

LED Downlight SENSE Series S68R1-11W-930-N



Light Output Ratio:	100.0%	
Luminaire Power:	10.43 W	
SHR Nominal:	0.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2021-03-30

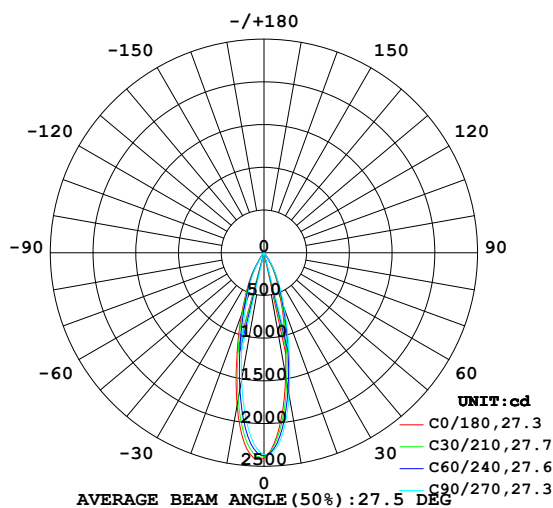
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 8.967m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

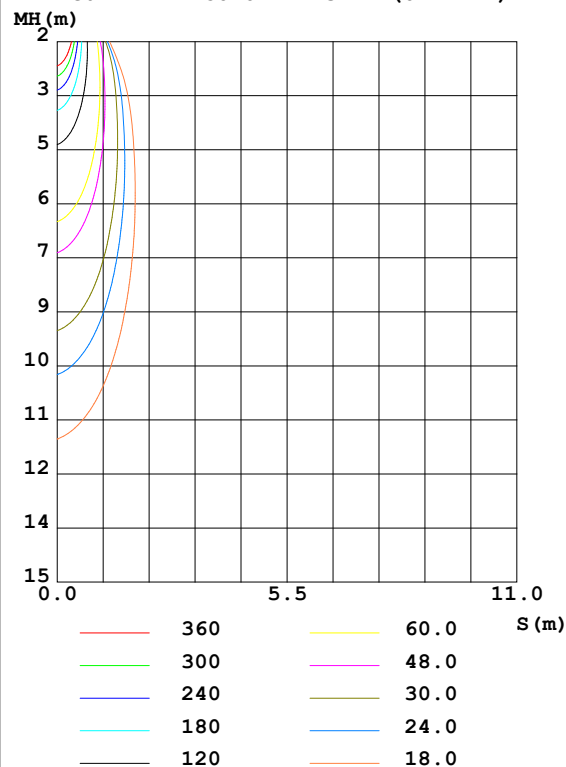
Test:U:29.80V I:0.3500A P:10.43W PF:1.000 Freq:0Hz Lamp Flux:728.293x1 lm		
NAME: S68R1-11W-930-N	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 69.83 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	2422	S/MH (C0/180)	0.51
NOMINAL POWER (W)	11	LOR (%)	100.0	S/MH (C90/270)	0.43
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	728.29	η UP, DN (C0-180)	0.0, 51.5
NOMINAL FLUX (lm)	728.293	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 48.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	28.3	η down (%)	100.0	CIBSE SHR MAX	1.00

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: 2021-03-30

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	1466	1596	1693	1761	1816	1672	1513	1395	0- 10	187.1	187.1	25.7,25.7
20	566.3	634.4	694.5	728.1	768.9	697.3	600.2	535.5	10- 20	291.3	478.5	65.7,65.7
30	187.3	226.4	244.5	251.0	268.0	222.2	191.7	180.3	20- 30	185.0	663.5	91.1,91.1
40	22.34	28.42	31.29	30.04	34.85	29.14	26.73	23.53	30- 40	56.62	720.1	98.9,98.9
50	1.449	2.492	2.848	2.189	2.266	2.191	2.156	1.701	40- 50	7.380	727.5	99.9,99.9
60	0.1466	0.2190	0.3564	0.1565	0.1719	0.1626	0.0783	0.1100	50- 60	0.6668	728.1	100,100
70	0.0627	0.0314	0.0470	0.0314	0.0314	0.0366	0.0261	0.0366	60- 70	0.0903	728.2	100,100
80	0.0575	0.0314	0.0418	0.0314	0.0314	0.0314	0.0261	0.0314	70- 80	0.0379	728.3	100,100
90	0.0523	0.0314	0.0314	0.0314	0.0314	0.0314	0.0261	0.0261	80- 90	0.0364	728.3	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): 725.69 lm

%lum = 99.6%

%lamp = 99.6%

Conical surface Flux(120deg): 728.13 lm

%lum = 100.0%

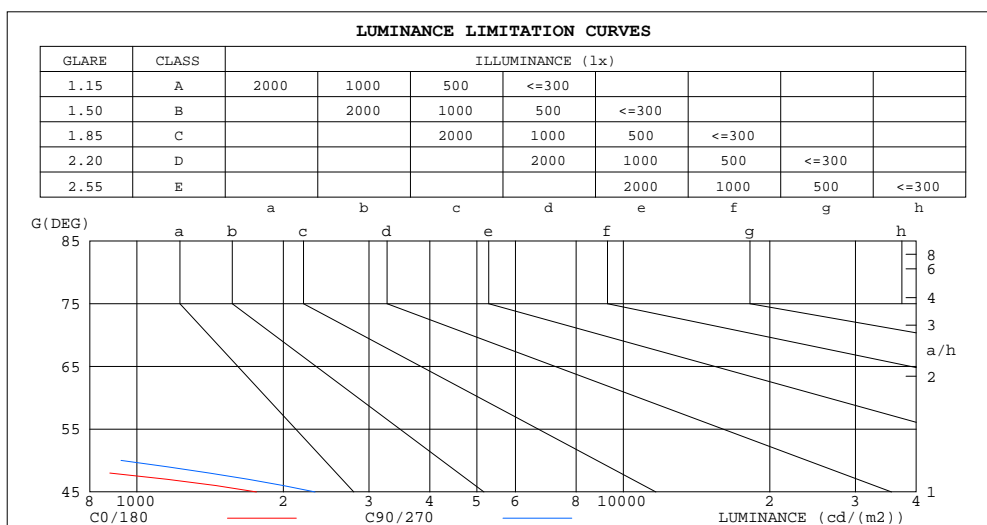
%lamp = 100.0%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-03-30

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:29.80V I:0.3500A P:10.43W PF:1.000 Freq:0Hz Lamp Flux:728.293x1 lm		
NAME: S68R1-11W-930-N	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	138	100
80	69	50
75	47	34
70	38	29
65	49	101
60	61	149
55	199	290
50	472	928
45	1761	2323

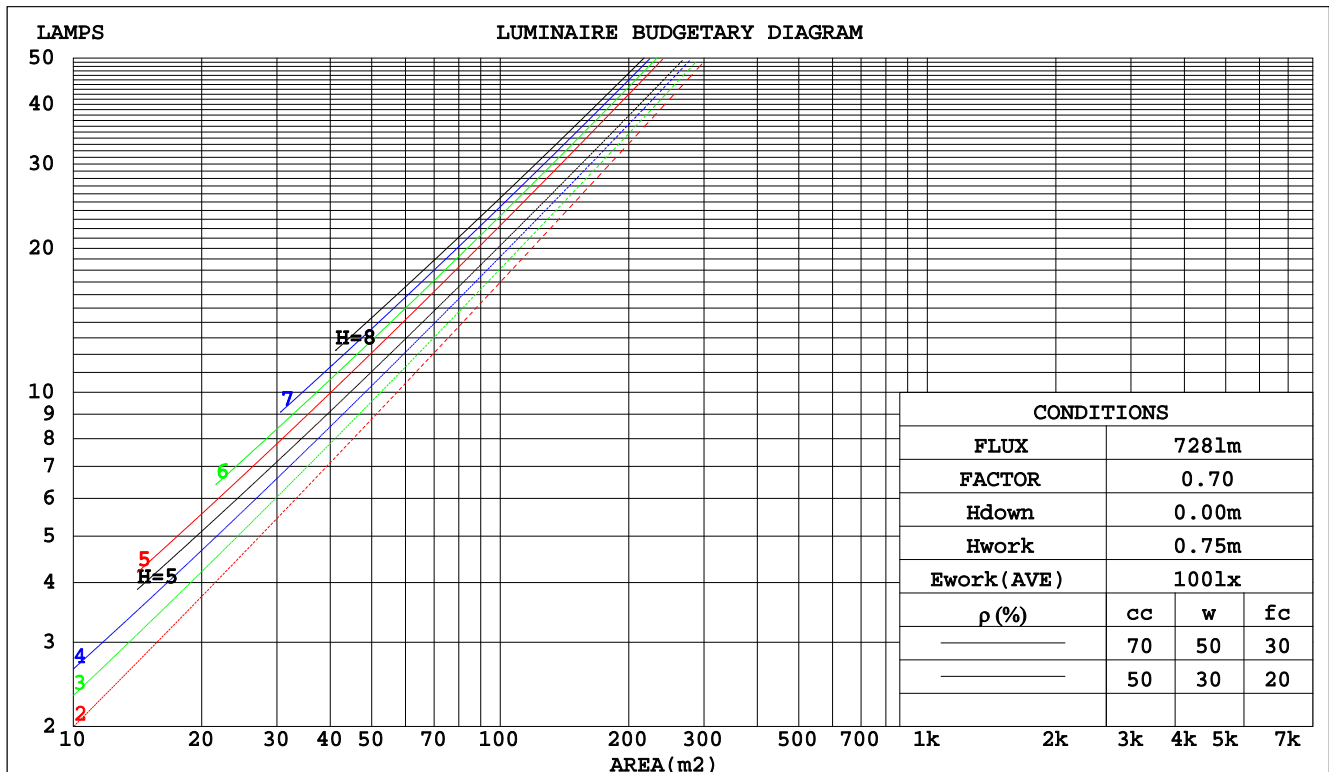
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-03-30

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:29.80V I:0.3500A P:10.43W PF:1.000 Freq:0Hz Lamp Flux:728.293x1 lm		
NAME: S68R1-11W-930-N	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	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	.00
1.0	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.03	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	1.00	1.05	1.02	.99	1.02	.99	.97	.99	.97	.95	.96	.94	.93	.92
3.0	1.01	.97	.94	.90	.96	.93	.97	.94	.92	.95	.93	.90	.93	.91	.89	.88
4.0	.96	.92	.89	.95	.91	.88	.93	.90	.87	.91	.89	.86	.90	.87	.85	.84
5.0	.92	.88	.84	.91	.87	.84	.90	.86	.83	.88	.85	.82	.87	.84	.82	.81
6.0	.88	.84	.80	.88	.83	.80	.86	.82	.80	.85	.82	.79	.84	.81	.79	.77
7.0	.85	.80	.77	.84	.80	.77	.83	.79	.76	.82	.78	.76	.81	.78	.75	.74
8.0	.82	.77	.74	.81	.77	.73	.80	.76	.73	.79	.76	.73	.78	.75	.73	.72
9.0	.78	.74	.71	.78	.74	.71	.77	.73	.70	.76	.73	.70	.76	.72	.70	.69
10.0	.76	.71	.68	.75	.71	.68	.75	.71	.68	.74	.70	.68	.73	.70	.68	.67



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-03-30

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:29.80V I:0.3500A P:10.43W PF:1.000 Freq:0Hz Lamp Flux:728.293x1 lm		
NAME: S68R1-11W-930-N	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	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	.148	.084	.027	.141	.081	.026	.129	.074	.024	.117	.068	.022	.107	.062	.020		
2.0	.139	.076	.023	.133	.073	.023	.123	.068	.021	.113	.064	.020	.104	.059	.019		
3.0	.130	.069	.021	.126	.067	.020	.117	.063	.019	.109	.060	.018	.102	.056	.017		
4.0	.123	.064	.019	.119	.062	.018	.112	.059	.018	.105	.056	.017	.099	.054	.016		
5.0	.117	.059	.017	.113	.058	.017	.107	.056	.016	.101	.053	.016	.096	.051	.015		
6.0	.111	.056	.016	.108	.055	.016	.103	.053	.015	.098	.051	.015	.093	.049	.015		
7.0	.106	.052	.015	.103	.052	.015	.099	.050	.014	.094	.048	.014	.090	.047	.014		
8.0	.101	.050	.014	.099	.049	.014	.095	.047	.014	.091	.046	.013	.087	.045	.013		
9.0	.097	.047	.013	.095	.046	.013	.091	.045	.013	.088	.044	.013	.085	.043	.012		
10.0	.093	.045	.012	.092	.044	.012	.088	.043	.012	.085	.042	.012	.082	.041	.012		

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	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.117	.130	.114	.101	.089	.079	.070	.051	.046	.041	.016	.015	.013	
3.0	.138	.113	.094	.118	.098	.082	.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	.074	.056	.069	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.108	.076	.054	.092	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.007	
7.0	.100	.068	.046	.086	.059	.040	.060	.042	.028	.035	.024	.017	.011	.008	.006	
8.0	.094	.062	.039	.081	.054	.034	.056	.038	.024	.033	.022	.015	.011	.007	.005	
9.0	.089	.056	.034	.077	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.084	.052	.030	.072	.045	.026	.050	.032	.019	.029	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jason
 Test Date:2021-03-30

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:29.80V I:0.3500A P:10.43W PF:1.000 Freq:0Hz Lamp Flux:728.293x1 lm										
NAME: S68R1-11W-930-N					TYPE:Downlight			SERIAL No.:		
SPEC.:3000K					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	10.3	11.1	10.5	11.2	11.4	12.6	13.3	12.8	13.5	13.6
3H	10.2	10.9	10.4	11.0	11.2	12.4	13.1	12.7	13.3	13.5
4H	10.1	10.7	10.4	11.0	11.2	12.4	13.0	12.6	13.2	13.4
6H	10.0	10.6	10.3	10.9	11.1	12.3	12.9	12.6	13.1	13.4
8H	10.0	10.6	10.3	10.8	11.1	12.2	12.8	12.5	13.1	13.3
12H	9.9	10.5	10.2	10.7	11.0	12.2	12.8	12.5	13.0	13.3
4H 2H	10.1	10.7	10.4	11.0	11.2	12.4	13.0	12.6	13.2	13.4
3H	9.9	10.5	10.2	10.7	11.0	12.2	12.8	12.5	13.0	13.3
4H	9.8	10.3	10.2	10.6	10.9	12.1	12.6	12.4	12.9	13.2
6H	9.7	10.2	10.1	10.5	10.9	12.0	12.4	12.4	12.8	13.1
8H	9.7	10.1	10.1	10.4	10.8	11.9	12.4	12.3	12.7	13.1
12H	9.6	10.0	10.0	10.4	10.8	11.9	12.3	12.3	12.6	13.0
8H 4H	9.7	10.1	10.1	10.4	10.8	11.9	12.4	12.3	12.7	13.1
6H	9.6	9.9	10.0	10.3	10.7	11.8	12.2	12.3	12.6	13.0
8H	9.5	9.8	9.9	10.2	10.7	11.8	12.1	12.2	12.5	12.9
12H	9.4	9.7	9.9	10.2	10.6	11.7	12.0	12.2	12.4	12.9
12H 4H	9.6	10.0	10.0	10.4	10.8	11.9	12.3	12.3	12.6	13.0
6H	9.5	9.8	9.9	10.2	10.7	11.8	12.1	12.2	12.5	12.9
8H	9.4	9.7	9.9	10.2	10.6	11.7	12.0	12.2	12.4	12.9
Variations with the observer position at spacings:										
S = 1.0H	+ 3.6 / -20.1					+ 3.8 / -19.0				
1.5H	+ 6.2 / -16.2					+ 6.4 / -16.4				
2.0H	+ 7.1 / -11.7					+ 7.2 / -10.6				

CIE Pub.117, 728.3 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -1.1$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-03-30

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:29.80V I:0.3500A P:10.43W PF:1.000 Freq:0Hz Lamp Flux:728.293x1 lm		
NAME: S68R1-11W-930-N	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: \varnothing 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

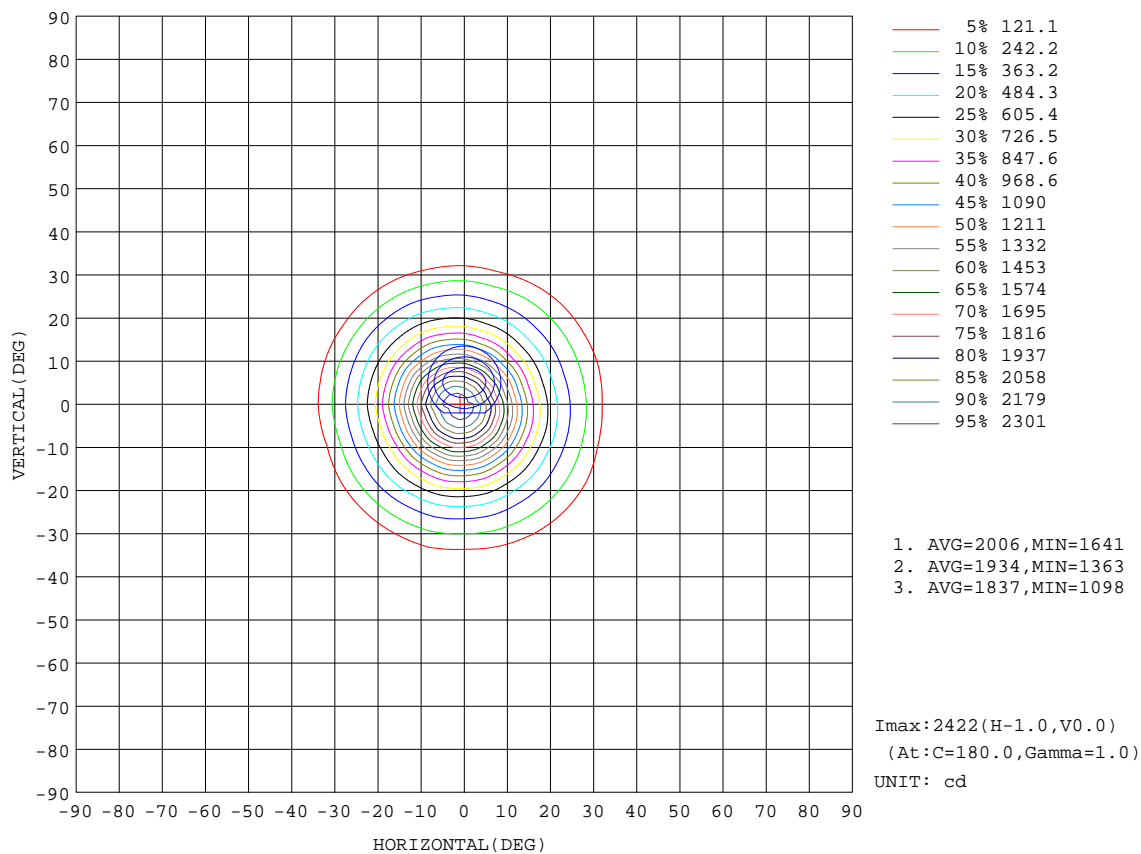
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	82	90	85	82	90	85	82	78
0.80	98	93	89	97	92	89	96	92	89	86
1.00	102	97	93	101	96	93	99	96	93	89
1.25	105	101	97	104	100	97	102	99	96	92
1.50	108	103	100	106	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	112	110	109	109	107	106	99
5.00	116	114	112	114	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:2021-03-30

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:29.80V I:0.3500A P:10.43W PF:1.000 Freq:0Hz Lamp Flux:728.293x1 lm		
NAME: S68R1-11W-930-N	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

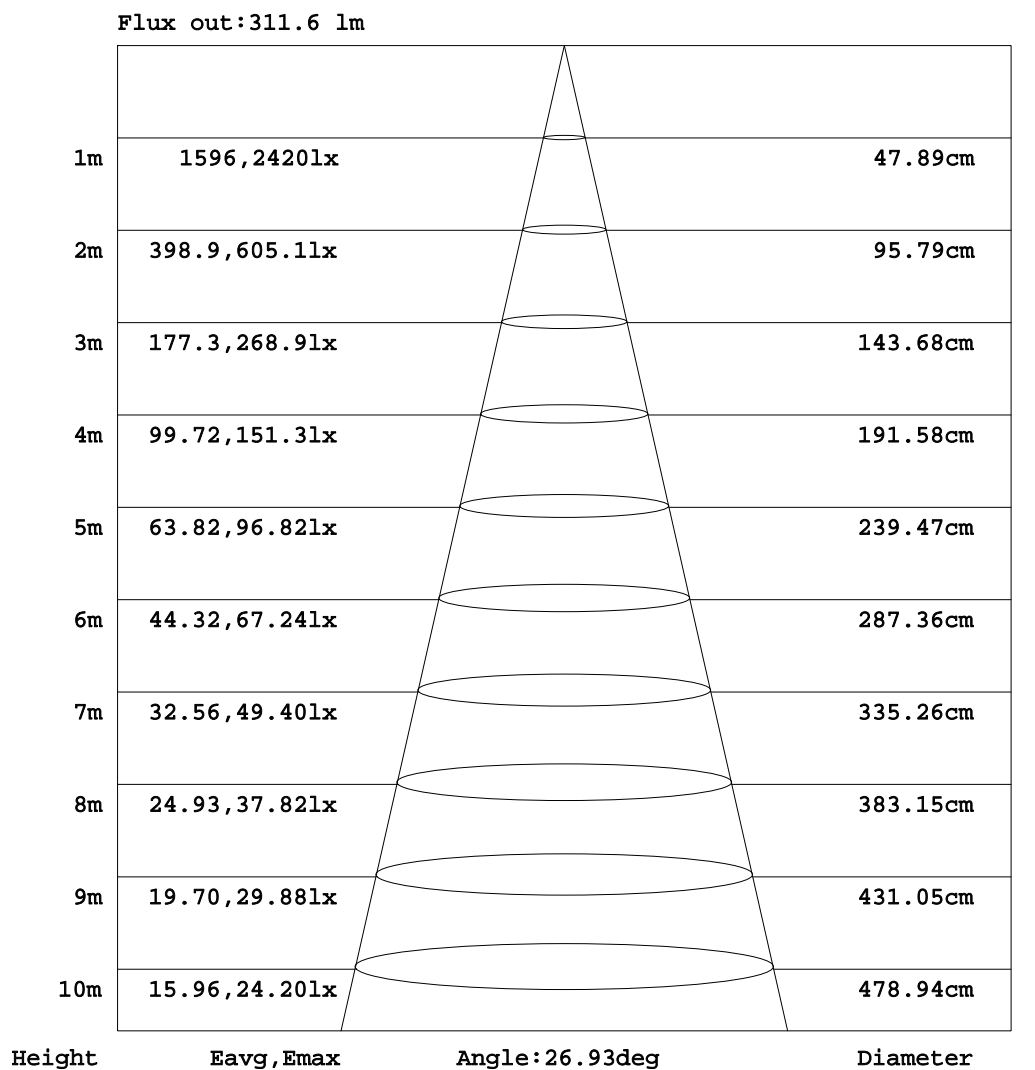


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-03-30

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:29.80V I:0.3500A P:10.43W PF:1.000 Freq:0Hz Lamp Flux:728.293x1 lm		
NAME: S68R1-11W-930-N	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		



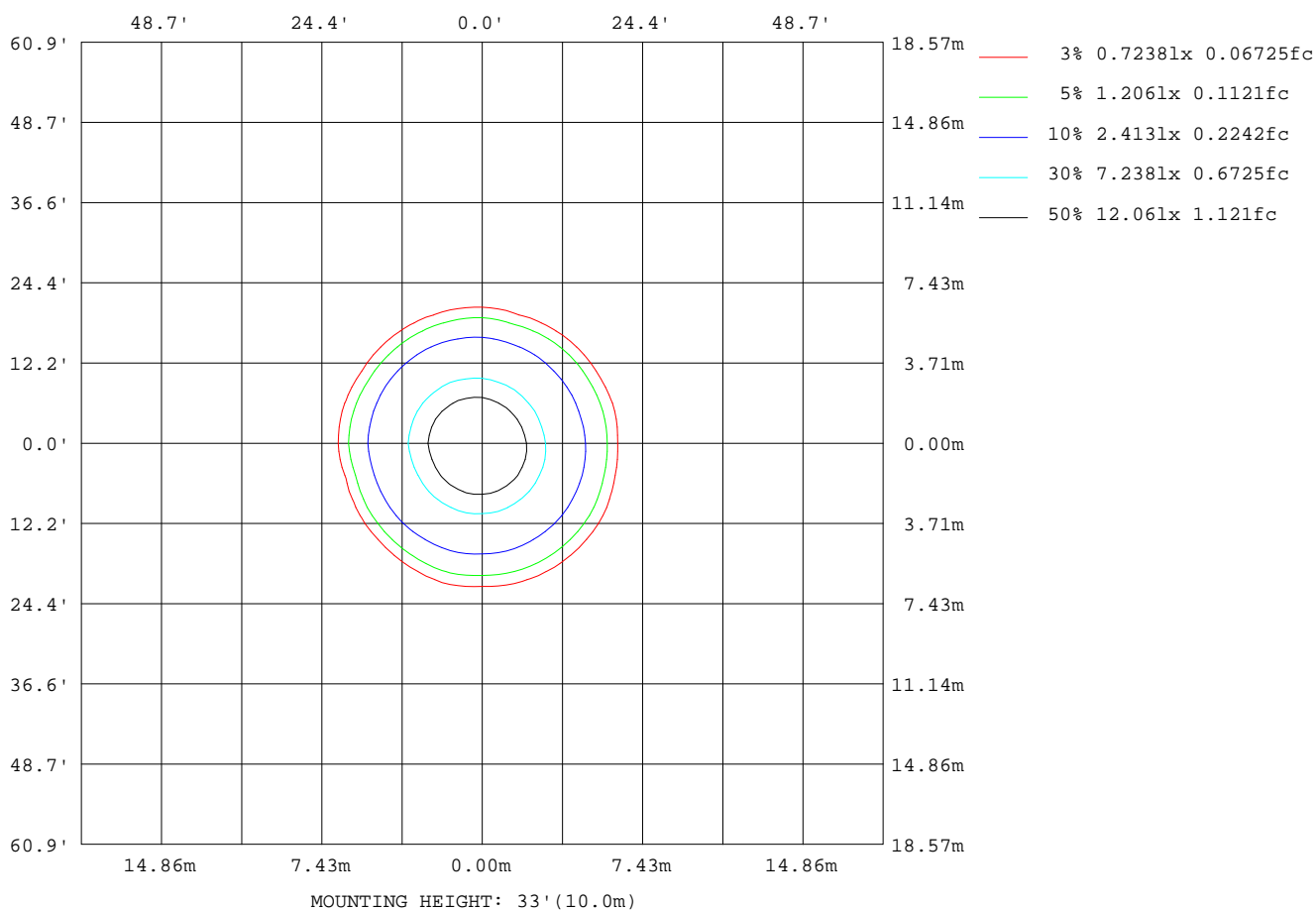
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-03-30

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:29.80V I:0.3500A P:10.43W PF:1.000 Freq:0Hz Lamp Flux:728.293x1 lm		
NAME: S68R1-11W-930-N	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	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:2021-03-30

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:29.80V I:0.3500A P:10.43W PF:1.000 Freq:0Hz Lamp Flux:728.293x1 lm		
NAME: S68R1-11W-930-N	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

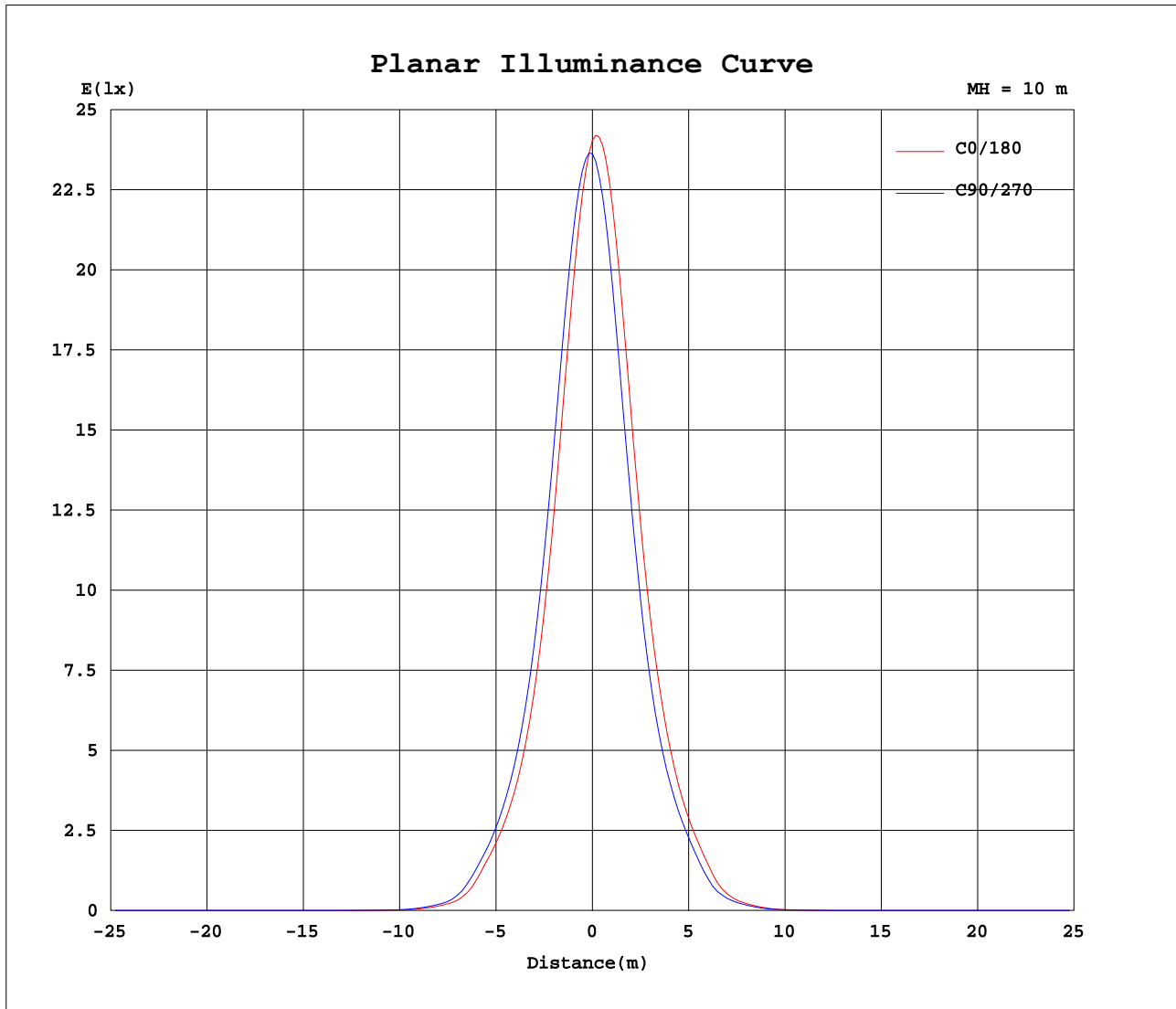
AvgL	cd/m2
L_0~180 (65) av	41
L_0~180 (75) av	36
L_0~180 (85) av	107
L_90~270 (65) av	58
L_90~270 (75) av	28
L_90~270 (85) av	82
L_45 (65) av	34
L_45 (75) av	26
L_45 (85) av	72

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-03-30

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: 2021-03-30

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:

```