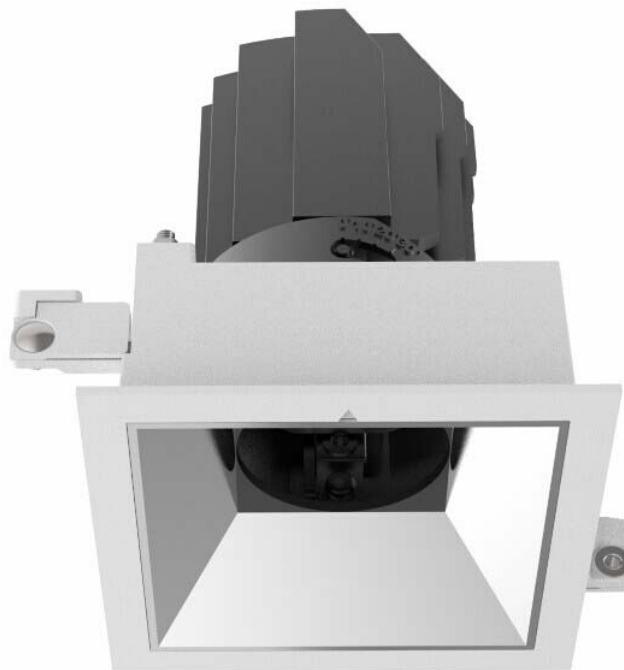


**LED Downlight SENSE Series S68S1-13W-DW-930-W**

Light Output Ratio:	100.0%	
Luminaire Power:	12.72 W	
SHR Nominal:	0.75	Calculated using the TM5
SHR Maximum:	0.80	fine grid method.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-12-24

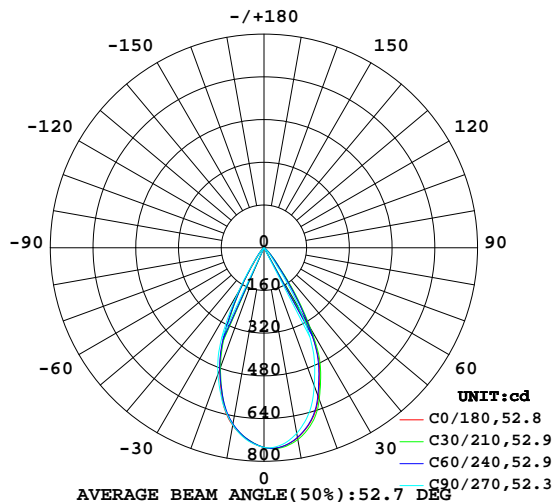
$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 8.967m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

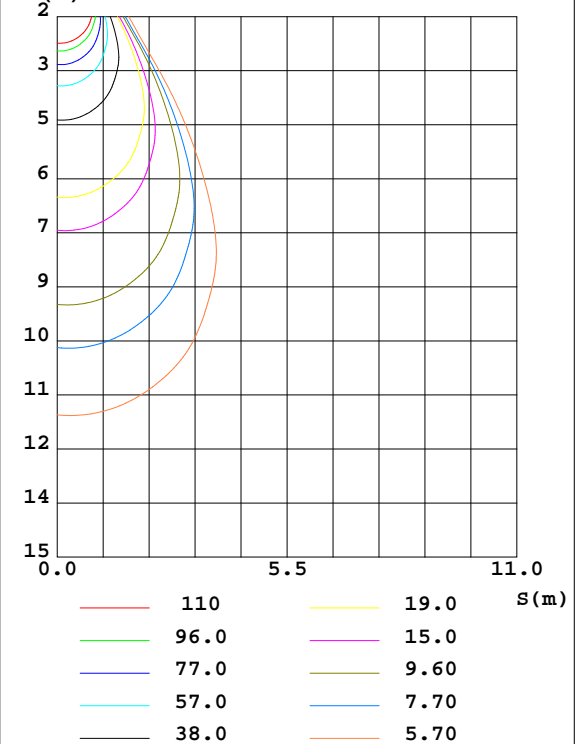
Test:U:220.2V I:0.0593A P:12.72W PF:0.9242 Freq:49.90Hz Lamp Flux:520.501x1 lm		
NAME: S68S1-13W-DW-930-W	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L78mm*W78mm*H98mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 40.92 lm/W			
MODEL	BRIDGELUX-3000K	I <sub>max</sub> (cd)	753.8	S/MH(C0/180)	0.73
NOMINAL POWER(W)	13.0	LOR(%)	100.0	S/MH(C90/270)	0.75
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	520.50	η UP,DN(C0-180)	0.0,53.4
NOMINAL FLUX(lm)	520.501	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,46.6
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

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:2020-12-24

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:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	722.9	728.8	705.6	684.2	675.4	668.8	673.9	697.1	0- 10	68.80	68.80	13.2,13.2
20	596.3	603.6	550.0	513.2	484.0	477.0	505.1	544.2	10- 20	174.4	243.2	46.7,46.7
30	334.4	349.7	276.3	223.8	177.6	170.7	200.0	278.7	20- 30	184.4	427.6	82.1,82.1
40	55.79	68.88	39.48	40.58	26.39	31.40	28.97	50.72	30- 40	73.44	501.0	96.3,96.3
50	9.749	17.76	4.553	8.991	2.320	6.573	1.989	12.85	40- 50	16.69	517.7	99.5,99.5
60	0.7518	1.314	0.5002	0.4975	0.4368	0.5317	0.2935	1.056	50- 60	2.461	520.2	99.9,99.9
70	0.1213	0.1679	0.1345	0.0004	0.0050	0.0257	0.0052	0.2341	60- 70	0.2918	520.5	100,100
80	0.0151	0.0051	0.0308	0.0156	0.0050	0.0152	0.0052	0.0104	70- 80	0.0210	520.5	100,100
90	0.0050	0.0051	0.0979	0.0364	0.0050	0	0.0052	0.0052	80- 90	0.0124	520.5	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): 512.25 lm

%lum = 98.4%

%lamp = 98.4%

Conical surface Flux(120deg): 520.18 lm

%lum = 99.9%

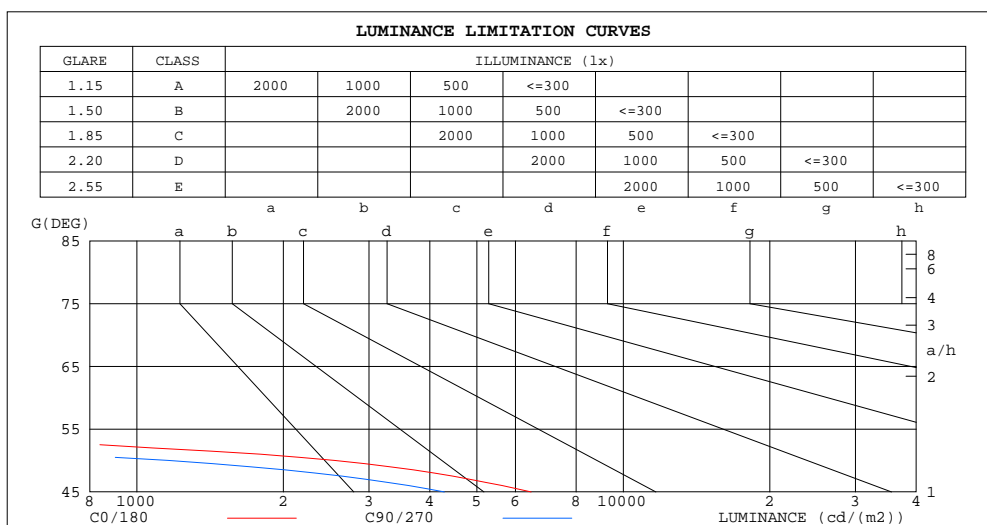
%lamp = 99.9%

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:220.2V I:0.0593A P:12.72W PF:0.9242 Freq:49.90Hz Lamp Flux:520.50lx1 lm		
NAME: S68S1-13W-DW-930-W	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L78mm*W78mm*H98mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G( DEG)	C0/180	C90/270
85	19	29
80	15	29
75	23	16
70	60	64
65	178	178
60	253	164
55	604	437
50	2547	1160
45	6463	4286

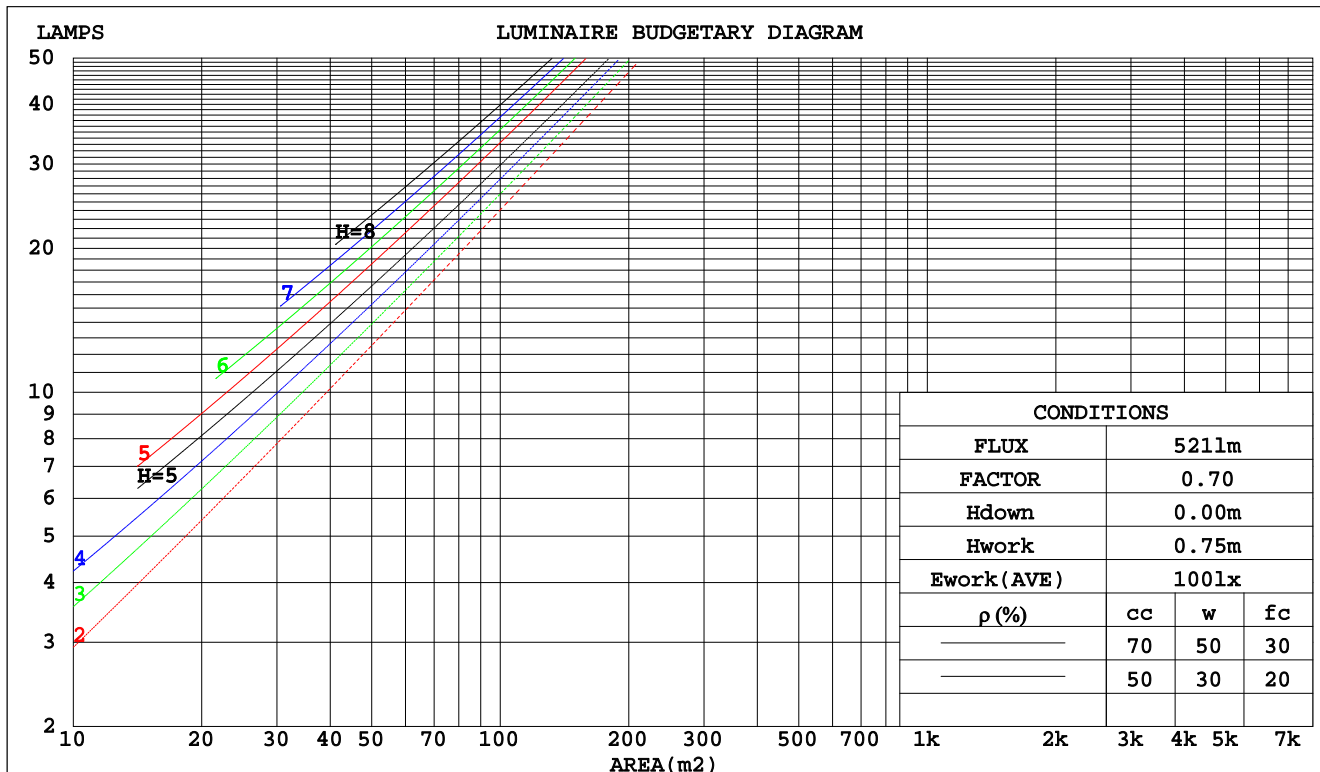
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-24

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:220.2V I:0.0593A P:12.72W PF:0.9242 Freq:49.90Hz Lamp Flux:520.501x1 lm		
NAME: S68S1-13W-DW-930-W	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L78mm*W78mm*H98mm	
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	1.00
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.98	1.03	.99	.96	.99	.97	.94	.97	.94	.92	.94	.92	.90	.89
3.0	.98	.93	.90	.97	.92	.89	.94	.91	.88	.92	.89	.86	.90	.87	.85	.84
4.0	.92	.87	.83	.91	.87	.83	.89	.85	.82	.87	.84	.81	.85	.82	.80	.79
5.0	.87	.82	.78	.86	.81	.77	.84	.80	.77	.83	.79	.76	.81	.78	.75	.74
6.0	.82	.77	.73	.82	.76	.73	.80	.76	.72	.79	.75	.72	.77	.74	.71	.70
7.0	.78	.72	.69	.77	.72	.68	.76	.71	.68	.75	.71	.68	.74	.70	.67	.66
8.0	.74	.68	.65	.73	.68	.65	.72	.68	.64	.71	.67	.64	.70	.67	.64	.63
9.0	.70	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.67	.63	.60	.59
10.0	.67	.62	.58	.67	.61	.58	.66	.61	.58	.65	.61	.58	.64	.60	.57	.56



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-24

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:220.2V I:0.0593A P:12.72W PF:0.9242 Freq:49.90Hz Lamp Flux:520.501x1 lm		
NAME: S68S1-13W-DW-930-W	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L78mm*W78mm*H98mm	
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	.166	.094	.030	.159	.091	.029	.147	.084	.027	.135	.078	.025	.125	.072	.023		
2.0	.158	.087	.027	.152	.084	.026	.142	.079	.025	.132	.074	.023	.123	.070	.022		
3.0	.150	.080	.024	.146	.078	.023	.137	.074	.022	.128	.070	.022	.121	.067	.021		
4.0	.143	.074	.022	.139	.073	.021	.131	.070	.021	.124	.067	.020	.118	.064	.019		
5.0	.136	.069	.020	.133	.068	.020	.126	.066	.019	.120	.063	.019	.114	.061	.018		
6.0	.130	.065	.019	.127	.064	.018	.121	.062	.018	.116	.060	.018	.111	.058	.017		
7.0	.125	.062	.017	.122	.061	.017	.117	.059	.017	.112	.057	.017	.108	.056	.016		
8.0	.120	.058	.016	.117	.058	.016	.113	.056	.016	.108	.055	.016	.104	.054	.016		
9.0	.115	.056	.016	.113	.055	.015	.109	.054	.015	.105	.052	.015	.101	.051	.015		
10.0	.110	.053	.015	.108	.052	.015	.105	.051	.014	.101	.050	.014	.098	.049	.014		

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.170	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.154	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.091	.121	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.122	.087	.061	.105	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.114	.077	.051	.098	.067	.045	.068	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.107	.070	.043	.092	.060	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.102	.063	.037	.088	.055	.032	.061	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.097	.058	.032	.083	.050	.028	.058	.035	.020	.034	.021	.012	.011	.007	.004	
10.0	.092	.054	.028	.079	.047	.025	.055	.033	.017	.032	.019	.010	.010	.006	.003	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-24

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:220.2V I:0.0593A P:12.72W PF:0.9242 Freq:49.90Hz Lamp Flux:520.501x1 lm										
NAME: S68S1-13W-DW-930-W					TYPE:Downlight			SERIAL No.:		
SPEC.:3000K					DIM.: L78mm*W78mm*H98mm					
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	18.4	19.3	18.6	19.4	19.6	17.1	18.0	17.3	18.2	18.3
3H	18.2	19.0	18.5	19.2	19.4	16.9	17.7	17.2	17.9	18.1
4H	18.2	18.9	18.4	19.1	19.3	16.9	17.6	17.1	17.8	18.1
6H	18.1	18.8	18.4	19.0	19.3	16.8	17.5	17.1	17.7	18.0
8H	18.0	18.7	18.3	19.0	19.2	16.7	17.4	17.0	17.7	17.9
12H	18.0	18.6	18.3	18.9	19.2	16.7	17.3	17.0	17.6	17.9
4H 2H	18.2	18.9	18.4	19.1	19.4	16.9	17.6	17.1	17.8	18.1
3H	18.0	18.6	18.3	18.9	19.2	16.7	17.3	17.0	17.6	17.9
4H	17.9	18.5	18.2	18.8	19.1	16.6	17.2	16.9	17.5	17.8
6H	17.8	18.3	18.2	18.6	19.0	16.5	17.0	16.9	17.4	17.7
8H	17.7	18.2	18.1	18.6	18.9	16.4	16.9	16.8	17.3	17.6
12H	17.7	18.1	18.1	18.5	18.9	16.4	16.8	16.8	17.2	17.6
8H 4H	17.7	18.2	18.1	18.6	18.9	16.4	16.9	16.8	17.3	17.6
6H	17.6	18.0	18.1	18.4	18.8	16.3	16.7	16.8	17.1	17.5
8H	17.6	17.9	18.0	18.3	18.8	16.3	16.6	16.7	17.1	17.5
12H	17.5	17.8	18.0	18.3	18.7	16.2	16.5	16.7	17.0	17.4
12H 4H	17.7	18.1	18.1	18.5	18.9	16.4	16.8	16.8	17.2	17.6
6H	17.6	17.9	18.0	18.3	18.8	16.3	16.6	16.7	17.1	17.5
8H	17.5	17.8	18.0	18.3	18.7	16.2	16.5	16.7	17.0	17.4
Variations with the observer position at spacings:										
S = 1.0H	+ 3.2 / -17.7					+ 2.8 / -18.6				
1.5H	+ 5.3 / -13.8					+ 4.5 / -14.0				
2.0H	+ 6.4 / -17.4					+ 6.0 / -16.1				

CIE Pub.117, 520.5 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -2.3$ )

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:220.2V I:0.0593A P:12.72W PF:0.9242 Freq:49.90Hz Lamp Flux:520.501x1 lm		
NAME: S68S1-13W-DW-930-W	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L78mm*W78mm*H98mm	
MFR.: NEKO LIGHTING AG		

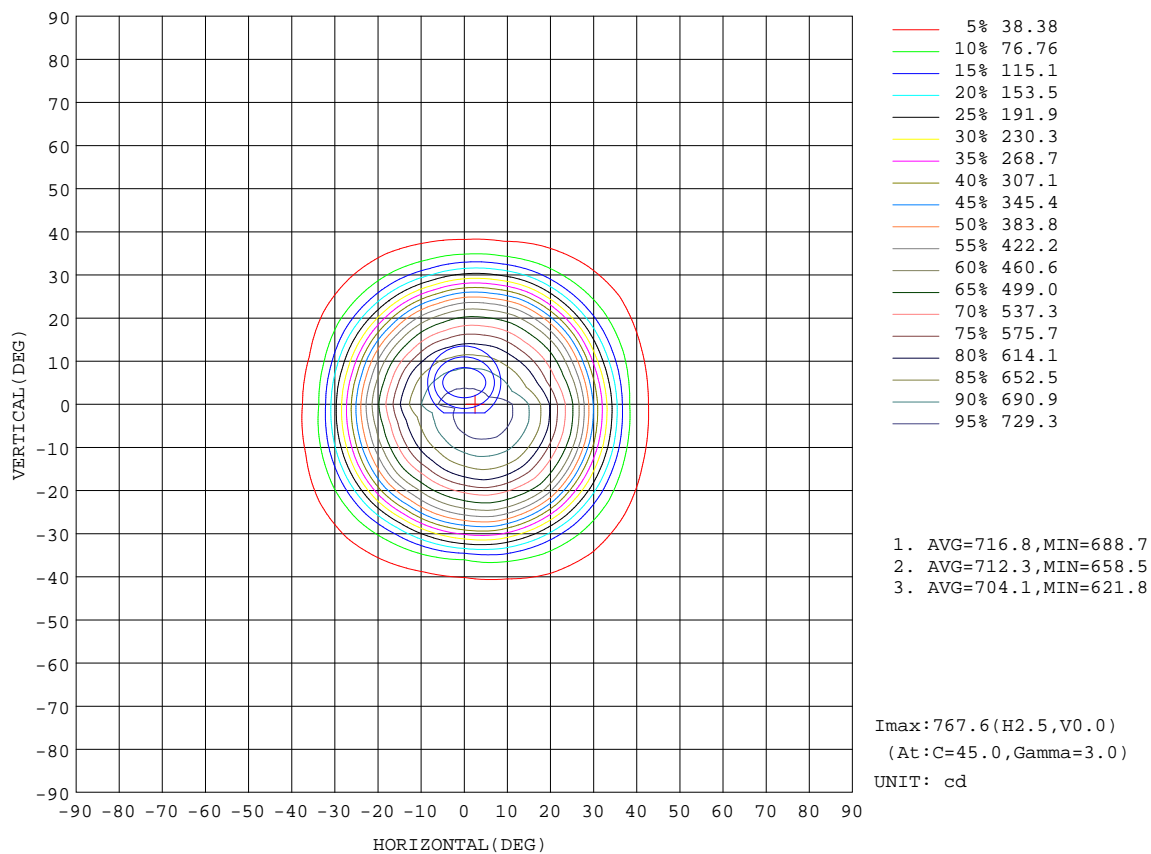
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	79	88	83	79	76
0.80	96	91	87	96	91	87	95	90	87	83
1.00	101	95	92	100	95	92	98	95	91	87
1.25	104	100	96	103	99	96	101	98	95	91
1.50	107	103	99	106	102	99	104	100	98	94
2.00	109	105	102	108	104	102	105	102	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	105	107	105	103	97
4.00	114	112	110	112	110	108	109	107	105	99
5.00	115	113	112	113	111	110	109	108	107	99
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:2020-12-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:220.2V I:0.0593A P:12.72W PF:0.9242 Freq:49.90Hz Lamp Flux:520.50lx1 lm		
NAME: S68S1-13W-DW-930-W	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L78mm*W78mm*H98mm	
MFR.: NEKO LIGHTING AG		



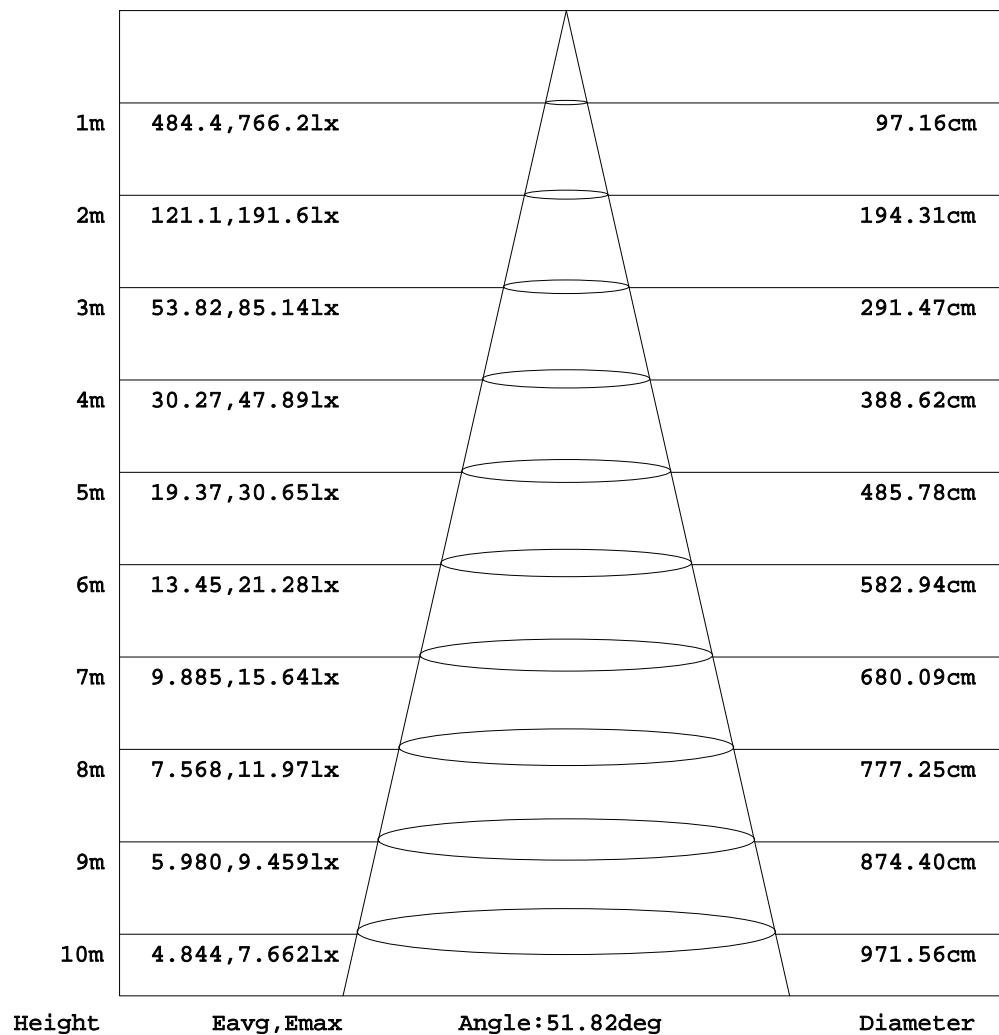
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-24

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:220.2V I:0.0593A P:12.72W PF:0.9242 Freq:49.90Hz Lamp Flux:520.50lx1 lm		
NAME: S68S1-13W-DW-930-W	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L78mm*W78mm*H98mm	
MFR.: NEKO LIGHTING AG		

Flux out:362.0 lm



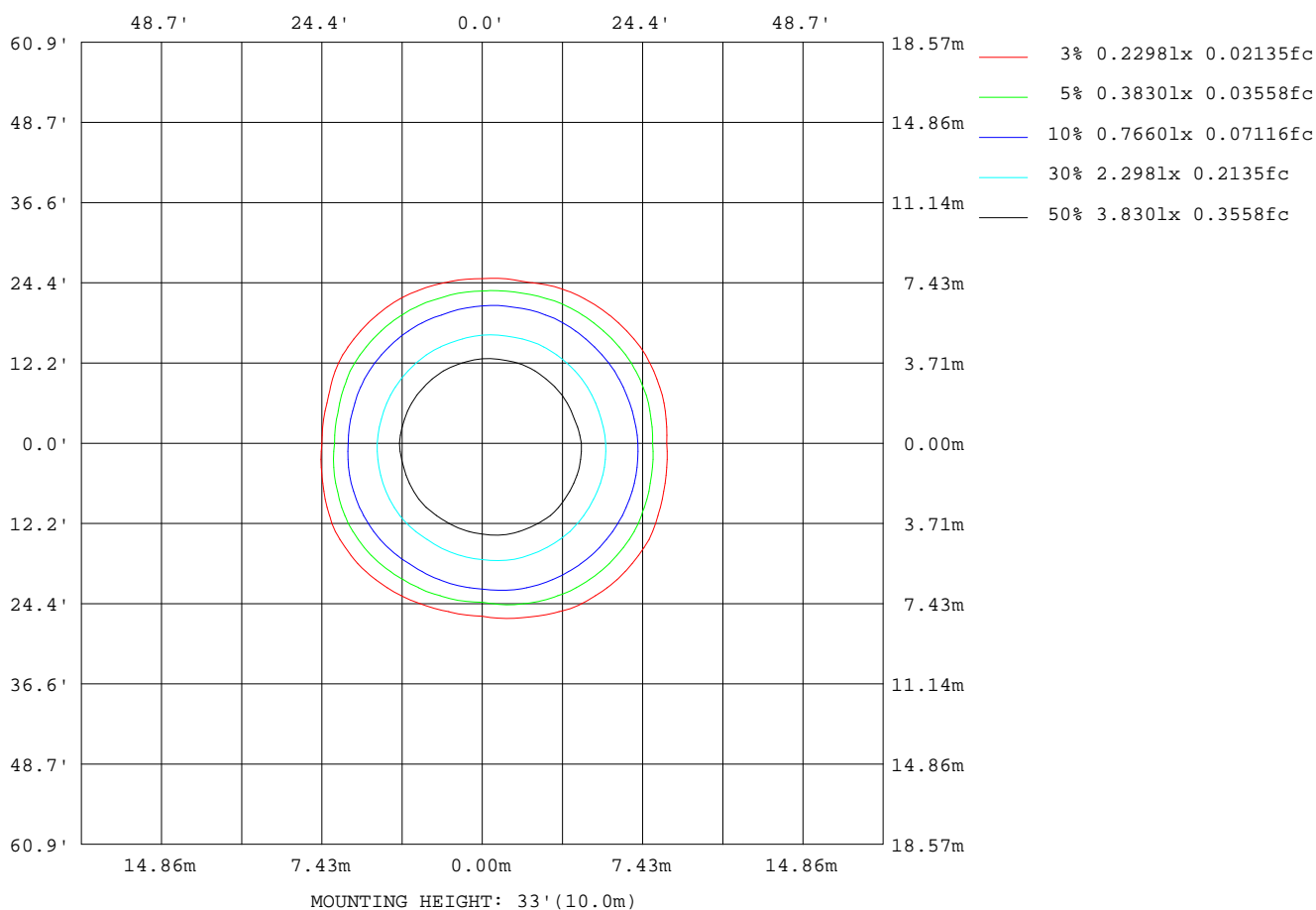
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-24

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:220.2V I:0.0593A P:12.72W PF:0.9242 Freq:49.90Hz Lamp Flux:520.50lx 1m		
NAME: S68S1-13W-DW-930-W	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L78mm*W78mm*H98mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-24

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:220.2V I:0.0593A P:12.72W PF:0.9242 Freq:49.90Hz Lamp Flux:520.501x1 lm		
NAME: S68S1-13W-DW-930-W	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L78mm*W78mm*H98mm	
MFR.: NEKO LIGHTING AG		

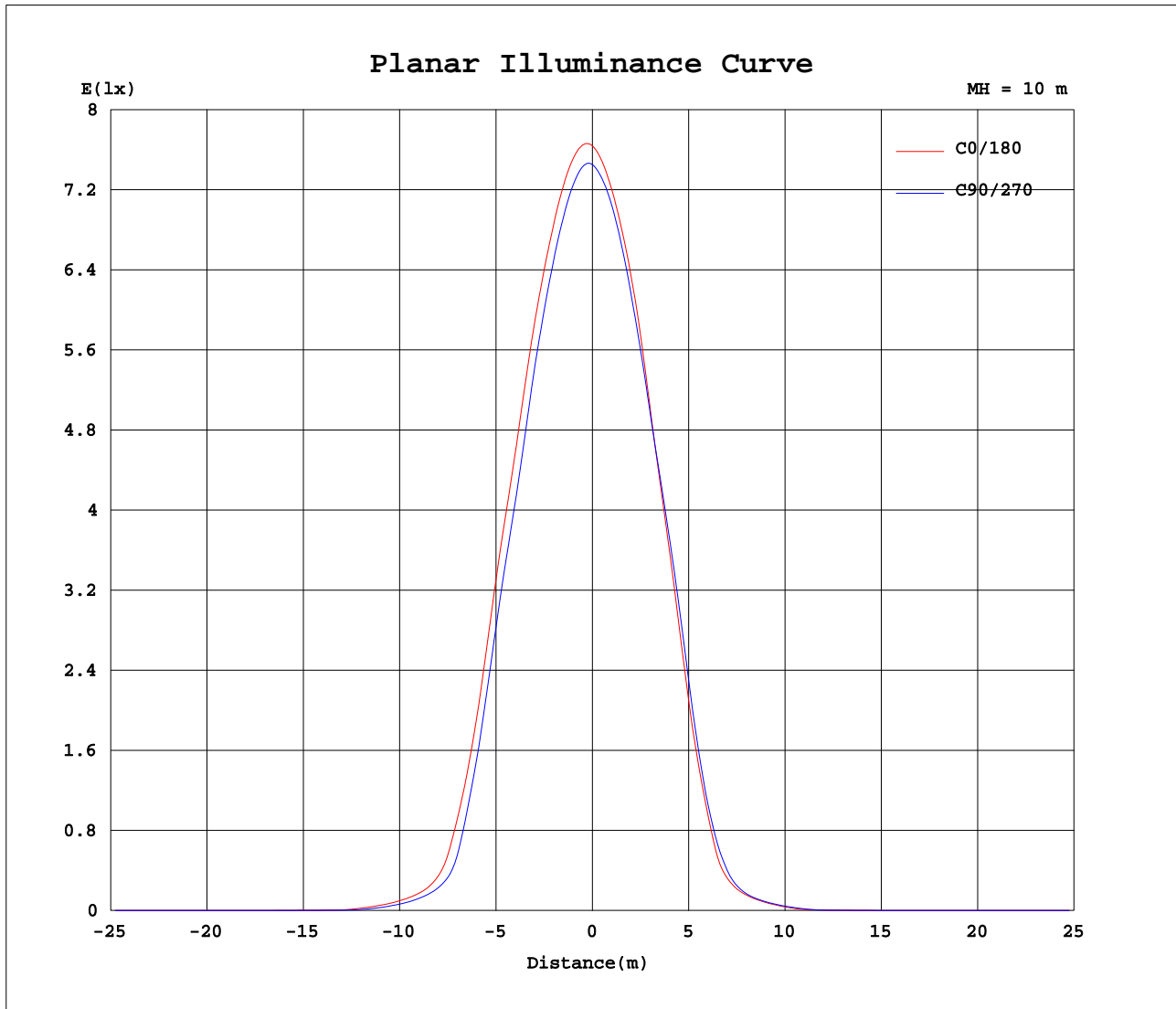
AvgL	cd/m2
L_0~180(65)av	114
L_0~180(75)av	13
L_0~180(85)av	14
L_90~270(65)av	141
L_90~270(75)av	10
L_90~270(85)av	19
L_45(65)av	112
L_45(75)av	8
L_45(85)av	17

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-24

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: Jason  
Test Date: 2020-12-24

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:

```

```

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:

```