	22.8	23.5	23.8	21.6	22.4	21.9	22.6	22.8
3H	22.4	23.1	22.7	23.3	23.6	21.4	22.1	21.8	22.4	22.7
4H	22.3	22.9	22.6	23.2	23.5	21.4	22.0	21.7	22.3	22.6
6H	22.2	22.7	22.6	23.1	23.4	21.3	21.8	21.6	22.1	22.5
8H	22.1	22.6	22.5	23.0	23.4	21.2	21.7	21.6	22.1	22.4
12H	22.1	22.6	22.5	22.9	23.3	21.2	21.6	21.6	22.0	22.4
8H 4H	22.1	22.6	22.5	23.0	23.4	21.2	21.7	21.6	22.1	22.4
6H	22.0	22.5	22.5	22.8	23.3	21.1	21.5	21.5	21.9	22.3
8H	22.0	22.4	22.4	22.8	23.2	21.1	21.4	21.5	21.8	22.3
12H	21.9	22.2	22.4	22.7	23.2	21.0	21.3	21.5	21.8	22.2
12H 4H	22.1	22.6	22.5	22.9	23.3	21.2	21.6	21.6	22.0	22.4
6H	22.0	22.4	22.4	22.8	23.2	21.1	21.4	21.5	21.8	22.3
8H	21.9	22.2	22.4	22.7	23.2	21.0	21.3	21.5	21.8	22.2
Variations with the observer position at spacings:										
S = 1.0H	+ 3.5 / -10.6					+ 2.8 / - 9.7				
1.5H	+ 5.7 / - 9.0					+ 4.9 / - 8.3				
2.0H	+ 6.6 / - 7.4					+ 6.2 / - 6.7				

CIE Pub.117, 411.9 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -3.1$)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-15

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:220.9V I:0.0355A P:7.842W PF:0.9003 Freq:59.90Hz Lamp Flux:411.876x1 lm		
NAME: MINUX 38-6W-930-50D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ38mm*H92mm	
MFR.: NEKO LIGHTING AG		

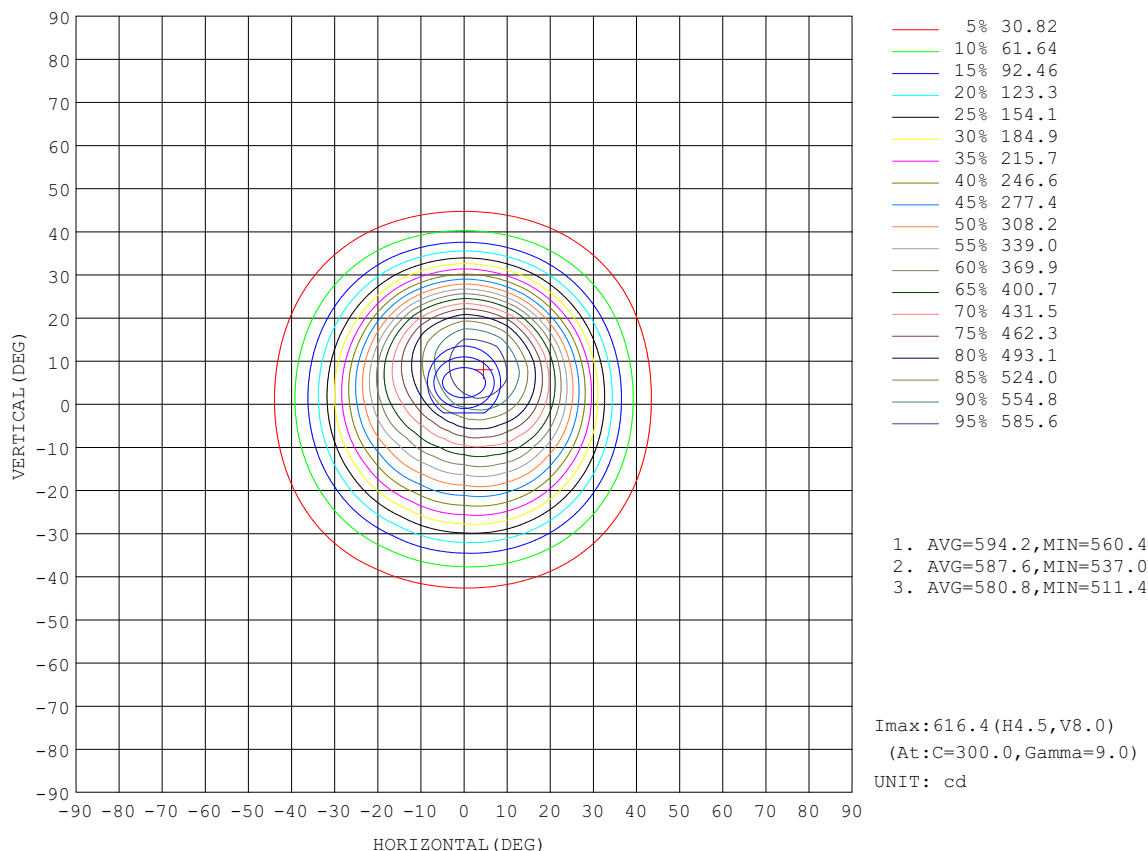
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	81	77	87	81	77	86	81	77	74
0.80	95	89	85	94	89	85	93	88	85	81
1.00	99	94	90	99	94	90	97	93	90	86
1.25	103	98	95	102	98	95	100	97	94	90
1.50	106	101	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	105	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	106	105	98
5.00	115	113	111	113	111	109	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:2023-07-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:ΕΞΕΡΦΙΝΕ ΓΟ-2000B_ς1 ΣΥΣΤΗΜ ς2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.9V I:0.0355A P:7.842W PF:0.9003 Freq:59.90Hz Lamp Flux:411.876x1 lm		
NAME: MINUX 38-6W-930-50D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 38mm*H92mm	
MFR.: NEKO LIGHTING AG		

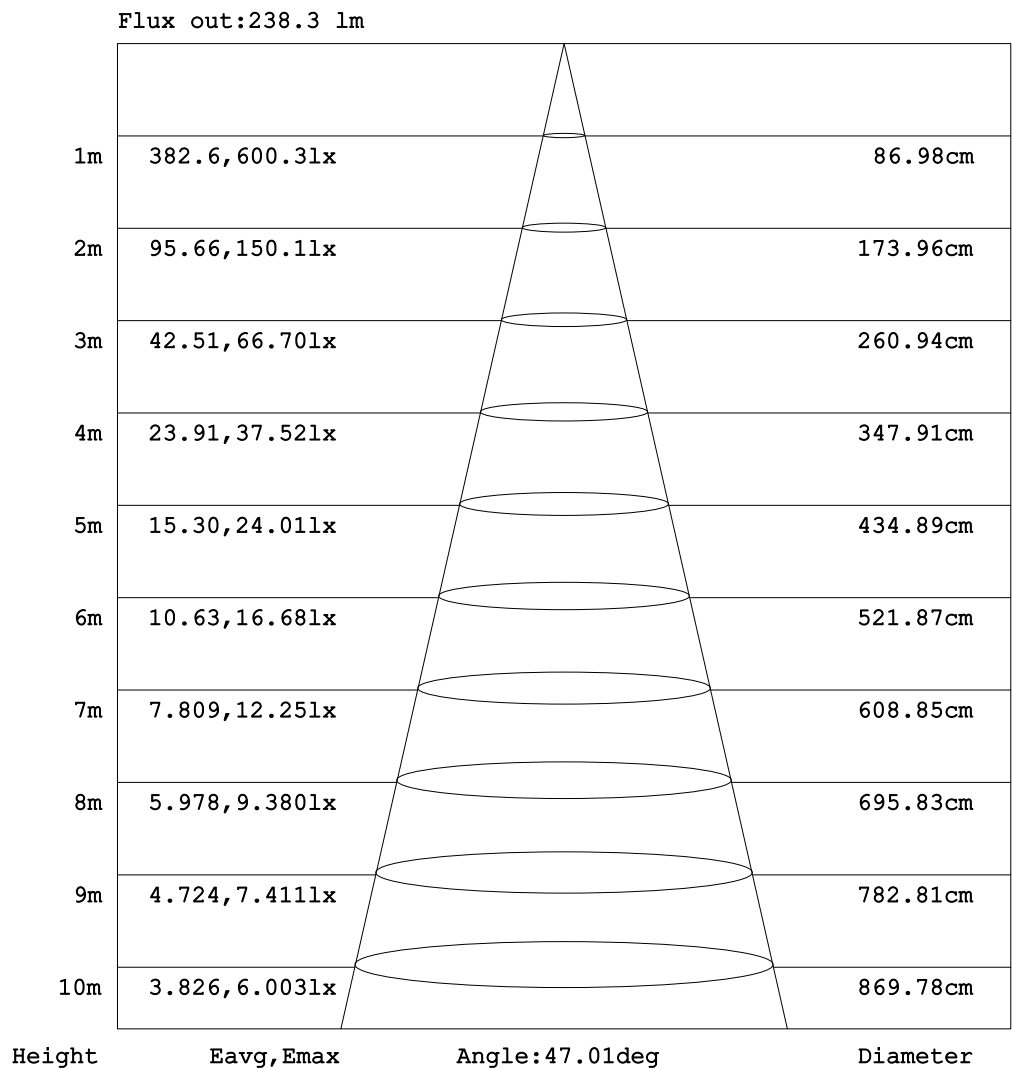


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-15

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:220.9V I:0.0355A P:7.842W PF:0.9003 Freq:59.90Hz Lamp Flux:411.876x1 lm		
NAME: MINUX 38-6W-930-50D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 38mm*H92mm	
MFR.: NEKO LIGHTING AG		



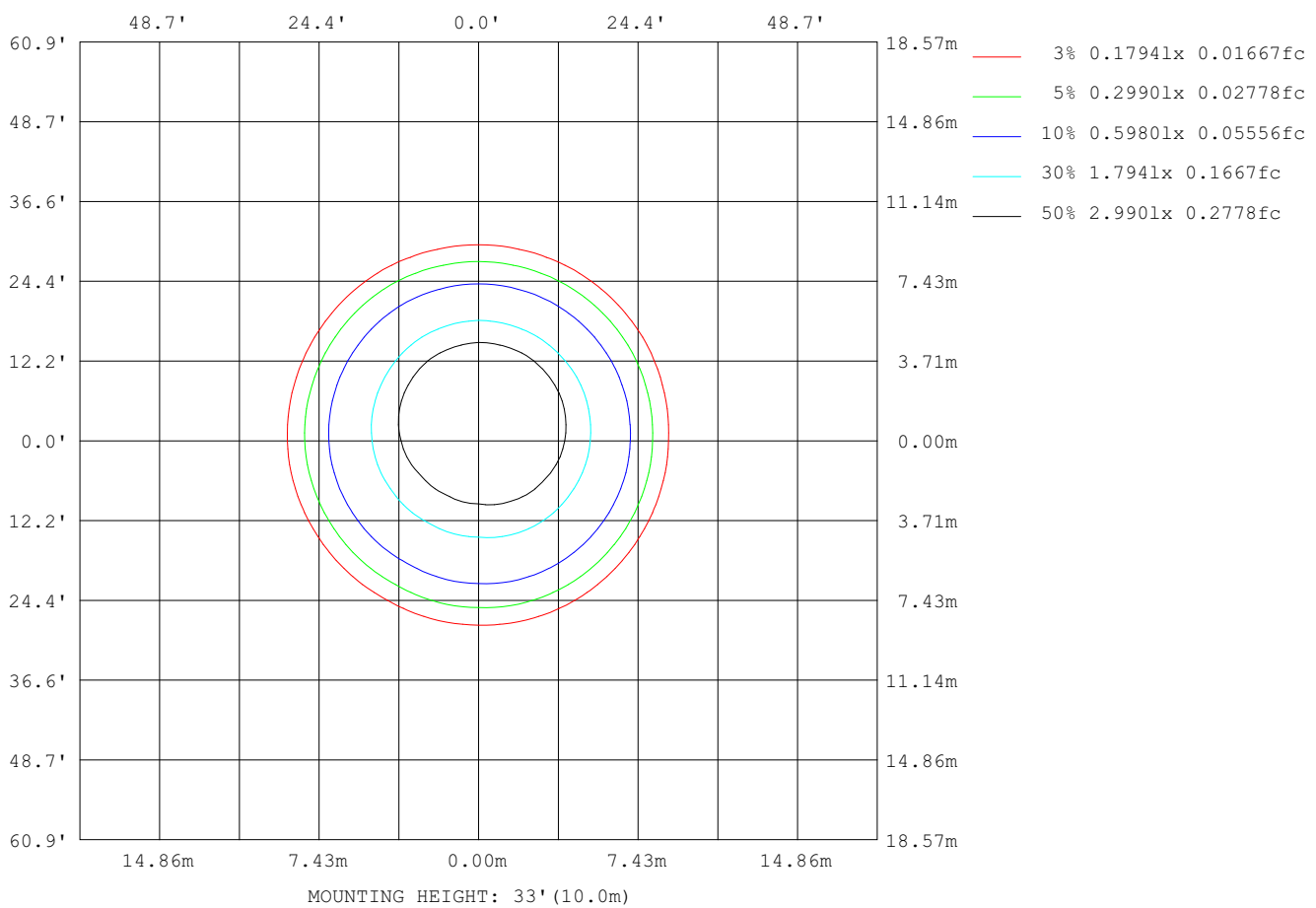
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-15

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:220.9V I:0.0355A P:7.842W PF:0.9003 Freq:59.90Hz Lamp Flux:411.876x1 lm		
NAME: MINUX 38-6W-930-50D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 38mm*H92mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-15

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:220.9V I:0.0355A P:7.842W PF:0.9003 Freq:59.90Hz Lamp Flux:411.876x1 lm		
NAME: MINUX 38-6W-930-50D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: \varnothing 38mm*H92mm	
MFR.: NEKO LIGHTING AG		

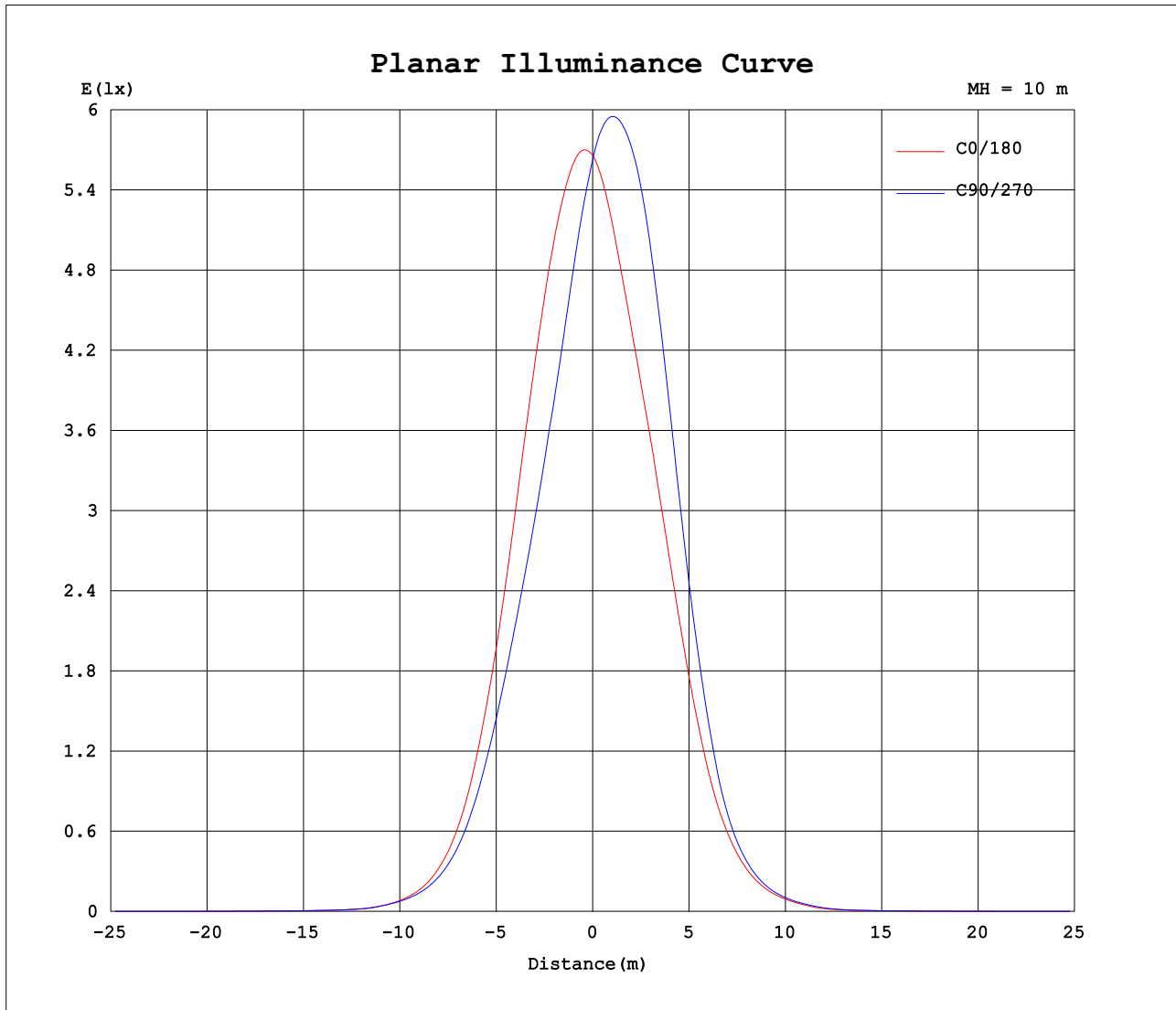
AvgL	cd/m2
L_0~180 (65) av	2472
L_0~180 (75) av	1187
L_0~180 (85) av	270
L_90~270 (65) av	2488
L_90~270 (75) av	1206
L_90~270 (85) av	373
L_45 (65) av	2474
L_45 (75) av	1203
L_45 (85) av	322

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-07-15

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: 2023-07-15

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:

```

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:

```