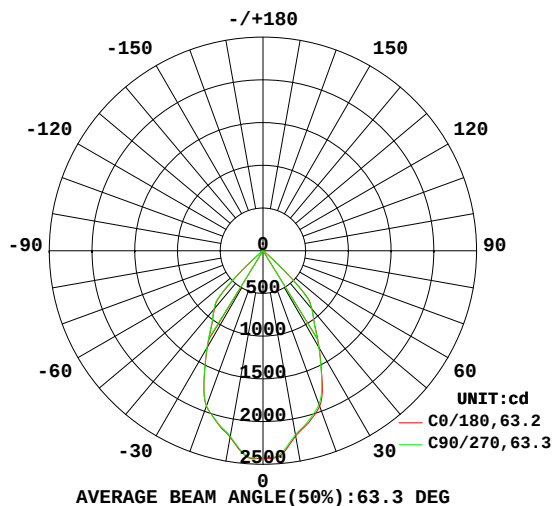


LUMINAIRE PHOTOMETRIC TEST REPORT

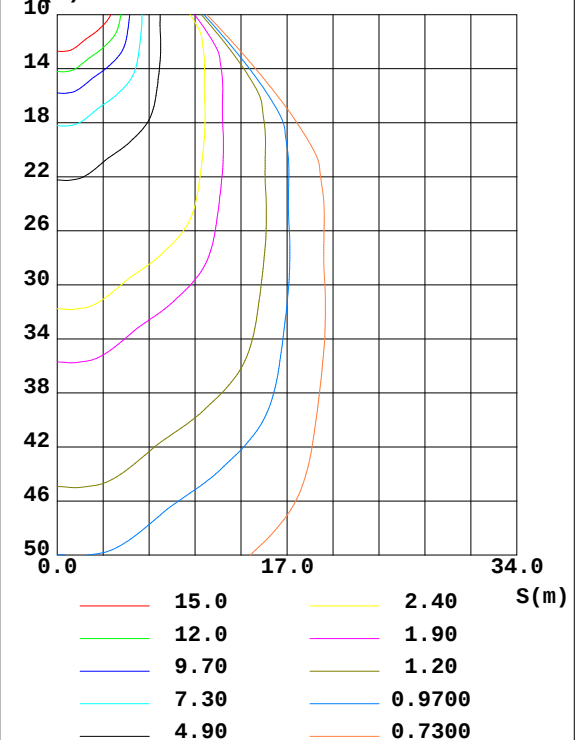
Test:U:229.99V I:0.1402A P:31.788W PF:0.9856 Freq:49.99Hz Lamp Flux:2696.25x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 84.82 lm/W			
MODEL	TB25141209 5700K	I _{max} (cd)	2442	S/MH(C0/180)	0.94
NOMINAL POWER(W)	30	LOR(%)	100.0	S/MH(C90/270)	0.94
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	2696.2	η UP, DN(C0-180)	0.0, 49.8
NOMINAL FLUX(lm)	2696.25	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.05

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-03-06

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

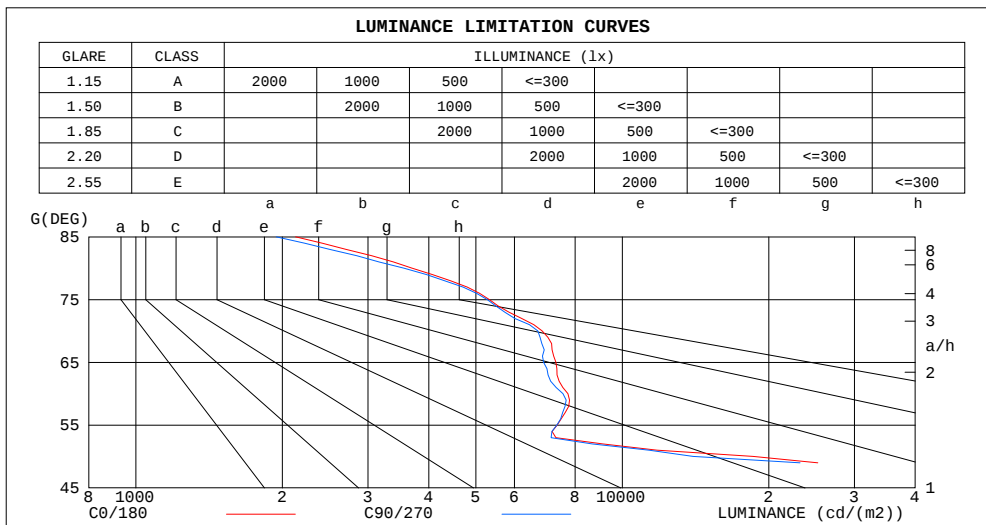
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2200	2187	2188	2196	2215	2203	2207	2209	0- 10	221.5	221.5	8.21, 8.21
20	1939	1929	1913	1915	1937	1937	1933	1939	10- 20	582.4	803.8	29.8, 29.8
30	1318	1314	1307	1292	1302	1315	1316	1334	20- 30	744.8	1549	57.4, 57.4
40	893.9	889.9	885.4	880.6	878.9	889.8	895.6	901.1	30- 40	668.1	2217	82.2, 82.2
50	93.73	68.22	70.56	71.14	69.93	68.04	82.64	92.20	40- 50	408.5	2625	97.4, 97.4
60	30.34	31.03	29.64	30.14	29.96	30.49	30.39	30.99	50- 60	34.02	2659	98.6, 98.6
70	18.36	17.90	18.00	17.15	17.74	17.91	18.30	18.39	60- 70	23.51	2683	99.5, 99.5
80	5.041	4.983	4.849	4.714	4.814	4.741	5.004	5.174	70- 80	11.59	2694	99.9, 99.9
90	0.4208	0.4208	0.4401	0.4439	0.0618	0.0618	0.0618	0.0618	80- 90	1.865	2696	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: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2024-03-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:229.99V I:0.1402A P:31.788W PF:0.9856 Freq:49.99Hz Lamp Flux:2696.25x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2131	1944
80	3698	3557
75	5329	5278
70	6840	6703
65	7303	6891
60	7731	7551
55	7348	7337
50	18575	13984
45	109185	102880

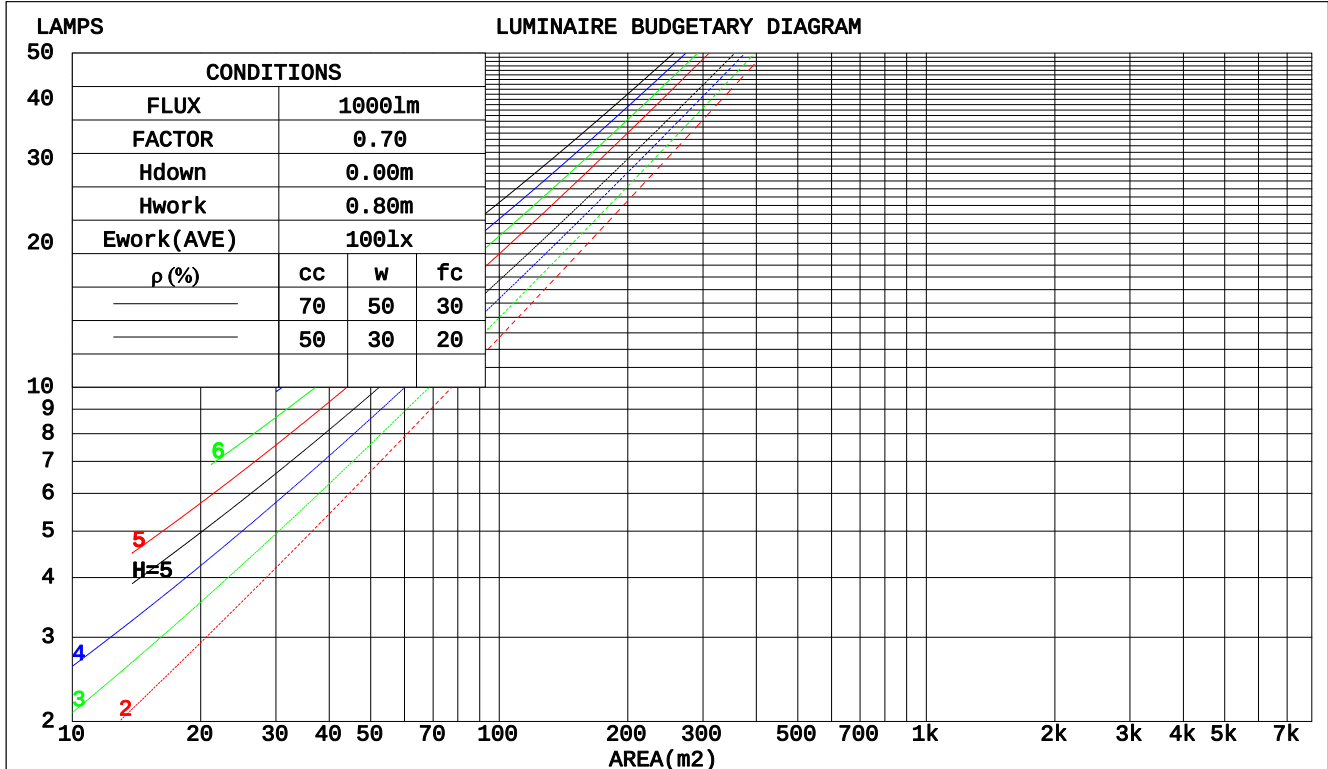
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-03-06

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.99V I:0.1402A P:31.788W PF:0.9856 Freq:49.99Hz Lamp Flux:2696.25x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
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	.99	.95	.92	.96	.93	.90	.93	.90	.88	.90	.88	.86	.84
3.0	.93	.88	.84	.92	.87	.83	.89	.85	.81	.87	.83	.80	.85	.82	.79	.77
4.0	.86	.80	.76	.85	.79	.75	.83	.78	.74	.81	.77	.73	.79	.75	.72	.71
5.0	.80	.74	.69	.79	.73	.68	.77	.72	.68	.75	.71	.67	.74	.70	.67	.65
6.0	.74	.68	.63	.73	.67	.63	.72	.66	.62	.70	.66	.62	.69	.65	.61	.60
7.0	.69	.63	.58	.68	.62	.58	.67	.61	.57	.66	.61	.57	.65	.60	.57	.55
8.0	.65	.58	.53	.64	.58	.53	.63	.57	.53	.62	.57	.53	.61	.56	.53	.51
9.0	.60	.54	.50	.60	.54	.49	.59	.53	.49	.58	.53	.49	.57	.52	.49	.47
10.0	.57	.50	.46	.56	.50	.46	.55	.50	.46	.55	.49	.46	.54	.49	.46	.44



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-03-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:229.99V I:0.1402A P:31.788W PF:0.9856 Freq:49.99Hz Lamp Flux:2696.25x1 lm					
NAME: DL3082-BKTC30C01			TYPE:		WEIGHT:
SPEC.: black RA90 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.: 100mm		Shielding Angle:

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 Coeffcients(WEC)									
0.0																
1.0	.195	.111	.035	.188	.107	.034	.175	.101	.032	.164	.094	.030	.153	.089	.029	
2.0	.188	.103	.032	.182	.101	.031	.172	.095	.030	.162	.091	.028	.153	.086	.027	
3.0	.180	.096	.029	.175	.094	.028	.166	.090	.027	.157	.086	.026	.149	.083	.026	
4.0	.172	.089	.026	.168	.088	.026	.159	.085	.025	.152	.082	.025	.145	.079	.024	
5.0	.164	.083	.024	.160	.082	.024	.153	.080	.023	.146	.077	.023	.140	.075	.023	
6.0	.156	.078	.022	.153	.077	.022	.147	.075	.022	.141	.073	.022	.135	.071	.021	
7.0	.149	.074	.021	.146	.073	.021	.141	.071	.020	.135	.069	.020	.130	.068	.020	
8.0	.142	.070	.020	.140	.069	.019	.135	.067	.019	.130	.066	.019	.126	.065	.019	
9.0	.136	.066	.018	.134	.065	.018	.129	.064	.018	.125	.063	.018	.121	.062	.018	
10.0	.130	.062	.017	.128	.062	.017	.124	.061	.017	.120	.060	.017	.117	.059	.017	

ρ _{CC}	80%			70%			50%			30%			10%			0
ρ _W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	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	.136	.114	.096	.093	.079	.067	.054	.046	.039	.017	.015	.013	
3.0	.147	.114	.087	.126	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.138	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.130	.088	.057	.111	.076	.050	.077	.053	.035	.044	.031	.021	.014	.010	.007	
6.0	.123	.079	.047	.106	.068	.041	.073	.048	.029	.042	.028	.017	.014	.009	.006	
7.0	.117	.072	.040	.100	.062	.035	.069	.043	.025	.040	.026	.015	.013	.008	.005	
8.0	.111	.066	.034	.096	.057	.030	.066	.040	.021	.039	.024	.013	.012	.008	.004	
9.0	.106	.060	.030	.091	.052	.026	.063	.037	.018	.037	.022	.011	.012	.007	.004	
10.0	.102	.056	.026	.088	.049	.023	.061	.034	.016	.035	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-03-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:229.99V I:0.1402A P:31.788W PF:0.9856 Freq:49.99Hz Lamp Flux:2696.25x1 lm											
NAME: DL3082-BKTC30C01					TYPE:			WEIGHT:			
SPEC.: black RA90 3000K+5700K					DIM.:			SERIAL No.:			
MFR.:					SUR.: 100mm			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	20.7	21.8	20.9	21.9	22.1	20.6	21.7	20.9	21.9	22.1	
	3H	20.6	21.5	20.8	21.7	22.0	20.5	21.5	20.8	21.7	21.9
	4H	20.5	21.4	20.8	21.6	21.9	20.4	21.4	20.7	21.6	21.8
	6H	20.4	21.3	20.7	21.5	21.8	20.4	21.2	20.7	21.5	21.7
	8H	20.4	21.2	20.7	21.5	21.7	20.3	21.1	20.6	21.4	21.7
	12H	20.3	21.1	20.7	21.4	21.7	20.3	21.1	20.6	21.3	21.6
4H	2H	20.4	21.4	20.7	21.6	21.8	20.4	21.3	20.7	21.5	21.8
	3H	20.3	21.1	20.7	21.4	21.7	20.3	21.1	20.6	21.3	21.6
	4H	20.3	21.0	20.6	21.3	21.6	20.2	20.9	20.6	21.2	21.5
	6H	20.2	20.8	20.6	21.2	21.5	20.1	20.8	20.5	21.1	21.5
	8H	20.2	20.7	20.6	21.1	21.5	20.1	20.7	20.5	21.0	21.4
	12H	20.1	20.6	20.5	21.0	21.4	20.1	20.6	20.5	21.0	21.3
8H	4H	20.1	20.7	20.5	21.1	21.5	20.1	20.7	20.5	21.0	21.4
	6H	20.1	20.6	20.5	20.9	21.4	20.0	20.5	20.5	20.9	21.3
	8H	20.0	20.5	20.5	20.9	21.3	20.0	20.4	20.4	20.8	21.3
	12H	20.0	20.3	20.5	20.8	21.3	19.9	20.3	20.4	20.7	21.2
12H	4H	20.1	20.6	20.5	21.0	21.4	20.0	20.6	20.5	20.9	21.3
	6H	20.0	20.4	20.5	20.9	21.3	20.0	20.4	20.4	20.8	21.3
	8H	20.0	20.3	20.5	20.8	21.3	19.9	20.3	20.4	20.7	21.2
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 3.3 / - 9.7					+ 3.3 / - 9.7					
1.5H	+ 3.2 / -10.5					+ 3.3 / -10.5					
2.0H	+ 8.0 / - 7.1					+ 7.9 / - 6.9					

CIE Pub.117, 2696 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.4$)
Area: 0.00785 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-03-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 γ Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:229.99V I:0.1402A P:31.788W PF:0.9856 Freq:49.99Hz Lamp Flux:2696.25x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:

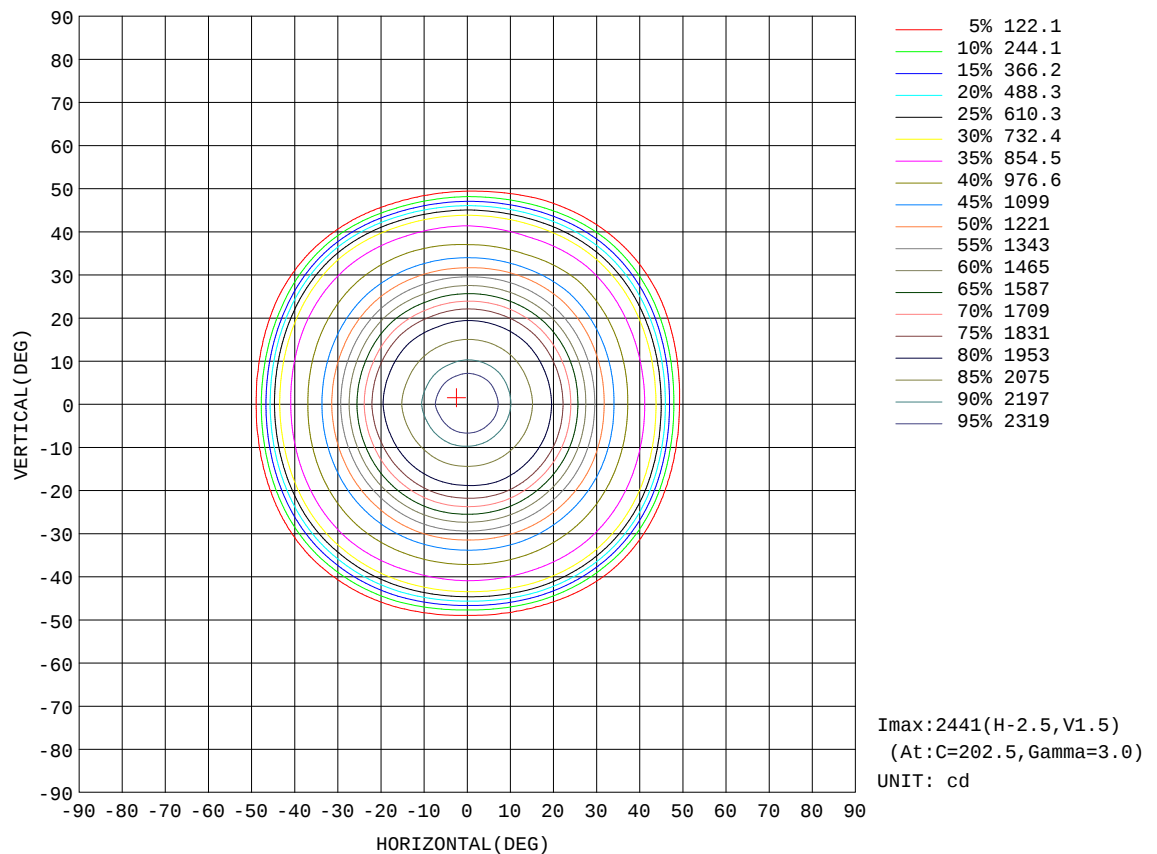
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	80	73	68	80	73	68	79	72	68	64
0.80	89	82	77	88	82	77	87	81	77	73
1.00	95	88	84	94	88	84	92	88	83	79
1.25	100	94	90	99	93	89	97	92	88	84
1.50	103	97	94	102	97	93	99	95	92	87
2.00	107	102	98	105	101	97	102	99	96	90
2.50	109	104	101	107	103	100	104	100	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: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2024-03-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:229.99V I:0.1402A P:31.788W PF:0.9856 Freq:49.99Hz Lamp Flux:2696.25x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:



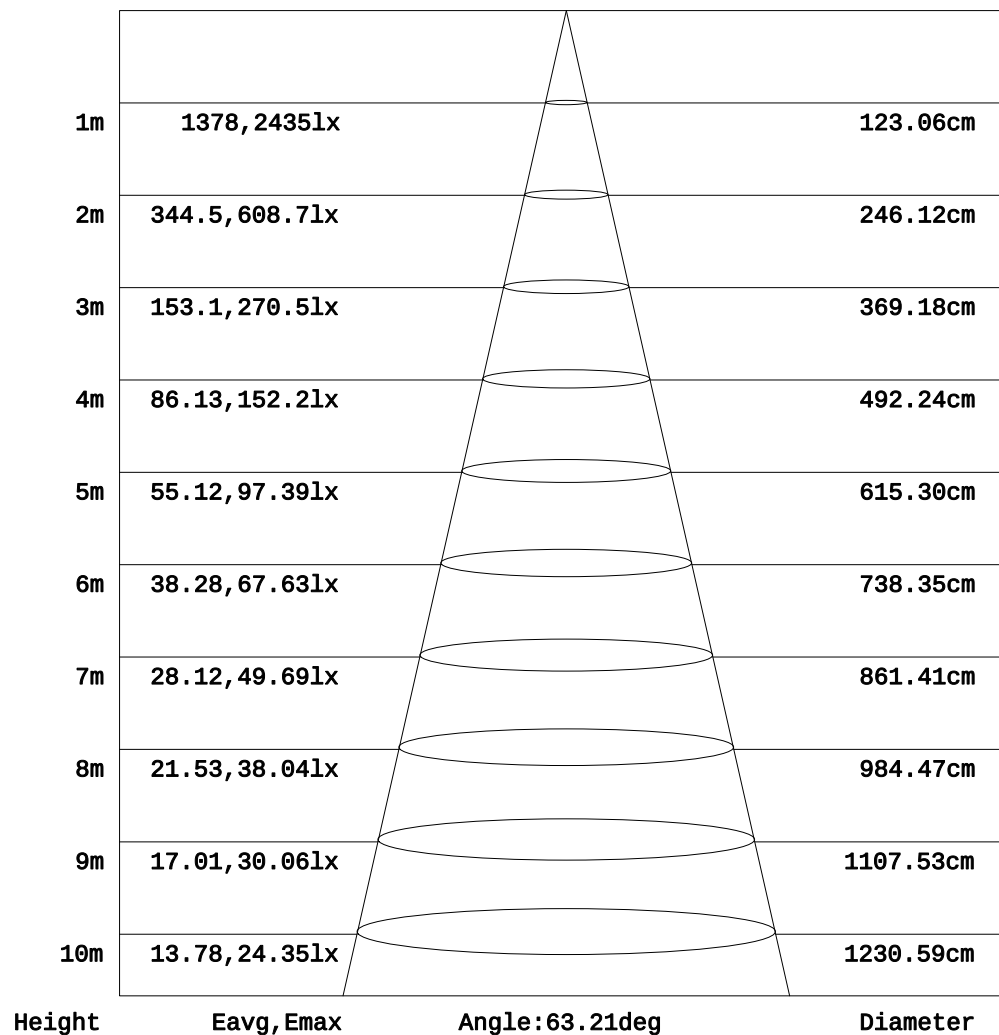
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-03-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

AAI Figure

Test:U:229.99V I:0.1402A P:31.788W PF:0.9856 Freq:49.99Hz Lamp Flux:2696.25x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:

Flux out:1690 lm



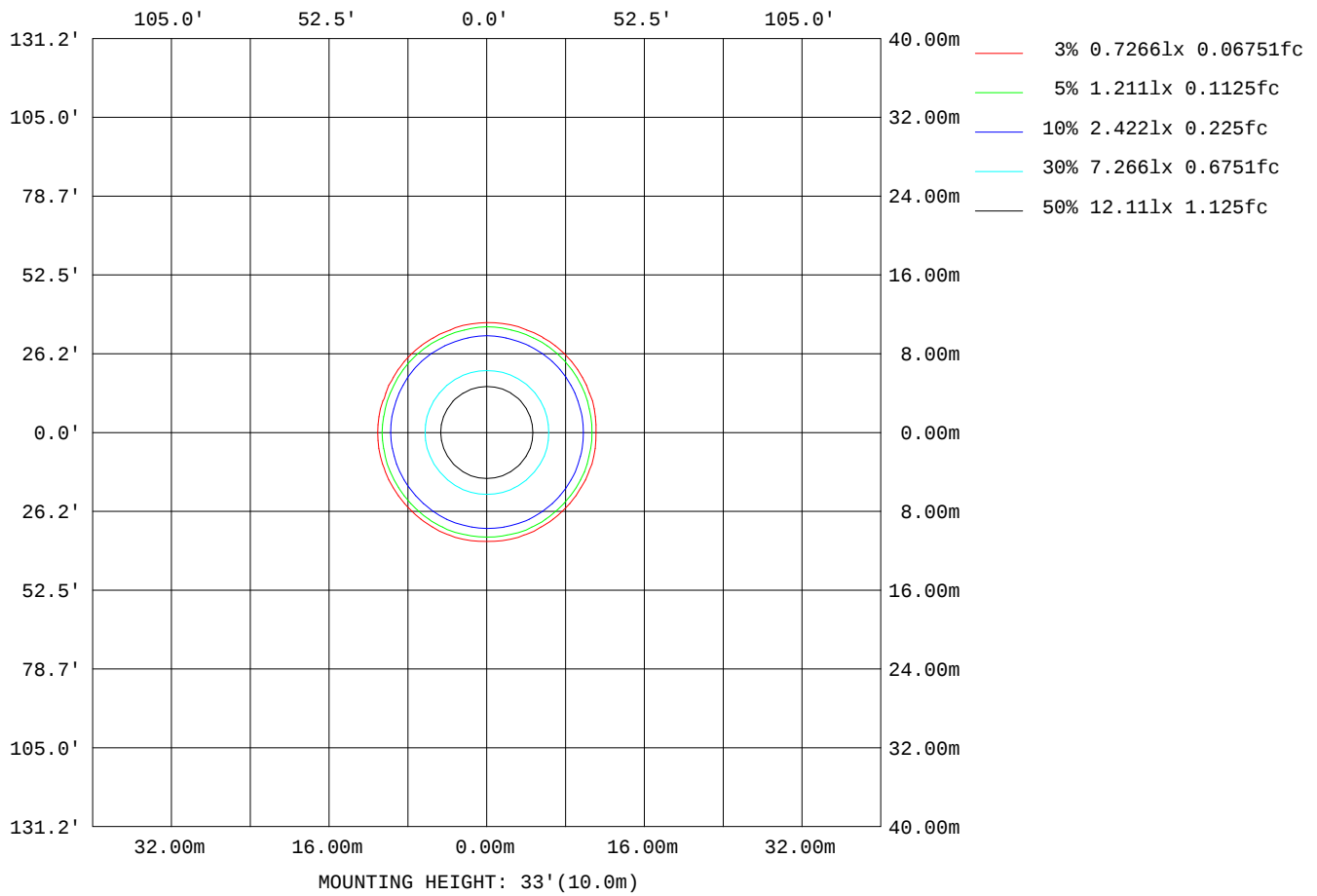
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2024-03-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:229.99V I:0.1402A P:31.788W PF:0.9856 Freq:49.99Hz Lamp Flux:2696.25x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-03-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:229.99V I:0.1402A P:31.788W PF:0.9856 Freq:49.99Hz Lamp Flux:2696.25x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:

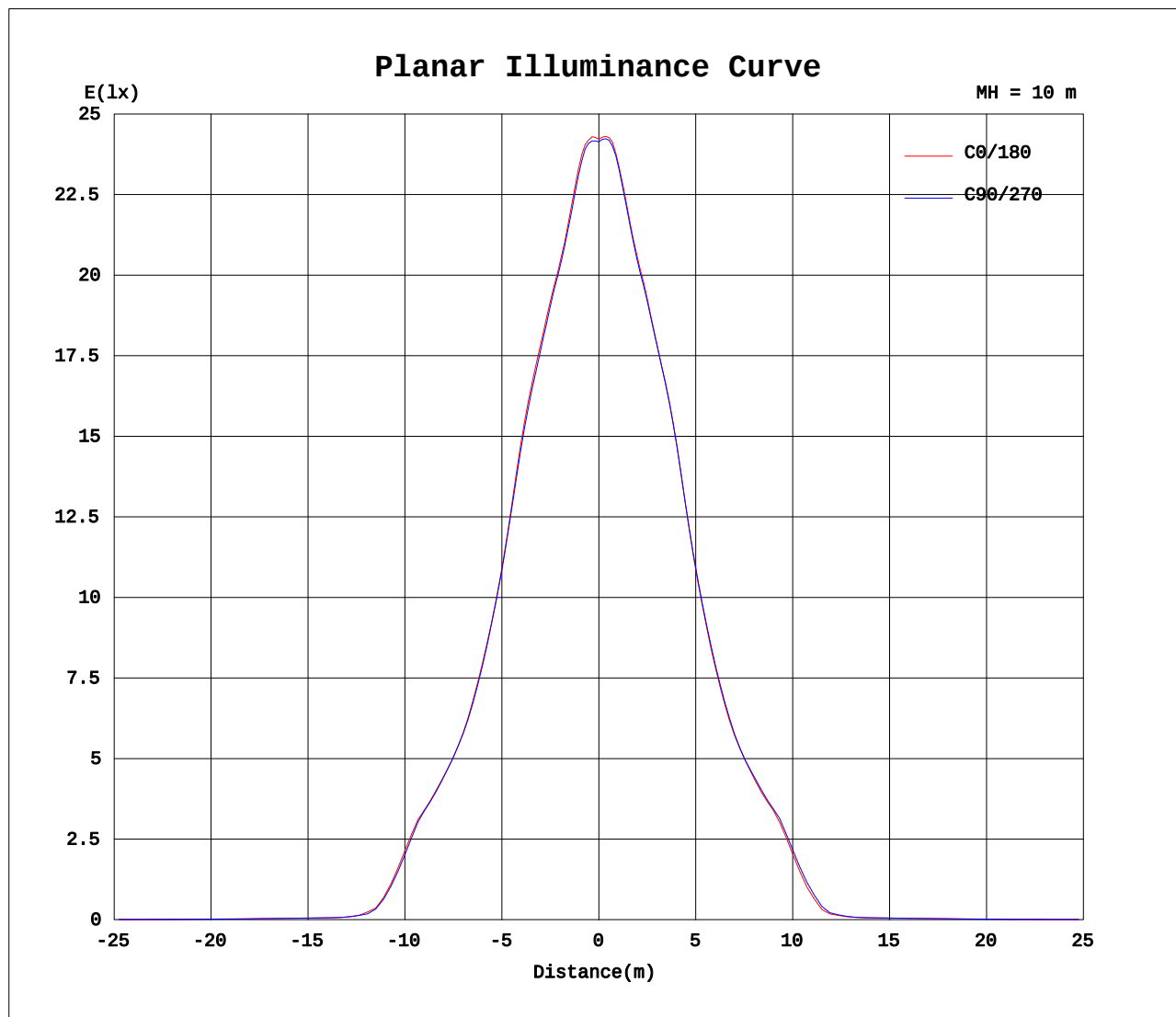
AvgL	cd/m2
L_0~180(65)av	7065
L_0~180(75)av	5350
L_0~180(85)av	1849
L_90~270(65)av	7078
L_90~270(75)av	5312
L_90~270(85)av	1857
L_45(65)av	7139
L_45(75)av	5350
L_45(85)av	1836

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-03-06

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-03-06

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

```