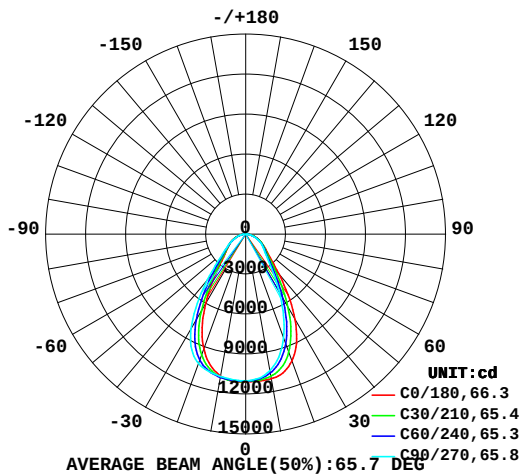


LUMINAIRE PHOTOMETRIC TEST REPORT

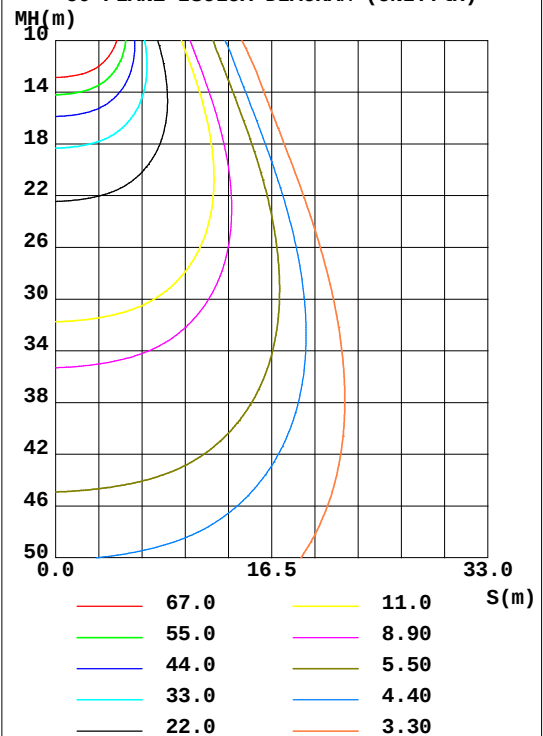
Test:U:221.02V I:0.7136A P:155.66W PF:0.9870 Freq:50.00Hz Lamp Flux:16091.9x1 lm					
NAME: GGL-508-150W			TYPE:		WEIGHT:
SPEC.:150W			DIM.:		SERIAL No.:
MFR.:			SUR.:250*230mm		Shielding Angle:

DATA OF LAMP			PHOTOMETRIC DATA			Eff: 103.38 lm/W
MODEL			I _{max} (cd)	11107	S/MH(C0/180)	0.94
NOMINAL POWER(W)	--		LOR(%)	100.0	S/MH(C90/270)	1.08
RATED VOLTAGE(V)	--		TOTAL FLUX(lm)	16092	η UP, DN(C0-180)	0.0,45.9
NOMINAL FLUX(lm)	16091.9		CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,54.1
LAMPS INSIDE	1		η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	--		η down(%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-02-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [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	1102	1072	1042	1041	1083	1092	1085	1085	0- 10	1039	1039	6.46, 6.46
20	1014	910.9	830.8	810.7	919.1	985.7	1034	1048	10- 20	2870	3909	24.3, 24.3
30	742.6	596.6	510.1	489.8	602.3	699.7	821.5	837.9	20- 30	3724	7633	47.4, 47.4
40	385.8	315.3	271.0	262.0	303.7	354.6	448.1	458.2	30- 40	3078	10711	66.6, 66.6
50	212.3	194.8	179.0	179.8	188.2	202.2	220.9	232.5	40- 50	2013	12724	79.1, 79.1
60	142.5	137.8	130.4	132.0	137.0	133.9	137.1	144.4	50- 60	1488	14212	88.3, 88.3
70	90.53	86.43	77.62	81.49	86.68	81.44	79.46	87.29	60- 70	1088	15300	95.1, 95.1
80	37.77	36.32	26.49	31.13	34.47	33.68	31.12	39.32	70- 80	616.0	15916	98.9, 98.9
90	5.713	3.671	0.1437	2.937	5.036	3.480	0.2644	4.844	80- 90	175.8	16092	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: $\times 10\text{cd}$									UNIT: lm		

Conical surface Flux(90deg): 11813 lm

%lum = 73.4%

%lamp = 73.4%

Conical surface Flux(120deg): 14212 lm

%lum = 88.3%

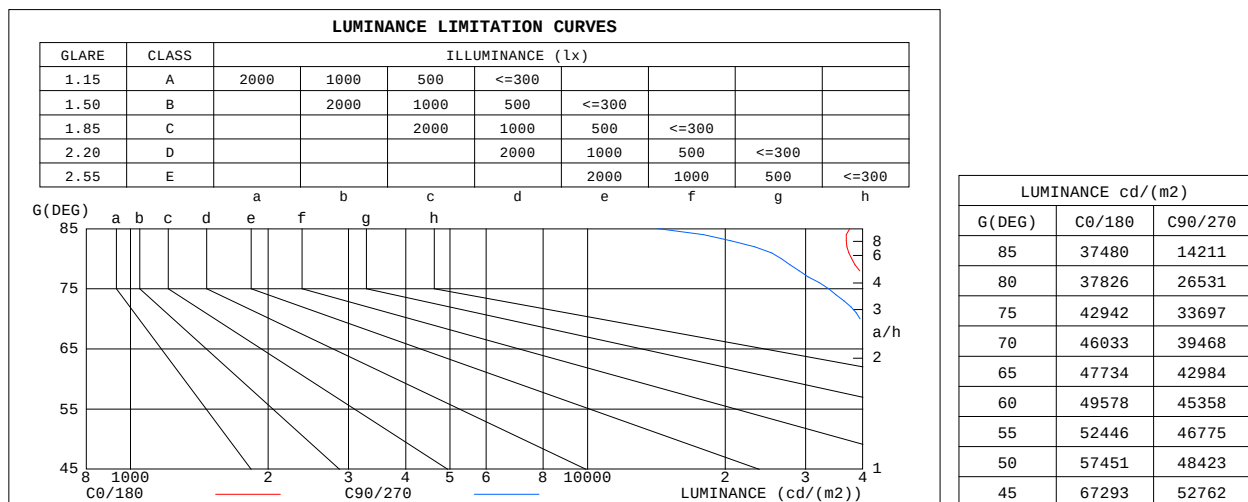
%lamp = 88.3%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-02-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-3000H_V1 SYSTEM V2.00.411
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:221.02V I:0.7136A P:155.66W PF:0.9870 Freq:50.00Hz Lamp Flux:16091.9x1 lm		
NAME: GGL-508-150W	TYPE:	WEIGHT:
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:250*230mm	Shielding Angle:



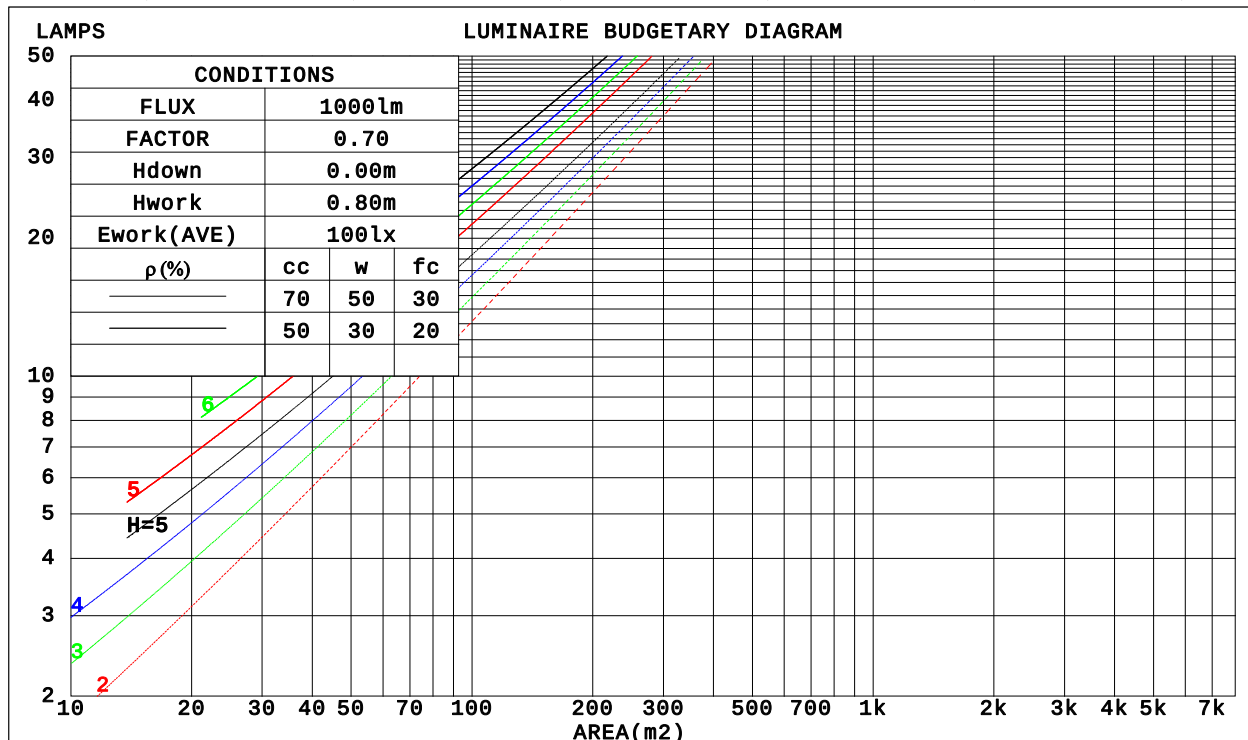
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2021-02-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-3000H_V1 SYSTEM V2.00.411
Humidity: 65.0%
Test Distance: 9.000m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.02V I:0.7136A P:155.66W PF:0.9870 Freq:50.00Hz Lamp Flux:16091.9x1 lm		
NAME: GGL-508-150W	TYPE:	WEIGHT:
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:250*230mm	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	1.07	1.04	1.00	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.92	.90	.88
2.0	.96	.91	.86	.94	.89	.85	.91	.87	.83	.88	.84	.81	.85	.82	.79	.77
3.0	.87	.80	.75	.85	.79	.74	.83	.77	.73	.80	.76	.72	.78	.74	.71	.69
4.0	.79	.72	.66	.78	.71	.66	.76	.70	.65	.73	.68	.64	.71	.67	.63	.61
5.0	.72	.65	.59	.71	.64	.59	.69	.63	.58	.68	.62	.58	.66	.61	.57	.55
6.0	.67	.59	.54	.66	.59	.53	.64	.58	.53	.63	.57	.53	.61	.56	.52	.50
7.0	.62	.54	.49	.61	.54	.49	.59	.53	.48	.58	.52	.48	.57	.52	.48	.46
8.0	.57	.50	.45	.57	.50	.45	.55	.49	.44	.54	.48	.44	.53	.48	.44	.42
9.0	.53	.46	.41	.53	.46	.41	.52	.45	.41	.51	.45	.41	.50	.45	.41	.39
10.0	.50	.43	.38	.49	.43	.38	.48	.42	.38	.48	.42	.38	.47	.42	.38	.36



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-02-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:221.02V I:0.7136A P:155.66W PF:0.9870 Freq:50.00Hz Lamp Flux:16091.9x1 lm					
NAME: GGL-508-150W			TYPE:		WEIGHT:
SPEC.:150W			DIM.:		SERIAL No.:
MFR.:			SUR.:250*230mm		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	.250	.142	.045	.243	.139	.044	.230	.132	.042	.218	.126	.040	.207	.120	.039		
2.0	.236	.130	.040	.230	.127	.039	.219	.122	.038	.209	.117	.037	.199	.113	.036		
3.0	.221	.118	.035	.216	.116	.035	.206	.112	.034	.197	.108	.033	.189	.104	.032		
4.0	.206	.107	.032	.202	.106	.031	.193	.102	.031	.185	.099	.030	.178	.097	.029		
5.0	.193	.098	.028	.189	.097	.028	.181	.094	.028	.174	.092	.027	.168	.090	.027		
6.0	.181	.091	.026	.177	.090	.026	.171	.087	.025	.164	.085	.025	.158	.083	.025		
7.0	.170	.084	.024	.167	.083	.024	.161	.081	.023	.155	.080	.023	.150	.078	.023		
8.0	.160	.078	.022	.157	.077	.022	.152	.076	.022	.147	.074	.021	.142	.073	.021		
9.0	.151	.073	.020	.149	.073	.020	.144	.071	.020	.140	.070	.020	.135	.069	.020		
10.0	.143	.069	.019	.141	.068	.019	.137	.067	.019	.133	.066	.019	.129	.065	.019		

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	.176	.157	.139	.151	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.165	.132	.105	.141	.114	.091	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.070	.091	.068	.049	.053	.040	.029	.017	.013	.010	
4.0	.146	.100	.065	.126	.086	.056	.086	.060	.040	.050	.035	.023	.016	.011	.008	
5.0	.138	.089	.053	.119	.077	.046	.082	.054	.032	.047	.032	.019	.015	.010	.006	
6.0	.131	.080	.044	.113	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005	
7.0	.125	.073	.037	.107	.063	.032	.074	.044	.023	.043	.026	.014	.014	.009	.005	
8.0	.118	.067	.032	.102	.058	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.113	.062	.028	.097	.054	.024	.067	.038	.017	.039	.022	.010	.013	.007	.003	
10.0	.108	.058	.025	.093	.050	.021	.064	.035	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-02-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:221.02V I:0.7136A P:155.66W PF:0.9870 Freq:50.00Hz Lamp Flux:16091.9x1 lm											
NAME: GGL-508-150W					TYPE:			WEIGHT:			
SPEC.:150W					DIM.:			SERIAL No.:			
MFR.:					SUR.:250*230mm			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	25.3	26.6	25.6	26.8	27.0	24.6	25.9	24.8	26.0	26.2	
	3H	26.7	27.8	27.0	28.1	28.3	25.9	27.0	26.2	27.3	27.5
	4H	27.3	28.4	27.6	28.6	28.8	26.4	27.5	26.7	27.7	27.9
	6H	27.7	28.7	28.0	29.0	29.2	26.6	27.7	26.9	27.9	28.2
	8H	27.8	28.8	28.1	29.1	29.4	26.7	27.7	27.0	27.9	28.2
	12H	27.9	28.9	28.3	29.2	29.5	26.7	27.6	27.0	27.9	28.2
4H	2H	25.8	26.9	26.1	27.1	27.4	25.2	26.3	25.5	26.5	26.8
	3H	27.4	28.3	27.7	28.6	28.9	26.7	27.7	27.0	27.9	28.2
	4H	28.1	29.0	28.4	29.3	29.6	27.3	28.2	27.6	28.5	28.8
	6H	28.6	29.4	29.0	29.8	30.1	27.6	28.4	28.0	28.8	29.1
	8H	28.9	29.6	29.3	29.9	30.3	27.7	28.5	28.1	28.8	29.2
	12H	29.0	29.7	29.4	30.1	30.5	27.8	28.4	28.2	28.8	29.2
8H	4H	28.3	29.0	28.7	29.4	29.8	27.6	28.3	28.0	28.7	29.0
	6H	29.0	29.6	29.5	30.0	30.4	28.1	28.7	28.5	29.1	29.5
	8H	29.3	29.9	29.8	30.3	30.7	28.2	28.8	28.7	29.2	29.6
	12H	29.6	30.1	30.1	30.5	31.0	28.3	28.8	28.8	29.2	29.7
12H	4H	28.3	28.9	28.7	29.3	29.7	27.6	28.3	28.0	28.6	29.0
	6H	29.1	29.6	29.5	30.0	30.4	28.1	28.7	28.6	29.1	29.5
	8H	29.4	29.9	29.9	30.3	30.8	28.3	28.8	28.8	29.2	29.7
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
1.5H	+ 0.4 / - 0.2					+ 0.1 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.3					

CIE Pub.117, 16092 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 9.7)
Area: 0.0575 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-02-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:221.02V I:0.7136A P:155.66W PF:0.9870 Freq:50.00Hz Lamp Flux:16091.9x1 lm		
NAME: GGL-508-150W	TYPE:	WEIGHT:
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:250*230mm	Shielding Angle:

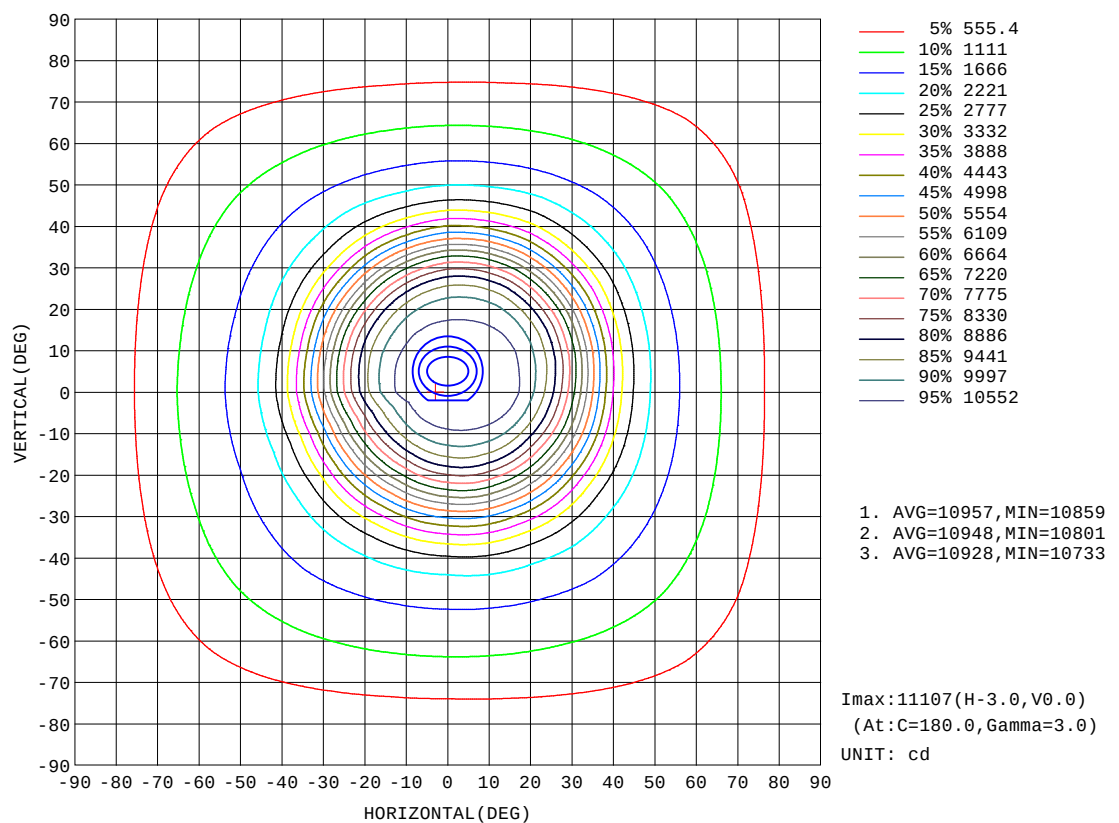
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	71	62	56	70	61	56	69	61	56	51
0.80	80	71	65	79	70	65	77	70	65	59
1.00	87	78	72	86	77	72	84	78	72	66
1.25	92	84	79	91	84	78	89	82	78	72
1.50	96	89	83	95	88	83	92	86	82	76
2.00	101	95	90	100	94	89	96	91	87	81
2.50	104	98	93	102	97	93	99	94	91	83
3.00	107	101	97	105	100	96	101	97	94	86
4.00	110	105	102	107	104	100	103	100	98	90
5.00	112	108	105	109	106	103	105	102	100	92
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:2021-02-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:221.02V I:0.7136A P:155.66W PF:0.9870 Freq:50.00Hz Lamp Flux:16091.9x1 lm		
NAME: GGL-508-150W	TYPE:	WEIGHT:
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:250*230mm	Shielding Angle:



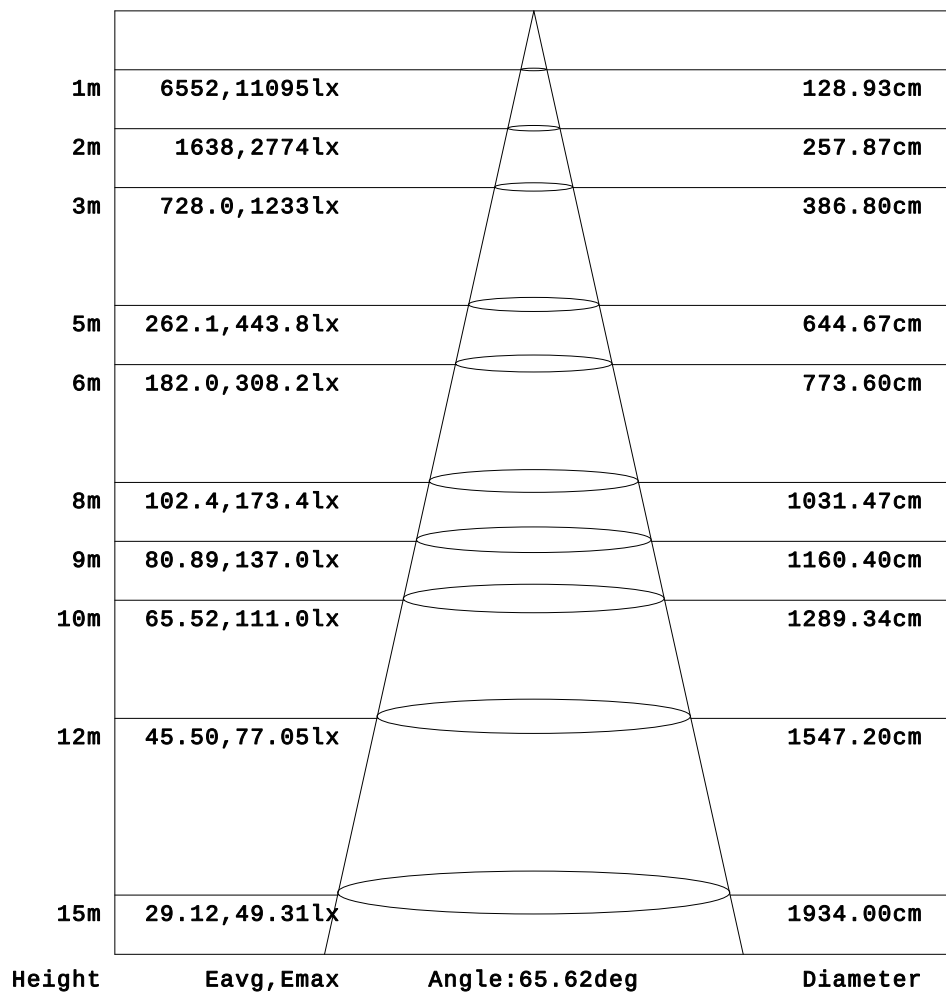
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-02-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

AAI Figure

Test:U:221.02V I:0.7136A P:155.66W PF:0.9870 Freq:50.00Hz Lamp Flux:16091.9x1 lm		
NAME: GGL-508-150W	TYPE:	WEIGHT:
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:250*230mm	Shielding Angle:

Flux out:8681 lm



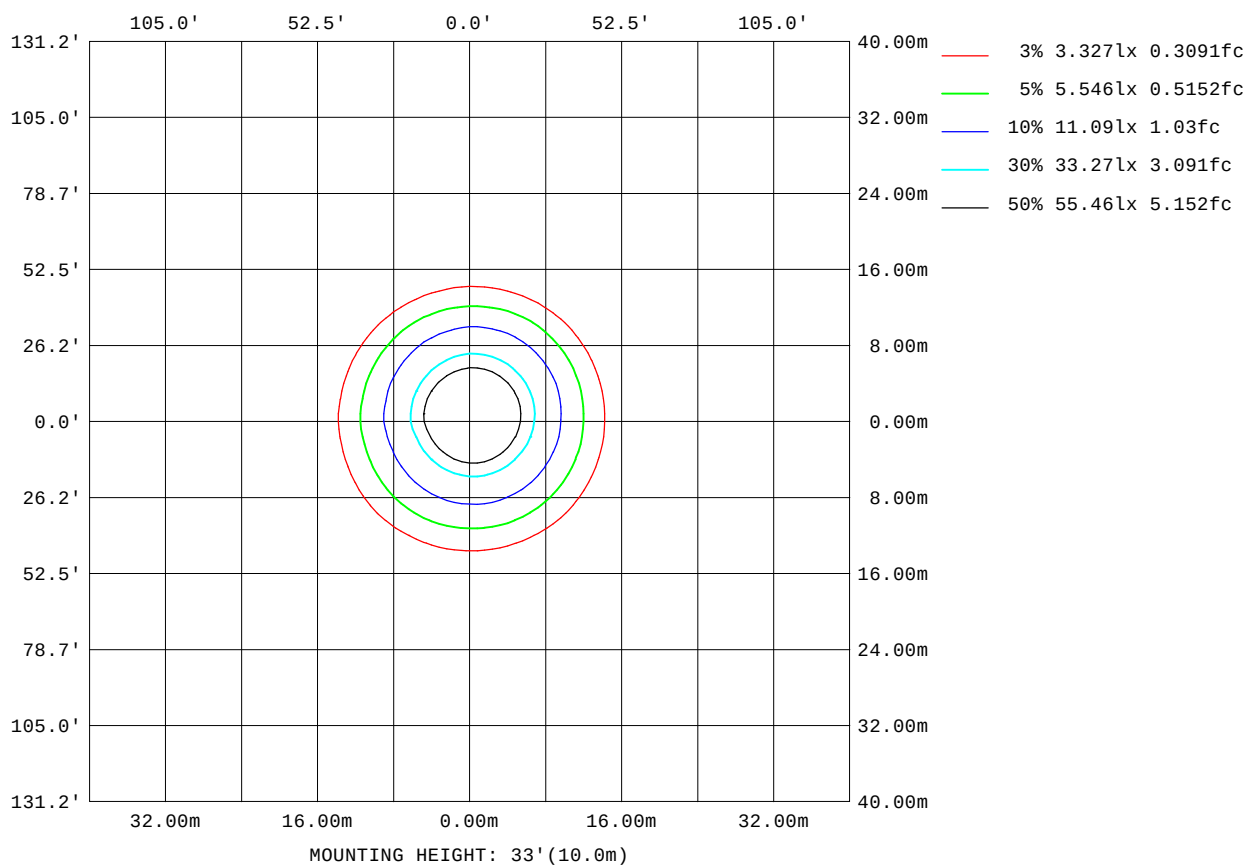
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-02-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:221.02V I:0.7136A P:155.66W PF:0.9870 Freq:50.00Hz Lamp Flux:16091.9x1 lm		
NAME: GGL-508-150W	TYPE:	WEIGHT:
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:250*230mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-02-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:221.02V I:0.7136A P:155.66W PF:0.9870 Freq:50.00Hz Lamp Flux:16091.9x1 lm		
NAME: GGL-508-150W	TYPE:	WEIGHT:
SPEC.:150W	DIM.:	SERIAL No.:
MFR.:	SUR.:250*230mm	Shielding Angle:

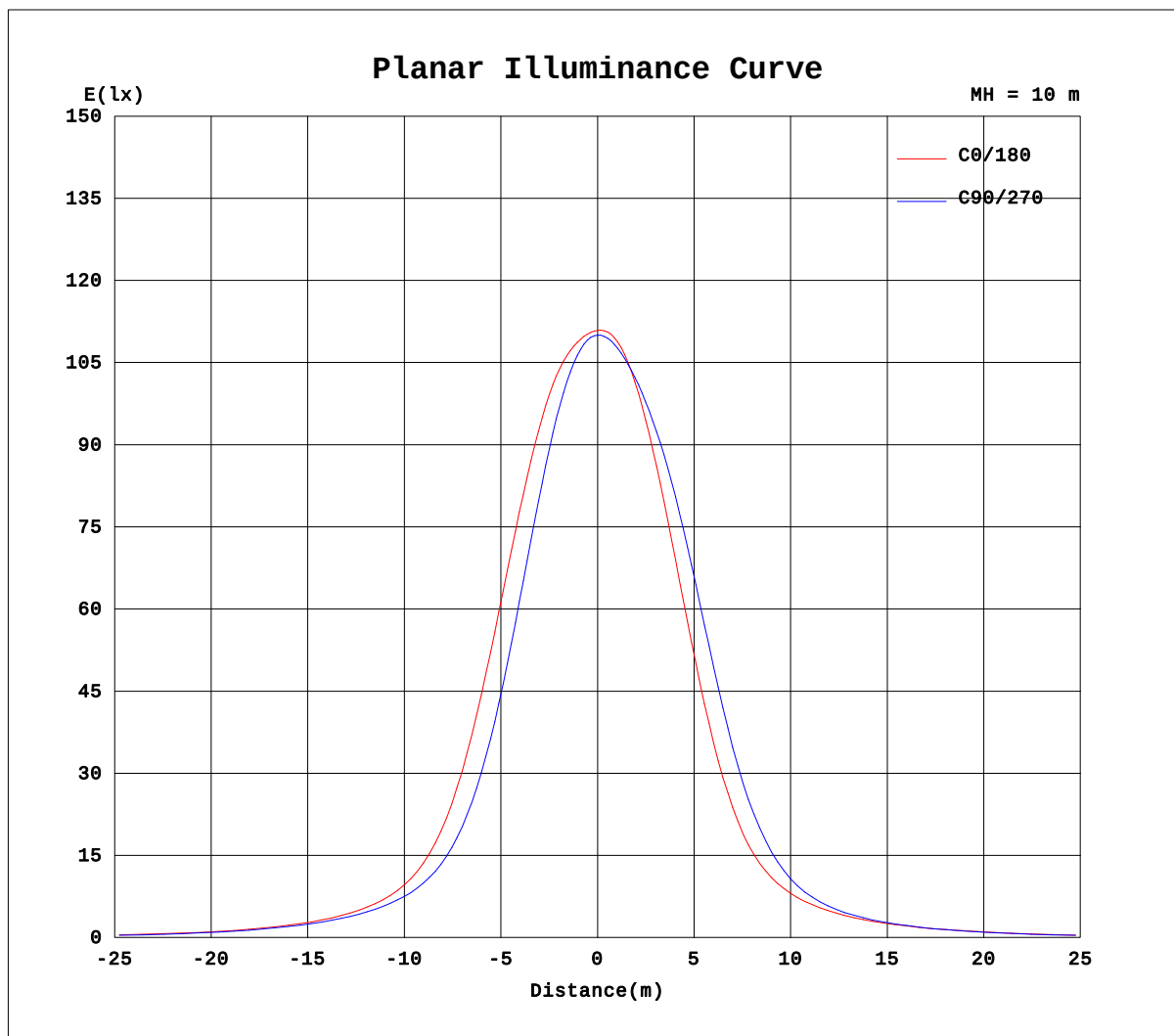
AvgL	cd/m2
L_0~180(65)av	47044
L_0~180(75)av	41266
L_0~180(85)av	35275
L_90~270(65)av	43510
L_90~270(75)av	35013
L_90~270(85)av	18372
L_45(65)av	45092
L_45(75)av	39327
L_45(85)av	29981

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-02-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [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: 2021-02-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-3000H_V1 SYSTEM V2.00.411
Humidity: 65.0%
Test Distance: 9.000m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

```

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks: