

S45R1-4W-927-35



Light Output Ratio:	100.0%	
Luminaire Power:	5.981 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: Myles
Test Date: 2019-03-21

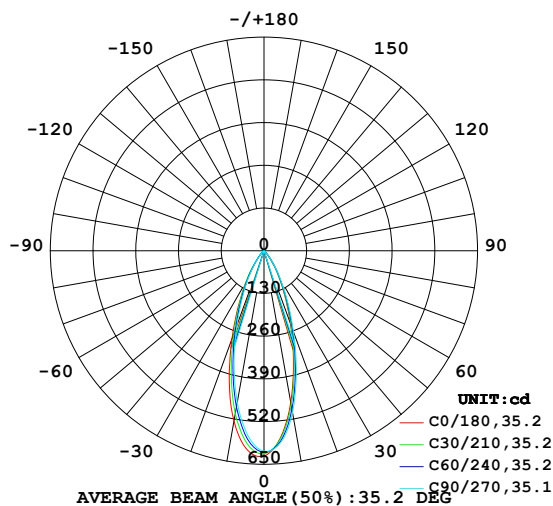
γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 56%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

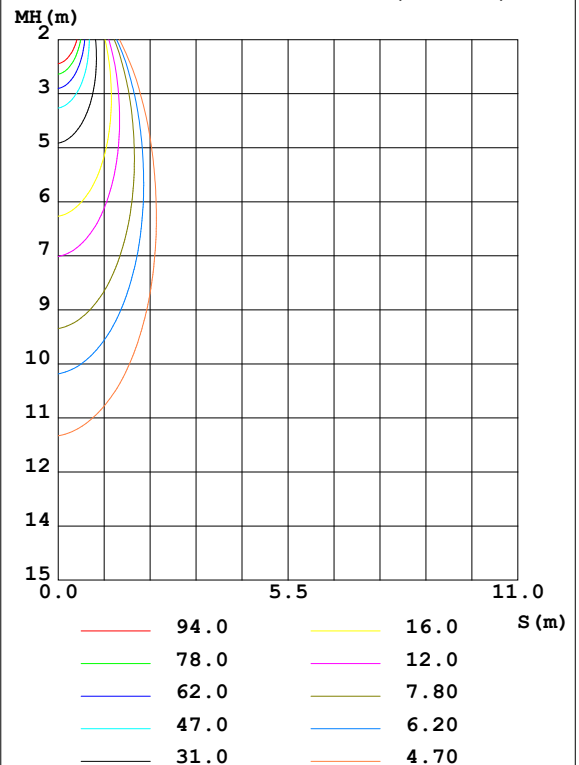
Test:U:220.9V I:0.0326A P:5.981W PF:0.8310 Freq:49.89Hz Lamp Flux:279.27lx1 lm		
NAME: S45R1-4W-927-35	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 55mm*H60mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 46.69 lm/W			
MODEL	CREE-2700K	I _{max} (cd)	626.6	S/MH (C0/180)	0.62
NOMINAL POWER (W)	6	LOR (%)	100.0	S/MH (C90/270)	0.55
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	279.27	η UP, DN (C0-180)	0.0, 51.0
NOMINAL FLUX (lm)	279.271	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: Myles
Test Date: 2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 56%
Test Distance: 5.850m [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	469.1	486.4	500.3	515.0	526.3	489.9	469.0	452.5	0- 10	52.18	52.18	18.7,18.7
20	235.7	252.0	263.0	278.8	285.0	258.9	241.9	230.0	10- 20	101.3	153.4	54.9,54.9
30	88.33	95.78	99.69	106.0	110.3	102.9	93.80	87.11	20- 30	75.30	228.7	81.9,81.9
40	19.77	26.26	27.13	28.93	28.85	24.99	22.71	18.70	30- 40	33.67	262.4	94,94
50	4.915	5.608	5.152	5.157	5.273	5.480	5.369	4.776	40- 50	8.978	271.4	97.2,97.2
60	2.357	2.381	2.206	2.263	2.293	2.353	2.322	2.355	50- 60	3.031	274.4	98.3,98.3
70	1.903	2.009	1.772	1.887	1.845	1.999	1.910	2.027	60- 70	2.096	276.5	99,99
80	1.188	1.324	1.089	1.320	1.171	1.448	1.228	1.369	70- 80	1.695	278.2	99.6,99.6
90	0.6603	0.7390	0.6253	0.7674	0.6581	0.8068	0.6603	0.7937	80- 90	1.054	279.3	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): 268.54 lm

%lum = 96.2%

%lamp = 96.2%

Conical surface Flux(120deg): 274.42 lm

%lum = 98.3%

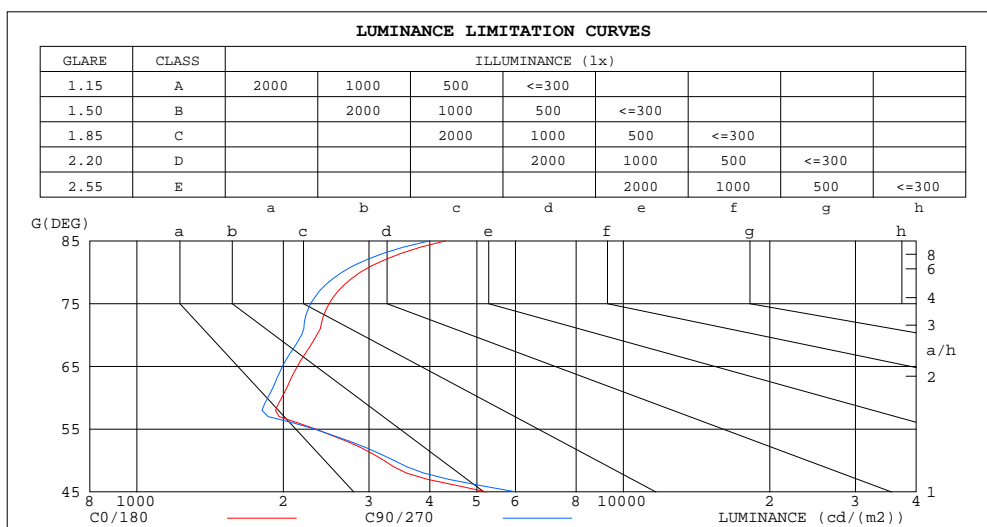
%lamp = 98.3%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 γ Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.9V I:0.0326A P:5.981W PF:0.8310 Freq:49.89Hz Lamp Flux:279.27lx1 lm		
NAME: S45R1-4W-927-35	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 55mm*H60mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	4314	3996
80	2881	2642
75	2485	2275
70	2343	2181
65	2138	1992
60	1985	1858
55	2329	2320
50	3220	3376
45	5237	6026

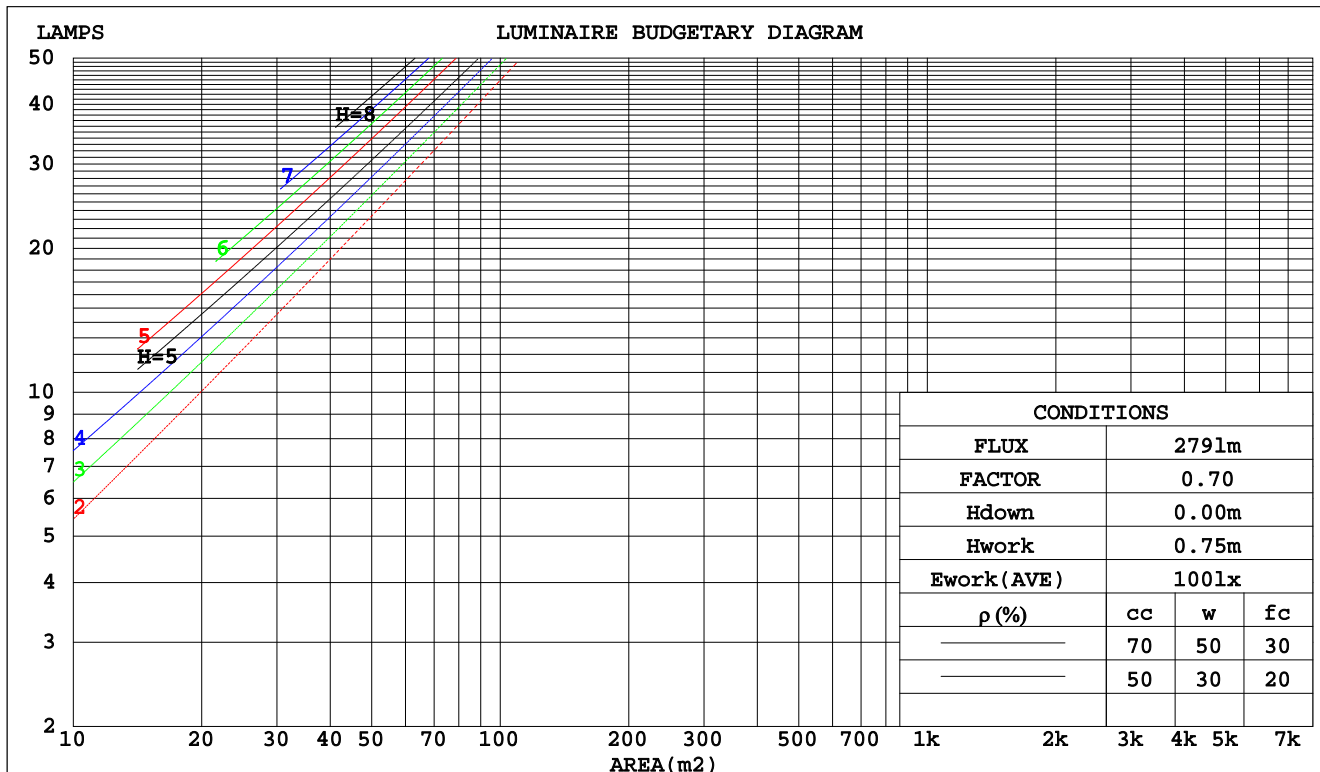
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.9V I:0.0326A P:5.981W PF:0.8310 Freq:49.89Hz Lamp Flux:279.271x1 lm		
NAME: S45R1-4W-927-35	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 55mm*H60mm	
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	1.01	.97	1.03	.99	.96	.99	.97	.94	.96	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.89	.94	.91	.88	.92	.89	.87	.90	.87	.85	.84
4.0	.93	.88	.84	.92	.87	.83	.90	.86	.83	.88	.84	.82	.86	.83	.81	.79
5.0	.88	.83	.79	.87	.82	.78	.85	.81	.78	.84	.80	.77	.82	.79	.76	.75
6.0	.84	.78	.74	.83	.78	.74	.81	.77	.74	.80	.76	.73	.79	.75	.73	.71
7.0	.80	.74	.70	.79	.74	.70	.78	.73	.70	.77	.73	.70	.75	.72	.69	.68
8.0	.76	.71	.67	.75	.70	.67	.74	.70	.67	.73	.69	.66	.72	.69	.66	.65
9.0	.73	.67	.64	.72	.67	.64	.71	.67	.63	.70	.66	.63	.70	.66	.63	.62
10.0	.69	.64	.61	.69	.64	.61	.68	.64	.61	.68	.63	.61	.67	.63	.60	.59



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:220.9V I:0.0326A P:5.981W PF:0.8310 Freq:49.89Hz Lamp Flux:279.271x1 lm		
NAME: S45R1-4W-927-35	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: \varnothing 55mm*H60mm	
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	.169	.096	.031	.163	.093	.029	.150	.086	.028	.139	.080	.026	.128	.074	.024			
2.0	.159	.087	.027	.153	.084	.026	.143	.079	.025	.133	.075	.023	.124	.070	.022			
3.0	.149	.079	.024	.144	.077	.023	.136	.073	.022	.127	.070	.021	.120	.066	.021			
4.0	.141	.073	.022	.137	.072	.021	.129	.068	.020	.122	.066	.020	.115	.063	.019			
5.0	.133	.068	.020	.130	.067	.019	.123	.064	.019	.117	.062	.018	.111	.059	.018			
6.0	.127	.063	.018	.124	.062	.018	.118	.060	.018	.112	.058	.017	.107	.057	.017			
7.0	.121	.060	.017	.118	.059	.017	.113	.057	.016	.108	.055	.016	.104	.054	.016			
8.0	.115	.056	.016	.113	.055	.016	.108	.054	.015	.104	.053	.015	.100	.051	.015			
9.0	.110	.053	.015	.108	.053	.015	.104	.051	.015	.100	.050	.014	.097	.049	.014			
10.0	.106	.051	.014	.104	.050	.014	.100	.049	.014	.097	.048	.014	.093	.047	.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	.171	.157	.145	.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	.130	.099	.074	.112	.085	.065	.077	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.121	.087	.062	.104	.075	.054	.071	.052	.038	.041	.031	.022	.013	.010	.007	
6.0	.113	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.106	.069	.044	.091	.060	.038	.063	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.100	.063	.038	.086	.055	.033	.059	.038	.023	.035	.023	.014	.011	.007	.005	
9.0	.095	.058	.033	.081	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.090	.053	.029	.077	.046	.025	.054	.032	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.9V I:0.0326A P:5.981W PF:0.8310 Freq:49.89Hz Lamp Flux:279.271x1 lm										
NAME: S45R1-4W-927-35					TYPE:Downlight			SERIAL No.:		
SPEC.:2700K					DIM.: ϕ 55mm*H60mm					
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	17.5	18.4	17.7	18.5	18.7	18.4	19.3	18.6	19.4	19.6
3H	17.7	18.5	18.0	18.7	18.9	18.5	19.3	18.8	19.5	19.7
4H	17.9	18.6	18.2	18.8	19.1	18.6	19.4	18.9	19.6	19.8
6H	18.1	18.8	18.4	19.0	19.3	18.7	19.4	19.0	19.7	19.9
8H	18.2	18.9	18.6	19.2	19.4	18.8	19.5	19.1	19.8	20.0
12H	18.4	19.1	18.7	19.3	19.6	18.9	19.6	19.3	19.9	20.1
4H 2H	17.4	18.2	17.7	18.4	18.6	18.3	19.0	18.6	19.2	19.5
3H	17.8	18.4	18.1	18.7	19.0	18.5	19.2	18.9	19.5	19.7
4H	18.1	18.6	18.4	18.9	19.2	18.8	19.4	19.1	19.6	20.0
6H	18.4	18.9	18.8	19.3	19.6	19.0	19.6	19.4	19.9	20.2
8H	18.7	19.1	19.1	19.5	19.9	19.2	19.7	19.6	20.0	20.4
12H	18.9	19.4	19.4	19.8	20.2	19.4	19.9	19.8	20.2	20.6
8H 4H	18.2	18.7	18.6	19.0	19.4	18.8	19.3	19.2	19.7	20.0
6H	18.7	19.1	19.1	19.5	19.9	19.3	19.7	19.7	20.1	20.5
8H	19.0	19.4	19.5	19.8	20.3	19.6	20.0	20.0	20.4	20.8
12H	19.5	19.8	19.9	20.2	20.7	19.9	20.3	20.4	20.7	21.2
12H 4H	18.2	18.6	18.6	19.0	19.4	18.8	19.3	19.2	19.6	20.0
6H	18.8	19.1	19.2	19.5	20.0	19.4	19.7	19.8	20.1	20.6
8H	19.2	19.5	19.7	19.9	20.4	19.7	20.0	20.2	20.5	20.9
Variations with the observer position at spacings:										
S = 1.0H	+ 1.3 / - 1.6					+ 1.8 / - 2.1				
1.5H	+ 2.8 / - 1.4					+ 3.5 / - 2.0				
2.0H	+ 1.2 / - 0.5					+ 1.7 / - 0.6				

CIE Pub.117, 279.3 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -4.4$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.9V I:0.0326A P:5.981W PF:0.8310 Freq:49.89Hz Lamp Flux:279.271x1 lm		
NAME: S45R1-4W-927-35	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: $\varnothing 55\text{mm} \times H60\text{mm}$	
MFR.: NEKO LIGHTING AG		

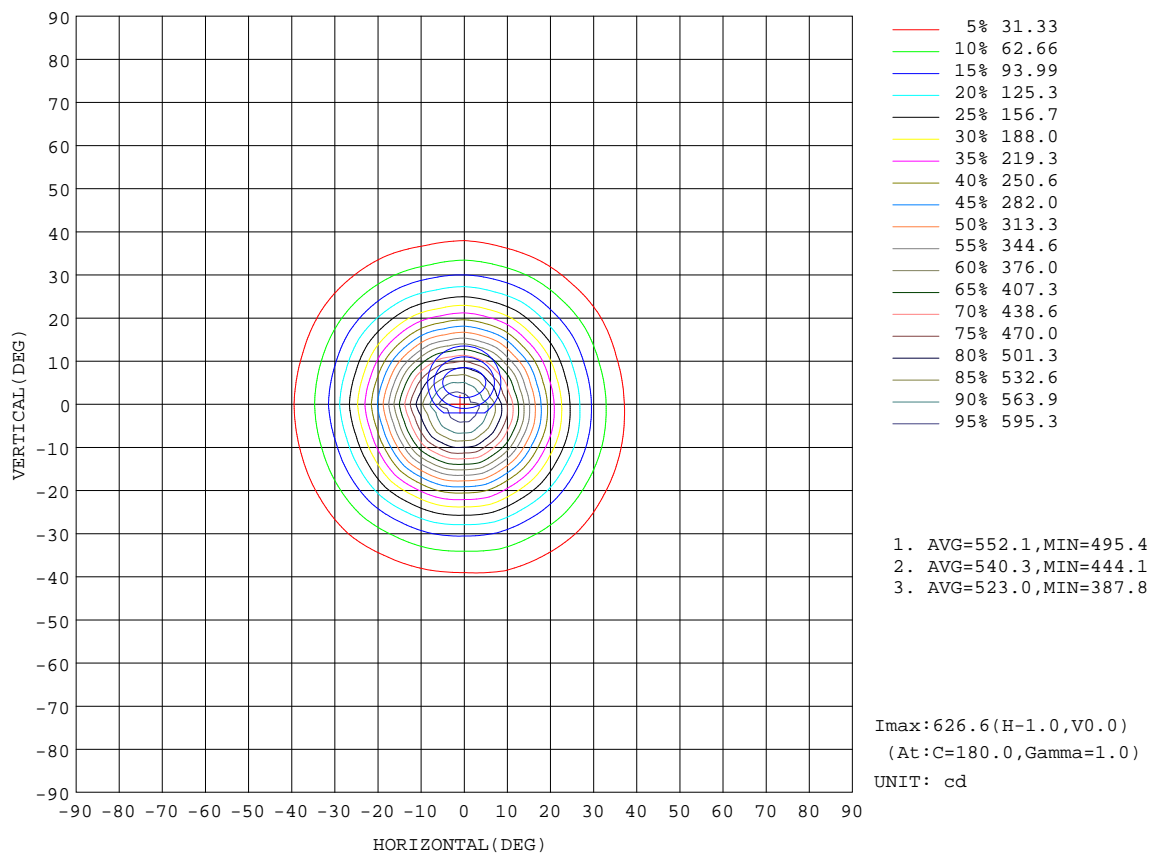
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	87	81	78	87	81	78	74
0.80	95	89	86	94	89	86	93	88	85	82
1.00	99	94	90	99	93	90	97	93	89	86
1.25	103	98	95	102	98	94	100	96	93	89
1.50	106	101	98	105	100	97	102	99	96	92
2.00	108	104	101	107	103	100	104	101	99	94
2.50	110	106	103	109	105	102	105	103	101	95
3.00	112	108	105	110	107	104	107	104	102	96
4.00	114	111	109	112	109	107	108	106	105	97
5.00	115	113	111	113	111	109	109	107	106	99
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:Myles
 Test Date:2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:56%
 Test Distance:5.850m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.9V I:0.0326A P:5.981W PF:0.8310 Freq:49.89Hz Lamp Flux:279.27lx1 lm		
NAME: S45R1-4W-927-35	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 55mm*H60mm	
MFR.: NEKO LIGHTING AG		

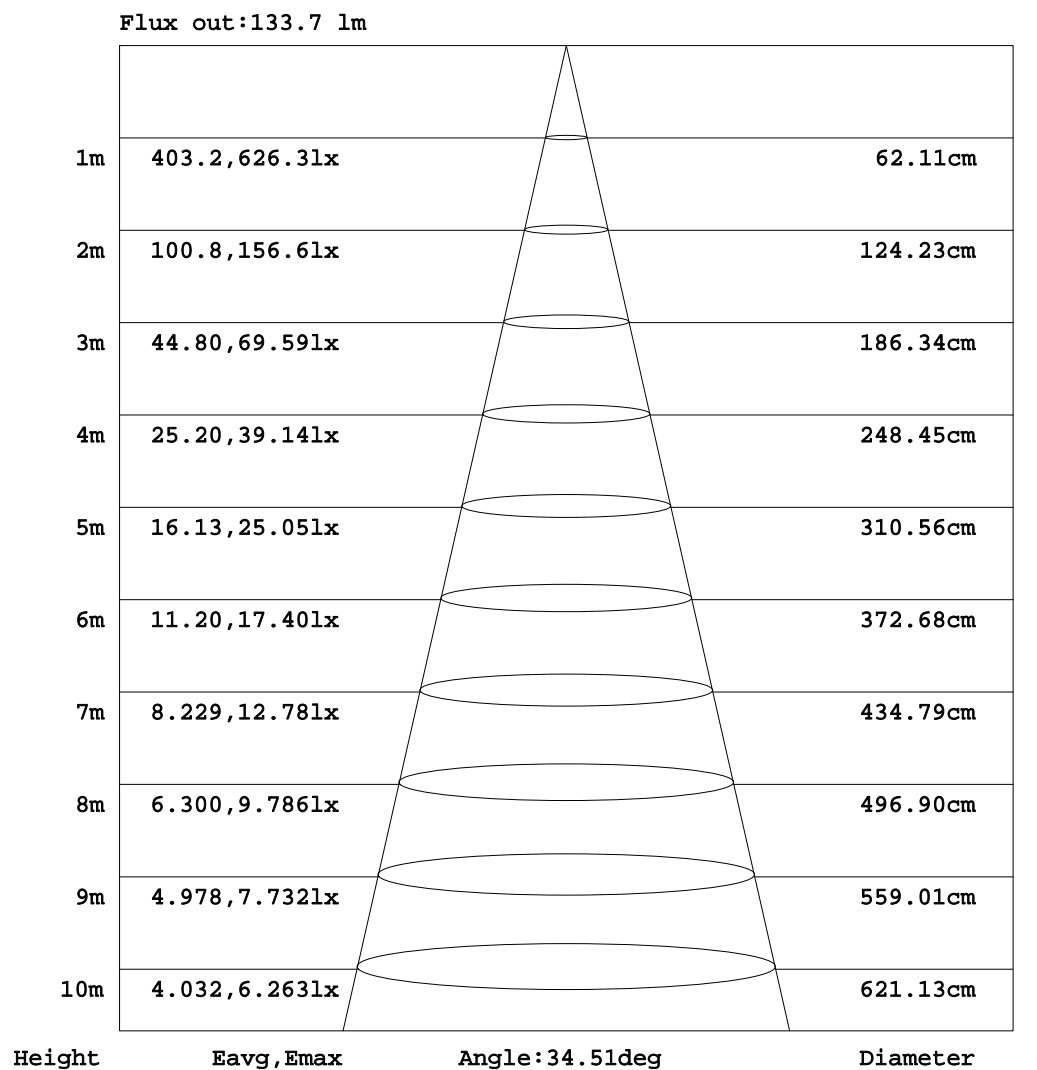


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.9V I:0.0326A P:5.981W PF:0.8310 Freq:49.89Hz Lamp Flux:279.27lx1 lm		
NAME: S45R1-4W-927-35	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 55mm*H60mm	
MFR.: NEKO LIGHTING AG		



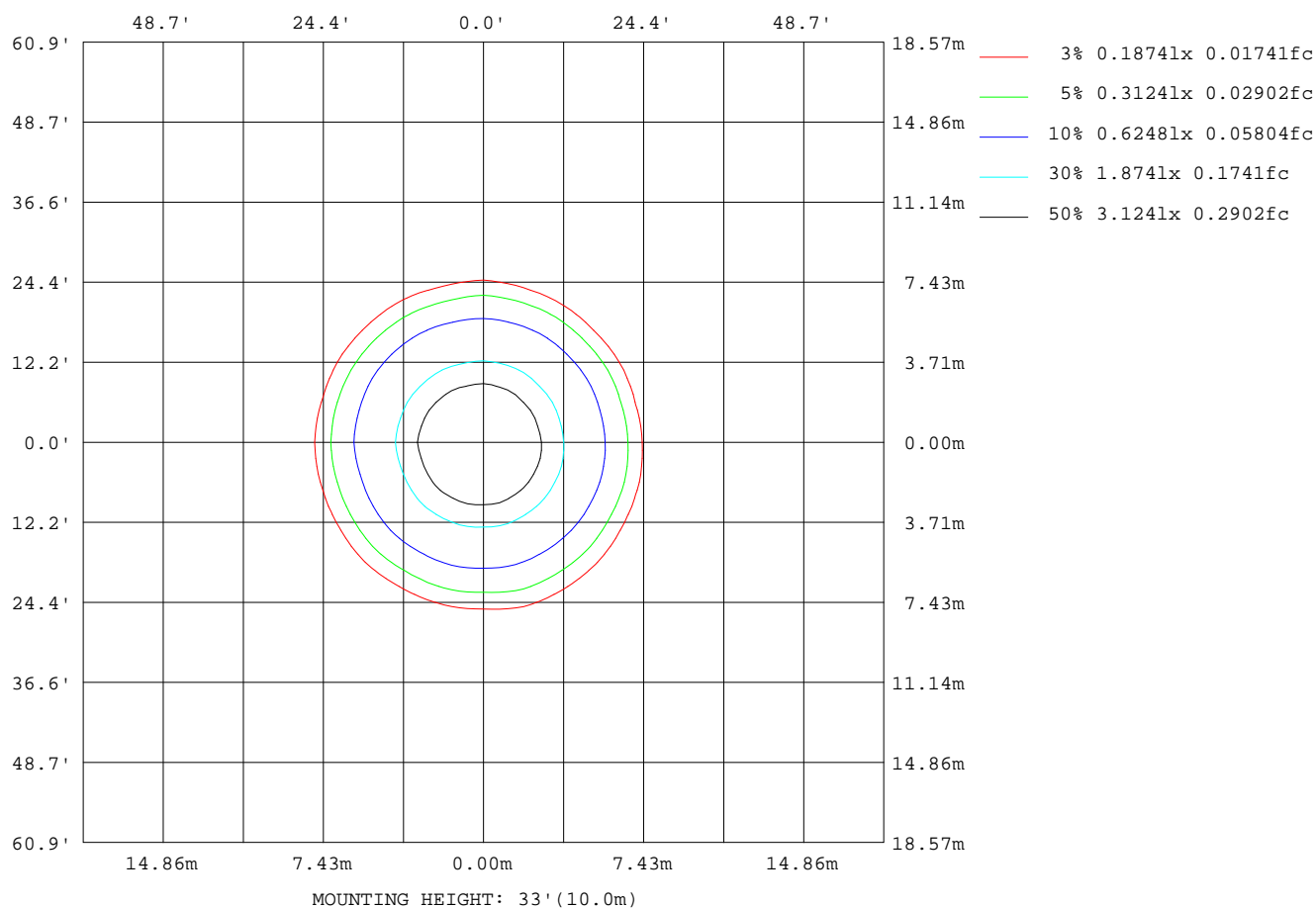
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:220.9V I:0.0326A P:5.981W PF:0.8310 Freq:49.89Hz Lamp Flux:279.27lx 1m		
NAME: S45R1-4W-927-35	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 55mm*H60mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:220.9V I:0.0326A P:5.981W PF:0.8310 Freq:49.89Hz Lamp Flux:279.27lx1 lm		
NAME: S45R1-4W-927-35	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 55mm*H60mm	
MFR.: NEKO LIGHTING AG		

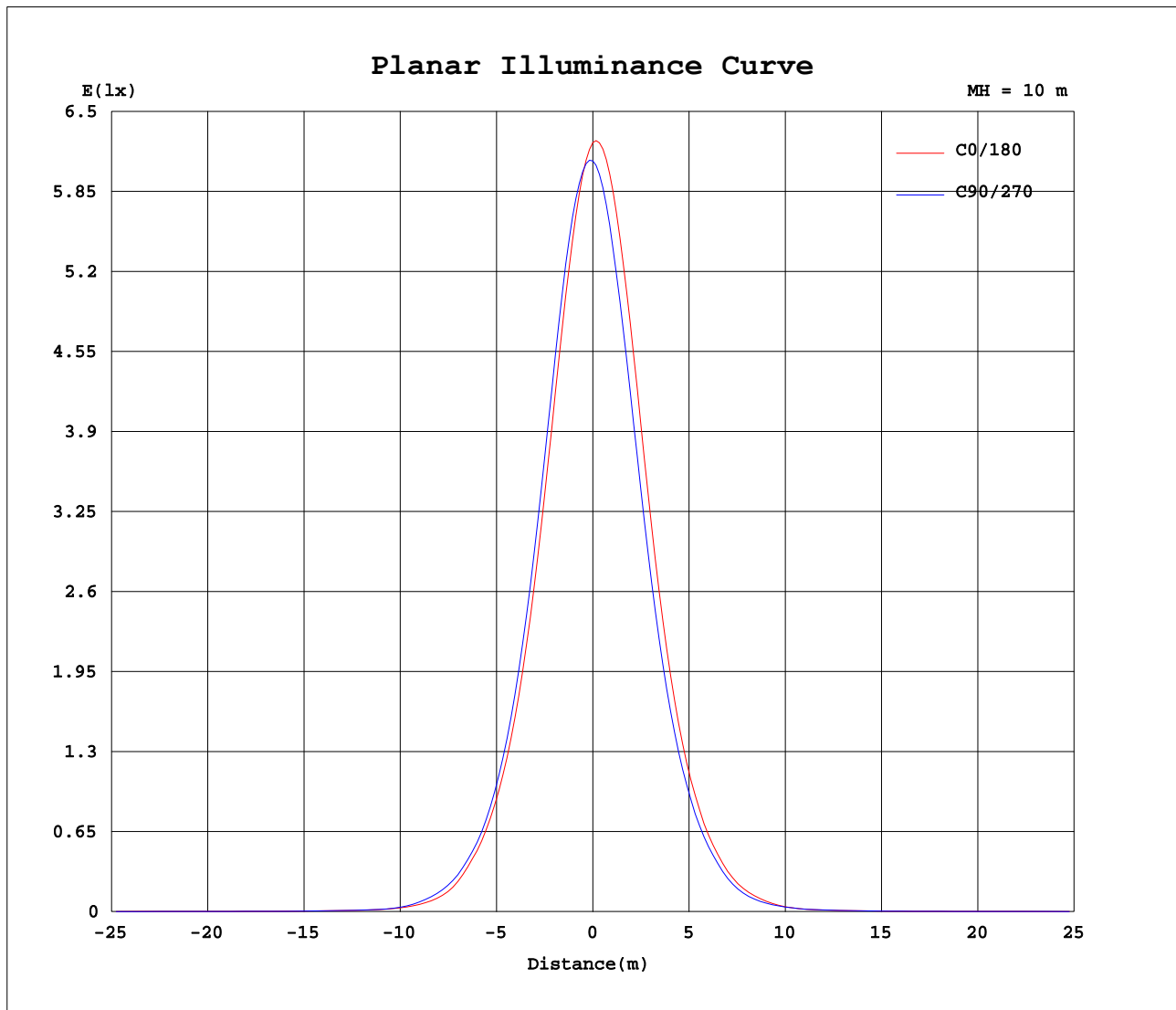
AvgL	cd/m2
L_0~180 (65) av	2102
L_0~180 (75) av	2455
L_0~180 (85) av	4316
L_90~270 (65) av	2056
L_90~270 (75) av	2416
L_90~270 (85) av	4247
L_45 (65) av	2149
L_45 (75) av	2739
L_45 (85) av	5039

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Myles
Test Date: 2019-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 56%
Test Distance: 5.850m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

```