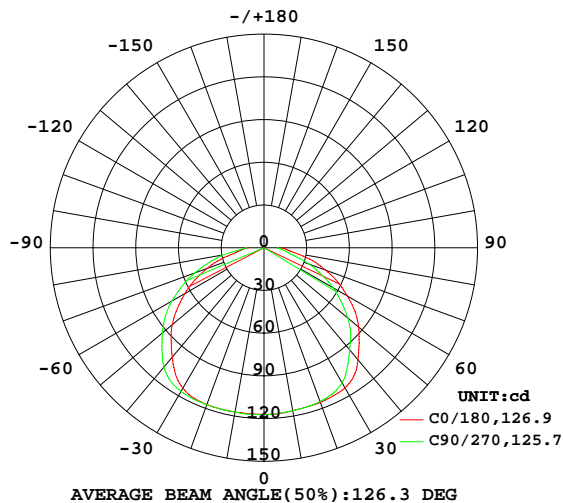


LUMINAIRE PHOTOMETRIC TEST REPORT

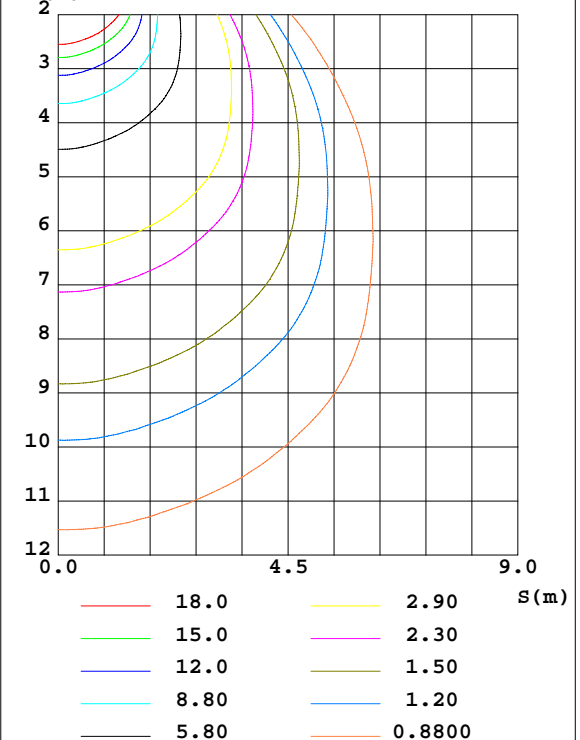
Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:410.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 100*100*90	SERIAL No.:
MFR.: NLD-242041-01	SUR.:3.14*0.035*0.035	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		Imax(cd)	118.1	S/MH(C0/180)	1.42
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.49
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	410.99	η UP,DN(C0-180)	0.0,46.9
NOMINAL FLUX(lm)	410.99	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,53.1
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:2025-06-23

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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

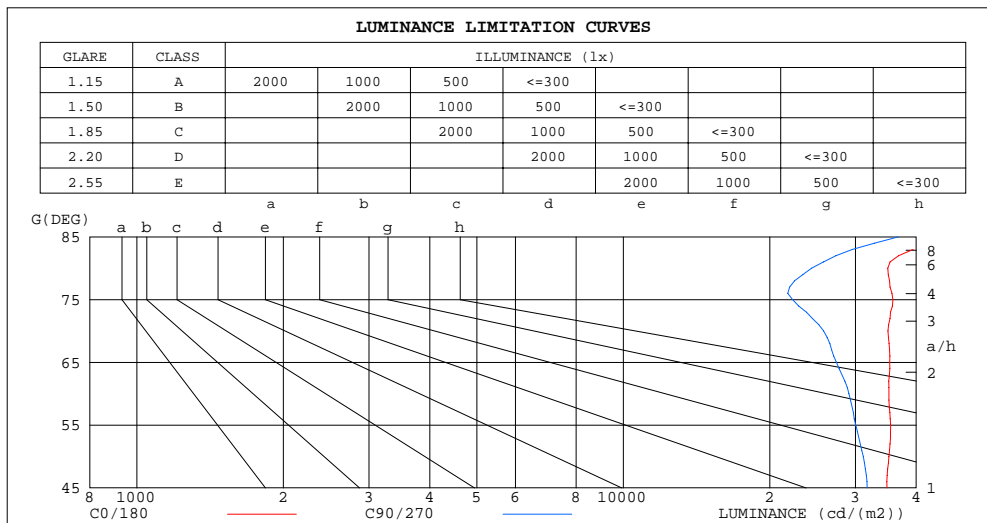
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	116.1	116.3	116.2	116.4	117.1	117.7	117.1	116.6	0- 10	11.15	11.15	2.71,2.71
20	115.5	115.2	114.8	115.6	117.2	118.0	117.3	115.9	10- 20	33.02	44.17	10.7,10.7
30	113.7	111.4	109.5	110.0	113.9	116.0	116.4	115.1	20- 30	53.25	97.42	23.7,23.7
40	102.7	97.04	93.67	94.99	100.3	106.4	109.4	108.4	30- 40	67.80	165.2	40.2,40.2
50	86.78	80.88	76.88	78.06	84.17	90.38	93.18	91.74	40- 50	72.20	237.4	57.8,57.8
60	67.49	60.30	55.85	57.56	64.01	71.30	74.62	73.58	50- 60	67.72	305.1	74.2,74.2
70	45.97	38.30	33.90	35.73	42.67	49.46	51.86	52.16	60- 70	54.16	359.3	87.4,87.4
80	23.32	17.71	16.26	16.85	20.41	26.12	28.57	29.14	70- 80	34.34	393.6	95.8,95.8
90	12.42	10.15	9.356	9.708	11.57	12.89	12.01	13.68	80- 90	17.35	411.0	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:2025-06-23

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:

LUMINANCE LIMITATION CURVES

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:410.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 100*100*90	SERIAL No.:
MFR.: NLD-242041-01	SUR.:3.14*0.035*0.035	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	49185	36788
80	34972	24383
75	35829	22278
70	34999	25811
65	35282	27414
60	35153	29087
55	35448	30050
50	35156	31148
45	34840	31720

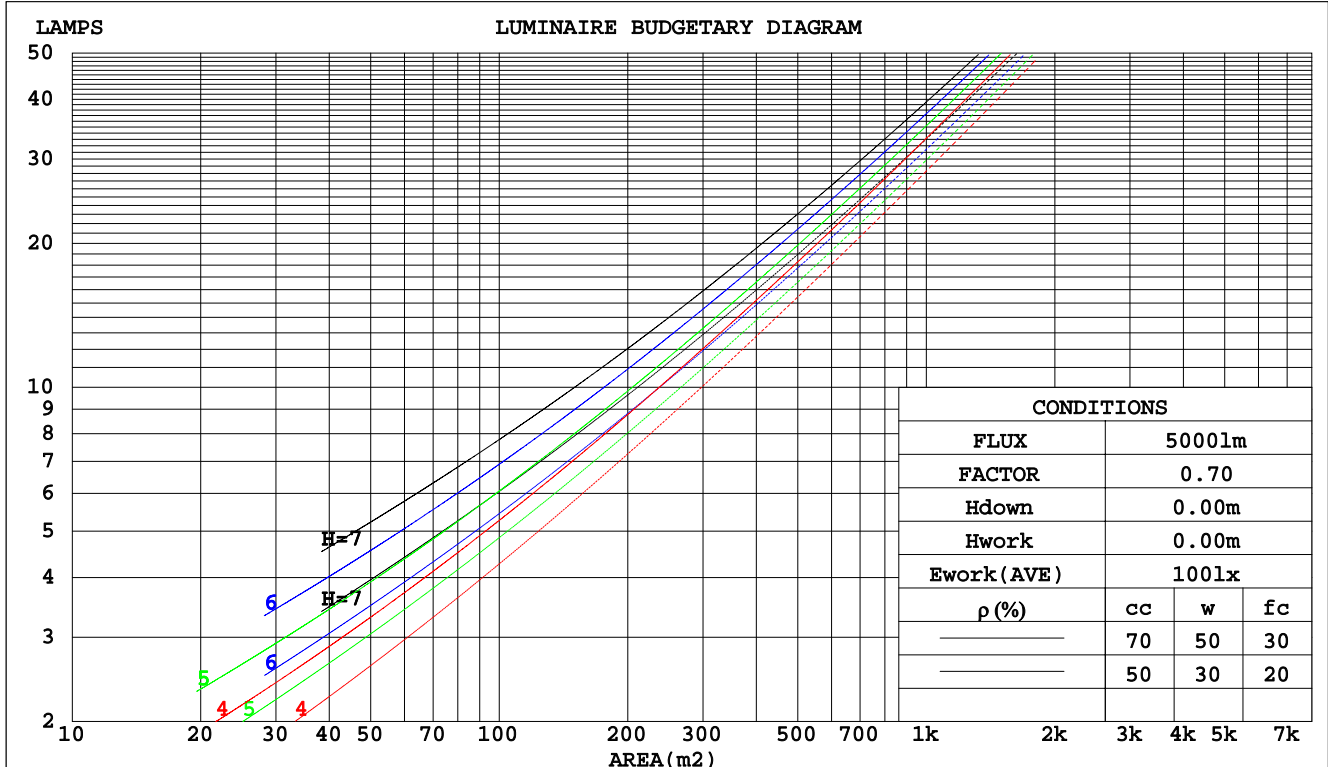
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-06-23

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:410.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 100*100*90	SERIAL No.:
MFR.: NLD-242041-01	SUR.:3.14*0.035*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			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	1.02	.97	.93	.90	.95	.91	.95	.92	.88	.91	.88	.86	.88	.85	.83	.81
2.0	.88	.81	.74	.86	.79	.74	.83	.77	.72	.79	.74	.70	.76	.72	.68	.66
3.0	.77	.68	.61	.75	.67	.61	.72	.65	.59	.69	.63	.58	.67	.62	.57	.55
4.0	.68	.58	.51	.66	.58	.51	.64	.56	.50	.61	.55	.49	.59	.53	.49	.46
5.0	.60	.51	.44	.59	.50	.43	.57	.49	.43	.55	.48	.42	.53	.47	.42	.40
6.0	.54	.45	.38	.53	.44	.38	.51	.43	.37	.49	.42	.37	.48	.42	.37	.34
7.0	.49	.40	.33	.48	.39	.33	.46	.38	.33	.45	.38	.33	.43	.37	.32	.30
8.0	.44	.36	.29	.44	.35	.29	.42	.35	.29	.41	.34	.29	.40	.33	.29	.27
9.0	.41	.32	.26	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.24
10.0	.37	.29	.24	.37	.29	.24	.36	.29	.24	.35	.28	.23	.34	.28	.23	.22



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-06-23

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:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:410.99x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.: 100*100*90		SERIAL No.:	
MFR.: NLD-242041-01		SUR.:3.14*0.035*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	.345	.196	.062	.338	.193	.061	.325	.186	.060	.312	.180	.058	.301	.174	.056	
2.0	.315	.172	.053	.308	.170	.052	.296	.165	.051	.285	.160	.050	.275	.156	.049	
3.0	.287	.152	.046	.281	.150	.045	.270	.147	.045	.261	.143	.044	.252	.139	.043	
4.0	.262	.136	.040	.257	.134	.040	.248	.131	.039	.239	.128	.039	.231	.125	.038	
5.0	.240	.123	.035	.236	.121	.035	.228	.119	.035	.220	.116	.035	.213	.114	.034	
6.0	.222	.111	.032	.218	.110	.032	.211	.108	.031	.204	.106	.031	.197	.104	.031	
7.0	.206	.102	.029	.202	.101	.029	.196	.099	.028	.189	.097	.028	.184	.095	.028	
8.0	.191	.094	.026	.188	.093	.026	.182	.091	.026	.177	.090	.026	.172	.088	.026	
9.0	.179	.087	.024	.176	.086	.024	.171	.084	.024	.166	.083	.024	.161	.082	.024	
10.0	.168	.080	.022	.165	.080	.022	.161	.079	.022	.156	.078	.022	.152	.076	.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	.183	.156	.132	.156	.134	.113	.107	.092	.078	.062	.053	.046	.020	.017	.015	
2.0	.175	.132	.095	.150	.113	.082	.103	.078	.057	.059	.046	.034	.019	.015	.011	
3.0	.168	.114	.072	.144	.099	.062	.099	.069	.044	.057	.040	.026	.018	.013	.008	
4.0	.160	.101	.056	.137	.088	.049	.094	.061	.035	.055	.036	.020	.018	.012	.007	
5.0	.152	.091	.046	.131	.079	.040	.090	.055	.028	.052	.032	.017	.017	.011	.005	
6.0	.145	.083	.038	.125	.072	.033	.086	.050	.023	.050	.029	.014	.016	.010	.005	
7.0	.138	.076	.032	.119	.066	.028	.082	.046	.020	.048	.027	.012	.015	.009	.004	
8.0	.131	.070	.028	.113	.061	.024	.078	.043	.017	.046	.025	.010	.015	.008	.003	
9.0	.125	.065	.025	.108	.057	.021	.075	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.119	.061	.022	.103	.053	.019	.071	.037	.014	.042	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-06-23

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:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:410.99x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 100*100*90			SERIAL No.:			
MFR.: NLD-242041-01					SUR.:3.14*0.035*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		25.2	26.7	25.4	27.0	27.2	24.4	26.0	24.7	26.2	26.4
3H		26.9	28.4	27.2	28.6	28.9	25.9	27.3	26.2	27.6	27.8
4H		27.7	29.2	28.1	29.4	29.7	26.4	27.8	26.7	28.0	28.3
6H		28.4	29.7	28.7	30.0	30.3	26.8	28.1	27.2	28.4	28.7
8H		28.7	30.0	29.0	30.2	30.5	27.1	28.4	27.4	28.6	28.9
12H		29.0	30.2	29.4	30.5	30.9	27.4	28.6	27.7	28.9	29.2
4H 2H		25.7	27.1	26.0	27.3	27.6	25.1	26.5	25.4	26.8	27.1
3H		27.6	28.9	28.0	29.2	29.5	26.7	28.0	27.1	28.3	28.6
4H		28.6	29.7	29.0	30.0	30.4	27.4	28.5	27.7	28.8	29.2
6H		29.4	30.4	29.8	30.7	31.1	27.9	29.0	28.3	29.3	29.7
8H		29.7	30.7	30.2	31.1	31.5	28.3	29.2	28.7	29.6	30.0
12H		30.2	31.1	30.6	31.4	31.9	28.7	29.5	29.1	29.9	30.3
8H 4H		28.8	29.7	29.2	30.1	30.5	27.7	28.7	28.1	29.0	29.4
6H		29.7	30.5	30.2	30.9	31.4	28.5	29.3	28.9	29.7	30.1
8H		30.3	31.0	30.7	31.4	31.8	28.9	29.7	29.4	30.1	30.5
12H		30.9	31.5	31.4	32.0	32.4	29.5	30.1	30.0	30.6	31.1
12H 4H		28.8	29.7	29.2	30.1	30.5	27.7	28.6	28.2	29.0	29.4
6H		29.8	30.5	30.3	31.0	31.4	28.6	29.3	29.1	29.7	30.2
8H		30.4	31.0	30.9	31.5	31.9	29.1	29.8	29.6	30.2	30.7
Variations with the observer position at spacings:											
S = 1.0H		+ 0.1 / - 0.1					+ 0.2 / - 0.2				
1.5H		+ 0.2 / - 0.2					+ 0.2 / - 0.4				
2.0H		+ 0.2 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 411.0 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = -3.1$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2025-06-23

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:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:410.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 100*100*90	SERIAL No.:
MFR.: NLD-242041-01	SUR.:3.14*0.035*0.035	Shielding Angle:

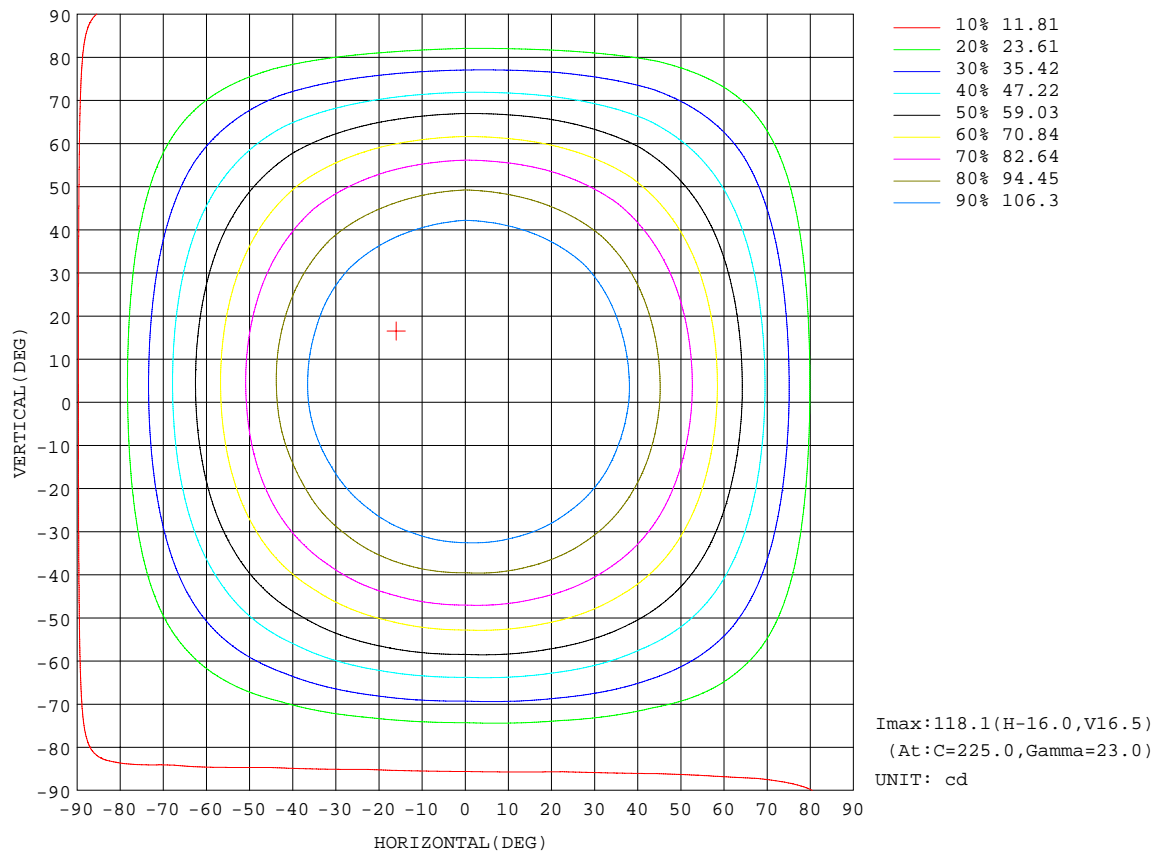
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	55	43	36	54	43	36	53	42	35	29
0.80	65	53	45	64	52	45	62	52	45	37
1.00	73	62	54	72	61	54	70	63	53	46
1.25	81	69	62	79	69	61	76	67	61	53
1.50	86	75	68	84	74	67	81	72	66	58
2.00	93	83	76	91	82	76	87	80	74	66
2.50	97	88	82	95	87	81	91	84	79	70
3.00	100	93	87	98	91	86	94	88	84	75
4.00	105	98	93	102	97	92	98	93	89	80
5.00	107	102	97	105	100	96	100	96	93	83
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:2025-06-23

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:

ISOCANDELA DIAGRAM

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:410.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 100*100*90	SERIAL No.:
MFR.: NLD-242041-01	SUR.:3.14*0.035*0.035	Shielding Angle:

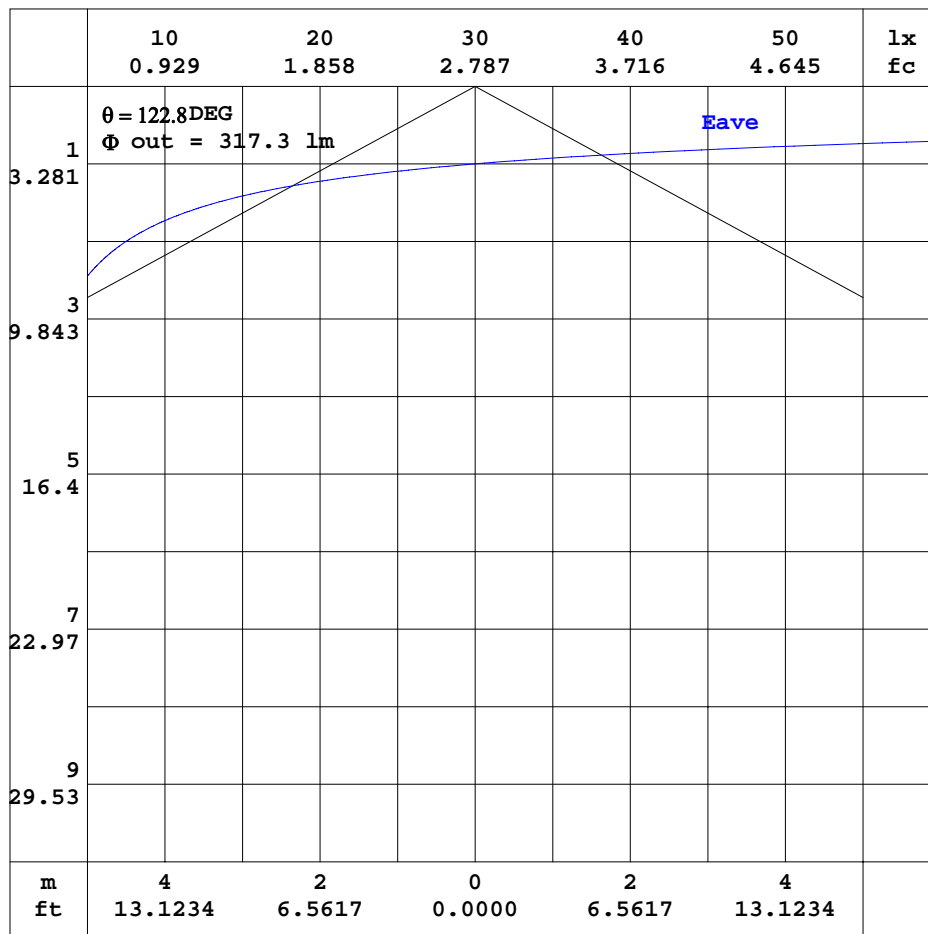


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-06-23

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:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:410.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 100*100*90	SERIAL No.:
MFR.: NLD-242041-01	SUR.:3.14*0.035*0.035	Shielding Angle:



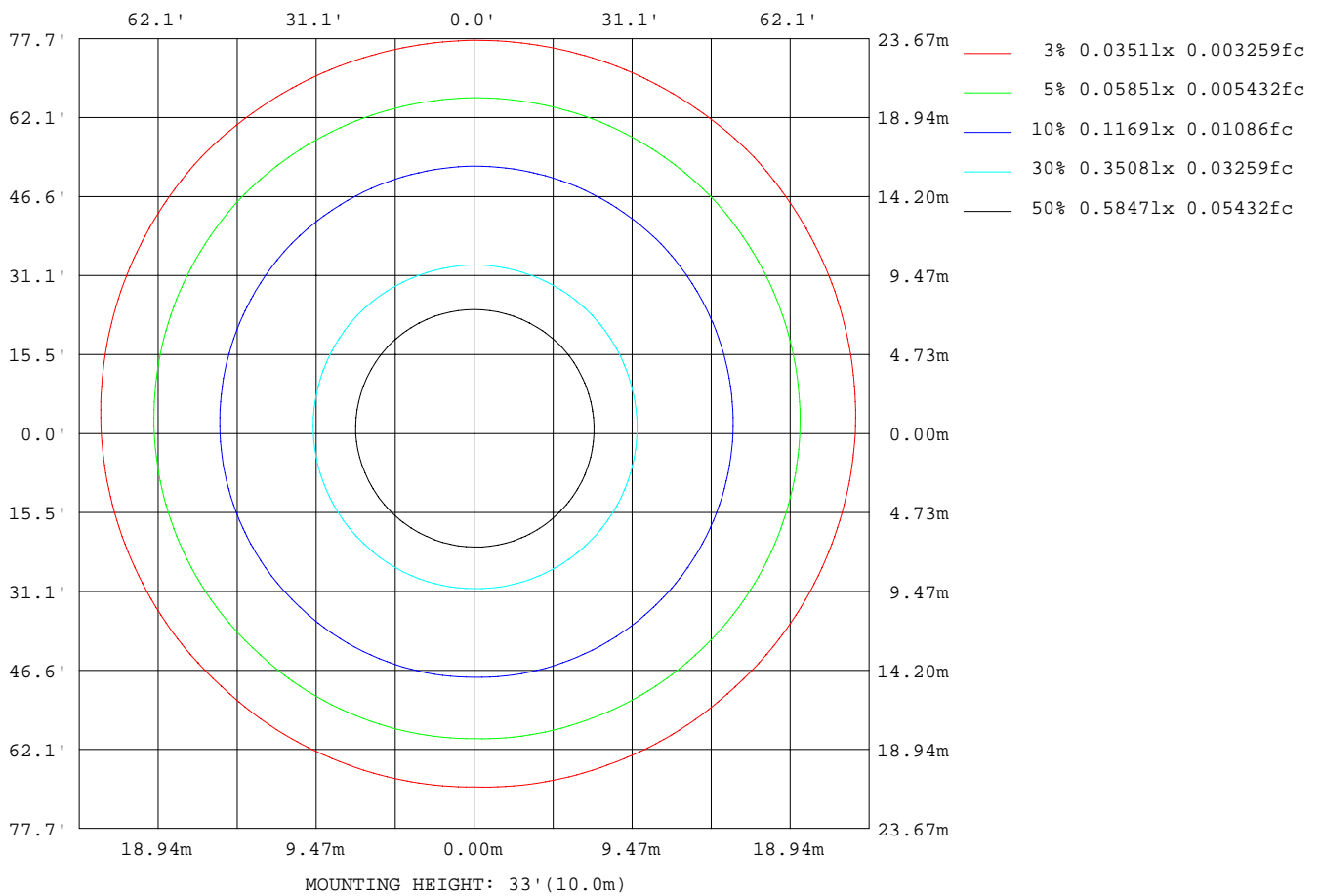
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2025-06-23

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:

ISOLUX DIAGRAM

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:410.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 100*100*90	SERIAL No.:
MFR.: NLD-242041-01	SUR.:3.14*0.035*0.035	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2025-06-23

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:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:410.99x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 100*100*90	SERIAL No.:
MFR.: NLD-242041-01	SUR.:3.14*0.035*0.035	Shielding Angle:

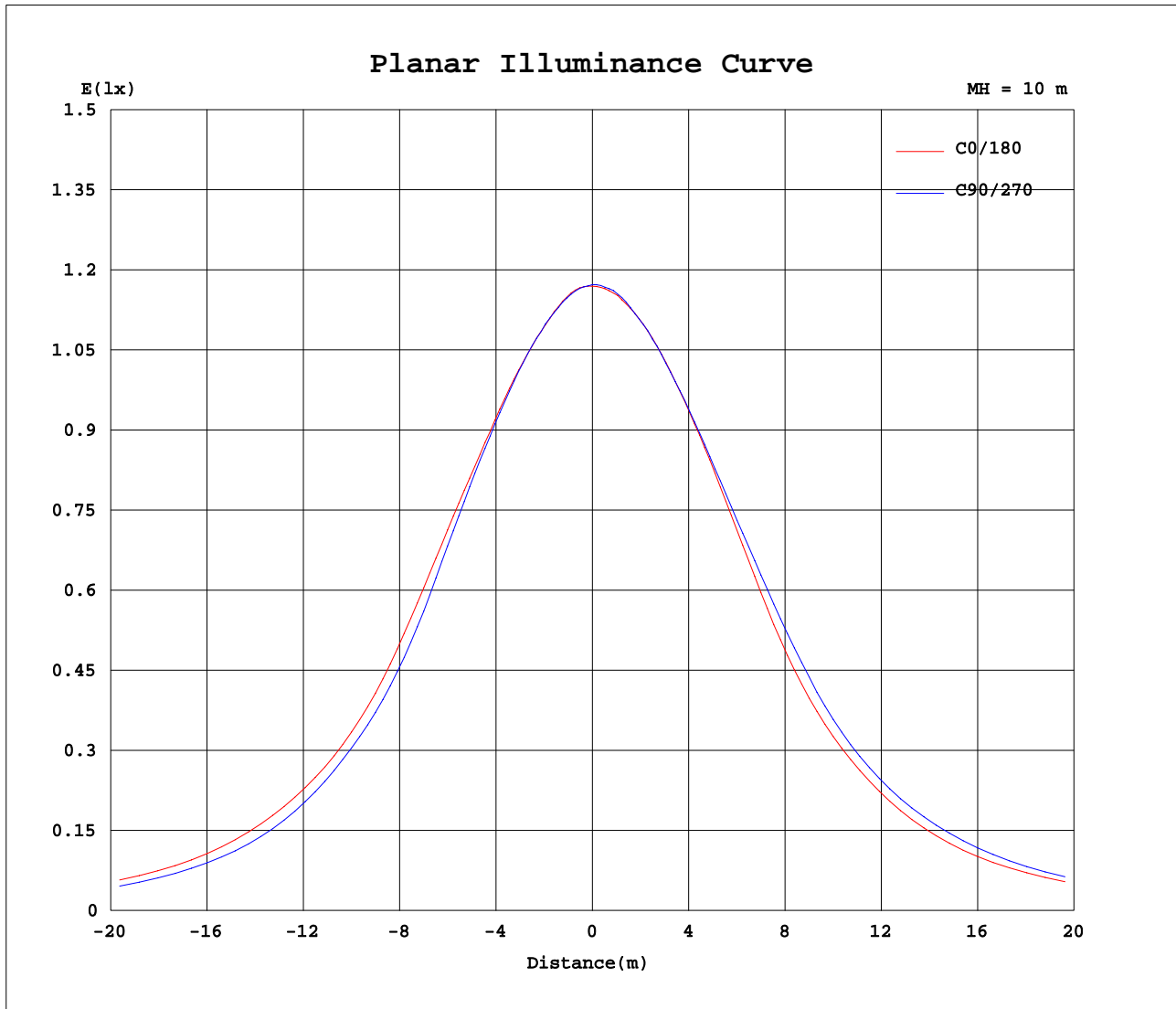
AvgL	cd/m2
L_0~180(65)av	34094
L_0~180(75)av	33732
L_0~180(85)av	47738
L_90~270(65)av	33162
L_90~270(75)av	31208
L_90~270(85)av	43688
L_45(65)av	33765
L_45(75)av	32547
L_45(85)av	46116

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2025-06-23

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: 2025-06-23

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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Humidity: 65.0%
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