

LED Downlight DOME Series T100-13W-940-30



Light Output Ratio:	100.0%	
Luminaire Power:	14.63 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.50	fine grid method.

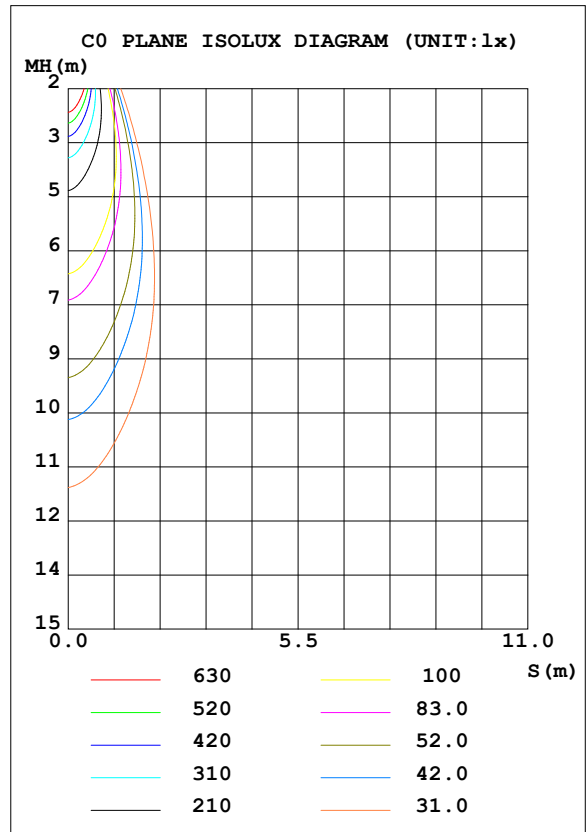
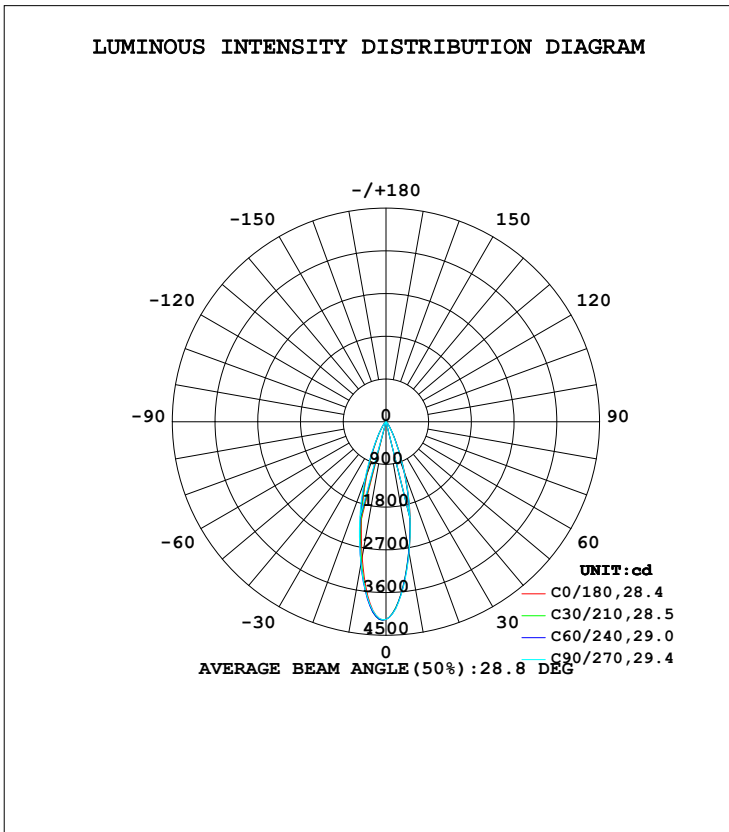
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Men Yongjian  
Test Date: 2019-07-03

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:0.0663A P:14.63W PF:0.9602 Freq:49.90Hz Lamp Flux:1297.74x1 lm		
NAME: T100-13W-940-30	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ110mm*H79mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 88.68 lm/W			
MODEL	CITIZEN-4000K	I <sub>max</sub> (cd)	4183	S/MH (C0/180)	0.48
NOMINAL POWER (W)	15	LOR (%)	100.0	S/MH (C90/270)	0.51
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	1297.7	η UP, DN (C0-180)	0.0, 48.0
NOMINAL FLUX (lm)	1297.74	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 52.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	0.50



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 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
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**ZONAL FLUX DIAGRAM**

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	2798	2783	2804	2813	2902	2988	3039	2906	0- 10	329.6	329.6	25.4,25.4
20	1158	1121	1120	1106	1166	1216	1315	1233	10- 20	540.6	870.2	67.1,67.1
30	279.1	270.4	263.8	271.4	303.6	314.9	333.2	305.2	20- 30	286.1	1156	89.1,89.1
40	70.39	70.86	75.91	82.96	87.49	88.81	88.21	79.10	30- 40	99.13	1255	96.7,96.7
50	14.65	14.34	15.65	18.23	18.82	18.39	18.09	16.83	40- 50	30.00	1285	99.1,99.1
60	4.006	3.762	4.209	5.098	4.884	4.576	4.738	4.786	50- 60	8.256	1294	99.7,99.7
70	1.462	1.325	1.474	1.853	1.814	1.706	1.790	1.812	60- 70	2.851	1297	99.9,99.9
80	0.3854	0.3208	0.3726	0.4586	0.4735	0.4792	0.4914	0.5036	70- 80	0.9941	1298	100,100
90	0.0546	0.0546	0.0569	0.0569	0.0568	0.0590	0.0481	0.0394	80- 90	0.2159	1298	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): 1276.1 lm

%lum = 98.3%  
%lamp = 98.3%

Conical surface Flux(120deg): 1293.7 lm

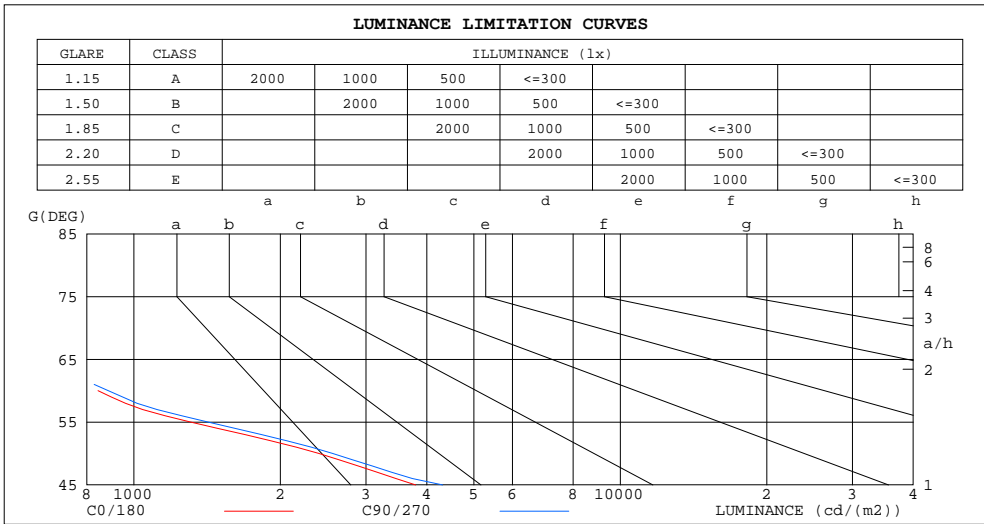
%lum = 99.7%  
%lamp = 99.7%

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 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**LUMINANCE LIMITATION CURVES**

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SPEC.:4000K	DIM.: φ110mm*H79mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	193	191
80	234	226
75	321	315
70	450	454
65	621	638
60	844	886
55	1308	1420
50	2400	2561
45	3794	4313

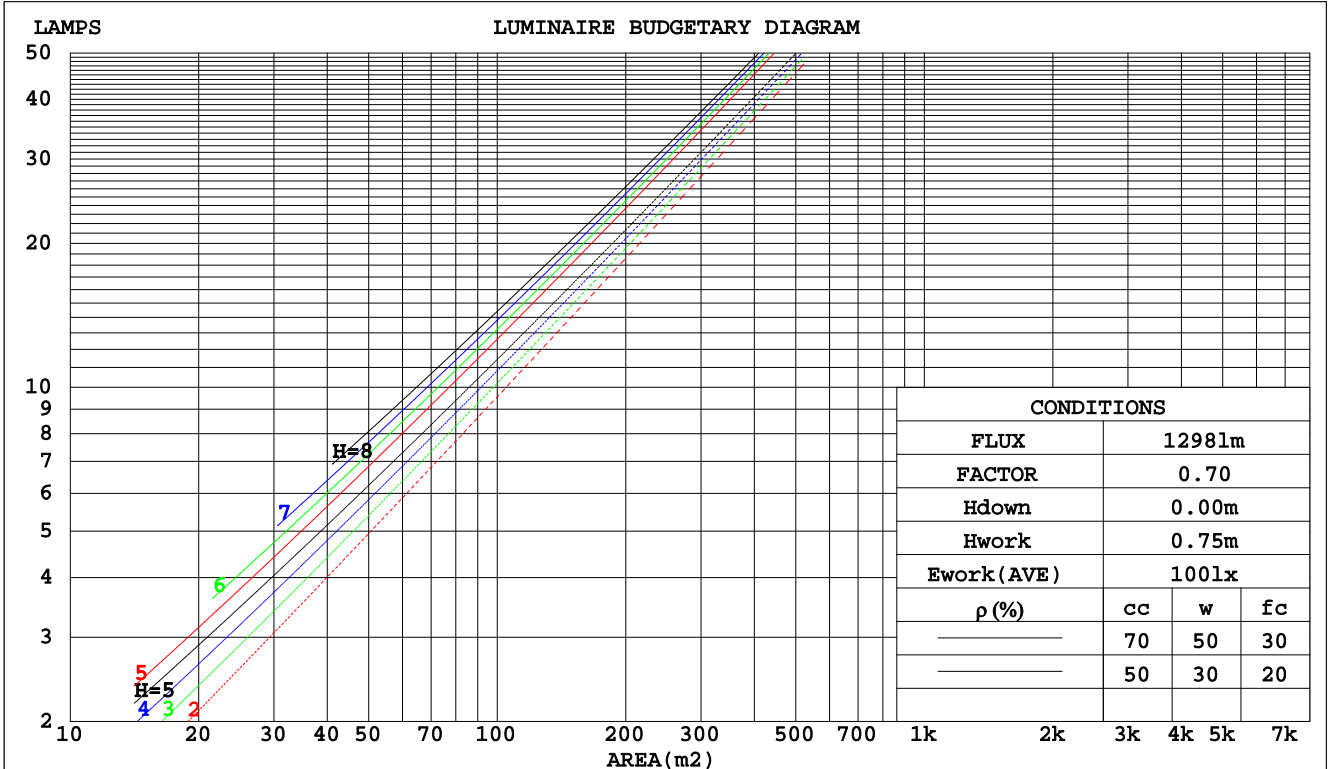
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**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

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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	1.00
1.0	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	1.00	1.04	1.01	.99	1.01	.99	.97	.98	.96	.95	.96	.94	.93	.91
3.0	1.01	.97	.94	.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	.83	.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	.80	.75	.73	.79	.75	.72	.78	.74	.72	.71
9.0	.78	.73	.70	.78	.73	.70	.77	.73	.70	.76	.72	.70	.75	.72	.69	.68
10.0	.75	.71	.68	.75	.70	.68	.74	.70	.67	.73	.70	.67	.73	.69	.67	.66



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WEC AND CCEC

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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	.150	.085	.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	.060	.019	
3.0	.133	.071	.021	.128	.069	.021	.119	.065	.020	.111	.061	.019	.104	.058	.018	
4.0	.125	.065	.019	.121	.063	.019	.114	.060	.018	.107	.057	.017	.101	.055	.017	
5.0	.119	.060	.018	.115	.059	.017	.109	.057	.017	.103	.054	.016	.097	.052	.016	
6.0	.113	.056	.016	.110	.055	.016	.104	.053	.016	.099	.052	.015	.094	.050	.015	
7.0	.107	.053	.015	.105	.052	.015	.100	.051	.015	.096	.049	.014	.091	.047	.014	
8.0	.103	.050	.014	.100	.049	.014	.096	.048	.014	.092	.047	.013	.088	.045	.013	
9.0	.098	.048	.013	.096	.047	.013	.092	.046	.013	.089	.045	.013	.086	.043	.013	
10.0	.094	.045	.013	.092	.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	.127	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.116	.130	.114	.100	.089	.079	.070	.051	.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	.029	.019	.011	.010	.006	.004	

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 γ Interval: 1.0DEG  
 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

Test:U:220.9V I:0.0663A P:14.63W PF:0.9602 Freq:49.90Hz Lamp Flux:1297.74x1 lm		
NAME: T100-13W-940-30	TYPE:Downlight	SERIAL No.:
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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	9.2	9.9	9.4	10.1	10.3	9.2	9.9	9.4	10.1	10.2
3H	9.1	9.8	9.3	10.0	10.1	9.0	9.7	9.3	9.9	10.1
4H	9.0	9.7	9.3	9.9	10.1	9.0	9.6	9.2	9.8	10.1
6H	8.9	9.5	9.2	9.8	10.0	8.9	9.5	9.2	9.7	10.0
8H	8.9	9.5	9.2	9.7	10.0	8.9	9.5	9.2	9.7	10.0
12H	8.8	9.4	9.1	9.7	9.9	8.8	9.4	9.1	9.6	9.9
4H 2H	9.0	9.6	9.3	9.9	10.1	9.0	9.6	9.2	9.8	10.0
3H	8.9	9.4	9.2	9.7	10.0	8.8	9.4	9.1	9.7	9.9
4H	8.8	9.3	9.1	9.6	9.9	8.8	9.3	9.1	9.6	9.9
6H	8.7	9.2	9.1	9.5	9.8	8.7	9.1	9.0	9.5	9.8
8H	8.6	9.1	9.0	9.4	9.8	8.6	9.0	9.0	9.4	9.8
12H	8.6	9.0	9.0	9.4	9.7	8.6	9.0	9.0	9.3	9.7
8H 4H	8.6	9.1	9.0	9.4	9.8	8.6	9.0	9.0	9.4	9.8
6H	8.5	8.9	9.0	9.3	9.7	8.5	8.9	8.9	9.3	9.7
8H	8.5	8.8	8.9	9.2	9.7	8.5	8.8	8.9	9.2	9.6
12H	8.4	8.7	8.9	9.1	9.6	8.4	8.7	8.9	9.1	9.6
12H 4H	8.6	9.0	9.0	9.3	9.7	8.6	8.9	9.0	9.3	9.7
6H	8.5	8.8	8.9	9.2	9.7	8.5	8.8	8.9	9.2	9.6
8H	8.4	8.7	8.9	9.1	9.6	8.4	8.7	8.9	9.1	9.6
Variations with the observer position at spacings:										
S = 1.0H	+ 3.2 / - 8.5					+ 3.0 / - 8.5				
1.5H	+ 5.3 / - 7.0					+ 5.1 / - 7.2				
2.0H	+ 4.6 / - 4.6					+ 5.2 / - 4.9				

CIE Pub.117, 1298 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.9)

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γ Range: 0 - 90DEG  
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 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
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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	84	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	96	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	100
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

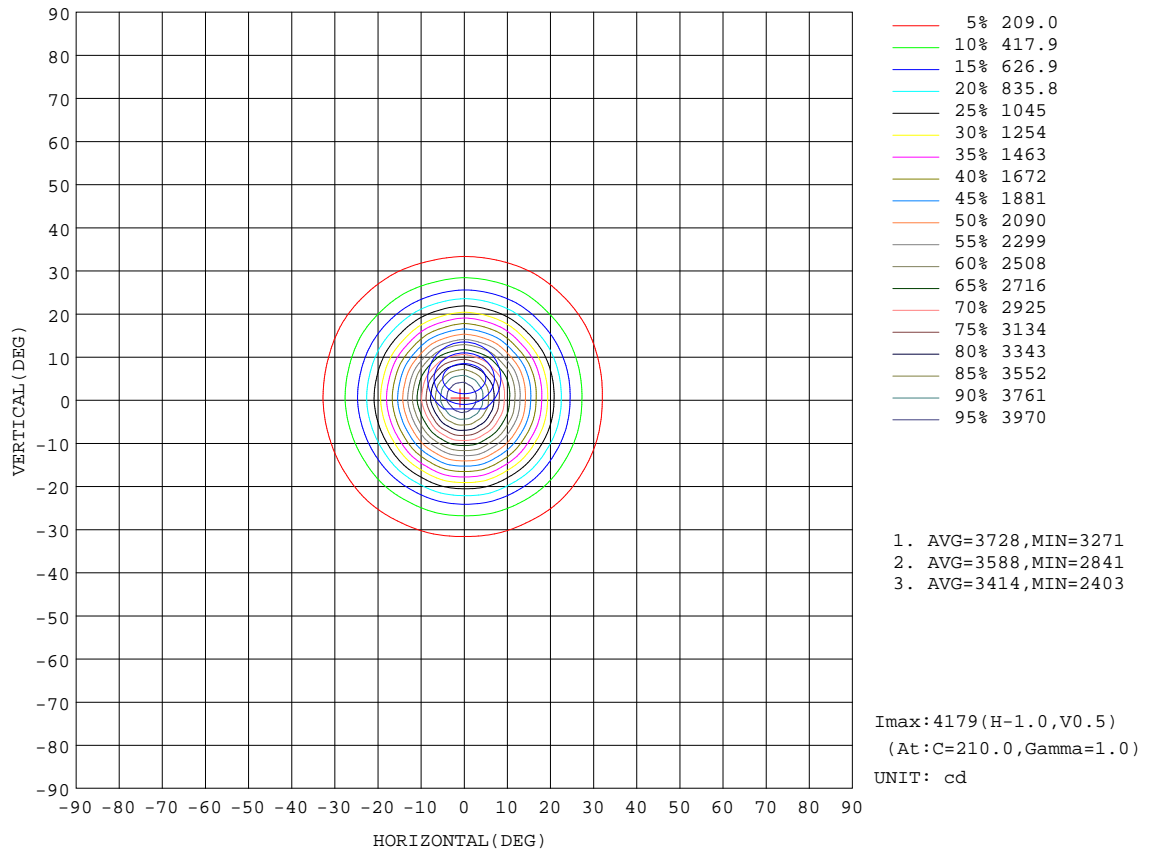
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**ISOCANDELA DIAGRAM**

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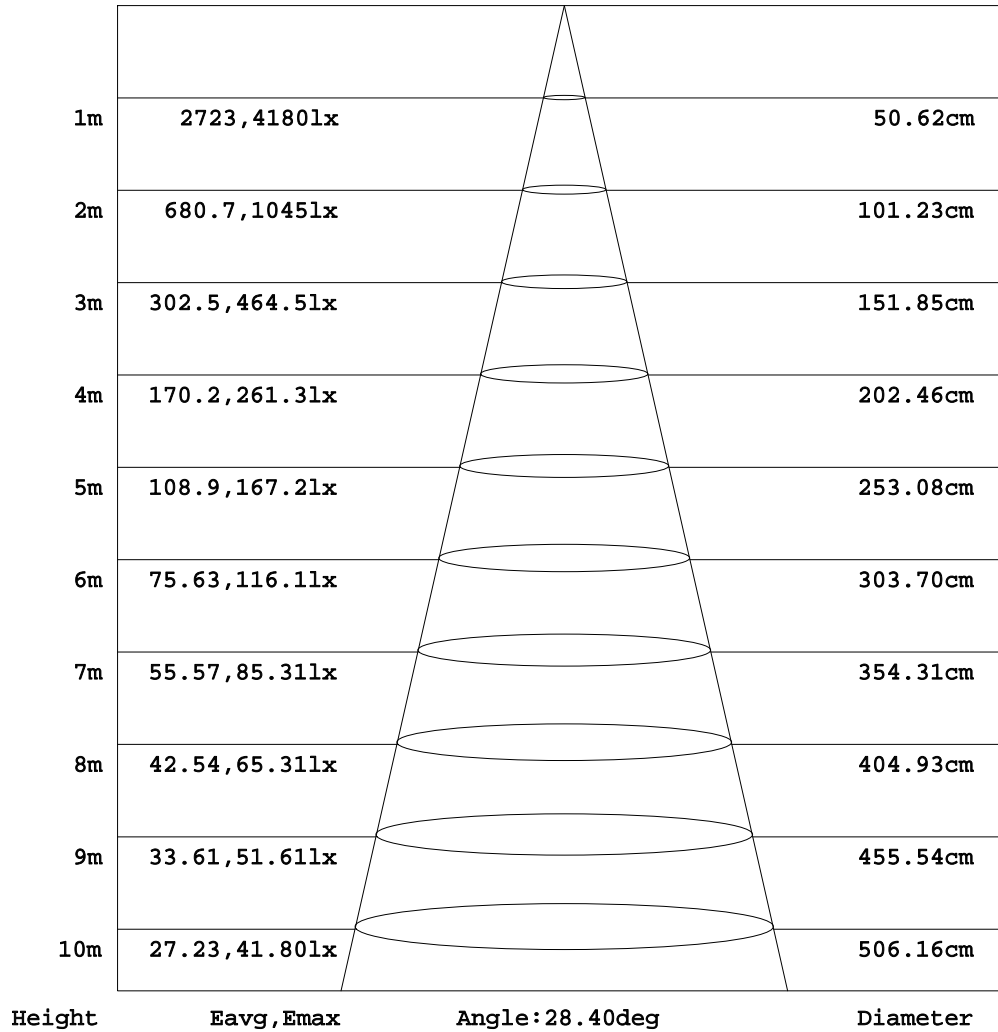
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**AAI Figure**

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Flux out:614.1 lm



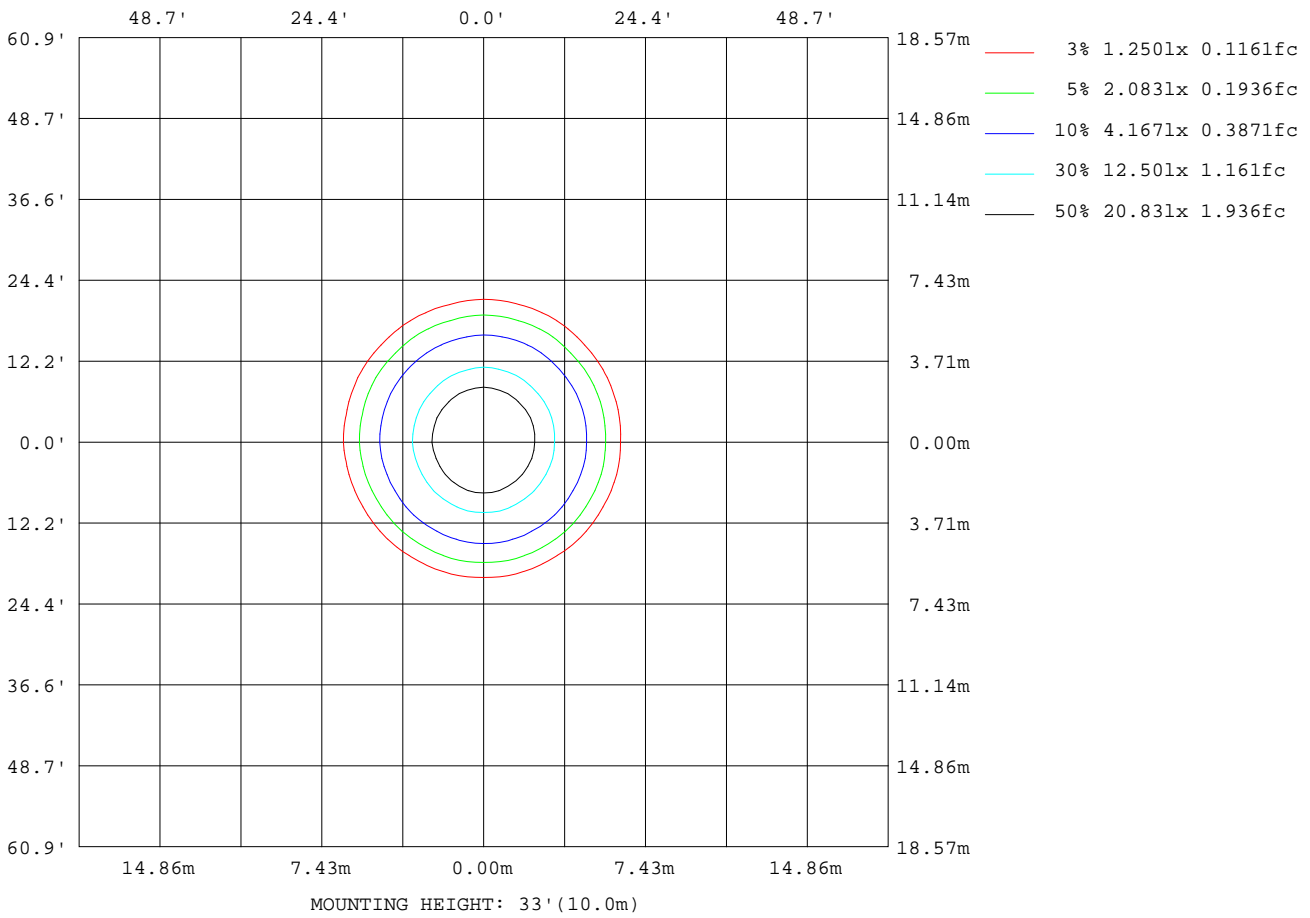
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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**ISOLUX DIAGRAM**

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LED Avg.L Report

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SPEC.:4000K	DIM.: φ110mm*H79mm	
MFR.: NEKO LIGHTING AG		

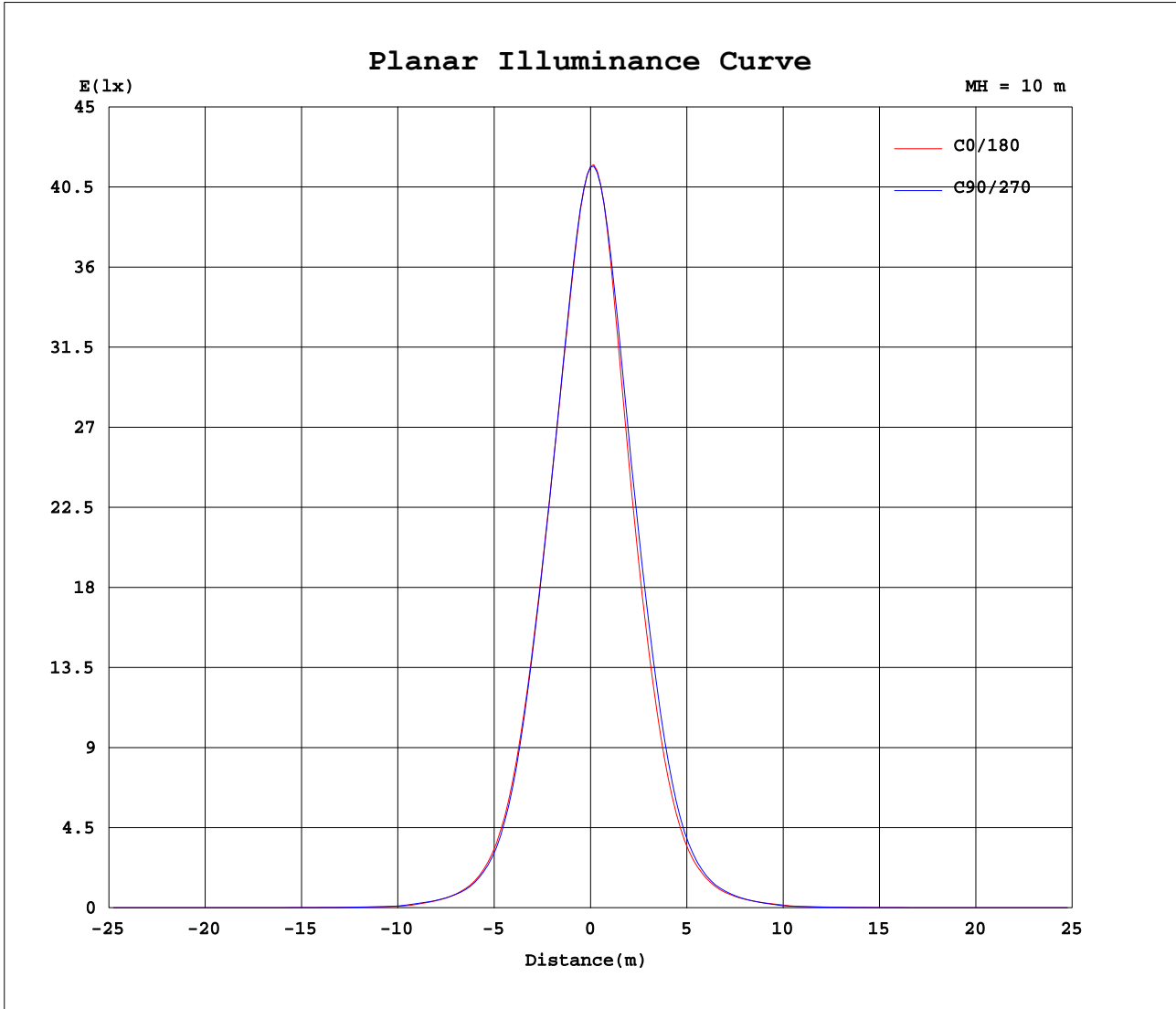
AvgL	cd/m2
L_0~180 (65) av	688
L_0~180 (75) av	358
L_0~180 (85) av	210
L_90~270 (65) av	689
L_90~270 (75) av	358
L_90~270 (85) av	217
L_45 (65) av	704
L_45 (75) av	367
L_45 (85) av	216

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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
 Humidity: 56%  
 Test Distance: 5.850m [K=1.0000]  
 Remarks:



