

BROWNIE's High-Colour-Rendering
& High-Efficiency Lighting Fixture
“LUMINOUS Series”

~Paving the way for a new era
of architectural lighting~

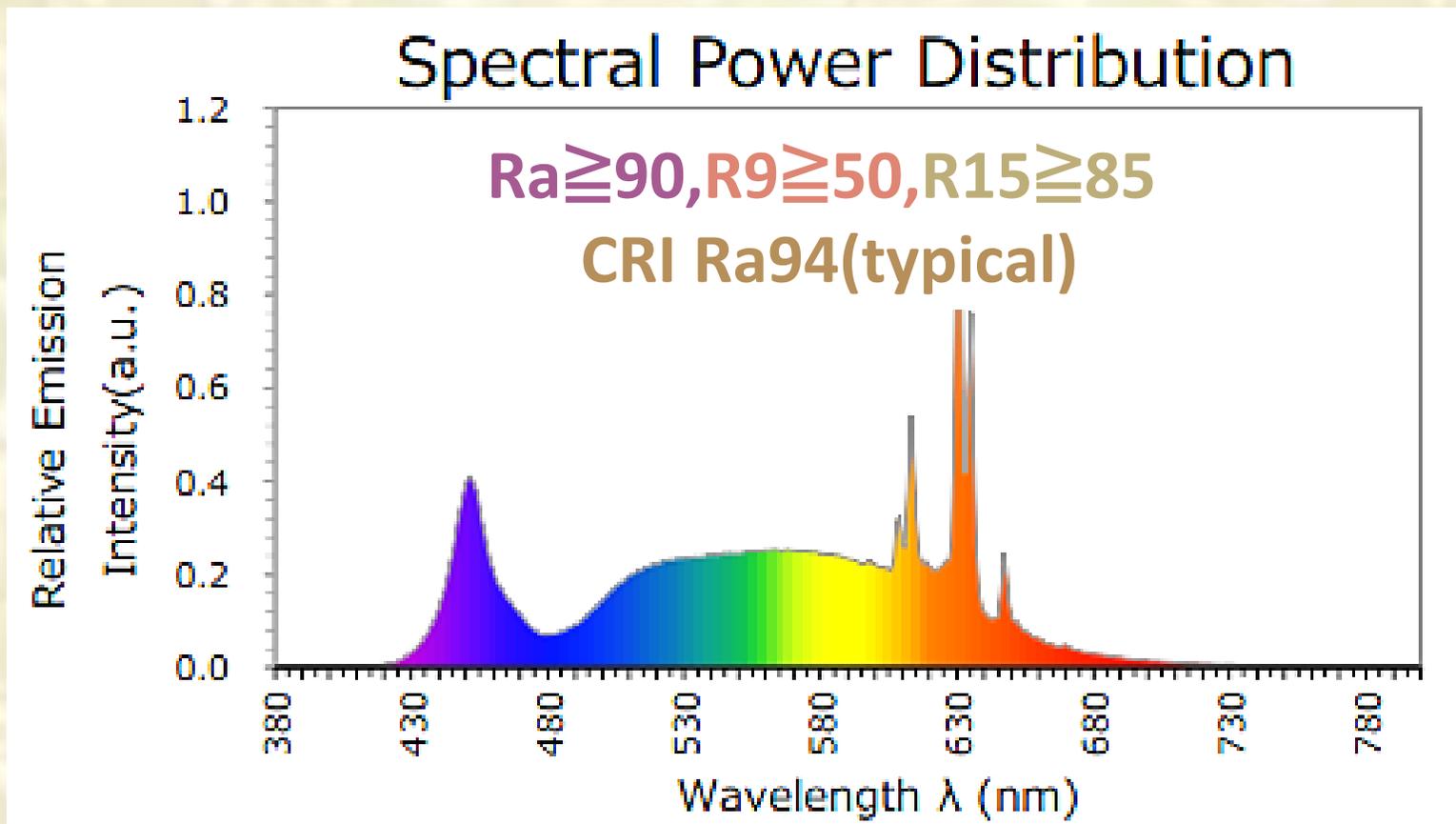
Background

Conventionally, LED (as a component level) has trade-off between color rendering and efficacy.

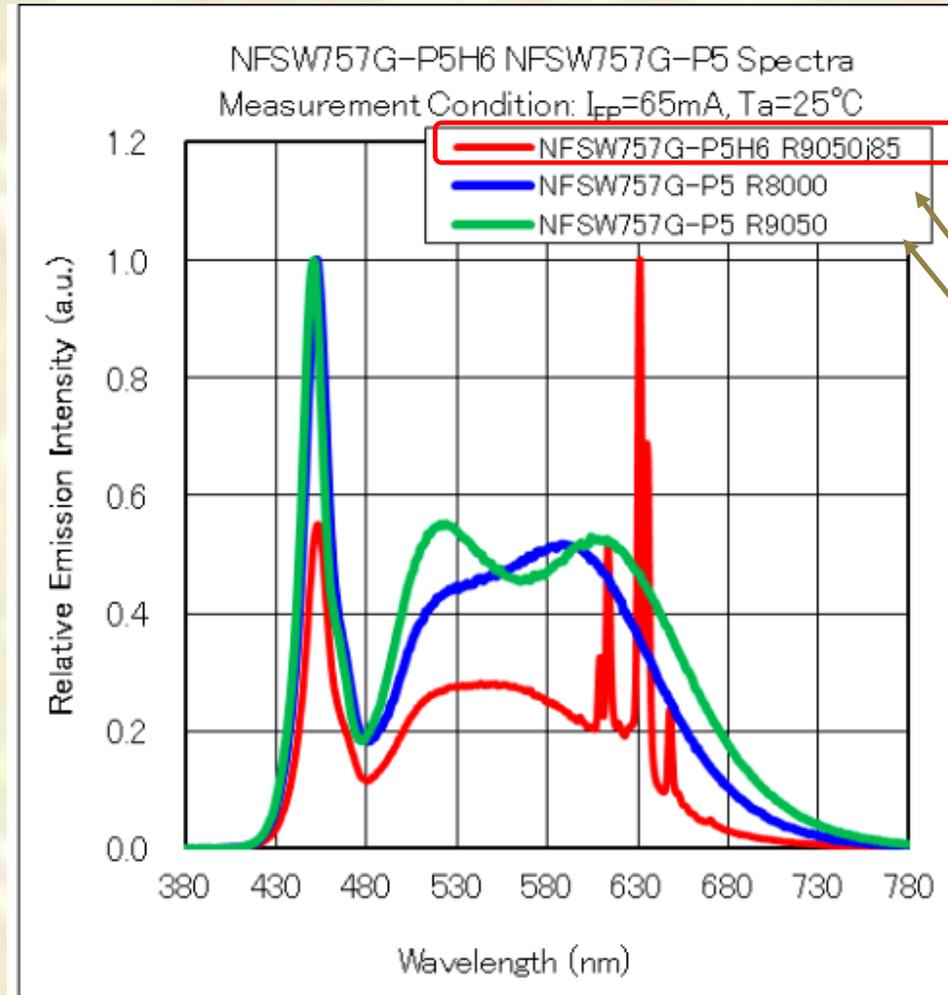
Now, due to technical breakthrough by the LED manufacturer*, the trade-off has been resolved. Accordingly BROWNIE can offer lighting fixtures that enhance fixture efficiency minimizing power consumption without sacrificing colour rendering or the lighting quality.

(Note* LED by NICHIA Chemical, Japan)

Enhanced Light Quality Without Sacrificing Efficiency/Efficacy



Enhanced R9 & R15 for more Vivid colour



LED used for BROWNIE's LUMINOUS series fixtures
Ra 94(typical)

LED currently used for majority of BROWNIE's Lighting fixtures
(Conventional model)

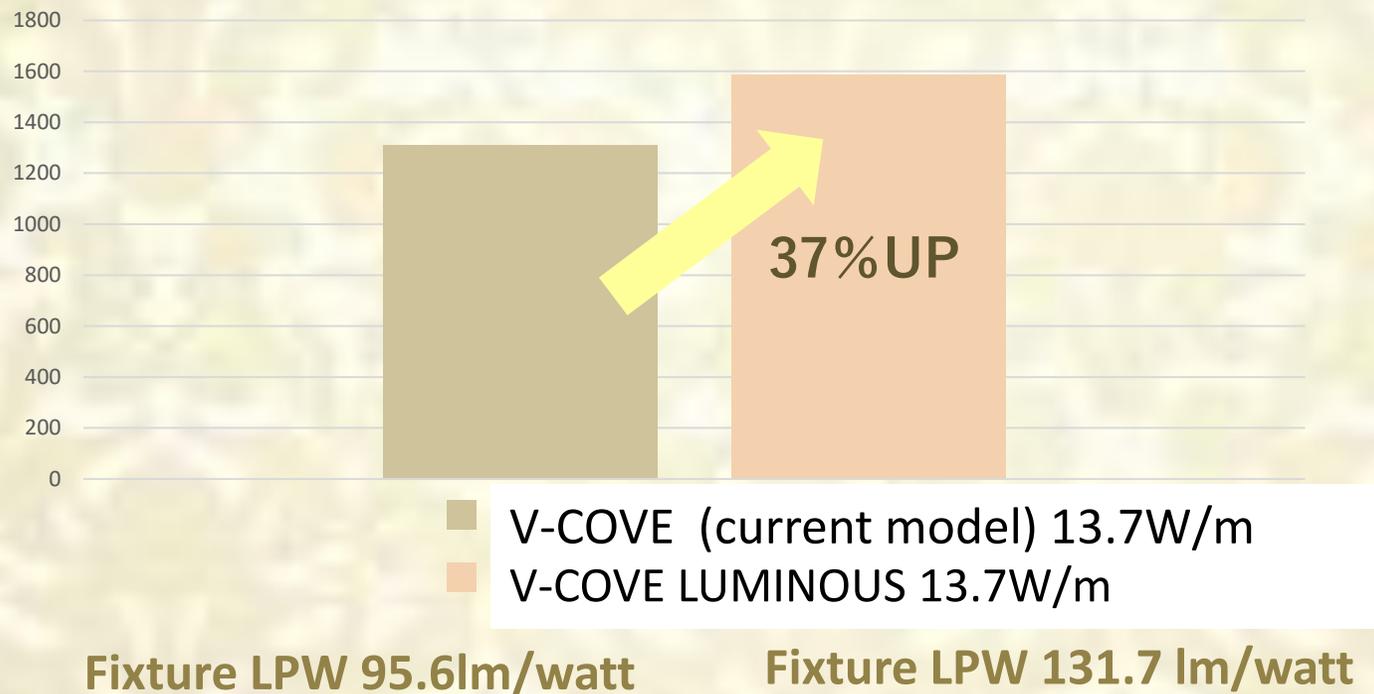
LED used for LUMINOUS series Fixtures
CRI Ra94(typical)
R9 84, R15 96
(Measurement figure, not guaranteed specification figure)

$T_a=25^{\circ}C$, $I_{FP}=65mA$

Color Temp.	x coordinate	y coordinate	Ra	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
4976	0.346	0.354	84	83	90	94	83	82	84	88	68	12	75	83	55	85	97	77
5031	0.344	0.358	94	96	94	90	95	94	91	97	96	84	84	94	66	95	94	96
4928	0.348	0.363	93	95	94	94	95	94	92	96	88	62	86	93	66	95	96	90

Conventionally & Generally, efficacy of CRI Ra90 minimum LED has been dropped by about 15% compared to Ra80(min) type. Now both fixture(efficacy) and colour rendering has been enhanced together without sacrificing either. (By incorporating LED manufactured by NICHIA CHEMICAL)

In the case of BROWNIE's "V-COVE" fixture 13.7W CCT3000K
Fixture Lumen Comparison bwn Conventional model and New LUMINOUS Series



Note) Data based on actual IES photometrics measurement

List of BROWNIE's LUMINOUS series Lighting Fixture (High Colour rendering & High Efficiency)

a) Ceiling Cove/ Conices Lighting

V-FLEX Series (13.7W/m, 9W/m, 3W/m)

V-COVE Series (13.7W/m, 6W/m, 1.5W/m)

V-COVE II P46 (9W/m)



b) Dot-free, Near-dotless, Seamless Fixtures

DOT-LESS 1-2 (9W/m)

DOT-LESS II (17W/m, 8W/m)



c) CCT Controllable Fixture

V-TUNE-X (2000K-4000K 16W/m, 2200/2700K-6500K 22W/m)

V-FLEX TUNABLE (2200K/2700K-6500K, 12W/m)



Model Code for LUMINOUS Series & Fixture Lumens (comparison with old model)



V-COVE Series 13.7W/m, 6W/m, 1.5W/m CCT 3000K CRI 94 (typical) L962mm

V-COVE LUMINOUS Series

Conventional Model	Intensity (lm)
VH1000-303B-C (13.7W/meter)	1310
VM1000-303B-C (6W/meter)	667
VE1000-303B-C (1.5W/meter)	176



NEW Model (LUMINOUS Series)	Intensity (lm)
VH1000-303B-C- LS (13.7W/meter)	1805
VM1000-303B-C- LS (6W/meter)	901
VE1000-303B-C- LS (1.5W/meter)	230

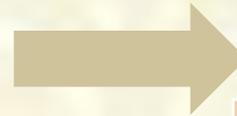
Note: Lumens based on actual IES photometrics measurement

Model Code for LUMINOUS Series & Fixture Lumens (comparison with old model)



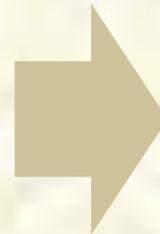
V-FLEX 13.7W/m, 9W/m, 3W/m L1meter CCT 3000K

Moderate CRI (85 typical)



Higher CRI Ra(94 typical) type
V-FLEX LUMINOUS Series

Conventional Model (CRI 85 typical)	Intensity (lm)
VL1000-303A-W (13.7W/m)	1590
VF1000-303A-W (9W/m)	1154
VG1000-303A-W (3W/m)	384



NEW (LUMINOUS Series) CRI Ra94 typical	Intensity (lm)
VL1000-303B-W-LS (13.7W/m)	1710
VF1000-303B-W-LS (9W/m)	1180
VG1000-303B-W-LS (3W/m)	395

Note) Since actual IES data is not ready, above figure s are estimate figure, calculated based on existing IES for conventional fixture and new LEDs datasheet by NICHIA' chemical.

Model Code for LUMINOUS Series & Fixture Lumens (comparison with old model)



Bröwnie
Architectural LED Lighting

V-COVE II P46

V-COVE II P46 Series 9W/m CCT 3000K CRI 94 (typical)

V-COVE II P46 LUMINOUS

Conventional Model V-COVE II P46 9W/m	Intensity (lm)
VCII0974-303B-P46(L974mm)	687
VCII0652-303B-P46(L652mm)	458
VCII0330-303B-P46(L330mm)	229



NEW (LUMINOUS Series 9W/m)	Intensity (lm)
VCII0974-303B-P46-LS	1116
VCII0652-303B-P46-LS	640
VCII0330-303B-P46-LS	320

Note) Data based on actual IES photometrics measurement of L974mm length type.

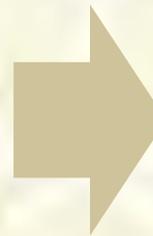
Model Code for **LUMINOUS** Series & Fixture Lumens (comparison with old model)



DOT-LESS II Series 17W/m CCT 3000K CRI 94 (typical)

DOT-LESS II (17W/m) LUMINOUS

Conventional Model (17W/m)	Intensity (lm)
DL0960-303B(L960mm)	827
DL0640-303B(L640mm)	551
DL0320-303B(L320mm)	275



NEW (LUMINOUS Series)	Intensity (lm)
DL0960-303B- LS	1478
DL0640-303B- LS	980
DL0320-303B- LS	490

Note: Lumens figure based on the actual IES photometrics measurement for L960mm length type

Model Code for LUMINOUS Series & Fixture Lumens (comparison with old model)



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Architectural LED Lighting

DOT-LESS II Series 8W/m CCT 3000K CRI 94(typical)

DOT-LESS II (8W/m) LUMINOUS

Conventional Model DOT-LESS II 8W/m	Intensity (lm)
DE0960-303B(L960mm)	532
DE0640-303B(L640mm)	354
DE0320-303B(L320mm)	177



NEW (LUMINOUS Series 8W/m)	Intensity (lm)
DE0960-303B-LS	757
DE0640-303B-LS	503
DE0320-303B-LS	252

Note) Data based on actual IES data for L960mm type

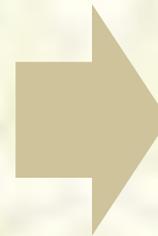
Model Code for **LUMINOUS** Series & Fixture Lumens (comparison with old model)



DOT-LESS 1-2 Series 9W/m CCT 3000K

CRI 94 (typical)

Conventional Model (9W/m)	Intensity (lm)
VD0974-303B-1-2(L974mm)	1179
VD0652-303B-1-2(L652mm)	780
VD0330-303B-1-2(L330mm)	393



DOT-LESS 1-2 LUMINOUS

NEW (LUMINOUS Series 9W/m)	Intensity (lm)
VD0974-303B-1-2- LS	1149
VD0652-303B-1-2- LS	766
VD0330-303B-1-2- LS	383

Note) Lumens figure based on actual IES data for L974mm length type

Model Code for LUMINOUS Series & Fixture Lumens (comparison with old model)



V-FLEX TUNABLE 12W(max)/m CCT2200K-6500K

V-FLEX TUNABLE LUMINOUS

Conventional Model (CCT2200K-6500K 12W/m)	Intensity (lm@max output)
VF1000-2265A(L1m 5-in-1 pre-wired)	1251
VF10SH-2265A 1m, single-housing	1251
VF0600-2265A (0.6m)	751



NEW(LUMINOUS Series) CCT 2200K-6500K 12W/m	Intensity (lm@max output)
VF1000-2265A-LS (L1m 5-in-1 pre-wired)	1357
VF10SH-2265A-LS (L1m single-housing)	1357
VF0600-2265A-LS (L0.6m)	815

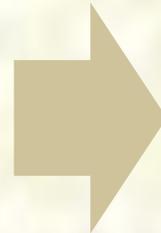
Note) Since actual IES data is not ready, above figures are estimate figure, calculated based on existing IES for conventional fixture and new LEDs datasheet by NICHIA' chemical.

Model Code for LUMINOUS Series & Fixture Lumens (comparison with old model)

V-TUNE-X (TUNABLE) 16W(max)/m CCT2000-4000K

V-TUNE-X LUMINOUS

Conventional Model	Intensity (lm@max output)
VTX0960-XXAB (L960mm)	1020
VTX0640-XXAB(L640mm)	680
VTX0320-XXAB(L320mm)	340



NEW (LUMINOUS Series)	Intensity (lm@max output)
VTX0960-XXAB-LS	1106
VTX0640-XXAB-LS	737
VTX0320-XXAB-LS	368

Note) Since actual IES data is not ready, above figures are estimate figures, calculated based on existing IES for conventional fixture and new LEDs datasheet by NICHIA' chemical.

Application Examples



Hotel



**Commercial
Retail Shop**

**Fitness Club
/Gym**



Office



Till today, lighting users were forced to choose either high-efficient lighting or high-colour rendering lighting. BROWNIE's new HCHE series fixtures can now offer excellent efficiency and minimized power consumption without sacrificing light quality. Thus, we shall contribute to environmental sustainability, minimizing the impact on global warming.

Application/Sales restriction of **LUMINOUS** Series products

Sales of LUMINOUS series products shall be based on “production upon order basis” and limited to the general lighting for commercial use like hotel, retail shops, public institutes or public facilities, with clear prior information on applications, project details and installation places. Sales for residential application cannot be facilitated.

(This is due to patent issues of LED components by the material supplier.)