

LED Downlight SENSE Series S68R1-11W-927-M



Light Output Ratio:	100.0%	
Luminaire Power:	10.26 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

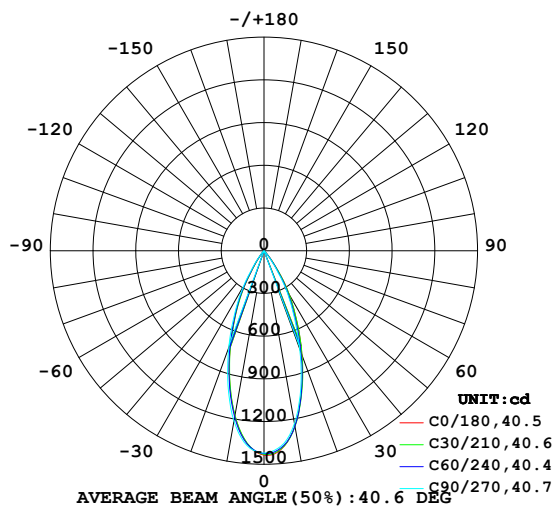
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 8.967m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

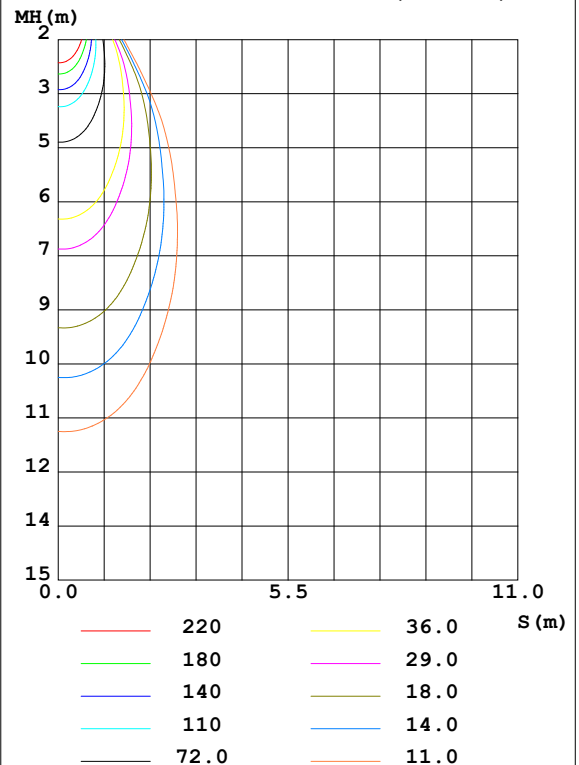
Test:U:29.30V I:0.3500A P:10.26W PF:1.000 Freq:0Hz Lamp Flux:717.036x1 lm		
NAME: S68R1-11W-927-M	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 69.92 lm/W			
MODEL	CITIZEN-2700K	I _{max} (cd)	1437	S/MH (C0/180)	0.62
NOMINAL POWER (W)	9.0	LOR (%)	100.0	S/MH (C90/270)	0.65
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	717.04	η UP, DN (C0-180)	0.0, 50.7
NOMINAL FLUX (lm)	717.036	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.3
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)



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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	1250	1260	1233	1182	1177	1173	1215	1237	0- 10	125.9	125.9	17.6,17.6
20	780.2	780.4	734.3	683.8	681.3	671.5	725.5	759.5	10- 20	269.2	395.2	55.1,55.1
30	354.4	346.4	303.4	262.9	244.1	240.1	288.3	328.5	20- 30	225.2	620.4	86.5,86.5
40	61.65	57.18	36.21	26.75	24.22	26.12	36.43	49.03	30- 40	85.10	705.5	98.4,98.4
50	4.845	4.431	1.937	1.298	0.7131	0.7081	1.312	3.280	40- 50	10.82	716.3	99.9,99.9
60	0.2462	0.2241	0.2517	0.1881	0.0835	0.1098	0.0834	0.1938	50- 60	0.5603	716.9	100,100
70	0.0628	0.0261	0.0418	0.0209	0.0209	0.0314	0.0209	0.0470	60- 70	0.0759	717.0	100,100
80	0.0419	0.0261	0.0314	0.0209	0.0209	0.0314	0.0209	0.0314	70- 80	0.0308	717.0	100,100
90	0.0366	0.0261	0.0261	0.0209	0.0209	0.0209	0.0209	0.0261	80- 90	0.0285	717.0	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): 713.8 lm

%lum = 99.5%

%lamp = 99.5%

Conical surface Flux(120deg): 716.9 lm

%lum = 100.0%

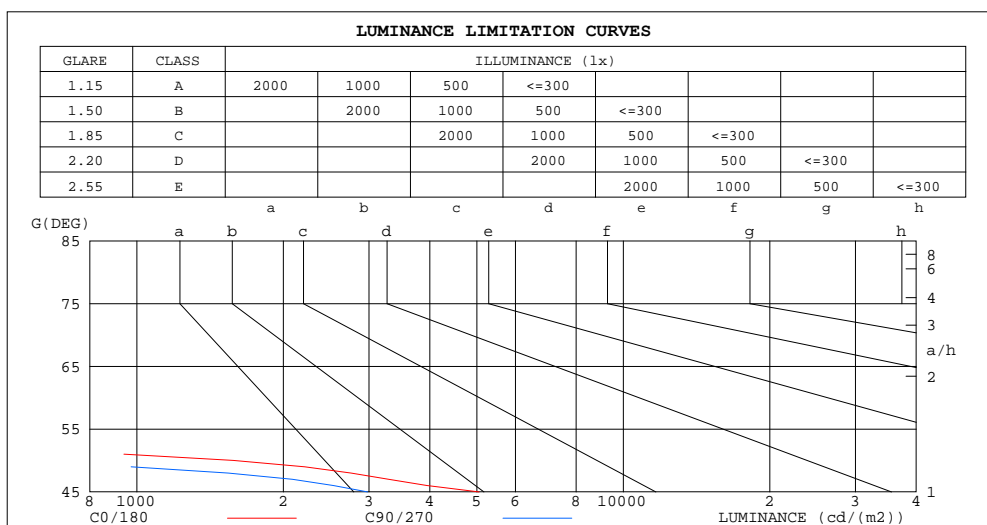
%lamp = 100.0%

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Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
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γ Range: 0 - 90DEG
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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:29.30V I:0.3500A P:10.26W PF:1.000 Freq:0Hz Lamp Flux:717.036x1 lm		
NAME: S68R1-11W-927-M	TYPE:Downlight	SERIAL No.:
SPEC.:2700K	DIM.: ϕ 78mm*H98mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	100	63
80	50	38
75	38	25
70	38	26
65	52	52
60	103	105
55	171	204
50	1578	631
45	5053	2981

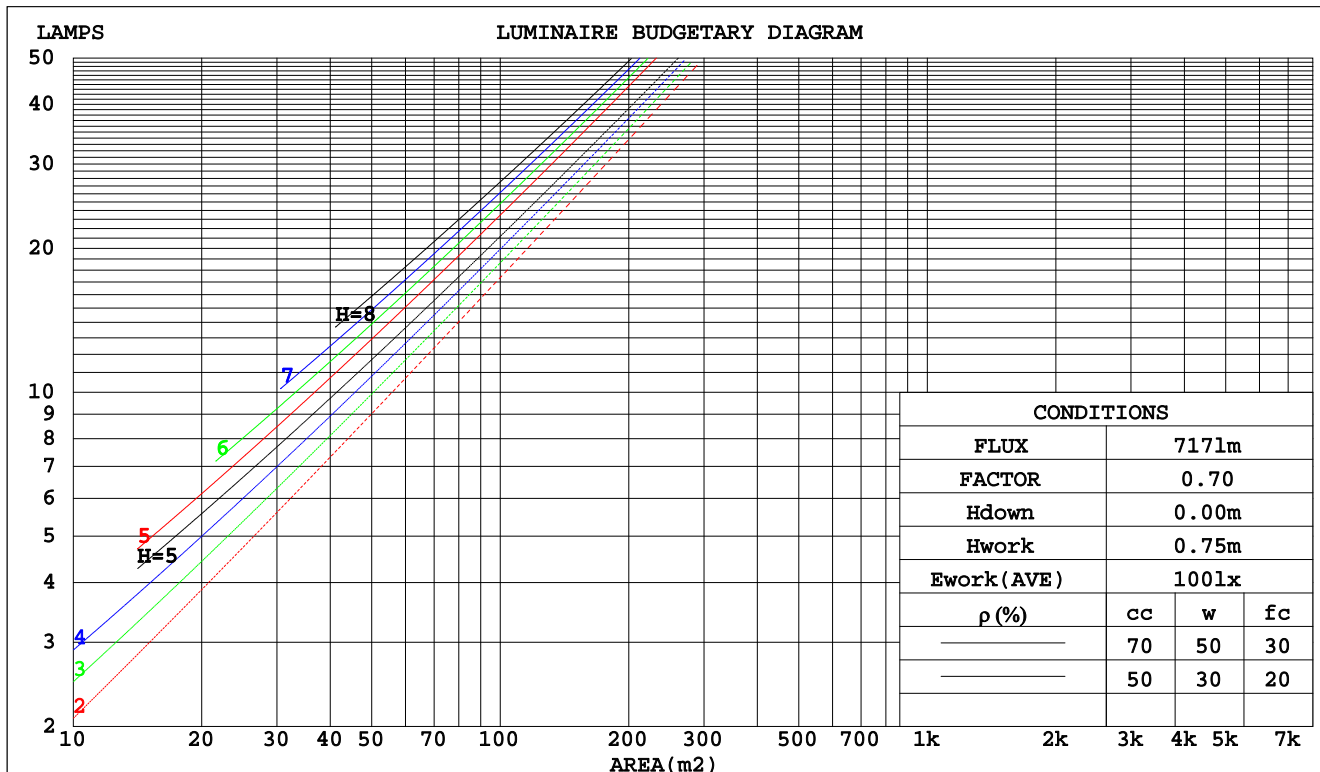
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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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	1.00
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	.96	.98	.95	.94	.95	.93	.92	.90
3.0	.99	.95	.92	.98	.94	.91	.96	.92	.90	.93	.90	.88	.91	.89	.87	.85
4.0	.94	.89	.86	.93	.89	.85	.91	.87	.84	.89	.86	.83	.87	.85	.82	.81
5.0	.89	.84	.81	.88	.84	.80	.87	.83	.80	.85	.82	.79	.84	.81	.78	.77
6.0	.85	.80	.76	.84	.79	.76	.83	.79	.75	.81	.78	.75	.80	.77	.74	.73
7.0	.81	.76	.72	.80	.75	.72	.79	.75	.72	.78	.74	.71	.77	.74	.71	.70
8.0	.77	.72	.69	.77	.72	.68	.76	.71	.68	.75	.71	.68	.74	.70	.68	.66
9.0	.74	.69	.65	.73	.69	.65	.73	.68	.65	.72	.68	.65	.71	.67	.65	.63
10.0	.71	.66	.62	.70	.65	.62	.70	.65	.62	.69	.65	.62	.68	.64	.62	.61



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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	.158	.090	.028	.151	.086	.027	.139	.080	.025	.127	.073	.024	.117	.068	.022		
2.0	.149	.082	.025	.144	.079	.024	.133	.074	.023	.124	.069	.022	.115	.065	.020		
3.0	.141	.075	.023	.137	.073	.022	.128	.069	.021	.120	.066	.020	.112	.062	.019		
4.0	.134	.070	.020	.130	.068	.020	.123	.065	.019	.116	.062	.019	.109	.059	.018		
5.0	.128	.065	.019	.124	.064	.019	.118	.061	.018	.112	.059	.018	.106	.057	.017		
6.0	.122	.061	.017	.119	.060	.017	.113	.058	.017	.108	.056	.016	.103	.054	.016		
7.0	.117	.058	.016	.114	.057	.016	.109	.055	.016	.104	.053	.016	.100	.052	.015		
8.0	.112	.055	.015	.109	.054	.015	.105	.052	.015	.101	.051	.015	.097	.050	.014		
9.0	.107	.052	.014	.105	.051	.014	.101	.050	.014	.097	.049	.014	.094	.048	.014		
10.0	.103	.049	.014	.101	.049	.014	.098	.048	.013	.094	.047	.013	.091	.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	.093	.120	.098	.080	.082	.068	.056	.047	.040	.033	.015	.013	.011	
4.0	.128	.098	.075	.110	.085	.066	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.119	.087	.062	.102	.075	.054	.070	.052	.038	.041	.031	.023	.013	.010	.008	
6.0	.111	.077	.052	.096	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.104	.069	.044	.090	.060	.039	.062	.042	.027	.036	.025	.016	.012	.008	.005	
8.0	.098	.063	.038	.085	.054	.033	.059	.038	.024	.034	.023	.014	.011	.007	.005	
9.0	.093	.057	.033	.080	.050	.029	.056	.035	.020	.032	.021	.012	.011	.007	.004	
10.0	.089	.053	.029	.076	.046	.025	.053	.032	.018	.031	.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:29.30V I:0.3500A P:10.26W PF:1.000 Freq:0Hz Lamp Flux:717.036x1 lm										
NAME: S68R1-11W-927-M					TYPE:Downlight			SERIAL No.:		
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	16.7	17.5	16.9	17.7	17.8	15.2	16.1	15.5	16.2	16.4
3H	16.5	17.3	16.8	17.5	17.7	15.1	15.8	15.3	16.0	16.2
4H	16.4	17.1	16.7	17.4	17.6	15.0	15.7	15.3	15.9	16.1
6H	16.4	17.0	16.6	17.3	17.5	14.9	15.6	15.2	15.8	16.1
8H	16.3	16.9	16.6	17.2	17.5	14.9	15.5	15.2	15.8	16.0
12H	16.3	16.9	16.6	17.1	17.4	14.8	15.4	15.1	15.7	16.0
4H 2H	16.4	17.1	16.7	17.4	17.6	15.0	15.7	15.3	15.9	16.1
3H	16.3	16.9	16.6	17.1	17.4	14.8	15.4	15.1	15.7	16.0
4H	16.2	16.7	16.5	17.0	17.3	14.7	15.3	15.1	15.6	15.9
6H	16.1	16.6	16.4	16.9	17.2	14.6	15.1	15.0	15.5	15.8
8H	16.0	16.5	16.4	16.8	17.2	14.6	15.0	15.0	15.4	15.7
12H	16.0	16.4	16.4	16.7	17.1	14.5	14.9	14.9	15.3	15.7
8H 4H	16.0	16.5	16.4	16.8	17.2	14.6	15.0	15.0	15.4	15.7
6H	15.9	16.3	16.3	16.7	17.1	14.5	14.8	14.9	15.2	15.7
8H	15.8	16.2	16.3	16.6	17.0	14.4	14.7	14.9	15.2	15.6
12H	15.8	16.1	16.3	16.5	17.0	14.4	14.6	14.8	15.1	15.5
12H 4H	16.0	16.4	16.4	16.7	17.1	14.5	14.9	14.9	15.3	15.7
6H	15.8	16.2	16.3	16.6	17.0	14.4	14.7	14.9	15.2	15.6
8H	15.8	16.1	16.3	16.5	17.0	14.4	14.6	14.8	15.1	15.5
Variations with the observer position at spacings:										
S = 1.0H	+ 3.9 / -27.1					+ 3.7 / -25.0				
1.5H	+ 6.5 / -24.7					+ 6.3 / -22.1				
2.0H	+ 8.1 / -19.0					+ 7.2 / -16.3				

CIE Pub.117, 717.0 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -1.2$)

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Humidity:58%
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UTILIZATION FACTORS TABLE

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SPEC.:2700K	DIM.: $\varnothing 78\text{mm} \times H98\text{mm}$	
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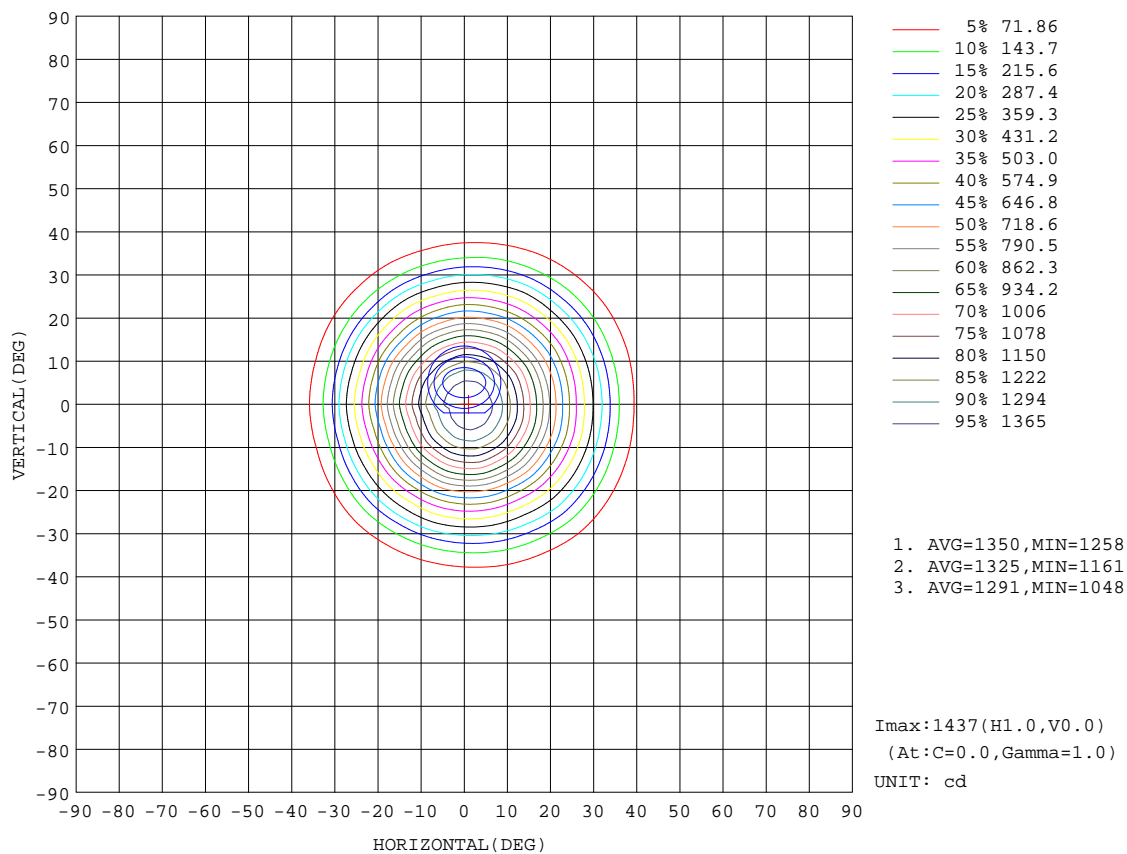
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	85	81	90	85	81	89	84	81	78
0.80	98	92	89	97	92	89	96	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	108	103	100	106	103	100	104	101	99	94
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	109	107	111	108	106	108	105	104	98
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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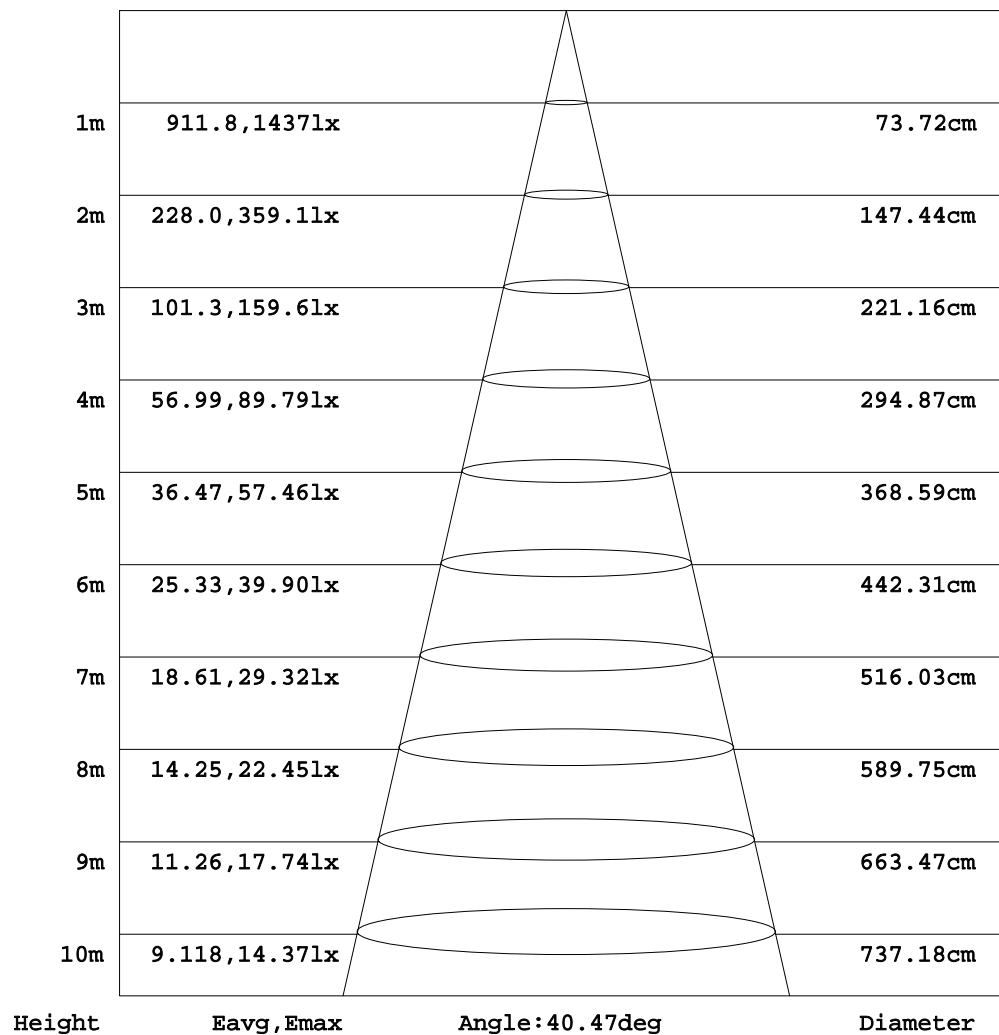
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AAI Figure

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Flux out:422.1 lm



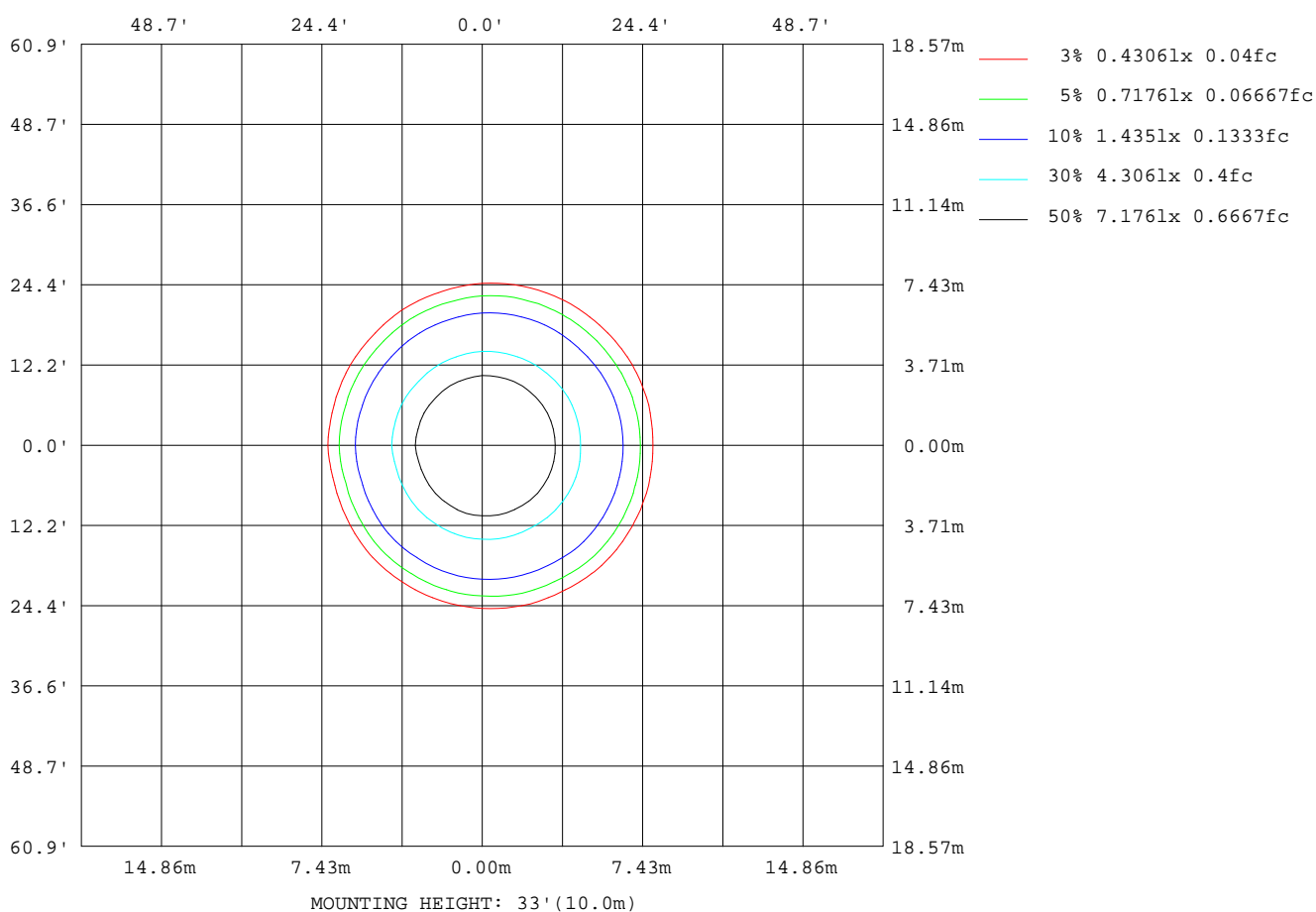
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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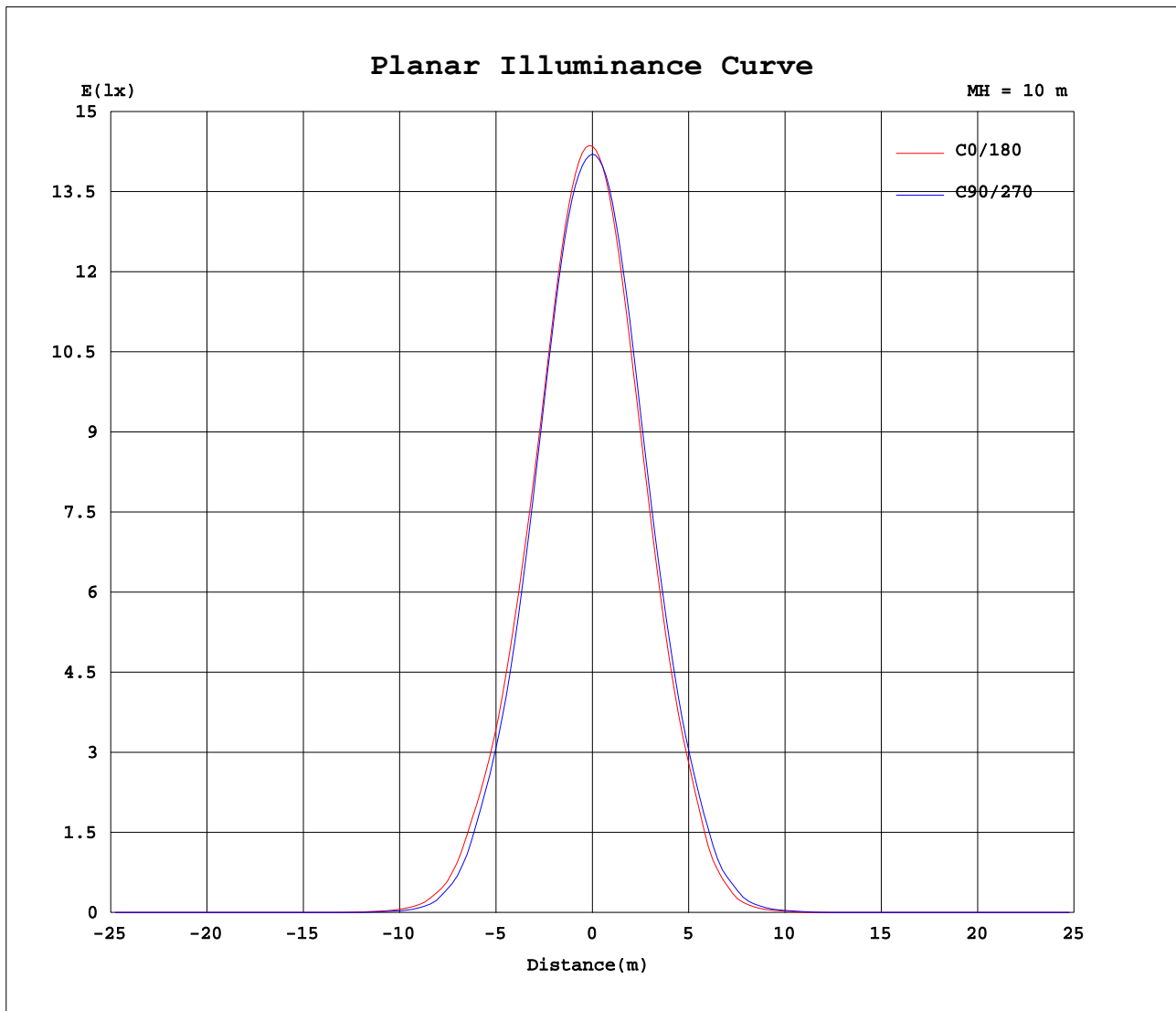
AvgL	cd/m2
L_0~180 (65) av	35
L_0~180 (75) av	27
L_0~180 (85) av	75
L_90~270 (65) av	31
L_90~270 (75) av	21
L_90~270 (85) av	57
L_45 (65) av	31
L_45 (75) av	23
L_45 (85) av	60

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



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:

```

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:

```