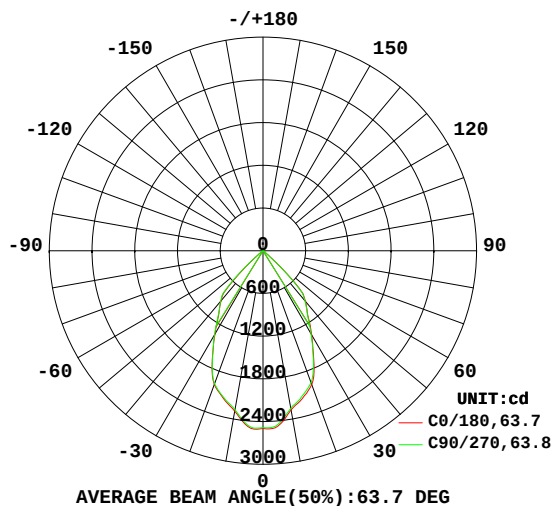


LUMINAIRE PHOTOMETRIC TEST REPORT

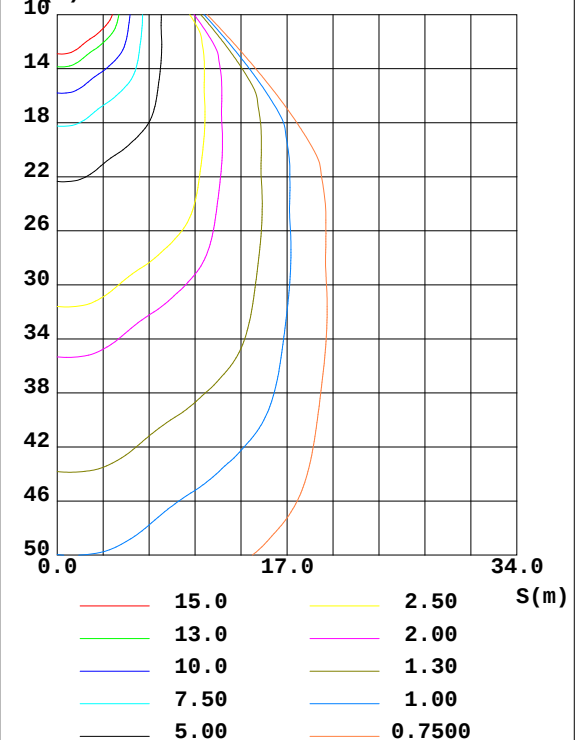
Test:U:230.00V I:0.1317A P:29.769W PF:0.9825 Freq:49.99Hz Lamp Flux:2786.36x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 93.60 lm/W
MODEL	TB25141209 4000K	I _{max} (cd)	2509	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)	2786.4	η UP, DN(C0-180)	0.0, 49.8	
NOMINAL FLUX(lm)	2786.36	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:

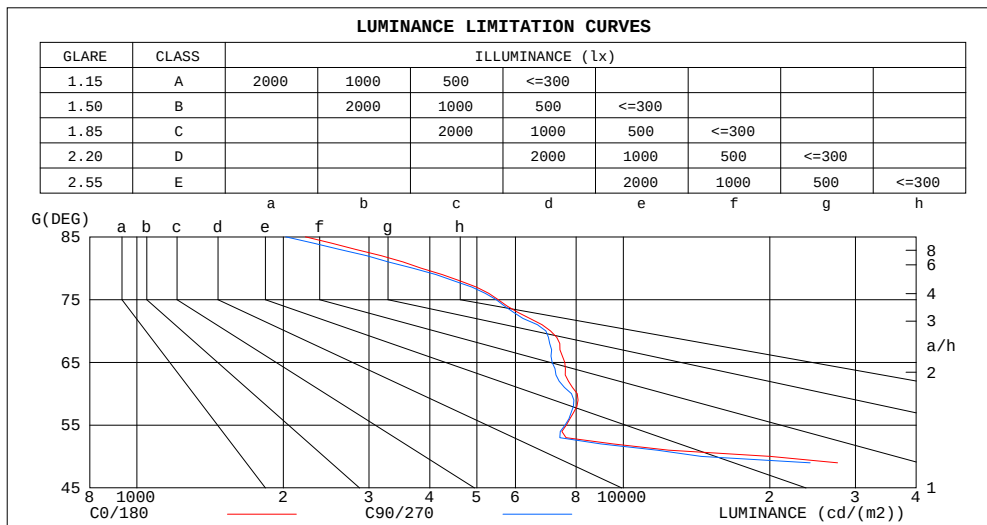
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2272	2259	2248	2255	2289	2274	2268	2267	0- 10	227.8	227.8	8.17, 8.17
20	2002	1988	1973	1974	1999	1995	1989	1996	10- 20	599.9	827.7	29.7, 29.7
30	1367	1365	1353	1335	1353	1365	1365	1378	20- 30	769.0	1597	57.3, 57.3
40	928.1	924.9	917.7	912.3	915.0	923.9	927.6	932.5	30- 40	693.4	2290	82.2, 82.2
50	101.3	95.25	72.96	71.99	73.38	73.93	84.56	90.85	40- 50	422.7	2713	97.4, 97.4
60	31.56	31.83	30.70	31.46	31.12	31.30	31.44	32.25	50- 60	35.37	2748	98.6, 98.6
70	19.02	18.52	18.61	17.78	18.37	18.48	18.90	18.97	60- 70	24.33	2772	99.5, 99.5
80	5.235	5.188	5.035	4.892	5.002	4.918	5.174	5.321	70- 80	12.00	2784	99.9, 99.9
90	0.4362	0.4324	0.4748	0.4903	0.0772	0.0772	0.0772	0.0772	80- 90	1.938	2786	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:230.00V I:0.1317A P:29.769W PF:0.9825 Freq:49.99Hz Lamp Flux:2786.36x1 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	2222	2023
80	3840	3693
75	5527	5477
70	7086	6932
65	7576	7140
60	8040	7822
55	7633	7593
50	20068	14459
45	112007	106365

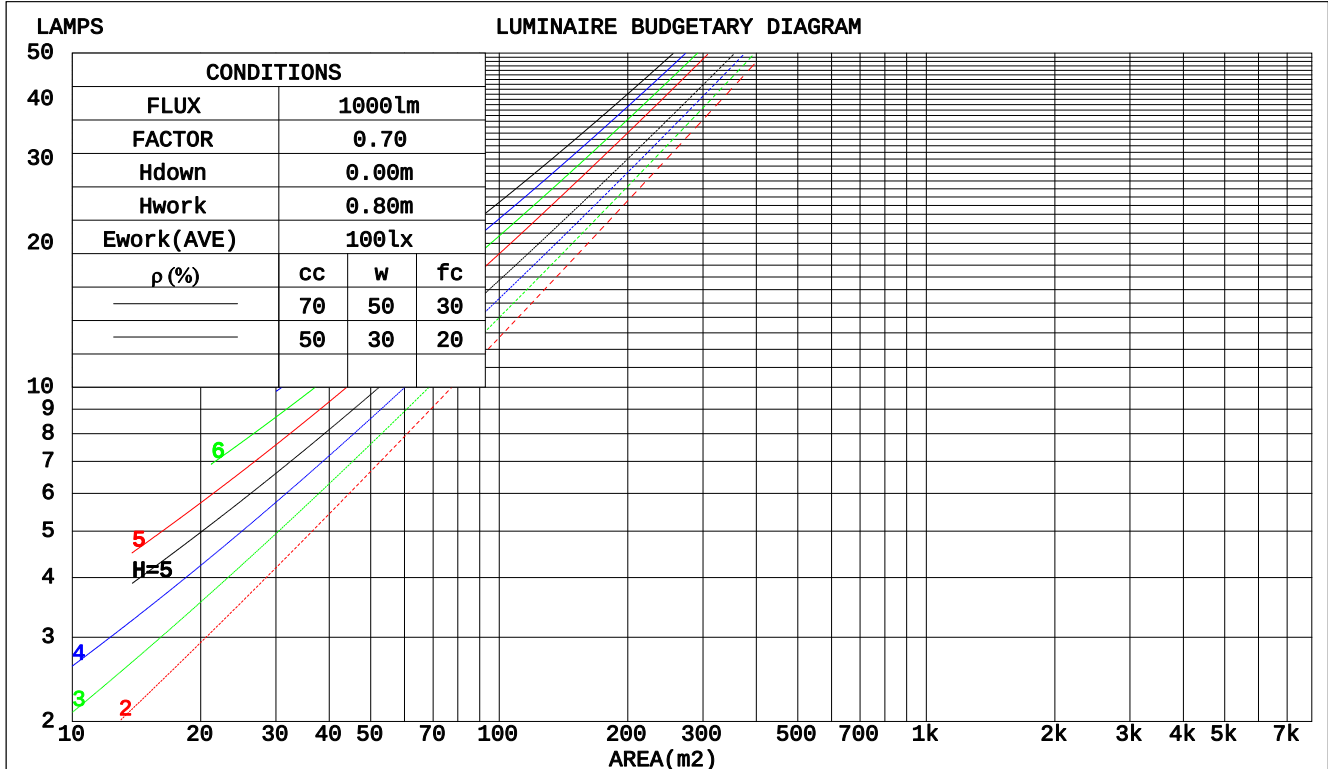
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-03-06

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:230.00V I:0.1317A P:29.769W PF:0.9825 Freq:49.99Hz Lamp Flux:2786.36x1 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	.83	.92	.87	.83	.89	.85	.81	.87	.83	.80	.84	.81	.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	.62	.58	.68	.62	.58	.67	.61	.57	.66	.61	.57	.65	.60	.57	.55
8.0	.64	.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	.54	.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:230.00V I:0.1317A P:29.769W PF:0.9825 Freq:49.99Hz Lamp Flux:2786.36x1 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	RCR:Room Cavity Ratio						Wall Exitance Coefficients(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	.183	.101	.031	.172	.096	.030	.162	.091	.028	.153	.086	.027	
3.0	.180	.096	.029	.175	.094	.028	.166	.090	.027	.157	.086	.026	.150	.083	.026	
4.0	.172	.089	.026	.168	.088	.026	.160	.085	.025	.152	.082	.025	.145	.079	.024	
5.0	.164	.084	.024	.160	.082	.024	.153	.080	.023	.147	.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	.136	.069	.020	.131	.068	.020	
8.0	.143	.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	.063	.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	.044	.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:230.00V I:0.1317A P:29.769W PF:0.9825 Freq:49.99Hz Lamp Flux:2786.36x1 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	2H	20.7	21.8	21.0	22.0	22.1	20.7	21.7	20.9	21.9	22.1
	3H	20.6	21.6	20.9	21.8	22.0	20.5	21.5	20.8	21.7	21.9
	4H	20.5	21.4	20.8	21.7	21.9	20.5	21.4	20.7	21.6	21.8
	6H	20.4	21.3	20.7	21.6	21.8	20.4	21.2	20.7	21.5	21.7
	8H	20.4	21.2	20.7	21.5	21.8	20.3	21.2	20.6	21.4	21.7
	12H	20.4	21.1	20.7	21.4	21.7	20.3	21.1	20.6	21.4	21.6
4H	2H	20.5	21.4	20.8	21.6	21.9	20.4	21.3	20.7	21.6	21.8
	3H	20.4	21.2	20.7	21.4	21.7	20.3	21.1	20.6	21.4	21.6
	4H	20.3	21.0	20.7	21.3	21.6	20.2	20.9	20.6	21.2	21.6
	6H	20.2	20.9	20.6	21.2	21.5	20.2	20.8	20.5	21.1	21.5
	8H	20.2	20.8	20.6	21.1	21.5	20.1	20.7	20.5	21.1	21.4
	12H	20.1	20.7	20.6	21.0	21.4	20.1	20.6	20.5	21.0	21.4
8H	4H	20.2	20.8	20.6	21.1	21.5	20.1	20.7	20.5	21.0	21.4
	6H	20.1	20.6	20.5	21.0	21.4	20.0	20.5	20.5	20.9	21.3
	8H	20.1	20.5	20.5	20.9	21.3	20.0	20.4	20.4	20.8	21.3
	12H	20.0	20.4	20.5	20.8	21.3	20.0	20.3	20.4	20.7	21.2
12H	4H	20.1	20.7	20.5	21.0	21.4	20.1	20.6	20.5	21.0	21.4
	6H	20.1	20.5	20.5	20.9	21.3	20.0	20.4	20.4	20.8	21.3
	8H	20.0	20.4	20.5	20.8	21.3	20.0	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 / - 9.8					
1.5H	+ 3.2 / -10.5					+ 3.3 / -10.5					
2.0H	+ 7.9 / - 7.1					+ 7.8 / - 6.9					

CIE Pub.117, 2786 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.6)
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
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:230.00V I:0.1317A P:29.769W PF:0.9825 Freq:49.99Hz Lamp Flux:2786.36x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:

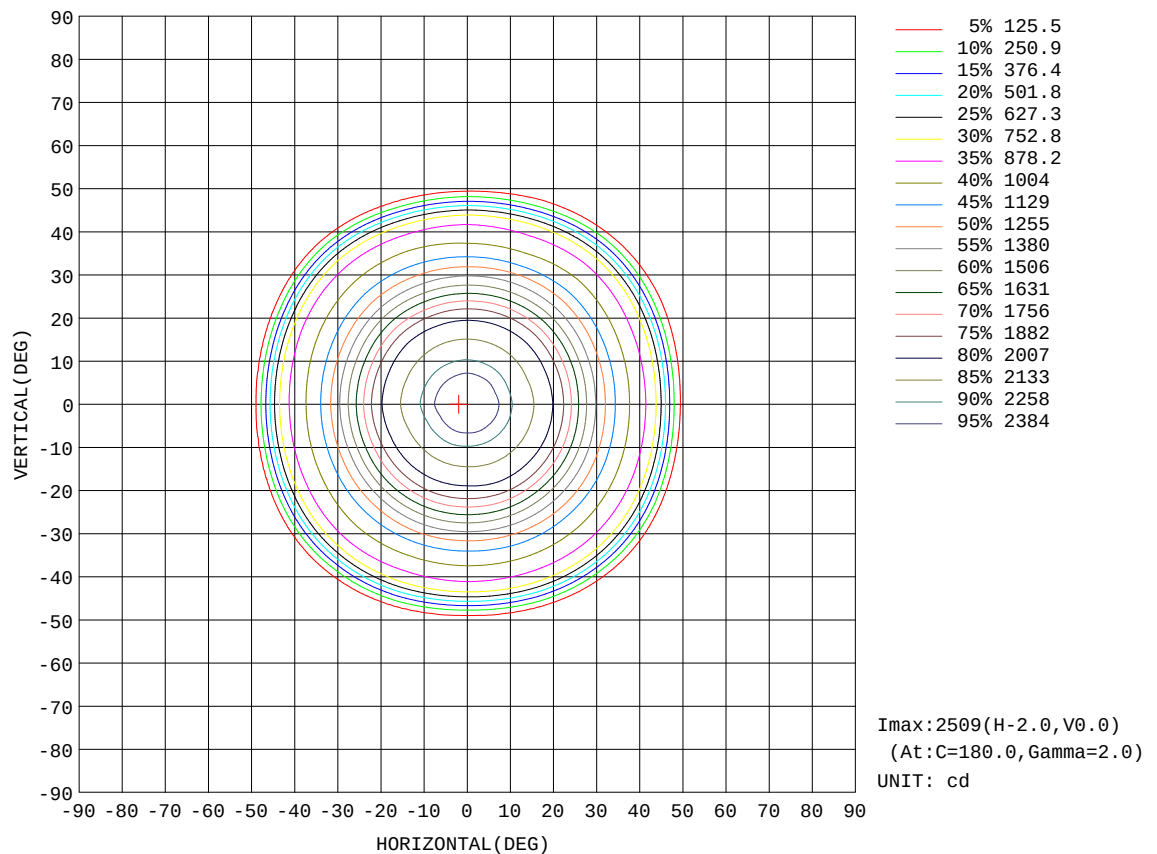
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	80	73	68	80	73	68	79	72	68	64
0.80	89	82	77	88	82	77	87	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:230.00V I:0.1317A P:29.769W PF:0.9825 Freq:49.99Hz Lamp Flux:2786.36x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:



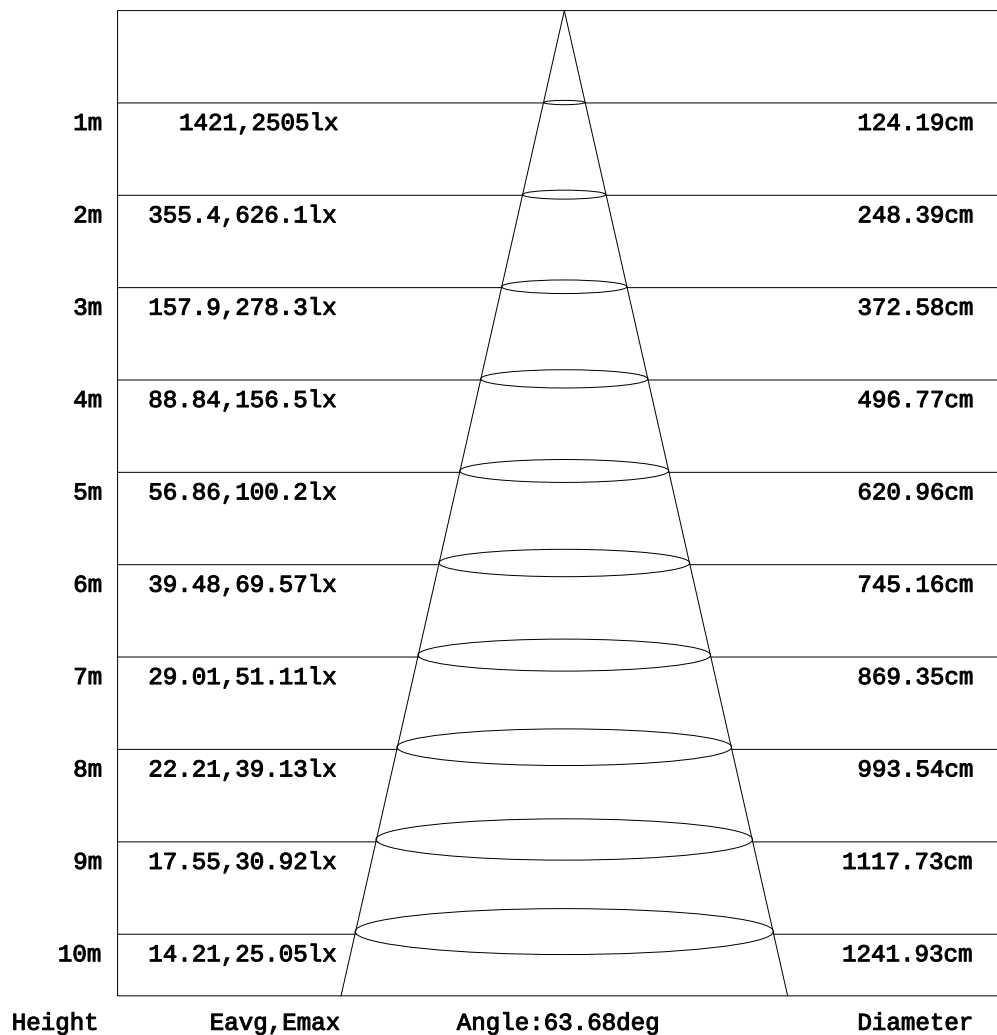
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-03-06

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:230.00V I:0.1317A P:29.769W PF:0.9825 Freq:49.99Hz Lamp Flux:2786.36x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:

Flux out:1744 lm



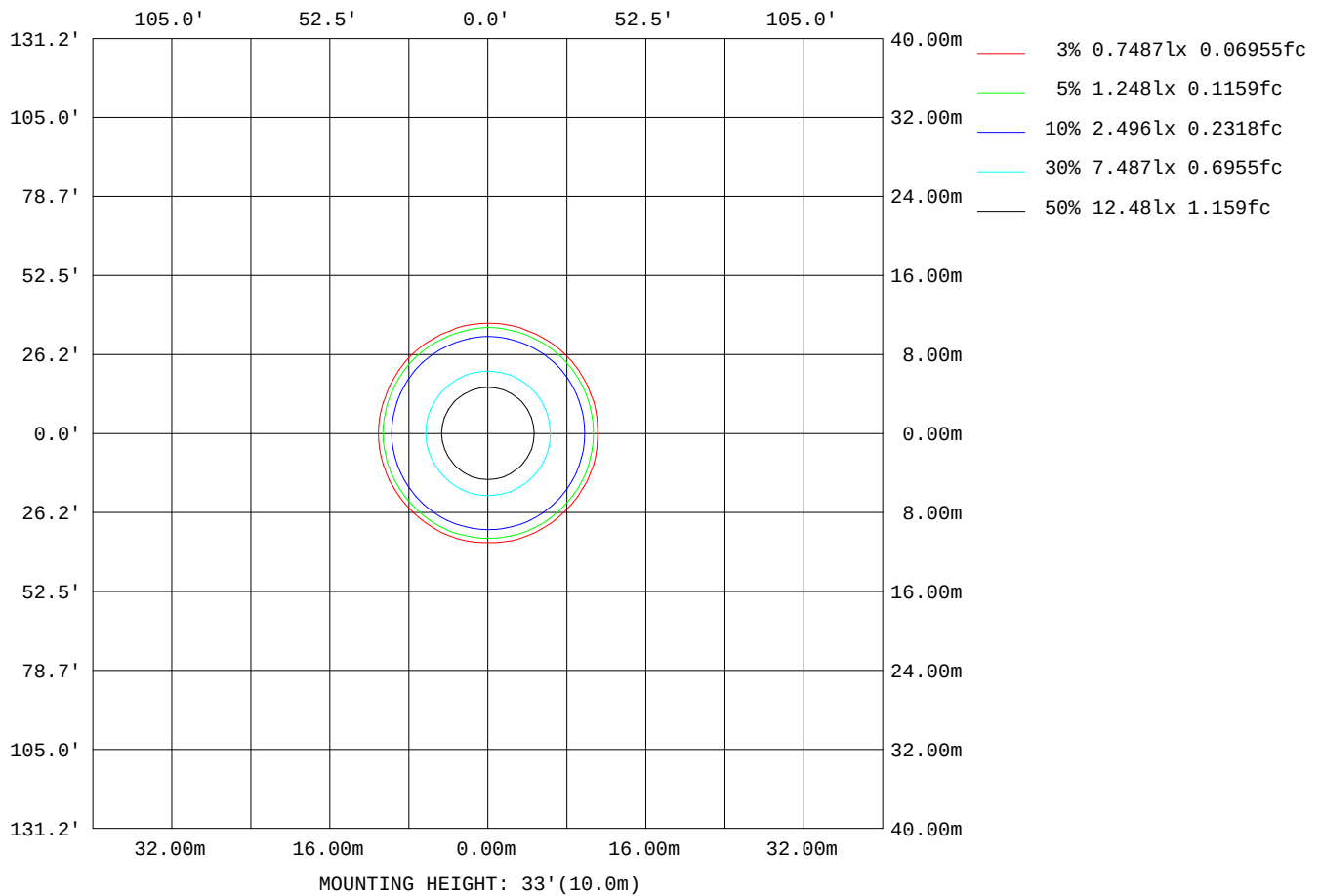
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.00V I:0.1317A P:29.769W PF:0.9825 Freq:49.99Hz Lamp Flux:2786.36x1 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:230.00V I:0.1317A P:29.769W PF:0.9825 Freq:49.99Hz Lamp Flux:2786.36x1 lm		
NAME: DL3082-BKTC30C01	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 100mm	Shielding Angle:

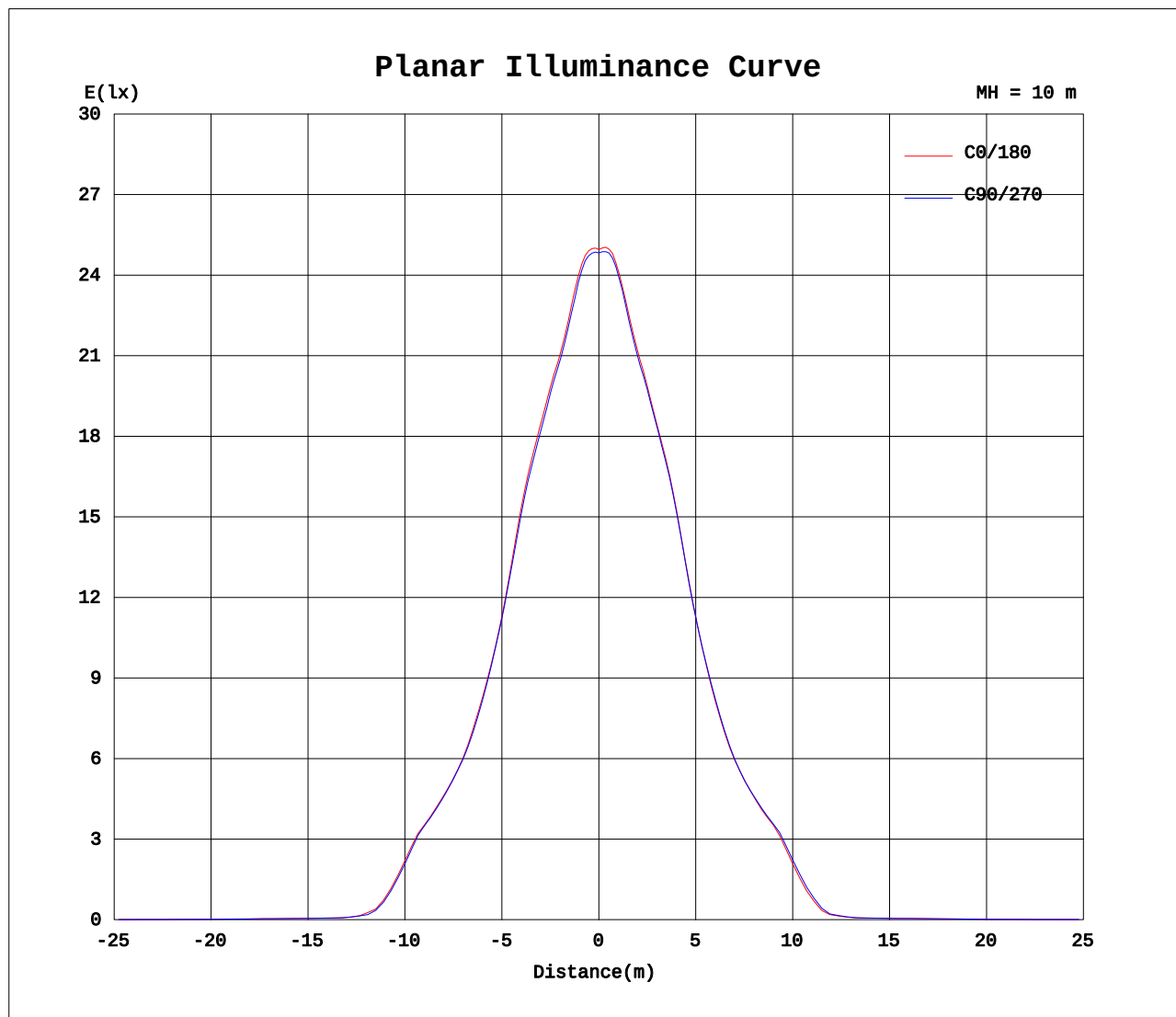
AvgL	cd/m2
L_0~180(65)av	7338
L_0~180(75)av	5548
L_0~180(85)av	1925
L_90~270(65)av	7319
L_90~270(75)av	5500
L_90~270(85)av	1913
L_45(65)av	7388
L_45(75)av	5537
L_45(85)av	1908

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:

```