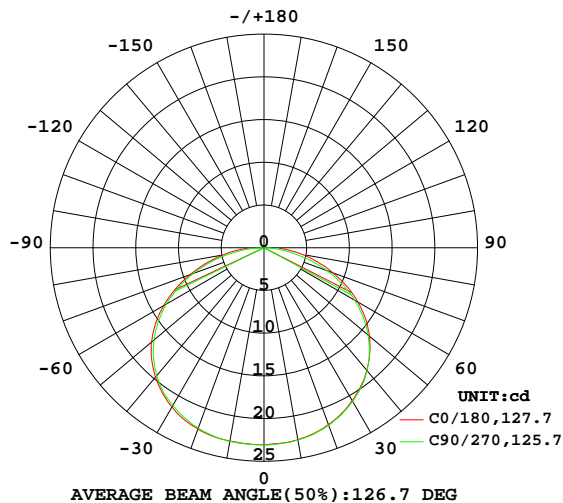


LUMINAIRE PHOTOMETRIC TEST REPORT

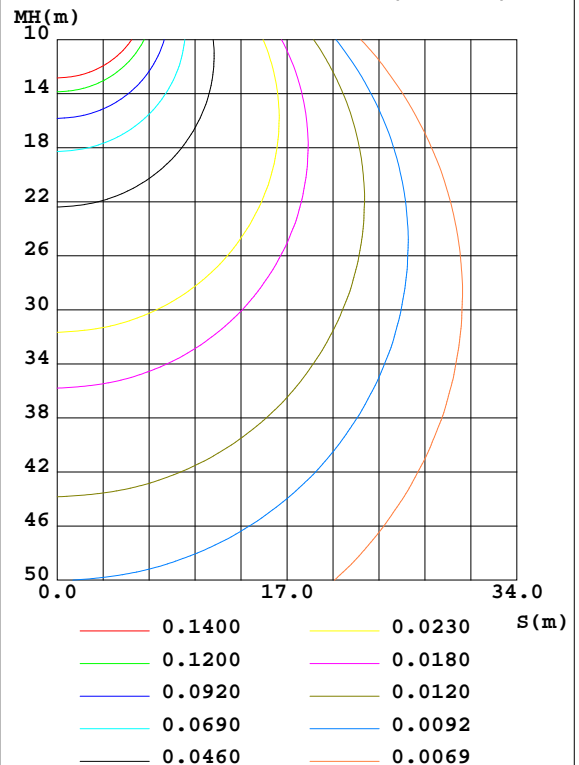
Test:U:24.015V I:0.0630A P:1.5129W PF:1.0000 Freq:50.00Hz Lamp Flux:80x1 lm		
NAME: Radialux 5.9 Wet Location(4-in-one chip)-24V RGB-W LED Tape Light	WEIGHT:	
SPEC.:G	DIM.: 0.3m	SERIAL No.:
MFR.: Alloy LED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 52.62 lm/W			
MODEL		Imax(cd)	23.10	S/MH(C0/180)	1.39
NOMINAL POWER(W)	1.51	LOR(%)	99.5	S/MH(C90/270)	1.38
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	79.606	η UP,DN(C0-180)	0.0,48.8
NOMINAL FLUX(lm)	80	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	η down(%)	99.5	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:
 Test Date:03/13/2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:6.020m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	22.81	22.81	22.86	22.97	22.97	23.03	23.02	22.89	0- 10	2.195	2.195	2.76,2.74
20	22.04	22.05	22.11	22.37	22.59	22.69	22.49	22.26	10- 20	6.419	8.614	10.8,10.8
30	20.67	20.88	20.75	21.21	21.53	21.81	21.31	21.16	20- 30	10.08	18.69	23.5,23.4
40	18.73	19.03	18.77	19.38	19.76	20.29	19.55	19.34	30- 40	12.75	31.44	39.5,39.3
50	16.12	16.44	15.90	16.80	17.18	17.84	16.81	16.63	40- 50	14.00	45.44	57.1,56.8
60	12.69	13.05	12.24	13.25	13.56	14.36	13.19	13.23	50- 60	13.48	58.92	74,73.6
70	8.576	8.785	7.861	8.824	9.198	9.833	8.804	8.949	60- 70	11.00	69.92	87.8,87.4
80	4.576	4.283	3.158	4.301	4.873	4.969	4.024	4.534	70- 80	6.958	76.88	96.6,96.1
90	1.788	1.306	0.0513	1.240	1.714	1.306	0	1.312	80- 90	2.731	79.61	100,99.5
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): 38.386 lm

%lum = 48.2%

%lamp = 48.0%

Conical surface Flux(120deg): 58.919 lm

%lum = 74.0%

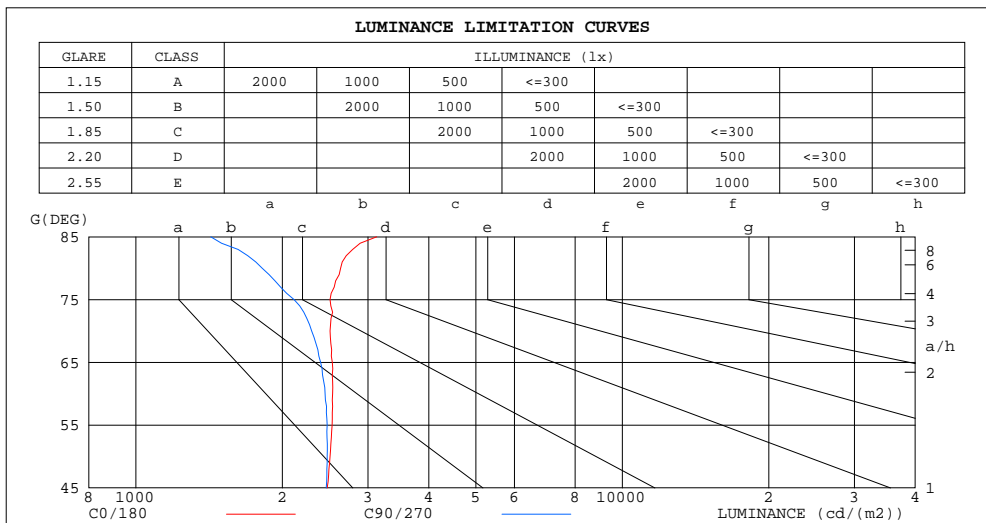
%lamp = 73.6%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:
 Test Date:03/13/2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:6.020m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.015V I:0.0630A P:1.5129W PF:1.0000 Freq:50.00Hz Lamp Flux:80x1 lm		
NAME: Radialux 5.9 Wet Location(4-in-one chip)-24V RGB-W LED Tape Light	WEIGHT:	
SPEC.:G	DIM.: 0.3m	SERIAL No.:
MFR.: Alloy LED	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3126	1425
80	2635	1818
75	2507	2113
70	2507	2298
65	2534	2398
60	2538	2448
55	2532	2474
50	2507	2474
45	2474	2461

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 20DEG
Operators:
Test Date: 03/13/2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 6.020m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:24.015V I:0.0630A P:1.5129W PF:1.0000 Freq:50.00Hz Lamp Flux:80x1 lm		
NAME: Radialux 5.9 Wet Location(4-in-one chip)-24V RGB-W LED Tape Light	WEIGHT:	
SPEC.:G	DIM.: 0.3m	SERIAL No.:
MFR.: Alloy LED	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0	
pw	50%	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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.339	.193	.061	.332	.190	.060	.319	.183	.058	.307	.177	.057	.295	.171	.055		
2.0	.312	.171	.053	.306	.169	.052	.294	.164	.051	.283	.159	.050	.273	.155	.049		
3.0	.285	.152	.046	.280	.150	.045	.269	.146	.044	.260	.142	.044	.251	.139	.043		
4.0	.261	.136	.040	.256	.134	.040	.247	.131	.039	.238	.128	.039	.230	.125	.038		
5.0	.240	.122	.035	.236	.121	.035	.227	.118	.035	.220	.116	.034	.212	.113	.034		
6.0	.221	.111	.032	.217	.110	.032	.210	.108	.031	.203	.106	.031	.197	.104	.031		
7.0	.205	.101	.029	.202	.100	.029	.195	.099	.028	.189	.097	.028	.183	.095	.028		
8.0	.191	.093	.026	.188	.092	.026	.182	.091	.026	.176	.089	.026	.171	.088	.026		
9.0	.178	.086	.024	.176	.086	.024	.170	.084	.024	.165	.083	.024	.161	.082	.024		
10.0	.167	.080	.022	.165	.080	.022	.160	.078	.022	.156	.077	.022	.151	.076	.022		

pcc	80%			70%			50%			30%			10%			0
pw	50%	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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.162	.162	.162	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.182	.155	.131	.155	.133	.113	.106	.092	.078	.061	.053	.045	.020	.017	.015	
2.0	.174	.131	.095	.149	.113	.082	.102	.078	.057	.059	.045	.034	.019	.015	.011	
3.0	.167	.114	.072	.143	.098	.062	.098	.068	.044	.057	.040	.026	.018	.013	.008	
4.0	.159	.101	.056	.137	.087	.049	.094	.061	.034	.054	.036	.020	.018	.012	.007	
5.0	.152	.091	.045	.130	.078	.039	.090	.055	.028	.052	.032	.017	.017	.010	.005	
6.0	.145	.082	.038	.124	.071	.033	.086	.050	.023	.050	.029	.014	.016	.010	.005	
7.0	.138	.075	.032	.118	.065	.028	.082	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.131	.070	.028	.113	.060	.024	.078	.042	.017	.045	.025	.010	.015	.008	.003	
9.0	.125	.065	.024	.107	.056	.021	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.119	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators:
 Test Date: 03/13/2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 6.020m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.015V I:0.0630A P:1.5129W PF:1.0000 Freq:50.00Hz Lamp Flux:80x1 lm											
NAME: Radialux 5.9 Wet Location(4-in-one chip)-24V RGB-W LED Tape Light						WEIGHT:					
SPEC.:G						DIM.: 0.3m			SERIAL No.:		
MFR.: Alloy LED						SUR.:			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	25.0	26.6	25.3	26.8	27.0	24.9	26.5	25.2	26.7	26.9	
	3H	26.8	28.3	27.1	28.5	28.8	26.5	28.0	26.8	28.3	28.5
	4H	27.6	29.0	27.9	29.2	29.5	27.2	28.6	27.5	28.8	29.1
	6H	28.3	29.6	28.6	29.9	30.1	27.6	28.9	27.9	29.2	29.5
	8H	28.5	29.8	28.9	30.1	30.4	27.7	29.0	28.1	29.3	29.6
	12H	28.8	30.0	29.1	30.3	30.6	27.8	29.0	28.1	29.3	29.6
4H	2H	25.7	27.1	26.0	27.4	27.6	25.6	27.0	25.9	27.3	27.6
	3H	27.7	28.9	28.1	29.2	29.5	27.5	28.7	27.8	29.0	29.3
	4H	28.6	29.8	29.0	30.1	30.4	28.2	29.4	28.6	29.7	30.0
	6H	29.4	30.5	29.9	30.8	31.2	28.8	29.8	29.2	30.2	30.5
	8H	29.8	30.8	30.2	31.1	31.5	29.0	29.9	29.4	30.3	30.7
	12H	30.1	31.0	30.6	31.4	31.8	29.1	30.0	29.5	30.3	30.7
8H	4H	29.0	29.9	29.4	30.3	30.7	28.6	29.6	29.0	29.9	30.3
	6H	30.0	30.8	30.4	31.2	31.6	29.3	30.1	29.8	30.5	31.0
	8H	30.5	31.2	30.9	31.6	32.1	29.6	30.3	30.1	30.8	31.2
	12H	30.9	31.6	31.4	32.0	32.5	29.8	30.4	30.3	30.9	31.4
12H	4H	29.0	29.8	29.4	30.2	30.6	28.7	29.5	29.1	29.9	30.3
	6H	30.1	30.8	30.5	31.2	31.7	29.5	30.2	29.9	30.6	31.1
	8H	30.6	31.2	31.1	31.7	32.2	29.8	30.4	30.3	30.9	31.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.1 / - 0.4					+ 0.2 / - 0.4					

CIE Pub.117, 80.00 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -8.8$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators:
 Test Date: 03/13/2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 6.020m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.015V I:0.0630A P:1.5129W PF:1.0000 Freq:50.00Hz Lamp Flux:80x1 lm		
NAME: Radialux 5.9 Wet Location(4-in-one chip)-24V RGB-W LED Tape Light	WEIGHT:	
SPEC.:G	DIM.: 0.3m	SERIAL No.:
MFR.: Alloy LED	SUR.:	Shielding Angle:

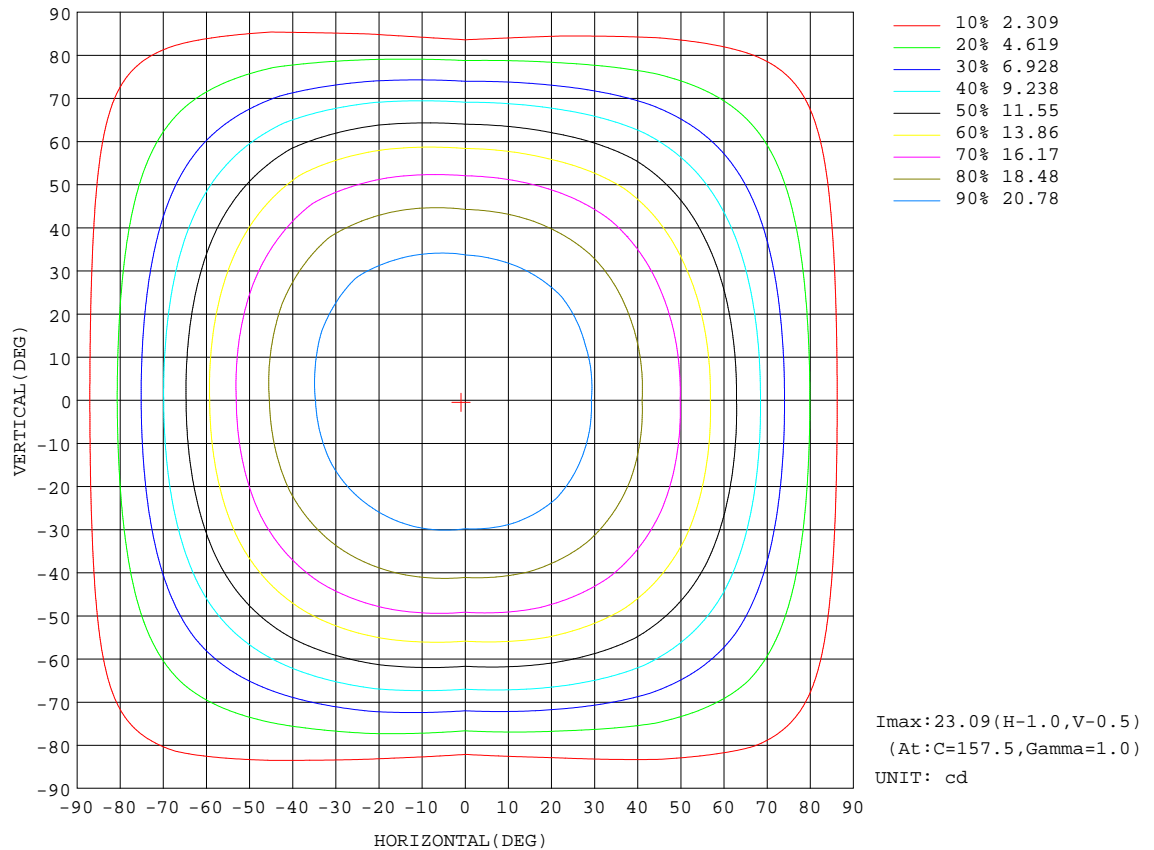
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	54	42	35	54	42	35	52	42	35	28
0.80	64	52	44	63	52	44	61	51	44	37
1.00	73	61	53	71	60	53	69	62	52	45
1.25	80	69	61	78	68	61	76	67	60	52
1.50	85	74	67	83	74	66	80	72	65	57
2.00	92	83	76	90	82	75	87	79	74	66
2.50	96	88	81	94	87	81	90	84	79	70
3.00	100	92	86	98	91	85	94	88	83	74
4.00	104	98	93	102	96	92	97	93	89	80
5.00	107	102	97	104	100	95	100	96	92	83
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: 20DEG
 Operators:
 Test Date: 03/13/2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 6.020m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:24.015V I:0.0630A P:1.5129W PF:1.0000 Freq:50.00Hz Lamp Flux:80x1 lm		
NAME: Radialux 5.9 Wet Location(4-in-one chip)-24V RGB-W LED Tape Light	WEIGHT:	
SPEC.:G	DIM.: 0.3m	SERIAL No.:
MFR.: Alloy LED	SUR.:	Shielding Angle:



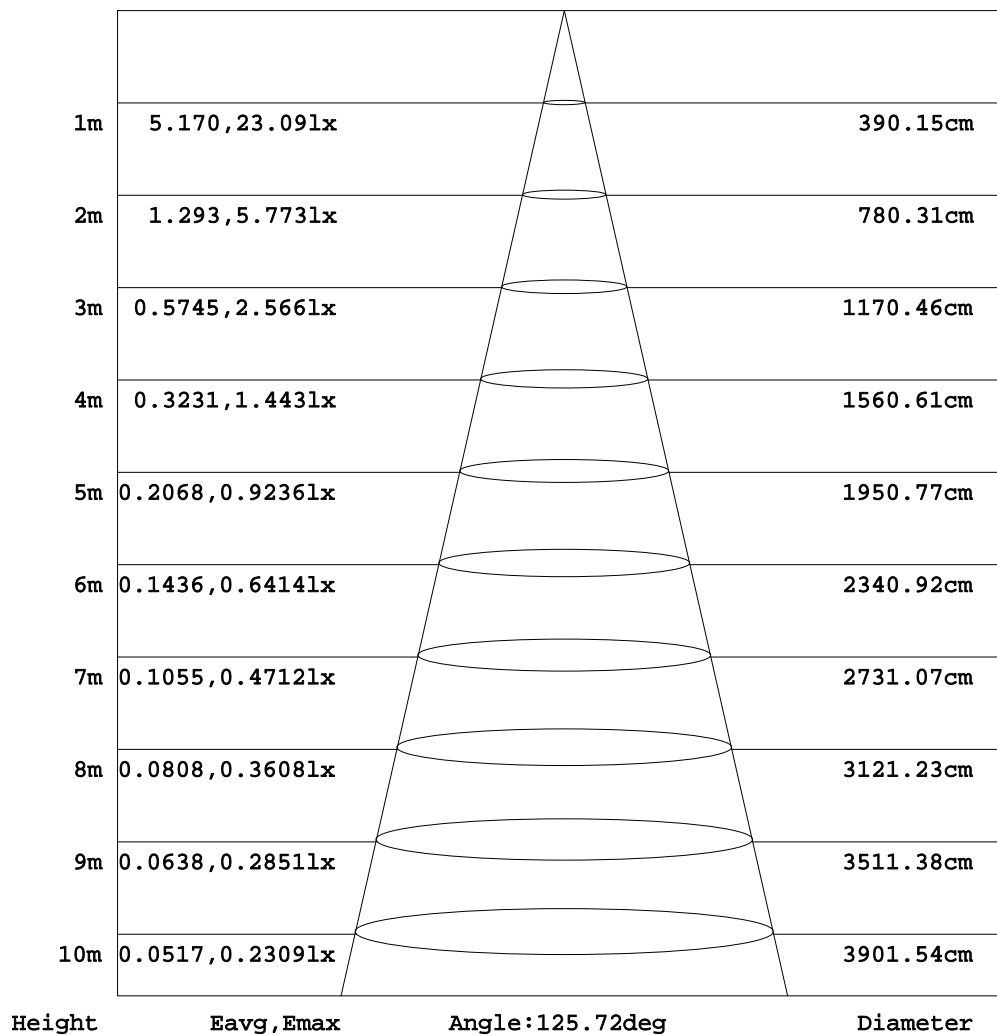
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators:
 Test Date: 03/13/2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 6.020m [K=1.0000]
 Remarks:

AAI Figure

Test:U:24.015V I:0.0630A P:1.5129W PF:1.0000 Freq:50.00Hz Lamp Flux:80x1 lm		
NAME: Radialux 5.9 Wet Location(4-in-one chip)-24V RGB-W LED Tape Light	WEIGHT:	
SPEC.:G	DIM.: 0.3m	SERIAL No.:
MFR.: Alloy LED	SUR.:	Shielding Angle:

Flux out:62.56 lm

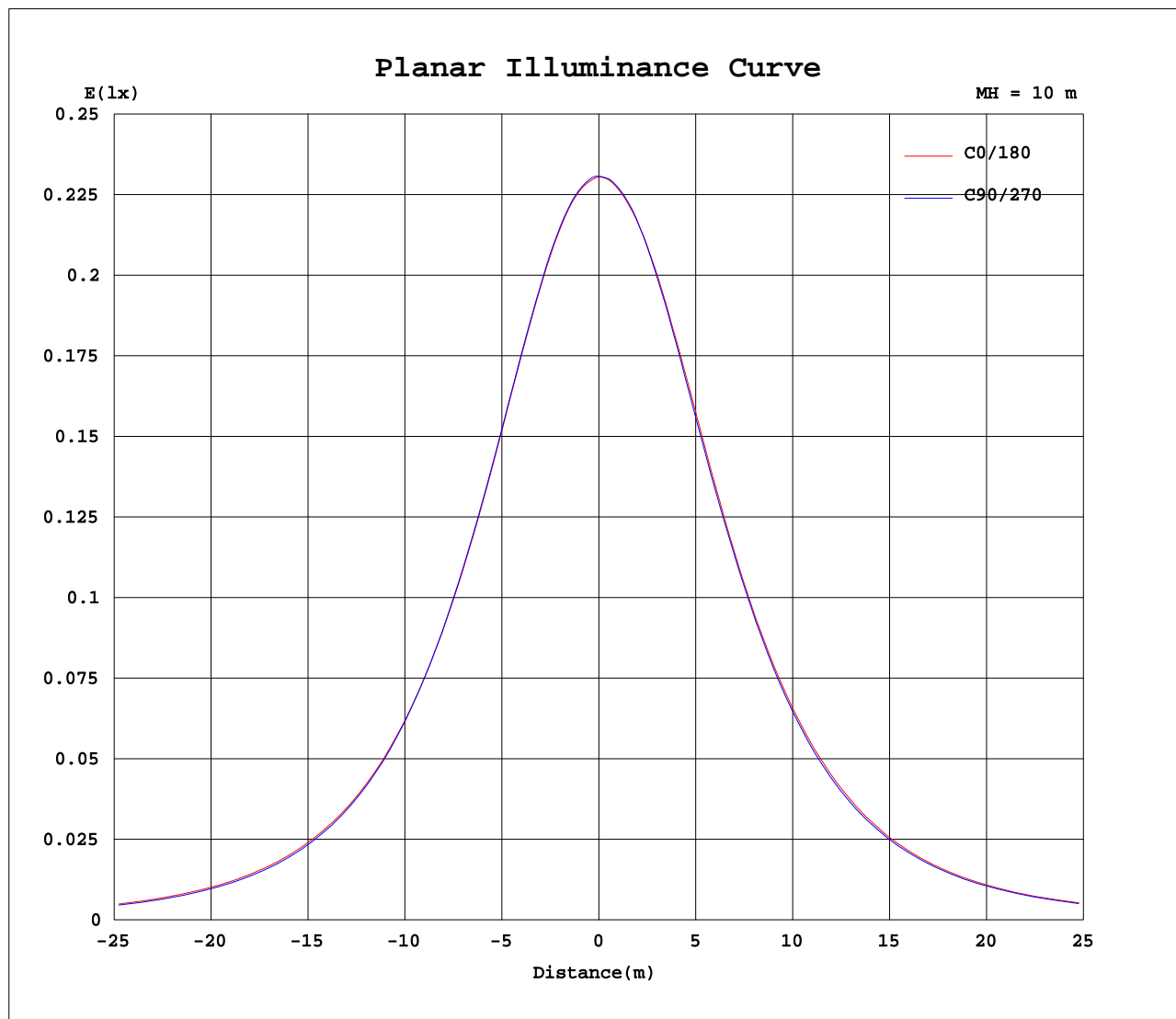


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators:
 Test Date: 03/13/2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 6.020m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 20DEG
Operators:
Test Date: 03/13/2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 6.020m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.015V I:0.0630A P:1.5129W PF:1.0000 Freq:50.00Hz Lamp Flux:80x1 lm		
NAME: Radialux 5.9 Wet Location(4-in-one chip)-24VTRB-WELED Tape Light	WEIGHT:	
SPEC.:G	DIM.: 0.3m	SERIAL No.:
MFR.: Alloy LED	SUR.:	Shielding Angle:

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 20DEG
Operators:
Test Date: 03/13/2017

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:6.020m [K=1.0000]
Remarks:

```

Photometric Data Table [cd]

G/C	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5
0.0	23.05	23.06	23.06	23.07	23.08	23.08	23.08	23.09	23.05	23.06
3.0	22.99	23.00	23.02	23.03	23.05	23.05	23.07	23.08	23.05	23.06
6.0	22.94	22.94	22.94	22.97	22.98	22.99	23.05	23.05	23.01	23.04
9.0	22.86	22.85	22.85	22.86	22.90	22.95	23.01	23.04	22.98	23.00
12.0	22.70	22.69	22.69	22.71	22.76	22.82	22.90	22.99	22.94	22.96
15.0	22.51	22.51	22.49	22.54	22.58	22.64	22.76	22.87	22.86	22.88
18.0	22.25	22.25	22.24	22.32	22.31	22.42	22.56	22.70	22.73	22.77
21.0	21.93	21.95	21.97	22.04	22.01	22.12	22.28	22.49	22.51	22.59
24.0	21.58	21.62	21.68	21.70	21.65	21.78	21.97	22.18	22.27	22.40
27.0	21.15	21.21	21.33	21.30	21.22	21.43	21.63	21.83	21.95	22.14
30.0	20.67	20.76	20.88	20.85	20.75	21.01	21.21	21.44	21.53	21.78
33.0	20.14	20.26	20.40	20.37	20.23	20.49	20.72	20.97	21.07	21.36
36.0	19.57	19.69	19.83	19.83	19.66	19.91	20.20	20.42	20.53	20.87
39.0	18.94	19.09	19.22	19.16	18.99	19.30	19.58	19.84	19.94	20.32
42.0	18.25	18.46	18.55	18.47	18.25	18.61	18.91	19.20	19.29	19.68
45.0	17.49	17.74	17.80	17.70	17.40	17.83	18.15	18.47	18.57	18.97
48.0	16.69	16.97	17.01	16.88	16.52	16.99	17.36	17.64	17.76	18.20
51.0	15.81	16.08	16.15	15.96	15.58	16.08	16.49	16.76	16.86	17.30
54.0	14.84	15.15	15.18	14.98	14.51	15.08	15.48	15.78	15.85	16.31
57.0	13.80	14.12	14.14	13.90	13.42	13.99	14.39	14.67	14.74	15.22
60.0	12.69	13.02	13.05	12.74	12.24	12.86	13.25	13.50	13.56	14.01
63.0	11.50	11.85	11.85	11.48	10.98	11.64	11.99	12.22	12.30	12.74
66.0	10.26	10.59	10.58	10.17	9.667	10.34	10.66	10.91	10.99	11.39
69.0	9.000	9.265	9.249	8.801	8.326	9.010	9.286	9.552	9.667	9.998
72.0	7.785	7.946	7.872	7.384	6.939	7.616	7.907	8.184	8.304	8.566
75.0	6.490	6.613	6.502	5.948	5.470	6.184	6.506	6.848	6.992	7.218
78.0	5.353	5.409	5.128	4.462	4.017	4.736	5.157	5.514	5.719	5.850
81.0	4.156	4.181	3.893	3.197	2.759	3.342	3.895	4.308	4.504	4.569
84.0	3.022	3.041	2.727	2.152	1.567	2.227	2.774	3.236	3.384	3.436
87.0	2.056	2.059	1.783	1.275	0.6716	1.310	1.842	2.202	2.320	2.314
90.0	1.788	1.679	1.306	0.6950	0.0513	0.6888	1.240	1.607	1.714	1.667

G/C	225.0	247.5	270.0	292.5	315.0	337.5
0.0	23.06	23.07	23.08	23.08	23.08	23.09
3.0	23.06	23.07	23.08	23.08	23.05	23.05
6.0	23.07	23.08	23.06	23.05	23.00	23.01
9.0	23.05	23.06	23.03	22.96	22.92	22.90
12.0	22.99	23.01	22.95	22.86	22.79	22.76
15.0	22.92	22.92	22.81	22.70	22.63	22.55
18.0	22.83	22.75	22.63	22.56	22.43	22.30
21.0	22.63	22.53	22.39	22.30	22.17	21.98
24.0	22.41	22.27	22.08	21.99	21.88	21.67
27.0	22.11	21.93	21.73	21.66	21.56	21.29
30.0	21.81	21.57	21.31	21.25	21.16	20.85
33.0	21.43	21.18	20.88	20.79	20.67	20.34
36.0	21.00	20.70	20.36	20.27	20.15	19.78
39.0	20.45	20.15	19.74	19.63	19.54	19.18
42.0	19.85	19.51	19.04	18.94	18.81	18.49
45.0	19.16	18.76	18.28	18.18	18.04	17.73
48.0	18.38	17.94	17.41	17.34	17.23	16.91
51.0	17.55	17.05	16.48	16.42	16.34	16.03
54.0	16.57	16.08	15.45	15.38	15.39	15.05
57.0	15.51	15.01	14.35	14.29	14.35	13.99
60.0	14.36	13.87	13.19	13.14	13.23	12.88
63.0	13.09	12.65	11.94	11.91	12.02	11.69
66.0	11.73	11.33	10.63	10.62	10.73	10.42
69.0	10.34	9.955	9.284	9.292	9.421	9.132
72.0	8.850	8.507	7.856	7.914	8.021	7.827
75.0	7.349	7.000	6.418	6.517	6.673	6.577
78.0	5.911	5.488	4.973	5.117	5.389	5.356
81.0	4.563	4.063	3.490	3.784	4.130	4.177
84.0	3.284	2.800	2.102	2.654	2.936	3.036
87.0	2.213	1.699	0.7245	1.549	1.872	1.998
90.0	1.306	0.6950	0	0.6827	1.312	1.697

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators:
 Test Date: 03/13/2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 6.020m [K=1.0000]
 Remarks: