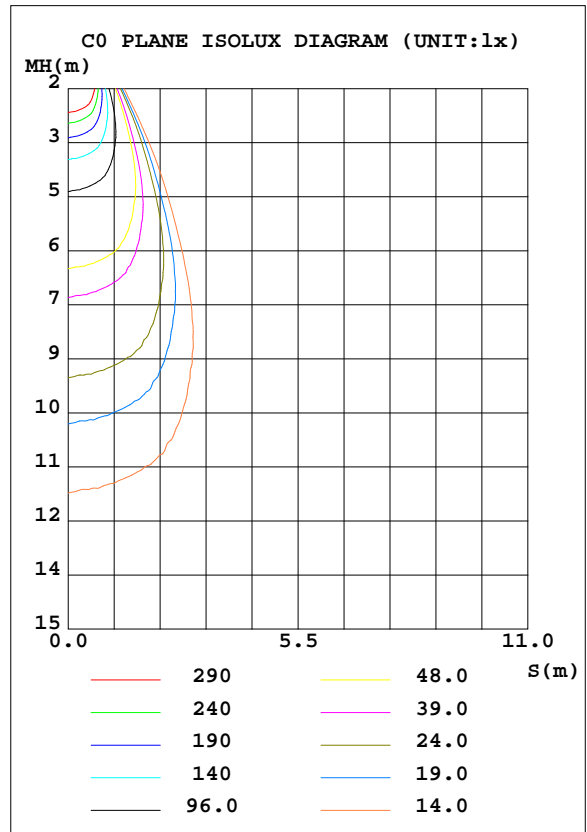
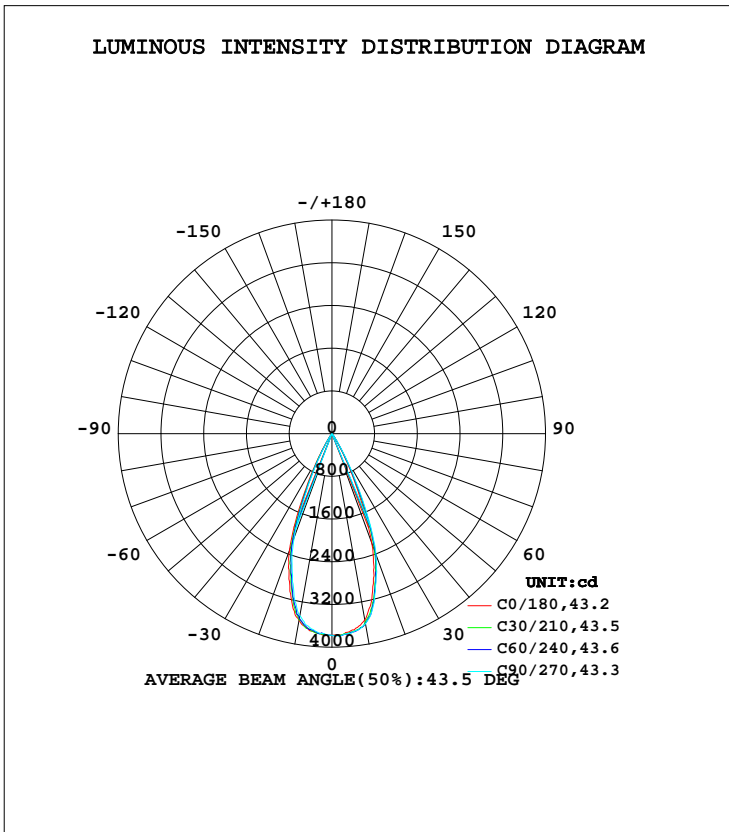


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 61.62 lm/W			
MODEL	OSRAM-3000K	I _{max} (cd)	1929	S/MH(C0/180)	0.61
NOMINAL POWER(W)	13	LOR(%)	100.0	S/MH(C90/270)	0.64
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	864.94	η UP, DN(C0-180)	0.0,49.3
NOMINAL FLUX(lm)	864.937	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,50.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.65



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-02-15

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	1791	1753	1710	1673	1702	1740	1777	1787	0- 10	174.8	174.8	20.2,20.2
20	1146	1074	980.5	927.6	954.0	1030	1091	1140	10- 20	393.1	567.9	65.7,65.7
30	259.8	221.7	168.7	138.2	137.1	164.4	212.3	255.9	20- 30	251.2	819.1	94.7,94.7
40	19.09	15.57	11.35	9.763	9.718	11.14	13.04	17.50	30- 40	41.19	860.3	99.5,99.5
50	0.6432	0.4711	0.4138	0.5775	0.4300	0.4901	0.5610	0.5692	40- 50	2.519	862.8	99.8,99.8
60	0.3270	0.2695	0.4139	0.6293	0.4360	0.4276	0.4358	0.3621	50- 60	0.4038	863.2	99.8,99.8
70	0.2015	0.2287	0.4139	0.9503	0.6700	0.4549	0.4139	0.2642	60- 70	0.4285	863.6	99.9,99.9
80	0.1253	0.3075	0.4575	0.9746	0.7351	0.5612	0.6419	0.3379	70- 80	0.4991	864.1	99.9,99.9
90	0.0272	0.3758	0.4085	1.087	0.5773	0.5065	1.737	1.476	80- 90	0.7890	864.9	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): 862.52 lm

%lum = 99.7%
%lamp = 99.7%

Conical surface Flux(120deg): 863.22 lm

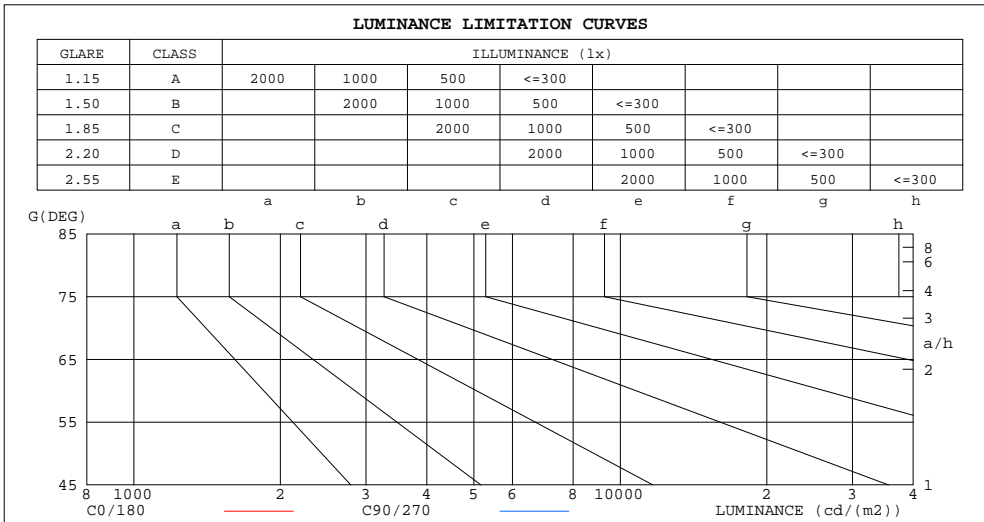
%lum = 99.8%
%lamp = 99.8%

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-02-15

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:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	127	545
80	105	383
75	83	229
70	86	176
65	86	140
60	95	120
55	112	103
50	145	94
45	527	236

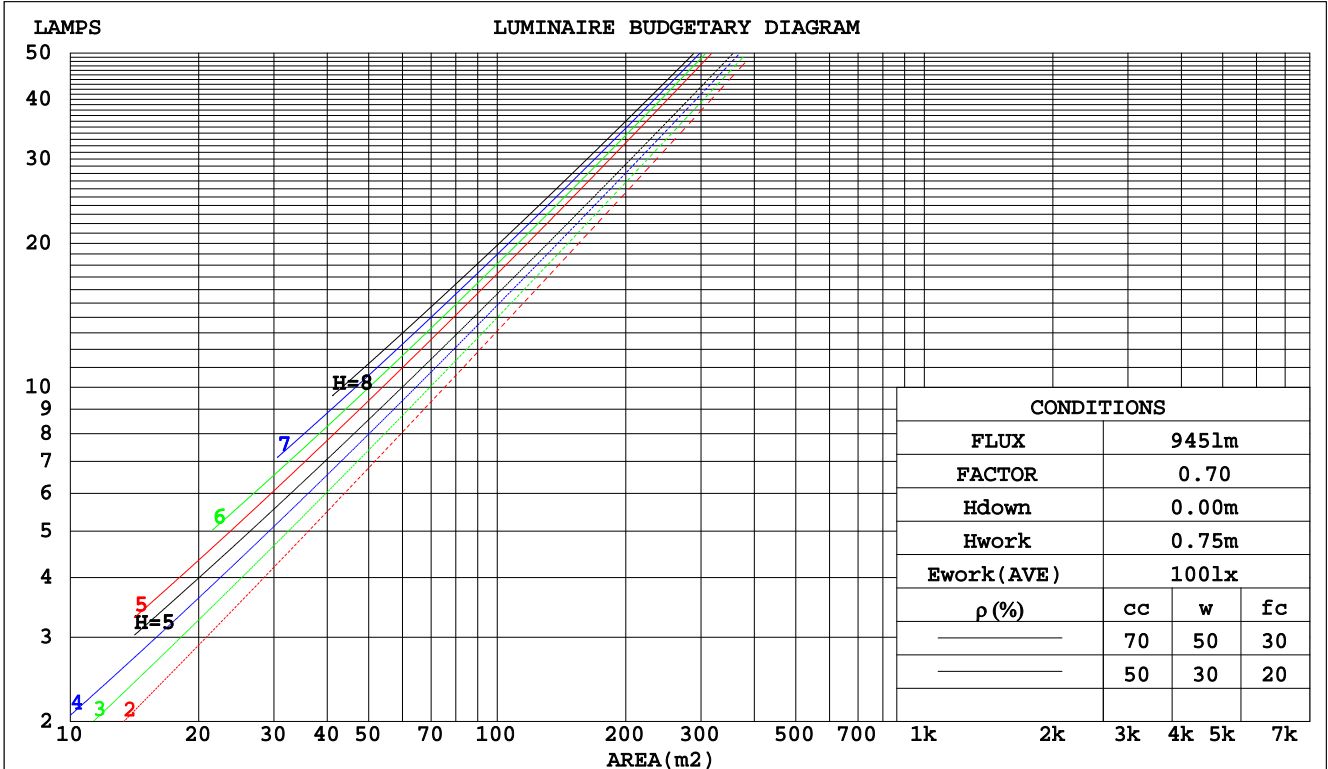
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-02-15

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:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
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	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	1.00	1.05	1.02	.99	1.01	.99	.97	.98	.97	.95	.96	.94	.93	.91
3.0	1.01	.97	.94	.90	.96	.93	.97	.94	.91	.95	.92	.90	.93	.91	.89	.87
4.0	.96	.92	.88	.95	.91	.88	.93	.90	.87	.91	.88	.86	.89	.87	.85	.84
5.0	.92	.87	.84	.91	.87	.83	.89	.86	.83	.88	.85	.82	.86	.84	.81	.80
6.0	.88	.83	.80	.87	.83	.79	.86	.82	.79	.84	.81	.78	.83	.80	.78	.77
7.0	.84	.79	.76	.84	.79	.76	.82	.78	.76	.81	.78	.75	.80	.77	.75	.74
8.0	.81	.76	.73	.80	.76	.73	.79	.75	.72	.78	.75	.72	.78	.74	.72	.71
9.0	.78	.73	.70	.77	.73	.70	.76	.72	.70	.76	.72	.69	.75	.72	.69	.68
10.0	.75	.70	.67	.74	.70	.67	.74	.70	.67	.73	.69	.67	.72	.69	.67	.65



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jasoan
 Test Date: 2023-02-15

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:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
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	.150	.085	.027	.144	.082	.026	.131	.075	.024	.120	.069	.022	.109	.063	.020	
2.0	.140	.077	.024	.135	.074	.023	.125	.069	.022	.115	.065	.020	.106	.060	.019	
3.0	.132	.070	.021	.127	.068	.021	.119	.064	.020	.111	.061	.019	.103	.057	.018	
4.0	.125	.065	.019	.121	.063	.019	.113	.060	.018	.106	.057	.017	.100	.054	.017	
5.0	.118	.060	.017	.115	.059	.017	.108	.056	.017	.103	.054	.016	.097	.052	.016	
6.0	.113	.056	.016	.110	.055	.016	.104	.053	.016	.099	.051	.015	.094	.050	.015	
7.0	.107	.053	.015	.105	.052	.015	.100	.051	.015	.096	.049	.014	.091	.047	.014	
8.0	.103	.050	.014	.101	.050	.014	.096	.048	.014	.092	.047	.014	.089	.046	.013	
9.0	.099	.048	.013	.097	.047	.013	.093	.046	.013	.089	.045	.013	.086	.044	.013	
10.0	.095	.046	.013	.093	.045	.013	.090	.044	.012	.087	.043	.012	.084	.042	.012	

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	.147	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.116	.130	.114	.101	.089	.079	.070	.051	.046	.041	.017	.015	.013	
3.0	.138	.113	.094	.118	.098	.081	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.126	.098	.077	.108	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.116	.086	.064	.100	.075	.056	.069	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.108	.076	.054	.093	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.006	
7.0	.101	.068	.046	.087	.059	.040	.060	.042	.028	.035	.025	.017	.011	.008	.006	
8.0	.095	.062	.039	.082	.054	.034	.056	.038	.024	.033	.022	.014	.011	.007	.005	
9.0	.090	.056	.034	.077	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.085	.052	.030	.073	.045	.026	.051	.032	.019	.030	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-02-15

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:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
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	8.4	9.1	8.6	9.3	9.4	6.1	6.9	6.3	7.0	7.2
3H	8.2	8.9	8.5	9.1	9.3	6.0	6.7	6.2	6.9	7.1
4H	8.2	8.8	8.4	9.0	9.2	5.9	6.6	6.2	6.8	7.0
6H	8.1	8.7	8.4	8.9	9.2	5.9	6.5	6.2	6.7	7.0
8H	8.0	8.6	8.3	8.9	9.1	5.9	6.5	6.2	6.7	7.0
12H	8.0	8.6	8.3	8.8	9.1	5.9	6.5	6.2	6.7	7.0
4H 2H	8.2	8.8	8.4	9.0	9.2	5.9	6.5	6.2	6.8	7.0
3H	8.0	8.5	8.3	8.8	9.1	5.7	6.3	6.0	6.6	6.8
4H	7.9	8.4	8.2	8.7	9.0	5.7	6.2	6.0	6.5	6.8
6H	7.8	8.2	8.2	8.6	8.9	5.6	6.1	6.0	6.4	6.8
8H	7.7	8.2	8.1	8.5	8.9	5.7	6.1	6.1	6.5	6.8
12H	7.7	8.1	8.1	8.4	8.8	5.7	6.1	6.1	6.5	6.9
8H 4H	7.7	8.2	8.1	8.5	8.9	5.5	6.0	5.9	6.3	6.7
6H	7.6	8.0	8.1	8.4	8.8	5.5	5.9	6.0	6.3	6.7
8H	7.6	7.9	8.0	8.3	8.7	5.6	6.0	6.1	6.4	6.8
12H	7.5	7.8	8.0	8.2	8.7	5.8	6.1	6.3	6.5	7.0
12H 4H	7.7	8.1	8.1	8.4	8.8	5.5	5.9	5.9	6.2	6.6
6H	7.6	7.9	8.0	8.3	8.8	5.5	5.8	5.9	6.2	6.7
8H	7.5	7.8	8.0	8.2	8.7	5.6	5.9	6.1	6.3	6.8
Variations with the observer position at spacings:										
S = 1.0H	+ 4.7 / -12.1					+ 3.3 / - 4.7				
1.5H	+ 7.4 / -12.0					+ 5.9 / - 5.0				
2.0H	+ 4.2 / - 0.7					+ 0.3 / - 0.3				

CIE Pub.117, 864.9 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.5)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-02-15

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:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

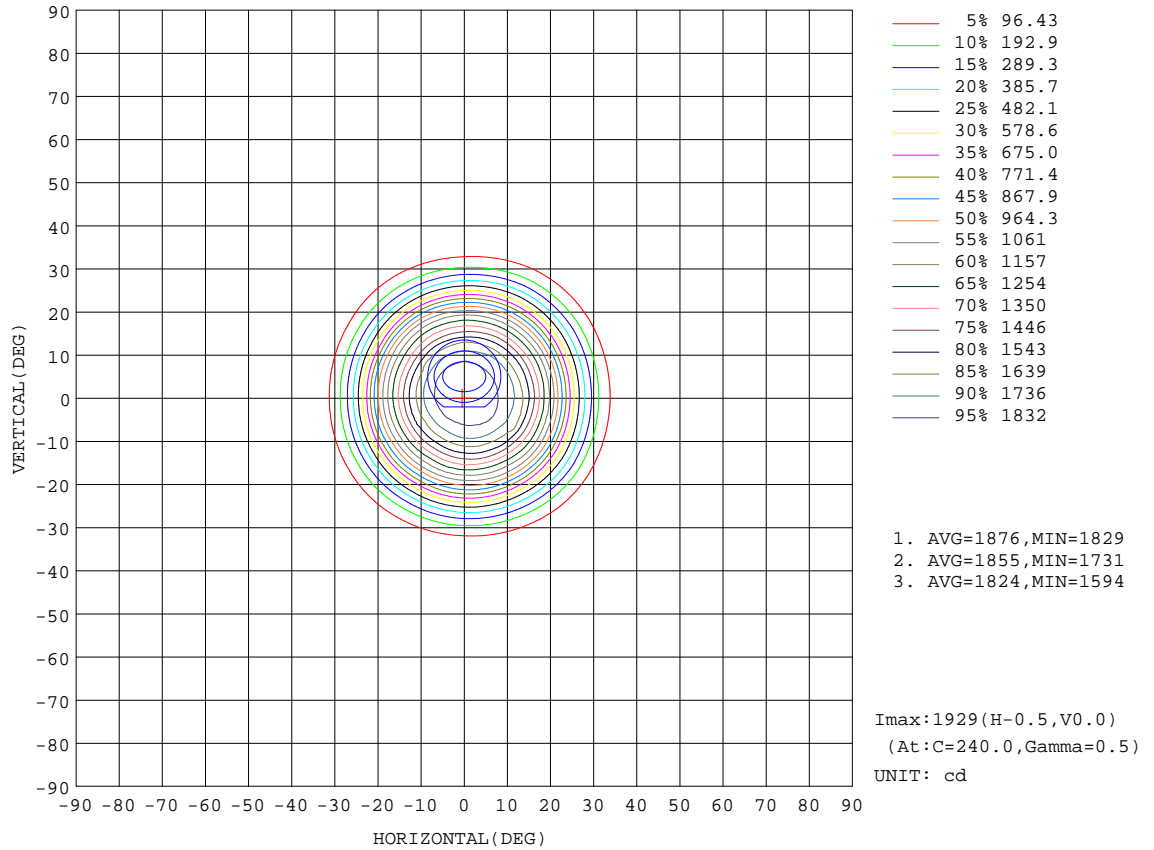
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	91	86	82	91	85	82	90	85	82	79
0.80	98	93	90	98	93	90	96	92	89	86
1.00	102	97	94	101	96	93	100	96	93	89
1.25	105	101	98	104	100	97	102	99	96	93
1.50	108	104	101	107	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	108	106	104	98
4.00	115	112	110	113	110	109	109	107	106	99
5.00	116	114	112	114	112	111	110	109	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:2023-02-15

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:

ISOCANDELA DIAGRAM

Test:U:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

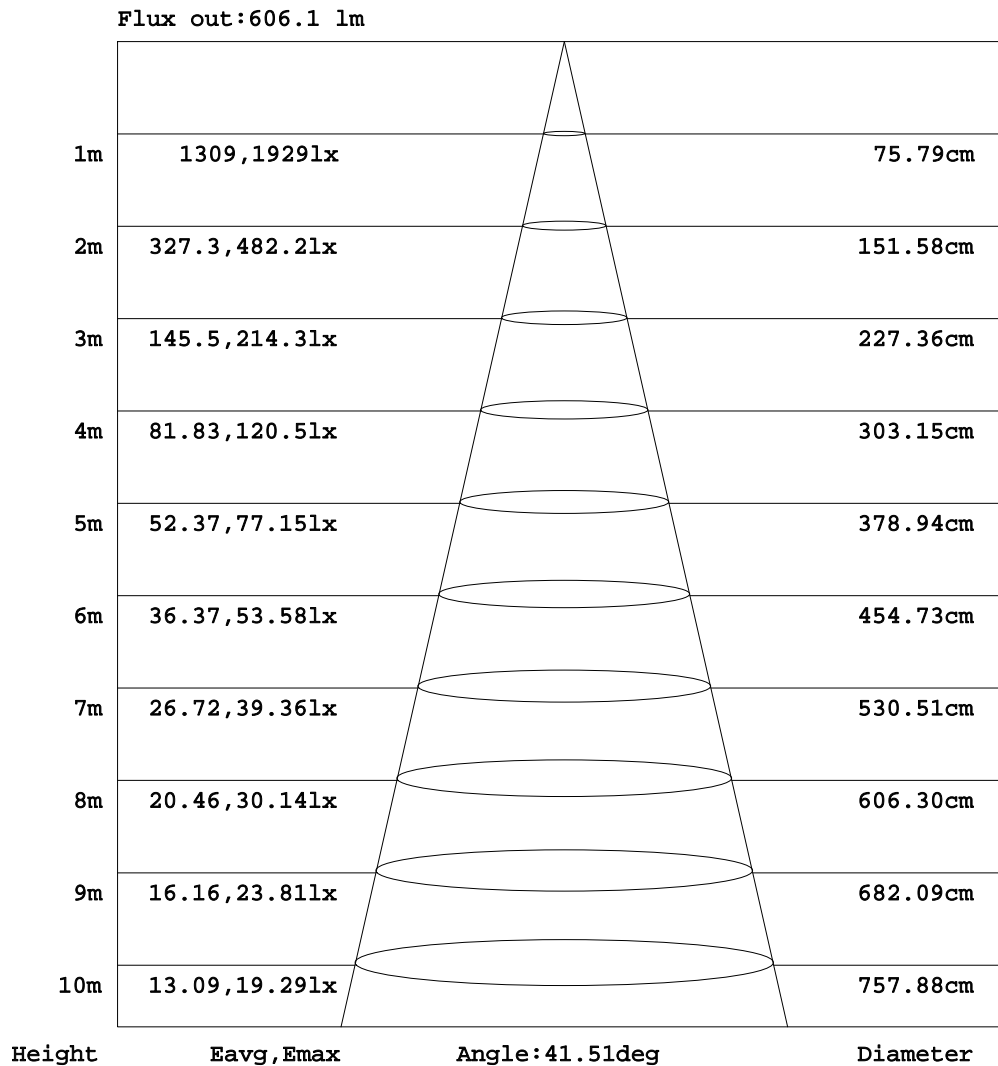


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-02-15

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:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



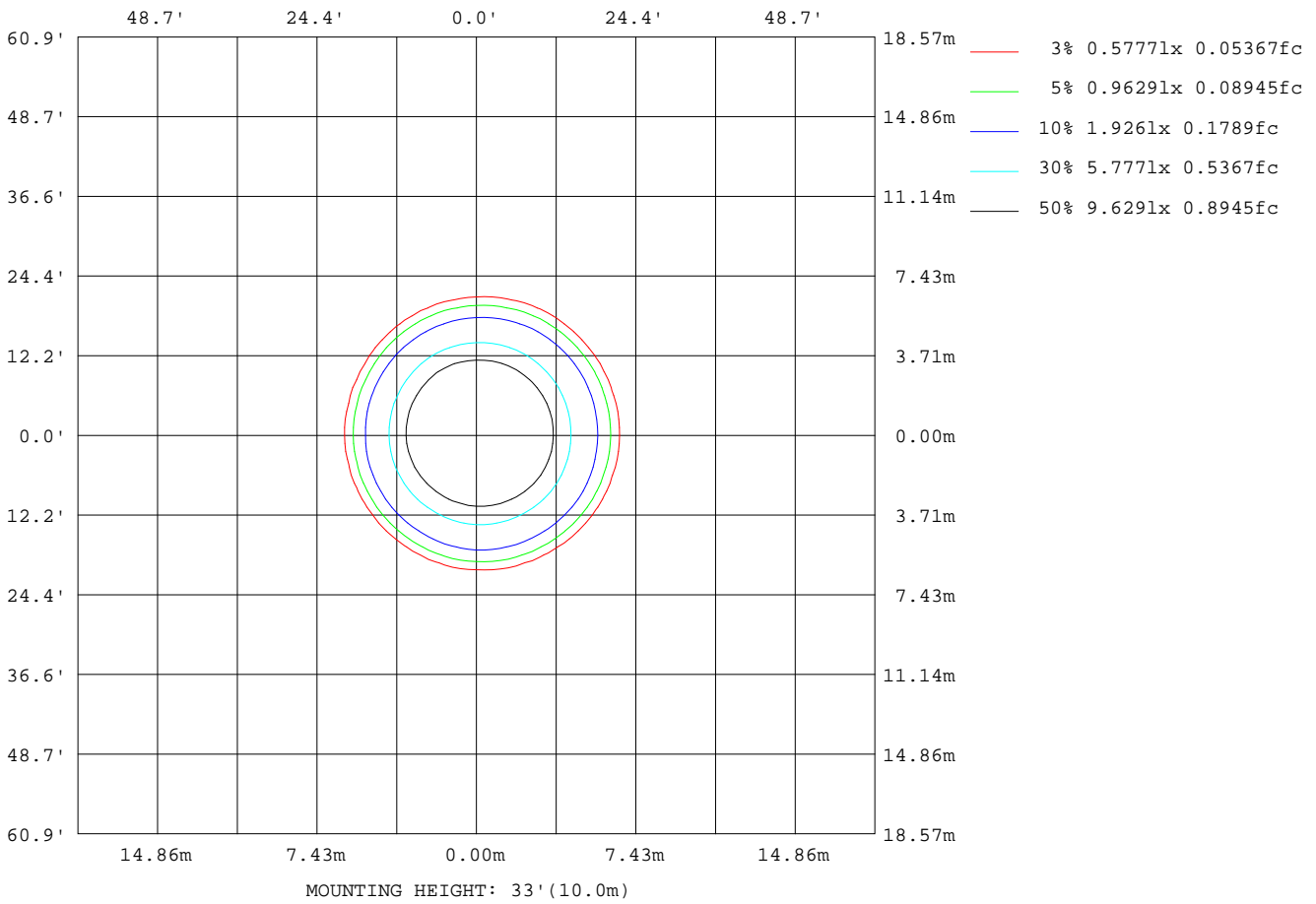
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-02-15

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:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-02-15

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:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

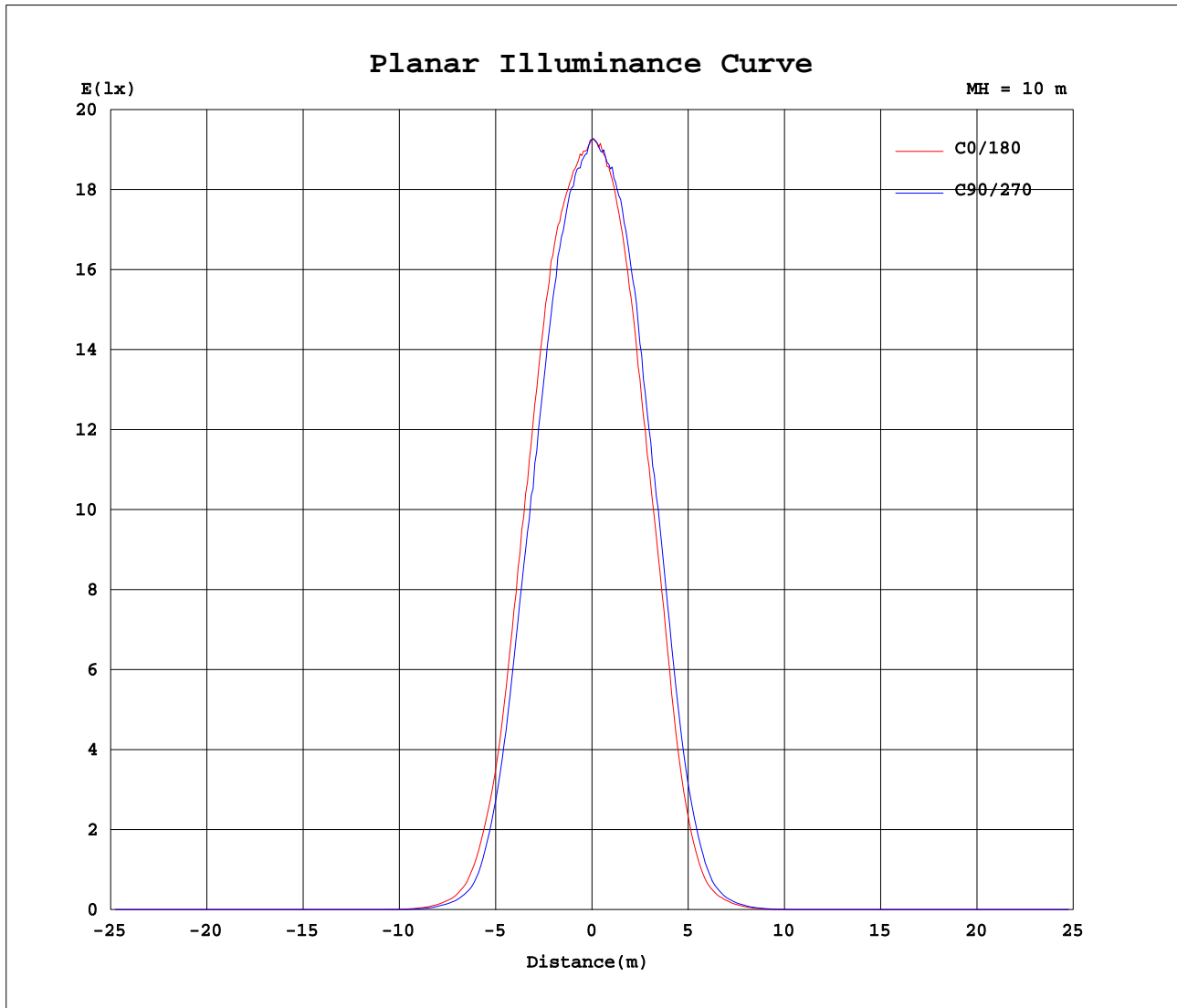
AvgL	cd/m2
L_0~180(65)av	137
L_0~180(75)av	228
L_0~180(85)av	991
L_90~270(65)av	143
L_90~270(75)av	232
L_90~270(85)av	1337
L_45(65)av	150
L_45(75)av	274
L_45(85)av	1414

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2023-02-15

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: 2023-02-15

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.7V I:0.0636A P:14.04W PF:0.9004 Freq:49.90Hz Lamp Flux:864.937x1 lm		
NAME: FF5-11W-930-40D	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L153mm*W45mm*H60mm	
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	1926	1927	1924	1926	1925	1924	1926	1927	1924	1926	1925	1924						
5	1874	1867	1862	1856	1847	1847	1878	1886	1901	1885	1880	1880						
10	1791	1769	1736	1710	1673	1672	1702	1723	1757	1777	1794	1780						
15	1548	1505	1433	1379	1335	1339	1368	1399	1441	1472	1521	1543						
20	1146	1108	1039	981	928	927	954	993	1067	1091	1128	1152						
25	628	608	548	502	449	429	442	469	526	576	625	639						
30	260	244	200	169	144	132	137	150	179	212	249	263						
35	70.8	65.6	52.0	45.2	41.2	39.8	41.3	43.2	49.5	54.0	64.7	70.7						
40	19.1	17.4	13.7	11.3	9.91	9.61	9.72	10.3	12.0	13.0	16.6	18.4						
45	2.56	2.10	1.45	1.15	0.89	0.96	0.73	0.86	1.18	1.57	2.25	2.53						
50	0.64	0.49	0.45	0.41	0.54	0.61	0.43	0.52	0.46	0.56	0.55	0.59						
55	0.44	0.33	0.34	0.41	0.50	0.64	0.41	0.47	0.42	0.47	0.44	0.45						
60	0.33	0.24	0.30	0.41	0.47	0.78	0.44	0.44	0.41	0.44	0.36	0.36						
65	0.25	0.17	0.30	0.41	0.48	1.09	0.54	0.44	0.40	0.42	0.30	0.29						
70	0.20	0.16	0.30	0.41	0.58	1.32	0.67	0.50	0.41	0.41	0.29	0.23						
75	0.15	0.15	0.30	0.41	0.72	1.15	0.66	0.54	0.45	0.42	0.33	0.19						
80	0.13	0.15	0.46	0.46	0.89	1.06	0.74	0.56	0.56	0.64	0.49	0.19						
85	0.08	0.11	0.81	0.33	0.89	1.51	1.11	0.92	1.03	1.28	0.99	0.39						
90	0.03	0.08	0.68	0.41	1.11	1.06	0.58	0.34	0.68	1.74	1.79	1.16						

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-02-15

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: