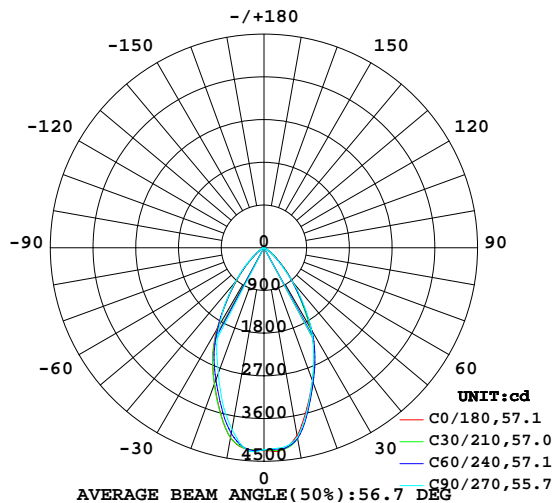


LUMINAIRE PHOTOMETRIC TEST REPORT

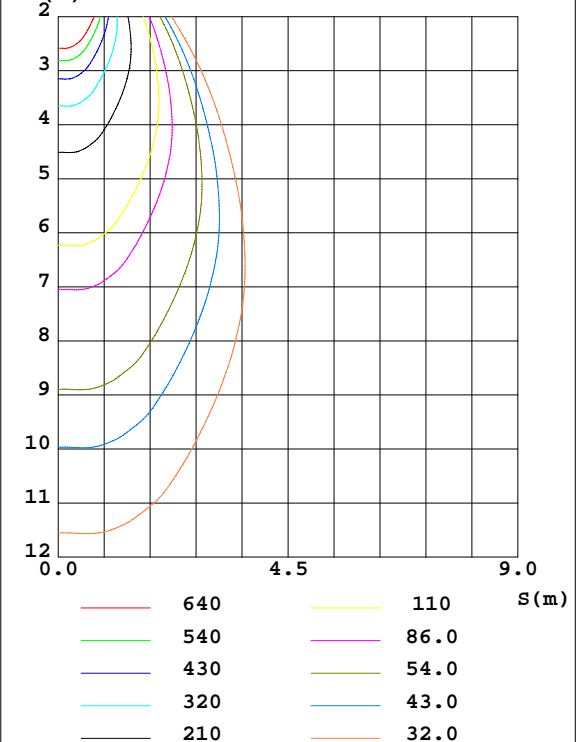
Test:U:229.77V I:0.3400A P:74.727W PF:0.9565 Freq:49.99Hz Lamp Flux:4023.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 53.85 lm/W			
MODEL		I _{max} (cd)	4312	S/MH(C0/180)	0.86
NOMINAL POWER(W)	75	LOR(%)	100.0	S/MH(C90/270)	0.80
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	4023.8	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	4023.82	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
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:2024-03-25

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:

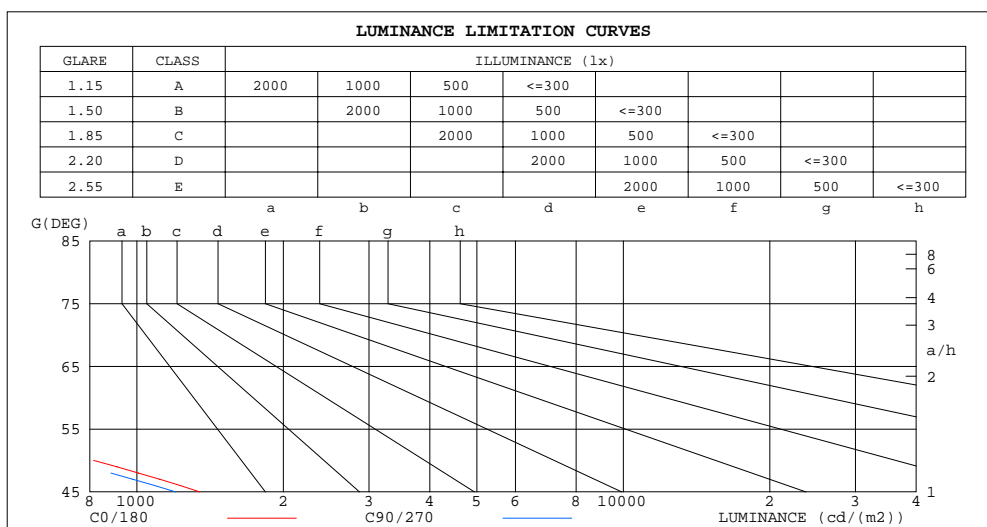
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	4018	4107	4049	4031	4064	4016	3885	3888	0- 10	398.4	398.4	9.9,9.9
20	2986	3037	2981	2921	3055	3005	2816	2789	10- 20	971.9	1370	34.1,34.1
30	1970	1987	2002	1921	1984	1918	1868	1856	20- 30	1121	2491	61.9,61.9
40	961.5	922.0	943.3	919.3	887.9	912.2	937.0	936.0	30- 40	873.8	3365	83.6,83.6
50	330.0	309.4	289.4	287.0	285.6	303.4	325.2	337.4	40- 50	442.5	3808	94.6,94.6
60	73.50	68.07	56.41	58.17	63.83	71.32	76.67	78.72	50- 60	151.0	3959	98.4,98.4
70	10.22	6.239	9.203	12.85	17.85	18.34	21.02	21.05	60- 70	29.12	3988	99.1,99.1
80	18.40	7.440	12.81	22.66	26.86	27.47	29.17	28.23	70- 80	18.74	4007	99.6,99.6
90	0.4639	0.6357	0.6271	0.6787	1.014	0.8333	0.8075	0.8161	80- 90	17.26	4024	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:2024-03-25

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:229.77V I:0.3400A P:74.727W PF:0.9565 Freq:49.99Hz Lamp Flux:4023.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	262	258
80	168	117
75	82	64
70	47	43
65	83	61
60	233	179
55	477	415
50	815	714
45	1348	1202

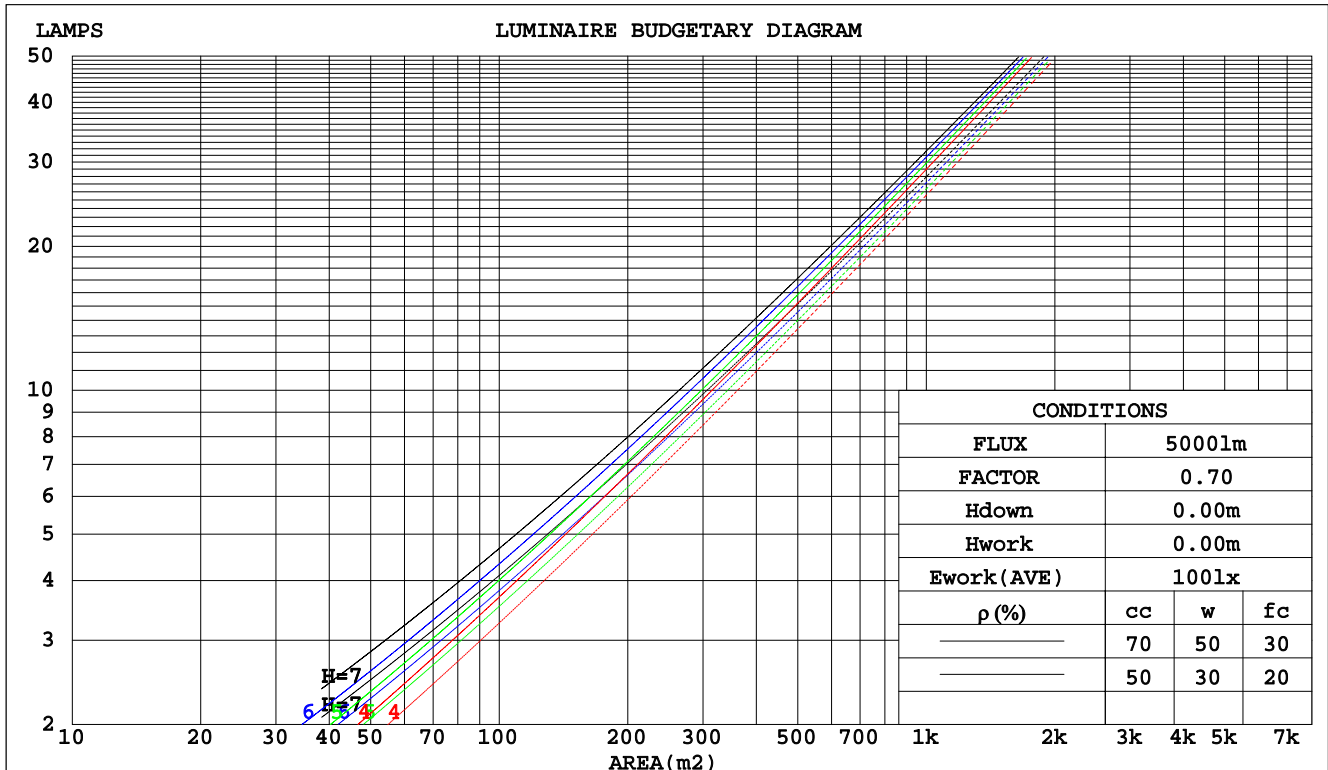
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-25

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:229.77V I:0.3400A P:74.727W PF:0.9565 Freq:49.99Hz Lamp Flux:4023.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	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	.00	.96	.92	.96	.93	.90	.93	.91	.88	.91	.88	.86	.85
3.0	.94	.88	.84	.92	.87	.83	.90	.86	.82	.87	.84	.81	.85	.82	.79	.78
4.0	.87	.81	.76	.86	.80	.76	.84	.79	.75	.82	.77	.74	.80	.76	.73	.72
5.0	.81	.75	.70	.80	.74	.70	.78	.73	.69	.76	.72	.68	.75	.71	.68	.66
6.0	.75	.69	.64	.75	.69	.64	.73	.68	.64	.72	.67	.63	.70	.66	.63	.61
7.0	.71	.64	.60	.70	.64	.59	.68	.63	.59	.67	.62	.59	.66	.62	.58	.57
8.0	.66	.60	.55	.65	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.54	.53
9.0	.62	.56	.52	.62	.56	.51	.61	.55	.51	.60	.55	.51	.59	.54	.51	.50
10.0	.59	.52	.48	.58	.52	.48	.57	.52	.48	.56	.51	.48	.56	.51	.48	.46



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-25

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:229.77V I:0.3400A P:74.727W PF:0.9565 Freq:49.99Hz Lamp Flux:4023.82x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.: 900*31			SERIAL No.:		
MFR.:			SUR.:3.14*0.448*0.448			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	.188	.107	.034	.175	.101	.032	.164	.094	.030	.153	.089	.029	
2.0	.186	.102	.031	.181	.100	.031	.170	.095	.029	.160	.090	.028	.151	.085	.027	
3.0	.177	.094	.028	.173	.092	.028	.163	.089	.027	.155	.085	.026	.147	.081	.025	
4.0	.169	.088	.026	.164	.086	.025	.156	.083	.025	.149	.080	.024	.142	.077	.024	
5.0	.160	.082	.024	.157	.080	.023	.150	.078	.023	.143	.076	.022	.137	.073	.022	
6.0	.153	.077	.022	.149	.075	.022	.143	.073	.021	.137	.071	.021	.132	.069	.021	
7.0	.145	.072	.020	.143	.071	.020	.137	.069	.020	.132	.068	.020	.127	.066	.019	
8.0	.139	.068	.019	.136	.067	.019	.131	.066	.019	.127	.064	.018	.122	.063	.018	
9.0	.132	.064	.018	.130	.063	.018	.126	.062	.018	.122	.061	.017	.118	.060	.017	
10.0	.127	.061	.017	.125	.060	.017	.121	.059	.017	.117	.058	.016	.113	.057	.016	

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	.135	.114	.096	.093	.079	.067	.054	.046	.039	.017	.015	.013	
3.0	.147	.114	.087	.126	.098	.076	.086	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.137	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.129	.088	.058	.111	.076	.050	.076	.053	.035	.044	.031	.021	.014	.010	.007	
6.0	.122	.079	.048	.105	.068	.042	.072	.048	.030	.042	.028	.018	.013	.009	.006	
7.0	.115	.071	.040	.099	.062	.035	.068	.043	.025	.040	.026	.015	.013	.008	.005	
8.0	.110	.065	.035	.094	.057	.030	.065	.040	.021	.038	.023	.013	.012	.008	.004	
9.0	.104	.060	.030	.090	.052	.026	.062	.037	.019	.036	.022	.011	.012	.007	.004	
10.0	.100	.056	.026	.086	.048	.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:2024-03-25

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:229.77V I:0.3400A P:74.727W PF:0.9565 Freq:49.99Hz Lamp Flux:4023.82x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 900*31			SERIAL No.:			
MFR.:					SUR.:3.14*0.448*0.448			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		9.2	10.2	9.4	10.4	10.6	9.0	10.1	9.3	10.2	10.4
3H		9.0	10.0	9.3	10.2	10.4	8.9	9.8	9.1	10.0	10.2
4H		8.9	9.8	9.2	10.1	10.3	8.8	9.7	9.1	9.9	10.1
6H		8.9	9.7	9.2	10.0	10.2	8.7	9.6	9.0	9.8	10.1
8H		8.9	9.7	9.2	9.9	10.2	8.7	9.5	9.0	9.8	10.0
12H		8.9	9.7	9.2	9.9	10.2	8.7	9.5	9.0	9.8	10.0
4H 2H		9.0	9.9	9.2	10.1	10.3	8.8	9.7	9.1	9.9	10.2
3H		8.8	9.6	9.1	9.8	10.1	8.6	9.4	9.0	9.7	10.0
4H		8.7	9.4	9.1	9.7	10.0	8.6	9.3	8.9	9.6	9.9
6H		8.7	9.3	9.0	9.6	10.0	8.5	9.1	8.9	9.5	9.8
8H		8.7	9.2	9.1	9.6	10.0	8.5	9.1	8.9	9.5	9.8
12H		8.7	9.2	9.1	9.6	10.0	8.6	9.1	9.0	9.5	9.9
8H 4H		8.6	9.1	9.0	9.5	9.9	8.4	9.0	8.8	9.4	9.7
6H		8.5	9.0	9.0	9.4	9.8	8.4	8.9	8.8	9.3	9.7
8H		8.6	9.0	9.0	9.4	9.8	8.4	8.8	8.9	9.3	9.7
12H		8.6	9.0	9.1	9.4	9.9	8.6	8.9	9.0	9.3	9.8
12H 4H		8.5	9.0	8.9	9.4	9.8	8.4	8.9	8.8	9.3	9.7
6H		8.5	8.9	8.9	9.3	9.8	8.3	8.8	8.8	9.2	9.6
8H		8.5	8.9	9.0	9.3	9.8	8.4	8.7	8.9	9.2	9.7
Variations with the observer position at spacings:											
S = 1.0H		+ 2.2 / - 5.6				+ 2.4 / - 6.2					
1.5H		+ 3.1 / - 4.2				+ 3.5 / - 4.3					
2.0H		+ 4.9 / - 7.5				+ 4.8 / - 6.8					

CIE Pub.117, 4024 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 4.8$)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2024-03-25

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:229.77V I:0.3400A P:74.727W PF:0.9565 Freq:49.99Hz Lamp Flux:4023.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:

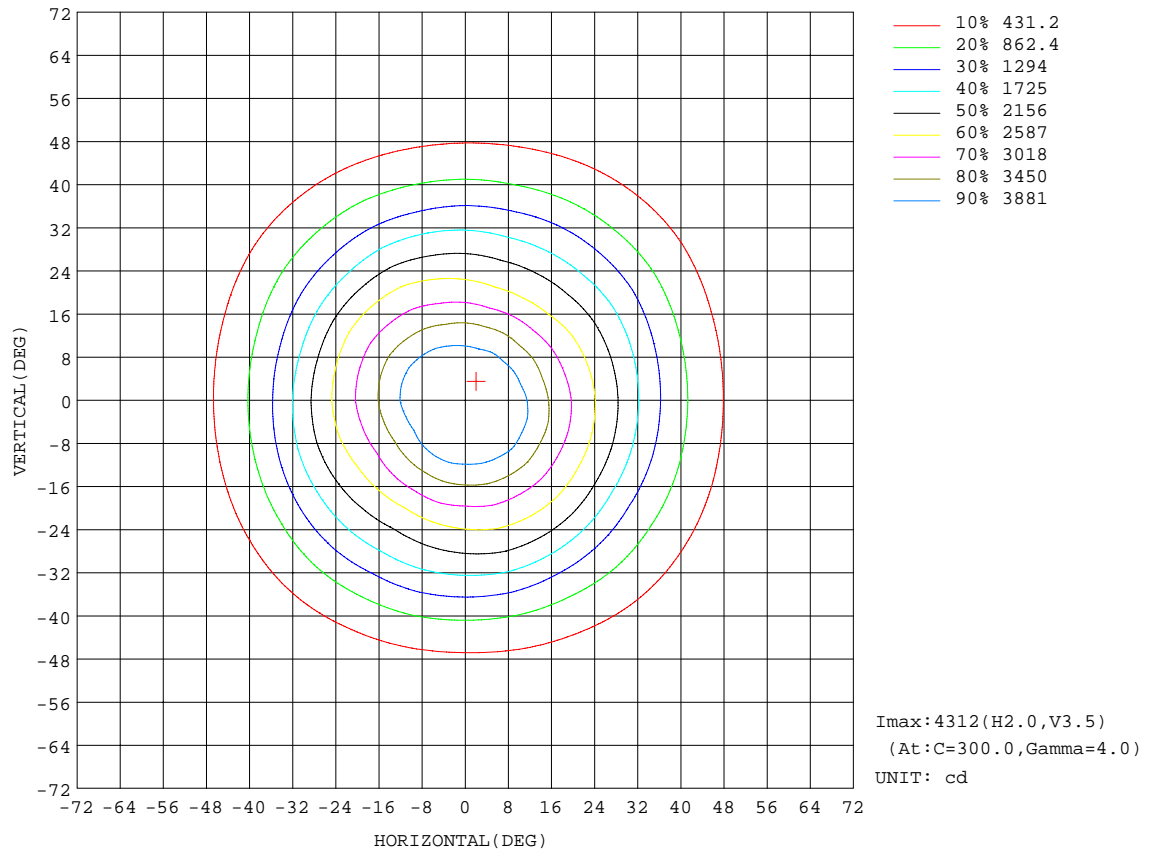
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	81	74	69	80	73	69	80	73	69	65
0.80	89	83	78	89	82	78	87	82	78	73
1.00	95	89	84	94	88	84	93	88	84	79
1.25	100	94	90	99	93	90	97	92	89	84
1.50	103	98	94	102	97	93	100	95	92	87
2.00	107	102	98	105	101	97	102	99	96	90
2.50	109	104	101	107	103	100	104	101	98	92
3.00	110	106	103	109	105	102	105	102	100	93
4.00	113	109	107	110	108	105	107	105	103	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:2024-03-25

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:229.77V I:0.3400A P:74.727W PF:0.9565 Freq:49.99Hz Lamp Flux:4023.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:

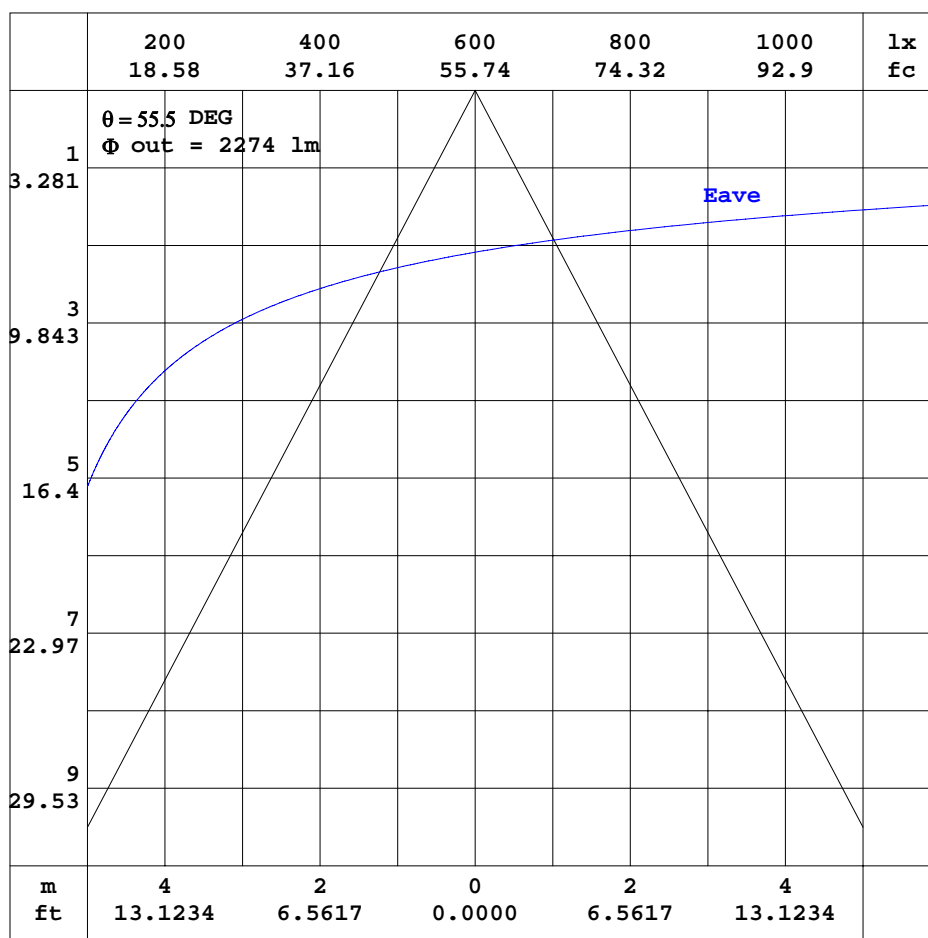


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-25

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:229.77V I:0.3400A P:74.727W PF:0.9565 Freq:49.99Hz Lamp Flux:4023.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:



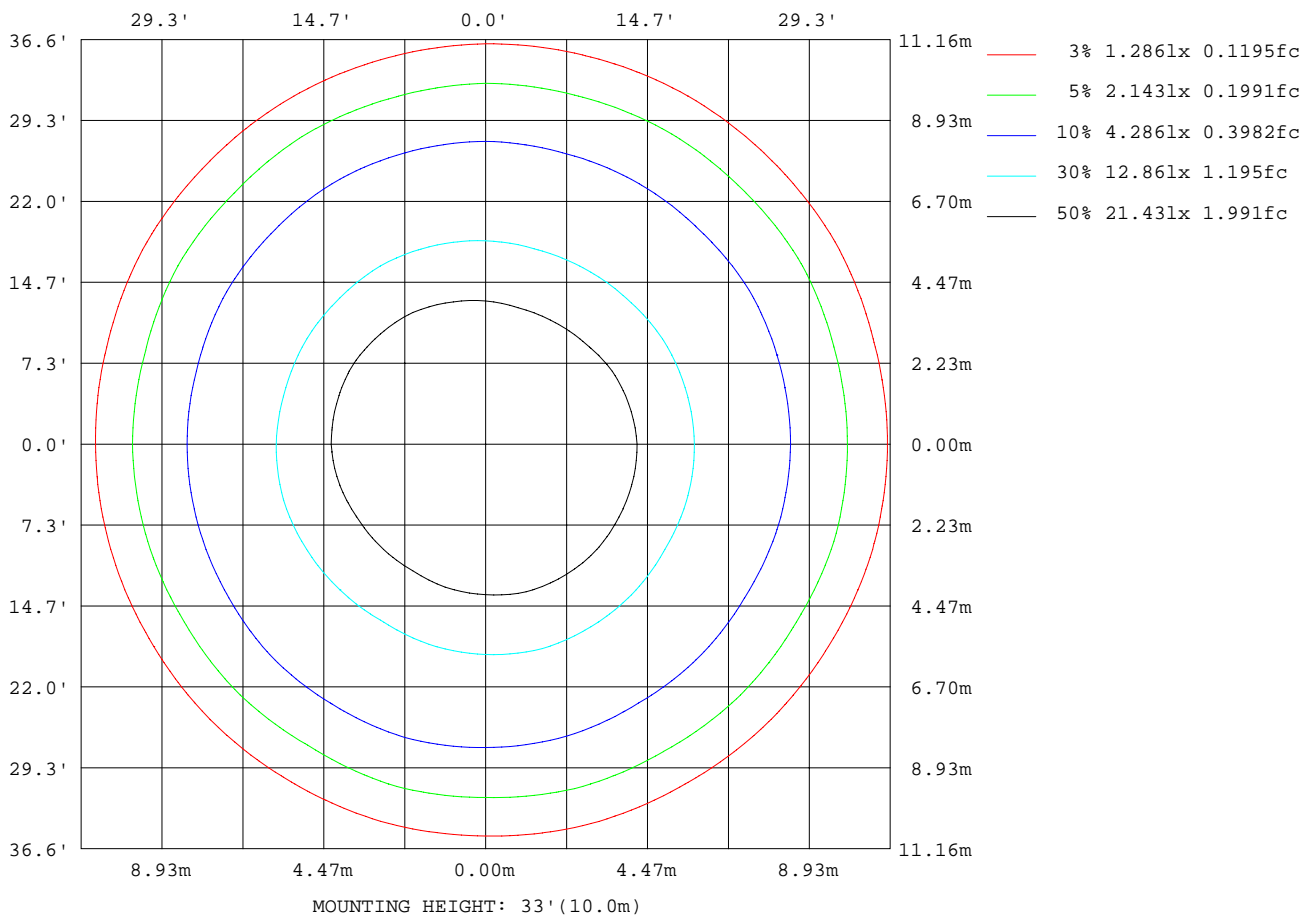
Note: The Curves indicate the illuminated area and the average illuminance when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2024-03-25

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:229.77V I:0.3400A P:74.727W PF:0.9565 Freq:49.99Hz Lamp Flux:4023.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2024-03-25

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:229.77V I:0.3400A P:74.727W PF:0.9565 Freq:49.99Hz Lamp Flux:4023.82x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 900*31	SERIAL No.:
MFR.:	SUR.:3.14*0.448*0.448	Shielding Angle:

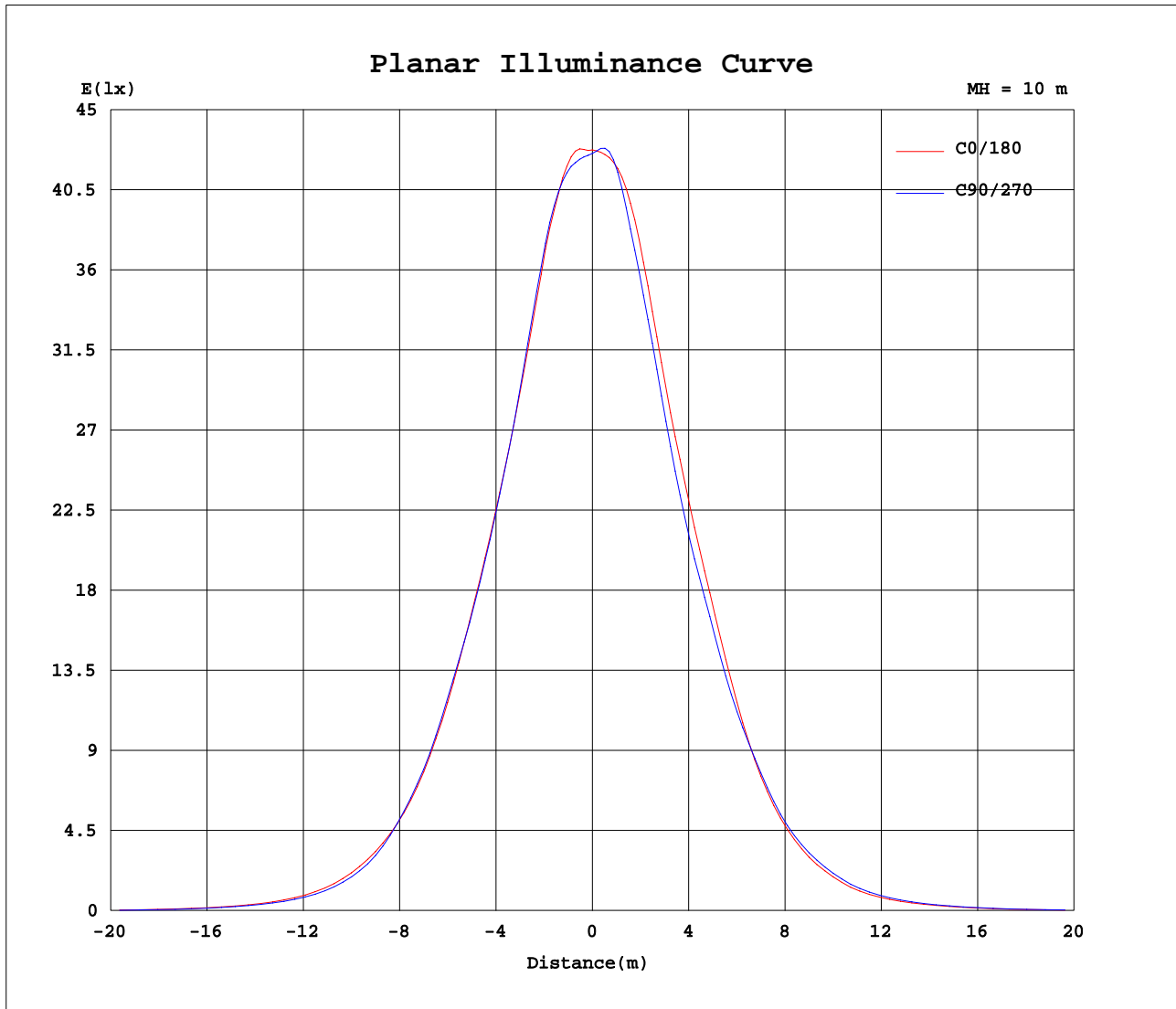
AvgL	cd/m2
L_0~180(65)av	86
L_0~180(75)av	106
L_0~180(85)av	404
L_90~270(65)av	87
L_90~270(75)av	107
L_90~270(85)av	391
L_45(65)av	92
L_45(75)av	107
L_45(85)av	388

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-25

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: 2024-03-25

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