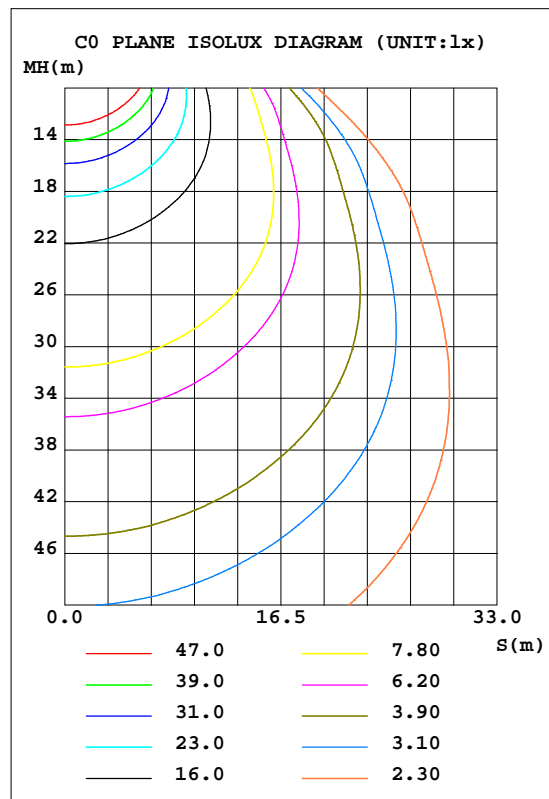
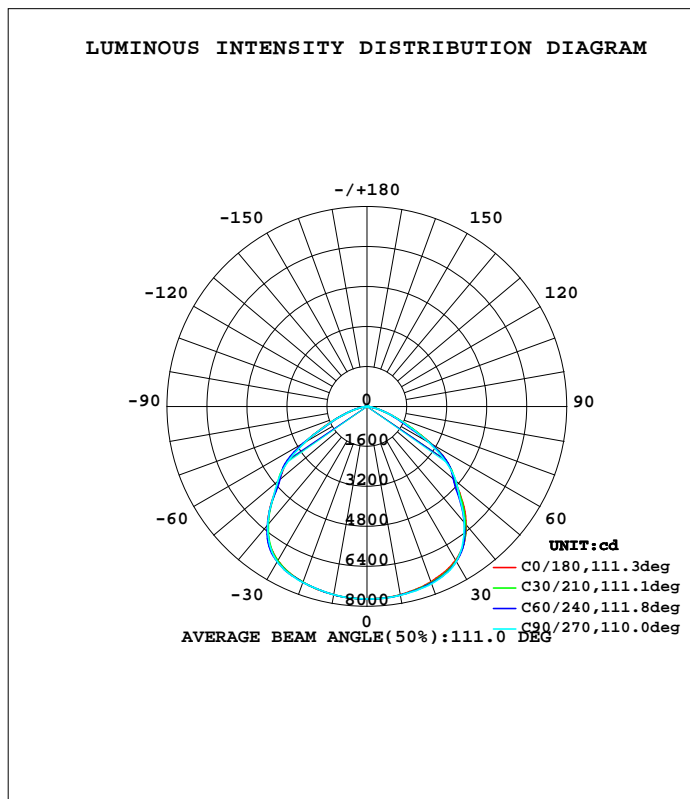


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.1V I:0.5760A P:121.4W PF:0.9570 Lamp Flux:20748.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 170.91 lm/W			
MODEL		I _{max} (cd)	7706	S/MH(C0/180)	1.36
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	1.36
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	20748	h UP, DN(C0-180)	0.3, 49.4
NOMINAL FLUX(lm)	20748.2	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.4, 49.8
LAMPS INSIDE	1	h up(%)	0.7	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220.3	h down(%)	99.3	CIBSE SHR MAX	1.35



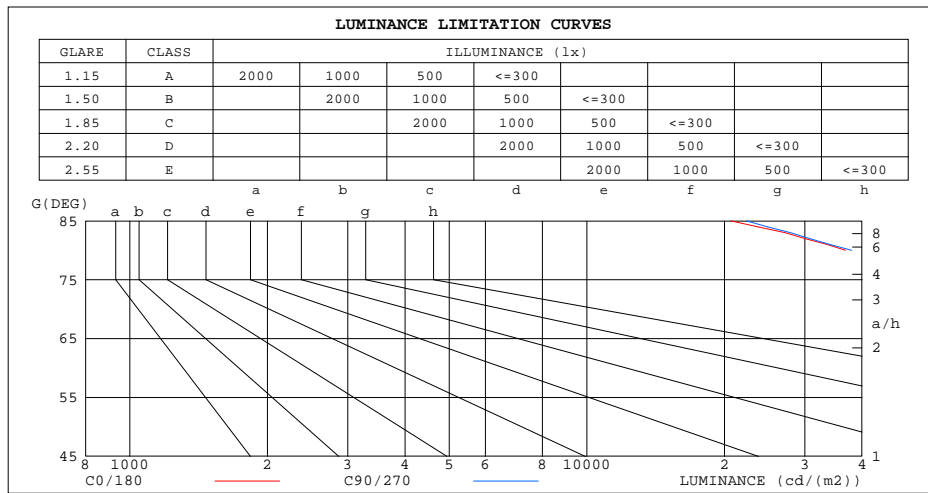
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-03-02

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:8.280m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	7646	7663	7671	7678	7652	7649	7645	7655	0- 10	733.4	733.4	3.53,3.53
20	7470	7510	7555	7575	7484	7486	7497	7517	10- 20	2150	2884	13.9,13.9
30	7102	7147	7156	7182	7128	7158	7175	7192	20- 30	3407	6290	30.3,30.3
40	6183	6106	6054	6023	6188	6176	6177	6144	30- 40	4204	10495	50.6,50.6
50	4594	4574	4656	4655	4579	4596	4674	4691	40- 50	4128	14623	70.5,70.5
60	2954	2878	2824	2742	2893	2903	2865	2848	50- 60	3443	18066	87.1,87.1
70	1065	1056	1045	1052	1062	1088	1065	1081	60- 70	1813	19879	95.8,95.8
80	227.9	238.6	238.1	247.7	238.2	251.5	246.6	252.1	70- 80	622.3	20501	98.8,98.8
90	4.323	4.691	5.219	5.586	5.876	5.937	5.887	6.036	80- 90	96.86	20598	99.3,99.3
100	7.917	7.888	7.871	7.846	9.113	8.939	8.909	8.831	90-100	6.630	20604	99.3,99.3
110	13.92	13.92	13.93	13.86	15.91	15.62	15.53	15.42	100-110	12.07	20617	99.4,99.4
120	21.04	21.07	21.10	21.00	23.56	23.23	23.13	23.05	110-120	18.23	20635	99.5,99.5
130	28.16	28.22	28.24	28.16	30.84	30.52	30.45	30.37	120-130	23.06	20658	99.6,99.6
140	34.95	35.04	35.05	35.02	37.51	37.23	37.21	37.15	130-140	25.29	20683	99.7,99.7
150	41.58	41.62	41.74	41.71	43.59	43.42	43.46	43.42	140-150	24.68	20708	99.8,99.8
160	47.28	47.40	47.56	47.54	48.74	48.61	48.66	48.69	150-160	20.92	20729	99.9,99.9
170	52.80	53.03	53.23	53.19	53.19	53.12	53.20	53.25	160-170	14.28	20743	100,100
180	55.06	55.30	55.53	55.50	55.23	55.29	55.43	55.51	170-180	5.168	20748	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	20636	22317
80	36832	37986
75	59412	57821
70	87424	84592
65	121255	116404
60	165774	156455
55	193845	185196
50	200590	200640
45	214907	206971

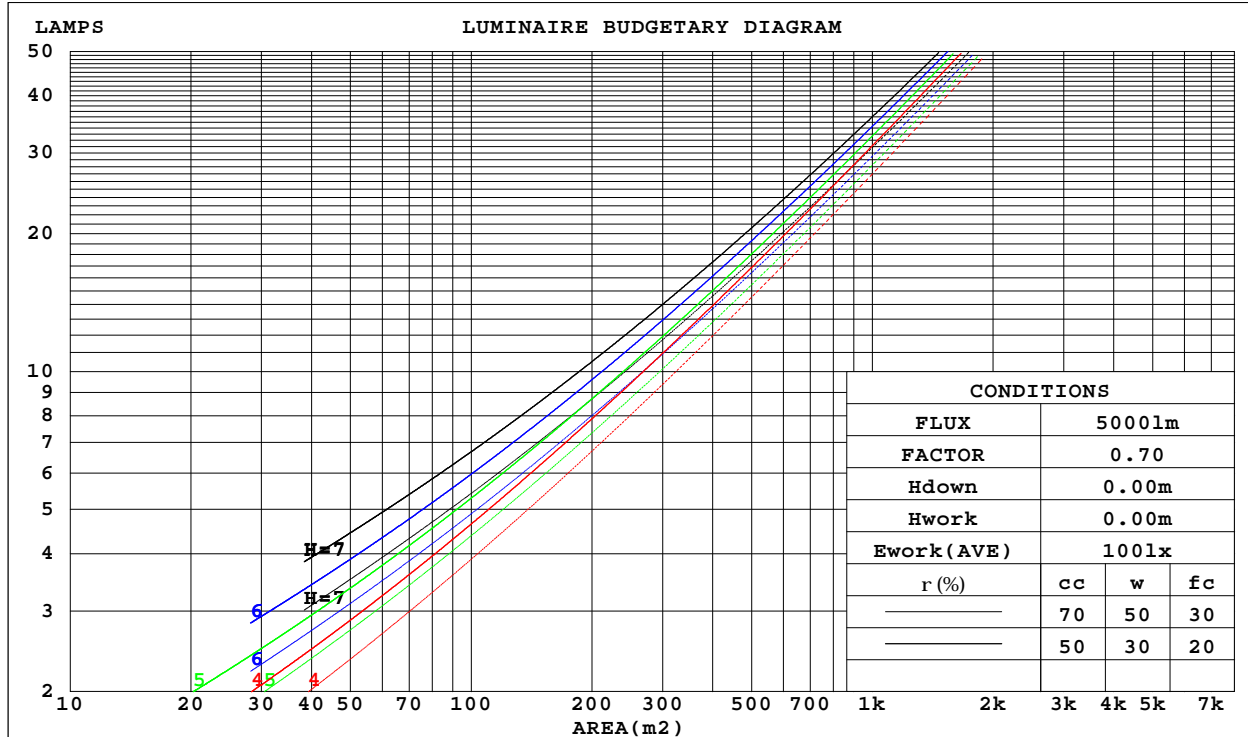
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-03-02

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.281
Humidity:65.0%
Test Distance:8.280m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.1V I:0.5760A P:121.4W PF:0.9570 Lamp Flux:20748.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	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	1.01	1.01	1.01	.99
1.0	1.06	1.02	.99	1.04	1.00	.97	.99	.97	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.94	.88	.82	.92	.86	.81	.88	.83	.79	.85	.81	.78	.82	.79	.76	.74
3.0	.83	.76	.70	.81	.74	.69	.78	.72	.68	.76	.71	.66	.73	.69	.65	.63
4.0	.74	.66	.60	.73	.65	.59	.70	.63	.58	.68	.62	.57	.66	.61	.57	.54
5.0	.66	.58	.52	.65	.57	.51	.63	.56	.51	.61	.55	.50	.59	.54	.49	.47
6.0	.60	.51	.45	.59	.51	.45	.57	.50	.45	.55	.49	.44	.54	.48	.44	.42
7.0	.54	.46	.40	.53	.45	.40	.52	.45	.39	.50	.44	.39	.49	.43	.39	.37
8.0	.50	.41	.36	.49	.41	.36	.47	.40	.35	.46	.40	.35	.45	.39	.35	.33
9.0	.45	.37	.32	.45	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.31	.30
10.0	.42	.34	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.38	.33	.29	.27



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-03-02

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:8.280m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.1V I:0.5760A P:121.4W PF:0.9570 Lamp Flux:20748.2x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.:			SUR.:			PROTECTION ANGLE:		

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.266	.152	.048	.259	.148	.047	.246	.141	.045	.233	.135	.043	.222	.129	.041	
2.0	.259	.142	.044	.253	.139	.043	.241	.134	.042	.230	.129	.040	.220	.125	.039	
3.0	.245	.131	.039	.240	.128	.039	.230	.124	.038	.220	.120	.037	.211	.117	.036	
4.0	.230	.120	.035	.226	.118	.035	.216	.115	.034	.208	.112	.034	.200	.109	.033	
5.0	.216	.110	.032	.212	.109	.032	.203	.106	.031	.196	.103	.031	.188	.101	.030	
6.0	.202	.101	.029	.198	.100	.029	.191	.098	.028	.184	.096	.028	.178	.094	.028	
7.0	.190	.094	.027	.186	.093	.026	.180	.091	.026	.174	.089	.026	.168	.087	.026	
8.0	.178	.087	.025	.175	.086	.024	.169	.085	.024	.164	.083	.024	.159	.081	.024	
9.0	.168	.081	.023	.165	.081	.023	.160	.079	.022	.155	.078	.022	.150	.076	.022	
10.0	.159	.076	.021	.156	.075	.021	.151	.074	.021	.147	.073	.021	.142	.072	.021	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.196	.196	.196	.168	.168	.168	.114	.114	.114	.066	.066	.066	.021	.021	.021	
1.0	.183	.162	.143	.156	.139	.123	.107	.096	.085	.062	.055	.050	.020	.018	.016	
2.0	.174	.138	.108	.149	.119	.093	.102	.082	.065	.059	.048	.038	.019	.015	.012	
3.0	.165	.120	.083	.142	.103	.072	.097	.072	.051	.056	.042	.030	.018	.014	.010	
4.0	.158	.106	.067	.135	.092	.058	.093	.064	.041	.054	.037	.024	.017	.012	.008	
5.0	.151	.096	.055	.130	.083	.048	.089	.058	.034	.052	.034	.020	.017	.011	.007	
6.0	.144	.087	.046	.124	.076	.040	.085	.053	.029	.050	.031	.017	.016	.010	.006	
7.0	.138	.080	.040	.118	.070	.035	.082	.049	.025	.048	.029	.015	.015	.009	.005	
8.0	.132	.075	.035	.113	.065	.031	.078	.045	.022	.046	.027	.013	.015	.009	.004	
9.0	.126	.070	.032	.108	.060	.028	.075	.042	.020	.044	.025	.012	.014	.008	.004	
10.0	.121	.065	.029	.104	.057	.025	.072	.040	.018	.042	.024	.011	.014	.008	.004	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-03-02

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:8.280m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:220.1V I:0.5760A P:121.4W PF:0.9570 Lamp Flux:20748.2x1 lm										
NAME:					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:			PROTECTION 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	31.0	32.4	31.2	32.6	32.8	30.8	32.2	31.0	32.4	32.6
3H	31.5	32.8	31.8	33.0	33.3	31.3	32.6	31.6	32.8	33.0
4H	31.6	32.8	31.9	33.1	33.3	31.3	32.6	31.7	32.8	33.1
6H	31.5	32.7	31.9	33.0	33.3	31.3	32.5	31.7	32.8	33.1
8H	31.5	32.6	31.9	32.9	33.2	31.3	32.4	31.7	32.7	33.0
12H	31.5	32.5	31.8	32.8	33.2	31.3	32.3	31.6	32.6	32.9
4H 2H	31.2	32.5	31.5	32.7	33.0	31.0	32.3	31.4	32.5	32.8
3H	31.9	32.9	32.2	33.2	33.5	31.7	32.7	32.0	33.0	33.3
4H	32.0	33.0	32.4	33.3	33.6	31.8	32.8	32.2	33.1	33.4
6H	32.0	32.9	32.4	33.2	33.6	31.8	32.7	32.2	33.0	33.4
8H	32.0	32.8	32.4	33.2	33.6	31.8	32.6	32.2	33.0	33.4
12H	32.0	32.7	32.4	33.1	33.5	31.8	32.5	32.2	32.9	33.3
8H 4H	32.0	32.8	32.4	33.1	33.5	31.8	32.6	32.2	33.0	33.4
6H	32.0	32.7	32.5	33.1	33.5	31.9	32.5	32.3	32.9	33.4
8H	32.0	32.6	32.5	33.0	33.5	31.9	32.5	32.3	32.9	33.3
12H	32.0	32.5	32.5	33.0	33.5	31.9	32.4	32.4	32.8	33.3
12H 4H	31.9	32.7	32.4	33.1	33.5	31.8	32.5	32.2	32.9	33.3
6H	32.0	32.6	32.5	33.0	33.5	31.9	32.4	32.3	32.9	33.3
8H	32.0	32.5	32.5	33.0	33.5	31.9	32.3	32.4	32.8	33.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.5				
1.5H	+ 0.5 / - 0.6					+ 0.6 / - 0.6				
2.0H	+ 0.7 / - 1.1					+ 0.8 / - 1.6				

CIE Pub.117 Corrected 20748 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.5)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-03-02

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:8.280m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.1V I:0.5760A P:121.4W PF:0.9570 Lamp Flux:20748.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

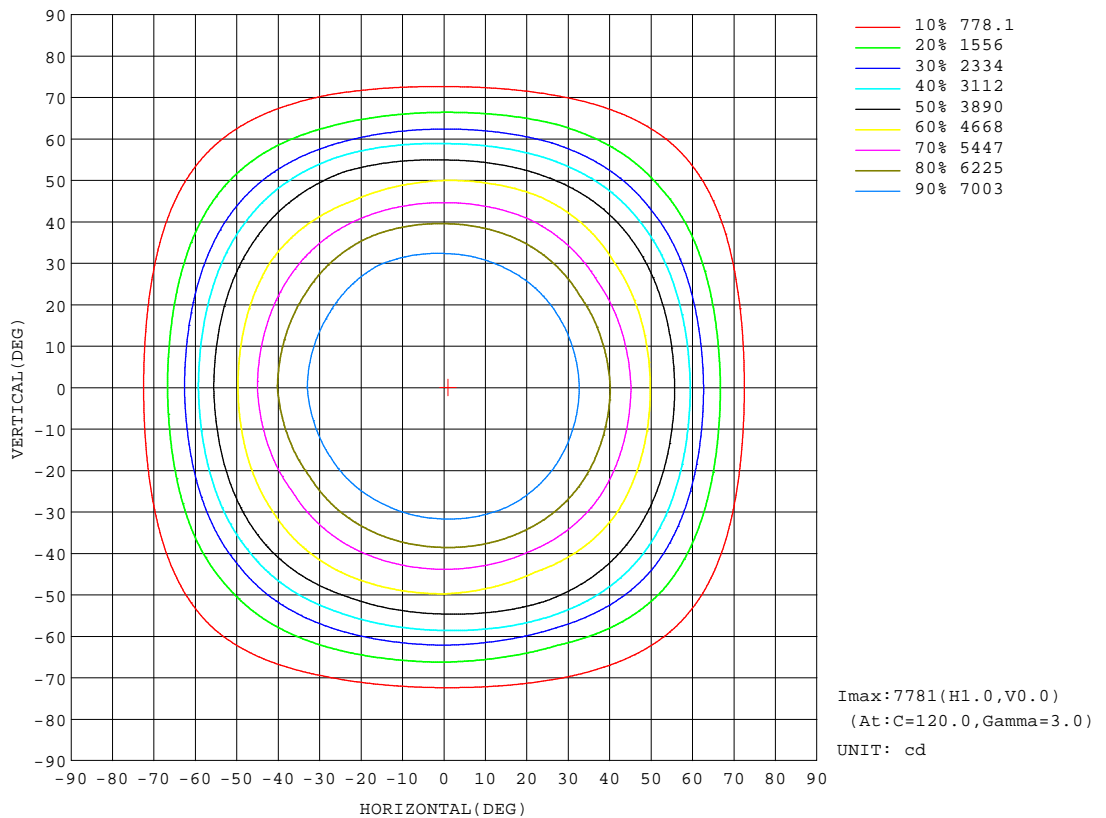
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	60	49	43	60	49	42	58	48	42	36
0.80	71	60	53	70	60	53	68	59	53	46
1.00	80	70	63	79	69	63	76	70	62	55
1.25	87	77	71	85	77	71	83	75	70	63
1.50	92	83	77	90	82	76	87	80	75	68
2.00	98	91	85	96	89	84	93	87	83	75
2.50	102	95	89	100	93	88	96	91	87	79
3.00	105	99	94	102	97	93	98	94	90	82
4.00	108	103	99	106	101	98	101	98	95	86
5.00	110	106	102	108	104	101	103	100	97	88
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:2024-03-02

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:8.280m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.1V I:0.5760A P:121.4W PF:0.9570 Lamp Flux:20748.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



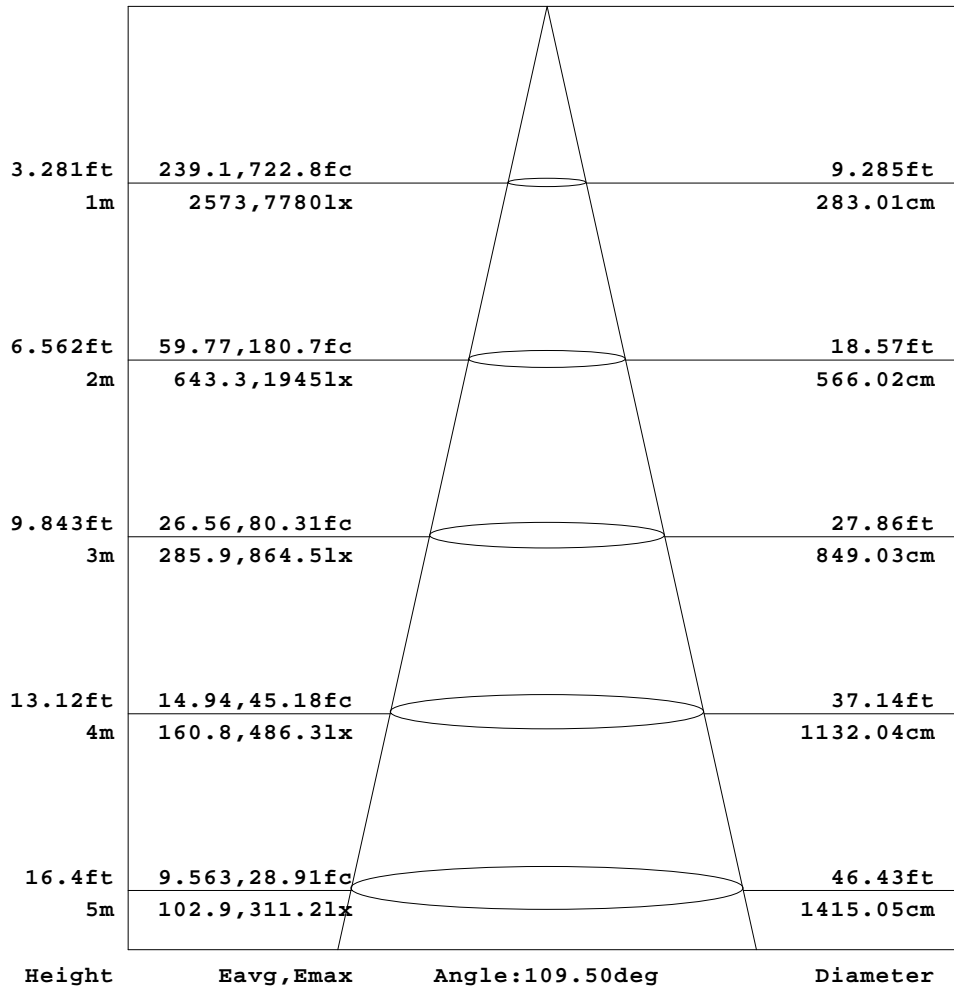
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2024-03-02

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.281
 Humidity: 65.0%
 Test Distance: 8.280m [K=1.0000]
 Remarks:

AAI Figure

Test:U:220.1V I:0.5760A P:121.4W PF:0.9570 Lamp Flux:20748.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Flux out:16489 lm



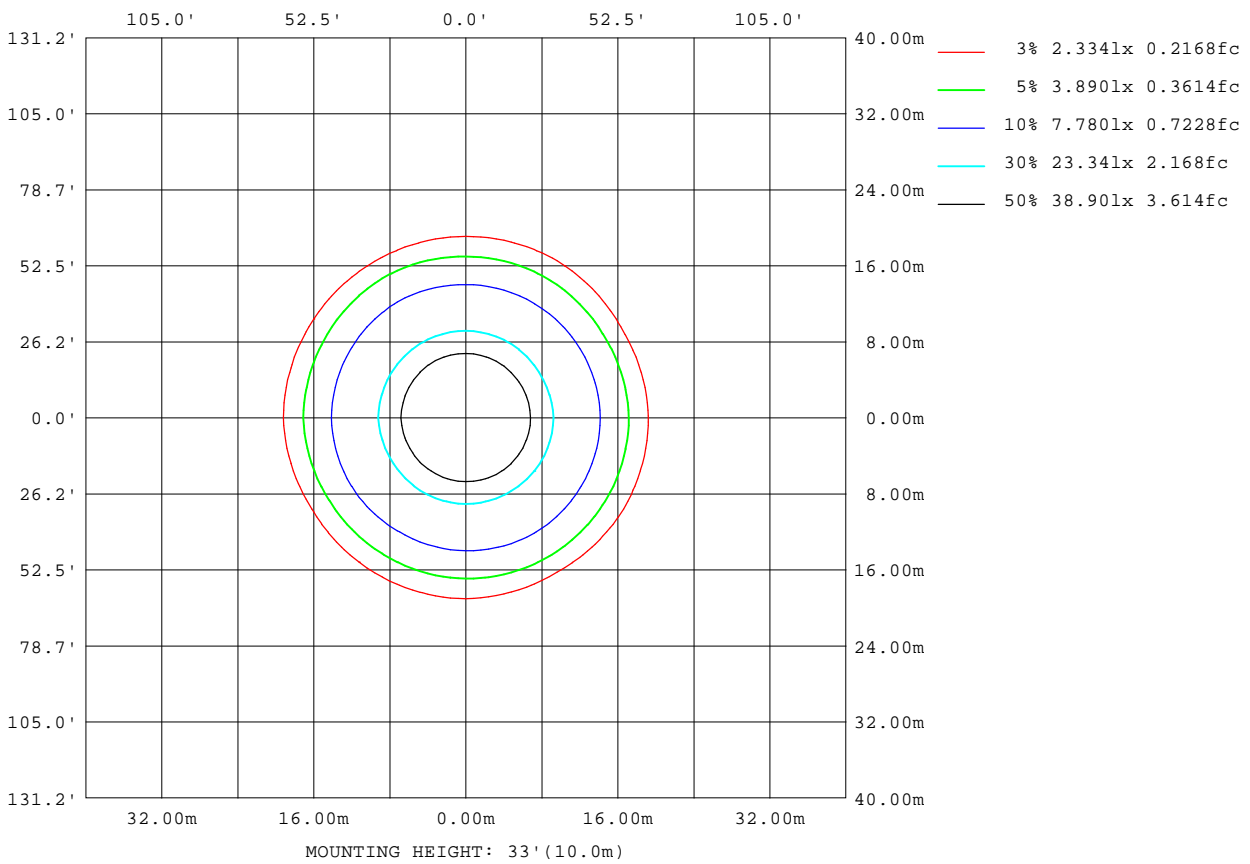
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-03-02

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:8.280m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

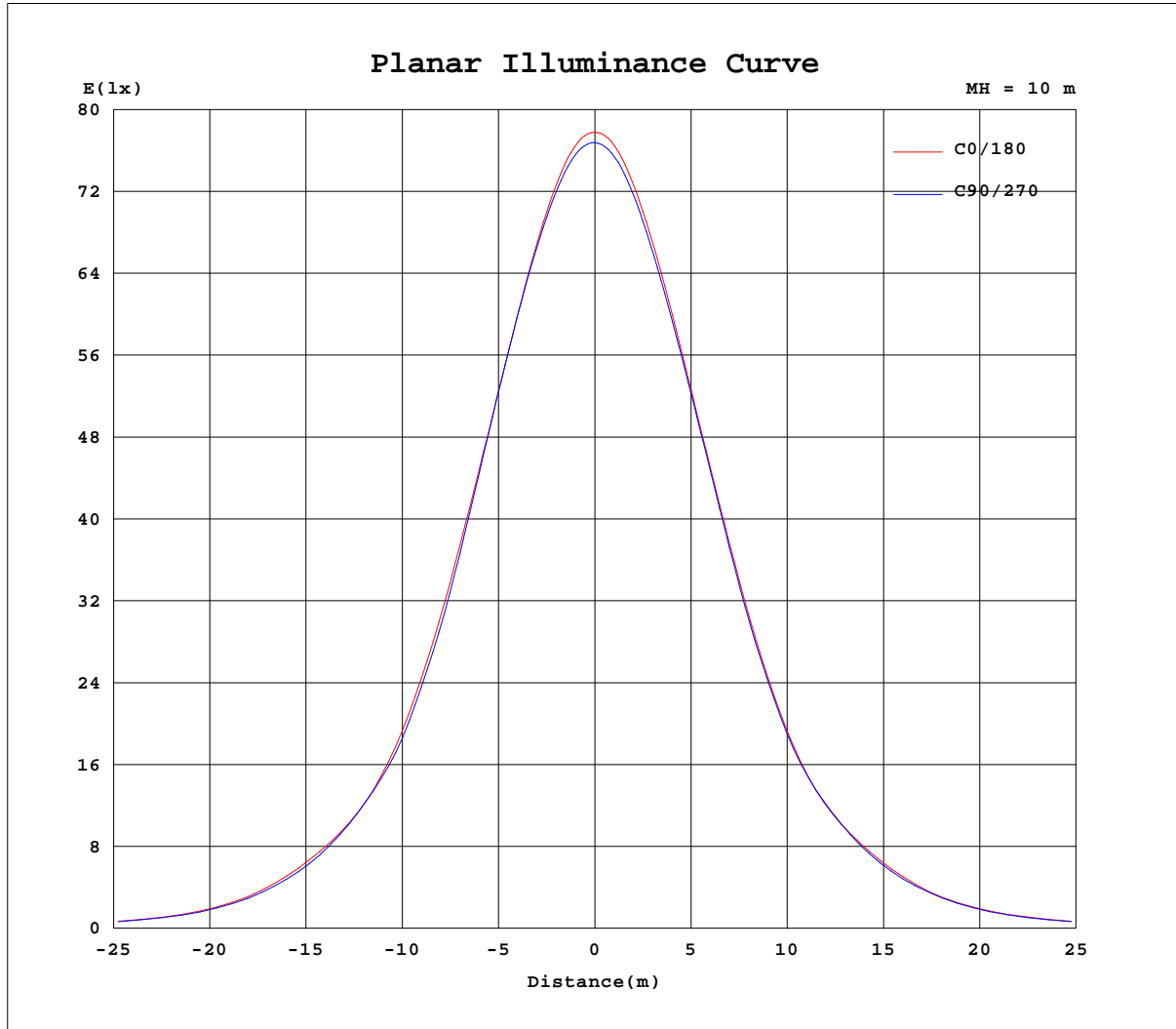
Test:U:220.1V I:0.5760A P:121.4W PF:0.9570 Lamp Flux:20748.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2024-03-02

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.281
 Humidity: 65.0%
 Test Distance: 8.280m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2024-03-02

Page Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.281
 Humidity: 65.0%
 Test Distance: 8.280m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.1V I:0.5760A P:121.4W PF:0.9570 Lamp Flux:20748.2x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	7701	7701	7701	7701	7701	7701	7701	7701	7701	7701	7701	7701						
5	7692	7696	7700	7702	7704	7703	7696	7690	7691	7686	7690	7692						
10	7646	7660	7667	7671	7674	7682	7652	7649	7649	7645	7652	7657						
15	7571	7593	7610	7622	7627	7640	7580	7579	7577	7577	7587	7599						
20	7470	7500	7520	7555	7563	7587	7484	7479	7493	7497	7504	7529						
25	7322	7366	7398	7413	7425	7463	7344	7354	7375	7381	7392	7429						
30	7102	7131	7163	7156	7155	7209	7128	7133	7183	7175	7175	7209						
35	6747	6746	6743	6691	6666	6719	6772	6754	6835	6786	6775	6784						
40	6183	6146	6066	6054	6030	6016	6188	6142	6210	6177	6173	6115						
45	5415	5378	5236	5284	5291	5221	5398	5363	5379	5392	5422	5314						
50	4594	4625	4524	4656	4658	4651	4579	4644	4547	4674	4737	4645						
55	3962	3953	3976	3835	3764	3895	3950	3937	4021	3877	3903	3948						
60	2954	2917	2838	2824	2749	2734	2893	2863	2942	2865	2880	2816						
65	1826	1813	1634	1776	1741	1697	1838	1793	1745	1803	1828	1709						
70	1065	1066	1046	1045	1034	1071	1062	1075	1100	1065	1091	1072						
75	548	542	553	540	537	578	546	550	589	563	562	579						
80	228	236	241	238	232	263	238	239	264	247	250	254						
85	64.1	67.3	67.7	70.2	71.1	76.7	70.5	72.6	77.9	74.9	78.4	74.9						
90	4.32	4.68	4.70	5.22	5.37	5.80	5.88	5.73	6.15	5.89	6.24	5.83						
95	5.55	5.51	5.57	5.50	5.54	5.45	6.44	6.40	6.24	6.27	6.17	6.25						
100	7.92	7.87	7.91	7.87	7.92	7.78	9.11	9.05	8.82	8.91	8.80	8.87						
105	10.7	10.7	10.7	10.7	10.7	10.6	12.3	12.2	11.9	12.0	11.9	11.9						
110	13.9	13.9	13.9	13.9	13.9	13.8	15.9	15.8	15.5	15.5	15.4	15.4						
115	17.4	17.4	17.5	17.5	17.5	17.3	19.8	19.6	19.3	19.3	19.2	19.2						
120	21.0	21.1	21.1	21.1	21.1	20.9	23.6	23.3	23.1	23.1	23.0	23.1						
125	24.6	24.7	24.7	24.7	24.7	24.6	27.3	27.0	26.8	26.9	26.7	26.8						
130	28.2	28.2	28.2	28.2	28.2	28.1	30.8	30.6	30.4	30.4	30.3	30.4						
135	31.5	31.6	31.6	31.6	31.6	31.6	34.2	34.0	33.9	33.8	33.7	33.9						
140	35.0	35.1	35.0	35.1	35.0	35.0	37.5	37.3	37.2	37.2	37.1	37.2						
145	38.4	38.5	38.4	38.5	38.5	38.4	40.7	40.5	40.4	40.5	40.4	40.4						
150	41.6	41.6	41.6	41.7	41.7	41.7	43.6	43.4	43.4	43.5	43.4	43.4						
155	44.5	44.6	44.6	44.7	44.7	44.7	46.2	46.1	46.1	46.2	46.2	46.2						
160	47.3	47.4	47.4	47.6	47.5	47.6	48.7	48.6	48.6	48.7	48.7	48.7						
165	50.0	50.2	50.2	50.4	50.3	50.3	51.2	51.0	51.1	51.1	51.1	51.1						
170	52.8	53.0	53.1	53.2	53.2	53.2	53.2	53.1	53.2	53.2	53.2	53.3						
175	54.4	54.6	54.6	54.8	54.8	54.8	54.5	54.5	54.6	54.6	54.7	54.7						
180	55.1	55.3	55.3	55.5	55.5	55.6	55.2	55.2	55.4	55.4	55.5	55.5						

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-03-02

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.281
 Humidity:65.0%
 Test Distance:8.280m [K=1.0000]
 Remarks: