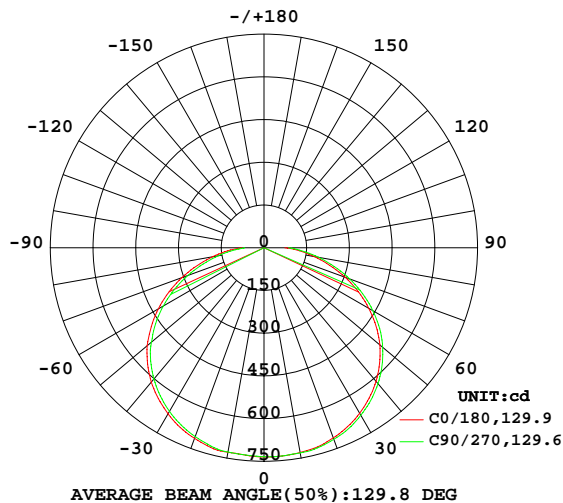


LUMINAIRE PHOTOMETRIC TEST REPORT

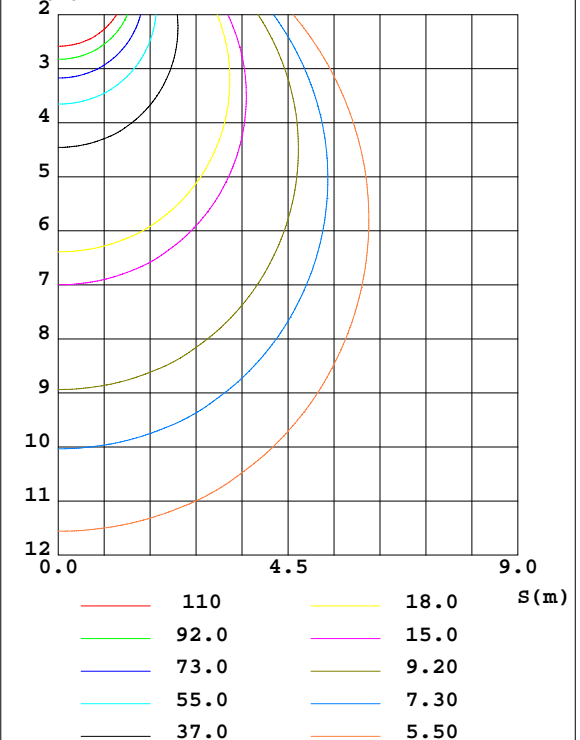
Test:U:229.70V I:0.1060A P:23.560W PF:0.9673 Freq:49.99Hz Lamp Flux:2622.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 111.32 lm/W			
MODEL		Imax(cd)	734.8	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)	2622.8	η UP,DN(C0-180)	0.0,51.0
NOMINAL FLUX(lm)	2622.78	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:

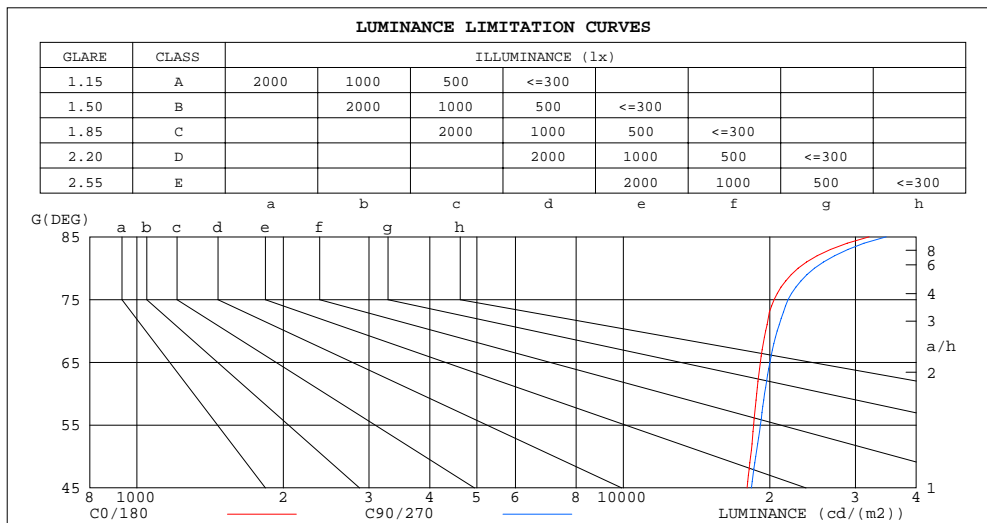
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	730.2	731.3	731.4	729.3	729.3	729.0	728.4	728.3	0- 10	69.78	69.78	2.66,2.66
20	710.7	715.2	716.0	716.0	712.6	707.1	706.0	707.2	10- 20	204.6	274.4	10.5,10.5
30	671.6	677.0	679.8	678.3	673.4	666.4	663.6	664.6	20- 30	320.4	594.8	22.7,22.7
40	612.0	619.0	622.9	621.1	615.4	606.5	601.5	602.4	30- 40	403.6	998.4	38.1,38.1
50	531.0	539.2	543.6	541.9	535.5	523.0	515.7	519.4	40- 50	443.5	1442	55,55
60	424.9	435.7	441.0	438.8	427.9	413.8	407.9	409.8	50- 60	429.4	1871	71.3,71.3
70	303.3	314.4	320.4	317.5	306.5	290.5	284.3	287.4	60- 70	361.3	2233	85.1,85.1
80	179.6	188.5	194.1	191.3	183.2	168.6	163.6	166.6	70- 80	253.2	2486	94.8,94.8
90	73.07	81.61	86.23	82.21	77.24	70.70	67.42	68.17	80- 90	137.0	2623	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:0.1060A P:23.560W PF:0.9673 Freq:49.99Hz Lamp Flux:2622.78x1 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 cd/(m2)		
G(DEG)	C0/180	C90/270
85	32006	34703
80	22876	24720
75	20426	21809
70	19616	20719
65	19127	20015
60	18796	19510
55	18533	19136
50	18272	18707
45	17960	18332

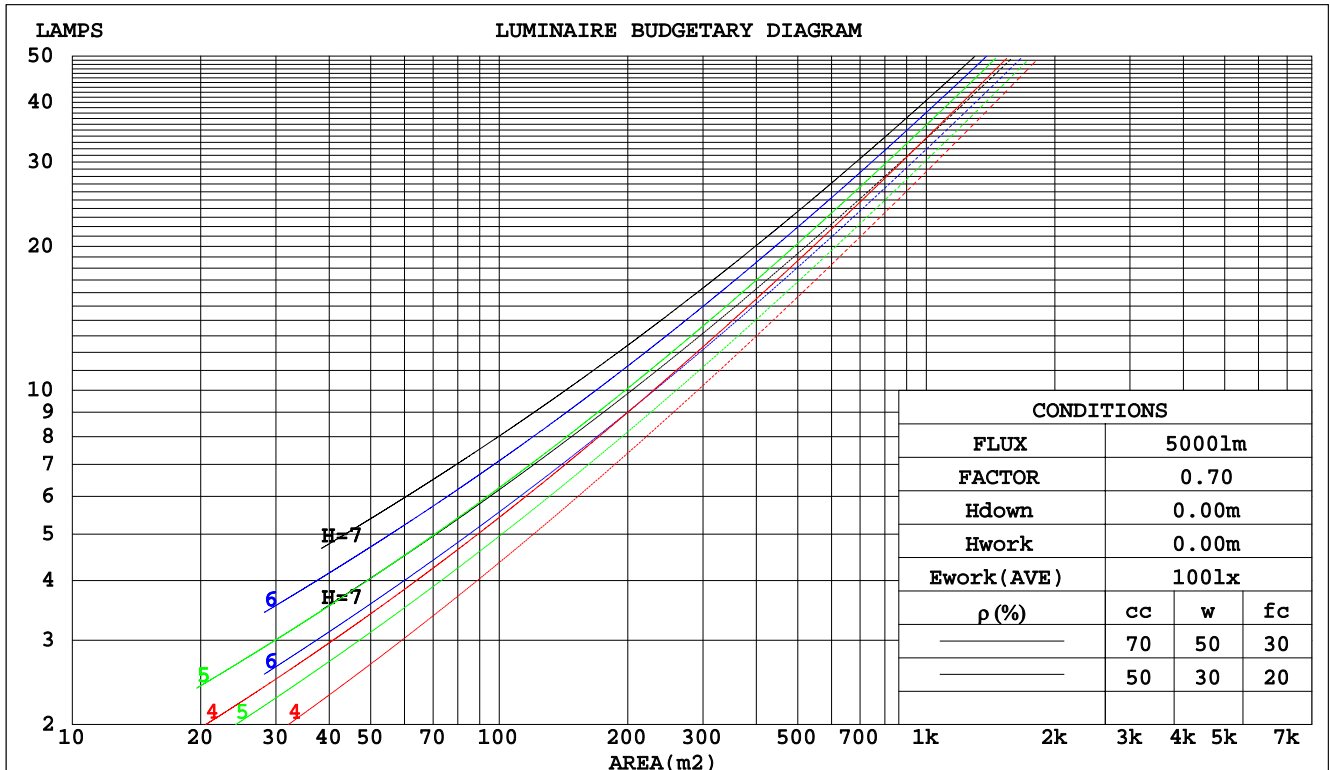
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-04-20

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:0.1060A P:23.560W PF:0.9673 Freq:49.99Hz Lamp Flux:2622.78x1 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	.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:0.1060A P:23.560W PF:0.9673 Freq:49.99Hz Lamp Flux:2622.78x1 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	.118	.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:0.1060A P:23.560W PF:0.9673 Freq:49.99Hz Lamp Flux:2622.78x1 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	23.4	25.0	25.2	23.3	24.9	23.6	25.1	25.3
	3H	25.1	26.6	25.4	26.8	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	26.8	28.2	27.2	28.5	28.8	27.1	28.5	27.5	28.8	29.1
	8H	27.2	28.6	27.6	28.9	29.2	27.6	28.9	27.9	29.2	29.5
	12H	27.7	28.9	28.0	29.2	29.6	28.0	29.3	28.4	29.6	29.9
4H	2H	23.9	25.4	24.2	25.6	25.9	24.0	25.5	24.3	25.7	26.0
	3H	26.1	27.3	26.4	27.6	27.9	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	29.1
	6H	28.1	29.2	28.5	29.5	29.9	28.4	29.4	28.8	29.8	30.2
	8H	28.6	29.6	29.0	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	28.5	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	29.0	29.9	29.5	30.3	30.7
	8H	29.5	30.2	29.9	30.7	31.1	29.7	30.5	30.2	30.9	31.3
	12H	30.2	30.8	30.7	31.3	31.8	30.5	31.1	30.9	31.6	32.0
12H	4H	27.6	28.6	28.1	28.9	29.4	27.8	28.7	28.2	29.1	29.5
	6H	29.0	29.7	29.5	30.2	30.6	29.2	29.9	29.7	30.4	30.8
	8H	29.7	30.4	30.2	30.8	31.3	30.0	30.6	30.4	31.1	31.5
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, 2623 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:0.1060A P:23.560W PF:0.9673 Freq:49.99Hz Lamp Flux:2622.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:

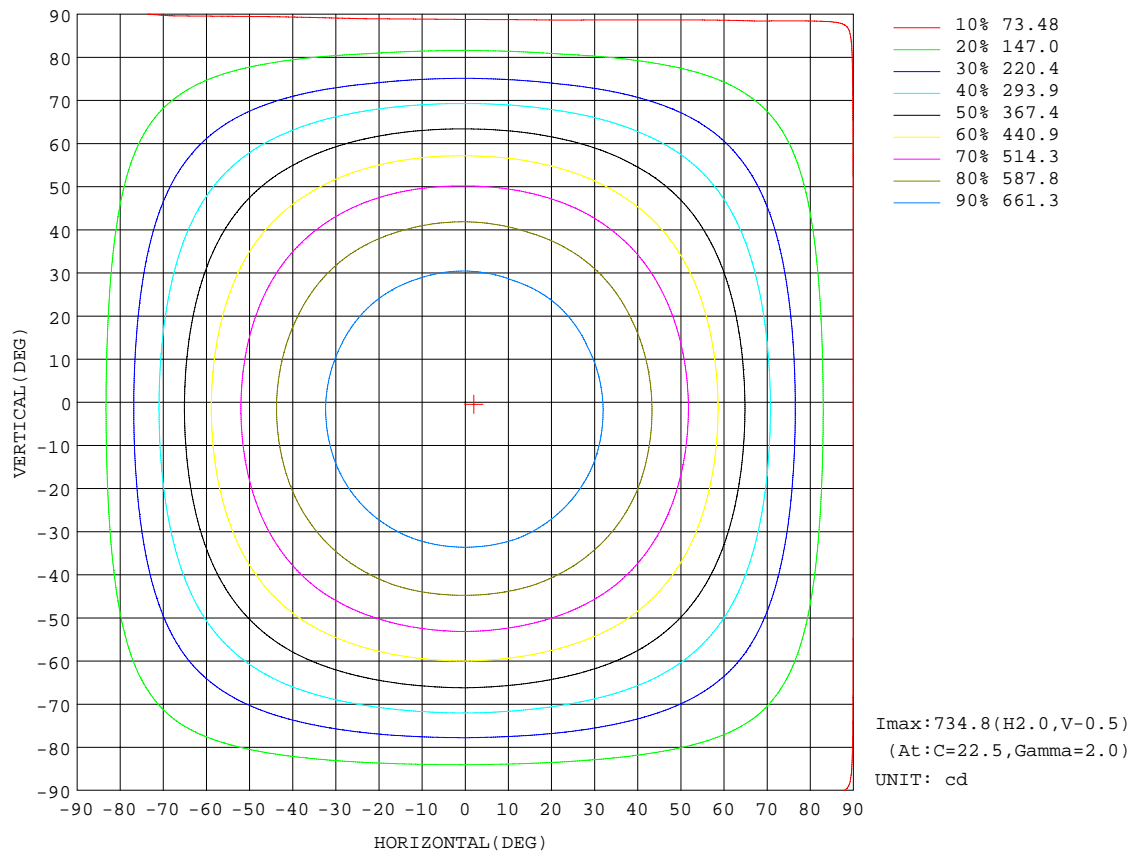
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	54	42	34	53	41	34	52	41	34	27
0.80	64	51	43	63	51	43	61	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:0.1060A P:23.560W PF:0.9673 Freq:49.99Hz Lamp Flux:2622.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:

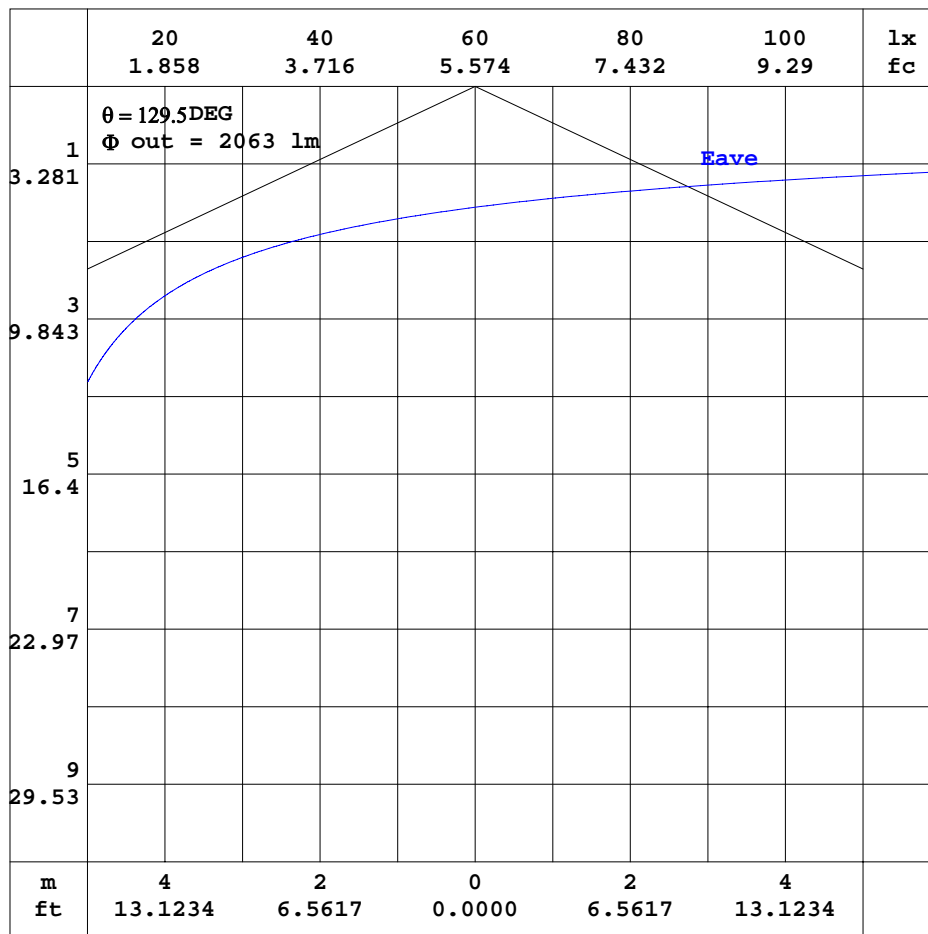


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-04-20

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:0.1060A P:23.560W PF:0.9673 Freq:49.99Hz Lamp Flux:2622.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:



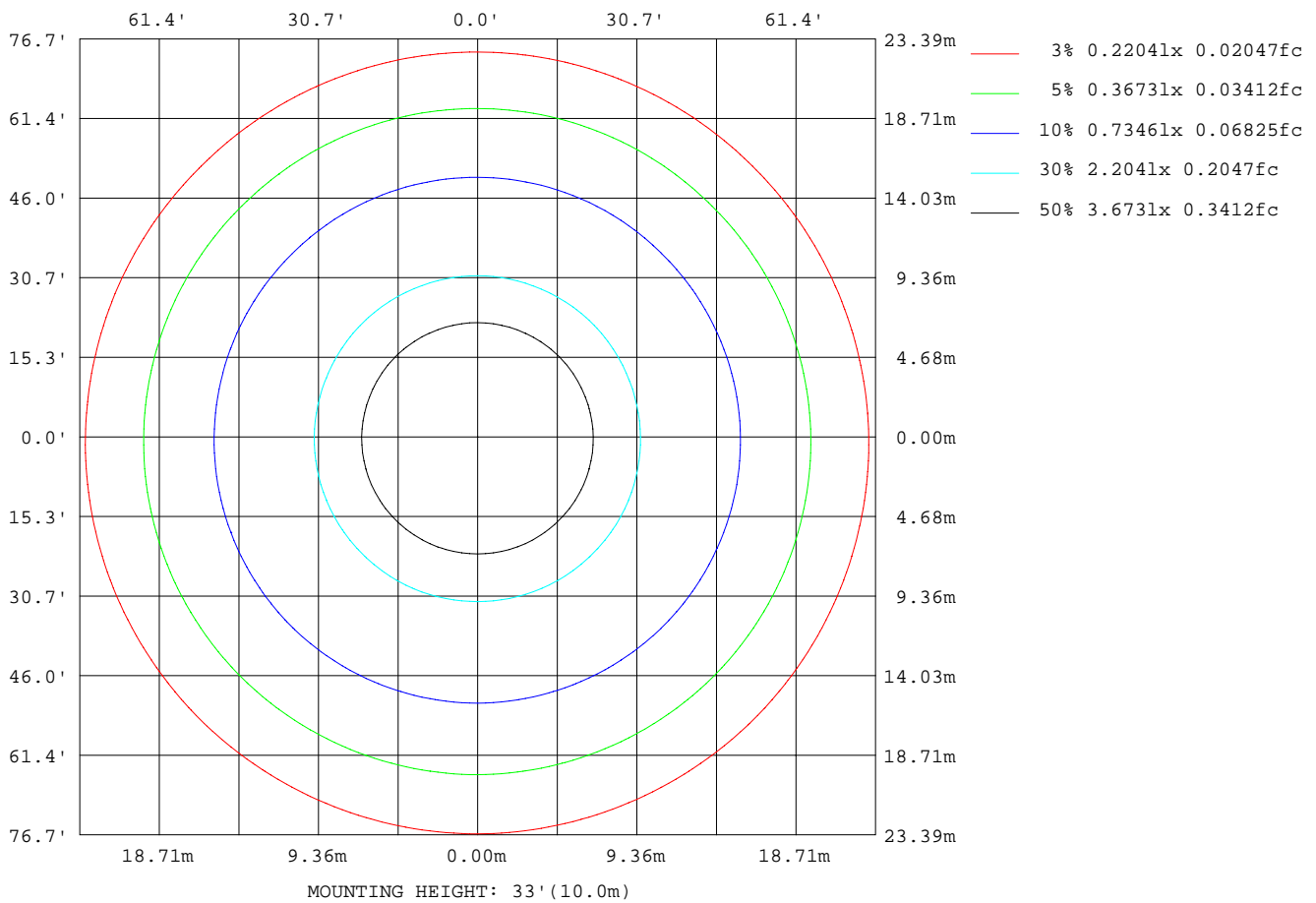
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1060A P:23.560W PF:0.9673 Freq:49.99Hz Lamp Flux:2622.78x1 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:0.1060A P:23.560W PF:0.9673 Freq:49.99Hz Lamp Flux:2622.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 240*240*80	SERIAL No.:
MFR.: NLD25-0006-01	SUR.:3.14*0.12*0.12	Shielding Angle:

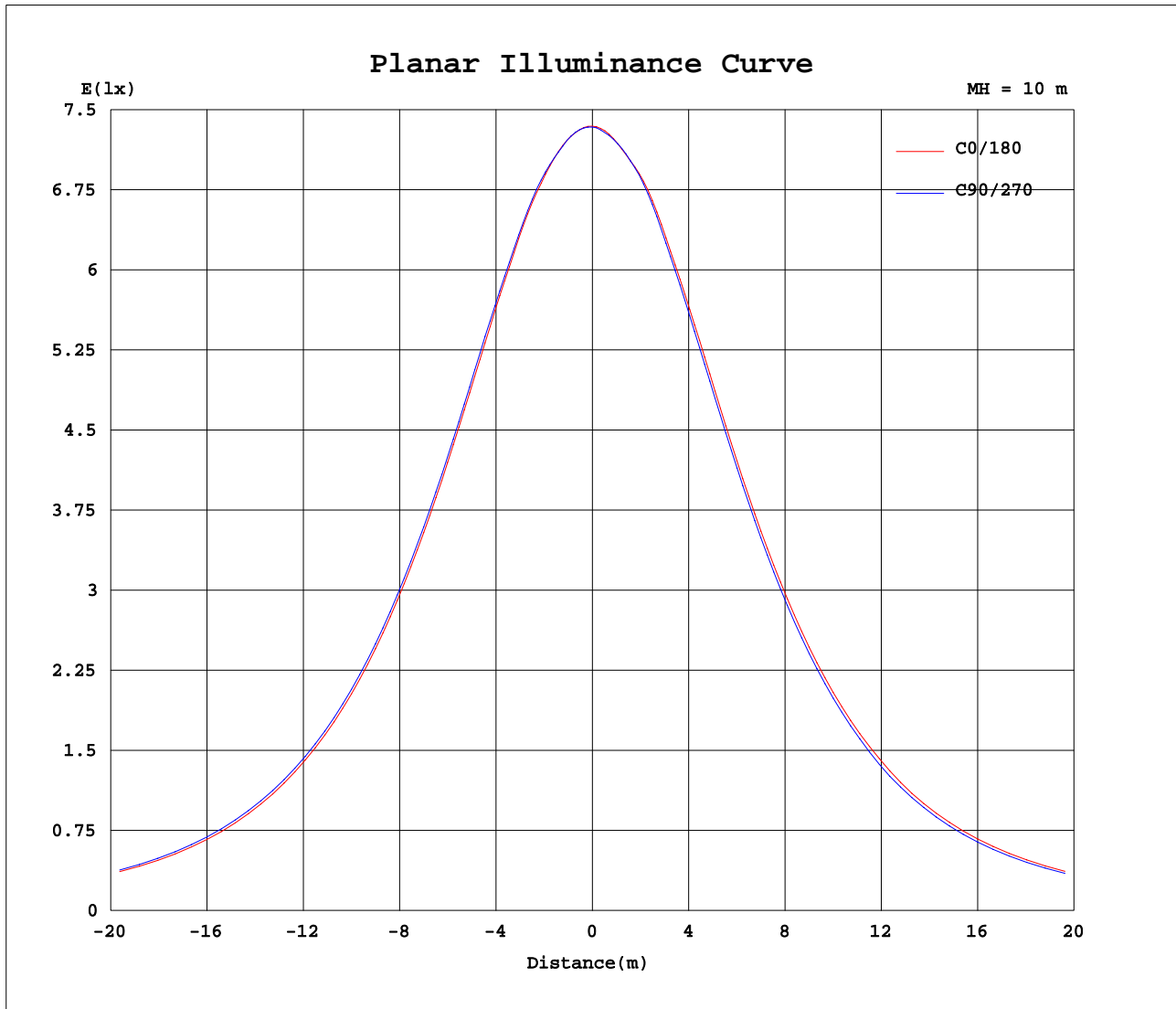
AvgL	cd/m2
L_0~180(65)av	19209
L_0~180(75)av	20614
L_0~180(85)av	32390
L_90~270(65)av	19094
L_90~270(75)av	20377
L_90~270(85)av	31359
L_45(65)av	19099
L_45(75)av	20387
L_45(85)av	31765

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:

```