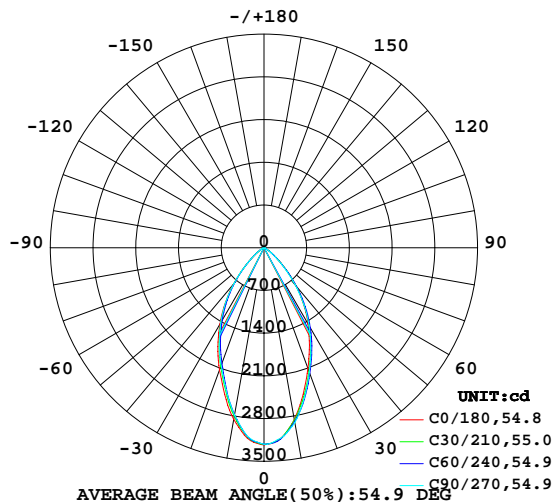


LUMINAIRE PHOTOMETRIC TEST REPORT

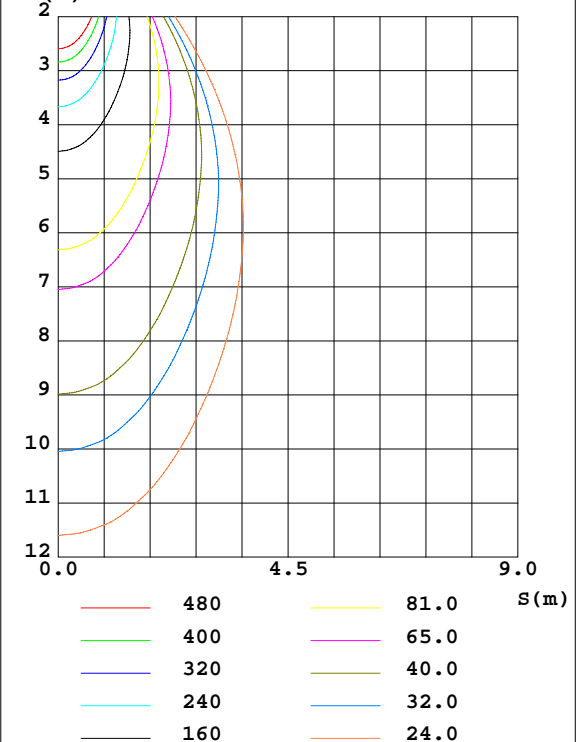
Test:U:229.49V I:0.2557A P:57.893W PF:0.9867 Freq:49.99Hz Lamp Flux:3037.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 650*40	SERIAL No.:
MFR.: NLT23-0015-01	SUR.:3.14*0.325*0.325	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 52.47 lm/W			
MODEL		I _{max} (cd)	3231	S/MH(C0/180)	0.80
NOMINAL POWER(W)	60	LOR(%)	100.0	S/MH(C90/270)	0.78
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	3037.6	η UP,DN(C0-180)	0.0,50.8
NOMINAL FLUX(lm)	3037.64	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	0.90

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:2024-01-29

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:

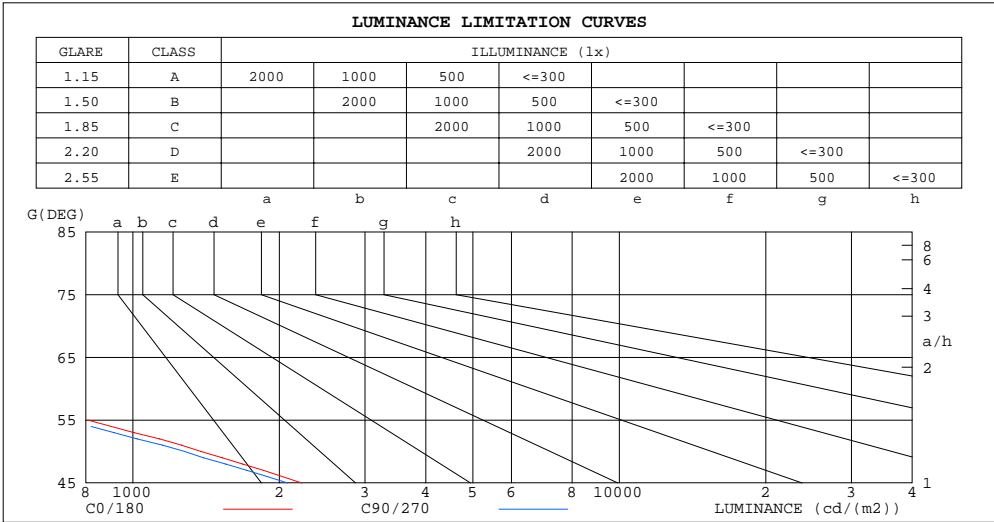
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2859	2881	2913	2888	2855	2783	2783	2818	0- 10	288.6	288.6	9.5,9.5
20	2104	2197	2174	2130	2131	2028	2054	2087	10- 20	691.8	980.4	32.3,32.3
30	1447	1511	1479	1432	1446	1368	1417	1447	20- 30	812.2	1793	59,59
40	817.0	840.4	796.7	769.7	775.1	736.0	766.4	793.1	30- 40	693.0	2486	81.8,81.8
50	293.9	291.6	272.1	257.4	253.1	251.4	254.8	275.8	40- 50	382.8	2868	94.4,94.4
60	64.58	66.67	57.13	52.48	47.39	49.38	53.71	56.00	50- 60	128.9	2997	98.7,98.7
70	7.934	12.76	14.23	7.286	5.144	12.27	14.44	9.282	60- 70	22.84	3020	99.4,99.4
80	9.374	12.49	11.89	7.224	5.389	11.23	14.29	12.14	70- 80	11.56	3032	99.8,99.8
90	0.4296	0.3866	0.4296	1.117	1.160	0.6443	0.8763	0.5412	80- 90	5.966	3038	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:2024-01-29

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:229.49V I:0.2557A P:57.893W PF:0.9867 Freq:49.99Hz Lamp Flux:3037.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 650*40	SERIAL No.:
MFR.: NLT23-0015-01	SUR.:3.14*0.325*0.325	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	238	249
80	163	207
75	98	166
70	70	125
65	140	144
60	389	345
55	808	735
50	1379	1276
45	2223	2079

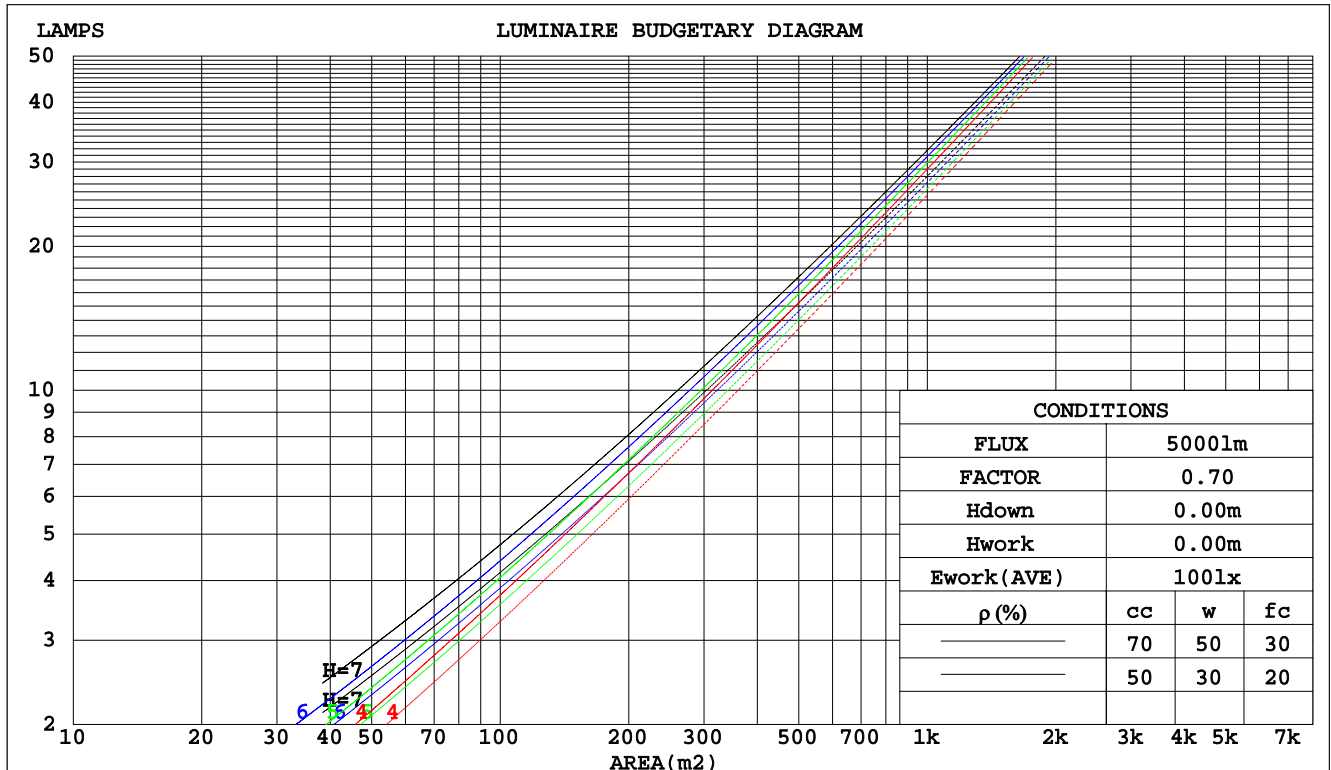
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-01-29

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:229.49V I:0.2557A P:57.893W PF:0.9867 Freq:49.99Hz Lamp Flux:3037.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 650*40	SERIAL No.:
MFR.: NLT23-0015-01	SUR.:3.14*0.325*0.325	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	1.10	1.07	1.05	1.08	1.05	1.03	1.04	1.02	.00	.00	.98	.97	.96	.95	.94	.92
2.0	1.01	.97	.93	.99	.95	.92	.96	.93	.90	.93	.90	.88	.90	.88	.86	.84
3.0	.93	.88	.84	.92	.87	.83	.89	.85	.82	.87	.83	.80	.85	.82	.79	.77
4.0	.86	.80	.76	.85	.80	.75	.83	.78	.74	.81	.77	.73	.79	.75	.73	.71
5.0	.80	.74	.69	.79	.73	.69	.77	.72	.68	.76	.71	.67	.74	.70	.67	.65
6.0	.75	.68	.63	.74	.68	.63	.72	.67	.63	.71	.66	.62	.69	.65	.62	.60
7.0	.70	.63	.58	.69	.63	.58	.68	.62	.58	.66	.61	.58	.65	.61	.57	.56
8.0	.65	.59	.54	.64	.58	.54	.63	.58	.54	.62	.57	.53	.61	.57	.53	.52
9.0	.61	.55	.50	.61	.54	.50	.60	.54	.50	.59	.54	.50	.58	.53	.50	.48
10.0	.57	.51	.47	.57	.51	.47	.56	.51	.47	.55	.50	.47	.55	.50	.46	.45



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-01-29

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:229.49V I:0.2557A P:57.893W PF:0.9867 Freq:49.99Hz Lamp Flux:3037.64x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.: 650*40		SERIAL No.:	
MFR.: NLT23-0015-01		SUR.:3.14*0.325*0.325		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	.195	.111	.035	.189	.108	.034	.176	.101	.032	.164	.095	.030	.153	.089	.029	
2.0	.188	.103	.032	.183	.101	.031	.172	.096	.030	.162	.091	.028	.153	.086	.027	
3.0	.180	.096	.029	.175	.094	.028	.166	.090	.027	.157	.086	.026	.149	.083	.026	
4.0	.171	.089	.026	.167	.087	.026	.159	.084	.025	.152	.081	.025	.145	.079	.024	
5.0	.163	.083	.024	.159	.082	.024	.152	.079	.023	.146	.077	.023	.140	.075	.022	
6.0	.155	.078	.022	.152	.077	.022	.146	.075	.022	.140	.073	.021	.135	.071	.021	
7.0	.148	.073	.021	.145	.072	.021	.140	.071	.020	.134	.069	.020	.129	.067	.020	
8.0	.141	.069	.019	.139	.068	.019	.134	.067	.019	.129	.065	.019	.125	.064	.019	
9.0	.135	.065	.018	.132	.065	.018	.128	.063	.018	.124	.062	.018	.120	.061	.018	
10.0	.129	.062	.017	.127	.061	.017	.123	.060	.017	.119	.059	.017	.115	.058	.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	.172	.157	.143	.147	.135	.123	.101	.093	.085	.058	.054	.050	.019	.017	.016	
2.0	.158	.132	.111	.136	.114	.096	.093	.079	.067	.054	.046	.039	.017	.015	.013	
3.0	.147	.114	.087	.126	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.138	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.130	.088	.057	.111	.076	.050	.077	.053	.035	.044	.031	.021	.014	.010	.007	
6.0	.123	.079	.048	.105	.068	.041	.073	.048	.029	.042	.028	.017	.014	.009	.006	
7.0	.116	.071	.040	.100	.062	.035	.069	.043	.025	.040	.026	.015	.013	.008	.005	
8.0	.111	.065	.034	.095	.057	.030	.066	.040	.021	.038	.024	.013	.012	.008	.004	
9.0	.105	.060	.030	.091	.052	.026	.063	.037	.018	.037	.022	.011	.012	.007	.004	
10.0	.101	.056	.026	.087	.049	.023	.060	.034	.016	.035	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-01-29

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:229.49V I:0.2557A P:57.893W PF:0.9867 Freq:49.99Hz Lamp Flux:3037.64x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 650*40			SERIAL No.:			
MFR.: NLT23-0015-01					SUR.:3.14*0.325*0.325			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	11.4	12.5	11.6	12.6	12.8	11.3	12.4	11.6	12.6	12.7
	3H	11.2	12.2	11.5	12.4	12.6	11.2	12.1	11.4	12.3	12.6
	4H	11.1	12.1	11.4	12.3	12.5	11.1	12.0	11.4	12.2	12.5
	6H	11.1	11.9	11.4	12.2	12.4	11.1	11.9	11.4	12.2	12.4
	8H	11.0	11.9	11.4	12.1	12.4	11.0	11.9	11.3	12.1	12.4
	12H	11.0	11.8	11.4	12.1	12.4	11.0	11.8	11.3	12.1	12.4
4H	2H	11.2	12.1	11.5	12.3	12.6	11.1	12.0	11.4	12.3	12.5
	3H	11.0	11.8	11.4	12.1	12.4	11.0	11.8	11.3	12.0	12.3
	4H	11.0	11.7	11.3	12.0	12.3	10.9	11.6	11.3	12.0	12.3
	6H	10.9	11.5	11.3	11.9	12.2	10.9	11.5	11.3	11.9	12.2
	8H	10.9	11.5	11.3	11.8	12.2	10.9	11.5	11.3	11.8	12.2
	12H	10.9	11.4	11.3	11.8	12.2	10.9	11.5	11.3	11.8	12.2
8H	4H	10.8	11.4	11.2	11.8	12.1	10.8	11.4	11.2	11.8	12.1
	6H	10.8	11.3	11.3	11.7	12.1	10.8	11.3	11.3	11.7	12.1
	8H	10.8	11.3	11.3	11.7	12.1	10.9	11.3	11.3	11.7	12.1
	12H	10.9	11.2	11.3	11.7	12.1	10.9	11.3	11.4	11.7	12.2
12H	4H	10.8	11.3	11.2	11.7	12.1	10.8	11.3	11.2	11.7	12.1
	6H	10.8	11.2	11.2	11.6	12.1	10.8	11.2	11.3	11.6	12.1
	8H	10.8	11.2	11.3	11.6	12.1	10.8	11.2	11.3	11.6	12.1
Variations with the observer position at spacings:											
S = 1.0H	+ 2.1 / - 5.2					+ 2.1 / - 5.2					
1.5H	+ 2.6 / - 3.8					+ 2.8 / - 3.8					
2.0H	+ 4.6 / - 6.5					+ 4.5 / - 5.7					

CIE Pub.117, 3038 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 3.9$)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-01-29

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:229.49V I:0.2557A P:57.893W PF:0.9867 Freq:49.99Hz Lamp Flux:3037.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 650*40	SERIAL No.:
MFR.: NLT23-0015-01	SUR.:3.14*0.325*0.325	Shielding Angle:

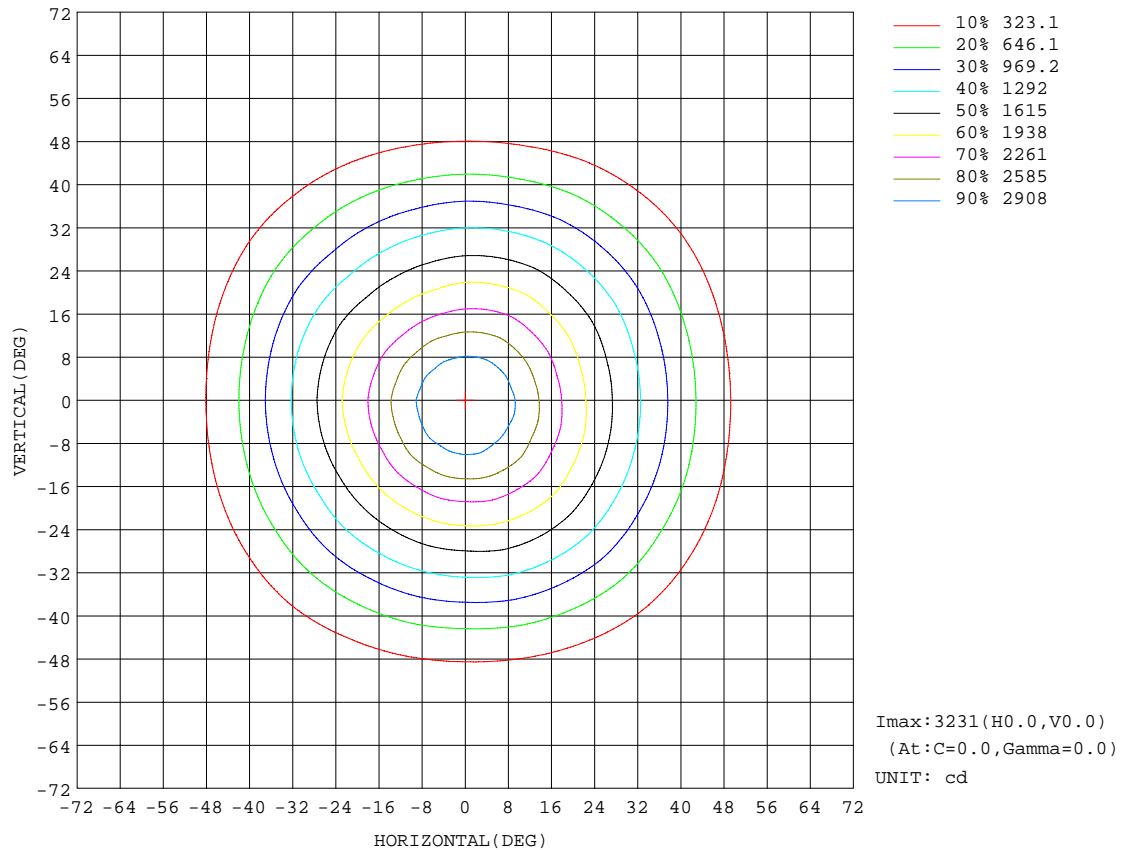
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	80	72	68	79	72	67	78	72	67	63
0.80	89	81	77	88	81	77	86	80	76	72
1.00	95	88	83	94	87	83	92	88	83	78
1.25	99	93	89	98	93	89	96	92	88	83
1.50	103	97	93	101	96	93	99	95	92	87
2.00	106	102	98	105	100	97	102	98	96	90
2.50	108	104	100	107	103	100	103	100	98	91
3.00	110	106	103	108	105	102	105	102	100	93
4.00	112	109	107	110	108	105	107	104	102	95
5.00	114	111	109	112	109	107	108	106	104	96
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:2024-01-29

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:229.49V I:0.2557A P:57.893W PF:0.9867 Freq:49.99Hz Lamp Flux:3037.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 650*40	SERIAL No.:
MFR.: NLT23-0015-01	SUR.:3.14*0.325*0.325	Shielding Angle:

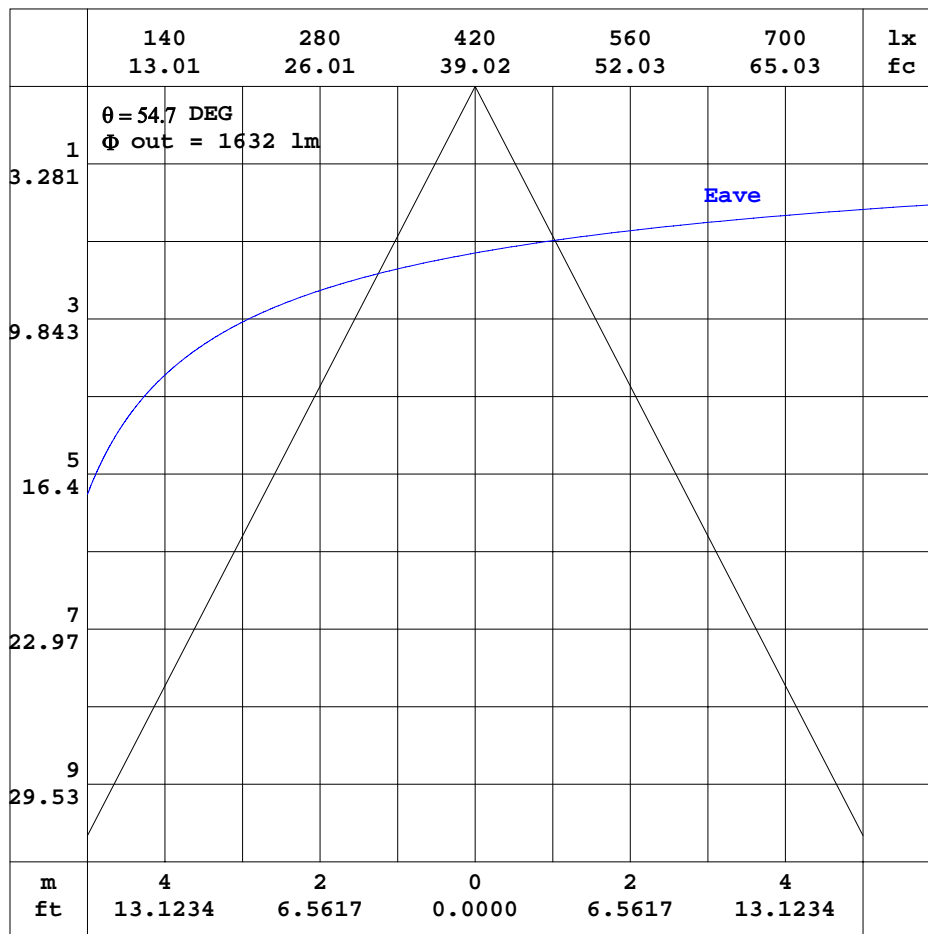


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-01-29

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:229.49V I:0.2557A P:57.893W PF:0.9867 Freq:49.99Hz Lamp Flux:3037.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 650*40	SERIAL No.:
MFR.: NLT23-0015-01	SUR.:3.14*0.325*0.325	Shielding Angle:



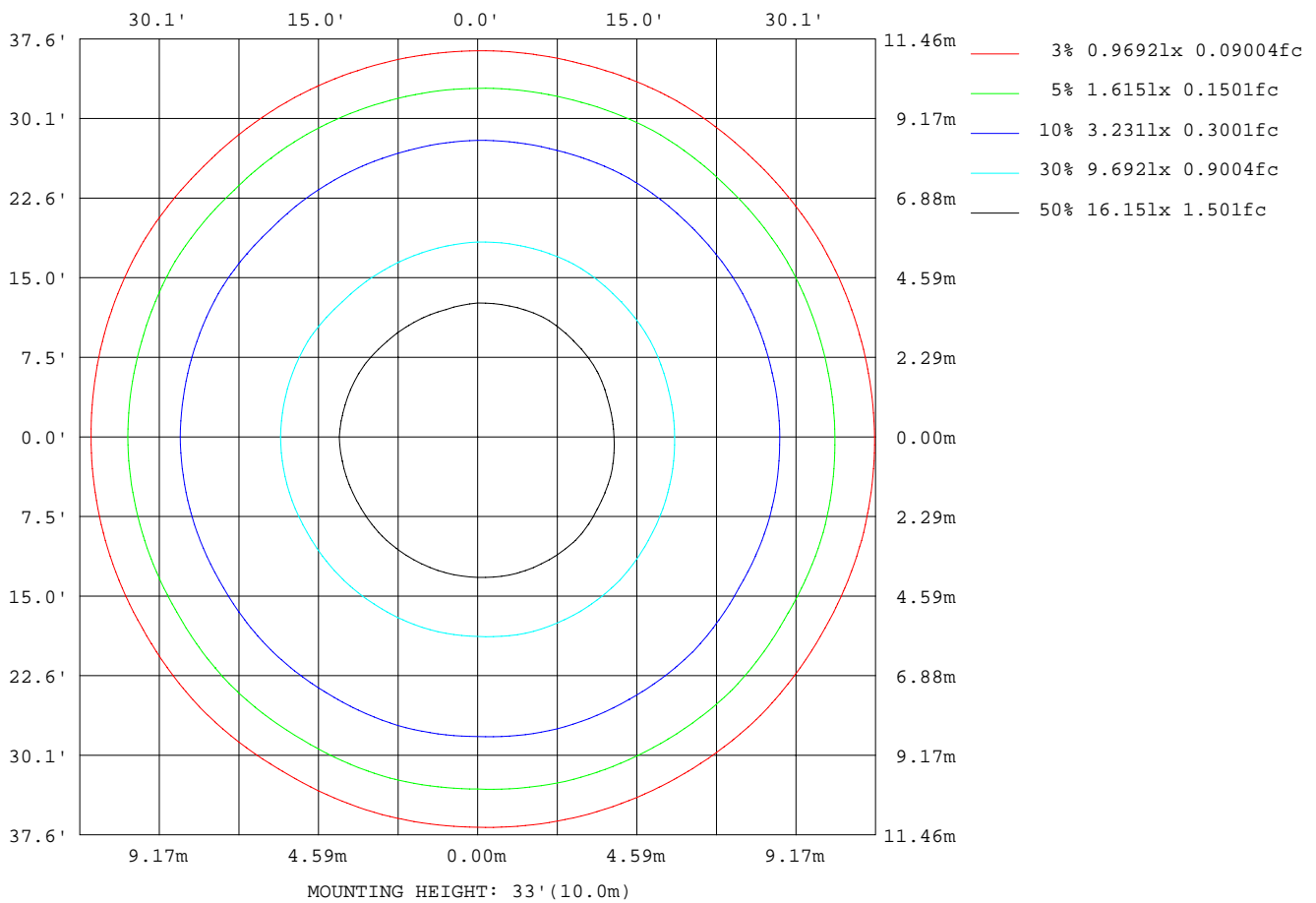
Note:The Curves indicate the illuminated area and the average illuminance when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-01-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 γ 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:229.49V I:0.2557A P:57.893W PF:0.9867 Freq:49.99Hz Lamp Flux:3037.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 650*40	SERIAL No.:
MFR.: NLT23-0015-01	SUR.:3.14*0.325*0.325	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-01-29

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:229.49V I:0.2557A P:57.893W PF:0.9867 Freq:49.99Hz Lamp Flux:3037.64x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 650*40	SERIAL No.:
MFR.: NLT23-0015-01	SUR.:3.14*0.325*0.325	Shielding Angle:

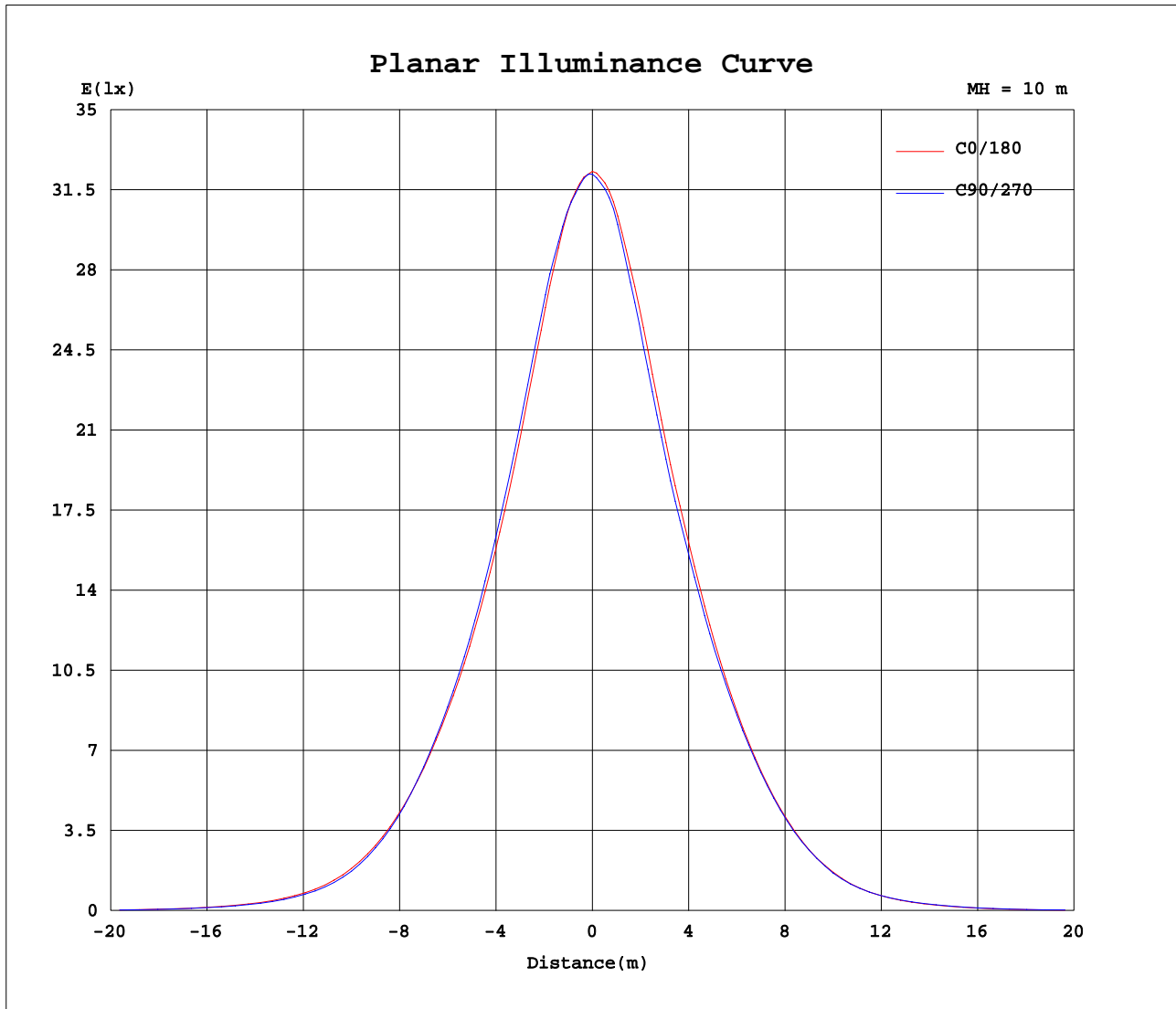
AvgL	cd/m2
L_0~180(65)av	117
L_0~180(75)av	82
L_0~180(85)av	162
L_90~270(65)av	144
L_90~270(75)av	163
L_90~270(85)av	288
L_45(65)av	131
L_45(75)av	131
L_45(85)av	221

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-01-29

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: 2024-01-29

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:

```

```

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:

```