Light Emission Distribution Laboratory
Division of Photometry & Electrical Testing Pty. Ltd ABN 11 166 255 134
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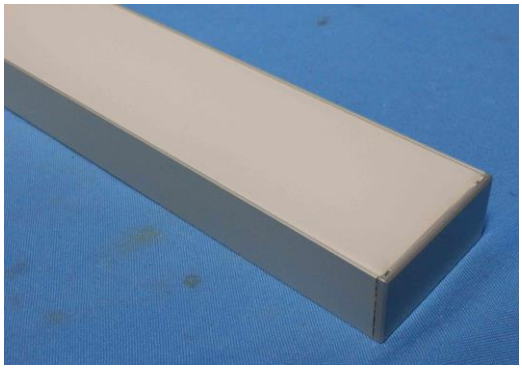
Accredited for Compliance with ISO/IEC 17025 Accreditation No. 19541

# PHOTOMETRIC TEST REPORT No. 201142PH

**Date: 23rd November 2020**

***Client:*** ***Offspring Profiles Ltd.***
***Address:*** ***40 Austin Street, Onekawa, Napier NZ.***
***Contact:*** ***Robin Campbell***



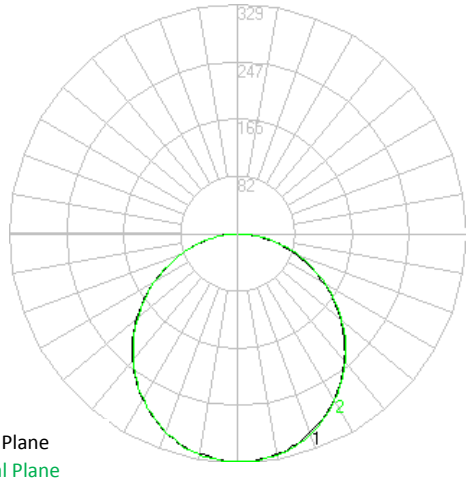
***Luminaire:*** ***Downhill Dan 22***

***Catalogue No.*** ***DD22-SUPER-14-40***

***Description:*** ***Offspring Profiles LED extrusion DD22 incorporating an Opal diffuser***

***Optical System:*** ***2x Offspring profiles 24VDC LED board type Super Series-14W-4000K (500mm LED strip 14W/m).***

***Control Gear:*** ***Lisun DC Series DC3010 24VDC Power Supply***



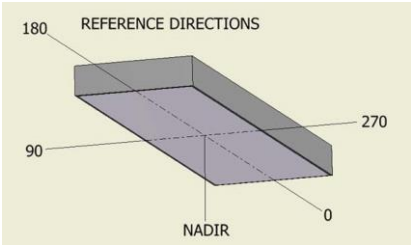

C0-C180° Vertical Plane
C90-C270° Vertical Plane

## *Test Specification:*

The luminaire was tested in accordance with the procedures given in IES LM79-19, "Optical and electrical measurements of Solid-State Lighting Products" using the **absolute** method.

## *Results:*

When tested at an ambient of 25ºC at a supply voltage of 24VDC, the luminaire consumed 0.617A and 14.8W. That is, Lamp Circuit Power (LCP), which includes power supply losses, is 14.8W.
The Total Luminous Flux was measured as 932 Lumens.
The Correlated Colour Temperature was measured as 4056K average.




***Luminous Intensity Distribution (I-TABLE) is given on Page 5.***

**Tested by:** B. Real/ J. King on 16th November 2020 **Authorised Signatory:** _____
A. Yetendje

## Test Configuration

The luminaire was photometered in IESNA Horizontal – Vertical Reference angles such that:

- The luminaire was mounted with photometric centre aligned with photometric zero (in the direction of nadir), centred on the light emitting area.
- The supply wires were located on the 0° Horizontal angle, photometric horizontal, in the zero-degree photometric plane.
- In accordance with CIE S 025/E:2015 Clause 5.3.2 the face of the diffuser was co-incident with centre of the goniophotometer.
- The long dimension of the optical opening in the direction of the H= 0° - 180° Plane.
- The photometric test distance of 9.85m, is referenced to the photometric centre of the luminaire and the photocell.

Due to the Type B mounting arrangement, a correction factor to achieve correct orientation was determined but not applied as it was less than 0.5% and accounted for in the Uncertainty Budget. Should these Uncertainties be required contact LEDLab.

## Test Procedures and Equipment

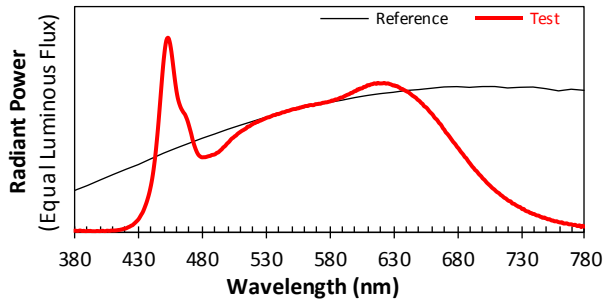
| | |
|---|---|
| ***Calibration report:*** | 200627CAL using N.M.I. report RN 181690 on standard lamp M14192 |
| ***Technical Procedure:*** | P113 & P118 |
| ***Angular Resolution:*** | Test Configuration and issued .ies file<br>C Plane Interval 15 Deg<br>Gamma Angle Interval 1.0 Deg<br>Abbreviated Test Report File (I-Table)<br>C Plane Interval 15 Deg<br>Gamma Angle Interval 5.0 Deg |
| ***Software:*** | Lisun LSG-1800B |
| ***Obstructions:*** | None |
| ***Lab. Book Page:*** | PH4/1762 |
| ***Primary Orientation Correction:*** | 1.0 |
| ***Colour correction:*** | 1.028 |
| ***Goniophotometer:*** | Lisun Electronics Model LSG-1800B, Serial No. GSGHF070010. |
| ***Photocell:*** | Lisun Electronics Detector Serial No. 330220-1 |
| ***Lux meter:*** | Lisun Electronics Model PM 400, Serial No. GSRXK090021 |
| ***Lux meter integration time (PLC):*** | 5 |
| ***Power meter:*** | Lisun Electronics Model RT-200, Serial No. GSXY0100021 |
| ***Power meter integration time (s):*** | 0.5 |
| ***Luminaire thermometer:*** | AMA 1362983 0.1°C Serial No 526,10942 |
| ***Temperature Data Logger:*** | Lisun TMP-8 Multiplex Serial No GSJWM010028 |
| ***Auxiliary Photocell:*** | Delta Ohm HD 2102.1 & LP471PHOT |

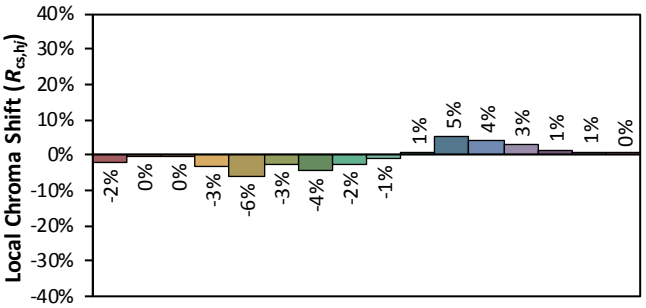
## *TEST REPORT and IES file archive*

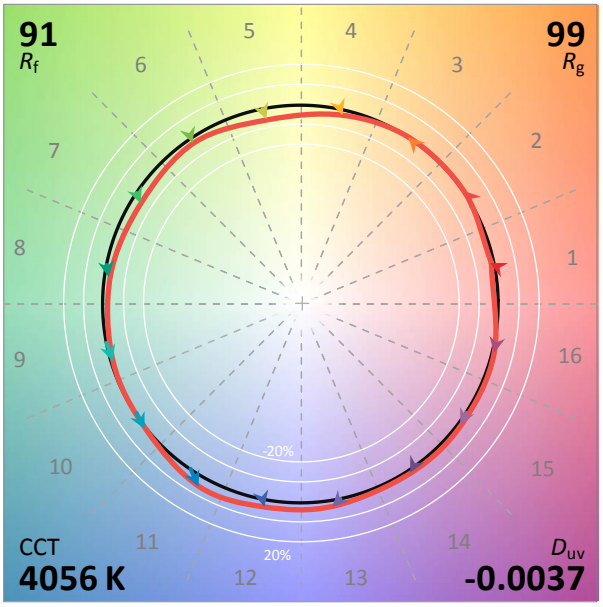
The data files for this report are contained in the *archive file: 201142PH.zip*

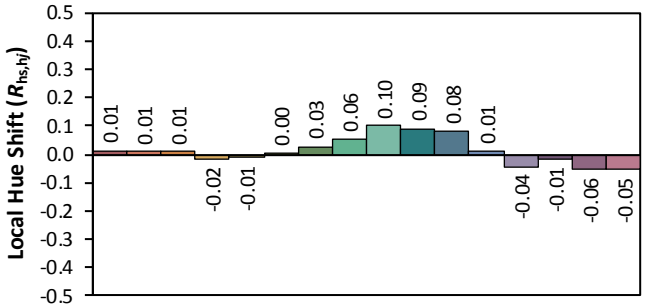
*IES file: 201142PH.IES* *Document File: 201142PH.pdf*

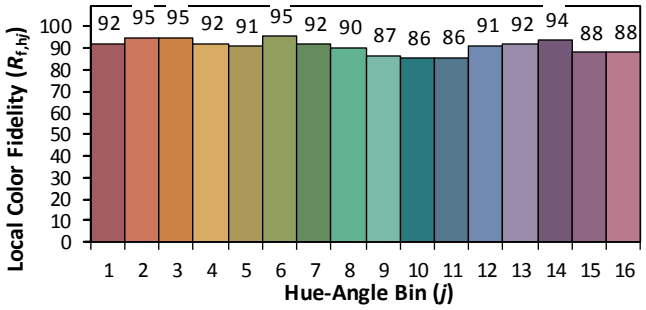

# ANSI/IES TM-30-18 COLOR RENDITION REPORT

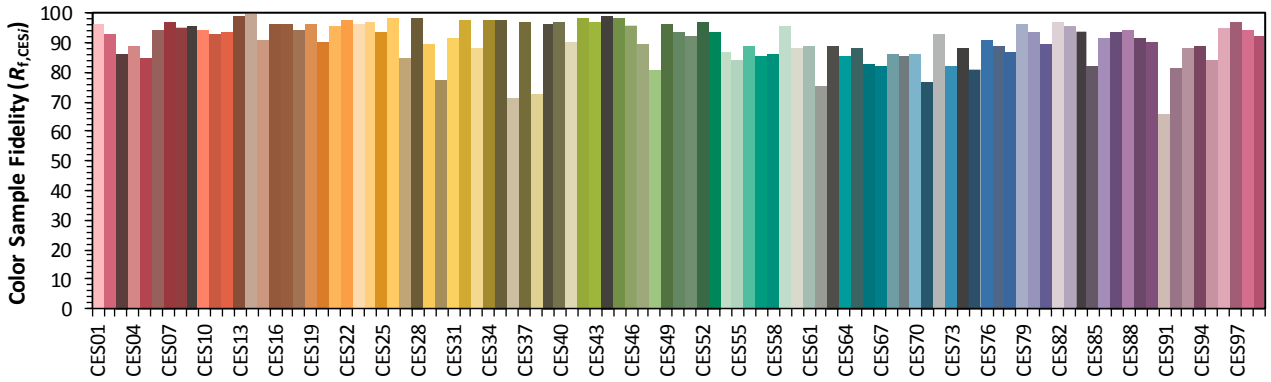



**Notes:**

| | |
|---|---|
| $x$ | **0.3756** |
| $y$ | **0.3660** |
| $u'$ | **0.2262** |
| $v'$ | **0.4960** |

| CIE 13.3-1995 (CRI) | |
|---|---|
| $R_a$ | 96 |
| $R_9$ | 90 |

## *PHOTOMETRIC TEST REPORT No. 201142PH* *Date: 23rd November 2020*

| LUMINOUS INTENSITY DISTRIBUTION (I-Table) - cd | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vertical | Horizontal Angle (H Plane) - Degrees | | | | | | | | | | | | | | | | | | | | | | | | |
| Angle (V) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degrees | 0 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 | 150 | 165 | 180 | 195 | 210 | 225 | 240 | 255 | 270 | 285 | 300 | 315 | 330 | 345 | 360 |
| 0 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 | 328 |
| 5 | 327 | 327 | 326 | 327 | 327 | 327 | 328 | 326 | 327 | 327 | 326 | 326 | 326 | 326 | 325 | 327 | 326 | 326 | 326 | 327 | 325 | 325 | 325 | 326 | 327 |
| 10 | 321 | 323 | 322 | 323 | 324 | 325 | 325 | 325 | 324 | 323 | 324 | 323 | 321 | 323 | 322 | 324 | 322 | 324 | 322 | 322 | 321 | 322 | 322 | 323 | 321 |
| 15 | 315 | 316 | 315 | 316 | 317 | 318 | 318 | 316 | 318 | 316 | 317 | 316 | 314 | 316 | 315 | 317 | 315 | 316 | 314 | 315 | 314 | 314 | 314 | 315 | 315 |
| 20 | 305 | 305 | 305 | 305 | 306 | 305 | 307 | 305 | 306 | 305 | 306 | 305 | 304 | 305 | 303 | 304 | 303 | 304 | 304 | 304 | 303 | 304 | 303 | 305 | 305 |
| 25 | 292 | 291 | 292 | 292 | 293 | 292 | 293 | 292 | 293 | 292 | 294 | 292 | 290 | 292 | 289 | 291 | 290 | 291 | 289 | 290 | 289 | 291 | 289 | 291 | 292 |
| 30 | 276 | 276 | 276 | 276 | 278 | 277 | 278 | 277 | 278 | 277 | 278 | 277 | 274 | 276 | 274 | 275 | 274 | 275 | 274 | 275 | 273 | 275 | 274 | 276 | 276 |
| 35 | 259 | 258 | 259 | 258 | 260 | 259 | 261 | 258 | 260 | 259 | 261 | 258 | 256 | 258 | 255 | 257 | 255 | 257 | 256 | 256 | 255 | 257 | 255 | 257 | 259 |
| 40 | 239 | 238 | 239 | 238 | 240 | 239 | 241 | 239 | 240 | 239 | 241 | 239 | 237 | 238 | 235 | 237 | 235 | 237 | 235 | 236 | 234 | 236 | 235 | 238 | 239 |
| 45 | 217 | 217 | 217 | 217 | 219 | 217 | 219 | 217 | 219 | 217 | 219 | 217 | 214 | 217 | 213 | 216 | 213 | 215 | 213 | 214 | 212 | 215 | 213 | 216 | 217 |
| 50 | 194 | 193 | 194 | 193 | 195 | 193 | 196 | 194 | 196 | 194 | 196 | 193 | 191 | 193 | 190 | 192 | 190 | 192 | 189 | 191 | 189 | 191 | 189 | 192 | 194 |
| 55 | 169 | 168 | 170 | 169 | 171 | 169 | 171 | 169 | 171 | 168 | 171 | 169 | 166 | 168 | 164 | 168 | 165 | 167 | 163 | 166 | 163 | 166 | 163 | 167 | 169 |
| 60 | 143 | 143 | 144 | 143 | 145 | 144 | 146 | 144 | 146 | 143 | 146 | 143 | 140 | 143 | 139 | 142 | 140 | 142 | 139 | 141 | 139 | 141 | 139 | 141 | 143 |
| 65 | 117 | 116 | 118 | 117 | 120 | 117 | 120 | 117 | 119 | 118 | 119 | 116 | 113 | 116 | 112 | 115 | 113 | 115 | 113 | 115 | 113 | 114 | 112 | 115 | 117 |
| 70 | 90 | 89 | 91 | 90 | 93 | 91 | 94 | 91 | 94 | 91 | 92 | 89 | 87 | 89 | 86 | 89 | 87 | 89 | 87 | 88 | 86 | 88 | 86 | 88 | 90 |
| 75 | 64 | 63 | 66 | 65 | 68 | 66 | 67 | 66 | 67 | 65 | 66 | 63 | 61 | 64 | 61 | 63 | 62 | 64 | 61 | 63 | 61 | 62 | 60 | 62 | 64 |
| 80 | 39 | 39 | 41 | 40 | 42 | 41 | 43 | 41 | 42 | 41 | 41 | 39 | 37 | 39 | 36 | 38 | 38 | 39 | 37 | 38 | 36 | 38 | 35 | 37 | 39 |
| 85 | 16 | 16 | 17 | 17 | 19 | 17 | 19 | 17 | 19 | 17 | 18 | 16 | 15 | 16 | 14 | 15 | 15 | 15 | 14 | 15 | 13 | 14 | 13 | 14 | 16 |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 135 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 155 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |