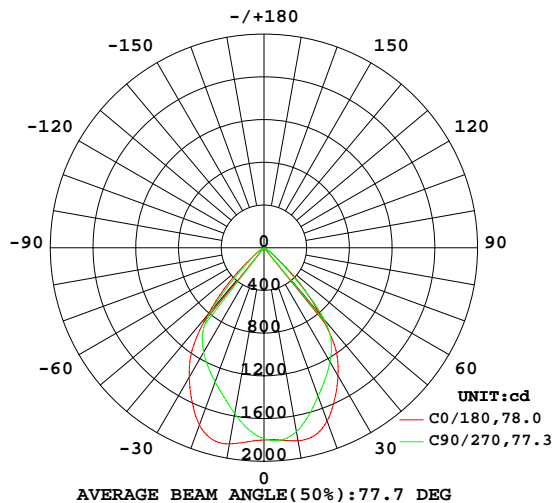


LUMINAIRE PHOTOMETRIC TEST REPORT

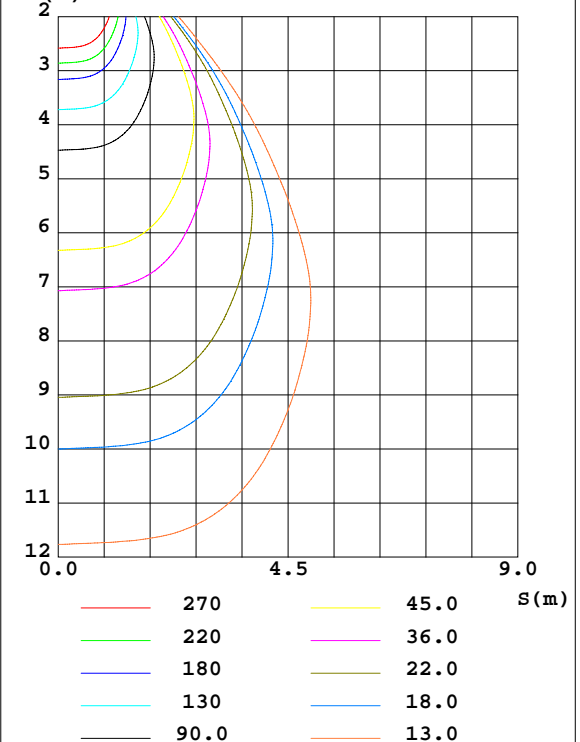
Test:U:229.68V I:0.3624A P:81.413W PF:0.9780 Freq:49.99Hz Lamp Flux:2410.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1203*52*31	SERIAL No.:
MFR.:	SUR.:0.8*0.042	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 29.61 lm/W			
MODEL		Imax(cd)	1872	S/MH(C0/180)	1.12
NOMINAL POWER(W)	80	LOR(%)	100.0	S/MH(C90/270)	0.96
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2410.9	η UP,DN(C0-180)	0.0,52.0
NOMINAL FLUX(lm)	2410.91	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	1.15

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:2024-10-31

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:

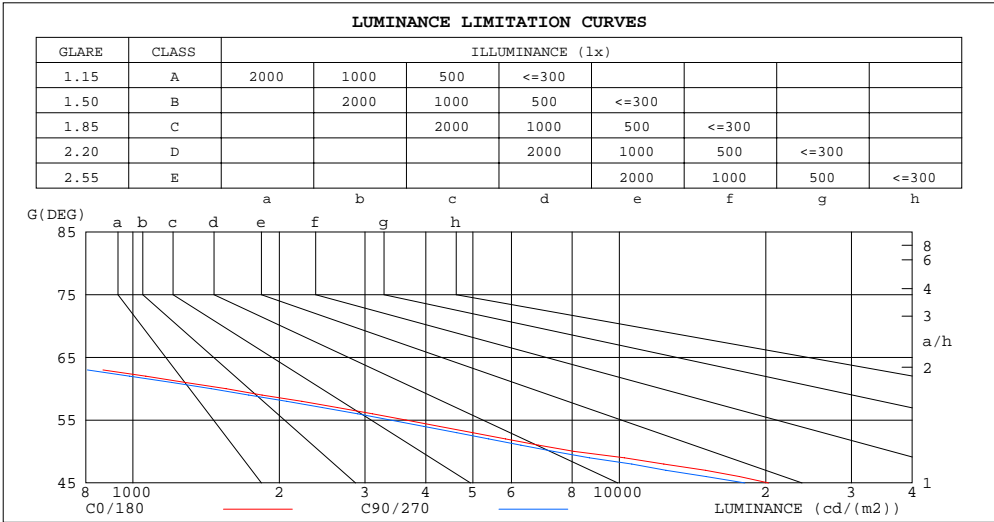
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1834	1813	1748	1823	1865	1699	1578	1680	0- 10	169.3	169.3	7.02,7.02
20	1728	1651	1481	1660	1767	1494	1337	1464	10- 20	472.7	642.0	26.6,26.6
30	1386	1336	1236	1332	1400	1231	1130	1213	20- 30	657.4	1299	53.9,53.9
40	824.6	863.3	882.1	868.5	823.5	781.2	764.9	772.0	30- 40	679.6	1979	82.1,82.1
50	174.5	184.0	158.4	181.8	170.8	169.5	147.7	169.8	40- 50	347.1	2326	96.5,96.5
60	26.11	35.80	24.33	35.08	25.51	34.63	23.73	35.79	50- 60	72.83	2399	99.5,99.5
70	1.638	3.009	1.749	3.063	1.768	2.907	1.627	2.926	60- 70	11.18	2410	100,100
80	0.1091	0.0945	0.0945	0.0947	0.1805	0.1890	0.1718	0.1719	70- 80	0.6313	2411	100,100
90	0.1031	0.0945	0.0945	0.0945	0.2835	0.2749	0.2835	0.2663	80- 90	0.1668	2411	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:2024-10-31

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:

LUMINANCE LIMITATION CURVES

Test:U:229.68V I:0.3624A P:81.413W PF:0.9780 Freq:49.99Hz Lamp Flux:2410.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1203*52*31	SERIAL No.:
MFR.:	SUR.:0.8*0.042	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	36	29
80	19	16
75	15	14
70	143	152
65	554	509
60	1554	1448
55	3642	3385
50	8078	7333
45	20258	18115

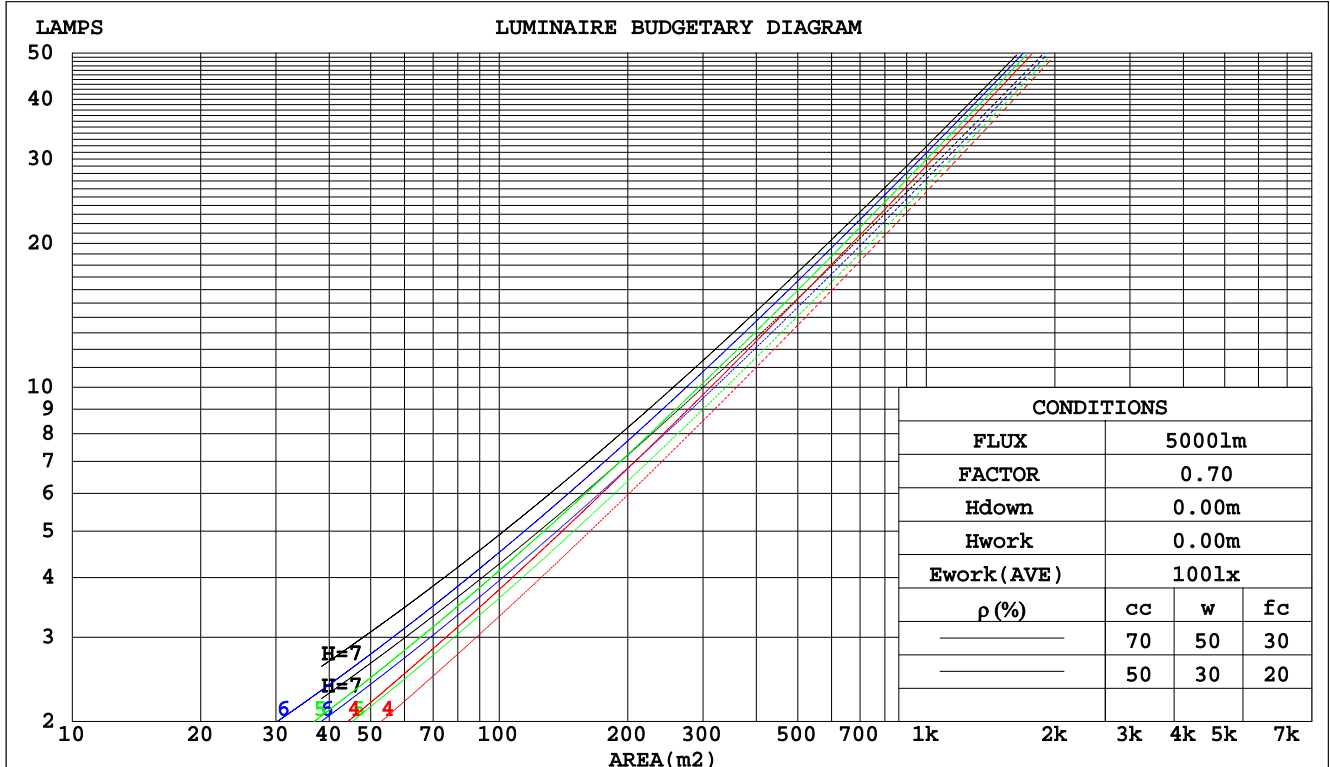
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-10-31

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:229.68V I:0.3624A P:81.413W PF:0.9780 Freq:49.99Hz Lamp Flux:2410.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1203*52*31	SERIAL No.:
MFR.:	SUR.:0.8*0.042	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	1.10	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	.87	.83	.92	.86	.82	.89	.84	.81	.86	.83	.80	.84	.81	.78	.77
4.0	.86	.79	.75	.84	.79	.74	.82	.77	.73	.80	.76	.72	.78	.75	.72	.70
5.0	.79	.73	.68	.78	.72	.67	.76	.71	.67	.74	.70	.66	.73	.69	.66	.64
6.0	.73	.66	.62	.72	.66	.61	.71	.65	.61	.69	.64	.61	.68	.64	.60	.58
7.0	.68	.61	.56	.67	.61	.56	.66	.60	.56	.65	.59	.56	.63	.59	.55	.54
8.0	.63	.56	.52	.63	.56	.52	.61	.56	.51	.60	.55	.51	.59	.55	.51	.49
9.0	.59	.52	.48	.58	.52	.48	.57	.52	.48	.56	.51	.47	.56	.51	.47	.46
10.0	.55	.49	.44	.55	.48	.44	.54	.48	.44	.53	.48	.44	.52	.47	.44	.42



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-10-31

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:229.68V I:0.3624A P:81.413W PF:0.9780 Freq:49.99Hz Lamp Flux:2410.91x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.: 1203*52*31			SERIAL No.:		
MFR.:			SUR.:0.8*0.042			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	.196	.111	.035	.189	.108	.034	.176	.101	.032	.164	.095	.030	.154	.089	.029	
2.0	.190	.104	.032	.185	.102	.031	.174	.097	.030	.164	.092	.029	.155	.088	.028	
3.0	.183	.097	.029	.178	.095	.029	.169	.091	.028	.160	.088	.027	.152	.084	.026	
4.0	.175	.091	.027	.171	.089	.026	.163	.086	.026	.155	.083	.025	.148	.081	.025	
5.0	.167	.085	.025	.164	.084	.024	.156	.081	.024	.150	.079	.024	.144	.077	.023	
6.0	.160	.080	.023	.156	.079	.023	.150	.077	.022	.144	.075	.022	.139	.073	.022	
7.0	.153	.075	.021	.150	.075	.021	.144	.073	.021	.139	.071	.021	.134	.069	.020	
8.0	.146	.071	.020	.143	.070	.020	.138	.069	.020	.133	.068	.019	.129	.066	.019	
9.0	.139	.067	.019	.137	.067	.019	.132	.065	.019	.128	.064	.018	.124	.063	.018	
10.0	.133	.064	.018	.131	.063	.018	.127	.062	.018	.123	.061	.017	.120	.060	.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	.148	.135	.123	.101	.093	.085	.058	.054	.050	.019	.017	.016		
2.0	.159	.132	.110	.136	.114	.095	.093	.079	.066	.054	.046	.039	.017	.015	.013		
3.0	.148	.114	.087	.127	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010		
4.0	.139	.099	.069	.119	.086	.060	.082	.060	.042	.047	.035	.025	.015	.011	.008		
5.0	.131	.088	.057	.112	.076	.049	.077	.053	.035	.045	.031	.021	.014	.010	.007		
6.0	.124	.079	.047	.107	.069	.041	.074	.048	.029	.043	.028	.017	.014	.009	.006		
7.0	.118	.072	.040	.101	.062	.034	.070	.044	.024	.041	.026	.015	.013	.008	.005		
8.0	.112	.066	.034	.097	.057	.029	.067	.040	.021	.039	.024	.012	.013	.008	.004		
9.0	.108	.061	.029	.093	.053	.026	.064	.037	.018	.037	.022	.011	.012	.007	.004		
10.0	.103	.057	.026	.089	.049	.022	.062	.035	.016	.036	.020	.010	.012	.007	.003		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-10-31

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:229.68V I:0.3624A P:81.413W PF:0.9780 Freq:49.99Hz Lamp Flux:2410.91lx1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 1203*52*31			SERIAL No.:			
MFR.:					SUR.:0.8*0.042			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	19.4	20.5	19.6	20.7	20.9	19.2	20.3	19.5	20.5	20.7
	3H	19.2	20.2	19.5	20.4	20.6	19.0	20.0	19.3	20.3	20.5
	4H	19.1	20.1	19.4	20.3	20.5	19.0	19.9	19.2	20.1	20.4
	6H	19.0	19.9	19.3	20.2	20.4	18.9	19.7	19.2	20.0	20.2
	8H	19.0	19.8	19.3	20.1	20.4	18.8	19.7	19.1	19.9	20.2
	12H	18.9	19.8	19.3	20.0	20.3	18.8	19.6	19.1	19.9	20.1
4H	2H	19.2	20.1	19.4	20.3	20.6	19.0	19.9	19.3	20.1	20.4
	3H	19.0	19.8	19.3	20.1	20.3	18.8	19.6	19.1	19.9	20.2
	4H	18.9	19.6	19.2	19.9	20.2	18.7	19.4	19.1	19.7	20.0
	6H	18.8	19.4	19.2	19.8	20.1	18.6	19.2	19.0	19.6	19.9
	8H	18.7	19.3	19.1	19.7	20.0	18.6	19.2	19.0	19.5	19.9
	12H	18.7	19.2	19.1	19.6	20.0	18.5	19.0	18.9	19.4	19.8
8H	4H	18.7	19.3	19.1	19.7	20.0	18.6	19.2	19.0	19.5	19.9
	6H	18.6	19.1	19.1	19.5	19.9	18.5	18.9	18.9	19.3	19.8
	8H	18.6	19.0	19.0	19.4	19.9	18.4	18.8	18.9	19.3	19.7
	12H	18.5	18.9	19.0	19.3	19.8	18.4	18.7	18.8	19.2	19.6
12H	4H	18.7	19.2	19.1	19.6	20.0	18.5	19.1	18.9	19.4	19.8
	6H	18.6	19.0	19.0	19.4	19.9	18.4	18.8	18.9	19.3	19.7
	8H	18.5	18.9	19.0	19.3	19.8	18.4	18.7	18.8	19.2	19.6
Variations with the observer position at spacings:											
S = 1.0H	+ 2.5 / -11.6					+ 2.5 / -12.0					
1.5H	+ 3.7 / - 8.1					+ 4.0 / - 8.2					
2.0H	+ 6.6 / -12.0					+ 6.6 / -11.5					

CIE Pub.117, 2411 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:2024-10-31

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:229.68V I:0.3624A P:81.413W PF:0.9780 Freq:49.99Hz Lamp Flux:2410.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1203*52*31	SERIAL No.:
MFR.:	SUR.:0.8*0.042	Shielding Angle:

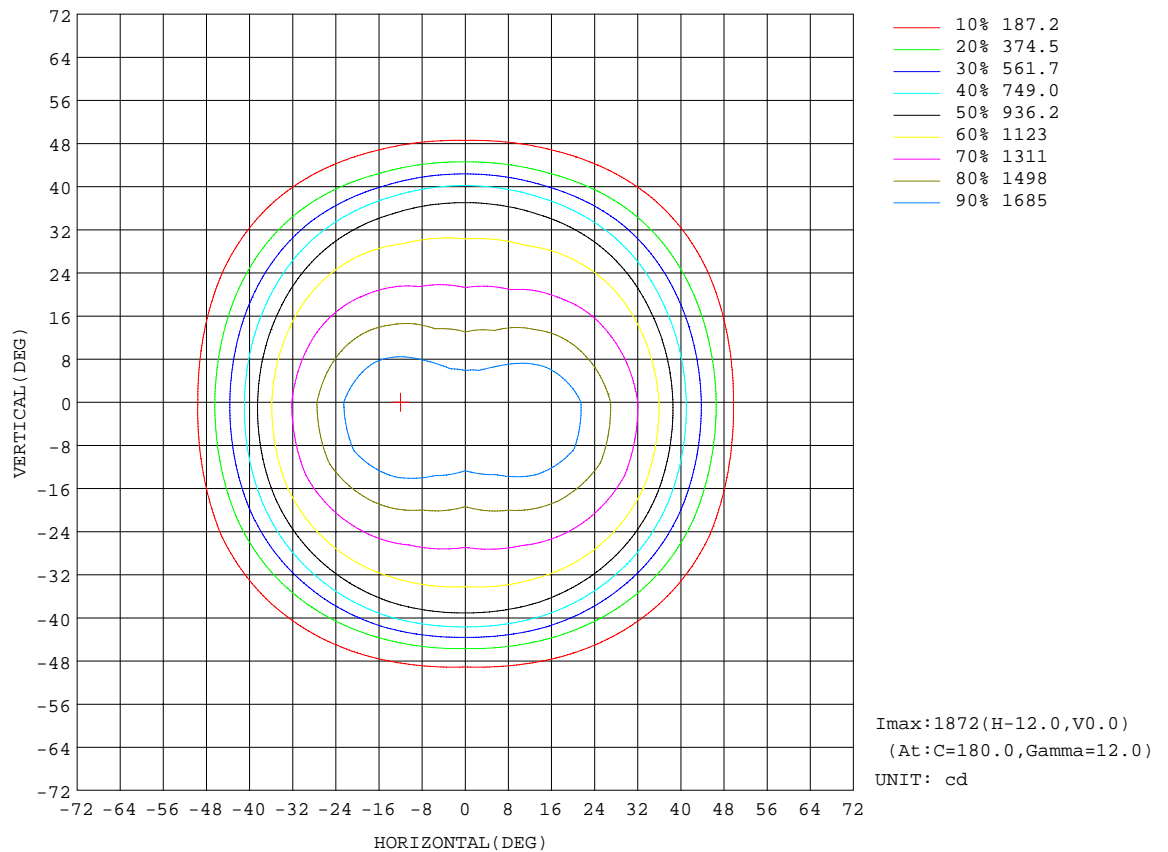
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	80	72	68	79	72	68	79	72	68	63
0.80	89	82	77	88	81	77	87	81	77	72
1.00	95	88	84	94	88	84	92	88	83	79
1.25	100	94	90	99	93	89	97	92	89	84
1.50	103	98	94	102	97	93	99	95	92	87
2.00	107	102	98	105	101	98	102	99	96	91
2.50	109	104	101	107	103	100	104	101	98	92
3.00	110	107	104	109	105	102	105	102	100	94
4.00	113	109	107	111	108	105	107	105	103	95
5.00	114	111	109	112	109	107	108	106	104	97
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:2024-10-31

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:229.68V I:0.3624A P:81.413W PF:0.9780 Freq:49.99Hz Lamp Flux:2410.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1203*52*31	SERIAL No.:
MFR.:	SUR.:0.8*0.042	Shielding Angle:

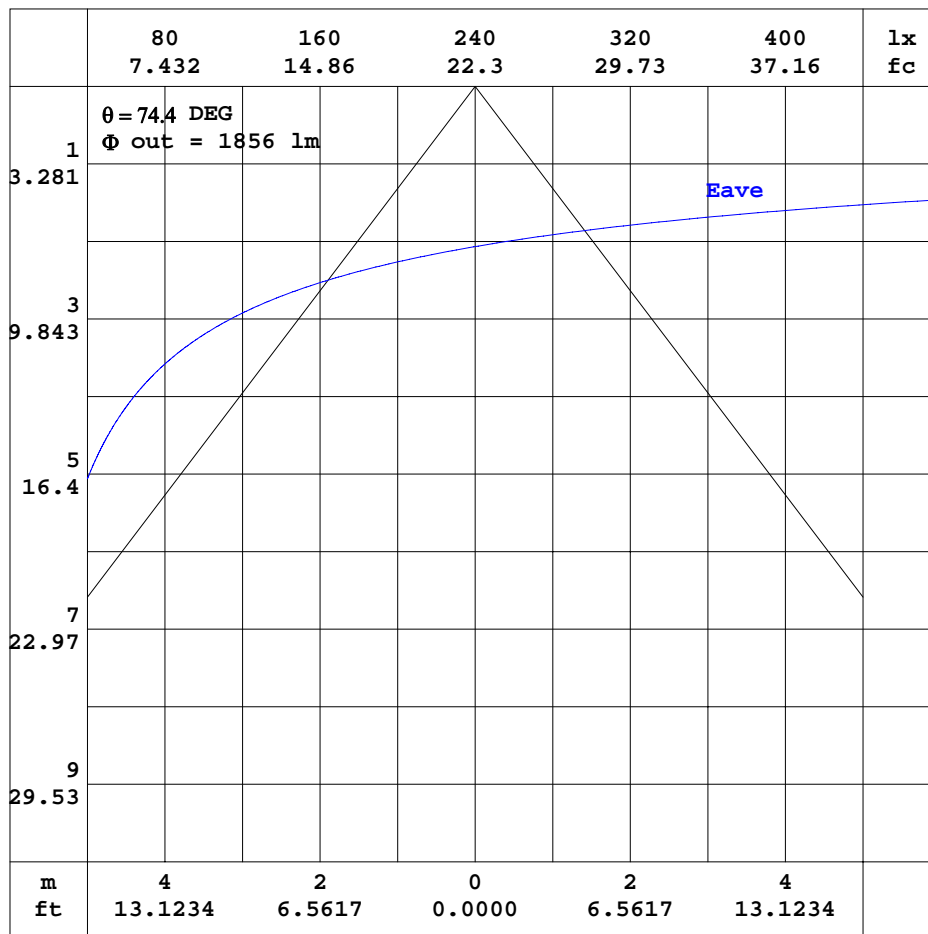


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-10-31

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:229.68V I:0.3624A P:81.413W PF:0.9780 Freq:49.99Hz Lamp Flux:2410.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1203*52*31	SERIAL No.:
MFR.:	SUR.:0.8*0.042	Shielding Angle:



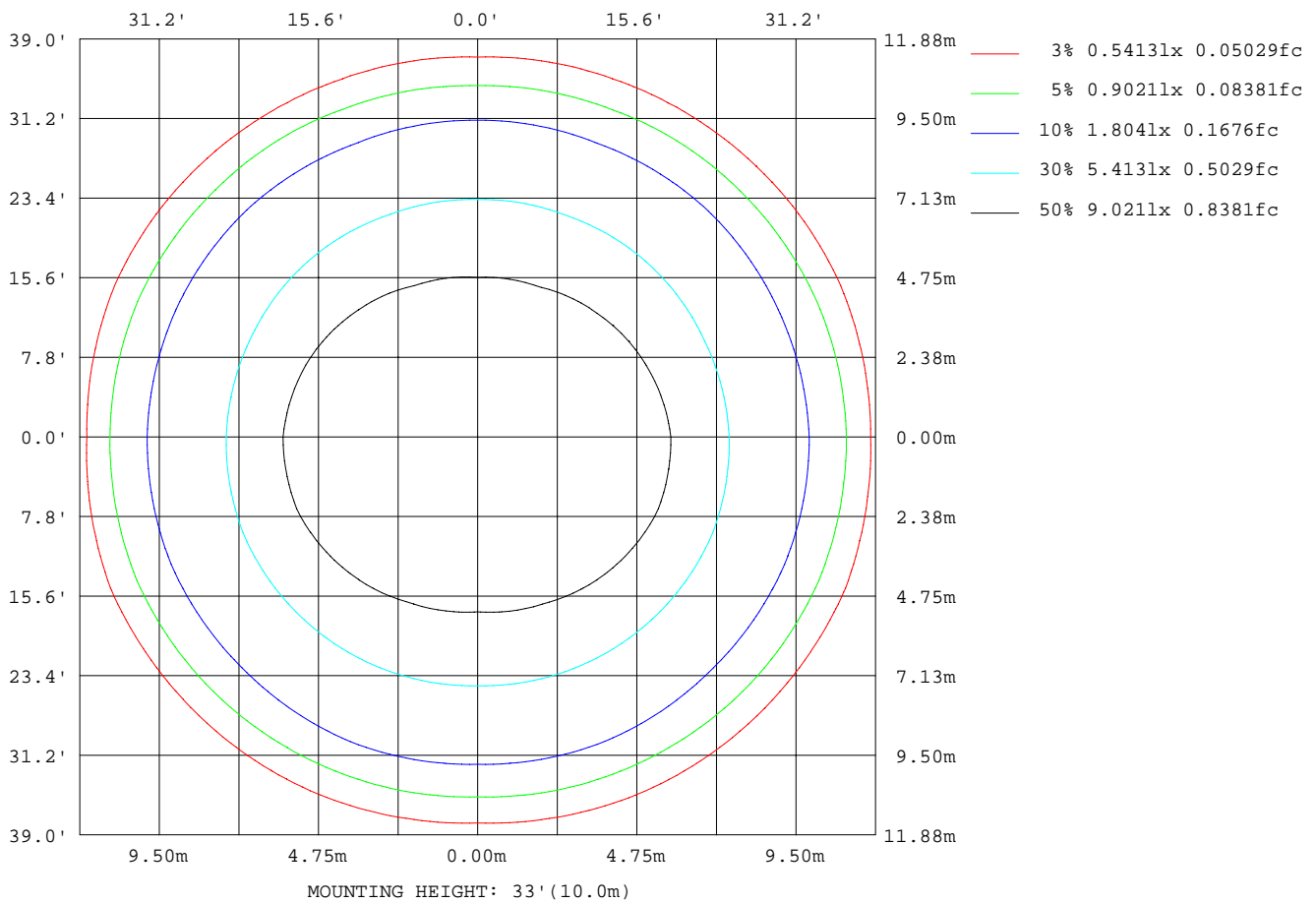
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2024-10-31

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:229.68V I:0.3624A P:81.413W PF:0.9780 Freq:49.99Hz Lamp Flux:2410.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1203*52*31	SERIAL No.:
MFR.:	SUR.:0.8*0.042	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-10-31

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:229.68V I:0.3624A P:81.413W PF:0.9780 Freq:49.99Hz Lamp Flux:2410.91x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1203*52*31	SERIAL No.:
MFR.:	SUR.:0.8*0.042	Shielding Angle:

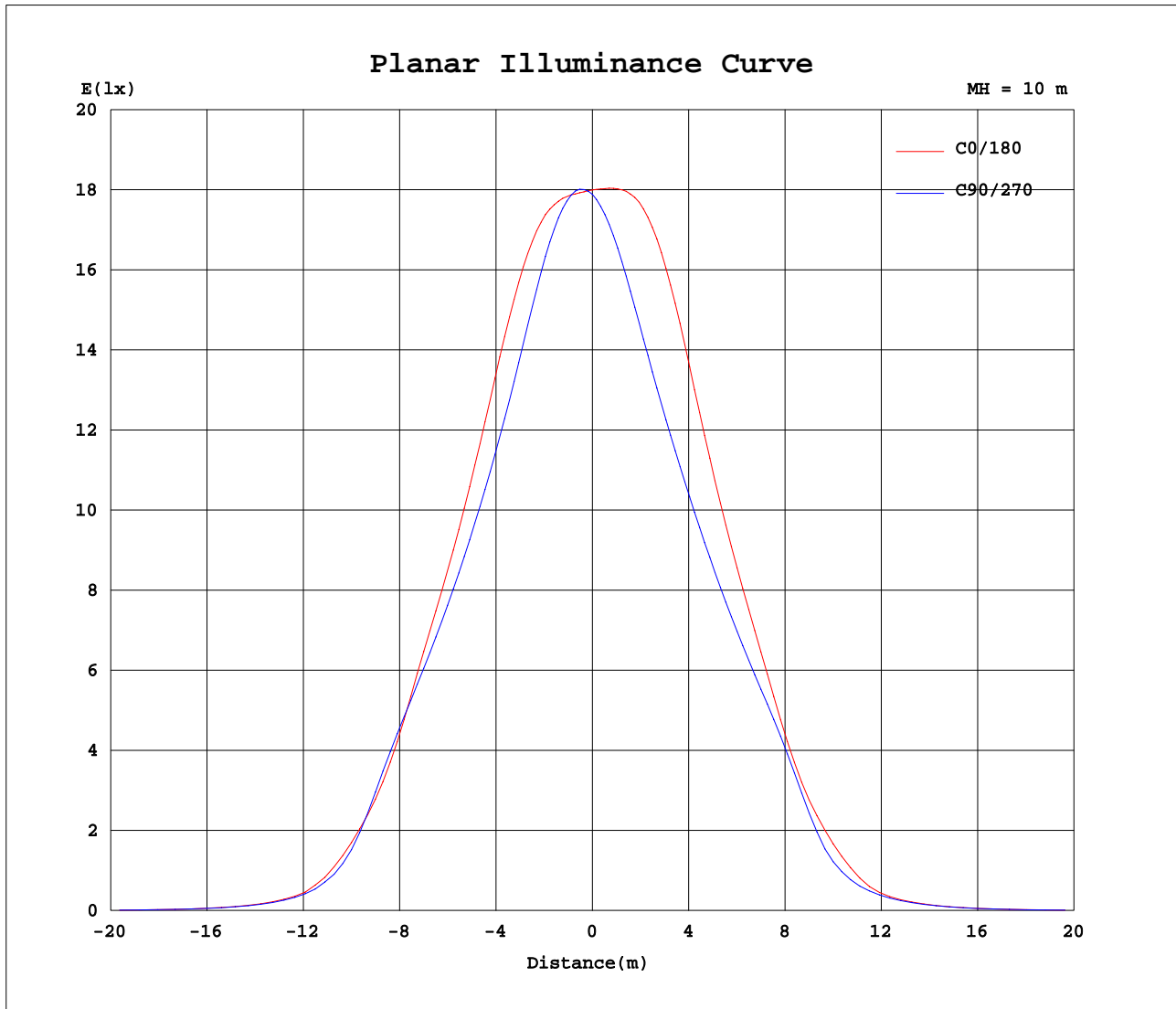
AvgL	cd/m2
L_0~180(65)av	555
L_0~180(75)av	25
L_0~180(85)av	58
L_90~270(65)av	497
L_90~270(75)av	26
L_90~270(85)av	53
L_45(65)av	840
L_45(75)av	65
L_45(85)av	56

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-10-31

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: 2024-10-31

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:

```