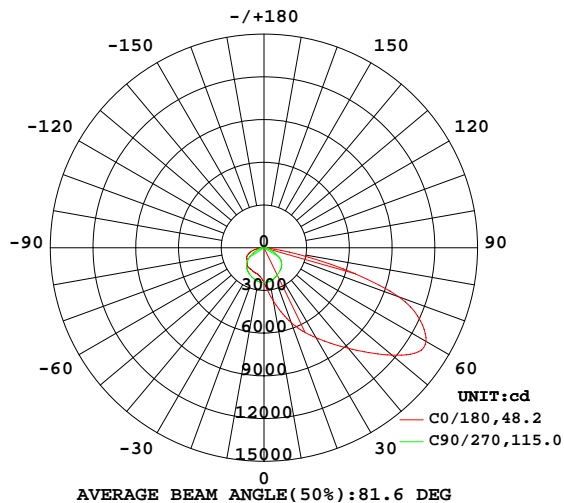


## LUMINAIRE PHOTOMETRIC TEST REPORT

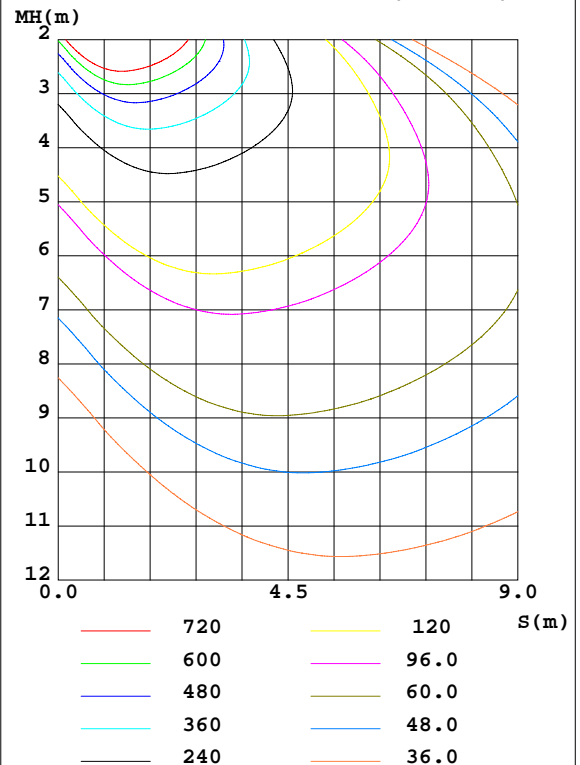
Test:U:229.58V I:0.7965A P:181.60W PF:0.9931 Freq:49.99Hz Lamp Flux:13954.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1035*160*45	SERIAL No.:
MFR.: NLD26-002-01	SUR.:0.98*0.073	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 76.84 lm/W			
MODEL		Imax(cd)	13230	S/MH(C0/180)	1.08
NOMINAL POWER(W)	190	LOR(%)	100.0	S/MH(C90/270)	1.27
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	13954	$\eta$ UP,DN(C0-180)	0.0,59.6
NOMINAL FLUX(lm)	13954.2	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,40.4
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	230.0	$\eta$ down(%)	100.0	CIBSE SHR MAX	1.15

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:2026-04-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:

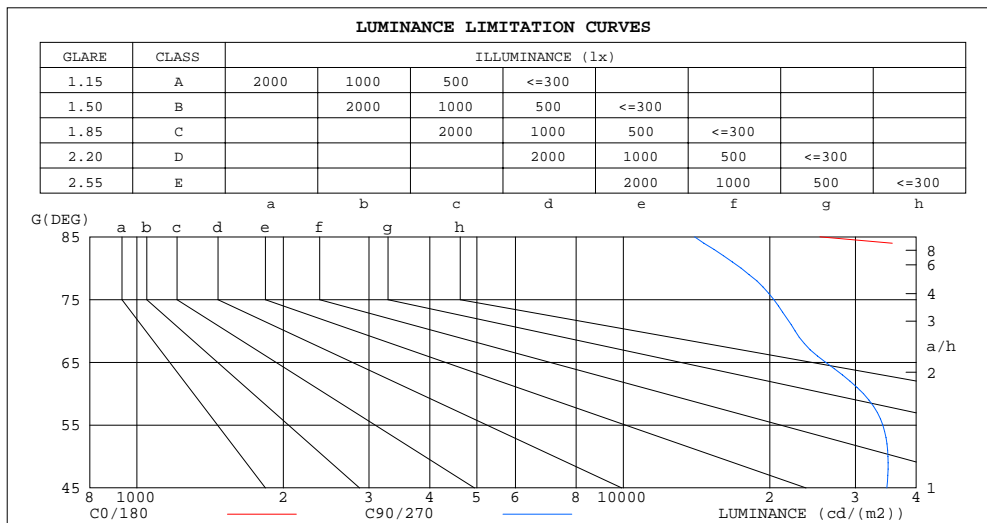
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\%lum, lamp$
10	378.5	331.0	240.2	202.8	198.1	204.4	240.2	328.8	0- 10	244.2	244.2	1.75,1.75
20	558.7	438.5	224.6	184.9	186.3	187.5	226.6	437.1	10- 20	813.3	1057	7.58,7.58
30	728.7	530.1	205.5	175.4	178.8	178.6	209.0	526.1	20- 30	1509	2566	18.4,18.4
40	922.3	538.1	187.5	157.0	176.2	158.6	187.9	523.6	30- 40	2202	4768	34.2,34.2
50	1173	430.6	161.0	130.4	153.7	129.4	155.9	406.8	40- 50	2714	7482	53.6,53.6
60	1313	270.0	111.5	101.7	141.7	99.45	104.2	254.6	50- 60	2876	10358	74.2,74.2
70	1004	115.0	55.16	73.32	110.3	70.68	51.19	106.8	60- 70	2308	12666	90.8,90.8
80	181.0	29.26	21.69	40.70	55.28	37.64	19.17	25.40	70- 80	1093	13758	98.6,98.6
90	1.413	1.332	1.694	9.824	10.77	7.966	1.273	1.151	80- 90	195.9	13954	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:×10cd									UNIT:lm		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2026-04-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:229.58V I:0.7965A P:181.60W PF:0.9931 Freq:49.99Hz Lamp Flux:13954.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1035*160*45	SERIAL No.:
MFR.: NLD26-002-01	SUR.:0.98*0.073	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	25355	14008
80	145660	17463
75	311508	20382
70	410491	22544
65	400602	26055
60	367157	31158
55	314866	34149
50	255120	35003
45	205954	34818

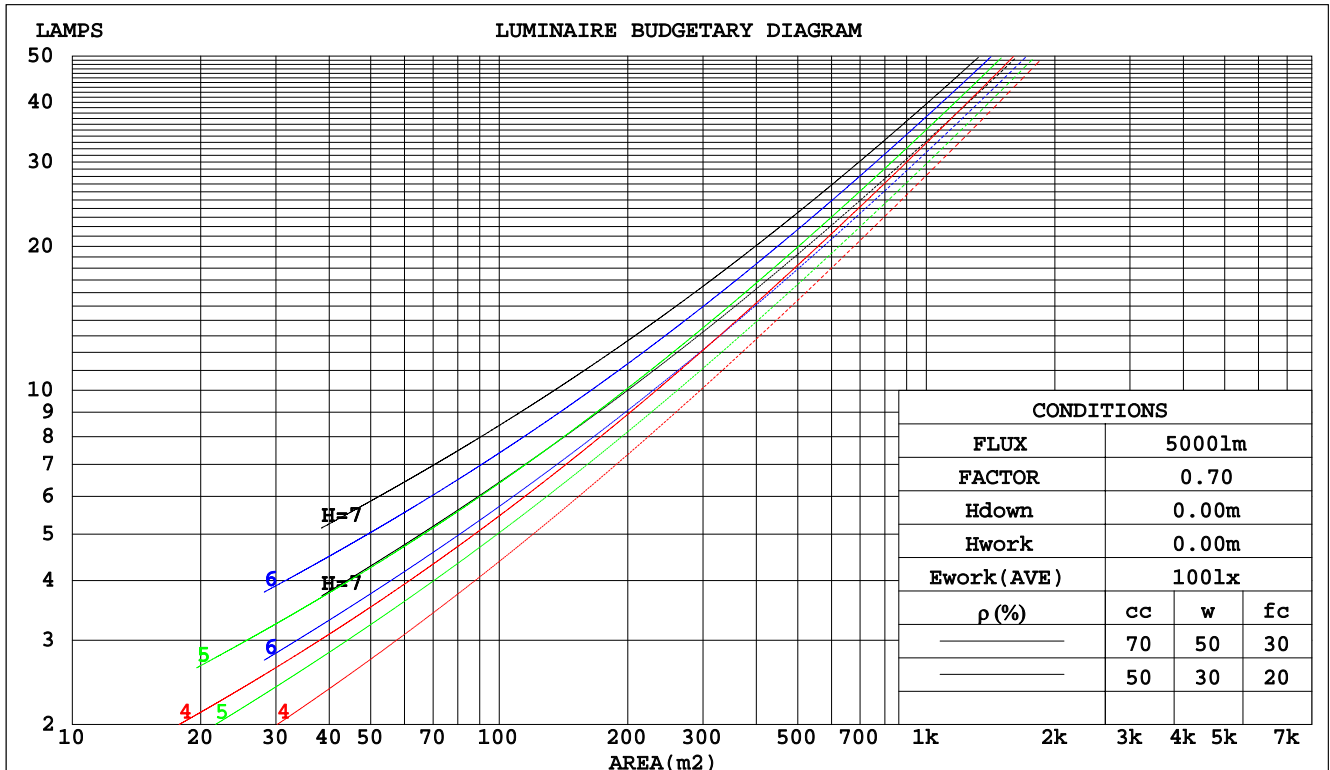
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2026-04-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:229.58V I:0.7965A P:181.60W PF:0.9931 Freq:49.99Hz Lamp Flux:13954.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1035*160*45	SERIAL No.:
MFR.: NLD26-002-01	SUR.:0.98*0.073	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	1.03	.98	.94	1.01	.96	.93	.96	.93	.90	.92	.89	.87	.89	.86	.84	.82
2.0	.88	.81	.74	.86	.79	.74	.83	.77	.72	.79	.74	.70	.76	.72	.68	.66
3.0	.76	.67	.60	.74	.66	.59	.71	.64	.58	.68	.62	.57	.66	.61	.56	.54
4.0	.66	.57	.49	.65	.56	.49	.62	.54	.48	.60	.53	.47	.57	.52	.47	.44
5.0	.58	.48	.41	.57	.48	.41	.55	.47	.40	.53	.46	.40	.51	.45	.40	.37
6.0	.52	.42	.35	.51	.41	.35	.49	.41	.34	.47	.40	.34	.45	.39	.34	.32
7.0	.46	.37	.30	.45	.36	.30	.44	.36	.30	.42	.35	.30	.41	.34	.29	.27
8.0	.42	.33	.26	.41	.32	.26	.40	.32	.26	.38	.31	.26	.37	.30	.26	.24
9.0	.38	.29	.23	.37	.29	.23	.36	.28	.23	.35	.28	.23	.34	.27	.23	.21
10.0	.35	.26	.21	.34	.26	.21	.33	.26	.20	.32	.25	.20	.31	.25	.20	.18



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2026-04-23

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:229.58V I:0.7965A P:181.60W PF:0.9931 Freq:49.99Hz Lamp Flux:13954.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1035*160*45	SERIAL No.:
MFR.: NLD26-002-01	SUR.:0.98*0.073	Shielding Angle:

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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.330	.188	.059	.323	.184	.058	.309	.178	.057	.297	.171	.055	.286	.166	.053		
2.0	.315	.172	.053	.308	.170	.052	.296	.165	.051	.285	.160	.050	.275	.156	.049		
3.0	.292	.155	.047	.286	.153	.046	.276	.149	.045	.266	.146	.045	.257	.142	.044		
4.0	.269	.140	.041	.264	.138	.041	.255	.135	.040	.246	.132	.040	.238	.129	.039		
5.0	.248	.126	.037	.244	.125	.036	.235	.122	.036	.227	.120	.036	.220	.118	.035		
6.0	.229	.115	.033	.225	.114	.033	.218	.112	.032	.211	.110	.032	.204	.108	.032		
7.0	.213	.105	.030	.209	.104	.030	.202	.102	.029	.196	.101	.029	.190	.099	.029		
8.0	.198	.097	.027	.195	.096	.027	.189	.094	.027	.183	.093	.027	.178	.091	.027		
9.0	.185	.089	.025	.182	.089	.025	.177	.087	.025	.171	.086	.025	.167	.085	.024		
10.0	.173	.083	.023	.171	.082	.023	.166	.081	.023	.161	.080	.023	.157	.079	.023		

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	.182	.156	.133	.155	.134	.114	.106	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.175	.132	.095	.150	.113	.082	.103	.078	.057	.059	.046	.034	.019	.015	.011	
3.0	.169	.114	.071	.145	.099	.062	.099	.069	.043	.057	.040	.026	.018	.013	.008	
4.0	.162	.101	.055	.139	.088	.048	.095	.061	.034	.055	.036	.020	.018	.012	.007	
5.0	.155	.091	.045	.133	.079	.039	.091	.055	.027	.053	.032	.016	.017	.011	.005	
6.0	.148	.083	.037	.127	.072	.032	.087	.050	.023	.051	.030	.014	.016	.010	.004	
7.0	.141	.076	.031	.121	.066	.027	.084	.046	.019	.049	.027	.012	.016	.009	.004	
8.0	.134	.071	.027	.115	.061	.024	.080	.043	.017	.046	.025	.010	.015	.008	.003	
9.0	.128	.066	.024	.110	.057	.021	.076	.040	.015	.044	.024	.009	.014	.008	.003	
10.0	.122	.061	.021	.105	.053	.019	.073	.038	.013	.042	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2026-04-23

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:229.58V I:0.7965A P:181.60W PF:0.9931 Freq:49.99Hz Lamp Flux:13954.2x1 lm											
NAME:			TYPE:			WEIGHT:					
SPEC.:			DIM.: 1035*160*45			SERIAL No.:					
MFR.: NLD26-002-01			SUR.:0.98*0.073			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		36.5	38.2	36.8	38.4	38.6	25.9	27.6	26.2	27.8	28.0
	3H	39.1	40.7	39.5	40.9	41.2	26.3	27.9	26.6	28.1	28.4
	4H	39.9	41.4	40.2	41.6	41.9	26.5	28.0	26.8	28.2	28.5
	6H	40.1	41.5	40.5	41.8	42.1	26.6	28.0	26.9	28.2	28.5
	8H	40.1	41.4	40.4	41.7	42.0	26.6	27.9	27.0	28.2	28.5
	12H	40.0	41.3	40.4	41.6	41.9	26.6	27.9	27.0	28.2	28.5
4H	2H	36.3	37.8	36.7	38.1	38.3	28.3	29.7	28.6	30.0	30.2
	3H	39.0	40.3	39.4	40.6	40.9	28.6	29.8	28.9	30.1	30.5
	4H	39.8	41.0	40.2	41.3	41.7	28.7	29.9	29.1	30.2	30.5
	6H	40.1	41.1	40.5	41.5	41.9	28.8	29.8	29.2	30.2	30.6
	8H	40.1	41.1	40.5	41.4	41.8	28.8	29.8	29.2	30.2	30.5
	12H	40.1	40.9	40.5	41.3	41.7	28.8	29.7	29.3	30.1	30.5
8H	4H	39.7	40.7	40.1	41.0	41.4	29.4	30.3	29.8	30.7	31.1
	6H	40.0	40.8	40.5	41.2	41.6	29.5	30.3	30.0	30.7	31.1
	8H	40.0	40.7	40.5	41.1	41.6	29.6	30.3	30.0	30.7	31.1
	12H	40.0	40.6	40.5	41.0	41.5	29.6	30.2	30.1	30.7	31.1
12H	4H	39.7	40.6	40.1	40.9	41.4	29.4	30.3	29.8	30.6	31.1
	6H	40.0	40.7	40.4	41.1	41.6	29.5	30.3	30.0	30.7	31.1
	8H	40.0	40.6	40.5	41.0	41.5	29.6	30.2	30.1	30.7	31.1
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.7 / - 0.9					
1.5H	+ 0.9 / - 0.9					+ 0.4 / - 0.6					
2.0H	+ 2.0 / - 2.6					+ 1.2 / - 1.8					

CIE Pub.117, 13954 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 9.2)

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2026-04-23

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:229.58V I:0.7965A P:181.60W PF:0.9931 Freq:49.99Hz Lamp Flux:13954.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1035*160*45	SERIAL No.:
MFR.: NLD26-002-01	SUR.:0.98*0.073	Shielding Angle:

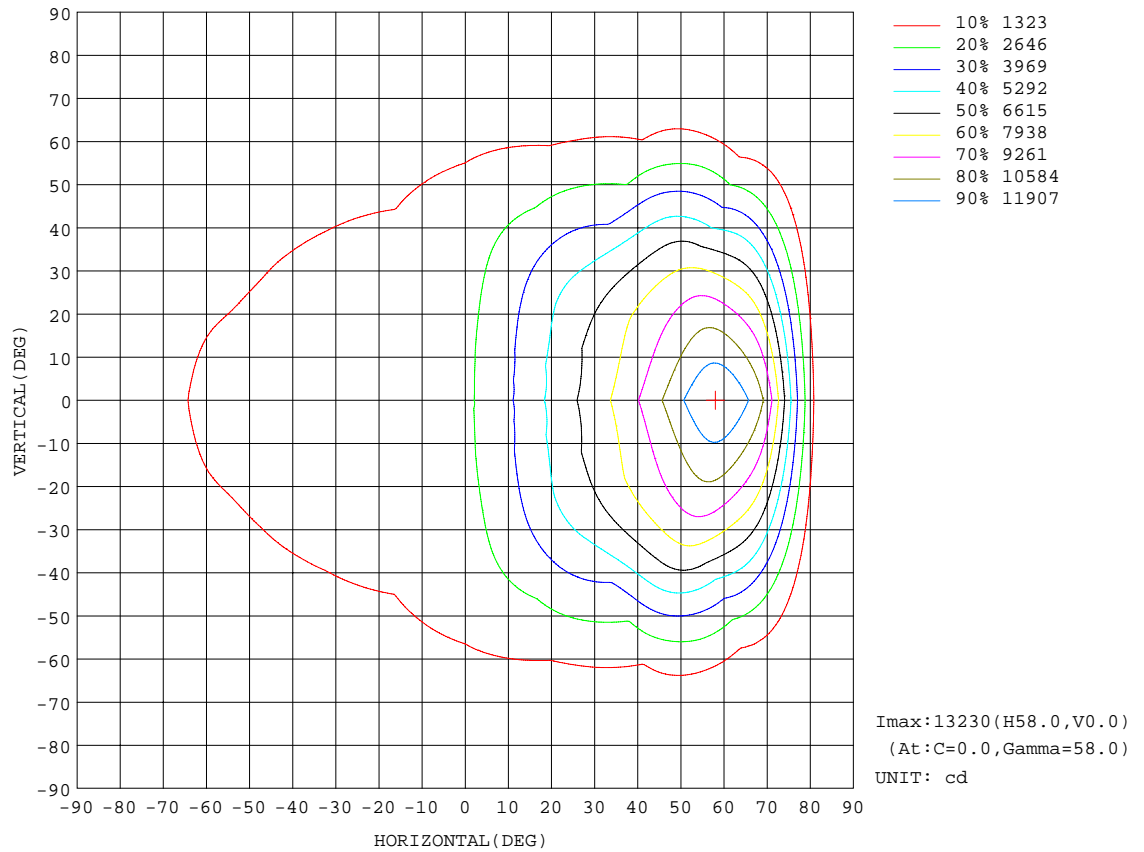
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	51	38	31	50	38	31	49	38	30	23
0.80	62	49	41	61	48	40	59	48	40	32
1.00	71	59	50	70	58	50	67	60	50	42
1.25	79	67	59	77	66	59	74	65	58	50
1.50	84	73	65	83	72	65	79	71	64	56
2.00	92	83	76	90	81	75	87	79	73	65
2.50	97	88	81	95	87	81	91	84	79	70
3.00	100	93	87	98	91	86	94	88	84	75
4.00	105	99	94	103	97	92	98	94	90	81
5.00	108	102	98	105	101	97	101	97	93	84
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:2026-04-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:229.58V I:0.7965A P:181.60W PF:0.9931 Freq:49.99Hz Lamp Flux:13954.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1035*160*45	SERIAL No.:
MFR.: NLD26-002-01	SUR.:0.98*0.073	Shielding Angle:

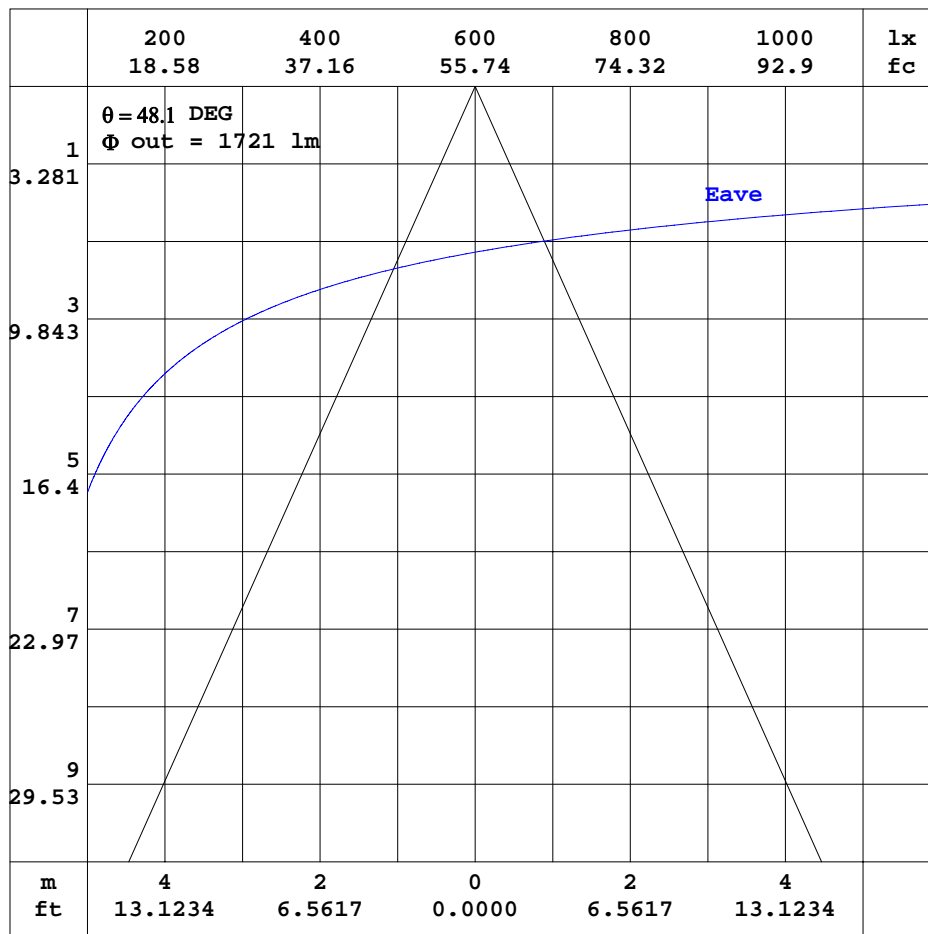


C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2026-04-23

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:229.58V I:0.7965A P:181.60W PF:0.9931 Freq:49.99Hz Lamp Flux:13954.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1035*160*45	SERIAL No.:
MFR.: NLD26-002-01	SUR.:0.98*0.073	Shielding Angle:



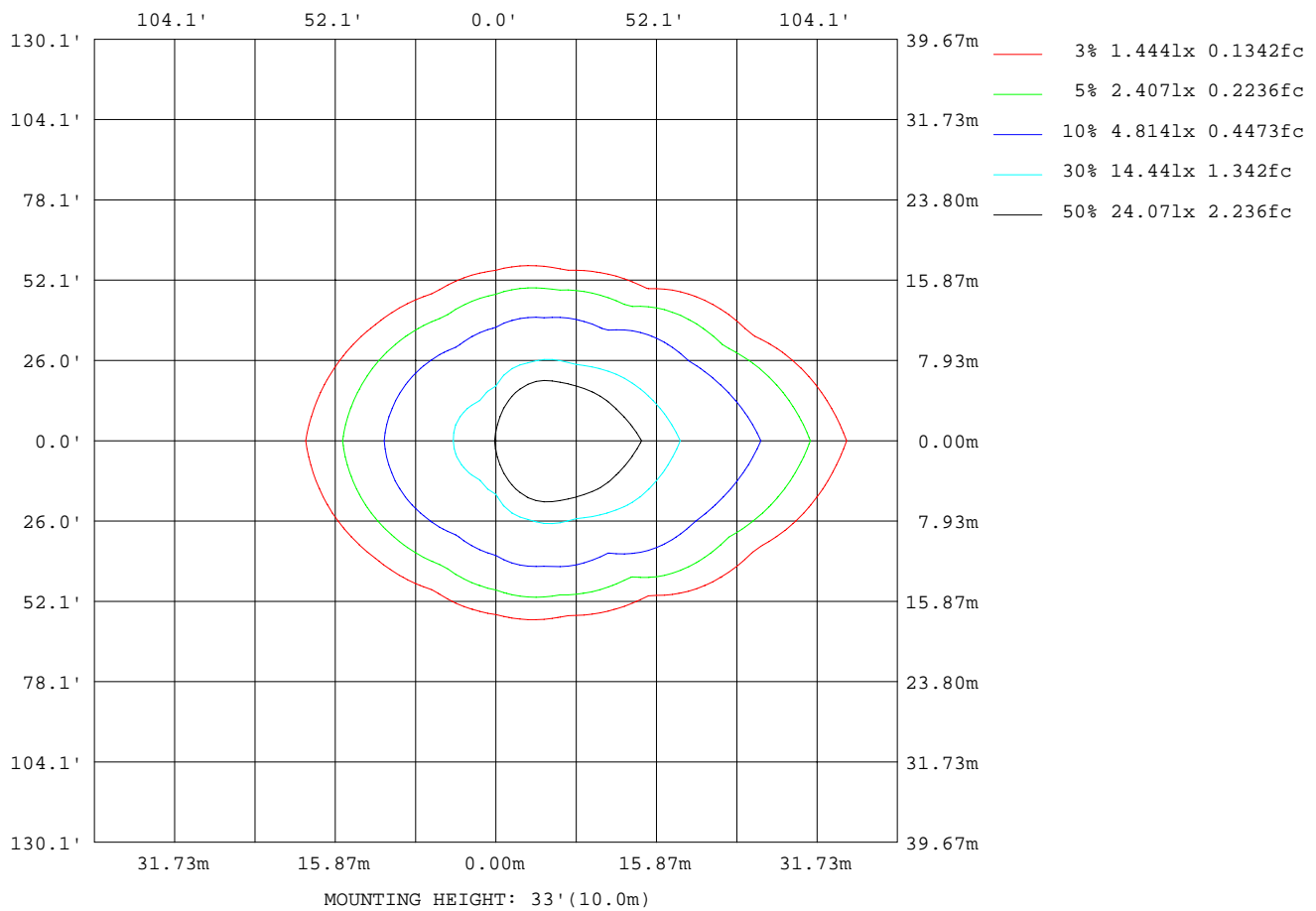
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2026-04-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:229.58V I:0.7965A P:181.60W PF:0.9931 Freq:49.99Hz Lamp Flux:13954.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1035*160*45	SERIAL No.:
MFR.: NLD26-002-01	SUR.:0.98*0.073	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2026-04-23

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:229.58V I:0.7965A P:181.60W PF:0.9931 Freq:49.99Hz Lamp Flux:13954.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1035*160*45	SERIAL No.:
MFR.: NLD26-002-01	SUR.:0.98*0.073	Shielding Angle:

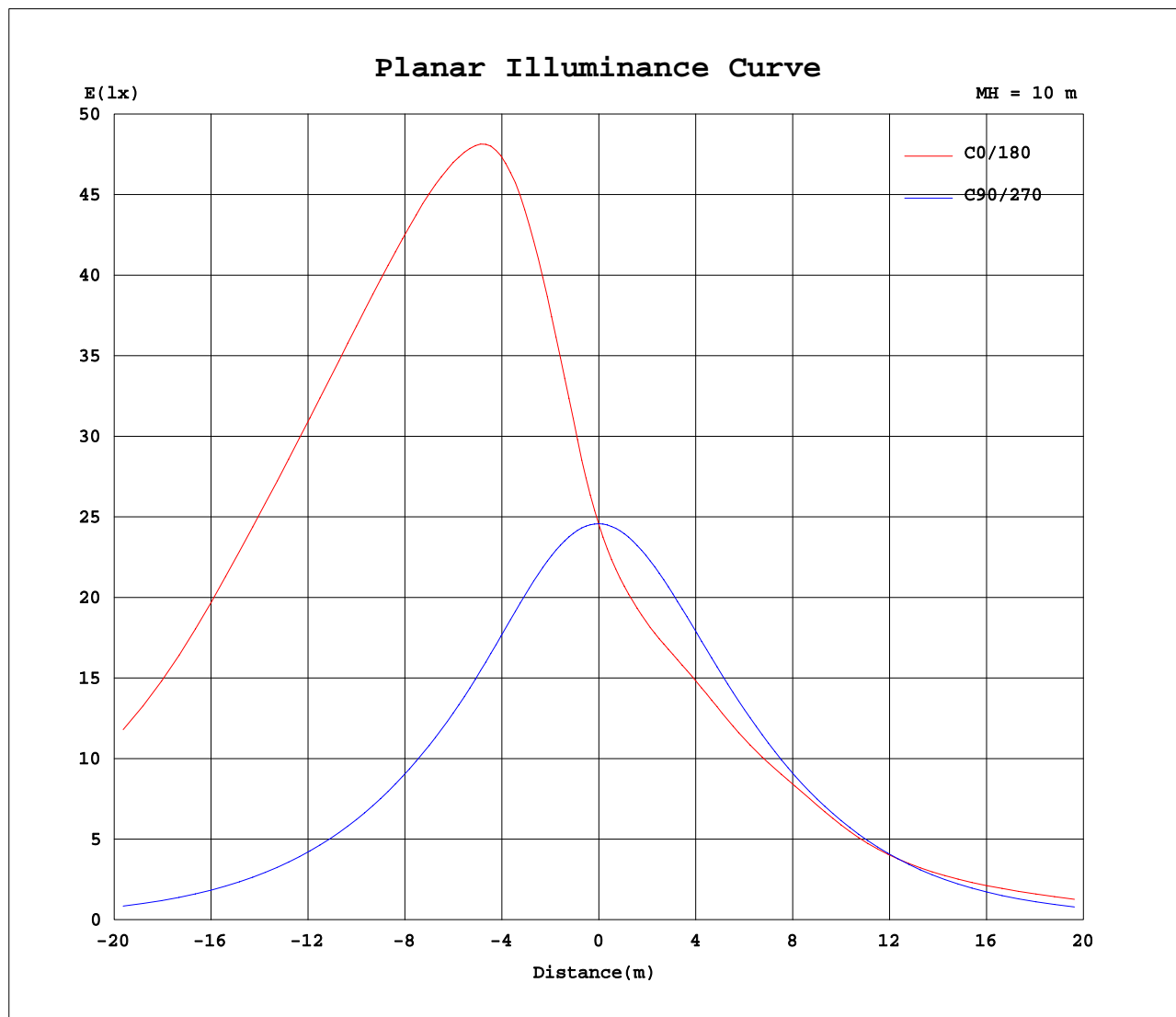
AvgL	cd/m2
L_0~180(65)av	221719
L_0~180(75)av	179180
L_0~180(85)av	36012
L_90~270(65)av	25228
L_90~270(75)av	19466
L_90~270(85)av	12674
L_45(65)av	45317
L_45(75)av	31834
L_45(85)av	23541

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2026-04-23

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: 2026-04-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:

```