

S68R1-13W-DW-918-W



Light Output Ratio:	100.0%	
Luminaire Power:	1.4 W	
SHR Nominal:	0.75	Calculated using the TM5
SHR Maximum:	0.75	fine grid method.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-12-21

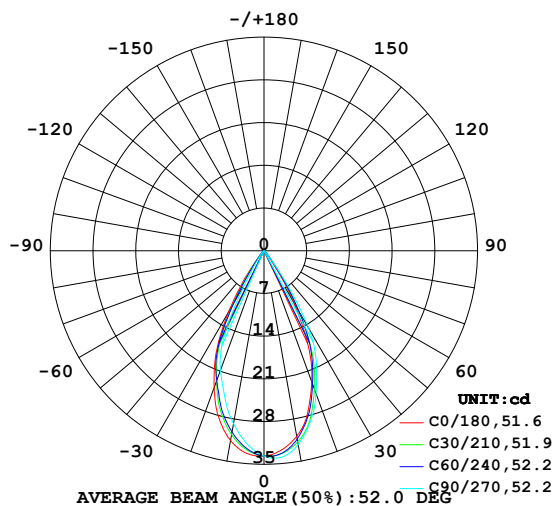
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 8.967m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

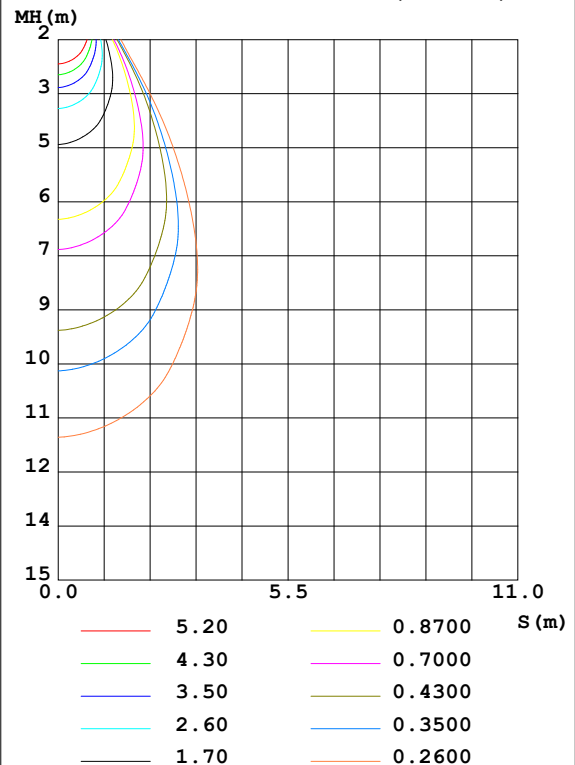
Test:U:220.8V I:0.0105A P:1.400W PF:0.6057 Freq:49.99Hz Lamp Flux:22.946x1 lm		
NAME: S68R1-13W-DW-918-W	TYPE:Downlight	SERIAL No.:
SPEC.:1800K	DIM.: $\phi$ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 16.40 lm/W			
MODEL	BRIDGELUX-1800K	I <sub>max</sub> (cd)	36.00	S/MH (C0/180)	0.80
NOMINAL POWER (W)	13	LOR (%)	100.0	S/MH (C90/270)	0.72
RATED VOLTAGE (V)	40	TOTAL FLUX (lm)	22.946	$\eta$ UP,DN (C0-180)	0.0,59.6
NOMINAL FLUX (lm)	22.946	CIE CLASS	DIRECT	$\eta$ UP,DN (C180-360)	0.0,40.4
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	39.4	$\eta$ down (%)	100.0	CIBSE SHR MAX	0.75

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
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Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-21

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Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
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## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	30.88	31.87	32.25	35.24	31.59	30.15	28.79	26.58	0- 10	3.081	3.081	13.4,13.4
20	22.88	24.37	24.94	30.41	23.91	22.26	20.87	16.94	10- 20	7.675	10.76	46.9,46.9
30	9.657	12.41	14.58	21.06	11.70	9.604	6.211	3.218	20- 30	8.023	18.78	81.8,81.8
40	1.240	1.658	1.477	4.887	1.394	1.314	0.9055	0.6996	30- 40	3.450	22.23	96.9,96.9
50	0.1049	0.3487	0.2421	0.7764	0.1732	0.3348	0.0261	0.1686	40- 50	0.6328	22.86	99.6,99.6
60	0.0099	0	0.0262	0.0104	0	0.0299	0	0.0107	50- 60	0.0823	22.94	100,100
70	0	0	0	0	0	0	0	0	60- 70	0.0022	22.95	100,100
80	0	0	0	0	0	0	0	0	70- 80	0	22.95	100,100
90	0	0	0	0	0	0	0	0	80- 90	0	22.95	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): 22.665 lm

%lum = 98.8%

%lamp = 98.8%

Conical surface Flux(120deg): 22.944 lm

%lum = 100.0%

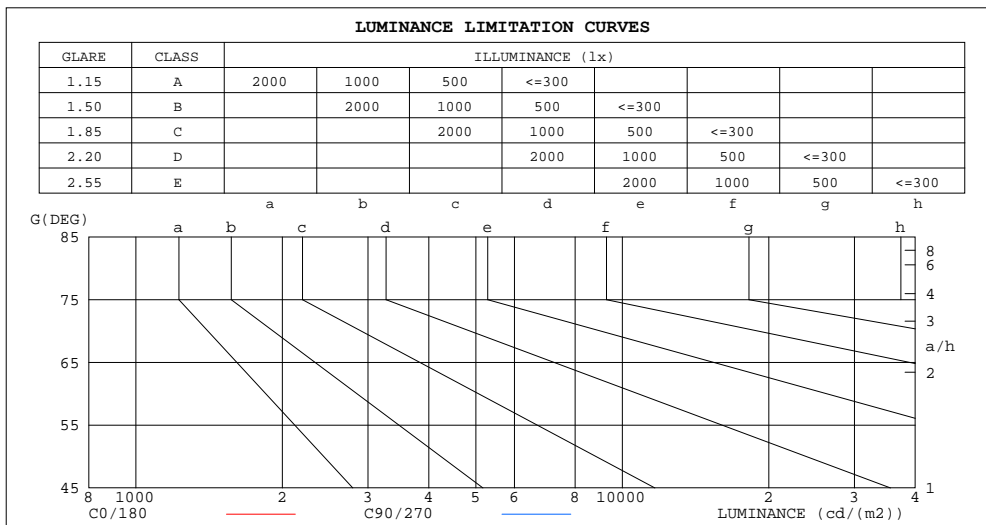
%lamp = 100.0%

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Remarks:

**LUMINANCE LIMITATION CURVES**

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SPEC.:1800K	DIM.: $\phi$ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	0	0
80	0	0
75	0	0
70	0	0
65	0	0
60	4	11
55	21	28
50	35	77
45	174	192

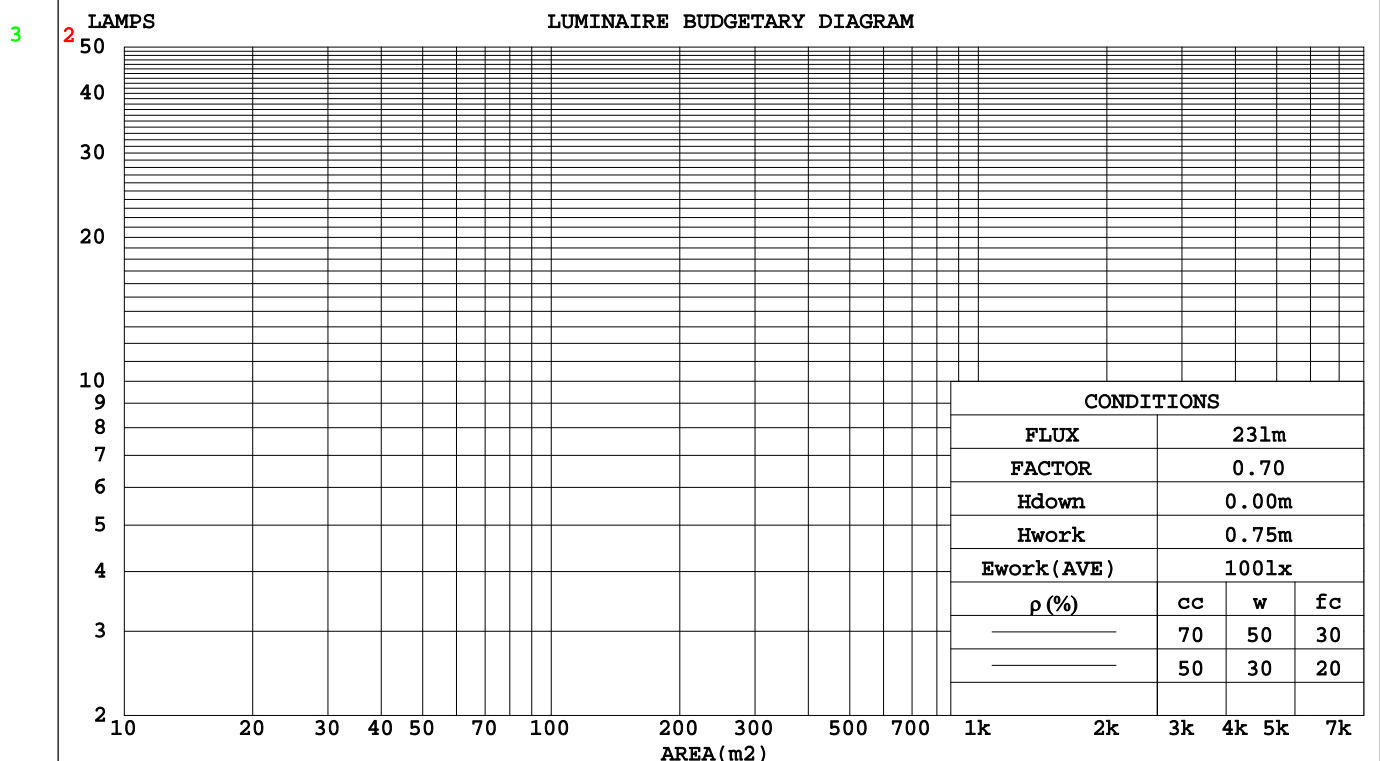
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**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

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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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.02	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.98	1.03	.99	.96	.90	.97	.94	.97	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.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	.83	.80	.79
5.0	.87	.82	.78	.86	.81	.78	.85	.80	.77	.83	.79	.76	.81	.78	.76	.74
6.0	.82	.77	.73	.82	.77	.73	.80	.76	.72	.79	.75	.72	.78	.74	.71	.70
7.0	.78	.73	.69	.77	.72	.69	.76	.72	.68	.75	.71	.68	.74	.70	.67	.66
8.0	.74	.69	.65	.74	.68	.65	.73	.68	.64	.72	.67	.64	.71	.67	.64	.63
9.0	.70	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.67	.63	.61	.59
10.0	.67	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.58	.64	.60	.58	.56



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Test Distance:8.967m [K=1.0000]  
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## WEC AND CCEC

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MFR.: NEKO LIGHTING AG		

$\rho_{cc}$	80%			70%			50%			30%			10%			0	
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
$\rho_{fc}$	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	.146	.084	.027	.135	.078	.025	.124	.072	.023		
2.0	.158	.086	.026	.152	.084	.026	.141	.079	.024	.132	.074	.023	.123	.070	.022		
3.0	.150	.080	.024	.145	.078	.023	.136	.074	.022	.128	.070	.021	.120	.067	.021		
4.0	.143	.074	.022	.139	.072	.021	.131	.069	.021	.124	.066	.020	.117	.064	.019		
5.0	.136	.069	.020	.132	.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	.124	.062	.017	.122	.061	.017	.117	.059	.017	.112	.057	.017	.107	.056	.016		
8.0	.119	.058	.016	.117	.058	.016	.112	.056	.016	.108	.055	.016	.104	.053	.016		
9.0	.115	.055	.015	.112	.055	.015	.108	.054	.015	.104	.052	.015	.101	.051	.015		
10.0	.110	.053	.015	.108	.052	.015	.105	.051	.014	.101	.050	.014	.098	.049	.014		

$\rho_{cc}$	80%			70%			50%			30%			10%			0	
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
$\rho_{fc}$	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	.056	.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	.104	.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	.087	.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		

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C Interval: 15.0DEG  
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 $\gamma$  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:0.0105A P:1.400W PF:0.6057 Freq:49.99Hz Lamp Flux:22.946x1 lm										
NAME: S68R1-13W-DW-918-W					TYPE:Downlight			SERIAL No.:		
SPEC.:1800K					DIM.: $\phi$ 78mm*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	15.8	16.6	16.0	16.8	17.0	16.3	17.2	16.5	17.3	17.5
3H	15.6	16.4	15.8	16.6	16.8	16.1	16.9	16.4	17.1	17.3
4H	15.5	16.3	15.8	16.5	16.7	16.0	16.8	16.3	17.0	17.2
6H	15.4	16.1	15.7	16.4	16.6	15.9	16.7	16.2	16.9	17.1
8H	15.4	16.1	15.7	16.3	16.6	15.9	16.6	16.2	16.8	17.1
12H	15.3	16.0	15.6	16.3	16.5	15.9	16.5	16.2	16.8	17.0
4H 2H	15.5	16.3	15.8	16.5	16.7	16.0	16.8	16.3	17.0	17.2
3H	15.3	16.0	15.7	16.3	16.5	15.9	16.5	16.2	16.8	17.0
4H	15.2	15.8	15.6	16.1	16.4	15.8	16.4	16.1	16.7	17.0
6H	15.1	15.7	15.5	16.0	16.3	15.7	16.2	16.0	16.5	16.9
8H	15.1	15.6	15.5	15.9	16.3	15.6	16.1	16.0	16.4	16.8
12H	15.0	15.5	15.4	15.9	16.2	15.6	16.0	16.0	16.4	16.8
8H 4H	15.1	15.6	15.5	15.9	16.3	15.6	16.1	16.0	16.4	16.8
6H	15.0	15.4	15.4	15.8	16.2	15.5	15.9	15.9	16.3	16.7
8H	14.9	15.3	15.4	15.7	16.1	15.5	15.8	15.9	16.2	16.7
12H	14.9	15.2	15.3	15.6	16.1	15.4	15.7	15.9	16.1	16.6
12H 4H	15.0	15.5	15.4	15.9	16.2	15.6	16.0	16.0	16.4	16.8
6H	14.9	15.3	15.4	15.7	16.1	15.5	15.8	15.9	16.2	16.7
8H	14.9	15.2	15.3	15.6	16.1	15.4	15.7	15.9	16.1	16.6
Variations with the observer position at spacings:										
S = 1.0H	+ 2.8 / -27.4					+ 4.6 / -26.1				
1.5H	+ 4.7 / -16.7					+ 6.9 / -11.3				
2.0H	+ 6.7 / - 1.5					+ 7.3 / -32.3				

CIE Pub.117, 22.95 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -13.1$ )

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Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:58%  
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Remarks:

### UTILIZATION FACTORS TABLE

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SPEC.:1800K	DIM.: $\varnothing 78\text{mm} \times H98\text{mm}$	
MFR.: NEKO LIGHTING AG		

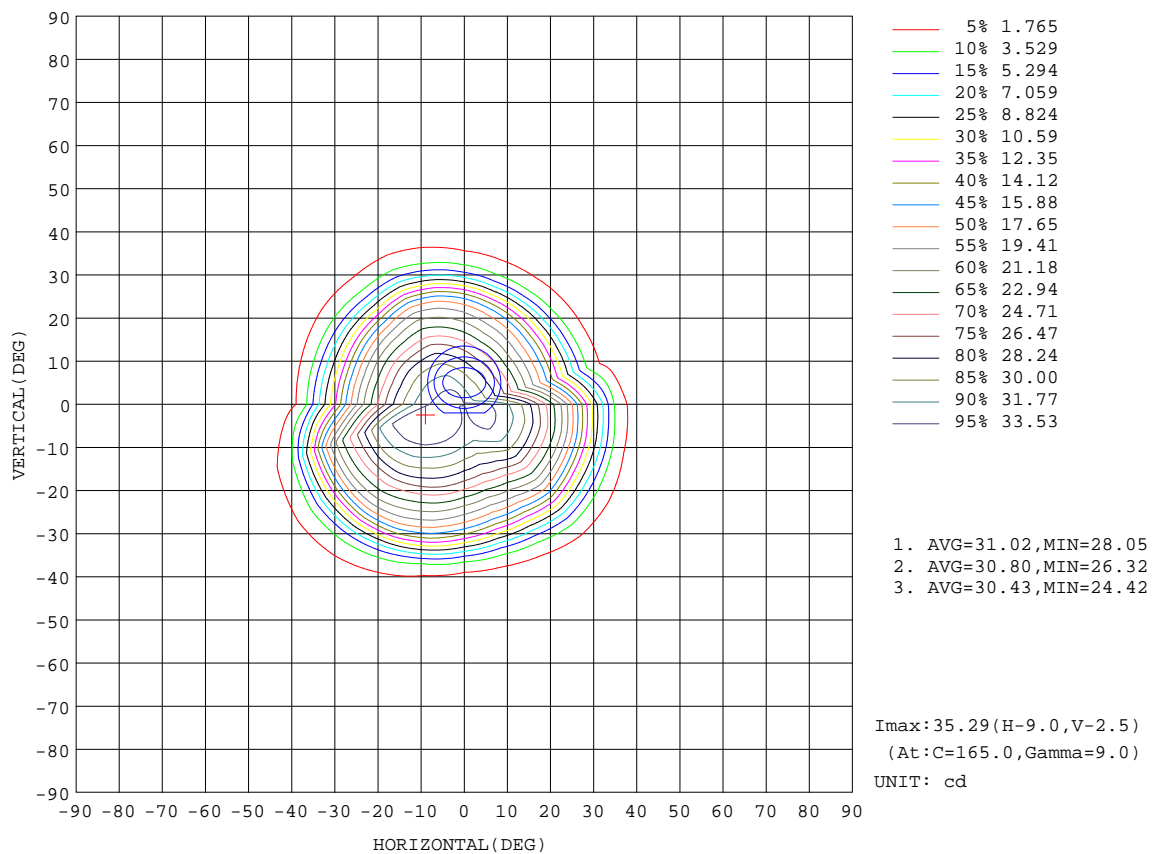
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	80	89	83	80	88	83	80	77
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	96	92	100	95	92	99	95	92	88
1.25	105	100	97	104	99	96	102	98	95	91
1.50	107	103	100	106	102	99	104	101	98	94
2.00	109	106	103	108	105	102	105	103	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	103	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	115	113	112	113	112	110	109	108	107	100
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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ISOCANDELA DIAGRAM

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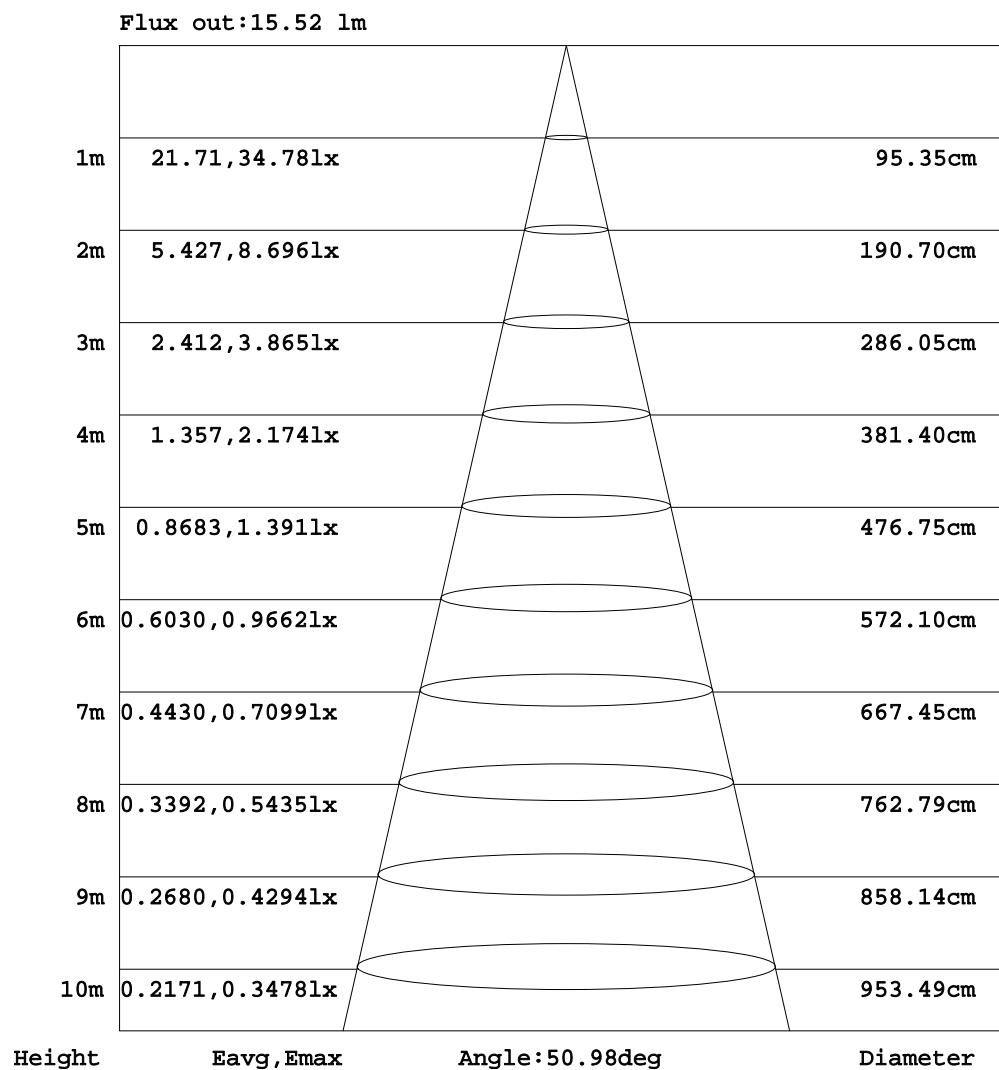


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**AAI Figure**

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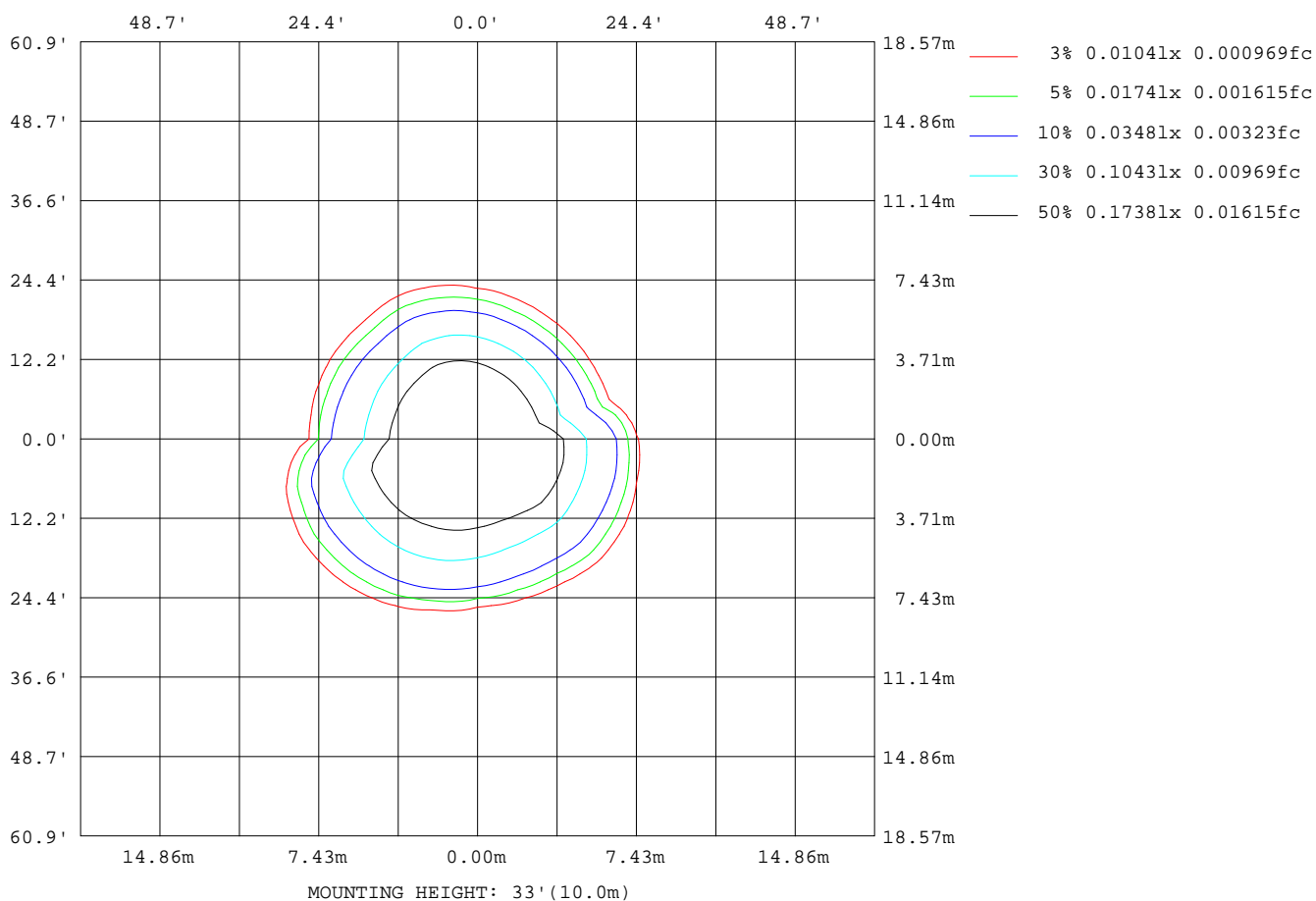
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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### LED Avg.L Report

Test:U:220.8V I:0.0105A P:1.400W PF:0.6057 Freq:49.99Hz Lamp Flux:22.946x1 lm		
NAME: S68R1-13W-DW-918-W	TYPE:Downlight	SERIAL No.:
SPEC.:1800K	DIM.: $\phi$ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

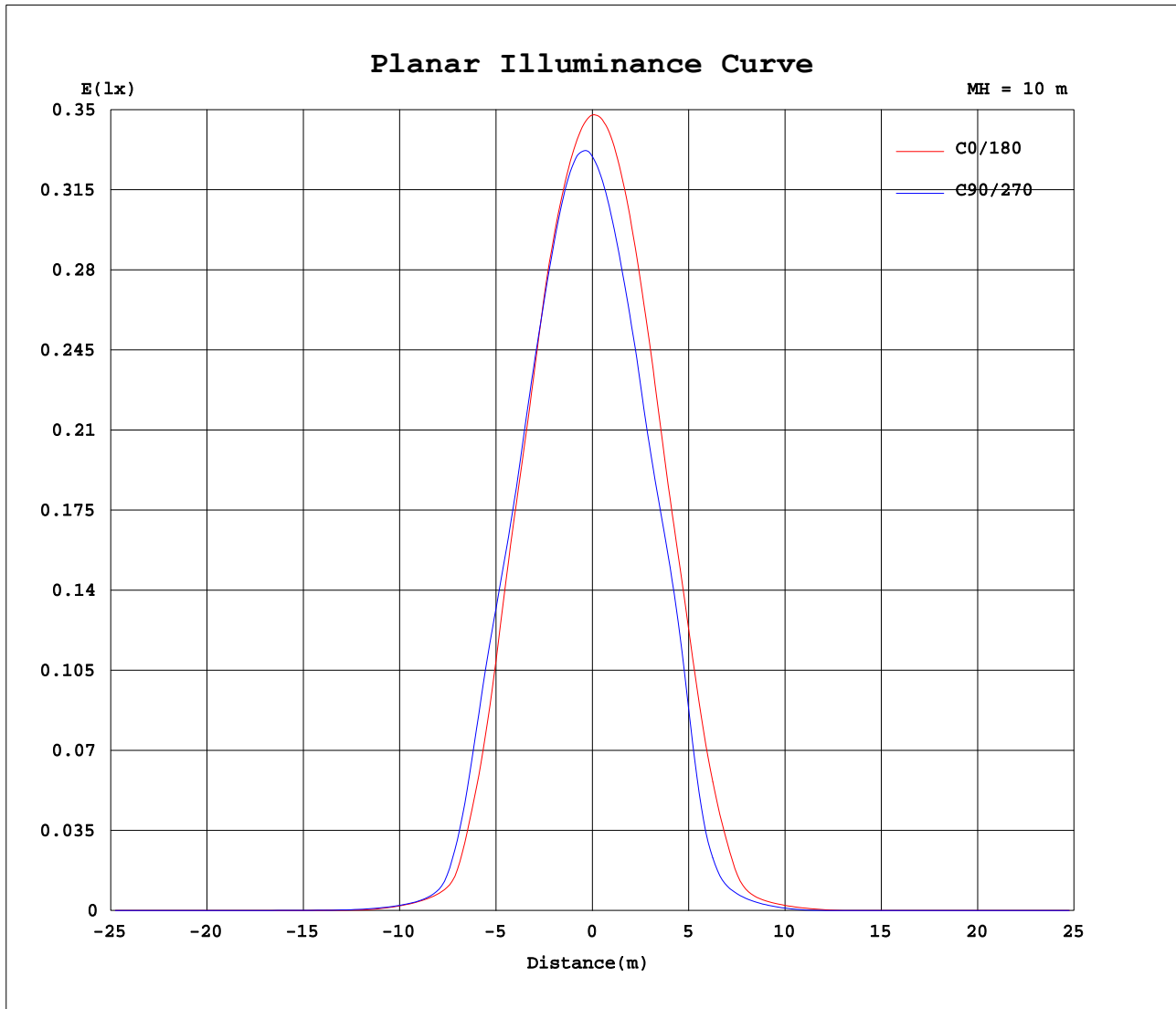
AvgL	cd/m2
L_0~180 (65) av	0
L_0~180 (75) av	0
L_0~180 (85) av	0
L_90~270 (65) av	0
L_90~270 (75) av	0
L_90~270 (85) av	0
L_45 (65) av	0
L_45 (75) av	0
L_45 (85) av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-21

$\gamma$  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:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-12-21

$\gamma$  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:

```