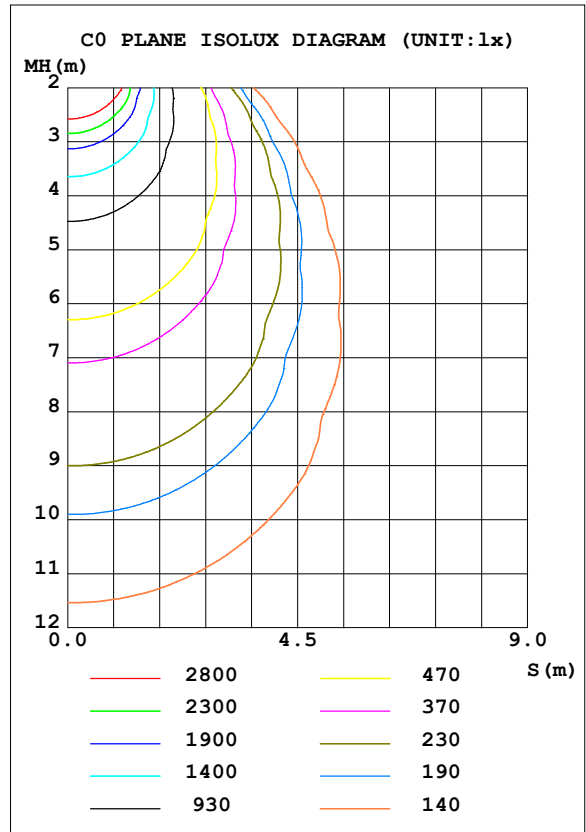
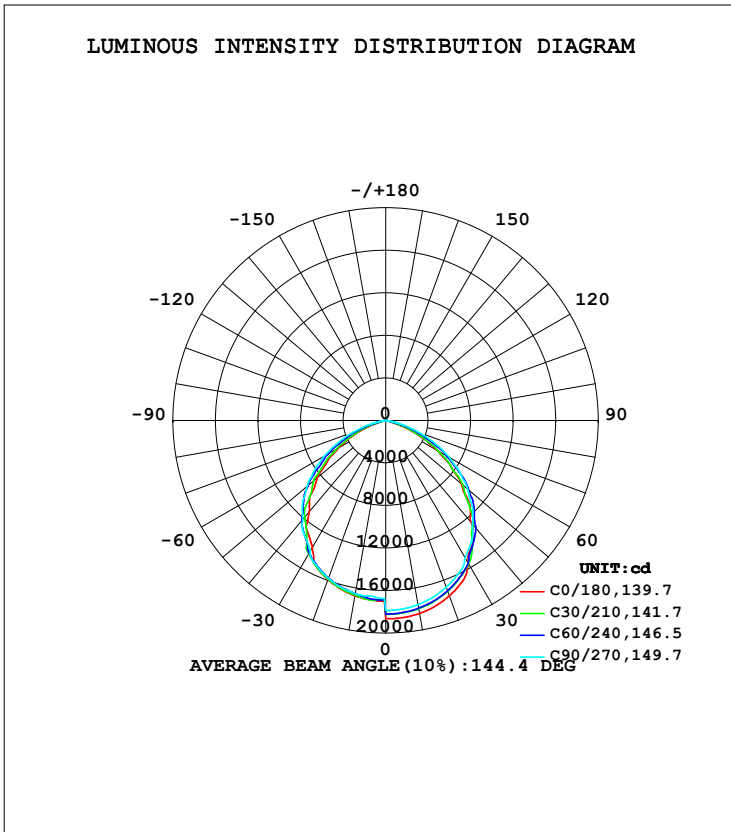




LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm		
NAME:		
MFR.: CLF		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 55.29 lm/W			
MODEL	SERA RGBL strobe	I <sub>max</sub> (cd)	18637	S/MH (C0/180)	1.21
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	42222	η UP, DN (C0-180)	0.0, 51.4
NOMINAL FLUX (lm)	59.974	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 48.6
LAMPS INSIDE	704	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.0	η down (%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Danny  
 Test Date: 2024-01-06

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-HD5 SYSTEM V2.0.407.13  
 Humidity: 65.0%  
 Test Distance: 9.400m [K=1.0000]  
 Remarks:



ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	1842	1795	1757	1718	1674	1660	1654	1641	0- 10	1648	1648	3.9,3.9
20	1756	1706	1668	1632	1592	1582	1579	1568	10- 20	4741	6389	15.1,15.1
30	1558	1555	1494	1459	1383	1445	1425	1428	20- 30	7206	13596	32.2,32.2
40	1251	1298	1271	1204	1121	1207	1215	1190	30- 40	8444	22039	52.2,52.2
50	933.5	984.0	1007	895.0	840.4	918.7	966.7	875.6	40- 50	8278	30318	71.8,71.8
60	560.7	611.7	688.4	536.9	509.2	573.5	664.3	536.4	50- 60	6717	37035	87.7,87.7
70	185.8	251.5	337.2	211.9	179.0	239.4	327.5	206.2	60- 70	3996	41031	97.2,97.2
80	3.304	19.97	56.09	11.92	3.199	19.51	52.36	10.39	70- 80	1138	42169	99.9,99.9
90	0.4531	0.6468	0.8306	0.5793	0.5256	0.6495	0.7648	0.5102	80- 90	53.20	42222	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: *10cd									UNIT: lm		

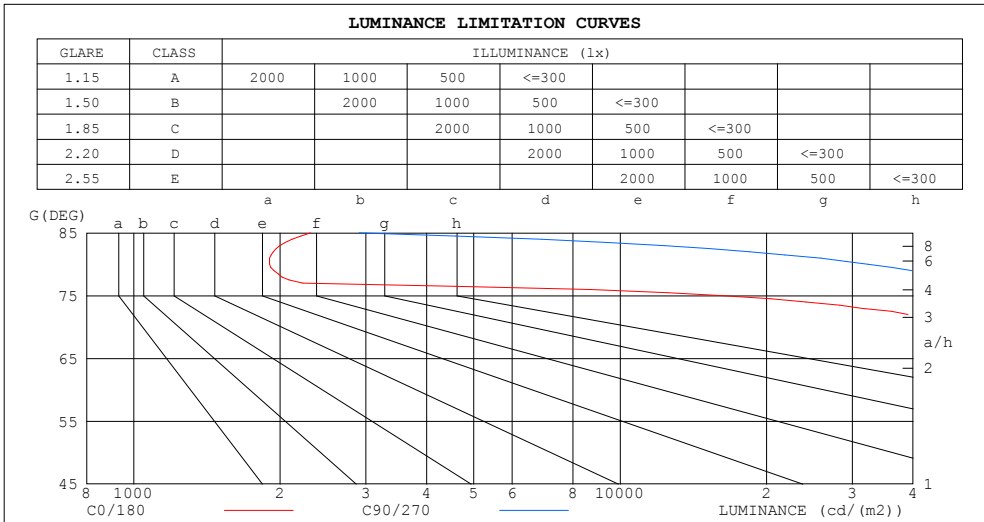
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators: Danny  
 Test Date:2024-01-06

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-HD5 SYSTEM V2.0.407.13  
 Humidity:65.0%  
 Test Distance:9.400m [K=1.0000]  
 Remarks:



LUMINANCE LIMITATION CURVES

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm		
NAME:		
MFR.: CLF		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2310	2905
80	1903	32301
75	16146	68755
70	54314	98582
65	85063	120692
60	112133	137672
55	130165	148263
50	145222	156721
45	158013	163550

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Danny  
 Test Date:2024-01-06

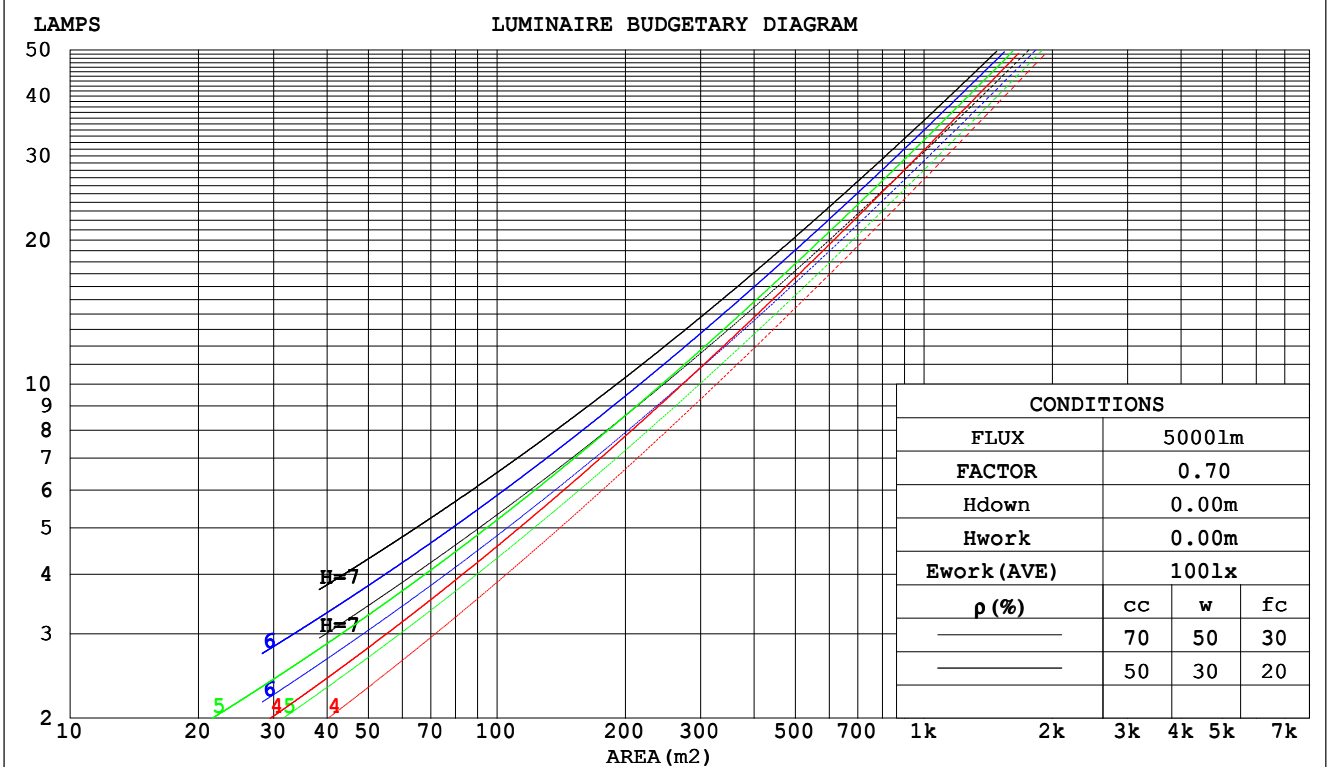
$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-HD5 SYSTEM V2.0.407.13  
 Humidity:65.0%  
 Test Distance:9.400m [K=1.0000]  
 Remarks:



CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm		
NAME:		
MFR.: CLF		

pcc	80%			70%			50%			30%			10%			0
	pw	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	1.03	.00	1.04	1.01	.98	1.00	.97	.95	.96	.94	.92	.93	.91	.89	.87
2.0	.94	.88	.83	.92	.87	.82	.89	.84	.80	.86	.82	.79	.83	.80	.77	.75
3.0	.84	.76	.70	.82	.75	.70	.79	.73	.69	.77	.72	.67	.74	.70	.66	.64
4.0	.75	.67	.60	.73	.66	.60	.71	.64	.59	.69	.63	.58	.67	.62	.58	.56
5.0	.67	.59	.52	.66	.58	.52	.64	.57	.52	.62	.56	.51	.60	.55	.51	.49
6.0	.61	.52	.46	.60	.52	.46	.58	.51	.46	.56	.50	.45	.55	.49	.45	.43
7.0	.55	.47	.41	.54	.46	.41	.53	.46	.41	.51	.45	.40	.50	.44	.40	.38
8.0	.50	.42	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.46	.40	.36	.34
9.0	.46	.38	.33	.46	.38	.33	.45	.38	.33	.44	.37	.33	.43	.37	.33	.31
10.0	.43	.35	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.40	.34	.30	.28



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Danny  
 Test Date:2024-01-06

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-HD5 SYSTEM V2.0.407.13  
 Humidity:65.0%  
 Test Distance:9.400m [K=1.0000]  
 Remarks:



WEC AND CCEC

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm															
NAME:															
MFR.: CLF															

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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.261	.148	.047	.254	.145	.046	.241	.138	.044	.229	.132	.042	.218	.126	.041	
2.0	.255	.140	.043	.249	.137	.042	.238	.132	.041	.227	.128	.040	.218	.123	.039	
3.0	.242	.129	.039	.237	.127	.038	.227	.123	.037	.218	.119	.037	.209	.116	.036	
4.0	.228	.118	.035	.223	.117	.035	.214	.114	.034	.206	.111	.033	.198	.108	.033	
5.0	.214	.109	.032	.209	.108	.031	.202	.105	.031	.194	.102	.030	.187	.100	.030	
6.0	.200	.100	.029	.197	.099	.029	.190	.097	.028	.183	.095	.028	.177	.093	.028	
7.0	.188	.093	.026	.185	.092	.026	.178	.090	.026	.172	.088	.026	.167	.087	.025	
8.0	.177	.086	.024	.174	.086	.024	.168	.084	.024	.163	.082	.024	.158	.081	.024	
9.0	.167	.081	.022	.164	.080	.022	.159	.079	.022	.154	.077	.022	.150	.076	.022	
10.0	.157	.075	.021	.155	.075	.021	.150	.074	.021	.146	.072	.021	.142	.071	.020	

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	.177	.157	.138	.151	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.167	.132	.102	.143	.114	.089	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.078	.136	.098	.068	.094	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.152	.101	.061	.130	.087	.053	.089	.061	.038	.052	.035	.022	.017	.012	.007	
5.0	.144	.090	.050	.124	.078	.043	.085	.054	.031	.050	.032	.018	.016	.010	.006	
6.0	.138	.081	.041	.118	.071	.036	.082	.049	.025	.047	.029	.015	.015	.009	.005	
7.0	.131	.074	.035	.113	.065	.030	.078	.045	.021	.045	.027	.013	.015	.009	.004	
8.0	.125	.069	.030	.108	.060	.026	.075	.042	.018	.043	.025	.011	.014	.008	.004	
9.0	.120	.064	.026	.103	.055	.023	.071	.039	.016	.042	.023	.010	.013	.008	.003	
10.0	.114	.060	.023	.098	.052	.020	.068	.036	.014	.040	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Danny  
 Test Date:2024-01-06

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-HD5 SYSTEM V2.0.407.13  
 Humidity:65.0%  
 Test Distance:9.400m [K=1.0000]  
 Remarks:



UGR(Unified Glare Rating) Table

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm										
NAME:										
MFR.: CLF										

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	16.7	18.1	16.9	18.3	18.5	17.5	18.9	17.7	19.1	19.3
3H	17.2	18.5	17.4	18.7	18.9	18.4	19.7	18.7	19.9	20.2
4H	17.1	18.4	17.4	18.6	18.8	18.6	19.8	18.9	20.1	20.3
6H	17.0	18.2	17.3	18.4	18.7	18.6	19.8	19.0	20.0	20.3
8H	17.0	18.1	17.3	18.4	18.6	18.6	19.7	18.9	20.0	20.3
12H	16.9	18.0	17.3	18.3	18.6	18.5	19.6	18.9	19.9	20.2
4H 2H	17.1	18.3	17.4	18.6	18.8	17.8	19.0	18.1	19.2	19.5
3H	17.7	18.7	18.0	19.0	19.3	18.8	19.9	19.2	20.2	20.5
4H	17.7	18.6	18.0	18.9	19.3	19.1	20.1	19.5	20.4	20.7
6H	17.6	18.4	18.0	18.8	19.1	19.1	20.0	19.5	20.3	20.7
8H	17.5	18.3	17.9	18.7	19.1	19.1	19.9	19.5	20.2	20.6
12H	17.5	18.2	17.9	18.6	19.0	19.1	19.8	19.5	20.2	20.6
8H 4H	17.7	18.5	18.1	18.8	19.2	19.0	19.8	19.4	20.2	20.6
6H	17.6	18.2	18.0	18.6	19.1	19.1	19.7	19.5	20.1	20.6
8H	17.6	18.1	18.0	18.5	19.0	19.1	19.6	19.5	20.1	20.5
12H	17.5	18.0	18.0	18.4	18.9	19.0	19.5	19.5	20.0	20.4
12H 4H	17.6	18.4	18.1	18.7	19.1	19.0	19.7	19.4	20.1	20.5
6H	17.6	18.1	18.0	18.5	19.0	19.1	19.6	19.5	20.0	20.5
8H	17.5	18.0	18.0	18.4	18.9	19.0	19.5	19.5	20.0	20.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.3 / - 0.4				
1.5H	+ 0.3 / - 0.5					+ 0.3 / - 0.5				
2.0H	+ 0.9 / - 1.1					+ 0.7 / - 0.7				

CIE Pub.117, 42222 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 13.0)  
 Area: 0.1 m2

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Danny  
 Test Date:2024-01-06

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-HD5 SYSTEM V2.0.407.13  
 Humidity:65.0%  
 Test Distance:9.400m [K=1.0000]  
 Remarks:



## UTILIZATION FACTORS TABLE

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm		
NAME:		
MFR.: CLF		

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) $k(RI) \times RCR = 5$									
$k = 0.60$	61	51	44	61	50	44	60	50	44	38
0.80	72	61	54	71	61	54	69	60	54	47
1.00	81	71	64	79	70	64	77	71	63	57
1.25	88	78	72	86	78	71	84	76	71	64
1.50	92	84	78	91	83	77	88	81	76	69
2.00	99	91	86	97	90	85	94	88	83	76
2.50	102	95	90	100	94	89	97	91	87	80
3.00	105	99	95	103	98	93	99	95	91	83
4.00	109	104	100	106	102	98	102	99	96	87
5.00	111	106	103	108	105	102	104	101	98	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

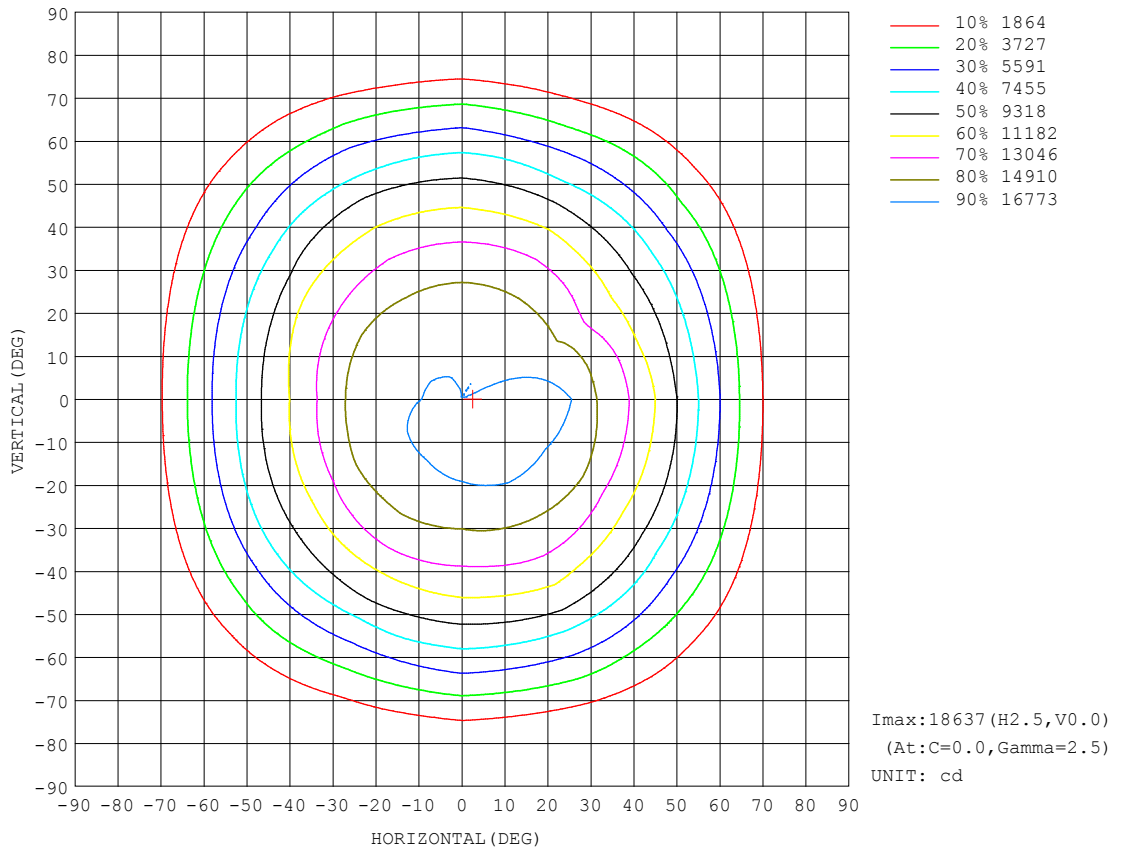
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: Danny  
 Test Date: 2024-01-06

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-HD5 SYSTEM V2.0.407.13  
 Humidity: 65.0%  
 Test Distance: 9.400m [K=1.0000]  
 Remarks:



ISOCANDELA DIAGRAM

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm		
NAME:		
MFR.: CLF		



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Danny  
Test Date:2024-01-06

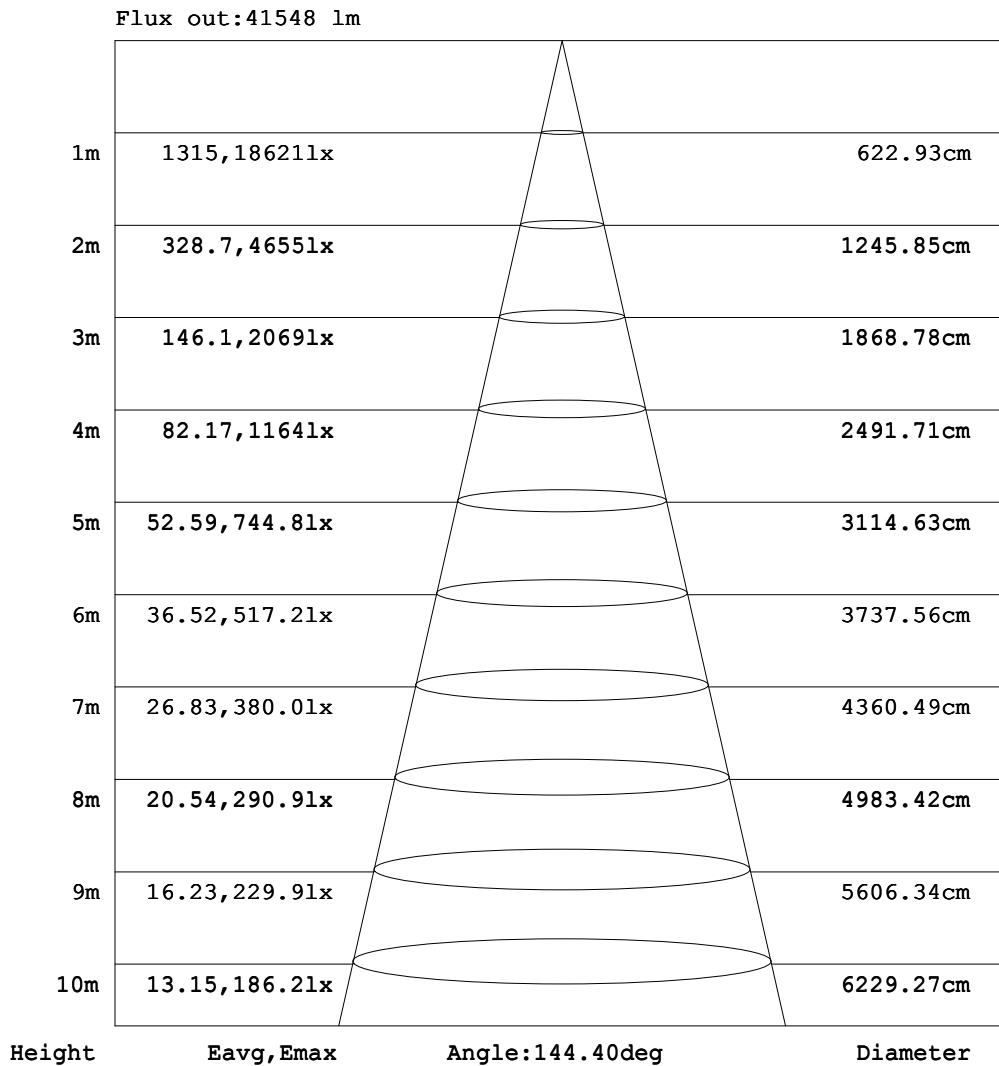
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-HD5 SYSTEM V2.0.407.13  
Humidity:65.0%  
Test Distance:9.400m [K=1.0000]  
Remarks:





AAI Figure

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm		
NAME:		
MFR.: CLF		



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

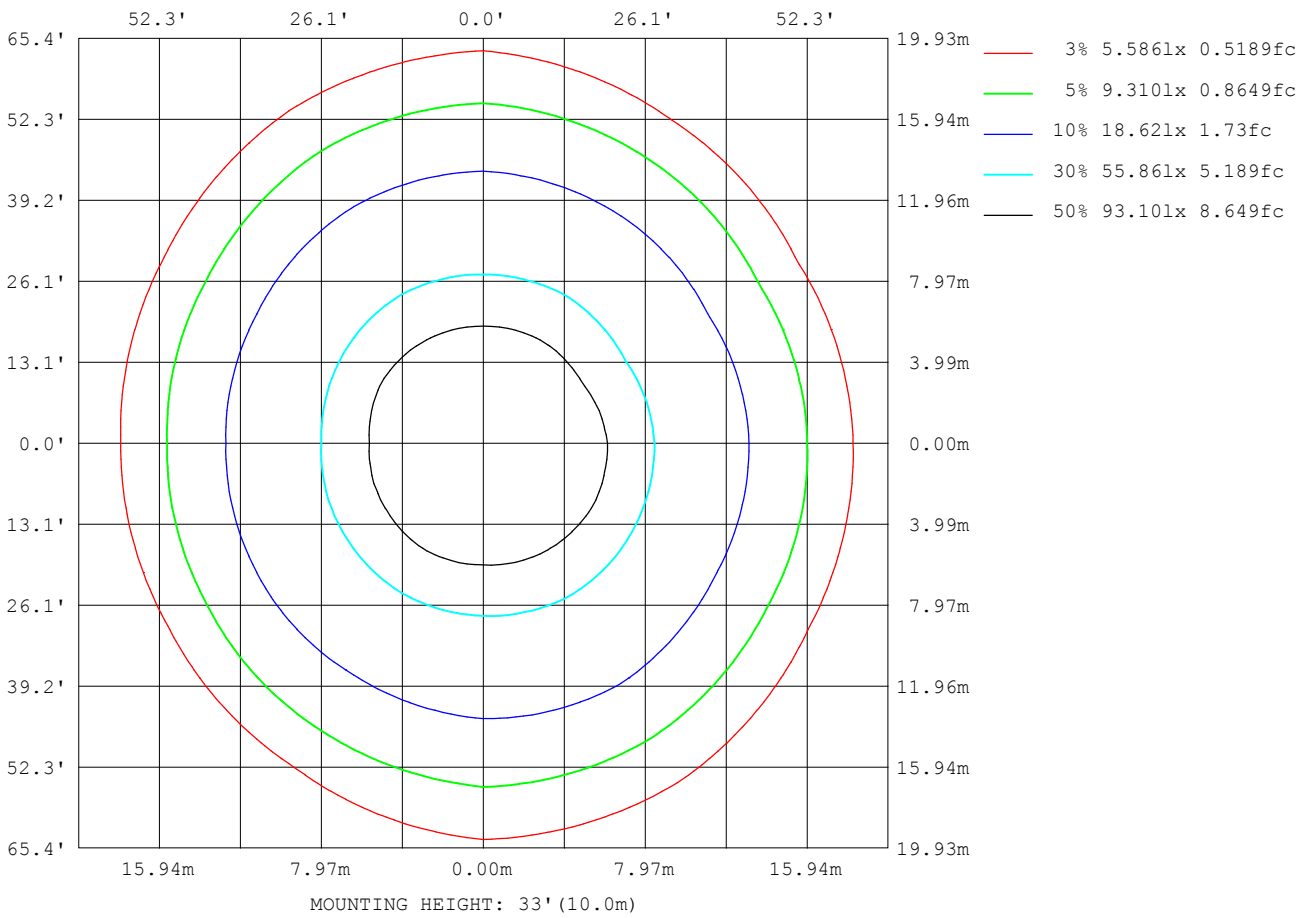
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Danny  
 Test Date:2024-01-06

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-HD5 SYSTEM V2.0.407.13  
 Humidity:65.0%  
 Test Distance:9.400m [K=1.0000]  
 Remarks:



ISOLUX DIAGRAM

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm		
NAME:		
MFR.: CLF		



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Danny  
Test Date:2024-01-06

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-HD5 SYSTEM V2.0.407.13  
Humidity:65.0%  
Test Distance:9.400m [K=1.0000]  
Remarks:



## LED Avg.L Report

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm		
NAME:		
MFR.: CLF		

AvgL	cd/m2
L_0~180 (65) av	81511
L_0~180 (75) av	17796
L_0~180 (85) av	2327
L_90~270 (65) av	118502
L_90~270 (75) av	67669
L_90~270 (85) av	2793
L_45 (65) av	92611
L_45 (75) av	35317
L_45 (85) av	2508

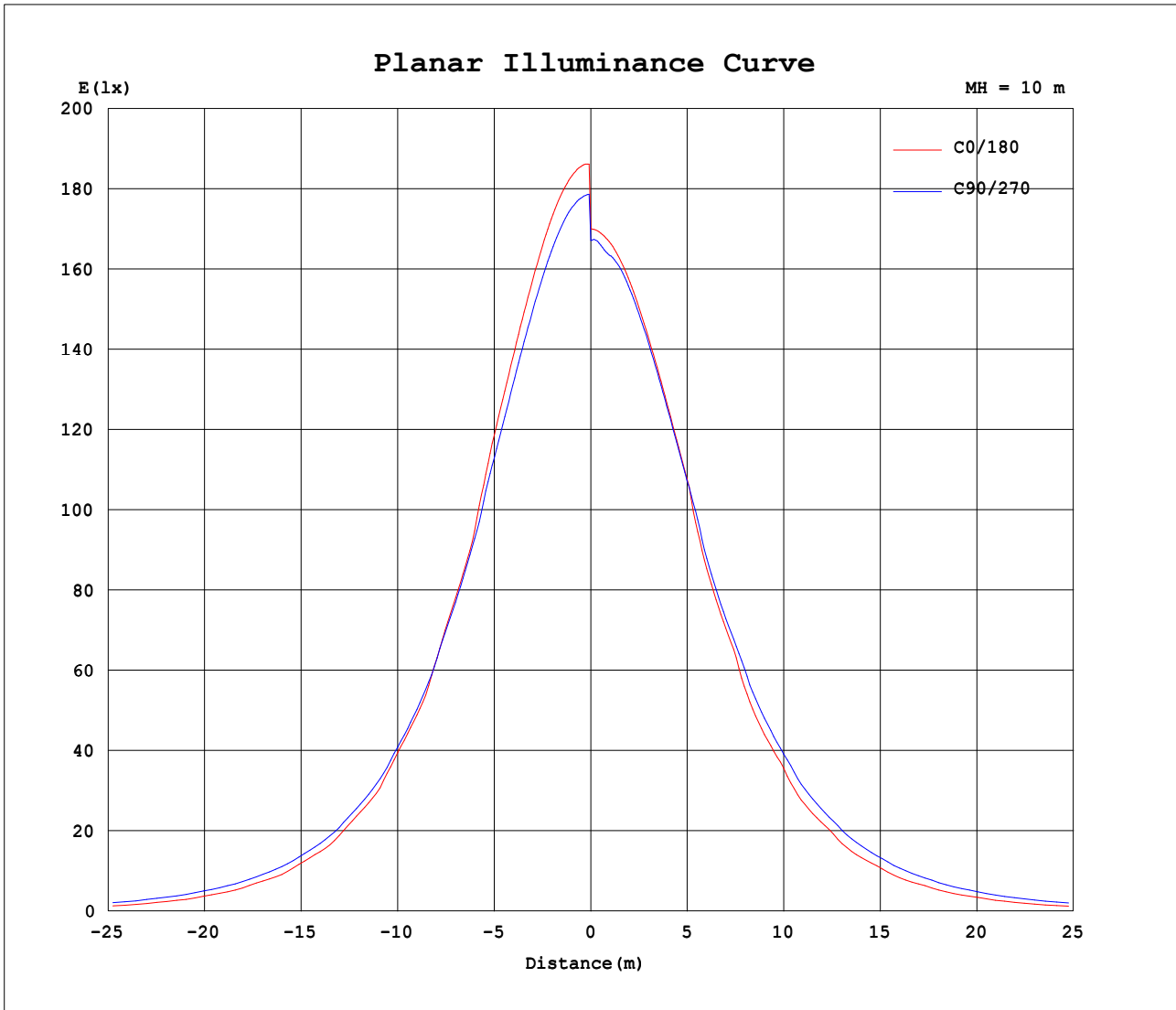
Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Danny  
Test Date:2024-01-06

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-HD5 SYSTEM V2.0.407.13  
Humidity:65.0%  
Test Distance:9.400m [K=1.0000]  
Remarks:



### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Danny  
Test Date: 2024-01-06

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-HD5 SYSTEM V2.0.407.13  
Humidity: 65.0%  
Test Distance: 9.400m [K=1.0000]  
Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:219.71V I:3.5327A P:763.58W PF:0.9838 Freq:50.01Hz Lamp Flux:59.974x704 lm		
NAME:		
MFR.: CLF		

Table--1

UNIT: ×10cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1862	1824	1822	1786	1761	1734	1701	1686	1677	1671	1675	1651							
5	1860	1817	1814	1779	1750	1728	1692	1695	1682	1658	1676	1649							
10	1842	1798	1792	1757	1727	1709	1674	1666	1654	1654	1648	1634							
15	1807	1761	1756	1721	1690	1675	1640	1635	1622	1624	1617	1605							
20	1756	1709	1704	1668	1638	1626	1592	1589	1576	1579	1574	1562							
25	1685	1642	1636	1601	1571	1558	1527	1527	1516	1519	1515	1501							
30	1558	1559	1552	1494	1490	1429	1383	1448	1442	1425	1441	1414							
35	1421	1425	1428	1402	1381	1305	1283	1299	1327	1327	1348	1265							
40	1251	1276	1320	1271	1243	1164	1121	1185	1230	1215	1223	1158							
45	1117	1104	1176	1156	1072	1028	1008	1006	1095	1108	1051	1002							
50	933	948	1021	1007	937	853	840	885	952	967	918	833							
55	747	747	840	850	740	685	671	698	771	819	728	680							
60	561	569	655	688	567	507	509	534	613	664	573	500							
65	359	391	467	510	399	350	329	371	438	492	404	339							
70	186	214	289	337	238	186	179	205	274	327	236	177							
75	41.8	75.9	139	178	107	60.3	50.3	78.3	134	172	103	51.4							
80	3.30	3.74	36.2	56.1	20.5	3.37	3.20	3.73	35.3	52.4	17.7	3.10							
85	2.01	2.11	2.53	2.53	2.31	2.06	2.04	2.13	2.46	2.34	2.11	1.82							
90	0.45	0.55	0.75	0.83	0.65	0.51	0.53	0.58	0.72	0.76	0.58	0.44							

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Danny  
 Test Date:2024-01-06

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-HD5 SYSTEM V2.0.407.13  
 Humidity:65.0%  
 Test Distance:9.400m [K=1.0000]  
 Remarks: