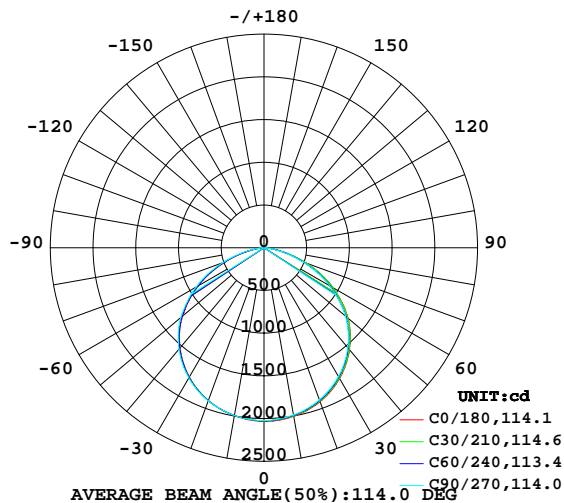


LUMINAIRE PHOTOMETRIC TEST REPORT

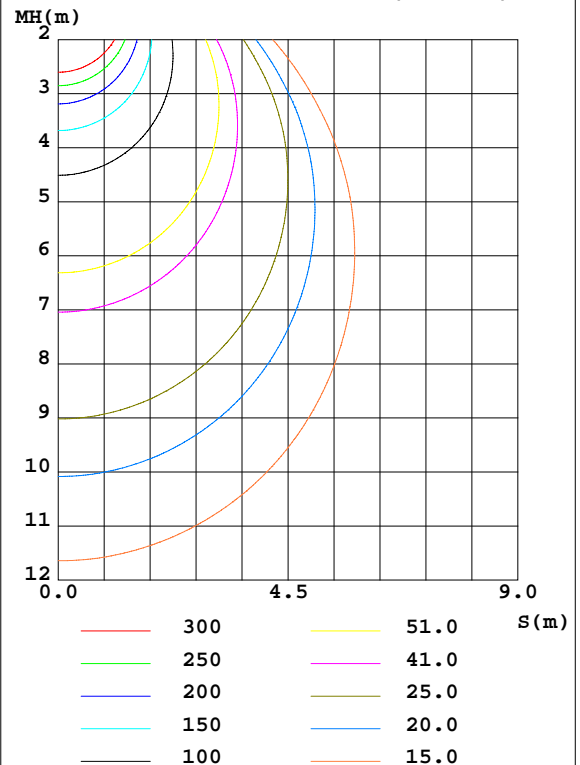
Test:U:229.61V I:0.3391A P:75.995W PF:0.9761 Freq:49.99Hz Lamp Flux:5749.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 500*50	SERIAL No.:
MFR.: NLD23-009	SUR.:3.14*0.249*0.249	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 75.66 lm/W			
MODEL		I _{max} (cd)	2033	S/MH(C0/180)	1.28
NOMINAL POWER(W)	80	LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	5749.6	η UP,DN(C0-180)	0.0,49.8
NOMINAL FLUX(lm)	5749.6	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-12-18

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:

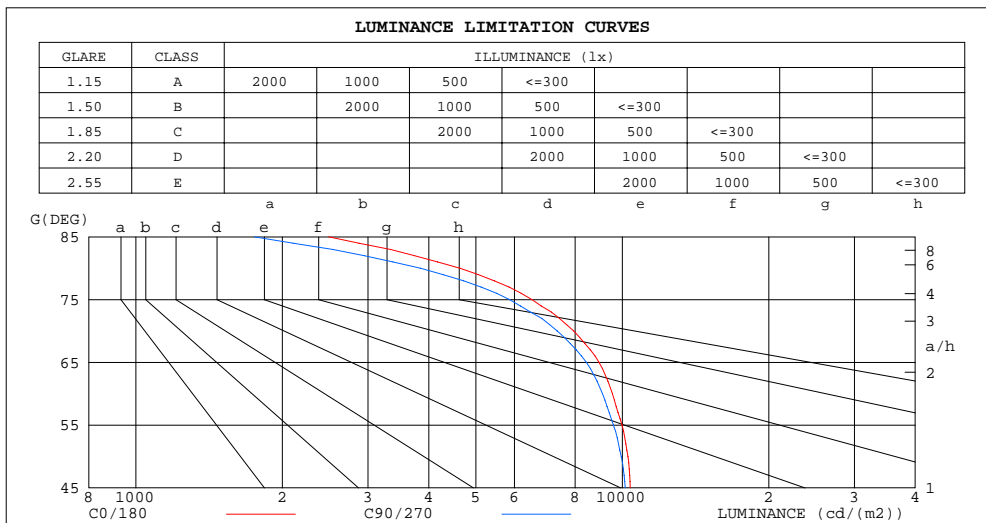
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	2004	1996	1987	1984	1997	1993	1994	1992	0- 10	191.7	191.7	3.33,3.33
20	1918	1908	1896	1891	1904	1903	1907	1907	10- 20	552.1	743.7	12.9,12.9
30	1769	1758	1742	1736	1747	1749	1759	1761	20- 30	846.0	1590	27.6,27.6
40	1558	1545	1527	1519	1528	1532	1550	1551	30- 40	1034	2624	45.6,45.6
50	1284	1271	1245	1234	1242	1250	1272	1274	40- 50	1085	3708	64.5,64.5
60	928.3	912.9	885.6	870.0	888.7	897.9	916.1	918.5	50- 60	967.4	4675	81.3,81.3
70	528.6	515.1	488.9	472.7	474.5	490.4	516.7	528.3	60- 70	695.8	5371	93.4,93.4
80	156.6	147.0	129.8	122.3	120.5	130.7	149.2	157.8	70- 80	326.7	5698	99.1,99.1
90	5.043	4.905	4.338	4.467	5.902	5.893	5.515	6.108	80- 90	51.58	5750	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: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2023-12-18

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:229.61V I:0.3391A P:75.995W PF:0.9761 Freq:49.99Hz Lamp Flux:5749.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 500*50	SERIAL No.:
MFR.: NLD23-009	SUR.:3.14*0.249*0.249	Shielding Angle:



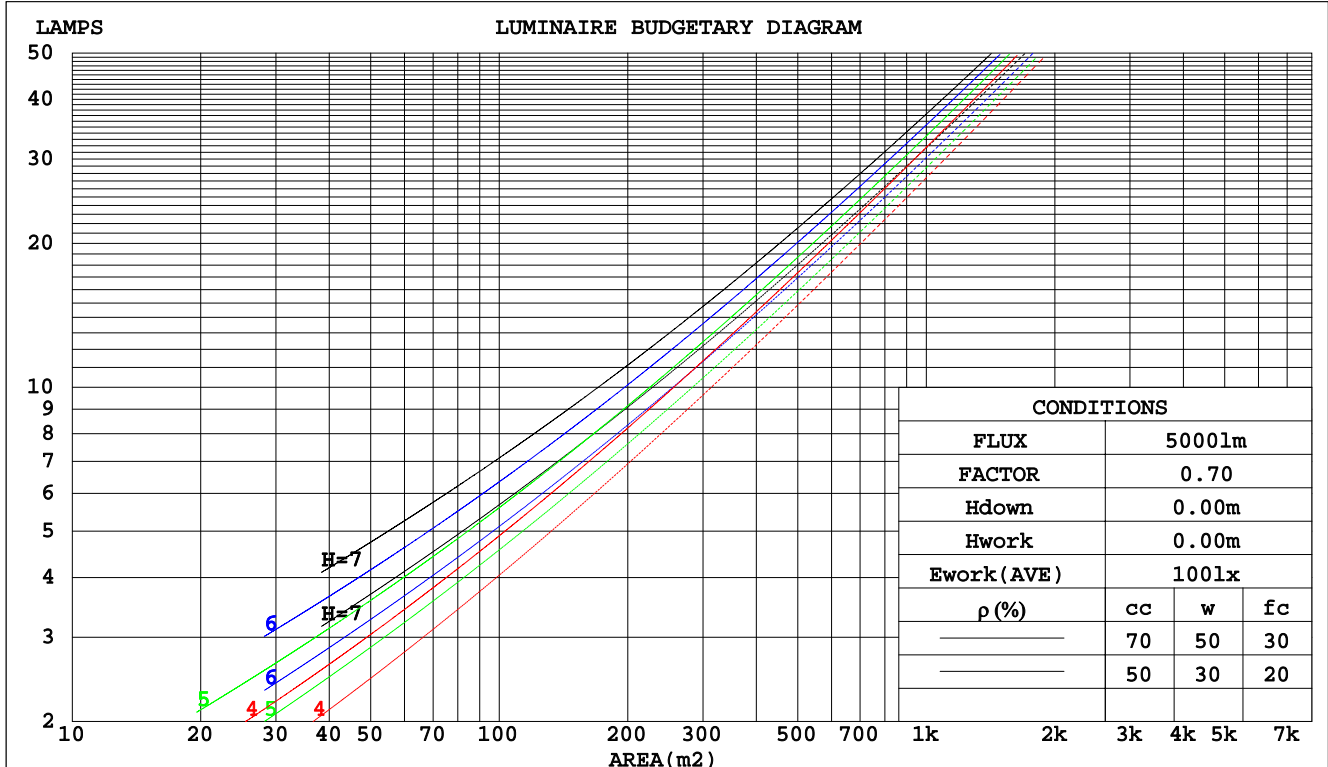
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-12-18

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:229.61V I:0.3391A P:75.995W PF:0.9761 Freq:49.99Hz Lamp Flux:5749.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 500*50	SERIAL No.:
MFR.: NLD23-009	SUR.:3.14*0.249*0.249	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															



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-12-18

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:229.61V I:0.3391A P:75.995W PF:0.9761 Freq:49.99Hz Lamp Flux:5749.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 500*50	SERIAL No.:
MFR.: NLD23-009	SUR.:3.14*0.249*0.249	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	.293	.167	.053	.286	.163	.052	.273	.157	.050	.261	.150	.048	.250	.145	.047		
2.0	.281	.154	.047	.275	.152	.047	.264	.147	.046	.253	.142	.044	.243	.137	.043		
3.0	.263	.140	.042	.258	.138	.042	.247	.134	.041	.238	.130	.040	.229	.127	.039		
4.0	.244	.127	.037	.240	.125	.037	.231	.122	.037	.222	.119	.036	.214	.116	.035		
5.0	.227	.116	.034	.223	.114	.033	.215	.112	.033	.207	.109	.033	.200	.107	.032		
6.0	.211	.106	.030	.207	.105	.030	.200	.103	.030	.193	.101	.030	.187	.099	.029		
7.0	.197	.097	.028	.194	.096	.027	.187	.095	.027	.181	.093	.027	.175	.091	.027		
8.0	.184	.090	.025	.181	.089	.025	.176	.088	.025	.170	.086	.025	.165	.085	.025		
9.0	.173	.084	.023	.170	.083	.023	.165	.082	.023	.160	.080	.023	.156	.079	.023		
10.0	.163	.078	.022	.160	.077	.022	.156	.076	.021	.151	.075	.021	.147	.074	.021		

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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.111	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-12-18

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:229.61V I:0.3391A P:75.995W PF:0.9761 Freq:49.99Hz Lamp Flux:5749.6x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 500*50			SERIAL No.:			
MFR.: NLD23-009					SUR.:3.14*0.249*0.249			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	21.0	22.5	21.3	22.7	22.9	20.8	22.3	21.1	22.5	22.7	
	3H	22.4	23.8	22.7	24.0	24.2	22.1	23.4	22.3	23.7	23.9
	4H	22.8	24.1	23.1	24.4	24.6	22.4	23.7	22.7	24.0	24.2
	6H	23.0	24.3	23.4	24.5	24.8	22.6	23.8	22.9	24.1	24.4
	8H	23.0	24.2	23.4	24.5	24.8	22.6	23.8	22.9	24.1	24.3
	12H	23.0	24.2	23.4	24.5	24.8	22.5	23.7	22.9	24.0	24.3
4H	2H	21.6	22.9	21.9	23.1	23.4	21.4	22.7	21.7	23.0	23.2
	3H	23.1	24.2	23.4	24.5	24.8	22.8	23.9	23.1	24.2	24.5
	4H	23.6	24.7	24.0	25.0	25.3	23.2	24.3	23.6	24.6	24.9
	6H	23.9	24.8	24.3	25.2	25.6	23.5	24.4	23.9	24.7	25.1
	8H	24.0	24.8	24.4	25.2	25.6	23.5	24.4	23.9	24.7	25.1
	12H	24.0	24.7	24.4	25.1	25.5	23.5	24.3	23.9	24.7	25.1
8H	4H	23.8	24.6	24.2	25.0	25.4	23.4	24.3	23.8	24.6	25.0
	6H	24.1	24.9	24.6	25.3	25.7	23.7	24.4	24.2	24.8	25.3
	8H	24.2	24.9	24.7	25.3	25.7	23.8	24.4	24.2	24.8	25.3
	12H	24.3	24.8	24.7	25.2	25.7	23.8	24.3	24.3	24.8	25.2
12H	4H	23.7	24.5	24.2	24.9	25.3	23.4	24.2	23.8	24.6	25.0
	6H	24.1	24.8	24.6	25.2	25.6	23.7	24.4	24.2	24.8	25.2
	8H	24.2	24.8	24.7	25.2	25.7	23.8	24.3	24.3	24.8	25.3
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.4					
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3					

CIE Pub.117, 5750 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 6.1$)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2023-12-18

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:229.61V I:0.3391A P:75.995W PF:0.9761 Freq:49.99Hz Lamp Flux:5749.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 500*50	SERIAL No.:
MFR.: NLD23-009	SUR.:3.14*0.249*0.249	Shielding Angle:

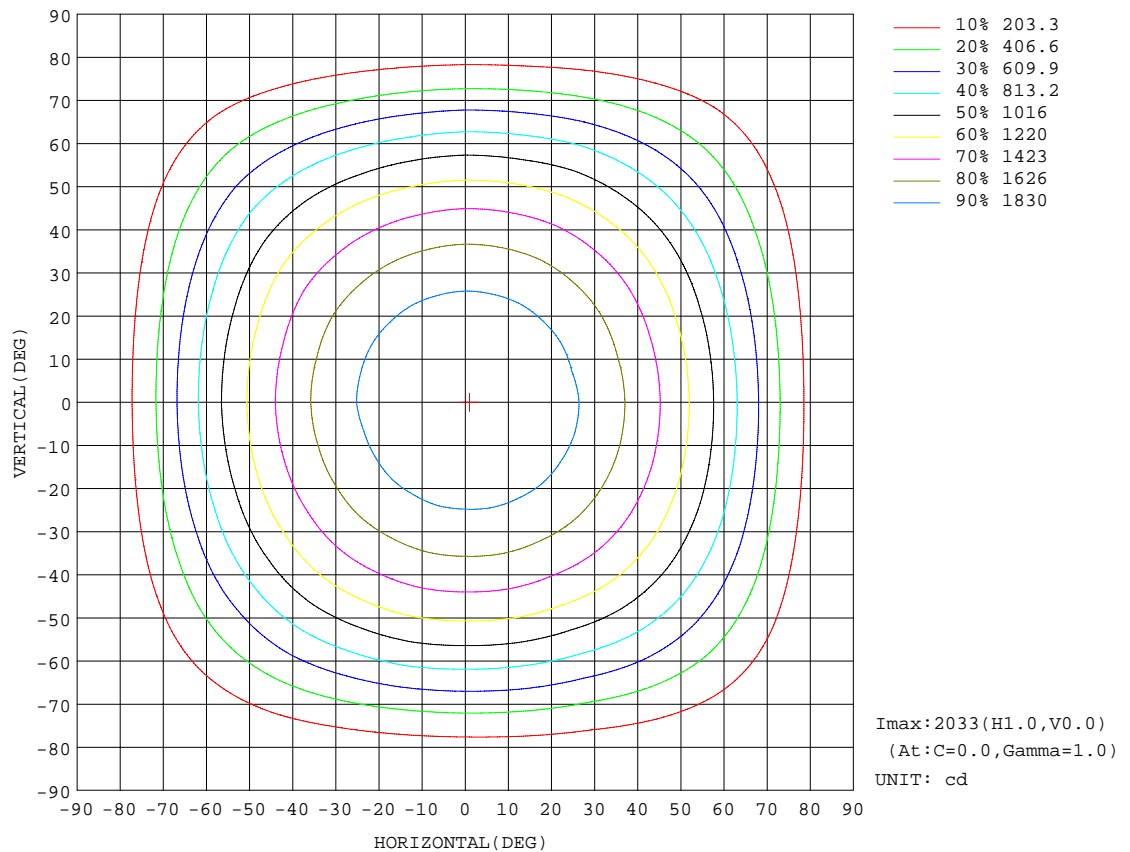
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	46	39	33
0.80	68	57	49	67	56	49	65	55	49	42
1.00	77	66	59	76	65	58	73	67	58	51
1.25	84	74	67	83	73	66	80	72	66	58
1.50	89	79	73	87	79	72	84	77	71	64
2.00	96	88	81	94	86	81	91	84	79	71
2.50	100	92	86	98	91	86	94	88	84	76
3.00	103	96	91	101	95	90	97	92	88	80
4.00	107	102	97	105	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-12-18

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:229.61V I:0.3391A P:75.995W PF:0.9761 Freq:49.99Hz Lamp Flux:5749.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 500*50	SERIAL No.:
MFR.: NLD23-009	SUR.:3.14*0.249*0.249	Shielding Angle:

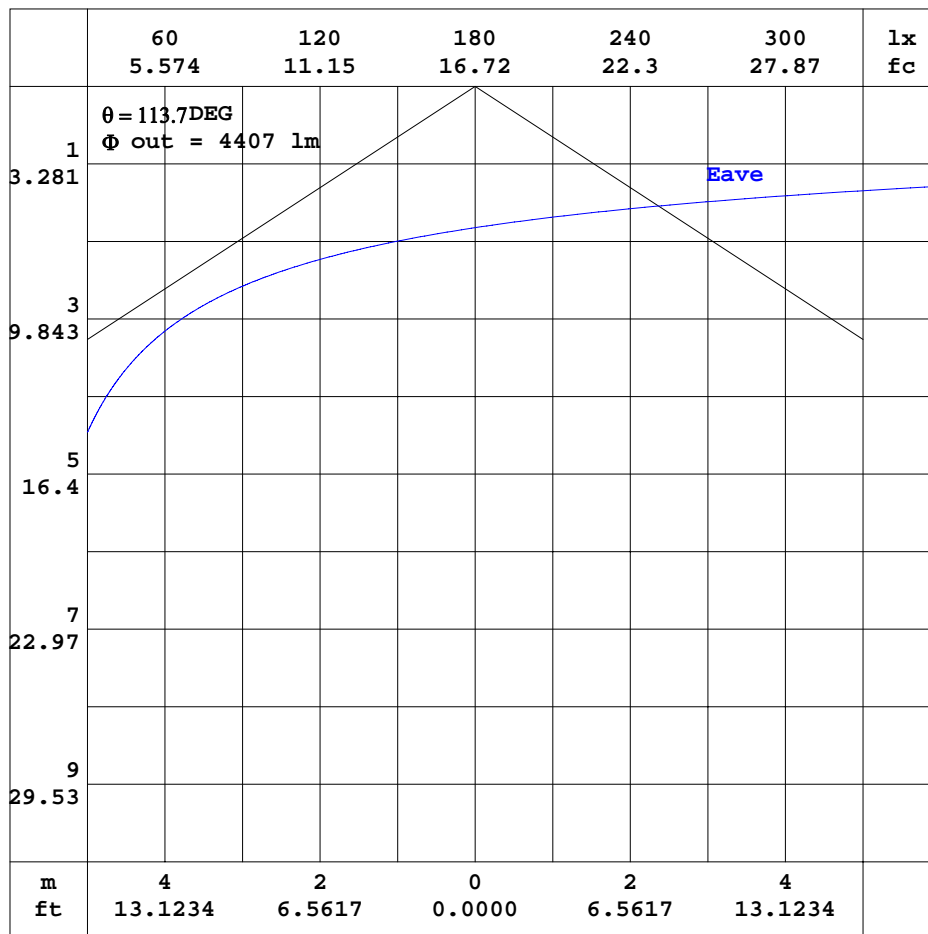


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-12-18

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:229.61V I:0.3391A P:75.995W PF:0.9761 Freq:49.99Hz Lamp Flux:5749.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 500*50	SERIAL No.:
MFR.: NLD23-009	SUR.:3.14*0.249*0.249	Shielding Angle:



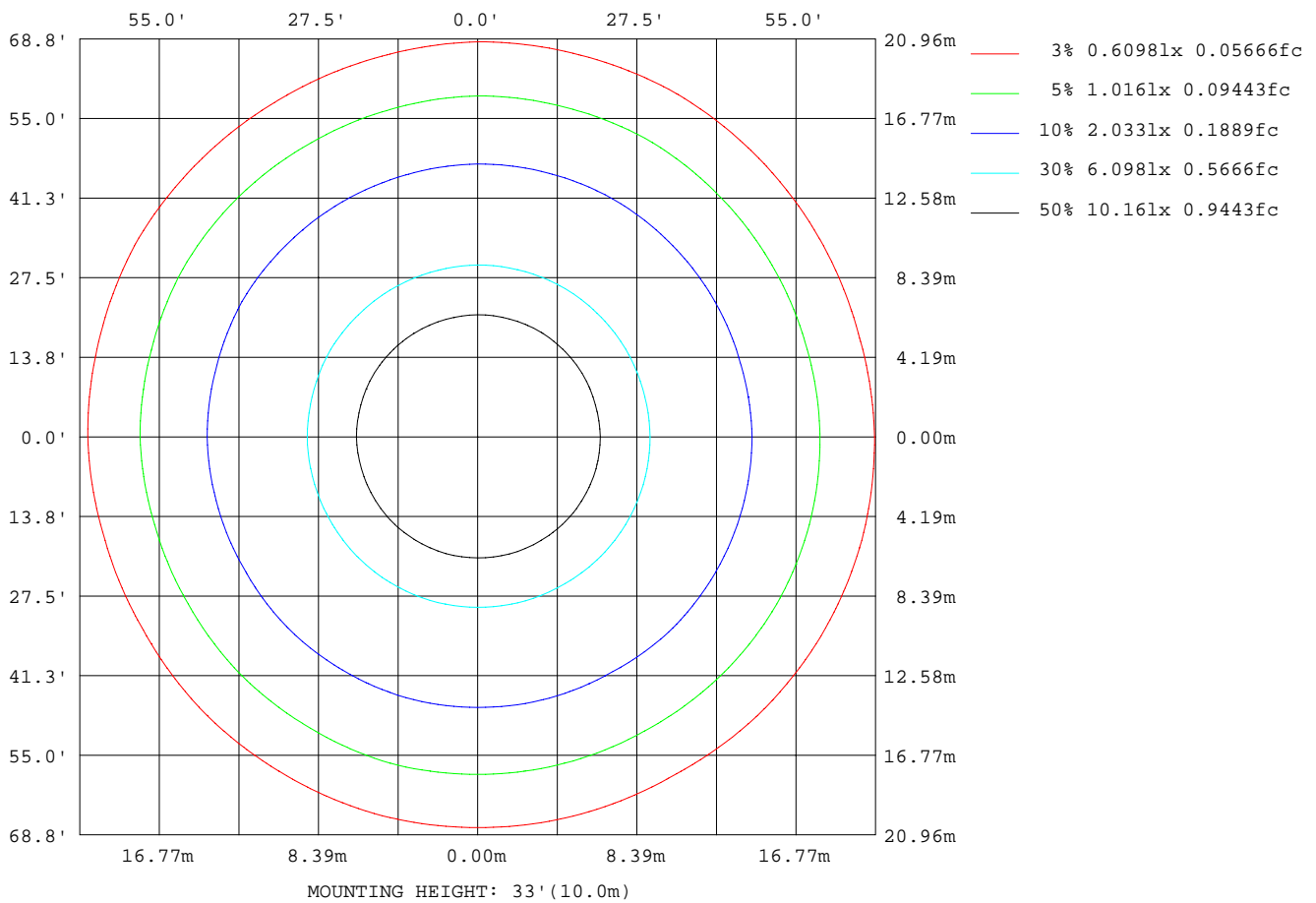
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2023-12-18

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:229.61V I:0.3391A P:75.995W PF:0.9761 Freq:49.99Hz Lamp Flux:5749.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 500*50	SERIAL No.:
MFR.: NLD23-009	SUR.:3.14*0.249*0.249	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-12-18

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:229.61V I:0.3391A P:75.995W PF:0.9761 Freq:49.99Hz Lamp Flux:5749.6x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 500*50	SERIAL No.:
MFR.: NLD23-009	SUR.:3.14*0.249*0.249	Shielding Angle:

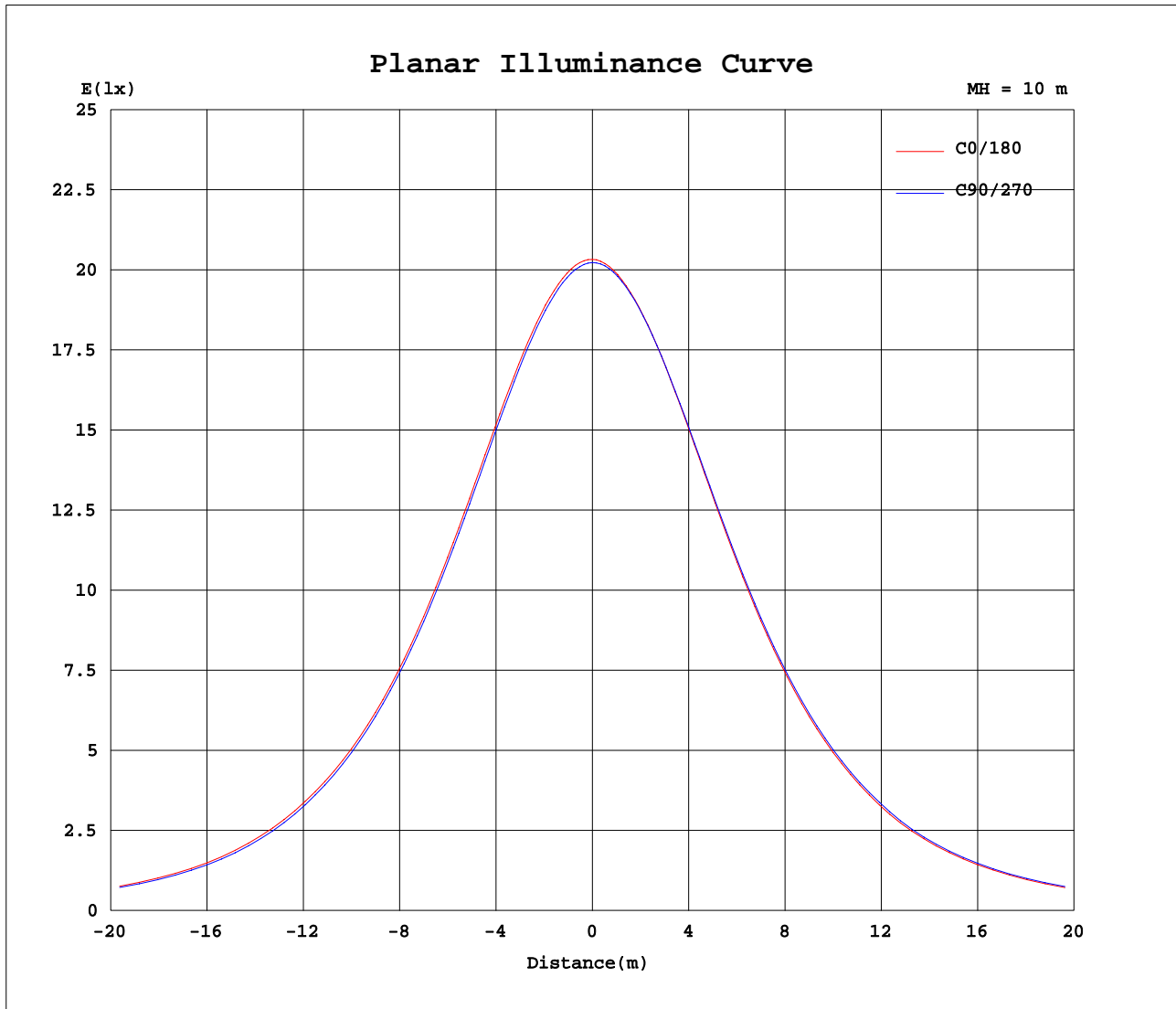
AvgL	cd/m2
L_0~180(65)av	8653
L_0~180(75)av	6057
L_0~180(85)av	2015
L_90~270(65)av	8620
L_90~270(75)av	6084
L_90~270(85)av	1976
L_45(65)av	8605
L_45(75)av	6082
L_45(85)av	2010

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-12-18

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: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2023-12-18

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:

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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:

```