

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



Light Output Ratio:	100.0%	
Luminaire Power:	7.35 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

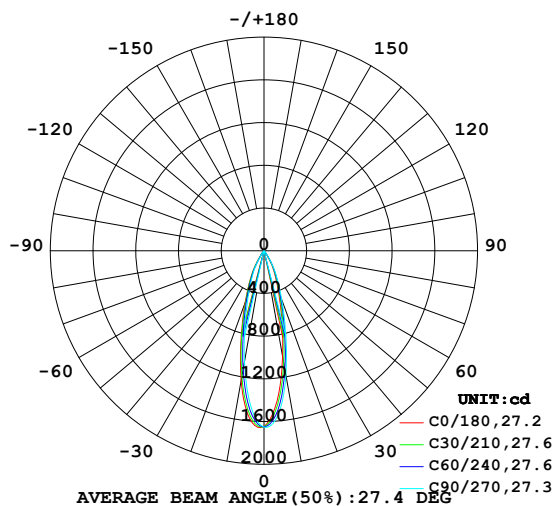
γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 8.967m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

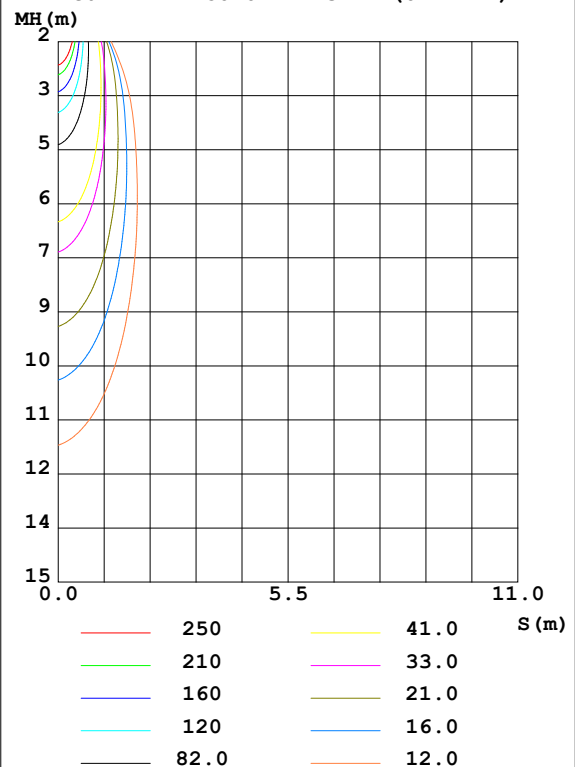
Test:U:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:506.212x1 lm		
NAME: S68R1-7.5W-927-N	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 68.87 lm/W			
MODEL	CITIZEN-2700K	I _{max} (cd)	1664	S/MH (C0/180)	0.50
NOMINAL POWER (W)	11	LOR (%)	100.0	S/MH (C90/270)	0.43
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	506.21	η UP, DN (C0-180)	0.0, 51.7
NOMINAL FLUX (lm)	506.212	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 48.3
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)



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ZONAL FLUX DIAGRAM

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γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1007	1107	1183	1239	1234	1153	1056	983.4	0- 10	130.4	130.4	25.8,25.8
20	388.1	438.8	484.4	511.4	518.7	478.9	418.3	377.9	10- 20	202.7	333.1	65.8,65.8
30	131.6	157.4	170.2	175.7	176.3	149.9	134.0	127.2	20- 30	128.4	461.4	91.2,91.2
40	15.78	20.27	21.64	21.00	22.32	18.86	18.67	16.72	30- 40	39.12	500.5	98.9,98.9
50	1.050	1.783	1.977	1.517	1.422	1.415	1.499	1.218	40- 50	5.097	505.6	99.9,99.9
60	0.1046	0.1511	0.2412	0.0991	0.0887	0.1049	0.0365	0.0786	50- 60	0.4557	506.1	100,100
70	0.0418	0.0209	0.0366	0.0209	0.0157	0.0314	0.0209	0.0314	60- 70	0.0596	506.2	100,100
80	0.0366	0.0209	0.0314	0.0209	0.0157	0.0261	0.0209	0.0261	70- 80	0.0263	506.2	100,100
90	0.0366	0.0261	0.0261	0.0209	0.0157	0.0157	0.0209	0.0209	80- 90	0.0251	506.2	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): 504.42 lm

%lum = 99.6%

%lamp = 99.6%

Conical surface Flux(120deg): 506.1 lm

%lum = 100.0%

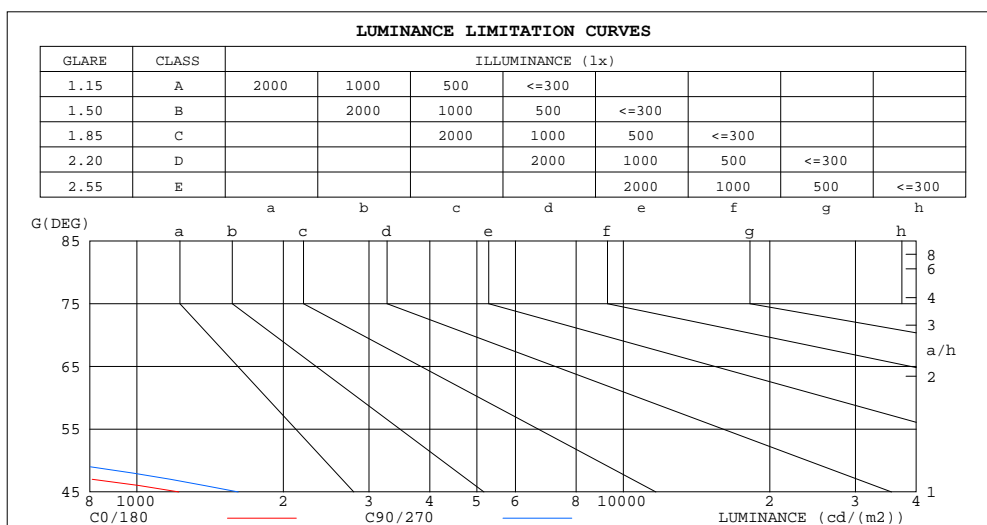
%lamp = 100.0%

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Test Date:2021-03-30

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	75
80	44	38
75	30	25
70	26	22
65	34	70
60	44	101
55	138	202
50	342	644
45	1219	1616

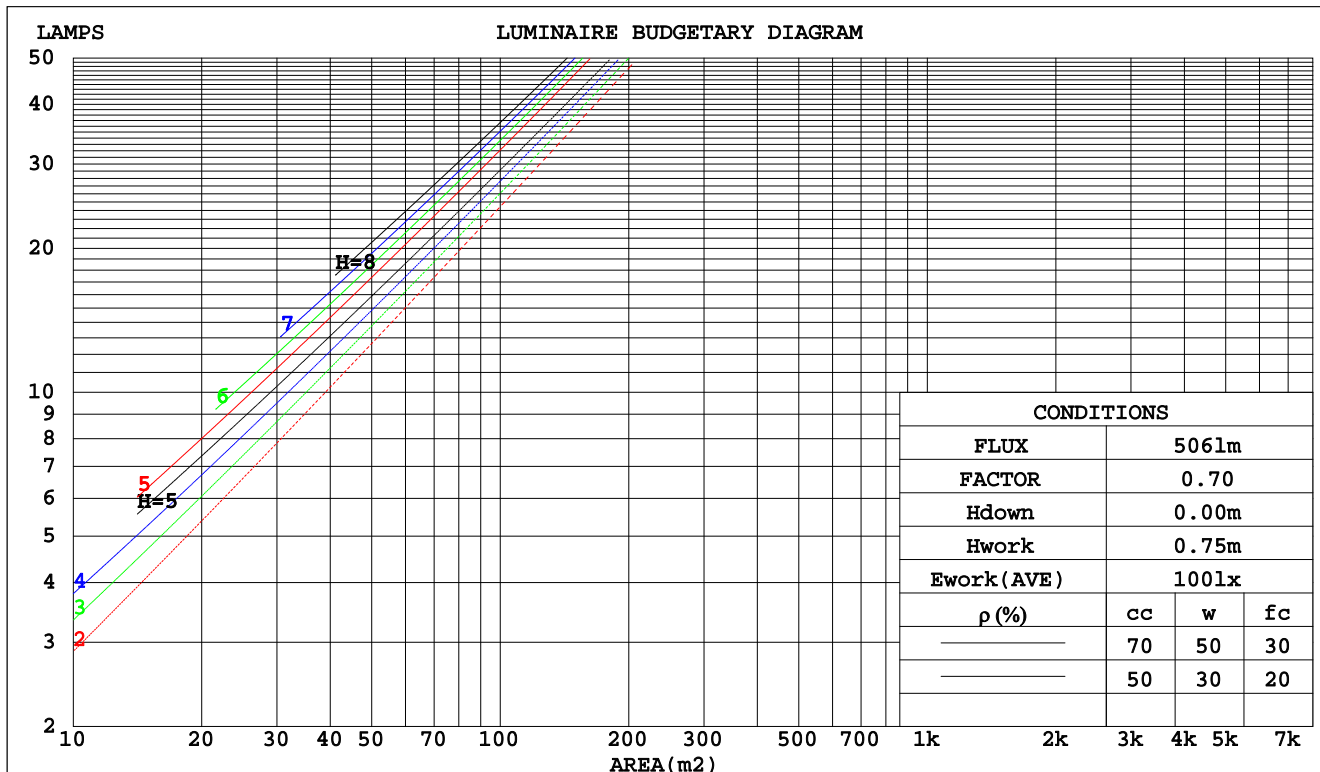
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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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	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	.97	.96
2.0	1.06	1.03	1.00	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	.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	.76	.74
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	.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



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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	.148	.084	.027	.141	.080	.026	.129	.074	.024	.117	.068	.022	.107	.062	.020		
2.0	.138	.076	.023	.133	.073	.023	.123	.068	.021	.113	.063	.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	.097	.051	.015	.093	.049	.014		
7.0	.106	.052	.015	.103	.051	.015	.099	.050	.014	.094	.048	.014	.090	.047	.014		
8.0	.101	.049	.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	.084	.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	.099	.074	.056	.069	.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	.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	.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	.010	.006	.004		

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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:29.40V I:0.2500A P:7.350W PF:1.000 Freq:0Hz Lamp Flux:506.212x1 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	10.5	11.2	10.7	11.4	11.5	12.4	13.1	12.6	13.3	13.5
3H	10.3	11.0	10.6	11.2	11.4	12.3	12.9	12.5	13.1	13.3
4H	10.2	10.9	10.5	11.1	11.3	12.2	12.8	12.4	13.0	13.2
6H	10.1	10.8	10.4	11.0	11.2	12.1	12.7	12.4	12.9	13.2
8H	10.1	10.7	10.4	10.9	11.2	12.0	12.6	12.3	12.9	13.1
12H	10.1	10.6	10.4	10.9	11.2	12.0	12.6	12.3	12.8	13.1
4H 2H	10.2	10.9	10.5	11.1	11.3	12.2	12.8	12.4	13.0	13.2
3H	10.1	10.6	10.4	10.9	11.2	12.0	12.6	12.3	12.8	13.1
4H	10.0	10.5	10.3	10.8	11.1	11.9	12.4	12.2	12.7	13.0
6H	9.9	10.3	10.2	10.6	11.0	11.8	12.3	12.2	12.6	12.9
8H	9.8	10.2	10.2	10.6	10.9	11.8	12.2	12.1	12.5	12.9
12H	9.8	10.1	10.2	10.5	10.9	11.7	12.1	12.1	12.5	12.8
8H 4H	9.8	10.2	10.2	10.6	10.9	11.8	12.2	12.1	12.5	12.9
6H	9.7	10.0	10.1	10.4	10.9	11.6	12.0	12.1	12.4	12.8
8H	9.6	10.0	10.1	10.4	10.8	11.6	11.9	12.0	12.3	12.7
12H	9.6	9.8	10.0	10.3	10.8	11.5	11.8	12.0	12.2	12.7
12H 4H	9.8	10.1	10.2	10.5	10.9	11.7	12.1	12.1	12.5	12.8
6H	9.6	9.9	10.1	10.4	10.8	11.6	11.9	12.0	12.3	12.7
8H	9.6	9.8	10.0	10.3	10.8	11.5	11.8	12.0	12.2	12.7
Variations with the observer position at spacings:										
S = 1.0H	+ 3.6 / -20.3					+ 3.9 / -18.9				
1.5H	+ 6.2 / -16.3					+ 6.5 / -16.5				
2.0H	+ 7.2 / -11.9					+ 7.3 / -11.0				

CIE Pub.117, 506.2 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -2.4$)

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Humidity:58%
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Remarks:

UTILIZATION FACTORS TABLE

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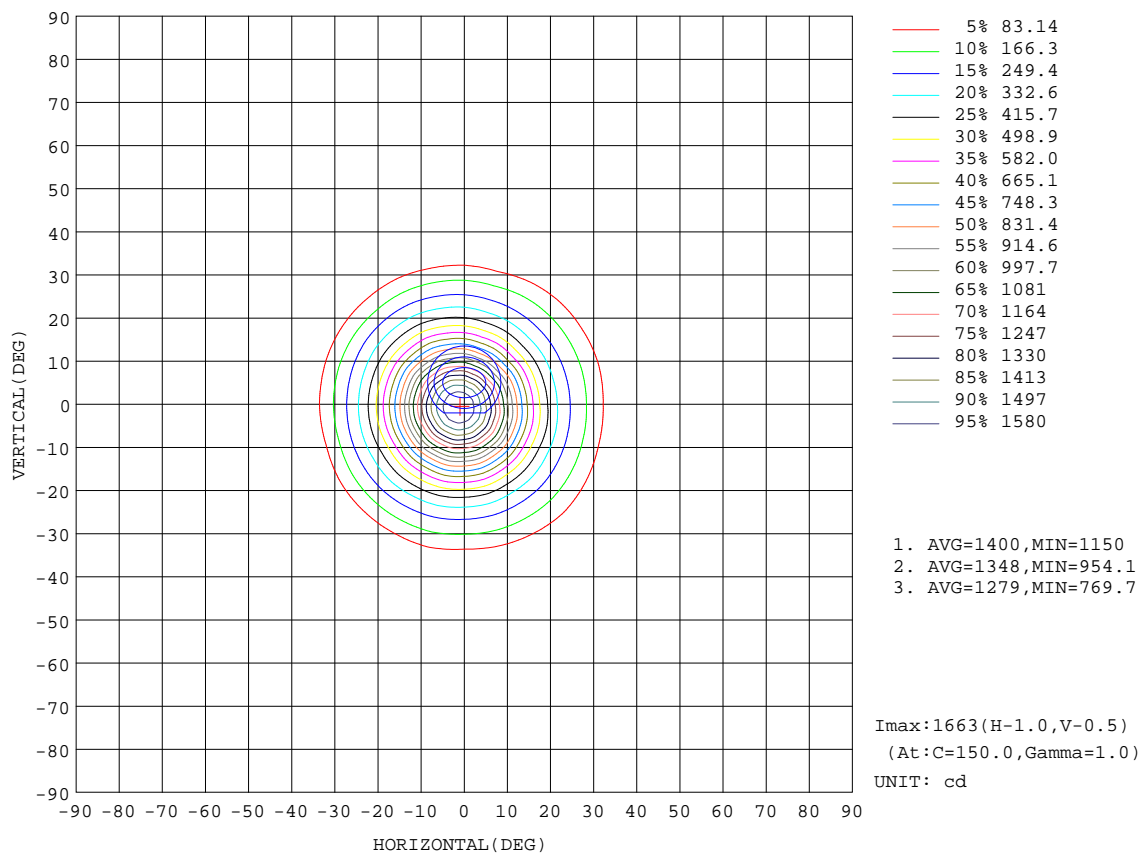
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	82	90	85	82	90	85	82	78
0.80	98	93	89	97	92	89	96	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		

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ISOCANDELA DIAGRAM

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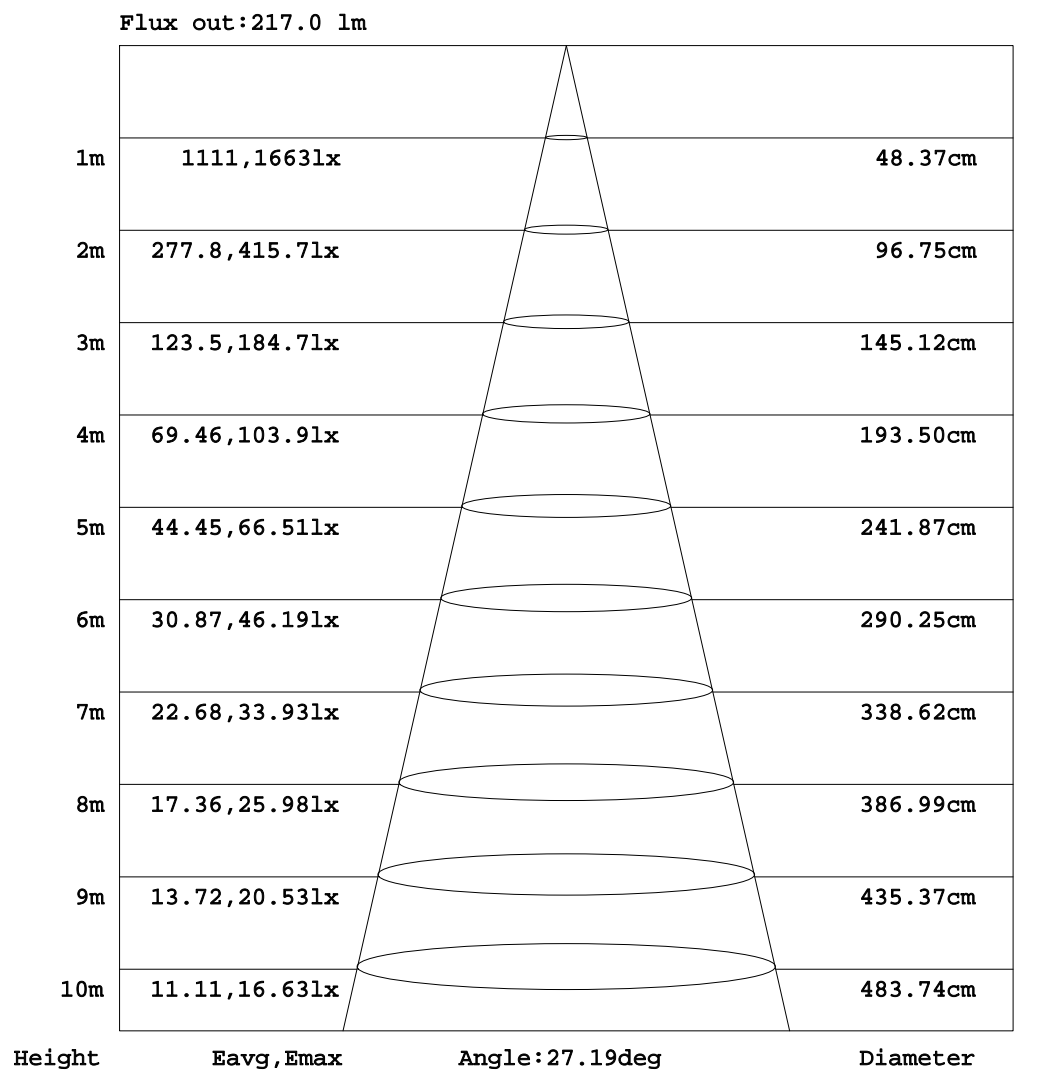


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AAI Figure

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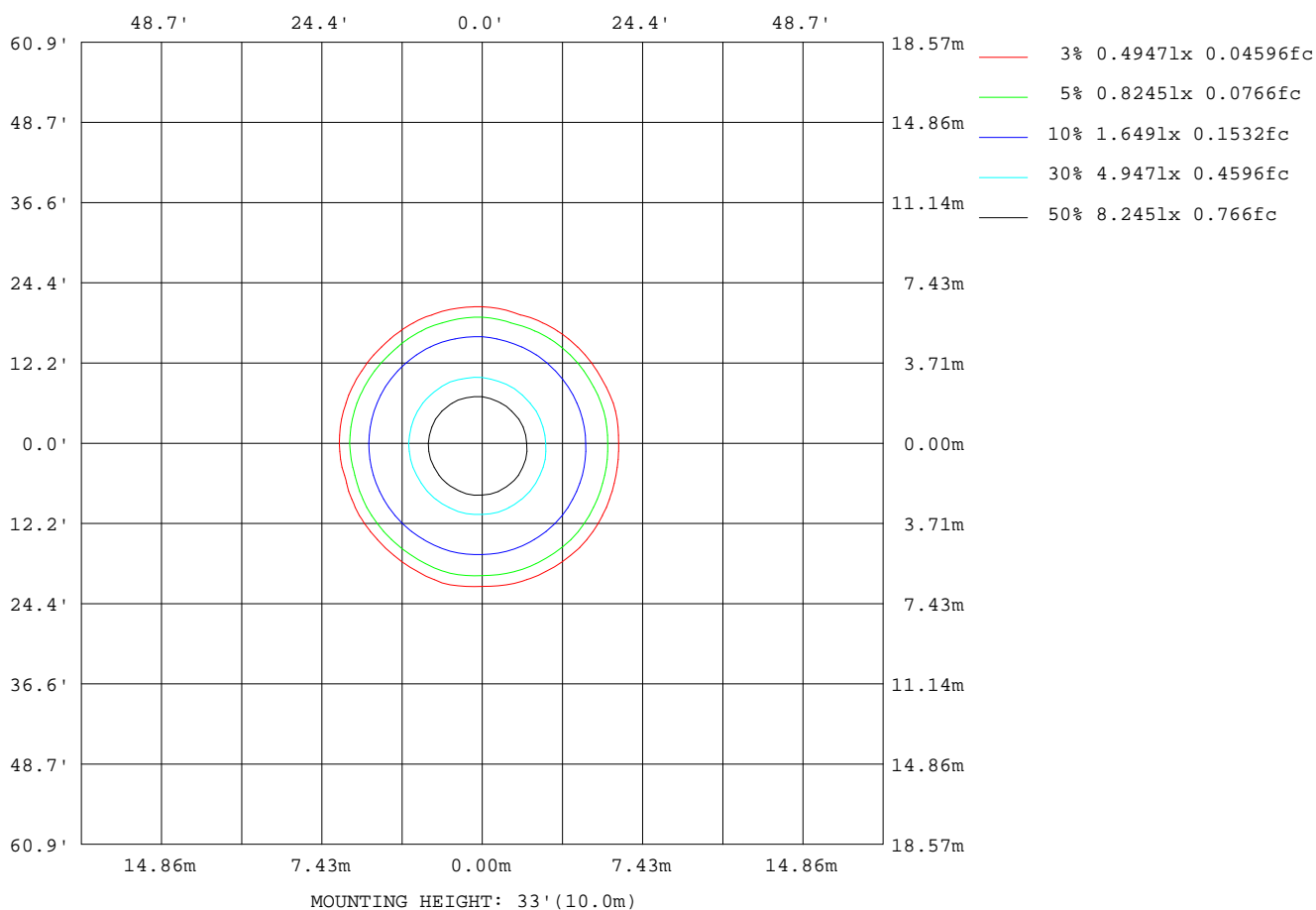
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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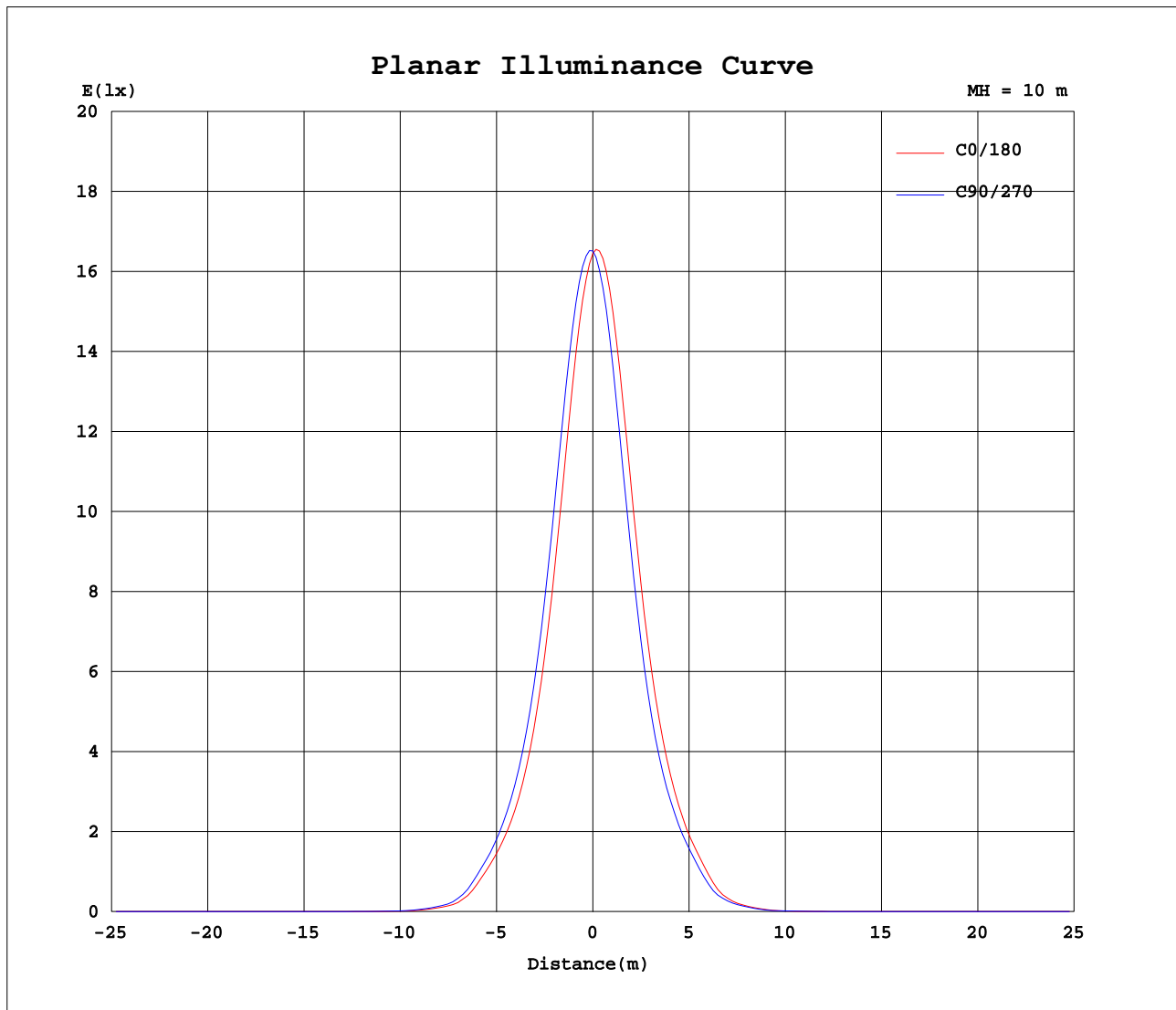
AvgL	cd/m2
L_0~180 (65) av	23
L_0~180 (75) av	21
L_0~180 (85) av	63
L_90~270 (65) av	40
L_90~270 (75) av	21
L_90~270 (85) av	63
L_45 (65) av	20
L_45 (75) av	19
L_45 (85) av	50

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:

```