

T150-18W-930-60



Light Output Ratio:	100.0%	
Luminaire Power:	20.63 W	
SHR Nominal:	1.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

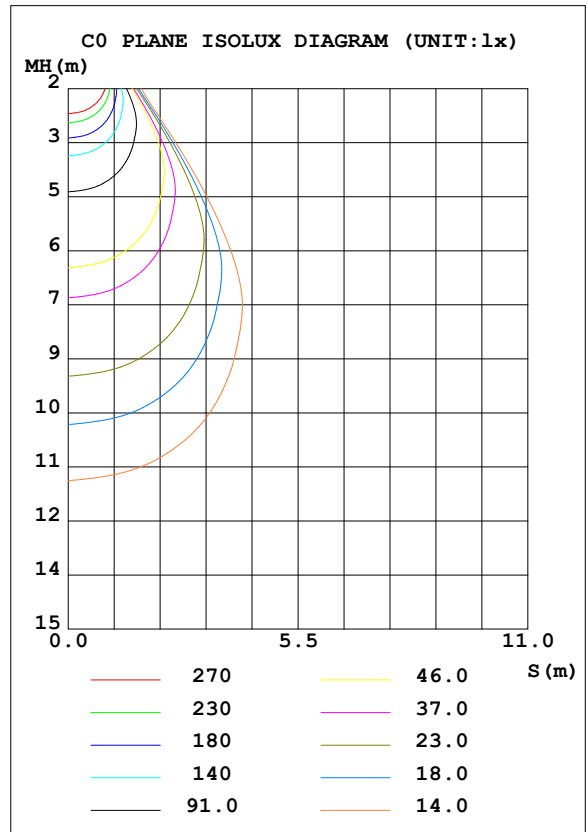
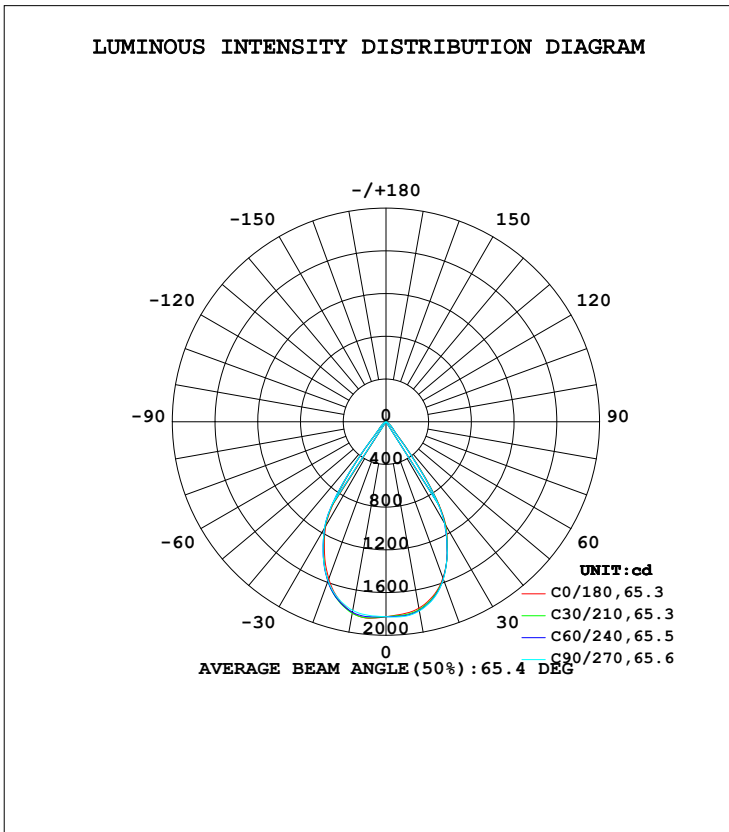
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Men Yongjian
Test Date: 2017-11-08

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:220.4V I:0.0955A P:20.63W PF:0.9783 Freq:49.90Hz Lamp Flux:1779.38x1 lm		
NAME: T150-18W-930-60	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ160mm*H100mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 86.25 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	1847	S/MH (C0/180)	0.95
NOMINAL POWER (W)	21	LOR (%)	100.0	S/MH (C90/270)	0.96
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	1779.4	η UP, DN (C0-180)	0.0, 49.5
NOMINAL FLUX (lm)	1779.38	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.00



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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	1773	1792	1799	1802	1817	1815	1794	1772	0- 10	173.4	173.4	9.75,9.75
20	1558	1571	1571	1554	1566	1585	1585	1567	10- 20	478.7	652.2	36.7,36.7
30	1122	1111	1099	1106	1131	1142	1154	1137	20- 30	623.1	1275	71.7,71.7
40	162.9	159.6	150.8	153.0	157.9	157.1	167.3	168.0	30- 40	394.1	1669	93.8,93.8
50	57.81	57.17	57.42	57.29	53.25	51.22	53.86	58.42	40- 50	70.79	1740	97.8,97.8
60	14.02	13.38	14.08	14.89	12.71	11.38	12.94	15.06	50- 60	28.79	1769	99.4,99.4
70	4.563	4.343	4.583	5.322	4.495	3.813	4.031	4.922	60- 70	7.917	1777	99.9,99.9
80	0.6140	0.5924	0.5084	0.5056	0.4058	0.3755	0.4573	0.5998	70- 80	2.403	1779	100,100
90	0.1135	0.1093	0.1072	0.1072	0.0589	0.0568	0.0569	0.0591	80- 90	0.1533	1779	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): 1711.5 lm

%lum = 96.2%
%lamp = 96.2%

Conical surface Flux(120deg): 1768.9 lm

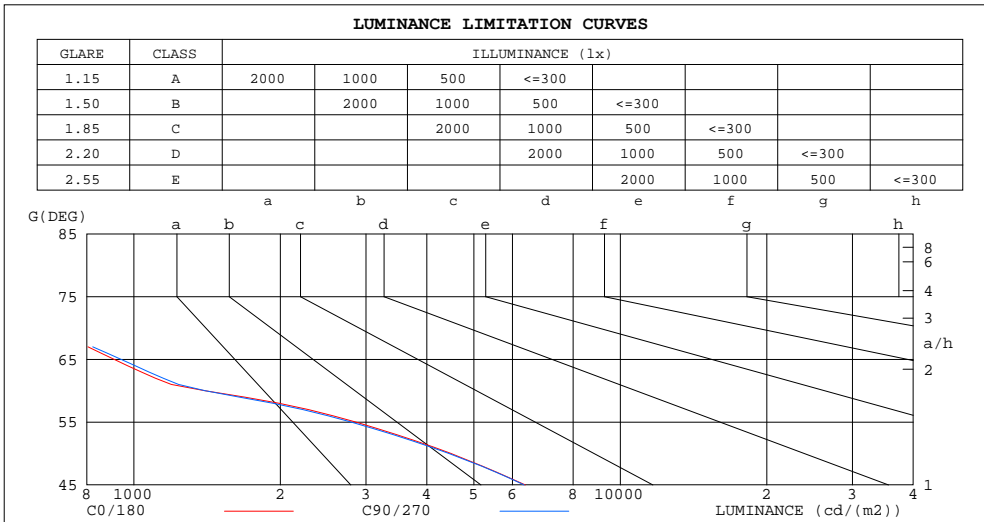
%lum = 99.4%
%lamp = 99.4%

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LUMINANCE LIMITATION CURVES

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MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	77	71
80	176	146
75	437	421
70	665	666
65	910	941
60	1398	1400
55	2858	2796
50	4483	4440
45	6377	6343

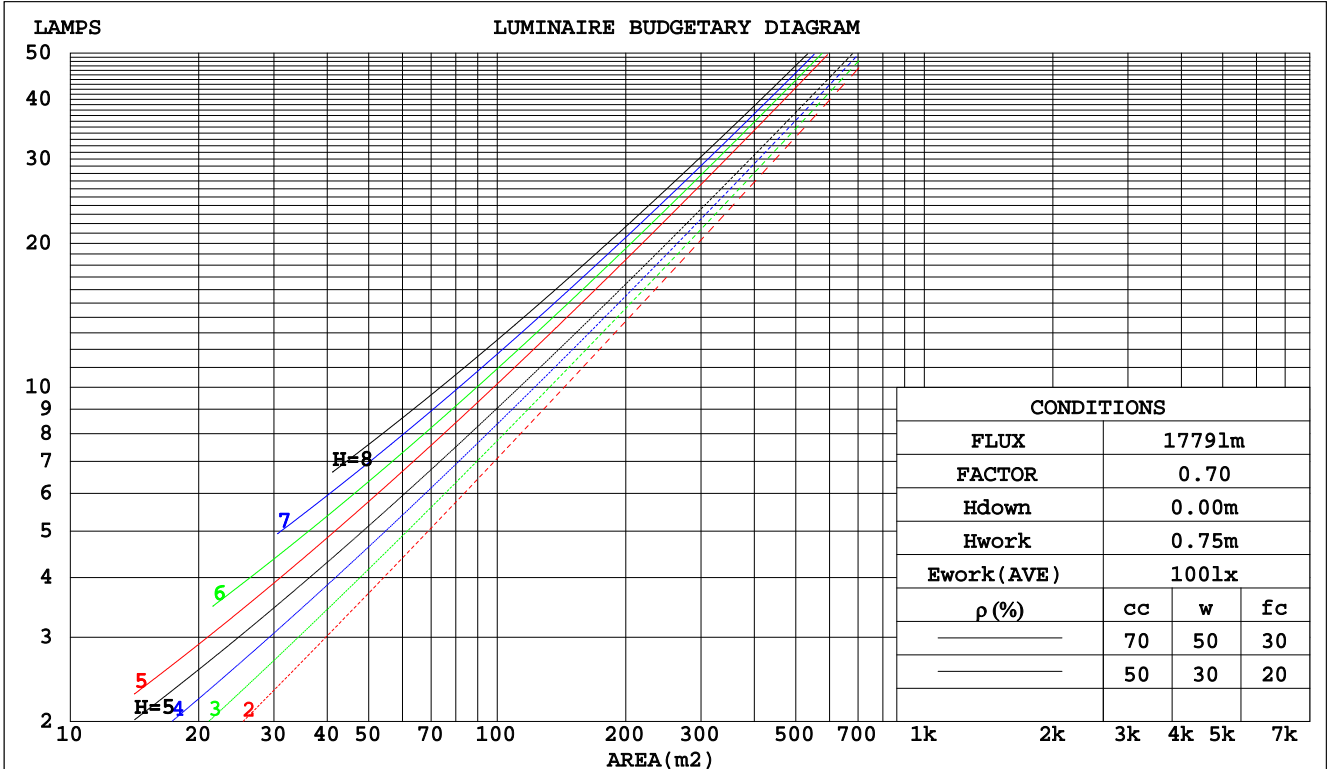
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρw																0
ρfc																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	1.11	1.08	1.06	1.09	1.06	1.04	1.05	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.96	1.01	.98	.94	.98	.95	.92	.95	.93	.90	.92	.90	.89	.87
3.0	.96	.91	.87	.95	.90	.86	.92	.88	.85	.90	.86	.84	.87	.85	.82	.81
4.0	.90	.84	.80	.88	.83	.79	.86	.82	.78	.84	.81	.77	.82	.79	.77	.75
5.0	.84	.78	.74	.83	.77	.73	.81	.76	.73	.79	.75	.72	.78	.74	.71	.70
6.0	.79	.73	.68	.78	.72	.68	.76	.71	.68	.75	.71	.67	.74	.70	.67	.65
7.0	.74	.68	.64	.73	.67	.63	.72	.67	.63	.71	.66	.63	.70	.66	.62	.61
8.0	.70	.64	.59	.69	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.57
9.0	.66	.60	.56	.65	.59	.56	.64	.59	.55	.63	.59	.55	.62	.58	.55	.54
10.0	.62	.56	.52	.62	.56	.52	.61	.56	.52	.60	.55	.52	.59	.55	.52	.50



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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	.179	.102	.032	.172	.098	.031	.159	.091	.029	.148	.085	.027	.137	.079	.026	
2.0	.171	.094	.029	.166	.091	.028	.155	.086	.027	.145	.082	.026	.136	.077	.024	
3.0	.164	.087	.026	.159	.085	.026	.150	.081	.025	.141	.077	.024	.134	.074	.023	
4.0	.156	.081	.024	.152	.079	.023	.144	.076	.023	.137	.073	.022	.130	.071	.022	
5.0	.149	.076	.022	.145	.075	.022	.138	.072	.021	.132	.070	.021	.126	.067	.020	
6.0	.142	.071	.020	.139	.070	.020	.133	.068	.020	.127	.066	.019	.122	.064	.019	
7.0	.136	.067	.019	.133	.066	.019	.128	.065	.019	.123	.063	.018	.118	.061	.018	
8.0	.130	.064	.018	.128	.063	.018	.123	.062	.018	.119	.060	.017	.114	.059	.017	
9.0	.125	.060	.017	.123	.060	.017	.118	.059	.017	.114	.057	.016	.111	.056	.016	
10.0	.120	.058	.016	.118	.057	.016	.114	.056	.016	.110	.055	.016	.107	.054	.015	

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	.171	.157	.145	.147	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.132	.113	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.123	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.134	.099	.072	.115	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.125	.087	.059	.108	.076	.052	.074	.053	.036	.043	.031	.022	.014	.010	.007	
6.0	.118	.078	.049	.102	.068	.043	.070	.047	.030	.041	.028	.018	.013	.009	.006	
7.0	.112	.071	.042	.096	.061	.036	.066	.043	.026	.039	.025	.015	.012	.008	.005	
8.0	.106	.064	.036	.091	.056	.031	.063	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.101	.059	.031	.087	.051	.027	.060	.036	.019	.035	.021	.011	.011	.007	.004	
10.0	.097	.055	.027	.083	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.003	

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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	14.5	15.4	14.7	15.6	15.8	14.3	15.3	14.5	15.4	15.6
3H	14.3	15.2	14.6	15.4	15.6	14.1	15.0	14.4	15.2	15.4
4H	14.2	15.1	14.5	15.3	15.5	14.1	14.9	14.3	15.1	15.3
6H	14.1	14.9	14.4	15.2	15.4	14.0	14.7	14.3	15.0	15.2
8H	14.1	14.9	14.4	15.1	15.4	13.9	14.7	14.2	14.9	15.2
12H	14.1	14.8	14.4	15.0	15.3	13.9	14.6	14.2	14.9	15.1
4H 2H	14.2	15.1	14.5	15.3	15.5	14.1	14.9	14.3	15.1	15.3
3H	14.1	14.8	14.4	15.1	15.3	13.9	14.6	14.2	14.9	15.2
4H	14.0	14.6	14.3	14.9	15.3	13.8	14.5	14.2	14.8	15.1
6H	13.9	14.5	14.3	14.8	15.2	13.7	14.3	14.1	14.6	15.0
8H	13.9	14.4	14.2	14.7	15.1	13.7	14.2	14.1	14.6	14.9
12H	13.8	14.3	14.2	14.7	15.0	13.6	14.1	14.0	14.5	14.9
8H 4H	13.9	14.4	14.2	14.7	15.1	13.7	14.2	14.1	14.6	14.9
6H	13.8	14.2	14.2	14.6	15.0	13.6	14.0	14.0	14.4	14.8
8H	13.7	14.1	14.1	14.5	14.9	13.5	13.9	14.0	14.3	14.8
12H	13.6	14.0	14.1	14.4	14.9	13.5	13.8	13.9	14.2	14.7
12H 4H	13.8	14.3	14.2	14.7	15.0	13.6	14.1	14.0	14.5	14.9
6H	13.7	14.1	14.1	14.5	14.9	13.5	13.9	14.0	14.3	14.8
8H	13.6	14.0	14.1	14.4	14.9	13.5	13.8	13.9	14.2	14.7
Variations with the observer position at spacings:										
S = 1.0H	+ 4.4 / - 7.4					+ 4.2 / - 6.9				
1.5H	+ 6.3 / - 5.2					+ 6.0 / - 4.8				
2.0H	+ 4.0 / - 6.1					+ 4.1 / - 6.1				

CIE Pub.117, 1779 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.0)

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UTILIZATION FACTORS TABLE

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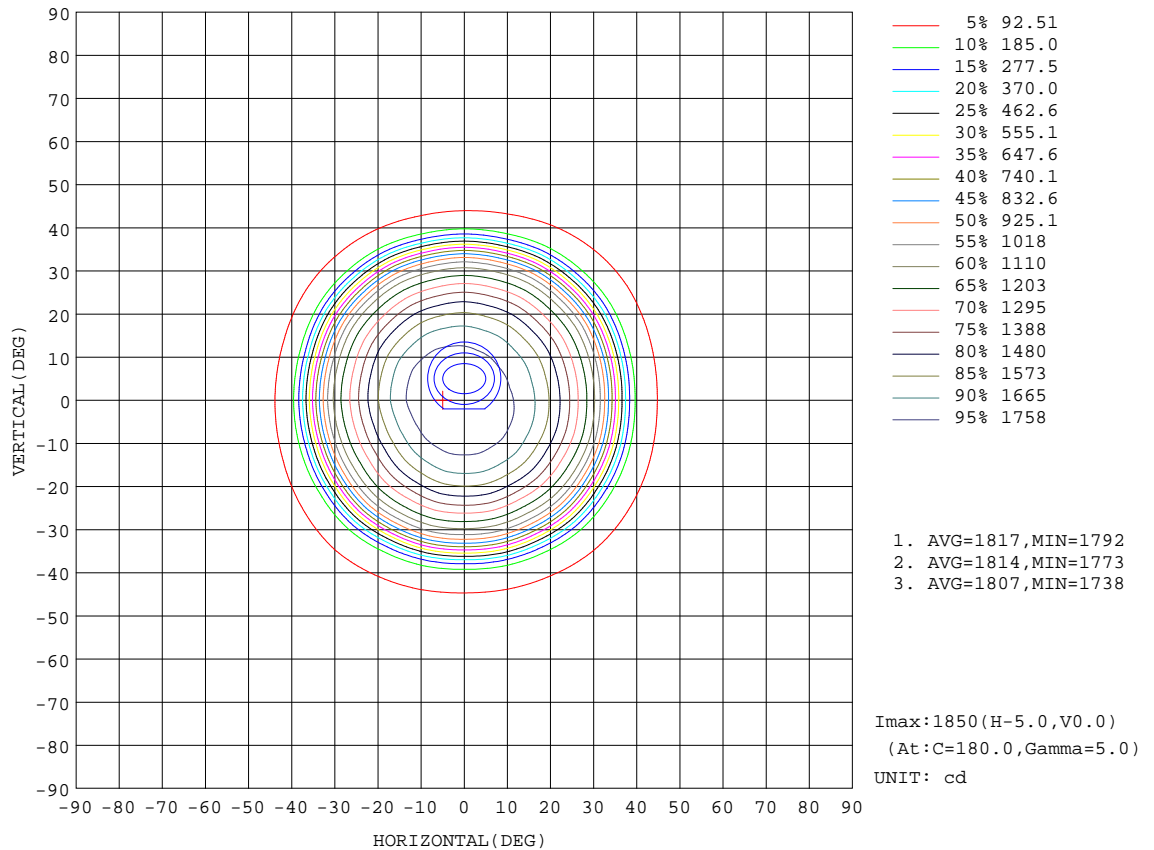
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	88	81	78	87	81	77	86	81	77	74
0.80	95	89	86	94	89	85	93	88	85	81
1.00	99	94	90	99	94	90	97	93	90	86
1.25	103	98	95	102	98	95	100	97	94	90
1.50	106	101	98	105	101	98	103	99	97	92
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	109	108	106	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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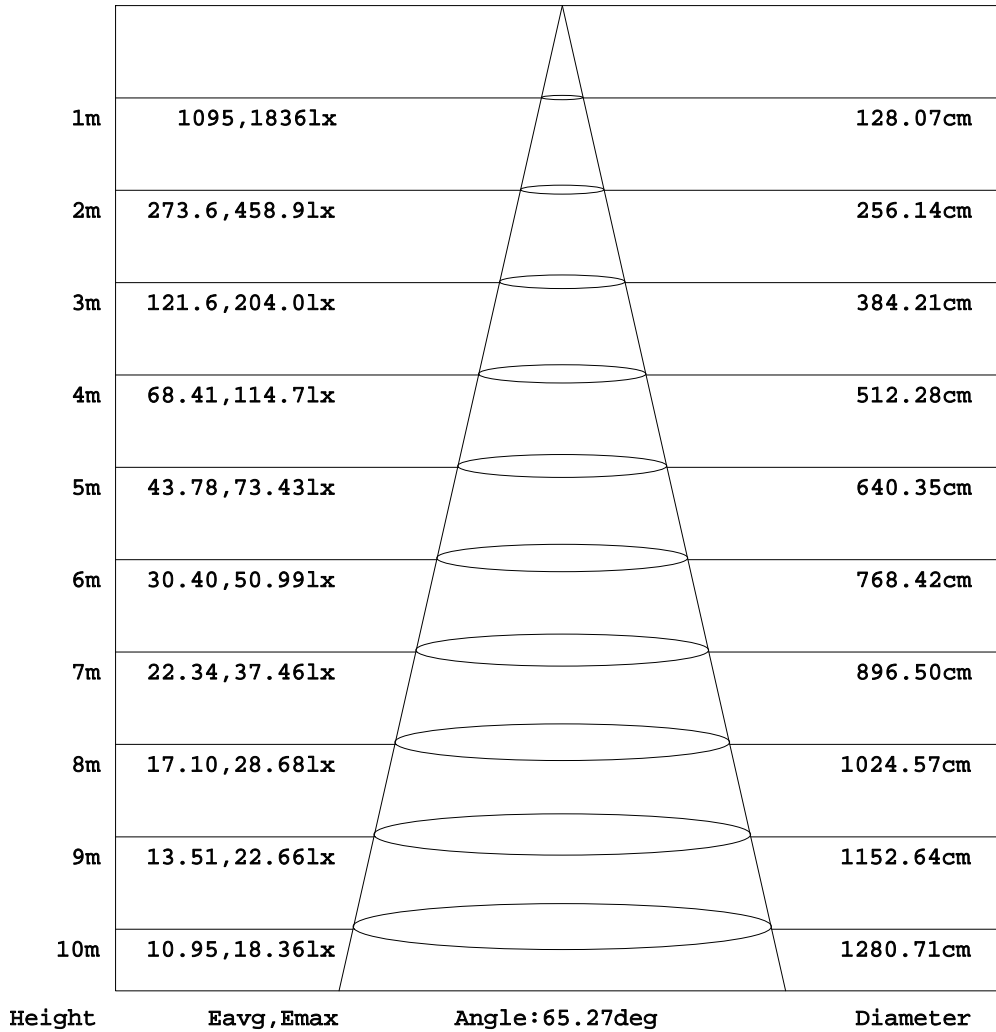
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AAI Figure

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Flux out:1450 lm



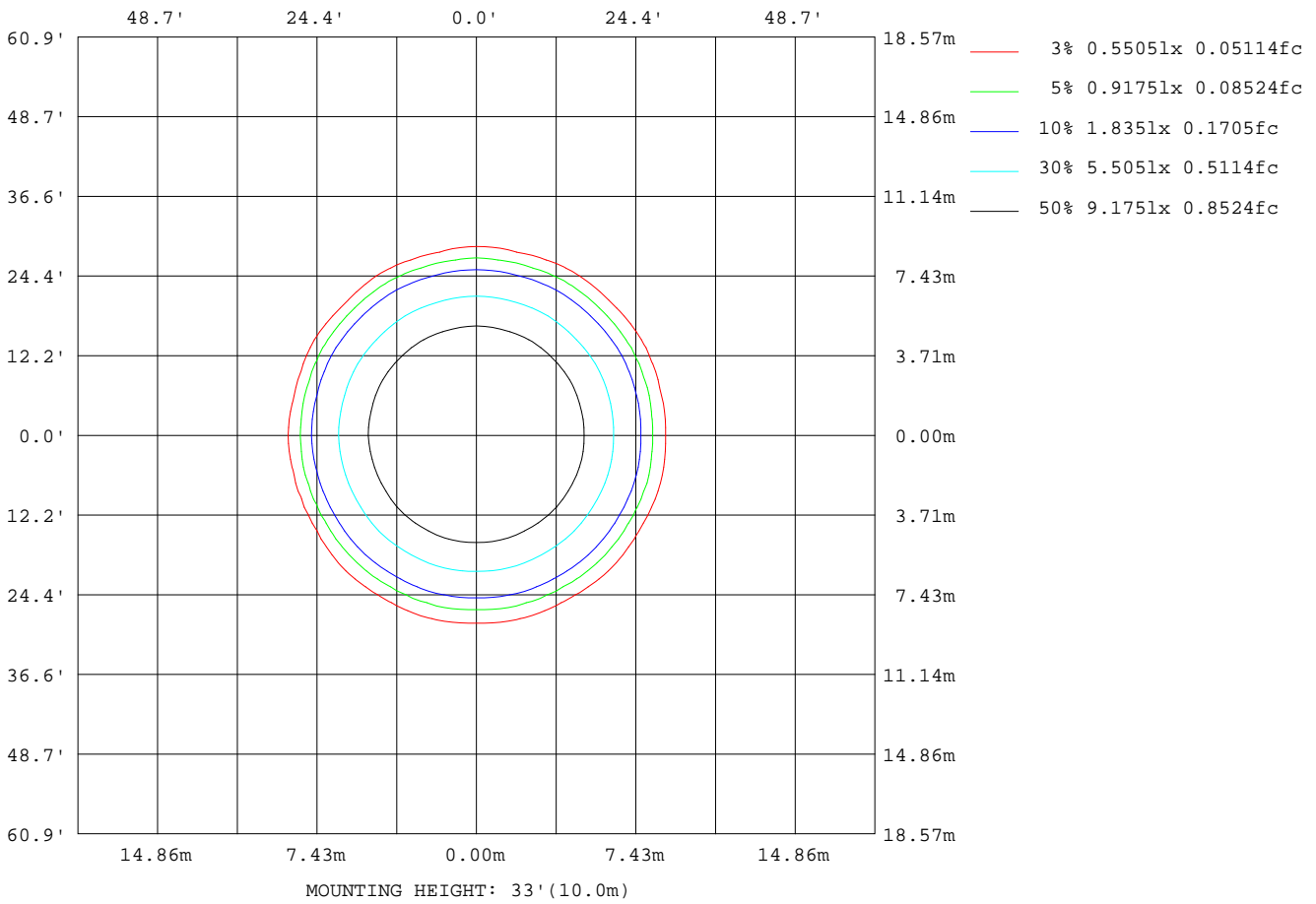
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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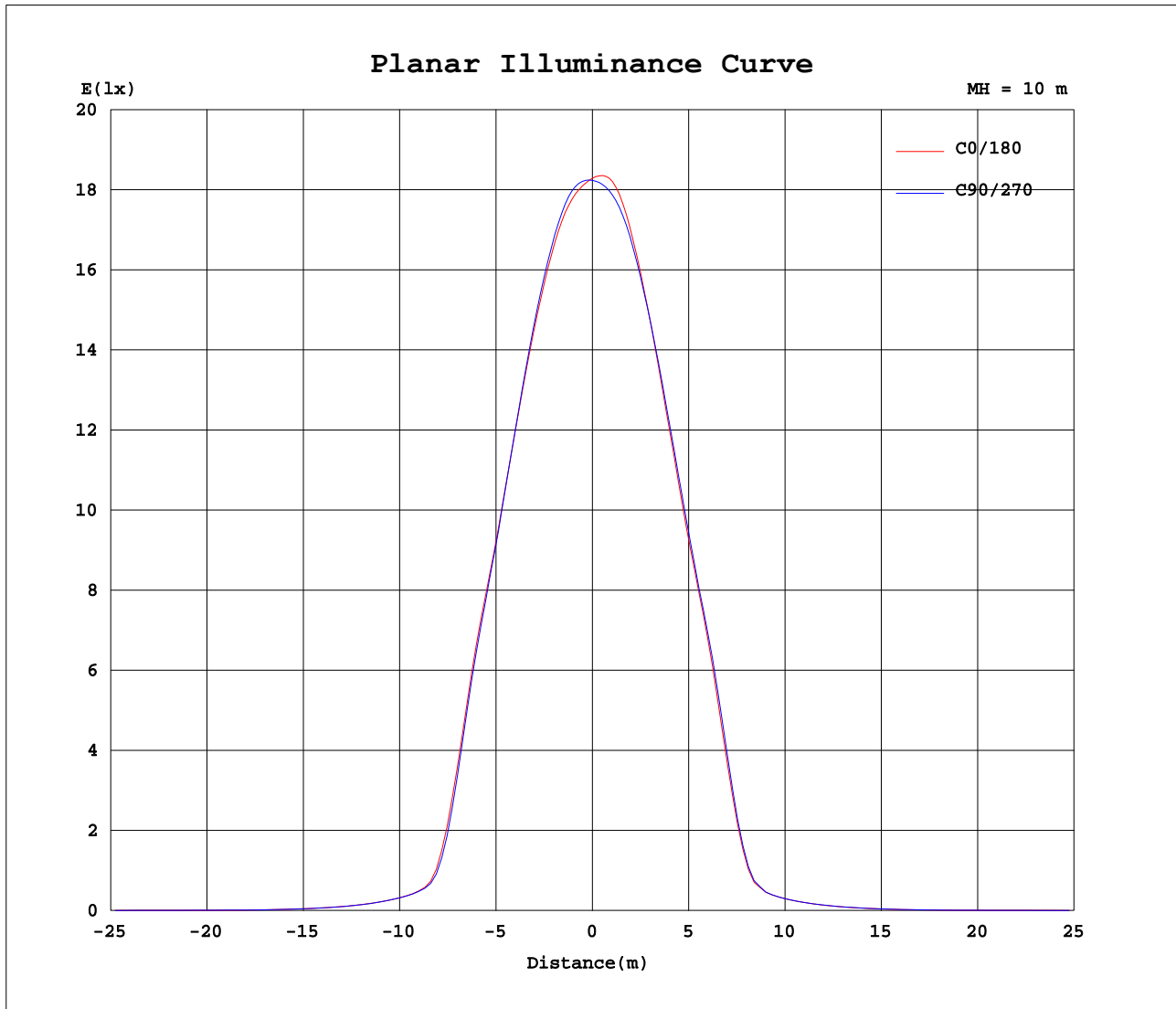
AvgL	cd/m2
L_0~180 (65) av	903
L_0~180 (75) av	426
L_0~180 (85) av	57
L_90~270 (65) av	877
L_90~270 (75) av	399
L_90~270 (85) av	54
L_45 (65) av	924
L_45 (75) av	428
L_45 (85) av	59

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Men Yongjian
Test Date:2017-11-08

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: 2017-11-08

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:

