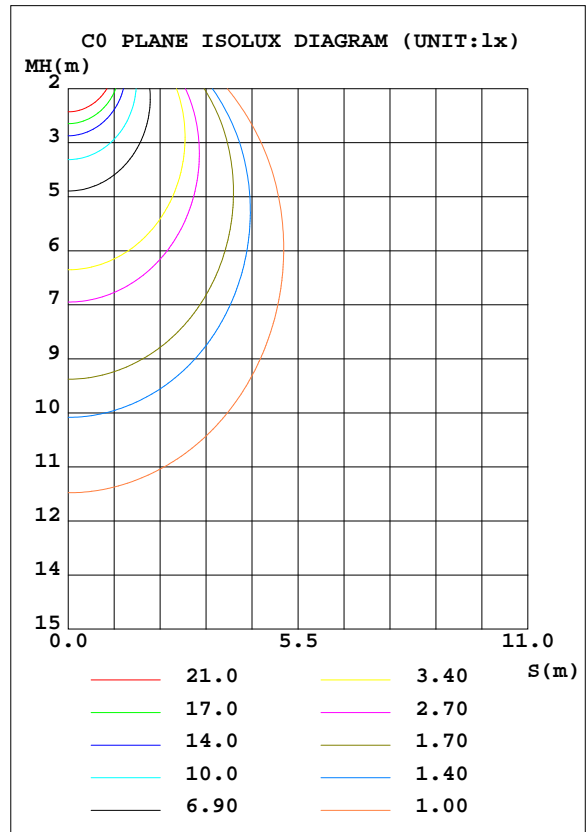
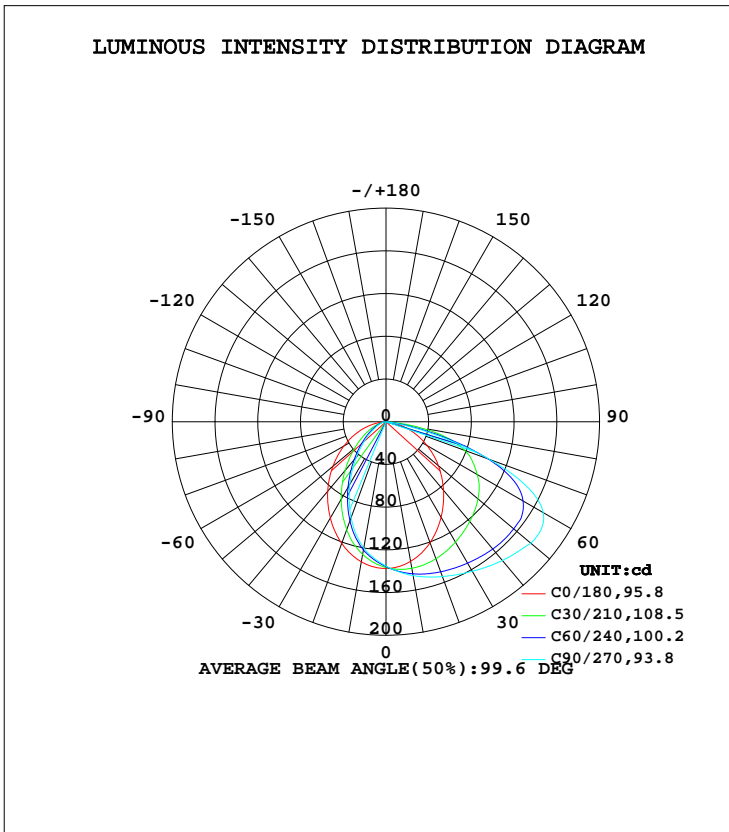


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.8V I:0.0628A P:12.38W PF:0.8932 Freq:49.90Hz Lamp Flux:399.366x1 lm		
NAME: FW5-11W-927	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	OSRAM-2700K	Imax(cd)	177.4	S/MH(C0/180)	1.14
NOMINAL POWER(W)	13	LOR(%)	100.0	S/MH(C90/270)	0.86
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	399.37	η UP, DN(C0-180)	0.0,73.4
NOMINAL FLUX(lm)	399.366	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,26.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2022-08-11

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	132.8	142.3	146.2	141.0	133.2	123.5	120.0	121.6	0- 10	12.78	12.78	3.2,3.2
20	120.6	143.8	154.3	142.9	121.3	102.4	95.65	100.5	10- 20	36.08	48.86	12.2,12.2
30	103.2	142.7	161.7	142.0	104.2	75.99	67.78	74.30	20- 30	53.38	102.2	25.6,25.6
40	83.81	140.3	169.6	139.9	84.95	51.23	43.13	49.93	30- 40	63.91	166.1	41.6,41.6
50	64.21	135.6	177.0	135.7	64.92	31.46	24.61	30.54	40- 50	68.89	235.0	58.9,58.9
60	44.22	126.0	169.9	126.7	45.52	17.51	12.60	17.22	50- 60	69.02	304.1	76.1,76.1
70	25.29	95.20	103.0	96.47	27.42	8.633	6.202	8.670	60- 70	59.50	363.6	91,91
80	7.826	26.16	12.93	27.35	10.61	3.556	2.815	3.672	70- 80	31.45	395.0	98.9,98.9
90	0.1110	0.0687	0.0687	0.0846	0.2062	0.5657	0.6820	0.5657	80- 90	4.354	399.4	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): 200.26 lm

%lum = 50.1%
%lamp = 50.1%

Conical surface Flux(120deg): 304.06 lm

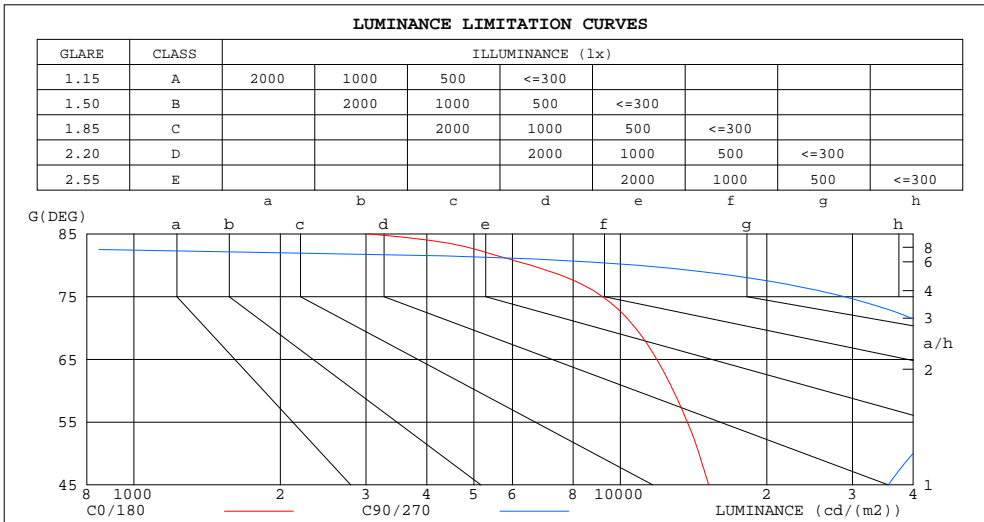
%lum = 76.1%
%lamp = 76.1%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-08-11

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:220.8V I:0.0628A P:12.38W PF:0.8932 Freq:49.90Hz Lamp Flux:399.366x1 lm		
NAME: FW5-11W-927	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3026	522
80	6545	10815
75	9183	28793
70	10740	43745
65	11880	50622
60	12847	49364
55	13731	44792
50	14509	39987
45	15196	35551

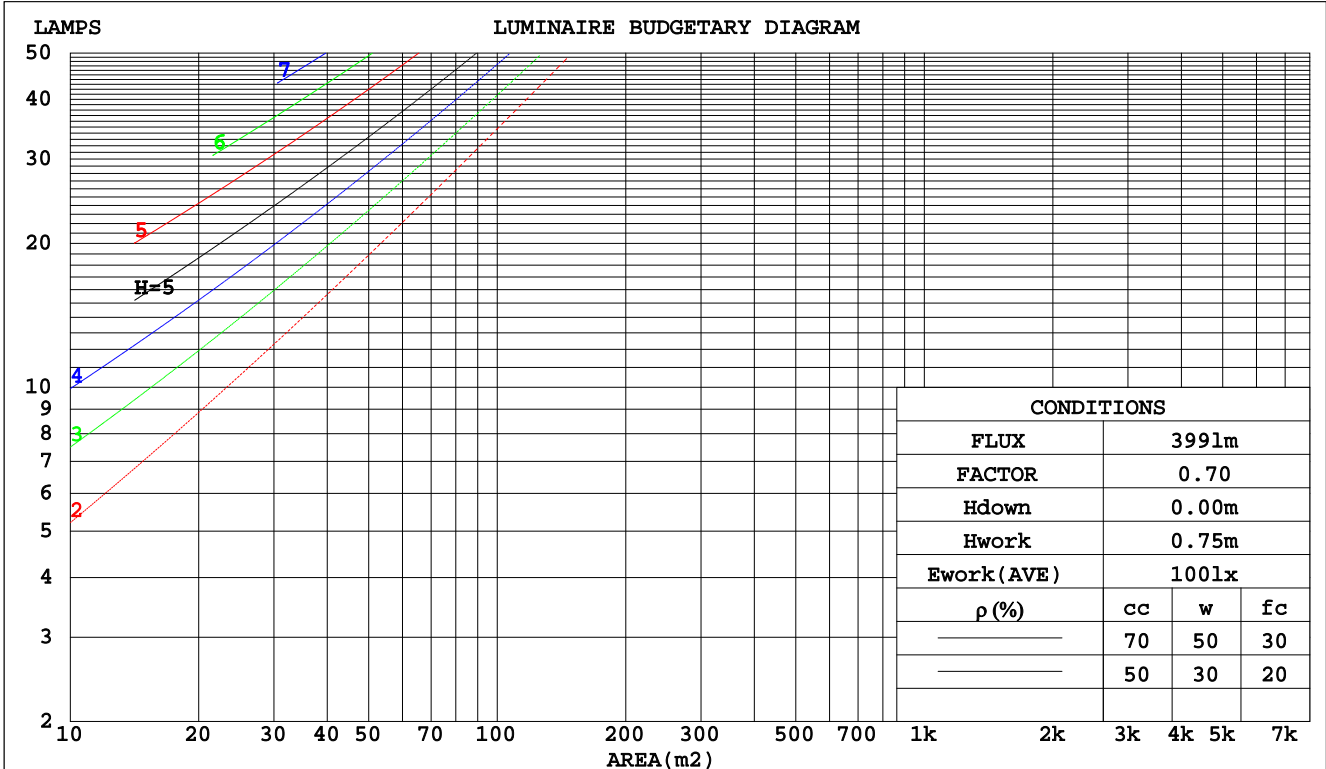
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2022-08-11

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:220.8V I:0.0628A P:12.38W PF:0.8932 Freq:49.90Hz Lamp Flux:399.366x1 lm		
NAME: FW5-11W-927	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	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																0
pfc																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	1.04	.99	.95	1.01	.97	.94	.97	.94	.91	.93	.91	.88	.90	.87	.85	.83
2.0	.90	.83	.77	.88	.81	.76	.84	.79	.74	.81	.76	.72	.78	.74	.71	.68
3.0	.78	.70	.63	.77	.69	.63	.74	.67	.61	.71	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.68	.59	.53	.65	.58	.52	.63	.56	.51	.60	.55	.50	.48
5.0	.61	.52	.45	.60	.51	.45	.58	.50	.44	.56	.49	.44	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.44	.39	.51	.44	.38	.49	.43	.38	.36
7.0	.50	.41	.35	.49	.40	.34	.47	.40	.34	.46	.39	.34	.45	.38	.34	.32
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.30	.42	.35	.30	.41	.35	.30	.28
9.0	.42	.33	.28	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.32	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.36	.29	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jasoan
 Test Date: 2022-08-11

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:220.8V I:0.0628A P:12.38W PF:0.8932 Freq:49.90Hz Lamp Flux:399.366x1 lm		
NAME: FW5-11W-927	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	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	.314	.178	.056	.307	.175	.056	.293	.168	.054	.281	.162	.052	.270	.156	.050	
2.0	.299	.164	.050	.293	.161	.050	.281	.156	.048	.270	.151	.047	.260	.147	.046	
3.0	.277	.147	.044	.272	.145	.044	.261	.142	.043	.251	.138	.042	.242	.134	.042	
4.0	.255	.133	.039	.251	.131	.039	.241	.128	.038	.233	.125	.038	.225	.122	.037	
5.0	.236	.120	.035	.231	.119	.035	.223	.116	.034	.215	.114	.034	.208	.111	.033	
6.0	.218	.109	.031	.214	.108	.031	.207	.106	.031	.200	.104	.031	.194	.102	.030	
7.0	.203	.100	.028	.199	.099	.028	.193	.097	.028	.186	.096	.028	.181	.094	.028	
8.0	.189	.092	.026	.186	.091	.026	.180	.090	.026	.174	.088	.025	.169	.087	.025	
9.0	.177	.085	.024	.174	.085	.024	.169	.083	.024	.164	.082	.023	.159	.081	.023	
10.0	.166	.080	.022	.163	.079	.022	.159	.078	.022	.154	.077	.022	.150	.075	.022	

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	.181	.156	.134	.154	.134	.115	.106	.092	.080	.061	.053	.046	.019	.017	.015	
2.0	.173	.132	.097	.148	.114	.084	.102	.079	.059	.059	.046	.034	.019	.015	.011	
3.0	.166	.114	.073	.142	.099	.064	.098	.069	.045	.056	.040	.026	.018	.013	.009	
4.0	.158	.101	.057	.136	.087	.050	.093	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.151	.091	.046	.130	.079	.040	.089	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.082	.038	.124	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.137	.076	.033	.118	.066	.028	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.078	.043	.017	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.118	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2022-08-11

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:220.8V I:0.0628A P:12.38W PF:0.8932 Freq:49.90Hz Lamp Flux:399.366x1 lm		
NAME: FW5-11W-927	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	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	27.6	29.2	27.9	29.4	29.6	32.1	33.6	32.3	33.8	34.0
3H	29.0	30.5	29.3	30.7	30.9	34.1	35.6	34.4	35.8	36.1
4H	29.5	30.9	29.8	31.1	31.4	34.6	35.9	34.9	36.2	36.5
6H	29.8	31.1	30.1	31.3	31.6	34.6	35.9	34.9	36.2	36.5
8H	29.8	31.1	30.2	31.4	31.7	34.6	35.8	34.9	36.1	36.4
12H	29.8	31.0	30.2	31.3	31.6	34.5	35.7	34.9	36.0	36.3
4H 2H	29.6	31.0	30.0	31.3	31.5	32.6	34.0	32.9	34.2	34.5
3H	31.3	32.5	31.7	32.8	33.1	34.8	36.0	35.2	36.3	36.7
4H	32.0	33.1	32.4	33.4	33.8	35.4	36.5	35.7	36.8	37.1
6H	32.5	33.4	32.9	33.8	34.2	35.5	36.4	35.9	36.8	37.2
8H	32.6	33.5	33.0	33.9	34.2	35.4	36.3	35.8	36.7	37.1
12H	32.6	33.4	33.0	33.8	34.2	35.4	36.2	35.8	36.6	37.0
8H 4H	32.8	33.7	33.2	34.0	34.4	35.5	36.4	36.0	36.8	37.2
6H	33.4	34.2	33.9	34.6	35.0	35.7	36.5	36.1	36.9	37.3
8H	33.6	34.3	34.1	34.7	35.2	35.7	36.3	36.1	36.8	37.2
12H	33.7	34.2	34.1	34.7	35.2	35.6	36.2	36.1	36.7	37.1
12H 4H	32.8	33.6	33.2	34.0	34.4	35.5	36.4	36.0	36.8	37.2
6H	33.4	34.1	33.9	34.5	35.0	35.7	36.4	36.2	36.8	37.3
8H	33.7	34.2	34.1	34.7	35.2	35.7	36.3	36.2	36.7	37.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.3 / - 0.4					+ 0.1 / - 0.3				
2.0H	+ 0.5 / - 0.8					+ 0.6 / - 0.7				

CIE Pub.117, 399.4 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.2)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2022-08-11

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:220.8V I:0.0628A P:12.38W PF:0.8932 Freq:49.90Hz Lamp Flux:399.366x1 lm		
NAME: FW5-11W-927	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

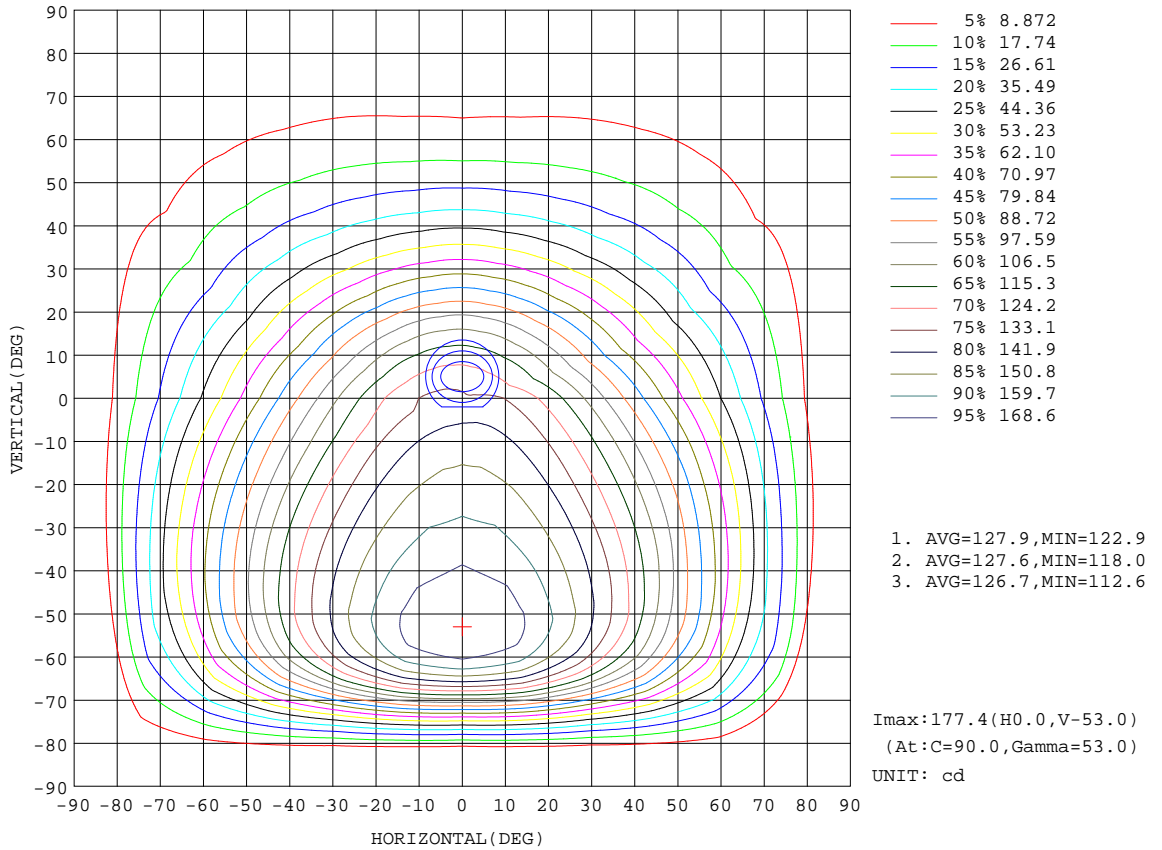
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	65	53	46	63	53	46	39
1.00	74	63	55	73	62	55	71	64	54	47
1.25	82	71	63	80	70	63	77	68	62	54
1.50	87	76	69	85	76	69	82	74	68	60
2.00	94	85	78	92	84	78	89	82	76	68
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	100	93	88	95	90	86	77
4.00	106	100	95	104	98	94	99	95	91	82
5.00	109	104	100	106	102	98	102	98	95	86
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:Jasoan
 Test Date:2022-08-11

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:220.8V I:0.0628A P:12.38W PF:0.8932 Freq:49.90Hz Lamp Flux:399.366x1 lm		
NAME: FW5-11W-927	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



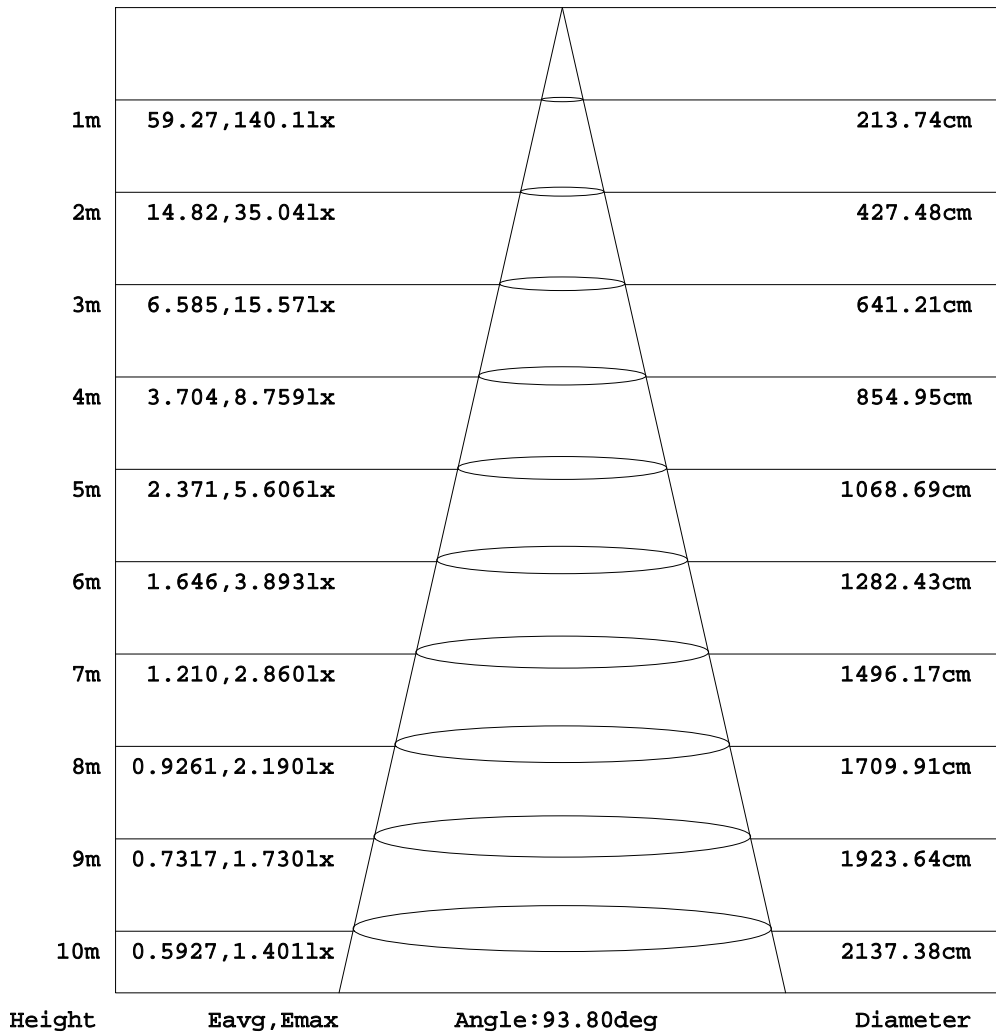
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2022-08-11

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:220.8V I:0.0628A P:12.38W PF:0.8932 Freq:49.90Hz Lamp Flux:399.366x1 lm		
NAME: FW5-11W-927	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

Flux out:214.1 lm



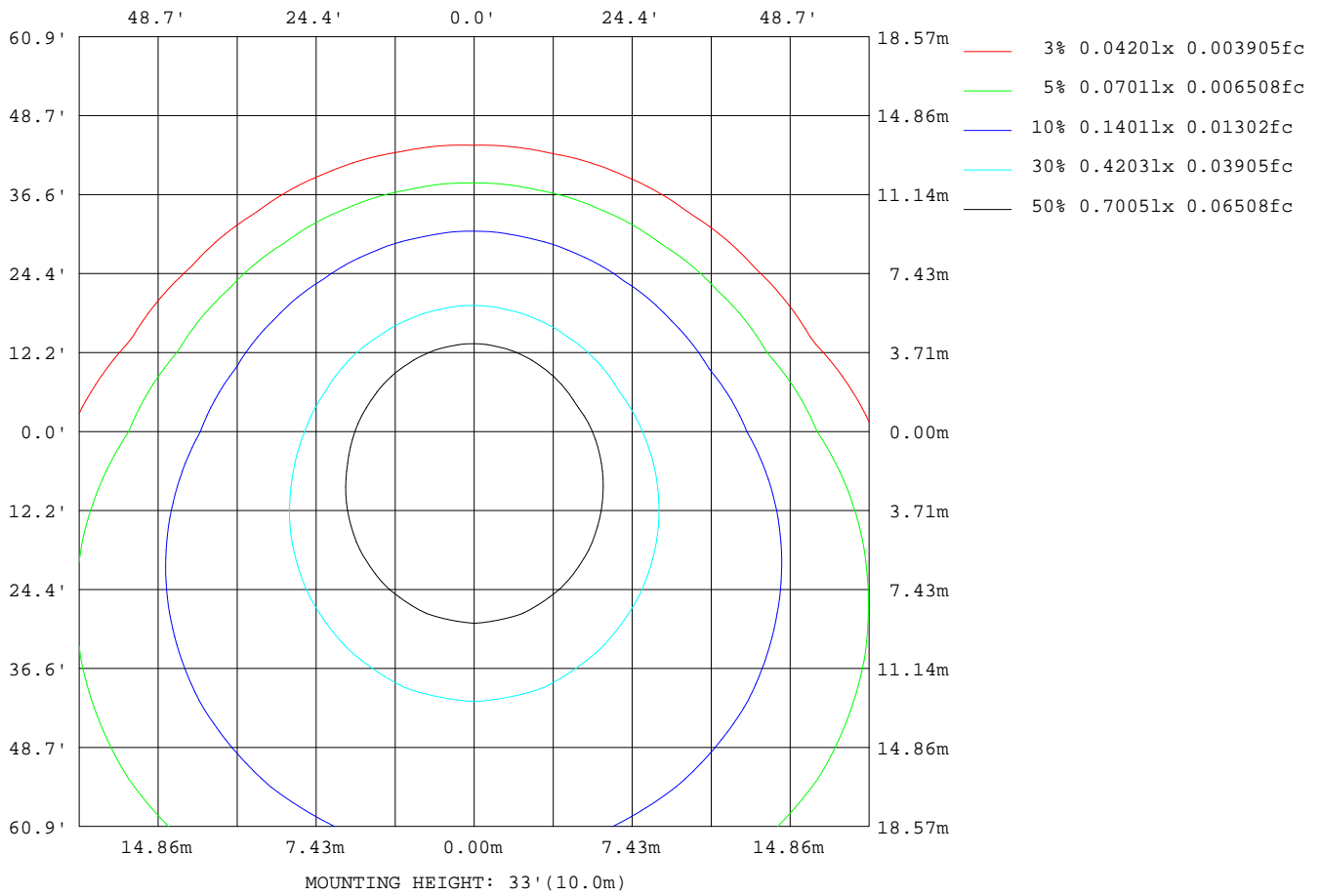
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-08-11

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:220.8V I:0.0628A P:12.38W PF:0.8932 Freq:49.90Hz Lamp Flux:399.366x1 lm		
NAME: FW5-11W-927	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2022-08-11

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:220.8V I:0.0628A P:12.38W PF:0.8932 Freq:49.90Hz Lamp Flux:399.366x1 lm		
NAME: FW5-11W-927	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: L153mm*W45mm*H60mm	
MFR.: NEKO LIGHTING AG		

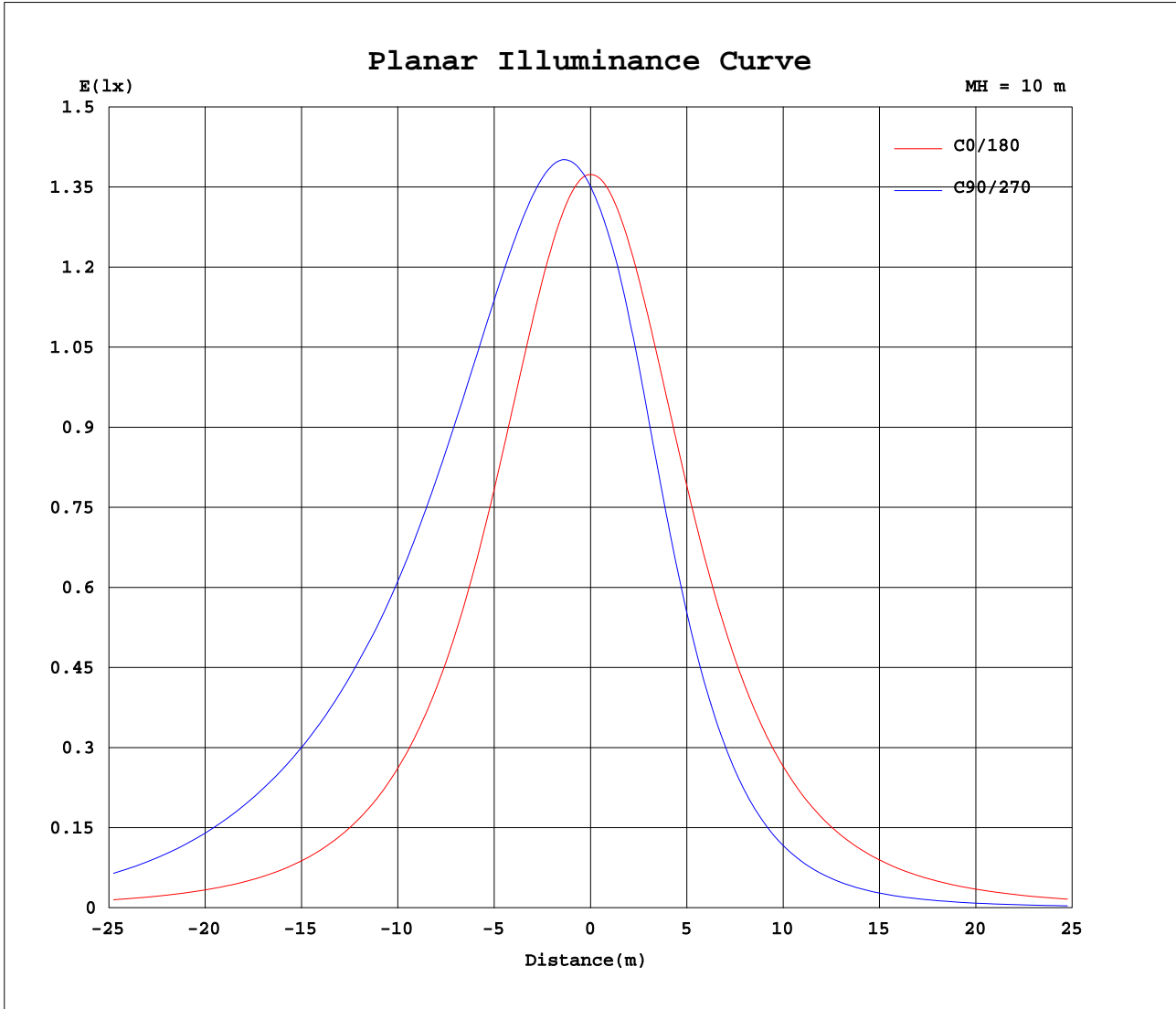
AvgL	cd/m2
L_0~180(65)av	12178
L_0~180(75)av	9896
L_0~180(85)av	4331
L_90~270(65)av	26833
L_90~270(75)av	15609
L_90~270(85)av	1677
L_45(65)av	21887
L_45(75)av	19552
L_45(85)av	2237

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-08-11

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: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jasoan
 Test Date: 2022-08-11

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:

