

High Bay Fixture
for Room 100
Welding Lab

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

tradeSELECT®

FEATURES

- Field Switchable lumen and CCT technologies maximize inventory versatility and flexibility
 - Two switchable lumen packages with Size 1 ranging between 15,000 to 24,000 and Size 2 ranging from 24,000 to 36,000 lumens. Switch is initially set to the maximum lumen level.
 - Field switchable CCT can be either 4000K or 5000K with both CCT's delivering 80 CRI. Switch is initially set to 4000K CCT.
- A universal voltage (120-277V) driver with 0-10V dimming to 10% provides great light output control
- Fixture comes standard with lens that provides a Medium (90°) optical distribution. Wide (120°) and Narrow (55°) optical distributions are available through field installed lens to help achieve required Fc levels and light uniformity.
- A field installed PIR sensor can be quickly installed. The highly featured sensor provides occupancy control. With the use of the sensor remote, daylighting and dimming capabilities can be enabled and the default settings can be customized.
- Excellent thermal management in a compact fixture provides a wide ambient temperature application range: -40°C to +50°C

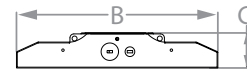


Shown with field installable sensor accessory

SERVICE PROGRAMS

STOCK QS10

Typical Dimensions and Weights				
Sizes	Length Inches (mm)	(B) Width Inches (mm)	(C) Height Inches (mm)	Weight lbs (kg)
1	23.00" (584.2)	10.25" (260.4)	1.75" (44.6)	4.6 lb (2.1)
2	31.00" (787.4)	10.25" (260.4)	1.75" (44.6)	6.4 lb (2.9)



SPECIFICATIONS

CONSTRUCTION

- Compact steel housing

OPTICS

- Polycarbonate lens for medium, narrow and wide distributions

INSTALLATION

- Easy installation in new construction or retrofit
- Chain-mount kits (includes v-hooks and 1/8" thick, 1 meter long chain) are standard

ELECTRICAL

- Universal 120-277V driver
- Power Factor > 90
- Color Rendering Index > 80
- 0-10V Dimming to 10%
- Total Harmonic distortion < 20%
- Long-life LEDs provide 100,000 hours of operation with at least 70% of initial lumen output (L70)

CONTROLS

- Field installable PIR Occupancy Sensor

CERTIFICATIONS

- cULus listed for damp locations in ambient temperatures from: -40°F to 122°F (-40°C to 50°C)
- DLC® (DesignLights Consortium) Qualified, with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org

WARRANTY

- 5 year warranty

CLH-LSCS

LUMEN & CCT SWITCHABLE LINEAR HIGH BAY

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

Gray Shading = Service Program Limit of 100 Luminaries **QS10**

ORDERING GUIDE

Example: CLH1-LSCS-EDU-MD

CLH	LSCS	ED	U	MD	Options	
Model	Size/Lumen Package	Lumen Output & CCT	Dimming	Voltage	Optics	Options
CLH Linear High Bay	1 15/18/ 24K 2 24/30/ 36K <small>Bold Indicates default setting</small>	LSCS Lumen and CCT Switchable ³	ED 0-10V to 10%	U 120-277V	MD Medium (90°) distribution	Blank None ELL25 25W Emergency Battery Pack (CEC Title 20 Compliant) Installed ^{2,4}

- Notes:
- 1 Narrow (55°) and Wide (120°) distributions are available by ordering lens accessories and field installing.
 - 2 To determine lumen output in emergency mode multiply the battery pack wattage by the fixture lumens per watt (LPW)
 - 3 4000K/5000K switchable CCT with 4000K CCT as the default setting
 - 4 Fixtures equipped with the ELL25 are not compatible with Surface Mount Kit and Pendant Mount Kit mounting options

ACCESSORY ORDERING GUIDE

MOUNTING AND ACCESSORIES		
Order SKU #	Image	Description
<input type="checkbox"/> 93311609		CLH-LSCS Surface Mount Kit 1. Kit can be used on either size. 2. Not compatible with fixtures that have ELL25 battery pack installed
<input type="checkbox"/> 93311610		CLH-LSCS Pendant Mount Kit 1. Kit can be used on either size. 2. Not compatible with fixtures that have ELL25 battery pack installed.
<input type="checkbox"/> 93311611		CLH-LSCS Wire Guard Size 1
<input type="checkbox"/> 93311612		CLH-LSCS Wire Guard Size 2
<input type="checkbox"/> 93311613		CLH-LSCS Medium-LENS Size 1
<input type="checkbox"/> 93311614		CLH-LSCS Medium-LENS Size 2
<input type="checkbox"/> 93311615		CLH-LSCS Wide-LENS Size 1
<input type="checkbox"/> 93311616		CLH-LSCS Wide-LENS Size 2
<input type="checkbox"/> 93311617		CLH-LSCS Narrow-LENS Size 1
<input type="checkbox"/> 93311618		CLH-LSCS Narrow-LENS Size 2
<input checked="" type="checkbox"/> 93313943		High Bay Microsensor (PIR) 1. Easy plug-and-play install to front face of fixture. 2. Sensor requires remote if programming is desired.
<input type="checkbox"/> 95059859		High Bay Microsensor Remote 1. Remote allows default settings to be changed. 2. Remote allows daylight and dimming sensor capabilities to be enabled and programmed.

DELIVERED LUMENS

CATALOG NUMBER	UPC	SIZE/ LUMEN PACKAGE	VOLTAGE	DISTRIBUTION	TYPICAL DELIVERED LUMENS	WATTS	TYPICAL LPW	MAX AMBIENT TEMP (° C)
CLH1-LSCS-EDU-MD	840141415611	1	120-277V	Medium (90°)	15,000	94.4	159	50° C ¹
					18,000	114.8	157	
					24,200	158.3	153	
CLH2-LSCS-EDU-MD	840141415642	2	120-277V	Medium (90°)	24,000	152.3	158	
					30,300	196.8	154	
					36,100	242	149	

1. CLH is rated for 50°C when mounted 18 inches below the ceiling. 45°C max ambient rating when surface mounted

CLH-LSCS

LUMEN & CCT SWITCHABLE LINEAR HIGH BAY

DATE: _____ LOCATION: _____

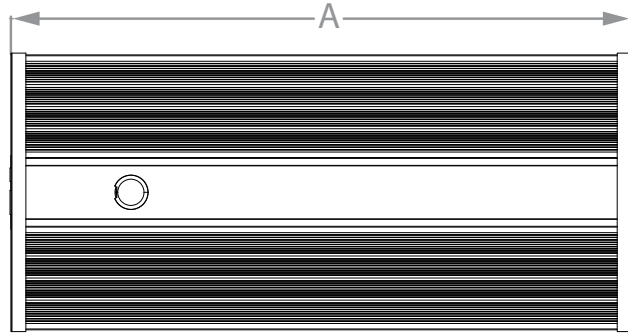
TYPE: _____ PROJECT: _____

CATALOG #: _____

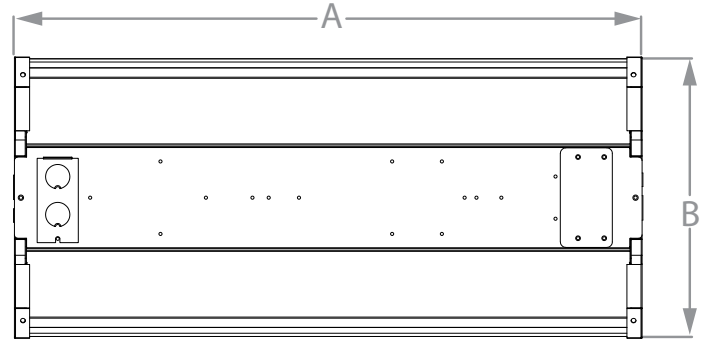
DIMENSIONS

Size	Length (A) inches (mm)	Width (B) inches (mm)	Height (C) inches (mm)
1	23.00" (584.2)	10.25" (260.4)	1.75" (44.6)
2	31.00" (787.4)	10.25" (260.4)	1.75" (44.6)

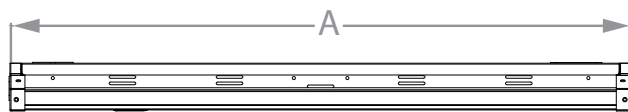
Bottom View



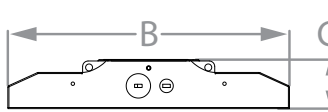
Top View



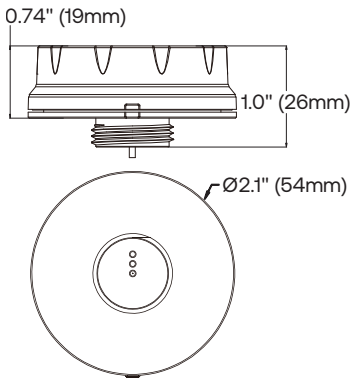
Side View



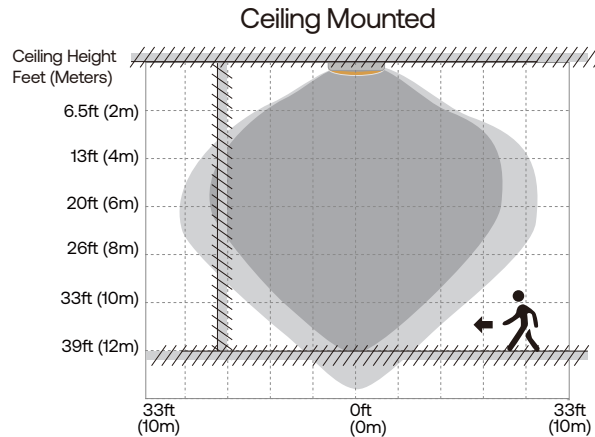
End View



Sensor



Coverage



This figure indicates the maximum distance at the highest mounting height with 100% sensitivity

- Well Detected Area
- Possibly Detected Area



PHOTOMETRY

CLH1-LSCS-EDU-MD

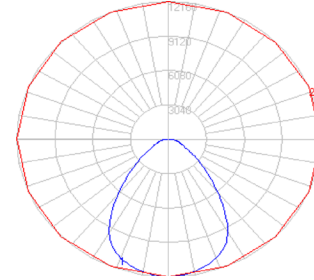
LUMINAIRE DATA

Description	CLH1-LSCS-EDU-MD
Delivered Lumens	24058
Watts	157.6
Efficacy	153
Mounting	
Spacing Criterion	0° = 1.22 90° = 1.30

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-30	2156	24.7
0-40	3528	40.5
0-60	6316	72.5
0-90	8711	99.9
0-180	8717	100

POLAR GRAPH



SENSOR SPECIFICATIONS

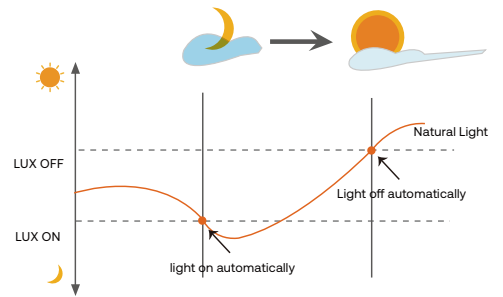
Model NO.		HD07VR-PH-1
PIR INFORMATION	Infrared Wavelength	5-14um
	Output Signal Peak	≥3500mV
	Installation Height	12m/39ft Max.
	Detection Distance	≥3m/9ft
	Warranty	3 Years
SENSOR PARAMETER	Detection Area	25%/50%/75%/100%
	Holdtime	5s/30s/1min/3min/5min/10min/20min/30min
	Daylight Threshold	Disable/ 2lux/ 10lux/ 30lux/ 50lux/ 80lux/ 120lux
	Standby Dimming Level	10%/20%/30%/50%
	Standby Period	0s/10s/30s/1min/5min/10min/30min/60min+∞
	Dusk/Dawn Sensing/ Photocell	Daylight threshold as 30lux/ 50lux/ 80lux/ 120lux Standby period as +∞ ; Standby dimming level as 10%/20%/30%
	Default Program	Detection Area - 100% Holdtime - 5S Daylight Threshold - disable Standby Period - 0S Standby Dimming Level - 10%
	Control	Standard Partner HD05R, the LCD screen display remote (purchase separately)
INPUT	Input Range	12VDC
	Voltage Range	10-15VDC
	Current	≥30mA
OUTPUT	Signal	DIM 0-10V
	Connection	12VDC input/ Black&White wire; DIM+/ Purple wire; DIM-/ Pink wire
	Stand-by Power	<30mA Power Consumption
ENVIRONMENT	Working Temp	-20°C~+60°C
	Storage Temp	-40°~+80° Humidity: 85% (non-condensation)
CERTIFICATE & STANDARDS	Certification	UL (E529048)
	Environmental Requirements	In accordance with CE ROHS
	IP Rating	IP20
PACKAGE	Silk-Printing	Lasering
	Packing Description	1pcs/white neutral box
	Qty/ctn(pcs)	120
	Net Weight/pcs (kg)	0.05
	Gross Weight/CTN (kg)	6.6
	Carton Size (cm)	40*30*25

SENSOR SETTINGS AND FUNCTIONALITY

Sensor Accessory is able to differentiate artificial light brightness from natural light after installed inside the fixture, and automatically turn off light when ambient brightness exceeds preset lux level

Precondition of Dusk/Dawn Function

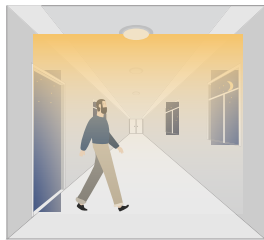
1. Standby period is +∞;
2. Standby dimming level is on 10%, 20% or 30%
3. Daylight threshold is on 30lux/ 50lux/ 80lux/ 120lux



1. WITH DUSK/DAWN FUNCTION



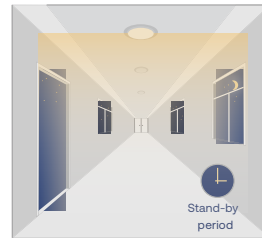
With insufficient ambient brightness, sensor turns on light and keeps it at standby dimming level even if there is no motion or presence.



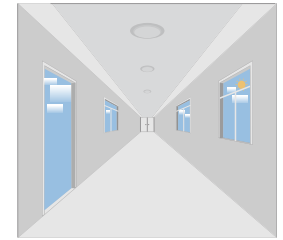
When sensor detects motion or presence it will bring light level up to 100%.



After Motion is no longer detected, fixture remains at 100% for hold time.

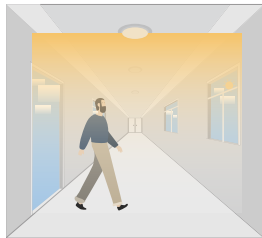


After pre-set hold time period it will dim light to standby dimming level again and always keep it

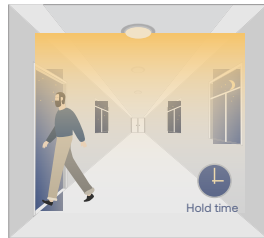


With Sufficient ambient brightness, sensor will turn OFF light automatically.

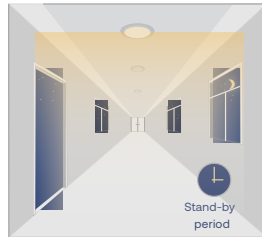
2. WITH DAYLIGHT DISABLED



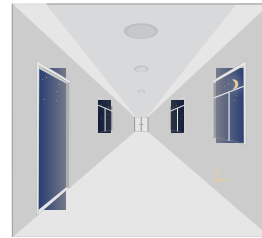
Sensor turns light ON when motion is detected



Sensor holds for a time period after motion leaves

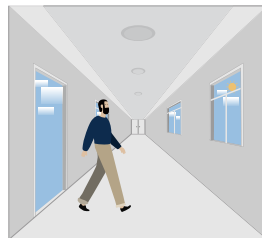


Sensor dims light to standby dimming level after hold time if there is still no motion

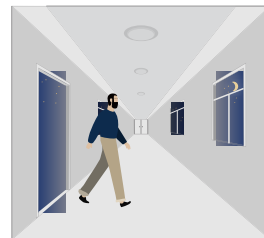


Sensor turns light OFF after standby period

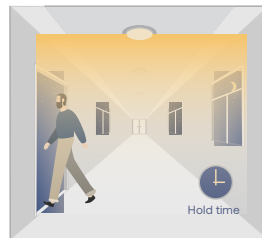
3. WITH DAYLIGHT THRESHOLD



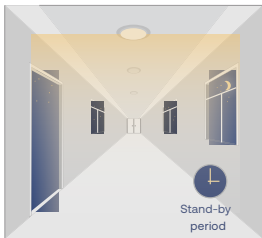
With sufficient daylight, the sensor keeps light OFF even if motion gets detected



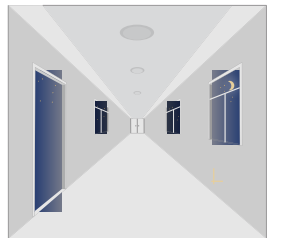
With insufficient daylight, the sensor turns light ON when motion gets detected



After there's no motion detected, the sensor keeps light ON 100% for holdtime.



After holdtime, sensor dims light to standby dimming level for a standby period. If the standby period has been set to 0s, sensor turns light OFF automatically after holdtime.



The sensor turns OFF light automatically after the standby period when there's no motion detected

Troffer Fixture

Luxterior

by TCP

LED Volumetric CCT Troffer

Product Specifications



TCP's LED Volumetric CCT Troffers offer a high-efficiency alternative to T5, T8 and T12 linear fluorescent systems. They provide long life with consistent color and superior lumen maintenance. Designed to mount in a variety of grid ceilings, the rugged, cold-rolled steel housing is post-painted with a highly diffused white finish. The low-glare acrylic diffuser provides wide distribution and the sloped reflector softens the contrast between the luminaire and the ceiling.

The LED Volumetric CCT Troffers offer a cost-effective solution to maximize savings and take advantage of potential utility rebates without sacrificing performance.

Reasons to choose the LED Volumetric CCT Troffer from TCP

- Uses up to 61% less energy than fluorescent alternatives
- Long 50,000 hour rated life
- Excellent color consistency and CRI
- Mercury-free
- Fits standard 1" and 9/16" T-bar grid ceilings
- Acrylic diffuser with sloped housing design
- Slim, low-profile design

Ideal Applications in T-Bar Ceilings

- Offices
- Schools
- Restaurants
- Retail Stores
- Hospitality
- Healthcare

TCP®

325 Campus Dr. | Aurora, Ohio 44202 | P: 800-324-1496 | tcp.com

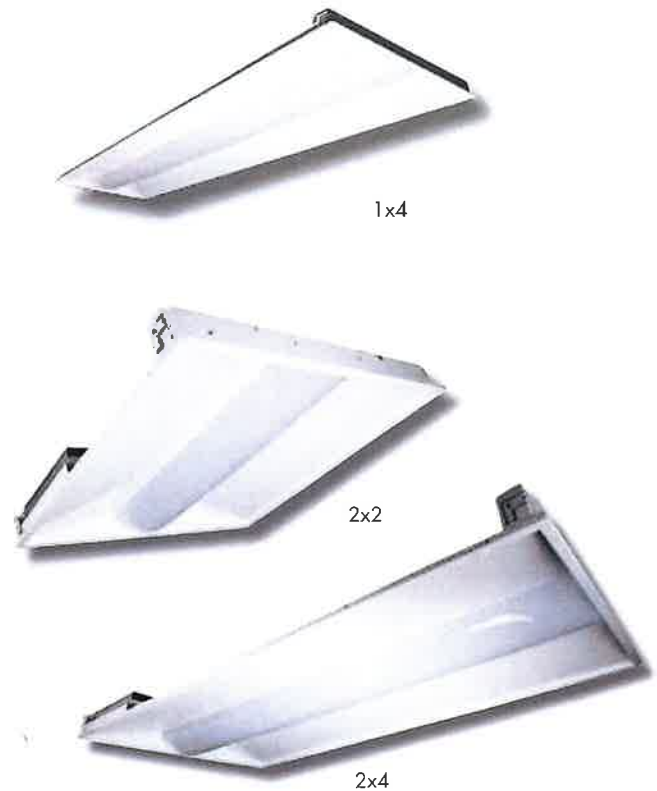


7 YEAR WARRANTY

Not all versions of this product are qualified on the DLC GPL. To view our DLC qualified products, please consult the DLC Qualified Products List at www.designlights.org/gpl

Specifications

Input Line Voltage	120-277 VAC
Input Line Frequency (Hz)	50/60Hz
Wattage (W)	
1x4	23W/29W/38W
2x2	23W/29W/38W
2x4	23W/29W/38W
2x4	29W/39W/46W
Lumens (L)	
1x4	3000L/3800L/5000L
2x2	3000L/3800L/5000L
2x4	3000L/3800L/5000L
2x4	3800L/5300L/6000L
Lumens per Watt (LPW).....	>130LPW
Rated Life	50,000 hours
Minimum Starting Temperature	-20°C
Maximum Operating Temperature	40°C
CRI	>80
Power Factor	>90%
THD	<20%
Ratings	UL/cUL damp location rated, IC rated, IP20, DLC 5.1 Listed
Controls	0-10V dimming (standard)



Replacement Strategy

SYSTEM	BALLAST FACTOR	LUMENS	INPUT WATTS*	LED ENERGY SAVINGS
TCP LED Volumetric Troffer - 2x2	—	3800	29	—
2 Lamp 34W T12 U-Bend	0.88	4420	74	61%
2 Lamp 32W T8 U-Bend	0.88	4275	58	50%
2 Lamp 24W T5HO	1.0	3145	54	46%
TCP LED Volumetric Troffer - 2x4	—	5000	38	—
3 Lamp 32W T8 HBF	1.18	6960	93	59%
3 Lamp 32W T8 NBF	0.88	6681	89	57%
2 Lamp 32W T8 HBF	1.18	4658	65	42%
2 Lamp 28W T5	1.0	4675	63	40%
2 Lamp 32W T8 NBF	0.88	4468	59	36%

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

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

TCP®

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7 YEAR WARRANTY

Not all versions of this product are qualified on the DLC QPL. To view our DLC qualified products, please consult the DLC Qualified Products List at www.designlights.org/qpl

Applications

The TCP LED Volumetric CCT Troffers are high efficiency alternatives to T5, T8 and T12 linear fluorescent troffers. Our intelligent high performance LED light engines and drivers deliver long life, consistent color, and superior lumen maintenance. Applications include offices, schools, retail locations, hospitals, and other T-grid ceilings.

Construction

The TCP LED Volumetric CCT Troffer is constructed of rugged cold-rolled steel, post-painted with a highly diffused white finish, and an acrylic diffuser. The housing is designed to mount in a variety of grid ceiling types.

Electrical

All electrical components are cULus listed. TCP high efficiency drivers provide consistent power to ensure even lighting from the long life LEDs. Each driver is wattage selectable and paired with a high quality LED light engine to deliver long life and high quality light. Full range 0-10V dimming is optional.

Optics

The acrylic diffuser conceals the LEDs while providing a highly diffused, low-glare light. The smooth white reflector integrates into the diffuser, creating soft illumination and distributing the light evenly in a wide pattern. The sloped design also softens the contrast between the luminaire and the ceiling.



Listings

UL/cUL Listed
IC Rated
RoHS Compliant
DLC 5.1 Listed

Lumen Maintenance

L90> 36,000 hours

Warranty

Seven year limited warranty against defects in manufacturing.

Catalog Ordering Matrix

FAMILY	SIZE	VOLTAGE	DIMMING	WATTAGE ^{1,2,3}	COLOR TEMPERATURE	OPTIONS ⁴
TRV = Volumetric Troffer	1 = 1' x 4'	U = 120V-277V	ZD = 0-10V Dimming	23 = 3000 Lumens 29 = 3800 Lumens 38 = 5000 Lumens (Wattage Selectable to 38W/29W/23W)	CCT = Selectable CCT 3500K/4100K/5000K	EB = Emergency Backup

¹ Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.

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

³ 23W and 29W are permanently fixed; 38W is adjustable to 38W, 29W, or 23W.

⁴ Battery Backup will operate at highest CCT when activated.

Accessories:

Item Number	Description
DTFLK1	RECESS MOUNT FLANGE KIT FOR 1X4 TROFFERS AND PANELS (WHITE)
YHANGER6PK	Y FIT CABLE HANGER 6 PACK (HANGS 3 UNITS)
DRVEXTCABLE	3FT DRIVER EXTENSION CABLE

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

TCP®

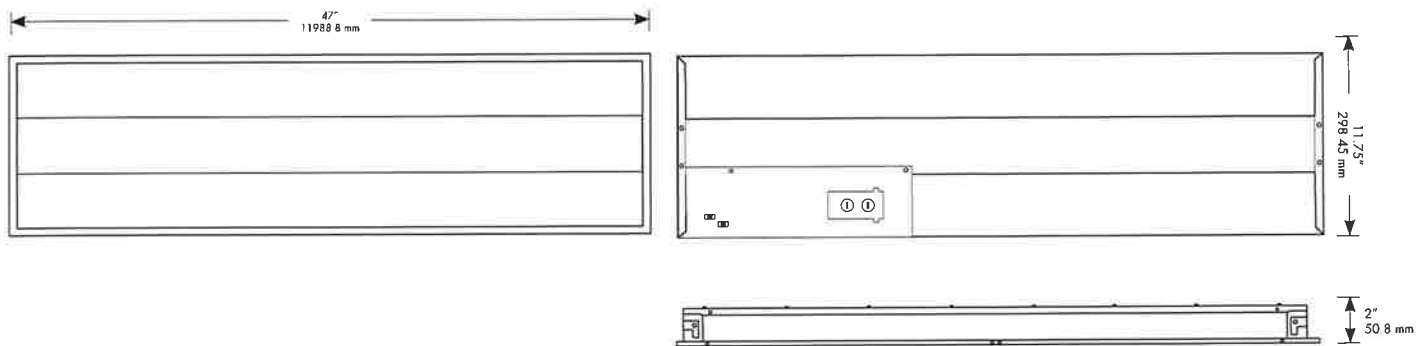
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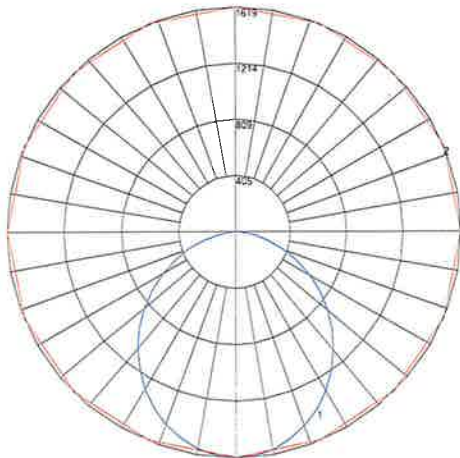
Dimensions and Mounting Data



Photometric Report

Based on photometric data for
TCP Item # TRV1UZD38CCT

Polar Graph



Maximum Candela = 1671.01 Located At Horizontal Angle = 10, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 190) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3788	4043	4385
55	3530	3930	4460
65	3190	3840	4691
75	2600	3900	5273
85	1462	3433	3393

Specifications and dimensions subject to change without notice

Spacing Criterion

(0-180): 1.24, (90-270): 1.32

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	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100	100	100	100	100	100	100	100	100	100	100	100
1	108	103	99	94	105	101	97	93	96	93	90	92	90	87	89	87	85	85	85	85	82	82	82	82	82	82	82	82	82	82	82	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	74	70	70	70	70	68	68	68	68	68	68	68	68	68	68	68	68
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
4	81	69	60	53	79	68	59	53	65	58	52	63	56	51	61	55	50	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
5	75	62	52	46	73	60	52	45	58	51	45	56	49	44	54	48	44	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
6	69	55	46	40	67	54	46	39	53	45	39	51	44	39	49	43	38	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
8	59	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0-20	590.75	N.A.	12.30
0-30	1252.75	N.A.	26.10
0-40	2050.35	N.A.	42.80
0-60	3647.2	N.A.	76.00
0-80	4670.78	N.A.	97.40
0-90	4793.14	N.A.	99.90
10-90	4640.08	N.A.	96.70
20-40	1459.6	N.A.	30.40
20-50	2290.86	N.A.	47.80
40-70	2214.67	N.A.	46.20
60-80	1023.58	N.A.	21.30
70-80	405.76	N.A.	8.50
80-90	122.36	N.A.	2.60
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	0.73	N.A.	0.00
90-180	2.82	N.A.	0.0
110-180	2.82	N.A.	0.0
0-180	4795.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

Applications

The TCP LED Volumetric CCT Troffers are high efficiency alternatives to T5, T8 and T12 linear fluorescent troffers. Our intelligent high performance LED light engines and drivers deliver long life, consistent color, and superior lumen maintenance. Applications include offices, schools, retail locations, hospitals, and other T-grid ceilings.

Construction

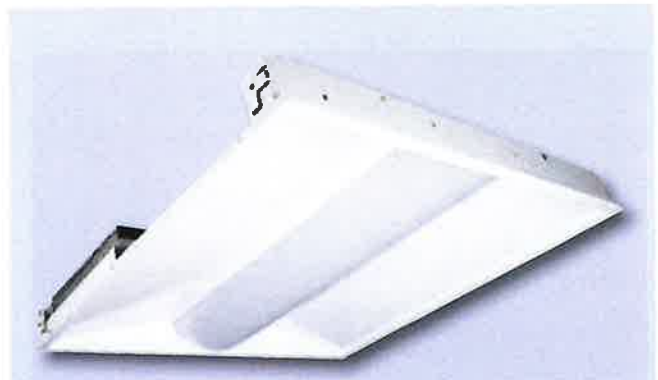
The TCP LED Volumetric CCT Troffer is constructed of rugged cold-rolled steel, post-painted with a highly diffused white finish, and an acrylic diffuser. The housing is designed to mount in a variety of grid ceiling types.

Electrical

All electrical components are cULus listed. TCP high efficiency drivers provide consistent power to ensure even lighting from the long life LEDs. Each driver is wattage selectable and paired with a high quality LED light engine to deliver long life and high quality light. Full range 0-10V dimming is optional.

Optics

The acrylic diffuser conceals the LEDs while providing a highly diffused, low-glare light. The smooth white reflector integrates into the diffuser, creating soft illumination and distributing the light evenly in a wide pattern. The sloped design also softens the contrast between the luminaire and the ceiling.



Listings

UL/cUL Listed
IC Rated
RoHS Compliant
DLC 5.1 Listed

Lumen Maintenance

L90 > 36,000 hours

Warranty

Seven year limited warranty against defects in manufacturing.

Catalog Ordering Matrix Example: TRV2UZD38CCT

FAMILY	SIZE	VOLTAGE	DIMMING	WATTAGE ^{1,2,3}	COLOR TEMPERATURE	OPTIONS ⁴
TRV = Volumetric Troffer	2 = 2' x 2'	U = 120V-277V	ZD = 0-10V Dimming	23 = 3000 Lumens 29 = 3800 Lumens 38 = 5000 Lumens (Wattage Selectable to 38W/29W/23W)	CCT = Selectable CCT 3500K/4100K/5000K	EB = Emergency Backup

¹ Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.

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

³ 23W and 29W are permanently fixed; 38W is adjustable to 38W, 29W, or 23W.

⁴ Battery Backup will operate at highest CCT when activated.

Accessories:

Item Number	Description
DNFLK2	RECESS MOUNT FLANGE KIT FOR 2X2 TROFFERS AND PANELS (WHITE)
YHANGER6PK	Y FIT CABLE HANGER 6 PACK (HANGS 3 UNITS)
DRVEXTCABLE	3FT DRIVER EXTENSION CABLE

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

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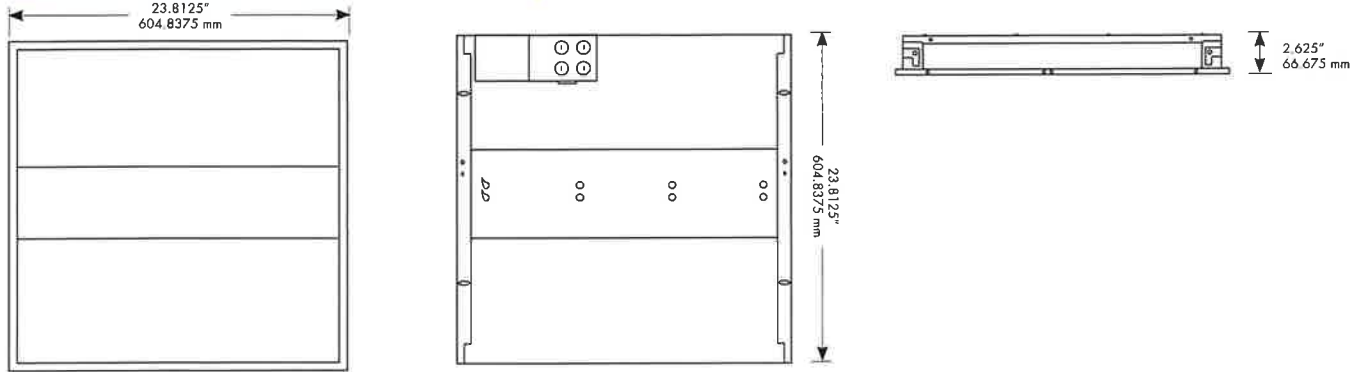
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7 YEAR WARRANTY

Not all versions of this product are qualified on the DLC OPL. To view our DLC qualified products, please consult the DLC Qualified Products List at www.designlights.org/apl

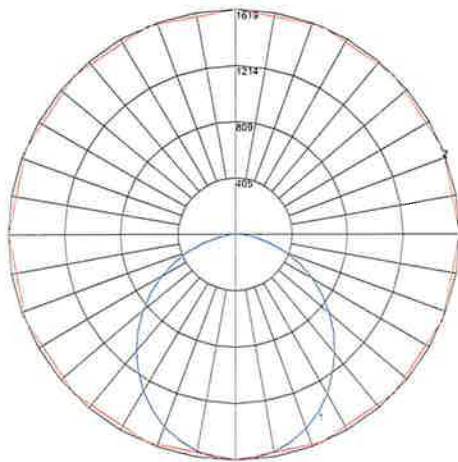
Dimensions and Mounting Data



Photometric Report

Based on photometric data for
TCP Item # TRV2UZD38CCT

Polar Graph



Maximum Candela = 1671.01 Located At Horizontal Angle = 10, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 190) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

Average Luminance

candelas/square meter (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3788	4043	4385
55	3530	3930	4460
65	3190	3840	4691
75	2600	3900	5273
85	1462	3433	3393

Specifications and dimensions subject to change without notice.

Spacing Criterion

(0-180): 1.24, (90-270): 1.32

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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	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	108	103	99	94	105	101	97	93	96	93	90	92	90	87	89	87	85	85	85	85	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	74	70	70	70	68	68
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59	57	57	57	57
4	81	69	60	53	79	68	59	53	65	58	52	63	56	51	61	55	50	48	48	48	48
5	75	62	52	46	73	60	52	45	58	51	45	56	49	44	54	48	44	42	42	42	42
6	69	55	46	40	67	54	46	39	53	45	39	51	44	39	49	43	38	36	36	36	36
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32	32	32	32
8	59	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	28	28	28	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	26	26	26	26
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23	23	23	23

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0-20	590.75	N.A.	12.30
0-30	1252.75	N.A.	26.10
0-40	2050.35	N.A.	42.80
0-60	3647.2	N.A.	76.00
0-80	4670.78	N.A.	97.40
0-90	4793.14	N.A.	99.90
10-90	4640.08	N.A.	96.70
20-40	1459.6	N.A.	30.40
20-50	2290.86	N.A.	47.90
40-70	2214.67	N.A.	46.20
60-80	1023.58	N.A.	21.30
70-80	405.76	N.A.	8.50
80-90	122.36	N.A.	2.60
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	0.73	N.A.	0.00
90-180	2.82	N.A.	0.10
110-180	2.82	N.A.	0.10
0-180	4795.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %



7 YEAR WARRANTY

Not all versions of this product are qualified on the DLC GPL. To view our DLC qualified products, please consult the DLC Qualified Product List at www.designlight.org/gpl

Applications

The TCP LED Volumetric CCT Troffers are high efficiency alternatives to T5, T8 and T12 linear fluorescent troffers. Our intelligent high performance LED light engines and drivers deliver long life, consistent color, and superior lumen maintenance. Applications include offices, schools, retail locations, hospitals, and other T-grid ceilings.

Construction

The TCP LED Volumetric CCT Troffer is constructed of rugged cold-rolled steel, post-painted with a highly diffused white finish, and an acrylic diffuser. The housing is designed to mount in a variety of grid ceiling types.

Electrical

All electrical components are cULus listed, TCP high efficiency drivers provide consistent power to ensure even lighting from the long life LEDs. Each driver is wattage selectable and paired with a high quality LED light engine to deliver long life and high quality light. Full range 0-10V dimming is optional.

Optics

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Listings

UL/cUL Listed
 IC Rated
 RoHS Compliant
 DLC 5,1 Listed

Lumen Maintenance

L90 > 36,000 hours

Warranty

Seven year limited warranty against defects in manufacturing.

Catalog Ordering Matrix Example: TRV4UZD38CCT

FAMILY	SIZE	VOLTAGE	DIMMING	WATTAGE ^{1,2,3,4}	COLOR TEMPERATURE	OPTIONS ⁵
TRV = Volumetric Troffer	4 = 2' x 4'	U = 120V-277V	ZD = 0-10V Dimming	23 = 3000 Lumens 29 = 3800 Lumens 38 = 5000 Lumens (Wattage Selectable to 38W/29W/23W) 39 = 5300 Lumens 46 = 6000 Lumens (Wattage Selectable to 46W/39W/29W)	CCT = Selectable CCT 3500K/4100K/5000K	EB = Emergency Backup

¹ Approximate lumen output. Actual performance may vary based on CCT, options selected and end user application.

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

³ 23W and 29W are permanently fixed; 38W is adjustable to 38W, 29W, or 23W.

⁴ 46W is adjustable to 46W/39W/29W.

⁵ Battery Backup will operate at highest CCT when activated.

Accessories:

Item Number	Description
DTFLK4	RECESS MOUNT FLANGE KIT FOR 2X4 TROFFERS AND PANELS (WHITE)
YHANGER6PK	Y FIT CABLE HANGER 6 PACK (HANGS 3 UNITS)
DRVEXTCABLE	3FT DRIVER EXTENSION CABLE

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

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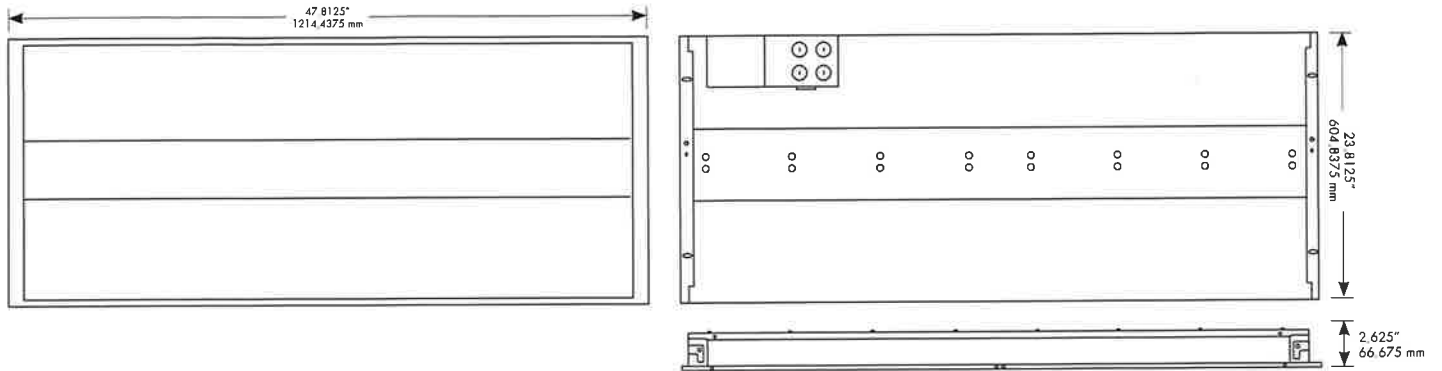
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7 YEAR WARRANTY

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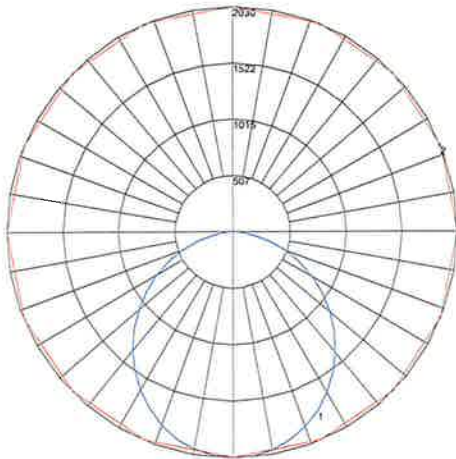
Dimensions and Mounting Data



Photometric Report

Based on photometric data for
TCP Item # TRV4UZD38CCT

Polar Graph



Maximum Candela = 1671.01 Located At Horizontal Angle = 10, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles [0 - 190] (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle [5] (Through Max. Cd.)

Average Luminance

candelas/square meter (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2411	2600	2825
55	2261	2257	2917
65	2048	2582	3137
75	1703	2774	3595
85	987	2767	2730

Specifications and dimensions subject to change without notice

Spacing Criterion

(0-180): 1.24, (90-270): 1.32

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	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100	100	100	100	100	100	100	100	100	100	100	100
1	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	89	86	84	82	82	82	82	82	82	82	82	82	82	82	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	77	73	70	67	67	67	67	67	67	67	67	67	67	67	67
3	89	78	69	62	86	76	68	62	73	67	61	70	64	60	68	63	59	68	63	59	56	56	56	56	56	56	56	56	56	56	56	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	60	55	50	48	48	48	48	48	48	48	48	48	48	48	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	54	48	43	41	41	41	41	41	41	41	41	41	41	41	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	49	43	38	36	36	36	36	36	36	36	36	36	36	36	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	45	38	34	32	32	32	32	32	32	32	32	32	32	32	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	41	35	30	28	28	28	28	28	28	28	28	28	28	28	28
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10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	35	29	25	23	23	23	23	23	23	23	23	23	23	23	23

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0-20	741.86	N.A.	12.10
0-30	1575.01	N.A.	25.80
0-40	2581.26	N.A.	42.20
0-60	4607.58	N.A.	75.40
0-80	5937.37	N.A.	97.10
0-90	6112.53	N.A.	100.00
10-90	5920.5	N.A.	96.80
20-40	1839.41	N.A.	30.10
20-50	2891.24	N.A.	47.30
40-70	2821.12	N.A.	46.10
60-80	1329.79	N.A.	21.70
70-80	534.99	N.A.	8.70
80-90	175.16	N.A.	2.90
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	0.00	N.A.	0.00
90-180	1.65	N.A.	0.00
110-180	1.65	N.A.	0.00
0-180	6114.17	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:

Date:

Model:

Project:

Rep:

Catalog Number:

Type:

Notes:



For more information on the quality and care TCP can deliver, call us at 800.324.1496 or visit tcp.com

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