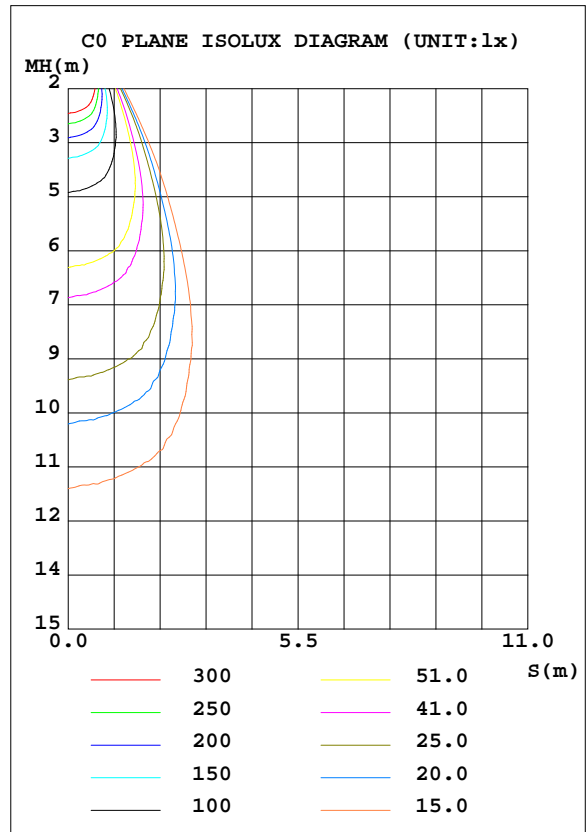
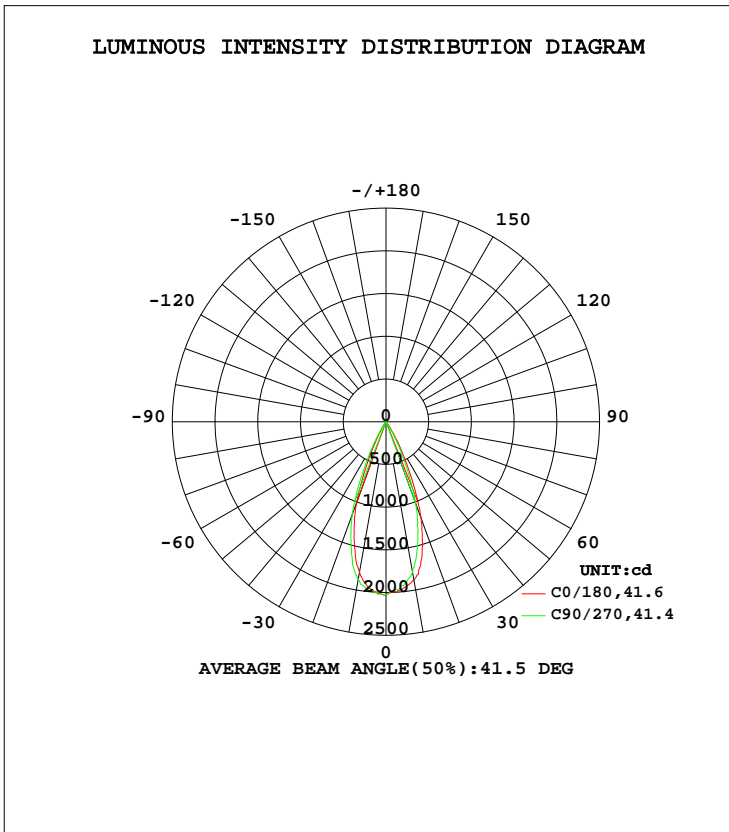


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.3V I:0.0636A P:14.00W PF:0.9002 Freq:49.90Hz Lamp Flux:909.756x1 lm		
NAME: FF5-11W-940-40D	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 64.98 lm/W
MODEL	OSRAM-4000K	I _{max} (cd)	2030	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)	909.76	η UP, DN(C0-180)		0.0,49.8
NOMINAL FLUX(lm)	909.756	CIE CLASS	DIRECT	η UP, DN(C180-360)		0.0,50.2
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: 45.0DEG
 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	1887	1857	1791	1759	1786	1835	1873	1886	0- 10	184.0	184.0	20.2,20.2
20	1205	1126	1017	997.3	1000	1072	1156	1184	10- 20	413.8	597.8	65.7,65.7
30	273.6	236.4	175.1	144.8	143.4	168.2	226.5	266.0	20- 30	263.9	861.6	94.7,94.7
40	20.13	16.77	11.59	10.46	10.17	11.40	14.13	18.24	30- 40	43.27	904.9	99.5,99.5
50	0.6813	0.4573	0.4850	0.5880	0.4571	0.5502	0.5280	0.6268	40- 50	2.656	907.6	99.8,99.8
60	0.3489	0.2396	0.4303	0.5994	0.4631	0.5010	0.4248	0.3868	50- 60	0.4163	908.0	99.8,99.8
70	0.2070	0.2179	0.4356	0.9477	0.7135	0.4902	0.4248	0.2670	60- 70	0.4367	908.4	99.9,99.9
80	0.1307	0.3489	0.4735	0.9970	0.7787	0.5936	0.6766	0.4132	70- 80	0.5053	908.9	99.9,99.9
90	0.0218	0.3431	0.4139	1.372	0.6372	0.5174	1.754	1.639	80- 90	0.8341	909.8	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): 907.25 lm

%lum = 99.7%

%lamp = 99.7%

Conical surface Flux(120deg): 907.98 lm

%lum = 99.8%

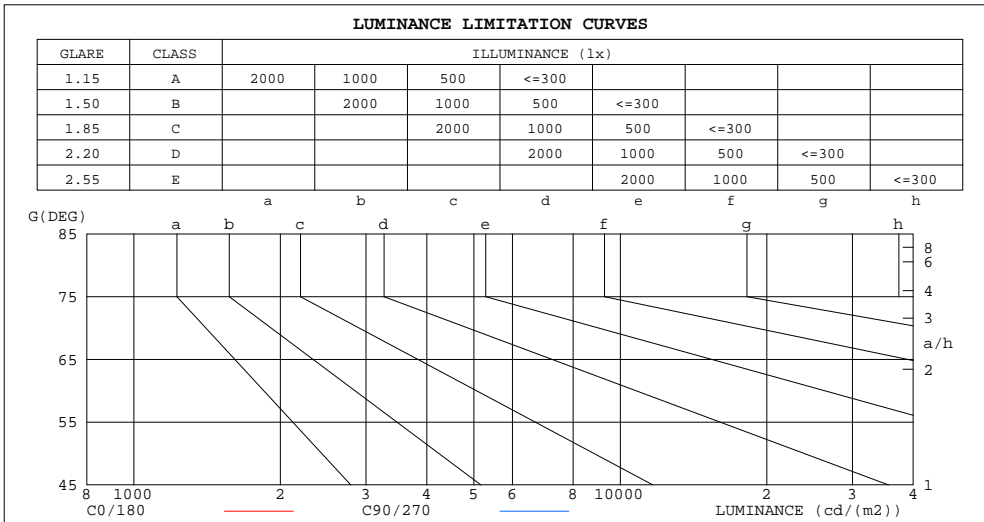
%lamp = 99.8%

C Range: 0 - 360DEG
C Interval: 45.0DEG
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:220.3V I:0.0636A P:14.00W PF:0.9002 Freq:49.90Hz Lamp Flux:909.756x1 lm		
NAME: FF5-11W-940-40D	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	127	673
80	109	396
75	86	245
70	88	185
65	90	148
60	101	125
55	121	109
50	154	110
45	555	234

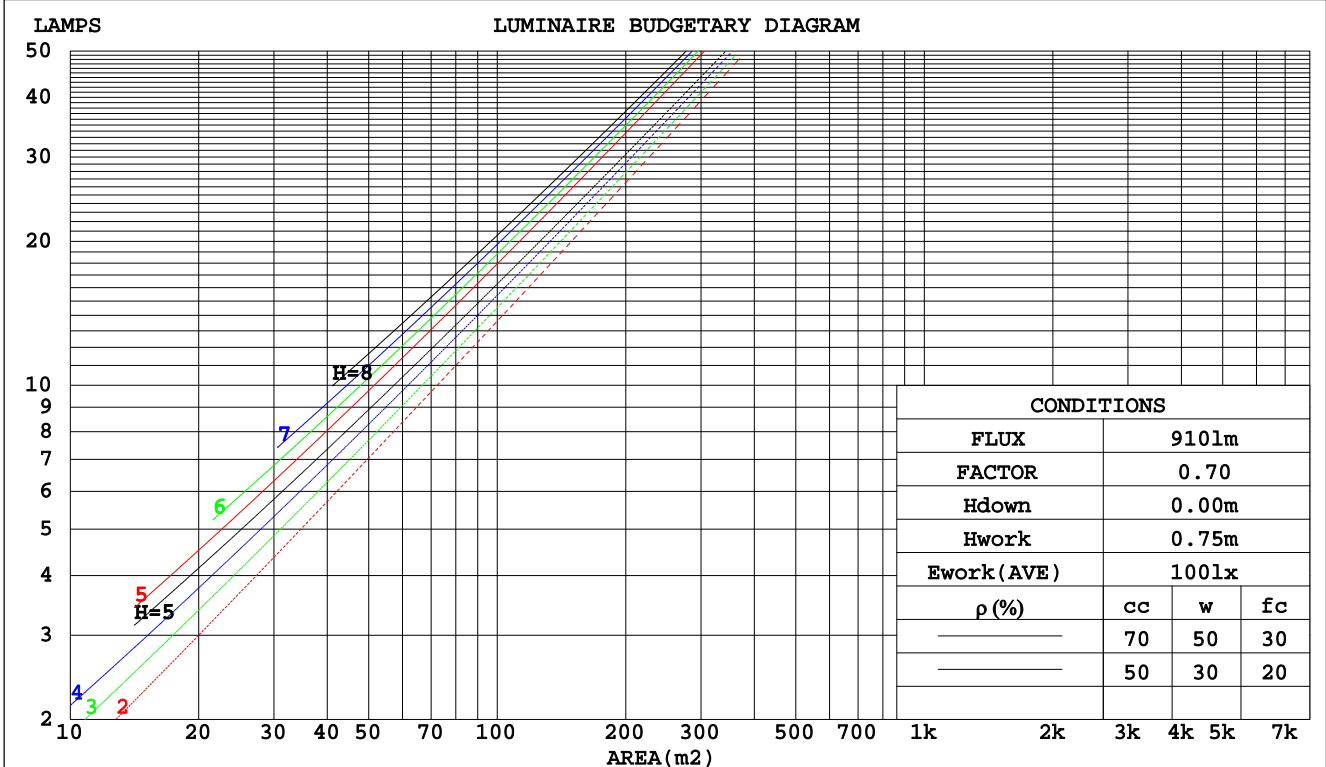
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2023-02-15

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:220.3V I:0.0636A P:14.00W PF:0.9002 Freq:49.90Hz Lamp Flux:909.756x1 lm		
NAME: FF5-11W-940-40D	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc																
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	1.12	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	.92	.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	.66



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 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:220.3V I:0.0636A P:14.00W PF:0.9002 Freq:49.90Hz Lamp Flux:909.756x1 lm		
NAME: FF5-11W-940-40D	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	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	.112	.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	.127	.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: 45.0DEG
 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:220.3V I:0.0636A P:14.00W PF:0.9002 Freq:49.90Hz Lamp Flux:909.756x1 lm		
NAME: FF5-11W-940-40D	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	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	8.3	9.1	8.5	9.2	9.4	6.1	6.8	6.3	7.0	7.2
3H	8.2	8.9	8.4	9.0	9.2	6.0	6.6	6.2	6.8	7.0
4H	8.1	8.7	8.3	8.9	9.2	5.9	6.5	6.2	6.8	7.0
6H	8.0	8.6	8.3	8.9	9.1	5.8	6.5	6.1	6.7	6.9
8H	8.0	8.6	8.3	8.8	9.1	5.8	6.4	6.1	6.7	6.9
12H	7.9	8.5	8.2	8.7	9.0	5.9	6.4	6.2	6.7	7.0
4H 2H	8.1	8.7	8.3	8.9	9.2	5.9	6.5	6.1	6.7	6.9
3H	7.9	8.5	8.2	8.7	9.0	5.7	6.3	6.0	6.5	6.8
4H	7.8	8.3	8.2	8.6	8.9	5.6	6.2	6.0	6.4	6.7
6H	7.7	8.2	8.1	8.5	8.9	5.6	6.1	6.0	6.4	6.7
8H	7.7	8.1	8.1	8.4	8.8	5.6	6.1	6.0	6.4	6.8
12H	7.6	8.0	8.0	8.4	8.8	5.7	6.1	6.1	6.4	6.8
8H 4H	7.7	8.1	8.1	8.4	8.8	5.5	5.9	5.9	6.3	6.6
6H	7.6	7.9	8.0	8.3	8.7	5.5	5.8	5.9	6.2	6.6
8H	7.5	7.8	8.0	8.3	8.7	5.5	5.9	6.0	6.3	6.7
12H	7.5	7.8	7.9	8.2	8.7	5.7	5.9	6.1	6.4	6.8
12H 4H	7.6	8.0	8.0	8.4	8.8	5.4	5.8	5.8	6.2	6.6
6H	7.5	7.8	8.0	8.3	8.7	5.4	5.7	5.9	6.2	6.6
8H	7.5	7.8	7.9	8.2	8.7	5.5	5.8	6.0	6.2	6.7
Variations with the observer position at spacings:										
S = 1.0H	+ 4.6 / -10.8					+ 3.3 / - 5.4				
1.5H	+ 7.4 / -10.7					+ 6.0 / - 5.6				
2.0H	+ 3.3 / - 0.6					+ 0.3 / - 0.4				

CIE Pub.117, 909.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.3)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 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:220.3V I:0.0636A P:14.00W PF:0.9002 Freq:49.90Hz Lamp Flux:909.756x1 lm		
NAME: FF5-11W-940-40D	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

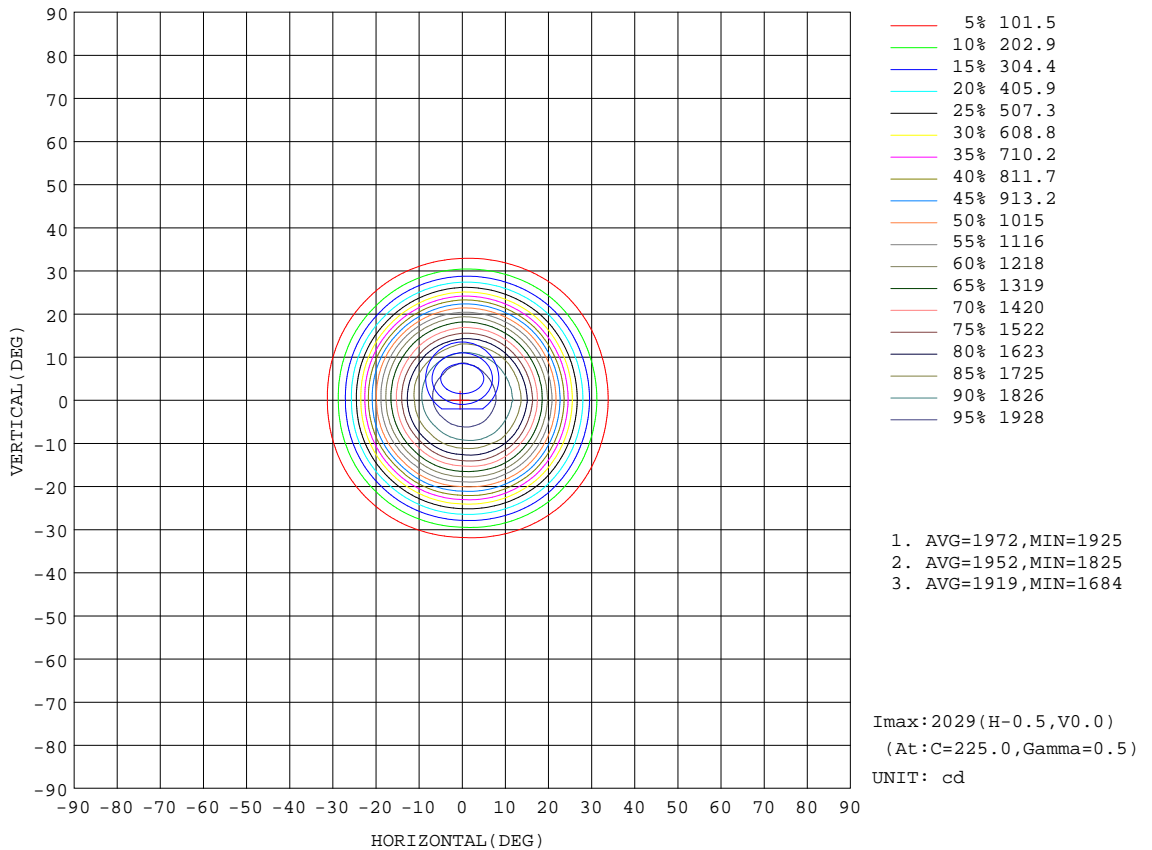
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	91	86	82	91	85	82	90	85	82	79
0.80	98	93	90	98	93	90	96	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: 45.0DEG
 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:220.3V I:0.0636A P:14.00W PF:0.9002 Freq:49.90Hz Lamp Flux:909.756x1 lm		
NAME: FF5-11W-940-40D	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

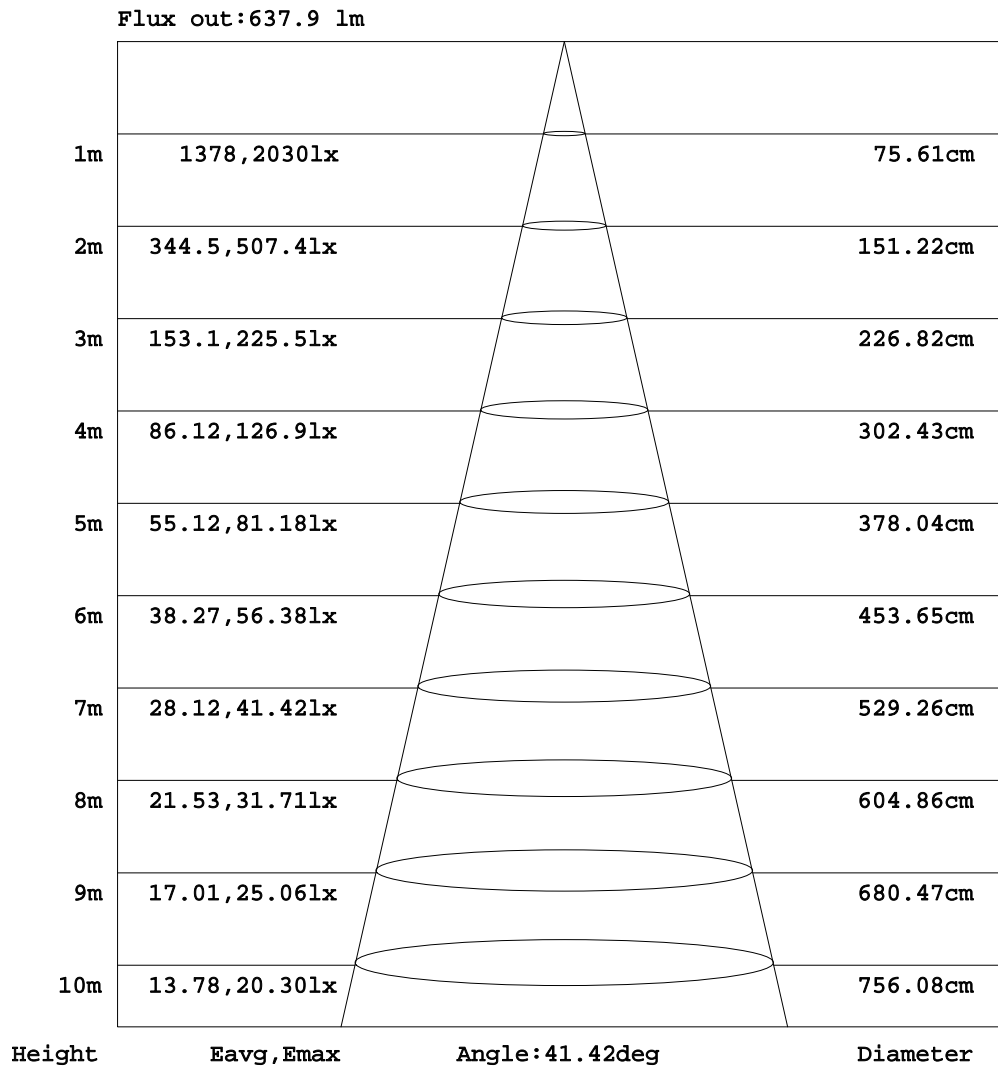


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jasoan
 Test Date: 2023-02-15

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:220.3V I:0.0636A P:14.00W PF:0.9002 Freq:49.90Hz Lamp Flux:909.756x1 lm		
NAME: FF5-11W-940-40D	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



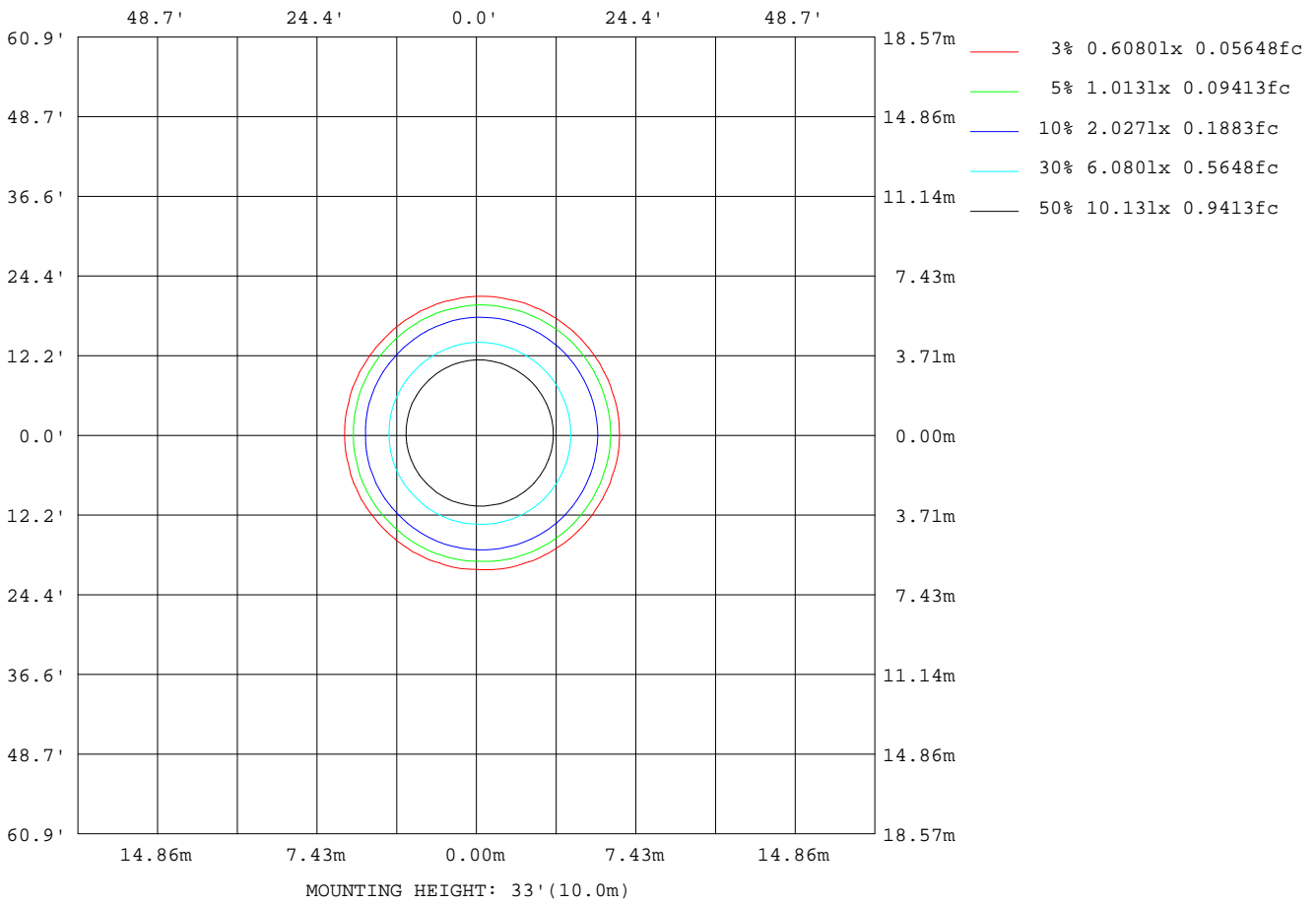
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
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:220.3V I:0.0636A P:14.00W PF:0.9002 Freq:49.90Hz Lamp Flux:909.756x1 lm		
NAME: FF5-11W-940-40D	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 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:220.3V I:0.0636A P:14.00W PF:0.9002 Freq:49.90Hz Lamp Flux:909.756x1 lm		
NAME: FF5-11W-940-40D	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

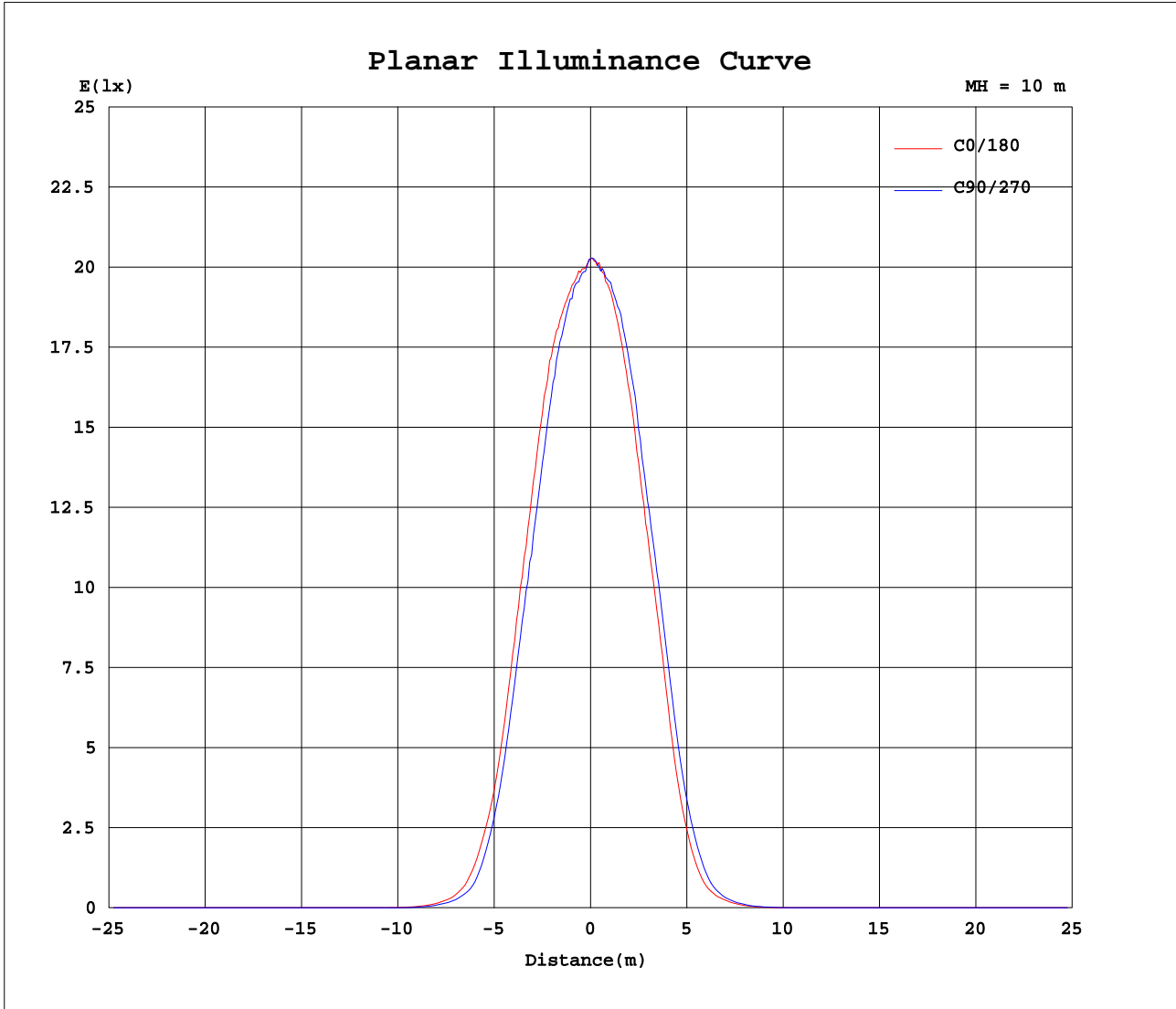
AvgL	cd/m2
L_0~180(65)av	145
L_0~180(75)av	243
L_0~180(85)av	1054
L_90~270(65)av	147
L_90~270(75)av	254
L_90~270(85)av	1460
L_45(65)av	151
L_45(75)av	271
L_45(85)av	1408

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
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γ Range: 0 - 90DEG
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Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 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:

