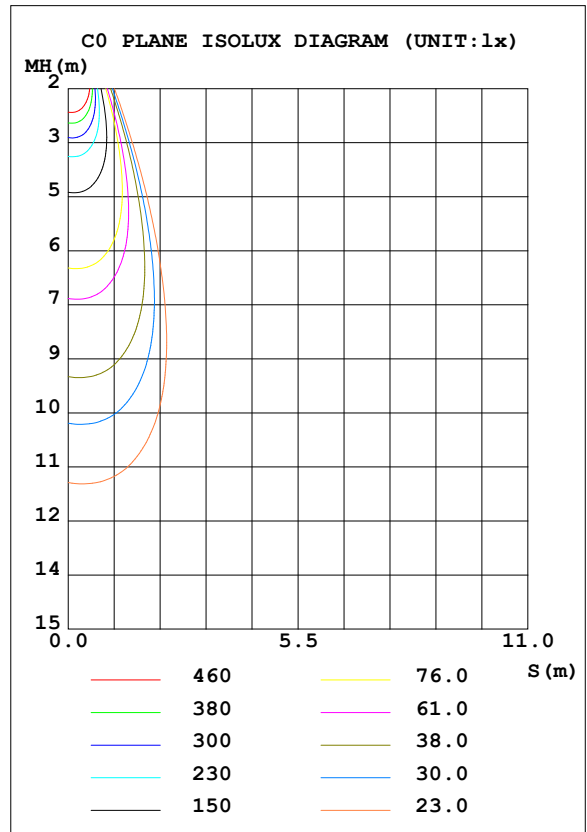
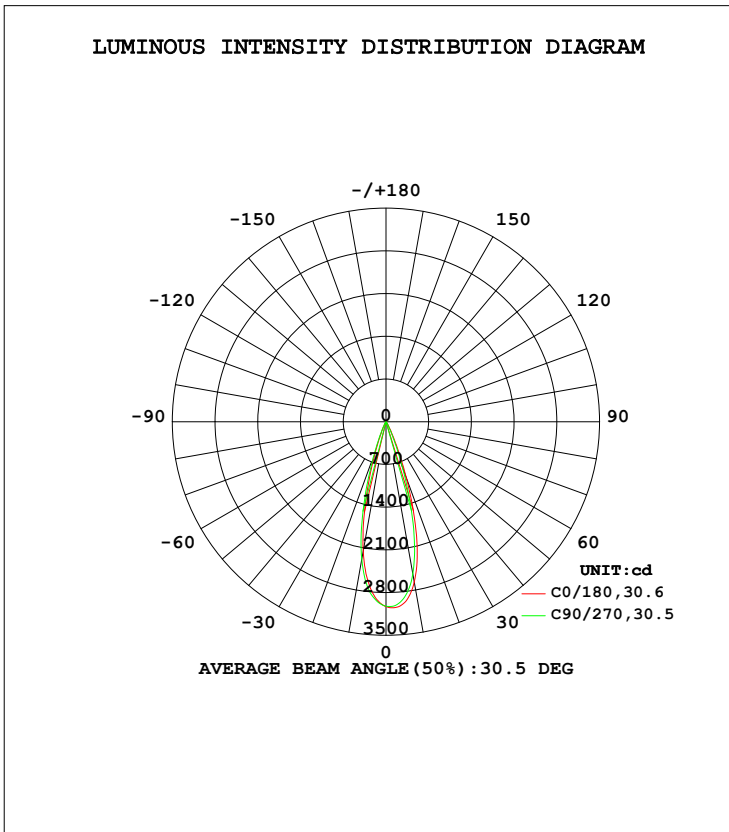


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 99.72 lm/W			
MODEL	XOB CRI 90 3000K	I _{max} (cd)	3050	S/MH (C0/180)	0.44
NOMINAL POWER (W)	9	LOR (%)	100.0	S/MH (C90/270)	0.46
RATED VOLTAGE (V)	36	TOTAL FLUX (lm)	826.42	η UP, DN (C0-180)	0.0, 57.0
NOMINAL FLUX (lm)	826.423	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 43.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	34	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	2671	2534	2153	2291					0- 10	260.9	260.9	31.6,31.6
20	972.6	778.9	457.1	573.7					10- 20	416.1	677.0	81.9,81.9
30	109.5	80.02	55.13	66.98					20- 30	120.1	797.1	96.5,96.5
40	22.84	17.39	10.59	15.56					30- 40	23.86	820.9	99.3,99.3
50	1.996	0.8296	0.3490	0.7413					40- 50	5.041	826.0	99.9,99.9
60	0.2292	0.1332	0.0825	0.1845					50- 60	0.3014	826.3	100,100
70	0.0572	0.0254	0.0191	0.0444					60- 70	0.0764	826.4	100,100
80	0.0318	0.0254	0.0191	0.0254					70- 80	0.0292	826.4	100,100
90	0.0254	0.0254	0.0254	0.0191					80- 90	0.0257	826.4	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): 824.82 lm

%lum = 99.8%
 %lamp = 99.8%

Conical surface Flux(120deg): 826.29 lm

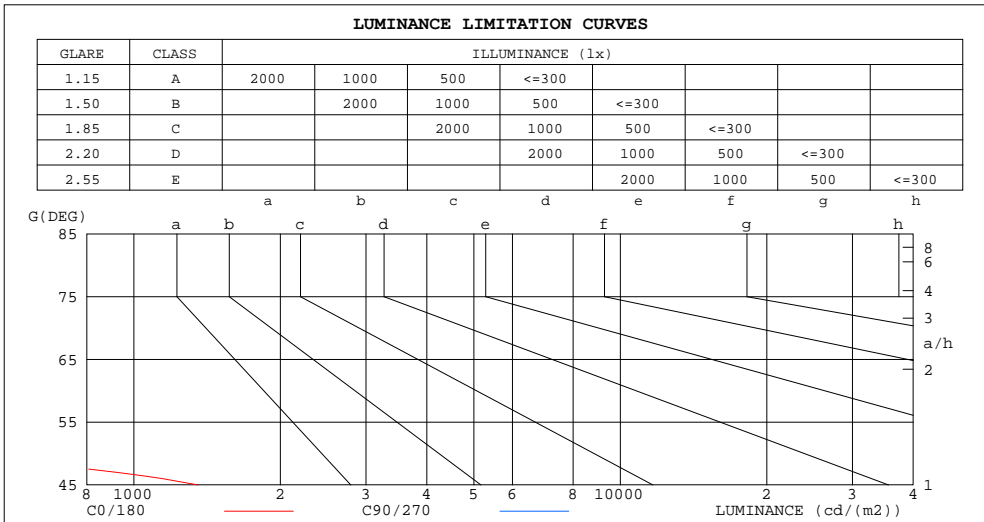
%lum = 100.0%
 %lamp = 100.0%

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:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	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	32
80	20	16
75	16	11
70	18	8
65	33	15
60	50	29
55	70	51
50	339	141
45	1355	907

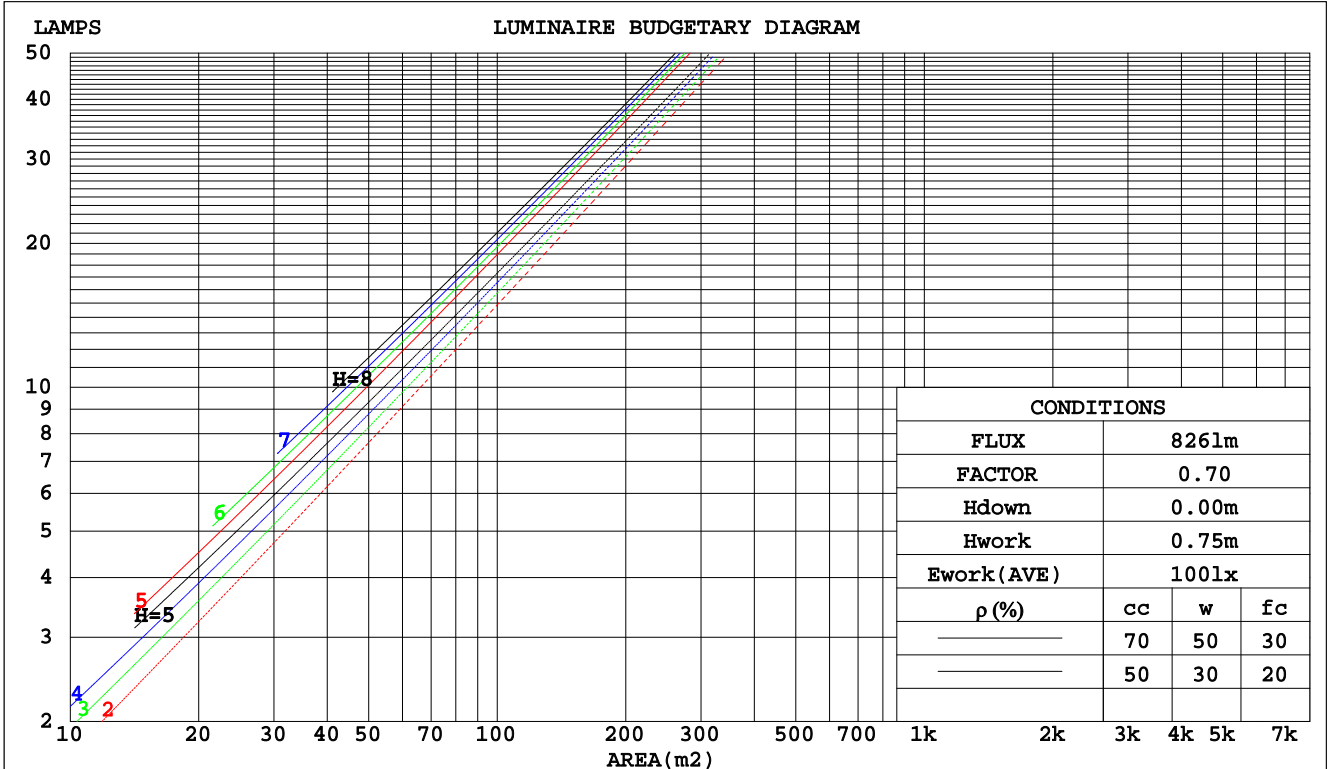
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

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:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	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															
	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	1.11	1.09	1.08	1.07	1.05	1.04	1.03	1.02	1.01	.00	.99	.98	.97
2.0	1.08	1.05	1.02	1.06	1.03	1.01	1.03	1.01	.99	1.00	.98	.97	.97	.96	.95	.93
3.0	1.03	.99	.97	1.02	.99	.96	.99	.97	.94	.97	.95	.93	.95	.93	.92	.90
4.0	.99	.95	.92	.98	.94	.92	.96	.93	.91	.94	.92	.90	.92	.90	.89	.87
5.0	.95	.91	.88	.95	.91	.88	.93	.90	.87	.91	.89	.86	.90	.88	.86	.85
6.0	.92	.88	.85	.91	.88	.85	.90	.87	.84	.89	.86	.84	.88	.85	.83	.82
7.0	.89	.85	.82	.88	.85	.82	.87	.84	.81	.86	.83	.81	.85	.83	.81	.80
8.0	.86	.82	.79	.86	.82	.79	.85	.81	.79	.84	.81	.79	.83	.80	.78	.77
9.0	.84	.80	.77	.83	.79	.77	.82	.79	.77	.82	.79	.76	.81	.78	.76	.75
10.0	.81	.77	.75	.81	.77	.75	.80	.77	.74	.80	.76	.74	.79	.76	.74	.73



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:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	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	.137	.078	.025	.130	.074	.024	.118	.067	.022	.106	.061	.020	.096	.055	.018	
2.0	.126	.069	.021	.121	.067	.021	.111	.062	.019	.101	.057	.018	.093	.052	.017	
3.0	.118	.063	.019	.113	.061	.018	.105	.057	.017	.097	.053	.016	.090	.050	.015	
4.0	.111	.057	.017	.107	.056	.017	.100	.053	.016	.093	.050	.015	.087	.047	.014	
5.0	.104	.053	.015	.101	.052	.015	.095	.049	.015	.089	.047	.014	.084	.045	.013	
6.0	.099	.050	.014	.096	.049	.014	.091	.047	.014	.086	.045	.013	.081	.043	.013	
7.0	.094	.047	.013	.092	.046	.013	.087	.044	.013	.083	.042	.012	.079	.041	.012	
8.0	.090	.044	.012	.088	.043	.012	.084	.042	.012	.080	.040	.012	.076	.039	.011	
9.0	.086	.042	.012	.084	.041	.012	.081	.040	.011	.077	.039	.011	.074	.038	.011	
10.0	.083	.040	.011	.081	.039	.011	.078	.038	.011	.075	.037	.011	.072	.036	.010	

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	.168	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.150	.133	.118	.129	.114	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.135	.113	.096	.116	.098	.083	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.123	.098	.079	.105	.085	.069	.072	.059	.048	.042	.035	.029	.013	.011	.009	
5.0	.112	.086	.066	.096	.074	.057	.066	.052	.040	.038	.030	.024	.012	.010	.008	
6.0	.103	.076	.056	.089	.065	.048	.061	.046	.034	.036	.027	.020	.011	.009	.007	
7.0	.096	.067	.047	.082	.058	.041	.057	.041	.029	.033	.024	.017	.011	.008	.006	
8.0	.089	.061	.041	.077	.053	.036	.053	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.084	.055	.036	.072	.048	.031	.050	.034	.022	.029	.020	.013	.009	.007	.004	
10.0	.079	.050	.031	.068	.044	.027	.047	.031	.019	.028	.018	.012	.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:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	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	3.9	4.5	4.1	4.7	4.8	2.8	3.4	3.0	3.6	3.7
3H	3.7	4.4	4.0	4.5	4.7	2.6	3.2	2.8	3.4	3.6
4H	3.7	4.2	3.9	4.4	4.7	2.5	3.1	2.8	3.3	3.5
6H	3.6	4.1	3.9	4.4	4.6	2.4	3.0	2.7	3.2	3.5
8H	3.5	4.1	3.8	4.3	4.6	2.4	2.9	2.7	3.2	3.4
12H	3.5	4.0	3.8	4.3	4.5	2.4	2.9	2.7	3.1	3.4
4H 2H	3.7	4.2	3.9	4.4	4.7	2.5	3.1	2.8	3.3	3.5
3H	3.5	4.0	3.8	4.3	4.5	2.4	2.9	2.7	3.1	3.4
4H	3.4	3.9	3.7	4.2	4.5	2.3	2.7	2.6	3.0	3.3
6H	3.3	3.7	3.7	4.0	4.4	2.2	2.6	2.5	2.9	3.2
8H	3.2	3.6	3.6	4.0	4.3	2.1	2.5	2.5	2.8	3.2
12H	3.2	3.5	3.6	3.9	4.3	2.0	2.4	2.5	2.8	3.2
8H 4H	3.2	3.6	3.6	4.0	4.3	2.1	2.5	2.5	2.8	3.2
6H	3.1	3.4	3.5	3.8	4.2	2.0	2.3	2.4	2.7	3.1
8H	3.1	3.4	3.5	3.8	4.2	1.9	2.2	2.4	2.6	3.1
12H	3.0	3.2	3.5	3.7	4.2	1.9	2.1	2.3	2.5	3.0
12H 4H	3.2	3.5	3.6	3.9	4.3	2.0	2.4	2.4	2.8	3.2
6H	3.1	3.3	3.5	3.8	4.2	1.9	2.2	2.4	2.6	3.1
8H	3.0	3.2	3.5	3.7	4.2	1.9	2.1	2.3	2.5	3.0
Variations with the observer position at spacings:										
S = 1.0H	+ 3.7 / -20.4					+ 3.1 / -21.0				
1.5H	+ 6.1 / -19.3					+ 5.6 / -18.6				
2.0H	+ 8.3 / -13.6					+ 8.0 / -12.8				

CIE Pub.117, 826.4 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -0.7)
 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:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

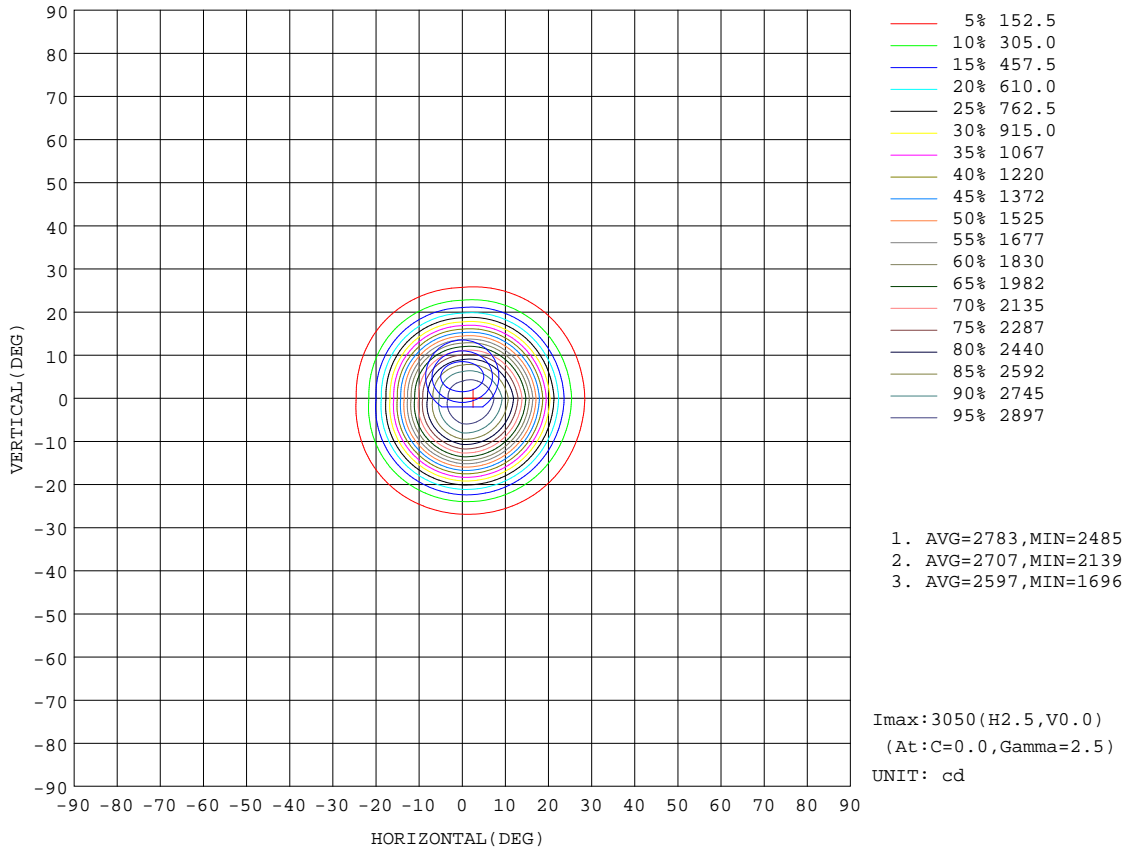
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	91	85	82	91	85	82	90	85	82	79
0.80	98	93	90	97	93	90	96	92	89	86
1.00	102	97	94	101	96	93	100	96	93	89
1.25	105	101	98	104	100	97	102	99	96	93
1.50	108	104	101	107	103	100	104	101	99	95
2.00	110	106	103	109	105	103	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	113	110	109	109	107	106	99
5.00	116	114	112	114	112	111	110	109	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:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		



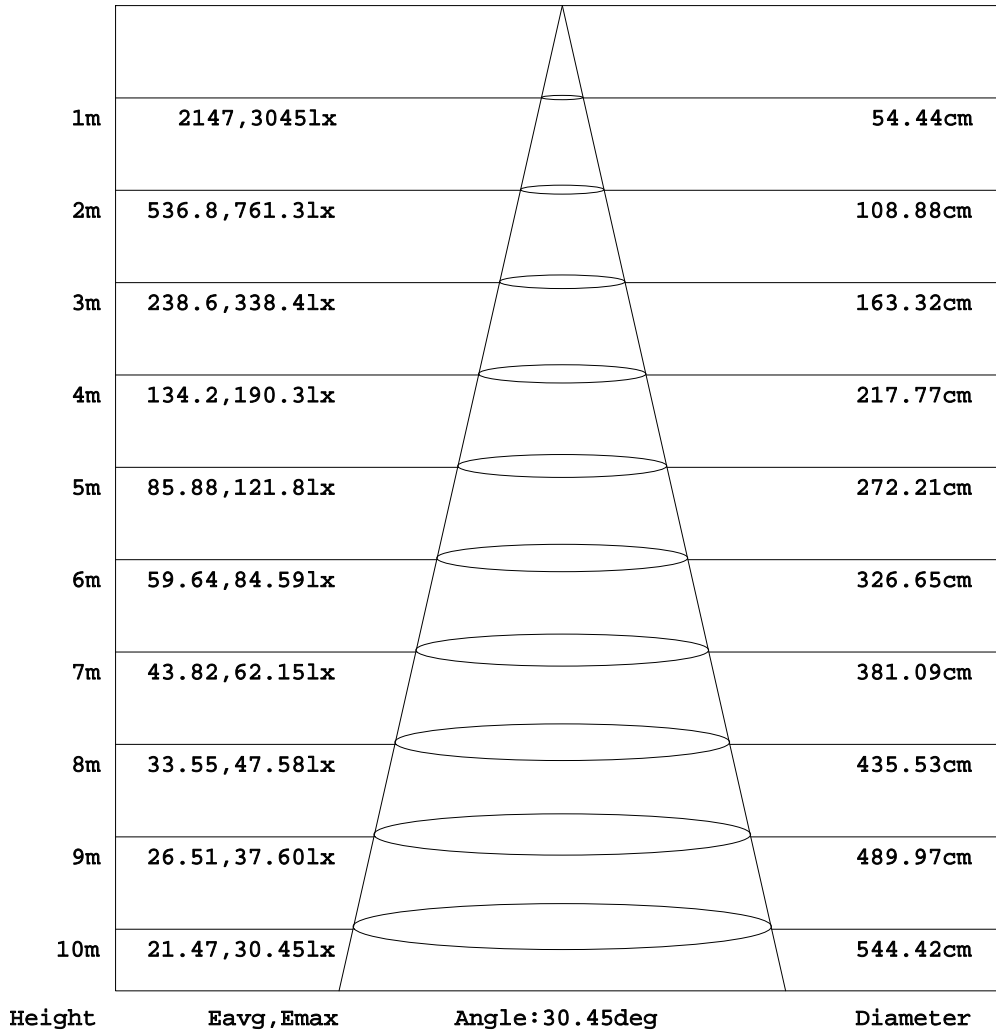
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2024-05-22

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:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

Flux out:518.8 lm



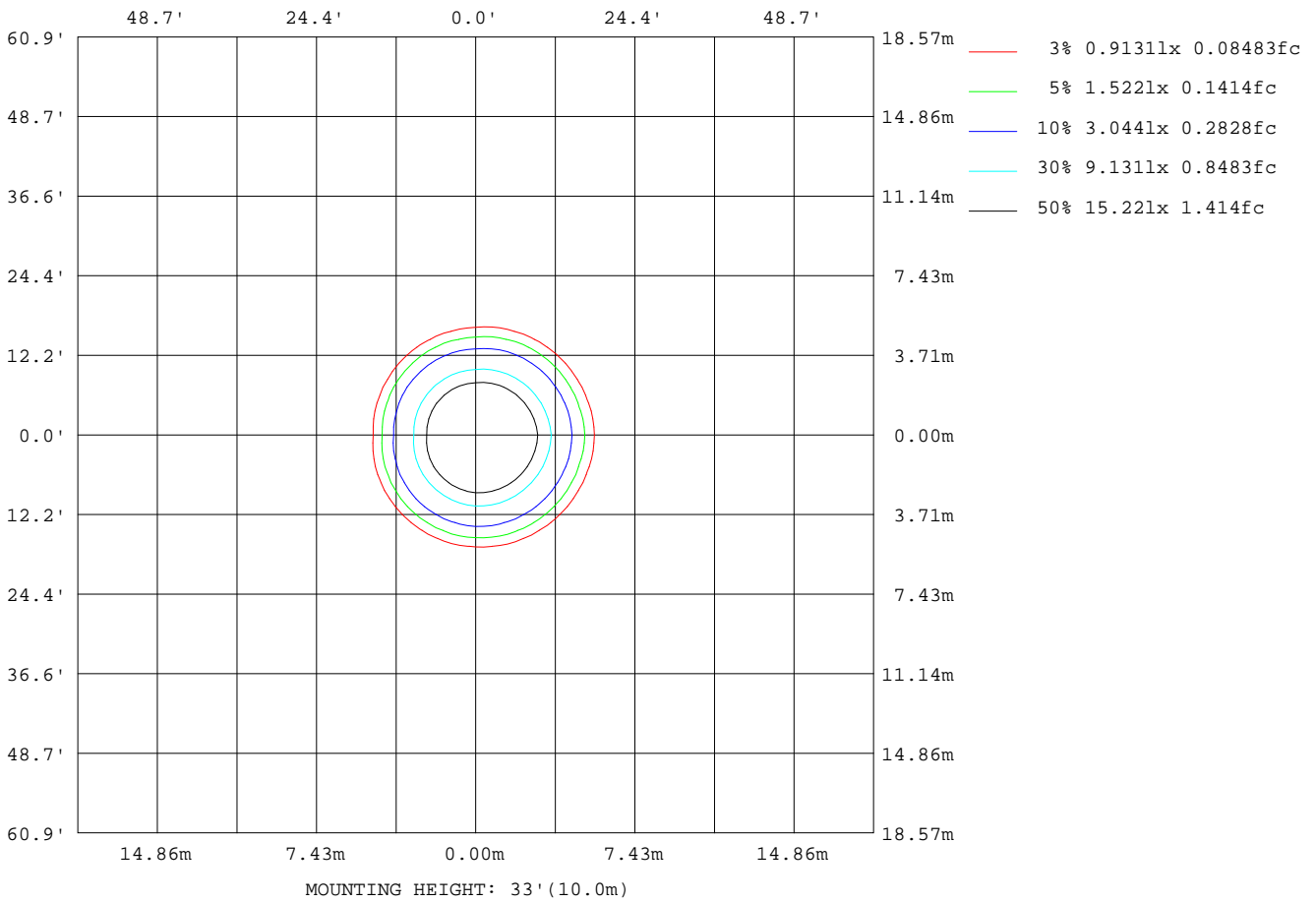
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	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:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

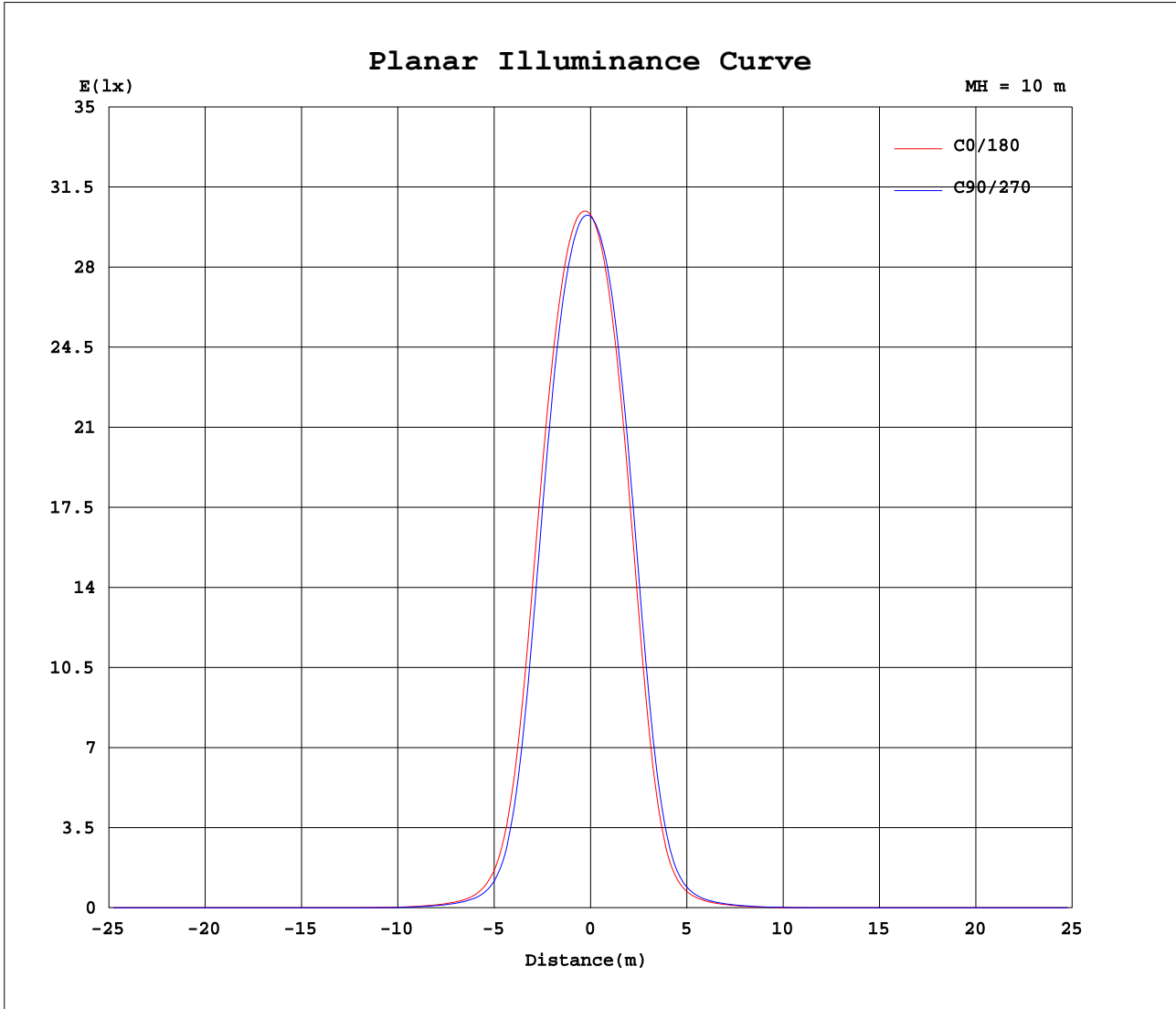
AvgL	cd/m2
L_0~180 (65) av	19
L_0~180 (75) av	12
L_0~180 (85) av	28
L_90~270 (65) av	19
L_90~270 (75) av	11
L_90~270 (85) av	28
L_45 (65) av	18
L_45 (75) av	11
L_45 (85) av	28

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:33.150V I:0.2500A P:8.2875W PF:1.0000 Freq:0Hz Lamp Flux:826.423x1 lm		
NAME: XDL E4-WRA-L19030-25DW	TYPE:Downlight	SERIAL No.:
SPEC.: XOB CRI 90 3000K	DIM.: φ108mm*H126mm	
MFR.: SBC XICATO CORP.		

Table--1

UNIT: cd

γ (DEG) \ C (DEG)	0	90	180	270															
0	3029	3022	3029	3022															
5	3011	2946	2773	2833															
10	2671	2534	2153	2291															
15	1936	1715	1229	1406															
20	973	779	457	574															
25	331	237	139	179															
30	110	80.0	55.1	67.0															
35	47.2	36.9	25.7	32.3															
40	22.8	17.4	10.6	15.6															
45	8.77	5.87	2.57	5.46															
50	2.00	0.83	0.35	0.74															
55	0.37	0.27	0.18	0.30															
60	0.23	0.13	0.08	0.18															
65	0.13	0.06	0.02	0.09															
70	0.06	0.03	0.02	0.04															
75	0.04	0.03	0.02	0.03															
80	0.03	0.03	0.02	0.03															
85	0.03	0.03	0.02	0.02															
90	0.03	0.03	0.03	0.02															

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 90.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Temperature:25.3DEG	Humidity:58%
Operators:Jasoan	Test Distance:9.016m [K=1.0000]
Test Date:2024-05-22	Remarks: