



- (51) **International Patent Classification:**
G02B 5/08 (2006.01) *G02B 5/04* (2006.01)
- (21) **International Application Number:**
PCT/US2012/028693
- (22) **International Filing Date:**
12 March 2012 (12.03.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/469,147 30 March 2011 (30.03.2011) US
- (71) **Applicant (for all designated States except US):** **3M INNOVATIVE PROPERTIES COMPANY** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).
- (72) **Inventors; and**
- (73) **Inventors/Applicants (for US only):** **PADIYATH, Raghunath** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US). **HAO, Bing** [CN/US];

3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US). **MARTTILA, Charles A.** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).

- (74) **Agents:** **OLOFSON, Jeffrey M.** et al.; 3M Center, Office of Intellectual Property Counsel, 3M Center, Saint Paul, MN 55133-3427 (US).

- (81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

- (84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

- (54) **Title:** HYBRID LIGHT REDIRECTING AND LIGHT DIFFUSING CONSTRUCTIONS

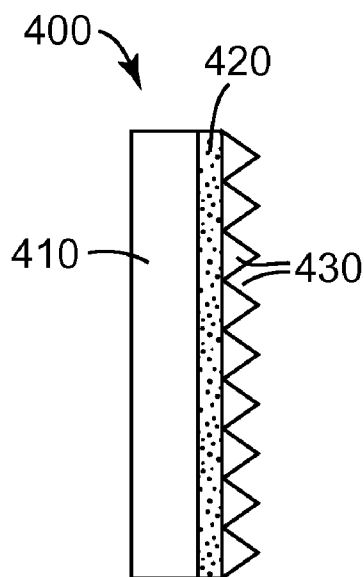


FIG. 4

- (57) **Abstract:** Solar light redirecting glazing units include light redirecting and light diffusing constructions. The solar light redirecting glazing units may include a glazing substrate, a visible light diffusing layer, and a light redirecting layer oriented such that incoming solar light contacts the visible light diffusing layer before contacting the light redirecting layer. The solar light redirecting glazing units may include a glazing substrate, a patterned visible light diffusing layer, and a light redirecting layer. The solar light redirecting glazing units may include two glazing substrates separated by an intervening space with a solar light redirecting layer disposed on one glazing substrate, and a visible light diffusing layer disposed on the other glazing substrate.



GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*