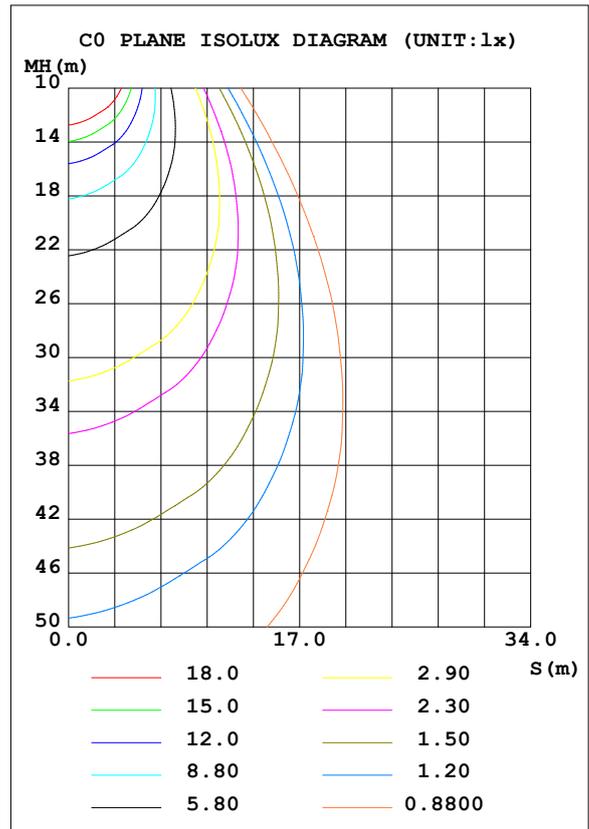
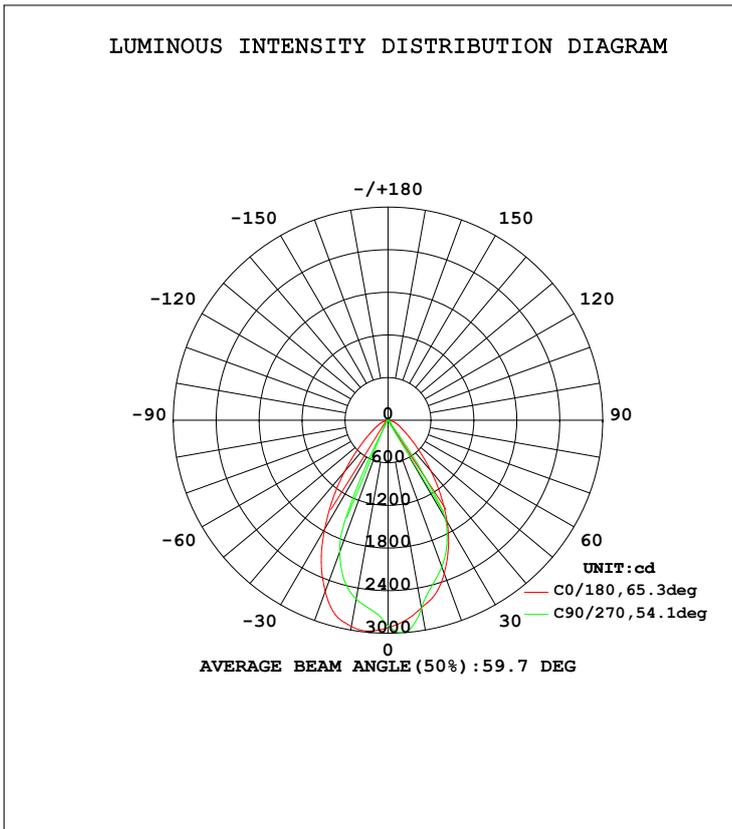


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:232.5V I:0.1456A P:32.22W PF:0.9517 Lamp Flux:2804.49x1 lm		
NAME: BC083NLED	TYPE:	WEIGHT:
SPEC.: P-BC083NLED-30W2755-OS80036R90-JG500	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 87.04 lm/W			
MODEL	OS 2835	I _{max} (cd)	2999	S/MH (C0/180)	0.99
NOMINAL POWER (W)	30W	LOR (%)	100.0	S/MH (C90/270)	0.66
RATED VOLTAGE (V)		TOTAL FLUX (lm)	2804.5	η UP, DN (C0-180)	0.1, 53.1
NOMINAL FLUX (lm)	2804.49	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 46.7
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	220.2	η down (%)	99.7	CIBSE SHR MAX	0.80



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 6.810m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp
10	2683	2693	2949	2557				0- 10	269.1	269.1	9.6,9.6
20	2296	2197	2566	1970				10- 20	705.8	975.0	34.8,34.8
30	1649	1603	1772	66.05				20- 30	802.6	1778	63.4,63.4
40	930.5	73.82	945.2	23.43				30- 40	505.4	2283	81.4,81.4
50	424.4	25.55	417.7	9.430				40- 50	261.2	2544	90.7,90.7
60	209.7	10.69	193.5	3.896				50- 60	135.7	2680	95.6,95.6
70	112.1	4.516	94.06	1.365				60- 70	75.70	2756	98.3,98.3
80	38.87	1.658	29.30	0.3840				70- 80	36.11	2792	99.5,99.5
90	0.1326	0.3794	0.0593	0.0297				80- 90	5.295	2797	99.7,99.7
100	0.1708	0.0383	0.1256	0.0279				90-100	0.0928	2797	99.7,99.7
110	0.4076	0.0070	0.2791	0.0418				100-110	0.1347	2797	99.7,99.7
120	0.9693	0.0035	0.6247	0.0697				110-120	0.2831	2798	99.8,99.8
130	1.915	0.0384	1.338	0.2507				120-130	0.5559	2798	99.8,99.8
140	3.077	0.9115	2.331	1.440				130-140	1.034	2799	99.8,99.8
150	4.197	2.825	3.361	2.643				140-150	1.626	2801	99.9,99.9
160	5.060	4.244	4.410	3.781				150-160	1.751	2803	99.9,99.9
170	5.812	5.645	5.450	5.565				160-170	1.393	2804	100,100
180	6.088	6.539	6.103	6.529				170-180	0.5656	2804	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

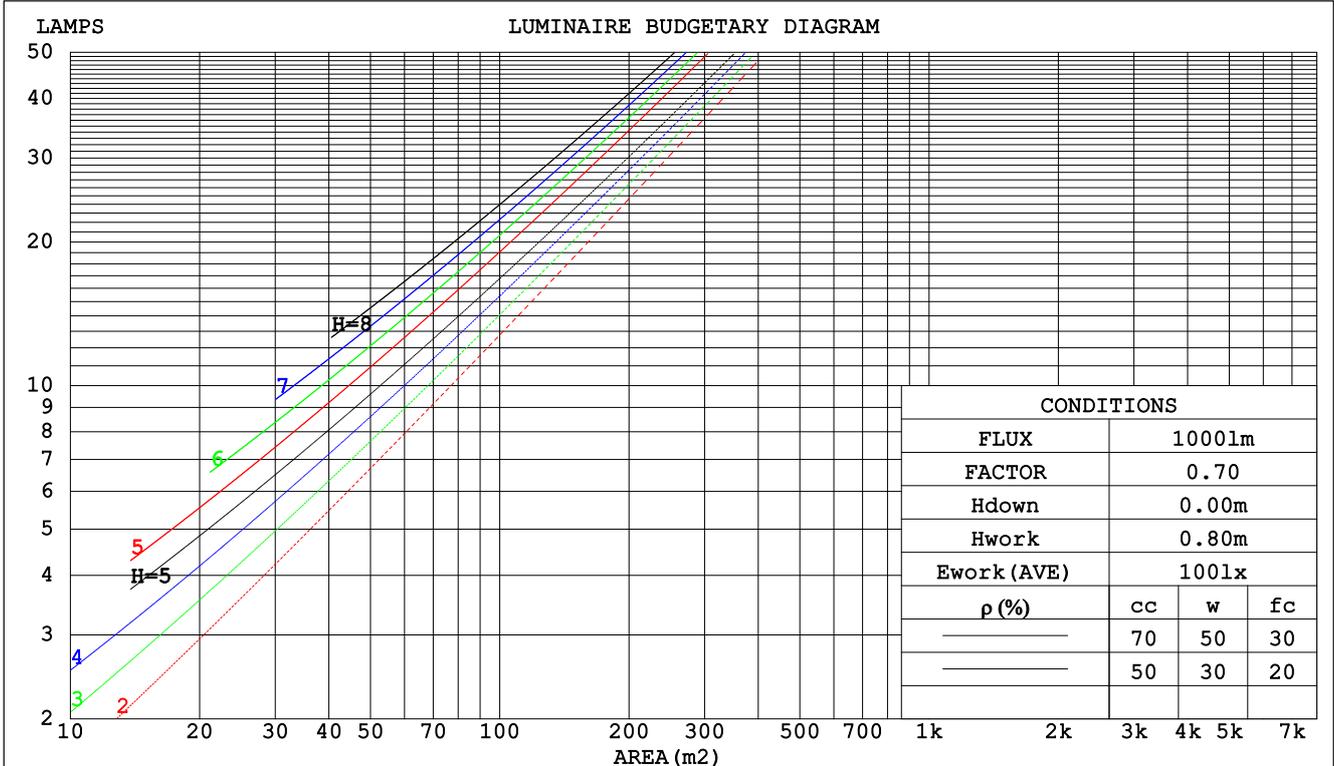
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:232.5V I:0.1456A P:32.22W PF:0.9517 Lamp Flux:2804.49x1 lm		
NAME: BC083NLED	TYPE:	WEIGHT:
SPEC.: P-BC083NLED-30W2755-OS80036R90-JG500	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:

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															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	1.09	1.07	1.04	1.07	1.05	1.02	1.03	1.01	.99	.99	.98	.96	.96	.95	.93	.92														
2.0	1.01	.96	.92	.99	.95	.91	.96	.92	.89	.92	.90	.87	.90	.87	.85	.84														
3.0	.93	.87	.83	.91	.86	.82	.89	.84	.81	.86	.83	.79	.84	.81	.78	.77														
4.0	.86	.80	.75	.85	.79	.75	.83	.78	.74	.81	.76	.73	.79	.75	.72	.70														
5.0	.80	.74	.69	.79	.73	.68	.77	.72	.68	.75	.71	.67	.74	.70	.67	.65														
6.0	.75	.68	.63	.74	.68	.63	.72	.67	.63	.71	.66	.62	.69	.65	.62	.60														
7.0	.70	.63	.59	.69	.63	.59	.68	.62	.58	.66	.62	.58	.65	.61	.58	.56														
8.0	.66	.59	.55	.65	.59	.55	.64	.58	.54	.63	.58	.54	.62	.57	.54	.52														
9.0	.62	.55	.51	.61	.55	.51	.60	.55	.51	.59	.54	.51	.58	.54	.50	.49														
10.0	.58	.52	.48	.58	.52	.48	.57	.51	.48	.56	.51	.47	.55	.51	.47	.46														



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:232.5V I:0.1456A P:32.22W PF:0.9517 Lamp Flux:2804.49x1 lm		
NAME: BC083NLED	TYPE:	WEIGHT:
SPEC.:P-BC083NLED-30W2755-OS80036R90-JG500	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION 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	.201	.114	.036	.194	.111	.035	.181	.104	.033	.169	.098	.031	.159	.092	.030	
2.0	.193	.106	.032	.187	.103	.032	.176	.098	.030	.166	.093	.029	.157	.089	.028	
3.0	.183	.097	.029	.178	.095	.029	.168	.091	.028	.160	.087	.027	.152	.084	.026	
4.0	.173	.090	.026	.169	.088	.026	.160	.085	.025	.153	.082	.025	.146	.079	.024	
5.0	.164	.083	.024	.160	.082	.024	.153	.079	.023	.146	.077	.023	.140	.075	.022	
6.0	.155	.078	.022	.152	.077	.022	.145	.074	.022	.139	.072	.021	.134	.070	.021	
7.0	.147	.073	.021	.144	.072	.020	.139	.070	.020	.133	.068	.020	.128	.067	.020	
8.0	.140	.068	.019	.137	.068	.019	.132	.066	.019	.128	.065	.019	.123	.063	.018	
9.0	.133	.064	.018	.131	.064	.018	.126	.063	.018	.122	.061	.018	.118	.060	.017	
10.0	.127	.061	.017	.125	.060	.017	.121	.059	.017	.117	.058	.017	.114	.057	.016	

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	.192	.192	.192	.165	.165	.165	.112	.112	.112	.065	.065	.065	.021	.021	.021	
1.0	.175	.159	.145	.150	.137	.125	.102	.094	.086	.059	.054	.050	.019	.018	.016	
2.0	.161	.134	.112	.138	.116	.097	.095	.080	.068	.055	.047	.040	.017	.015	.013	
3.0	.150	.116	.089	.128	.100	.077	.088	.069	.054	.051	.041	.032	.016	.013	.010	
4.0	.140	.101	.072	.120	.088	.062	.083	.061	.044	.048	.036	.026	.015	.012	.009	
5.0	.132	.090	.059	.113	.078	.051	.078	.054	.036	.045	.032	.022	.015	.010	.007	
6.0	.124	.081	.050	.107	.070	.043	.074	.049	.031	.043	.029	.018	.014	.009	.006	
7.0	.118	.074	.042	.102	.064	.037	.070	.045	.026	.041	.026	.016	.013	.009	.005	
8.0	.112	.067	.037	.097	.058	.032	.067	.041	.023	.039	.024	.013	.013	.008	.004	
9.0	.107	.062	.032	.092	.054	.028	.064	.038	.020	.037	.022	.012	.012	.007	.004	
10.0	.102	.058	.028	.088	.050	.025	.061	.035	.018	.036	.021	.011	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:232.5V I:0.1456A P:32.22W PF:0.9517 Lamp Flux:2804.49x1 lm										
NAME: BC083NLED					TYPE:			WEIGHT:		
SPEC.:P-BC083NLED-30W2755-OS80036R90-JG500					DIM.:			SERIAL No.:		
MFR.: CETTIGA					SUR.:			PROTECTION 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	16.4	17.5	16.6	17.6	17.8	11.3	12.3	11.5	12.5	12.7
3H	17.1	18.0	17.3	18.3	18.5	11.2	12.2	11.5	12.4	12.6
4H	17.3	18.3	17.6	18.5	18.7	11.2	12.1	11.5	12.3	12.6
6H	17.5	18.4	17.8	18.6	18.9	11.1	12.0	11.4	12.2	12.5
8H	17.6	18.4	17.9	18.6	18.9	11.1	11.9	11.4	12.2	12.5
12H	17.5	18.3	17.8	18.6	18.9	11.0	11.8	11.4	12.1	12.4
4H 2H	16.3	17.2	16.6	17.5	17.7	11.8	12.7	12.1	12.9	13.2
3H	17.1	17.9	17.5	18.2	18.5	12.0	12.8	12.3	13.0	13.3
4H	17.5	18.2	17.9	18.5	18.9	12.0	12.7	12.3	13.0	13.3
6H	17.8	18.4	18.2	18.8	19.1	12.0	12.6	12.3	12.9	13.3
8H	17.8	18.4	18.2	18.8	19.2	11.9	12.5	12.3	12.9	13.3
12H	17.8	18.3	18.2	18.7	19.1	11.9	12.4	12.3	12.8	13.2
8H 4H	17.5	18.0	17.9	18.4	18.8	12.3	12.9	12.7	13.3	13.6
6H	17.8	18.3	18.2	18.7	19.1	12.4	12.9	12.8	13.3	13.7
8H	17.9	18.3	18.3	18.7	19.2	12.4	12.8	12.8	13.2	13.7
12H	17.8	18.2	18.3	18.7	19.1	12.3	12.7	12.8	13.1	13.6
12H 4H	17.4	17.9	17.8	18.3	18.7	12.3	12.9	12.8	13.3	13.7
6H	17.8	18.2	18.2	18.6	19.1	12.4	12.9	12.9	13.3	13.7
8H	17.8	18.2	18.3	18.6	19.1	12.4	12.8	12.9	13.2	13.7
Variations with the observer position at spacings:										
S = 1.0H	+ 1.4 / - 1.0					+ 1.7 / - 1.5				
1.5H	+ 2.3 / - 1.4					+ 1.6 / - 2.0				
2.0H	+ 2.9 / - 1.7					+ 1.6 / - 2.2				

CIE Pub.117 Corrected 2804 lm Total Lamp Luminous Flux. (8log(F/F0) = 3.6)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:232.5V I:0.1456A P:32.22W PF:0.9517 Lamp Flux:2804.49x1 lm		
NAME: BC083NLED	TYPE:	WEIGHT:
SPEC.:P-BC083NLED-30W2755-OS80036R90-JG500	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION 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	80	72	68	79	72	68	78	72	67	63
0.80	88	81	76	87	81	76	86	80	76	71
1.00	94	87	83	93	86	82	91	87	82	77
1.25	99	92	88	98	92	88	95	90	87	82
1.50	102	96	92	101	95	91	98	94	90	85
2.00	106	101	97	104	99	96	101	97	94	89
2.50	108	103	100	106	102	99	103	99	97	90
3.00	110	106	102	108	104	101	104	101	99	92
4.00	112	109	106	110	107	105	106	104	102	94
5.00	114	111	108	111	109	107	107	105	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNM = 1.25			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

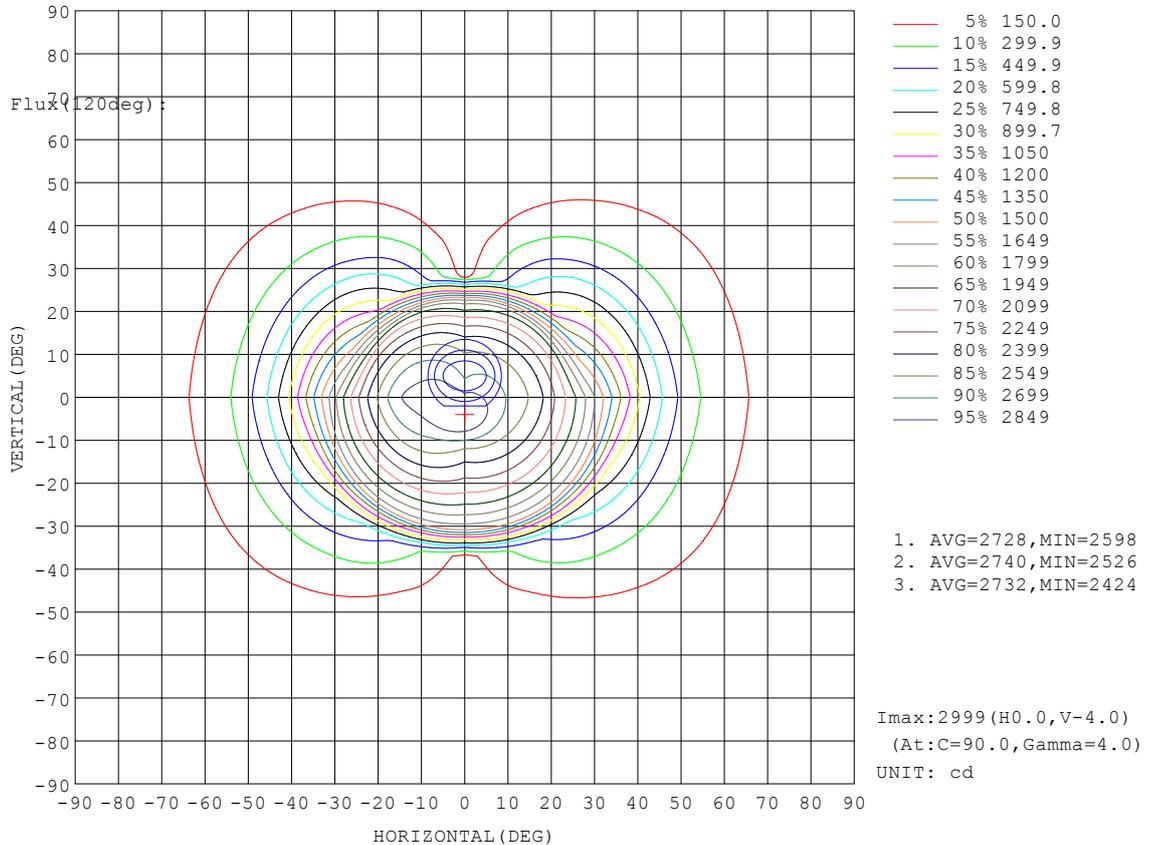
Test:U:232.5V I:0.1456A P:32.22W PF:0.9517 Lamp Flux:2804.49x1 lm		
NAME: BC083NLED	TYPE:	WEIGHT:
SPEC.: P-BC083NLED-30W2755-OS80036R90-JG500	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

2434.5 lm
 %lum = 86.8%
 %lamp = 86.8%

Conical surface Flux(120deg):

2679.9 lm
 %lum = 95.6%
 %lamp = 95.6%

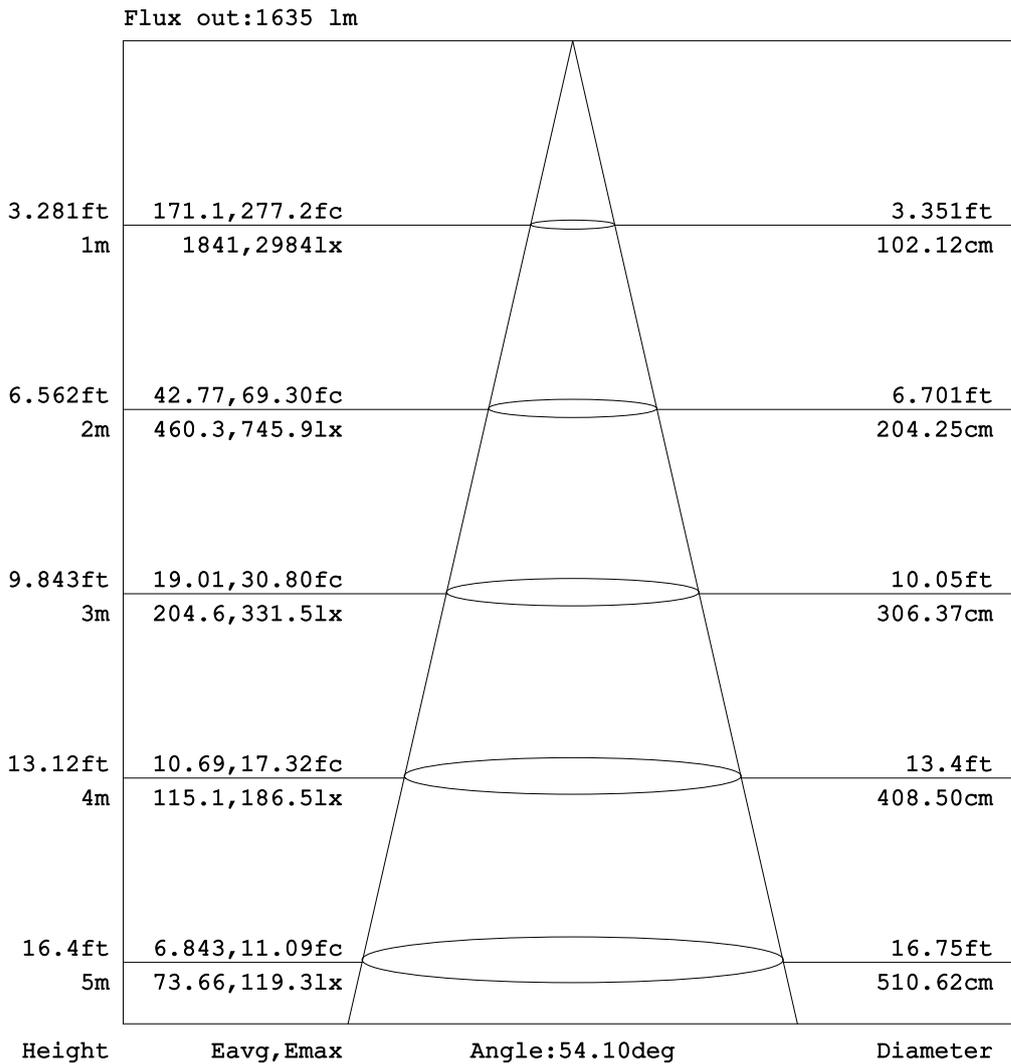


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 6.810m [K=1.0000]
 Remarks:

AAI Figure

Test:U:232.5V I:0.1456A P:32.22W PF:0.9517 Lamp Flux:2804.49x1 lm		
NAME: BC083NLED	TYPE:	WEIGHT:
SPEC.:P-BC083NLED-30W2755-OS80036R90-JG500	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:



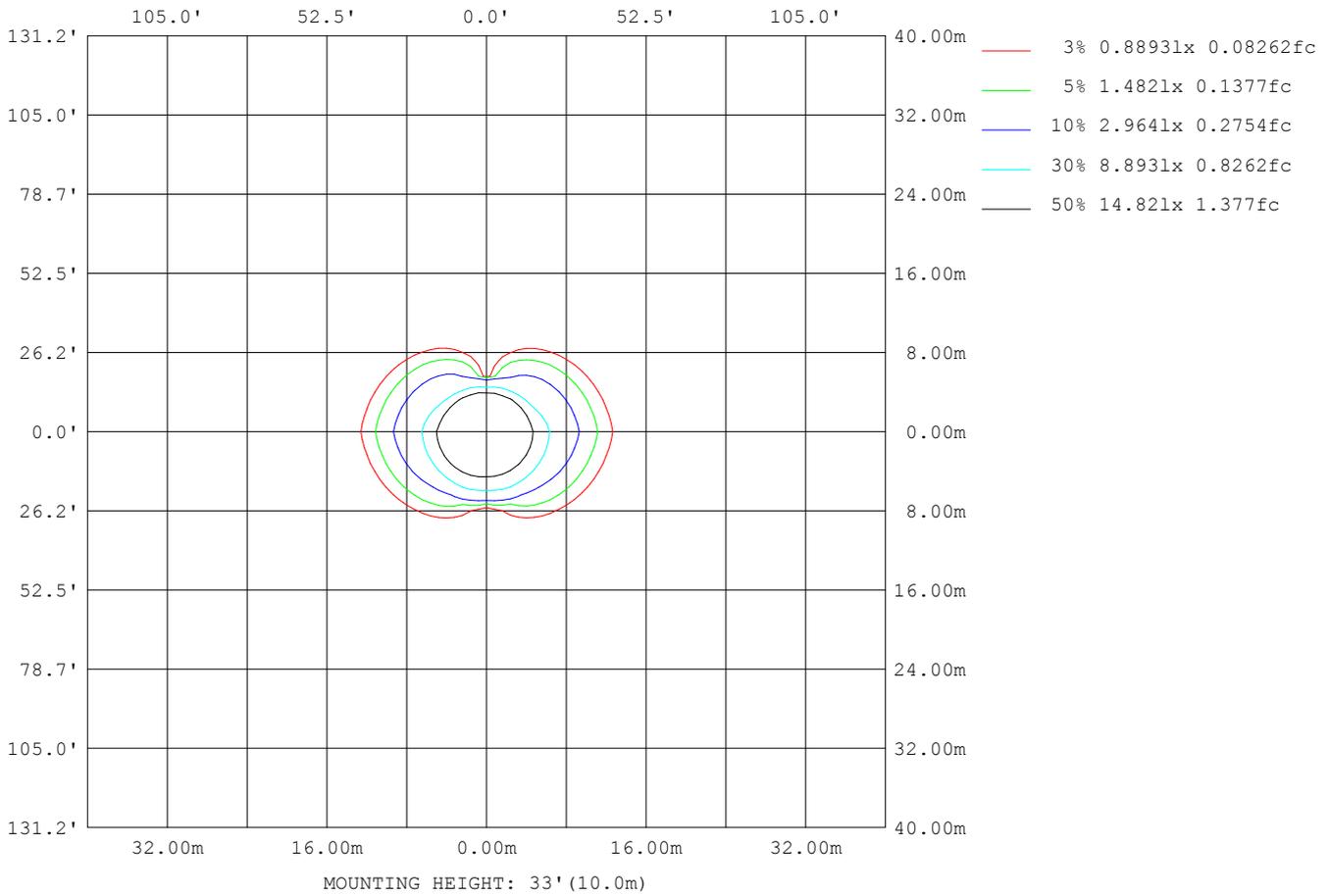
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 6.810m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

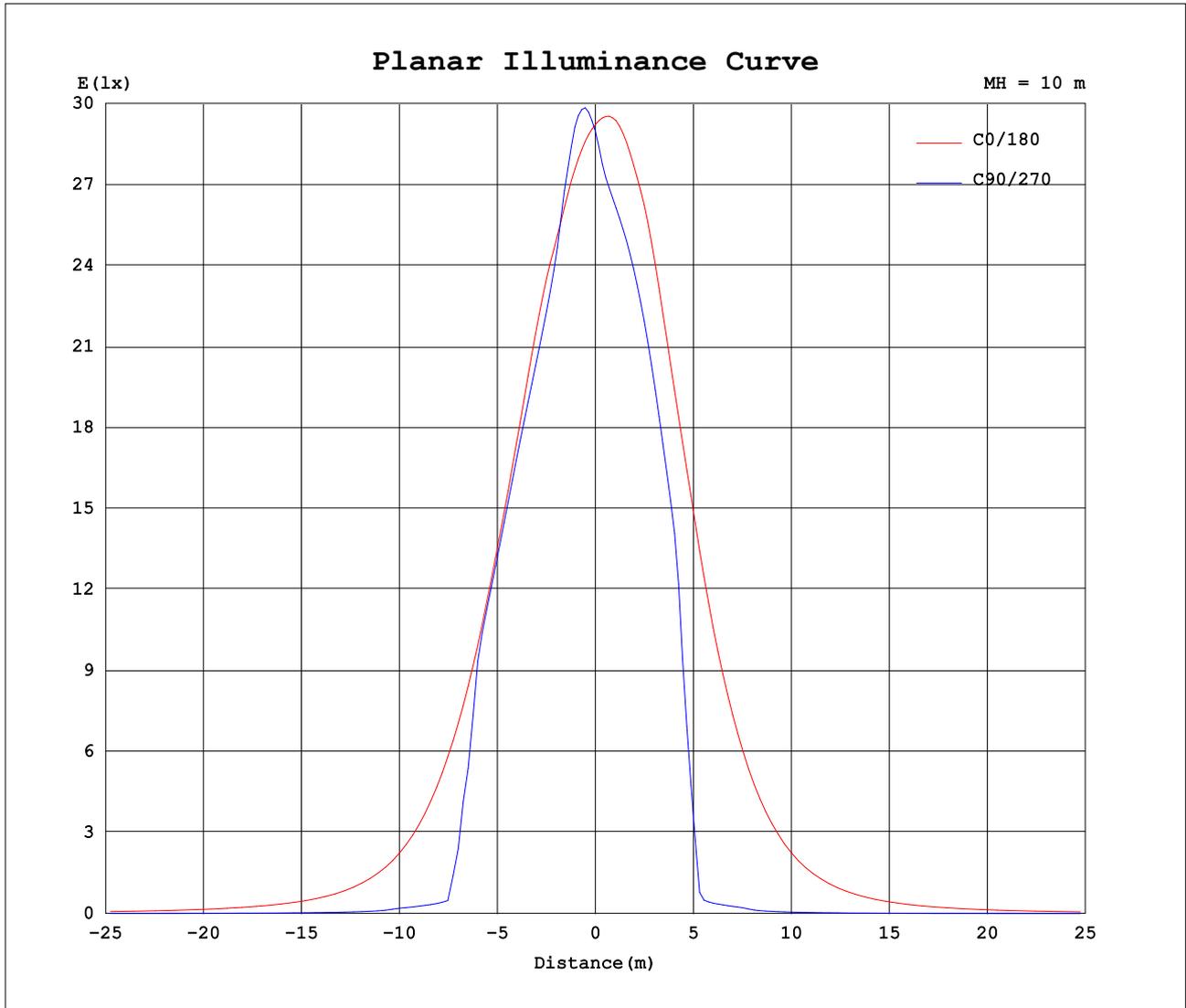
Test:U:232.5V I:0.1456A P:32.22W PF:0.9517 Lamp Flux:2804.49x1 lm		
NAME: BC083NLED	TYPE:	WEIGHT:
SPEC.: P-BC083NLED-30W2755-OS80036R90-JG500	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Xie Bi
 Test Date: 2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity: 65.0%
 Test Distance: 6.810m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:232.5V I:0.1456A P:32.22W PF:0.9517 Lamp Flux:2804.49x1 lm		
NAME: BC083NLED	TYPE:	WEIGHT:
SPEC.: P-BC083NLED-30W2755-OS80036R90-JG500	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	2922	2895	2922	2895															
5	2827	2988	2980	2681															
10	2683	2693	2949	2557															
15	2540	2401	2838	2345															
20	2296	2197	2566	1970															
25	1992	1943	2208	930															
30	1649	1603	1772	66.1															
35	1281	436	1339	48.0															
40	931	73.8	945	23.4															
45	633	54.4	636	14.3															
50	424	25.5	418	9.43															
55	290	16.3	277	6.17															
60	210	10.7	194	3.90															
65	156	7.04	137	2.36															
70	112	4.52	94.1	1.37															
75	72.9	2.81	58.0	0.78															
80	38.9	1.66	29.3	0.38															
85	3.44	0.90	2.08	0.06															
90	0.13	0.38	0.06	0.03															
95	0.09	0.06	0.08	0.03															
100	0.17	0.04	0.13	0.03															
105	0.25	0.02	0.18	0.03															
110	0.41	0.01	0.28	0.04															
115	0.64	0.00	0.42	0.05															
120	0.97	0.00	0.62	0.07															
125	1.40	0.02	0.94	0.09															
130	1.92	0.04	1.34	0.25															
135	2.47	0.24	1.81	0.72															
140	3.08	0.91	2.33	1.44															
145	3.66	1.92	2.85	2.08															
150	4.20	2.83	3.36	2.64															
155	4.66	3.50	3.84	3.25															
160	5.06	4.24	4.41	3.78															
165	5.46	4.79	4.99	4.64															
170	5.81	5.65	5.45	5.57															
175	6.03	6.36	5.81	6.11															
180	6.09	6.54	6.10	6.53															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-11-27

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.286
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks: