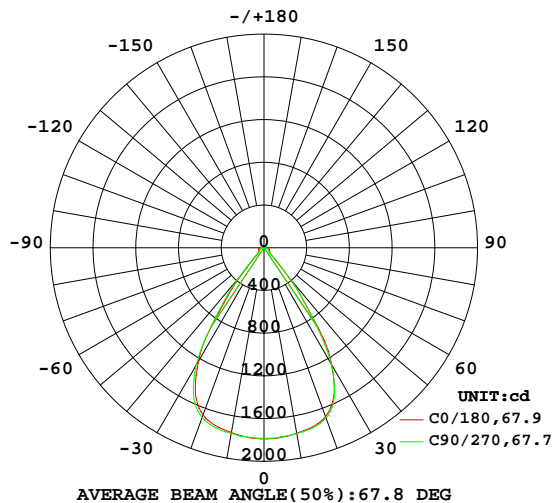


LUMINAIRE PHOTOMETRIC TEST REPORT

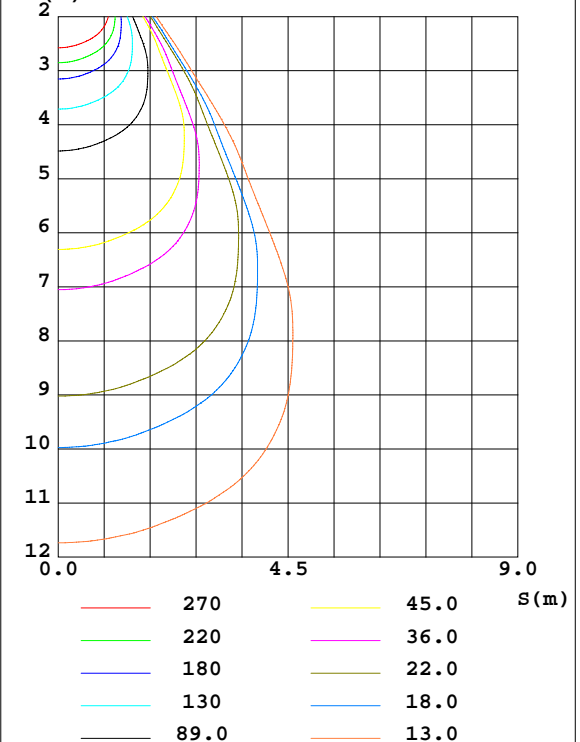
Test:U:229.67V I:0.3395A P:76.959W PF:0.9870 Freq:49.99Hz Lamp Flux:2224.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 960*42*38	SERIAL No.:
MFR.: NLD25-0020-01	SUR.:0.96*0.035	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 28.90 lm/W			
MODEL		Imax(cd)	1791	S/MH(C0/180)	0.97
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	0.98
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2224.1	η UP,DN(C0-180)	0.0,50.1
NOMINAL FLUX(lm)	2224.06	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	1.10

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:2025-09-28

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:

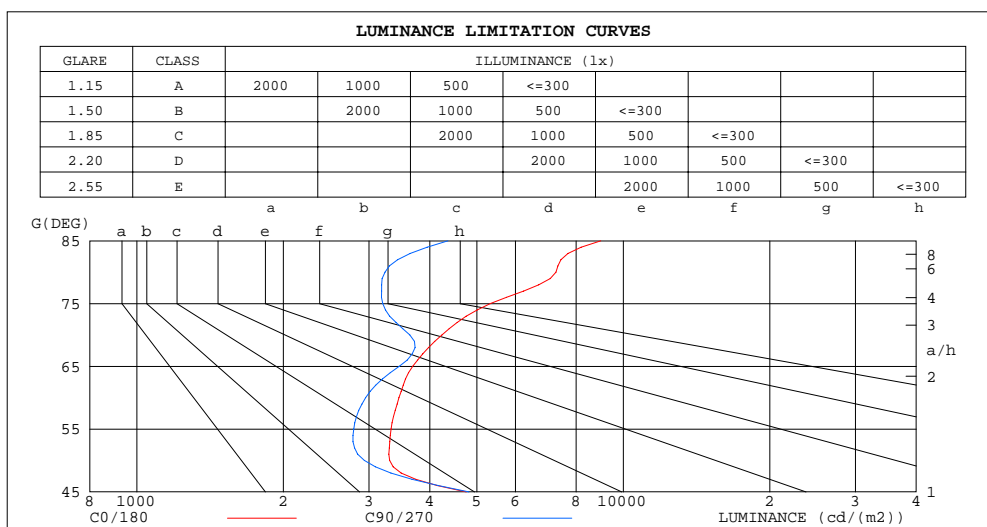
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1764	1779	1767	1745	1758	1774	1767	1749	0- 10	169.3	169.3	7.61,7.61
20	1683	1667	1696	1587	1666	1647	1691	1603	10- 20	486.0	655.4	29.5,29.5
30	1267	1295	1264	1239	1228	1261	1268	1271	20- 30	685.8	1341	60.3,60.3
40	362.0	610.2	381.1	621.5	316.5	586.6	390.2	689.6	30- 40	540.7	1882	84.6,84.6
50	71.44	86.44	63.37	67.16	71.44	83.32	63.32	67.32	40- 50	147.9	2030	91.3,91.3
60	58.08	67.93	49.61	61.07	58.67	67.21	49.08	60.58	50- 60	56.99	2087	93.8,93.8
70	48.70	59.02	41.83	54.35	51.19	58.41	42.17	53.33	60- 70	54.96	2142	96.3,96.3
80	42.42	53.73	18.89	44.86	46.82	55.15	18.91	41.76	70- 80	50.51	2192	98.6,98.6
90	18.80	22.51	3.875	25.34	24.76	25.34	5.232	19.52	80- 90	31.84	2224	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:2025-09-28

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:229.67V I:0.3395A P:76.959W PF:0.9870 Freq:49.99Hz Lamp Flux:2224.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 960*42*38	SERIAL No.:
MFR.: NLD25-0020-01	SUR.:0.96*0.035	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	8991	4360
80	7271	3237
75	5328	3203
70	4238	3640
65	3689	3461
60	3457	2953
55	3330	2792
50	3308	2934
45	4756	4818

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-09-28

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:

```

WEC AND CCEC

Test:U:229.67V I:0.3395A P:76.959W PF:0.9870 Freq:49.99Hz Lamp Flux:2224.06x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.: 960*42*38			SERIAL No.:		
MFR.: NLD25-0020-01			SUR.:0.96*0.035			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	.219	.124	.039	.212	.121	.038	.199	.114	.037	.188	.108	.035	.177	.102	.033	
2.0	.204	.112	.034	.198	.109	.034	.187	.104	.032	.177	.099	.031	.167	.095	.030	
3.0	.190	.101	.030	.185	.099	.030	.176	.095	.029	.167	.092	.028	.159	.088	.027	
4.0	.179	.093	.027	.174	.091	.027	.166	.088	.026	.159	.085	.026	.152	.082	.025	
5.0	.168	.086	.025	.165	.084	.025	.157	.082	.024	.151	.080	.024	.145	.077	.023	
6.0	.159	.080	.023	.156	.079	.023	.150	.077	.022	.144	.075	.022	.138	.073	.022	
7.0	.151	.075	.021	.148	.074	.021	.142	.072	.021	.137	.070	.020	.132	.069	.020	
8.0	.144	.070	.020	.141	.069	.020	.136	.068	.019	.131	.067	.019	.127	.065	.019	
9.0	.137	.066	.018	.135	.066	.018	.130	.064	.018	.126	.063	.018	.122	.062	.018	
10.0	.131	.063	.017	.129	.062	.017	.125	.061	.017	.121	.060	.017	.117	.059	.017	

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	.174	.157	.142	.149	.135	.122	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.160	.132	.109	.137	.114	.094	.094	.079	.066	.054	.046	.038	.017	.015	.013	
3.0	.149	.114	.086	.128	.098	.074	.088	.068	.052	.051	.040	.031	.016	.013	.010	
4.0	.139	.099	.069	.120	.086	.060	.082	.060	.042	.048	.035	.025	.015	.011	.008	
5.0	.131	.088	.056	.113	.076	.049	.078	.053	.035	.045	.031	.021	.014	.010	.007	
6.0	.124	.079	.047	.106	.068	.041	.073	.048	.029	.043	.028	.017	.014	.009	.006	
7.0	.117	.072	.040	.101	.062	.035	.070	.044	.025	.041	.026	.015	.013	.008	.005	
8.0	.112	.066	.034	.096	.057	.030	.066	.040	.021	.039	.024	.013	.013	.008	.004	
9.0	.106	.061	.030	.092	.053	.026	.064	.037	.018	.037	.022	.011	.012	.007	.004	
10.0	.102	.056	.026	.088	.049	.023	.061	.034	.016	.035	.020	.010	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-09-28

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:229.67V I:0.3395A P:76.959W PF:0.9870 Freq:49.99Hz Lamp Flux:2224.06x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 960*42*38			SERIAL No.:			
MFR.: NLD25-0020-01					SUR.:0.96*0.035			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	17.1	18.2	17.4	18.4	18.6	16.8	17.9	17.0	18.0	18.2
	3H	17.7	18.7	18.0	18.9	19.1	17.2	18.2	17.4	18.4	18.6
	4H	18.3	19.2	18.6	19.5	19.7	17.4	18.4	17.7	18.6	18.9
	6H	19.0	19.9	19.3	20.2	20.4	17.7	18.6	18.0	18.8	19.1
	8H	19.4	20.2	19.7	20.5	20.7	17.8	18.6	18.1	18.9	19.2
	12H	19.7	20.5	20.0	20.8	21.1	17.9	18.7	18.2	19.0	19.3
4H	2H	17.2	18.1	17.5	18.3	18.6	16.8	17.8	17.1	18.0	18.2
	3H	18.2	19.0	18.5	19.3	19.6	17.5	18.4	17.9	18.6	18.9
	4H	19.1	19.8	19.4	20.1	20.4	18.1	18.8	18.4	19.1	19.4
	6H	20.1	20.7	20.5	21.1	21.4	18.5	19.2	18.9	19.5	19.9
	8H	20.5	21.1	20.9	21.5	21.9	18.7	19.4	19.1	19.7	20.1
	12H	21.0	21.5	21.4	21.9	22.3	19.0	19.5	19.4	19.9	20.3
8H	4H	19.5	20.1	19.9	20.5	20.9	18.7	19.3	19.1	19.6	20.0
	6H	20.8	21.3	21.2	21.7	22.1	19.5	20.0	19.9	20.4	20.8
	8H	21.4	21.9	21.9	22.3	22.7	19.8	20.3	20.3	20.7	21.2
	12H	22.0	22.4	22.5	22.9	23.3	20.2	20.6	20.7	21.1	21.5
12H	4H	19.6	20.1	20.0	20.5	20.9	18.8	19.4	19.2	19.7	20.1
	6H	21.0	21.4	21.4	21.8	22.3	19.8	20.2	20.2	20.6	21.1
	8H	21.7	22.1	22.2	22.5	23.0	20.3	20.7	20.7	21.1	21.6
Variations with the observer position at spacings:											
S = 1.0H	+ 0.7 / - 0.7					+ 0.9 / - 1.0					
1.5H	+ 1.6 / - 0.7					+ 2.0 / - 1.0					
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.5					

CIE Pub.117, 2224 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 2.8$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-09-28

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:229.67V I:0.3395A P:76.959W PF:0.9870 Freq:49.99Hz Lamp Flux:2224.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 960*42*38	SERIAL No.:
MFR.: NLD25-0020-01	SUR.:0.96*0.035	Shielding Angle:

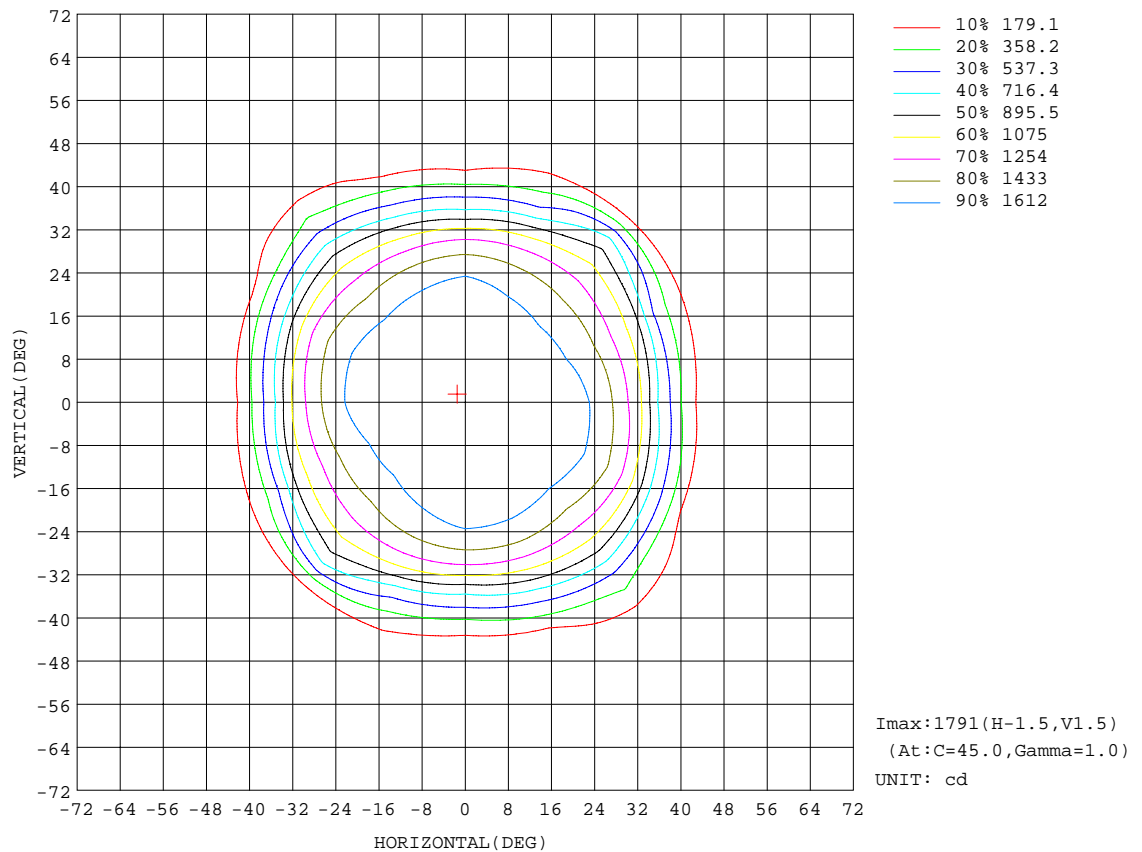
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	82	75	71	82	75	71	81	74	70	66
0.80	90	83	79	89	83	79	88	82	78	74
1.00	95	88	84	94	88	84	92	88	83	79
1.25	99	93	89	98	92	88	96	91	88	83
1.50	102	97	92	101	96	92	99	94	91	86
2.00	106	101	97	104	99	96	101	97	94	89
2.50	108	103	99	106	102	98	103	99	97	90
3.00	110	105	102	108	104	101	104	101	99	92
4.00	112	108	106	110	107	104	106	104	102	94
5.00	113	111	108	111	109	107	107	105	103	96
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:2025-09-28

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:229.67V I:0.3395A P:76.959W PF:0.9870 Freq:49.99Hz Lamp Flux:2224.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 960*42*38	SERIAL No.:
MFR.: NLD25-0020-01	SUR.:0.96*0.035	Shielding Angle:

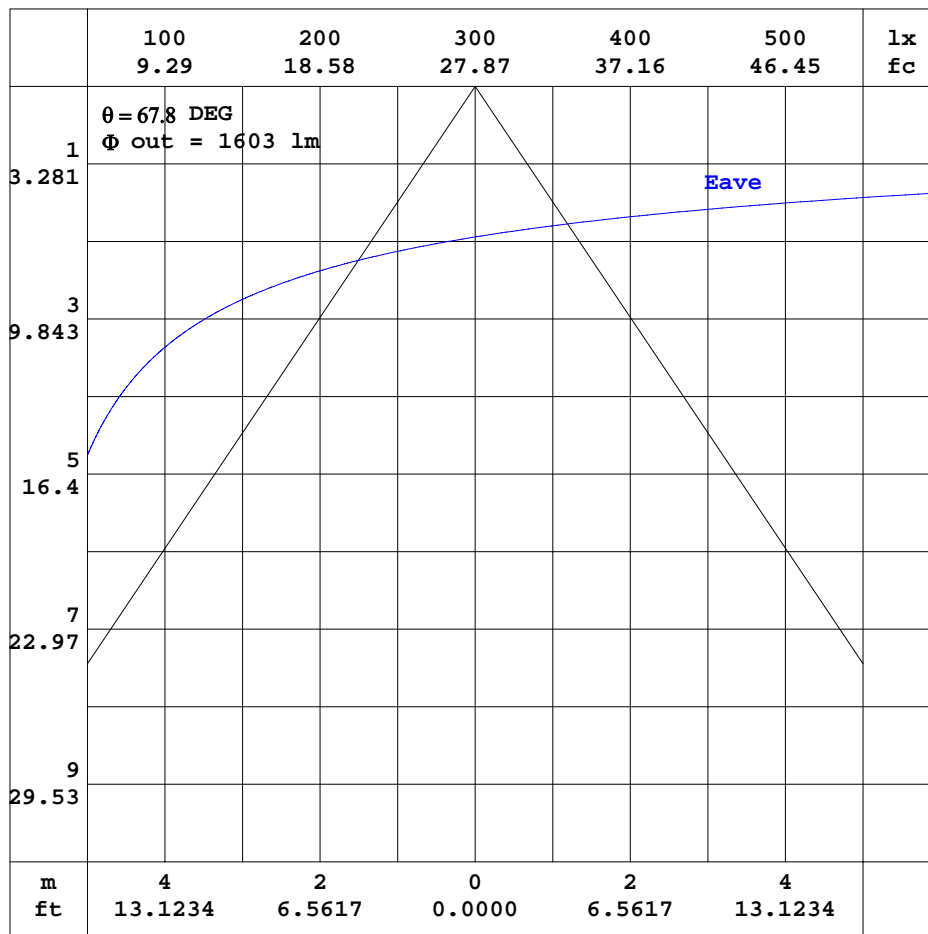


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-09-28

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:229.67V I:0.3395A P:76.959W PF:0.9870 Freq:49.99Hz Lamp Flux:2224.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 960*42*38	SERIAL No.:
MFR.: NLD25-0020-01	SUR.:0.96*0.035	Shielding Angle:



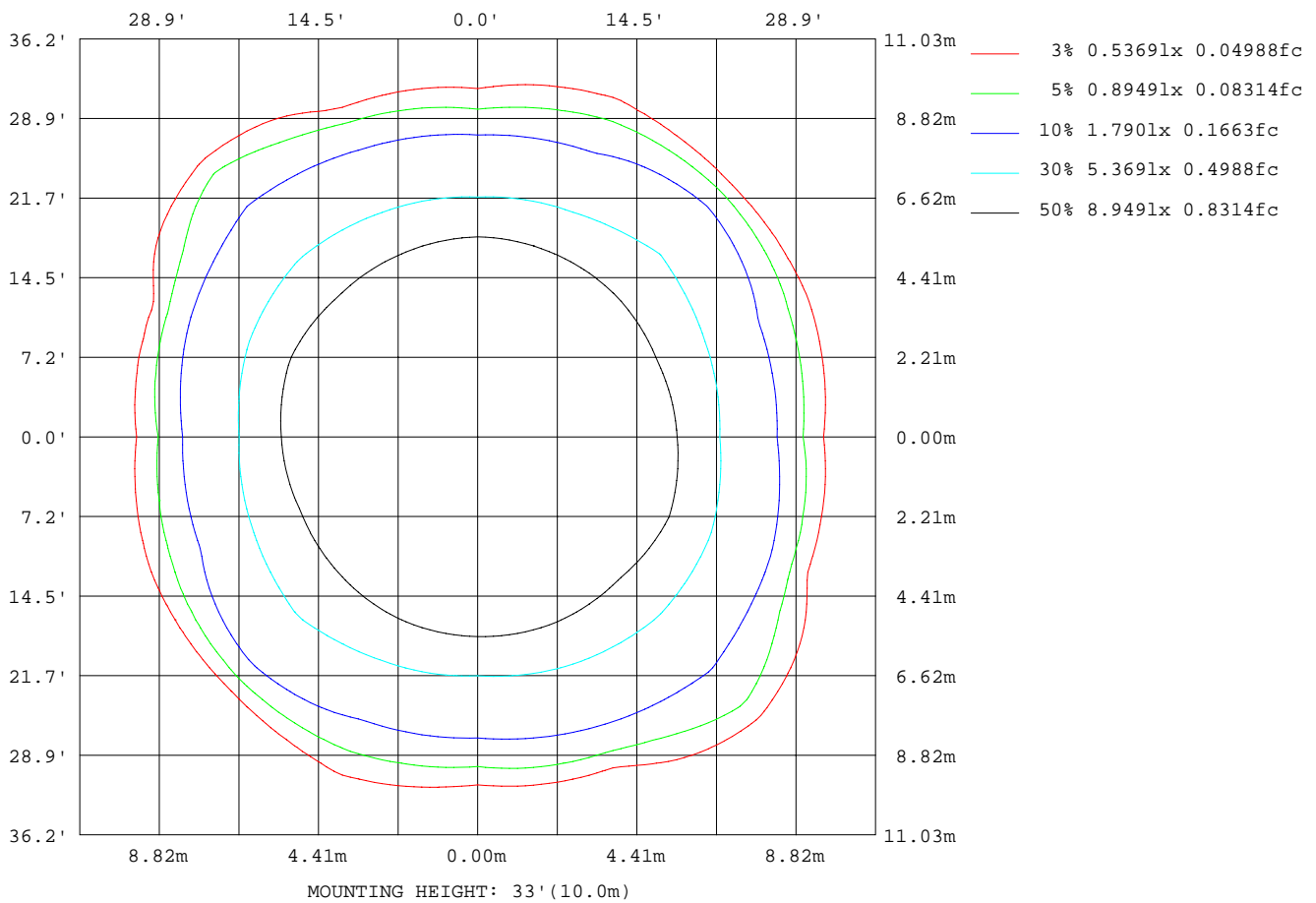
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-09-28

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:229.67V I:0.3395A P:76.959W PF:0.9870 Freq:49.99Hz Lamp Flux:2224.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 960*42*38	SERIAL No.:
MFR.: NLD25-0020-01	SUR.:0.96*0.035	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-09-28

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:229.67V I:0.3395A P:76.959W PF:0.9870 Freq:49.99Hz Lamp Flux:2224.06x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 960*42*38	SERIAL No.:
MFR.: NLD25-0020-01	SUR.:0.96*0.035	Shielding Angle:

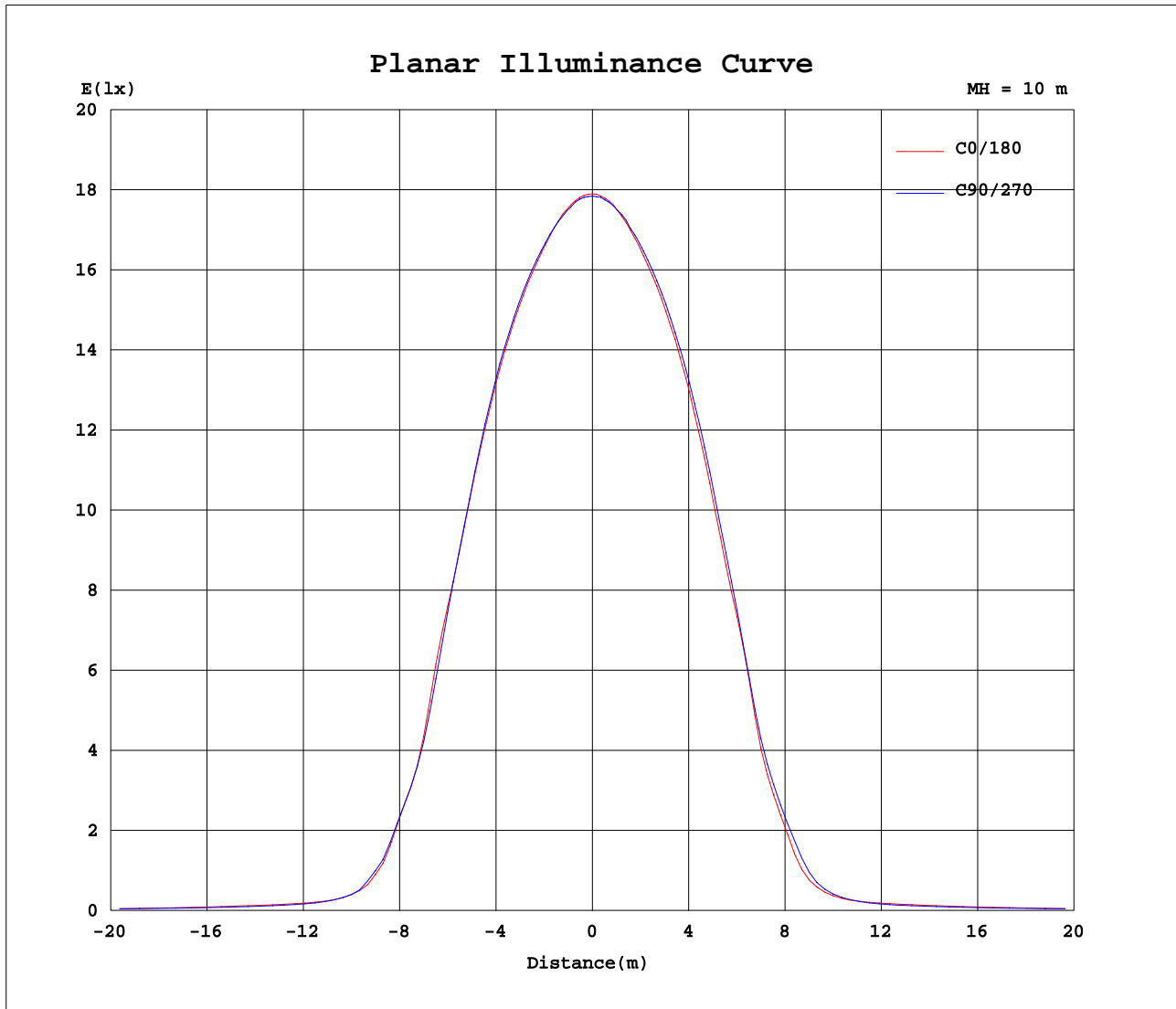
AvgL	cd/m2
L_0~180(65)av	3726
L_0~180(75)av	5601
L_0~180(85)av	9970
L_90~270(65)av	3433
L_90~270(75)av	3217
L_90~270(85)av	4403
L_45(65)av	4219
L_45(75)av	6411
L_45(85)av	11848

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-09-28

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: 2025-09-28

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:

```