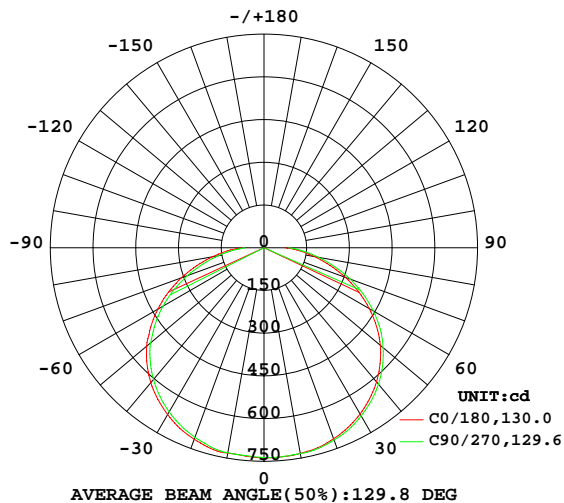


LUMINAIRE PHOTOMETRIC TEST REPORT

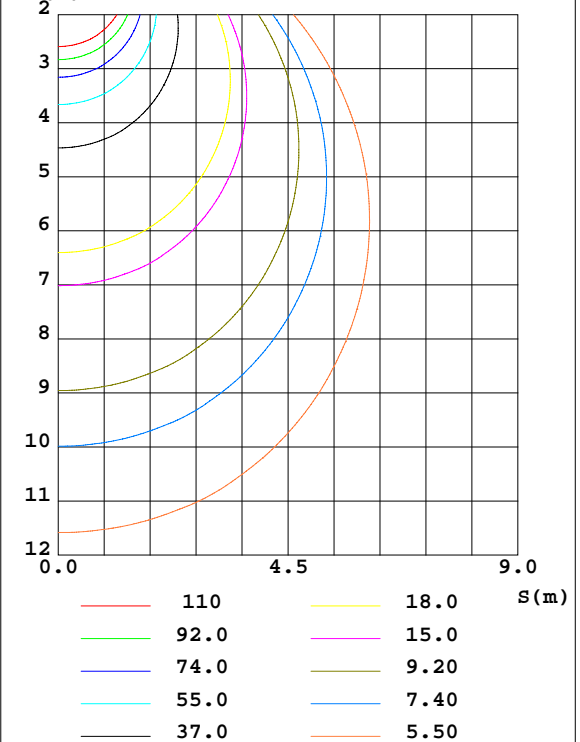
Test:U:229.70V I:0.1062A P:23.601W PF:0.9672 Freq:49.99Hz Lamp Flux:2632.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 111.55 lm/W			
MODEL		Imax(cd)	737.9	S/MH(C0/180)	1.36
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	1.34
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2632.8	η UP,DN(C0-180)	0.0,51.0
NOMINAL FLUX(lm)	2632.82	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	1.55

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:2025-04-20

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:

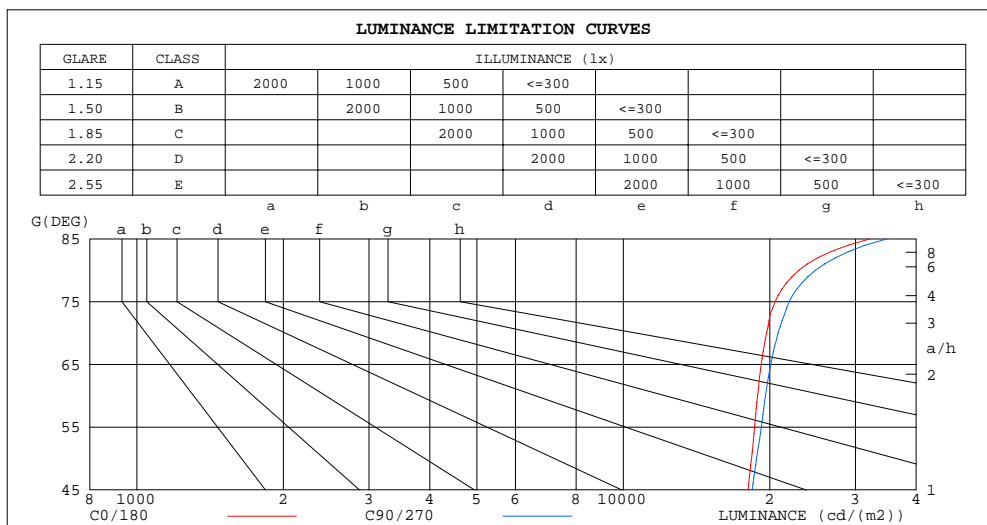
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	733.2	734.2	734.1	731.5	732.3	731.7	731.2	730.6	0- 10	70.04	70.04	2.66,2.66
20	713.9	718.1	718.5	718.3	715.7	710.1	708.5	709.4	10- 20	205.4	275.4	10.5,10.5
30	674.5	679.5	682.3	680.7	676.4	669.1	665.8	666.8	20- 30	321.6	597.0	22.7,22.7
40	614.7	621.4	625.2	623.4	618.1	609.0	603.6	604.3	30- 40	405.1	1002	38.1,38.1
50	533.4	541.5	545.8	543.7	537.9	525.0	519.5	520.5	40- 50	445.2	1447	55,55
60	426.8	437.4	442.9	440.3	430.1	415.5	409.2	410.9	50- 60	431.1	1878	71.3,71.3
70	304.7	315.6	321.8	318.8	308.1	291.7	285.3	288.3	60- 70	362.7	2241	85.1,85.1
80	180.3	189.4	195.0	192.1	184.2	169.3	164.0	167.0	70- 80	254.1	2495	94.8,94.8
90	73.30	81.99	86.73	82.59	77.66	70.97	67.60	68.32	80- 90	137.5	2633	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:2025-04-20

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:229.70V I:0.1062A P:23.601W PF:0.9672 Freq:49.99Hz Lamp Flux:2632.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:



LUMINANCE $\text{cd}/(\text{m}^2)$		
G(DEG)	C0/180	C90/270
85	32142	34852
80	22964	24839
75	20507	21918
70	19703	20809
65	19208	20099
60	18879	19592
55	18612	19213
50	18353	18782
45	18040	18408

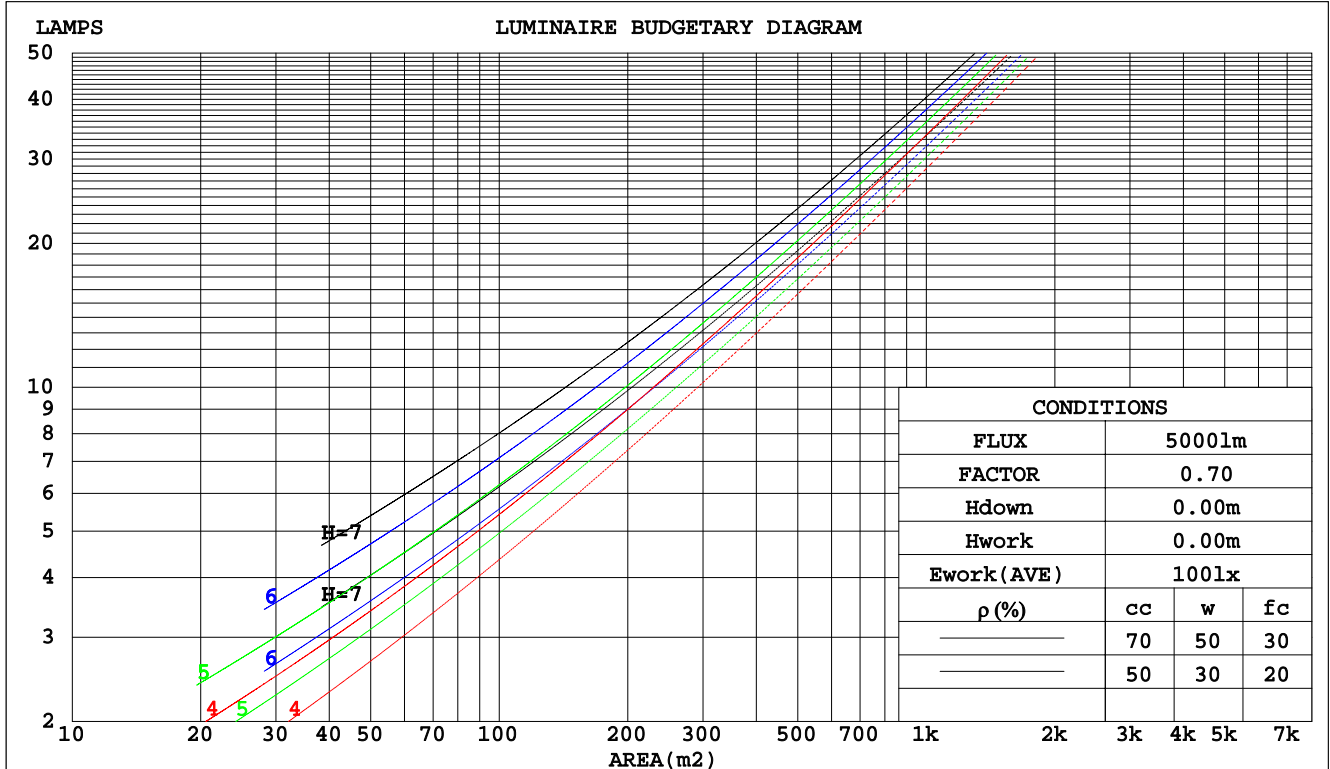
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2025-04-20

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:229.70V I:0.1062A P:23.601W PF:0.9672 Freq:49.99Hz Lamp Flux:2632.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	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	1.01	.96	.91	.99	.94	.90	.94	.91	.87	.90	.87	.84	.87	.84	.82	.80
2.0	.87	.79	.73	.85	.78	.72	.81	.75	.70	.78	.73	.68	.75	.71	.67	.64
3.0	.75	.66	.59	.74	.65	.59	.71	.64	.58	.68	.62	.57	.65	.60	.56	.53
4.0	.66	.57	.50	.65	.56	.49	.62	.55	.48	.60	.53	.48	.58	.52	.47	.45
5.0	.59	.49	.42	.58	.49	.42	.56	.48	.41	.53	.46	.41	.52	.45	.40	.38
6.0	.53	.43	.36	.52	.43	.36	.50	.42	.36	.48	.41	.36	.47	.40	.35	.33
7.0	.48	.38	.32	.47	.38	.32	.45	.37	.32	.44	.37	.31	.42	.36	.31	.29
8.0	.43	.34	.28	.43	.34	.28	.41	.34	.28	.40	.33	.28	.39	.32	.28	.26
9.0	.40	.31	.25	.39	.31	.25	.38	.30	.25	.37	.30	.25	.36	.29	.25	.23
10.0	.37	.28	.23	.36	.28	.23	.35	.28	.23	.34	.27	.23	.33	.27	.22	.21



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-04-20

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:229.70V I:0.1062A P:23.601W PF:0.9672 Freq:49.99Hz Lamp Flux:2632.82x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.: 240*240*80			SERIAL No.:		
MFR.: NLD25-0006-01			SUR.:3.14*0.12*0.12			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	.364	.207	.066	.357	.203	.065	.343	.197	.063	.331	.191	.061	.319	.185	.060	
2.0	.327	.179	.055	.320	.176	.054	.308	.171	.053	.297	.167	.052	.287	.162	.051	
3.0	.295	.157	.047	.290	.155	.047	.279	.151	.046	.269	.147	.045	.260	.144	.045	
4.0	.268	.139	.041	.263	.138	.041	.254	.135	.040	.245	.132	.040	.237	.129	.039	
5.0	.245	.125	.036	.241	.124	.036	.232	.121	.036	.225	.119	.035	.217	.116	.035	
6.0	.226	.113	.032	.222	.112	.032	.214	.110	.032	.207	.108	.032	.201	.106	.031	
7.0	.209	.103	.029	.205	.102	.029	.198	.100	.029	.192	.099	.029	.186	.097	.028	
8.0	.194	.095	.027	.191	.094	.027	.185	.092	.026	.179	.091	.026	.174	.089	.026	
9.0	.181	.087	.024	.178	.087	.024	.173	.085	.024	.168	.084	.024	.163	.083	.024	
10.0	.169	.081	.023	.167	.081	.022	.162	.079	.022	.158	.078	.022	.153	.077	.022	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.184	.156	.130	.157	.134	.112	.108	.092	.077	.062	.053	.045	.020	.017	.015	
2.0	.177	.132	.094	.152	.113	.081	.104	.078	.057	.060	.046	.033	.019	.015	.011	
3.0	.169	.114	.071	.145	.099	.061	.100	.069	.043	.058	.040	.025	.018	.013	.008	
4.0	.162	.101	.055	.139	.088	.048	.095	.061	.034	.055	.036	.020	.018	.012	.007	
5.0	.154	.091	.045	.132	.079	.039	.091	.055	.028	.053	.032	.016	.017	.011	.005	
6.0	.146	.083	.037	.126	.072	.033	.087	.050	.023	.050	.030	.014	.016	.010	.005	
7.0	.139	.076	.032	.120	.066	.028	.083	.046	.020	.048	.027	.012	.016	.009	.004	
8.0	.132	.070	.028	.114	.061	.024	.079	.043	.017	.046	.025	.010	.015	.008	.003	
9.0	.126	.065	.024	.108	.057	.021	.075	.040	.015	.044	.024	.009	.014	.008	.003	
10.0	.120	.061	.022	.103	.053	.019	.072	.037	.014	.042	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-04-20

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:229.70V I:0.1062A P:23.601W PF:0.9672 Freq:49.99Hz Lamp Flux:2632.82x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 240*240*80			SERIAL No.:			
MFR.: NLD25-0006-01					SUR.:3.14*0.12*0.12			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	2H	23.2	24.8	23.5	25.0	25.2	23.3	24.9	23.6	25.1	25.3
	3H	25.1	26.6	25.4	26.9	27.1	25.3	26.8	25.6	27.0	27.3
	4H	26.0	27.4	26.3	27.7	28.0	26.2	27.7	26.6	27.9	28.2
	6H	26.9	28.2	27.2	28.5	28.8	27.1	28.5	27.5	28.8	29.1
	8H	27.3	28.6	27.6	28.9	29.2	27.6	28.9	27.9	29.2	29.5
	12H	27.7	29.0	28.0	29.3	29.6	28.0	29.3	28.4	29.6	29.9
4H	2H	23.9	25.4	24.3	25.6	25.9	24.0	25.5	24.4	25.7	26.0
	3H	26.1	27.3	26.4	27.6	28.0	26.2	27.5	26.6	27.8	28.1
	4H	27.1	28.3	27.5	28.6	29.0	27.3	28.5	27.7	28.8	29.2
	6H	28.1	29.2	28.6	29.6	29.9	28.4	29.4	28.8	29.8	30.2
	8H	28.6	29.6	29.1	30.0	30.4	28.9	29.9	29.3	30.3	30.7
	12H	29.2	30.1	29.6	30.5	30.9	29.5	30.4	29.9	30.8	31.2
8H	4H	27.6	28.6	28.0	28.9	29.3	27.7	28.7	28.2	29.1	29.5
	6H	28.8	29.7	29.3	30.1	30.5	29.1	29.9	29.5	30.3	30.7
	8H	29.5	30.2	30.0	30.7	31.1	29.7	30.5	30.2	30.9	31.4
	12H	30.2	30.9	30.7	31.3	31.8	30.5	31.1	31.0	31.6	32.1
12H	4H	27.7	28.6	28.1	29.0	29.4	27.8	28.7	28.2	29.1	29.5
	6H	29.0	29.8	29.5	30.2	30.6	29.2	30.0	29.7	30.4	30.8
	8H	29.8	30.4	30.2	30.9	31.3	30.0	30.6	30.5	31.1	31.6
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.4					

CIE Pub.117, 2633 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 3.4$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-04-20

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:229.70V I:0.1062A P:23.601W PF:0.9672 Freq:49.99Hz Lamp Flux:2632.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:

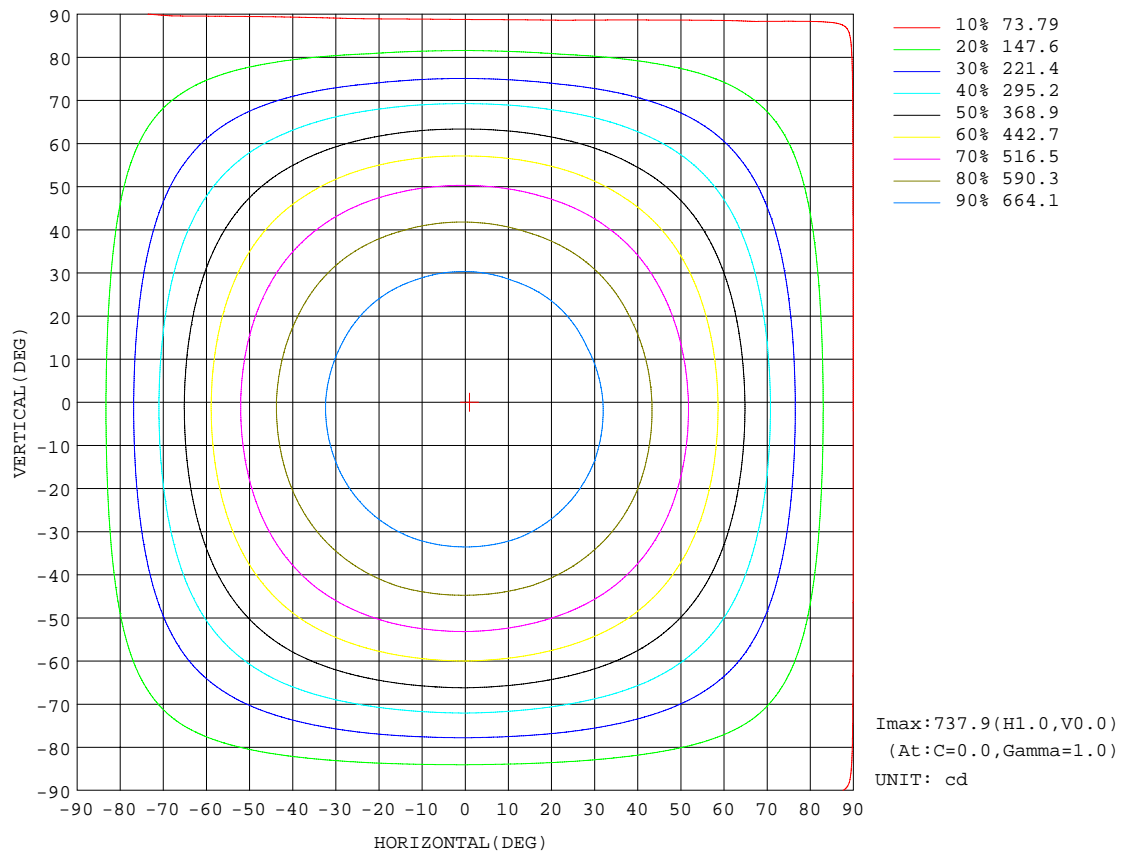
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	54	42	34	53	41	34	52	41	34	27
0.80	64	51	43	63	51	43	61	50	43	35
1.00	72	60	52	71	59	52	68	61	51	44
1.25	79	68	60	78	67	59	75	65	59	51
1.50	84	73	66	83	72	65	79	71	64	56
2.00	92	82	75	90	81	74	86	78	72	64
2.50	96	87	80	94	86	79	90	83	77	68
3.00	99	91	85	97	90	84	93	87	82	73
4.00	104	97	92	101	95	90	97	92	88	78
5.00	107	101	96	104	99	94	99	95	91	82
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:2025-04-20

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:229.70V I:0.1062A P:23.601W PF:0.9672 Freq:49.99Hz Lamp Flux:2632.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:

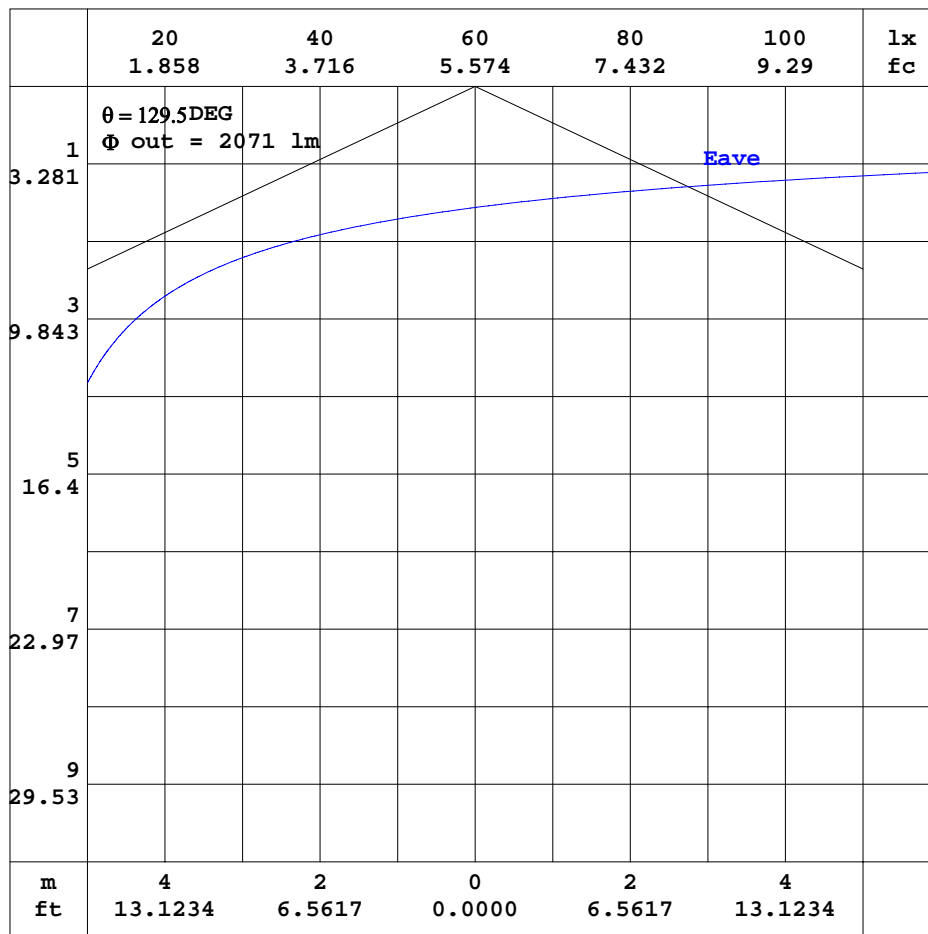


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-04-20

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 CURVES

Test:U:229.70V I:0.1062A P:23.601W PF:0.9672 Freq:49.99Hz Lamp Flux:2632.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:



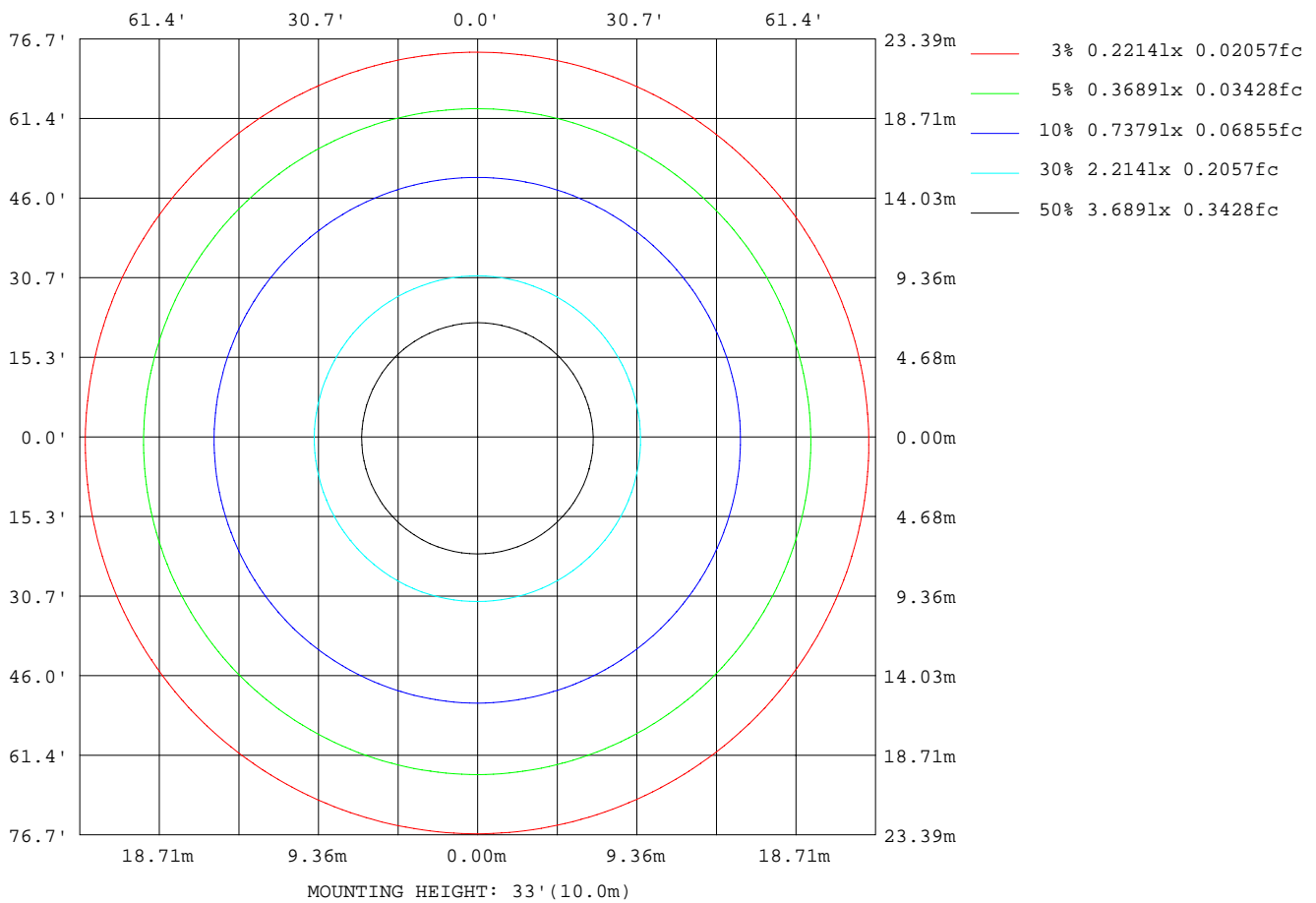
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2025-04-20

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:229.70V I:0.1062A P:23.601W PF:0.9672 Freq:49.99Hz Lamp Flux:2632.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2025-04-20

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:229.70V I:0.1062A P:23.601W PF:0.9672 Freq:49.99Hz Lamp Flux:2632.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:

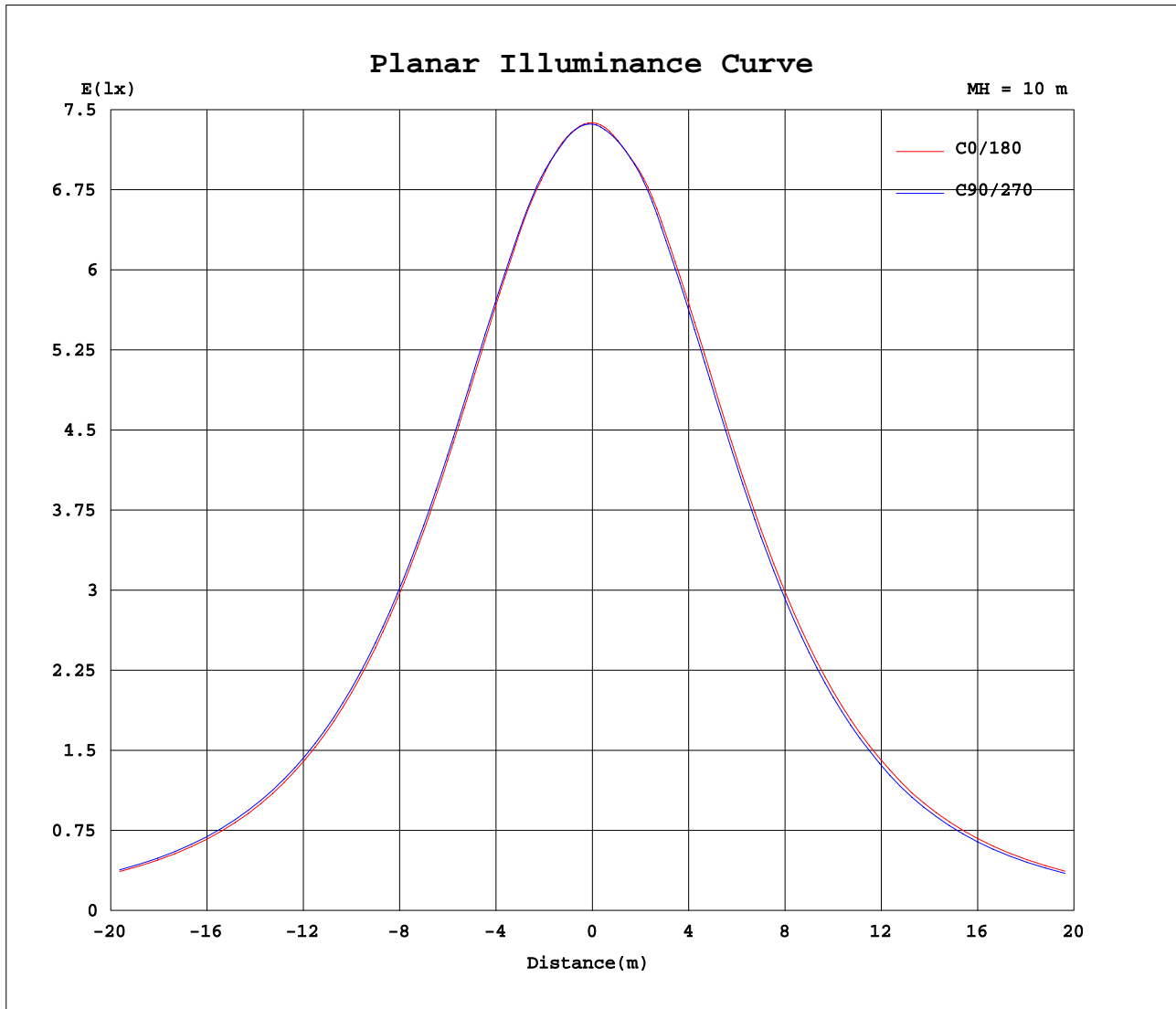
AvgL	cd/m2
L_0~180(65)av	19301
L_0~180(75)av	20712
L_0~180(85)av	32550
L_90~270(65)av	19163
L_90~270(75)av	20458
L_90~270(85)av	31460
L_45(65)av	19167
L_45(75)av	20471
L_45(85)av	31878

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-04-20

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: 2025-04-20

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:

```