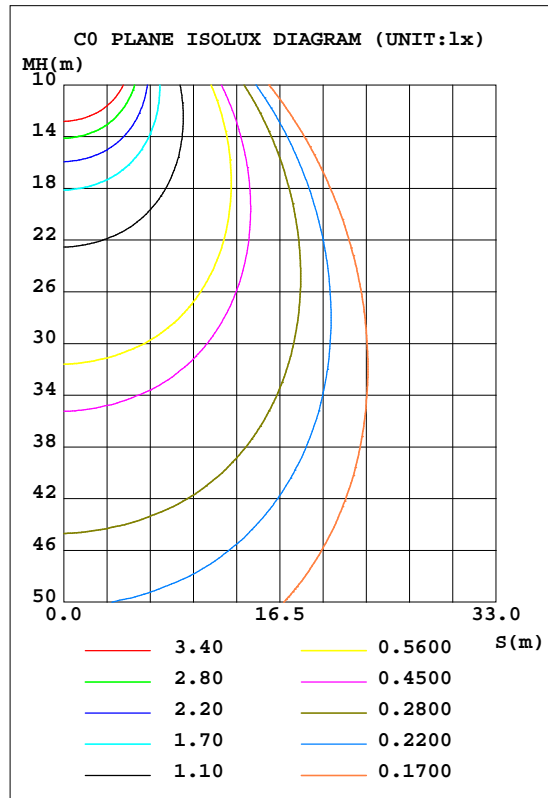
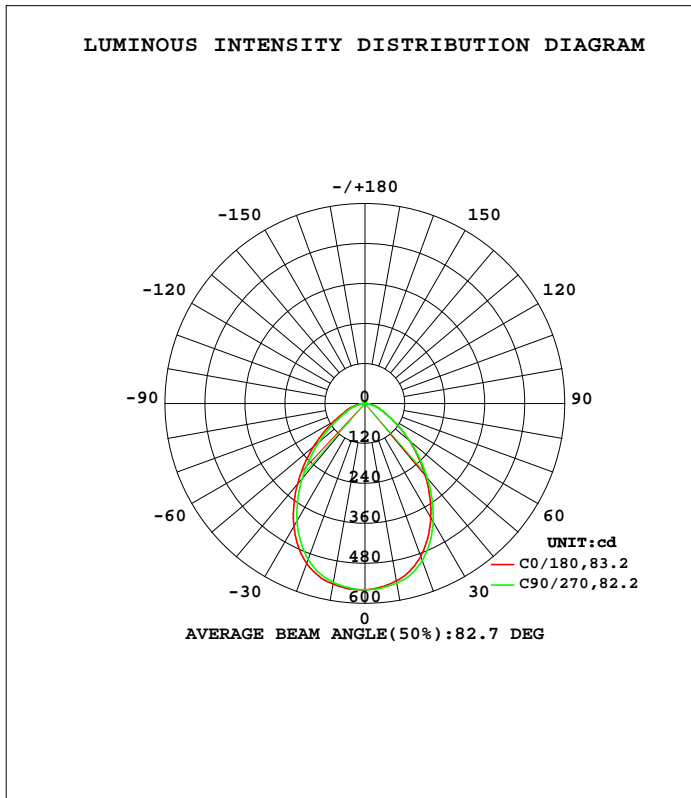


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:Lotus LED Lights	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 86.63 lm/W			
MODEL		I _{max} (cd)	559.5	S/MH(C0/180)	1.15
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.11
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1054.4	h UP, DN(C0-180)	0.3,48.5
NOMINAL FLUX(lm)	1054.35	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.2,51.0
LAMPS INSIDE	1	h up(%)	0.5	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	120	h down(%)	99.5	CIBSE SHR MAX	1.15



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:01 June 2021

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	540.9	547.2	550.3	545.3					0- 10	52.73	52.73	5,5
20	488.6	502.6	511.3	497.8					10- 20	148.7	201.4	19.1,19.1
30	395.3	409.9	427.4	408.0					20- 30	210.8	412.2	39.1,39.1
40	281.6	291.1	314.5	294.0					30- 40	220.6	632.8	60,60
50	174.7	178.5	202.2	180.8					40- 50	183.5	816.3	77.4,77.4
60	91.03	91.22	109.1	90.97					50- 60	122.2	938.5	89,89
70	47.86	47.58	55.53	46.55					60- 70	68.21	1007	95.5,95.5
80	18.48	16.28	21.82	15.31					70- 80	35.43	1042	98.8,98.8
90	0.2345	0.1585	0.2573	0.0562					80- 90	6.602	1049	99.5,99.5
100	0.3569	0.2862	0.1984	0.1880					90-100	0.1998	1049	99.5,99.5
110	0.6850	0.5571	0.4064	0.3841					100-110	0.3936	1049	99.5,99.5
120	1.149	0.9570	0.6864	0.6884					110-120	0.6726	1050	99.6,99.6
130	1.605	1.391	1.015	1.041					120-130	0.9509	1051	99.7,99.7
140	1.912	1.779	1.248	1.388					130-140	1.110	1052	99.8,99.8
150	1.808	2.029	1.261	1.430					140-150	1.028	1053	99.9,99.9
160	1.632	1.929	1.102	1.330					150-160	0.7298	1054	99.9,99.9
170	1.596	1.531	1.147	1.230					160-170	0.4054	1054	100,100
180	1.611	1.622	1.615	1.621					170-180	0.1351	1054	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 731.32 lm

%lum = 69.4%
 %lamp = 69.4%

Conical surface Flux(120deg): 938.49 lm

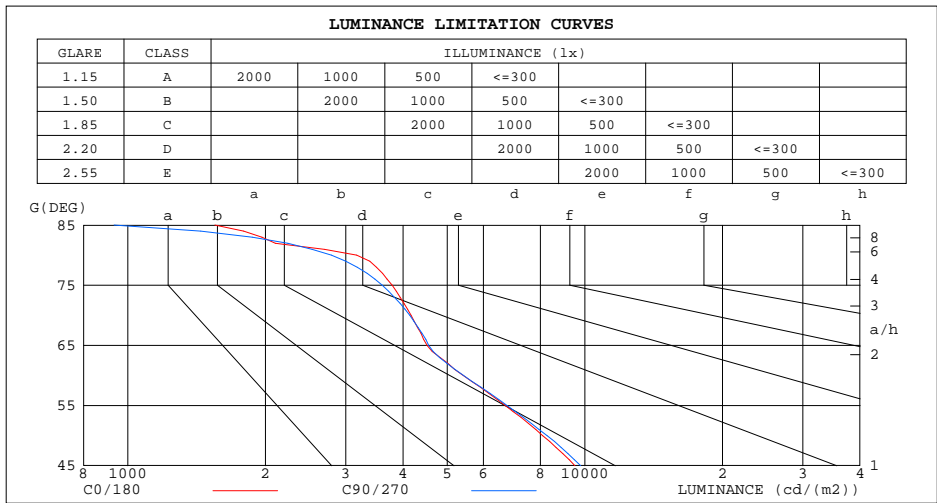
%lum = 89.0%
 %lamp = 89.0%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:01 June 2021

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Lotus LED Lights	SUR.: 21cm*16cm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1551	932
80	3167	2789
75	3787	3605
70	4166	4139
65	4518	4556
60	5420	5428
55	6706	6759
50	8091	8263
45	9514	9795

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 01 June 2021

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 3.200m [K=1.0000]
 Remarks:

WEC AND CCEC

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:Lotus LED Lights	SUR.:21cm*16cm	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.252	.144	.045	.245	.140	.044	.232	.133	.043	.220	.127	.041	.209	.121	.039	
2.0	.243	.133	.041	.237	.130	.040	.225	.125	.039	.214	.120	.038	.205	.116	.036	
3.0	.229	.122	.036	.224	.120	.036	.213	.116	.035	.204	.112	.034	.195	.108	.033	
4.0	.215	.112	.033	.210	.110	.032	.201	.107	.032	.193	.104	.031	.185	.101	.031	
5.0	.201	.103	.030	.197	.101	.029	.189	.099	.029	.182	.096	.029	.175	.094	.028	
6.0	.189	.095	.027	.185	.094	.027	.178	.091	.027	.172	.089	.026	.166	.087	.026	
7.0	.178	.088	.025	.175	.087	.025	.168	.085	.025	.162	.083	.024	.157	.081	.024	
8.0	.168	.082	.023	.165	.081	.023	.159	.079	.023	.154	.078	.022	.149	.076	.022	
9.0	.158	.077	.021	.156	.076	.021	.151	.074	.021	.146	.073	.021	.141	.072	.021	
10.0	.150	.072	.020	.148	.071	.020	.143	.070	.020	.139	.069	.020	.135	.068	.019	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0																
1.0	.180	.161	.143	.154	.138	.123	.106	.095	.085	.061	.055	.049	.019	.018	.016	
2.0	.170	.136	.108	.145	.117	.093	.100	.081	.065	.057	.047	.038	.018	.015	.012	
3.0	.161	.118	.084	.138	.102	.073	.095	.071	.051	.055	.041	.030	.018	.013	.010	
4.0	.153	.104	.068	.131	.090	.059	.090	.063	.041	.052	.037	.024	.017	.012	.008	
5.0	.145	.094	.056	.125	.081	.048	.086	.057	.034	.050	.033	.020	.016	.011	.007	
6.0	.138	.085	.047	.119	.074	.041	.082	.052	.029	.048	.030	.017	.015	.010	.006	
7.0	.132	.078	.040	.113	.068	.035	.078	.047	.025	.045	.028	.015	.015	.009	.005	
8.0	.126	.072	.035	.108	.063	.031	.075	.044	.022	.044	.026	.013	.014	.008	.004	
9.0	.120	.067	.031	.104	.058	.027	.072	.041	.019	.042	.024	.012	.014	.008	.004	
10.0	.115	.063	.028	.099	.055	.025	.069	.038	.017	.040	.023	.010	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:01 June 2021

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

NAME:		TYPE:					WEIGHT:				
SPEC.:		DIM.:					SERIAL No.:				
MFR.:Lotus LED Lights		SUR.:21cm*16cm					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	18.3	19.6	18.6	19.8	20.0	18.4	19.7	18.6	19.9	20.1
	3H	19.0	20.2	19.3	20.5	20.7	19.1	20.3	19.4	20.5	20.7
	4H	19.3	20.5	19.6	20.7	21.0	19.3	20.5	19.6	20.7	21.0
	6H	19.5	20.6	19.9	20.9	21.2	19.5	20.6	19.8	20.8	21.1
	8H	19.5	20.6	19.9	20.9	21.2	19.5	20.5	19.8	20.8	21.1
	12H	19.5	20.5	19.9	20.8	21.1	19.5	20.5	19.8	20.8	21.1
4H	2H	18.6	19.7	18.9	20.0	20.2	18.6	19.8	18.9	20.0	20.3
	3H	19.5	20.5	19.8	20.8	21.1	19.5	20.5	19.8	20.8	21.1
	4H	19.9	20.8	20.3	21.1	21.4	19.9	20.8	20.3	21.1	21.4
	6H	20.2	21.0	20.6	21.4	21.7	20.1	20.9	20.5	21.3	21.7
	8H	20.2	21.0	20.6	21.3	21.7	20.2	20.9	20.6	21.3	21.7
	12H	20.2	20.9	20.7	21.3	21.7	20.2	20.8	20.6	21.2	21.6
8H	4H	20.0	20.7	20.4	21.1	21.5	20.0	20.7	20.4	21.1	21.5
	6H	20.4	21.0	20.9	21.4	21.9	20.4	21.0	20.8	21.4	21.8
	8H	20.5	21.0	20.9	21.4	21.9	20.4	21.0	20.9	21.4	21.9
	12H	20.5	21.0	21.0	21.4	21.9	20.4	20.9	20.9	21.3	21.8
12H	4H	20.0	20.7	20.4	21.1	21.5	20.0	20.7	20.4	21.1	21.5
	6H	20.4	21.0	20.9	21.4	21.8	20.4	20.9	20.8	21.3	21.8
	8H	20.5	21.0	21.0	21.4	21.9	20.4	20.9	20.9	21.4	21.8
Variations with the observer position at spacings:											
S = 1.0H		+ 0.5 / - 0.6					+ 0.5 / - 0.6				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 1.1 / - 1.0					+ 1.1 / - 1.0				

CIE Pub.117, 1054 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.2)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:01 June 2021

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Lotus LED Lights	SUR.: 21cm*16cm	Shielding Angle:

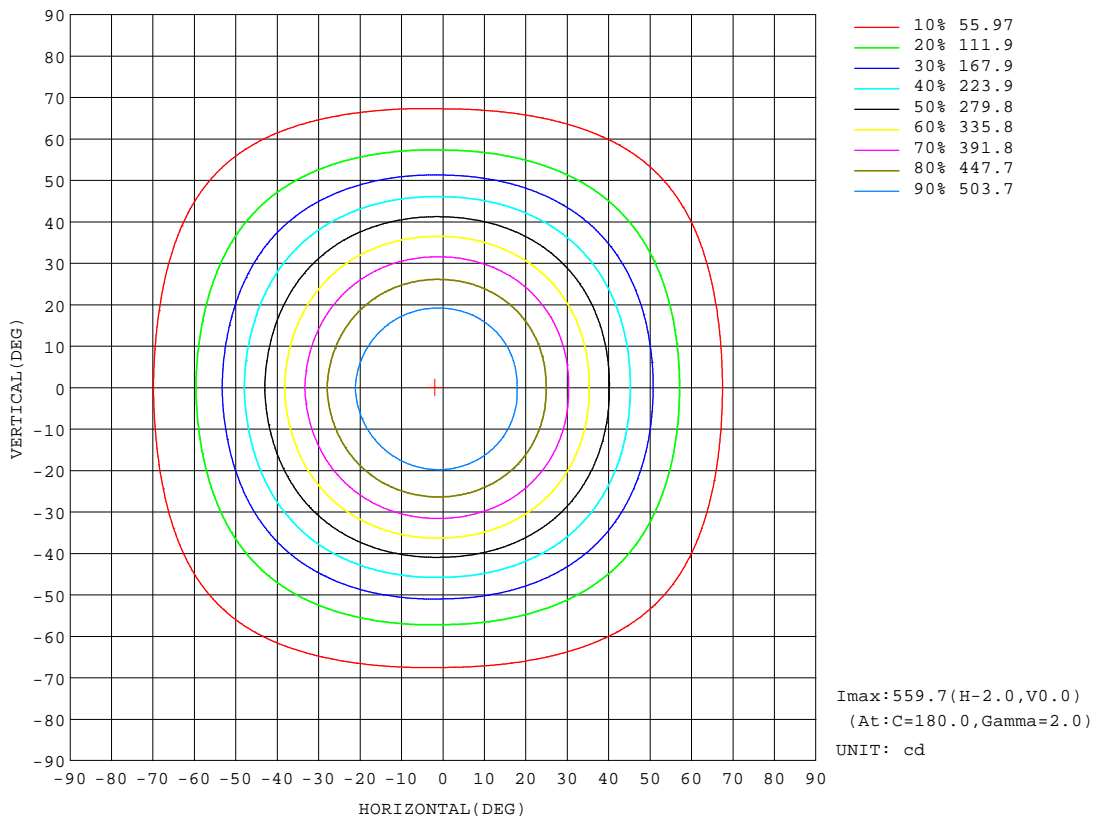
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	66	56	50	66	56	50	65	56	50	45
0.80	76	67	60	75	66	60	74	65	60	54
1.00	84	75	69	83	74	69	81	75	68	62
1.25	90	82	76	89	81	76	87	80	75	69
1.50	95	87	81	93	86	81	90	84	79	73
2.00	100	93	88	98	92	87	95	90	86	79
2.50	103	97	92	101	96	91	98	93	89	82
3.00	106	100	96	104	99	95	100	96	93	85
4.00	109	105	101	107	103	99	103	99	97	88
5.00	111	107	104	109	105	102	104	101	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 01 June 2021

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 3.200m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Lotus LED Lights	SUR.: 21cm*16cm	Shielding Angle:



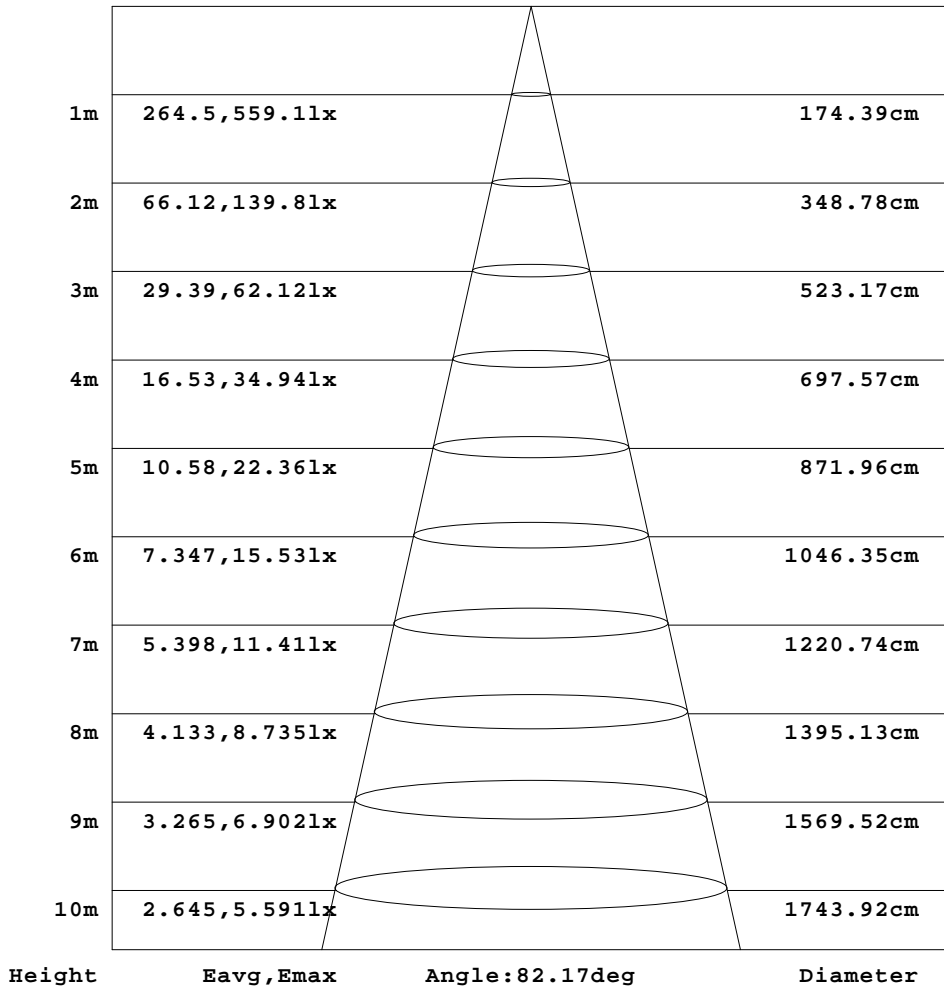
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 01 June 2021

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 3.200m [K=1.0000]
 Remarks:

AAI Figure

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:Lotus LED Lights	SUR.:21cm*16cm	Shielding Angle:

Flux out:673.6 lm

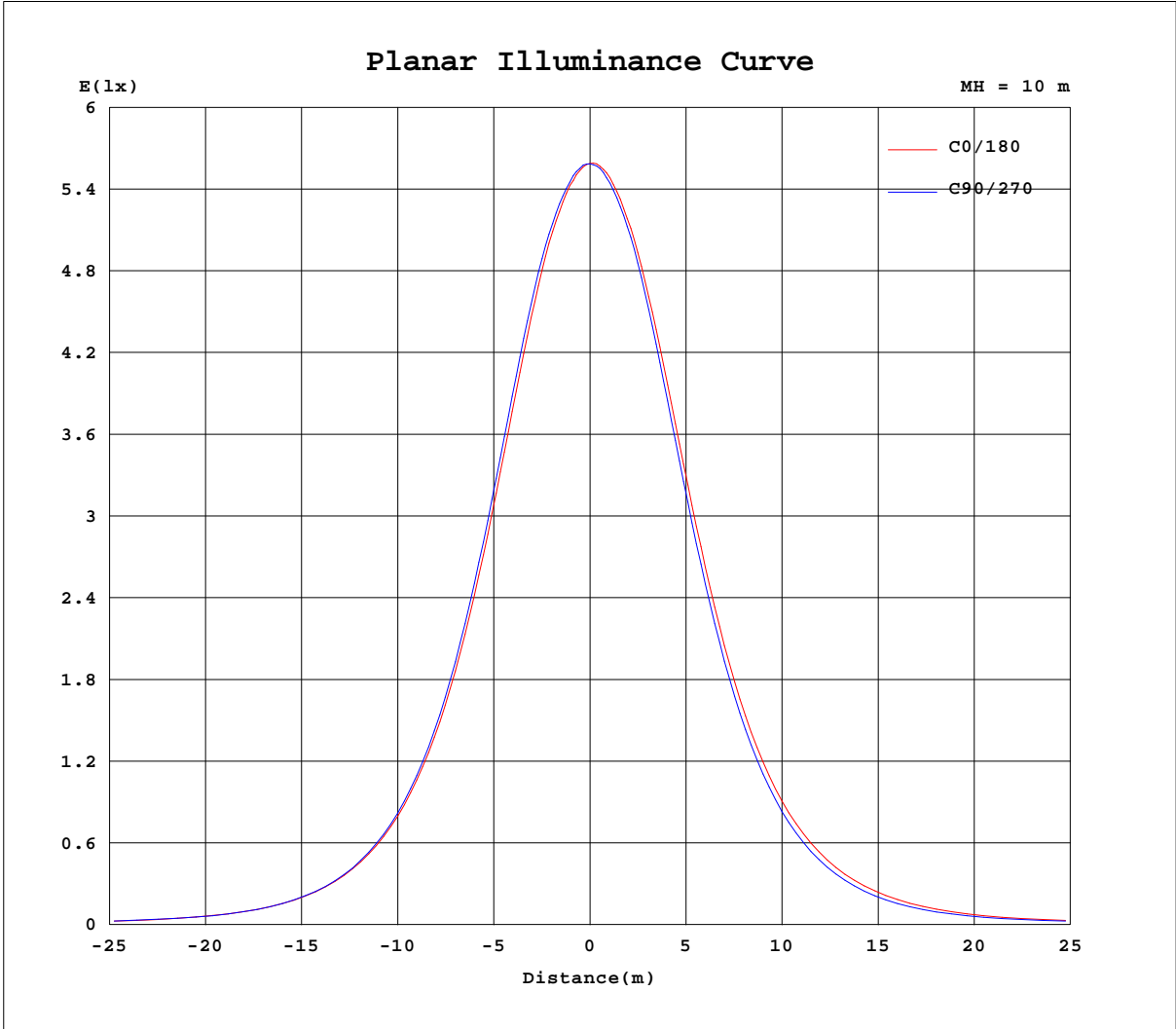


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:01 June 2021

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:01 June 2021

Page Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:3.200m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Lotus LED Lights	SUR.: 21cm*16cm	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	90	180	270															
0	559	559	559	559															
5	552	556	558	555															
10	541	547	550	545															
15	520	532	536	527															
20	489	503	511	498															
25	446	461	474	457															
30	395	410	427	408															
35	339	352	373	352															
40	282	291	315	294															
45	226	233	257	236															
50	175	179	202	181															
55	129	130	152	132															
60	91.0	91.2	109	91.0															
65	64.1	64.7	75.4	63.5															
70	47.9	47.6	55.5	46.5															
75	32.9	31.4	39.3	30.5															
80	18.5	16.3	21.8	15.3															
85	4.54	2.73	8.92	1.76															
90	0.23	0.16	0.26	0.06															
95	0.26	0.20	0.12	0.11															
100	0.36	0.29	0.20	0.19															
105	0.50	0.40	0.30	0.27															
110	0.69	0.56	0.41	0.38															
115	0.89	0.75	0.53	0.53															
120	1.15	0.96	0.69	0.69															
125	1.37	1.18	0.86	0.85															
130	1.60	1.39	1.01	1.04															
135	1.80	1.62	1.17	1.21															
140	1.91	1.78	1.25	1.39															
145	1.91	1.95	1.29	1.48															
150	1.81	2.03	1.26	1.43															
155	1.72	2.03	1.16	1.42															
160	1.63	1.93	1.10	1.33															
165	1.56	1.75	1.04	1.28															
170	1.60	1.53	1.15	1.23															
175	1.55	1.54	1.34	1.34															
180	1.61	1.62	1.62	1.62															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 01 June 2021

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 3.200m [K=1.0000]
 Remarks: