

LED Downlight DOME Series T100-9W-940-30



Light Output Ratio:	100.0%	
Luminaire Power:	10.78 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.50	fine grid method.

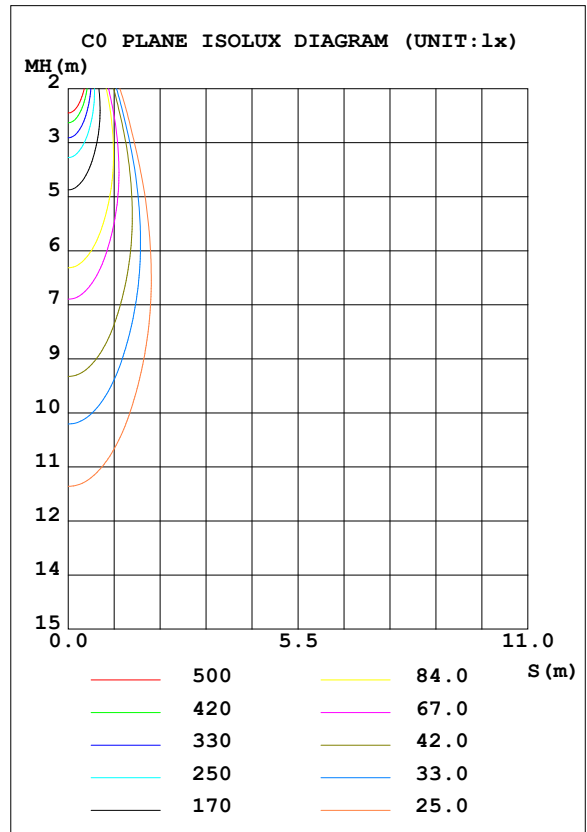
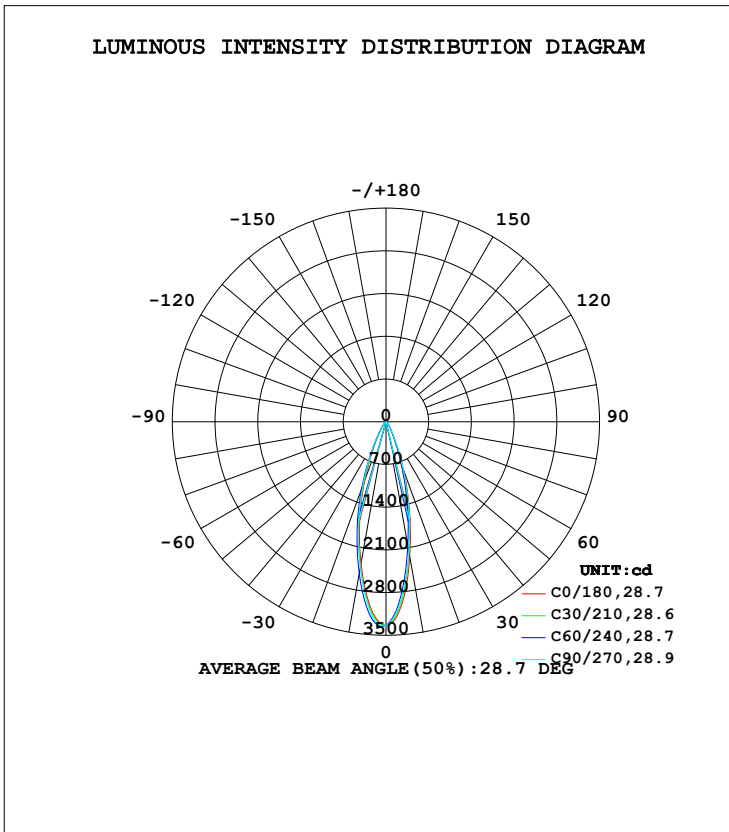
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Men Yongjian
Test Date: 2019-07-03

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
Humidity: 56%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.9V I:0.0534A P:10.78W PF:0.9602 Freq:49.90Hz Lamp Flux:1038.73x1 lm		
NAME: T100-9W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ110mm*H79mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 96.31 lm/W			
MODEL	CITIZEN-4000K	I _{max} (cd)	3357	S/MH (C0/180)	0.49
NOMINAL POWER (W)	11	LOR (%)	100.0	S/MH (C90/270)	0.51
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	1038.7	η UP, DN (C0-180)	0.0, 47.4
NOMINAL FLUX (lm)	1038.73	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 52.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	0.50



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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	2246	2058	2163	2364	2361	2528	2432	2229	0- 10	263.5	263.5	25.4,25.4
20	840.2	703.7	821.1	995.7	1021	1165	1105	879.6	10- 20	430.8	694.4	66.8,66.8
30	204.1	176.3	195.4	244.9	250.0	301.6	297.6	227.6	20- 30	229.7	924.1	89,89
40	60.69	55.45	59.84	67.45	64.80	76.77	74.39	61.85	30- 40	80.14	1004	96.7,96.7
50	13.44	12.19	13.61	15.11	13.35	14.58	14.32	13.25	40- 50	24.37	1029	99,99
60	3.555	3.304	3.890	4.499	3.683	3.628	3.628	3.606	50- 60	6.761	1035	99.7,99.7
70	1.298	1.179	1.460	1.752	1.395	1.371	1.303	1.296	60- 70	2.370	1038	99.9,99.9
80	0.3323	0.2863	0.4013	0.4848	0.3704	0.3835	0.3191	0.3197	70- 80	0.8316	1039	100,100
90	0.0502	0.0438	0.0482	0.0459	0.0306	0.0460	0.0350	0.0306	80- 90	0.1766	1039	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): 1021.1 lm

%lum = 98.3%
%lamp = 98.3%

Conical surface Flux(120deg): 1035.4 lm

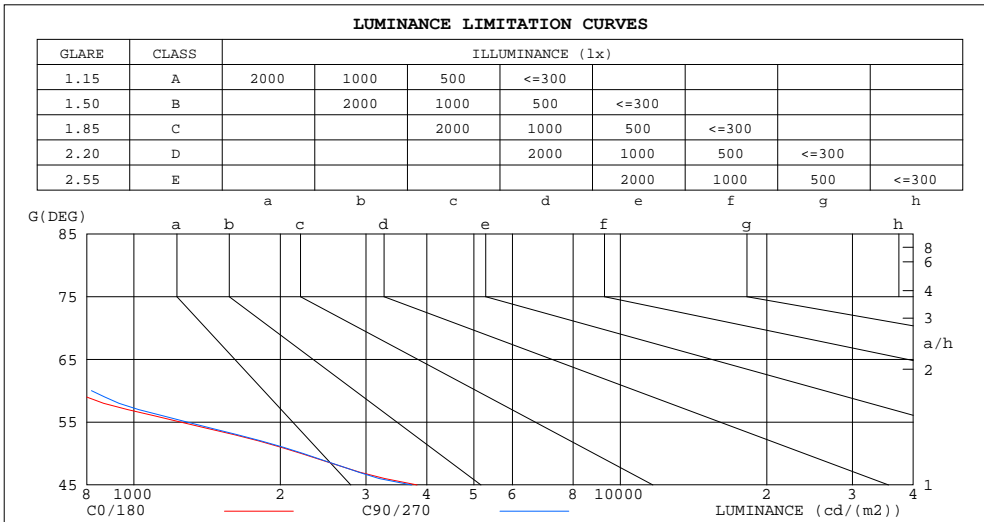
%lum = 99.7%
%lamp = 99.7%

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LUMINANCE LIMITATION CURVES

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LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	172	199
80	202	243
75	281	325
70	400	449
65	550	607
60	750	818
55	1247	1286
50	2206	2226
45	3821	3721

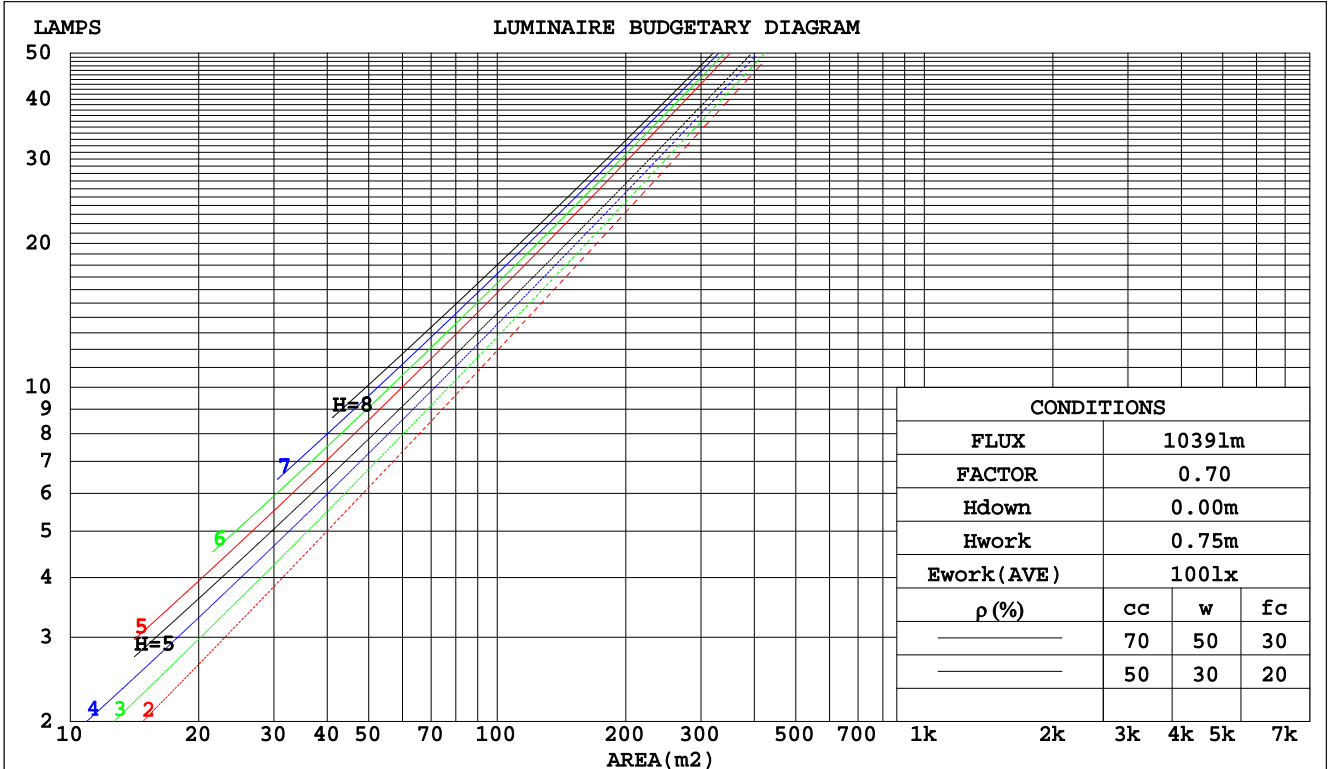
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	.90	1.04	1.01	.99	1.01	.99	.97	.98	.96	.95	.96	.94	.93	.91
3.0	1.01	.97	.93	.99	.96	.93	.97	.94	.91	.95	.92	.90	.92	.90	.89	.87
4.0	.96	.92	.88	.95	.91	.88	.93	.89	.87	.91	.88	.86	.89	.87	.85	.83
5.0	.92	.87	.84	.91	.86	.83	.89	.85	.82	.88	.84	.82	.86	.83	.81	.80
6.0	.88	.83	.80	.87	.83	.79	.86	.82	.79	.84	.81	.78	.83	.80	.78	.77
7.0	.84	.79	.76	.84	.79	.76	.82	.78	.76	.81	.78	.75	.80	.77	.75	.74
8.0	.81	.76	.73	.80	.76	.73	.79	.75	.73	.79	.75	.72	.78	.74	.72	.71
9.0	.78	.73	.70	.77	.73	.70	.77	.73	.70	.76	.72	.70	.75	.72	.69	.68
10.0	.75	.71	.68	.75	.70	.67	.74	.70	.67	.73	.70	.67	.73	.69	.67	.66



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WEC AND CCEC

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ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.151	.086	.027	.144	.082	.026	.131	.075	.024	.120	.069	.022	.109	.063	.020	
2.0	.141	.077	.024	.136	.075	.023	.125	.070	.022	.116	.065	.020	.107	.061	.019	
3.0	.133	.071	.021	.128	.069	.021	.120	.065	.020	.112	.061	.019	.104	.058	.018	
4.0	.125	.065	.019	.122	.064	.019	.114	.061	.018	.107	.058	.017	.101	.055	.017	
5.0	.119	.061	.018	.115	.059	.017	.109	.057	.017	.103	.054	.016	.098	.052	.016	
6.0	.113	.057	.016	.110	.056	.016	.104	.054	.016	.099	.052	.015	.094	.050	.015	
7.0	.108	.053	.015	.105	.052	.015	.100	.051	.015	.096	.049	.014	.091	.048	.014	
8.0	.103	.050	.014	.101	.050	.014	.096	.048	.014	.092	.047	.013	.089	.045	.013	
9.0	.098	.048	.013	.096	.047	.013	.093	.046	.013	.089	.045	.013	.086	.044	.013	
10.0	.094	.045	.013	.093	.045	.012	.089	.044	.012	.086	.043	.012	.083	.042	.012	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.116	.130	.114	.100	.089	.079	.070	.052	.046	.041	.017	.015	.013	
3.0	.138	.113	.094	.118	.098	.081	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.126	.098	.077	.108	.085	.067	.075	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.116	.086	.064	.100	.075	.055	.069	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.108	.076	.054	.093	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.006	
7.0	.101	.068	.046	.087	.059	.040	.060	.042	.028	.035	.025	.017	.011	.008	.006	
8.0	.095	.062	.039	.082	.054	.034	.056	.038	.024	.033	.022	.014	.011	.007	.005	
9.0	.089	.056	.034	.077	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.085	.052	.030	.073	.045	.026	.051	.032	.019	.030	.019	.011	.010	.006	.004	

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 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity:56%
 Test Distance:5.850m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

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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	9.4	10.1	9.6	10.3	10.4	8.9	9.6	9.1	9.8	9.9
3H	9.2	9.9	9.5	10.1	10.3	8.8	9.5	9.0	9.7	9.8
4H	9.2	9.8	9.4	10.0	10.3	8.7	9.4	9.0	9.6	9.8
6H	9.1	9.7	9.4	9.9	10.2	8.6	9.3	8.9	9.5	9.7
8H	9.0	9.6	9.3	9.9	10.1	8.6	9.2	8.9	9.4	9.7
12H	9.0	9.6	9.3	9.8	10.1	8.6	9.1	8.9	9.4	9.7
4H 2H	9.2	9.8	9.4	10.0	10.2	8.7	9.3	8.9	9.5	9.8
3H	9.0	9.6	9.3	9.9	10.1	8.6	9.2	8.9	9.4	9.7
4H	9.0	9.5	9.3	9.8	10.1	8.5	9.0	8.8	9.3	9.6
6H	8.9	9.3	9.2	9.7	10.0	8.4	8.9	8.8	9.2	9.6
8H	8.8	9.3	9.2	9.6	10.0	8.4	8.8	8.8	9.2	9.5
12H	8.8	9.2	9.2	9.5	9.9	8.3	8.7	8.7	9.1	9.5
8H 4H	8.8	9.2	9.2	9.6	10.0	8.4	8.8	8.8	9.1	9.5
6H	8.7	9.1	9.1	9.5	9.9	8.3	8.6	8.7	9.0	9.4
8H	8.7	9.0	9.1	9.4	9.8	8.2	8.5	8.7	9.0	9.4
12H	8.6	8.9	9.1	9.3	9.8	8.2	8.4	8.6	8.9	9.4
12H 4H	8.8	9.2	9.2	9.5	9.9	8.3	8.7	8.7	9.1	9.5
6H	8.7	9.0	9.1	9.4	9.8	8.2	8.5	8.7	9.0	9.4
8H	8.6	8.9	9.1	9.3	9.8	8.2	8.4	8.6	8.9	9.4
Variations with the observer position at spacings:										
S = 1.0H	+ 2.9 / - 7.9					+ 2.8 / - 7.4				
1.5H	+ 4.8 / - 6.4					+ 4.8 / - 6.4				
2.0H	+ 5.1 / - 4.7					+ 5.0 / - 4.6				

CIE Pub.117, 1039 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.1)

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UTILIZATION FACTORS TABLE

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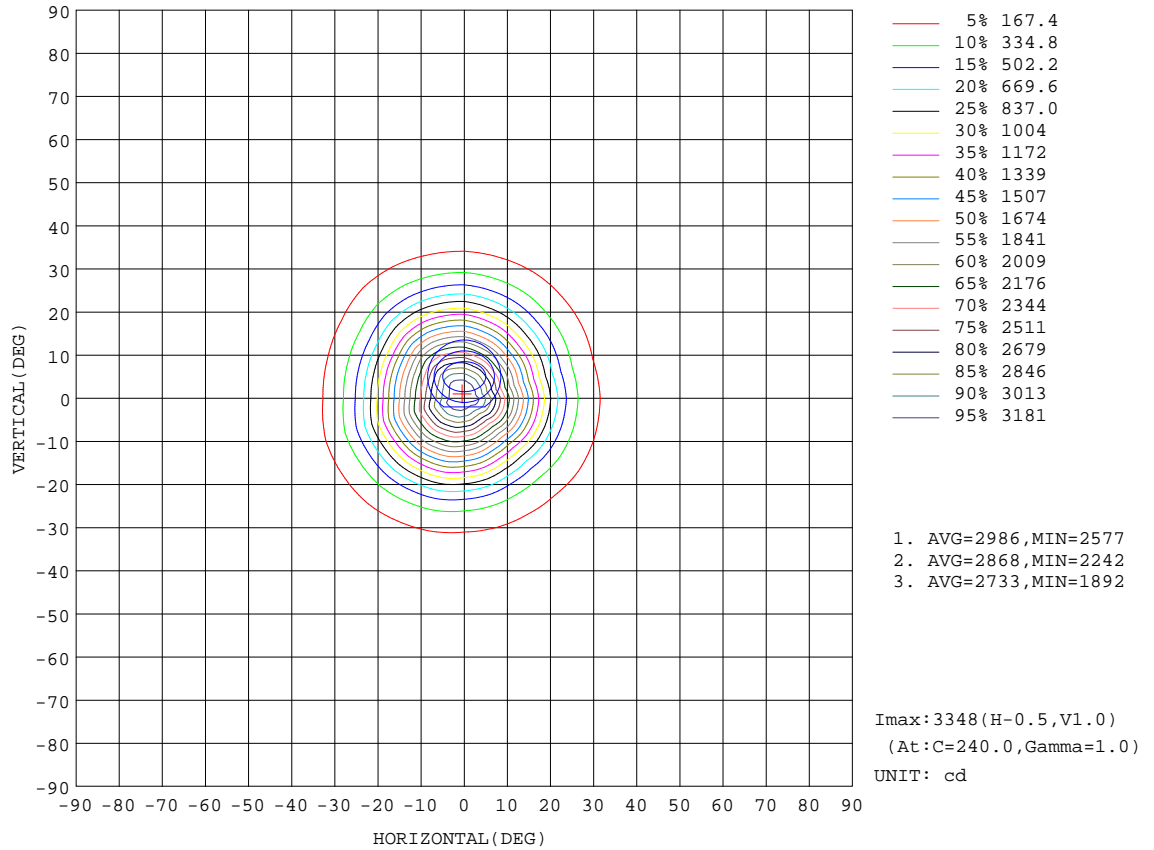
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	89	83	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	95	92	100	95	92	98	95	91	88
1.25	104	100	96	103	99	96	102	98	95	91
1.50	107	103	99	106	102	99	104	100	98	94
2.00	109	105	102	108	104	102	105	102	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	105	107	105	103	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	115	113	112	113	112	110	109	108	107	99
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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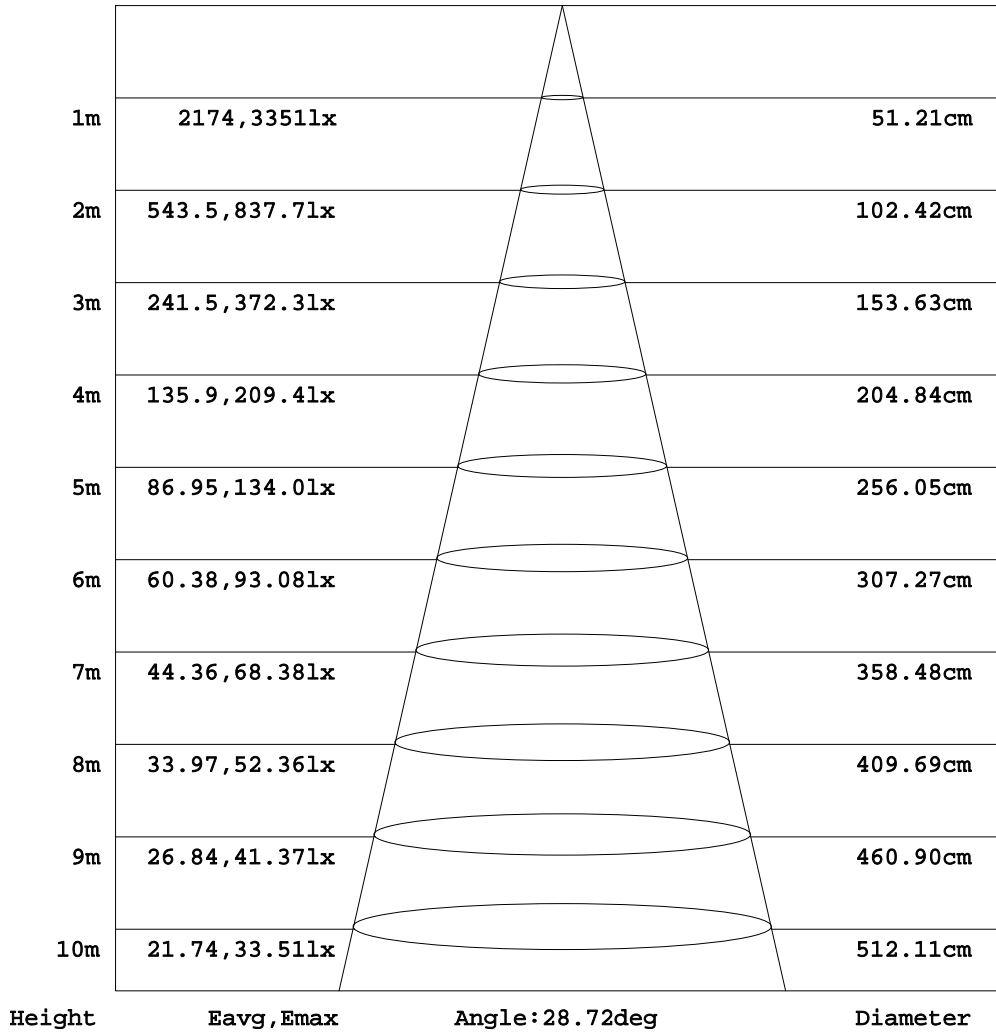
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AAI Figure

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Flux out:490.3 lm



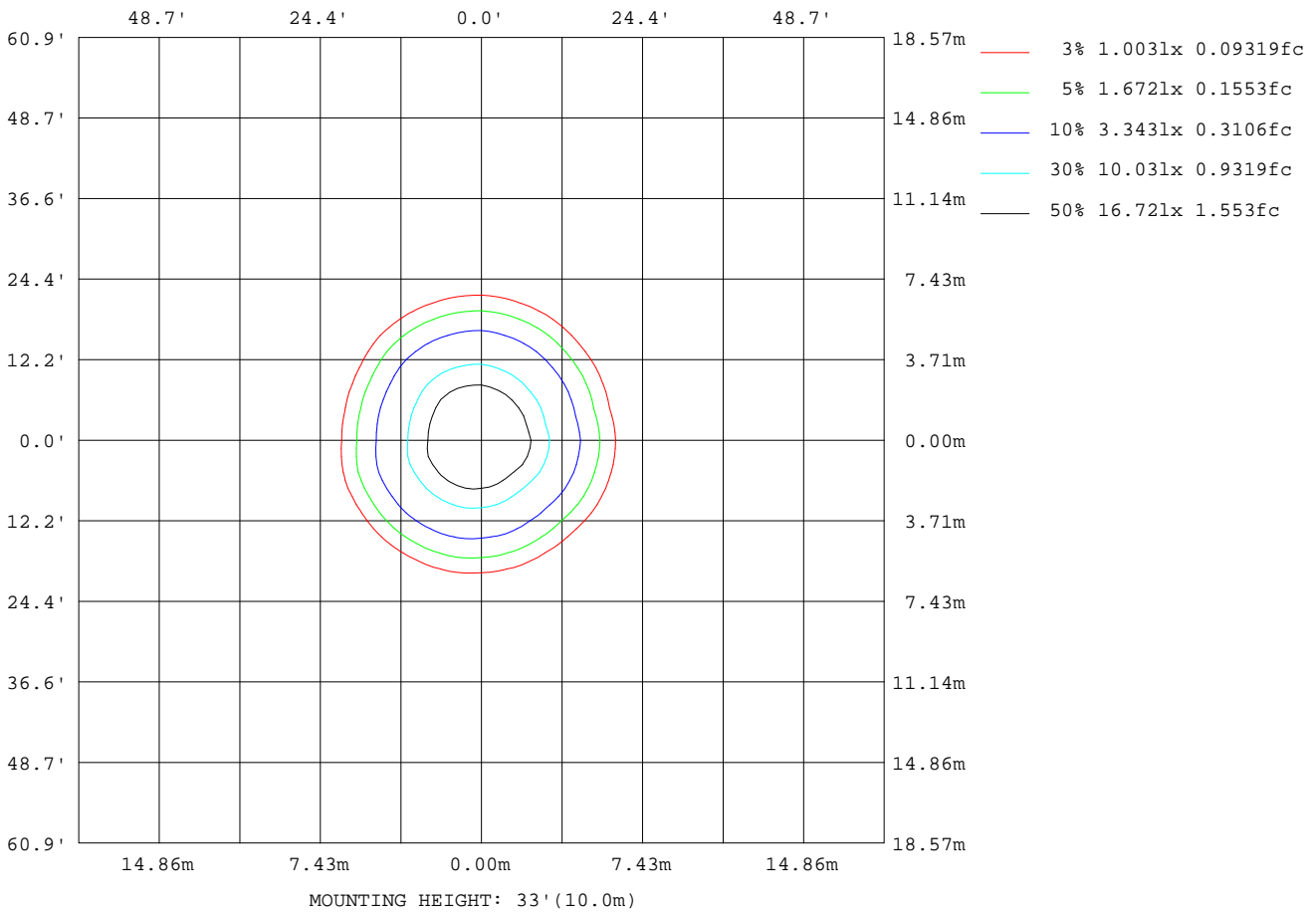
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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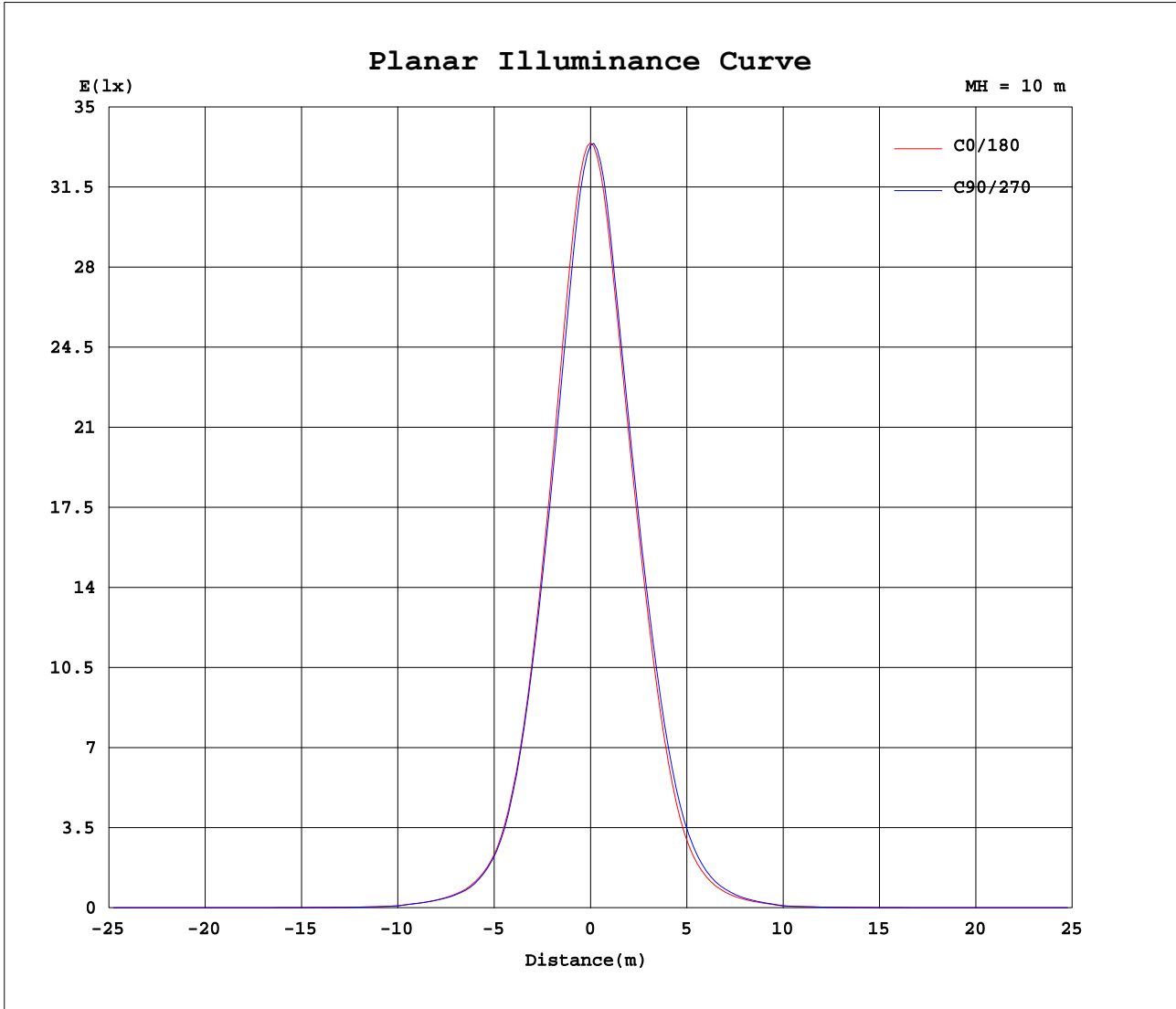
AvgL	cd/m2
L_0~180 (65) av	564
L_0~180 (75) av	295
L_0~180 (85) av	169
L_90~270 (65) av	582
L_90~270 (75) av	302
L_90~270 (85) av	169
L_45 (65) av	586
L_45 (75) av	309
L_45 (85) av	176

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Men Yongjian
Test Date:2019-07-03

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.288
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: Men Yongjian
 Test Date: 2019-07-03

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.288
 Humidity: 56%
 Test Distance: 5.850m [K=1.0000]
 Remarks:

