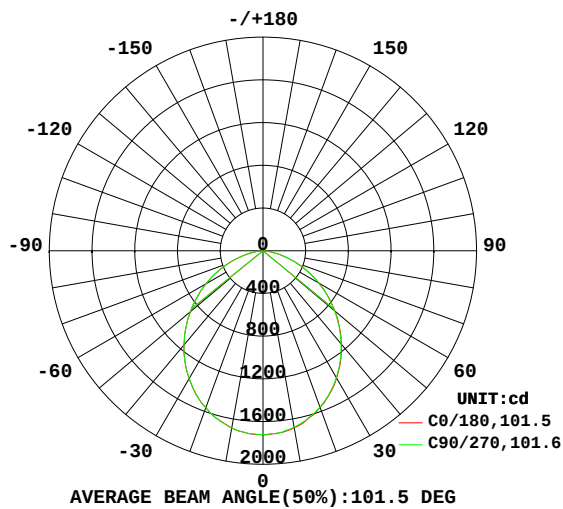


LUMINAIRE PHOTOMETRIC TEST REPORT

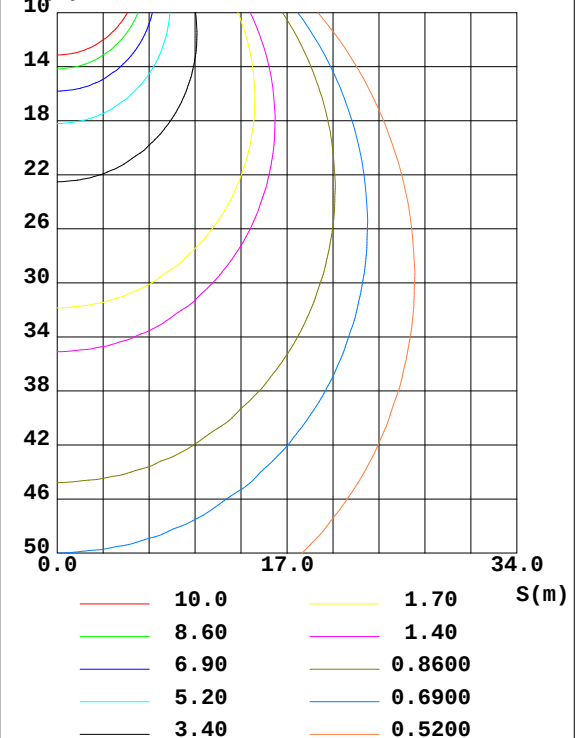
Test:U:230.15V I:0.1839A P:40.670W PF:0.9607 Freq:49.99Hz Lamp Flux:4265.14x1 lm		
NAME: DL4001-BKTC DPS02	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 185mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 104.87 lm/W			
MODEL	2835 232 5700K	I _{max} (cd)	1726	S/MH(C0/180)	1.20
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.20
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	4265.1	η UP, DN(C0-180)	0.0, 49.7
NOMINAL FLUX(lm)	4265.14	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.3
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.35

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: 2024-06-22

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:

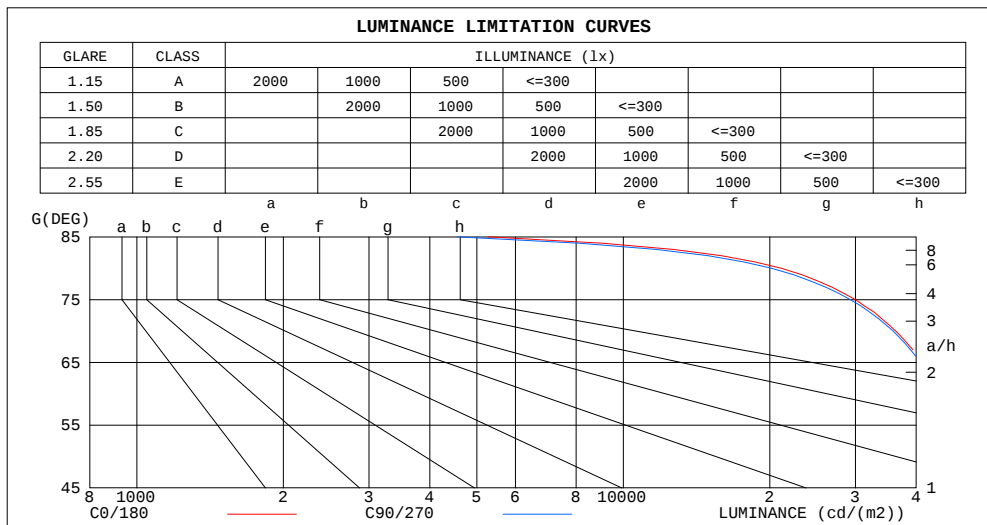
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1681	1683	1677	1678	1685	1683	1686	1682	0- 10	162.5	162.5	3.81, 3.81
20	1562	1559	1559	1555	1565	1570	1561	1564	10- 20	459.7	622.2	14.6, 14.6
30	1378	1377	1372	1371	1383	1383	1385	1385	20- 30	680.5	1303	30.5, 30.5
40	1144	1140	1136	1137	1153	1154	1154	1152	30- 40	792.1	2095	49.1, 49.1
50	879.9	874.1	874.3	874.0	884.9	890.2	888.6	887.4	40- 50	783.2	2878	67.5, 67.5
60	605.7	600.0	599.3	599.8	613.0	615.7	617.0	613.0	50- 60	666.0	3544	83.1, 83.1
70	333.7	330.6	329.7	330.1	340.9	342.3	342.9	343.0	60- 70	466.0	4010	94, 94
80	98.48	95.44	94.02	95.50	101.8	102.9	103.9	103.7	70- 80	224.8	4235	99.3, 99.3
90	2.332	2.332	2.339	2.324	1.278	1.278	1.282	1.293	80- 90	30.46	4265	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: 2024-06-22

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:230.15V I:0.1839A P:40.670W PF:0.9607 Freq:49.99Hz Lamp Flux:4265.14x1 lm		
NAME: DL4001-BKTC DPS02	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 185mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	5272	4560
80	21099	20144
75	29991	29269
70	36299	35860
65	41120	40700
60	45064	44590
55	48092	47911
50	50928	50599
45	53310	53082

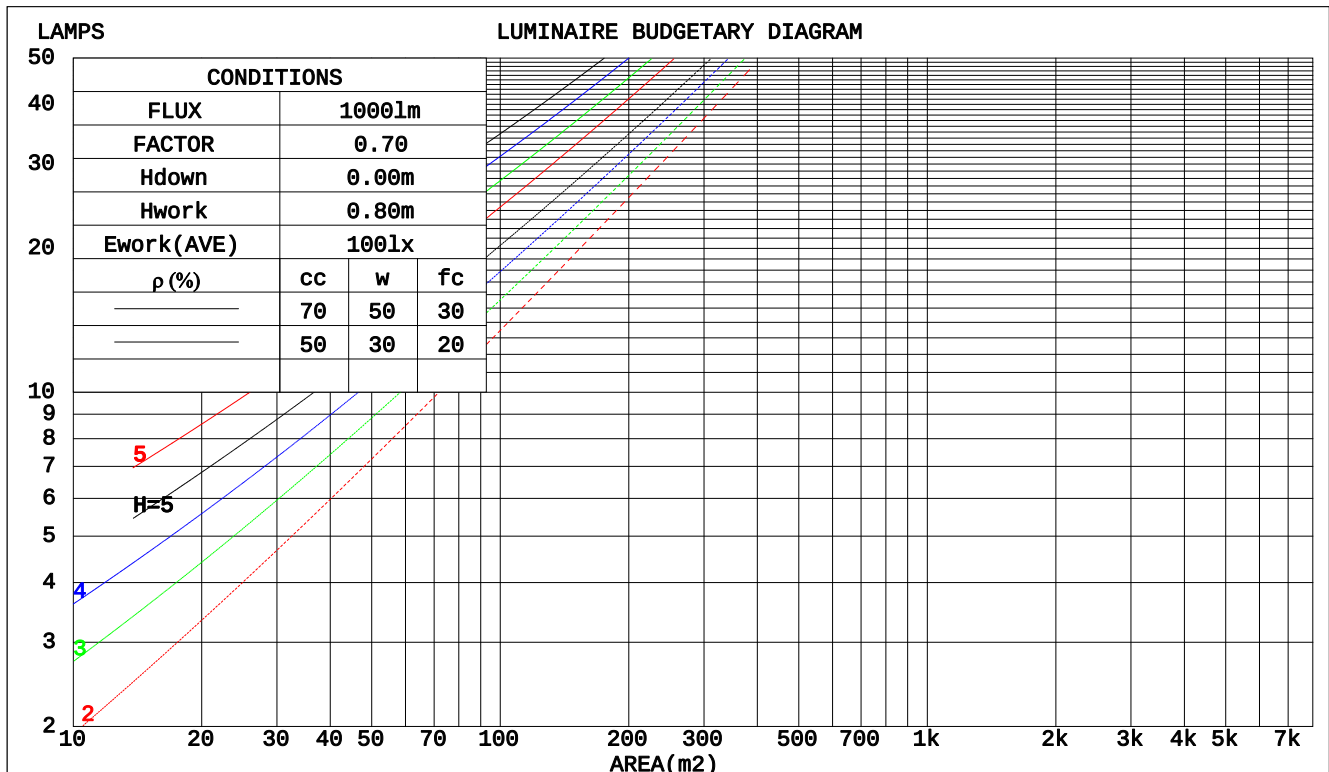
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-06-22

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:230.15V I:0.1839A P:40.670W PF:0.9607 Freq:49.99Hz Lamp Flux:4265.14x1 lm		
NAME: DL4001-BKTC DPS02	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 185mm	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						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	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.93	.90	.91	.89	.88	.86
2.0	.92	.86	.81	.91	.85	.80	.87	.82	.78	.84	.80	.76	.81	.77	.74	.72
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.74	.69	.65	.72	.67	.64	.62
4.0	.73	.64	.58	.71	.63	.57	.69	.62	.57	.67	.61	.56	.64	.59	.55	.53
5.0	.65	.56	.50	.64	.56	.50	.62	.55	.49	.60	.54	.49	.58	.53	.48	.46
6.0	.59	.50	.44	.58	.50	.44	.56	.49	.43	.54	.48	.43	.53	.47	.43	.41
7.0	.53	.45	.39	.53	.45	.39	.51	.44	.39	.50	.43	.38	.48	.43	.38	.36
8.0	.49	.41	.35	.48	.40	.35	.47	.40	.35	.46	.39	.34	.45	.39	.34	.32
9.0	.45	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-06-22

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:230.15V I:0.1839A P:40.670W PF:0.9607 Freq:49.99Hz Lamp Flux:4265.14x1 lm					
NAME: DL4001-BKTC DPS02			TYPE:		WEIGHT:
SPEC.: black RA80 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.: 185mm		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	.283	.161	.051	.276	.157	.050	.263	.151	.048	.251	.145	.046	.240	.139	.045		
2.0	.272	.149	.046	.266	.147	.045	.255	.142	.044	.244	.137	.043	.234	.132	.042		
3.0	.255	.136	.041	.250	.134	.040	.240	.130	.039	.230	.126	.039	.221	.123	.038		
4.0	.238	.123	.036	.233	.122	.036	.224	.119	.035	.215	.116	.035	.208	.113	.034		
5.0	.221	.113	.033	.217	.111	.032	.209	.109	.032	.201	.106	.032	.194	.104	.031		
6.0	.206	.103	.030	.202	.102	.029	.195	.100	.029	.188	.098	.029	.182	.096	.028		
7.0	.192	.095	.027	.189	.094	.027	.183	.092	.027	.177	.091	.026	.171	.089	.026		
8.0	.180	.088	.025	.177	.087	.025	.172	.086	.024	.166	.084	.024	.161	.083	.024		
9.0	.169	.082	.023	.167	.081	.023	.162	.080	.023	.157	.079	.023	.152	.077	.022		
10.0	.160	.077	.021	.157	.076	.021	.153	.075	.021	.148	.074	.021	.144	.073	.021		

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	.178	.156	.136	.153	.134	.117	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.145	.114	.087	.100	.079	.061	.057	.046	.035	.018	.015	.012	
3.0	.162	.114	.076	.139	.099	.066	.095	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.147	.090	.049	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.133	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.127	.069	.029	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-06-22

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:230.15V I:0.1839A P:40.670W PF:0.9607 Freq:49.99Hz Lamp Flux:4265.14x1 lm											
NAME: DL4001-BKTC DPS02						TYPE:			WEIGHT:		
SPEC.: black RA80 3000K+5700K						DIM.:			SERIAL No.:		
MFR.:						SUR.: 185mm			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	21.1	22.6	21.4	22.8	23.0	21.1	22.6	21.4	22.8	23.0	
	3H	22.3	23.7	22.6	23.9	24.2	22.3	23.7	22.6	23.9	24.1
	4H	22.7	24.0	23.0	24.3	24.5	22.7	24.0	23.0	24.2	24.5
	6H	22.9	24.1	23.2	24.4	24.7	22.9	24.1	23.2	24.3	24.6
	8H	22.9	24.1	23.3	24.4	24.6	22.9	24.0	23.2	24.3	24.6
	12H	22.9	24.0	23.2	24.3	24.6	22.8	23.9	23.2	24.2	24.5
4H	2H	21.7	22.9	22.0	23.2	23.4	21.6	22.9	21.9	23.2	23.4
	3H	23.0	24.1	23.4	24.4	24.7	23.0	24.1	23.3	24.4	24.7
	4H	23.5	24.5	23.9	24.8	25.2	23.5	24.5	23.8	24.8	25.1
	6H	23.8	24.7	24.2	25.0	25.4	23.7	24.6	24.1	24.9	25.3
	8H	23.8	24.6	24.2	25.0	25.4	23.7	24.6	24.1	24.9	25.3
	12H	23.8	24.5	24.2	24.9	25.3	23.7	24.5	24.1	24.8	25.2
8H	4H	23.6	24.5	24.1	24.8	25.2	23.6	24.4	24.0	24.8	25.2
	6H	24.0	24.7	24.4	25.1	25.5	23.9	24.6	24.4	25.0	25.4
	8H	24.0	24.7	24.5	25.1	25.5	24.0	24.6	24.4	25.0	25.5
	12H	24.0	24.6	24.5	25.0	25.5	24.0	24.5	24.4	24.9	25.4
12H	4H	23.6	24.4	24.0	24.8	25.2	23.6	24.3	24.0	24.7	25.1
	6H	24.0	24.6	24.4	25.0	25.5	23.9	24.5	24.4	25.0	25.4
	8H	24.1	24.6	24.5	25.0	25.5	24.0	24.5	24.5	25.0	25.4
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4					
2.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.4					

CIE Pub.117, 4265 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 5.0)
Area: 0.02688 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-06-22

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:230.15V I:0.1839A P:40.670W PF:0.9607 Freq:49.99Hz Lamp Flux:4265.14x1 lm		
NAME: DL4001-BKTC DPS02	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 185mm	Shielding Angle:

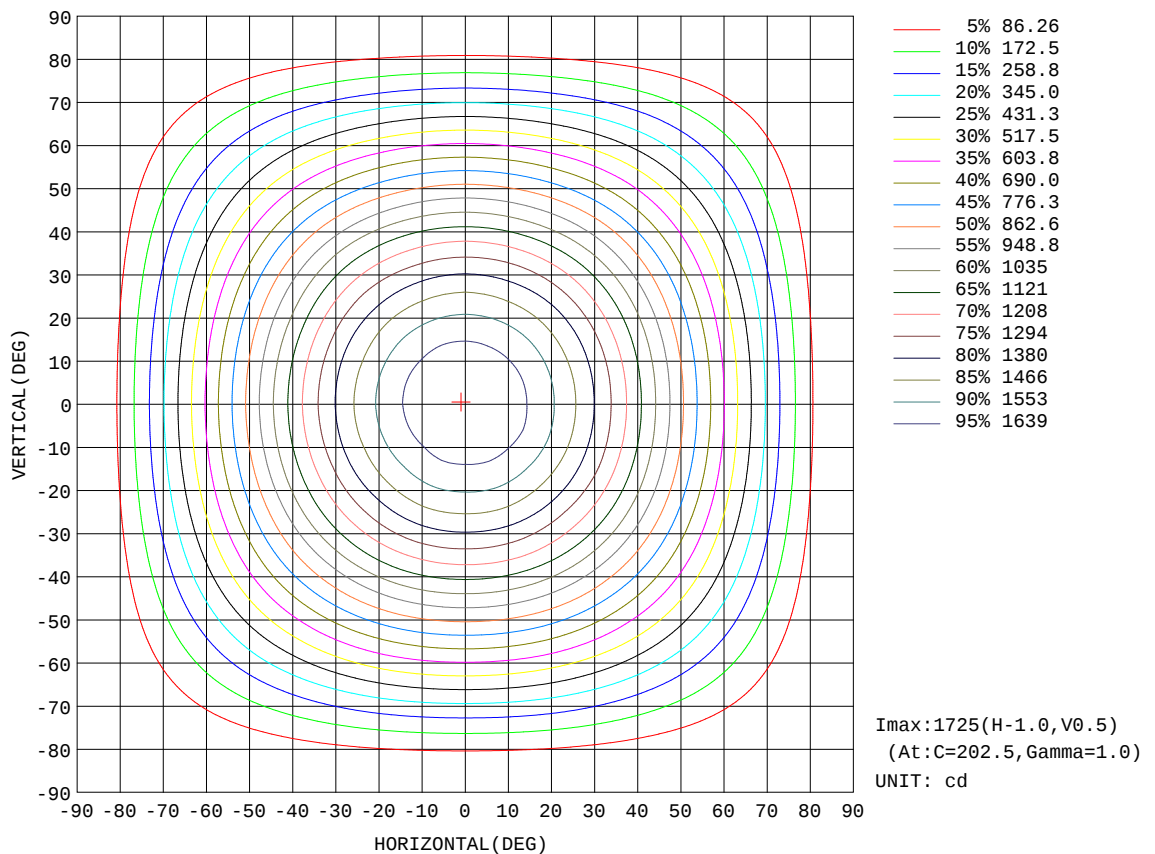
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	60	49	42	59	49	42	58	48	42	36
0.80	70	59	52	69	59	52	67	58	51	45
1.00	79	68	61	77	67	61	75	69	60	54
1.25	86	76	69	84	75	69	82	74	68	61
1.50	90	81	75	89	80	74	86	79	73	66
2.00	97	89	83	95	88	82	92	86	81	73
2.50	101	93	88	99	92	87	95	89	85	77
3.00	104	97	92	102	96	91	98	93	89	81
4.00	108	102	98	105	101	97	101	97	94	85
5.00	110	105	102	107	103	100	103	100	97	88
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:2024-06-22

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:230.15V I:0.1839A P:40.670W PF:0.9607 Freq:49.99Hz Lamp Flux:4265.14x1 lm		
NAME: DL4001-BKTC DPS02	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 185mm	Shielding Angle:

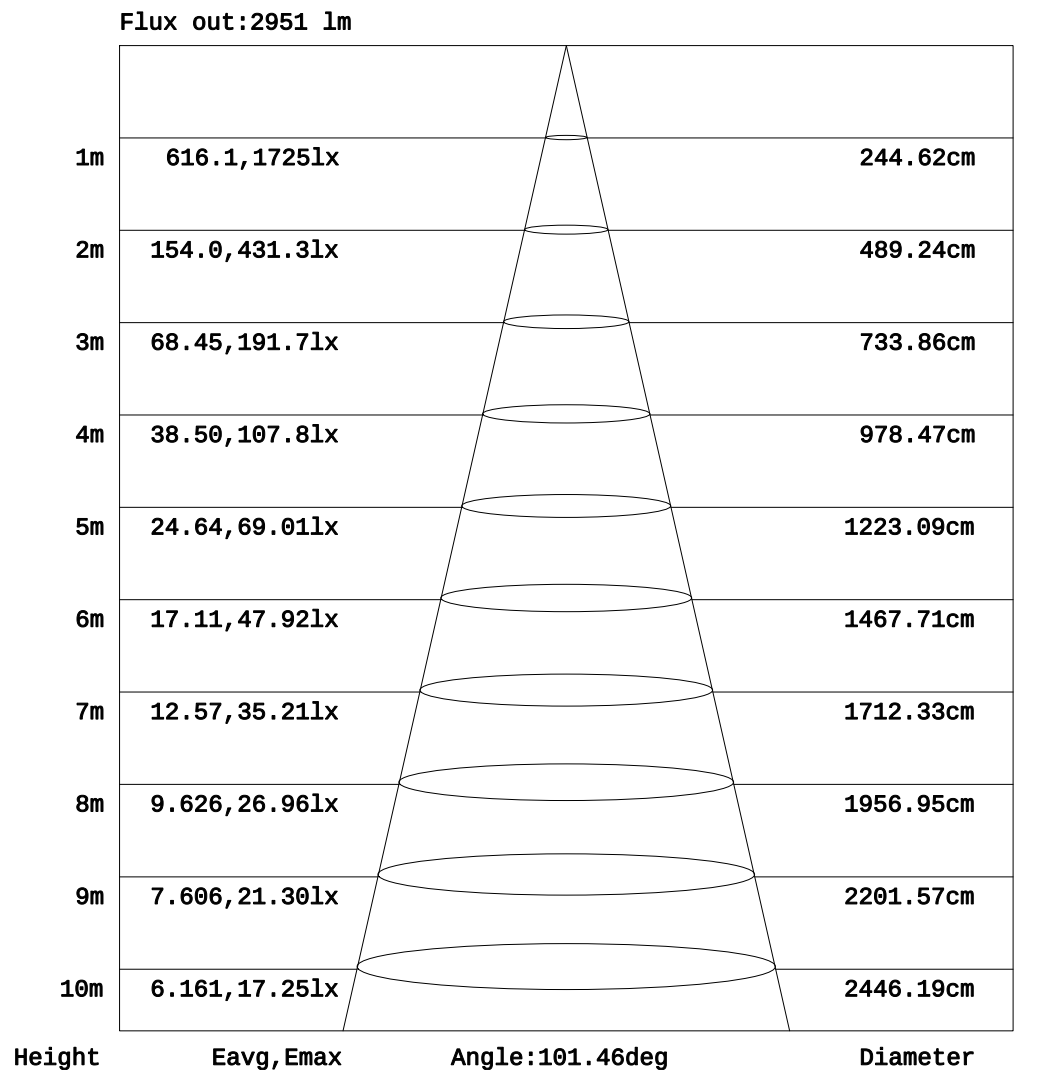


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-06-22

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:230.15V I:0.1839A P:40.670W PF:0.9607 Freq:49.99Hz Lamp Flux:4265.14x1 lm		
NAME: DL4001-BKTC DPS02	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 185mm	Shielding Angle:



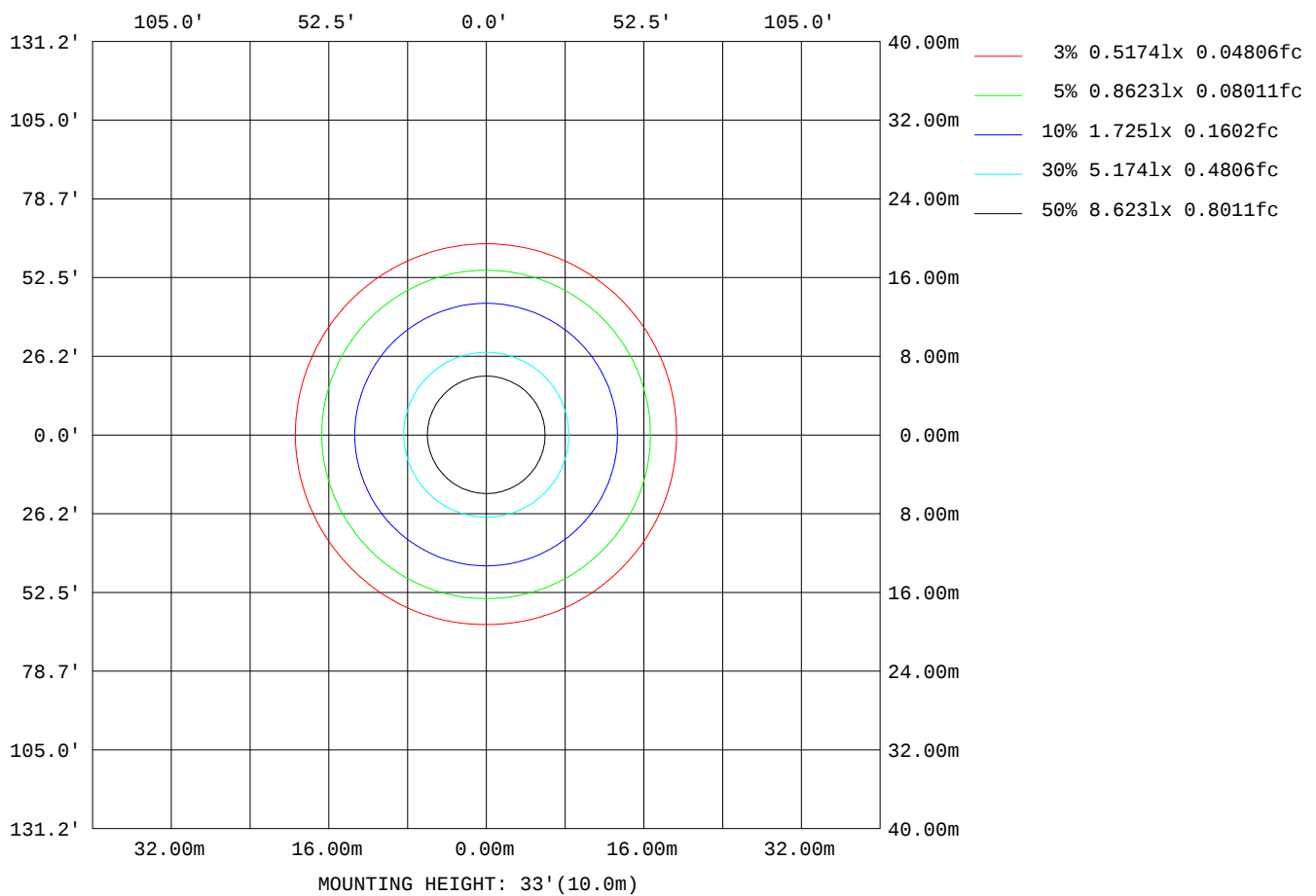
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-06-22

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:230.15V I:0.1839A P:40.670W PF:0.9607 Freq:49.99Hz Lamp Flux:4265.14x1 lm		
NAME: DL4001-BKTC DPS02	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 185mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-06-22

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:230.15V I:0.1839A P:40.670W PF:0.9607 Freq:49.99Hz Lamp Flux:4265.14x1 lm		
NAME: DL4001-BKTC DPS02	TYPE:	WEIGHT:
SPEC.: black RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 185mm	Shielding Angle:

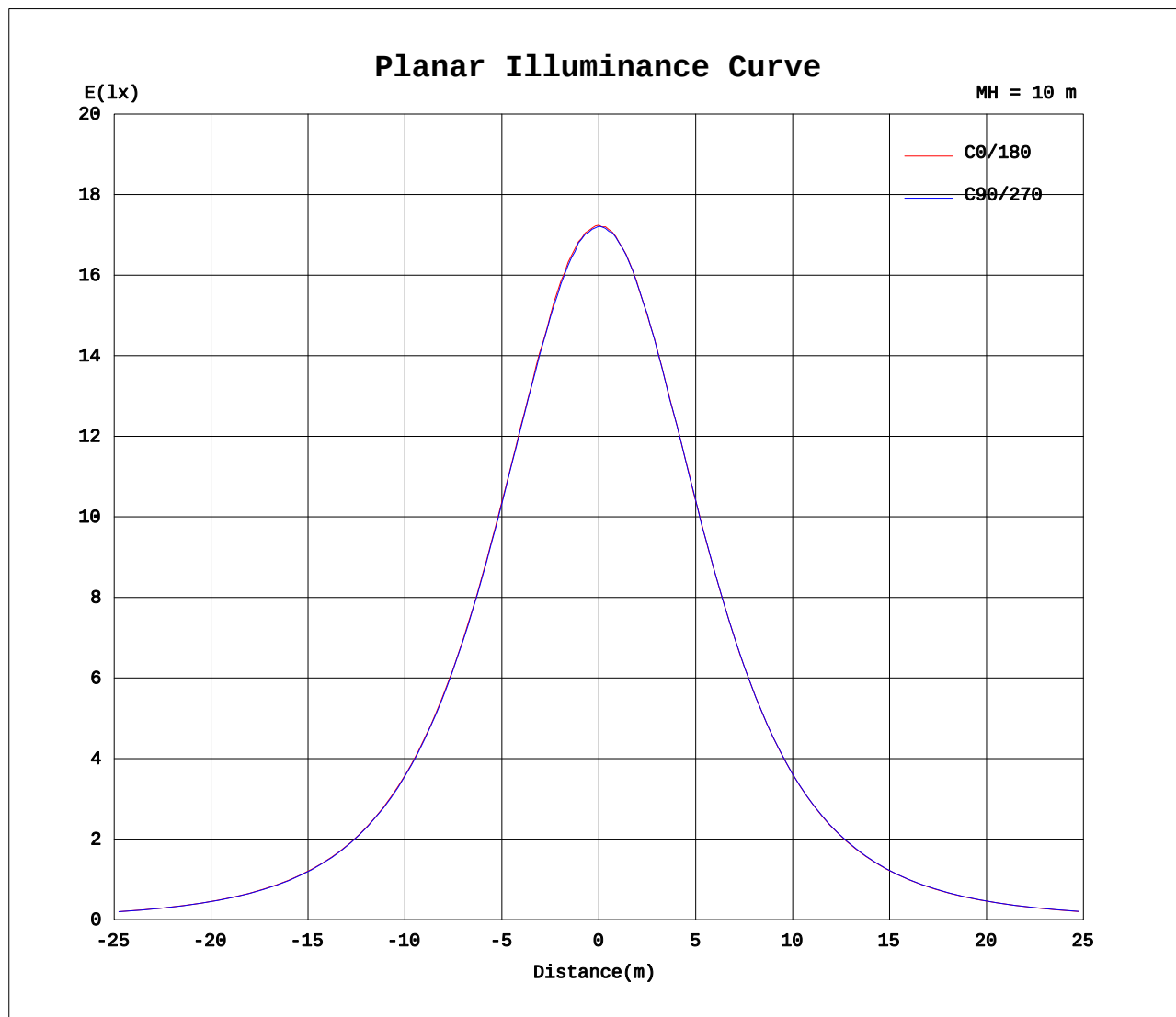
AvgL	cd/m2
L_0~180(65)av	41494
L_0~180(75)av	30448
L_0~180(85)av	5428
L_90~270(65)av	41416
L_90~270(75)av	30180
L_90~270(85)av	5468
L_45(65)av	41407
L_45(75)av	30298
L_45(85)av	5453

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-06-22

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: 2024-06-22

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:

```