

# Back-lit LED Panel

Up to 125lm/w | CCT & Wattage Adjustable



Designed to deliver an unprecedented uniformity and functionality, this back-lit panel features a compact yet sturdy aluminum construction designed to blend into modern architectural spaces. Featuring a low profile form factor, it is ideal for buildings with a low plenum space and is suitable for all standard 2x2, 1X4 or 2x4 grid ceilings. This creates a soft and comfortable lighting experience for commercial and institutional spaces including open offices, classrooms, retail and healthcare facilities, goes beyond what was previously possible with traditional LED luminaires.



\*DesignLights Consortium Qualified and classified for DLC standard/premium, refer to [www.designlights.org](http://www.designlights.org) for details

## Feature

- Low profile design
- Uniform and soft illumination with back-lit technology
- CCT adjustable from 3500k, 4000k and 5000k
- Wattage adjustable, up to 125lm/w

## PERFORMANCE

Model NO.	Dimension	Wattage Adjustable	Lumen Output			Efficacy	CCT Adjustable
			High	Medium	Low		
TR22-DM-TWPP	2'x2'	35W/30W/25W	4300lm	3700lm	3100lm	Up to 125lm/w	3500K/4000K/5000K
TR14-DM-TWPP	1'x4'	35W/30W/25W	4300lm	3700lm	3100lm	Up to 125lm/w	3500K/4000K/5000K
TR24-DM-TWPP	2'x4'	50W/40W/30W	6200lm	5000lm	3700lm	Up to 125lm/w	3500K/4000K/5000K

All efficacy is ±5% base on different CCT and wattage. Check the IES file to gain the accurate data .

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## PRODUCT PERFORMANCE

### ► Finish

Extruded aluminum housing with powder coat white finish provides long term performance and superior aesthetic.

### ► Electrical

LED Driver	It is powered by Class 2 high efficiency LED driver, with a standard 1-10V dimming which continuous dims to 10% that works with many types of controls. Tested Dimmers: Lutron ® Diva-Dvtv, Leviton ® IP-710-DL.
THD	<20%
Power Factor	>0.9
Input Voltage	Standard electronic driver is UL recognized and available for 110-277V or 110-347V AC.

### ► LED System

CRI	Minimum 80 color rendering index
CCT	CCT adjustable from 3500K, 4000K and 5000K with a great color consistency
LED	life Minimum 50,000h with 87.8% of lumen maintenance in 25°C ambient temperature, in compliance with IES LM-80 testing measurements.
Thermal Management	Aluminum housing acting as the heat sink to maximize life.
Environment	Damp rated in operating ambient temperatures of -20-40°C.

### ► Mounting

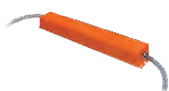
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### ► Approvals

- cULus listed for damp locations
- Tested to IESNA LM-79 and LM-80
- DesignLights Consortium Qualified and classified for DLC standard/premium, refer to [www.designlights.org](http://www.designlights.org) for details
- 5 years limited warranty

### ► Optional Function

**Emergency Option** Optional high voltage 8W emergency LED driver EM-H08170-LBF can be provided. When AC power fails, it immediately switches to the emergency mode, operating for lighting up to 120 minutes. When AC power is restored, it automatically returns to the charging mode which meets critical life-safety lighting requirements. For more info or spec sheet, please visit [www.oktlighting.com](http://www.oktlighting.com) or contact sales.

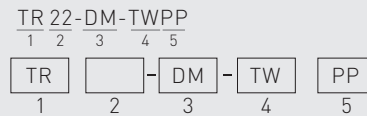


Emergency Lumen Output:

Fixture Efficacy	Output Power 8w
125lm/w	1000 Lumens

## PRODUCT ORDERING GUIDE

### Sample



### 1. Base Model

TR

### 2. Size

- 22 2'X2'  
 14 1'X4'  
 24 2'X4'

### 3. Dimming

DM 1-10V Dimming

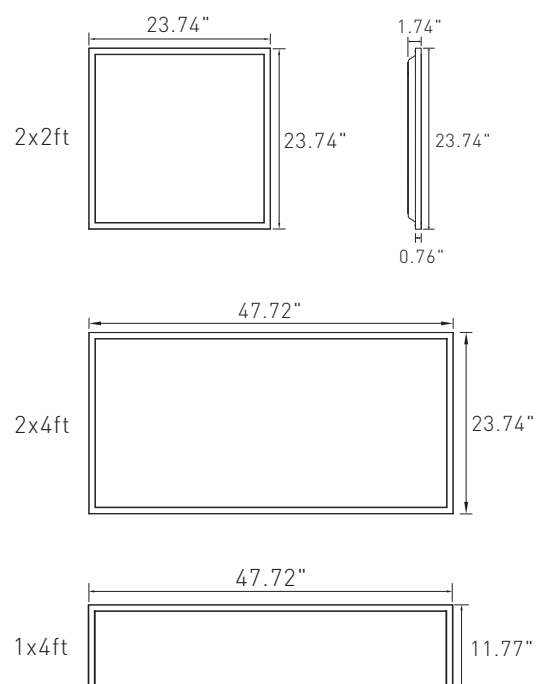
### 4. CCT

TW CCT adjustable from 3500K, 4000K and 5000K.

### 5. Efficacy

PP 125lm/w

## DIMENSION



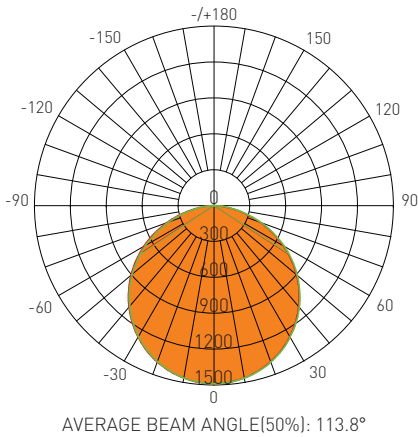
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## DISTRIBUTION DIAGRAM

2'X2' / 3500K



Test Number: TR22-DM-TWPP UNIT: cd  
 Lumens: 4301.4 Lm — C0/180, 114.0°  
 Watts: 33.84 W — C30/270, 113.7°  
 LPW: 127.11 Lm/W  
 CCT: 3500K

Zonal Flux Diagram

τ	C0	C45	C90	C135	C180
10	1462	1463	1464	1464	1463
20	1387	1388	1391	1390	1390
30	1265	1267	1272	1270	1269
40	1102	1105	1109	1108	1106
50	899.5	907.2	910.1	911.1	906.2
60	667.5	676.4	678.0	681.3	675.2
70	412.2	421.3	420.7	426.6	422.6
80	158.4	163.0	167.5	169.2	168.8
90	0.0021	0.0827	0	0	0
100	0	0	0	0	0
110	0.5865	0.2873	0.2653	0.3728	0.0009
120	1.272	0.8185	0.6473	1.081	0.7099
130	1.333	0.8461	1.252	0.9871	1.351
140	1.352	0.3354	1.263	0.4227	1.606
150	1.293	0	1.396	0	1.606
160	1.014	0	1.293	0	1.606
170	1.204	0	1.279	0	1.606
180	1.268	0	1.269	0	1.690
DEG	LUMINOUS INTENSITY:cd				

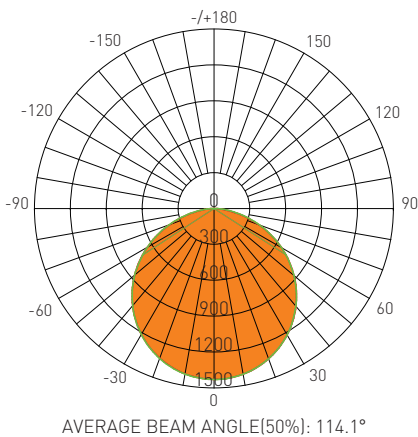
Zonal Lumens

τ	φ total
0-10	140.8
10-20	544.7
20-30	1159
30-40	1903
40-50	2680
50-60	3386
60-70	3925
70-80	4228
80-90	4298
90-100	4298
100-110	4298
110-120	4298
120-130	4299
130-140	4300
140-150	4301
150-160	4301
160-170	4301
170-180	4301
UNIT: lm	

Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	6318	7326
80	9129	9642
75	10863	11205
70	12056	12298
65	12824	13021
60	13356	13558
55	13736	13909
50	14000	14156
45	14213	14341

1'X4' / 3500K



Test Number: TR14-DM-TWPP UNIT: cd  
 Lumens: 4145.4 Lm — C0/180, 114.2°  
 Watts: 32.59 W — C30/270, 114.1°  
 LPW: 127.20 Lm/W  
 CCT: 3500K

Zonal Flux Diagram

τ	C0	C45	C90	C135	C180
10	1406	1411	1405	1403	1403
20	1336	1344	1335	1331	1330
30	1221	1230	1221	1214	1215
40	1066	1072	1065	1056	1060
50	874.3	879.1	872.2	863.9	867.20
60	649.4	654.7	648.9	643.3	642.9
70	400.5	406.8	406.7	398.2	395.7
80	156.2	163.9	168.1	158.9	156.9
90	0	0.0354	0.6583	0.0612	0
100	0	0	0.8837	0	0
110	0	0	0.8582	0	0
120	0	0.4148	0	0.2001	0.1895
130	0	0.6647	0	0.4461	0.3629
140	0.0833	0.9221	0	0.6321	0.5047
150	0.0833	1.118	0	0.8234	0.6617
160	0.0833	1.427	0	1.288	0.8186
170	1.165	2.292	0	2.643	1.499
180	1.333	2.496	0	2.643	1.250
DEG	LUMINOUS INTENSITY:cd				

Zonal Lumens

τ	φ total
0-10	135.2
10-20	523.4
20-30	1114
30-40	1830
40-50	2578
50-60	3258
60-70	3777
70-80	4070
80-90	4142
90-100	4143
100-110	4143
110-120	4143
120-130	4143
130-140	4144
140-150	4144
150-160	4145
160-170	4145
170-180	4145
UNIT: lm	

Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	6865	7756
80	9004	9676
75	10654	10966
70	11722	11891
65	12470	12531
60	12999	12977
55	13355	13311
50	13615	13566
45	13794	13750

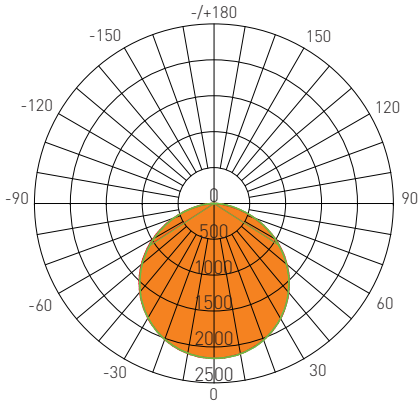
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## DISTRIBUTION DIAGRAM

2'x4' / 3500K



AVERAGE BEAM ANGLE(50%): 114.3°

Test Number: TR24-DM-TWPP UNIT: cd  
 Lumens: 6273.1 Lm — CD/180, 114.6°  
 Watts: 48.04 W — C30/270, 113.9°  
 LPW: 130.57 Lm/W  
 CCT: 3500K

### Zonal Flux Diagram

τ	C0	C45	C90	C135	C180
10	2124	2135	2126	2120	2120
20	2022	2038	2023	2013	2015
30	1852	1868	1850	1839	1843
40	1619	1633	1614	1604	1610
50	1327	1338	1320	1313	1320
60	984.1	993.5	976.9	975.5	980.9
70	602.2	614.9	607.2	604.3	605.0
80	225.5	244.8	252.7	246.0	242.0
90	0.4017	0.9521	1.566	1.256	1.279
100	0	0.4857	1.158	0.3439	0
110	0.0869	0.9575	1.246	1.041	0.4367
120	0.5235	1.143	0.0874	1.134	0.9131
130	1.144	0.7854	0	0.8596	1.194
140	1.201	0	0	0.0900	1.340
150	0.7834	0	0.0859	0	1.381
160	0.7090	0	0.0859	0	1.385
170	1.101	0	0.0859	0	1.388
180	1.304	0	0.1718	0	1.391
DEG	LUMINOUS INTENSITY:cd				

### Zonal Lumens

τ	φ total
0-10	204.2
10-20	791.0
20-30	1685
30-40	2772
40-50	3906
50-60	4936
60-70	5719
70-80	6160
80-90	6269
90-100	6270
100-110	6271
110-120	6272
120-130	6272
130-140	6272
140-150	6273
150-160	6273
160-170	6273
170-180	6273
	UNIT: lm

### Luminance cd/(m2)

G(DEG)	C0/180	C90/270
85	9299	11943
80	12997	14553
75	15728	16352
70	17621	17758
65	18850	18783
60	19696	19544
55	20273	20124
50	20657	20541
45	20935	20842