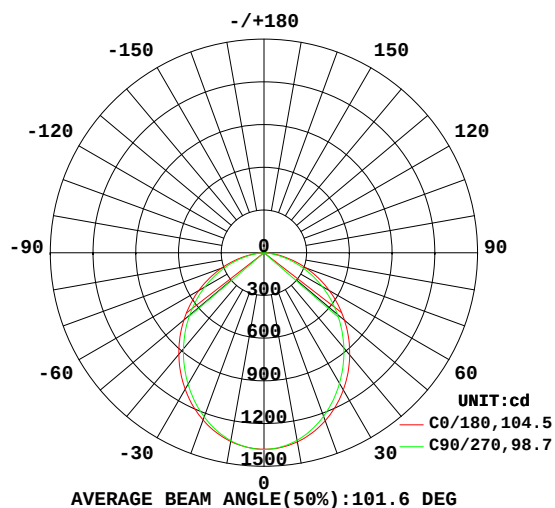


LUMINAIRE PHOTOMETRIC TEST REPORT

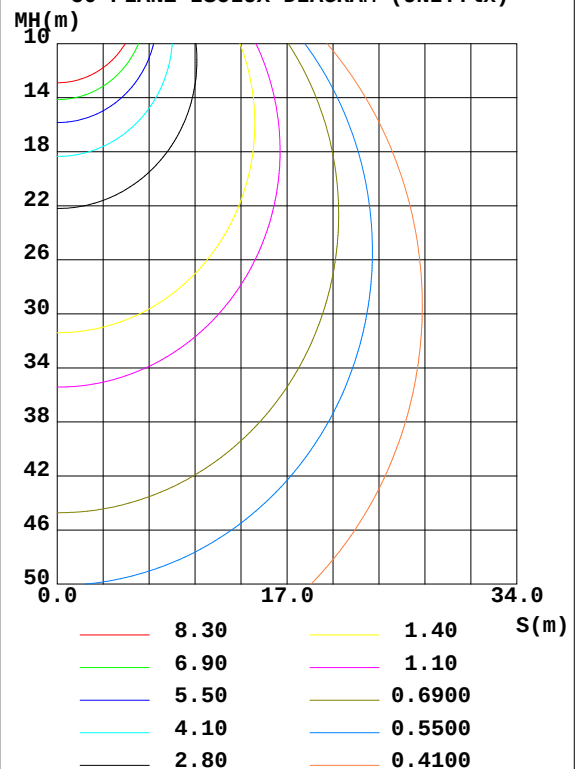
Test:U:230.75V I:0.1736A P:38.360W PF:0.9576 Freq:49.99Hz Lamp Flux:3459.09x1 lm		
NAME: LL1200M-BKTC40S	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 1190*49mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 90.17 lm/W			
MODEL	2835 5700K	I _{max} (cd)	1381	S/MH(C0/180)	1.20
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.16
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	3459.1	η UP, DN(C0-180)	0.0, 49.8
NOMINAL FLUX(lm)	3459.09	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.2
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: 2025-03-31

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

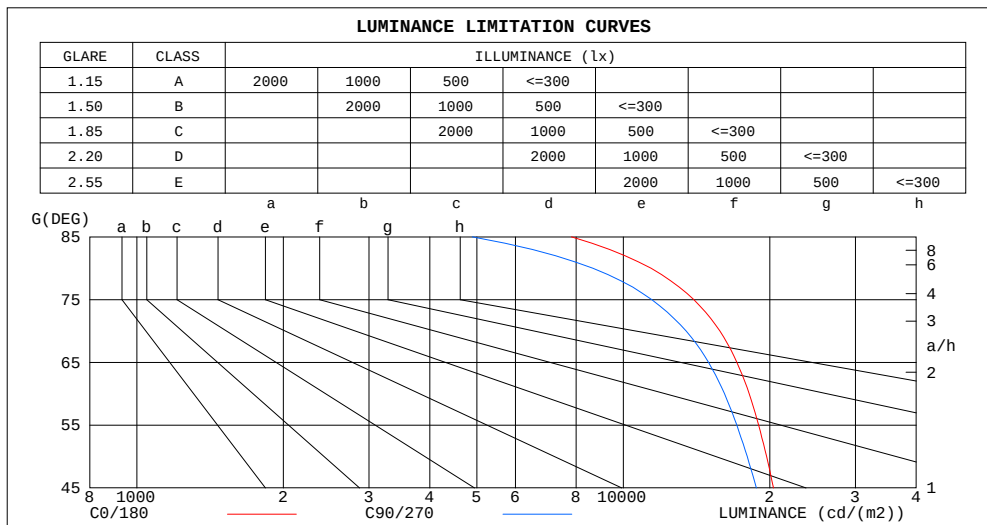
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1349	1342	1338	1339	1346	1341	1340	1344	0- 10	129.9	129.9	3.76, 3.76
20	1256	1238	1223	1233	1251	1237	1227	1242	10- 20	365.5	495.4	14.3, 14.3
30	1114	1085	1060	1079	1107	1084	1067	1091	20- 30	537.1	1033	29.8, 29.8
40	936.5	901.2	872.5	895.9	930.4	901.8	880.0	908.6	30- 40	623.4	1656	47.9, 47.9
50	738.6	703.0	673.6	698.9	734.3	705.7	681.9	711.6	40- 50	621.5	2277	65.8, 65.8
60	529.1	497.1	470.5	494.8	527.6	502.3	479.7	506.2	50- 60	539.7	2817	81.4, 81.4
70	314.9	288.6	268.4	288.6	317.5	296.9	278.5	298.6	60- 70	392.9	3210	92.8, 92.8
80	115.4	98.51	87.63	99.97	119.6	106.0	95.35	105.6	70- 80	206.2	3416	98.8, 98.8
90	1.649	1.741	1.465	1.796	2.274	1.962	1.599	1.860	80- 90	42.96	3459	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: 2025-03-31

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.880m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.75V I:0.1736A P:38.360W PF:0.9576 Freq:49.99Hz Lamp Flux:3459.09x1 lm		
NAME: LL1200M-BKTC40S	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 1190*49mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	7826	4891
80	11401	8654
75	13957	11438
70	15790	13460
65	17118	14962
60	18147	16139
55	18975	17110
50	19705	17972
45	20355	18771

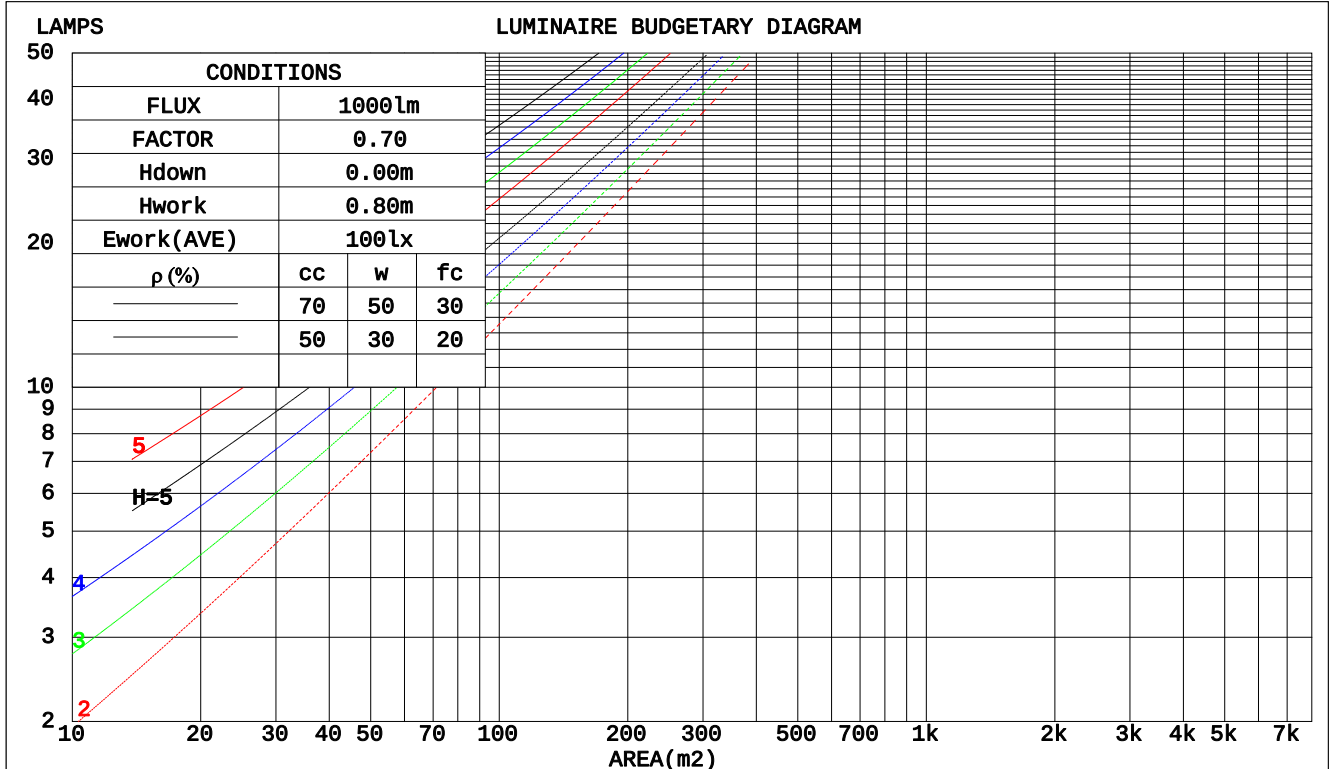
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2025-03-31

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.880m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.75V I:0.1736A P:38.360W PF:0.9576 Freq:49.99Hz Lamp Flux:3459.09x1 lm		
NAME: LL1200M-BKTC40S	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 1190*49mm	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)															
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	1.05	1.01	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.77	.73	.71
3.0	.81	.73	.67	.79	.72	.66	.76	.70	.65	.74	.68	.64	.71	.67	.63	.61
4.0	.72	.63	.57	.71	.63	.56	.68	.61	.56	.66	.60	.55	.64	.58	.54	.52
5.0	.64	.56	.49	.63	.55	.49	.61	.54	.48	.59	.53	.48	.57	.52	.47	.45
6.0	.58	.49	.43	.57	.49	.43	.55	.48	.43	.54	.47	.42	.52	.46	.42	.40
7.0	.53	.44	.38	.52	.44	.38	.51	.43	.38	.49	.42	.38	.48	.42	.37	.35
8.0	.48	.40	.34	.48	.40	.34	.46	.39	.34	.45	.38	.34	.44	.38	.33	.32
9.0	.44	.36	.31	.44	.36	.31	.43	.36	.31	.42	.35	.30	.41	.35	.30	.28
10.0	.41	.33	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.28	.26



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-31

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.75V I:0.1736A P:38.360W PF:0.9576 Freq:49.99Hz Lamp Flux:3459.09x1 lm					
NAME: LL1200M-BKTC40S			TYPE:		WEIGHT:
SPEC.: black RA90 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.: 1190*49mm		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	.293	.167	.053	.286	.163	.052	.273	.157	.050	.261	.150	.048	.250	.145	.047		
2.0	.279	.153	.047	.273	.150	.046	.261	.145	.045	.251	.141	.044	.241	.136	.043		
3.0	.260	.138	.041	.255	.136	.041	.244	.132	.040	.235	.129	.039	.226	.125	.039		
4.0	.241	.125	.037	.236	.124	.037	.227	.121	.036	.219	.118	.035	.211	.115	.035		
5.0	.224	.114	.033	.220	.113	.033	.212	.110	.032	.204	.108	.032	.197	.105	.032		
6.0	.208	.104	.030	.204	.103	.030	.197	.101	.029	.191	.099	.029	.184	.097	.029		
7.0	.194	.096	.027	.191	.095	.027	.184	.093	.027	.178	.092	.027	.173	.090	.026		
8.0	.182	.089	.025	.179	.088	.025	.173	.086	.025	.168	.085	.024	.163	.083	.024		
9.0	.171	.083	.023	.168	.082	.023	.163	.080	.023	.158	.079	.023	.153	.078	.023		
10.0	.161	.077	.021	.158	.076	.021	.154	.075	.021	.149	.074	.021	.145	.073	.021		

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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.076	.139	.099	.066	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.052	.091	.061	.036	.053	.036	.022	.017	.012	.007	
5.0	.147	.090	.048	.127	.078	.042	.087	.055	.030	.051	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.079	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.127	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.105	.056	.022	.072	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.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:2025-03-31

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.75V I:0.1736A P:38.360W PF:0.9576 Freq:49.99Hz Lamp Flux:3459.09x1 lm											
NAME: LL1200M-BKTC40S						TYPE:			WEIGHT:		
SPEC.: black RA90 3000K+5700K						DIM.:			SERIAL No.:		
MFR.:						SUR.: 1190*49mm			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		18.7	20.2	19.0	20.4	20.6	18.2	19.7	18.5	19.9	20.1
	3H	20.1	21.5	20.4	21.7	22.0	19.5	20.9	19.8	21.1	21.3
	4H	20.6	21.9	21.0	22.2	22.4	19.9	21.2	20.2	21.5	21.7
	6H	21.0	22.2	21.3	22.4	22.7	20.2	21.4	20.5	21.6	21.9
	8H	21.0	22.2	21.4	22.5	22.8	20.2	21.4	20.5	21.7	21.9
	12H	21.0	22.2	21.4	22.5	22.8	20.2	21.3	20.5	21.6	21.9
4H	2H	19.2	20.5	19.5	20.8	21.0	18.8	20.1	19.1	20.4	20.6
	3H	20.8	21.9	21.1	22.2	22.5	20.3	21.4	20.6	21.7	22.0
	4H	21.4	22.5	21.8	22.8	23.1	20.8	21.8	21.2	22.2	22.5
	6H	21.9	22.8	22.3	23.1	23.5	21.1	22.0	21.5	22.4	22.8
	8H	22.0	22.8	22.4	23.2	23.6	21.2	22.0	21.6	22.4	22.8
	12H	22.0	22.8	22.4	23.2	23.6	21.2	22.0	21.6	22.4	22.8
8H	4H	21.6	22.4	22.0	22.8	23.2	21.0	21.9	21.4	22.2	22.6
	6H	22.1	22.8	22.6	23.2	23.7	21.5	22.2	21.9	22.6	23.0
	8H	22.3	22.9	22.8	23.3	23.8	21.6	22.2	22.0	22.6	23.1
	12H	22.4	22.9	22.9	23.4	23.9	21.6	22.1	22.1	22.6	23.1
12H	4H	21.6	22.4	22.0	22.7	23.1	21.0	21.8	21.5	22.2	22.6
	6H	22.1	22.8	22.6	23.2	23.6	21.5	22.1	21.9	22.5	23.0
	8H	22.3	22.9	22.8	23.3	23.8	21.6	22.2	22.1	22.6	23.1
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.3					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4					
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.4					

CIE Pub.117, 3459 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 4.3)
Area: 0.05831 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-31

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.75V I:0.1736A P:38.360W PF:0.9576 Freq:49.99Hz Lamp Flux:3459.09x1 lm		
NAME: LL1200M-BKTC40S	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 1190*49mm	Shielding Angle:

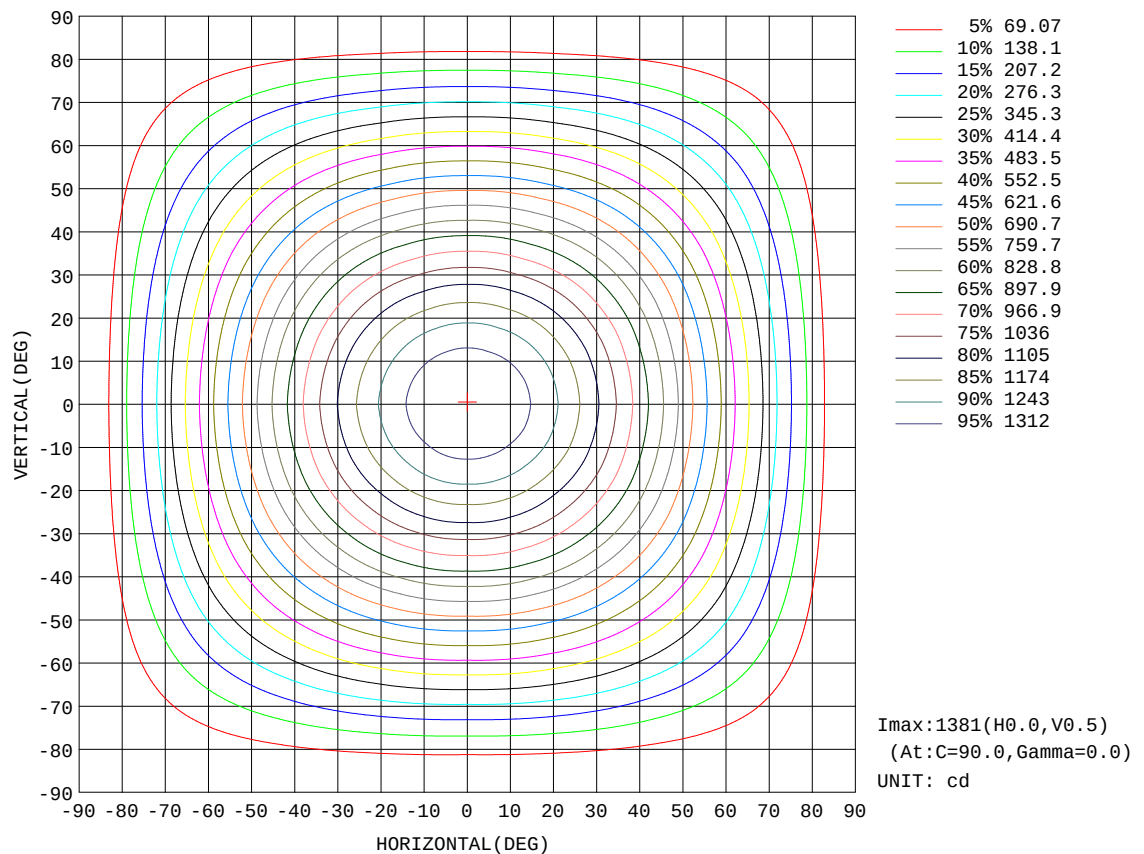
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	59	48	41	57	47	41	35
0.80	69	58	51	68	58	51	67	57	50	44
1.00	78	67	60	77	66	60	74	68	59	52
1.25	85	75	68	83	74	67	81	73	67	60
1.50	90	80	73	88	79	73	85	78	72	65
2.00	96	88	82	94	87	81	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	91	101	95	90	97	92	88	80
4.00	107	102	97	105	100	96	101	97	93	85
5.00	109	105	101	107	103	99	102	99	96	87
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:2025-03-31

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:230.75V I:0.1736A P:38.360W PF:0.9576 Freq:49.99Hz Lamp Flux:3459.09x1 lm		
NAME: LL1200M-BKTC40S	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 1190*49mm	Shielding Angle:

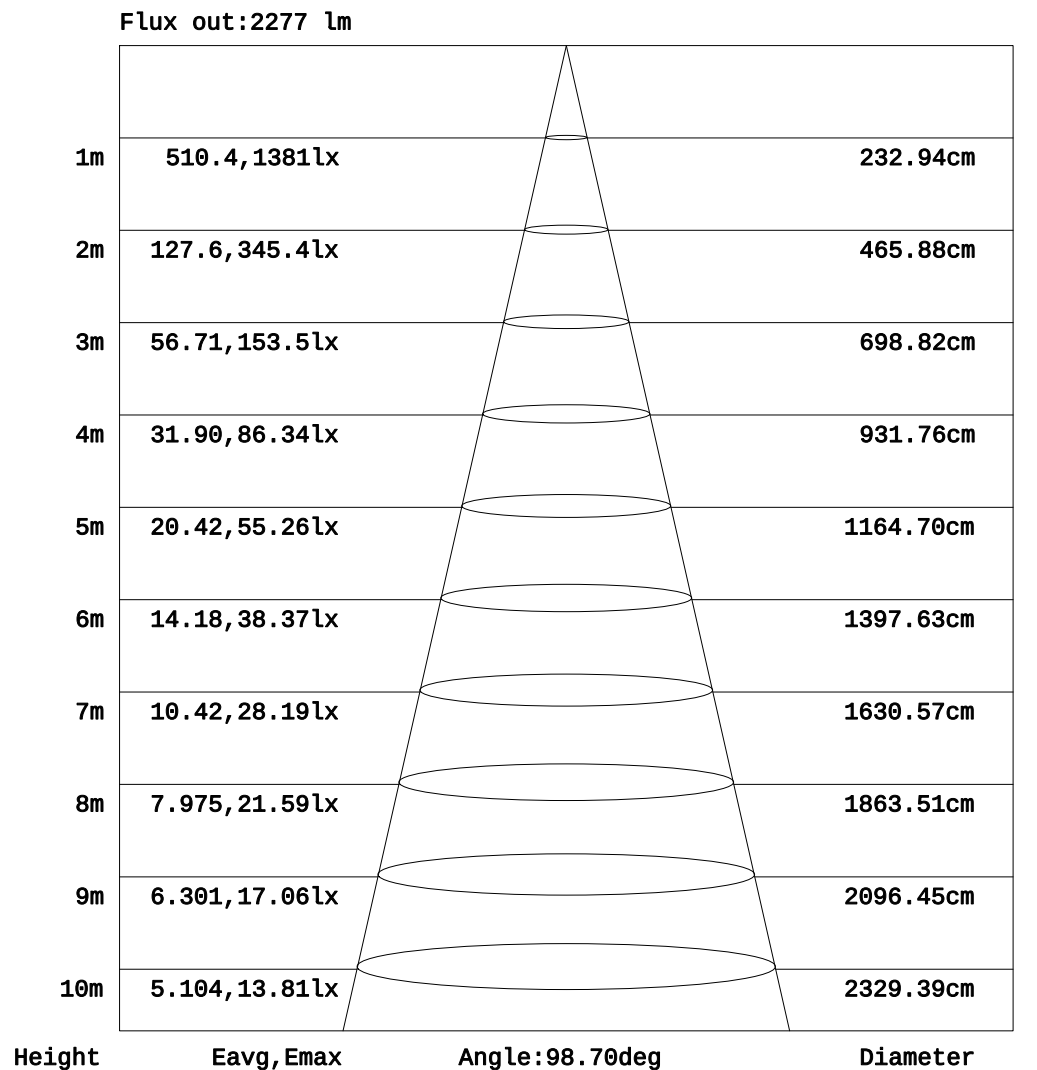


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-31

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.75V I:0.1736A P:38.360W PF:0.9576 Freq:49.99Hz Lamp Flux:3459.09x1 lm		
NAME: LL1200M-BKTC40S	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 1190*49mm	Shielding Angle:



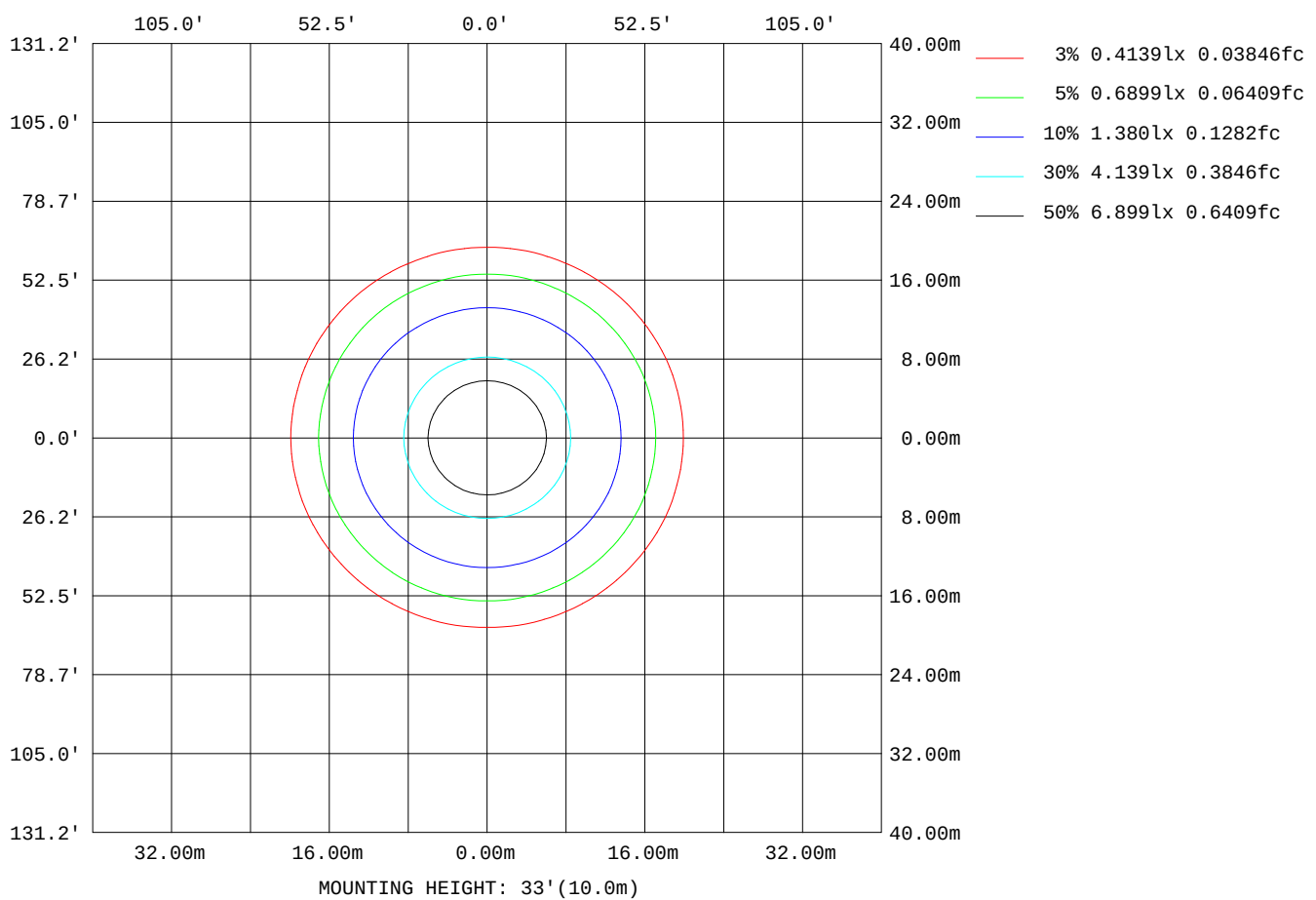
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2025-03-31

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.880m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:230.75V I:0.1736A P:38.360W PF:0.9576 Freq:49.99Hz Lamp Flux:3459.09x1 lm		
NAME: LL1200M-BKTC40S	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 1190*49mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2025-03-31

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.880m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.75V I:0.1736A P:38.360W PF:0.9576 Freq:49.99Hz Lamp Flux:3459.09x1 lm		
NAME: LL1200M-BKTC40S	TYPE:	WEIGHT:
SPEC.: black RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 1190*49mm	Shielding Angle:

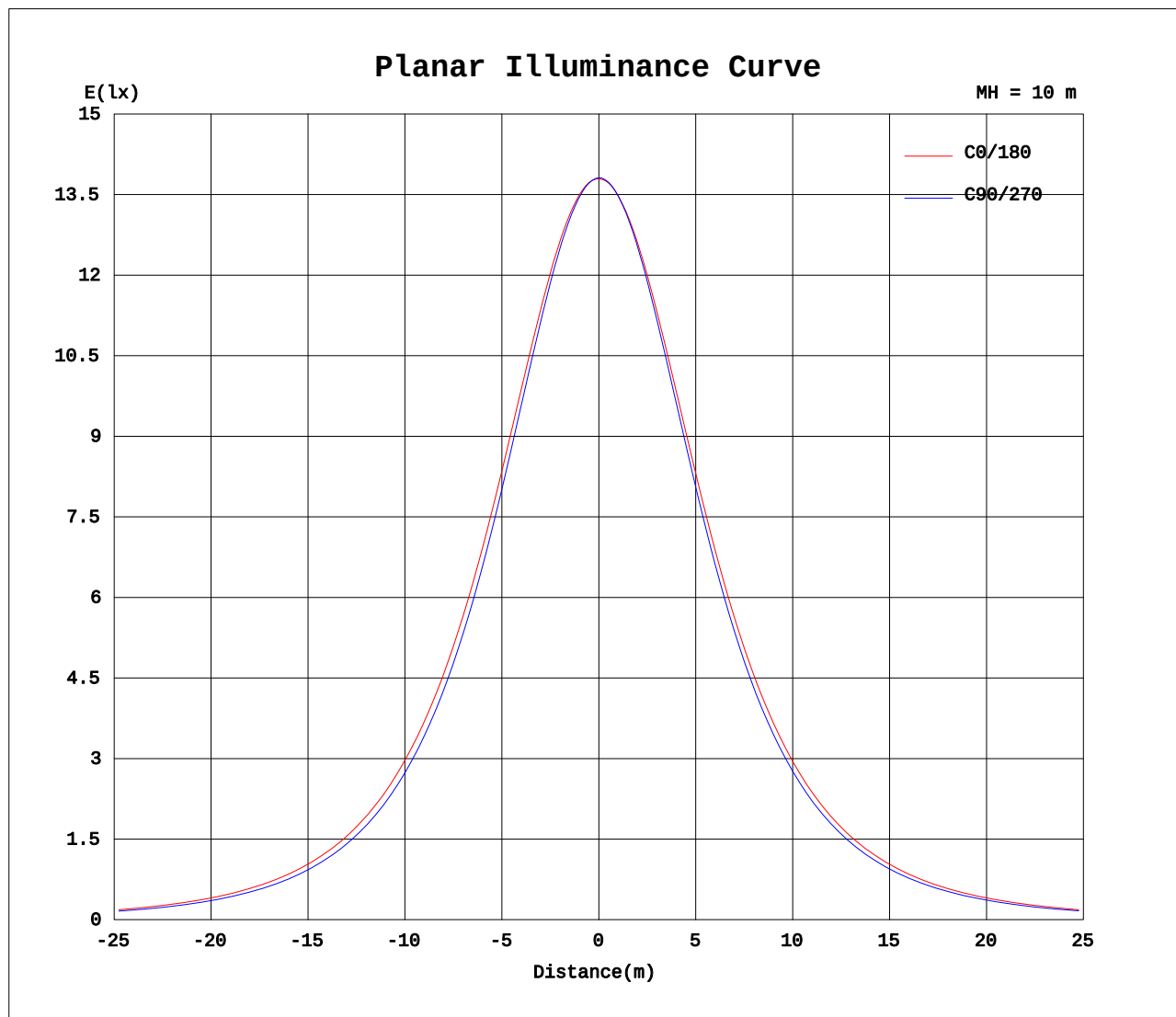
AvgL	cd/m2
L_0~180(65)av	17128
L_0~180(75)av	14094
L_0~180(85)av	8139
L_90~270(65)av	15158
L_90~270(75)av	11749
L_90~270(85)av	5376
L_45(65)av	16075
L_45(75)av	12796
L_45(85)av	6388

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2025-03-31

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.880m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2025-03-31

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.880m [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:7.880m [K=1.0000]
Remarks:

```