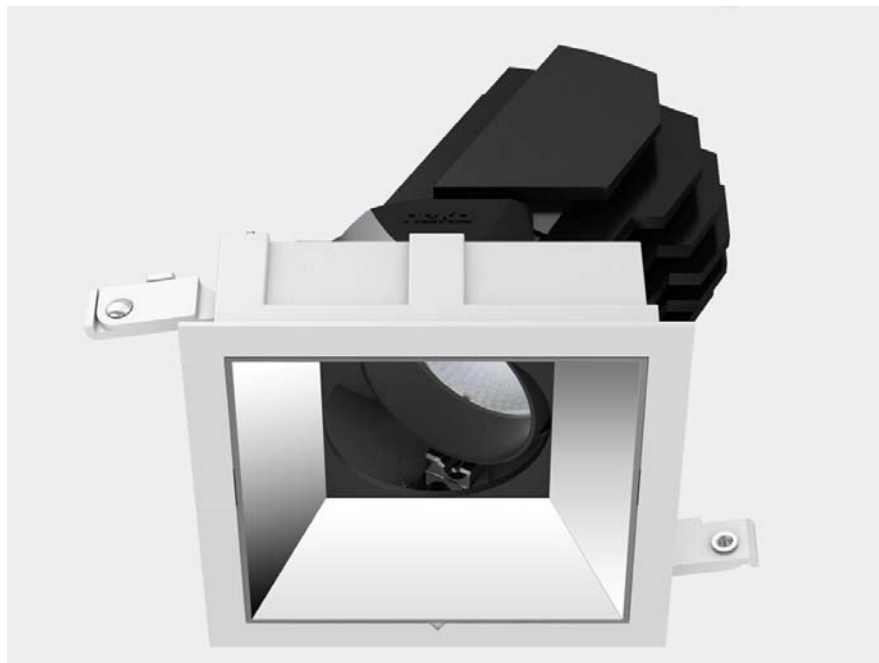


LED Downlight SENSE Series S100S1-13W-930-M



Light Output Ratio:	100.0%	
Luminaire Power:	15.02 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.60	fine grid method.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-12-26

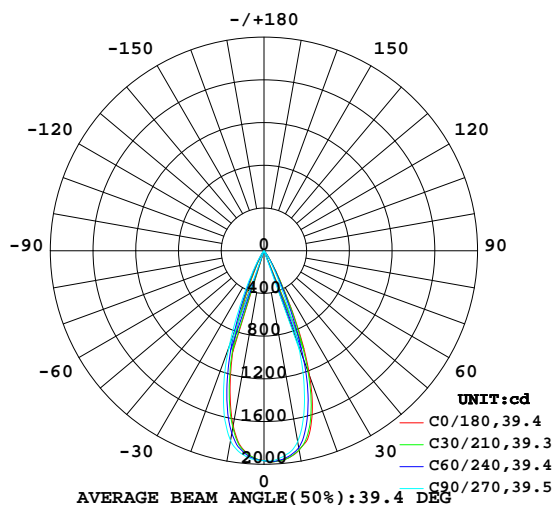
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 8.967m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

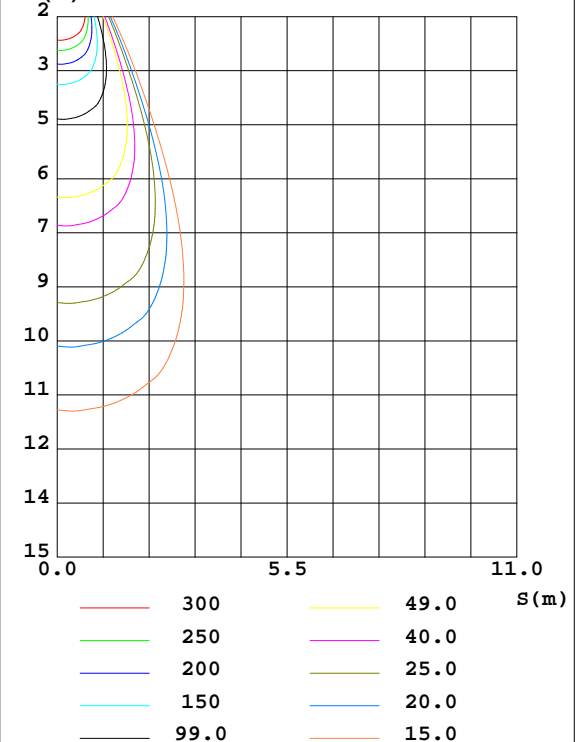
Test:U:220.4V I:0.0687A P:15.02W PF:0.9342 Freq:49.90Hz Lamp Flux:826.549x1 lm		
NAME: S100S1-13W-930-M	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L108mm*W108mm*H126mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 55.01 lm/W			
MODEL	CITIZEN-3000K	I <sub>max</sub> (cd)	1982	S/MH(C0/180)	0.53
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.60
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	826.55	η UP,DN(C0-180)	0.0,51.0
NOMINAL FLUX(lm)	826.549	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.60

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:2020-12-26

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	1896	1890	1815	1721	1665	1698	1805	1873	0- 10	180.6	180.6	21.9, 21.9
20	1251	1173	942.4	760.3	673.0	751.4	962.3	1150	10- 20	393.5	574.1	69.5, 69.5
30	224.8	210.7	142.7	92.90	73.15	102.2	155.5	193.1	20- 30	206.0	780.1	94.4, 94.4
40	26.60	27.39	17.78	14.21	10.94	15.09	20.33	25.86	30- 40	37.88	818.0	99, 99
50	3.915	5.208	2.624	2.942	2.031	3.142	2.919	5.502	40- 50	6.971	824.9	99.8, 99.8
60	0.5093	0.9066	0.2064	0.3846	0.0872	0.4630	0.2144	0.9996	50- 60	1.416	826.4	100, 100
70	0.0924	0.0256	0.0720	0.0206	0.0205	0.0618	0.0206	0.0823	60- 70	0.1438	826.5	100, 100
80	0.0256	0.0103	0.0258	0.0154	0.0205	0.0257	0.0206	0.0257	70- 80	0.0302	826.5	100, 100
90	0.0154	0.0103	0.0206	0.0154	0.0205	0.0205	0.0206	0.0206	80- 90	0.0213	826.5	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): 822.79 lm

%lum = 99.5%

%lamp = 99.5%

Conical surface Flux(120deg): 826.35 lm

%lum = 100.0%

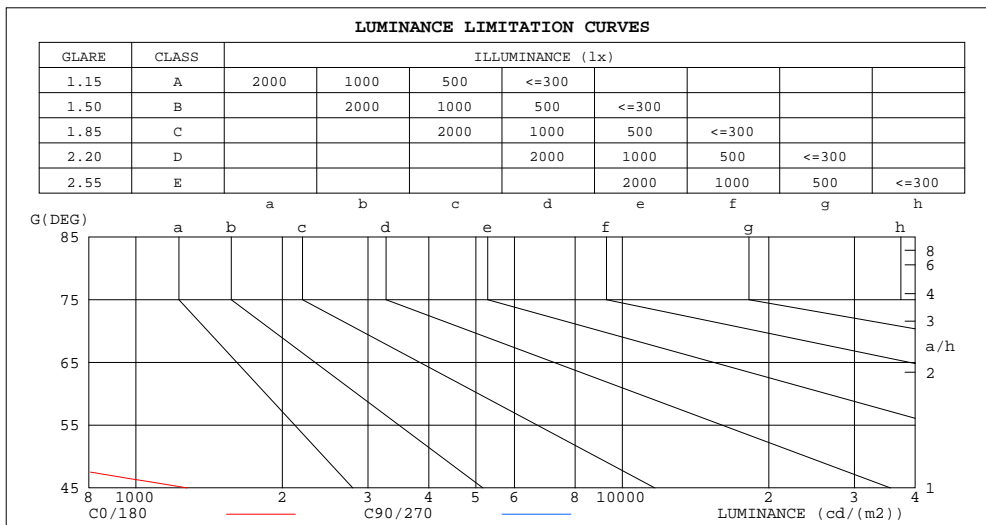
%lamp = 100.0%

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-12-26

$\gamma$  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:0.0687A P:15.02W PF:0.9342 Freq:49.90Hz Lamp Flux:826.549x1 lm		
NAME: S100S1-13W-930-M	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L108mm*W108mm*H126mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	25	20
80	13	13
75	12	12
70	23	18
65	25	22
60	88	35
55	279	147
50	523	350
45	1275	729

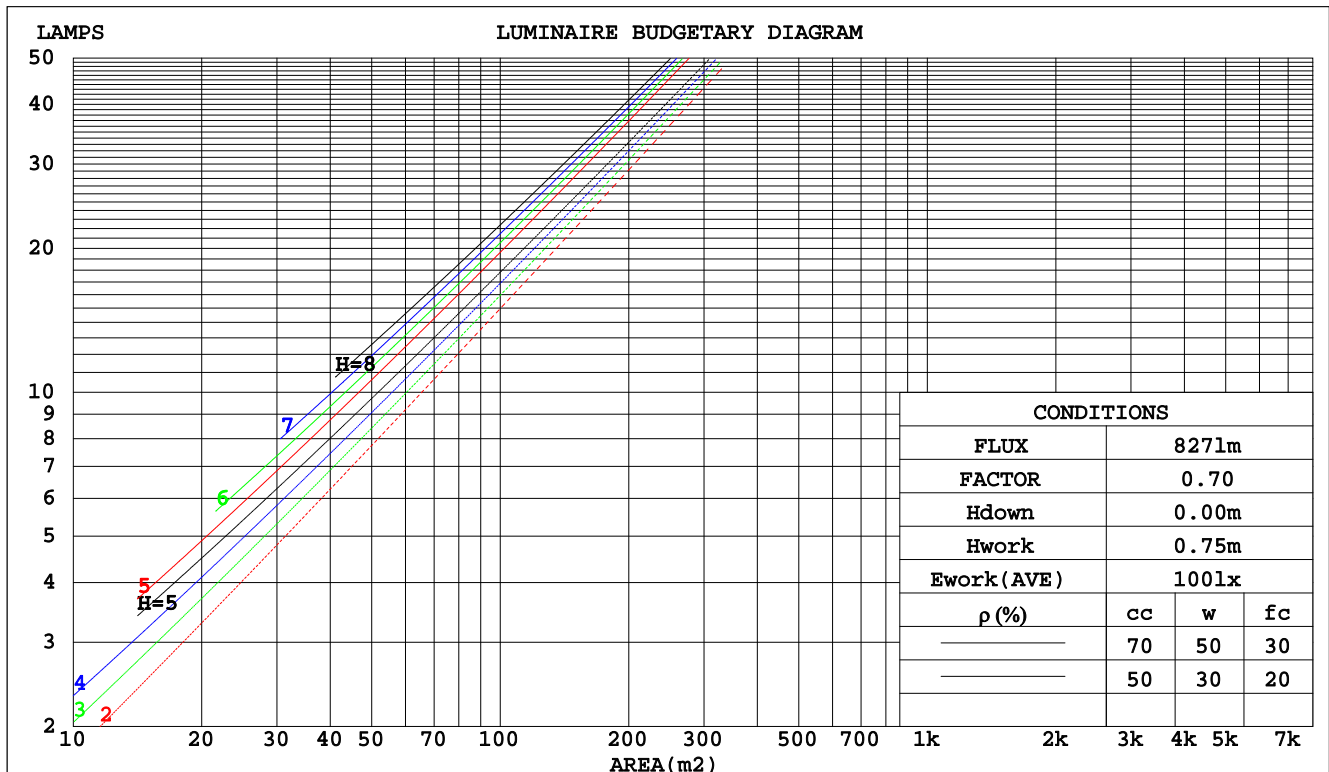
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-26

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:220.4V I:0.0687A P:15.02W PF:0.9342 Freq:49.90Hz Lamp Flux:826.549x1 lm		
NAME: S100S1-13W-930-M	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L108mm*W108mm*H126mm	
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	1.07	1.06	1.05	1.03	1.03	1.01	1.00	.99	.98	.98	.96														
2.0	1.06	1.03	1.01	1.05	1.02	.99	1.02	.99	.97	.99	.97	.95	.96	.95	.93	.92														
3.0	1.01	.97	.94	.90	.96	.93	.97	.94	.92	.95	.93	.91	.93	.91	.89	.88														
4.0	.97	.92	.89	.96	.92	.88	.94	.90	.87	.92	.89	.86	.90	.88	.86	.84														
5.0	.92	.88	.84	.92	.87	.84	.90	.86	.83	.88	.85	.83	.87	.84	.82	.81														
6.0	.89	.84	.81	.88	.83	.80	.86	.83	.80	.85	.82	.79	.84	.81	.79	.78														
7.0	.85	.80	.77	.84	.80	.77	.83	.79	.76	.82	.79	.76	.81	.78	.76	.75														
8.0	.82	.77	.74	.81	.77	.74	.80	.76	.73	.79	.76	.73	.78	.75	.73	.72														
9.0	.79	.74	.71	.78	.74	.71	.77	.73	.71	.77	.73	.70	.76	.73	.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:2020-12-26

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:220.4V I:0.0687A P:15.02W PF:0.9342 Freq:49.90Hz Lamp Flux:826.549x1 lm		
NAME: S100S1-13W-930-M	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L108mm*W108mm*H126mm	
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	.147	.084	.027	.141	.080	.025	.128	.074	.023	.117	.067	.022	.106	.062	.020	
2.0	.138	.076	.023	.132	.073	.022	.122	.068	.021	.112	.063	.020	.104	.059	.018	
3.0	.129	.069	.021	.125	.067	.020	.116	.063	.019	.108	.059	.018	.101	.056	.017	
4.0	.122	.064	.019	.118	.062	.018	.111	.059	.018	.104	.056	.017	.098	.053	.016	
5.0	.116	.059	.017	.113	.058	.017	.106	.055	.016	.100	.053	.016	.095	.051	.015	
6.0	.110	.055	.016	.107	.054	.016	.102	.052	.015	.097	.050	.015	.092	.048	.014	
7.0	.105	.052	.015	.103	.051	.015	.098	.050	.014	.094	.048	.014	.089	.046	.014	
8.0	.101	.049	.014	.099	.049	.014	.094	.047	.013	.090	.046	.013	.087	.044	.013	
9.0	.097	.047	.013	.095	.046	.013	.091	.045	.013	.087	.044	.013	.084	.043	.012	
10.0	.093	.045	.012	.091	.044	.012	.088	.043	.012	.085	.042	.012	.082	.041	.012	

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	.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	.137	.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	.099	.074	.056	.068	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.107	.076	.054	.092	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.007	
7.0	.100	.068	.046	.086	.059	.040	.059	.041	.028	.035	.024	.017	.011	.008	.006	
8.0	.094	.062	.040	.081	.054	.034	.056	.038	.024	.033	.022	.015	.011	.007	.005	
9.0	.089	.056	.034	.076	.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	.009	.006	.004	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-26

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:0.0687A P:15.02W PF:0.9342 Freq:49.90Hz Lamp Flux:826.549x1 lm										
NAME: S100S1-13W-930-M					TYPE:Downlight			SERIAL No.:		
SPEC.:3000K					DIM.: L108mm*W108mm*H126mm					
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	7.7	8.5	7.9	8.6	8.8	5.9	6.6	6.1	6.8	6.9
3H	7.6	8.3	7.8	8.5	8.6	5.7	6.4	6.0	6.6	6.8
4H	7.5	8.1	7.8	8.4	8.6	5.6	6.3	5.9	6.5	6.7
6H	7.4	8.0	7.7	8.3	8.5	5.6	6.2	5.8	6.4	6.6
8H	7.4	8.0	7.7	8.2	8.5	5.5	6.1	5.8	6.3	6.6
12H	7.3	7.9	7.6	8.2	8.4	5.5	6.0	5.8	6.3	6.5
4H 2H	7.5	8.2	7.8	8.4	8.6	5.6	6.3	5.9	6.5	6.7
3H	7.3	7.9	7.6	8.2	8.4	5.5	6.0	5.8	6.3	6.6
4H	7.2	7.7	7.6	8.0	8.3	5.4	5.9	5.7	6.2	6.5
6H	7.1	7.6	7.5	7.9	8.3	5.3	5.7	5.6	6.1	6.4
8H	7.1	7.5	7.5	7.9	8.2	5.2	5.6	5.6	6.0	6.4
12H	7.0	7.4	7.4	7.8	8.2	5.2	5.6	5.6	5.9	6.3
8H 4H	7.1	7.5	7.5	7.9	8.2	5.2	5.6	5.6	6.0	6.3
6H	7.0	7.3	7.4	7.7	8.1	5.1	5.5	5.5	5.8	6.3
8H	6.9	7.2	7.4	7.6	8.1	5.0	5.4	5.5	5.8	6.2
12H	6.9	7.1	7.3	7.6	8.0	5.0	5.3	5.5	5.7	6.2
12H 4H	7.0	7.4	7.4	7.8	8.2	5.2	5.6	5.6	5.9	6.3
6H	6.9	7.2	7.4	7.6	8.1	5.0	5.4	5.5	5.8	6.2
8H	6.9	7.1	7.3	7.6	8.0	5.0	5.3	5.5	5.7	6.2
Variations with the observer position at spacings:										
S = 1.0H	+ 3.6 / -14.3					+ 2.8 / -16.2				
1.5H	+ 5.9 / - 9.5					+ 5.0 / - 9.4				
2.0H	+ 6.1 / -12.5					+ 5.5 / -15.0				

CIE Pub.117, 826.5 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -0.7$ )

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-26

$\gamma$  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:220.4V I:0.0687A P:15.02W PF:0.9342 Freq:49.90Hz Lamp Flux:826.549x1 lm		
NAME: S100S1-13W-930-M	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L108mm*W108mm*H126mm	
MFR.: NEKO LIGHTING AG		

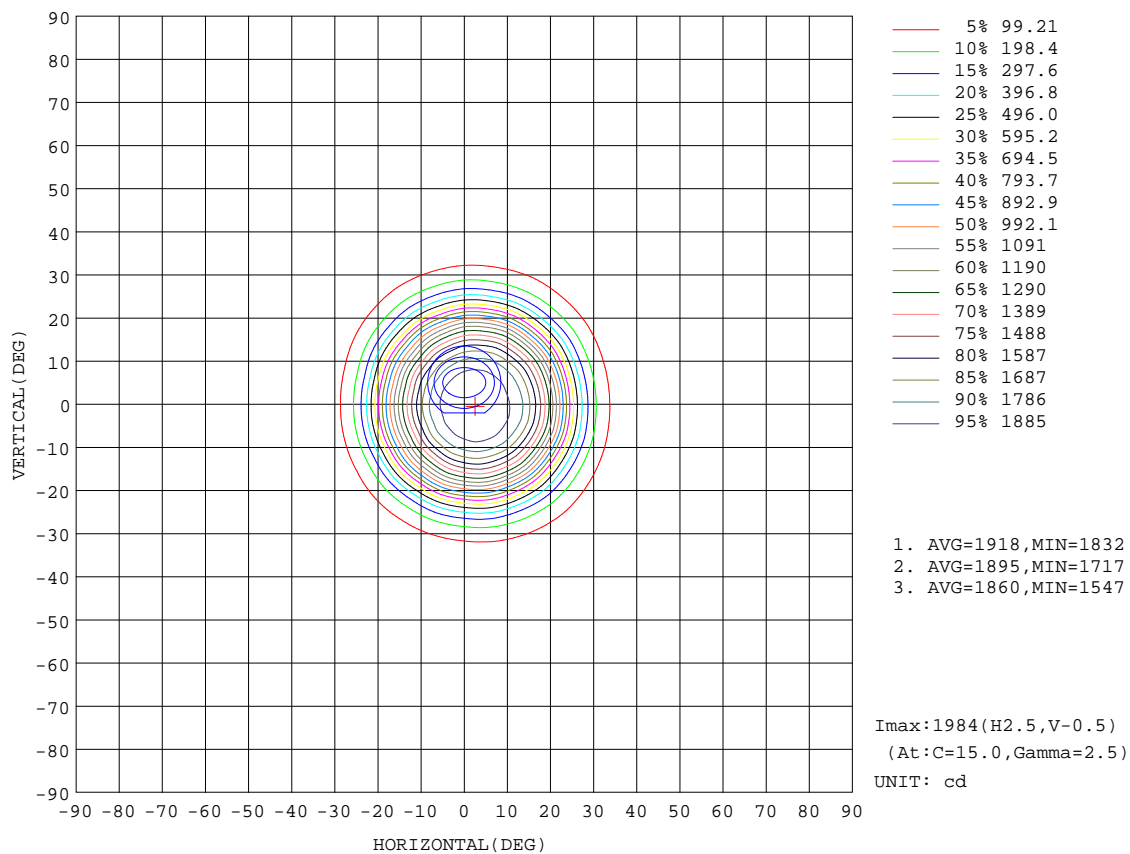
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	82	90	85	82	90	85	82	78
0.80	98	93	89	97	92	89	96	92	89	86
1.00	102	97	93	101	96	93	99	96	93	89
1.25	105	101	98	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	113	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:2020-12-26

$\gamma$  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:220.4V I:0.0687A P:15.02W PF:0.9342 Freq:49.90Hz Lamp Flux:826.549x1 lm		
NAME: S100S1-13W-930-M	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L108mm*W108mm*H126mm	
MFR.: NEKO LIGHTING AG		

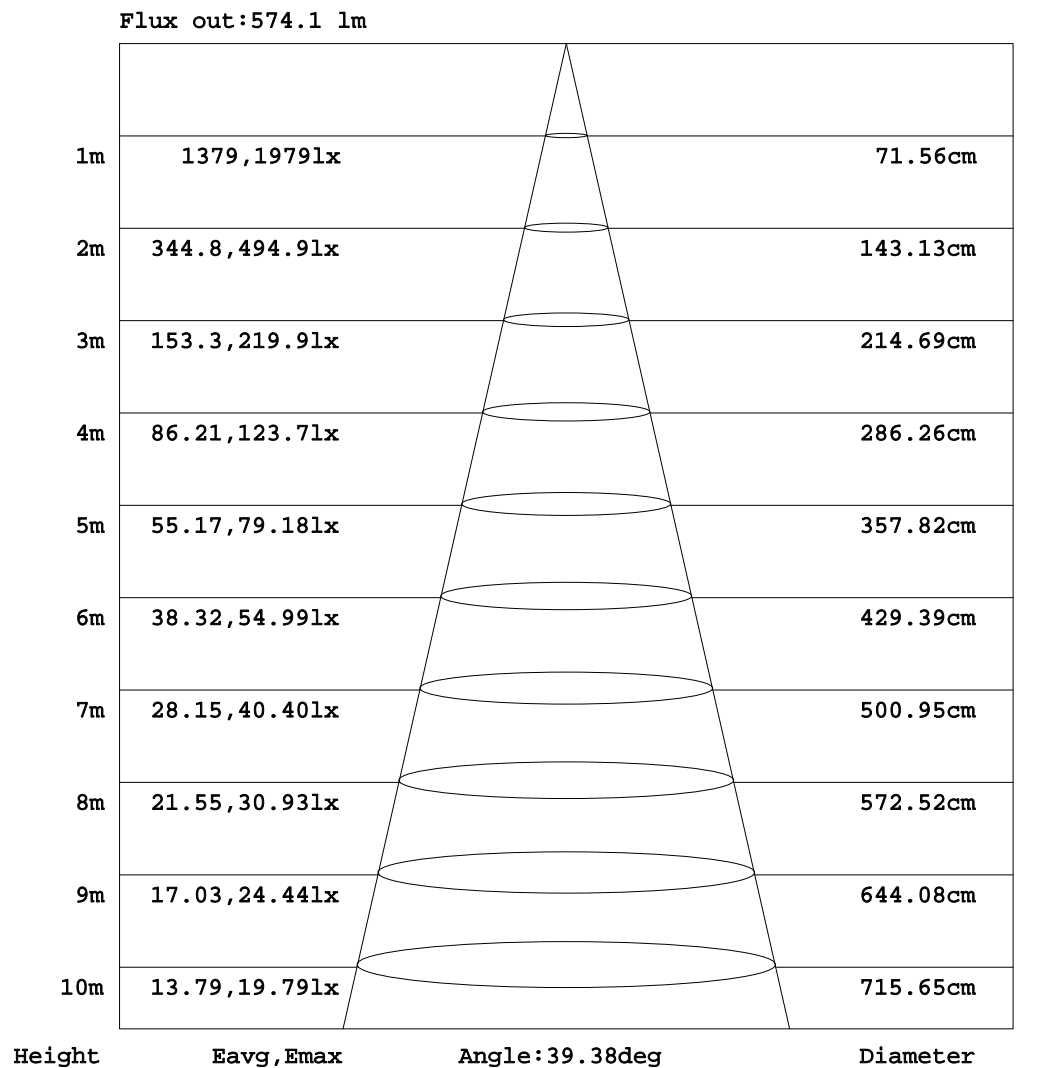


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-26

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:220.4V I:0.0687A P:15.02W PF:0.9342 Freq:49.90Hz Lamp Flux:826.549x1 lm		
NAME: S100S1-13W-930-M	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L108mm*W108mm*H126mm	
MFR.: NEKO LIGHTING AG		



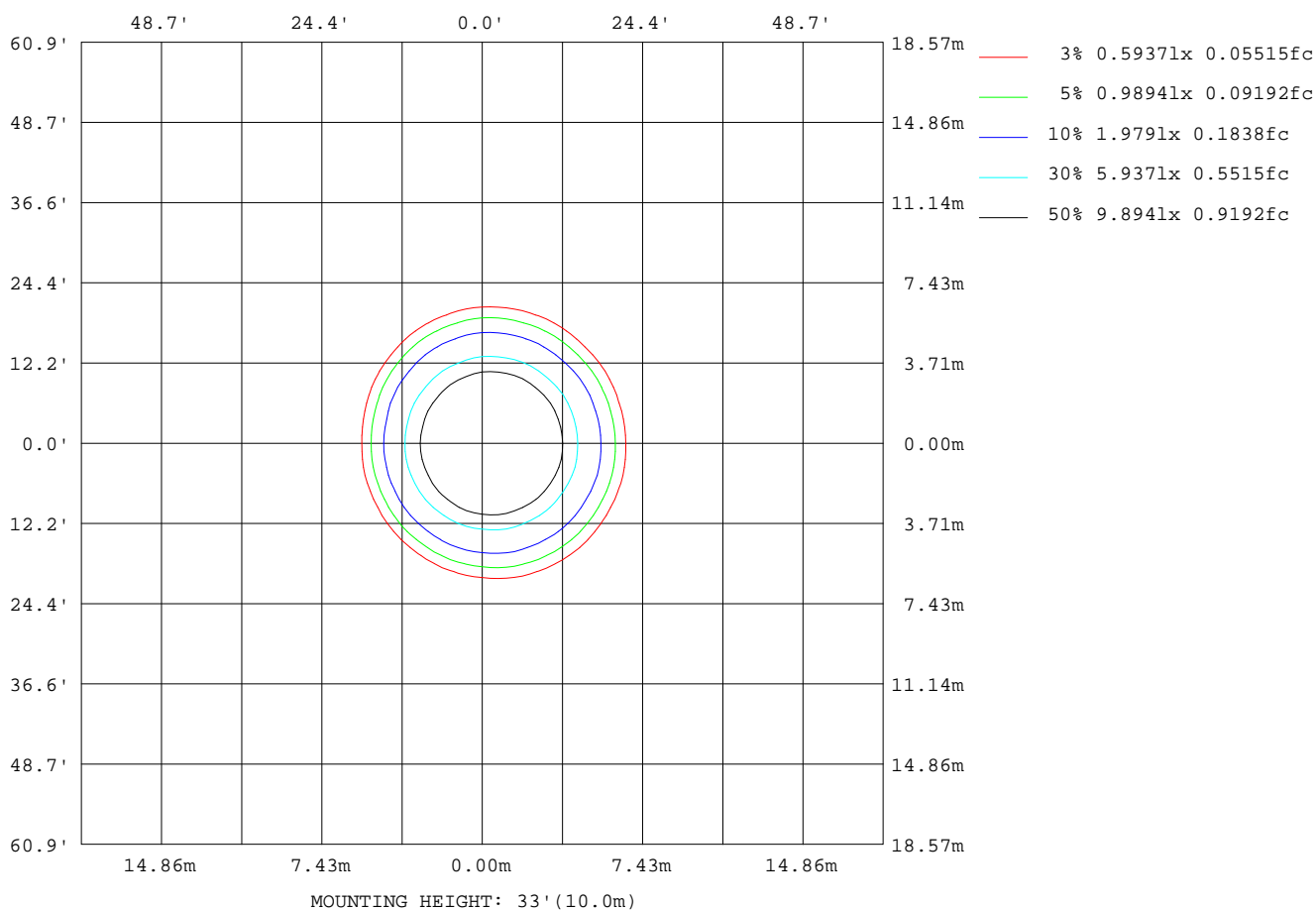
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-26

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:220.4V I:0.0687A P:15.02W PF:0.9342 Freq:49.90Hz Lamp Flux:826.549x1 lm		
NAME: S100S1-13W-930-M	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L108mm*W108mm*H126mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-26

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:220.4V I:0.0687A P:15.02W PF:0.9342 Freq:49.90Hz Lamp Flux:826.549x1 lm		
NAME: S100S1-13W-930-M	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: L108mm*W108mm*H126mm	
MFR.: NEKO LIGHTING AG		

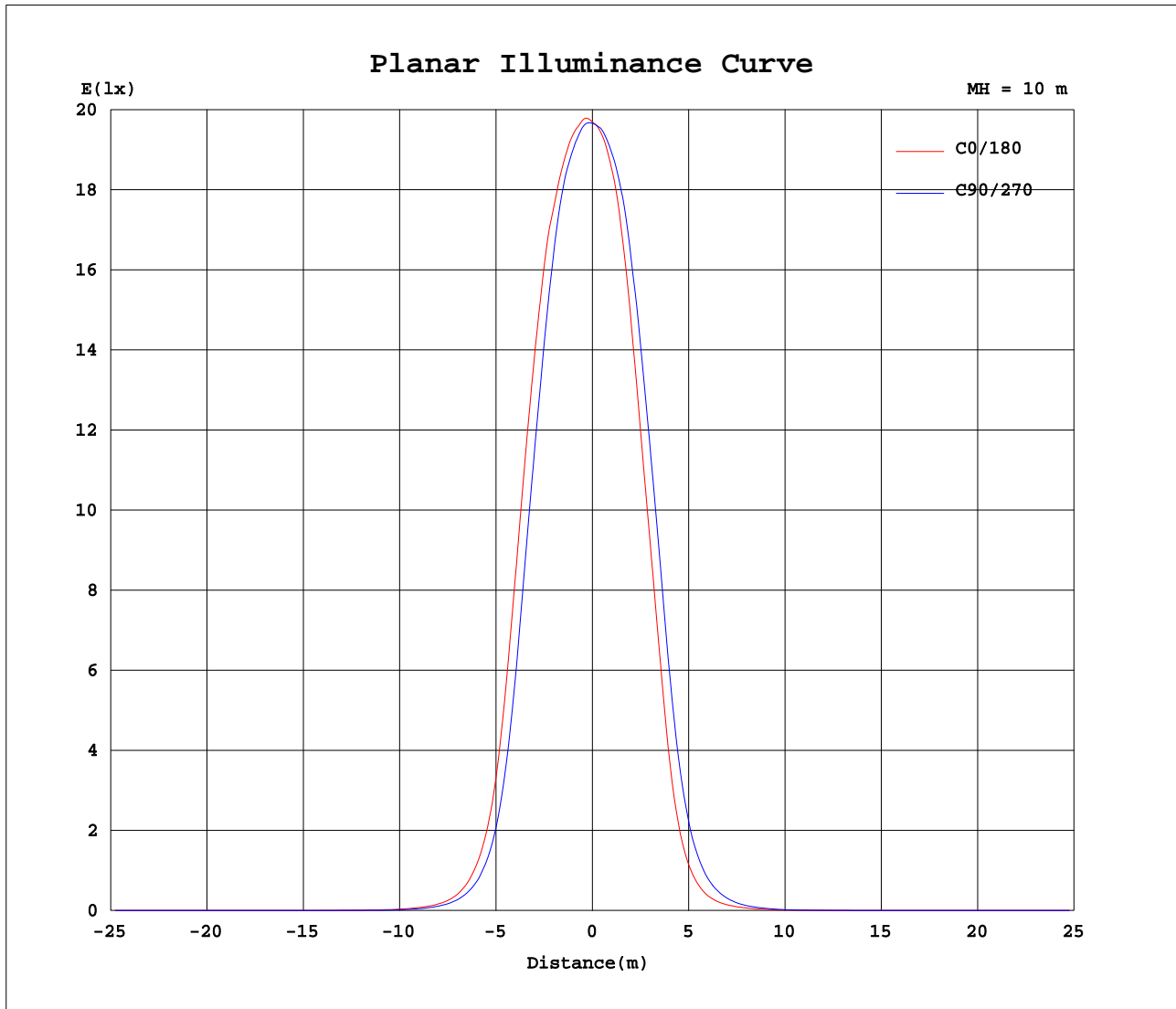
AvgL	cd/m2
L_0~180(65)av	19
L_0~180(75)av	9
L_0~180(85)av	23
L_90~270(65)av	17
L_90~270(75)av	9
L_90~270(85)av	20
L_45(65)av	30
L_45(75)av	8
L_45(85)av	16

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-12-26

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: 2020-12-26

$\gamma$  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:

```