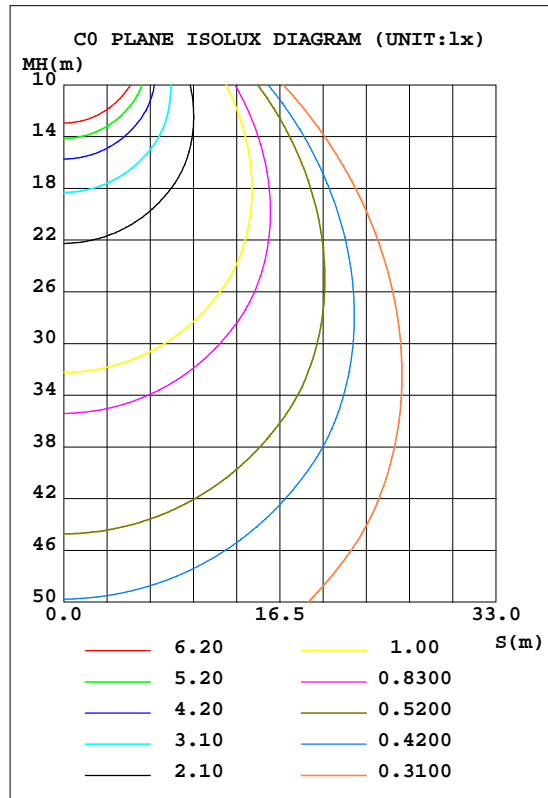
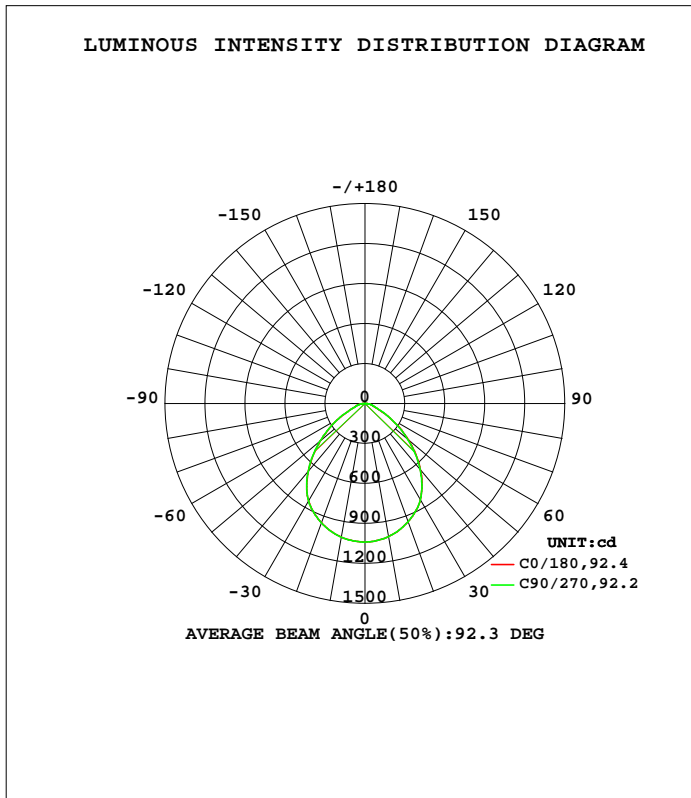


LUMINAIRE PHOTOMETRIC TEST REPORT

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

DATA OF LAMP		PHOTOMETRIC DATA Eff: 112.94 lm/W			
MODEL	10"	I _{max} (cd)	1039	S/MH(C0/180)	1.21
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.21
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	2196.3	h UP, DN(C0-180)	0.0,49.3
NOMINAL FLUX(lm)	2196.31	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.0,50.7
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	h down(%)	100.0	CIBSE SHR MAX	1.30



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-06-01

Range: 0 - 90DEG
 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	1015	1014	1019	1019					0- 10	98.14	98.14	4.47,4.47
20	945.6	945.4	954.1	954.6					10- 20	278.8	376.9	17.2,17.2
30	833.3	832.5	847.1	847.5					20- 30	414.8	791.7	36,36
40	649.6	643.7	663.4	664.6					30- 40	470.5	1262	57.5,57.5
50	427.4	422.4	438.6	442.0					40- 50	419.6	1682	76.6,76.6
60	214.2	216.3	227.5	230.6					50- 60	289.2	1971	89.7,89.7
70	78.77	80.59	85.17	83.58					60- 70	139.8	2111	96.1,96.1
80	37.46	40.27	43.70	41.49					70- 80	64.30	2175	99,99
90	0.3964	0.4041	2.401	0.2034					80- 90	21.26	2196	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									UNIT:lm		

Conical surface Flux(90deg): 1484.5 lm

%lum = 67.6%
 %lamp = 67.6%

Conical surface Flux(120deg): 1971 lm

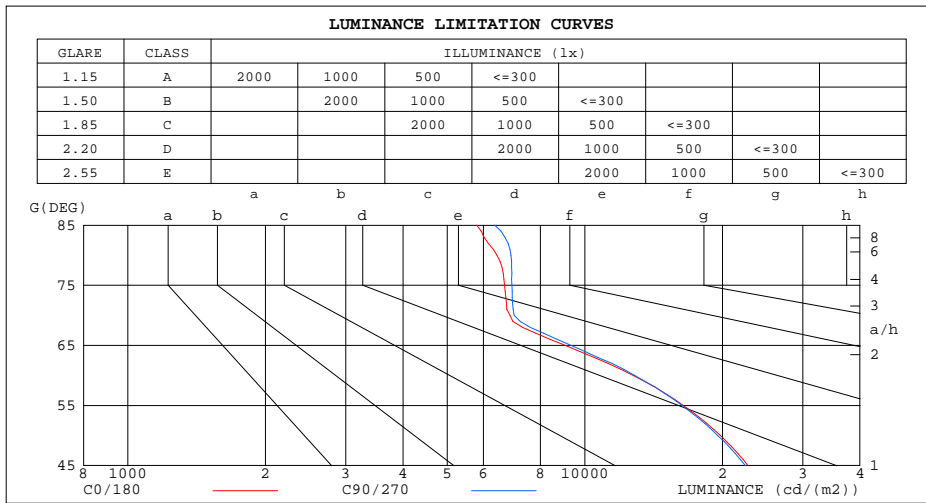
%lum = 89.7%
 %lamp = 89.7%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-06-01

g Range: 0 - 90DEG
 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	5799	6346
80	6425	6897
75	6670	6925
70	6859	7008
65	9062	9337
60	12761	12865
55	16445	16326
50	19804	19544
45	22763	22474

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-06-01

G Range: 0 - 90DEG
 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:

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	.258	.147	.046	.251	.143	.045	.238	.136	.044	.226	.130	.042	.215	.125	.040	
2.0	.247	.136	.042	.241	.133	.041	.230	.128	.040	.220	.123	.039	.210	.119	.037	
3.0	.234	.124	.037	.228	.122	.037	.218	.118	.036	.209	.115	.035	.201	.111	.034	
4.0	.219	.114	.033	.215	.112	.033	.206	.109	.033	.198	.106	.032	.190	.103	.031	
5.0	.206	.105	.030	.202	.103	.030	.194	.101	.030	.187	.098	.029	.180	.096	.029	
6.0	.193	.097	.028	.189	.096	.028	.183	.094	.027	.176	.092	.027	.170	.090	.027	
7.0	.182	.090	.025	.178	.089	.025	.172	.087	.025	.166	.085	.025	.161	.084	.025	
8.0	.171	.084	.024	.168	.083	.023	.163	.081	.023	.158	.080	.023	.153	.078	.023	
9.0	.162	.078	.022	.159	.078	.022	.154	.076	.022	.149	.075	.021	.145	.074	.021	
10.0	.153	.073	.020	.151	.073	.020	.146	.072	.020	.142	.070	.020	.138	.069	.020	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.177	.157	.138	.151	.134	.119	.103	.092	.082	.060	.054	.048	.019	.017	.015	
2.0	.166	.132	.103	.142	.114	.089	.098	.079	.062	.056	.046	.037	.018	.015	.012	
3.0	.157	.114	.079	.135	.098	.069	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.038	.051	.035	.023	.016	.012	.007	
5.0	.142	.090	.051	.122	.078	.044	.084	.054	.031	.049	.032	.019	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.129	.074	.036	.111	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.123	.068	.031	.106	.059	.027	.073	.042	.019	.043	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.039	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.097	.051	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-06-01

g Range: 0 - 90DEG
 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	19.2	20.5	19.4	20.7	20.9	19.2	20.5	19.4	20.7	20.9
	3H	19.5	20.7	19.8	21.0	21.2	19.5	20.8	19.8	21.0	21.2
	4H	19.7	20.8	20.0	21.1	21.3	19.7	20.9	20.0	21.1	21.3
	6H	19.8	20.9	20.1	21.2	21.4	19.8	20.9	20.2	21.2	21.5
	8H	19.8	20.9	20.2	21.2	21.5	19.9	21.0	20.2	21.2	21.5
	12H	19.9	20.9	20.2	21.2	21.5	19.9	21.0	20.3	21.2	21.5
4H	2H	19.3	20.5	19.6	20.8	21.0	19.3	20.5	19.6	20.8	21.0
	3H	19.8	20.8	20.1	21.1	21.4	19.8	20.8	20.2	21.1	21.4
	4H	20.0	21.0	20.4	21.3	21.6	20.1	21.0	20.4	21.3	21.6
	6H	20.3	21.1	20.7	21.5	21.8	20.4	21.2	20.8	21.5	21.9
	8H	20.4	21.2	20.8	21.5	21.9	20.5	21.2	20.9	21.6	22.0
	12H	20.5	21.2	20.9	21.5	21.9	20.6	21.3	21.0	21.6	22.0
8H	4H	20.1	20.9	20.5	21.2	21.6	20.1	20.9	20.5	21.3	21.6
	6H	20.5	21.1	20.9	21.5	21.9	20.5	21.2	21.0	21.6	22.0
	8H	20.6	21.2	21.1	21.6	22.1	20.7	21.3	21.2	21.7	22.1
	12H	20.8	21.2	21.2	21.7	22.2	20.9	21.4	21.4	21.8	22.3
12H	4H	20.1	20.8	20.5	21.2	21.6	20.1	20.8	20.5	21.2	21.6
	6H	20.5	21.1	21.0	21.5	21.9	20.6	21.1	21.0	21.5	22.0
	8H	20.7	21.2	21.2	21.6	22.1	20.8	21.3	21.3	21.7	22.2
Variations with the observer position at spacings:											
S = 1.0H		+ 0.5 / - 0.7					+ 0.5 / - 0.7				
1.5H		+ 0.3 / - 0.4					+ 0.2 / - 0.3				
2.0H		+ 1.1 / - 1.3					+ 1.0 / - 1.3				

CIE Pub.117, 2196 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.7)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-06-01

g Range: 0 - 90DEG
 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:

UTILIZATION FACTORS TABLE

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

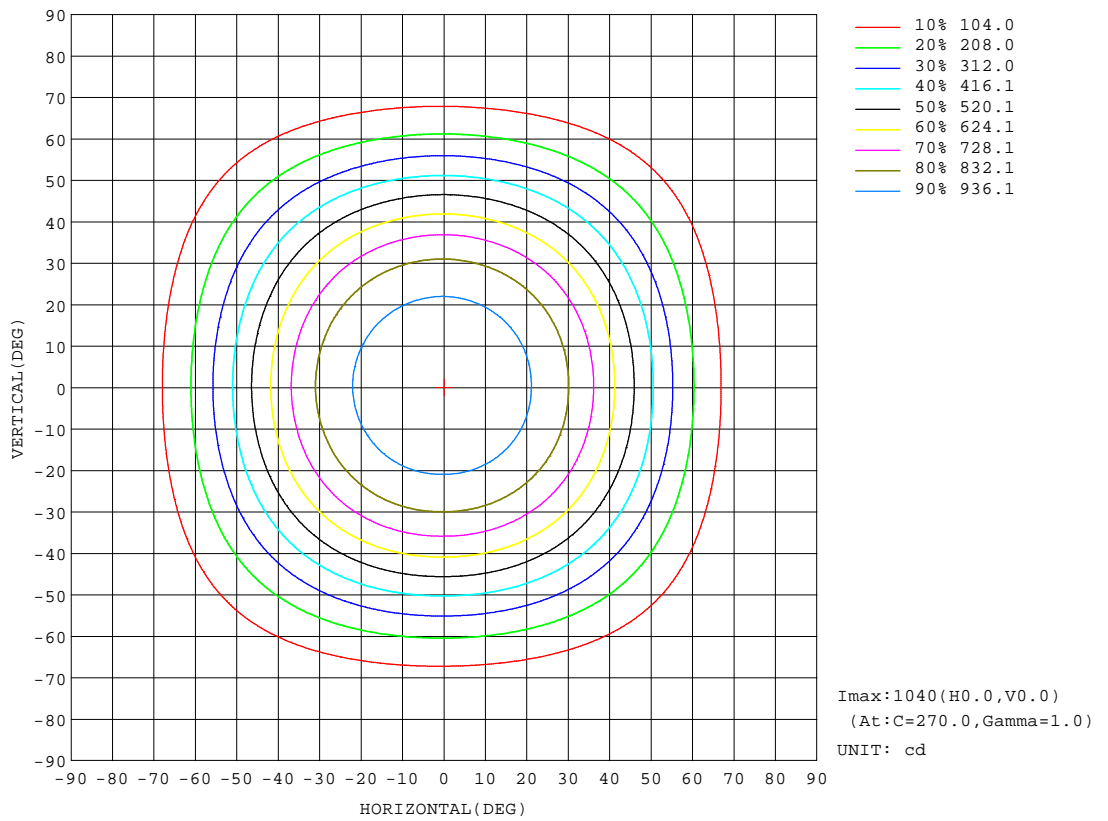
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	65	54	48	64	54	48	63	54	48	42
0.80	75	65	58	74	64	58	72	64	58	52
1.00	83	74	67	82	73	67	80	74	67	60
1.25	90	81	75	88	80	75	86	79	74	67
1.50	94	86	80	93	85	80	90	83	79	72
2.00	100	93	88	98	92	87	95	90	85	78
2.50	103	97	92	101	95	91	97	93	89	81
3.00	106	100	96	104	99	94	100	96	92	85
4.00	109	104	100	107	102	99	103	99	96	88
5.00	111	107	103	108	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: 2021-06-01

g Range: 0 - 90DEG
 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:



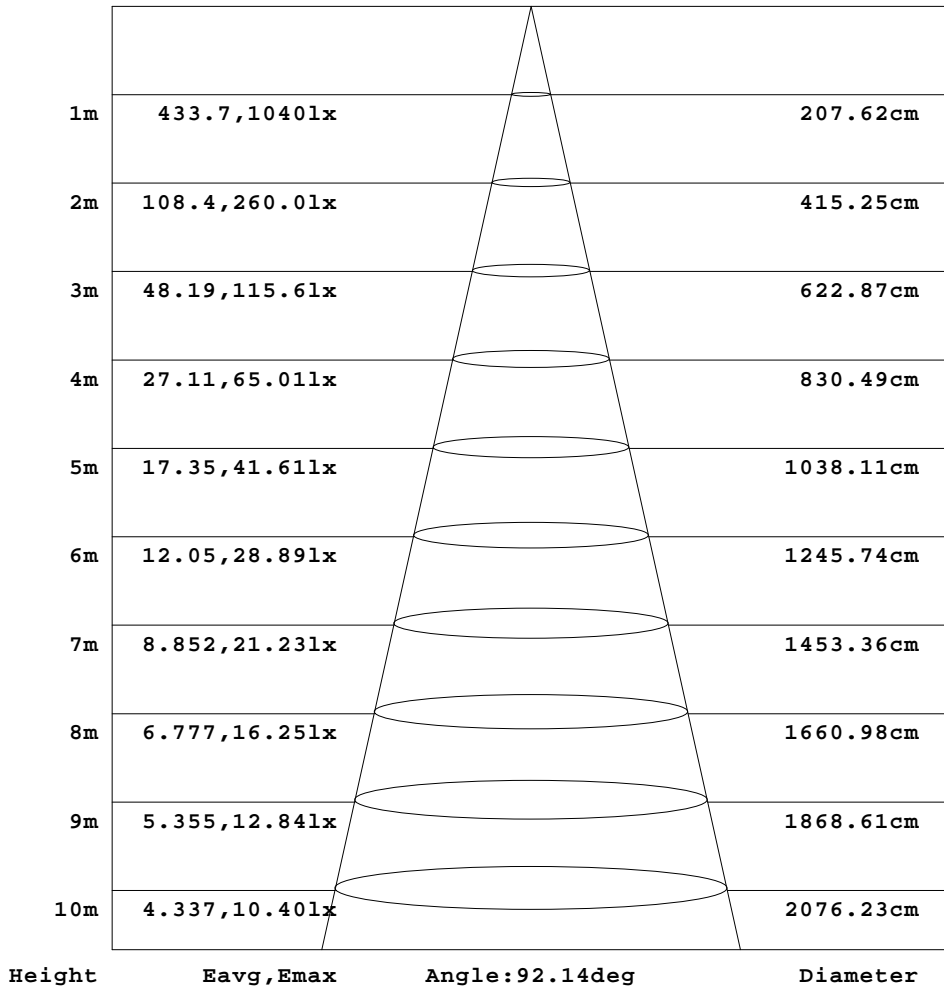
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-06-01

Range: 0 - 90DEG
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:1567 lm

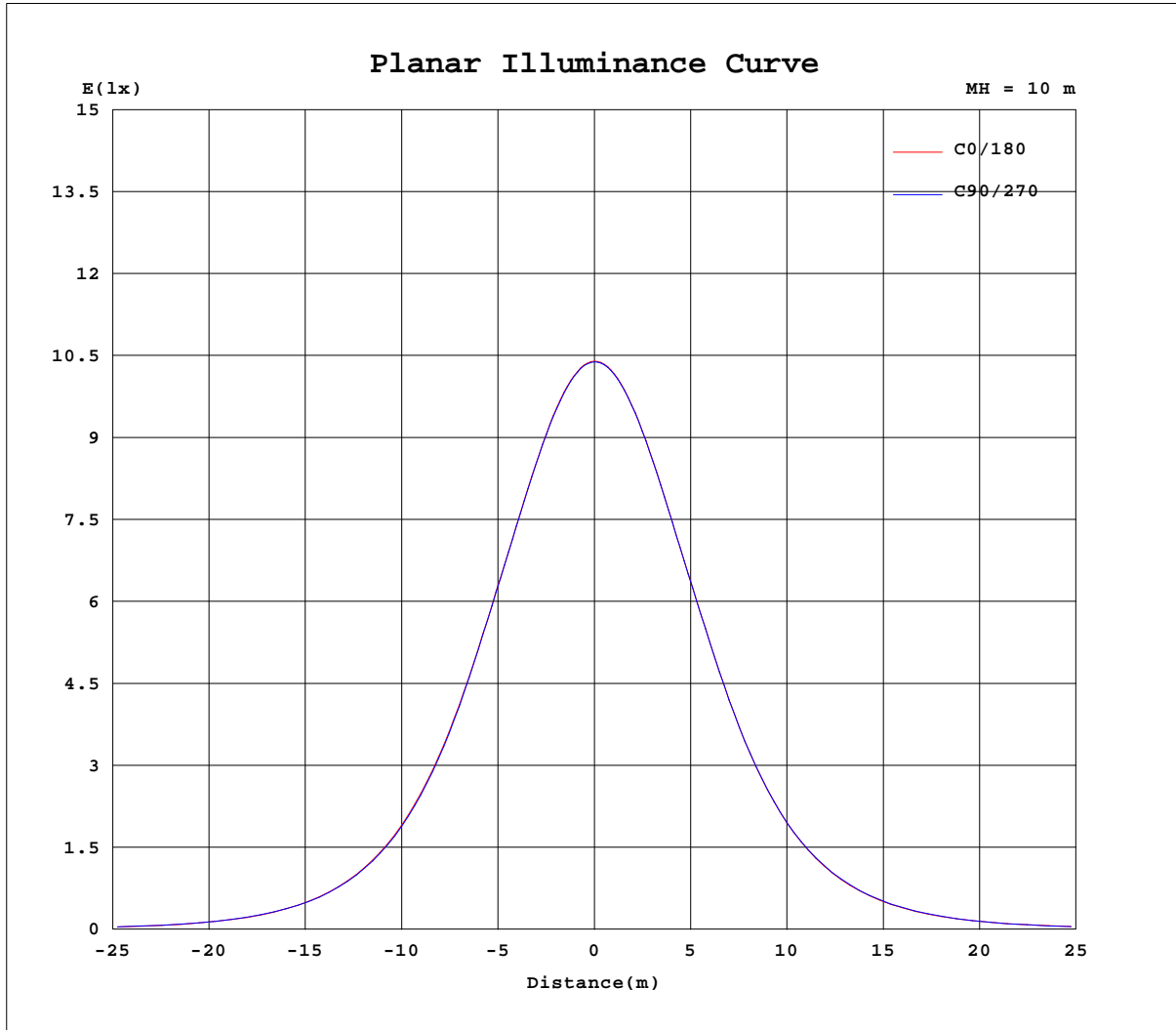


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-06-01

Range: 0 - 90DEG
 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: 2021-06-01

Page Range: 0 - 90DEG
 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	1039	1039	1039	1039															
5	1032	1033	1035	1035															
10	1015	1014	1019	1019															
15	985	985	992	993															
20	946	945	954	955															
25	897	896	906	907															
30	833	832	847	848															
35	749	745	764	764															
40	650	644	663	665															
45	540	534	552	555															
50	427	422	439	442															
55	317	315	328	332															
60	214	216	227	231															
65	129	133	142	143															
70	78.8	80.6	85.2	83.6															
75	58.0	60.3	63.4	61.8															
80	37.5	40.3	43.7	41.5															
85	17.0	18.6	23.5	19.2															
90	0.40	0.40	2.40	0.20															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-06-01

g Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
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