

TCP's DT Series Luminaires feature backlit technology with a robust construction that still offers a slim, low-profile design with beautiful full panel diffusion and superior uniformity.

These energy-efficient troffers offer a cost-effective solution to maximize energy savings and take advantage of potential utility rebates where applicable.

Applications: T-bar Grid Ceilings

## Reasons to choose the LED DT Series Luminaires from TCP

- Provides energy savings over fluorescent alternatives
   and potential rebate eligibility
- Long 50,000 hour rated life significantly reduces maintenance labor and material costs
- Excellent color consistency and CRI enhance color of focal point while maintaining uniformity throughout lighting installation
- Mercury free construction is great for all environments

- Fits standard 1" and 9/16" T-bar grid ceilings
- Utilizes backlit technology for full diffusion with excellent uniformity
- Slim, low-profile design and lightweight for easy handling
- Battery Backup is Title 20 Compliant

**Ideal Applications** 

- Office
- Retail Stores

- Schools
- Hospitality

- Restaurants
- Healthcare





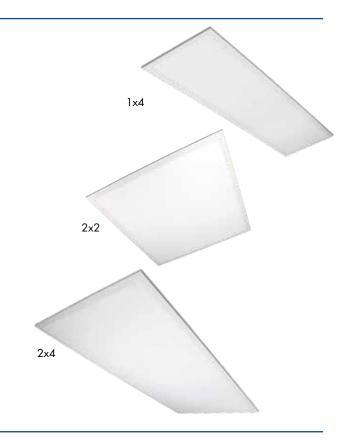




# LED DT Series Luminaires with Selectable CCT

## **Specifications**

Input Line Voltage Input Line Frequency (Hz) Wattage (W)	
	23W/29W/38W
2×2	23W/29W/38W
	29W/39W/46W
Lumens (L)	
1x4	2600L/3200L/4200L
	2600L/3200L/4200L
2x4	3300L/4400L/5100L
Lumens per Watt (LPW)	
Rated Life	50,000 hours
Minimum Starting Temperature	20°C
Maximum Operating Temperature	40°C
CRI	
Power Factor	>90%
THD	<20%
RatingsUL/cUL do	amp location rated, IC rated, IP20
Controls	



## Replacement Strategy

SYSTEM	BALLAST FACTOR	LUMENS	INPUT WATTS*	LED ENERGY SAVINGS
TCP LED Direct Troffer - 2x2, 1x4	_	3200	29	_
2 Lamp 34W T12 U-Bend 2 Lamp 32W T8 U-Bend 2 Lamp 24W T5HO	0.88 0.88 1.0	4420 4275 3145	74 58 54	61% 50% 46%
TCP LED Direct Troffer - 2x4	_	5100	46	_
3 Lamp 32W T8 HBF 3 Lamp 32W T8 NBF 2 Lamp 32W T8 HBF 2 Lamp 28W T5 2 Lamp 32W T8 NBF	1.18 0.88 1.18 1.0 0.88	6960 6681 4658 4675 4468	93 89 65 63 59	50% 48% 29% 27% 22%

NOTE: Charts show system lumens (delivered lumens), NOT straight lamp lumen output. This is calculated as follows:

System lumens = mean lumens x # lamps x ballast factor x luminaire efficiency factor







<sup>\*</sup>Actual wattage may differ by +/- 5%, when operating between 120-277V +/- 10%.



## 1x4 LED DT Series Luminaires with Selectable CCT

## **Applications**

TCP LED DT Series Luminaires are cost-effective, high-efficiency alternatives to traditional T5, T8 and T12 linear fluorescent troffers. Featuring a slim, low-profile design, our LED DT Series Luminaires use backlit technology to deliver full panel diffusion and superior uniformity that meets or exceeds the output from edge-lit panels. Applications include offices, schools, retail locations, healthcare, hospitality and other T-grid and commercial ceilings.

#### Construction

- Rectangular white frame
- · Lens: frosted white diffuser
- IP20 rated
- IC rated for direct contact with insulation
- Designed for easy drop into T-bar grid ceilings

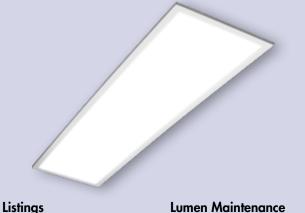
#### Electrical

- UL/cUL damp location rated
- 0-10V dimming driver (standard)
- LED driver with integrated junction box
- System rated for long 50,000 hour life

#### **Optics**

- Backlit technology provides even, uniform lighting
- 120° beam angle
- Frosted diffuser for reduced glare and aesthetic appeal
- Meets or exceeds the look and performance of edge-lit panels

Item Number	
Notes	Туре



UL/cUL Listed IC Rated **RoHS** Compliant DLC 5.1 Standard L70 > 54000 hours

#### Warranty

Five year limited warranty against defects in manufacturing.

Cato	Catalog Ordering Matrix Example: DTF1UZD38CCT								
FAMILY	LENS TYPE	SIZE	VOLTAGE	DIMMING	WATTAGE <sup>1,2,3</sup>	COLOR TEMPERATURE	OPTIONS	FRAME OPTIONS <sup>5</sup>	
<b>DT</b> = Direct	DT = Direct Troffer F = Frosted $\mathbf{I} = 1' \times 4'$ $\mathbf{H} = 120.347 \text{V}^{\circ}$	<b>U</b> = 120-277V	<b>75</b> 0 10V D: :	<b>23</b> = 2600 Lumens	<b>CCT =</b> 3500/4100/5000K	EB = Battery Backup*	BLANK = White Frame		
Troffer		ed   <b>1</b> = 1' x 4'	<b>H</b> = 120-347V <sup>6</sup>	<b>ZD</b> = 0-10V Dimming	<b>29</b> = 3200 Lumens <b>38</b> = 4200 Lumens	Selectable	CP = Chicago Plenum IS = Integrated Microwave Sensor SM = SmartBox with Sensor	BLK = Black Frame	

<sup>&</sup>lt;sup>1</sup>Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application. <sup>2</sup> Actual wattage may differ by +/- 5%; when operating between 120-277V +/- 10%.

#### **Accessories:**

Item Number	Description
YHANGER6PK	y fit Cable Hanger 6 Pack (Hangs 3 Units)
DTSK1	SURFACE MOUNT KIT FOR 1X4 PANELS
DTFLK1	recess mount flange kit for 1x4 panels
ISREMOTE	remote for integrated sensor
FPDRV2DD	REPLACEMENT DRIVER FOR 1X4 AND 2X2 PANELS

For the most up-to-date specs and warranty information, please visit www.tcpi.com







<sup>&</sup>lt;sup>3</sup> 23W and 29W are permanently fixed; 38W is adjustable to 29W or 23W.

<sup>&</sup>lt;sup>4</sup>ILBCP07ATBTS – 7W battery backup, Title 20 compliant. Battery Backup will operate at highest CCT when activated.

<sup>&</sup>lt;sup>5</sup> Special frame colors are special order only. Please work with supply chain for lead times.

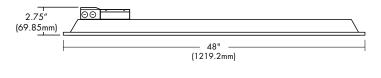
<sup>&</sup>lt;sup>6</sup> Not all options are available with 120-347V.

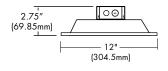


# 1x4 LED DT Series Luminaires with Selectable CCT

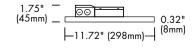
## Dimensions and Mounting Data

#### **DT Series Luminaire**





#### **Edge-lit Flat Panel**

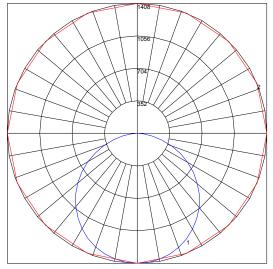




## Photometric Report

Based on photometric data for TCP Item # DTF1UZD38CCT (38W, 41K)

## **Polar Graph**



 $\label{eq:maximum Candela = 1407.6 Located At Horizontal Angle = 0, Vertical Angle = 0 \\ \#\ 1 \cdot Vertical Plane Through Horizontal Angles (0 \cdot 180) (Through Max. Cd.) \\ \#\ 2 \cdot Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.) \\ \end{aligned}$ 

## Average Luminance candelas/square meter (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3631	3602	3585
55	3506	3474	3437
65	3292	3239	3179
75	2892	2795	2680
8.5	2165	1983	1746

Spacing Criterion (0-180): 1.28 Spacing Criterion (90-270): 1.28

Specifications and dimensions subject to change without notice.

## Coefficients of Utilization - Zonal Cavity Method

#### Effective Floor Cavity Reflectance 0.20

RC		80		•		70				50			30			10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

## **Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixt
0-20	515.20	N.A.	12.70
0-30	1095.31	N.A.	27.10
0-40	1796.69	N.A.	44.40
0-60	3184.62	N.A.	78.70
0-80	3967.55	N.A.	98.10
0-90	4044.17	N.A.	100.00
10-90	3910.96	N.A.	96.70
20-40	1281.49	N.A.	31.70
20-50	2010.58	N.A.	49.70
40-70	1887.56	N.A.	46.70
60-80	782.93	N.A.	19.40
70-80	283.30	N.A.	7.00
80-90	76.63	N.A.	1.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.76	N.A.	0.00
110-180	0.76	N.A.	0.00
0-180	4044.93	N.A.	100.00

Total Luminaire Efficiency = N.A.%









## 2x2 LED DT Series Luminaires with Selectable CCT

## **Applications**

TCP LED DT Series Luminaires are cost-effective, high-efficiency alternatives to traditional T5, T8 and T12 linear fluorescent troffers. Featuring a slim, low-profile design, our LED DT Series Luminaires use backlit technology to deliver full panel diffusion and superior uniformity that meets or exceeds the output from edge-lit panels. Applications include offices, schools, retail locations, healthcare, hospitality and other T-grid and commercial ceilings.

#### Construction

- Rectangular white frame
- Lens: frosted white diffuser
- IP20 rated
- IC rated for direct contact with insulation
- Designed for easy drop into T-bar grid ceilings

#### Electrical

- UL/cUL damp location rated
- LED driver with integrated junction box
- System rated for long 50,000 hour life

### **Optics**

- Backlit technology provides even, uniform lighting
- 120° beam angle
- Frosted diffuser for reduced glare and aesthetic appeal
- Meets or exceeds the look and performance of edge-lit panels

Item Number	
Notes	Туре



Catalo	Catalog Ordering Matrix Example: DTF2UZD38CCT								
FAMILY	LENS TYPE	SIZE	VOLTAGE	DIMMING	WATTAGE <sup>1,2,3</sup>	COLOR TEMPERATURE	OPTIONS	FRAME OPTIONS <sup>5</sup>	
<b>DT</b> = Direct	E - Erostod	<b>2</b> = 2' x 2'	<b>U</b> = 120-277V	<b>ZD</b> = 0-10V Dimming	23 = 2600 Lumens 29 = 3200 Lumens 29 = 4200 Lumens	CCT = 3500/4100/5000K Selectable	BLANK = None EB = Battery Backup <sup>4</sup> CP = Chicago Plenum	BLANK = White Frame	
Troffer F = Fro	F = Frosted		<b>H</b> = 120-347V <sup>6</sup>	<b>2D</b> = 0-10V Dimming	38 = 4200 Lumens (Wattage Selectable to 38W/29W/23W)	CCT2 <sup>7</sup> = 3000/4100/5000K Selectable	IS - Integrated Microwaye Sensor	BLK = Black Frame	

<sup>&</sup>lt;sup>1</sup>Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application. <sup>2</sup>Actual wattage may differ by +/- 5%; when operating between 120-277V +/- 10%.

#### Accessories:

Item Number	Description
YHANGER6PK	y fit Cable Hanger 6 Pack (Hangs 3 Units)
DTSK2	SURFACE MOUNT KIT FOR 2X2 PANELS
DTFLK2	recess mount flange kit for 2x2 panels
ISREMOTE	remote for integrated sensor
FPDRV2DD	replacement driver for 1x4 and 2x2 panels

For the most up-to-date specs and warranty information, please visit www.tcpi.com







<sup>&</sup>lt;sup>3</sup> 23W and 29W are permanently fixed; 38W is adjustable to 29W or 23W.

AILBCPO7ATBTS – 7W battery backup, Title 20 compliant. Battery Backup will operate at highest CCT when activated.

<sup>&</sup>lt;sup>5</sup> Special frame colors are special order only. Please work with supply chain for lead times.

<sup>&</sup>lt;sup>6</sup> Not all options are available with 120-347V.

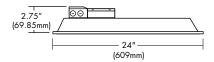
<sup>&</sup>lt;sup>7</sup> Special order item, contact sales rep for lead time.



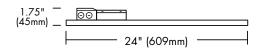
## 2x2 LED DT Series Luminaires with Selectable CCT

## **Dimensions and Mounting Data**

#### **DT Series Luminaire**



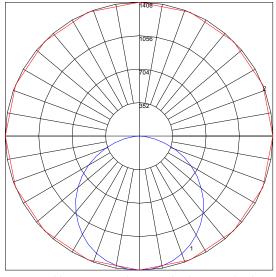
#### **Edge-lit Flat Panel**



## Photometric Report

Based on photometric data for TCP Item # DTF2UZD38CCT (38W, 41K)

## **Polar Graph**



Maximum Candela = 1407.6 Located At Horizontal Angle = 0, Vertical Angle = 0 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.) # 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

#### **Average Luminance** candelas/square meter (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3631	3602	3585
55	3506	3474	3437
65	3292	3239	3179
75	2892	2795	2680
85	2165	1983	1746

Spacing Criterion (0-180): 1.28 Spacing Criterion (90-270): 1.28

#### **TCP**®

## Specifications and dimensions subject to change without notice.

## Coefficients of Utilization - Zonal Cavity Method

#### **Effective Floor Cavity Reflectance 0.20**

RC		80		_		70				50			30			10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

## **Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixt
0-20	515.20	N.A.	12.70
0-30	1095.31	N.A.	27.10
0-40	1796.69	N.A.	44.40
0-60	3184.62	N.A.	78.70
0-80	3967.55	N.A.	98.10
0-90	4044.17	N.A.	100.00
10-90	3910.96	N.A.	96.70
20-40	1281.49	N.A.	31.70
20-50	2010.58	N.A.	49.70
40-70	1887.56	N.A.	46.70
60-80	782.93	N.A.	19.40
70-80	283.30	N.A.	7.00
80-90	76.63	N.A.	1.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.76	N.A.	0.00
110-180	0.76	N.A.	0.00
0-180	4044.93	N.A.	100.00

Total Luminaire Efficiency = N.A.%









# 2x4 LED DT Series Luminaires with Selectable CCT

## **Applications**

TCP LED DT Series Luminaires are cost-effective, high-efficiency alternatives to traditional T5, T8 and T12 linear fluorescent troffers. Featuring a slim, low-profile design, our LED DT Series Luminaires use backlit technology to deliver full panel diffusion and superior uniformity that meets or exceeds the output from edge-lit panels. Applications include offices, schools, retail locations, healthcare, hospitality and other T-grid and commercial ceilings.

#### Construction

- Rectangular white frame
- Lens: frosted white diffuser
- IP20 rated
- IC rated for direct contact with insulation
- Designed for easy drop into T-bar grid ceilings

#### Electrical

- UL/cUL damp location rated
- 0-10V dimming driver (standard)
- LED driver with integrated junction box
- System rated for long 50,000 hour life

### **Optics**

- Backlit technology provides even, uniform lighting
- 120° beam angle
- Frosted diffuser for reduced glare and aesthetic appeal
- Meets or exceeds the look and performance of edge-lit panels

Item Number	
Notes	Туре



Catalog Ordering Matrix Example: DTF4UZD46CCT								
FAMILY	LENS TYPE	SIZE	VOLTAGE	DIMMING	WATTAGE <sup>1,2,3</sup>	COLOR TEMPERATURE	OPTIONS	FRAME OPTIONS <sup>5</sup>
DT = Direct Troffer F	<b>F</b> = Frosted	<b>4</b> = 2' × 4'	<b>U</b> = 120-277V	<b>7D</b> 0.10V Dimenia	29 = 3300 Lumens 39 = 4400 Lumens 46 = 5100 Lumens	CCT = 3500/4100/5000K Selectable	BLANK = None EB = Battery Backup <sup>4</sup> CP = Chicago Plenum	BLANK = White Frame BLK = Black Frame
	F = 110sled		<b>H</b> = 120-347V <sup>6</sup>	3	(Wattage Selectable to 46/39/29W)	CCT2 <sup>7</sup> = 3000/4100/5000K Selectable		

<sup>&</sup>lt;sup>1</sup>Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.

#### Accessories:

Item Number	Description
YHANGER6PK	y fit cable hanger 6 pack (hangs 3 units)
DTSK4	SURFACE MOUNT KIT FOR 2X4 PANELS
DTFLK4	RECESS MOUNT FLANGE KIT FOR 2X4 PANELS
ISREMOTE	remote for integrated sensor
FPDRV1DD	REPLACEMENT DRIVER FOR 2X4 PANEL

For the most up-to-date specs and warranty information, please visit www.tcpi.com



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<sup>&</sup>lt;sup>2</sup> Actual wattage may differ by +/- 5%; when operating between 120-277V +/- 10%.

<sup>&</sup>lt;sup>3</sup> 29W and 39W are permanently fixed; 46W is adjustable to 29W or 39W.

<sup>4</sup>ILBCP07ATBTS – 7W battery backup, Title 20 compliant. Battery Backup will operate at highest CCT when activated.

<sup>&</sup>lt;sup>5</sup> Special frame colors are special order only. Please work with supply chain for lead times.

<sup>&</sup>lt;sup>6</sup> Not all options are available with 120-347V.

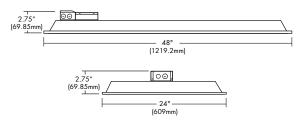
<sup>&</sup>lt;sup>7</sup> Special order item, contact sales rep for lead time.



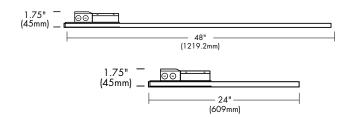
## 2x4 LED DT Series Luminaires with Selectable CCT

## Dimensions and Mounting Data

#### **DT Series Luminaire**



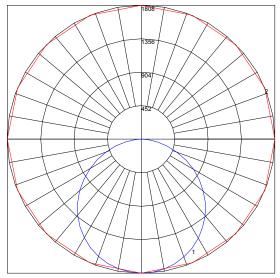
#### **Edge-lit Flat Panel**



## Photometric Report

Based on photometric data for TCP Item # DTF4UZD46CCT (46W, 41K)

## **Polar Graph**



Maximum Candela = 1808.2 Located At Horizontal Angle = 0, Vertical Angle = 0 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.) # 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

#### **Average Luminance** candelas/square meter (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2333	2317	2318
55	2254	2237	2229
65	2125	2092	2083
75	1904	1866	1822
85	1499	1470	1394

Spacing Criterion (0-180): Spacing Criterion (90-270): 1.28

Specifications and dimensions subject to change without notice.

### **Effective Floor Cavity Reflectance 0.20**

Coefficients of Utilization - Zonal Cavity Method

RC		80				70				50			30			10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	78	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	46	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

## **Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixt
0-20	661.93	N.A.	12.70
0-30	1407.56	N.A.	26.90
0-40	2309.2	N.A.	44.20
0-60	4094.49	N.A.	78.40
0-80	5115.44	N.A.	97.90
0-90	5222.48	N.A.	100.00
10-90	5051.35	N.A.	96.70
20-40	1647.27	N.A.	31.50
20-50	2584.72	N.A.	49.50
40-70	2431.84	N.A.	46.60
60-80	1020.95	N.A.	19.50
70-80	374.40	N.A.	7.20
80-90	107.04	N.A.	2.00
90-110	0.62	N.A.	0.00
90-120	0.62	N.A.	0.00
90-130	0.62	N.A.	0.00
90-150	0.67	N.A.	0.00
90-180	1.55	N.A.	0.00
110-180	0.94	N.A.	0.00
0-180	5224.04	N.A.	100.00

Total Luminaire Efficiency = N.A.%







# TECHNOLOGY CAST IN A BEAUTIFUL LIGHT

For over 30 years, TCP has been designing, developing and delivering energy-efficient lighting into the market. Thanks to our cutting-edge technology and manufacturing expertise, we have shipped billions of high quality lighting products. With TCP, you can count on a lighting product that is designed to meet the needs of the market - that transforms your surroundings and envelopes you in warmth - lighting that generates beauty with every flip of the switch.

Sales:	Catalog Number:
Date:	Туре:
Model:	Notes:
Project:	MTCD.
Rep:	TCP we know light.™