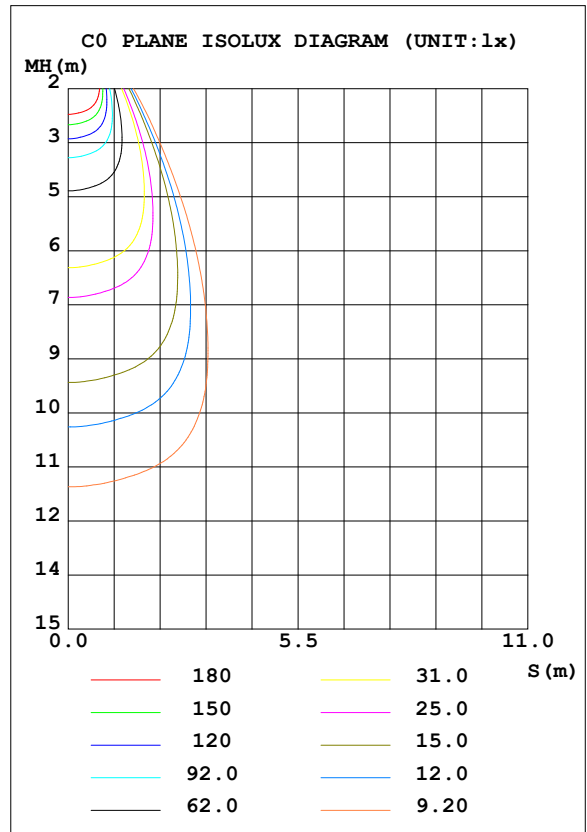
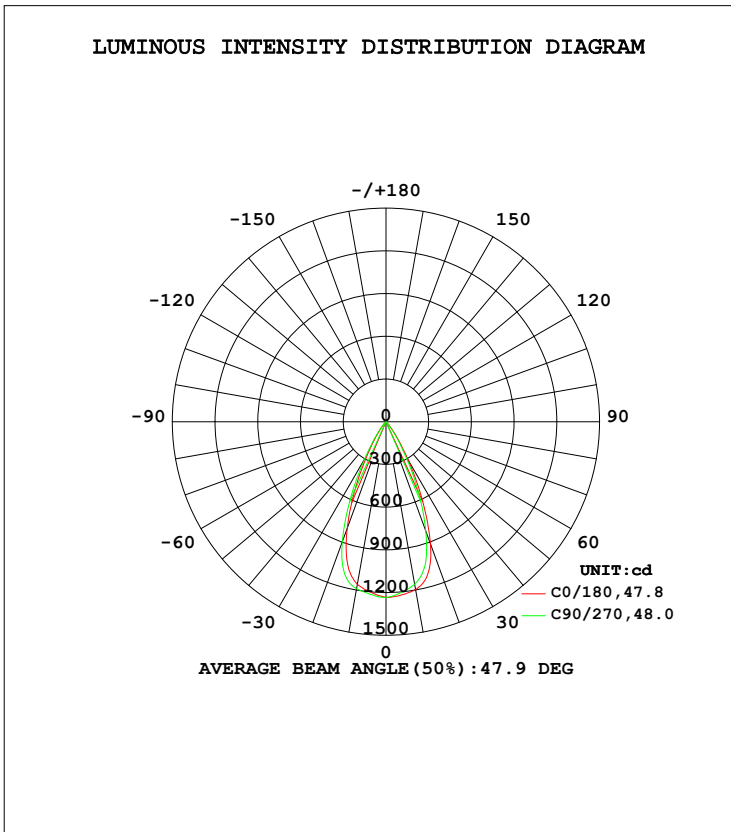


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.77lx1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 91.10 lm/W			
MODEL	XOB CRI 90 3000K	I _{max} (cd)	1234	S/MH (C0/180)	0.70
NOMINAL POWER (W)	9	LOR (%)	100.0	S/MH (C90/270)	0.73
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	751.77	η UP, DN (C0-180)	0.0, 50.7
NOMINAL FLUX (lm)	751.771	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	34	η down (%)	100.0	CIBSE SHR MAX	0.75



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jasoan
 Test Date: 2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity: 58%
 Test Distance: 9.016m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum,lamp
10	1196	1159	1158	1191					0- 10	114.6	114.6	15.2,15.2
20	914.3	817.5	797.0	898.4					10- 20	295.2	409.8	54.5,54.5
30	317.4	266.5	243.5	299.2					20- 30	250.3	660.1	87.8,87.8
40	48.62	35.42	36.76	44.69					30- 40	80.33	740.4	98.5,98.5
50	1.618	0.7790	0.8782	1.780					40- 50	10.87	751.3	99.9,99.9
60	0.2038	0.1268	0.1018	0.2039					50- 60	0.3350	751.6	100,100
70	0.0445	0.0191	0.0191	0.0573					60- 70	0.0814	751.7	100,100
80	0.0254	0.0191	0.0191	0.0254					70- 80	0.0282	751.7	100,100
90	0.0254	0.0191	0.0191	0.0254					80- 90	0.0243	751.8	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		

Conical surface Flux(90deg): 749.1 lm

%lum = 99.6%
 %lamp = 99.6%

Conical surface Flux(120deg): 751.64 lm

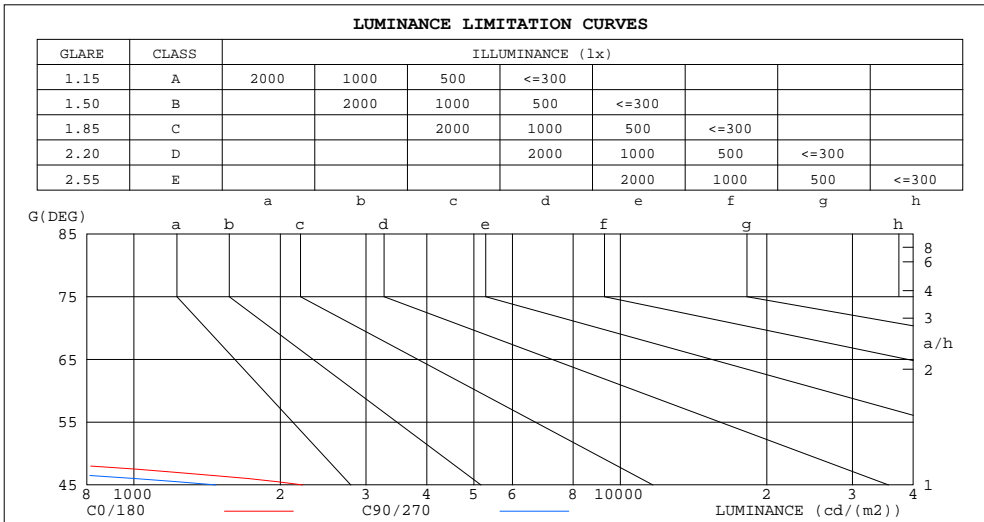
%lum = 100.0%
 %lamp = 100.0%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:58%
 Test Distance:9.016m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.771x1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	32	24
80	16	12
75	11	8
70	14	6
65	28	7
60	45	28
55	67	51
50	275	132
45	2224	1475

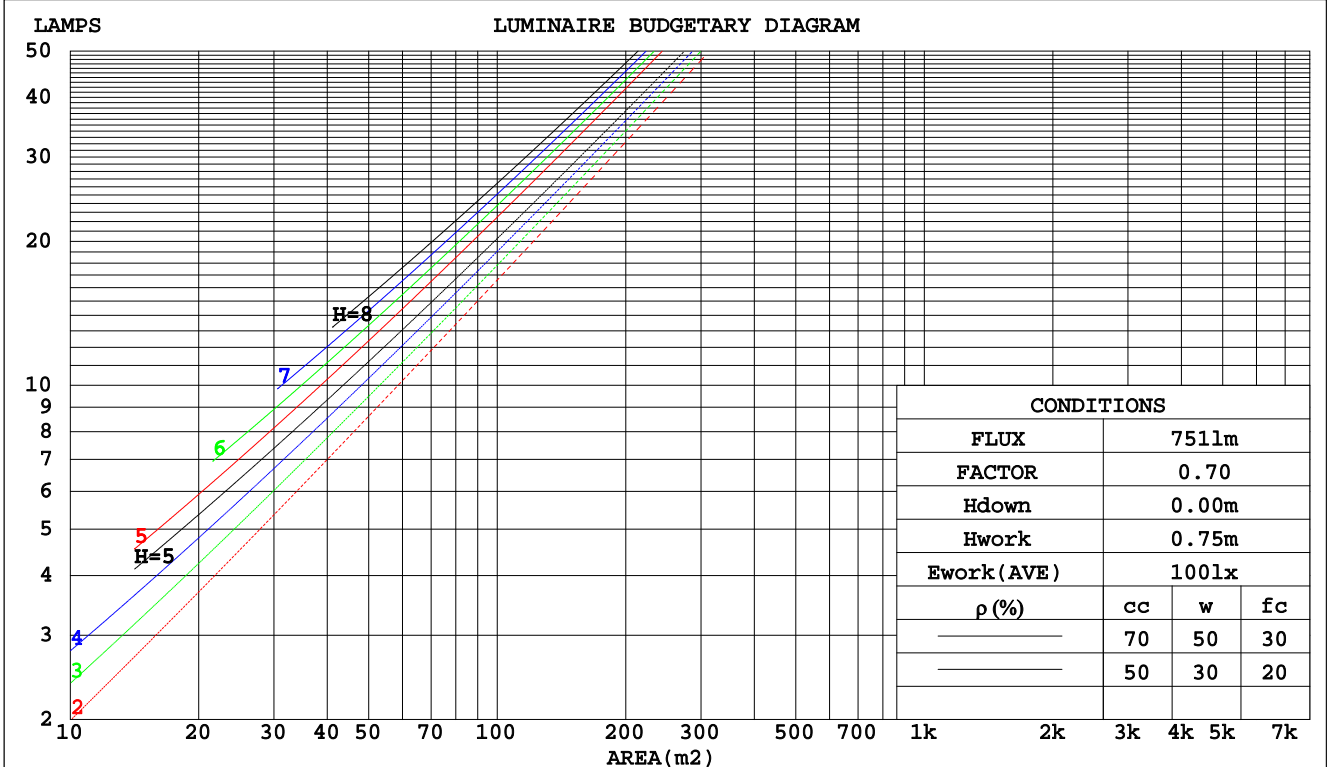
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:58%
 Test Distance:9.016m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.771x1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95
2.0	1.05	1.02	.99	1.04	1.00	.98	1.00	.98	.95	.97	.95	.93	.95	.93	.92	.90
3.0	.99	.95	.92	.98	.94	.91	.95	.92	.89	.93	.90	.88	.91	.89	.87	.85
4.0	.94	.89	.86	.93	.88	.85	.91	.87	.84	.89	.86	.83	.87	.84	.82	.81
5.0	.89	.84	.80	.88	.84	.80	.87	.82	.79	.85	.81	.79	.83	.80	.78	.77
6.0	.85	.80	.76	.84	.79	.76	.83	.78	.75	.81	.77	.75	.80	.77	.74	.73
7.0	.81	.75	.72	.80	.75	.72	.79	.74	.71	.78	.74	.71	.77	.73	.70	.69
8.0	.77	.72	.68	.76	.71	.68	.75	.71	.68	.74	.70	.67	.73	.70	.67	.66
9.0	.73	.68	.65	.73	.68	.65	.72	.68	.64	.71	.67	.64	.70	.67	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.65	.61	.68	.64	.61	.68	.64	.61	.60



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jasoan
 Test Date: 2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity: 58%
 Test Distance: 9.016m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.771x1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.159	.090	.029	.152	.087	.028	.140	.080	.026	.128	.074	.024	.118	.068	.022	
2.0	.150	.082	.025	.145	.080	.025	.134	.075	.023	.125	.070	.022	.116	.065	.021	
3.0	.142	.076	.023	.137	.074	.022	.129	.070	.021	.120	.066	.020	.113	.063	.019	
4.0	.135	.070	.021	.131	.069	.020	.123	.065	.020	.116	.063	.019	.110	.060	.018	
5.0	.129	.066	.019	.125	.064	.019	.119	.062	.018	.113	.059	.018	.107	.057	.017	
6.0	.123	.062	.018	.120	.060	.017	.114	.058	.017	.109	.057	.017	.104	.055	.016	
7.0	.117	.058	.016	.115	.057	.016	.110	.056	.016	.105	.054	.016	.101	.052	.015	
8.0	.113	.055	.015	.110	.054	.015	.106	.053	.015	.102	.052	.015	.098	.050	.015	
9.0	.108	.052	.015	.106	.052	.015	.102	.051	.014	.098	.049	.014	.095	.048	.014	
10.0	.104	.050	.014	.102	.049	.014	.099	.048	.014	.095	.047	.013	.092	.046	.013	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.170	.157	.146	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.153	.133	.115	.131	.114	.100	.090	.079	.069	.052	.046	.041	.017	.015	.013	
3.0	.140	.113	.092	.120	.098	.080	.082	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.129	.098	.075	.110	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.119	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.111	.077	.052	.096	.067	.045	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.105	.069	.044	.090	.060	.039	.062	.042	.027	.036	.025	.016	.012	.008	.005	
8.0	.099	.063	.038	.085	.054	.033	.059	.038	.024	.034	.023	.014	.011	.007	.005	
9.0	.094	.057	.033	.081	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.089	.053	.029	.077	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:58%
 Test Distance:9.016m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.771x1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

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	11.3	12.1	11.5	12.3	12.5	10.5	11.3	10.7	11.5	11.6
3H	11.2	11.9	11.4	12.1	12.3	10.3	11.1	10.6	11.3	11.5
4H	11.1	11.8	11.3	12.0	12.2	10.2	10.9	10.5	11.2	11.4
6H	11.0	11.7	11.3	11.9	12.1	10.1	10.8	10.4	11.0	11.3
8H	10.9	11.6	11.3	11.8	12.1	10.1	10.7	10.4	11.0	11.2
12H	10.9	11.5	11.2	11.8	12.1	10.0	10.7	10.4	10.9	11.2
4H 2H	11.1	11.8	11.3	12.0	12.2	10.2	10.9	10.5	11.2	11.4
3H	10.9	11.5	11.2	11.8	12.1	10.0	10.7	10.4	10.9	11.2
4H	10.8	11.4	11.2	11.7	12.0	10.0	10.5	10.3	10.8	11.1
6H	10.7	11.2	11.1	11.5	11.9	9.9	10.4	10.2	10.7	11.0
8H	10.7	11.1	11.0	11.5	11.8	9.8	10.3	10.2	10.6	11.0
12H	10.6	11.0	11.0	11.4	11.8	9.8	10.2	10.2	10.5	10.9
8H 4H	10.7	11.1	11.0	11.5	11.8	9.8	10.3	10.2	10.6	11.0
6H	10.6	10.9	11.0	11.3	11.7	9.7	10.1	10.1	10.5	10.9
8H	10.5	10.8	10.9	11.2	11.7	9.6	10.0	10.1	10.4	10.8
12H	10.4	10.7	10.9	11.2	11.6	9.6	9.9	10.0	10.3	10.8
12H 4H	10.6	11.0	11.0	11.4	11.8	9.8	10.2	10.2	10.5	10.9
6H	10.5	10.8	10.9	11.2	11.7	9.6	10.0	10.1	10.4	10.8
8H	10.4	10.7	10.9	11.2	11.6	9.6	9.9	10.0	10.3	10.8
Variations with the observer position at spacings:										
S = 1.0H	+ 4.3 / -27.2					+ 3.9 / -27.9				
1.5H	+ 6.9 / -25.5					+ 6.6 / -25.0				
2.0H	+ 8.9 / -17.6					+ 8.7 / -16.7				

CIE Pub.117, 751.8 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -1.0)
 Area: 0.00915624 m2

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:58%
 Test Distance:9.016m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.771x1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

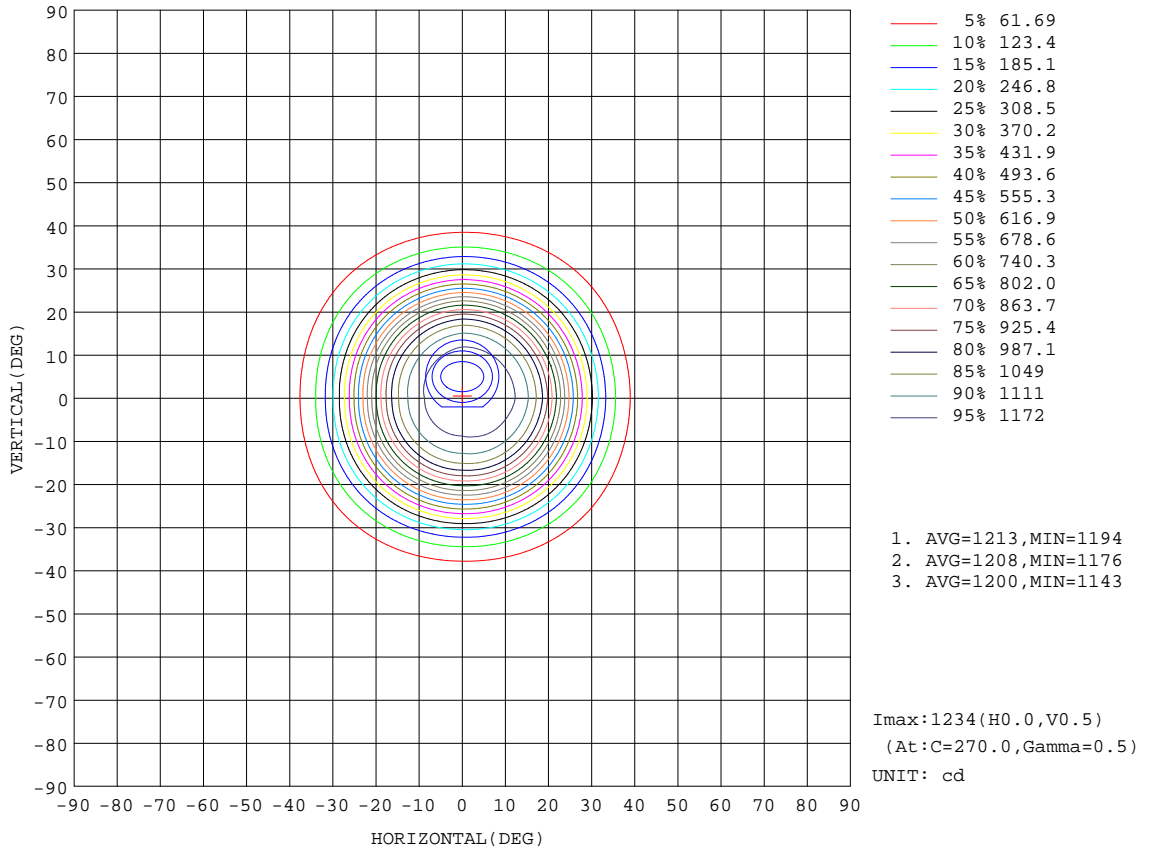
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	91	85	81	90	85	81	89	84	81	78
0.80	98	92	89	97	92	89	96	92	89	85
1.00	102	96	93	101	96	93	99	96	92	89
1.25	105	100	97	104	100	97	102	99	96	92
1.50	108	103	100	106	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	108	105	104	98
4.00	114	112	110	112	110	109	109	107	106	99
5.00	116	114	112	114	112	110	110	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: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:58%
 Test Distance:9.016m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.771x1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		



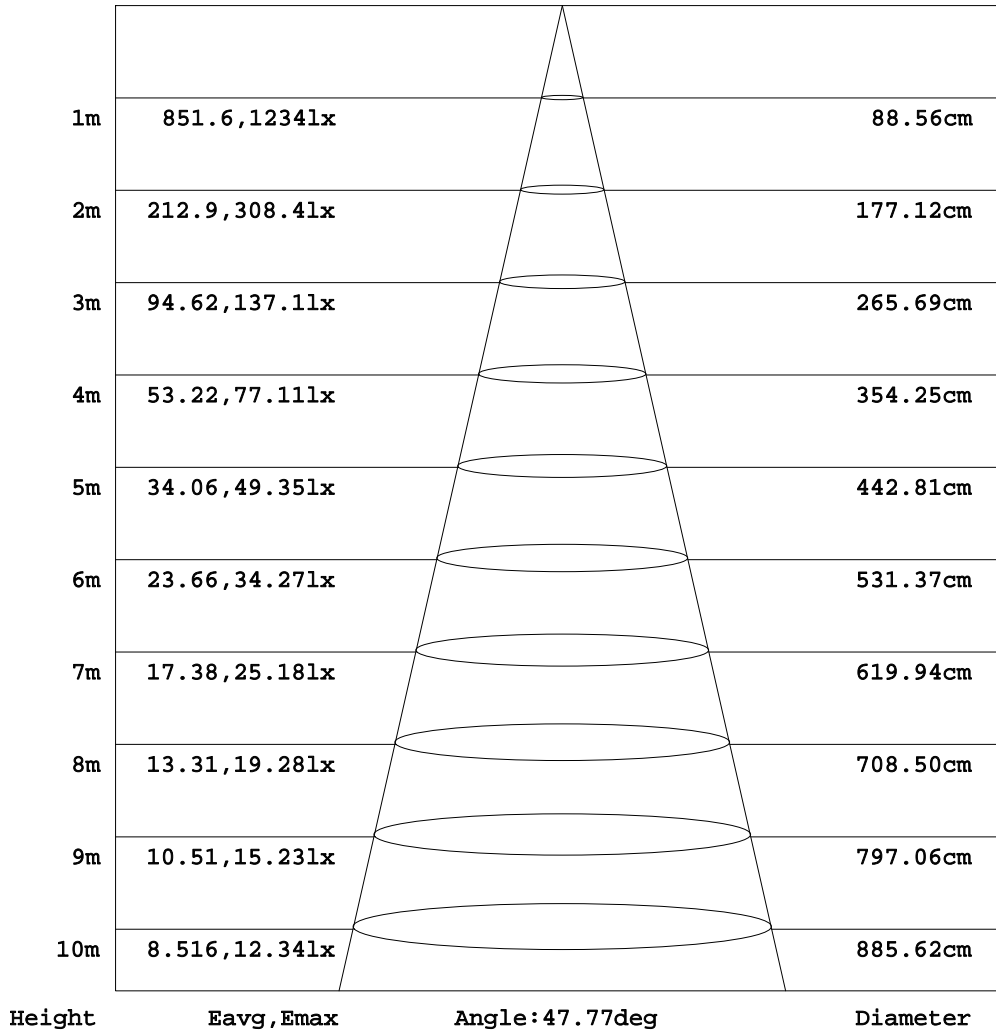
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:58%
 Test Distance:9.016m [K=1.0000]
 Remarks:

AAI Figure

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.771x1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

Flux out:530.3 lm



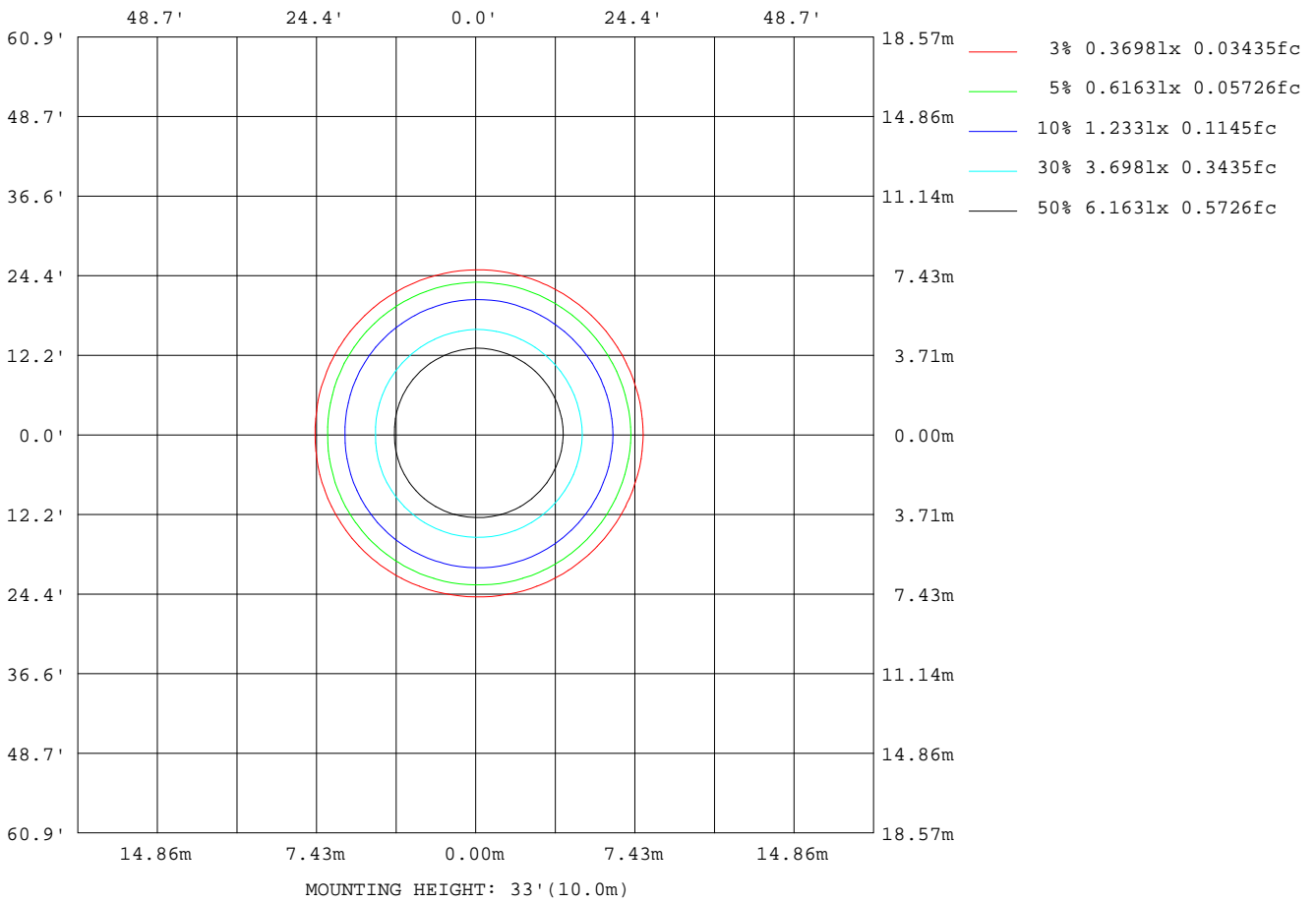
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:58%
 Test Distance:9.016m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.771x1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jasoan
 Test Date: 2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity: 58%
 Test Distance: 9.016m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.771x1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

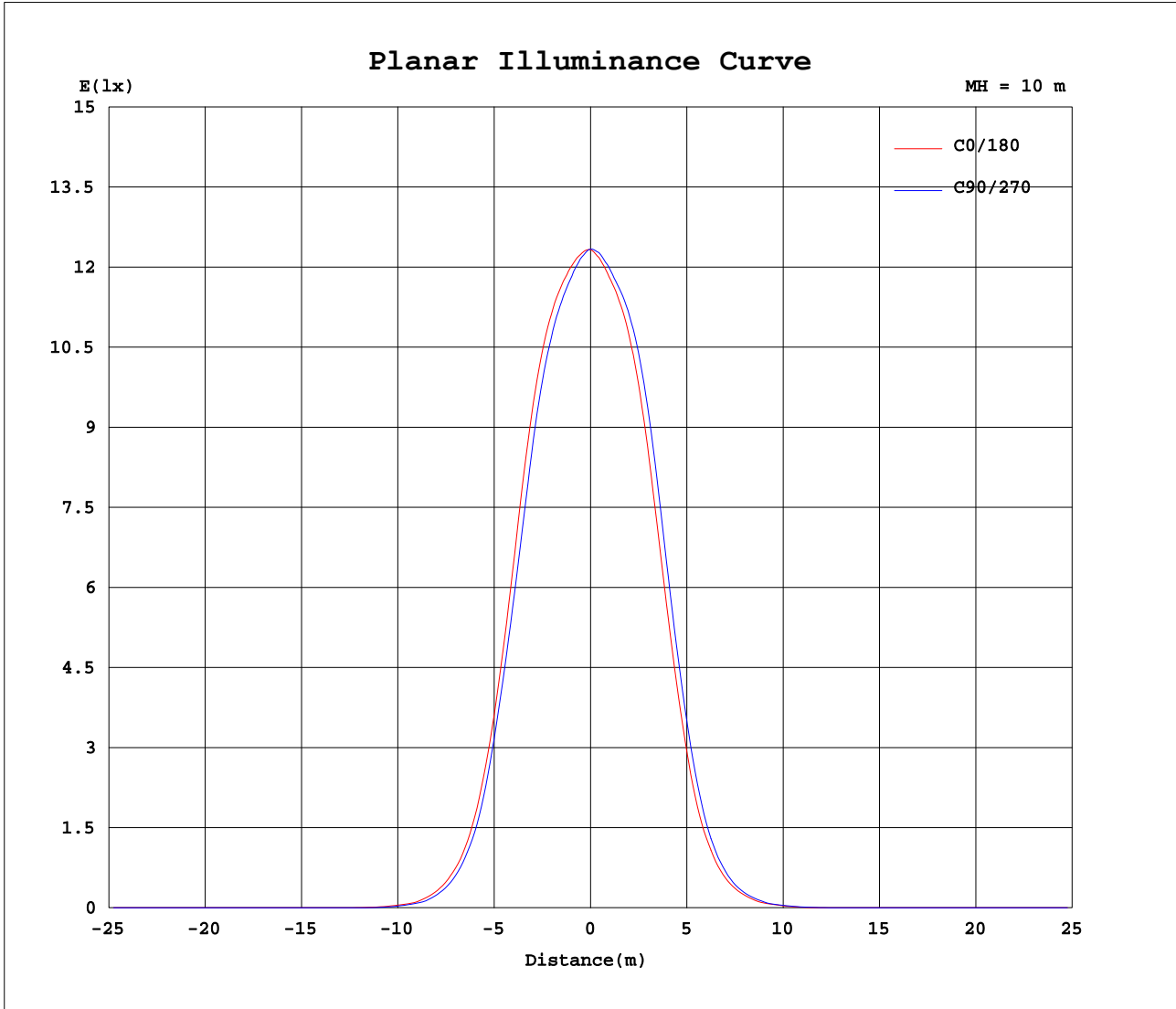
AvgL	cd/m2
L_0~180 (65) av	17
L_0~180 (75) av	9
L_0~180 (85) av	28
L_90~270 (65) av	19
L_90~270 (75) av	11
L_90~270 (85) av	28
L_45 (65) av	18
L_45 (75) av	10
L_45 (85) av	28

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:58%
 Test Distance:9.016m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jasoan
Test Date: 2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity: 58%
Test Distance: 9.016m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:33.010V I:0.2500A P:8.2525W PF:1.0000 Freq:0Hz Lamp Flux:751.771x1 lm		
NAME: XDL E4-WRA-L19030-50DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270																
0	1233	1233	1233	1233																
5	1222	1206	1203	1219																
10	1196	1159	1158	1191																
15	1120	1052	1039	1113																
20	914	817	797	898																
25	602	533	498	586																
30	317	266	244	299																
35	136	110	102	125																
40	48.6	35.4	36.8	44.7																
45	14.4	9.55	11.1	13.4																
50	1.62	0.78	0.88	1.78																
55	0.35	0.27	0.22	0.33																
60	0.20	0.13	0.10	0.20																
65	0.11	0.03	0.03	0.12																
70	0.04	0.02	0.02	0.06																
75	0.03	0.02	0.02	0.03																
80	0.03	0.02	0.02	0.03																
85	0.03	0.02	0.02	0.03																
90	0.03	0.02	0.02	0.03																

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:58%
 Test Distance:9.016m [K=1.0000]
 Remarks: