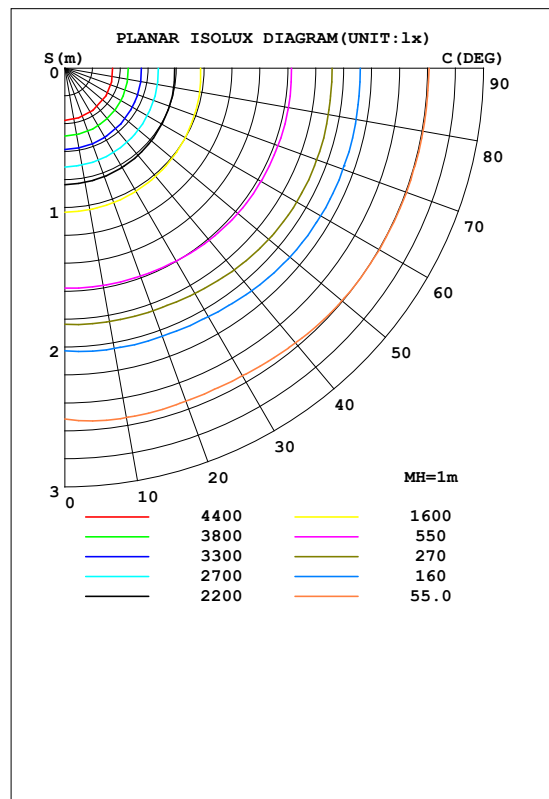
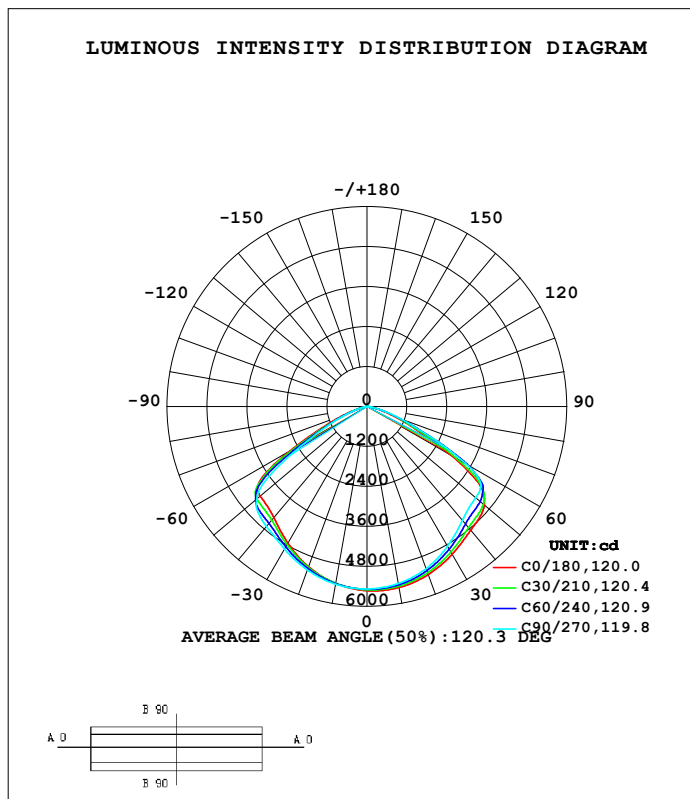


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:224.7V I:0.4714A P:100.6W PF:0.9494 Freq:59.98Hz Lamp Flux:16246.9x1 lm		
NAME: RK-HBL100W-02-G20-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 161.52 lm/W			
MODEL		I _{max} (cd)	5542	S/MH (C0/180)	1.28
NOMINAL POWER (W)	100	LOR (%)	100.0	S/MH (C90/270)	1.36
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	16247	h UP, DN (C0-180)	0.0, 52.1
NOMINAL FLUX (lm)	16246.9	CIE CLASS	DIRECT	h UP, DN (C180-360)	0.0, 47.9
LAMPS INSIDE	1	h up (%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	220	h down (%)	100.0	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 05 January 2023

q Range: 0 - 90DEG
 q Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 11.900m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

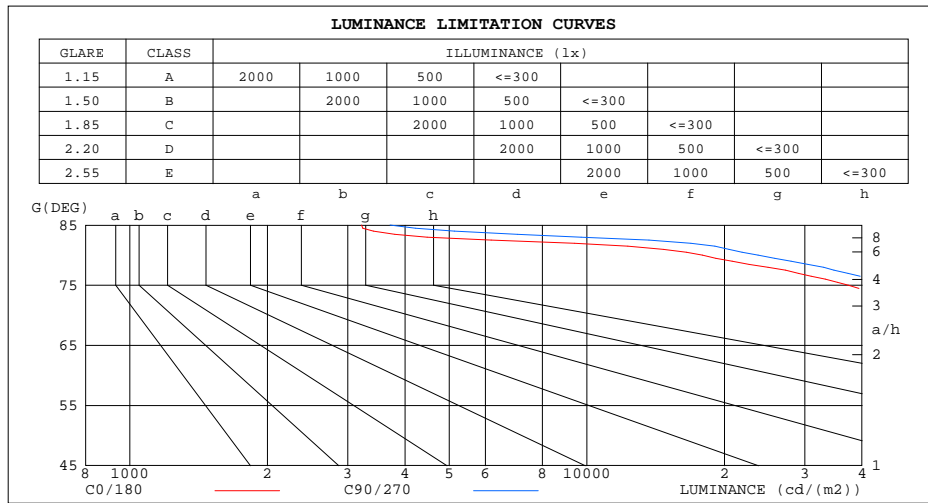
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	5520	5457	5397	5358	5393	5389	5416	5434	0- 10	520.2	520.2	3.2,3.2
20	5371	5284	5182	5110	5123	5154	5225	5268	10- 20	1505	2026	12.5,12.5
30	5120	4997	4840	4747	4746	4827	4948	5016	20- 30	2338	4364	26.9,26.9
40	4850	4681	4462	4330	4352	4514	4702	4788	30- 40	2970	7334	45.1,45.1
50	4600	4518	4267	4084	4187	4355	4323	4429	40- 50	3457	10790	66.4,66.4
60	2869	3317	3393	3692	2691	2421	2053	2140	50- 60	3401	14191	87.3,87.3
70	882.2	1010	1076	1116	703.7	570.4	551.6	565.5	60- 70	1628	15820	97.4,97.4
80	130.6	157.3	172.9	158.0	43.53	21.22	20.42	28.10	70- 80	401.6	16221	99.8,99.8
90	7.394	7.902	7.455	7.310	6.319	6.899	7.358	7.443	80- 90	25.72	16247	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 Less than 35% Percent = 24.5 %									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:05 January 2023

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:11.900m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:224.7V I:0.4714A P:100.6W PF:0.9494 Freq:59.98Hz Lamp Flux:16246.9x1 lm		
NAME: RK-HBL100W-02-G20-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3213	3709
80	17911	23713
75	37333	46375
70	61415	74910
65	89450	110088
60	136596	161569
55	172500	173426
50	170397	158057
45	160179	145494

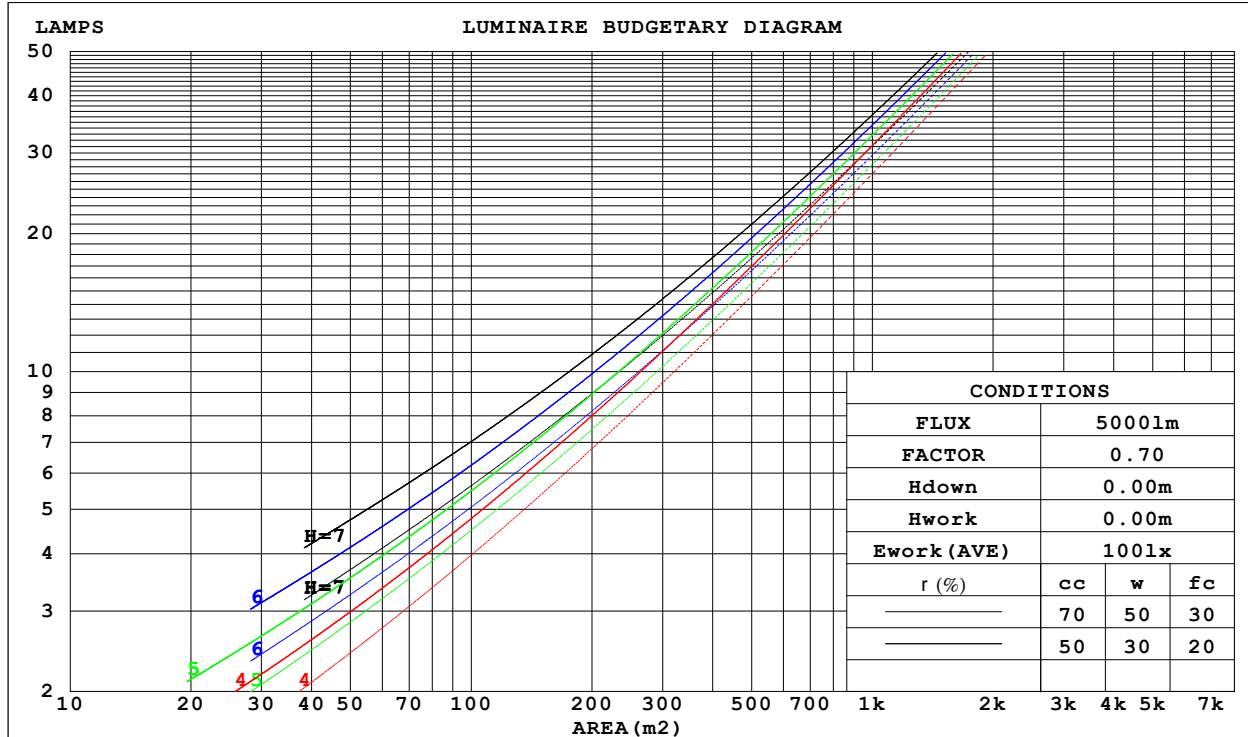
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 05 January 2023

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 11.900m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:224.7V I:0.4714A P:100.6W PF:0.9494 Freq:59.98Hz Lamp Flux:16246.9x1 lm		
NAME: RK-HBL100W-02-G20-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{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	1.06	1.02	.99	1.04	1.00	.97	.99	.97	.94	.96	.93	.91	.92	.90	.89	.87
2.0	.93	.87	.82	.91	.85	.81	.88	.83	.79	.85	.81	.77	.82	.78	.75	.73
3.0	.82	.74	.68	.80	.73	.68	.77	.71	.66	.75	.70	.65	.72	.68	.64	.62
4.0	.73	.64	.58	.71	.63	.57	.69	.62	.56	.66	.61	.56	.64	.59	.55	.53
5.0	.65	.56	.49	.64	.55	.49	.61	.54	.49	.59	.53	.48	.58	.52	.48	.45
6.0	.58	.49	.43	.57	.49	.43	.55	.48	.42	.54	.47	.42	.52	.46	.42	.40
7.0	.52	.44	.38	.52	.43	.37	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.39	.33	.47	.39	.33	.46	.38	.33	.44	.38	.33	.43	.37	.33	.31
9.0	.43	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.29	.40	.34	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.27	.38	.31	.27	.37	.31	.26	.25



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 05 January 2023

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 11.900m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:224.7V I:0.4714A P:100.6W PF:0.9494 Freq:59.98Hz Lamp Flux:16246.9x1 lm		
NAME: RK-HBL100W-02-G20-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

r cc	80%			70%			50%			30%			10%			0
r w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.270	.154	.049	.263	.150	.048	.250	.144	.046	.238	.137	.044	.227	.132	.042	
2.0	.266	.146	.045	.260	.143	.044	.249	.138	.043	.238	.133	.042	.228	.129	.041	
3.0	.253	.135	.040	.248	.133	.040	.238	.129	.039	.228	.125	.038	.220	.122	.038	
4.0	.238	.124	.036	.233	.122	.036	.224	.119	.036	.216	.116	.035	.208	.113	.034	
5.0	.223	.114	.033	.219	.112	.033	.211	.110	.032	.203	.107	.032	.196	.105	.032	
6.0	.209	.105	.030	.205	.104	.030	.198	.101	.030	.191	.099	.029	.185	.097	.029	
7.0	.196	.097	.027	.192	.096	.027	.186	.094	.027	.180	.092	.027	.174	.090	.027	
8.0	.184	.090	.025	.181	.089	.025	.175	.087	.025	.169	.086	.025	.164	.084	.025	
9.0	.173	.084	.023	.170	.083	.023	.165	.081	.023	.160	.080	.023	.155	.079	.023	
10.0	.163	.078	.022	.160	.077	.022	.156	.076	.021	.151	.075	.021	.147	.074	.021	

r cc	80%			70%			50%			30%			10%			0
r w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r 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	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.099	.066	.095	.068	.047	.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	.048	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:05 January 2023

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:11.900m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:224.7V I:0.4714A P:100.6W PF:0.9494 Freq:59.98Hz Lamp Flux:16246.9x1 lm										
NAME: RK-HBL100W-02-G20-120D					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: EVERFINE					SUR.:			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	21.4	22.9	21.6	23.1	23.3	21.7	23.2	22.0	23.4	23.6
3H	21.8	23.1	22.1	23.4	23.6	22.3	23.6	22.6	23.9	24.1
4H	21.8	23.1	22.1	23.3	23.6	22.3	23.6	22.6	23.9	24.1
6H	21.7	22.9	22.1	23.2	23.5	22.3	23.5	22.6	23.8	24.0
8H	21.7	22.8	22.0	23.1	23.4	22.2	23.4	22.6	23.7	24.0
12H	21.6	22.7	22.0	23.0	23.3	22.2	23.3	22.5	23.6	23.9
4H 2H	21.8	23.1	22.1	23.3	23.6	22.1	23.4	22.4	23.6	23.9
3H	22.2	23.4	22.6	23.7	24.0	22.7	23.8	23.0	24.1	24.4
4H	22.3	23.3	22.7	23.6	24.0	22.8	23.8	23.2	24.1	24.4
6H	22.3	23.2	22.7	23.5	23.9	22.8	23.7	23.2	24.0	24.4
8H	22.2	23.1	22.6	23.4	23.8	22.7	23.6	23.1	23.9	24.3
12H	22.2	22.9	22.6	23.3	23.7	22.7	23.4	23.1	23.8	24.2
8H 4H	22.3	23.1	22.7	23.5	23.8	22.7	23.6	23.1	23.9	24.3
6H	22.3	22.9	22.7	23.3	23.8	22.7	23.4	23.2	23.8	24.2
8H	22.2	22.8	22.7	23.3	23.7	22.7	23.3	23.2	23.7	24.2
12H	22.2	22.7	22.7	23.2	23.6	22.7	23.2	23.2	23.6	24.1
12H 4H	22.2	23.0	22.7	23.4	23.8	22.7	23.4	23.1	23.8	24.2
6H	22.2	22.8	22.7	23.2	23.7	22.7	23.3	23.2	23.7	24.2
8H	22.2	22.7	22.7	23.2	23.6	22.7	23.2	23.2	23.6	24.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.2				
1.5H	+ 1.1 / - 1.3					+ 1.1 / - 1.2				
2.0H	+ 0.8 / - 1.6					+ 0.8 / - 1.6				

CIE Pub.117, 16247 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 9.7)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:05 January 2023

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:11.900m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:224.7V I:0.4714A P:100.6W PF:0.9494 Freq:59.98Hz Lamp Flux:16246.9x1 lm		
NAME: RK-HBL100W-02-G20-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

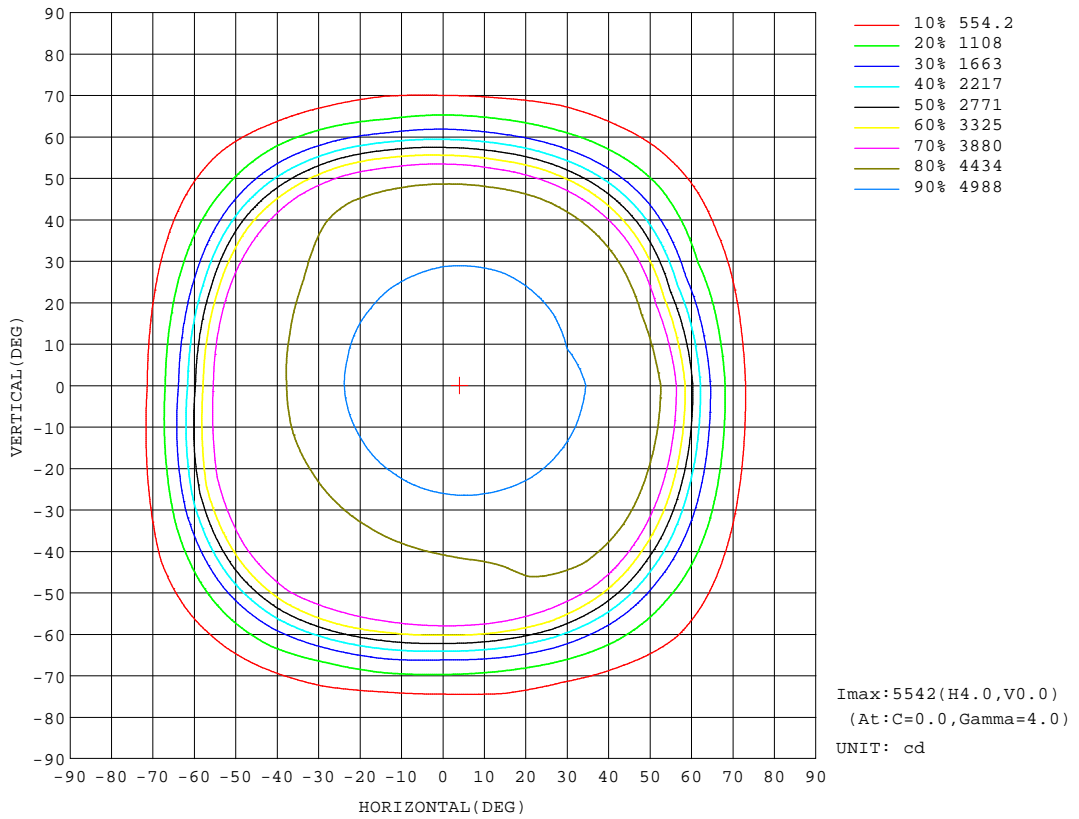
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	44	37	31
0.80	68	56	49	67	56	49	65	55	48	41
1.00	77	67	60	76	66	59	74	67	59	52
1.25	85	75	68	84	74	68	81	73	67	60
1.50	90	81	74	89	80	74	86	78	73	66
2.00	97	89	84	95	88	83	92	86	81	74
2.50	101	94	88	99	92	87	95	90	85	78
3.00	104	98	93	102	96	92	98	94	90	82
4.00	108	103	98	105	101	97	101	98	94	86
5.00	110	105	102	107	104	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: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:05 January 2023

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:11.900m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:224.7V I:0.4714A P:100.6W PF:0.9494 Freq:59.98Hz Lamp Flux:16246.9x1 lm		
NAME: RK-HBL100W-02-G20-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



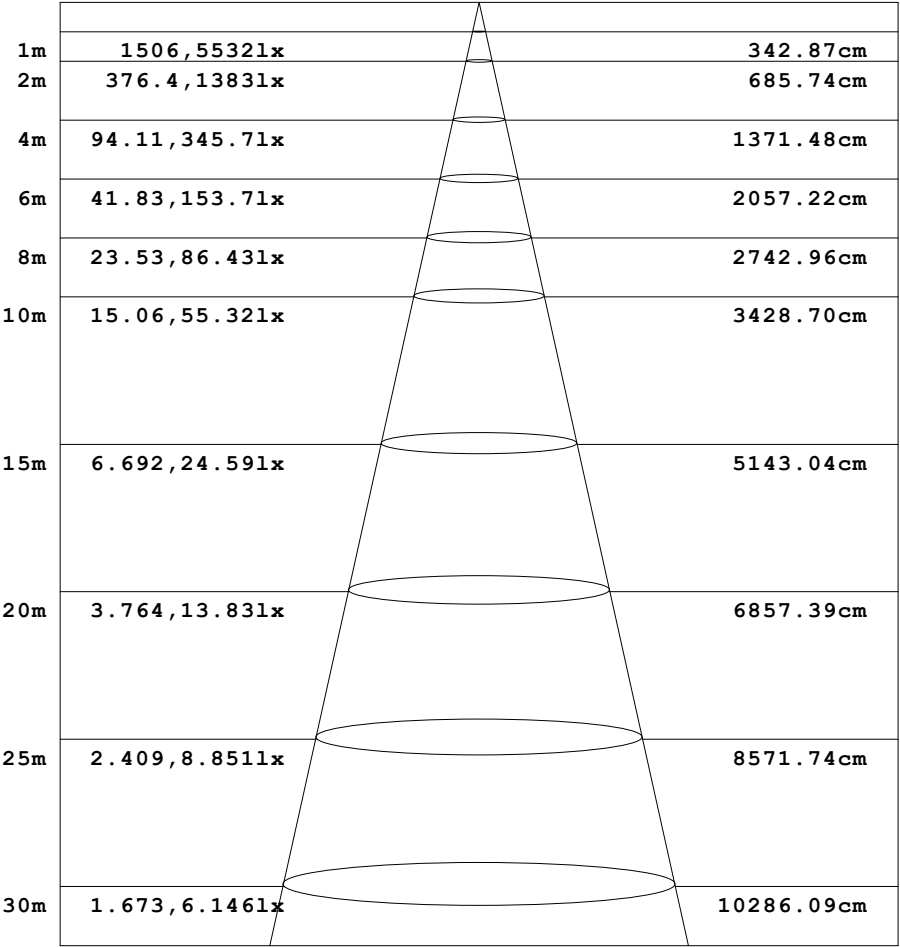
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 05 January 2023

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 11.900m [K=1.0000]
 Remarks:

AAI Figure

Test:U:224.7V I:0.4714A P:100.6W PF:0.9494 Freq:59.98Hz Lamp Flux:16246.9x1 lm		
NAME: RK-HBL100W-02-G20-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

Flux out:14191 lm



Height Eavg, Emax Angle: 119.49deg Diameter

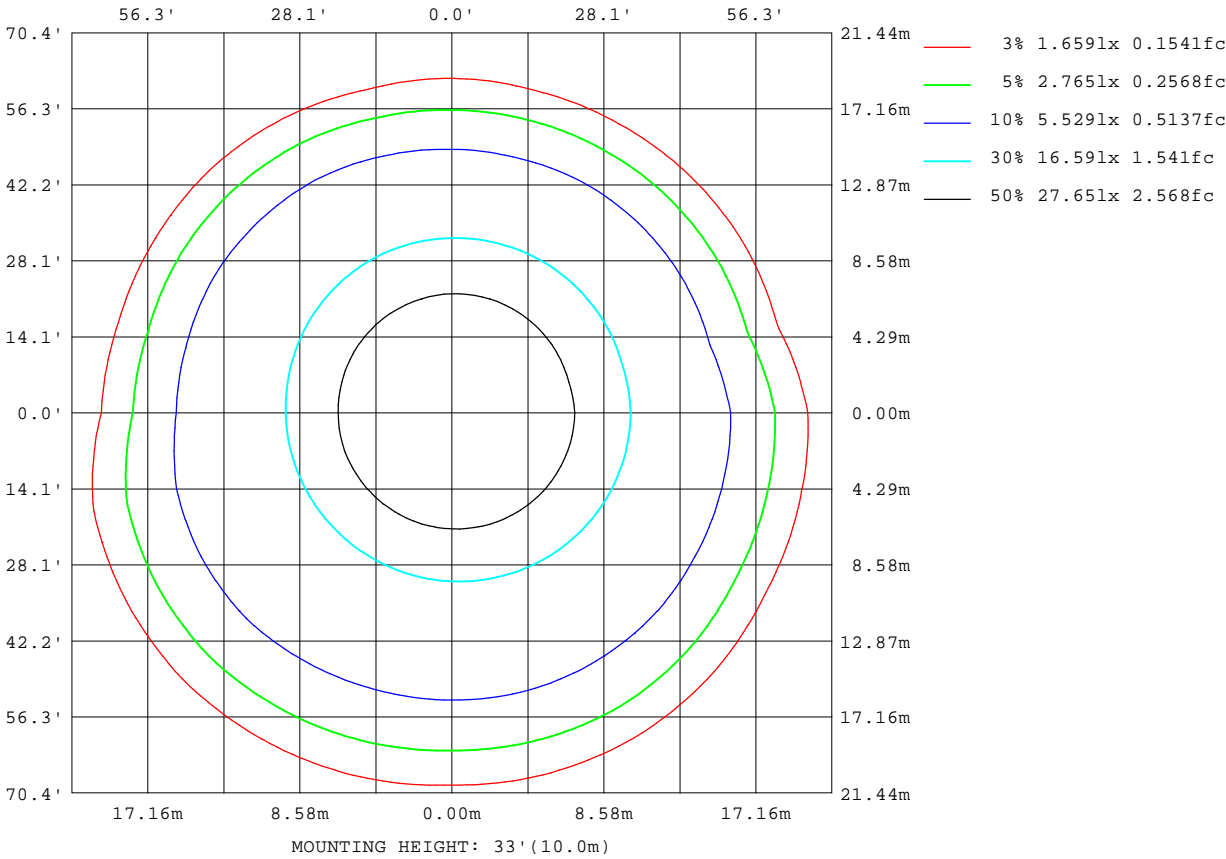
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 05 January 2023

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 11.900m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:224.7V I:0.4714A P:100.6W PF:0.9494 Freq:59.98Hz Lamp Flux:16246.9x1 lm		
NAME: RK-HBL100W-02-G20-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 05 January 2023

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 11.900m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:224.7V I:0.4714A P:100.6W PF:0.9494 Freq:59.98Hz Lamp Flux:16246.9x1 lm		
NAME: RK-HBL100W-02-G20-120D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:	Shielding Angle:

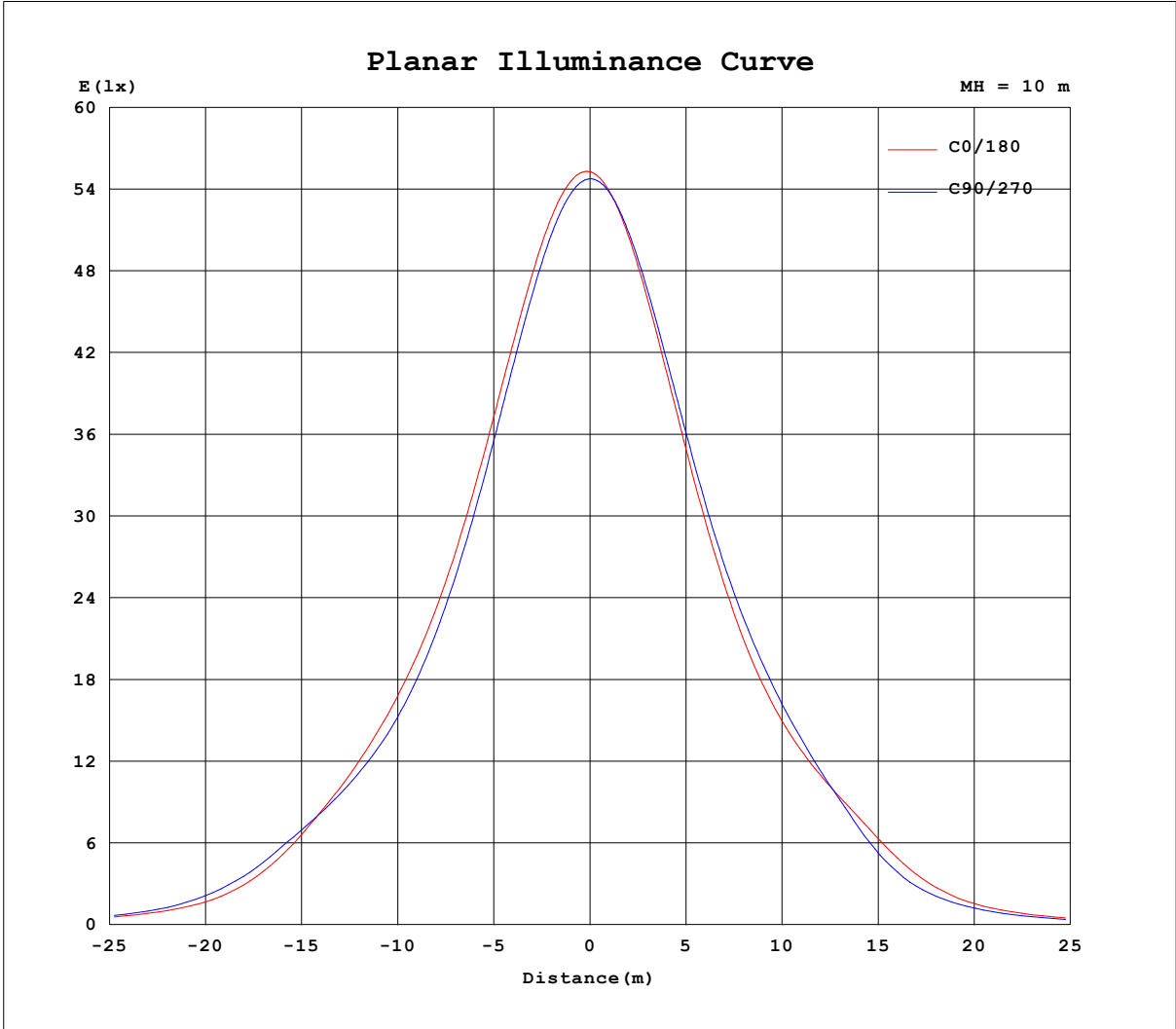
AvgL	cd/m2
L_0~180 (65) av	85255
L_0~180 (75) av	31109
L_0~180 (85) av	2549
L_90~270 (65) av	87386
L_90~270 (75) av	32404
L_90~270 (85) av	2896
L_45 (65) av	90397
L_45 (75) av	30717
L_45 (85) av	2821

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:05 January 2023

g Range: 0 - 90DEG
 g Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:11.900m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 05 January 2023

g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 11.900m [K=1.0000]
Remarks:

