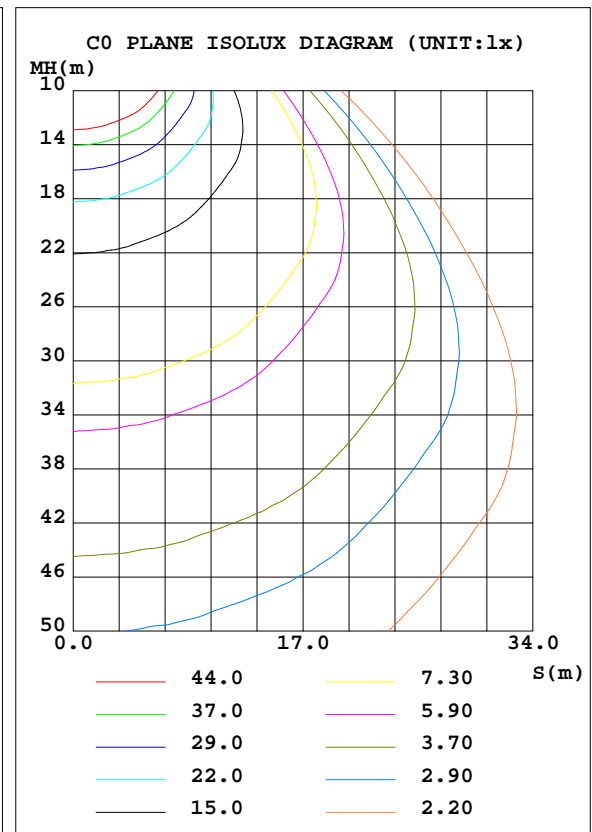
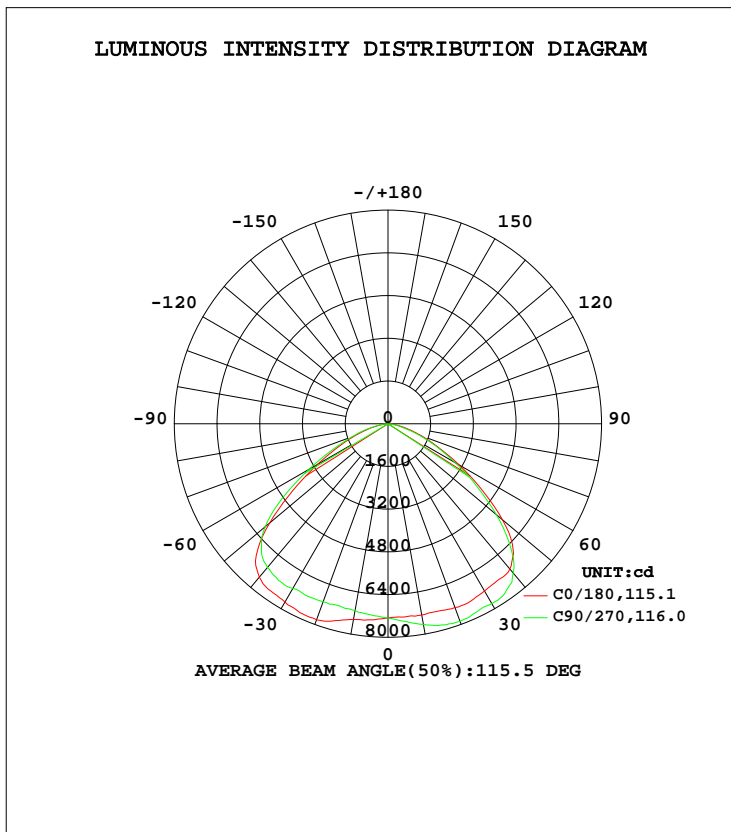


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.04V I:1.2721A P:151.81W PF:0.9942 Freq:60.01Hz Lamp Flux:23080.4x1 lm		
NAME: LED Fixed Luminaire	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:LED ONE	SUR.:	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 152.03 lm/W			
MODEL LOC	GDHB-150W50KGD LV	I _{max} (cd)	7963	S/MH(C0/180)	1.59
NOMINAL POWER(W)	150	LOR(%)	100.0	S/MH(C90/270)	1.50
RATED VOLTAGE(V)	120-347	TOTAL FLUX(lm)	23080	η UP, DN(C0-180)	0.1,49.3
NOMINAL FLUX(lm)	23080.4	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1,50.5
LAMPS INSIDE	1	η up(%)	0.2	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	99.8	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:William
 Test Date:2019-09-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:65.7%
 Test Distance:26.000m [K=1.3952]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	7276	7491	7635	7645	7441	7251	7111	7121	0- 10	700.1	700.1	3.03,3.03
20	7324	7706	7879	7949	7815	7395	7095	7076	10- 20	2116	2816	12.2,12.2
30	7231	7524	7778	7816	7713	7537	7127	7048	20- 30	3474	6290	27.3,27.3
40	7096	7263	7298	7435	7497	7346	7021	6962	30- 40	4644	10934	47.4,47.4
50	5594	5329	5307	5475	5786	6053	6007	5871	40- 50	5106	16040	69.5,69.5
60	3064	2931	2898	2907	3065	3301	3416	3378	50- 60	3904	19944	86.4,86.4
70	1349	1289	1208	1225	1320	1461	1462	1490	60- 70	2122	22066	95.6,95.6
80	371.8	293.9	249.7	260.6	334.6	388.3	380.2	412.0	70- 80	837.4	22904	99.2,99.2
90	1.922	1.907	1.896	2.135	6.280	2.599	3.435	1.874	80- 90	123.8	23028	99.8,99.8
100	1.574	1.499	1.230	1.430	2.331	2.203	2.142	2.154	90-100	2.200	23030	99.8,99.8
110	2.327	2.472	2.410	2.429	5.004	4.615	4.635	4.729	100-110	2.671	23033	99.8,99.8
120	5.196	4.953	4.962	4.850	8.974	8.262	8.142	8.553	110-120	4.962	23038	99.8,99.8
130	11.37	10.24	10.82	9.231	11.51	9.914	10.08	10.70	120-130	7.631	23045	99.8,99.8
140	16.69	15.21	16.13	14.02	13.36	11.36	13.80	12.86	130-140	9.397	23055	99.9,99.9
150	19.52	18.92	18.60	17.84	15.76	14.73	16.49	16.39	140-150	9.965	23065	99.9,99.9
160	19.66	19.37	19.04	18.61	18.22	17.76	18.63	18.34	150-160	8.315	23073	100,100
170	21.84	21.61	21.92	20.62	19.04	19.68	20.69	21.25	160-170	5.517	23078	100,100
180	23.22	22.92	21.80	21.53	23.02	22.30	21.66	22.15	170-180	2.047	23080	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 13527 lm

%lum = 58.6%
%lamp = 58.6%

Conical surface Flux(120deg): 19944 lm

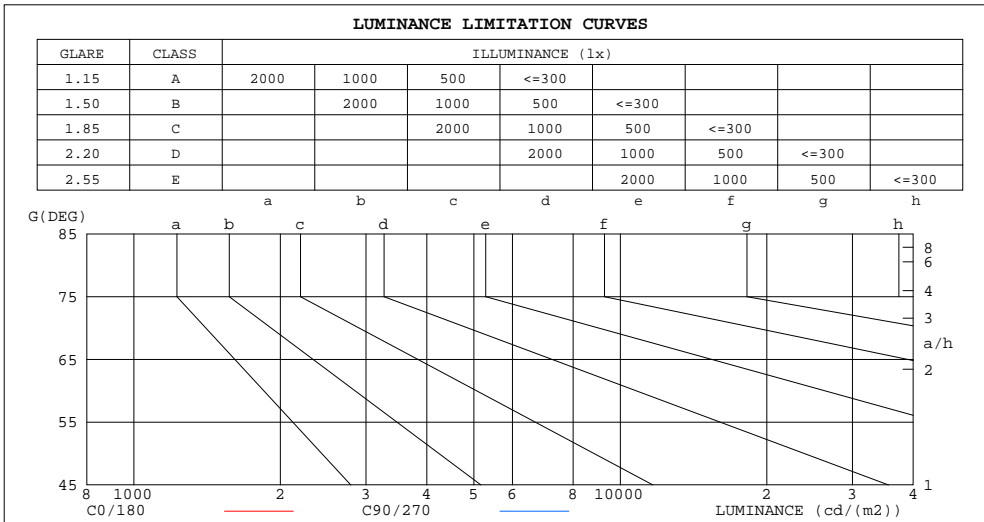
%lum = 86.4%
%lamp = 86.4%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.5DEG
Operators:William
Test Date:2019-09-03

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:65.7%
Test Distance:26.000m [K=1.3952]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.04V I:1.2721A P:151.81W PF:0.9942 Freq:60.01Hz Lamp Flux:23080.4x1 lm		
NAME: LED Fixed Luminaire	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:LED ONE	SUR.:	Shielding Angle:N/A



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	114032	85720
80	215537	143897
75	306750	244564
70	397119	353501
65	490628	468146
60	616891	579991
55	748952	702557
50	876200	826125
45	942664	916831

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.5DEG
 Operators: William
 Test Date: 2019-09-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity: 65.7%
 Test Distance: 26.000m [K=1.3952]
 Remarks:

WEC AND CCEC

Test:U:120.04V I:1.2721A P:151.81W PF:0.9942 Freq:60.01Hz Lamp Flux:23080.4x1 lm		
NAME: LED Fixed Luminaire	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: LED ONE	SUR.:	Shielding Angle:N/A

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	.275	.156	.049	.267	.153	.048	.254	.146	.047	.242	.140	.045	.231	.134	.043	
2.0	.267	.146	.045	.261	.144	.044	.249	.138	.043	.238	.134	.042	.228	.129	.041	
3.0	.252	.134	.040	.247	.132	.040	.236	.128	.039	.227	.124	.038	.218	.121	.037	
4.0	.236	.123	.036	.232	.121	.036	.222	.118	.035	.214	.115	.035	.206	.112	.034	
5.0	.221	.113	.033	.217	.111	.032	.209	.109	.032	.201	.106	.032	.194	.104	.031	
6.0	.207	.104	.030	.203	.103	.030	.196	.100	.029	.189	.098	.029	.183	.096	.029	
7.0	.194	.096	.027	.191	.095	.027	.184	.093	.027	.178	.091	.027	.172	.089	.026	
8.0	.182	.089	.025	.179	.088	.025	.173	.087	.025	.168	.085	.025	.163	.083	.024	
9.0	.171	.083	.023	.169	.082	.023	.163	.081	.023	.158	.079	.023	.154	.078	.023	
10.0	.162	.078	.022	.159	.077	.021	.154	.076	.021	.150	.074	.021	.146	.073	.021	

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	.192	.192	.192	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.180	.158	.139	.154	.136	.120	.105	.093	.083	.061	.054	.048	.019	.017	.016	
2.0	.171	.134	.103	.146	.115	.089	.100	.080	.062	.058	.046	.036	.019	.015	.012	
3.0	.163	.116	.079	.140	.100	.068	.096	.069	.048	.055	.041	.028	.018	.013	.009	
4.0	.155	.102	.062	.133	.089	.054	.092	.062	.038	.053	.036	.022	.017	.012	.007	
5.0	.148	.092	.050	.128	.080	.044	.088	.056	.031	.051	.033	.018	.016	.011	.006	
6.0	.142	.084	.042	.122	.072	.036	.084	.051	.026	.049	.030	.015	.016	.010	.005	
7.0	.135	.077	.036	.116	.067	.031	.080	.047	.022	.047	.027	.013	.015	.009	.004	
8.0	.129	.071	.031	.111	.062	.027	.077	.043	.019	.045	.026	.011	.014	.008	.004	
9.0	.124	.066	.027	.106	.057	.024	.074	.040	.017	.043	.024	.010	.014	.008	.003	
10.0	.118	.062	.024	.102	.054	.021	.071	.038	.015	.041	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:William
 Test Date:2019-09-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:65.7%
 Test Distance:26.000m [K=1.3952]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.04V I:1.2721A P:151.81W PF:0.9942 Freq:60.01Hz Lamp Flux:23080.4x1 lm										
NAME: LED Fixed Luminaire					TYPE:LED			WEIGHT:N/A		
SPEC.:N/A					DIM.:			SERIAL No.:N/A		
MFR.: LED ONE					SUR.:			Shielding Angle:N/A		
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	35.7	37.2	36.0	37.4	37.6	35.5	37.0	35.8	37.2	37.4
3H	36.3	37.7	36.6	37.9	38.2	36.1	37.4	36.4	37.7	37.9
4H	36.5	37.8	36.8	38.0	38.3	36.2	37.5	36.5	37.7	38.0
6H	36.6	37.8	36.9	38.0	38.3	36.2	37.4	36.5	37.7	37.9
8H	36.6	37.7	36.9	38.0	38.3	36.2	37.3	36.5	37.6	37.9
12H	36.5	37.6	36.9	37.9	38.2	36.1	37.2	36.5	37.5	37.8
4H 2H	36.0	37.2	36.3	37.5	37.7	35.8	37.1	36.1	37.3	37.6
3H	36.7	37.8	37.1	38.1	38.4	36.5	37.6	36.9	37.9	38.2
4H	37.0	38.0	37.4	38.3	38.6	36.7	37.7	37.1	38.0	38.3
6H	37.1	38.0	37.5	38.3	38.7	36.7	37.6	37.1	38.0	38.3
8H	37.1	37.9	37.5	38.3	38.7	36.7	37.5	37.1	37.9	38.3
12H	37.1	37.8	37.5	38.2	38.6	36.7	37.4	37.1	37.8	38.2
8H 4H	37.0	37.8	37.4	38.2	38.6	36.7	37.5	37.1	37.9	38.3
6H	37.2	37.8	37.6	38.3	38.7	36.8	37.5	37.3	37.9	38.3
8H	37.2	37.8	37.7	38.2	38.7	36.8	37.4	37.3	37.8	38.3
12H	37.2	37.7	37.7	38.2	38.6	36.8	37.3	37.3	37.8	38.2
12H 4H	37.0	37.7	37.4	38.1	38.5	36.7	37.4	37.1	37.8	38.2
6H	37.2	37.7	37.6	38.2	38.6	36.8	37.4	37.3	37.8	38.3
8H	37.2	37.7	37.7	38.1	38.6	36.8	37.3	37.3	37.8	38.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.5					+ 0.5 / - 0.6				
1.5H	+ 0.3 / - 0.7					+ 0.3 / - 0.6				
2.0H	+ 1.0 / - 1.2					+ 0.9 / - 1.2				

CIE Pub.117, 23080 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 10.9)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:William
 Test Date:2019-09-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:65.7%
 Test Distance:26.000m [K=1.3952]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.04V I:1.2721A P:151.81W PF:0.9942 Freq:60.01Hz Lamp Flux:23080.4x1 lm		
NAME: LED Fixed Luminaire	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: LED ONE	SUR.:	Shielding Angle:N/A

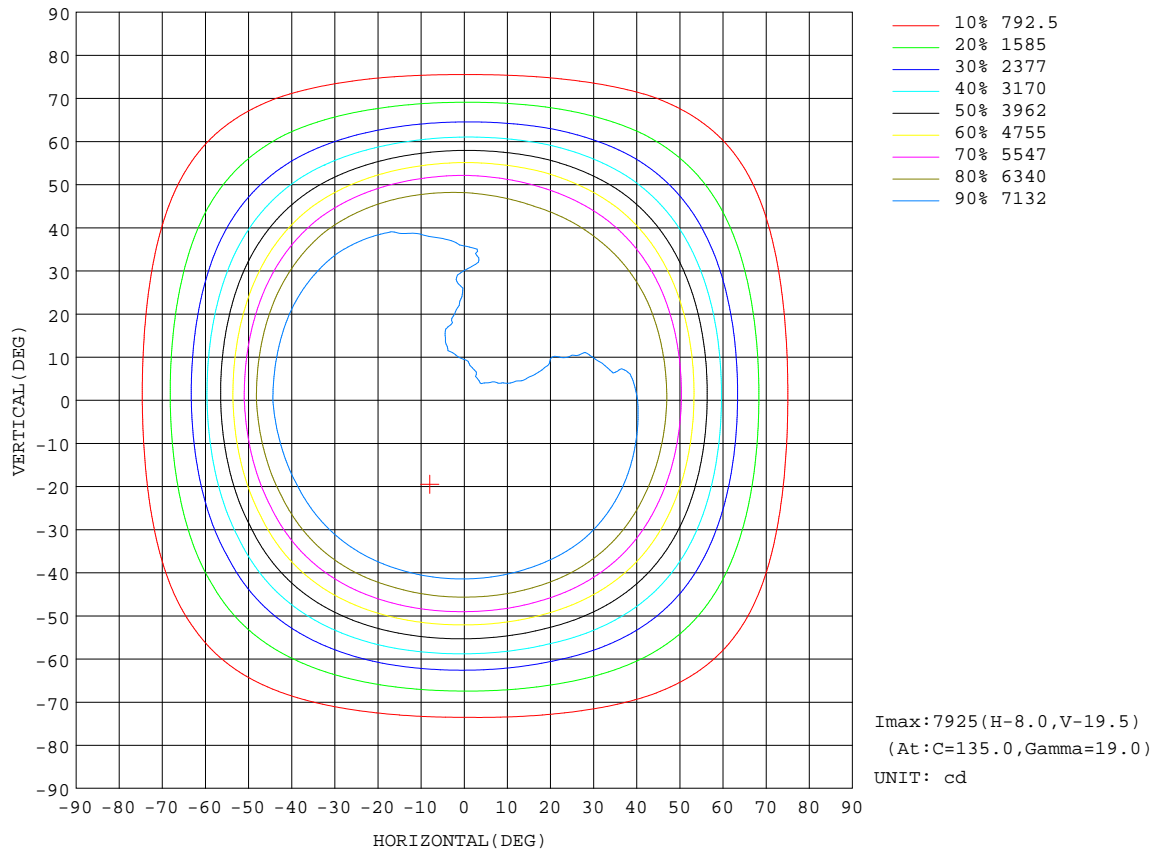
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	47	40	58	47	40	56	46	40	33
0.80	69	58	51	68	57	51	66	57	50	43
1.00	78	68	61	77	67	61	75	68	60	53
1.25	86	76	69	84	75	69	82	74	68	61
1.50	91	82	75	89	81	75	86	79	73	66
2.00	97	90	84	96	88	83	92	86	81	74
2.50	101	94	88	99	93	87	95	90	86	78
3.00	104	98	93	102	96	92	98	93	90	81
4.00	108	102	98	105	101	97	101	97	94	86
5.00	110	105	102	107	103	100	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:William
 Test Date:2019-09-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:65.7%
 Test Distance:26.000m [K=1.3952]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.04V I:1.2721A P:151.81W PF:0.9942 Freq:60.01Hz Lamp Flux:23080.4x1 lm		
NAME: LED Fixed Luminaire	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: LED ONE	SUR.:	Shielding Angle:N/A

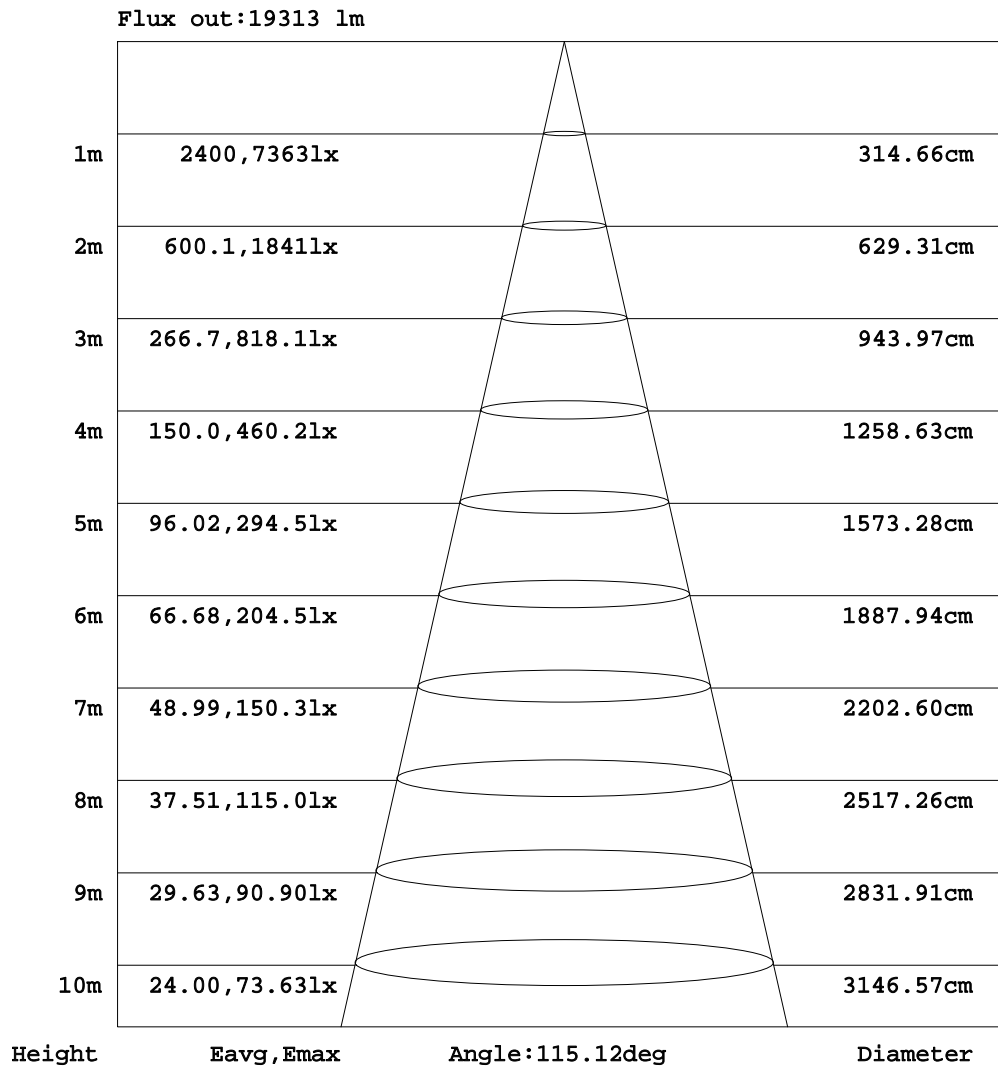


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.5DEG
 Operators: William
 Test Date: 2019-09-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity: 65.7%
 Test Distance: 26.000m [K=1.3952]
 Remarks:

AAI Figure

Test:U:120.04V I:1.2721A P:151.81W PF:0.9942 Freq:60.01Hz Lamp Flux:23080.4x1 lm		
NAME: LED Fixed Luminaire	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: LED ONE	SUR.:	Shielding Angle:N/A

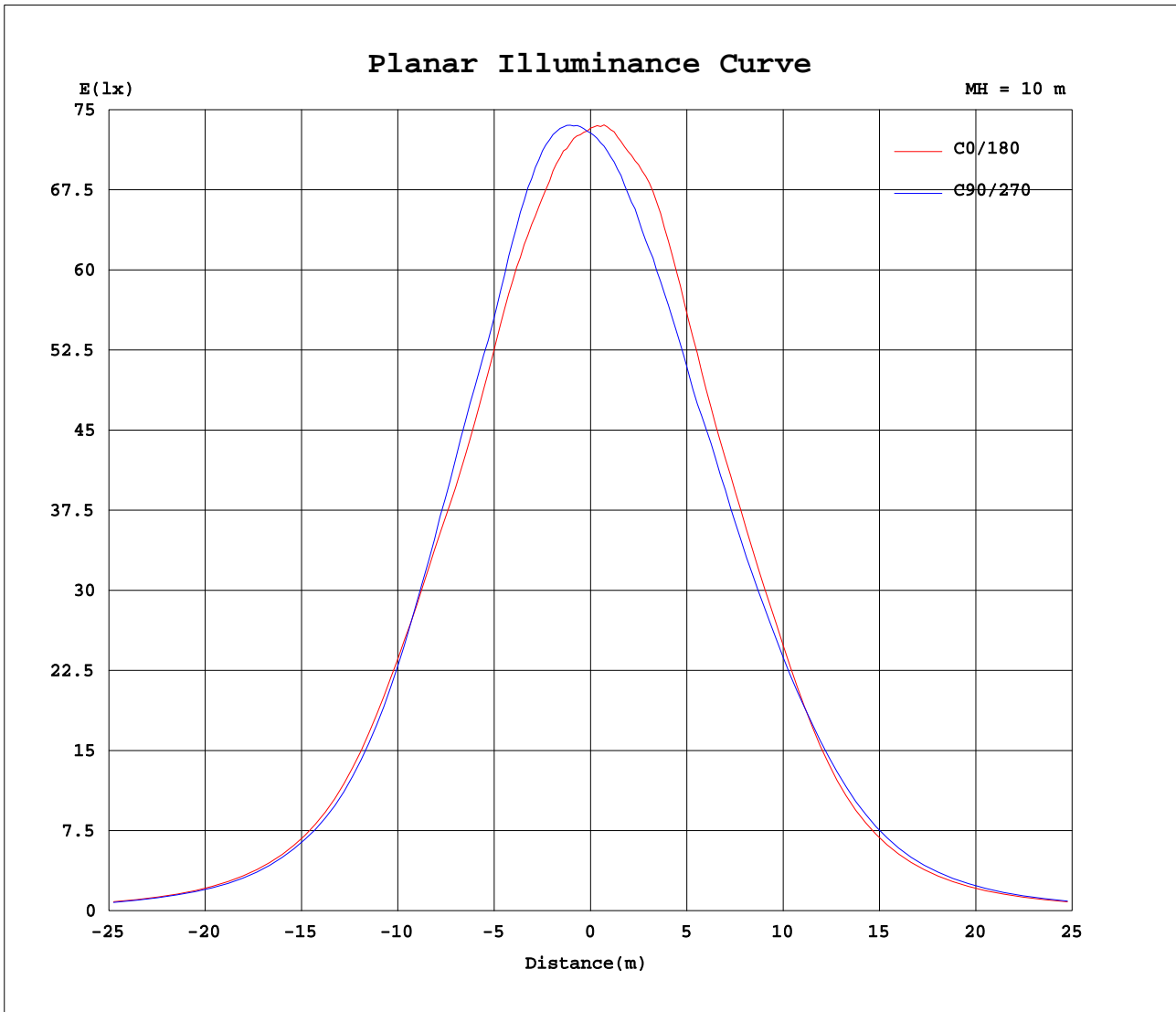


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:William
 Test Date:2019-09-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:65.7%
 Test Distance:26.000m [K=1.3952]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 24.5DEG
Operators: William
Test Date: 2019-09-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity: 65.7%
Test Distance: 26.000m [K=1.3952]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.04V I:1.2721A P:151.81W PF:0.9942 Freq:60.01Hz Lamp Flux:23080.4x1 lm		
NAME: LED Fixed Luminaire	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: LED ONE	SUR.:	Shielding Angle:N/A

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	7278	7278	7278	7278	7278	7278	7278	7278	7278	7278	7278	7278	7278	7278	7278	7278			
5	7265	7280	7357	7422	7428	7445	7457	7419	7374	7334	7275	7228	7190	7156	7186	7227			
10	7276	7386	7491	7594	7635	7657	7645	7553	7441	7347	7251	7178	7111	7099	7121	7184			
15	7269	7460	7608	7749	7800	7847	7889	7778	7635	7466	7277	7161	7065	7041	7090	7139			
20	7324	7564	7706	7794	7879	7925	7949	7889	7815	7662	7395	7220	7095	7029	7076	7165			
25	7332	7490	7620	7699	7796	7828	7911	7855	7808	7720	7509	7286	7122	7013	7055	7171			
30	7231	7397	7524	7686	7778	7774	7816	7772	7713	7644	7537	7371	7127	6973	7048	7160			
35	7160	7403	7557	7631	7688	7684	7708	7657	7648	7540	7431	7276	7162	7045	7049	7065			
40	7096	7207	7263	7284	7298	7301	7435	7465	7497	7444	7346	7175	7021	6916	6962	7008			
45	6621	6593	6536	6497	6479	6522	6667	6788	6980	7036	6988	6867	6705	6599	6624	6683			
50	5594	5436	5329	5305	5307	5362	5475	5563	5786	5946	6053	6062	6007	5911	5871	5815			
55	4267	4174	4075	4021	4027	4082	4127	4133	4339	4514	4632	4726	4785	4767	4668	4488			
60	3064	3007	2931	2882	2898	2936	2907	2901	3065	3205	3301	3362	3416	3435	3378	3226			
65	2060	2022	1996	1978	1977	1985	1962	1953	2056	2159	2224	2260	2276	2321	2299	2197			
70	1349	1305	1289	1246	1208	1216	1225	1230	1320	1406	1461	1462	1462	1484	1490	1433			
75	789	757	727	679	633	643	676	694	752	804	855	867	850	874	890	850			
80	372	341	294	263	250	251	261	283	335	371	388	370	380	389	412	416			
85	98.7	85.2	72.2	72.0	74.7	76.1	76.4	83.8	97.0	97.8	97.6	95.2	91.8	92.6	97.2	111			
90	1.92	1.94	1.91	1.85	1.90	1.85	2.14	2.18	6.28	2.26	2.60	2.33	3.44	1.93	1.87	10.8			
95	1.52	1.45	1.45	1.37	1.31	1.30	1.40	1.39	1.92	2.07	1.86	1.95	2.01	1.82	1.86	4.44			
100	1.57	1.44	1.50	1.47	1.23	1.38	1.43	1.39	2.33	2.41	2.20	2.21	2.14	2.21	2.15	2.15			
105	1.63	1.58	1.65	1.57	1.51	1.61	1.60	1.53	3.49	3.30	3.24	3.11	3.04	3.11	3.20	3.13			
110	2.33	2.54	2.47	2.34	2.41	2.35	2.43	2.56	5.00	4.75	4.61	4.57	4.64	4.63	4.73	4.72			
115	3.49	3.51	3.51	3.31	3.52	3.31	3.47	3.60	7.13	6.53	6.34	6.22	6.35	6.36	6.46	6.46			
120	5.20	4.94	4.95	4.95	4.96	4.68	4.85	4.84	8.97	8.67	8.26	7.70	8.14	8.21	8.55	8.33			
125	8.41	8.02	7.63	8.28	8.47	7.87	7.36	7.56	9.80	9.97	8.88	8.21	9.31	8.76	9.45	9.44			
130	11.4	10.8	10.2	11.2	10.8	9.87	9.23	9.63	11.5	11.0	9.91	8.78	10.1	9.53	10.7	10.5			
135	13.6	12.7	12.4	13.6	13.0	12.3	11.0	11.9	12.5	11.5	10.8	11.3	12.3	11.4	11.9	11.7			
140	16.7	16.2	15.2	16.4	16.1	15.6	14.0	15.1	13.4	12.6	11.4	13.1	13.8	13.5	12.9	13.0			
145	18.7	17.4	17.1	18.4	17.6	17.3	16.1	16.3	14.7	14.0	13.0	15.0	15.2	15.3	14.7	14.6			
150	19.5	19.0	18.9	19.2	18.6	18.1	17.8	16.8	15.8	15.5	14.7	16.3	16.5	16.7	16.4	16.0			
155	19.6	19.7	19.5	19.4	18.9	18.4	18.4	17.7	17.1	16.9	16.7	17.5	17.4	17.7	16.9	17.5			
160	19.7	19.2	19.4	19.3	19.0	18.6	18.6	17.8	18.2	17.9	17.8	18.9	18.6	17.9	18.3	18.1			
165	20.9	19.9	20.4	20.8	20.4	19.7	19.3	19.2	18.2	18.4	18.4	19.3	19.2	19.5	19.7	18.7			
170	21.8	21.3	21.6	22.1	21.9	20.6	20.6	20.6	19.0	19.0	19.7	20.3	20.7	20.8	21.3	19.9			
175	23.4	22.7	23.1	22.9	22.5	21.7	22.1	21.8	21.4	21.3	20.9	21.4	21.3	21.6	22.2	20.7			
180	23.2	22.3	22.9	21.7	21.8	22.2	21.5	21.6	23.0	23.0	22.3	22.8	21.7	21.9	22.1	21.6			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.5DEG
 Operators:William
 Test Date:2019-09-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:65.7%
 Test Distance:26.000m [K=1.3952]
 Remarks: