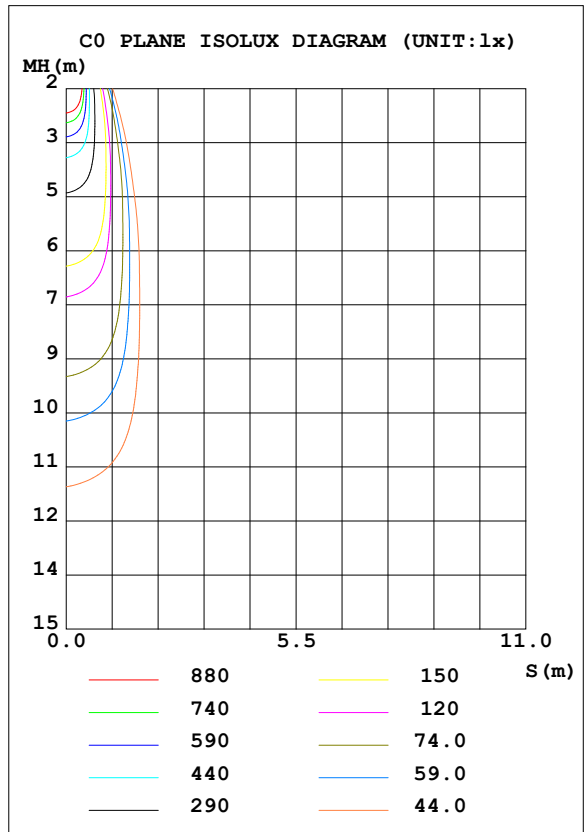
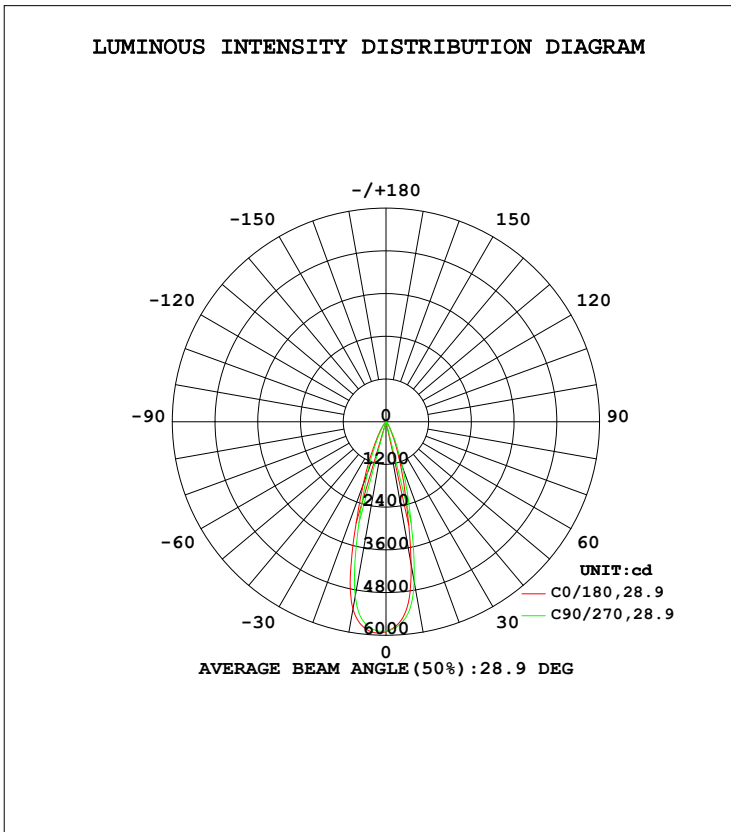


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:34.070V I:0.7000A P:23.849W PF:1.0000 Freq:0Hz Lamp Flux:1752.76x1 lm		
NAME: XDL E4-WRA-L49030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H154mm	
MFR.: SBC XICATO CORP.		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 73.49 lm/W			
MODEL	XOB CRI 90 3000K	I <sub>max</sub> (cd)	5940	S/MH (C0/180)	0.53
NOMINAL POWER (W)	25	LOR (%)	100.0	S/MH (C90/270)	0.49
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	1752.8	η UP, DN (C0-180)	0.0, 43.8
NOMINAL FLUX (lm)	1752.76	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 56.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	33.4	η down (%)	100.0	CIBSE SHR MAX	0.50



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	4067	4566	5343	4977				0- 10	515.2	515.2	29.4,29.4
20	1045	1362	1880	1515				10- 20	775.4	1291	73.6,73.6
30	232.7	291.7	424.9	326.1				20- 30	335.5	1626	92.8,92.8
40	40.09	64.16	96.48	69.98				30- 40	105.0	1731	98.8,98.8
50	2.227	3.948	9.017	4.962				40- 50	19.55	1751	99.9,99.9
60	0.7006	0.8576	1.086	0.8338				50- 60	1.619	1752	100,100
70	0.1081	0.1016	0.1142	0.1082				60- 70	0.3969	1753	100,100
80	0.0636	0.0572	0.0509	0.0572				70- 80	0.0701	1753	100,100
90	0.0636	0.0572	0.0509	0.0572				80- 90	0.0624	1753	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): 1745.6 lm

%lum = 99.6%  
 %lamp = 99.6%

Conical surface Flux(120deg): 1752.2 lm

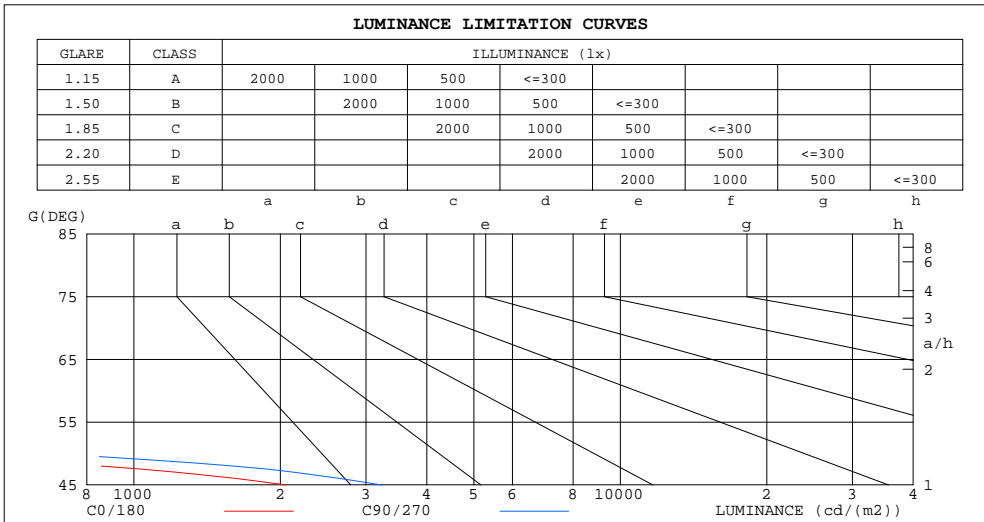
%lum = 100.0%  
 %lamp = 100.0%

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:34.070V I:0.7000A P:23.849W PF:1.0000 Freq:0Hz Lamp Flux:1752.76x1 lm		
NAME: XDL E4-WRA-L49030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H154mm	
MFR.: SBC XICATO CORP.		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	80	72
80	40	36
75	27	24
70	35	32
65	61	93
60	153	187
55	242	287
50	378	671
45	2052	3224

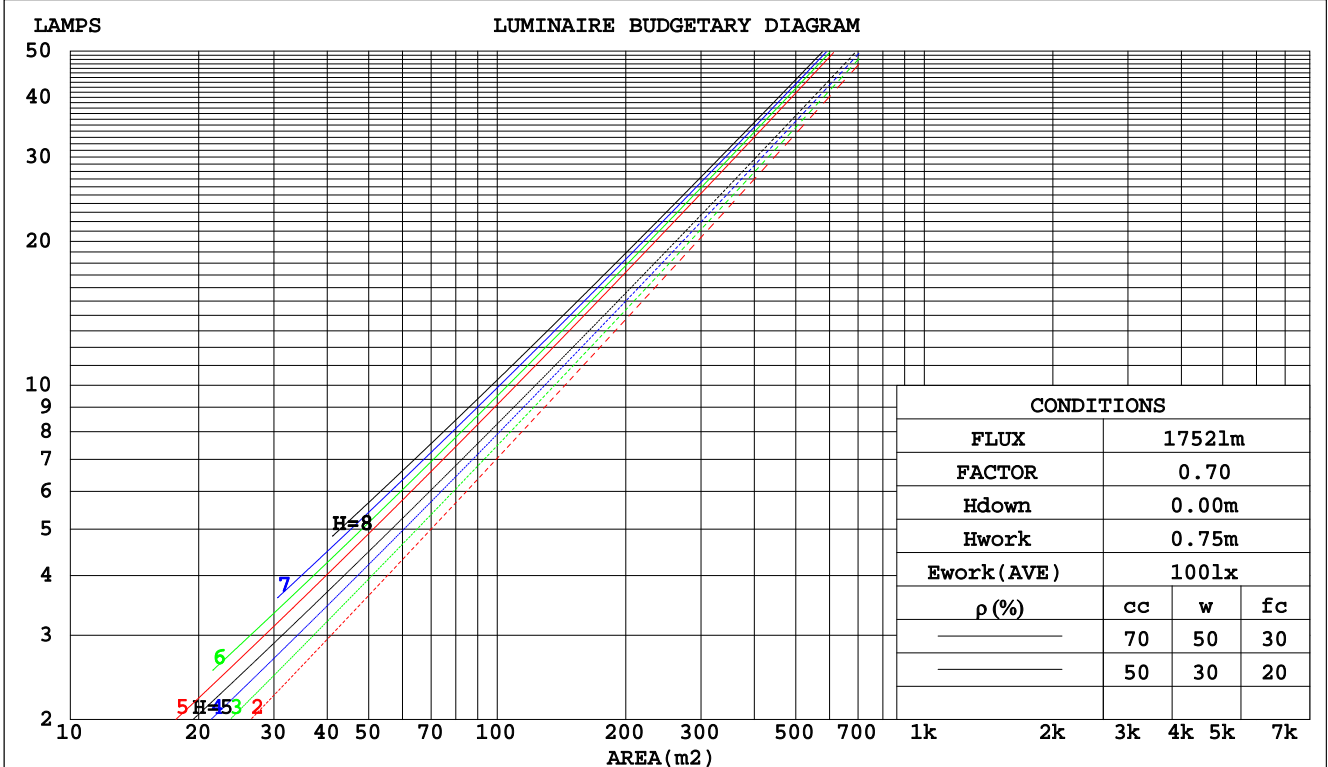
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Jasoan  
 Test Date:2024-05-22

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:34.070V I:0.7000A P:23.849W PF:1.0000 Freq:0Hz Lamp Flux:1752.76x1 lm		
NAME: XDL E4-WRA-L49030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H154mm	
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															
	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	1.13	1.11	1.09	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.01	1.05	1.03	1.00	1.02	.99	.98	.99	.98	.96	.97	.95	.94	.92
3.0	1.02	.98	.95	1.01	.97	.95	.98	.95	.93	.96	.94	.92	.94	.92	.90	.89
4.0	.98	.94	.90	.97	.93	.90	.95	.91	.89	.93	.90	.88	.91	.89	.87	.86
5.0	.94	.89	.86	.93	.89	.86	.91	.88	.85	.90	.87	.84	.88	.86	.84	.83
6.0	.90	.86	.83	.89	.85	.82	.88	.84	.82	.87	.84	.81	.86	.83	.81	.80
7.0	.87	.82	.79	.86	.82	.79	.85	.81	.79	.84	.81	.78	.83	.80	.78	.77
8.0	.84	.79	.76	.83	.79	.76	.82	.79	.76	.81	.78	.76	.81	.78	.75	.74
9.0	.81	.77	.74	.81	.76	.74	.80	.76	.73	.79	.76	.73	.78	.75	.73	.72
10.0	.78	.74	.71	.78	.74	.71	.77	.74	.71	.77	.73	.71	.76	.73	.71	.70



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:34.070V I:0.7000A P:23.849W PF:1.0000 Freq:0Hz Lamp Flux:1752.76x1 lm		
NAME: XDL E4-WRA-L49030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H154mm	
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	.142	.081	.026	.136	.077	.025	.123	.071	.023	.112	.065	.021	.101	.059	.019	
2.0	.133	.073	.022	.127	.070	.022	.117	.065	.020	.108	.060	.019	.099	.056	.018	
3.0	.124	.066	.020	.120	.064	.019	.111	.060	.018	.103	.057	.017	.096	.053	.016	
4.0	.117	.061	.018	.113	.059	.018	.106	.056	.017	.099	.053	.016	.093	.051	.015	
5.0	.111	.056	.016	.107	.055	.016	.101	.053	.016	.095	.050	.015	.090	.048	.014	
6.0	.105	.053	.015	.102	.052	.015	.097	.050	.014	.092	.048	.014	.087	.046	.014	
7.0	.100	.050	.014	.098	.049	.014	.093	.047	.014	.089	.045	.013	.085	.044	.013	
8.0	.096	.047	.013	.094	.046	.013	.089	.045	.013	.086	.043	.013	.082	.042	.012	
9.0	.092	.044	.012	.090	.044	.012	.086	.043	.012	.083	.041	.012	.079	.040	.012	
10.0	.088	.042	.012	.086	.042	.012	.083	.041	.011	.080	.040	.011	.077	.039	.011	

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	.169	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.129	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.014	
3.0	.136	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.107	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.114	.086	.065	.098	.074	.057	.068	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.106	.076	.055	.091	.066	.048	.063	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.098	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.092	.061	.040	.079	.053	.035	.055	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.086	.056	.035	.074	.048	.030	.052	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.082	.051	.031	.070	.044	.027	.049	.031	.019	.028	.018	.011	.009	.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:34.070V I:0.7000A P:23.849W PF:1.0000 Freq:0Hz Lamp Flux:1752.76x1 lm		
NAME: XDL E4-WRA-L49030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H154mm	
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	7.8	8.5	8.0	8.7	8.8	8.9	9.6	9.1	9.7	9.9
3H	7.7	8.3	7.9	8.5	8.7	8.8	9.4	9.0	9.6	9.8
4H	7.6	8.2	7.8	8.4	8.6	8.7	9.3	8.9	9.5	9.7
6H	7.5	8.1	7.8	8.3	8.5	8.6	9.2	8.9	9.4	9.6
8H	7.5	8.0	7.7	8.3	8.5	8.5	9.1	8.8	9.3	9.6
12H	7.4	7.9	7.7	8.2	8.5	8.5	9.0	8.8	9.3	9.6
4H 2H	7.6	8.2	7.8	8.4	8.6	8.7	9.3	8.9	9.5	9.7
3H	7.4	7.9	7.7	8.2	8.5	8.5	9.0	8.8	9.3	9.6
4H	7.3	7.8	7.6	8.1	8.4	8.4	8.9	8.7	9.2	9.5
6H	7.2	7.6	7.6	8.0	8.3	8.3	8.7	8.7	9.1	9.4
8H	7.2	7.6	7.5	7.9	8.3	8.2	8.7	8.6	9.0	9.4
12H	7.1	7.5	7.5	7.8	8.2	8.2	8.6	8.6	8.9	9.3
8H 4H	7.2	7.6	7.5	7.9	8.3	8.2	8.7	8.6	9.0	9.4
6H	7.0	7.4	7.5	7.8	8.2	8.1	8.5	8.6	8.9	9.3
8H	7.0	7.3	7.4	7.7	8.1	8.1	8.4	8.5	8.8	9.2
12H	6.9	7.2	7.4	7.6	8.1	8.0	8.3	8.5	8.7	9.2
12H 4H	7.1	7.5	7.5	7.8	8.2	8.2	8.6	8.6	8.9	9.3
6H	7.0	7.3	7.4	7.7	8.1	8.1	8.4	8.5	8.8	9.2
8H	6.9	7.2	7.4	7.6	8.1	8.0	8.3	8.5	8.7	9.2
Variations with the observer position at spacings:										
S = 1.0H	+ 3.7 / -18.7					+ 4.1 / -19.5				
1.5H	+ 6.3 / -15.9					+ 6.7 / -17.2				
2.0H	+ 7.4 / -10.3					+ 8.2 / -12.1				

CIE Pub.117, 1753 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 1.9)  
 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:34.070V I:0.7000A P:23.849W PF:1.0000 Freq:0Hz Lamp Flux:1752.76x1 lm		
NAME: XDL E4-WRA-L49030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H154mm	
MFR.: SBC XICATO CORP.		

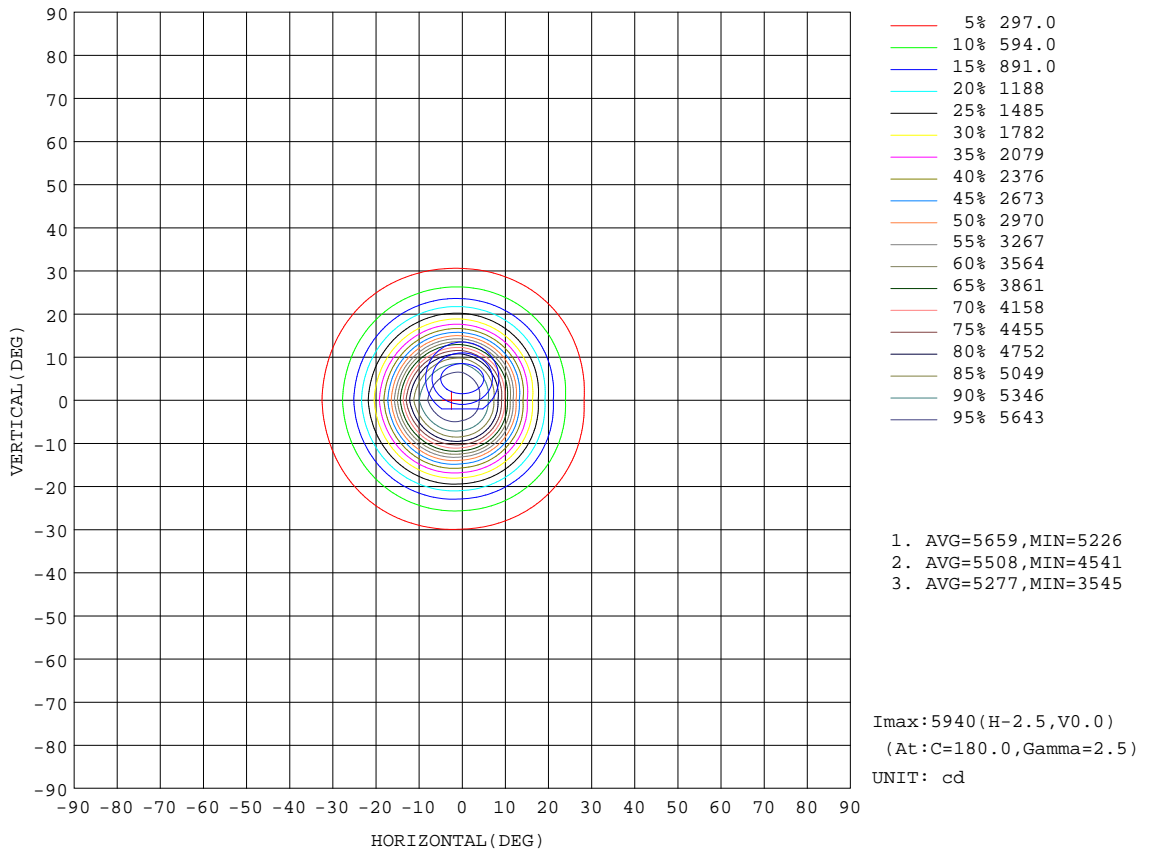
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	91	85	82	90	85	82	90	85	81	78
0.80	98	93	89	97	92	89	96	92	89	85
1.00	102	97	93	101	96	93	99	96	93	89
1.25	105	101	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	106	104	98
4.00	115	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:34.070V I:0.7000A P:23.849W PF:1.0000 Freq:0Hz Lamp Flux:1752.76x1 lm		
NAME: XDL E4-WRA-L49030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H154mm	
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

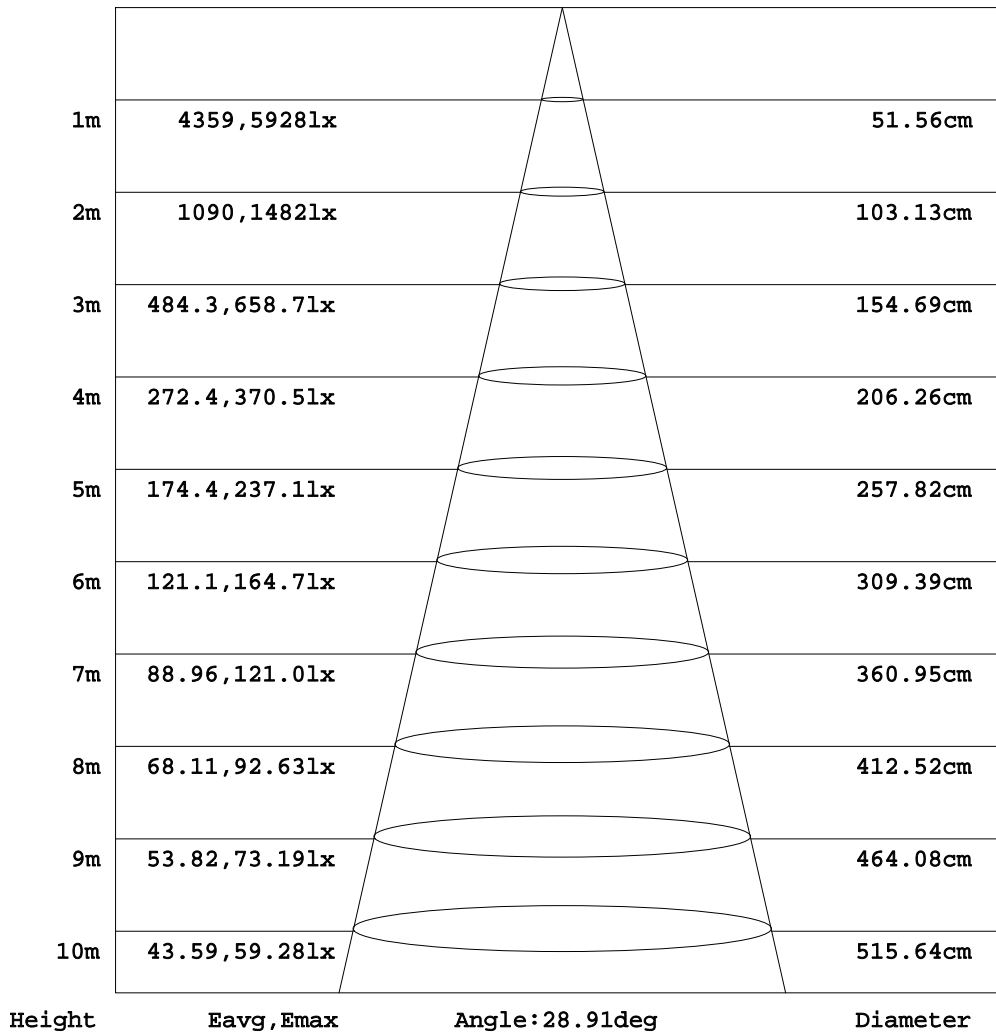
γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.421  
 Humidity:58%  
 Test Distance:9.016m [K=1.0000]  
 Remarks:



AAI Figure

Test:U:34.070V I:0.7000A P:23.849W PF:1.0000 Freq:0Hz Lamp Flux:1752.76x1 lm		
NAME: XDL E4-WRA-L49030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H154mm	
MFR.: SBC XICATO CORP.		

Flux out:915.9 lm



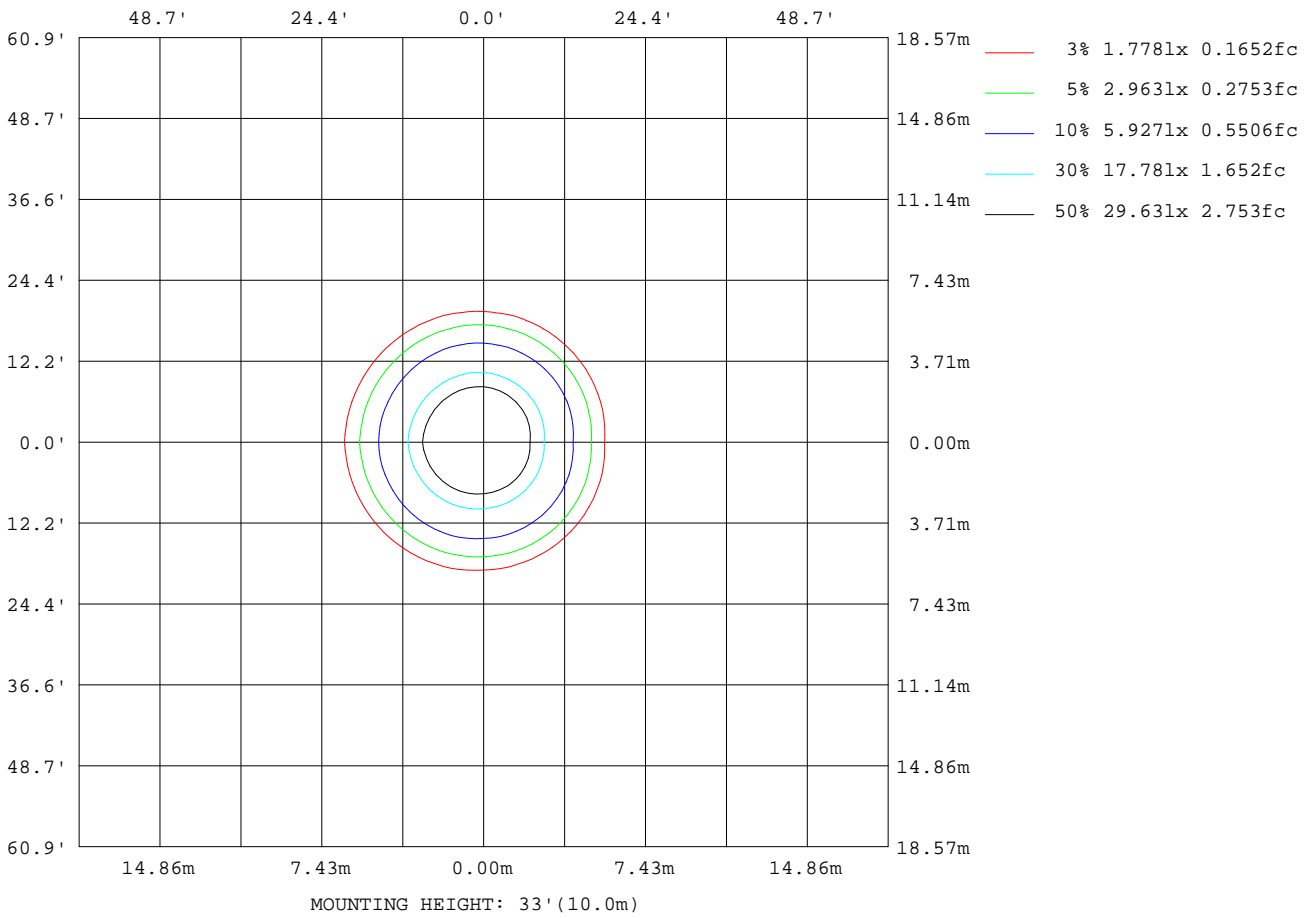
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:34.070V I:0.7000A P:23.849W PF:1.0000 Freq:0Hz Lamp Flux:1752.76x1 lm		
NAME: XDL E4-WRA-L49030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H154mm	
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:34.070V I:0.7000A P:23.849W PF:1.0000 Freq:0Hz Lamp Flux:1752.76x1 lm		
NAME: XDL E4-WRA-L49030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H154mm	
MFR.: SBC XICATO CORP.		

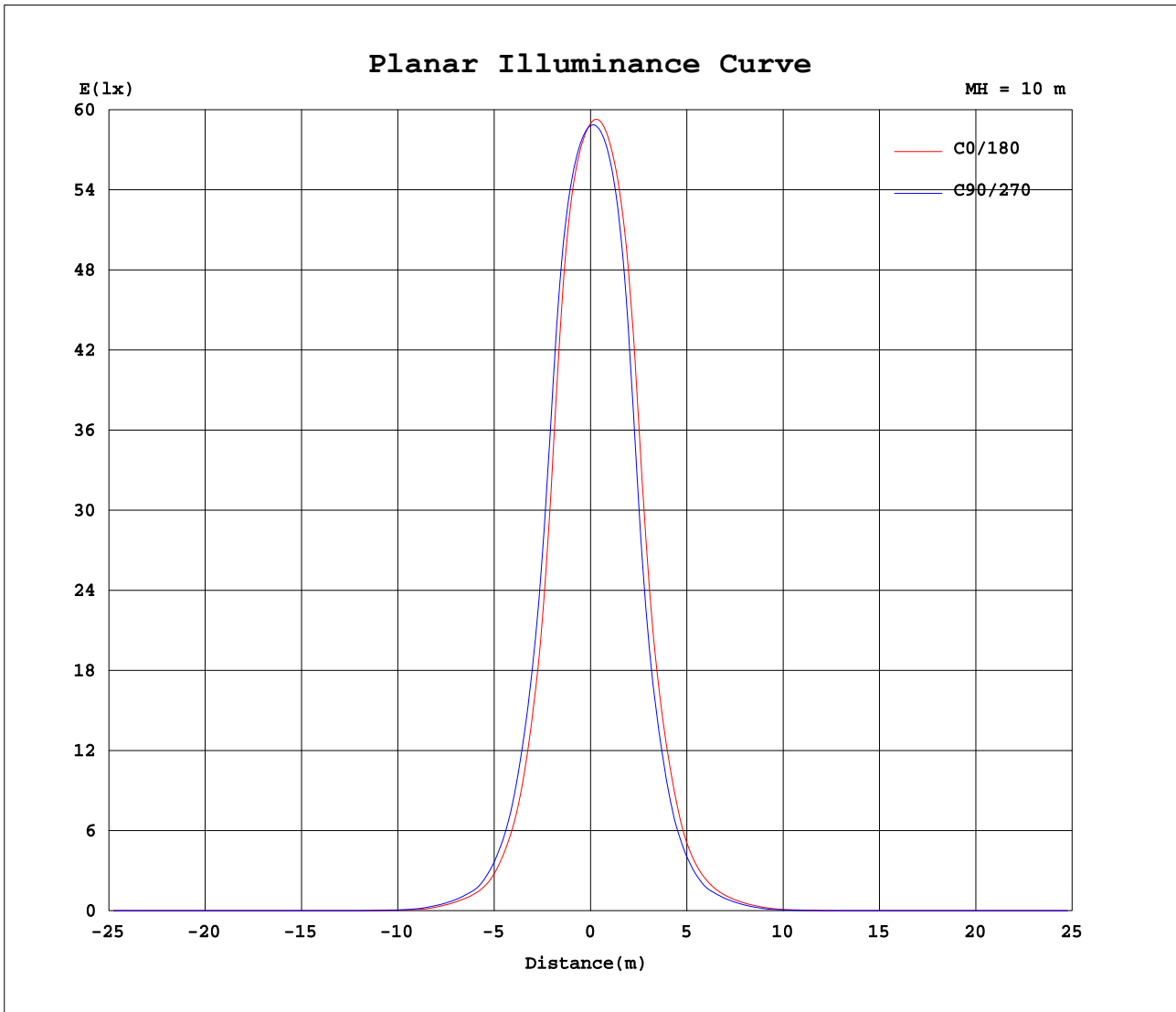
AvgL	cd/m2
L_0~180 (65) av	99
L_0~180 (75) av	24
L_0~180 (85) av	72
L_90~270 (65) av	93
L_90~270 (75) av	24
L_90~270 (85) av	72
L_45 (65) av	97
L_45 (75) av	24
L_45 (85) av	71

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

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.421  
Humidity: 58%  
Test Distance: 9.016m [K=1.0000]  
Remarks:

