

SJA1-DW-6W-9D3-38°



Light Output Ratio:	100.0%	
Luminaire Power:	0.4871 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.55	fine grid method.

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2021-12-16

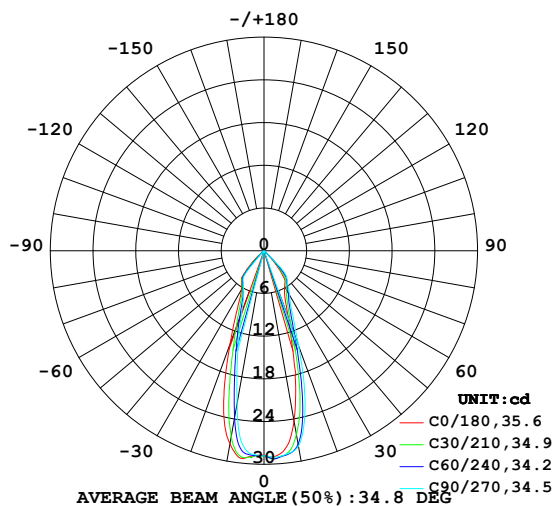
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 8.967m [K=1.0000]  
Remarks:

**LUMINAIRE PHOTOMETRIC TEST REPORT**

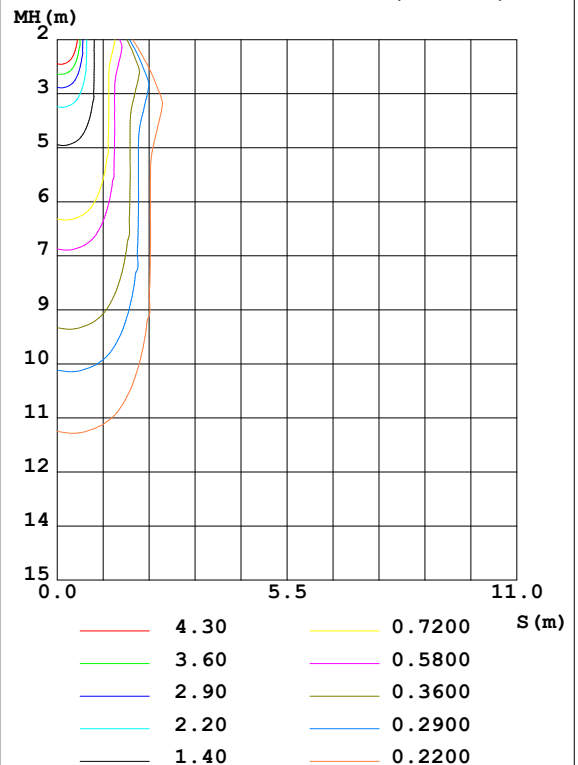
Test:U:220.4V I:0.0022A P:0.4871W PF:0.6437 Freq:49.90Hz Lamp Flux:16.3091x1 lm		
NAME: SJA1-DW-6W-9D18-38°	TYPE:Downlight	SERIAL No.:
SPEC.:1800K	DIM.: $\phi$ 70mm*H150mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 33.48 lm/W			
MODEL	Bridgelux-1800K	I <sub>max</sub> (cd)	29.45	S/MH(C0/180)	0.64
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.49
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	16.309	$\eta$ UP,DN(C0-180)	0.0,54.3
NOMINAL FLUX(lm)	16.3091	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,45.7
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	220	$\eta$ down(%)	100.0	CIBSE SHR MAX	0.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2021-12-16

$\gamma$  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:

### ZONAL FLUX DIAGRAM

#### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	24.31	26.90	27.85	28.33	27.56	25.16	21.87	22.85	0- 10	2.658	2.658	16.3,16.3
20	9.967	11.94	14.21	15.12	14.01	10.73	9.174	9.133	10- 20	5.080	7.738	47.4,47.4
30	5.824	6.529	7.169	6.965	6.306	5.982	5.782	5.739	20- 30	3.757	11.50	70.5,70.5
40	3.069	4.316	4.995	5.109	4.776	4.276	3.458	2.718	30- 40	3.340	14.84	91,91
50	0.2040	0.2538	0.3287	0.4572	0.3750	0.2146	0.2092	0.1673	40- 50	1.305	16.14	99,99
60	0.0734	0.0939	0.0783	0.1046	0.0732	0.0730	0.0733	0.0393	50- 60	0.1295	16.27	99.8,99.8
70	0.0157	0.0131	0	0.0209	0	0.0079	0.0157	0.0078	60- 70	0.0332	16.30	100,100
80	0	0	0	0.0052	0	0	0.0051	0	70- 80	0.0055	16.31	100,100
90	0	0	0	0	0	0	0	0	80- 90	0.0002	16.31	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): 15.856 lm

%lum = 97.2%

%lamp = 97.2%

Conical surface Flux(120deg): 16.27 lm

%lum = 99.8%

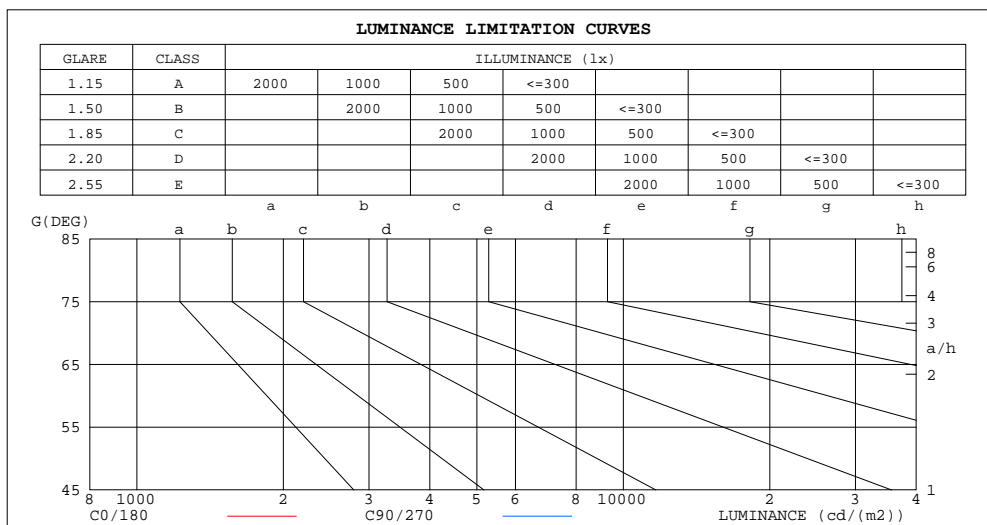
%lamp = 99.8%

C Range: 0 - 360DEG  
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Temperature:25.3DEG  
Operators:Jason  
Test Date:2021-12-16

$\gamma$  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:220.4V I:0.0022A P:0.4871W PF:0.6437 Freq:49.90Hz Lamp Flux:16.3091x1 lm		
NAME: SJA1-DW-6W-9D18-38°	TYPE:Downlight	SERIAL No.:
SPEC.:1800K	DIM.: φ70mm*H150mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	0	0
80	0	0
75	5	0
70	12	0
65	23	10
60	38	41
55	59	69
50	83	133
45	319	913

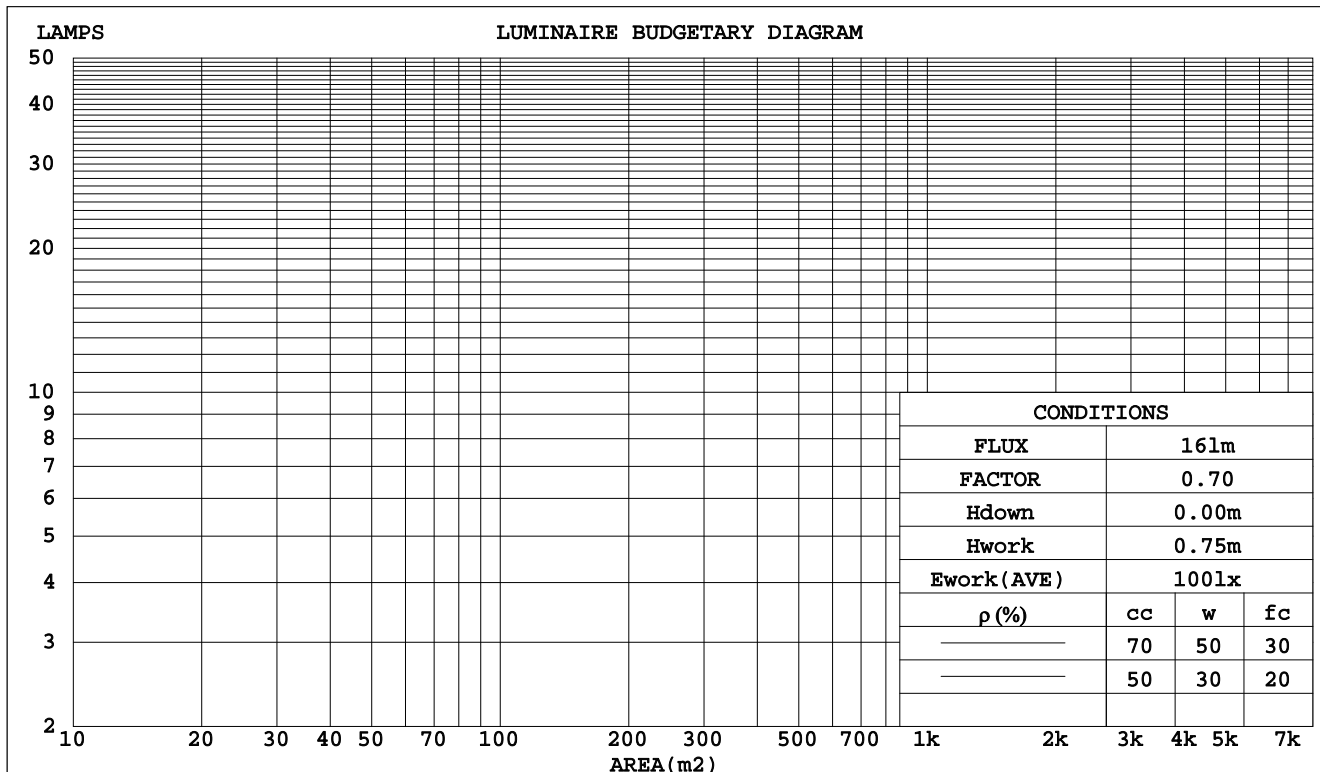
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Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
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**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

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NAME: SJA1-DW-6W-9D18-38°	TYPE:Downlight	SERIAL No.:
SPEC.:1800K	DIM.: φ70mm*H150mm	
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	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	.00	.97	1.02	.99	.96	.99	.96	.93	.96	.94	.91	.93	.91	.90	.88
3.0	.97	.92	.89	.96	.91	.88	.93	.89	.86	.91	.88	.85	.89	.86	.84	.82
4.0	.91	.86	.82	.90	.85	.81	.88	.84	.80	.86	.82	.79	.84	.81	.79	.77
5.0	.86	.80	.76	.85	.80	.76	.83	.78	.75	.81	.77	.74	.80	.76	.74	.72
6.0	.81	.75	.71	.80	.75	.71	.79	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.76	.71	.67	.76	.70	.66	.74	.70	.66	.73	.69	.66	.72	.68	.65	.64
8.0	.72	.67	.63	.72	.66	.63	.71	.66	.62	.70	.65	.62	.69	.65	.62	.61
9.0	.69	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.66	.62	.59	.57
10.0	.65	.60	.56	.65	.60	.56	.64	.59	.56	.63	.59	.56	.63	.59	.56	.54



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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:220.4V I:0.0022A P:0.4871W PF:0.6437 Freq:49.90Hz Lamp Flux:16.3091x1 lm		
NAME: SJA1-DW-6W-9D18-38°	TYPE:Downlight	SERIAL No.:
SPEC.:1800K	DIM.: φ70mm*H150mm	
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	.171	.097	.031	.165	.094	.030	.152	.087	.028	.141	.081	.026	.130	.075	.024	
2.0	.164	.090	.028	.158	.087	.027	.148	.082	.026	.138	.078	.024	.129	.073	.023	
3.0	.156	.083	.025	.152	.081	.024	.143	.077	.023	.134	.074	.023	.127	.070	.022	
4.0	.149	.077	.023	.145	.076	.022	.137	.073	.022	.130	.070	.021	.123	.067	.020	
5.0	.142	.072	.021	.138	.071	.021	.131	.068	.020	.125	.066	.020	.119	.064	.019	
6.0	.135	.068	.019	.132	.067	.019	.126	.065	.019	.121	.063	.018	.116	.061	.018	
7.0	.129	.064	.018	.126	.063	.018	.121	.061	.018	.116	.060	.017	.112	.058	.017	
8.0	.123	.060	.017	.121	.060	.017	.116	.058	.017	.112	.057	.016	.108	.055	.016	
9.0	.118	.057	.016	.116	.057	.016	.112	.055	.016	.108	.054	.015	.104	.053	.015	
10.0	.113	.054	.015	.111	.054	.015	.108	.053	.015	.104	.052	.015	.101	.051	.015	

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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.155	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.122	.098	.078	.084	.068	.055	.048	.040	.032	.016	.013	.011	
4.0	.132	.099	.073	.113	.085	.064	.078	.059	.045	.045	.035	.027	.015	.011	.009	
5.0	.123	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.099	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.089	.055	.032	.062	.039	.023	.036	.023	.014	.012	.008	.004	
9.0	.098	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2021-12-16

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:220.4V I:0.0022A P:0.4871W PF:0.6437 Freq:49.90Hz Lamp Flux:16.3091x1 lm										
NAME: SJA1-DW-6W-9D18-38°					TYPE:Downlight			SERIAL No.:		
SPEC.:1800K					DIM.: φ70mm*H150mm					
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	20.0	20.9	20.2	21.0	21.2	21.7	22.6	21.9	22.7	22.9
3H	19.8	20.6	20.0	20.8	21.0	21.5	22.3	21.7	22.5	22.7
4H	19.7	20.5	20.0	20.7	20.9	21.4	22.2	21.7	22.4	22.6
6H	19.6	20.4	19.9	20.6	20.8	21.3	22.1	21.6	22.3	22.5
8H	19.6	20.3	19.9	20.5	20.8	21.3	22.0	21.6	22.2	22.5
12H	19.5	20.2	19.8	20.5	20.7	21.2	21.9	21.5	22.2	22.4
4H 2H	19.7	20.5	20.0	20.7	20.9	21.4	22.2	21.7	22.4	22.6
3H	19.5	20.2	19.8	20.5	20.8	21.2	21.9	21.5	22.2	22.5
4H	19.4	20.1	19.8	20.3	20.7	21.1	21.8	21.5	22.0	22.4
6H	19.3	19.9	19.7	20.2	20.6	21.0	21.6	21.4	21.9	22.3
8H	19.3	19.8	19.7	20.1	20.5	21.0	21.5	21.4	21.8	22.2
12H	19.2	19.7	19.6	20.1	20.5	20.9	21.4	21.3	21.8	22.2
8H 4H	19.3	19.8	19.7	20.1	20.5	21.0	21.5	21.4	21.8	22.2
6H	19.2	19.6	19.6	20.0	20.4	20.9	21.3	21.3	21.7	22.1
8H	19.1	19.5	19.6	19.9	20.4	20.8	21.2	21.3	21.6	22.0
12H	19.1	19.4	19.5	19.8	20.3	20.8	21.1	21.2	21.5	22.0
12H 4H	19.2	19.7	19.6	20.1	20.5	20.9	21.4	21.3	21.8	22.2
6H	19.1	19.5	19.6	19.9	20.4	20.8	21.2	21.3	21.6	22.0
8H	19.1	19.4	19.5	19.8	20.3	20.8	21.1	21.2	21.5	22.0
Variations with the observer position at spacings:										
S = 1.0H	+ 2.6 / -16.0					+ 2.5 / -15.7				
1.5H	+ 5.2 / -14.8					+ 4.7 / -12.7				
2.0H	+ 7.3 / -14.4					+ 9.8 / -10.1				

CIE Pub.117, 16.31 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -14.3$ )

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2021-12-16

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:220.4V I:0.0022A P:0.4871W PF:0.6437 Freq:49.90Hz Lamp Flux:16.3091x1 lm		
NAME: SJA1-DW-6W-9D18-38°	TYPE:Downlight	SERIAL No.:
SPEC.:1800K	DIM.: φ70mm*H150mm	
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	86	79	75	85	79	75	85	79	75	71
0.80	94	88	84	93	87	84	92	87	83	79
1.00	99	93	89	98	92	89	96	92	88	84
1.25	103	97	94	102	97	93	100	96	93	88
1.50	106	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	99	93
2.50	110	106	103	108	105	102	105	103	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

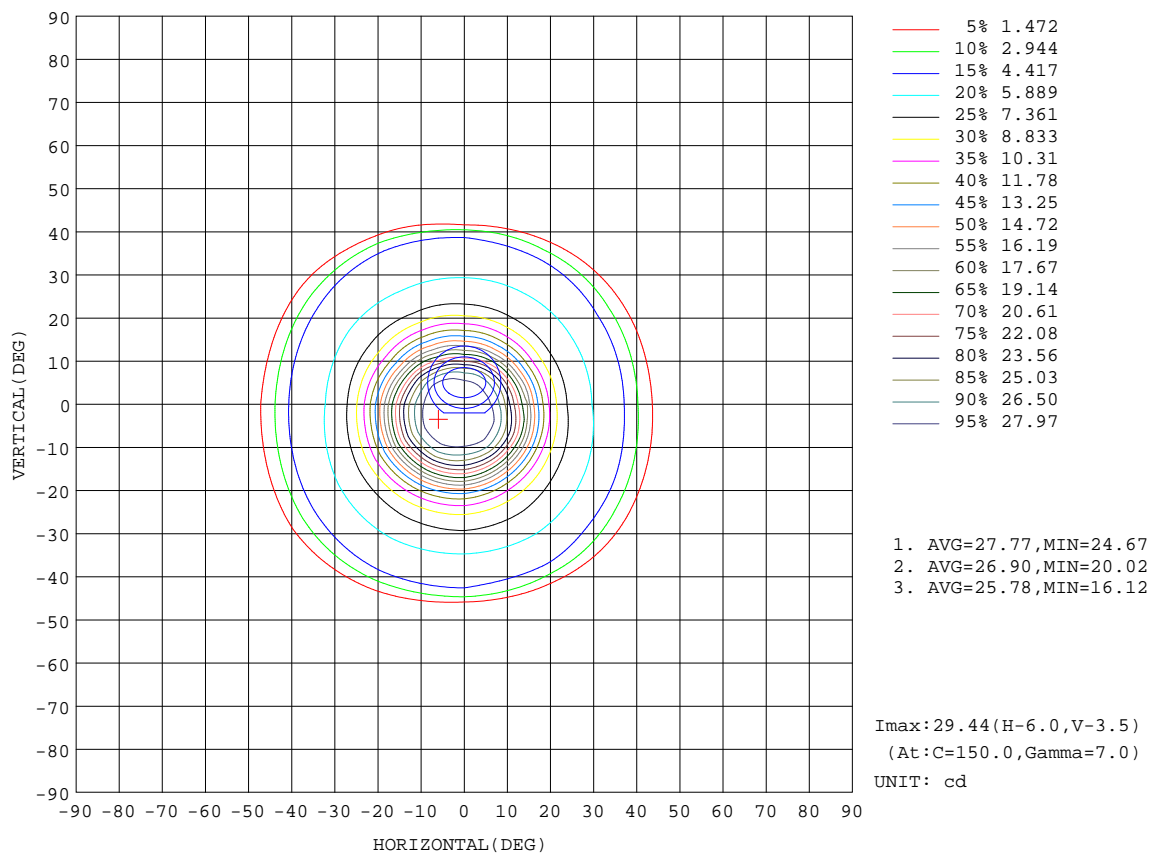
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ISOCANDELA DIAGRAM

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NAME: SJA1-DW-6W-9D18-38°	TYPE:Downlight	SERIAL No.:
SPEC.:1800K	DIM.: $\varnothing 70\text{mm} \times \text{H}150\text{mm}$	
MFR.: NEKO LIGHTING AG		

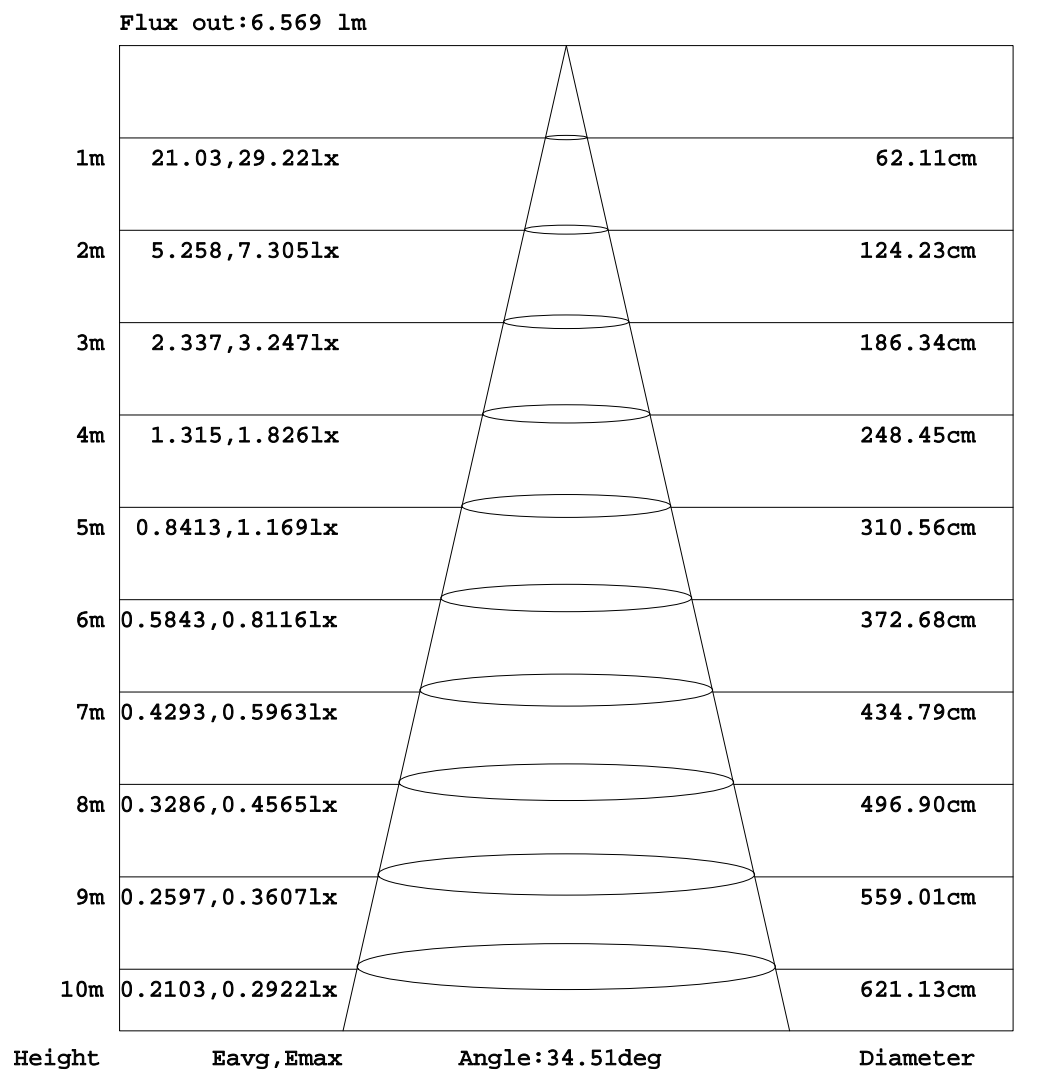


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**AAI Figure**

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NAME: SJA1-DW-6W-9D18-38°	TYPE:Downlight	SERIAL No.:
SPEC.:1800K	DIM.: φ70mm*H150mm	
MFR.: NEKO LIGHTING AG		



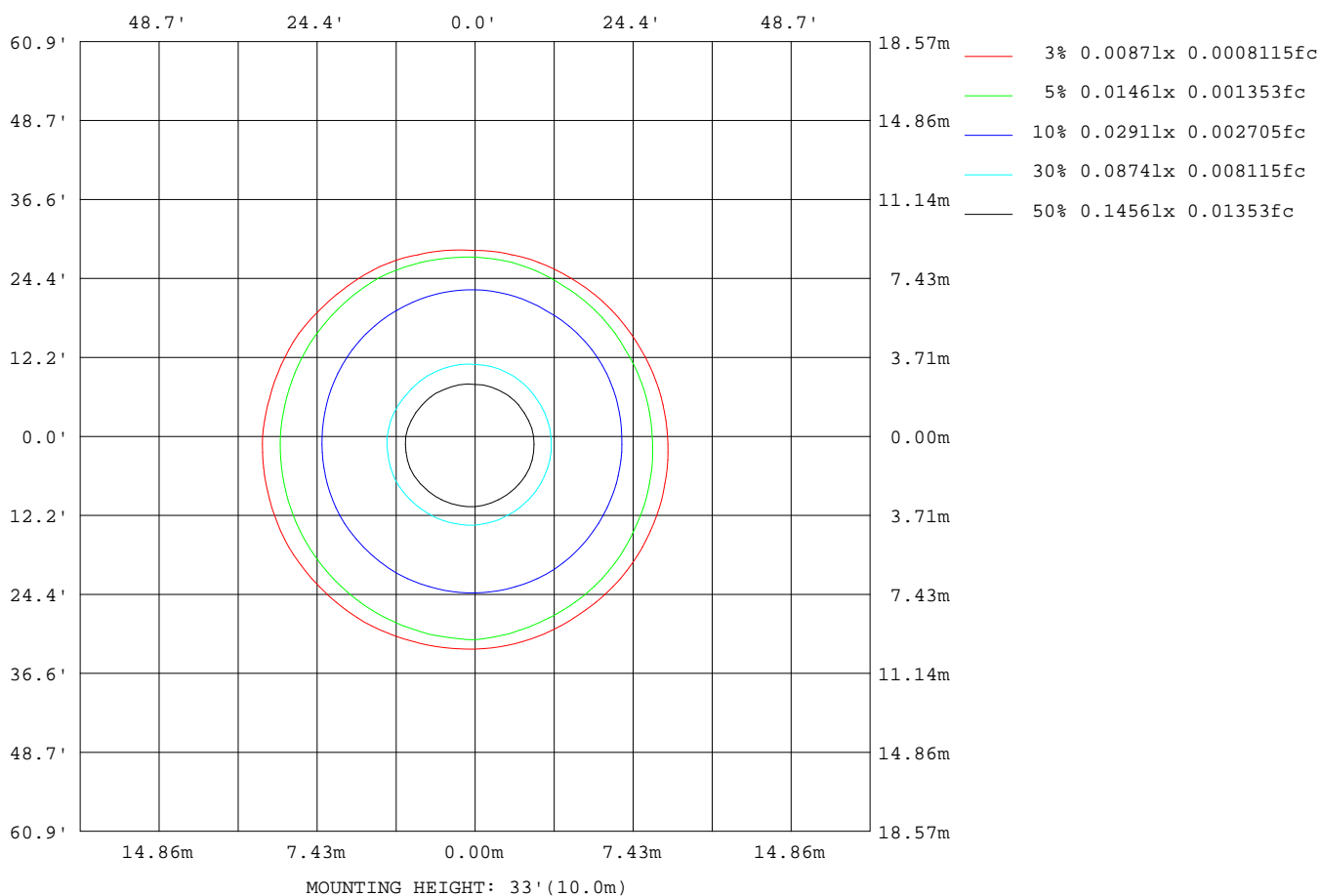
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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**ISOLUX DIAGRAM**

Test:U:220.4V I:0.0022A P:0.4871W PF:0.6437 Freq:49.90Hz Lamp Flux:16.3091x1 lm		
NAME: SJA1-DW-6W-9D18-38°	TYPE:Downlight	SERIAL No.:
SPEC.:1800K	DIM.: $\phi$ 70mm*H150mm	
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### LED Avg.L Report

Test:U:220.4V I:0.0022A P:0.4871W PF:0.6437 Freq:49.90Hz Lamp Flux:16.3091x1 lm		
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SPEC.:1800K	DIM.: φ70mm*H150mm	
MFR.: NEKO LIGHTING AG		

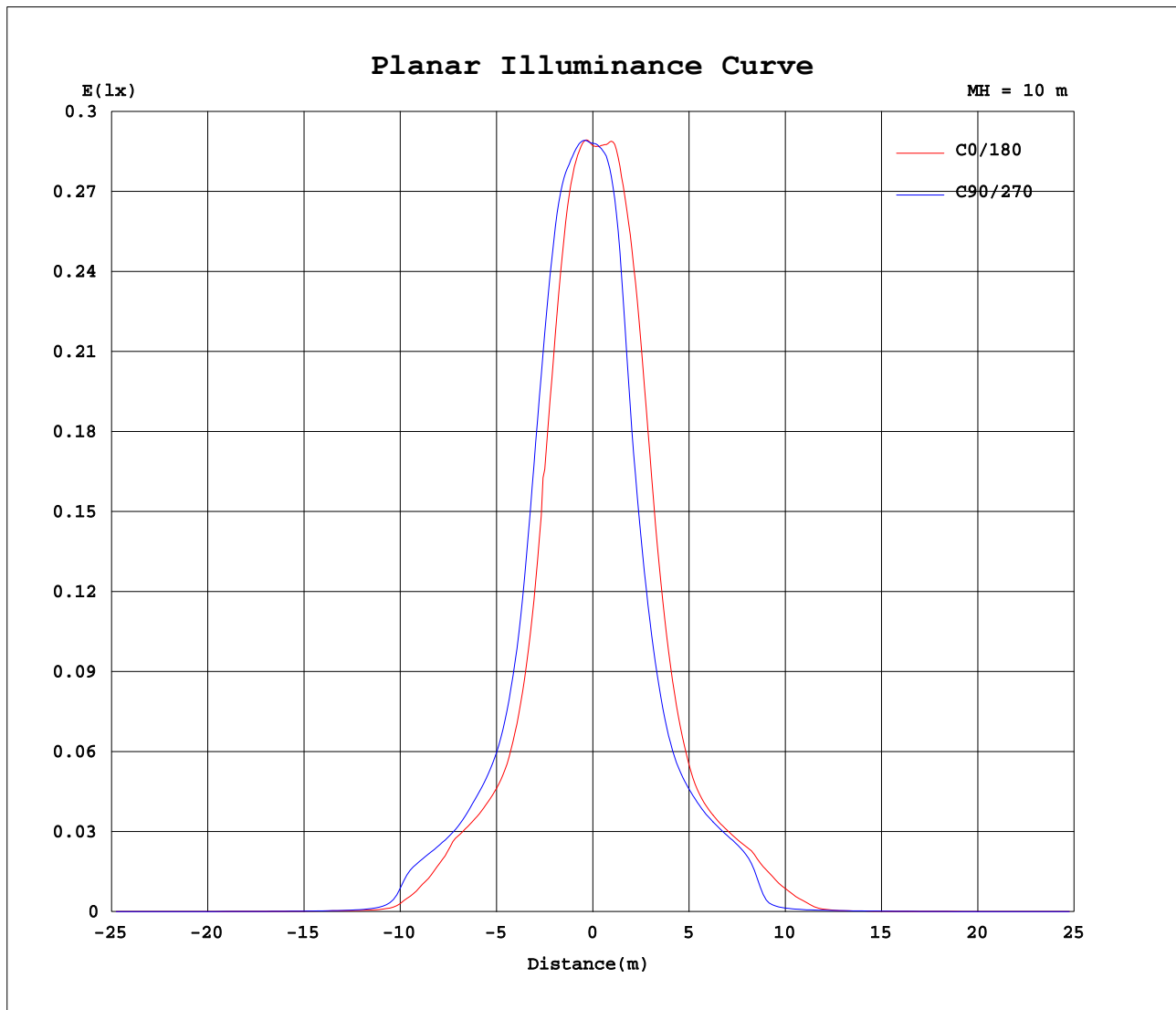
AvgL	cd/m2
L_0~180 (65) av	14
L_0~180 (75) av	3
L_0~180 (85) av	0
L_90~270 (65) av	15
L_90~270 (75) av	5
L_90~270 (85) av	0
L_45 (65) av	18
L_45 (75) av	7
L_45 (85) av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2021-12-16

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: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2021-12-16

$\gamma$  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:

```