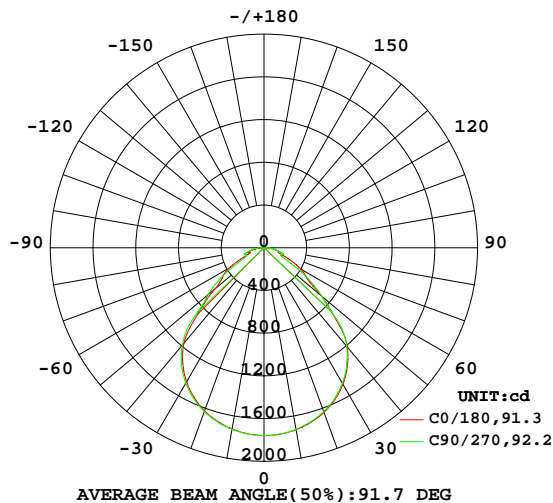


LUMINAIRE PHOTOMETRIC TEST REPORT

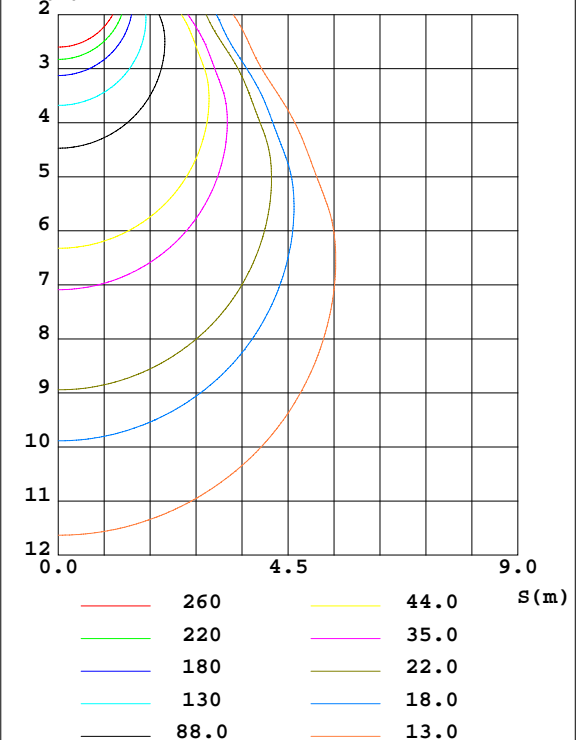
Test:U:229.66V I:0.1239A P:27.622W PF:0.9707 Freq:49.99Hz Lamp Flux:3831.19x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 600*82	SERIAL No.:
MFR.: NLC24-0006-04	SUR.:3.14*0.286*0.286	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 138.70 lm/W			
MODEL		Imax(cd)	1759	S/MH(C0/180)	1.23
NOMINAL POWER(W)	28	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	3831.2	η UP,DN(C0-180)	0.0,50.4
NOMINAL FLUX(lm)	3831.19	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-0813

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

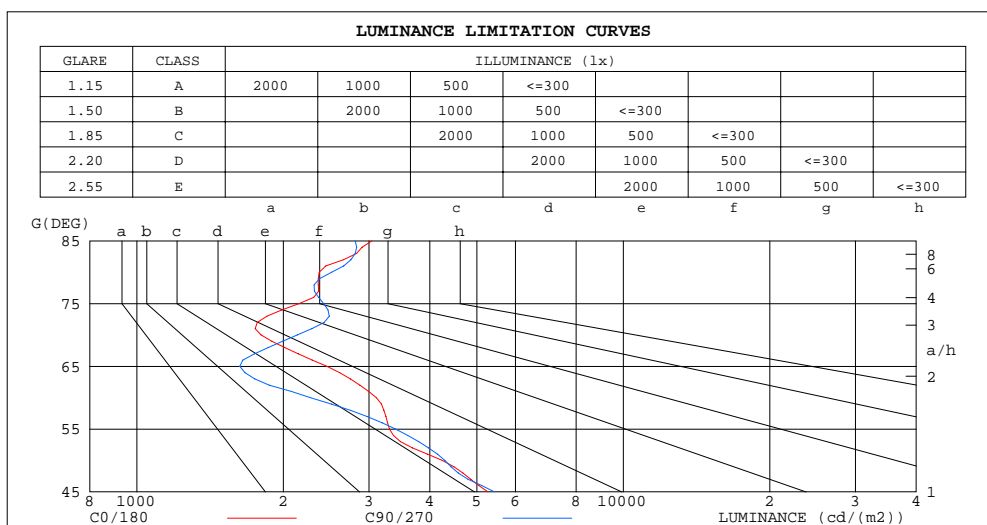
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1730	1729	1727	1723	1722	1724	1727	1729	0- 10	166.3	166.3	4.34,4.34
20	1641	1637	1634	1627	1625	1625	1632	1639	10- 20	476.1	642.4	16.8,16.8
30	1477	1474	1467	1455	1449	1450	1464	1472	20- 30	717.3	1360	35.5,35.5
40	1212	1214	1206	1178	1168	1168	1190	1203	30- 40	837.3	2197	57.3,57.3
50	700.4	697.9	709.3	664.6	596.7	667.7	677.1	671.8	40- 50	719.6	2917	76.1,76.1
60	398.8	382.0	292.0	361.6	365.3	350.5	285.0	381.7	50- 60	447.9	3364	87.8,87.8
70	158.2	215.8	187.6	206.6	140.0	207.8	192.2	207.4	60- 70	247.7	3612	94.3,94.3
80	105.7	97.66	112.1	90.24	96.20	98.00	116.2	102.1	70- 80	154.3	3766	98.3,98.3
90	9.021	9.149	4.734	2.070	2.466	2.397	2.454	5.911	80- 90	64.81	3831	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		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-0813

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:229.66V I:0.1239A P:27.622W PF:0.9707 Freq:49.99Hz Lamp Flux:3831.19x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 600*82	SERIAL No.:
MFR.: NLC24-0006-04	SUR.:3.14*0.286*0.286	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3041	2810
80	2370	2514
75	2157	2422
70	1801	2136
65	2458	1628
60	3106	2274
55	3307	3403
50	4243	4297
45	5272	5439

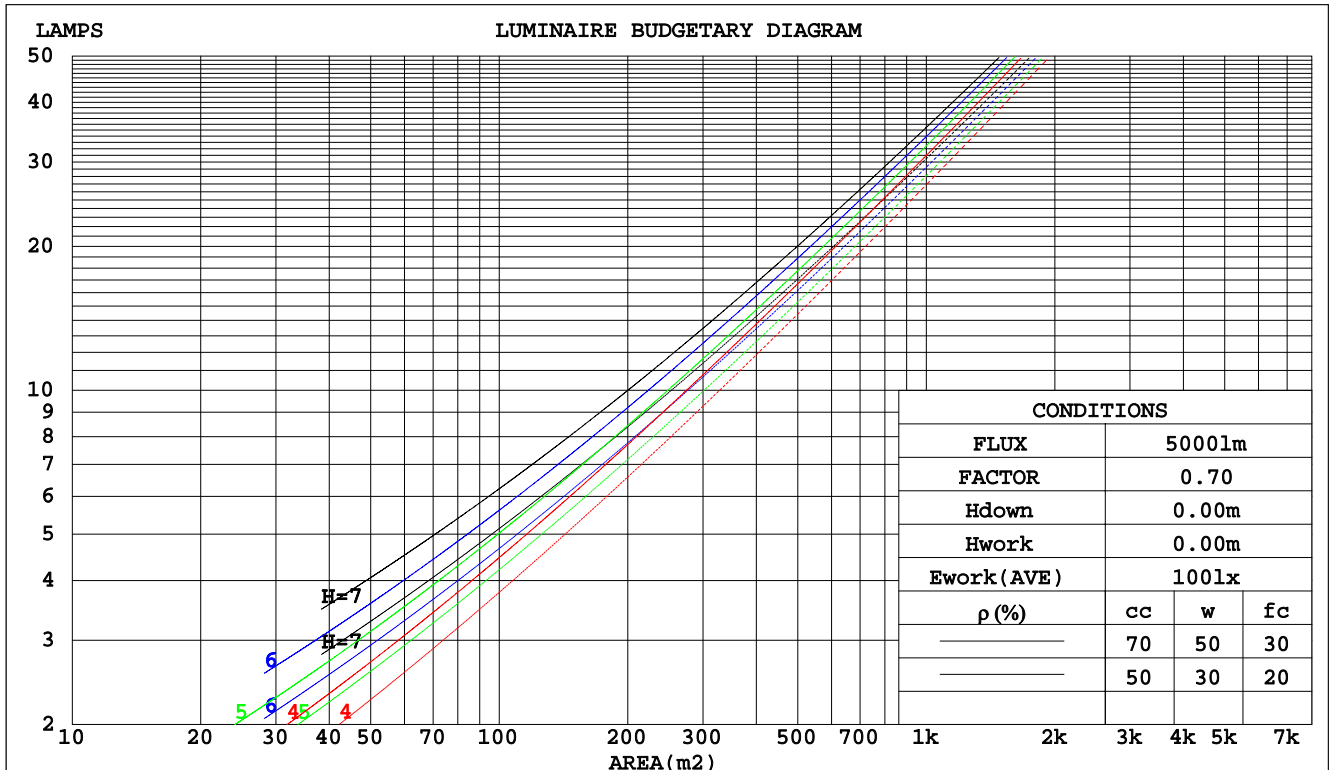
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-0813

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.66V I:0.1239A P:27.622W PF:0.9707 Freq:49.99Hz Lamp Flux:3831.19x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 600*82	SERIAL No.:
MFR.: NLC24-0006-04	SUR.:3.14*0.286*0.286	Shielding Angle:

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	1.06	1.02	.99	1.04	1.00	.97	.00	.97	.94	.96	.93	.91	.92	.90	.89	.87
2.0	.94	.88	.83	.92	.87	.82	.89	.84	.80	.86	.82	.79	.83	.80	.77	.75
3.0	.84	.77	.71	.83	.76	.71	.80	.74	.69	.77	.72	.68	.75	.71	.67	.65
4.0	.76	.68	.62	.75	.67	.62	.72	.66	.61	.70	.64	.60	.68	.63	.59	.57
5.0	.69	.60	.54	.68	.60	.54	.65	.59	.54	.64	.58	.53	.62	.57	.52	.51
6.0	.62	.54	.48	.61	.54	.48	.60	.53	.48	.58	.52	.47	.57	.51	.47	.45
7.0	.57	.49	.43	.56	.49	.43	.55	.48	.43	.53	.47	.42	.52	.46	.42	.40
8.0	.52	.44	.39	.52	.44	.39	.50	.44	.39	.49	.43	.38	.48	.42	.38	.36
9.0	.48	.41	.35	.48	.40	.35	.47	.40	.35	.46	.39	.35	.45	.39	.35	.33
10.0	.45	.37	.32	.44	.37	.32	.43	.37	.32	.42	.36	.32	.41	.36	.32	.30



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-0813

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:229.66V I:0.1239A P:27.622W PF:0.9707 Freq:49.99Hz Lamp Flux:3831.19x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.: 600*82		SERIAL No.:	
MFR.: NLC24-0006-04		SUR.:3.14*0.286*0.286		Shielding Angle:	

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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.270	.153	.049	.263	.150	.048	.250	.143	.046	.238	.137	.044	.227	.131	.042	
2.0	.255	.140	.043	.249	.137	.042	.237	.132	.041	.227	.127	.040	.217	.123	.039	
3.0	.238	.127	.038	.233	.125	.038	.223	.121	.037	.214	.117	.036	.205	.114	.035	
4.0	.222	.116	.034	.218	.114	.034	.209	.111	.033	.201	.108	.033	.193	.105	.032	
5.0	.208	.106	.031	.204	.105	.030	.196	.102	.030	.189	.100	.030	.182	.097	.029	
6.0	.195	.098	.028	.191	.096	.028	.184	.094	.027	.178	.092	.027	.172	.090	.027	
7.0	.183	.090	.026	.180	.089	.025	.173	.088	.025	.168	.086	.025	.162	.084	.025	
8.0	.172	.084	.024	.169	.083	.024	.164	.082	.023	.158	.080	.023	.153	.079	.023	
9.0	.162	.079	.022	.160	.078	.022	.155	.077	.022	.150	.075	.022	.146	.074	.021	
10.0	.154	.074	.020	.151	.073	.020	.147	.072	.020	.142	.071	.020	.138	.070	.020	

pcc	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	.178	.156	.138	.152	.134	.118	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.167	.132	.102	.143	.114	.089	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.158	.114	.079	.136	.098	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.150	.100	.062	.129	.087	.054	.089	.060	.038	.051	.035	.023	.017	.012	.007	
5.0	.143	.090	.051	.123	.078	.044	.084	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.136	.081	.042	.117	.070	.036	.081	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.129	.074	.035	.111	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.123	.068	.030	.106	.059	.027	.073	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.063	.027	.101	.055	.023	.070	.039	.016	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.097	.051	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-0813

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:11.700m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:229.66V I:0.1239A P:27.622W PF:0.9707 Freq:49.99Hz Lamp Flux:3831.19x1 lm											
NAME:			TYPE:			WEIGHT:					
SPEC.:			DIM.: 600*82			SERIAL No.:					
MFR.: NLC24-0006-04			SUR.:3.14*0.286*0.286			Shielding Angle:					
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	16.9	18.3	17.1	18.4	18.6	16.4	17.8	16.7	18.0	18.2	
	3H	17.5	18.7	17.7	18.9	19.2	17.0	18.3	17.3	18.5	18.7
	4H	17.8	19.0	18.1	19.2	19.5	17.5	18.7	17.8	18.9	19.2
	6H	18.2	19.3	18.5	19.5	19.8	17.9	19.0	18.2	19.3	19.6
	8H	18.4	19.5	18.7	19.7	20.0	18.2	19.2	18.5	19.5	19.8
	12H	18.6	19.6	18.9	19.9	20.2	18.4	19.4	18.7	19.7	20.0
4H	2H	17.1	18.3	17.4	18.6	18.8	16.8	17.9	17.1	18.2	18.4
	3H	18.0	19.0	18.3	19.3	19.6	17.5	18.6	17.9	18.9	19.2
	4H	18.4	19.4	18.8	19.7	20.0	18.2	19.1	18.5	19.4	19.8
	6H	19.0	19.8	19.3	20.1	20.5	18.8	19.6	19.2	19.9	20.3
	8H	19.3	20.1	19.7	20.4	20.8	19.1	19.9	19.5	20.2	20.6
	12H	19.6	20.3	20.0	20.7	21.1	19.4	20.1	19.8	20.5	20.9
8H	4H	18.6	19.4	19.0	19.7	20.1	18.4	19.1	18.8	19.5	19.9
	6H	19.3	19.9	19.7	20.3	20.8	19.1	19.8	19.6	20.2	20.6
	8H	19.8	20.3	20.2	20.8	21.2	19.6	20.1	20.0	20.6	21.0
	12H	20.2	20.7	20.7	21.2	21.7	20.0	20.5	20.5	20.9	21.4
12H	4H	18.6	19.3	19.0	19.7	20.1	18.4	19.1	18.8	19.5	19.9
	6H	19.4	20.0	19.8	20.4	20.8	19.2	19.8	19.7	20.2	20.7
	8H	19.9	20.4	20.4	20.9	21.3	19.7	20.2	20.2	20.7	21.1
Variations with the observer position at spacings:											
S = 1.0H	+ 0.5 / - 0.5					+ 0.5 / - 0.5					
1.5H	+ 0.3 / - 0.5					+ 0.2 / - 0.3					
2.0H	+ 0.9 / - 0.7					+ 1.0 / - 0.9					

CIE Pub.117, 3831 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 4.7$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-0813

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:11.700m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:229.66V I:0.1239A P:27.622W PF:0.9707 Freq:49.99Hz Lamp Flux:3831.19x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 600*82	SERIAL No.:
MFR.: NLC24-0006-04	SUR.:3.14*0.286*0.286	Shielding Angle:

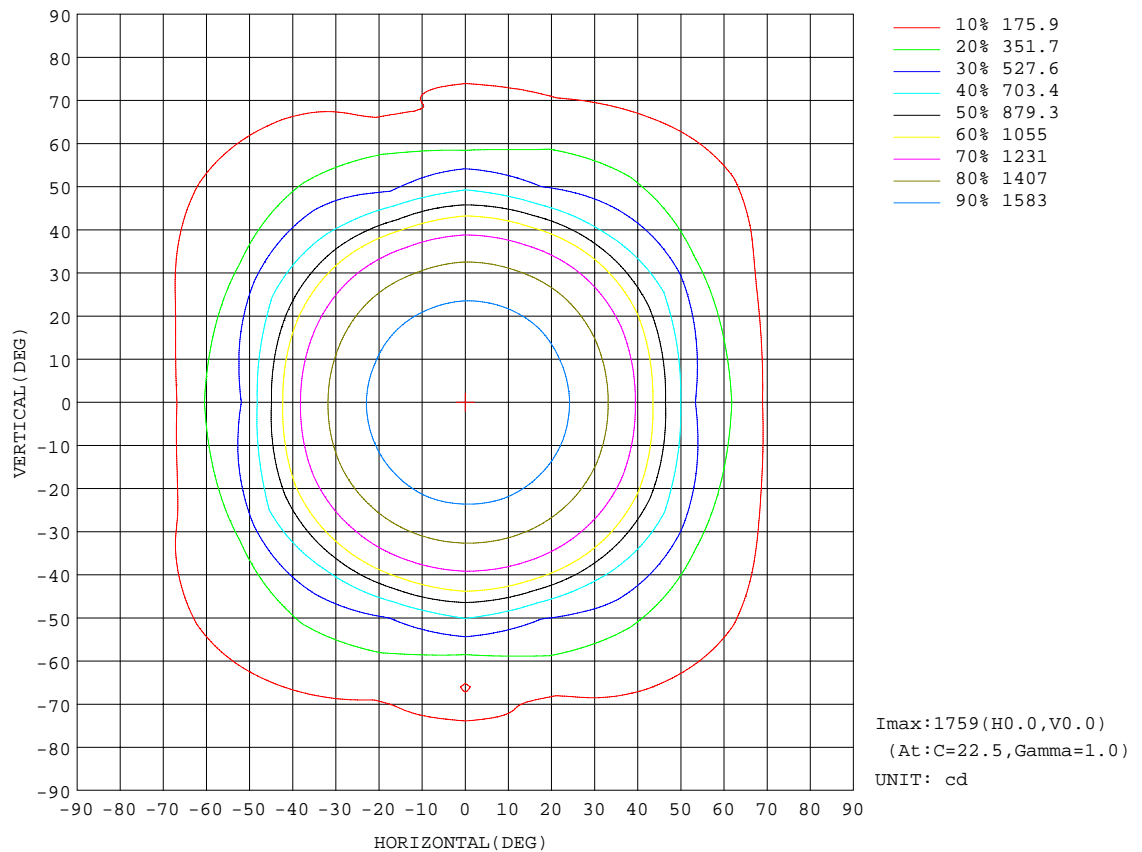
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	48	64	54	48	63	54	48	42
0.80	75	65	58	74	64	58	72	64	58	52
1.00	83	73	67	82	73	67	80	74	66	60
1.25	89	80	74	88	80	74	85	78	73	67
1.50	94	85	79	92	84	79	89	83	78	71
2.00	99	92	87	98	91	86	94	89	84	77
2.50	102	96	91	100	95	90	97	92	88	80
3.00	105	99	95	103	98	94	99	95	91	84
4.00	108	104	100	106	102	98	102	99	96	87
5.00	110	106	103	108	104	101	104	101	98	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-0813

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
 Humidity:65.0%
 Test Distance:11.700m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:229.66V I:0.1239A P:27.622W PF:0.9707 Freq:49.99Hz Lamp Flux:3831.19x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 600*82	SERIAL No.:
MFR.: NLC24-0006-04	SUR.:3.14*0.286*0.286	Shielding Angle:

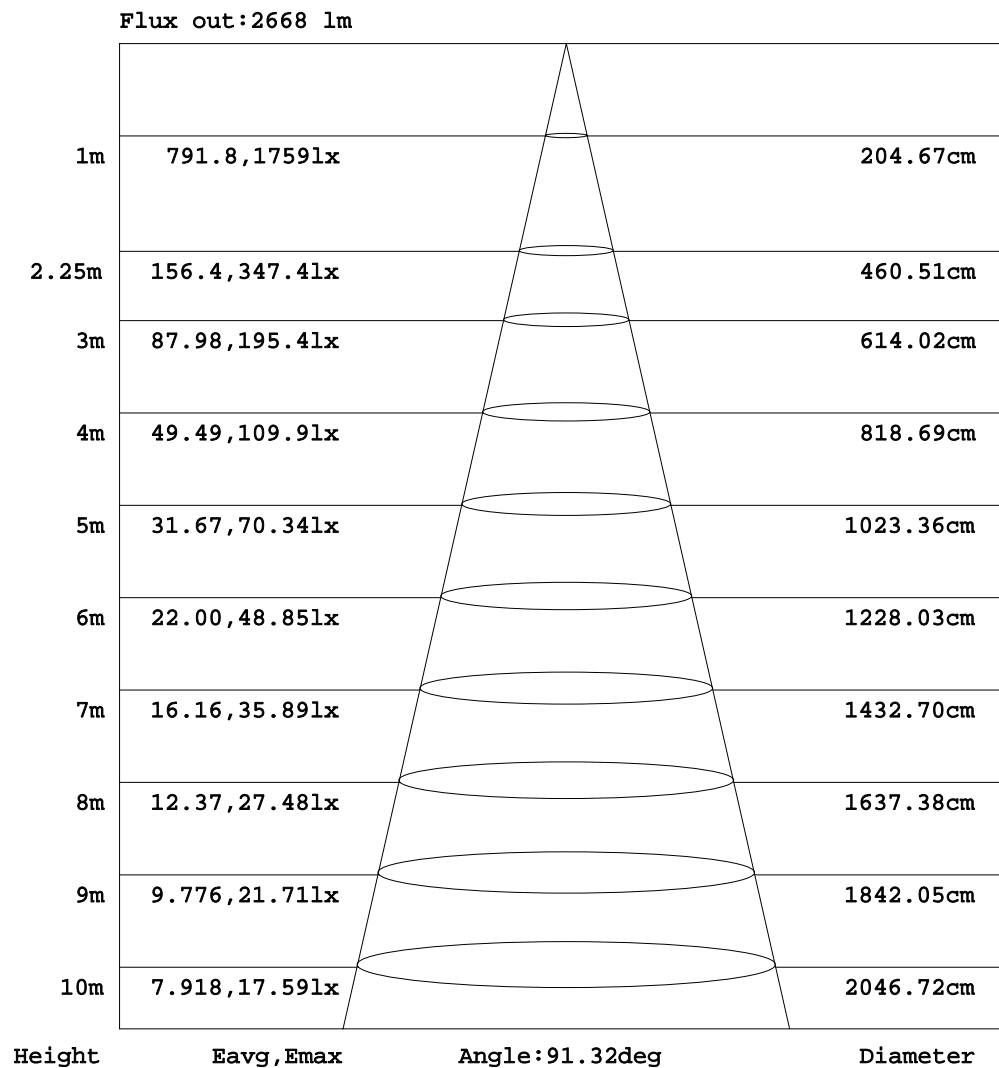


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-0813

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

AAI Figure

Test:U:229.66V I:0.1239A P:27.622W PF:0.9707 Freq:49.99Hz Lamp Flux:3831.19x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 600*82	SERIAL No.:
MFR.: NLC24-0006-04	SUR.:3.14*0.286*0.286	Shielding Angle:



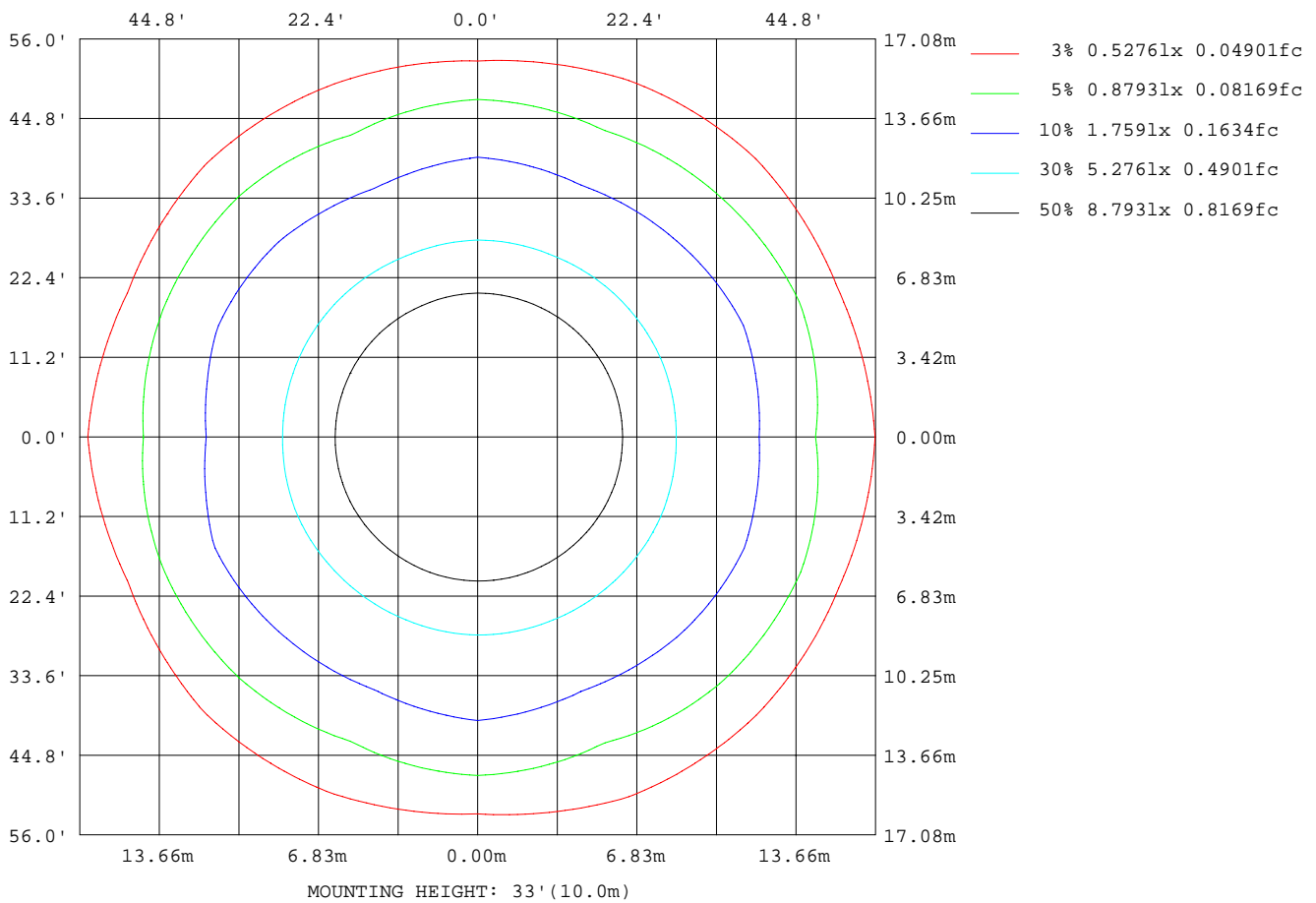
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2024-0813

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
 Humidity: 65.0%
 Test Distance: 11.700m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:229.66V I:0.1239A P:27.622W PF:0.9707 Freq:49.99Hz Lamp Flux:3831.19x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 600*82	SERIAL No.:
MFR.: NLC24-0006-04	SUR.:3.14*0.286*0.286	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2024-0813

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity: 65.0%
Test Distance: 11.700m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:229.66V I:0.1239A P:27.622W PF:0.9707 Freq:49.99Hz Lamp Flux:3831.19x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 600*82	SERIAL No.:
MFR.: NLC24-0006-04	SUR.:3.14*0.286*0.286	Shielding Angle:

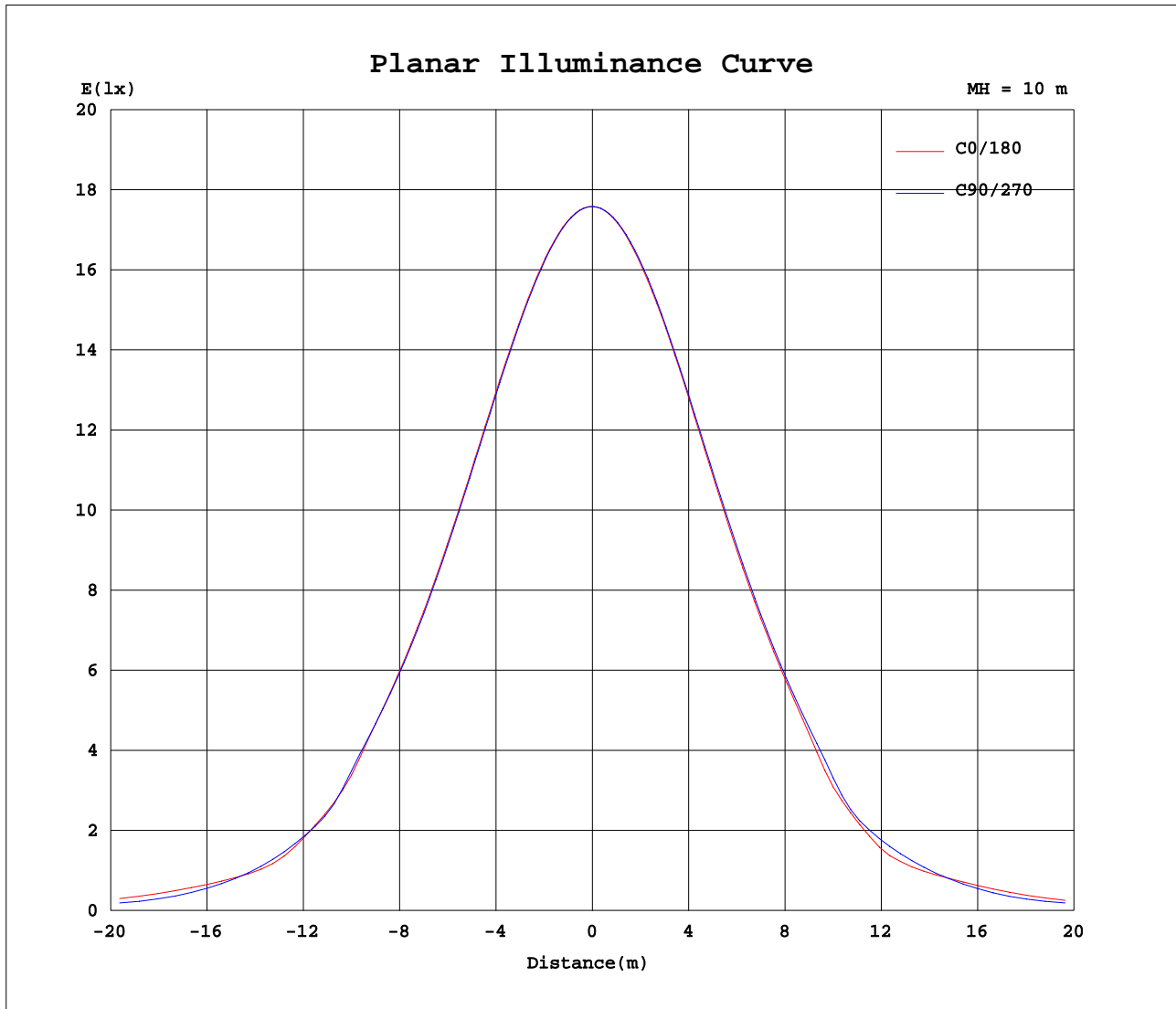
AvgL	cd/m2
L_0~180(65)av	2224
L_0~180(75)av	2215
L_0~180(85)av	2795
L_90~270(65)av	1660
L_90~270(75)av	2430
L_90~270(85)av	2792
L_45(65)av	2527
L_45(75)av	2094
L_45(85)av	2724

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-0813

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2024-0813

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity: 65.0%
Test Distance: 11.700m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

```