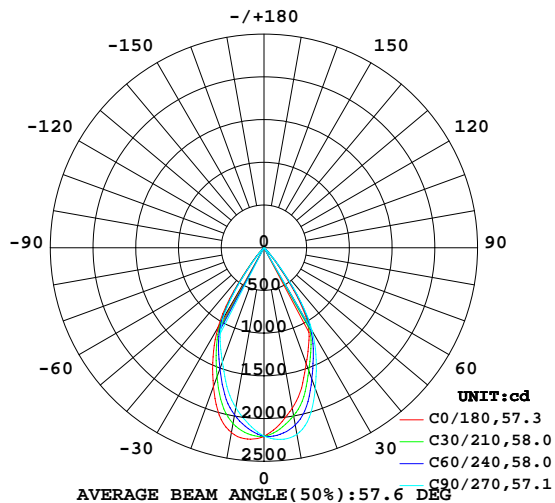


LUMINAIRE PHOTOMETRIC TEST REPORT

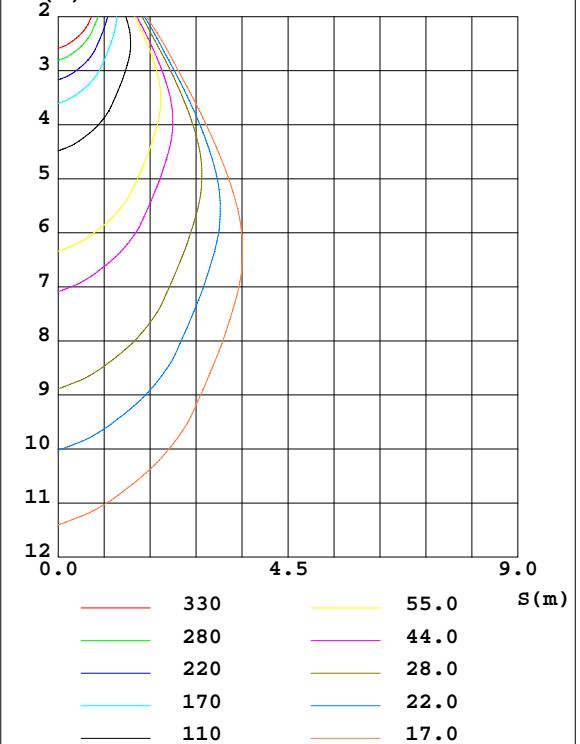
Test:U:229.70V I:0.0808A P:17.667W PF:0.9515 Freq:50.08Hz Lamp Flux:1752.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: NLC-015B-03	SUR.:0.115*0.115	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 99.18 lm/W			
MODEL		Imax(cd)	2296	S/MH(C0/180)	0.89
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	0.78
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1752.3	η UP,DN(C0-180)	0.0,52.7
NOMINAL FLUX(lm)	1752.25	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,47.3
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: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-07-12

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:

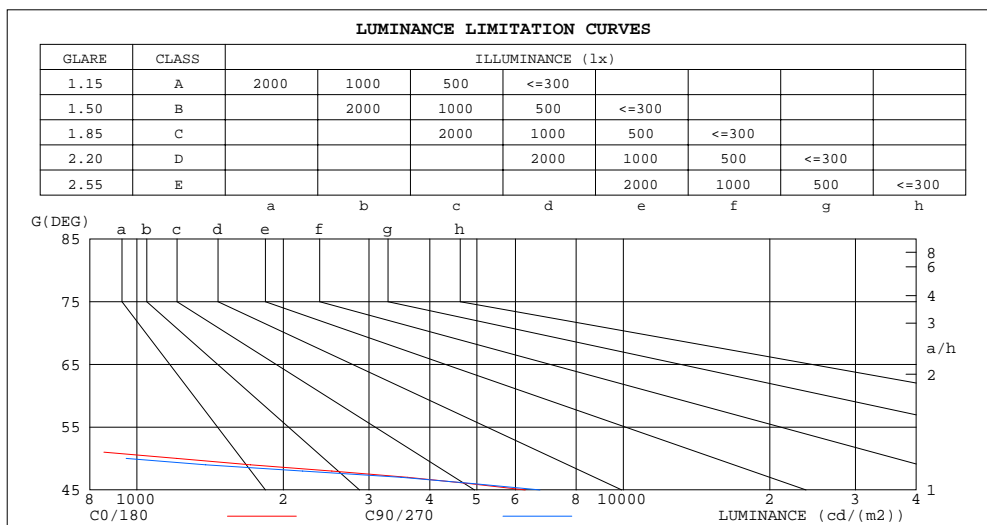
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	1908	2052	2218	2272	2197	2039	1901	1855	0- 10	202.9	202.9	11.6,11.6
20	1445	1585	1755	1807	1731	1558	1424	1390	10- 20	516.3	719.3	41,41
30	1023	1080	1131	1116	1075	1005	965.6	979.9	20- 30	605.1	1324	75.6,75.6
40	205.7	237.4	245.2	239.0	190.4	164.7	144.5	176.7	30- 40	372.5	1697	96.8,96.8
50	10.24	15.15	8.062	10.35	5.974	7.437	5.937	11.59	40- 50	53.12	1750	99.9,99.9
60	0.3185	0.3136	0.2139	0.3138	0.2143	0.2792	0.2406	0.2794	50- 60	1.881	1752	100,100
70	0.1117	0.0861	0.0687	0.0861	0.1409	0.1160	0.1289	0.1283	60- 70	0.1667	1752	100,100
80	0.0859	0.0688	0.0687	0.0730	0.1237	0.1161	0.1163	0.1144	70- 80	0.1059	1752	100,100
90	0.0773	0.0687	0.0687	0.0687	0.1117	0.1375	0.1117	0.1117	80- 90	0.1020	1752	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: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2023-07-12

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:229.70V I:0.0808A P:17.667W PF:0.9515 Freq:50.08Hz Lamp Flux:1752.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: NLC-015B-03	SUR.:0.115*0.115	Shielding Angle:



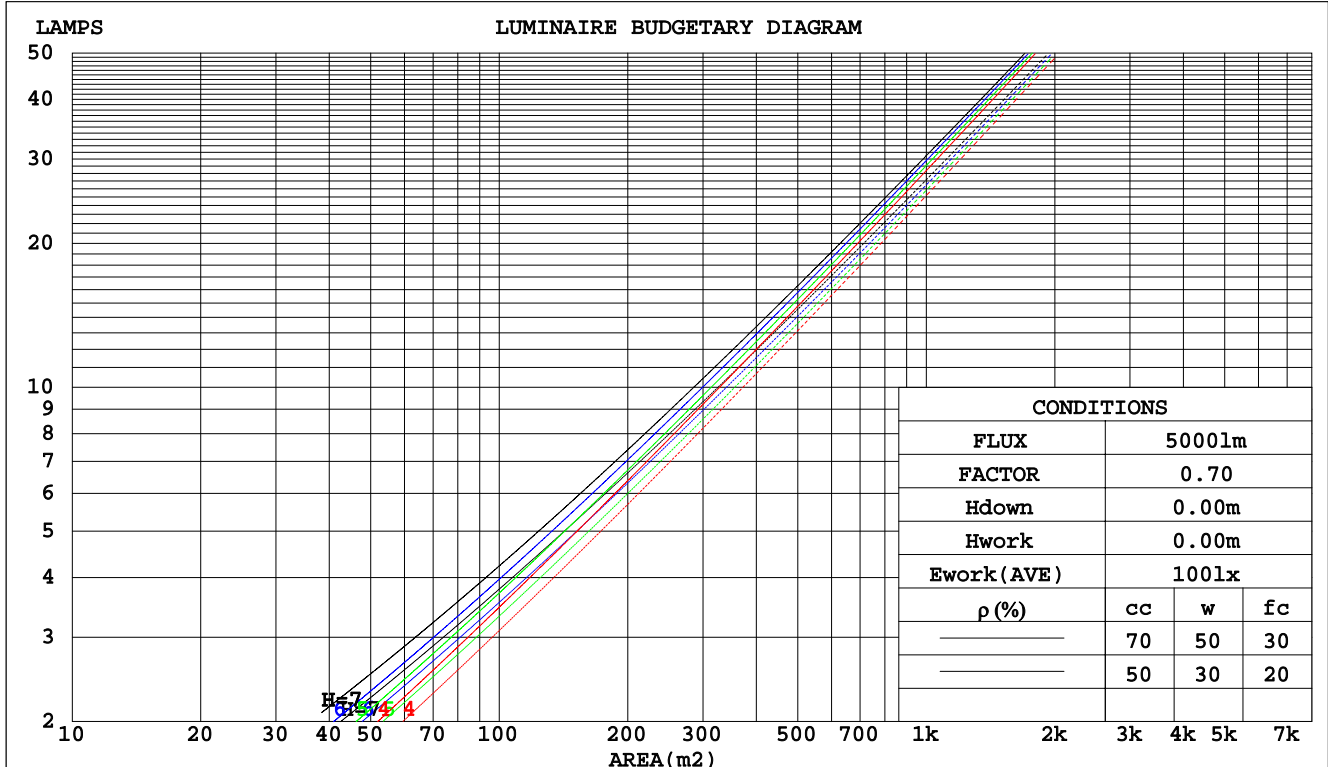
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-07-12

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:229.70V I:0.0808A P:17.667W PF:0.9515 Freq:50.08Hz Lamp Flux:1752.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: NLC-015B-03	SUR.:0.115*0.115	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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.91	.90	.88
3.0	.97	.92	.89	.96	.91	.88	.93	.90	.87	.91	.88	.85	.89	.86	.84	.82
4.0	.91	.86	.82	.90	.85	.81	.88	.84	.80	.86	.82	.79	.84	.81	.79	.77
5.0	.86	.80	.76	.85	.80	.76	.83	.78	.75	.81	.77	.74	.80	.76	.74	.72
6.0	.81	.75	.71	.80	.74	.71	.78	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.64
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.68	.64	.61	.60
9.0	.68	.62	.58	.68	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.58	.57
10.0	.64	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.55	.62	.58	.55	.53



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-07-12

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:229.70V I:0.0808A P:17.667W PF:0.9515 Freq:50.08Hz Lamp Flux:1752.25x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.: 120*120*27			SERIAL No.:		
MFR.: NLC-015B-03			SUR.:0.115*0.115			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	.171	.097	.031	.164	.094	.030	.152	.087	.028	.140	.081	.026	.129	.075	.024	
2.0	.163	.090	.027	.158	.087	.027	.147	.082	.025	.137	.077	.024	.129	.073	.023	
3.0	.156	.083	.025	.151	.081	.024	.142	.077	.023	.134	.073	.022	.126	.070	.022	
4.0	.149	.077	.023	.144	.076	.022	.137	.073	.022	.130	.070	.021	.123	.067	.020	
5.0	.142	.072	.021	.138	.071	.021	.132	.069	.020	.125	.066	.020	.120	.064	.019	
6.0	.136	.068	.019	.133	.067	.019	.127	.065	.019	.121	.063	.019	.116	.061	.018	
7.0	.130	.064	.018	.127	.063	.018	.122	.062	.018	.117	.060	.017	.113	.058	.017	
8.0	.125	.061	.017	.122	.060	.017	.118	.059	.017	.113	.057	.017	.109	.056	.016	
9.0	.120	.058	.016	.118	.057	.016	.113	.056	.016	.109	.055	.016	.106	.054	.016	
10.0	.115	.055	.015	.113	.055	.015	.109	.054	.015	.106	.053	.015	.102	.052	.015	

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	.171	.157	.145	.146	.135	.125	.100	.093	.087	.058	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.068	.052	.046	.040	.017	.015	.013	
3.0	.142	.114	.090	.122	.098	.078	.084	.068	.055	.048	.040	.032	.016	.013	.011	
4.0	.132	.099	.073	.113	.085	.064	.078	.059	.045	.045	.035	.027	.015	.011	.009	
5.0	.123	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.036	.089	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2023-07-12

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:229.70V I:0.0808A P:17.667W PF:0.9515 Freq:50.08Hz Lamp Flux:1752.25x1 lm										
NAME:			TYPE:			WEIGHT:				
SPEC.:			DIM.: 120*120*27			SERIAL No.:				
MFR.: NLC-015B-03			SUR.:0.115*0.115			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	17.6	18.5	17.8	18.7	18.9	17.9	18.9	18.2	19.0	19.2
3H	17.4	18.3	17.7	18.5	18.7	17.8	18.6	18.0	18.8	19.0
4H	17.4	18.2	17.6	18.4	18.6	17.7	18.5	18.0	18.7	18.9
6H	17.3	18.0	17.6	18.3	18.5	17.6	18.3	17.9	18.6	18.8
8H	17.2	17.9	17.5	18.2	18.4	17.6	18.3	17.9	18.5	18.8
12H	17.2	17.9	17.5	18.1	18.4	17.5	18.2	17.8	18.5	18.7
4H 2H	17.4	18.2	17.6	18.4	18.6	17.7	18.5	18.0	18.7	18.9
3H	17.2	17.9	17.5	18.1	18.4	17.5	18.2	17.8	18.5	18.7
4H	17.1	17.7	17.4	18.0	18.3	17.4	18.0	17.8	18.3	18.6
6H	17.0	17.5	17.4	17.9	18.2	17.3	17.9	17.7	18.2	18.5
8H	16.9	17.4	17.3	17.8	18.2	17.3	17.8	17.7	18.1	18.5
12H	16.9	17.3	17.3	17.7	18.1	17.2	17.7	17.6	18.1	18.4
8H 4H	16.9	17.4	17.3	17.8	18.2	17.3	17.8	17.7	18.1	18.5
6H	16.8	17.2	17.3	17.6	18.1	17.2	17.6	17.6	18.0	18.4
8H	16.8	17.1	17.2	17.6	18.0	17.1	17.5	17.6	17.9	18.3
12H	16.7	17.0	17.2	17.5	17.9	17.1	17.4	17.5	17.8	18.3
12H 4H	16.9	17.3	17.3	17.7	18.1	17.2	17.7	17.6	18.1	18.4
6H	16.8	17.1	17.2	17.6	18.0	17.1	17.5	17.6	17.9	18.3
8H	16.7	17.0	17.2	17.5	17.9	17.1	17.4	17.5	17.8	18.3
Variations with the observer position at spacings:										
S = 1.0H	+ 3.9 / -32.6					+ 4.4 / -33.4				
1.5H	+ 6.5 / -28.0					+ 7.1 / -29.8				
2.0H	+ 8.0 / -23.0					+ 8.3 / -23.2				

CIE Pub.117, 1752 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 1.9$)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-07-12

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:229.70V I:0.0808A P:17.667W PF:0.9515 Freq:50.08Hz Lamp Flux:1752.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: NLC-015B-03	SUR.:0.115*0.115	Shielding Angle:

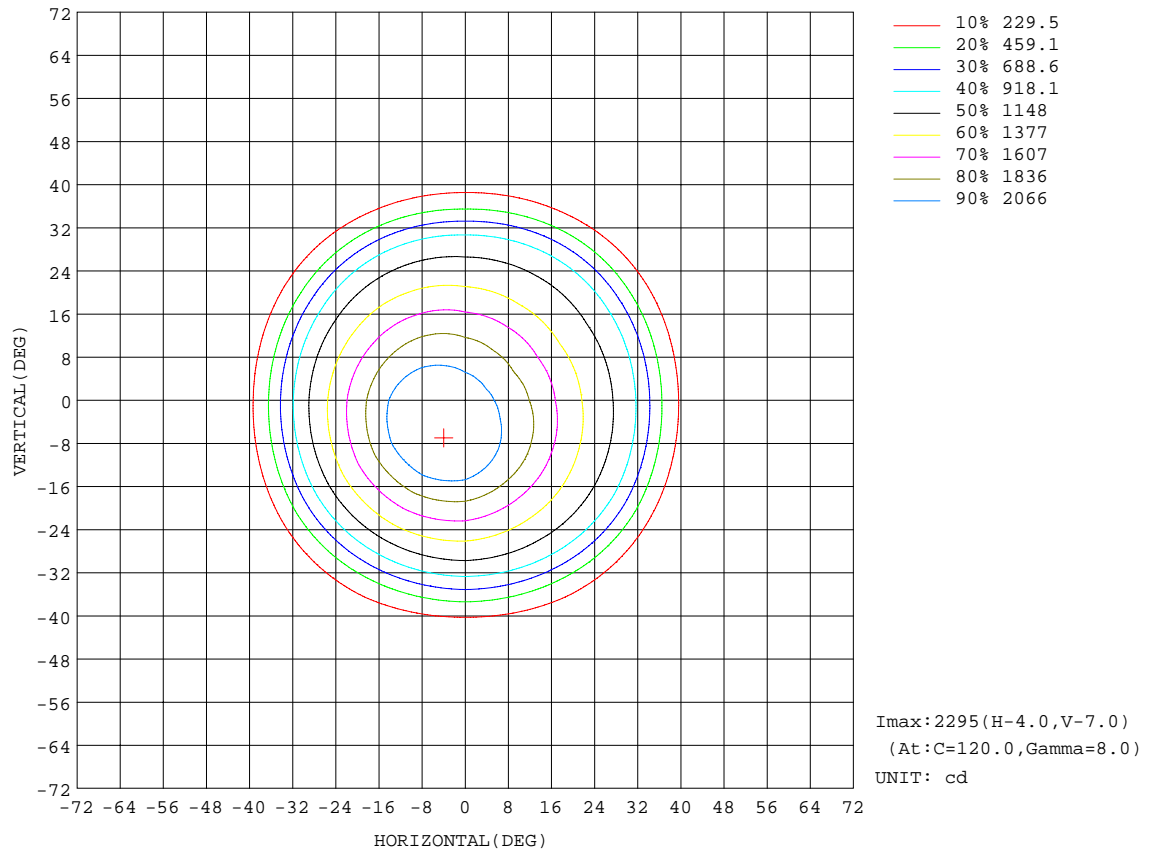
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	80	89	83	80	88	83	80	77
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	96	92	100	95	92	99	95	92	88
1.25	105	100	97	104	99	96	102	98	95	91
1.50	107	103	100	106	102	99	104	101	98	94
2.00	109	106	103	108	105	102	105	103	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	103	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	115	113	112	113	112	110	109	108	107	100
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-07-12

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:229.70V I:0.0808A P:17.667W PF:0.9515 Freq:50.08Hz Lamp Flux:1752.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: NLC-015B-03	SUR.:0.115*0.115	Shielding Angle:

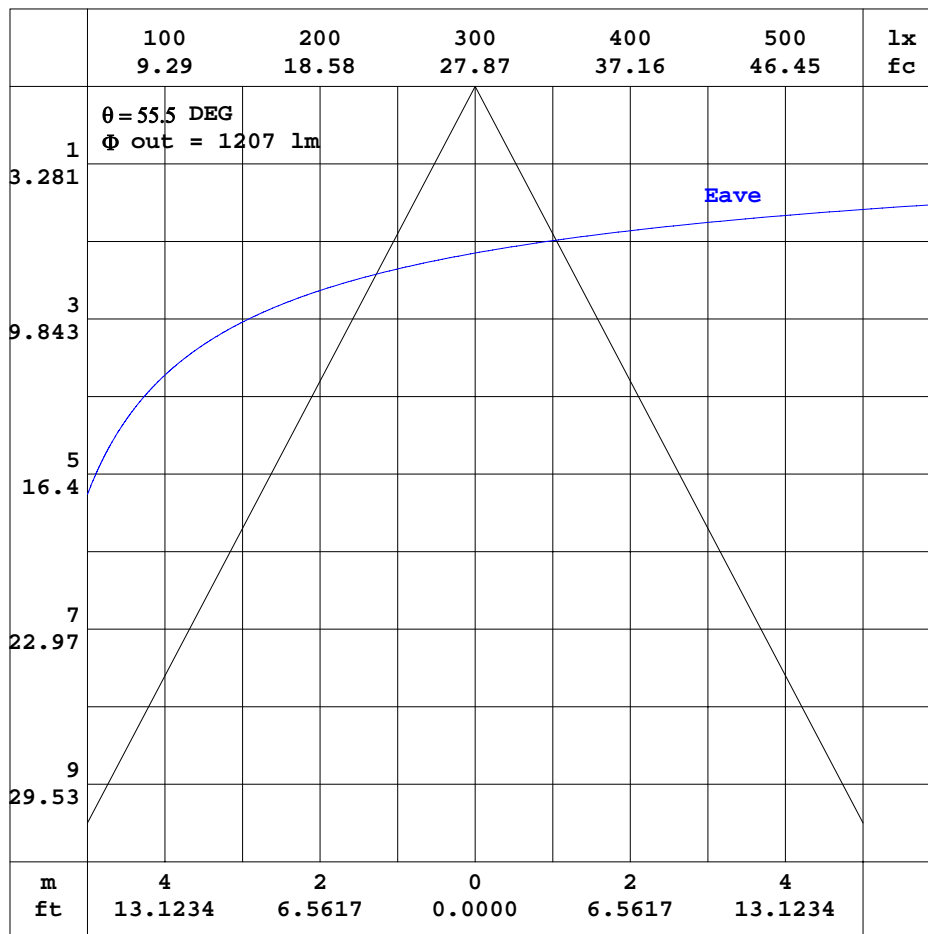


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-07-12

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:229.70V I:0.0808A P:17.667W PF:0.9515 Freq:50.08Hz Lamp Flux:1752.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: NLC-015B-03	SUR.:0.115*0.115	Shielding Angle:



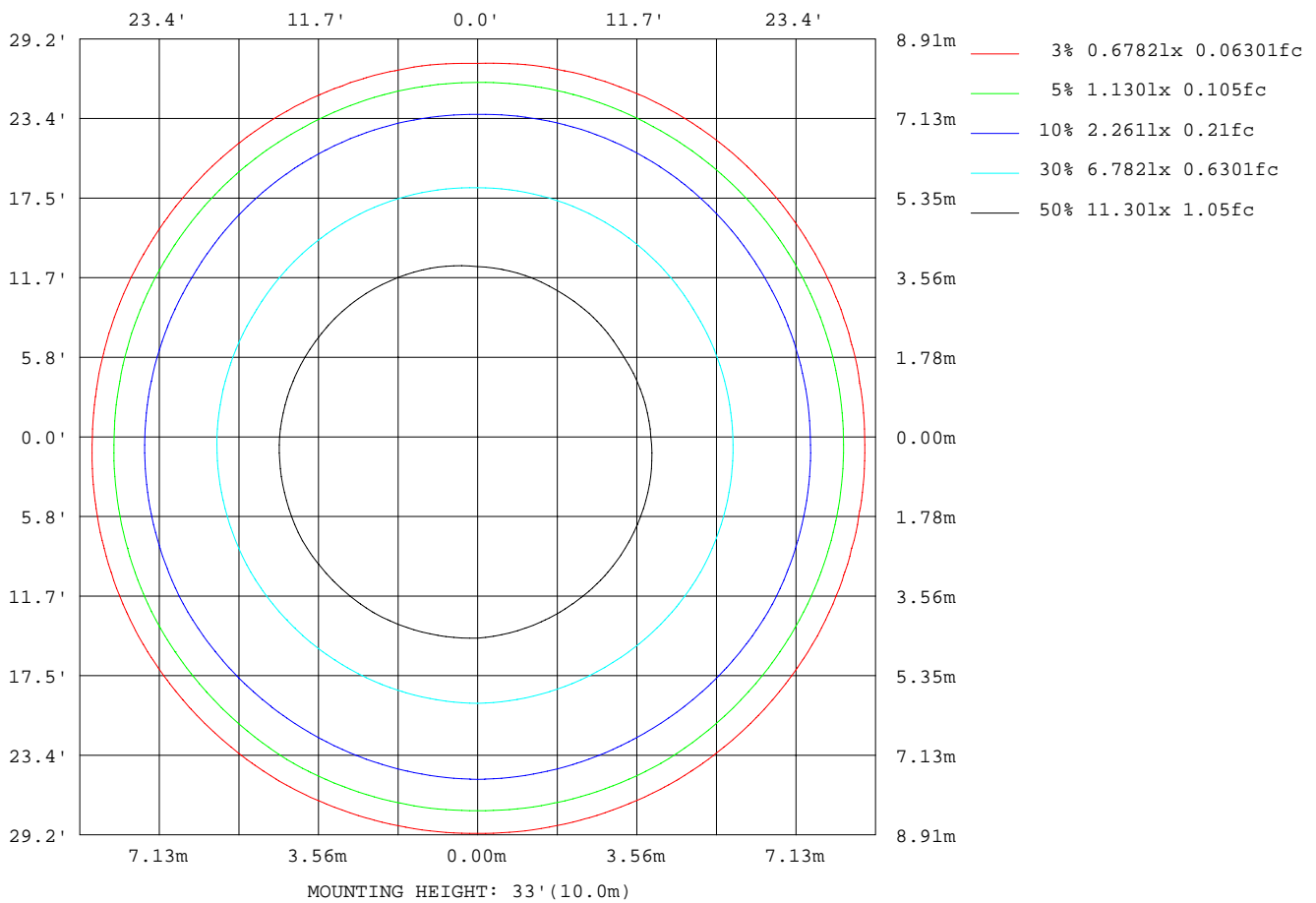
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2023-07-12

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:229.70V I:0.0808A P:17.667W PF:0.9515 Freq:50.08Hz Lamp Flux:1752.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: NLC-015B-03	SUR.:0.115*0.115	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-07-12

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:229.70V I:0.0808A P:17.667W PF:0.9515 Freq:50.08Hz Lamp Flux:1752.25x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 120*120*27	SERIAL No.:
MFR.: NLC-015B-03	SUR.:0.115*0.115	Shielding Angle:

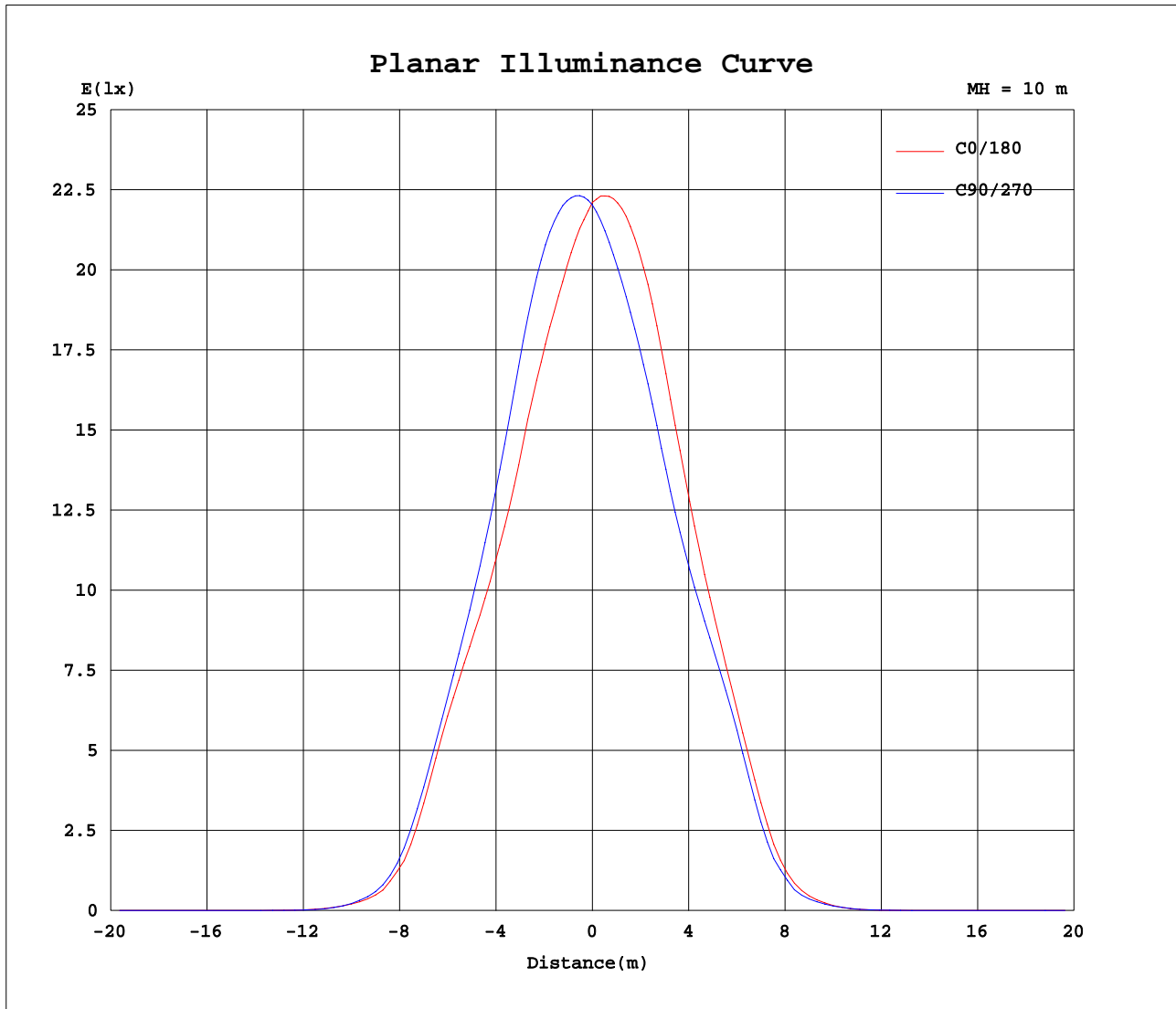
AvgL	cd/m2
L_0~180(65)av	28
L_0~180(75)av	34
L_0~180(85)av	84
L_90~270(65)av	20
L_90~270(75)av	28
L_90~270(85)av	79
L_45(65)av	30
L_45(75)av	28
L_45(85)av	80

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-07-12

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: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2023-07-12

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:

```