

Mod™

R-D-4400, RP-D-4400

R-D-4500

Plaster, Drywall, Concealed Spline
Ceilings Recessed Flanged Direct

Product Description

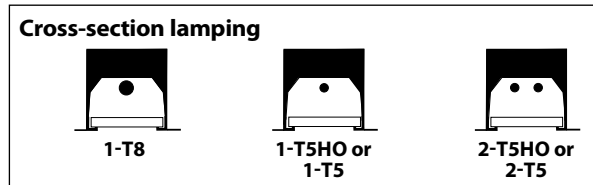
Recessed linear modular direct luminaire for plaster and drywall ceilings with a variety of shielding options. UL Listed. This fixture is Cradle to Cradle Silver Certified™ by MBDC.

Ordering Guide

| Product, lamping, & length | | | | | |
|--|--------------------|------------------------|--|--|---|
| R - | D - | 44 | 4 | 6 | T5HO - |
| Mounting | Distribution | Series | Lamp Count | Nominal Length (ft) | Lamp Type |
| R Recessed | D Direct | 44 45 | 1 → 1 → 1 → 2 → 2 → 1,2 → 1,2 → 1,2 → 2,4 → 2,4 → | 2 → 3 → 4 → 6 → 8 → 2 → 3 → 4 → 6 → 8 → | T8 T5HO T5 |
| RP* Recessed with plaster trim | | | see notes | | |

| Options | | | | | | | |
|--|---|--|---------------------|----------------------------|---|--|--|
| PBSS - | CWM - | LP/ELB - | TW - | 2CWQ - | F - | 120 | |
| Baffle or Diffuser | Finish | Ballast | Tandem Wiring | Circuiting | Other Options | Volts | |
| BW PBSS SGL | CWM (matte white) is standard | ELB10 is std. for T8 LP/ELB is std. for T5 or T5HO DA/MK7 DL/ECO DO/HEL see Ballast Options | -- → TW → | 1CWQ 2CWQ | CCEA F LP/EF see Other Options | 120 277 | |
| see Baffle and Diffuser options | | | | | | notes: *Plaster trim only available on 4400. Lamp count = total number of lamps in the fixture Tandem wiring not available for one-lamp cross-section fixtures For ordering guide information in shaded areas, choose selection by reading ACROSS the shaded areas for correct specifications. | |

R-D-4446T5HO-PBSS-CWM-LP/ELB-TW-2CWQ-F-120 is a typical catalog number for a 4-lamp (2 lamps in cross-section), 6-foot long, high-output T5 fixture with semi-specular parabolic baffle, matte white finish, low-profile electronic ballast, tandem-wired, pre-wired with two-circuit branch wiring and quick-connects, fuse, 120 volts.



Baffle & Diffuser Options

- BW** Blade baffles, matte white finish. 3/8" high x 1/2" OC, steel, regressed.
- PBSS** Parabolic semi-specular baffles 1 13/32" high x 2" OC, anodized aluminum.
- SGL** Soft glow lens. Extruded, frosted acrylic, flush to bottom of fixture housing.

Ballast Options

Specify in place of ELB10 or LP/ELB, contact factory for availability/compatibility with lamping:

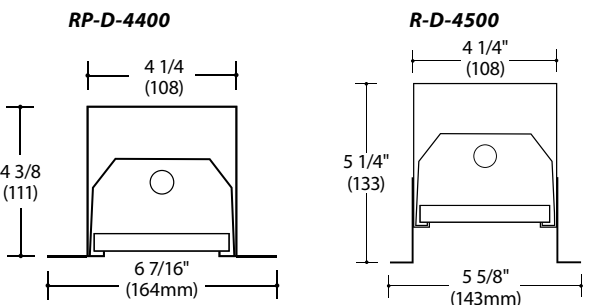
- TDA/MK7** Advance Mark VII dimming ballast
- DL/ECO** Lutron ECO-10 dimming ballast
- DO/HEL** Osram Sylvania dimming ballast

Tandem Wiring & Circuiting Options

- 1CWQ** Fixture is wired with a single-circuit so that all lamps are switched together.
- TW-2CWQ** Fixtures wired with two circuits. 2-lamps in cross section, the fixture is wired such that the in-line lamps are switched separately.

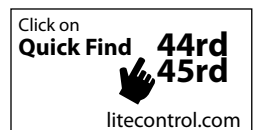
Other Options

- CCEA** City of Chicago Environmental Air Modification.
- F** Fuse. Slow or fast blow, determined by Litecontrol.
- LP/EF** Low-profile Emergency Fluorescent Ballast. Battery-powered ballast from a UL Listed manufacturer will operate one lamp for 1 1/2 hours.



Questions to Ask

1. Row information, including desired fixture lengths?
2. Lamp type? 3. Ballast options?
4. Controls solutions? 5. Other options? 6. 120 or 277 volt?



Specifications

HOUSING. Die-formed and welded steel, with 3/8" regression at housing bottom for rigidity and appearance, furnished with 6" long, steel splines for insertion at each side of housing at junction of fixtures in rows for precise alignment. End headers have clearance holes for easy row installation and are notched under lamps for more even diffuser luminance and continuous baffle appearance.

PLASTER TRIM (RP-D-4400 only). Continuous Spackle Trim with beaded edge welded to housing sides. Spackle trim allows plaster coat up to fixture edge for clean ceiling appearance.

REFLECTOR. Die-formed steel with high-reflectance white finish.

END CAPS. Steel, finished to match housing. Two mounting holes on each end cap allow tight attachment to ends of individual fixtures and ends of rows.

BALLAST. Electronic Ballast (**ELB10** - for T8 lamping) or Low-profile Electronic Ballast (**LP/ELB** - for T5 or T5HO lamping), high power factor, thermally protected Class P, Sound Rated A, less than 10% THD, manufactured by a UL Listed manufacturer, as available, determined by Litecontrol. Ballasts with a voltage range of 120 to 277 will be used when fixture configuration and ballast availability allow. The minimum number of ballasts will be used.

LAMPING. Available in one-lamp T8 and one- and two-lamp T5 or T5HO in cross-section. Easy baffle removal to access/replace lamps without tools.

TANDEM WIRING. When selected from Ordering Guide, fixtures wired to switch in-line lamps separately, providing two or three (three-lamp cross-section fixtures only) levels of light.

CIRCUITING. Fixtures are supplied with #12 AWG type THHN wire for branch circuits. One end will have factory-installed push-in quick-connects. The other end will be stripped back 1/2" for quick connection in field. For fixtures to accommodate special circuits such as night light and emergency, etc., in-field wiring will be required. See Pre-wiring Information for details.

BALLAST DISCONNECT. Fixture supplied with a ballast disconnect device to enable compliance with the NEC.

MOUNTING. Two 1/4-20 threaded rods (by others) installed in the ceiling provide simple fixture attachment with a washer and 1/4-20 flange nut.

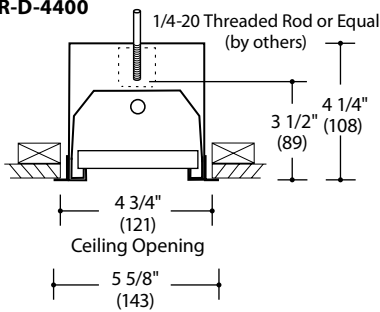
SYSTEM CONNECTORS. Lighted corners available. Die-formed and welded steel, with 3/8" regression at housing bottom. Baffles or diffusers furnished to match appearance of adjoining fixtures. See Field Measurement Procedures in the Litecontrol Product Guide for instructions.

CERTIFICATION. Fixture and electrical components are UL and/or CUL Listed (UL LISTED), and bear the I.B.E.W., A.F. of L. label. This fixture is Cradle to Cradle Certified™ Silver by MBDC.

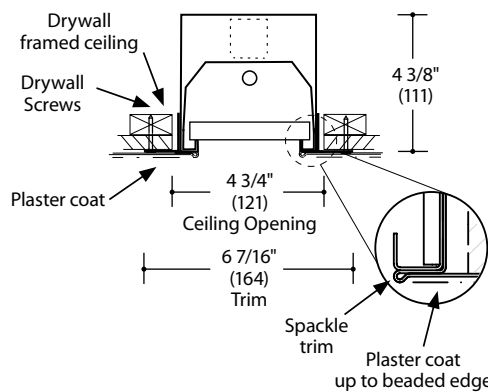
Note: Litecontrol reserves the right to change specifications without notice for product development and improvement.

Planning for installation

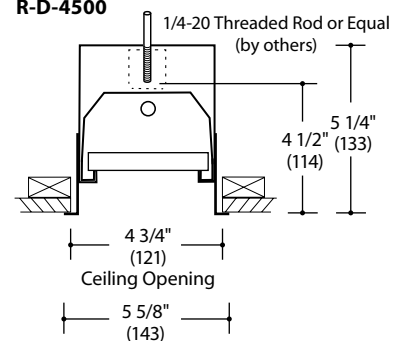
R-D-4400



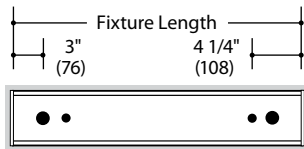
RP-D-4400



R-D-4500

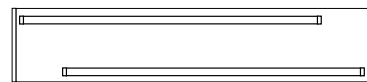


Individual Fixture

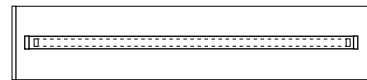


Fixture Lengths: 2', 3', 4', 6', and 8'
 ● 7/8" diameter knockout, electrical feed
 ● 5/8" knockout for 1/4" diameter threaded rod locations

Lamp Position

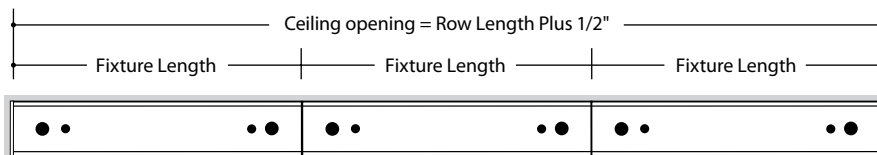


Lamp position for two-lamp T5, T5HO cross-section only.



Lamp position for one-lamp T8, T5, T5HO cross-sections.

Row Diagram

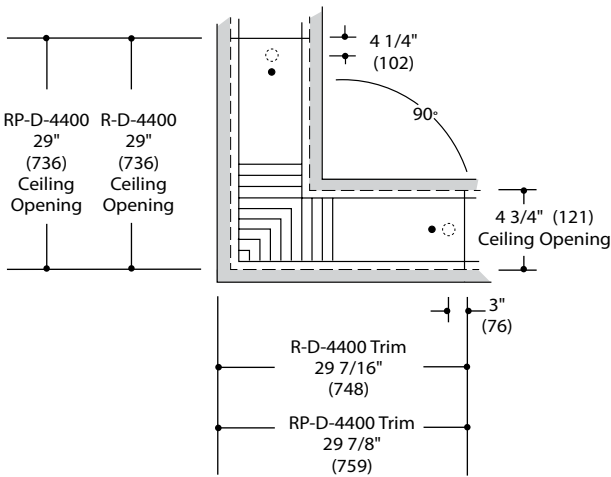


System connectors

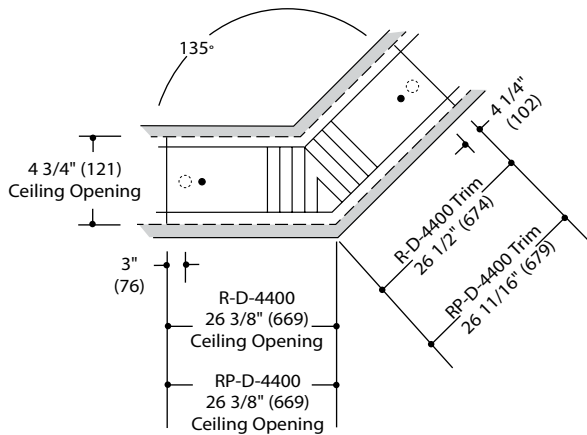
| Product, lamping, & length | | | | | | | Options | | | | | |
|---|--------------|----------|------------|---------------------|---------------|------------|---|----------------------------------|--|---------------|------------|------------|
| R - | D - | 44 | 2 | 2 | C90L | T5HO- | PBSS - | CWM - | LP/ELB - | TW - | 2CWQ- | 120 |
| Mounting | Distribution | Series | Lamp Count | Nominal Length (ft) | Angle | Lamp Type | Diffuser | Finish | Ballast | Tandem Wiring | Circuiting | Volts |
| R Recessed RP Recessed w/ flange | D Direct | 45 44 | 1 → | 2 → | C90L C135L | T8 | PBSS BW SGL see Diffusers | CWM (matte white) is standard | ELB10 is std. for T8 LP/ELB is std. for T5 or T5HO DA/ELB LPD/ELB see Ballast options | -- → | 1CWQ | 120 277 |
| | | | 1 → | 2 → | | T5HO T5 | | | | TW → | 2CWQ | |
| | | | 2 → | 2 → | | | | | | | | |

R-D-4422-C90L-T5HO-PBSS-CWM-TW-LP/ELB-2CWQ-120 is a typical catalog number for a 2-lamp (2 lamps in cross-section), 2-foot long high-output T5 90° lighted corner connector, with semi-specular parabolic baffle, textured matte white finish, tandem-wired low-profile electronic ballast, pre-wired with two-circuit branch wiring and quick-connects, 120 volts.

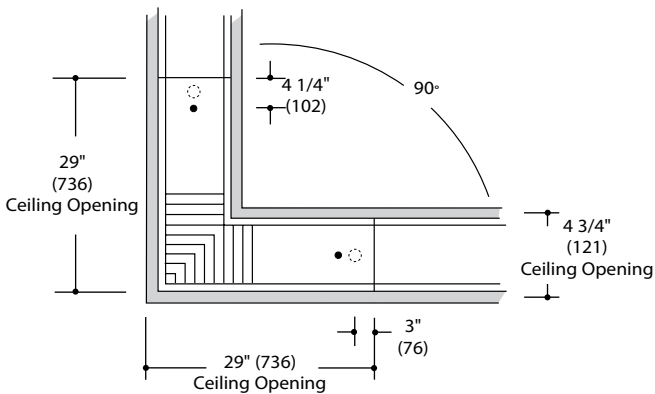
R-D-4400 and RP-D-4400
90° Lighted Corner C90L



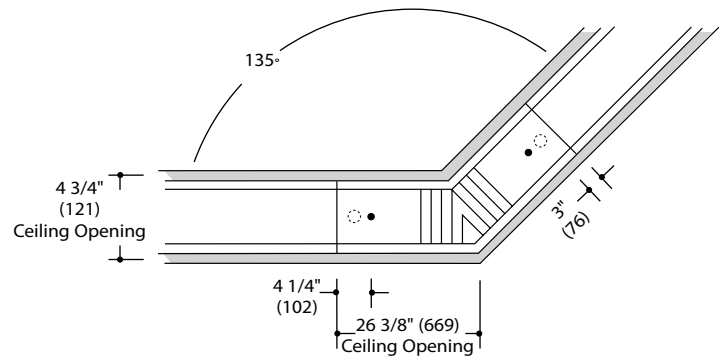
R-D-4400 and RP-D-4400
135° Lighted Corner C135L



R-D-4500
90° Lighted Corner C90L



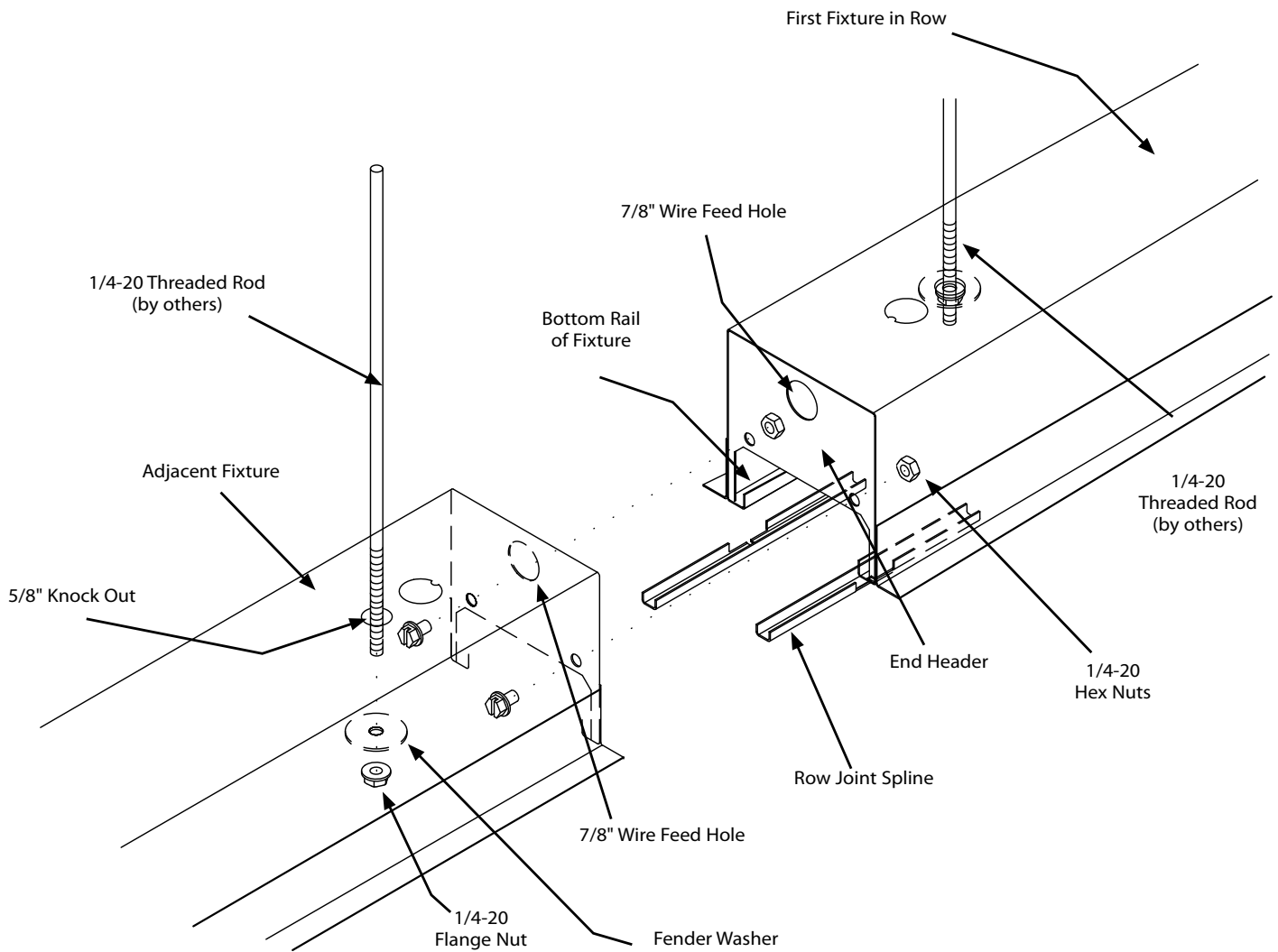
R-D-4500
135° Lighted Corner C135L



Corners are of one-piece construction, ready to install, with diffusers that match adjoining fixtures. Fixtures cannot be butted to form corners.

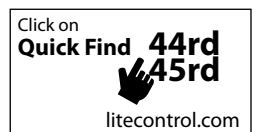
General notes for specifiers and contractors

1. Fixtures may be mounted in plaster, drywall, or concealed spline ceilings, individually, or in rows. Each fixture is supported by two 1/4-20 threaded rods.
2. Prior to fixture installation (2) 1/4-20 threaded rods per fixture must be located and installed in the ceiling. Note: threaded rods must end 3" above finished ceiling.
3. Electrical and ceiling contractors should both understand that this system is not a standard troffer construction (due to continuous light feature), so coordination between the two trades is essential.
4. Lighted corners (90° and 135°) are available. If lighted corners are part of the installation, corners should be installed before fixtures.
5. Installation instructions for this fixture and all Litecontrol fixtures are available at litecontrol.com. Instructions are also provided with every fixture shipment.

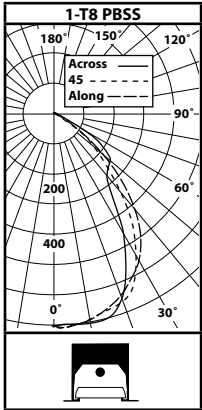


LITECONTROL

100 Hawks Avenue Hanson, MA 02341
781 294 0100 f: 781 293 2849 litecontrol.com



Photometric data T8



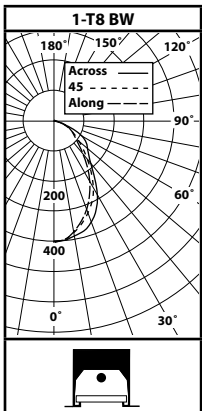
| CANDLEPOWER SUMMARY | | | | | | |
|---------------------|-----|------|-----|------|-----|---------------|
| ANGLE | 0 | 22.5 | 45 | 67.5 | 90 | OUTPUT LUMENS |
| 90 | 4 | 5 | 2 | 4 | 5 | |
| 85 | 5 | 5 | 5 | 5 | 4 | 5 |
| 80 | 4 | 2 | 2 | 5 | 5 | |
| 75 | 2 | 4 | 4 | 2 | 5 | 4 |
| 70 | 5 | 4 | 6 | 5 | 2 | |
| 65 | 7 | 5 | 4 | 20 | 29 | 21 |
| 60 | 20 | 20 | 40 | 85 | 131 | |
| 55 | 78 | 74 | 106 | 159 | 195 | 109 |
| 50 | 184 | 174 | 175 | 209 | 238 | |
| 45 | 308 | 297 | 243 | 245 | 252 | 207 |
| 40 | 414 | 414 | 331 | 282 | 271 | |
| 35 | 496 | 500 | 442 | 369 | 336 | 272 |
| 30 | 555 | 558 | 540 | 486 | 454 | |
| 25 | 602 | 603 | 617 | 594 | 563 | 275 |
| 20 | 641 | 642 | 657 | 663 | 652 | |
| 15 | 669 | 663 | 672 | 692 | 692 | 192 |
| 10 | 689 | 681 | 691 | 696 | 696 | |
| 5 | 700 | 696 | 696 | 697 | 696 | 67 |
| 0 | 699 | 699 | 699 | 699 | 699 | |

| R-D-4414T8-PBSS 39.6% Efficiency Litecontrol Certified Test Report #11042004 | | | | | | | | | | | | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|---|
| RCC | 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 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | .47 | .47 | .47 | .47 | .46 | .46 | .46 | .44 | .44 | .44 | .42 | .42 | .42 | .40 | .40 | .40 | .40 | | | | |
| 1 | .45 | .43 | .42 | .41 | .44 | .43 | .42 | .41 | .41 | .40 | .39 | .39 | .39 | .38 | .37 | .37 | .36 | | | | |
| 2 | .42 | .40 | .38 | .36 | .41 | .39 | .37 | .36 | .38 | .36 | .35 | .37 | .35 | .34 | .35 | .35 | .34 | | | | |
| 3 | .39 | .36 | .34 | .32 | .39 | .36 | .34 | .32 | .35 | .33 | .32 | .34 | .32 | .31 | .33 | .32 | .31 | | | | |
| 4 | .37 | .33 | .31 | .29 | .36 | .33 | .31 | .29 | .32 | .30 | .28 | .31 | .29 | .28 | .30 | .29 | .28 | | | | |
| 5 | .34 | .31 | .28 | .26 | .34 | .30 | .28 | .26 | .29 | .27 | .25 | .29 | .27 | .25 | .28 | .26 | .25 | | | | |
| 6 | .32 | .28 | .25 | .23 | .32 | .28 | .25 | .23 | .27 | .25 | .23 | .26 | .24 | .23 | .26 | .24 | .23 | | | | |
| 7 | .30 | .26 | .23 | .21 | .29 | .25 | .23 | .21 | .25 | .22 | .21 | .24 | .22 | .20 | .24 | .22 | .20 | | | | |
| 8 | .28 | .23 | .21 | .19 | .27 | .23 | .20 | .19 | .23 | .20 | .18 | .22 | .20 | .18 | .22 | .20 | .18 | | | | |
| 9 | .26 | .21 | .18 | .16 | .25 | .21 | .18 | .16 | .21 | .18 | .16 | .20 | .18 | .16 | .20 | .18 | .16 | | | | |
| 10 | .24 | .19 | .17 | .15 | .24 | .19 | .17 | .15 | .19 | .16 | .15 | .19 | .16 | .15 | .18 | .16 | .15 | | | | |

Floor Cavity Reflectance .20

| ZONAL LUMEN SUMMARY | | | |
|---------------------|--------|--------|-------------|
| ZONE | LUMENS | % LAMP | % LUMINAIRE |
| 180-90° | 0 | .00 | .00 |
| 90-0° | 1148 | 39.59 | 100.00 |
| 180-0° | 1148 | 39.59 | 100.00 |

| LUMINANCE SUMMARY (fL) | | | |
|------------------------|------|------|------|
| ANGLE | 0° | 45° | 90° |
| 45° | 1278 | 1015 | 1050 |
| 55° | 399 | 544 | 1001 |
| 65° | 50 | 26 | 204 |
| 75° | 28 | 42 | 57 |
| 85° | 168 | 168 | 126 |



| CANDLEPOWER SUMMARY | | | | | | |
|---------------------|-----|------|-----|------|-----|---------------|
| ANGLE | 0 | 22.5 | 45 | 67.5 | 90 | OUTPUT LUMENS |
| 90 | 5 | 6 | 4 | 2 | 4 | |
| 85 | 5 | 10 | 10 | 5 | 5 | 14 |
| 80 | 29 | 28 | 28 | 28 | 34 | |
| 75 | 49 | 50 | 50 | 54 | 58 | 57 |
| 70 | 74 | 73 | 78 | 84 | 103 | |
| 65 | 97 | 96 | 102 | 120 | 150 | 112 |
| 60 | 130 | 127 | 133 | 167 | 209 | |
| 55 | 161 | 161 | 166 | 203 | 254 | 166 |
| 50 | 189 | 191 | 209 | 247 | 282 | |
| 45 | 234 | 237 | 271 | 296 | 322 | 214 |
| 40 | 305 | 316 | 347 | 365 | 375 | |
| 35 | 389 | 399 | 432 | 448 | 468 | 269 |
| 30 | 472 | 474 | 520 | 541 | 560 | |
| 25 | 550 | 547 | 592 | 630 | 651 | 273 |
| 20 | 623 | 618 | 652 | 704 | 713 | |
| 15 | 690 | 687 | 702 | 740 | 758 | 202 |
| 10 | 749 | 745 | 754 | 770 | 773 | |
| 5 | 793 | 784 | 788 | 797 | 791 | 75 |
| 0 | 804 | 804 | 804 | 804 | 804 | |

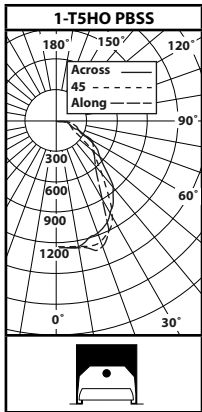
| R-D-4414T8-BW 47.5% Efficiency Litecontrol Certified Test Report #11042004 | | | | | | | | | | | | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|---|
| RCC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | .57 | .57 | .57 | .57 | .55 | .55 | .55 | .55 | .53 | .53 | .53 | .51 | .51 | .51 | .49 | .49 | .49 | | | | |
| 1 | .53 | .51 | .50 | .48 | .52 | .50 | .49 | .47 | .48 | .47 | .46 | .46 | .45 | .44 | .45 | .44 | .43 | | | | |
| 2 | .49 | .46 | .43 | .41 | .48 | .45 | .43 | .41 | .43 | .41 | .40 | .42 | .40 | .39 | .41 | .39 | .38 | | | | |
| 3 | .45 | .41 | .38 | .36 | .44 | .41 | .38 | .35 | .39 | .37 | .35 | .38 | .36 | .34 | .37 | .35 | .34 | | | | |
| 4 | .42 | .38 | .34 | .31 | .41 | .37 | .34 | .31 | .36 | .33 | .31 | .35 | .32 | .30 | .34 | .32 | .30 | | | | |
| 5 | .39 | .34 | .30 | .27 | .38 | .33 | .30 | .27 | .32 | .29 | .27 | .31 | .29 | .27 | .31 | .28 | .26 | | | | |
| 6 | .36 | .31 | .27 | .25 | .36 | .30 | .27 | .24 | .30 | .27 | .24 | .29 | .26 | .24 | .28 | .26 | .24 | | | | |
| 7 | .34 | .28 | .25 | .22 | .33 | .28 | .24 | .22 | .27 | .24 | .22 | .26 | .24 | .21 | .26 | .23 | .21 | | | | |
| 8 | .32 | .26 | .22 | .19 | .31 | .25 | .22 | .19 | .25 | .22 | .19 | .24 | .21 | .19 | .24 | .21 | .19 | | | | |
| 9 | .29 | .23 | .20 | .17 | .29 | .23 | .20 | .17 | .23 | .19 | .17 | .22 | .19 | .17 | .22 | .19 | .17 | | | | |
| 10 | .27 | .21 | .18 | .16 | .27 | .21 | .18 | .15 | .21 | .18 | .15 | .20 | .17 | .15 | .20 | .17 | .15 | | | | |

Floor Cavity Reflectance .20

| ZONAL LUMEN SUMMARY | | | |
|---------------------|--------|--------|-------------|
| ZONE | LUMENS | % LAMP | % LUMINAIRE |
| 180-90° | 0 | .00 | .00 |
| 90-0° | 1378 | 47.53 | 100.00 |
| 180-0° | 1378 | 47.53 | 100.00 |

| LUMINANCE SUMMARY (fL) | | | |
|------------------------|-----|------|------|
| ANGLE | 0° | 45° | 90° |
| 45° | 970 | 1131 | 1345 |
| 55° | 822 | 851 | 1307 |
| 65° | 676 | 713 | 1044 |
| 75° | 553 | 568 | 666 |
| 85° | 168 | 333 | 169 |

Photometric data T5HO



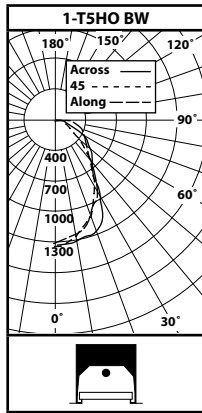
| CANDLEPOWER SUMMARY | | | | | | |
|---------------------|------|------|------|------|------|---------------|
| ANGLE | 0 | 22.5 | 45 | 67.5 | 90 | OUTPUT LUMENS |
| 90 | 7 | 3 | 7 | 7 | 5 | |
| 85 | 7 | 5 | 7 | 5 | 5 | 7 |
| 80 | 7 | 7 | 5 | 3 | 5 | |
| 75 | 5 | 7 | 5 | 7 | 8 | 7 |
| 70 | 7 | 7 | 7 | 7 | 13 | |
| 65 | 8 | 5 | 20 | 44 | 57 | 40 |
| 60 | 33 | 39 | 76 | 161 | 234 | |
| 55 | 127 | 124 | 195 | 295 | 348 | 194 |
| 50 | 325 | 298 | 299 | 376 | 417 | |
| 45 | 545 | 537 | 405 | 421 | 436 | 360 |
| 40 | 734 | 763 | 525 | 482 | 475 | |
| 35 | 877 | 931 | 744 | 566 | 560 | 471 |
| 30 | 981 | 1041 | 1002 | 789 | 716 | |
| 25 | 1061 | 1103 | 1170 | 1093 | 1010 | 502 |
| 20 | 1119 | 1154 | 1235 | 1275 | 1254 | |
| 15 | 1171 | 1189 | 1243 | 1302 | 1308 | 350 |
| 10 | 1210 | 1210 | 1238 | 1263 | 1267 | |
| 5 | 1236 | 1223 | 1228 | 1245 | 1236 | 118 |
| 0 | 1230 | 1230 | 1230 | 1230 | 1230 | |

| R-D-4414T5HO-PBSS 45.4% Efficiency Litecontrol Certified Test Report #58016340 | | | | | | | | | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RCC | 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 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | .54 | .54 | .54 | .54 | .53 | .53 | .53 | .53 | .50 | .50 | .50 | .48 | .48 | .48 | .46 | .46 | .46 | .45 |
| 1 | .51 | .50 | .48 | .47 | .50 | .49 | .48 | .47 | .47 | .46 | .45 | .45 | .44 | .44 | .44 | .43 | .42 | .42 |
| 2 | .48 | .46 | .44 | .42 | .47 | .45 | .43 | .41 | .43 | .42 | .40 | .42 | .41 | .40 | .41 | .40 | .39 | .38 |
| 3 | .45 | .42 | .39 | .37 | .44 | .41 | .39 | .37 | .40 | .38 | .36 | .39 | .37 | .36 | .38 | .36 | .35 | .34 |
| 4 | .42 | .38 | .35 | .33 | .42 | .38 | .35 | .33 | .37 | .34 | .33 | .36 | .34 | .32 | .35 | .33 | .32 | .31 |
| 5 | .40 | .35 | .32 | .30 | .39 | .35 | .32 | .30 | .34 | .31 | .29 | .33 | .31 | .29 | .32 | .30 | .29 | .28 |
| 6 | .37 | .32 | .29 | .27 | .36 | .32 | .29 | .27 | .31 | .28 | .26 | .30 | .28 | .26 | .30 | .28 | .26 | .25 |
| 7 | .35 | .30 | .26 | .24 | .34 | .29 | .26 | .24 | .29 | .26 | .24 | .28 | .26 | .24 | .27 | .25 | .24 | .23 |
| 8 | .32 | .27 | .24 | .22 | .32 | .27 | .24 | .21 | .26 | .23 | .21 | .26 | .23 | .21 | .25 | .23 | .21 | .20 |
| 9 | .30 | .25 | .21 | .19 | .29 | .24 | .21 | .19 | .24 | .21 | .19 | .23 | .21 | .19 | .23 | .21 | .19 | .18 |
| 10 | .28 | .23 | .19 | .17 | .27 | .22 | .19 | .17 | .22 | .19 | .17 | .21 | .19 | .17 | .21 | .19 | .17 | .16 |

Floor Cavity Reflectance .20

| ZONAL LUMEN SUMMARY | | | |
|---------------------|--------|--------|-------------|
| ZONE | LUMENS | % LAMP | % LUMINAIRE |
| 180-90° | 0 | .00 | .00 |
| 90-0° | 2044 | 45.44 | 100.00 |
| 180-0° | 2044 | 45.44 | 100.00 |

| LUMINANCE SUMMARY (fL) | | | |
|------------------------|------|------|------|
| ANGLE | 0° | 45° | 90° |
| 45° | 2235 | 1667 | 1796 |
| 55° | 642 | 990 | 1767 |
| 65° | 56 | 135 | 392 |
| 75° | 56 | 56 | 92 |
| 85° | 222 | 222 | 167 |



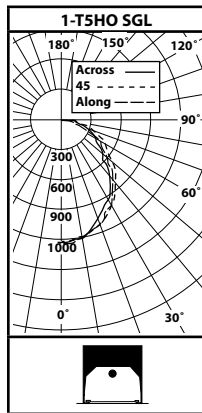
| CANDLEPOWER SUMMARY | | | | | | |
|---------------------|------|------|------|------|------|---------------|
| ANGLE | 0 | 22.5 | 45 | 67.5 | 90 | OUTPUT LUMENS |
| 90 | 5 | 7 | 5 | 5 | 7 | |
| 85 | 7 | 15 | 20 | 8 | 11 | 23 |
| 80 | 46 | 47 | 45 | 59 | 57 | |
| 75 | 88 | 86 | 86 | 96 | 111 | 101 |
| 70 | 137 | 130 | 137 | 150 | 195 | |
| 65 | 174 | 176 | 185 | 220 | 285 | 203 |
| 60 | 229 | 224 | 234 | 301 | 384 | |
| 55 | 282 | 286 | 299 | 371 | 464 | 298 |
| 50 | 338 | 338 | 377 | 444 | 519 | |
| 45 | 410 | 430 | 475 | 522 | 579 | 380 |
| 40 | 538 | 573 | 625 | 604 | 659 | |
| 35 | 695 | 722 | 799 | 787 | 787 | 482 |
| 30 | 839 | 857 | 957 | 1020 | 1028 | |
| 25 | 983 | 991 | 1087 | 1184 | 1235 | 501 |
| 20 | 1113 | 1113 | 1183 | 1287 | 1339 | |
| 15 | 1230 | 1228 | 1269 | 1349 | 1380 | 365 |
| 10 | 1336 | 1334 | 1357 | 1386 | 1393 | |
| 5 | 1419 | 1404 | 1419 | 1432 | 1420 | 135 |
| 0 | 1441 | 1441 | 1441 | 1441 | 1441 | |

| R-D-4414T5HO-BW 55.2% Efficiency Litecontrol Certified Test Report #58016300 | | | | | | | | | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RCC | 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 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | .66 | .66 | .66 | .66 | .64 | .64 | .64 | .64 | .61 | .61 | .61 | .59 | .59 | .59 | .56 | .56 | .56 | .55 |
| 1 | .61 | .59 | .57 | .56 | .60 | .58 | .56 | .55 | .56 | .54 | .53 | .54 | .53 | .52 | .52 | .51 | .50 | .49 |
| 2 | .57 | .53 | .50 | .48 | .56 | .52 | .49 | .47 | .50 | .48 | .46 | .49 | .47 | .45 | .47 | .46 | .44 | .43 |
| 3 | .53 | .48 | .44 | .42 | .52 | .47 | .44 | .41 | .46 | .43 | .41 | .44 | .42 | .40 | .43 | .41 | .39 | .38 |
| 4 | .49 | .44 | .40 | .36 | .48 | .43 | .39 | .36 | .42 | .38 | .36 | .40 | .38 | .35 | .39 | .37 | .35 | .34 |
| 5 | .45 | .39 | .35 | .32 | .44 | .39 | .35 | .32 | .38 | .34 | .31 | .37 | .33 | .31 | .36 | .33 | .31 | .30 |
| 6 | .42 | .36 | .32 | .29 | .41 | .35 | .31 | .28 | .34 | .31 | .28 | .34 | .30 | .28 | .33 | .30 | .28 | .27 |
| 7 | .39 | .33 | .29 | .26 | .39 | .32 | .28 | .25 | .31 | .27 | .25 | .31 | .27 | .25 | .30 | .27 | .25 | .24 |
| 8 | .37 | .30 | .26 | .23 | .36 | .29 | .25 | .23 | .29 | .25 | .22 | .28 | .25 | .22 | .27 | .24 | .22 | .21 |
| 9 | .34 | .27 | .23 | .20 | .33 | .27 | .23 | .20 | .26 | .23 | .20 | .26 | .22 | .20 | .25 | .22 | .20 | .19 |
| 10 | .32 | .25 | .21 | .18 | .31 | .25 | .21 | .18 | .24 | .20 | .18 | .24 | .20 | .18 | .23 | .20 | .18 | .17 |

Floor Cavity Reflectance .20

| ZONAL LUMEN SUMMARY | | | |
|---------------------|--------|--------|-------------|
| ZONE | LUMENS | % LAMP | % LUMINAIRE |
| 180-90° | 0 | .00 | .00 |
| 90-0° | 2483 | 55.20 | 100.00 |
| 180-0° | 2483 | 55.20 | 100.00 |

| LUMINANCE SUMMARY (fL) | | | |
|------------------------|------|------|------|
| ANGLE | 0° | 45° | 90° |
| 45° | 1681 | 1956 | 2384 |
| 55° | 1424 | 1519 | 2353 |
| 65° | 1195 | 1277 | 1961 |
| 75° | 986 | 968 | 1244 |
| 85° | 222 | 656 | 384 |



| CANDLEPOWER SUMMARY | | | | | | |
|---------------------|------|------|------|------|------|---------------|
| ANGLE | 0 | 22.5 | 45 | 67.5 | 90 | OUTPUT LUMENS |
| 90 | 7 | 7 | 3 | 5 | 7 | |
| 85 | 20 | 20 | 20 | 11 | 13 | 28 |
| 80 | 75 | 70 | 65 | 54 | 54 | |
| 75 | 135 | 124 | 117 | 106 | 104 | 126 |
| 70 | 205 | 197 | 174 | 168 | 158 | |
| 65 | 278 | 267 | 247 | 228 | 221 | 248 |
| 60 | 358 | 345 | 321 | 298 | 293 | |
| 55 | 443 | 430 | 397 | 373 | 366 | 361 |
| 50 | 532 | 519 | 483 | 451 | 441 | |
| 45 | 625 | 605 | 571 | 542 | 527 | 444 |
| 40 | 709 | 690 | 664 | 626 | 612 | |
| 35 | 800 | 781 | 747 | 718 | 701 | 470 |
| 30 | 883 | 859 | 832 | 807 | 789 | |
| 25 | 950 | 934 | 905 | 892 | 872 | 421 |
| 20 | 1009 | 989 | 974 | 965 | 950 | |
| 15 | 1053 | 1041 | 1030 | 1027 | 1015 | 292 |
| 10 | 1085 | 1079 | 1072 | 1072 | 1067 | |
| 5 | 1110 | 1098 | 1098 | 1100 | 1093 | 105 |
| 0 | 1109 | 1109 | 1109 | 1109 | 1109 | |

| R-D-4414T5HO-SGL 55.4% Efficiency Litecontrol Certified Test Report #58016990 | | | | | | | | | | | | | | | | | | |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RCC | 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 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | .66 | .66 | .66 | .66 | .64 | .64 | .64 | .64 | .62 | .62 | .62 | .59 | .59 | .59 | .57 | .57 | .57 | .55 |
| 1 | .61 | .59 | .57 | .55 | .60 | .58 | .56 | .54 | .55 | .54 | .53 | .53 | .52 | .51 | .51 | .50 | .49 | .48 |
| 2 | .56 | .53 | .49 | .46 | .55 | .51 | .48 | .46 | .49 | .47 | .45 | .48 | .46 | .44 | .46 | .44 | .43 | .42 |
| 3 | .52 | .47 | .43 | .40 | .51 | .46 | .42 | .39 | .45 | .41 | .39 | .43 | .40 | .38 | .42 | .39 | .38 | .36 |
| 4 | .48 | .42 | .38 | .34 | .47 | .41 | .37 | .34 | .40 | .36 | .34 | .39 | .36 | .33 | .38 | .35 | .33 | .32 |
| 5 | .44 | .38 | .33 | .30 | .43 | .37 | .33 | .29 | .36 | .32 | .29 | .35 | .31 | .29 | .34 | .31 | .28 | .27 |
| 6 | .41 | .34 | .29 | .26 | .40 | .33 | .29 | .26 | .32 | .29 | .26 | .31 | .28 | .25 | .31 | .28 | .25 | .24 |
| 7 | .38 | .31 | .26 | .23 | .37 | .30 | .26 | .23 | .29 | .25 | .23 | .29 | .25 | .22 | .28 | .25 | .22 | .21 |
| 8 | .35 | .28 | .23 | .20 | .34 | .27 | .23 | .20 | .27 | .23 | .20 | .26 | .22 | .20 | .25 | .22 | .20 | .19 |
| 9 | .32 | .25 | .21 | .17 | .31 | .25 | .20 | .17 | .24 | .20 | .17 | .23 | .20 | .17 | .23 | .20 | .17 | .16 |
| 10 | .30 | .23 | .18 | .16 | .29 | .22 | .18 | .16 | .22 | .18 | .15 | .21 | .18 | .15 | .21 | .18 | .15 | .14 |

Floor Cavity Reflectance .20

| ZONAL LUMEN SUMMARY | | | |
|---------------------|--------|--------|-------------|
| ZONE | LUMENS | % LAMP | % LUMINAIRE |
| 180-90° | 0 | .00 | .00 |
| 90-0° | 2492 | 55.39 | 100.00 |
| 180-0° | 2492 | 55.39 | 100.00 |

| LUMINANCE SUMMARY (fL) | | | |
|------------------------|------|------|------|
| ANGLE | 0° | 45° | 90° |
| 45° | 2562 | 2350 | 2170 |
| 55° | 2238 | 2014 | 1858 |
| 65° | 1909 | 1704 | 1525 |
| 75° | 1512 | 1314 | 1171 |
| 85° | 654 | 656 | 440 |