

LED Downlight SENSE Series S68R1-7.5W-940-M

Light Output Ratio:	100.0%	
Luminaire Power:	7.35 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.70	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2021-04-15

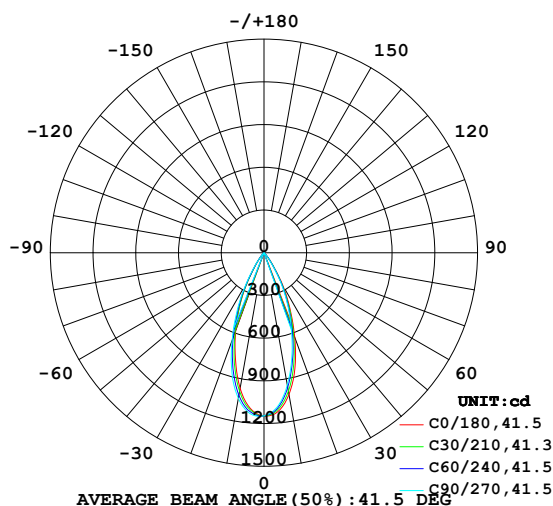
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 8.967m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

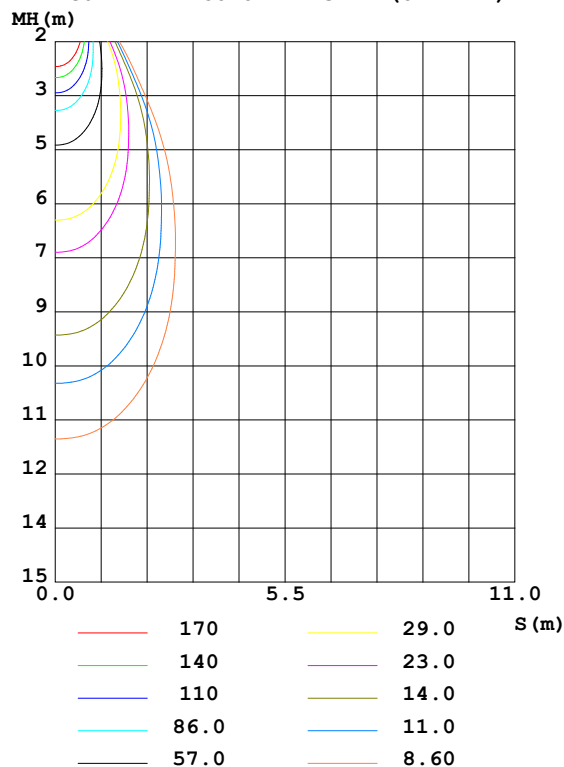
Test:U:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:597.498x1 lm		
NAME: S68R1-7.5W-940-M	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 81.29 lm/W			
MODEL	CITIZEN-4000K	I _{max} (cd)	1150	S/MH (C0/180)	0.65
NOMINAL POWER (W)	9	LOR (%)	100.0	S/MH (C90/270)	0.70
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	597.50	η UP, DN (C0-180)	0.0, 48.6
NOMINAL FLUX (lm)	597.498	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 51.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	29.4	η down (%)	100.0	CIBSE SHR MAX	0.70

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: 2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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	1011	976.9	944.2	940.2	966.6	999.9	1039	1042	0- 10	102.0	102.0	17.1,17.1
20	631.8	597.6	560.6	559.9	581.8	608.7	656.6	662.6	10- 20	222.8	324.8	54.4,54.4
30	264.1	245.1	227.5	230.7	222.8	221.8	251.2	264.0	20- 30	188.1	513.0	85.8,85.8
40	34.14	50.11	30.80	44.95	28.83	38.52	30.05	50.53	30- 40	71.20	584.1	97.8,97.8
50	1.927	7.287	1.610	6.843	1.397	5.133	1.621	5.802	40- 50	11.97	596.1	99.8,99.8
60	0.2776	0.3916	0.3561	0.4856	0.2715	0.3662	0.2297	0.3661	50- 60	1.107	597.2	100,100
70	0.0892	0.0887	0.0839	0.1251	0.0676	0.1152	0.0209	0.1047	60- 70	0.1934	597.4	100,100
80	0.0419	0.0209	0.0471	0.0209	0.0209	0.0418	0.0209	0.0366	70- 80	0.0462	597.5	100,100
90	0.0209	0.0209	0.0261	0.0209	0.0209	0.0261	0.0209	0.0209	80- 90	0.0295	597.5	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): 592.92 lm

%lum = 99.2%

%lamp = 99.2%

Conical surface Flux(120deg): 597.23 lm

%lum = 100.0%

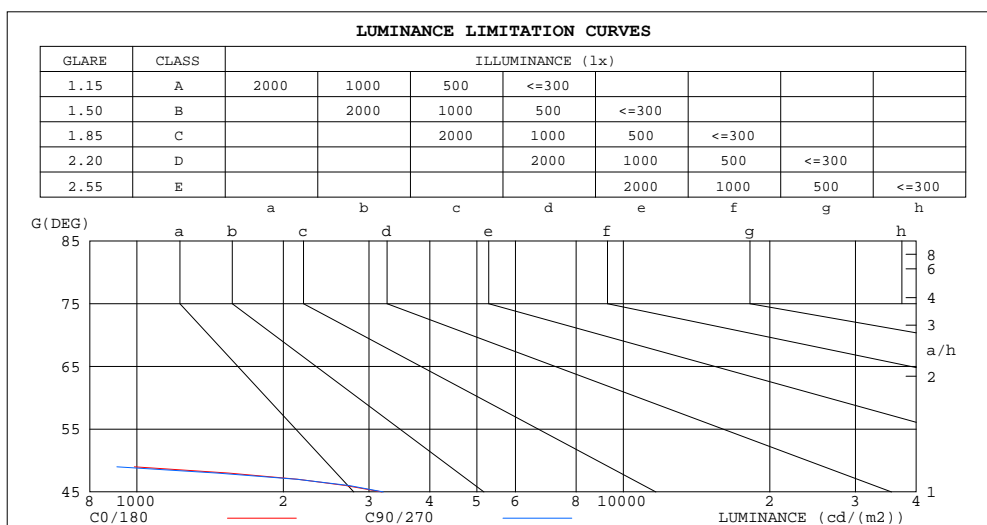
%lamp = 100.0%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:597.498x1 lm		
NAME: S68R1-7.5W-940-M	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	100	88
80	50	57
75	47	55
70	55	51
65	98	117
60	116	149
55	212	256
50	628	524
45	3190	3210

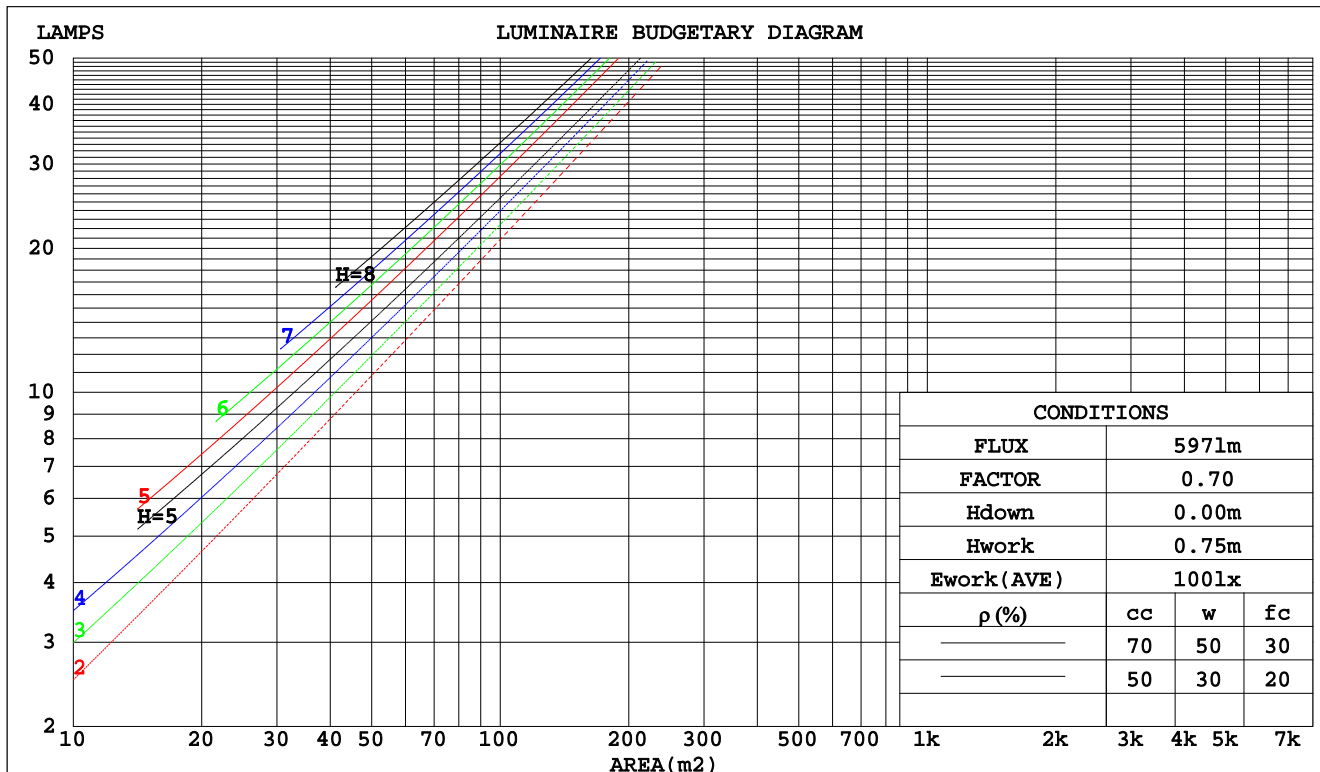
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:597.498x1 lm		
NAME: S68R1-7.5W-940-M	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 78mm*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			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	1.06	1.06	1.04	1.03	1.02	1.01	.00	.98	.98	.97	.95
2.0	1.05	1.02	.99	1.03	1.00	.98	1.00	.98	.95	.97	.95	.93	.95	.93	.91	.90
3.0	.99	.95	.91	.98	.94	.91	.95	.92	.89	.93	.90	.88	.91	.89	.87	.85
4.0	.94	.89	.85	.93	.88	.85	.91	.87	.84	.89	.86	.83	.87	.84	.82	.81
5.0	.89	.84	.80	.88	.83	.80	.86	.82	.79	.85	.81	.79	.83	.80	.78	.77
6.0	.85	.79	.76	.84	.79	.75	.82	.78	.75	.81	.77	.74	.80	.77	.74	.73
7.0	.81	.75	.72	.80	.75	.72	.79	.74	.71	.78	.74	.71	.77	.73	.70	.69
8.0	.77	.72	.68	.76	.71	.68	.75	.71	.68	.74	.70	.67	.73	.70	.67	.66
9.0	.73	.68	.65	.73	.68	.65	.72	.68	.64	.71	.67	.64	.70	.67	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.65	.62	.68	.64	.61	.68	.64	.61	.60



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:597.498x1 lm		
NAME: S68R1-7.5W-940-M	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: \varnothing 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

ρ_{cc}	80%			70%			50%			30%			10%			0	
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.159	.090	.029	.152	.087	.028	.140	.080	.026	.128	.074	.024	.118	.068	.022		
2.0	.150	.082	.025	.145	.080	.025	.135	.075	.023	.125	.070	.022	.116	.066	.021		
3.0	.143	.076	.023	.138	.074	.022	.129	.070	.021	.121	.066	.020	.113	.063	.019		
4.0	.135	.070	.021	.131	.069	.020	.124	.066	.020	.117	.063	.019	.110	.060	.018		
5.0	.129	.066	.019	.125	.064	.019	.119	.062	.018	.113	.060	.018	.107	.057	.017		
6.0	.123	.062	.018	.120	.061	.017	.114	.059	.017	.109	.057	.017	.104	.055	.016		
7.0	.118	.058	.016	.115	.057	.016	.110	.056	.016	.105	.054	.016	.101	.052	.015		
8.0	.113	.055	.015	.110	.054	.015	.106	.053	.015	.102	.052	.015	.098	.050	.015		
9.0	.108	.052	.015	.106	.052	.015	.102	.050	.014	.098	.049	.014	.095	.048	.014		
10.0	.104	.050	.014	.102	.049	.014	.099	.048	.014	.095	.047	.013	.092	.046	.013		

ρ_{cc}	80%			70%			50%			30%			10%			0	
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{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	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016		
2.0	.153	.133	.115	.131	.114	.100	.090	.079	.069	.052	.046	.041	.017	.015	.013		
3.0	.140	.113	.092	.120	.098	.080	.082	.068	.056	.048	.040	.033	.015	.013	.011		
4.0	.129	.098	.075	.111	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009		
5.0	.119	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007		
6.0	.112	.077	.052	.096	.067	.045	.066	.047	.032	.038	.027	.019	.012	.009	.006		
7.0	.105	.069	.044	.090	.060	.039	.062	.042	.027	.036	.025	.016	.012	.008	.005		
8.0	.099	.063	.038	.085	.054	.033	.059	.038	.024	.034	.023	.014	.011	.007	.005		
9.0	.094	.057	.033	.081	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004		
10.0	.089	.053	.029	.077	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:597.498x1 lm										
NAME: S68R1-7.5W-940-M					TYPE:Downlight			SERIAL No.:		
SPEC.:4000K					DIM.: ϕ 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	15.2	16.0	15.4	16.2	16.3	14.7	15.5	14.9	15.7	15.8
3H	15.0	15.8	15.3	16.0	16.2	14.5	15.3	14.8	15.5	15.7
4H	15.0	15.7	15.2	15.9	16.1	14.4	15.1	14.7	15.4	15.6
6H	14.9	15.5	15.2	15.8	16.0	14.3	15.0	14.6	15.2	15.5
8H	14.8	15.5	15.1	15.7	16.0	14.3	14.9	14.6	15.2	15.4
12H	14.8	15.4	15.1	15.7	15.9	14.3	14.9	14.6	15.1	15.4
4H 2H	15.0	15.7	15.2	15.9	16.1	14.4	15.1	14.7	15.4	15.6
3H	14.8	15.4	15.1	15.7	15.9	14.3	14.9	14.6	15.1	15.4
4H	14.7	15.2	15.0	15.5	15.8	14.2	14.7	14.5	15.0	15.3
6H	14.6	15.1	15.0	15.4	15.8	14.1	14.6	14.4	14.9	15.2
8H	14.5	15.0	14.9	15.3	15.7	14.0	14.5	14.4	14.8	15.2
12H	14.5	14.9	14.9	15.3	15.7	14.0	14.4	14.4	14.7	15.1
8H 4H	14.5	15.0	14.9	15.3	15.7	14.0	14.5	14.4	14.8	15.2
6H	14.4	14.8	14.9	15.2	15.6	13.9	14.3	14.3	14.7	15.1
8H	14.4	14.7	14.8	15.1	15.6	13.8	14.2	14.3	14.6	15.0
12H	14.3	14.6	14.8	15.0	15.5	13.8	14.1	14.2	14.5	15.0
12H 4H	14.5	14.9	14.9	15.3	15.7	14.0	14.4	14.4	14.7	15.1
6H	14.4	14.7	14.8	15.1	15.6	13.8	14.2	14.3	14.6	15.0
8H	14.3	14.6	14.8	15.0	15.5	13.8	14.1	14.2	14.5	15.0
Variations with the observer position at spacings:										
S = 1.0H	+ 4.1 / -22.5					+ 2.9 / -21.1				
1.5H	+ 6.7 / -19.3					+ 5.4 / -18.4				
2.0H	+ 7.1 / -13.8					+ 6.3 / -13.6				

CIE Pub.117, 597.5 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -1.8$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:597.498x1 lm		
NAME: S68R1-7.5W-940-M	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: $\varnothing 78\text{mm} \times H98\text{mm}$	
MFR.: NEKO LIGHTING AG		

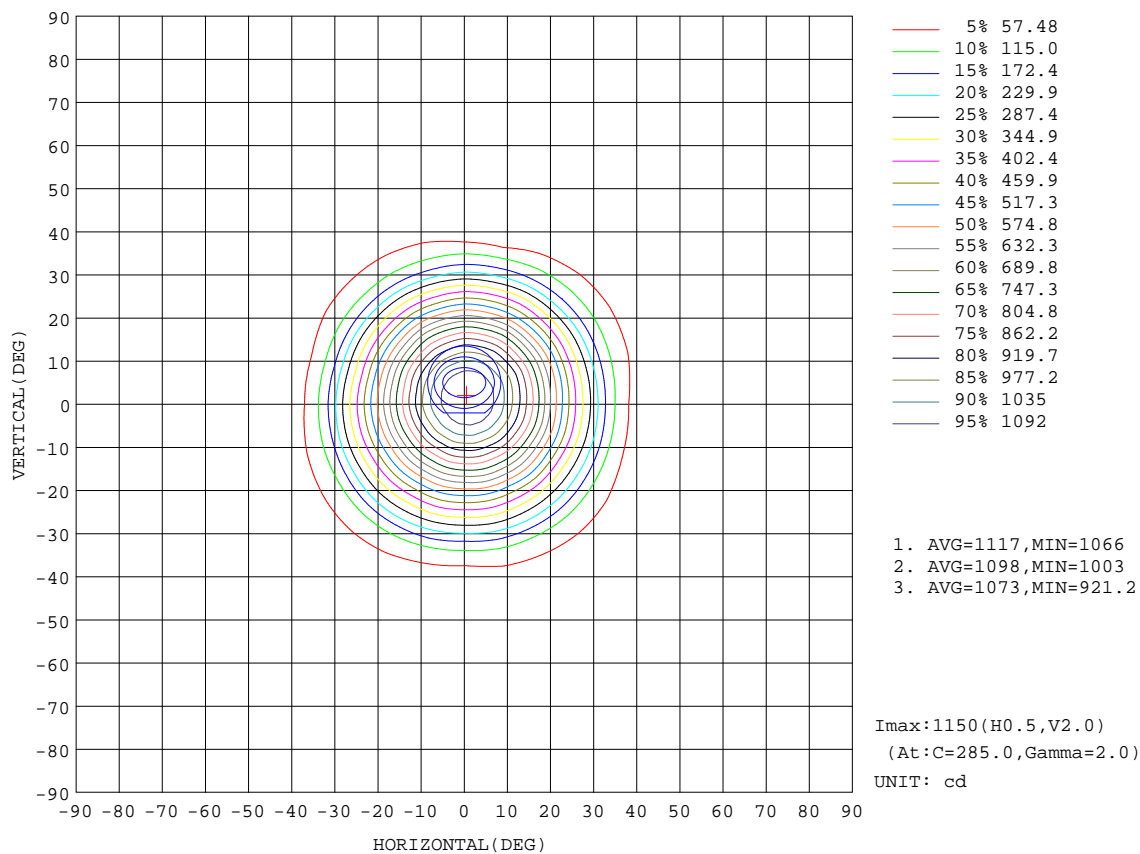
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	81	90	84	81	89	84	81	77
0.80	97	92	89	97	92	88	95	91	88	85
1.00	101	96	93	100	96	93	99	95	92	88
1.25	105	100	97	104	100	97	102	98	96	92
1.50	107	103	100	106	102	100	104	101	98	94
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	106	104	107	104	102	96
3.00	112	109	107	111	108	106	107	105	104	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	116	114	112	113	112	110	110	108	107	100
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:2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:597.498x1 lm		
NAME: S68R1-7.5W-940-M	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

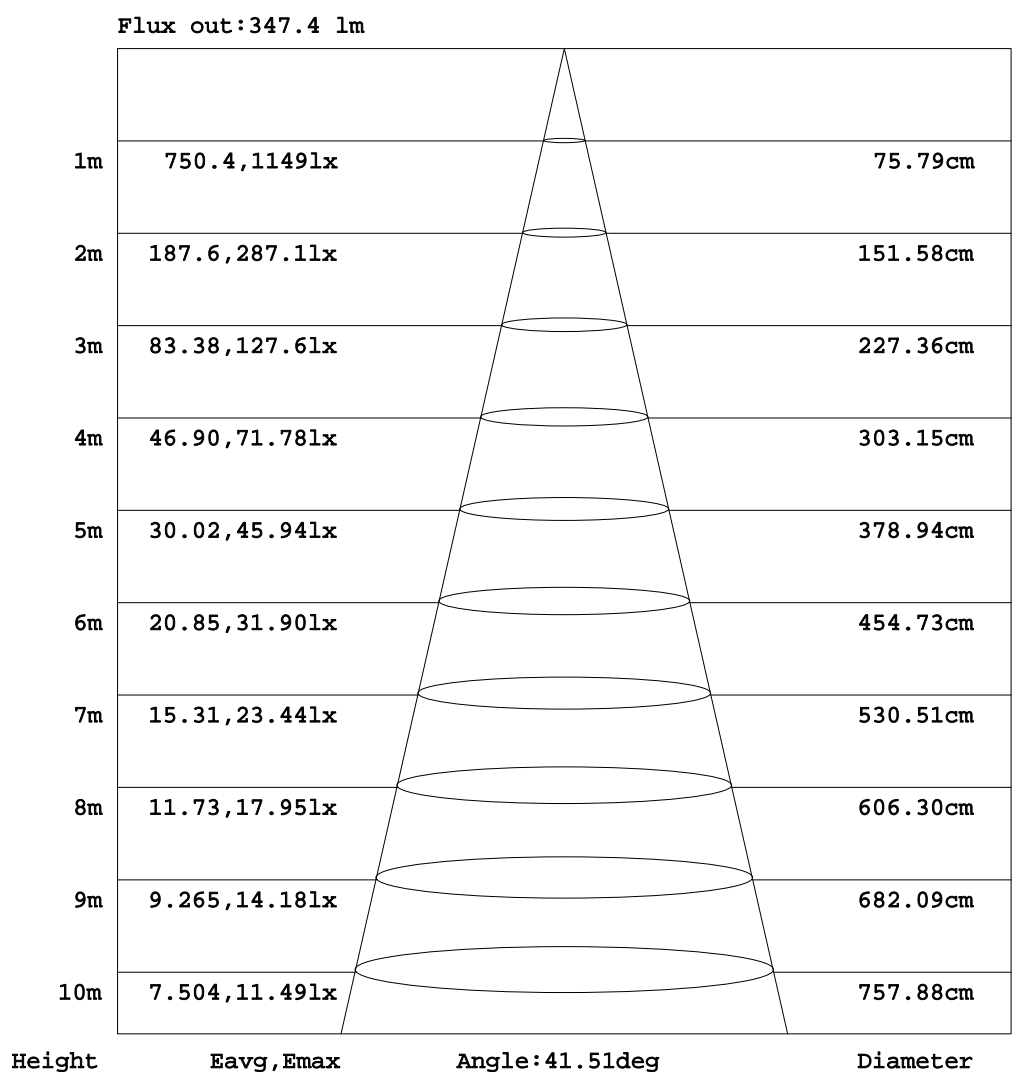


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

AAI Figure

Test:U:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:597.498x1 lm		
NAME: S68R1-7.5W-940-M	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		



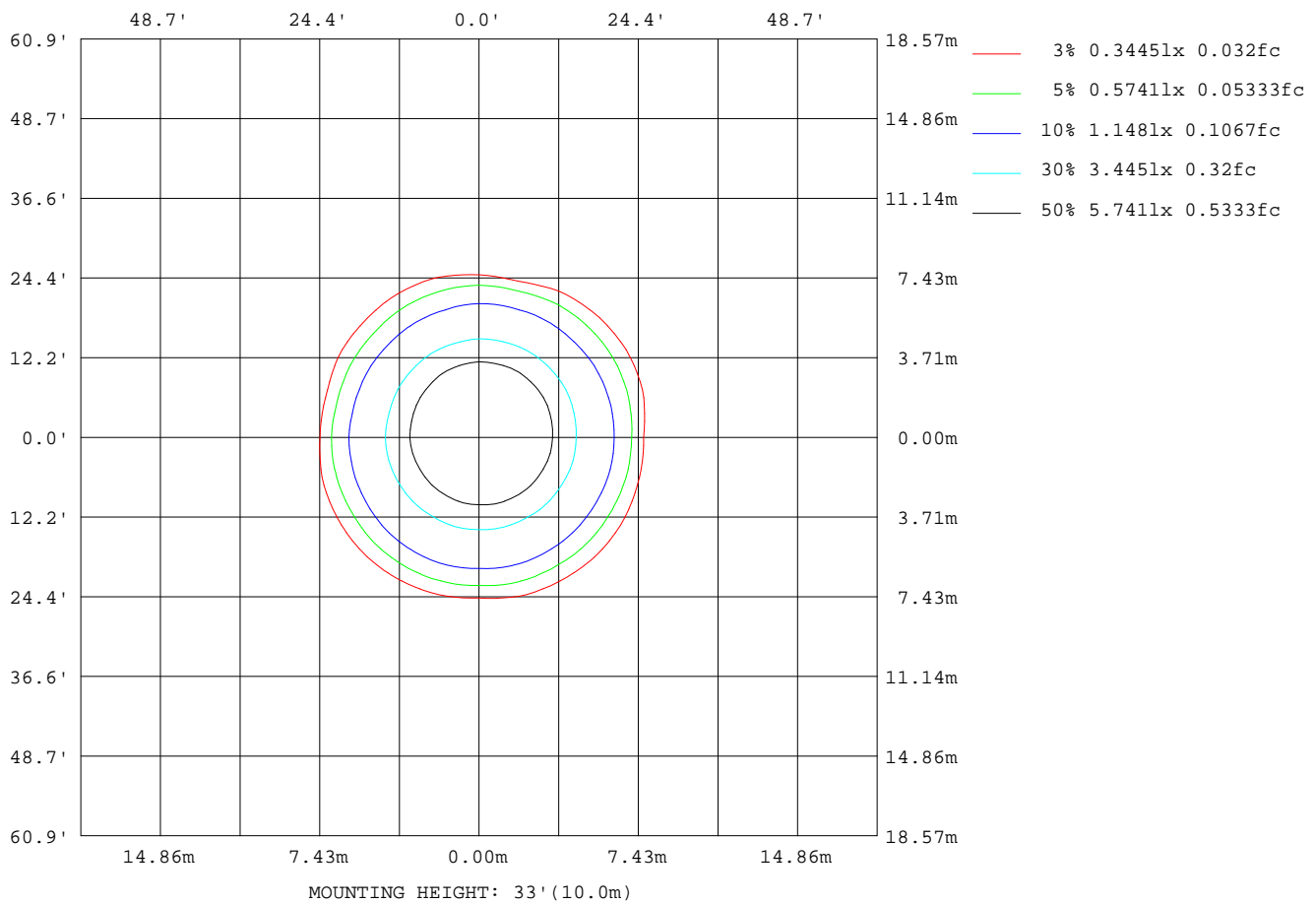
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 8.967m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:597.498x1 lm		
NAME: S68R1-7.5W-940-M	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:597.498x1 lm		
NAME: S68R1-7.5W-940-M	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

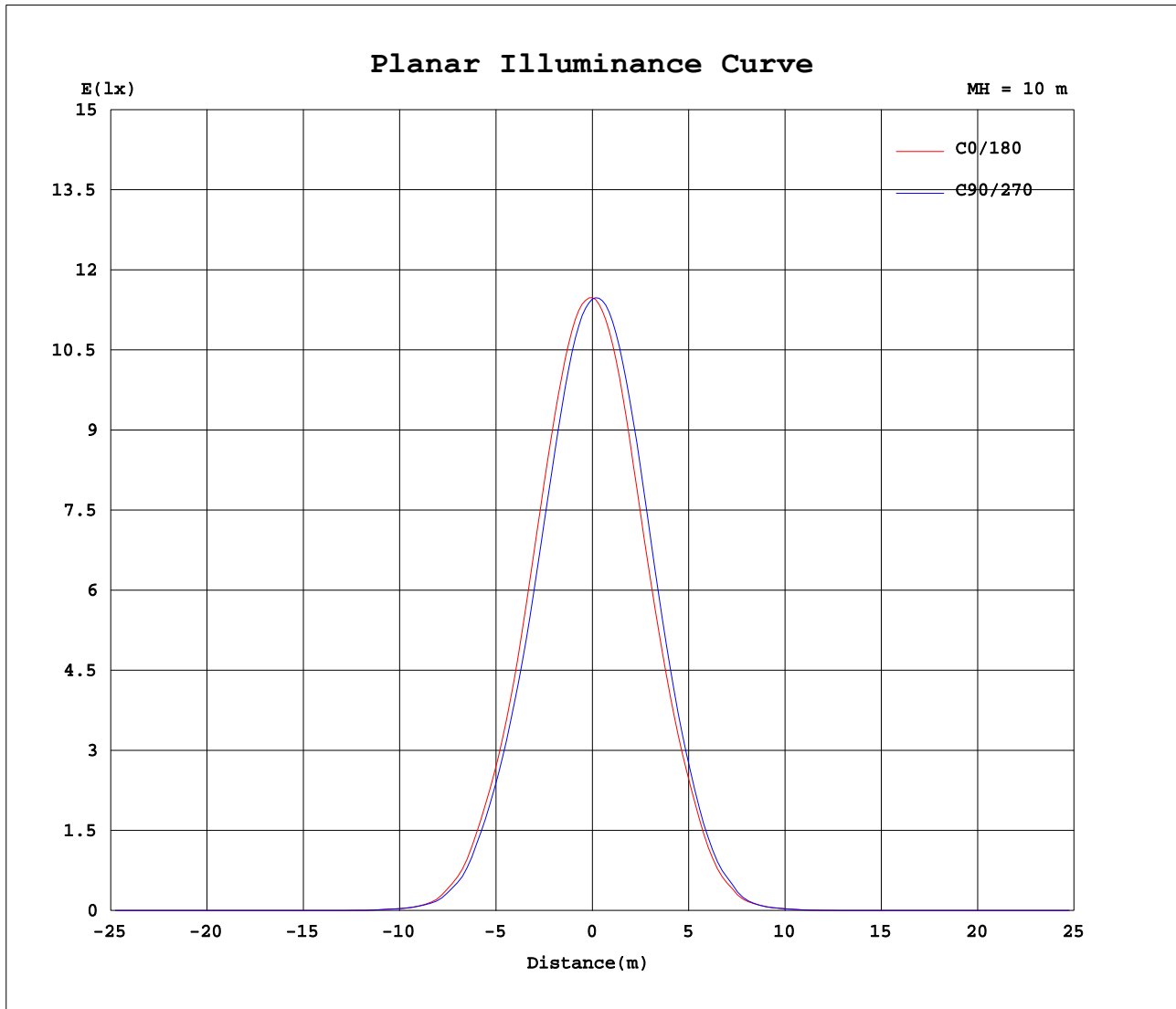
AvgL	cd/m2
L_0~180 (65) av	97
L_0~180 (75) av	32
L_0~180 (85) av	75
L_90~270 (65) av	96
L_90~270 (75) av	36
L_90~270 (85) av	69
L_45 (65) av	93
L_45 (75) av	31
L_45 (85) av	63

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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: 2021-04-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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: 1.0DEG
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: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

```