

LED Downlight SENSE Series S68R1-7.5W-927-M



Light Output Ratio:	100.0%	
Luminaire Power:	7.075 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: 2021-03-27

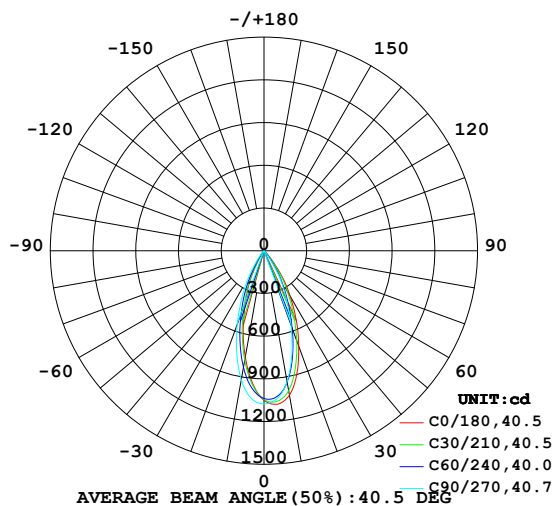
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 8.967m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

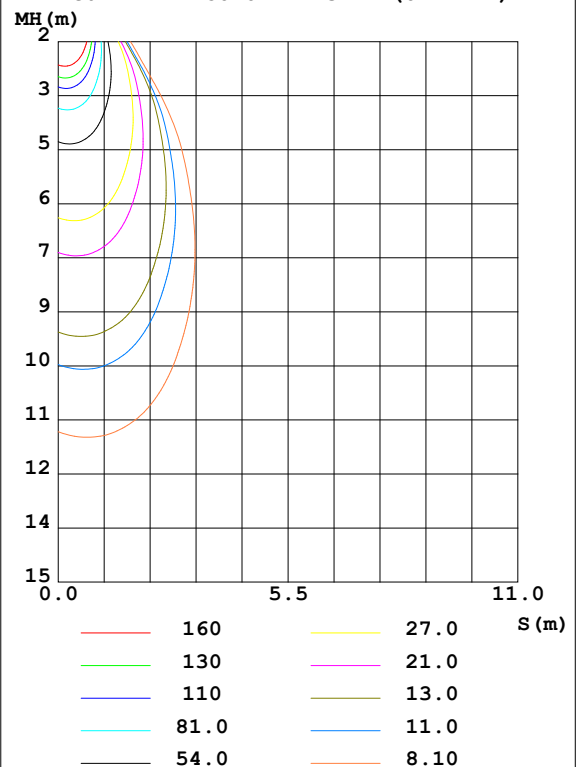
Test:U:28.30V I:0.2500A P:7.075W PF:1.000 Freq:0Hz Lamp Flux:541.452x1 lm		
NAME: S68R1-7.5W-927-M	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 76.53 lm/W			
MODEL	CITIZEN-2700K	I _{max} (cd)	1082	S/MH (C0/180)	0.52
NOMINAL POWER (W)	9.0	LOR (%)	100.0	S/MH (C90/270)	0.65
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	541.45	η UP, DN (C0-180)	0.0, 54.3
NOMINAL FLUX (lm)	541.452	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 45.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	28.3	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
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ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1030	975.5	933.8	896.6	758.9	795.3	920.4	937.7	0- 10	93.95	93.95	17.4,17.4
20	716.0	638.2	556.2	518.4	381.8	430.1	550.0	575.9	10- 20	201.7	295.6	54.6,54.6
30	365.8	296.5	230.2	196.7	95.98	119.6	218.9	253.3	20- 30	169.4	465.0	85.9,85.9
40	88.43	61.38	27.45	19.53	8.151	10.95	27.76	39.24	30- 40	66.49	531.5	98.2,98.2
50	8.410	5.436	1.479	0.9071	0.3133	0.3191	0.9892	2.851	40- 50	9.308	540.8	99.9,99.9
60	0.2877	0.2191	0.1939	0.1461	0.0313	0.0628	0.0572	0.1519	50- 60	0.5740	541.3	100,100
70	0.0732	0.0365	0.0366	0.0105	0.0105	0.0261	0.0157	0.0314	60- 70	0.0602	541.4	100,100
80	0.0366	0.0209	0.0209	0.0157	0.0105	0.0209	0.0157	0.0209	70- 80	0.0237	541.4	100,100
90	0.0261	0.0209	0.0157	0.0157	0.0105	0.0157	0.0157	0.0157	80- 90	0.0212	541.5	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): 538.6 lm

%lum = 99.5%

%lamp = 99.5%

Conical surface Flux(120deg): 541.35 lm

%lum = 100.0%

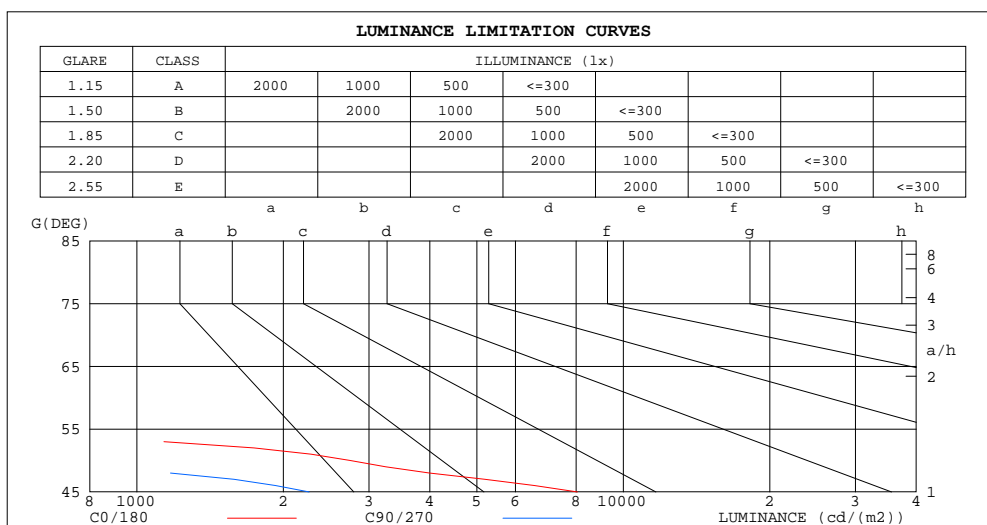
%lamp = 100.0%

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Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-03-27

γ Range: 0 - 90DEG
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Humidity:58%
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Remarks:

LUMINANCE LIMITATION CURVES

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SPEC.:2700K	DIM.: ϕ 78mm*H98mm	
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LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	88	50
80	44	25
75	34	21
70	45	22
65	55	39
60	120	81
55	354	158
50	2740	482
45	8044	2260

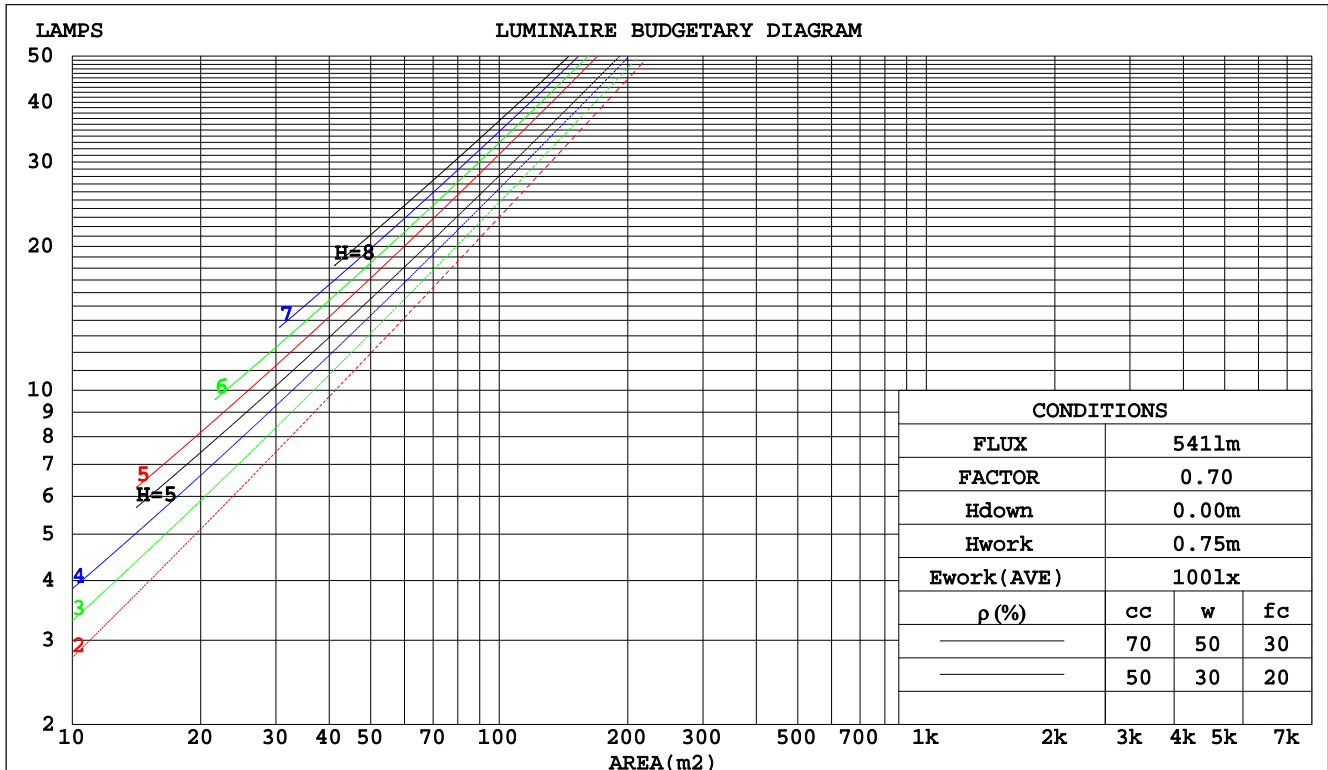
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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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	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95
2.0	1.05	1.02	.99	1.04	1.00	.98	1.00	.98	.95	.97	.95	.93	.95	.93	.92	.90
3.0	.99	.95	.92	.98	.94	.91	.95	.92	.89	.93	.90	.88	.91	.89	.87	.85
4.0	.94	.89	.86	.93	.88	.85	.91	.87	.84	.89	.86	.83	.87	.84	.82	.81
5.0	.89	.84	.80	.88	.84	.80	.87	.83	.79	.85	.81	.79	.84	.80	.78	.77
6.0	.85	.80	.76	.84	.79	.76	.83	.78	.75	.81	.78	.75	.80	.77	.74	.73
7.0	.81	.76	.72	.80	.75	.72	.79	.75	.71	.78	.74	.71	.77	.73	.71	.69
8.0	.77	.72	.68	.76	.72	.68	.75	.71	.68	.74	.70	.68	.74	.70	.67	.66
9.0	.74	.68	.65	.73	.68	.65	.72	.68	.65	.71	.67	.64	.71	.67	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.65	.62	.69	.64	.62	.68	.64	.61	.60



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WEC AND CCEC

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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	.139	.080	.026	.128	.074	.024	.117	.068	.022		
2.0	.150	.082	.025	.144	.080	.025	.134	.075	.023	.124	.070	.022	.116	.065	.021		
3.0	.142	.076	.023	.137	.074	.022	.129	.070	.021	.120	.066	.020	.113	.062	.019		
4.0	.135	.070	.021	.131	.068	.020	.123	.065	.020	.116	.062	.019	.110	.060	.018		
5.0	.128	.065	.019	.125	.064	.019	.118	.062	.018	.112	.059	.018	.107	.057	.017		
6.0	.122	.061	.018	.119	.060	.017	.114	.058	.017	.109	.056	.017	.104	.055	.016		
7.0	.117	.058	.016	.115	.057	.016	.110	.055	.016	.105	.054	.016	.100	.052	.015		
8.0	.112	.055	.015	.110	.054	.015	.106	.053	.015	.101	.051	.015	.097	.050	.015		
9.0	.108	.052	.015	.106	.052	.014	.102	.050	.014	.098	.049	.014	.095	.048	.014		
10.0	.104	.050	.014	.102	.049	.014	.098	.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	.110	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.119	.087	.062	.102	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.111	.077	.052	.096	.067	.046	.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	

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C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
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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:28.30V I:0.2500A P:7.075W PF:1.000 Freq:0Hz Lamp Flux:541.452x1 lm										
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SPEC.:2700K					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	19.4	20.2	19.6	20.4	20.5	15.6	16.4	15.8	16.5	16.7
3H	19.2	20.0	19.5	20.2	20.4	15.4	16.2	15.7	16.4	16.5
4H	19.1	19.8	19.4	20.1	20.3	15.3	16.0	15.6	16.2	16.5
6H	19.0	19.7	19.3	20.0	20.2	15.2	15.9	15.5	16.1	16.4
8H	19.0	19.6	19.3	19.9	20.2	15.2	15.8	15.5	16.1	16.3
12H	19.0	19.6	19.3	19.8	20.1	15.1	15.8	15.5	16.0	16.3
4H 2H	19.1	19.8	19.4	20.1	20.3	15.3	16.0	15.6	16.2	16.5
3H	19.0	19.6	19.3	19.8	20.1	15.1	15.8	15.5	16.0	16.3
4H	18.9	19.4	19.2	19.7	20.0	15.0	15.6	15.4	15.9	16.2
6H	18.8	19.3	19.1	19.6	19.9	15.0	15.4	15.3	15.8	16.1
8H	18.7	19.2	19.1	19.5	19.9	14.9	15.4	15.3	15.7	16.1
12H	18.7	19.1	19.1	19.4	19.8	14.8	15.3	15.3	15.6	16.0
8H 4H	18.7	19.2	19.1	19.5	19.9	14.9	15.4	15.3	15.7	16.1
6H	18.6	19.0	19.0	19.4	19.8	14.8	15.2	15.2	15.6	16.0
8H	18.5	18.9	19.0	19.3	19.7	14.7	15.1	15.2	15.5	15.9
12H	18.5	18.8	19.0	19.2	19.7	14.7	15.0	15.1	15.4	15.9
12H 4H	18.7	19.1	19.1	19.4	19.8	14.8	15.3	15.3	15.6	16.0
6H	18.5	18.9	19.0	19.3	19.7	14.7	15.1	15.2	15.5	15.9
8H	18.5	18.8	19.0	19.2	19.7	14.7	15.0	15.1	15.4	15.9
Variations with the observer position at spacings:										
S = 1.0H	+ 4.6 / -29.4					+ 3.4 / -24.9				
1.5H	+ 7.2 / -25.8					+ 6.1 / -22.3				
2.0H	+ 8.3 / -22.3					+ 6.9 / -17.0				

CIE Pub.117, 541.5 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -2.1$)

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Humidity:58%
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UTILIZATION FACTORS TABLE

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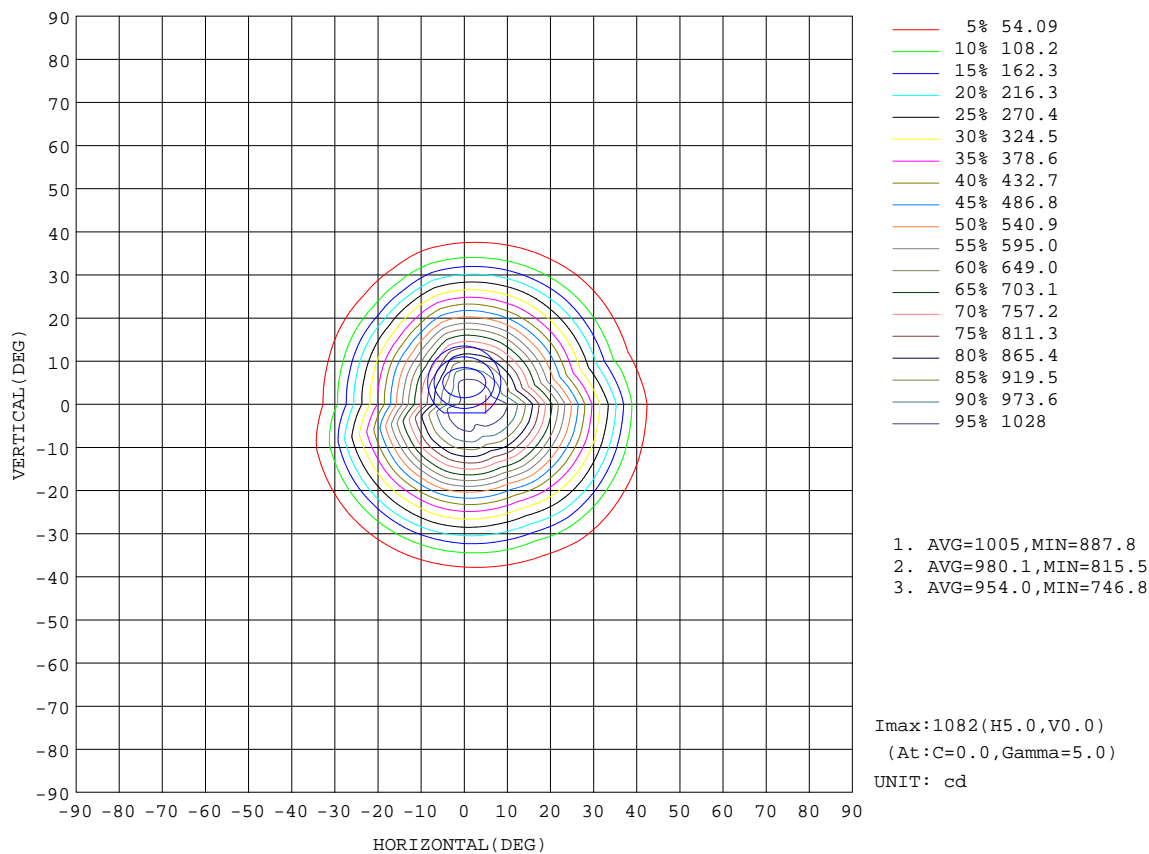
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	85	81	90	84	81	89	84	81	78
0.80	97	92	89	97	92	89	96	91	88	85
1.00	101	96	93	101	96	93	99	96	92	89
1.25	105	100	97	104	100	97	102	99	96	92
1.50	107	103	100	106	102	100	104	101	99	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	113	109	107	111	108	106	107	105	104	97
4.00	114	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		

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ISOCANDELA DIAGRAM

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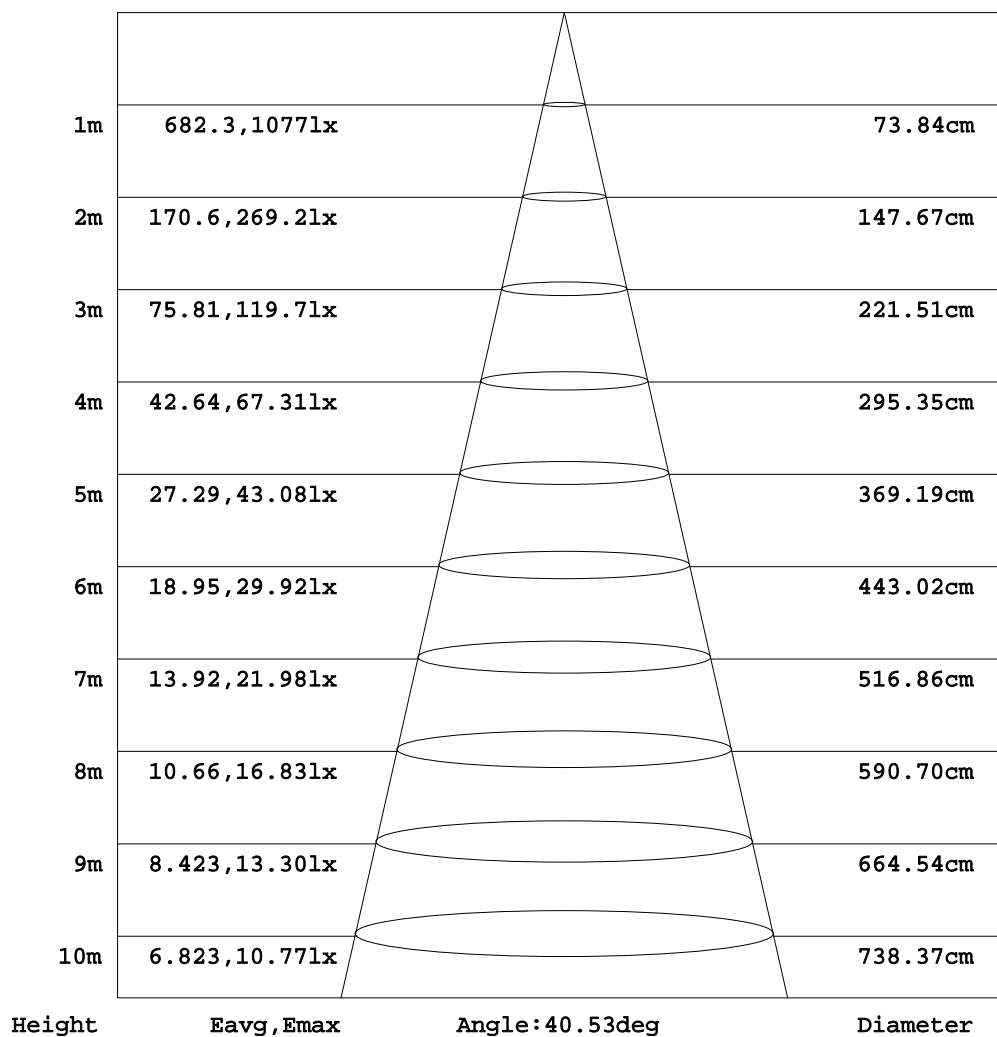
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AAI Figure

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Flux out:315.8 lm



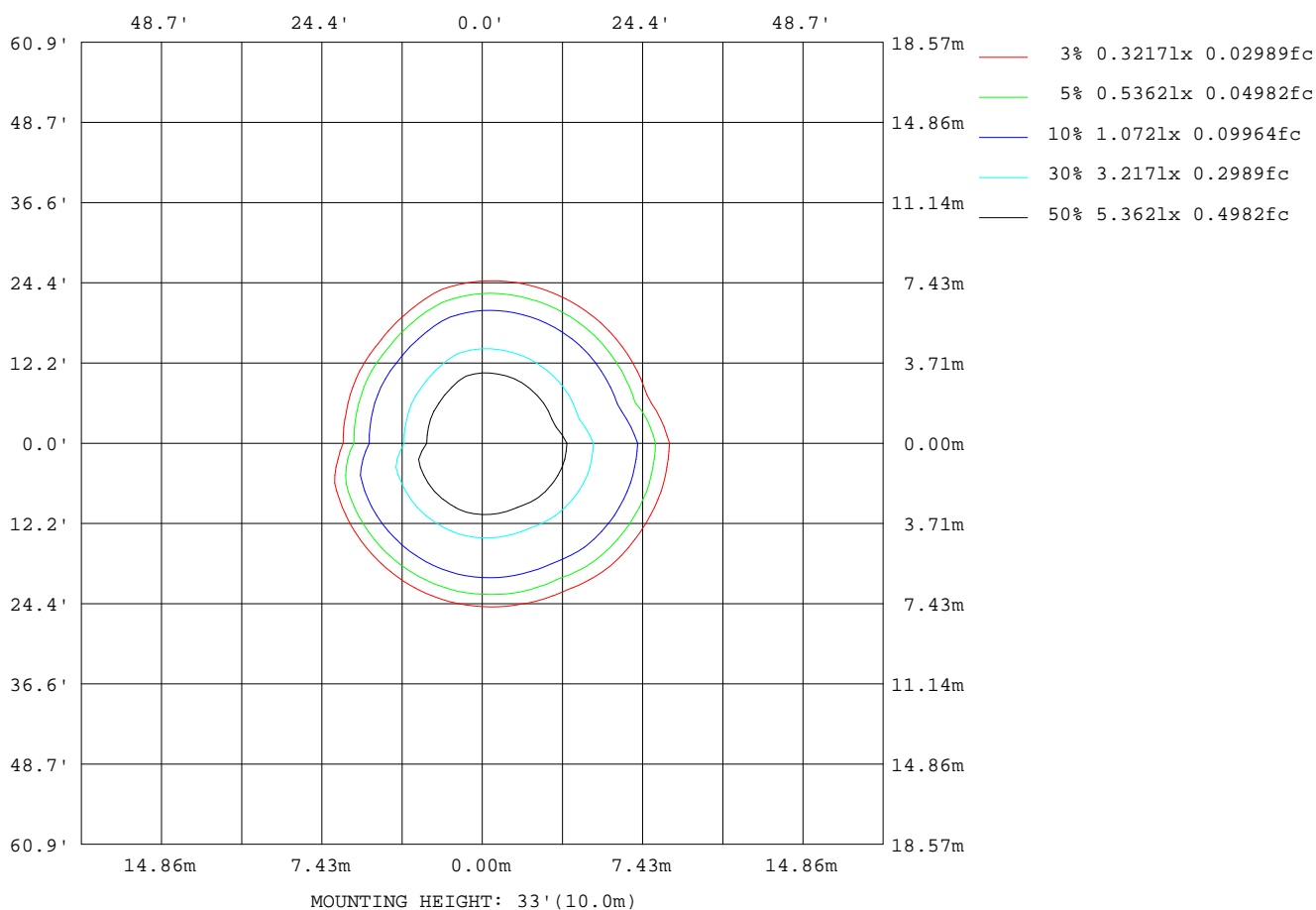
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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MFR.: NEKO LIGHTING AG		

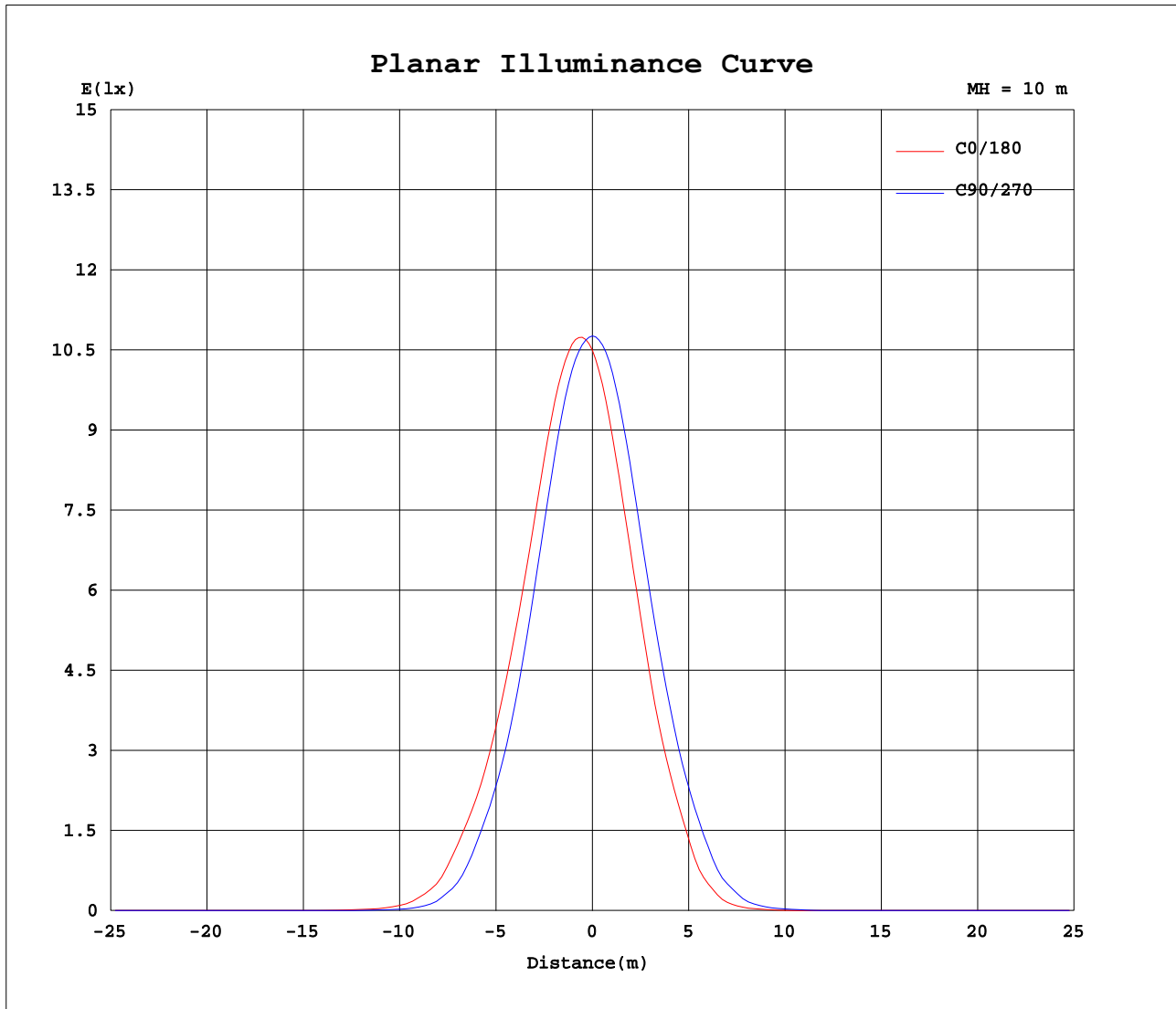
AvgL	cd/m2
L_0~180 (65) av	30
L_0~180 (75) av	21
L_0~180 (85) av	57
L_90~270 (65) av	23
L_90~270 (75) av	17
L_90~270 (85) av	44
L_45 (65) av	23
L_45 (75) av	17
L_45 (85) av	41

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-03-27

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



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C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2021-03-27

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:

```

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γ Interval: 1.0DEG
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Humidity:58%
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Remarks:

```